LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 22

2025

Bate Stamp Numbers
01329159 – 01331007

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2025

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

VOLUME 22

2025

A.	Title:	(Cont'd) Report – Level IV DoD File No. 3 to Final Fourth Annual Remedial Action Operation Report, LHAAP-16 Landfill, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, March 2025
	Author(s):	Department of the Army
	Recipient:	Environmental Protection Agency and Texas Commission on Environmental Quality
	Date:	March 19, 2025
	Bate Stamp:	01329159–01330929
B.	Title:	Report – Final Conceptual Site Model Update Report, LHAAP-16 Landfill, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, March 2025
	Author(s):	Department of the Army
	Recipient:	Environmental Protection Agency and Texas Commission on Environmental Quality
	Date:	March 19, 2025
	Bate Stamp:	01330930–01330984
C.	Title:	Minutes – Final Monthly Managers' Meeting (MMM), Longhorn Army Ammunition Plant (LHAAP), February 18, 2025
	Author(s):	PCI-Bhate JV
	Recipient:	All Parties
	Date:	March 25, 2025
	Bate Stamp:	01330985–01331007

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Dibromofluoromethane (1868-53-7)

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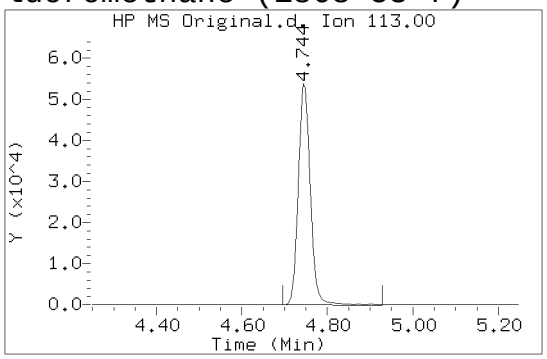

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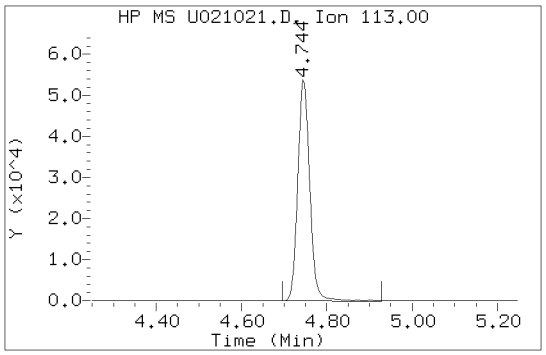

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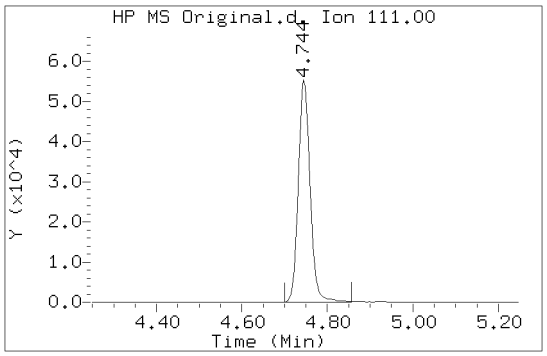

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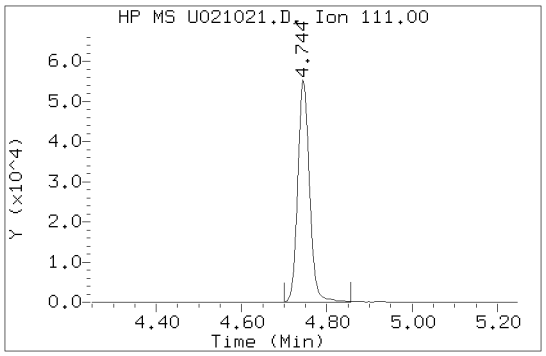

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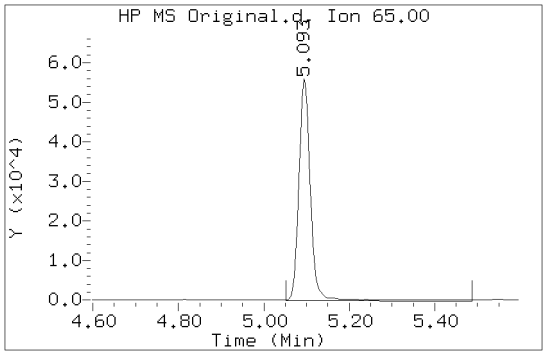

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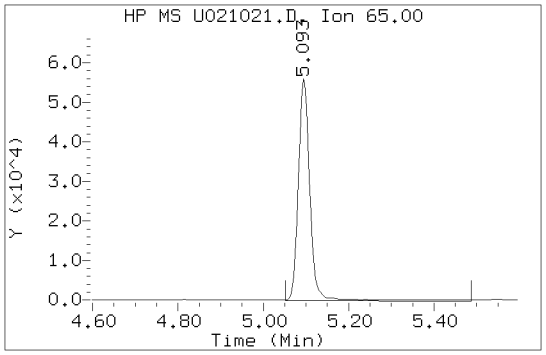

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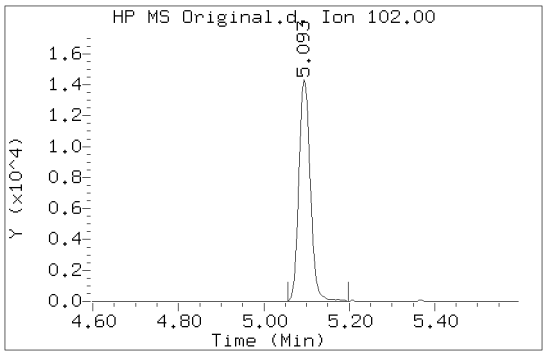

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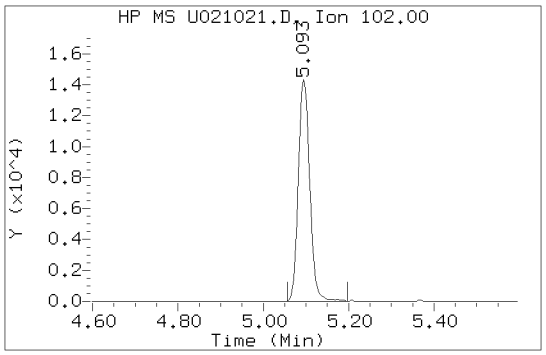

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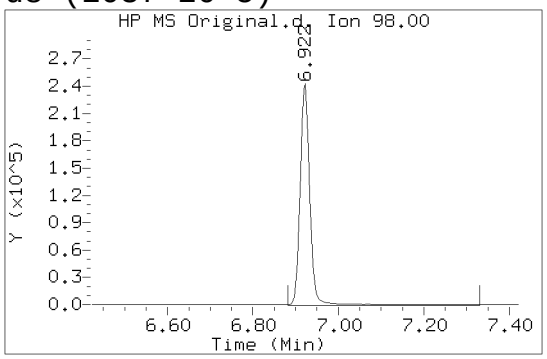

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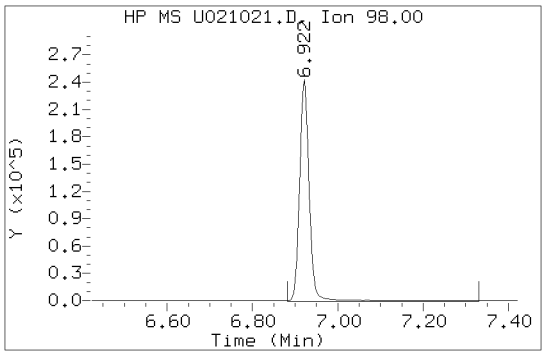

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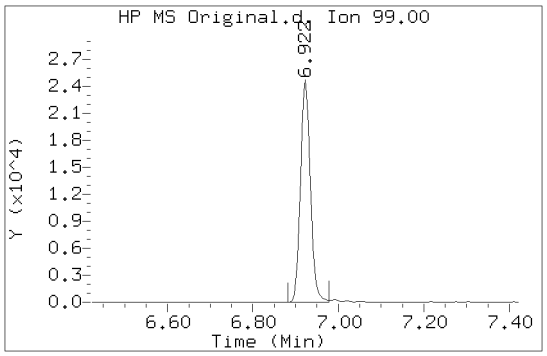

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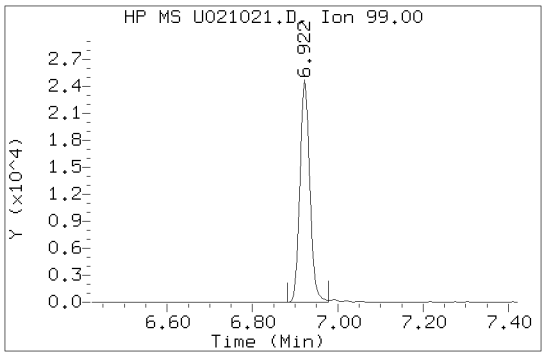

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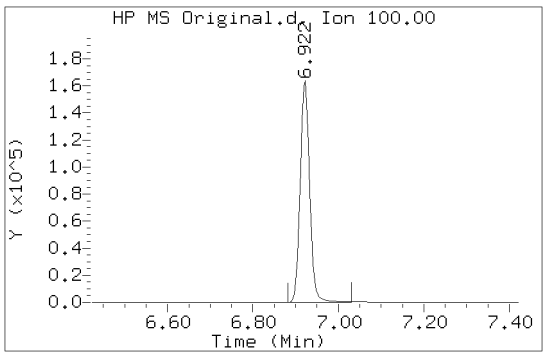

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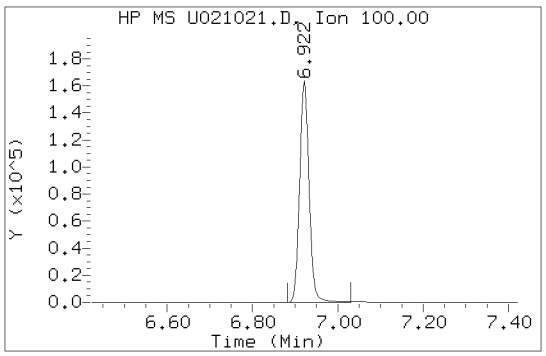

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ALS Laboratory Group

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Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
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Dil Factor: 20.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

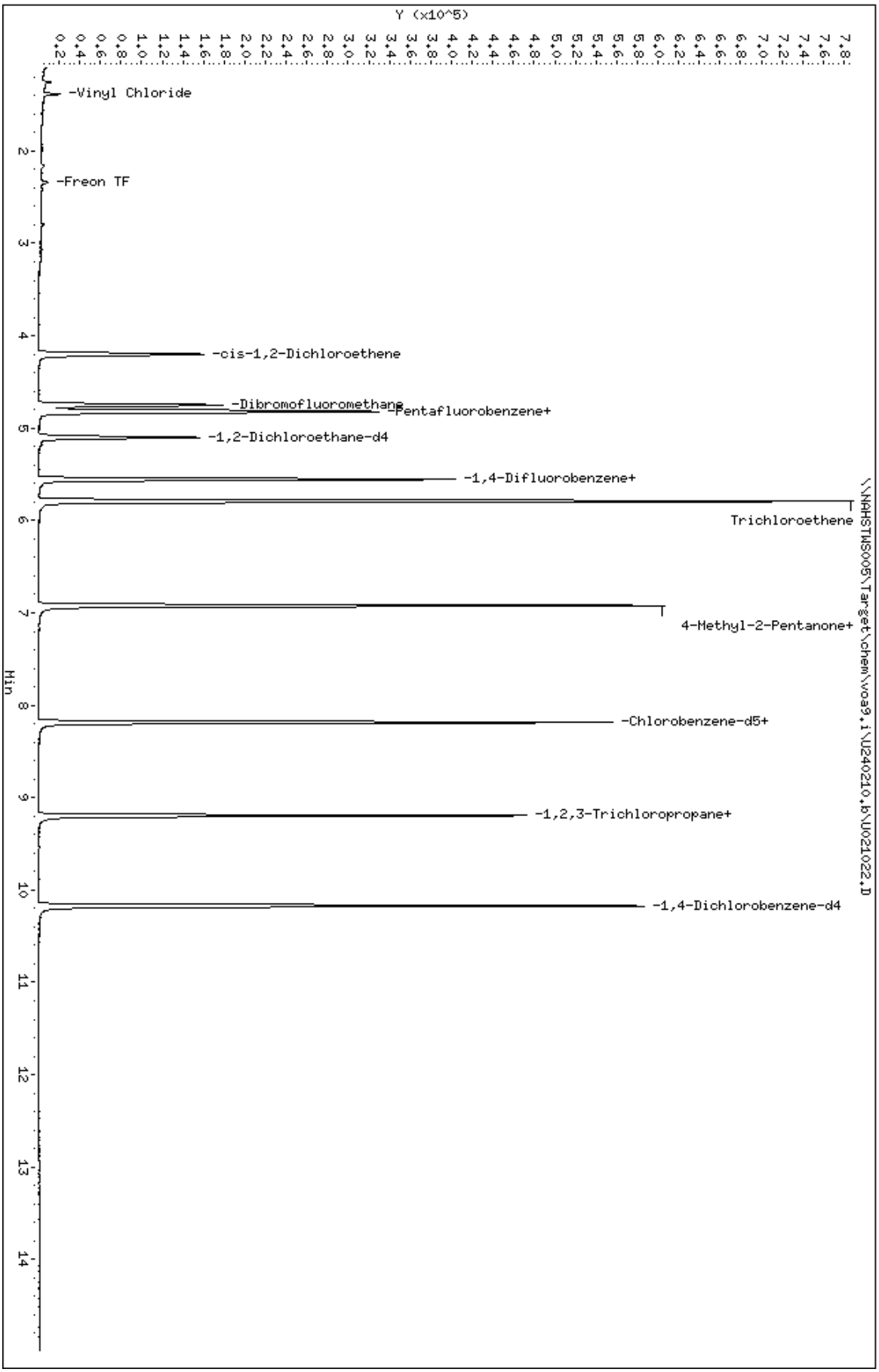
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	20.000	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	4.819	4.819	(1.000)	260828	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.986)	109996	40.7762	40.77(M)
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	110073	40.6909	40.69(M)
* 36 1,4-Difluorobenzene	114	5.553	5.554	(1.000)	340199	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	321773	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	392704	44.7769	44.77(M)
$ 69 4-Bromofluorobenzene	95	9.193	9.194	(1.123)	141984	43.7955	43.79(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	178430	50.0000	
5 Vinyl Chloride	62	1.385	1.378	(0.287)	11019	4.93509	98.70
27 cis-1,2-Dichloroethene	96	4.200	4.197	(0.872)	87328	30.3857	607.71
38 Trichloroethene	130	5.790	5.790	(1.043)	280058	104.348	2086.95

QC Flag Legend

M - Compound response manually integrated.



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Sample Info: HS24020246-01
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021022.D Page 2

Date : 10-FEB-2024 08:56

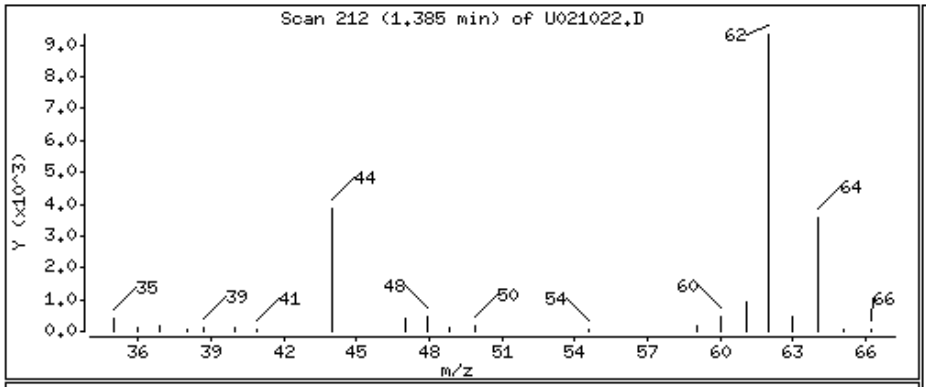
Client ID: Instrument: VOA9.i

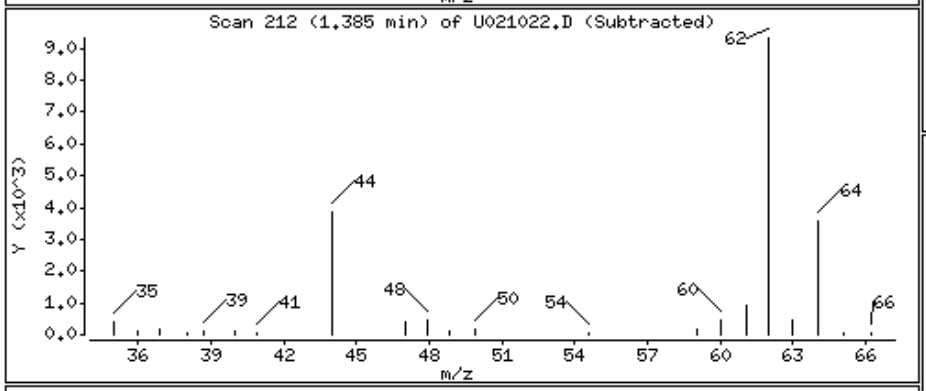
Sample Info: HS24020246-01

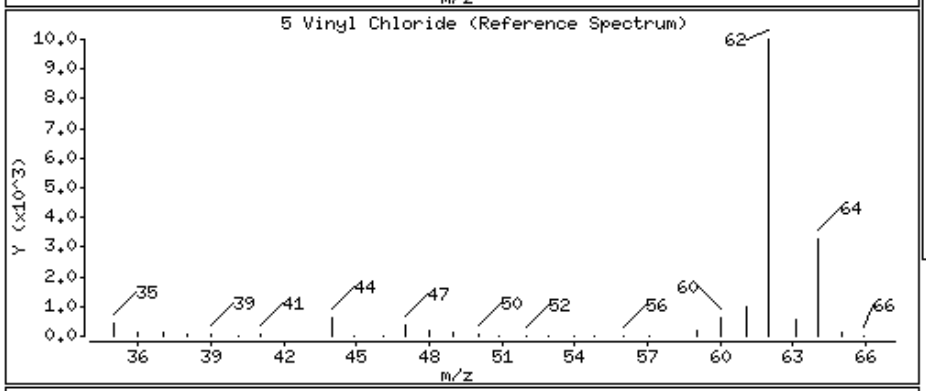
Purge Volume: 5.0 Operator: FT

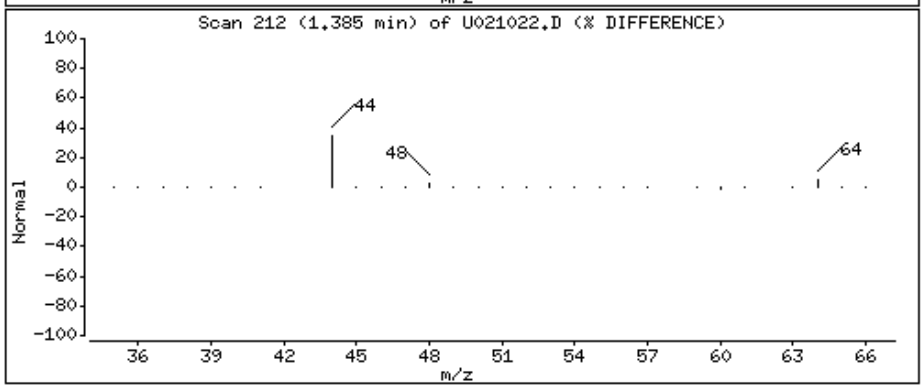
Column phase: DB624 Column diameter: 0.18

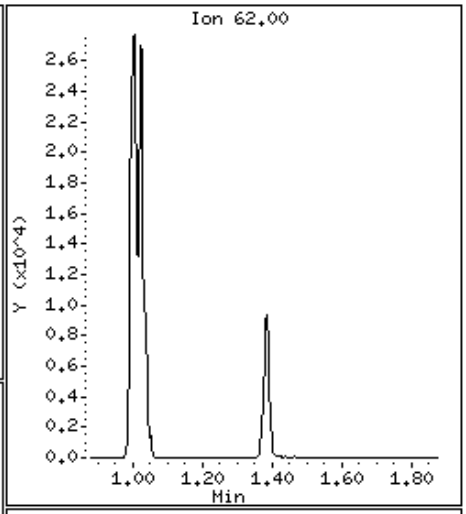
5 Vinyl Chloride Concentration: 98.70 ug/l

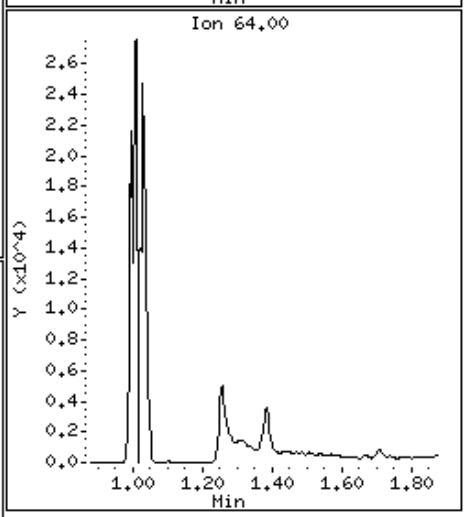












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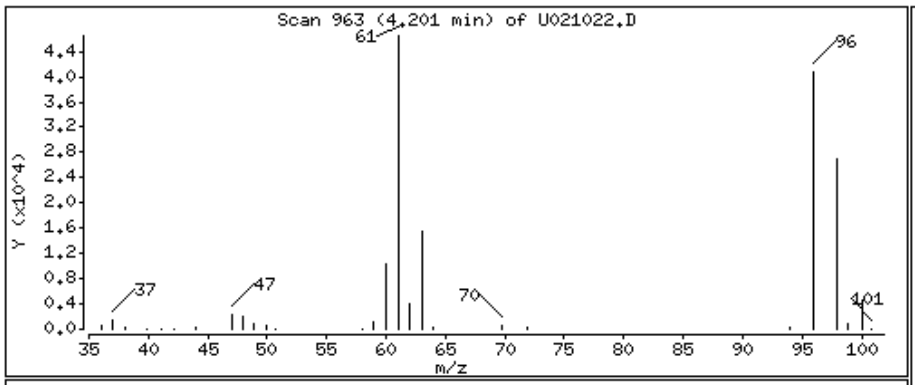
Client ID: Instrument: VOA9.i

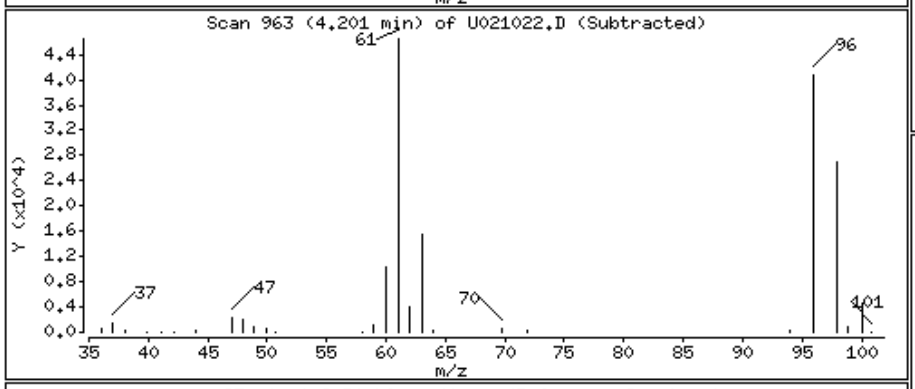
Sample Info: HS24020246-01

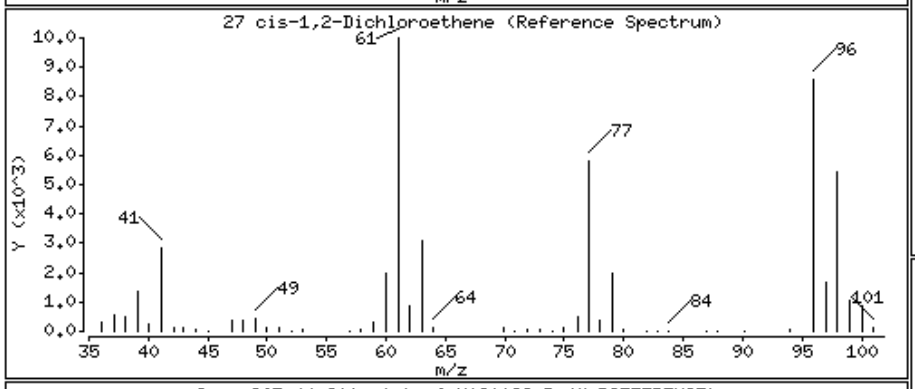
Purge Volume: 5.0 Operator: FT

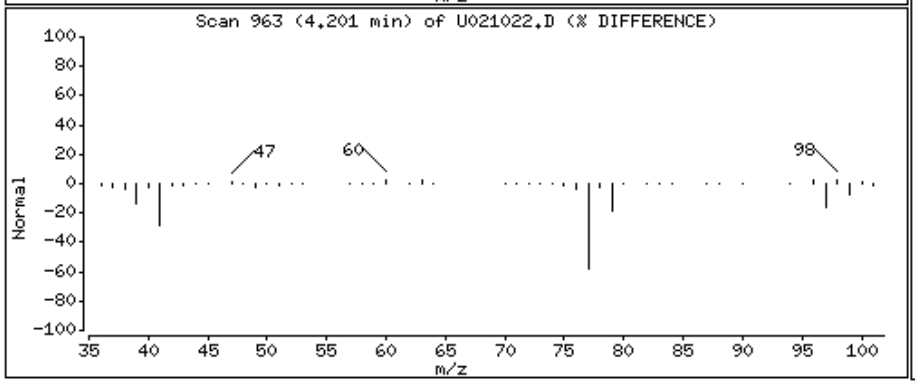
Column phase: DB624 Column diameter: 0.18

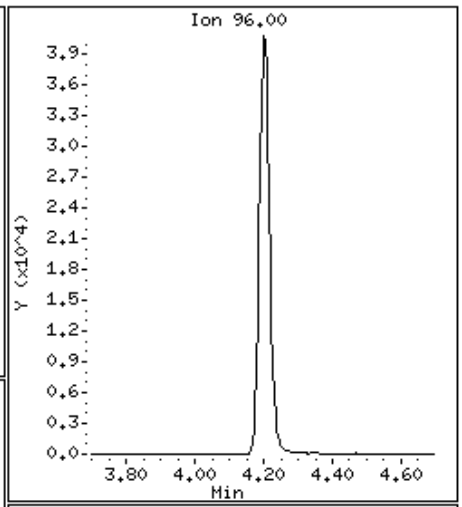
27 cis-1,2-Dichloroethene Concentration: 607.71 ug/l

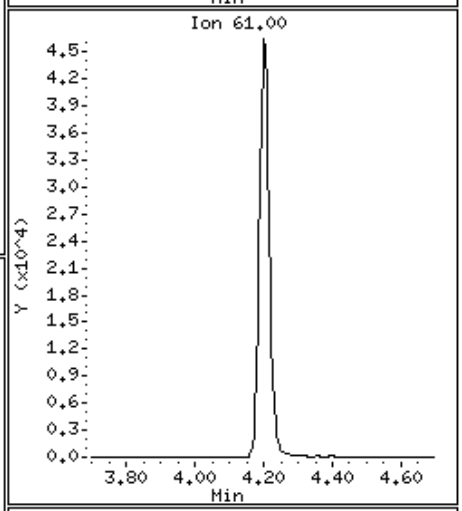


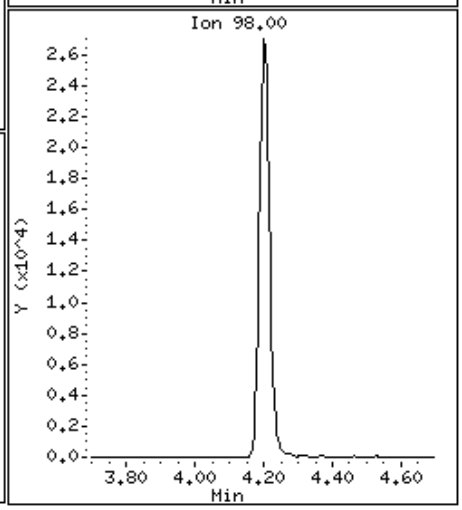












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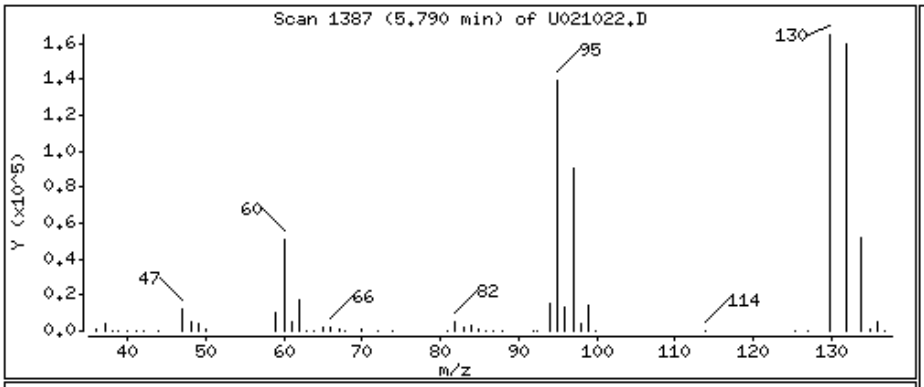
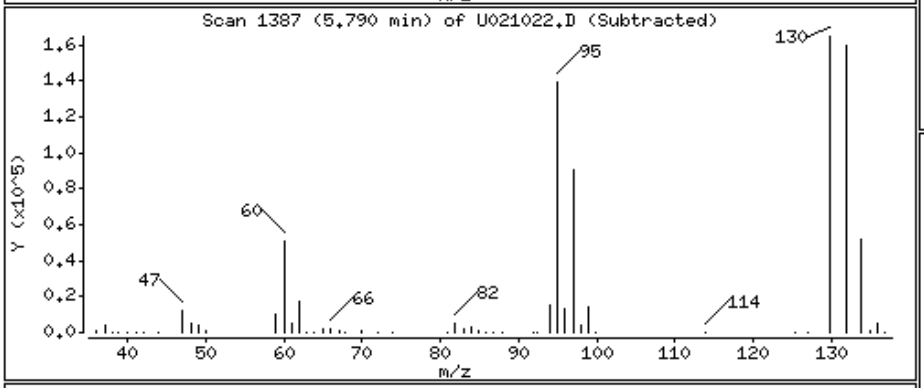
Sample Info: HS24020246-01

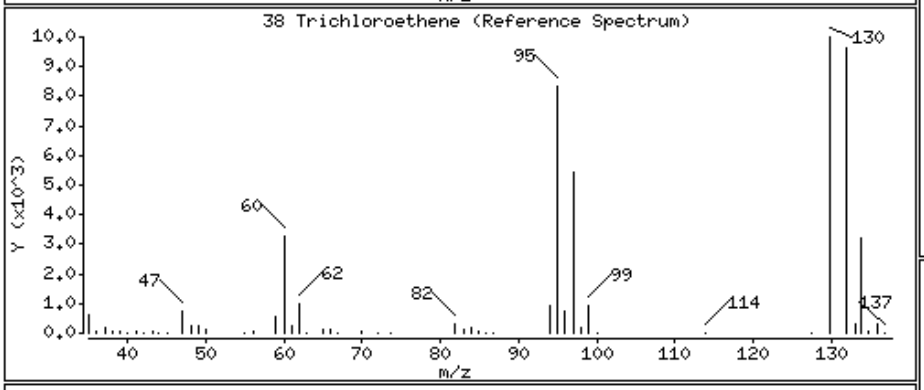
Purge Volume: 5.0 Operator: FT

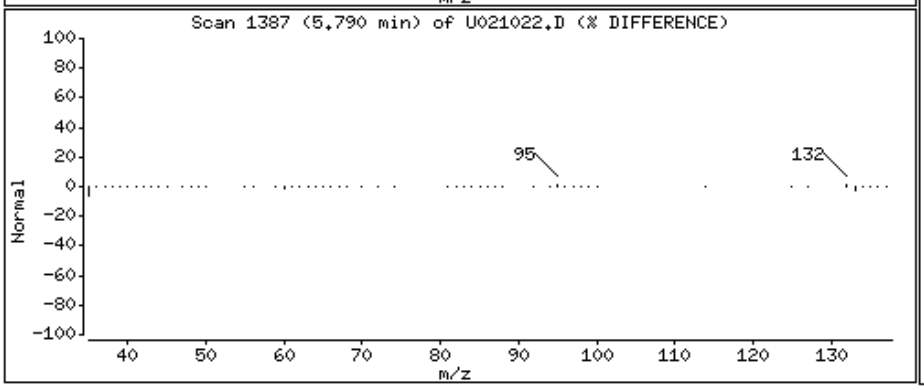
Column phase: DB624 Column diameter: 0.18

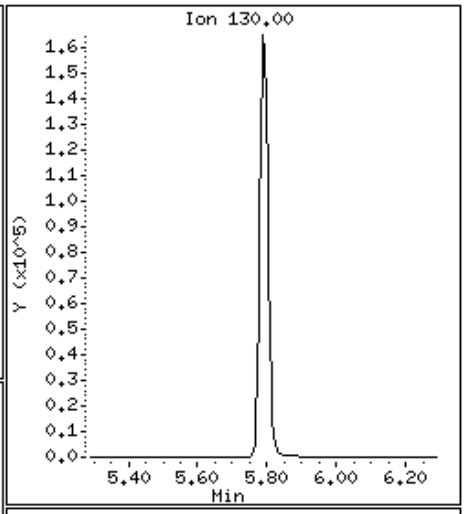
38 Trichloroethene Concentration: 2086.95 ug/l

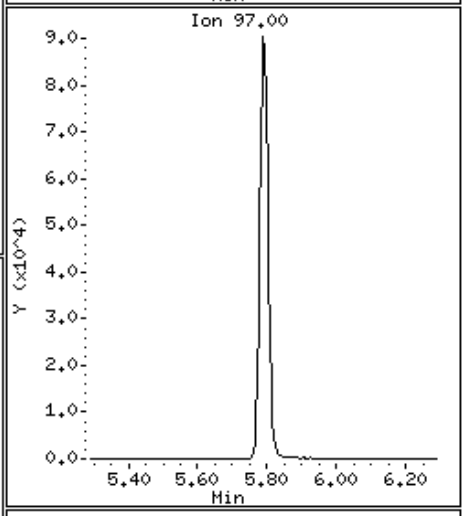


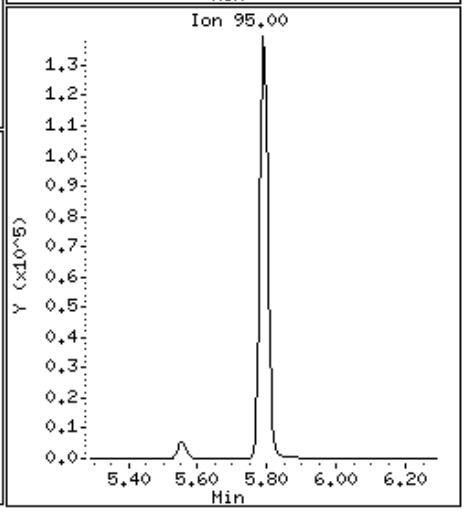












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Dibromofluoromethane (1868-53-7)

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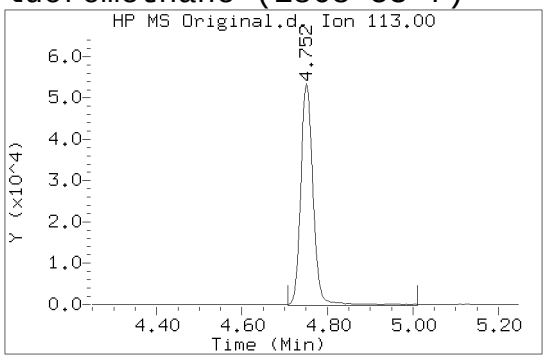

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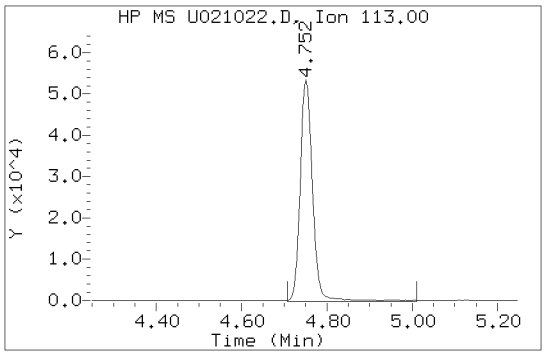

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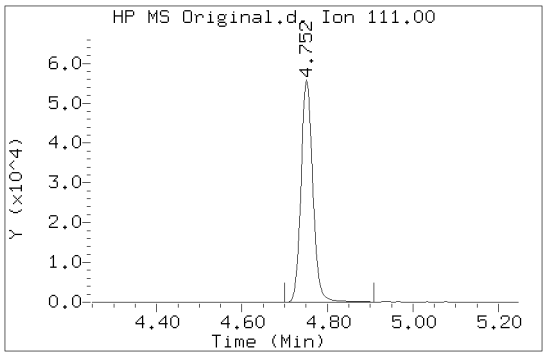

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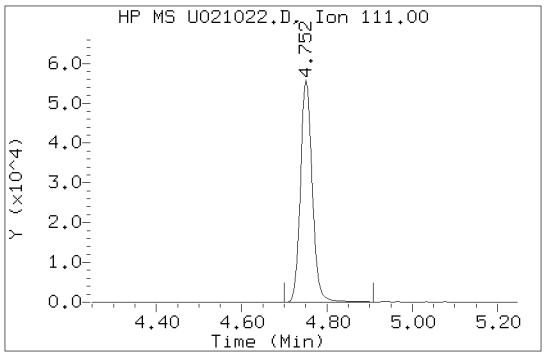

1,2-Dichloroethane-d4 (17060-07-0)

BEFORE

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22-Feb-2024
14:57
linh
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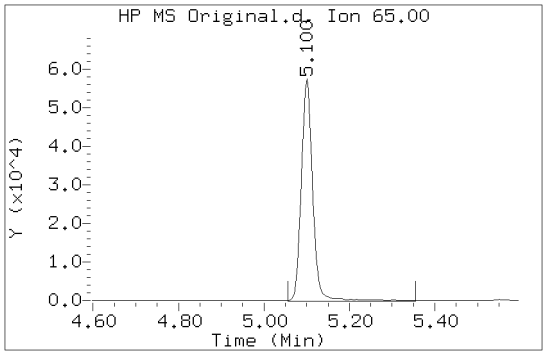

Reason Code:

AFTER

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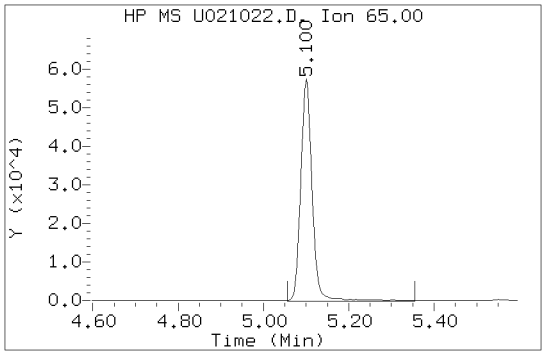

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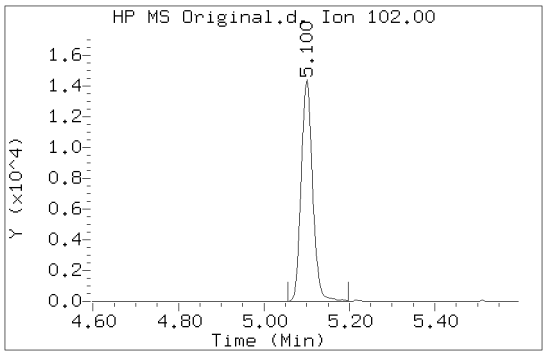

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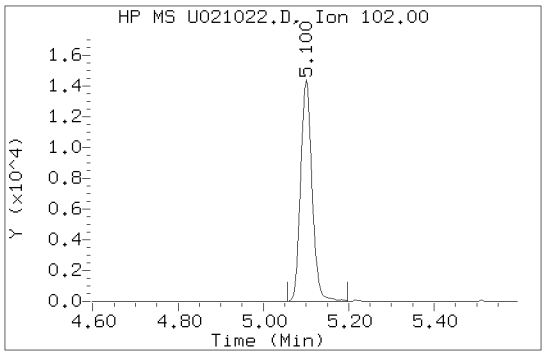

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Inj Date : 10-FEB-2024 08:56
InstruID : VOA9.i
LabSampID : HS24020246-01

Toluene-d8 (2037-26-5)

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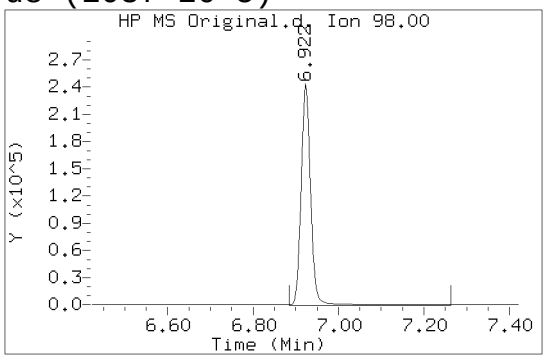

AFTER
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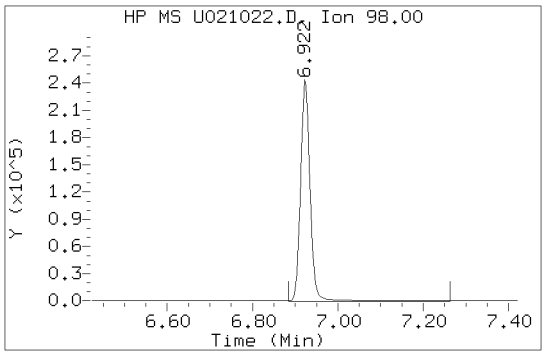

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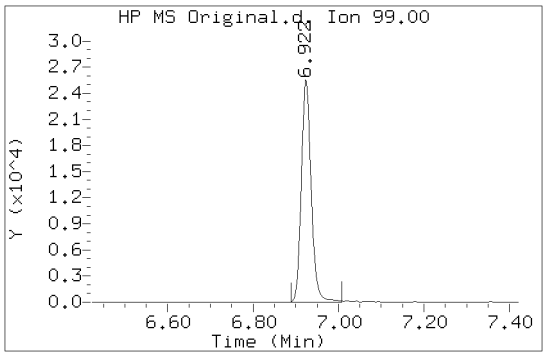

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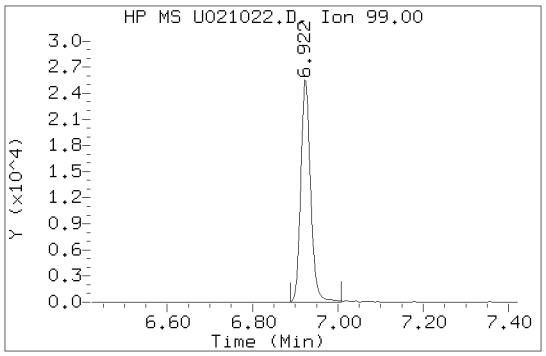

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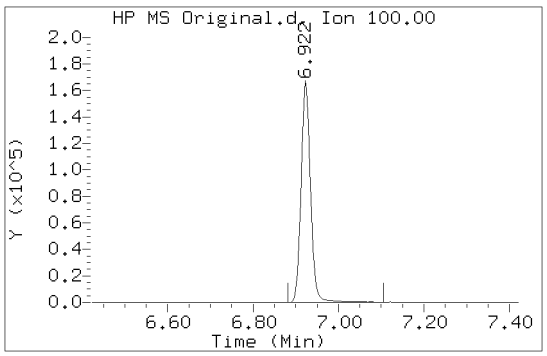

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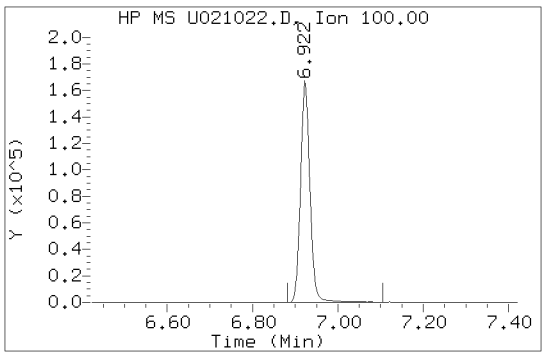

4-Bromofluorobenzene (460-00-4)

Reason Code:

BEFORE
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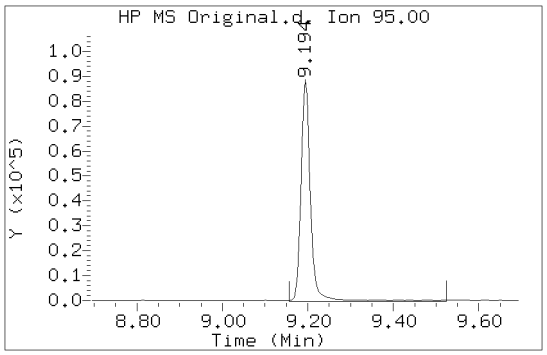

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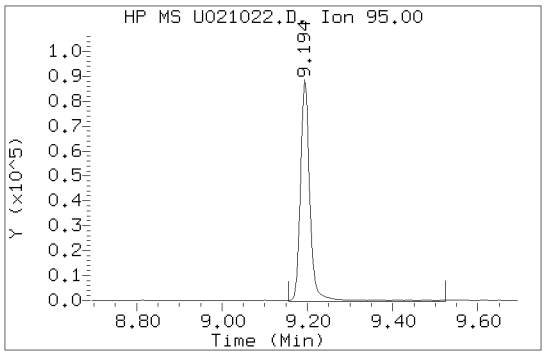

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021022.D
Inj Date : 10-FEB-2024 08:56
InstruID : VOA9.i
LabSampID : HS24020246-01

4-Bromofluorobenzene (460-00-4)

Reason Code:

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22-Feb-2024
14:57
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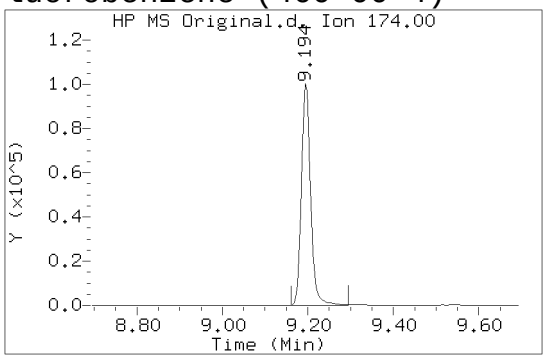

AFTER

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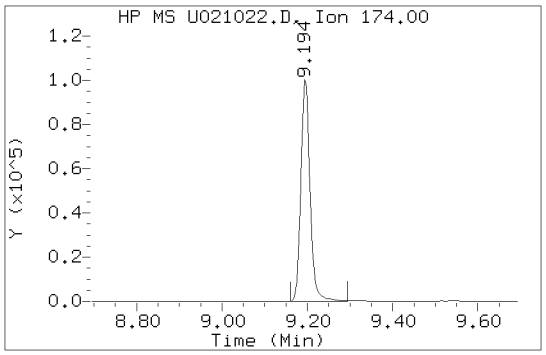

BEFORE

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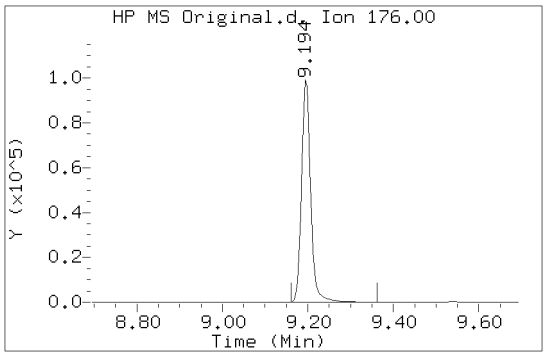

AFTER

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22-Feb-2024
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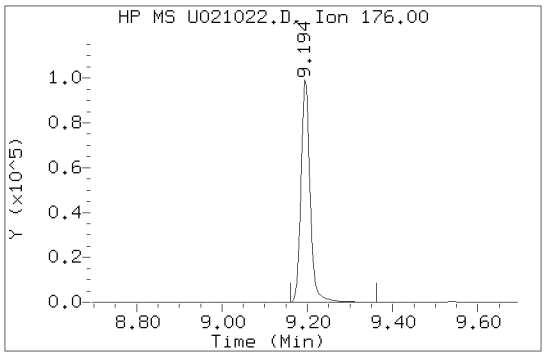


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021023.D Page 1
Report Date: 22-Feb-2024 14:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021023.D
Lab Smp Id: HS24020246-02
Inj Date : 10-FEB-2024 09:18
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020246-02
Misc Info : V9;WATER;0;50;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\8260C.m
Meth Date : 22-Feb-2024 14:57 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 62
Dil Factor: 50.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

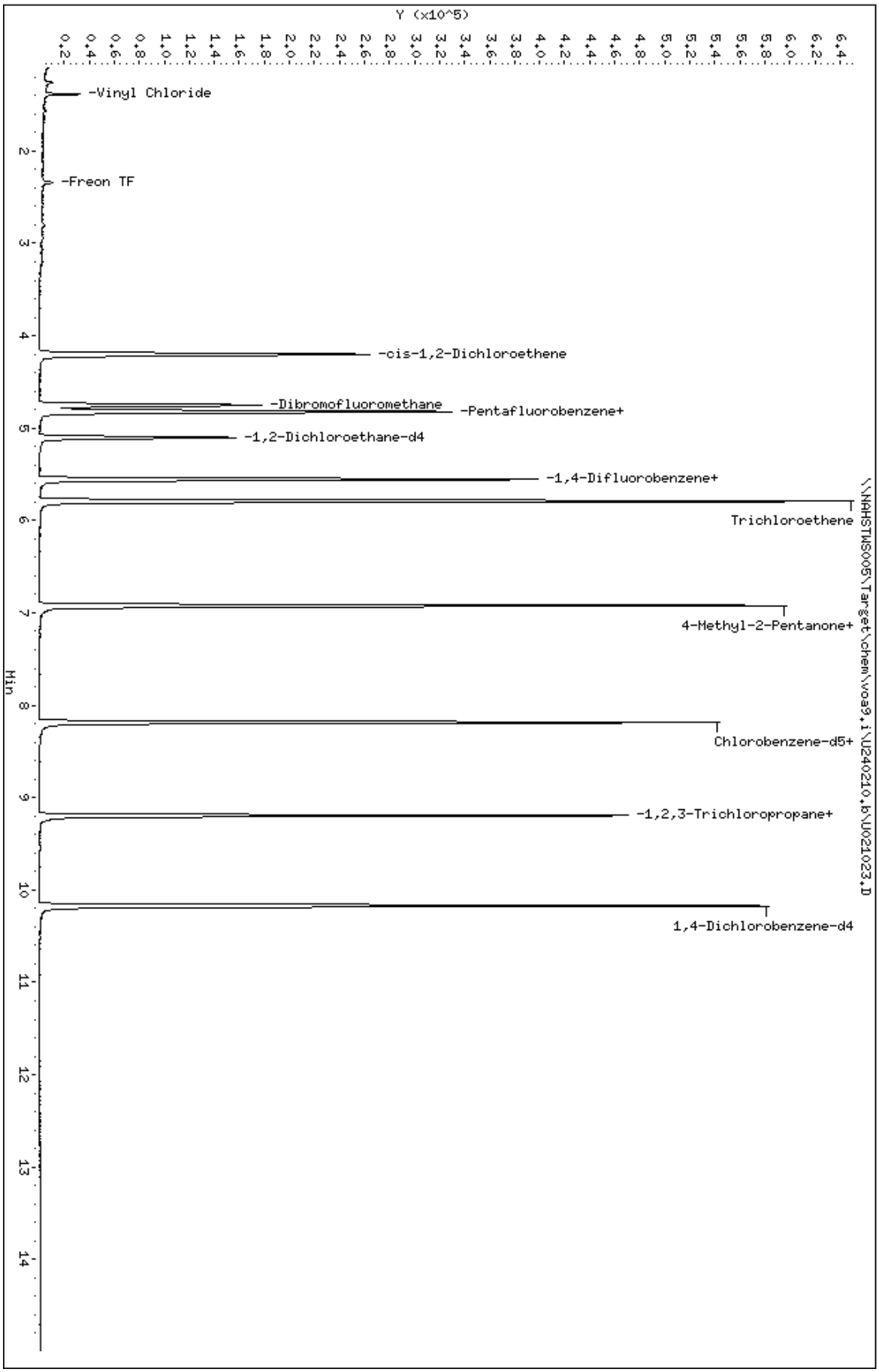
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	50.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	260527	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.986)	108673	40.3275	40.32(M)
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	110652	40.9570	40.95(M)
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	337736	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	320734	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	393624	45.0275	45.02(M)
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	137466	42.5310	42.53(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	175957	50.0000	
5 Vinyl Chloride	62	1.385	1.378	(0.288)	19002	8.47352	423.67
27 cis-1,2-Dichloroethene	96	4.204	4.197	(0.872)	142189	49.5318	2476.58
38 Trichloroethene	130	5.790	5.790	(1.042)	228429	85.7633	4288.16

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9,i\U240210,b\U021023.D
Date : 10-FEB-2024 09:18
Client ID:
Sample Info: HS24020246-02
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021023.D Page 2

Date : 10-FEB-2024 09:18

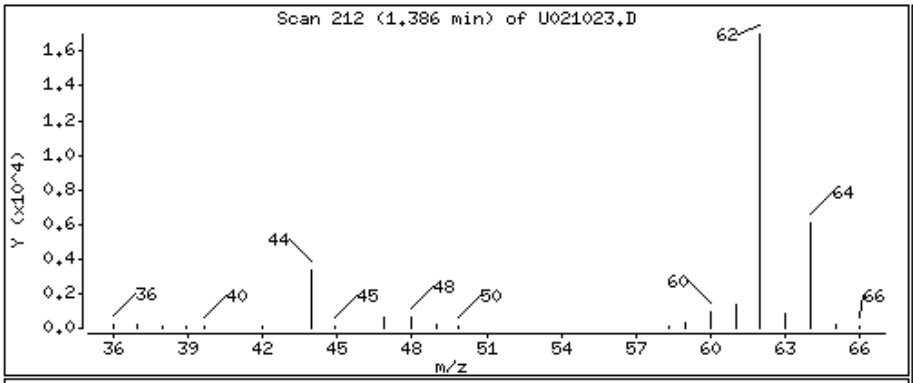
Client ID: Instrument: VOA9.i

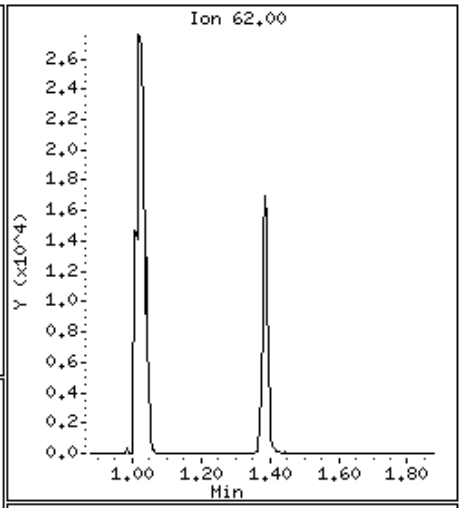
Sample Info: HS24020246-02

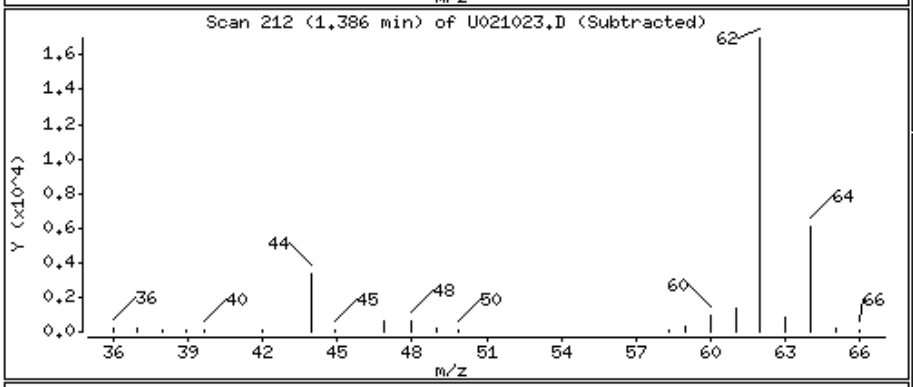
Purge Volume: 5.0 Operator: FT

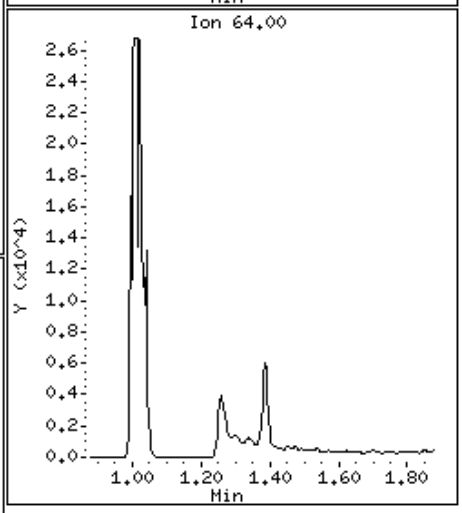
Column phase: DB624 Column diameter: 0.18

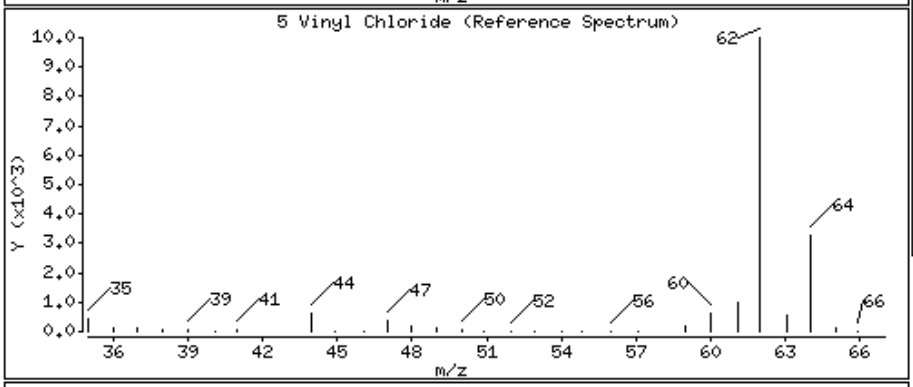
5 Vinyl Chloride Concentration: 423.67 ug/l

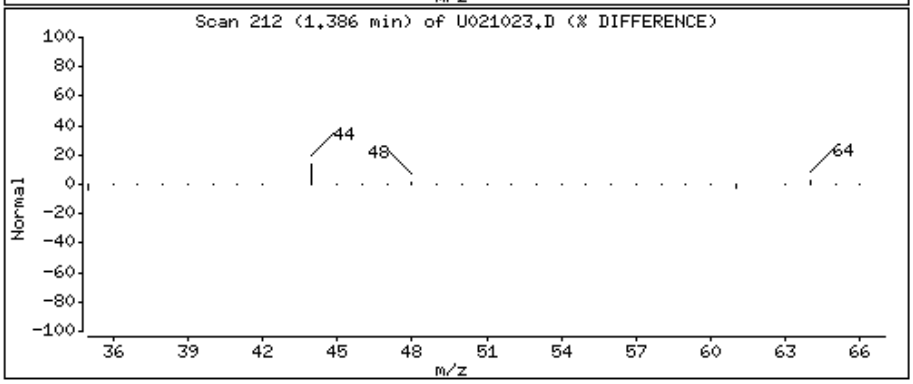












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021023.D Page 3

Date : 10-FEB-2024 09:18

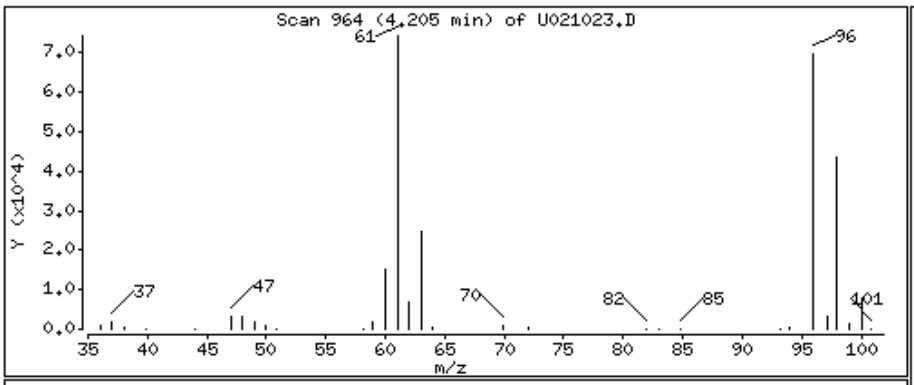
Client ID: Instrument: VOA9.i

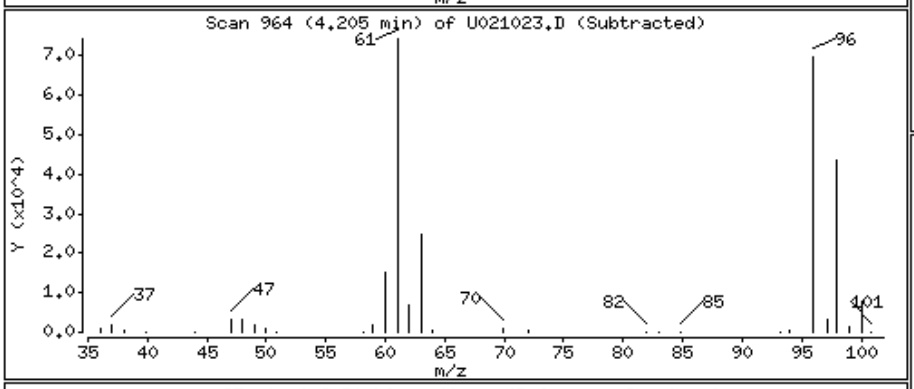
Sample Info: HS24020246-02

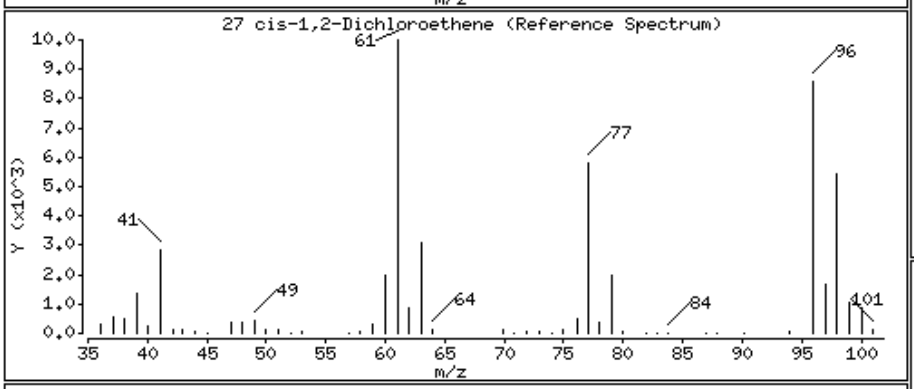
Purge Volume: 5.0 Operator: FT

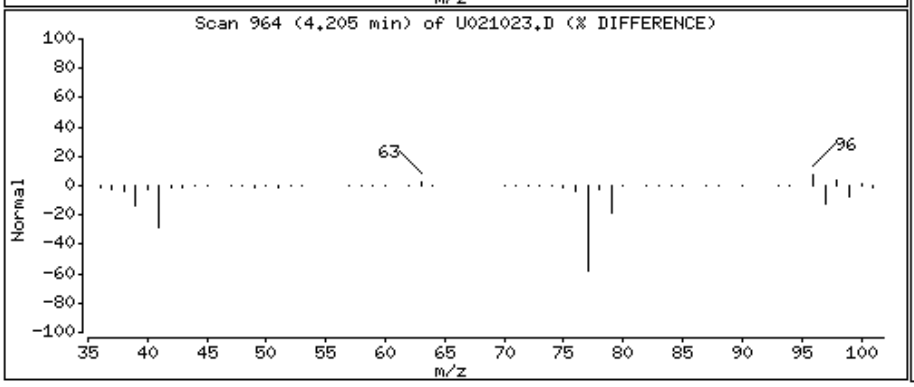
Column phase: DB624 Column diameter: 0.18

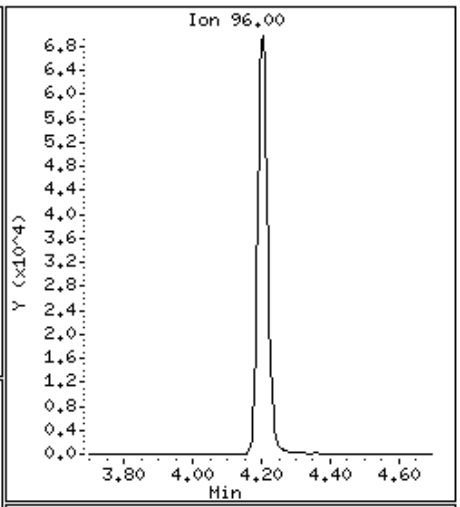
27 cis-1,2-Dichloroethene Concentration: 2476.58 ug/l

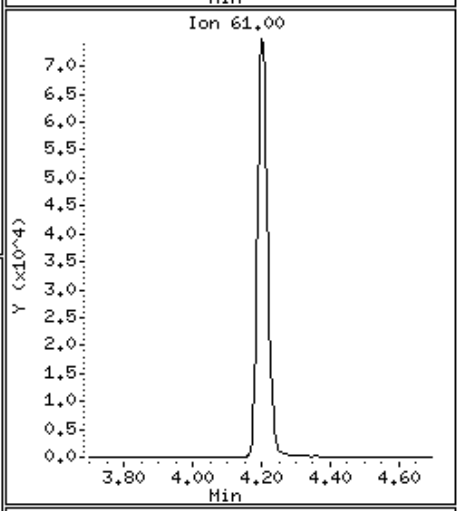


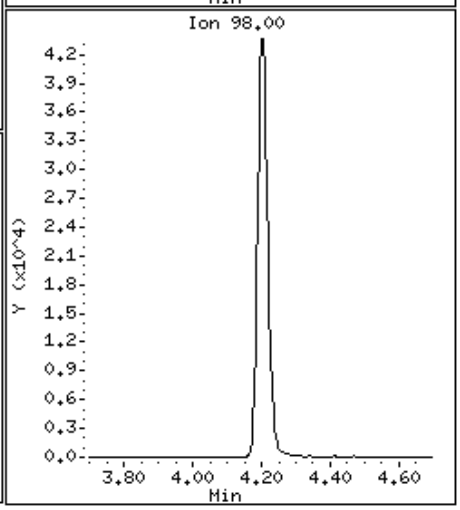












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021023.D Page 4

Date : 10-FEB-2024 09:18

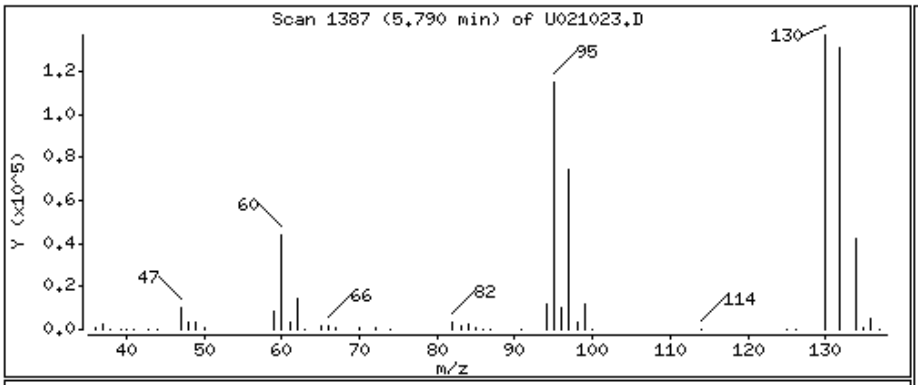
Client ID: Instrument: VOA9.i

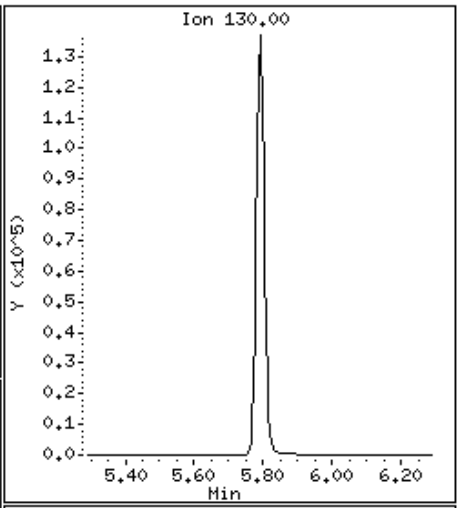
Sample Info: HS24020246-02

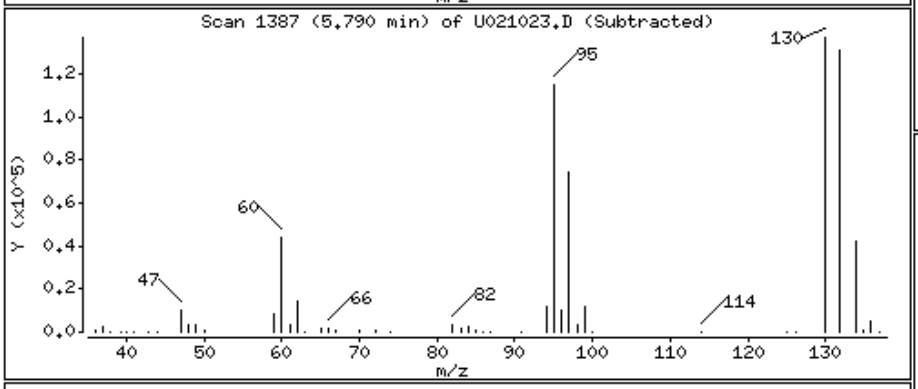
Purge Volume: 5.0 Operator: FT

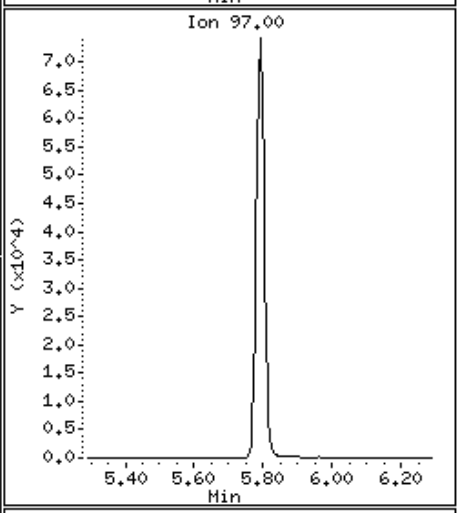
Column phase: DB624 Column diameter: 0.18

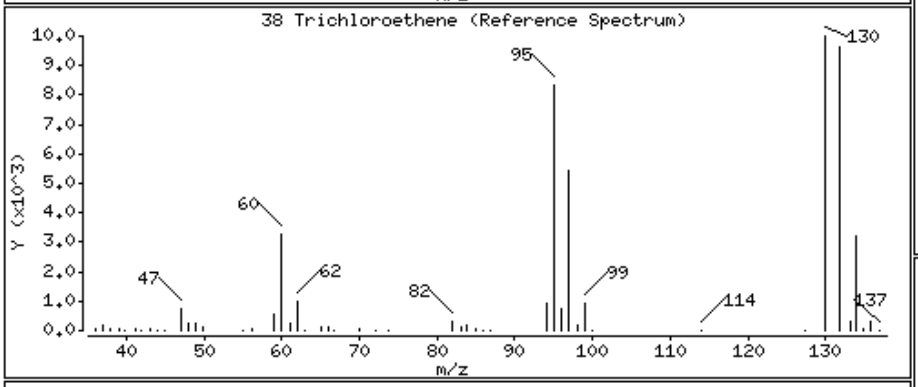
38 Trichloroethene Concentration: 4288.16 ug/l

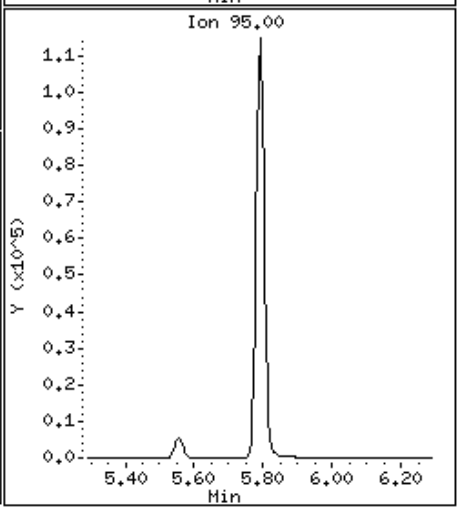


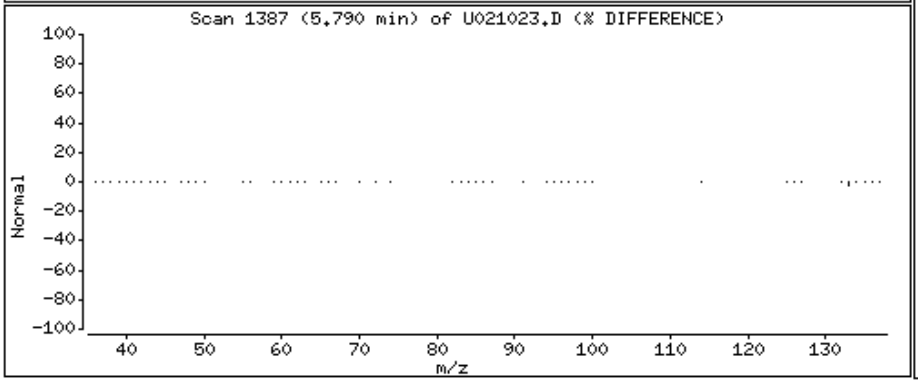










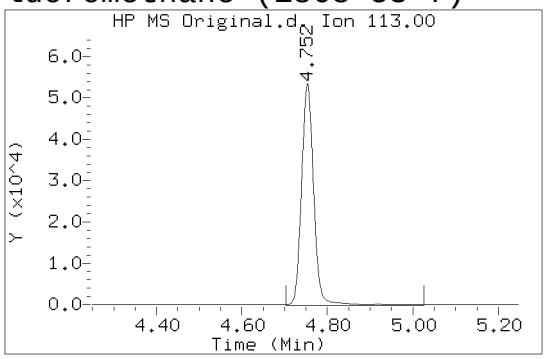


Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021023.D
Inj Date : 10-FEB-2024 09:18
InstruID : VOA9.i
LabSampID : HS24020246-02

Dibromofluoromethane (1868-53-7)

BEFORE

MASS
113
AREA
108673
HEIGHT
53549
22-Feb-2024
14:57
linh
pham



Reason Code:

AFTER

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22-Feb-2024
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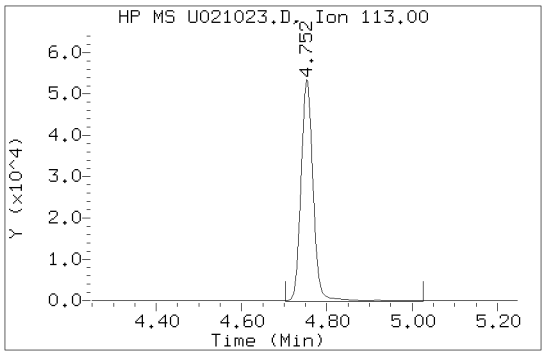

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22-Feb-2024
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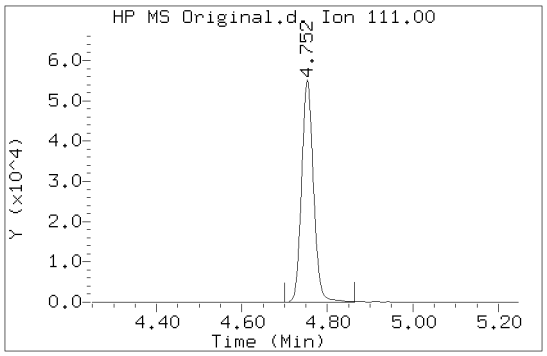

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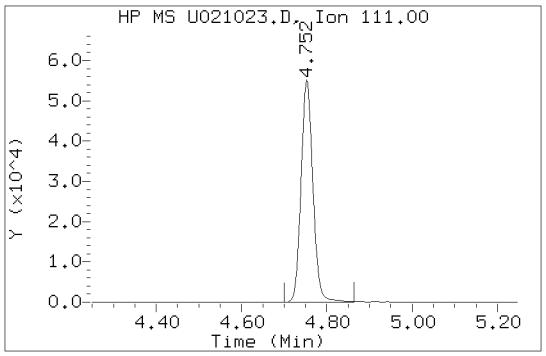

1,2-Dichloroethane-d4 (17060-07-0)

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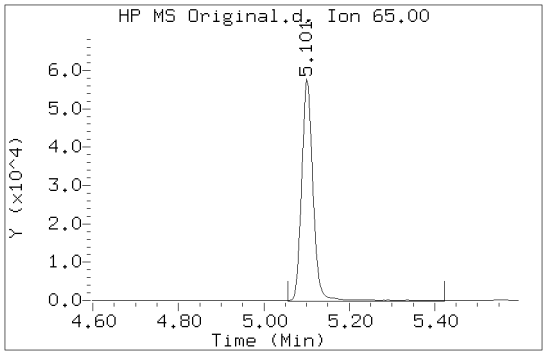

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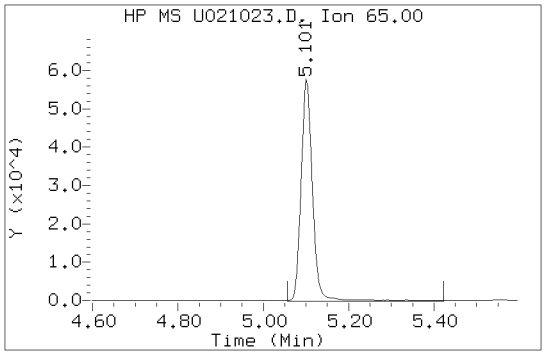

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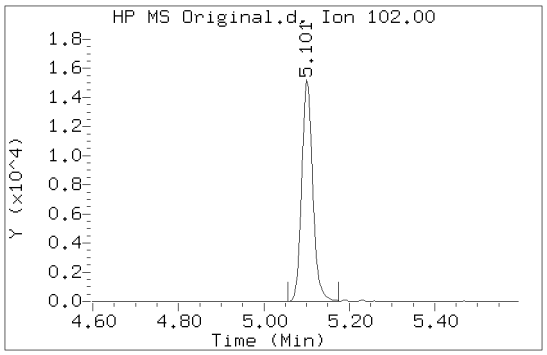

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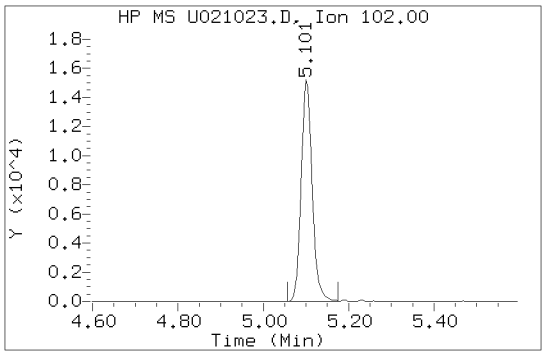

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Inj Date : 10-FEB-2024 09:18
InstruID : VOA9.i
LabSampID : HS24020246-02

Toluene-d8 (2037-26-5)

Reason Code:

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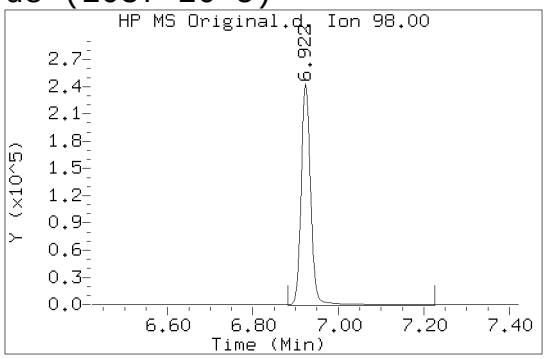

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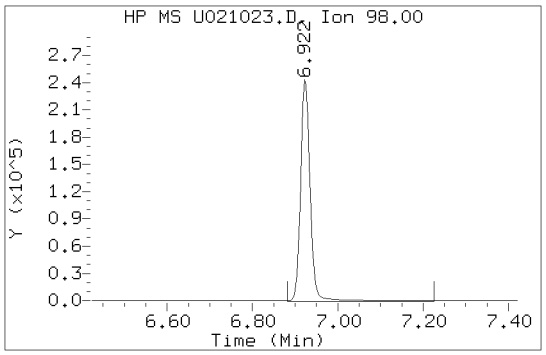

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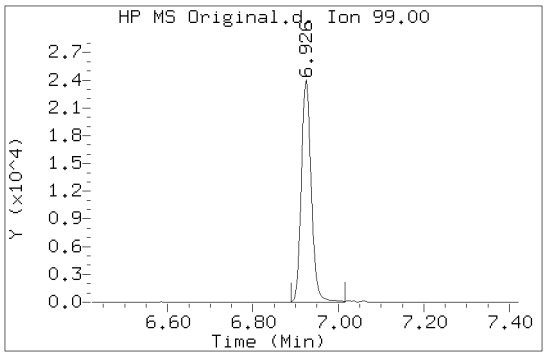

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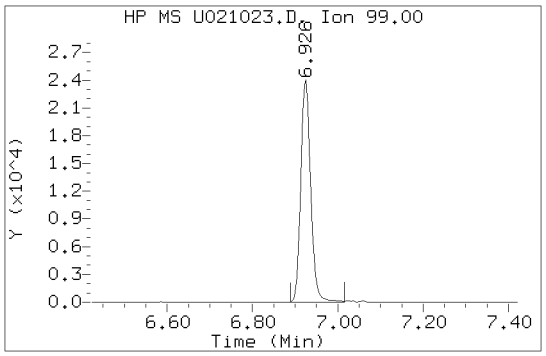

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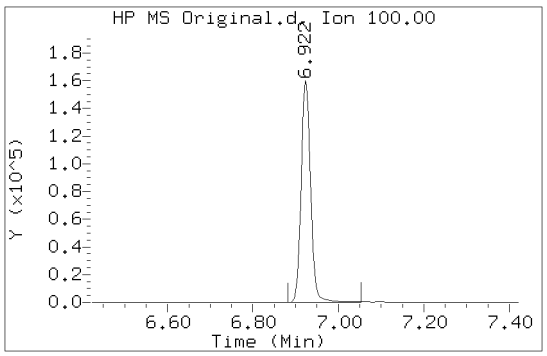

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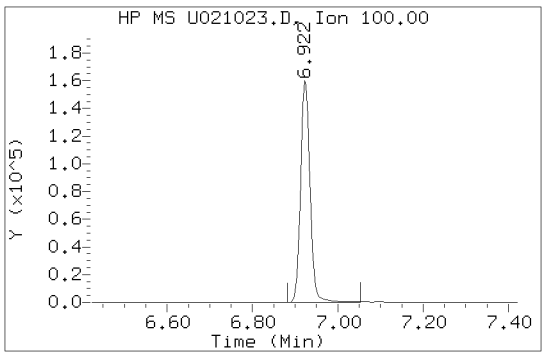

4-Bromofluorobenzene (460-00-4)

Reason Code:

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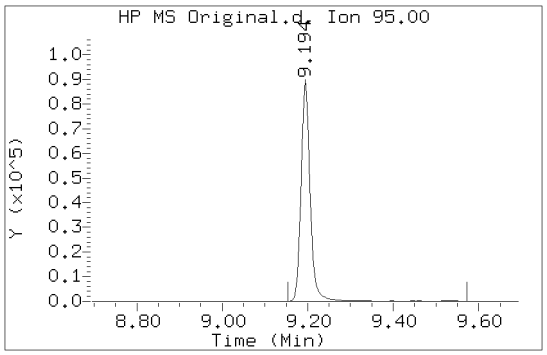

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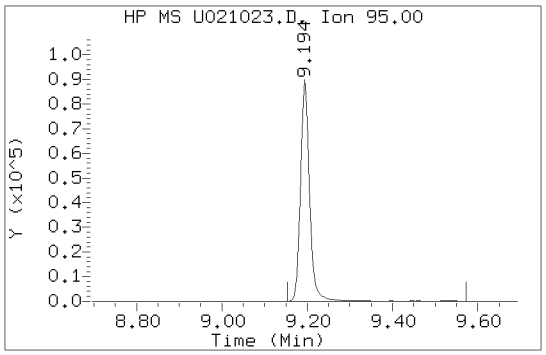

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021023.D
Inj Date : 10-FEB-2024 09:18
InstruID : VOA9.i
LabSampID : HS24020246-02

4-Bromofluorobenzene (460-00-4)

Reason Code:

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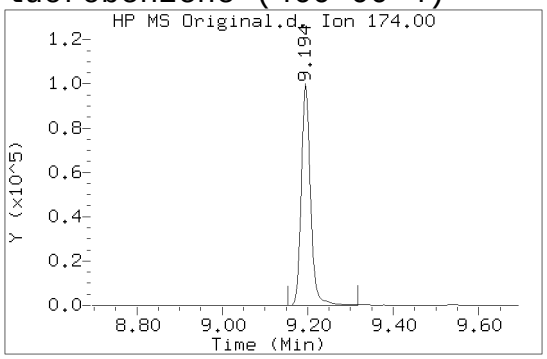

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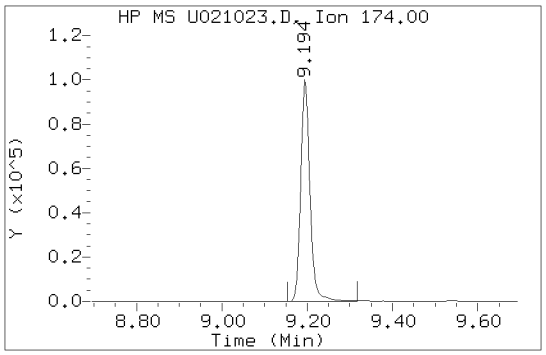

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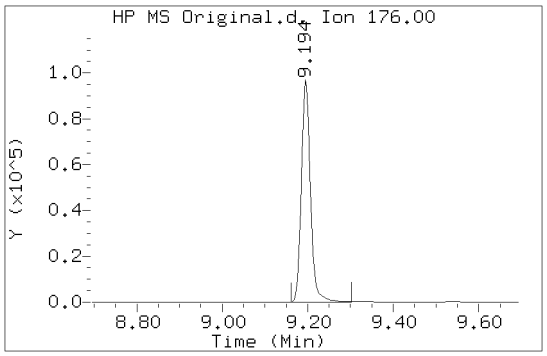

AFTER

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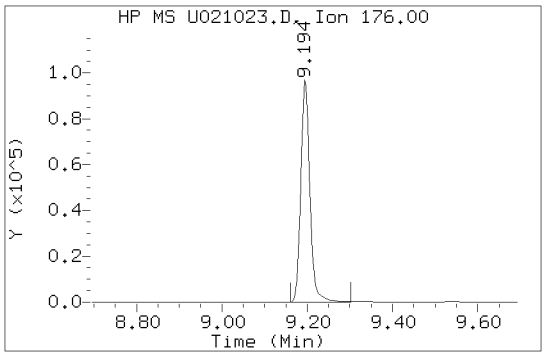


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021024.D Page 1
Report Date: 22-Feb-2024 14:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021024.D
Lab Smp Id: HS24020246-03
Inj Date : 10-FEB-2024 09:41
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020246-03
Misc Info : V9;WATER;0;250;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\8260C.m
Meth Date : 22-Feb-2024 14:57 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 63
Dil Factor: 250.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

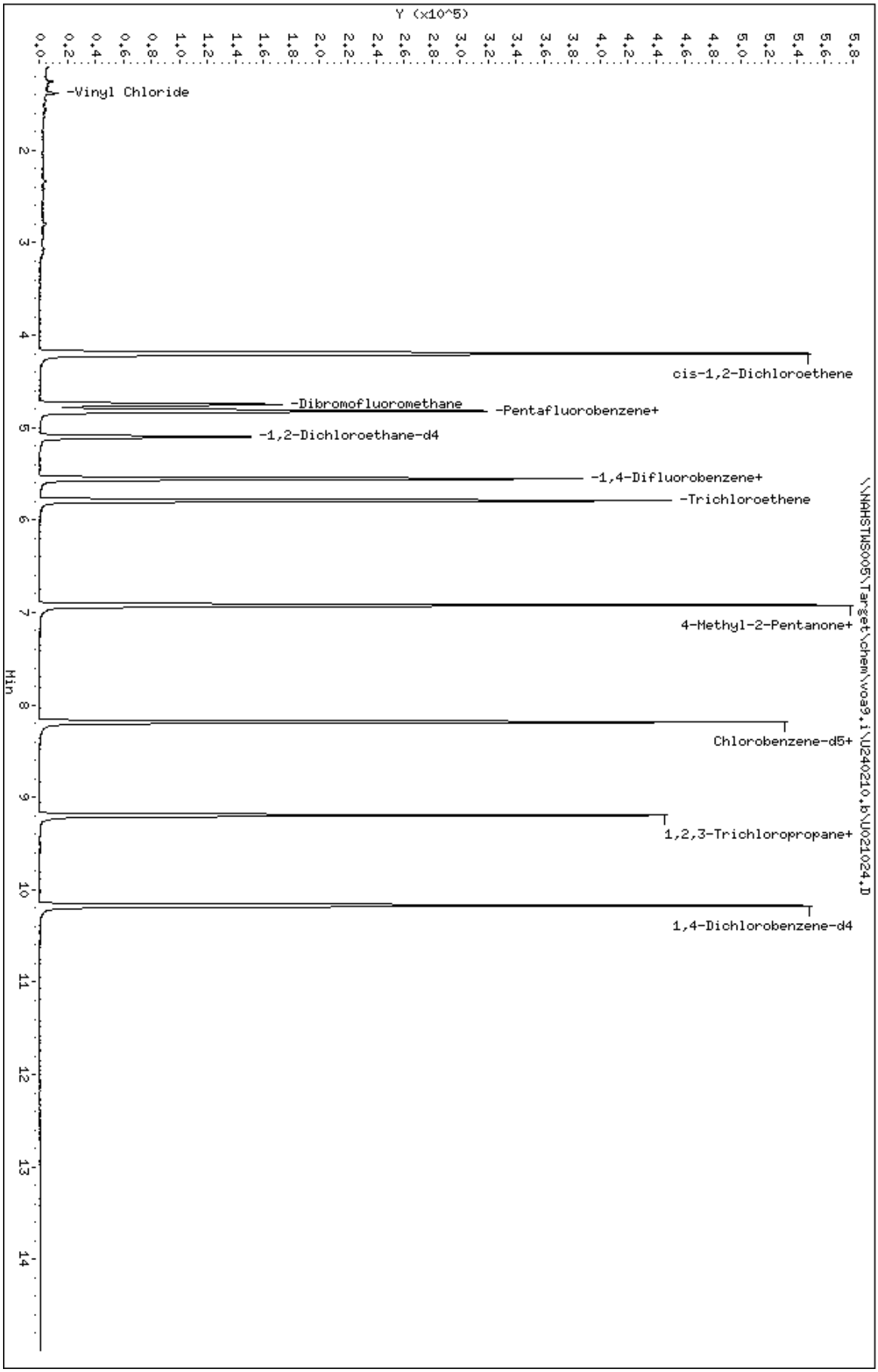
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	250.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	254089	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.986)	105963	40.3181	40.31(M)
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	107223	40.6886	40.68(M)
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	323536	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	311473	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	383540	45.1787	45.17(M)
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	133473	42.5234	42.52(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	167189	50.0000	
5 Vinyl Chloride	62	1.381	1.378	(0.287)	5148	2.40029	600.07(a)
27 cis-1,2-Dichloroethene	96	4.200	4.197	(0.872)	293866	104.962	26240.61
38 Trichloroethene	130	5.790	5.790	(1.043)	160535	62.9652	15741.30

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\voa9,i\U240210,b\U021024,D
Date : 10-FEB-2024 09:41
Client ID:
Sample Info: HS2402O246-03
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Page 1

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021024.D Page 2

Date : 10-FEB-2024 09:41

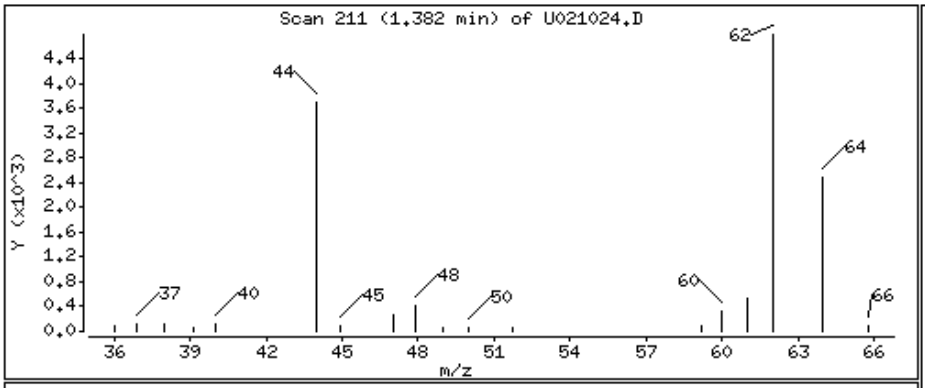
Client ID: Instrument: VOA9.i

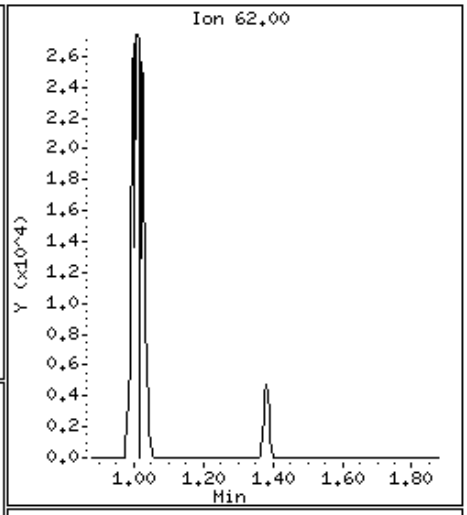
Sample Info: HS24020246-03

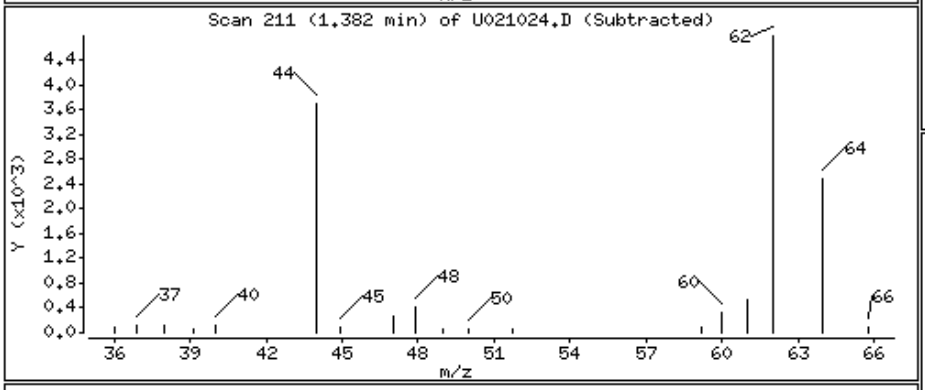
Purge Volume: 5.0 Operator: FT

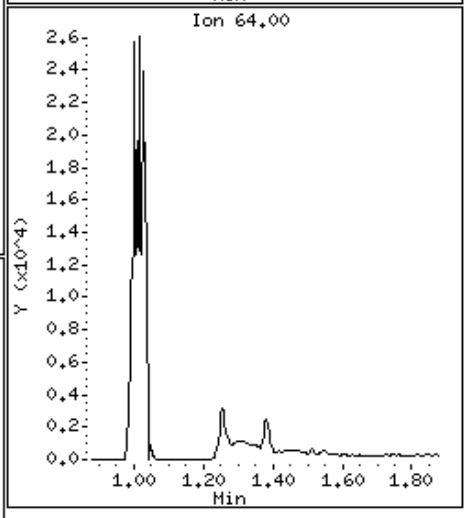
Column phase: DB624 Column diameter: 0.18

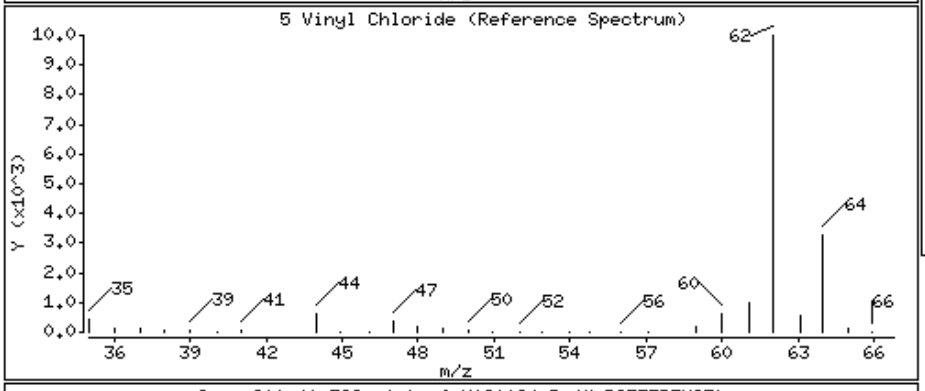
5 Vinyl Chloride Concentration: 600.07 ug/l

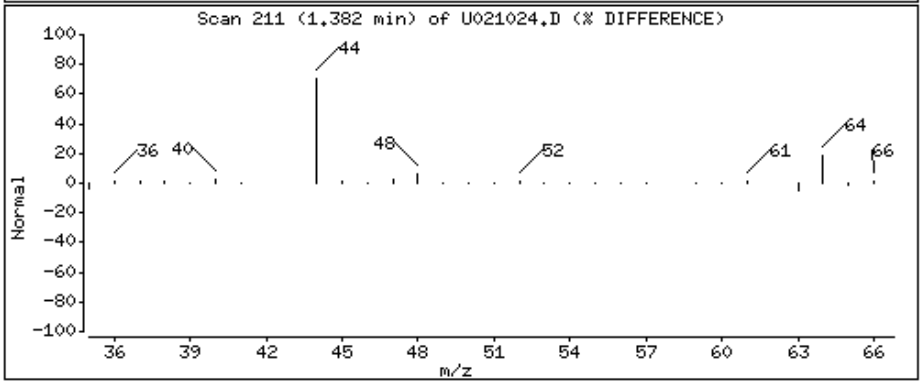












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021024.D Page 3

Date : 10-FEB-2024 09:41

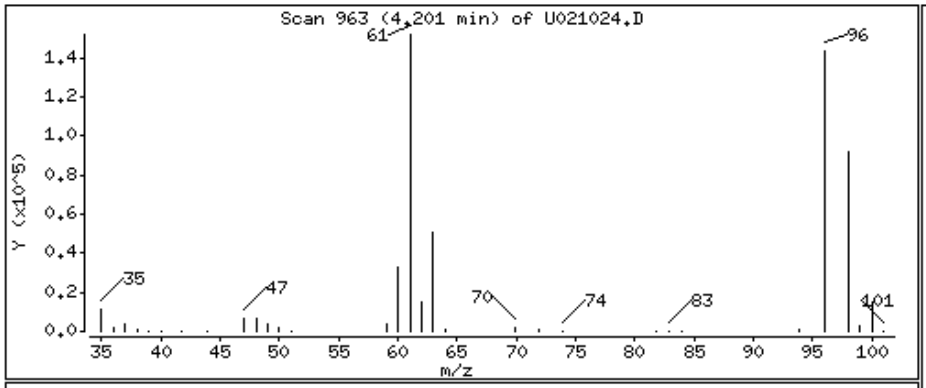
Client ID: Instrument: VOA9.i

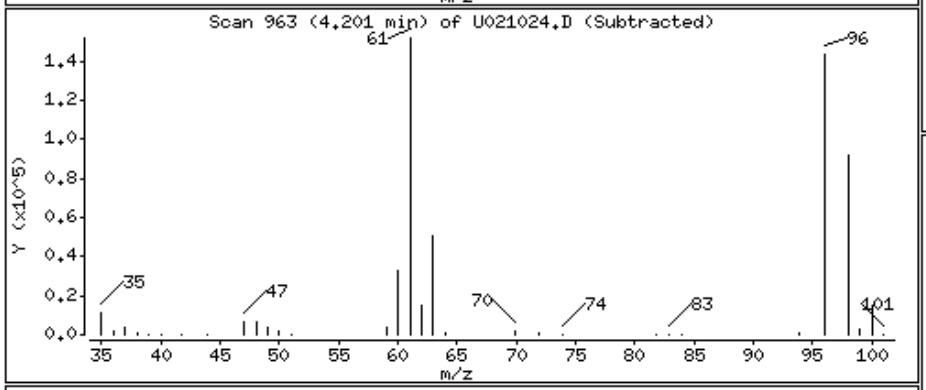
Sample Info: HS24020246-03

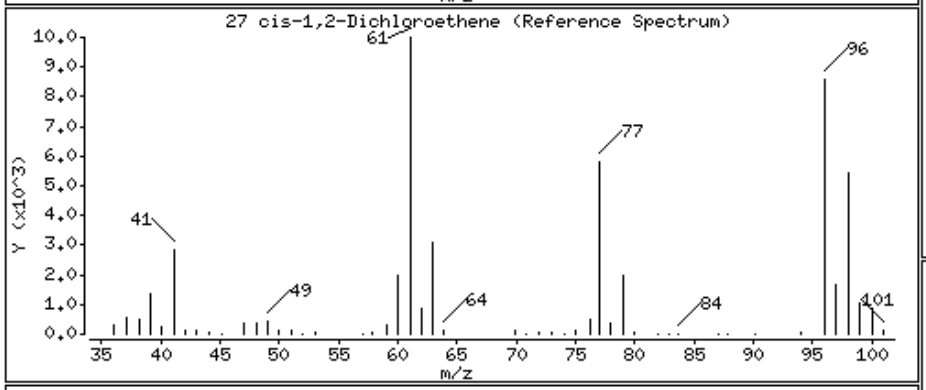
Purge Volume: 5.0 Operator: FT

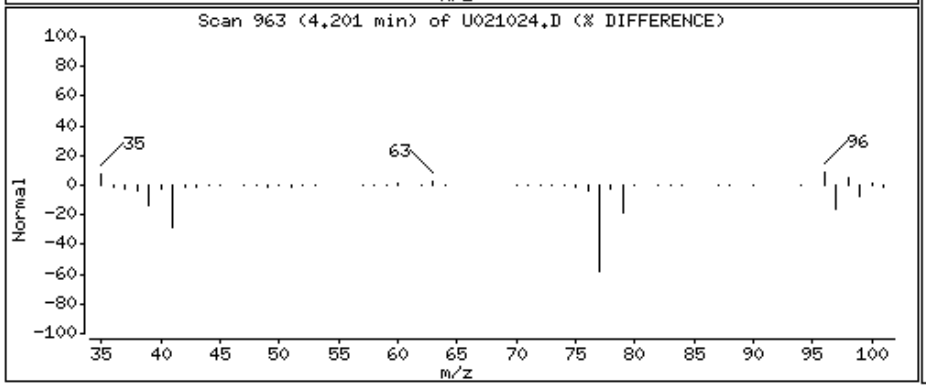
Column phase: DB624 Column diameter: 0.18

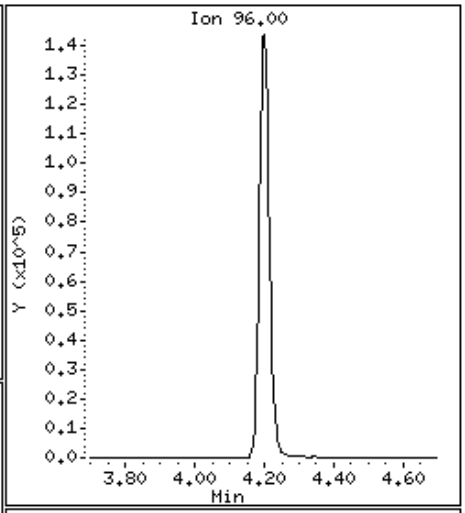
27 cis-1,2-Dichloroethene Concentration: 26240.61 ug/l

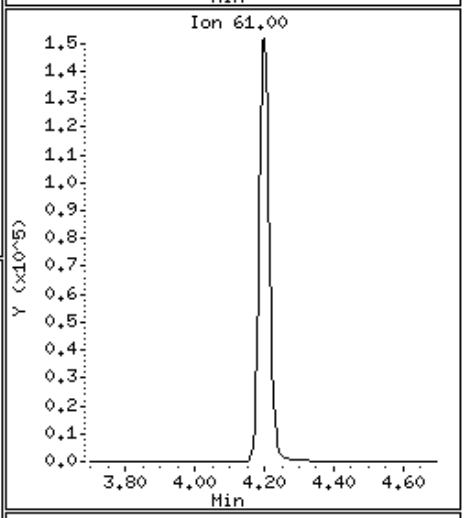


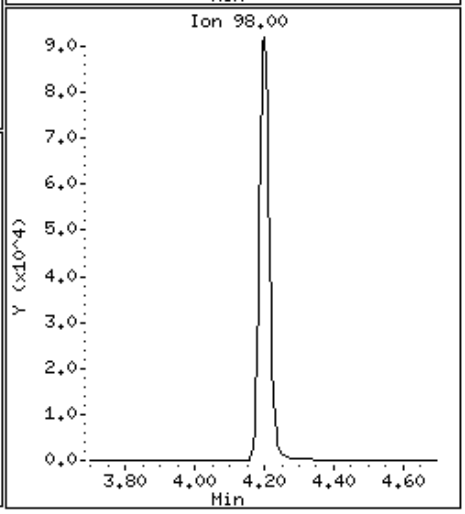












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021024.D Page 4

Date : 10-FEB-2024 09:41

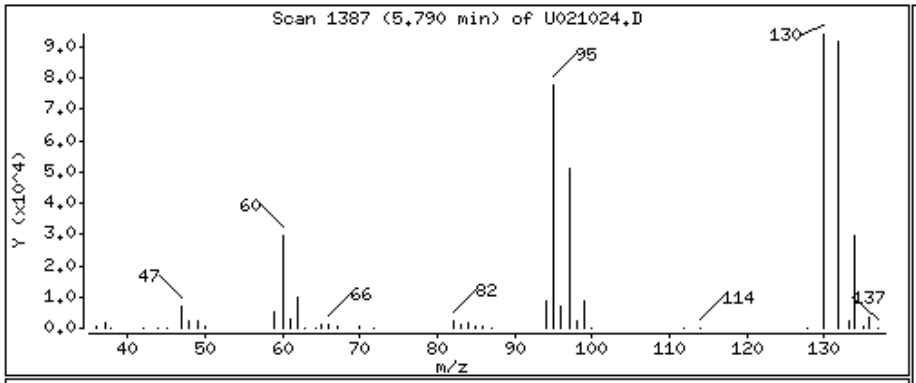
Client ID: Instrument: VOA9.i

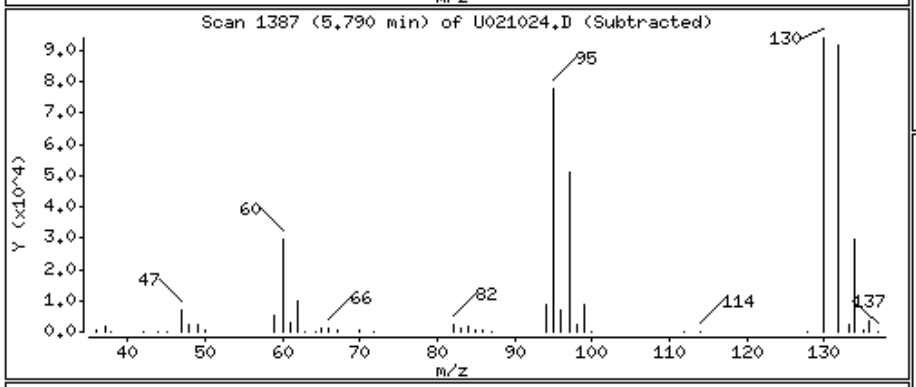
Sample Info: HS24020246-03

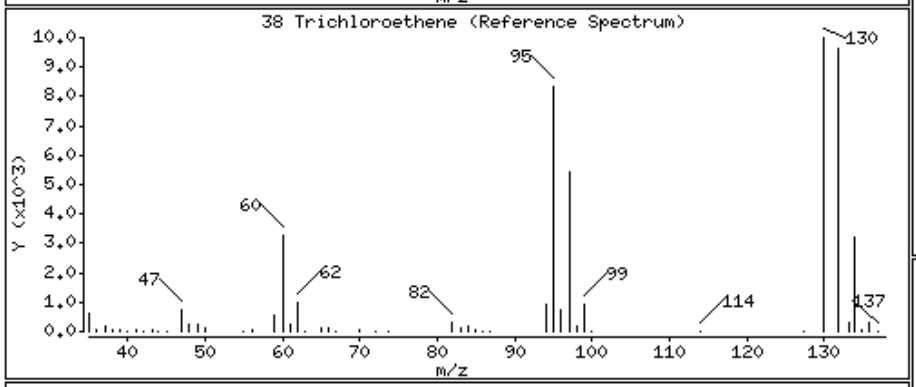
Purge Volume: 5.0 Operator: FT

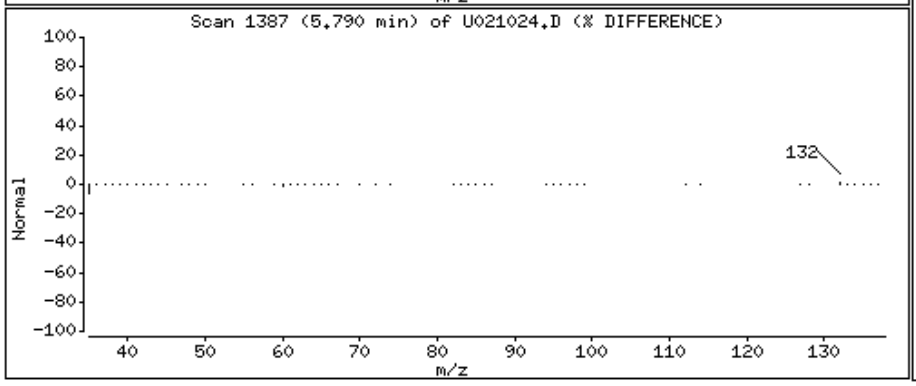
Column phase: DB624 Column diameter: 0.18

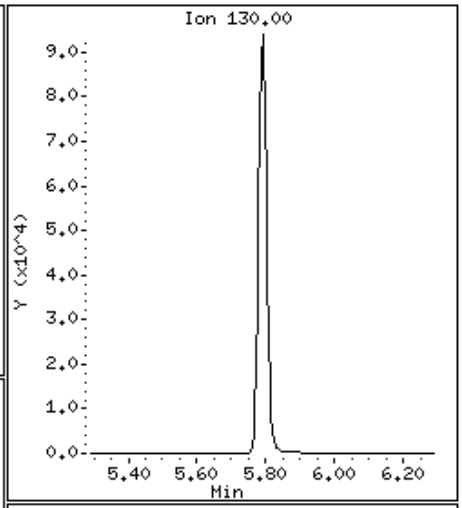
38 Trichloroethene Concentration: 15741.30 ug/l

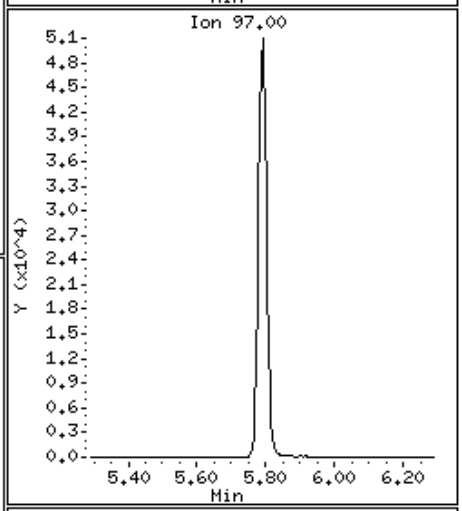


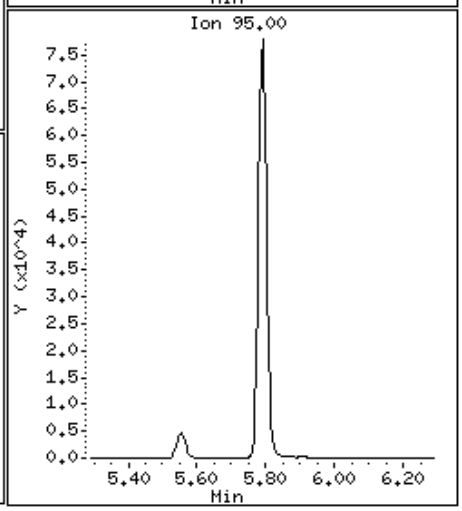












Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021024.D
Inj Date : 10-FEB-2024 09:41
InstruID : VOA9.i
LabSampID : HS24020246-03

Dibromofluoromethane (1868-53-7)

Reason Code:

BEFORE

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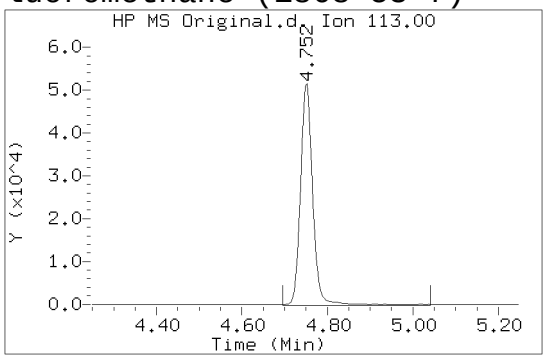
AREA
105963
HEIGHT
51664
22-Feb-2024
14:57
linh
pham



AFTER

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22-Feb-2024
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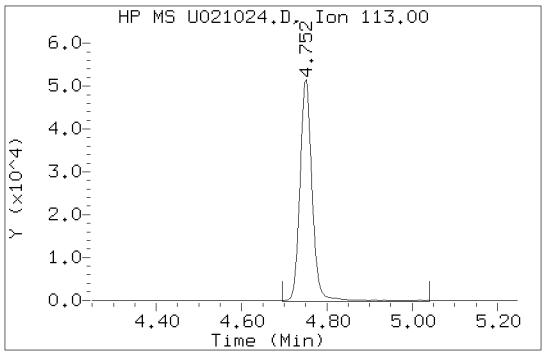

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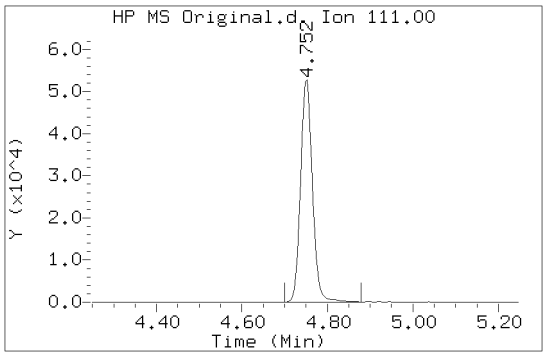

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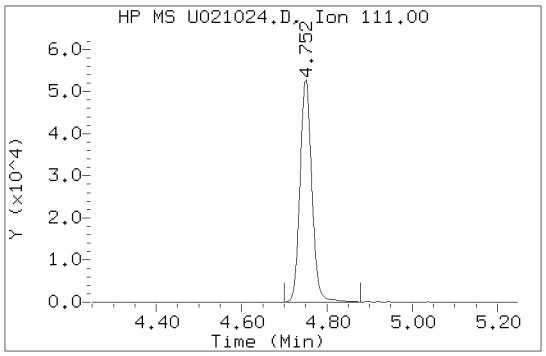

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

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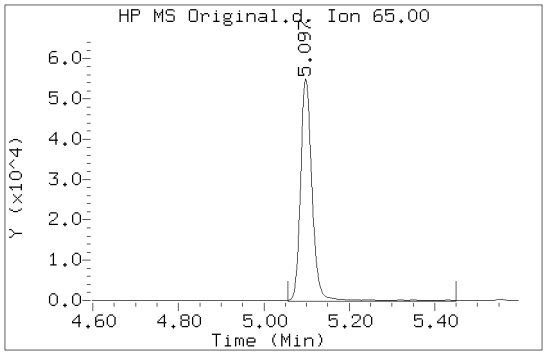

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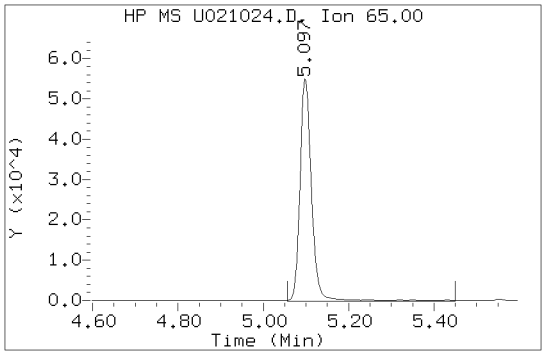

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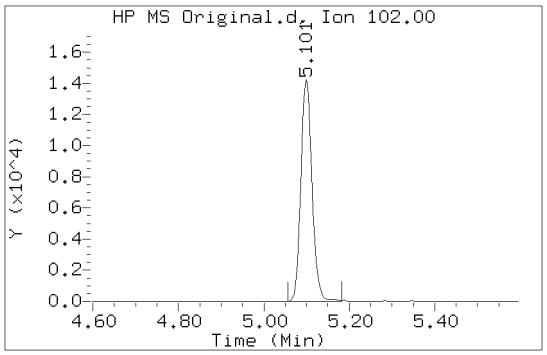

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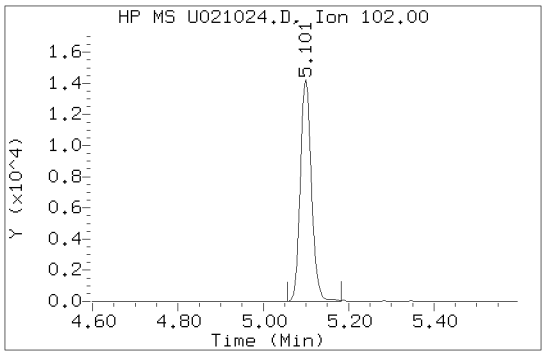

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Inj Date : 10-FEB-2024 09:41
InstruID : VOA9.i
LabSampID : HS24020246-03

Toluene-d8 (2037-26-5)

Reason Code:

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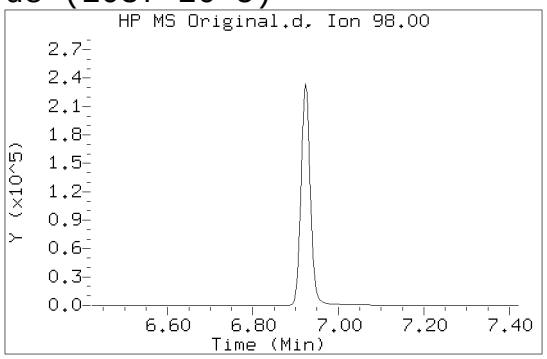

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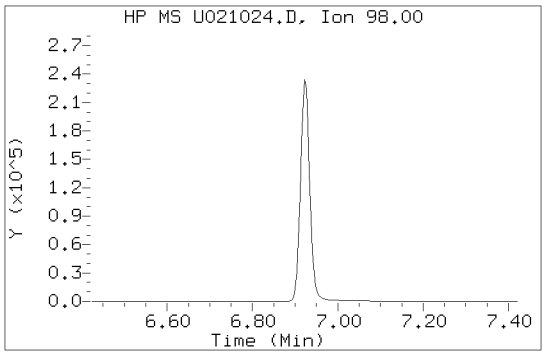

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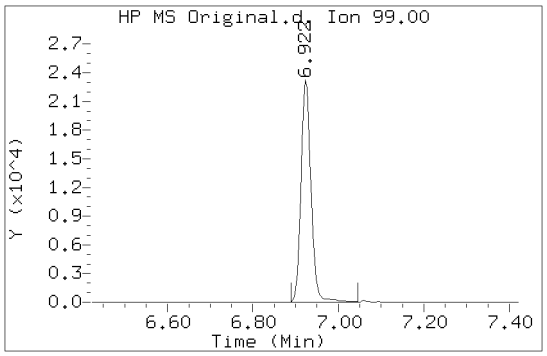

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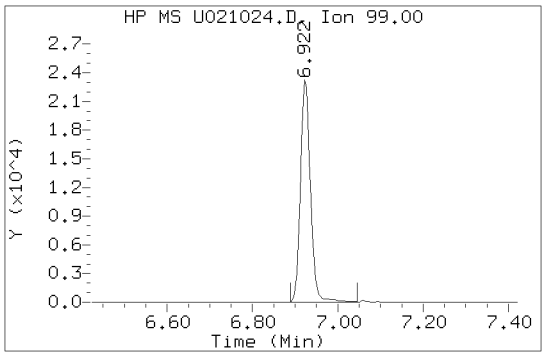

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22-Feb-2024
14:57
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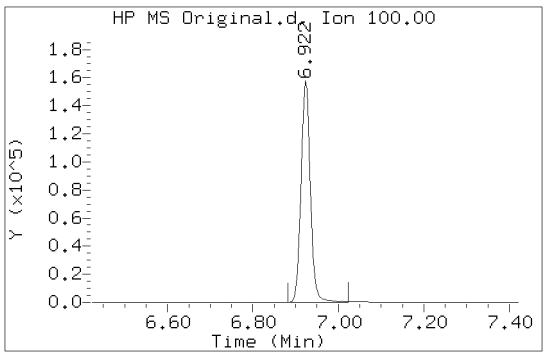

AFTER

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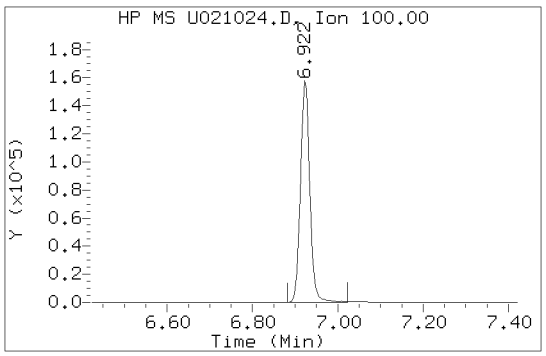

4-Bromofluorobenzene (460-00-4)

Reason Code:

BEFORE

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HEIGHT
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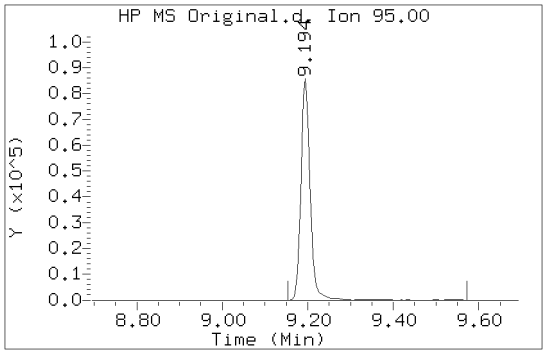

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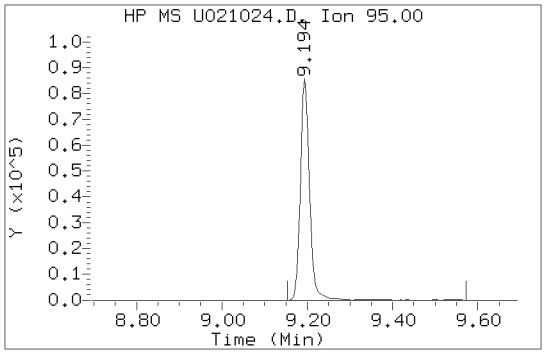

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021024.D
Inj Date : 10-FEB-2024 09:41
InstruID : VOA9.i
LabSampID : HS24020246-03

4-Bromofluorobenzene (460-00-4)

Reason Code:

BEFORE

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HEIGHT
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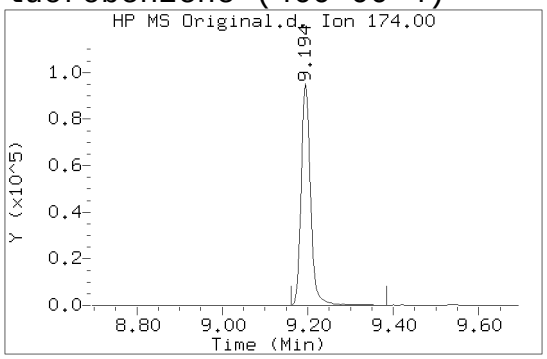
22-Feb-2024
14:57
linh
pham



AFTER

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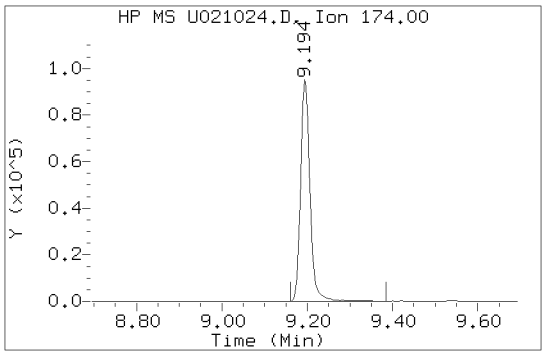

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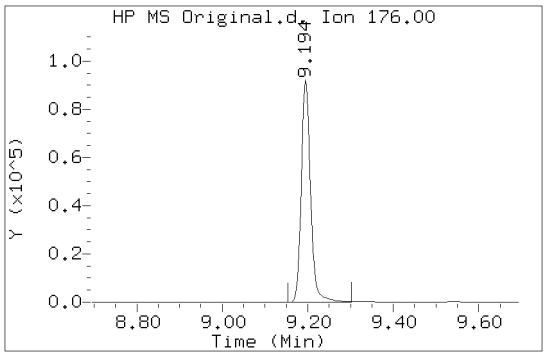

AFTER

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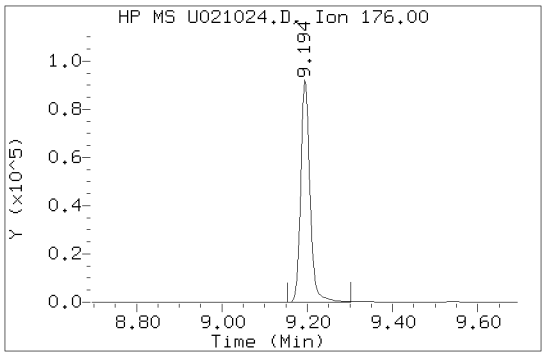


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021025.D Page 1
Report Date: 22-Feb-2024 14:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021025.D
Lab Smp Id: HS24020246-04
Inj Date : 10-FEB-2024 10:03
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020246-04
Misc Info : V9;WATER;0;20;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\8260C.m
Meth Date : 22-Feb-2024 14:57 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 64
Dil Factor: 20.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

Name	Value	Description
DF	20.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

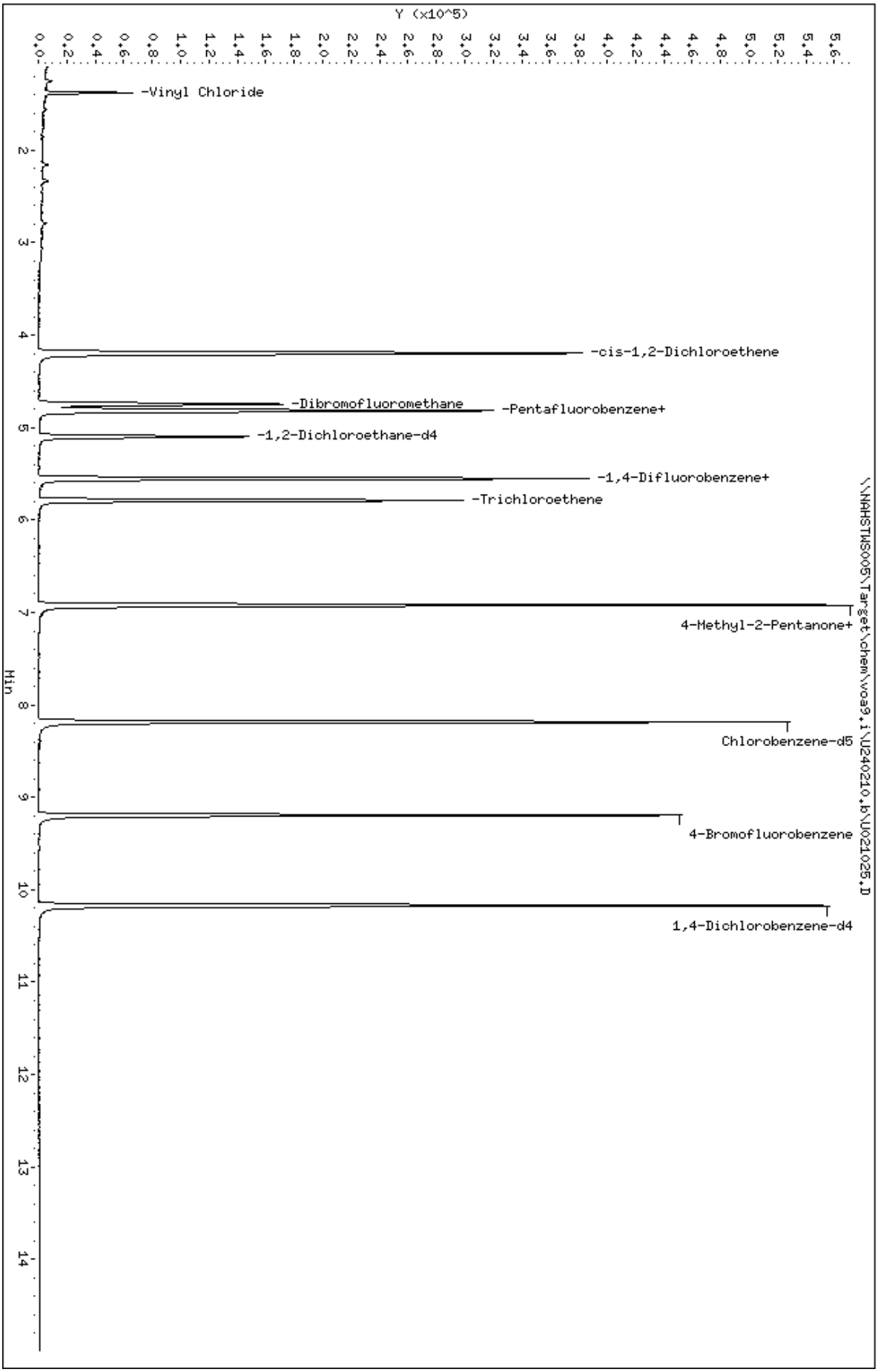
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.819	(1.000)	248921	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	103968	40.3810	40.38
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	105403	40.8309	40.83(M)
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	324501	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	315254	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	382861	44.5570	44.55(M)
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	135224	42.5649	42.56(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	168490	50.0000	
5 Vinyl Chloride	62	1.378	1.378	(0.286)	41401	19.2402	384.80
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.872)	207822	75.7706	1515.41
38 Trichloroethene	130	5.790	5.790	(1.043)	105296	41.2378	824.75

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\voa9,i\U240210,b\U021025,D
Date : 10-FEB-2024 10:03
Client ID:
Sample Info: HS24020246-04
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021025.D Page 2

Date : 10-FEB-2024 10:03

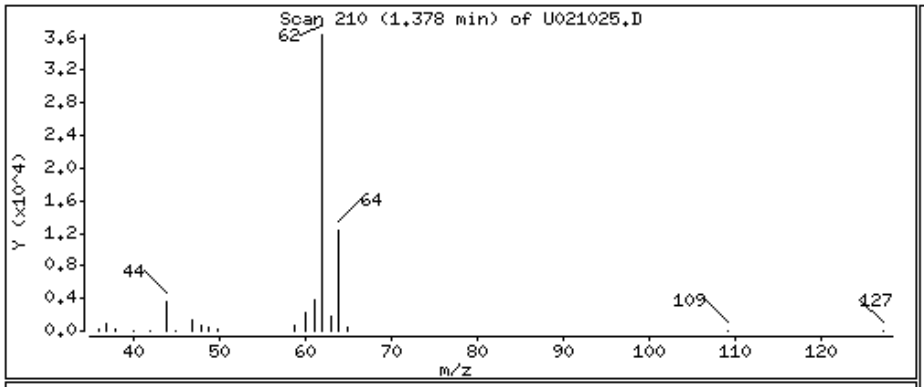
Client ID: Instrument: VOA9.i

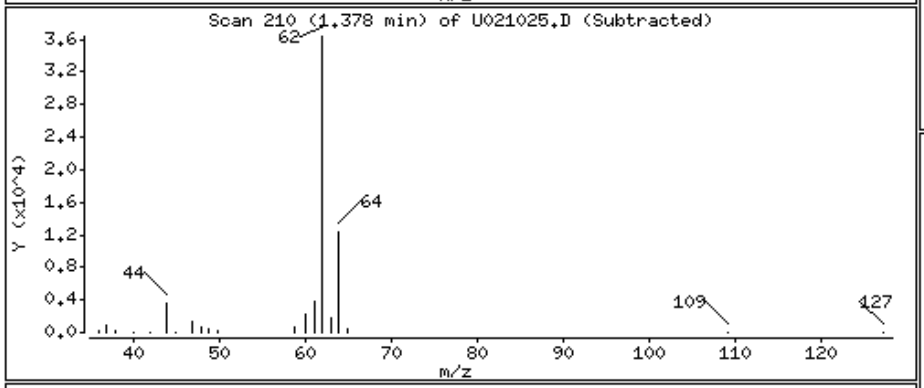
Sample Info: HS24020246-04

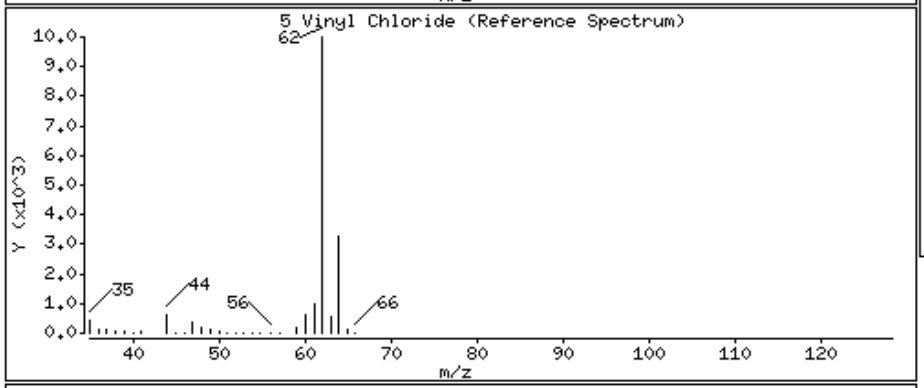
Purge Volume: 5.0 Operator: FT

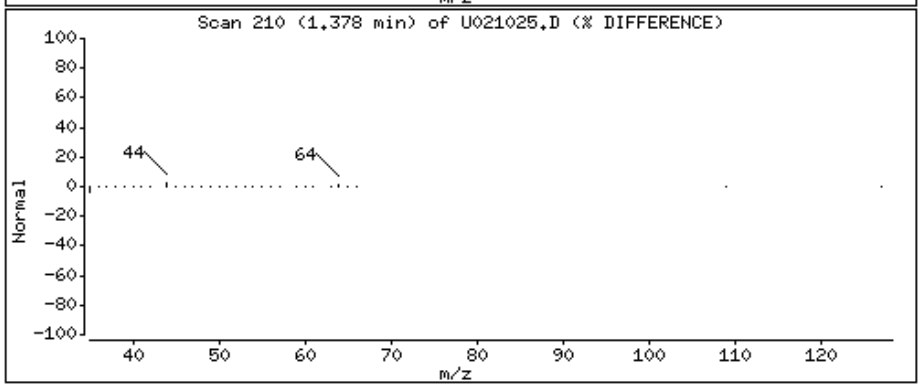
Column phase: DB624 Column diameter: 0.18

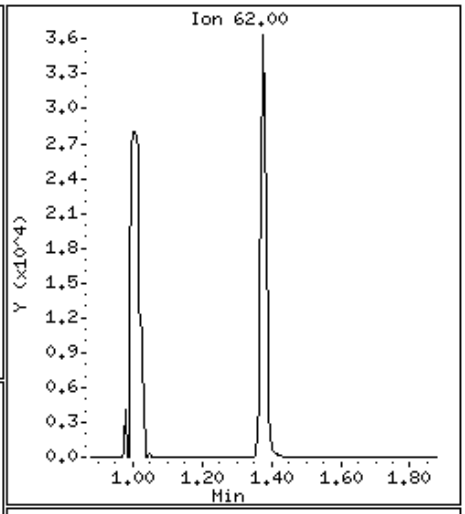
5 Vinyl Chloride Concentration: 384.80 ug/l

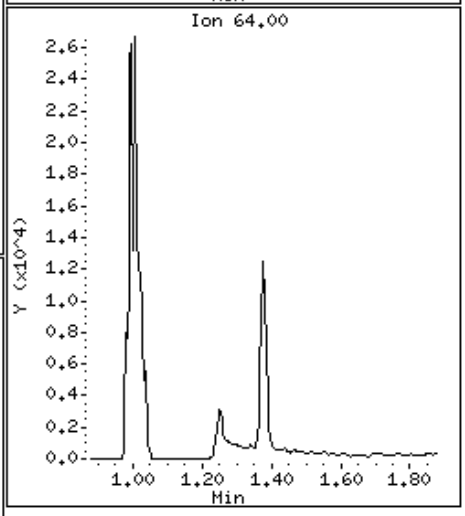












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021025.D Page 3

Date : 10-FEB-2024 10:03

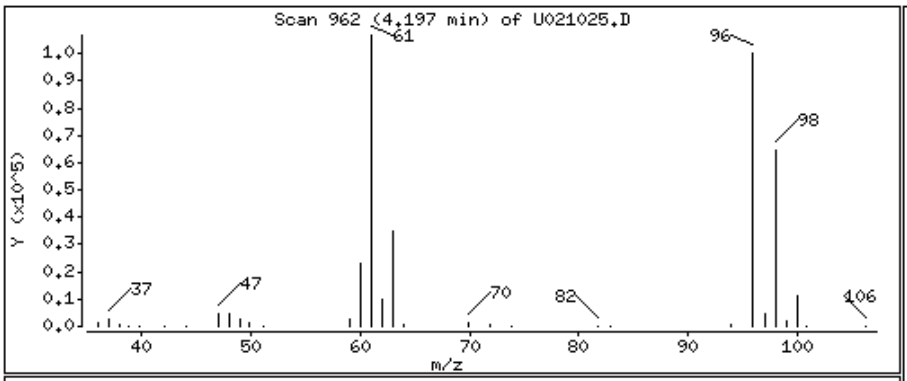
Client ID: Instrument: VOA9.i

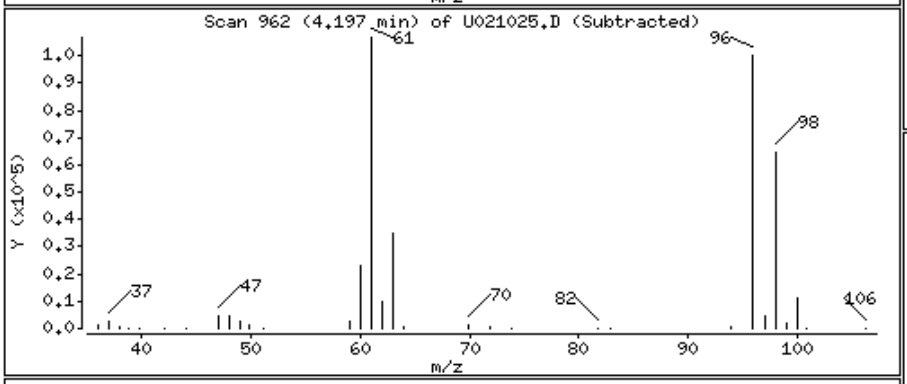
Sample Info: HS24020246-04

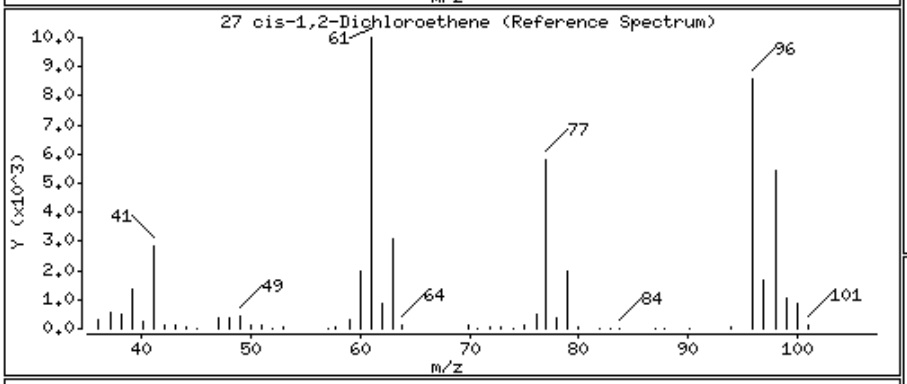
Purge Volume: 5.0 Operator: FT

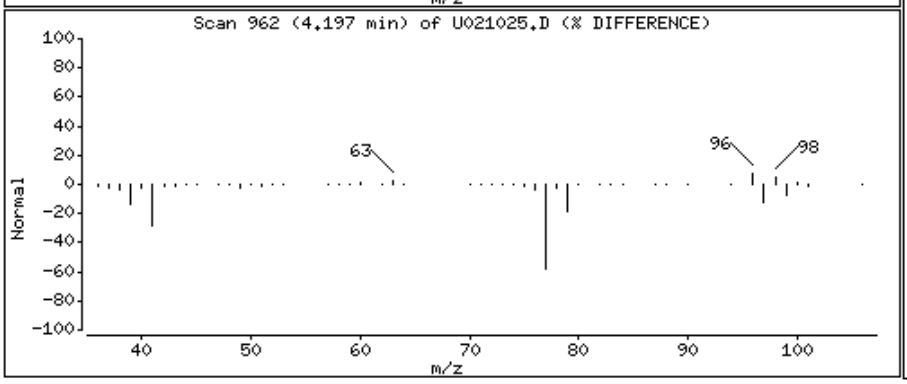
Column phase: DB624 Column diameter: 0.18

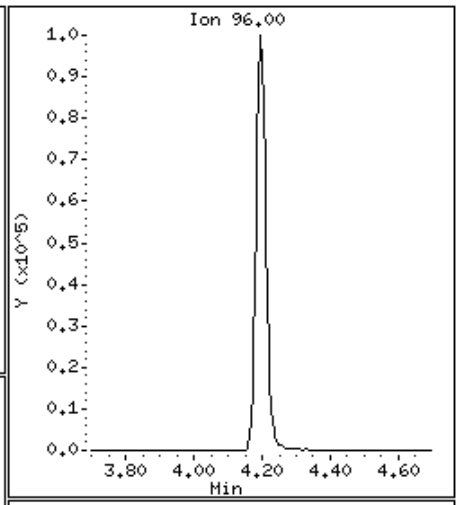
27 cis-1,2-Dichloroethene Concentration: 1515.41 ug/l

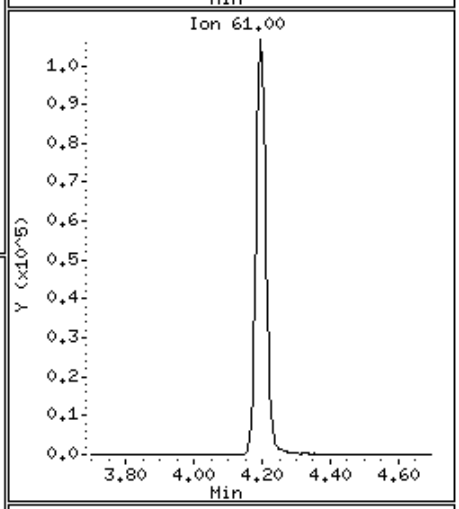


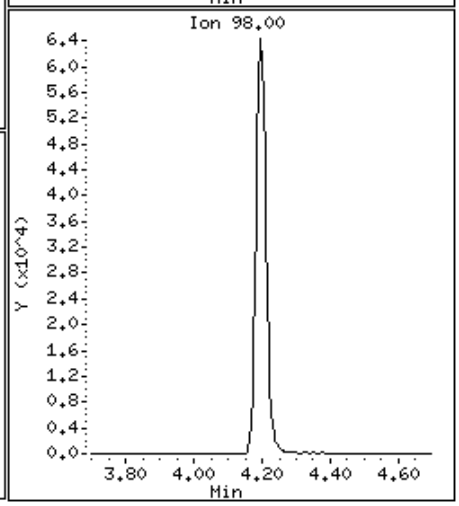












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021025.D Page 4

Date : 10-FEB-2024 10:03

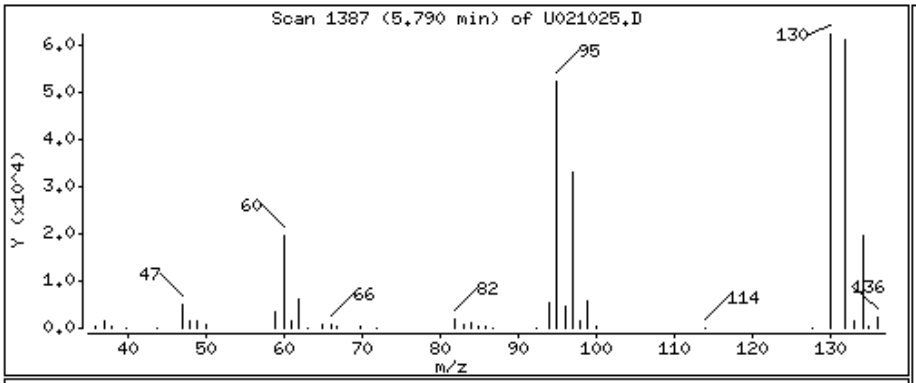
Client ID: Instrument: VOA9.i

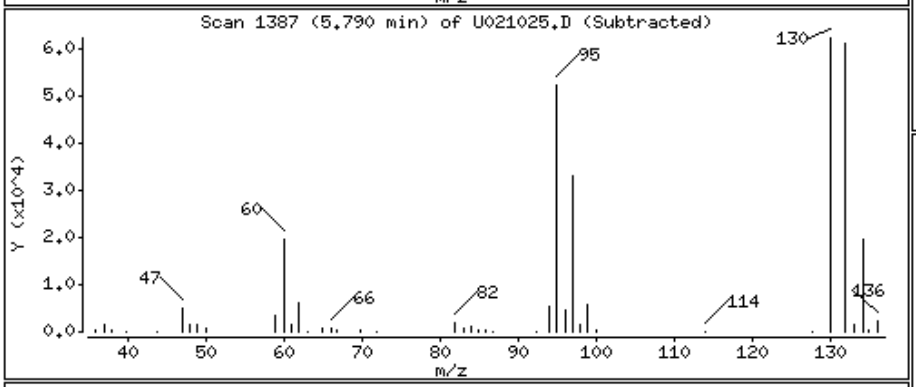
Sample Info: HS24020246-04

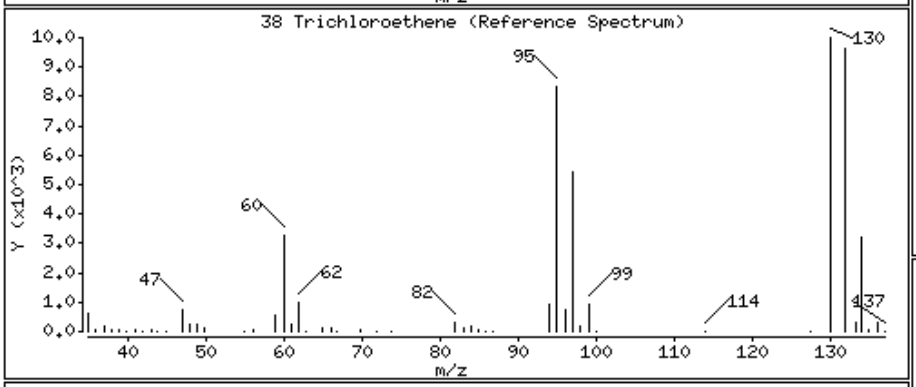
Purge Volume: 5.0 Operator: FT

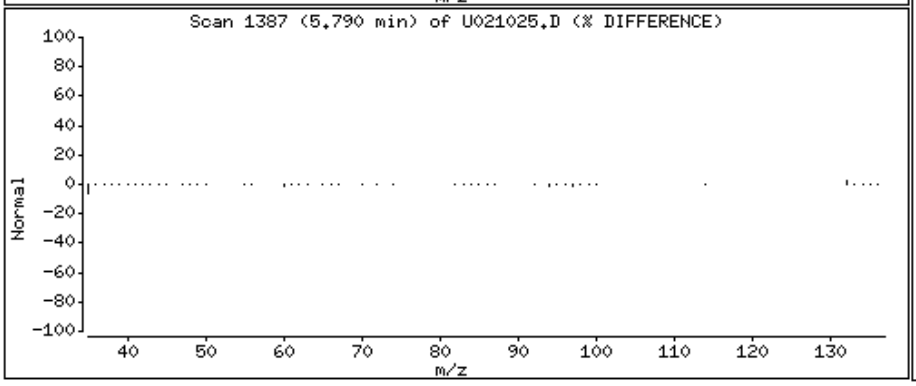
Column phase: DB624 Column diameter: 0.18

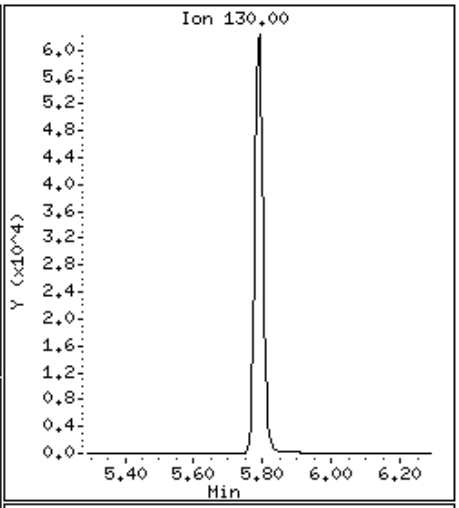
38 Trichloroethene Concentration: 824.75 ug/l

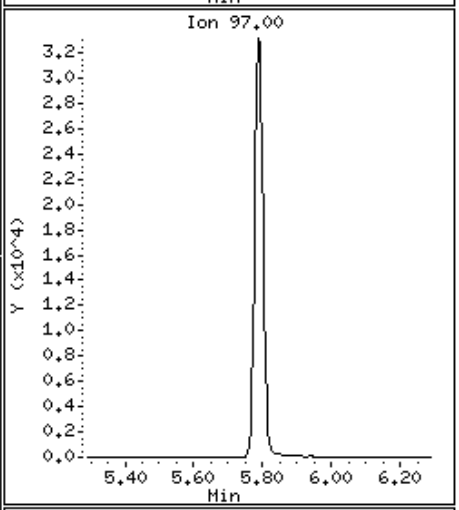


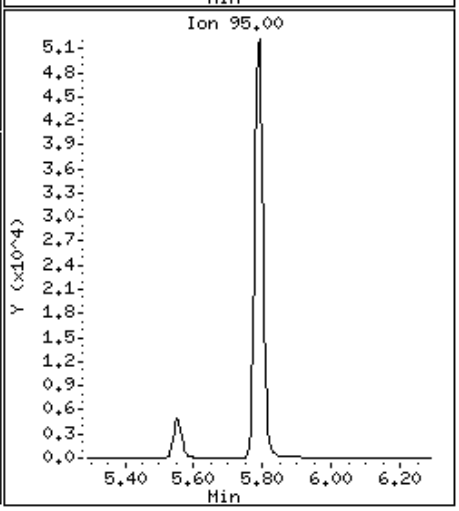








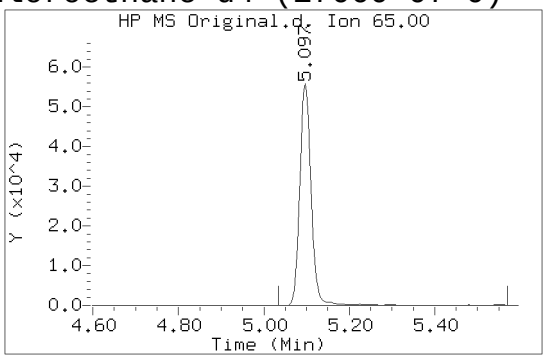




Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021025.D
Inj Date : 10-FEB-2024 10:03
InstruID : VOA9.i
LabSampID : HS24020246-04

1,2-Dichloroethane-d4 (17060-07-0)

BEFORE
MASS
65
AREA
105403
HEIGHT
55848
22-Feb-2024
14:57
linh
pham



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22-Feb-2024
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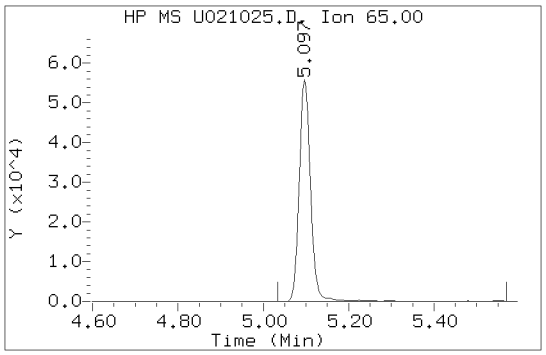

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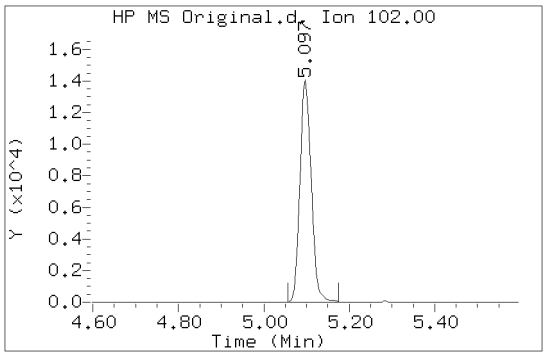

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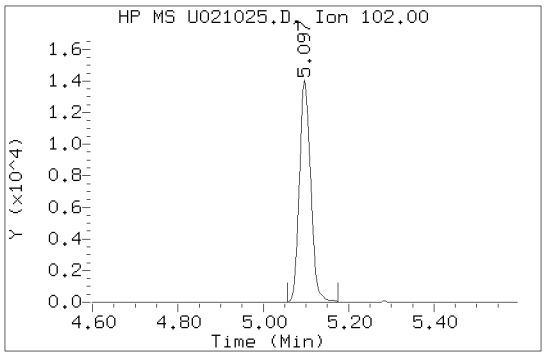

Toluene-d8 (2037-26-5)

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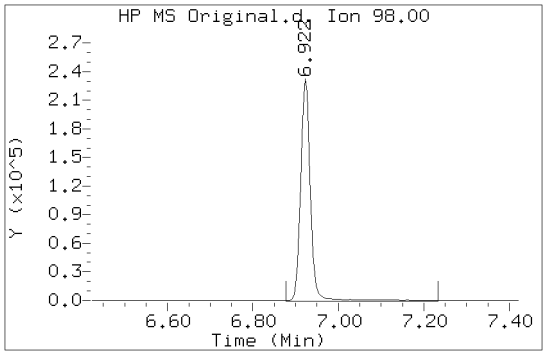

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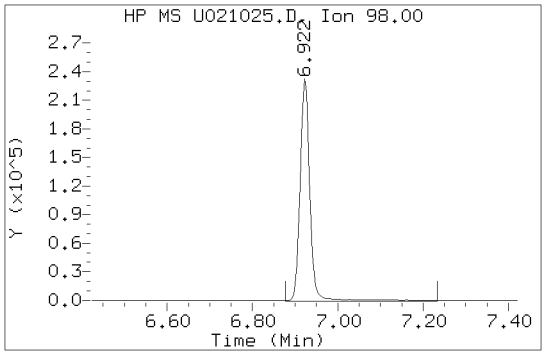

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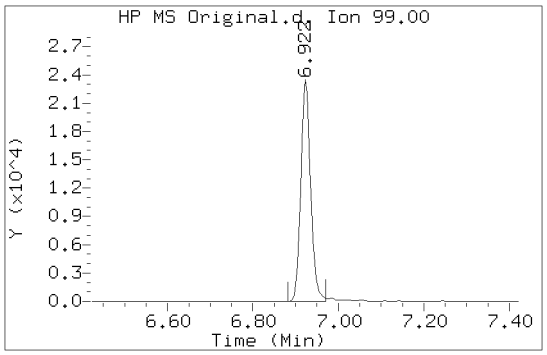

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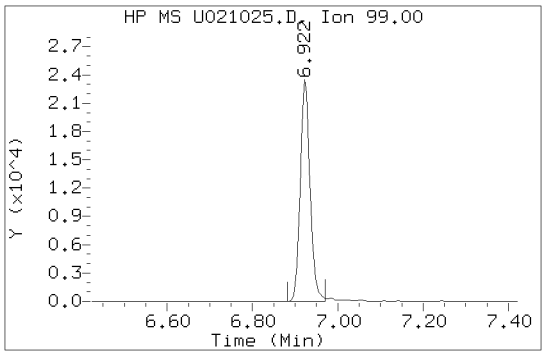

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Inj Date : 10-FEB-2024 10:03
InstruID : VOA9.i
LabSampID : HS24020246-04

Toluene-d8 (2037-26-5)

Reason Code:

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22-Feb-2024
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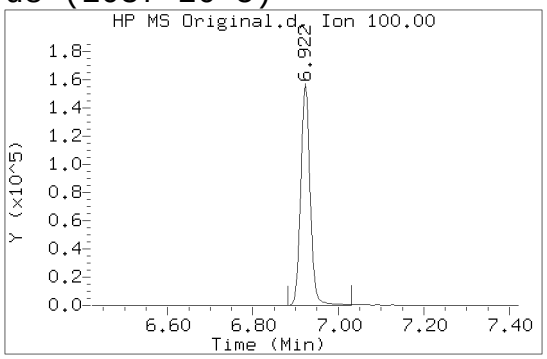

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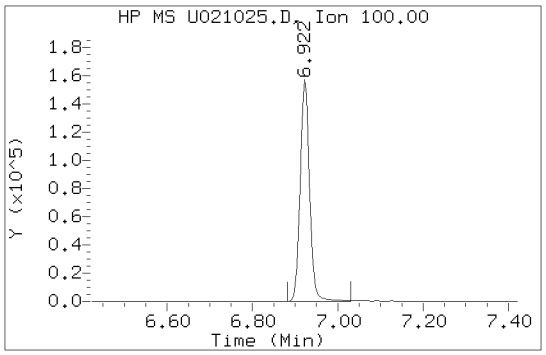

4-Bromofluorobenzene (460-00-4)

Reason Code:

BEFORE

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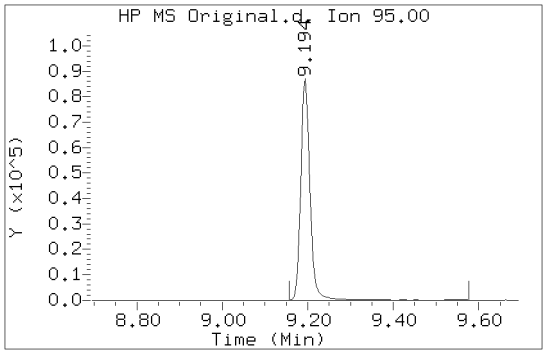

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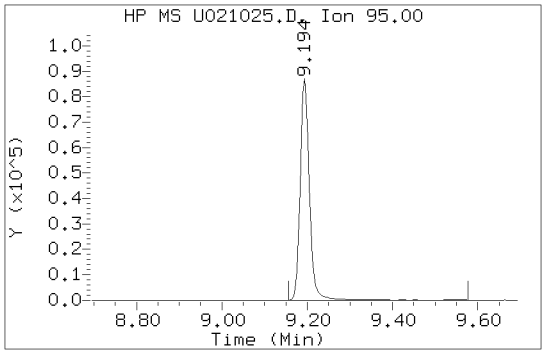

BEFORE

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22-Feb-2024
14:57
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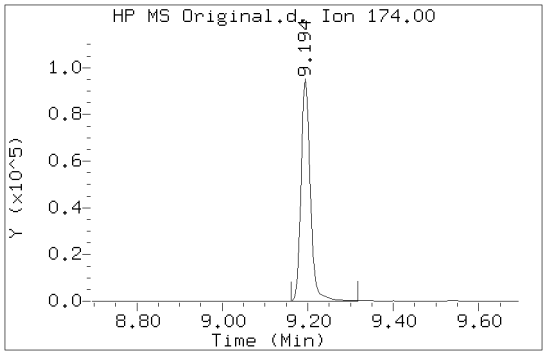

AFTER

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22-Feb-2024
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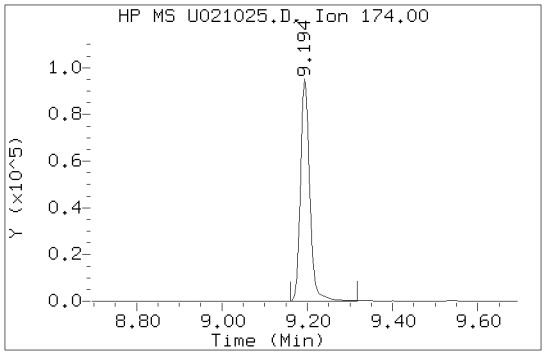

BEFORE

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22-Feb-2024
14:57
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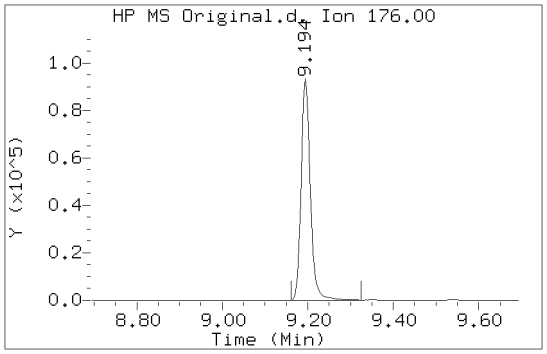

AFTER

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22-Feb-2024
14:57
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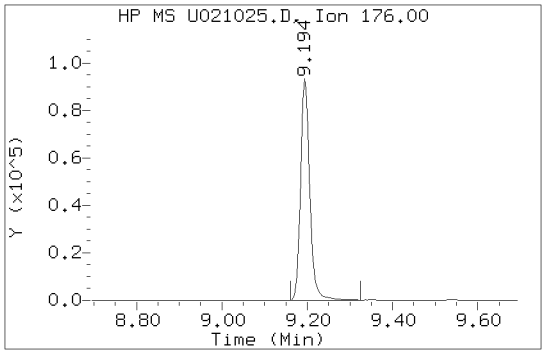


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021026.D Page 1
Report Date: 22-Feb-2024 14:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021026.D
Lab Smp Id: HS24020246-06
Inj Date : 10-FEB-2024 10:26
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020246-06
Misc Info : V9;WATER;0;200;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\8260C.m
Meth Date : 22-Feb-2024 14:57 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 65
Dil Factor: 200.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

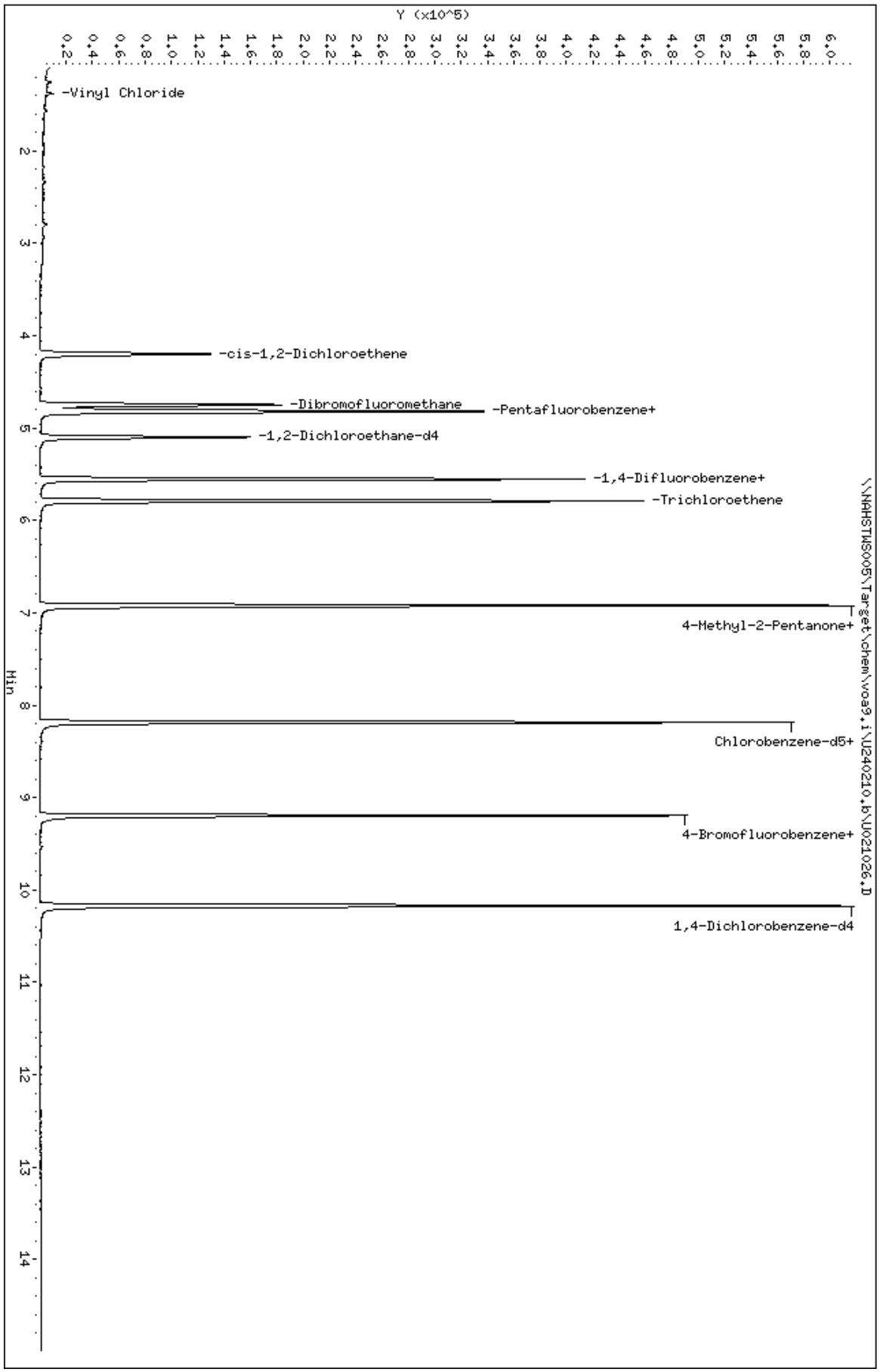
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	200.000	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	4.819	4.819	(1.000)	270065	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	112921	40.4250	40.42(M)
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	113977	40.6930	40.69(M)
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	344578	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	331502	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	406567	44.9974	44.99(M)
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	142178	42.5602	42.56
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	185830	50.0000	
5 Vinyl Chloride	62	1.381	1.378	(0.287)	3635	1.61619	323.23(aH)
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.871)	69660	23.4091	4681.82
38 Trichloroethene	130	5.790	5.790	(1.043)	163075	60.0638	12012.75

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.



Data File: \\NAHSTWS005\Target\chem\voa9,i\U240210,b\U021026.D
Date : 10-FEB-2024 10:26
Client ID:
Sample Info: HS24020246-06
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021026.D Page 2

Date : 10-FEB-2024 10:26

Client ID:

Instrument: VOA9.i

Sample Info: HS24020246-06

Purge Volume: 5.0

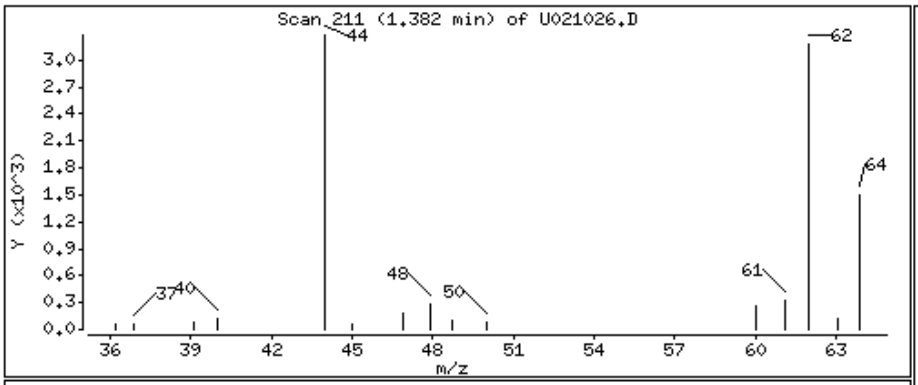
Operator: FT

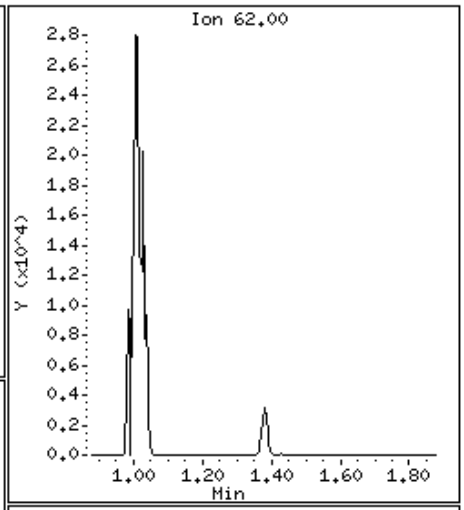
Column phase: DB624

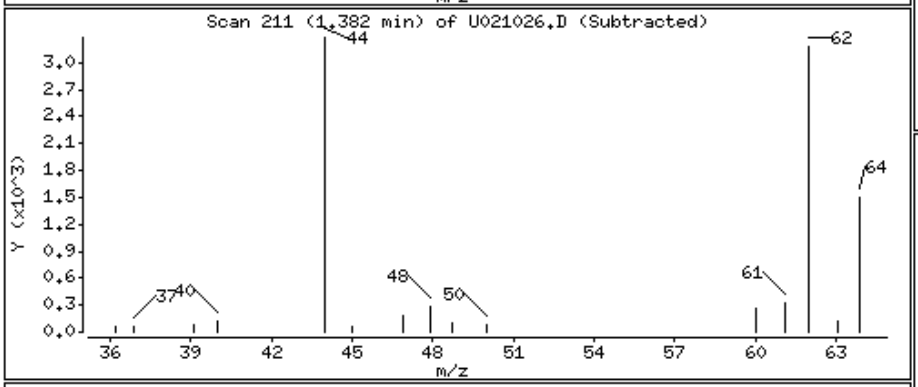
Column diameter: 0.18

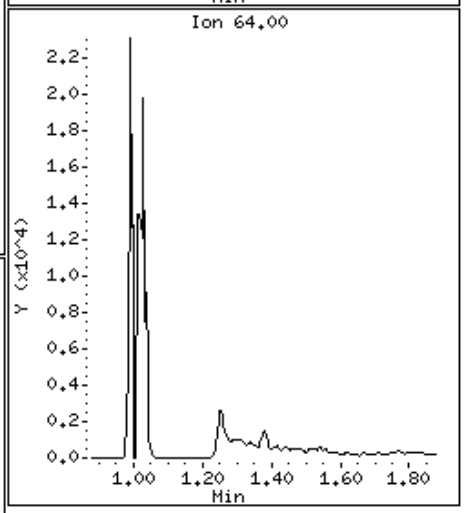
5 Vinyl Chloride

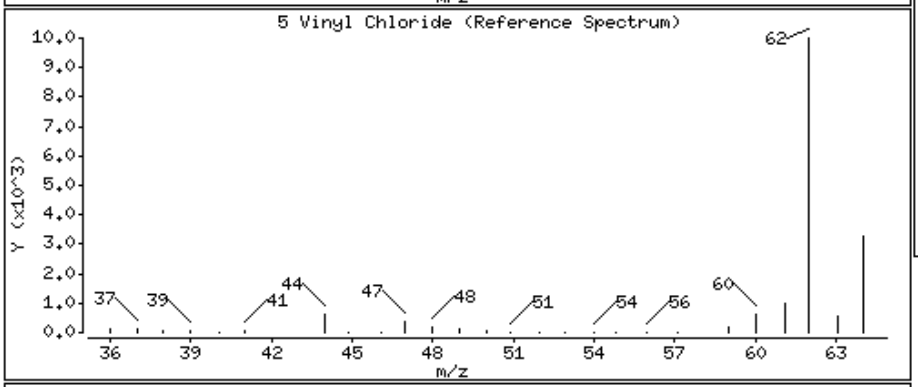
Concentration: 323.23 ug/l

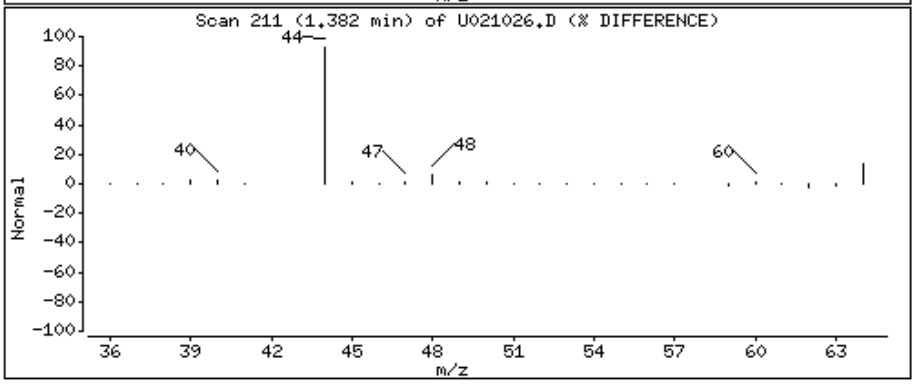












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021026.D Page 3

Date : 10-FEB-2024 10:26

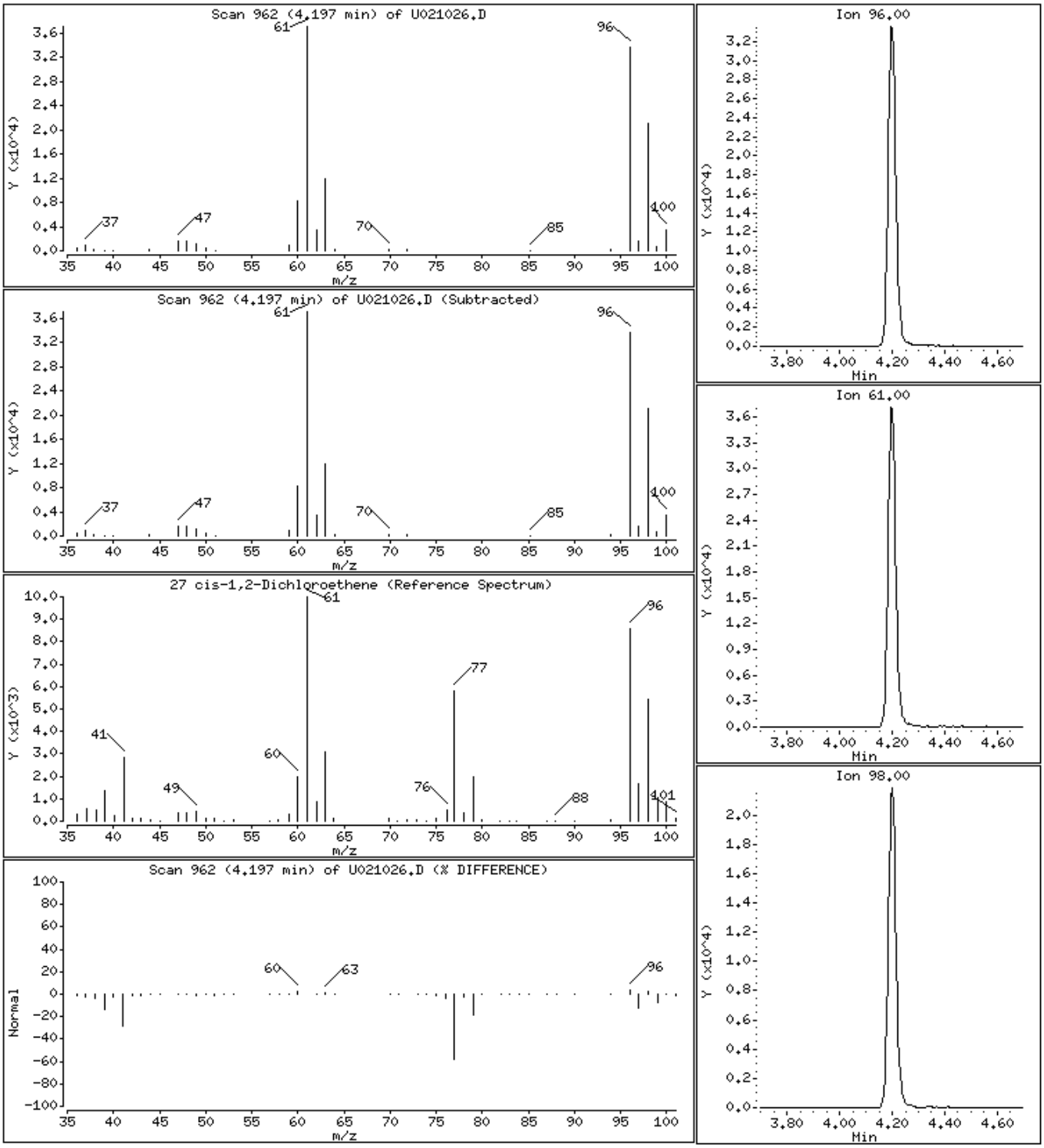
Client ID: Instrument: VOA9.i

Sample Info: HS24020246-06

Purge Volume: 5.0 Operator: FT

Column phase: DB624 Column diameter: 0.18

27 cis-1,2-Dichloroethene Concentration: 4681.82 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021026.D Page 4

Date : 10-FEB-2024 10:26

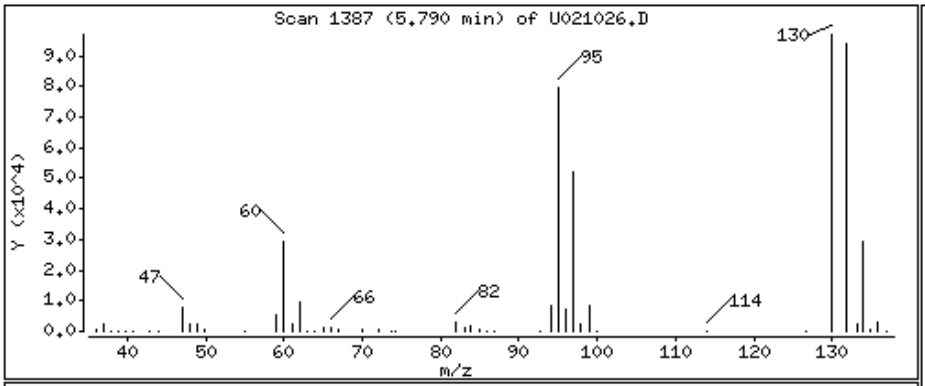
Client ID: Instrument: VOA9.i

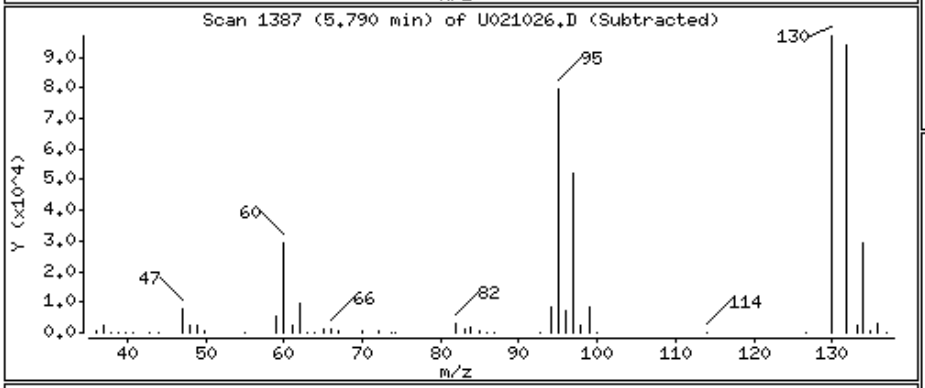
Sample Info: HS24020246-06

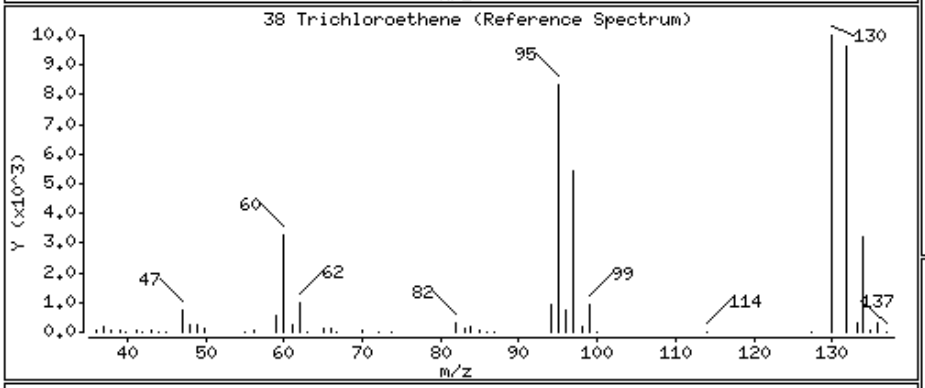
Purge Volume: 5.0 Operator: FT

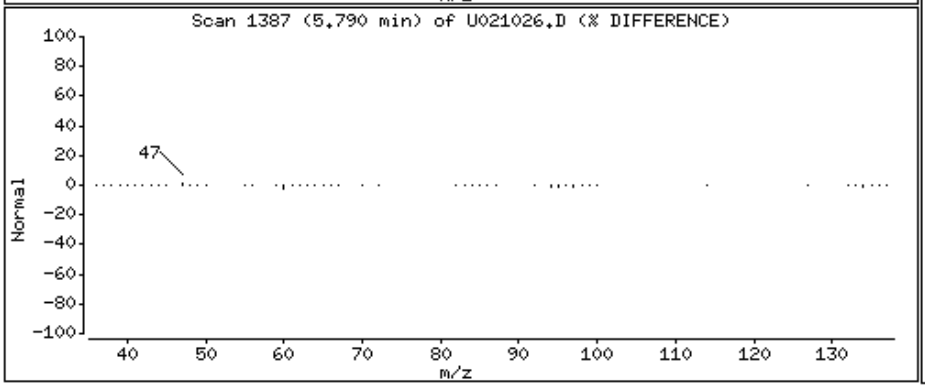
Column phase: DB624 Column diameter: 0.18

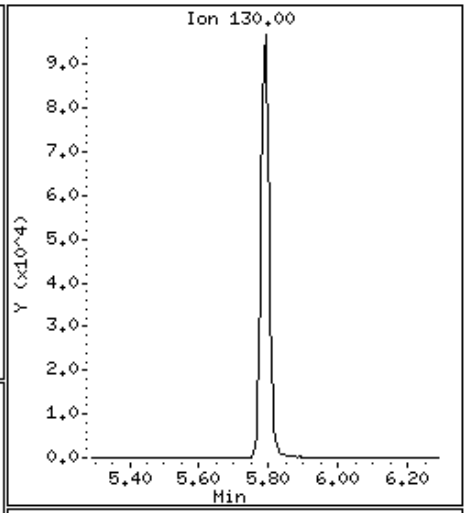
38 Trichloroethene Concentration: 12012.75 ug/l

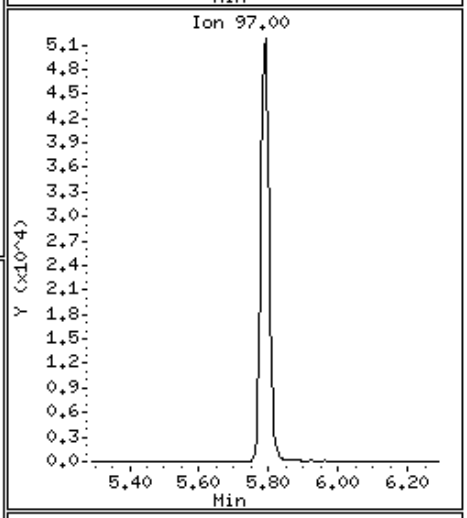


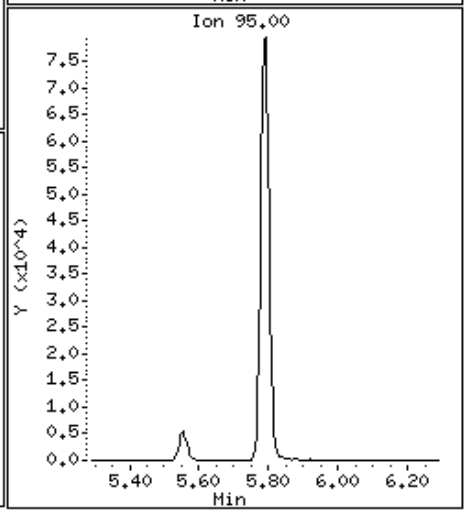












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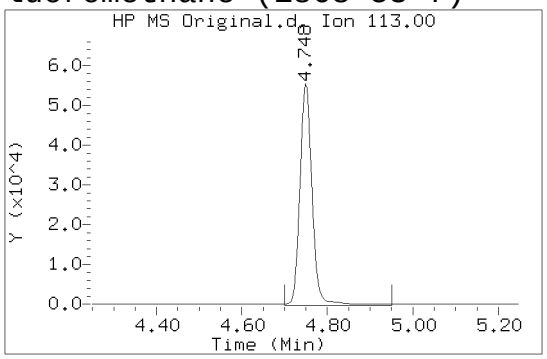
Inj Date : 10-FEB-2024 10:26
InstruID : VOA9.i
LabSampID : HS24020246-06

Dibromofluoromethane (1868-53-7)

Reason Code:

BEFORE

MASS
113
AREA
112921
HEIGHT
55647
22-Feb-2024
14:57
linh
pham



AFTER

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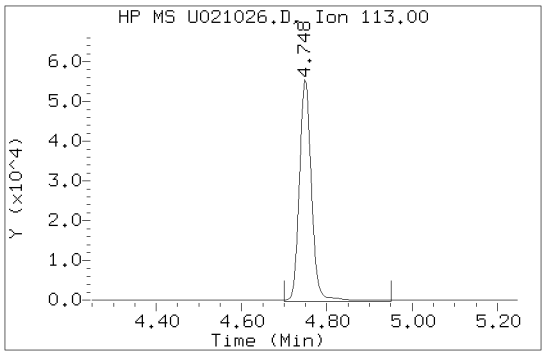

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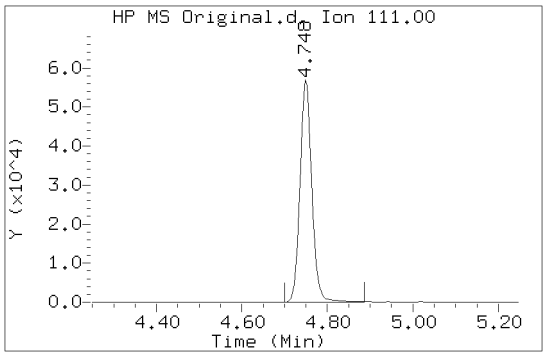

AFTER

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22-Feb-2024
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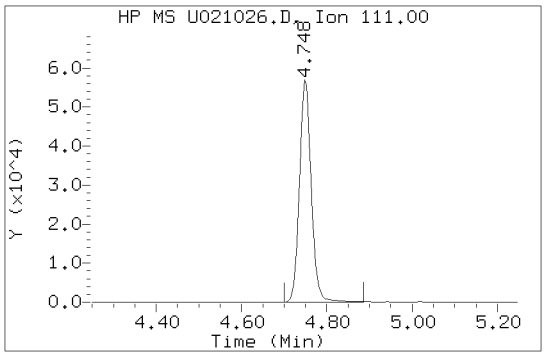

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

BEFORE

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AREA
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HEIGHT
59009
22-Feb-2024
14:57
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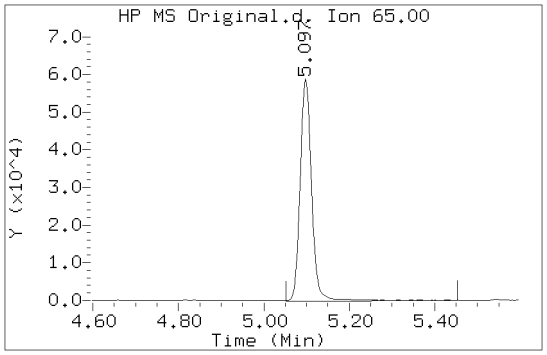

AFTER

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22-Feb-2024
14:57
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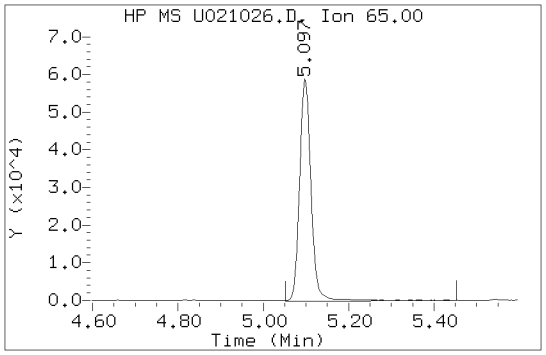
pham



BEFORE

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15523
22-Feb-2024
14:57
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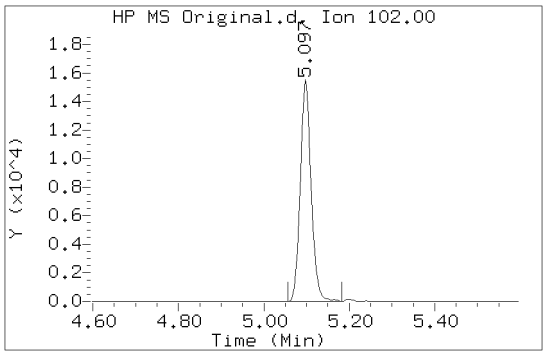

AFTER

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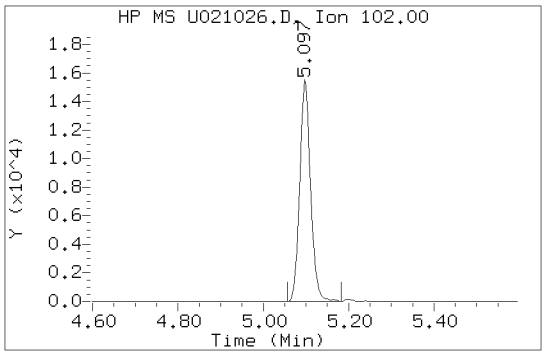

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021026.D
Inj Date : 10-FEB-2024 10:26
InstruID : VOA9.i
LabSampID : HS24020246-06

Toluene-d8 (2037-26-5)

Reason Code:

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22-Feb-2024
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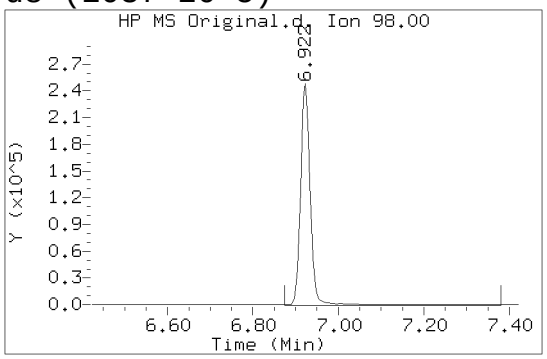

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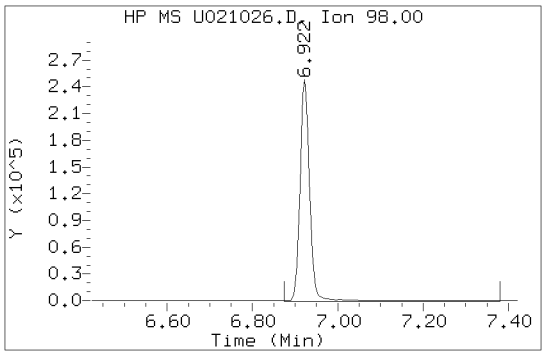

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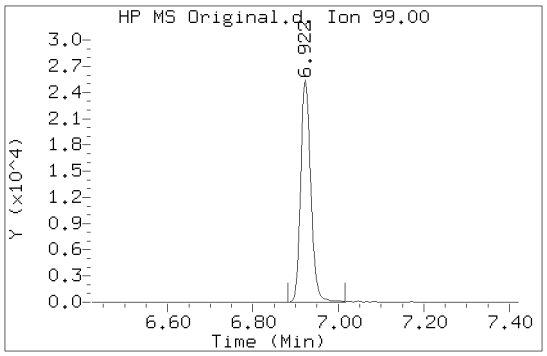

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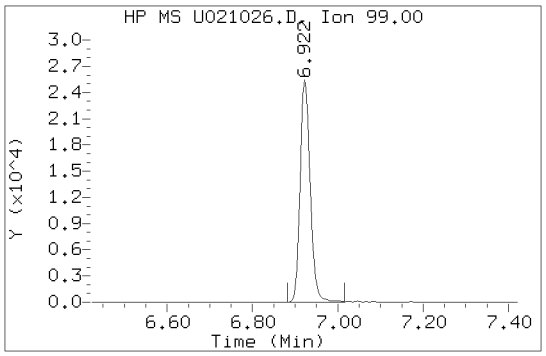

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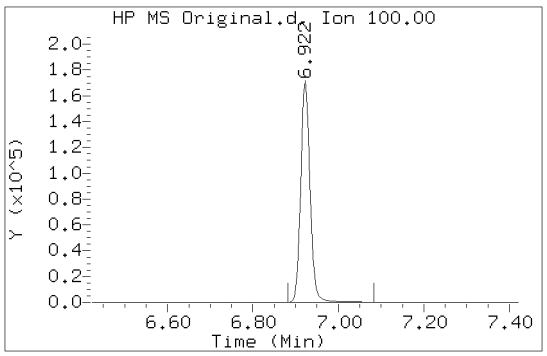

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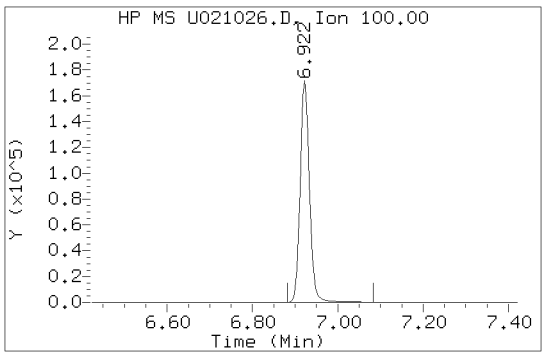


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021027.D Page 1
Report Date: 22-Feb-2024 14:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021027.D
Lab Smp Id: HS24020246-07
Inj Date : 10-FEB-2024 10:48
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020246-07
Misc Info : V9;WATER;0;10;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\8260C.m
Meth Date : 22-Feb-2024 14:57 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 66
Dil Factor: 10.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

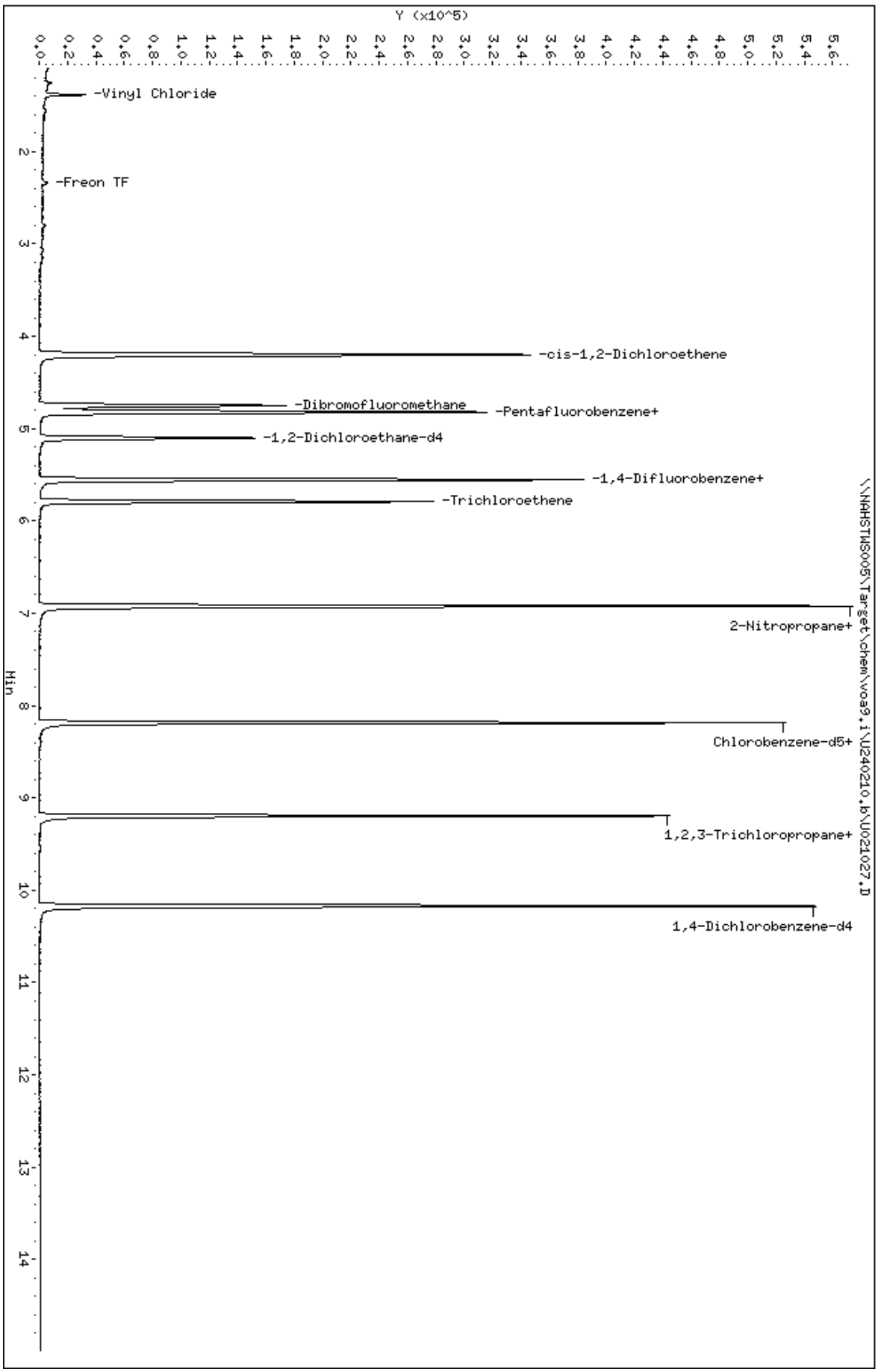
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	247570	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.986)	103149	40.2805	40.28
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	104666	40.7655	40.76(M)
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	327247	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	308666	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	381667	45.3671	45.36(M)
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	133640	42.9668	42.96(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	169746	50.0000	
5 Vinyl Chloride	62	1.385	1.378	(0.288)	19901	9.33230	93.32
27 cis-1,2-Dichloroethene	96	4.200	4.197	(0.872)	186823	68.4862	684.86
38 Trichloroethene	130	5.790	5.790	(1.043)	97651	37.9371	379.37

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9,i\U240210,b\U021027.D
Date : 10-FEB-2024 10:48
Client ID:
Sample Info: HS2402O246-07
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021027.D Page 2

Date : 10-FEB-2024 10:48

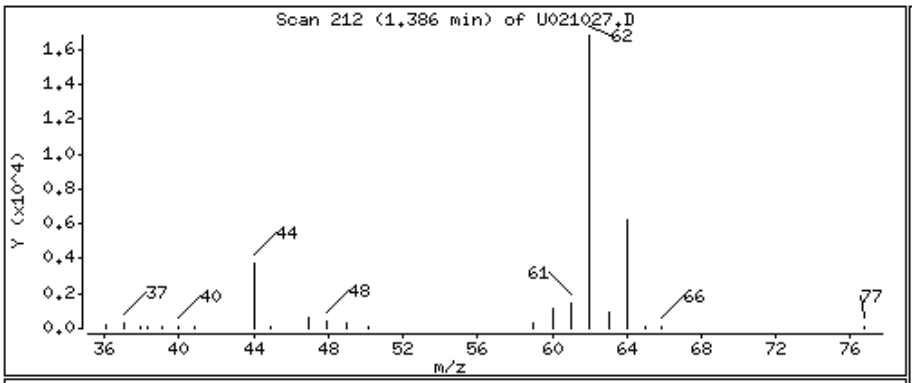
Client ID: Instrument: VOA9.i

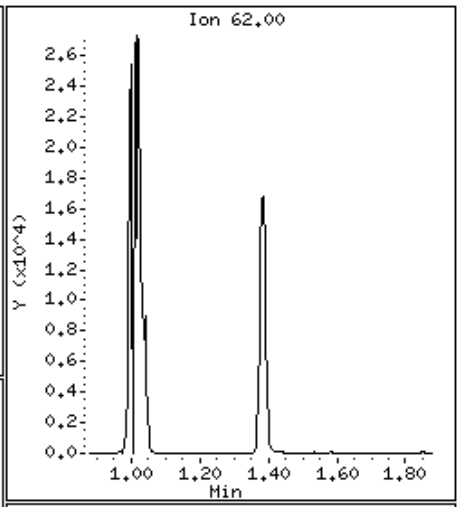
Sample Info: HS24020246-07

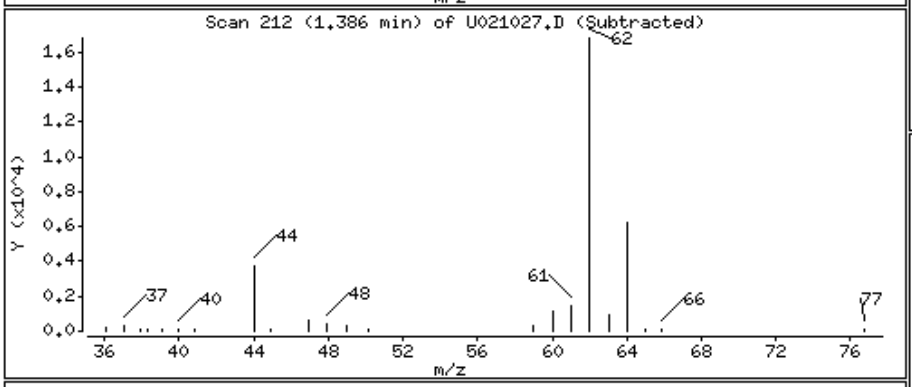
Purge Volume: 5.0 Operator: FT

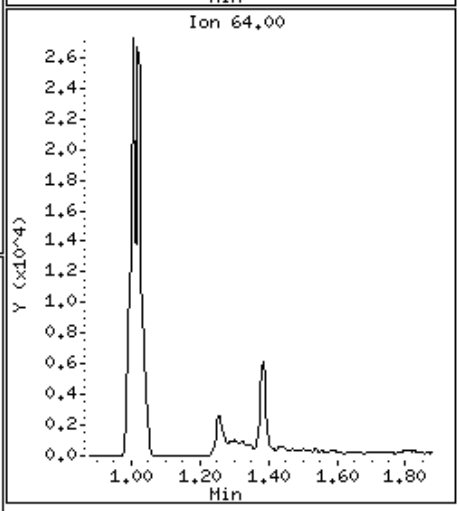
Column phase: DB624 Column diameter: 0.18

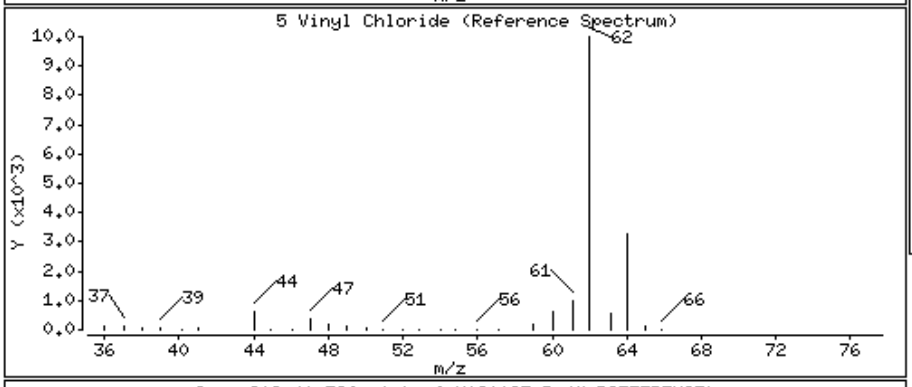
5 Vinyl Chloride Concentration: 93.32 ug/l

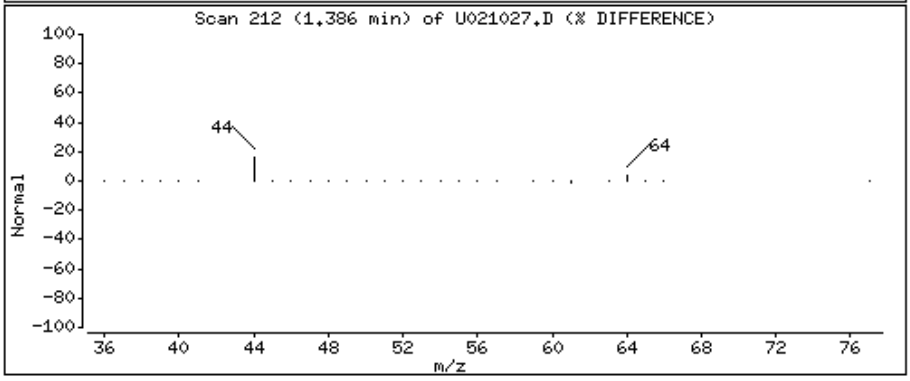












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021027.D Page 3

Date : 10-FEB-2024 10:48

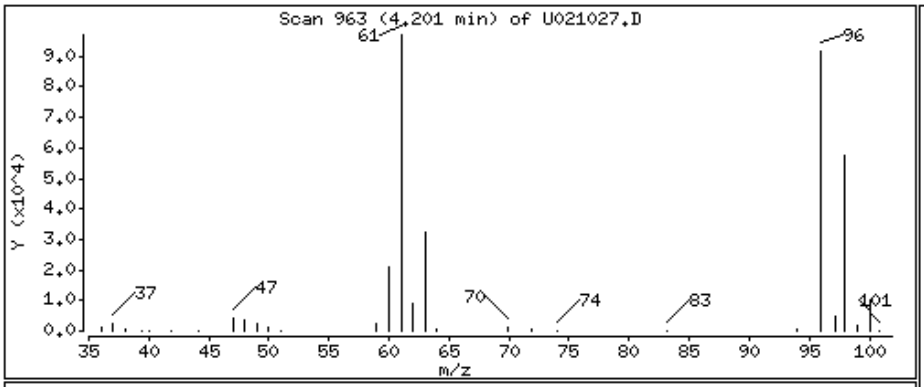
Client ID: Instrument: VOA9.i

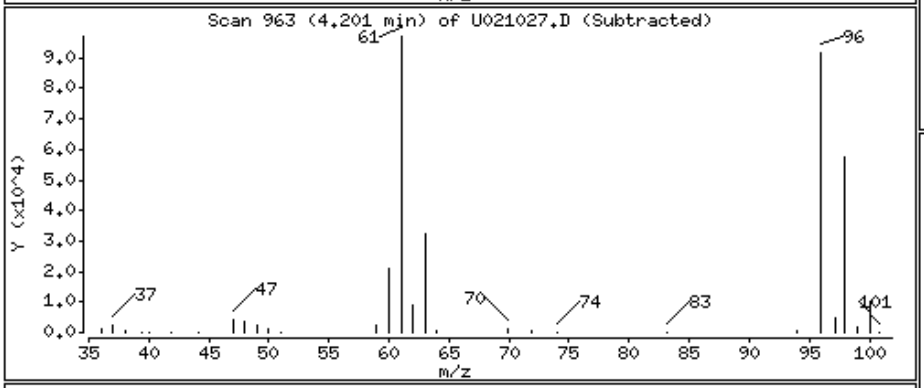
Sample Info: HS24020246-07

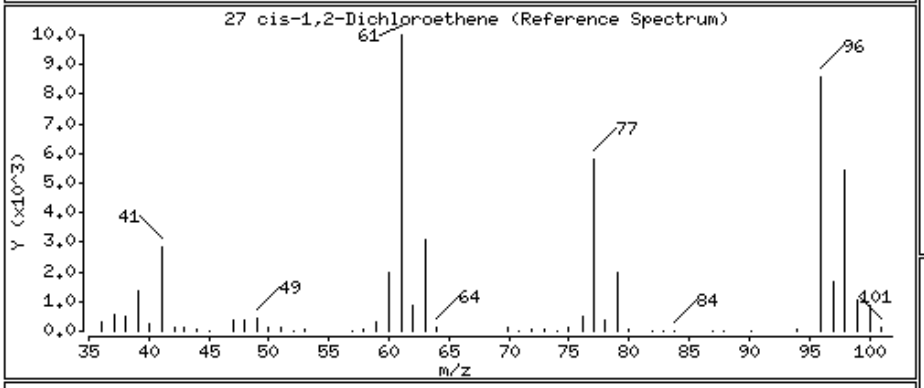
Purge Volume: 5.0 Operator: FT

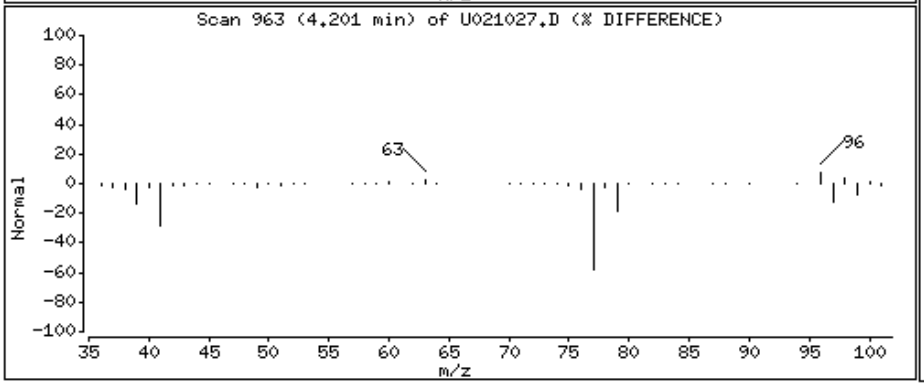
Column phase: DB624 Column diameter: 0.18

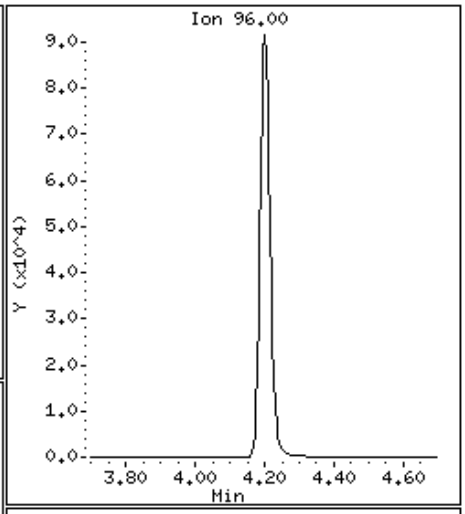
27 cis-1,2-Dichloroethene Concentration: 684.86 ug/l

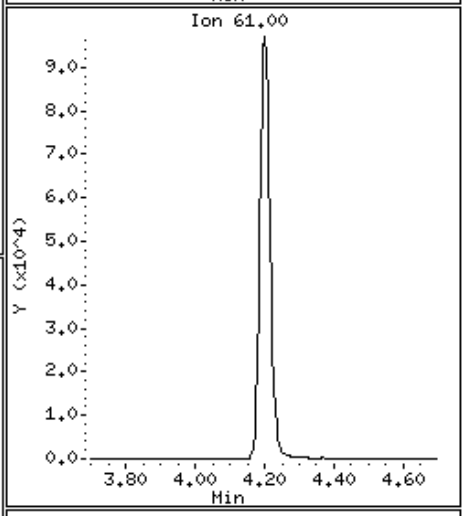


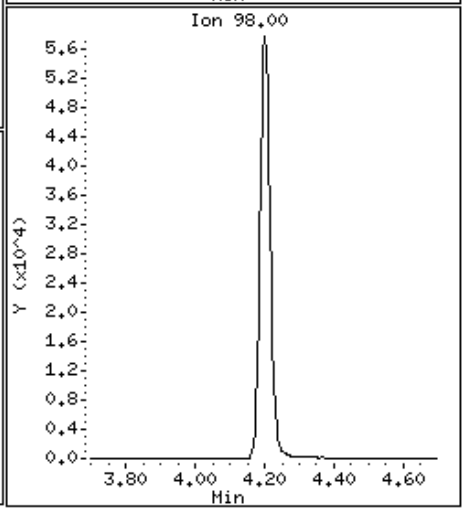












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021027.D Page 4

Date : 10-FEB-2024 10:48

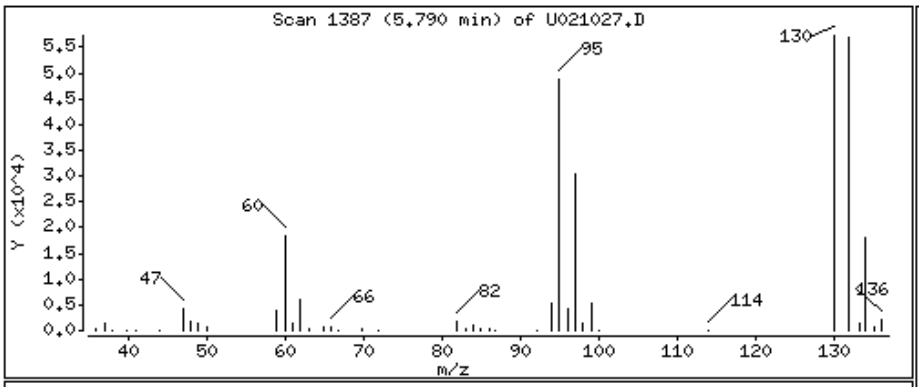
Client ID: Instrument: VOA9.i

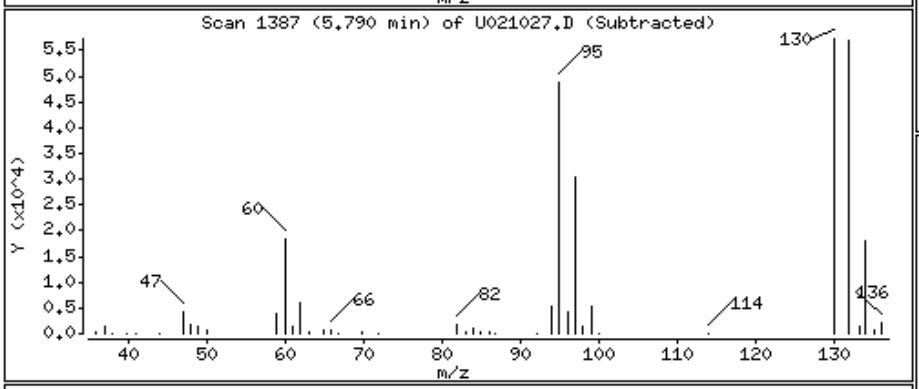
Sample Info: HS24020246-07

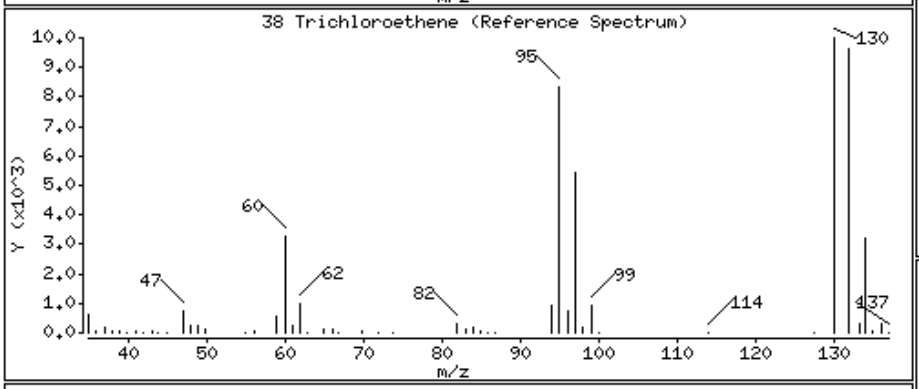
Purge Volume: 5.0 Operator: FT

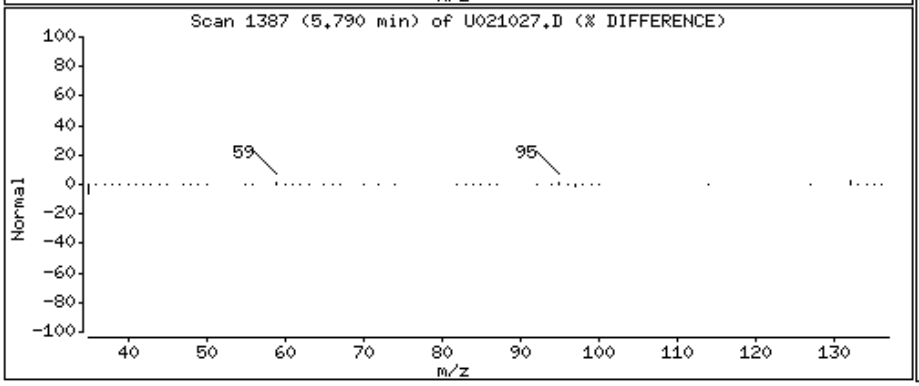
Column phase: DB624 Column diameter: 0.18

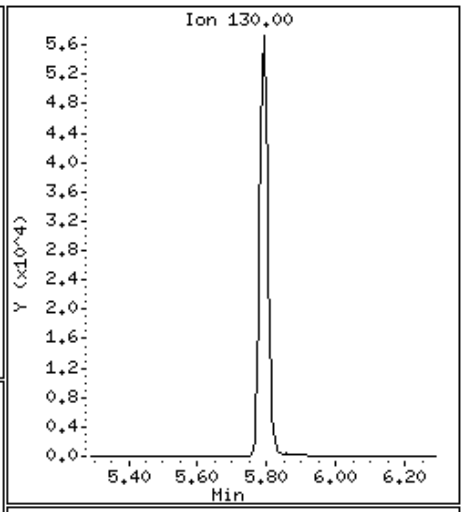
38 Trichloroethene Concentration: 379.37 ug/l

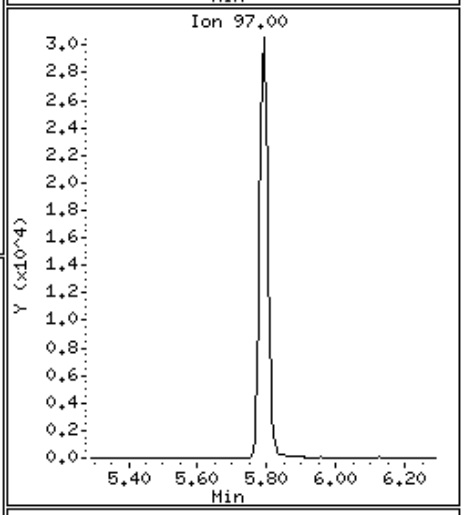


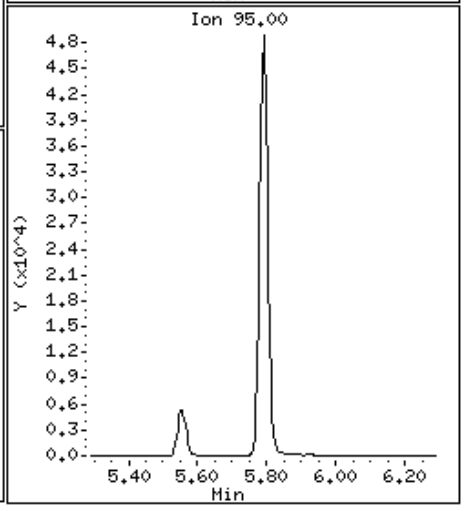












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Inj Date : 10-FEB-2024 10:48
InstruID : VOA9.i
LabSampID : HS24020246-07

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

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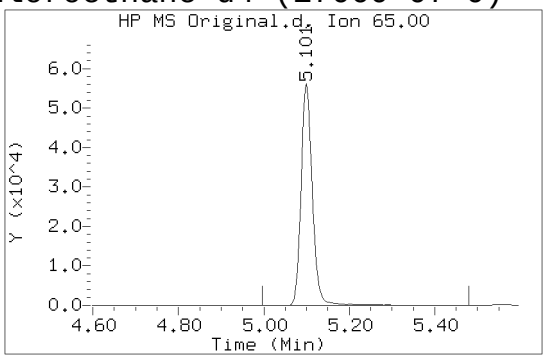

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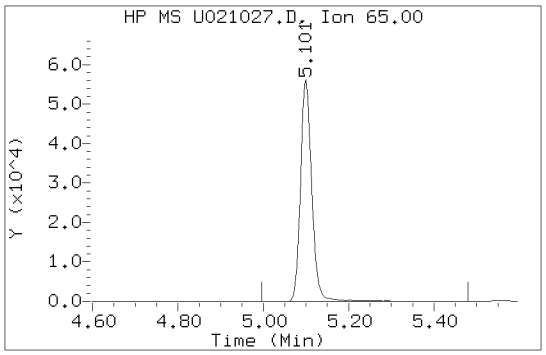

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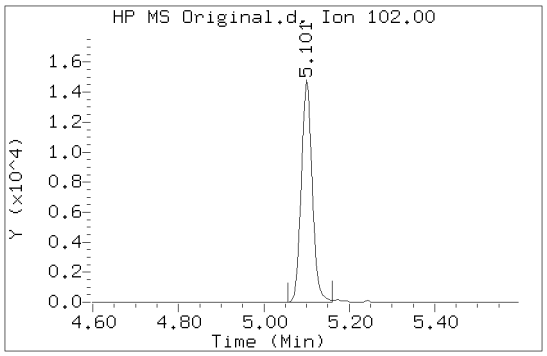

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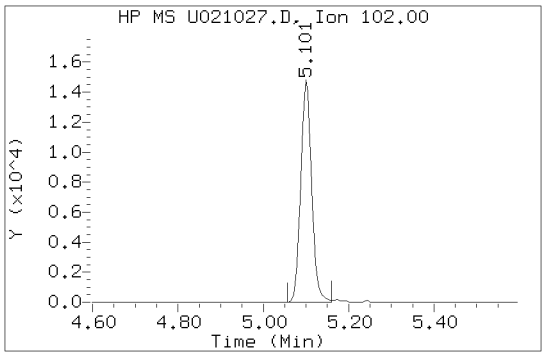

Toluene-d8 (2037-26-5)

Reason Code:

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22-Feb-2024
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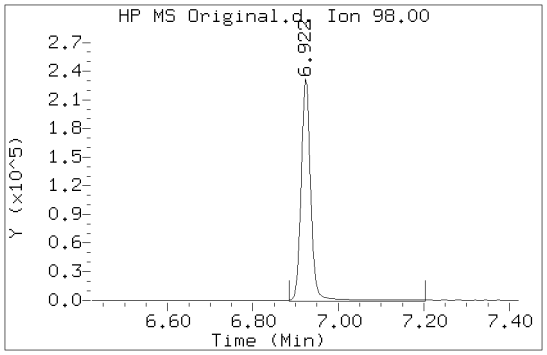

AFTER

MASS
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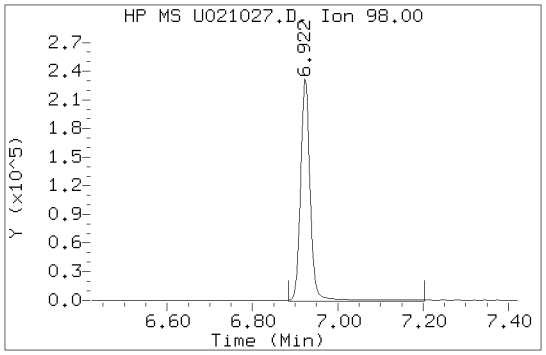

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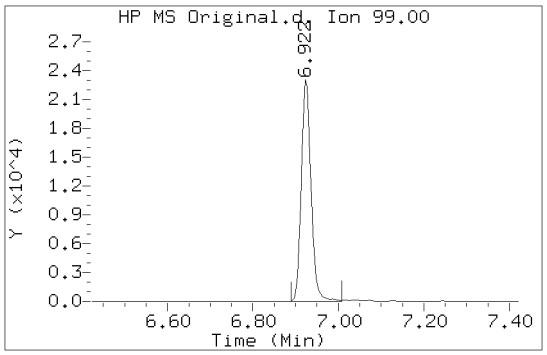

AFTER

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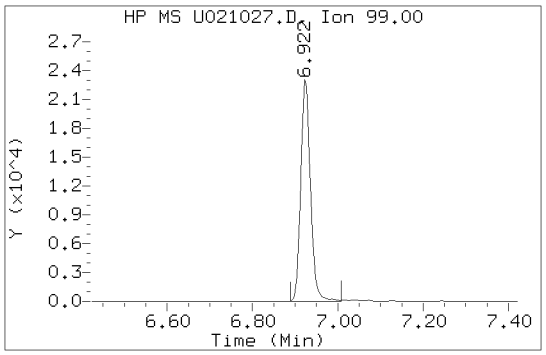

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021027.D
Inj Date : 10-FEB-2024 10:48
InstruID : VOA9.i
LabSampID : HS24020246-07

Toluene-d8 (2037-26-5)

Reason Code:

BEFORE

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AREA
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14:57
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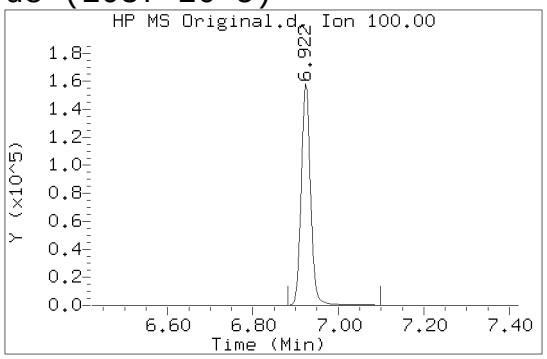

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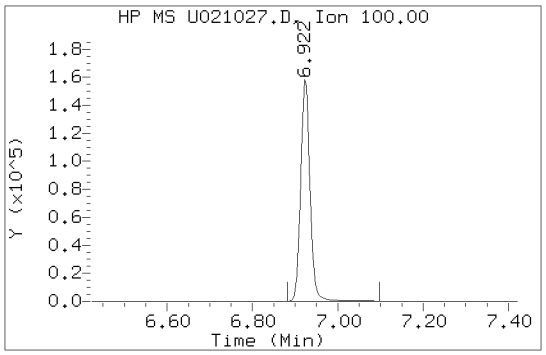

4-Bromofluorobenzene (460-00-4)

Reason Code:

BEFORE

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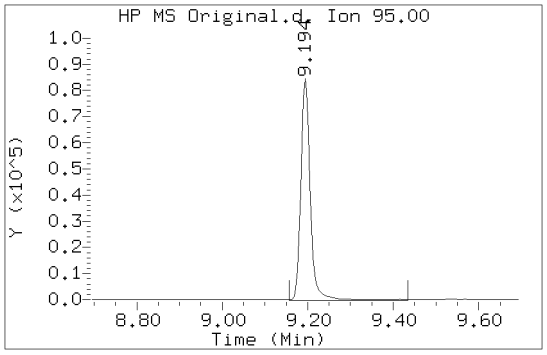

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22-Feb-2024
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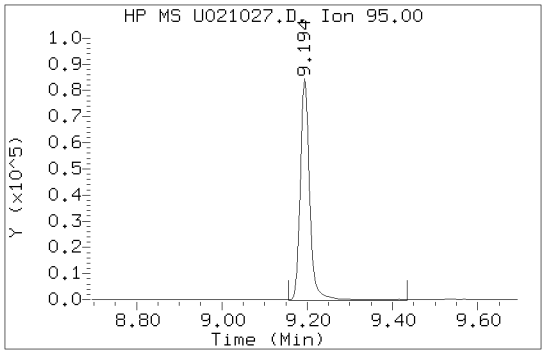

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22-Feb-2024
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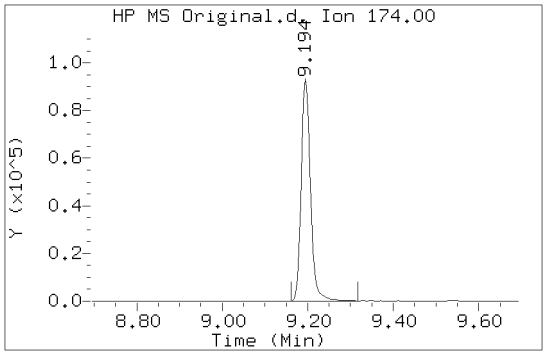

AFTER

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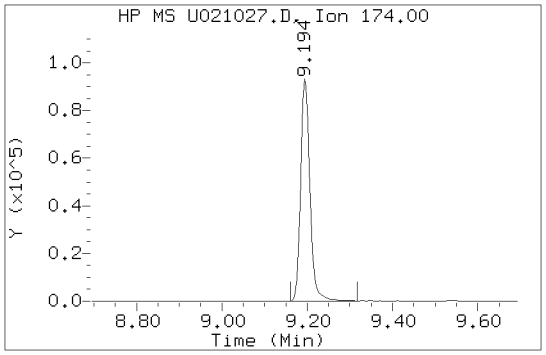
linh
pham



BEFORE

MASS
176
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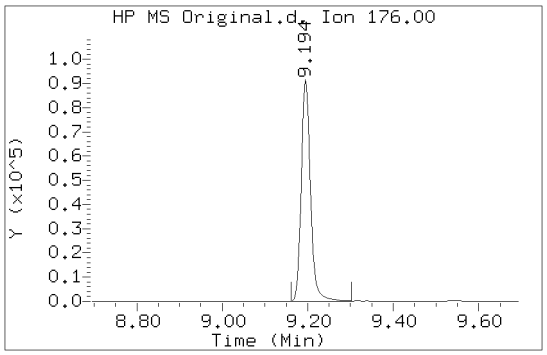
HEIGHT
91472
22-Feb-2024
14:57
linh
pham



AFTER

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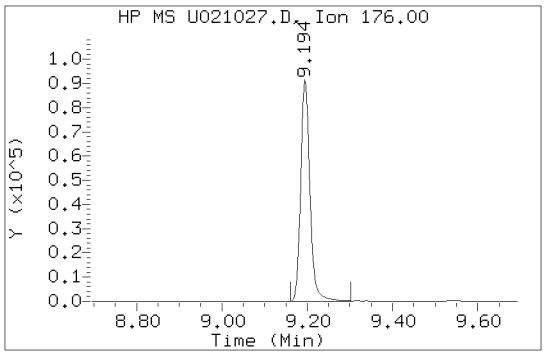
AREA
139846
HEIGHT
91472
22-Feb-2024
14:57
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021028.D Page 1
Report Date: 22-Feb-2024 14:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021028.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 10-FEB-2024 11:10
Operator : FT Inst ID: VOA9.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\8260C.m
Meth Date : 22-Feb-2024 14:58 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 67 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260.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)	211567	50.0000	
2 Dichlorodifluoromethane	85	1.171	1.171	(0.243)	63178	50.0000	45.55
3 Chloromethane	50	1.310	1.310	(0.272)	69195	50.0000	42.18
4 Propionitrile	54	4.339	4.339	(0.900)	97053	500.000	427.15
5 Vinyl Chloride	62	1.385	1.385	(0.288)	76445	50.0000	41.72
6 Bromomethane	94	1.629	1.629	(0.338)	51179	50.0000	41.30
7 Chloroethane	64	1.711	1.711	(0.355)	56674	50.0000	44.45
8 Trichlorofluoromethane	101	1.906	1.906	(0.396)	130812	50.0000	44.93
9 Acrolein	56	2.274	2.274	(0.472)	6507	100.000	82.79
10 Acetone	43	2.416	2.416	(0.501)	45273	100.000	83.30
11 1,1-Dichloroethene	96	2.341	2.341	(0.486)	75390	50.0000	43.81
12 Isobutyl Alcohol	43	5.284	5.284	(1.096)	172555	1000.00	831.06
13 Acetonitrile	39	2.678	2.678	(0.556)	68839	500.000	391.42
14 Allyl Chloride	41	2.678	2.678	(0.556)	140656	50.0000	40.73
15 Iodomethane	142	2.476	2.476	(0.514)	211740	100.000	82.94
16 Acrylonitrile	53	3.072	3.072	(0.638)	44785	100.000	81.77
17 Methylene Chloride	84	2.802	2.802	(0.582)	84044	50.0000	43.33
18 Methyl tert-butyl ether	73	3.087	3.087	(0.641)	199762	50.0000	42.31
19 Carbon Disulfide	76	2.529	2.529	(0.525)	390948	100.000	77.69
20 trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	82366	50.0000	41.91

21 Vinyl Acetate	43	3.616	3.616 (0.750)	259395	100.000	62.32
22 1,1-Dichloroethane	63	3.522	3.522 (0.731)	133889	50.0000	43.61

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021028.D Page 2
Report Date: 22-Feb-2024 14:58

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	24	2-Butanone	43	4.268	4.268	(0.886)	52206	100.000	81.42
	25	Methacrylonitrile	41	4.500	4.500	(0.934)	64372	50.0000	41.13(a)
	26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	65472	50.0000	26.02
	27	cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	97809	50.0000	41.95
	28	Chloroform	83	4.579	4.579	(0.950)	155688	50.0000	45.44
	29	Bromochloromethane	128	4.474	4.474	(0.928)	55291	50.0000	47.90
$	30	Dibromofluoromethane	113	4.751	4.751	(0.986)	107942	50.0000	49.42
	31	1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	135524	50.0000	44.43
	32	1,1-Dichloropropene	75	4.928	4.928	(0.887)	107341	50.0000	43.74
	33	1,2-Dichloroethane	62	5.179	5.179	(0.932)	113313	50.0000	46.70
	34	Carbon Tetrachloride	117	4.916	4.916	(0.885)	119646	50.0000	44.11
$	35	1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	110662	50.0000	50.61
*	36	1,4-Difluorobenzene	114	5.557	5.557	(1.000)	298009	50.0000	
	37	Benzene	78	5.141	5.141	(0.925)	329868	50.0000	45.13
	38	Trichloroethene	130	5.794	5.794	(1.042)	112822	50.0000	48.08
	39	Bromodichloromethane	83	6.281	6.281	(1.130)	112827	50.0000	44.63
	40	Methyl Methacrylate	41	6.157	6.157	(1.278)	55932	50.0000	43.85
	42	1,2-Dichloropropane	63	6.011	6.011	(1.082)	79709	50.0000	45.23
	43	2-Nitropropane	43	6.855	6.855	(1.422)	132427	50.0000	42.44
	44	Dibromomethane	93	6.120	6.120	(1.101)	57130	50.0000	45.03
	45	4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	132427	100.000	82.72
	46	cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	113652	50.0000	42.98
*	47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	286618	50.0000	
$	48	Toluene-d8	98	6.922	6.922	(0.846)	386196	50.0000	49.44
	49	Ethyl Methacrylate	69	7.289	7.289	(1.312)	110053	50.0000	48.46
	50	Toluene	91	6.982	6.982	(0.853)	374891	50.0000	42.27
	51	trans-1,3-Dichloropropene	75	7.196	7.196	(1.295)	95592	50.0000	39.33
	52	2-Hexanone	43	7.589	7.589	(0.927)	89933	100.000	81.24
	53	1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	67944	50.0000	45.76
	54	1,3-Dichloropropane	76	7.499	7.499	(0.916)	140970	50.0000	45.04
	55	Dibromochloromethane	129	7.690	7.690	(0.940)	106931	50.0000	47.27
	56	Tetrachloroethene	164	7.458	7.458	(0.911)	90521	50.0000	44.67
	57	1,2-Dibromoethane	107	7.784	7.784	(0.951)	89481	50.0000	45.08
	58	1-Chlorohexane	55	8.197	8.197	(1.475)	61155	50.0000	40.50
	59	Chlorobenzene	112	8.208	8.208	(1.003)	262727	50.0000	44.60
	60	1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	99009	50.0000	43.37
	61	Ethylbenzene	106	8.305	8.305	(1.015)	130533	50.0000	43.29
	62	m,p-Xylenes	106	8.406	8.406	(1.027)	327865	100.000	88.48
	63	o-Xylene	106	8.748	8.748	(1.069)	162355	50.0000	44.74
	64	Styrene	104	8.763	8.763	(1.071)	282294	50.0000	47.52
	66	Bromoform	173	8.920	8.920	(1.090)	75241	50.0000	45.99
	67	Isopropylbenzene	105	9.062	9.062	(1.107)	410067	50.0000	44.19
	68	1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	102913	50.0000	41.27
$	69	4-Bromofluorobenzene	95	9.194	9.194	(1.123)	143485	50.0000	49.72
*	70	1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	164696	50.0000	
	71	1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	97180	50.0000	36.72
	72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	16141	50.0000	35.60
	73	n-Propylbenzene	91	9.411	9.411	(0.925)	422204	50.0000	41.48
	74	Bromobenzene	156	9.317	9.317	(0.916)	130696	50.0000	44.16
	75	1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	332996	50.0000	43.67
	76	2-Chlorotoluene	91	9.482	9.482	(0.932)	271984	50.0000	40.23
	77	4-Chlorotoluene	91	9.576	9.576	(0.941)	307703	50.0000	40.10

78	tert-Butylbenzene	119	9.835	9.835 (0.967)	297243	50.0000	42.59
79	1,2,4-Trimethylbenzene	105	9.880	9.880 (0.971)	327416	50.0000	43.53

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021028.D Page 3
Report Date: 22-Feb-2024 14:58

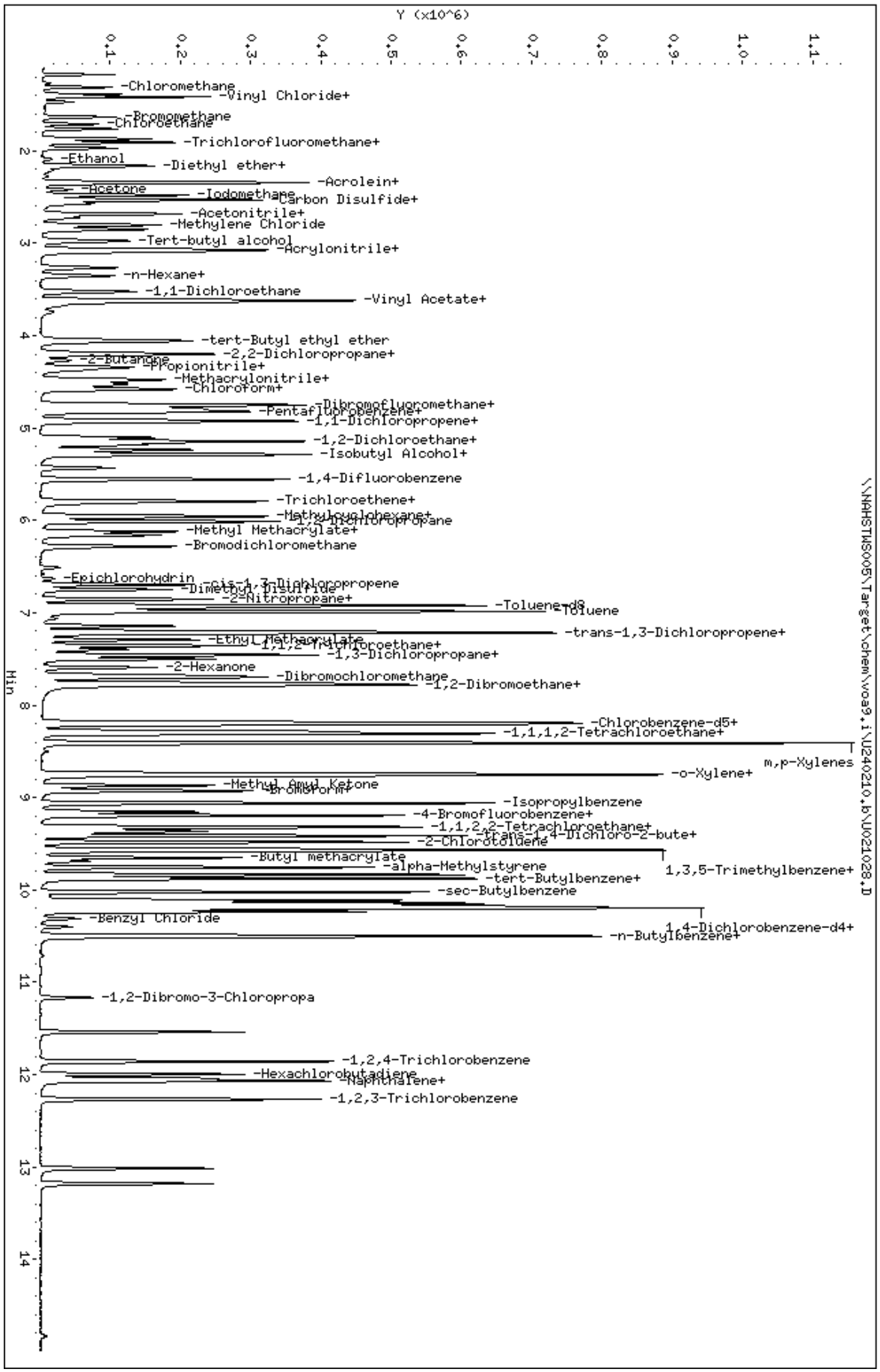
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
81	sec-Butylbenzene	105	10.022	10.022	(0.985)	367542	50.0000	41.33	
82	p-Isopropyltoluene	119	10.146	10.146	(0.997)	346482	50.0000	43.43	
83	1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	219164	50.0000	42.79	
84	1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	231317	50.0000	43.80	
86	Benzyl Chloride	91	10.311	10.311	(1.260)	38069	50.0000	18.14	
87	n-Butylbenzene	91	10.491	10.491	(1.031)	252066	50.0000	40.22	
88	1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	218079	50.0000	43.65	
89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165	(1.098)	18462	50.0000	40.61	
90	1,2,4-Trichlorobenzene	180	11.855	11.855	(1.165)	141134	50.0000	43.29	
91	Hexachlorobutadiene	225	11.998	11.998	(1.179)	60850	50.0000	40.93	
92	Naphthalene	128	12.065	12.065	(1.186)	311414	50.0000	41.69	
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	134062	50.0000	43.11	
146	Methyl acetate	43	2.720	2.720	(0.564)	52077	50.0000	41.11	
138	Freon TF	101	2.345	2.345	(0.487)	73873	50.0000	42.34	
141	Cyclohexane	56	4.789	4.789	(0.994)	96906	50.0000	41.09	
142	Tetrahydrofuran	42	4.542	4.542	(0.942)	22221	100.000	85.90	
147	Methylcyclohexane	55	5.947	5.947	(1.070)	164051	50.0000	45.44	
135	1,4-Dioxane	88	6.165	6.165	(1.279)	21508	1000.00	928.45	
132	n-Butanol	56	5.816	5.816	(1.207)	40799	1000.00	840.04	
136	n-Hexane	57	3.353	3.353	(0.696)	53287	50.0000	30.79	
139	Diethyl ether	59	2.154	2.154	(0.447)	50609	50.0000	42.46	
148	Tert-butyl alcohol	59	2.975	2.975	(0.617)	149447	1000.00	862.03	
149	Isopropyl alcohol	45	2.570	2.570	(0.533)	83056	1000.00	860.58	
152	Amyl alcohol	42	7.394	7.394	(0.903)	40566	1000.00	810.86	
156	Diisopropyl ether	45	3.627	3.627	(0.753)	207024	50.0000	41.95	
162	Butyl acrylate	55	8.733	8.733	(1.067)	116945	50.0000	41.51	
187	n-Amyl acetate	43	8.931	8.931	(1.091)	96737	50.0000	41.28	
164	Dicyclopentadiene	66	10.198	10.198	(1.003)	363028	50.0000	41.23	
166	1,2,3-Trimethylbenzene	105	10.232	10.232	(1.006)	251142	50.0000	44.78	
167	Ethanol	45	2.090	2.090	(0.434)	14589	1000.00	832.15	
172	tert-Butyl formate	59	5.235	5.235	(1.086)	99631	100.000	80.76	
173	3,3-Dimethyl-1-butanol	57	7.777	7.777	(0.950)	166326	1000.00	817.85	
174	tert-Amyl methyl ether	73	5.288	5.288	(1.097)	217747	50.0000	42.94	
175	tert-Butyl ethyl ether	59	4.054	4.054	(0.841)	210804	50.0000	44.08	
176	tert-Amyl alcohol	59	5.235	5.235	(1.086)	99631	1000.00	808.60	
151	4-Methyl-2-pentanol	45	7.214	7.214	(1.298)	350591	1000.00	818.60	
140	1,3-Butadiene	54	1.411	1.411	(0.293)	68109	50.0000	41.93	
158	Dichlorofluoromethane	67	1.869	1.869	(0.388)	123134	50.0000	39.58	
182	Epichlorohydrin	57	6.630	6.630	(1.193)	13596	200.000	141.97	
M 94	1,2-Dichloroethylene (total)	96				180175	100.000	(a)	
145	alpha-Methylstyrene	118	9.752	9.752	(0.959)	141657	50.0000	40.61	
130	Ethyl Acetate	43	4.343	4.343	(0.901)	61921	50.0000	41.33	
131	Methyl Acrylate	55	4.373	4.373	(0.907)	77121	50.0000	43.86	
189	n-Butyl acetate	43	7.762	7.762	(0.948)	72294	50.0000	43.65	
134	Cyclohexanone	55	9.152	9.152	(0.900)	82958	1000.00	806.54	
185	Isoprene	39	2.169	2.169	(0.450)	17567	50.0000	38.21	
188	Isopropyl acetate	43	5.284	5.284	(0.951)	172730	50.0000	41.99	
150	Allyl alcohol	57	3.353	3.353	(0.696)	53287	1000.00	615.88	
194	Acetaldehyde	44	1.471	1.471	(0.305)	34946	200.000	185.09	
195	Methyl Amyl Ketone	43	8.868	8.868	(1.083)	127842	50.0000	43.36	
200	Dimethyl Disulfide	94	6.746	6.746	(0.824)	100273	50.0000	40.23	
203	2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	78460	50.0000	35.60	

133 Ethyl Acrylate	55	5.947	5.947 (1.234)	164051	50.0000	44.71
163 Butyl methacrylate	41	9.647	9.647 (0.948)	63942	50.0000	36.89

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
159 Propylene oxide	43	2.210	2.210	(0.459)	6863	100.000	88.00

QC Flag Legend

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



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Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240210.b\U021028.D
Inj Date : 10-FEB-2024 11:10
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

HS24020246-GCSEMI-RSK-175

ALS WO# HS24020246

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

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.	Workorder	
Project	LHAAP Site 16	**HS24020246**	

Dissolved Gasses by Dissolved Gases by RSK-175

16WW55-240205	Collected	Received	Matrix	Basis
HS24020246-01	02/05/24 07:25	02/06/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00341		0.00014	0.00100	0.00100	1	02/13/24 16:32	FID-4_458696	015.D
Ethene	mg/L	0.0193		0.00023	0.00100	0.00100	1	02/13/24 16:32	FID-4_458696	015.D
Methane	mg/L	0.937		0.00535	0.0250	0.0250	50	02/13/24 17:26	FID-4_458696	019.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020246	

Dissolved Gasses by Dissolved Gases by RSK-175

16WW41-240205	Collected	Received	Matrix	Basis
HS24020246-02	02/05/24 08:15	02/06/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00355		0.00014	0.00100	0.00100	1	02/13/24 16:41	FID-4_458696	016.D
Ethene	mg/L	0.0297		0.00023	0.00100	0.00100	1	02/13/24 16:41	FID-4_458696	016.D
Methane	mg/L	0.0149		0.00010	0.000500	0.000500	1	02/13/24 16:41	FID-4_458696	016.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020246	

Dissolved Gasses by Dissolved Gases by RSK-175

16WW41-240205	Collected	Received	Matrix	Basis
HS24020246-02DUP	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00350		0.00033	0.00100	0.00100	1	02/13/24 17:41	FID-4_458696	020.D
Ethene	mg/L	0.0299		0.00035	0.00100	0.00100	1	02/13/24 17:41	FID-4_458696	020.D
Methane	mg/L	0.0155		0.00019	0.000500	0.000500	1	02/13/24 17:41	FID-4_458696	020.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020246	

Dissolved Gasses by Dissolved Gases by RSK-175

16WW48-240205	Collected	Received	Matrix	Basis
HS24020246-03	02/05/24 09:05	02/06/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.00014	0.00100	0.00100	1	02/13/24 16:51	FID-4_458696	017.D
Ethene	mg/L	0.0618		0.00023	0.00100	0.00100	1	02/13/24 16:51	FID-4_458696	017.D
Methane	mg/L	0.0426		0.00021	0.00100	0.00100	2	02/13/24 17:52	FID-4_458696	021.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020246

Dissolved Gasses by Dissolved Gases by RSK-175

16EW03-240205	Collected	Received	Matrix	Basis
HS24020246-04	02/05/24 09:50	02/06/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.00014	0.00100	0.00100	1	02/13/24 17:04	FID-4_458696	018.D
Ethene	mg/L	0.301		0.0234	0.100	0.100	100	02/13/24 18:21	FID-4_458696	023.D
Methane	mg/L	1.57		0.0107	0.0500	0.0500	100	02/13/24 18:21	FID-4_458696	023.D

right solutions.
right partner.

Form 3B

Laboratory Control Sample Recovery

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

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 Site 16

Workorder HS24020246

Dissolved Gasses by Dissolved Gases by RSK-175

SAMPLENUM LCS-240213

FID-4_458696			LCS-240213			LCSD-240213					
Spike Matrix Aqueous	Result Units mg/L		Run Date 02/13/24 Run Time 16:10			Run Date 02/13/24 Run Time 16:23					
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
Ethane	75-125	0.01804	0.0170	94		0.0159	88		30	6.36	
Ethene	75-125	0.0168	0.0138	82		0.0148	88		30	7.43	
Methane	75-125	0.009647	0.00791	82		0.00805	83		30	1.79	

right solutions.
right partner.

Form 4

Method Blank Summary

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

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 Site 16
Workorder: HS24020246

Dissolved Gasses by Dissolved Gases by RSK-175

METHOD BLANK	Matrix	Analysis Date	Analysis Batch	Inst ID
MBLK-240213	Aqueous	02/13/24 15:52	R458696	FID4

Client Sample ID	Lab Sample ID	Type	Analysis Date	Analysis Batch	Inst ID	FileID
LCS-240213	LCS-240213	LCS	02/13/24 16:10	R458696	FID4	013.D
LCSD-240213	LCSD-240213	LCSD	02/13/24 16:23	R458696	FID4	014.D
16WW55-240205	HS24020246-01	SAMP	02/13/24 16:32	R458696	FID4	015.D
16WW41-240205	HS24020246-02	SAMP	02/13/24 16:41	R458696	FID4	016.D
16WW48-240205	HS24020246-03	SAMP	02/13/24 16:51	R458696	FID4	017.D
16EW03-240205	HS24020246-04	SAMP	02/13/24 17:04	R458696	FID4	018.D
16WW55-240205	HS24020246-01	SAMP	02/13/24 17:26	R458696	FID4	019.D
16WW41-240205	HS24020246-02DUP	DUP	02/13/24 17:41	R458696	FID4	020.D
16WW48-240205	HS24020246-03	SAMP	02/13/24 17:52	R458696	FID4	021.D
16EW03-240205	HS24020246-04	SAMP	02/13/24 18:21	R458696	FID4	023.D

right solutions.
right partner.

Form 6

Initial Calibration Data

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

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

Report Date : 27-Dec-2023 11:57 Page 1

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2017 09:06
End Cal Date : 24-JAN-2017 11:13
Quant Method : ESTD
Origin : Included
Target Version : 4.14
Integrator : Falcon
Method file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Last Edit : 04-Oct-2023 12:23 donna.broussard1

Calibration File Names:
Level 1: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
Level 2: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D
Level 3: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Level 4: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Level 5: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
Level 6: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D
Level 7: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D

Compound	10.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	250.0000 Level 5	500.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	1000.0000 Level 7										
1 Methane	969	978	1020	881	961	931					
	1082						AVRG		974		6.55041
2 Ethene	536	567	565	516	665	426					
	829						AVRG		586		21.93197
3 Ethane	602	670	659	597	809	818					
	999						AVRG		736		19.88517
4 Propane	500	1279	2602	4785	18294	38286					
	96509						QUAD	0.97987	0.00153	-4.583e-00	0.99914

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2017 09:06
End Cal Date : 24-JAN-2017 11:13
Quant Method : ESTD
Origin : Included
Target Version : 4.14
Integrator : Falcon
Method file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Last Edit : 04-Oct-2023 12:23 donna.broussard1

Compound	10.0000 Level 1 / 1000.0000 Level 7	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	250.0000 Level 5	500.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
5 N-Butane	438 / 114164	936	2034	3864	18446	42817	QUAD	2.46870	0.00183	-5.537e-00	0.99808	
6 Pentane	115 / 488	3945	2080	950	501	412	AVRG		1213		112	<-
7 Hexane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2017 09:06
End Cal Date : 24-JAN-2017 11:13
Quant Method : ESTD
Origin : Included
Target Version : 4.14
Integrator : Falcon
Method file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Last Edit : 04-Oct-2023 12:23 donna.broussard1

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

right solutions.
right partner.

Form 6I

Initial Calibration Verification (ICV)

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

ALS Environmental–Houston Laboratory
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www.alsglobal.com

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020246

RunID 008.D

Dissolved Gasses by Dissolved Gases by RSK-175

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type GC DATA
File ID 008.D

Fraction GASES
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 24-JAN-2017 1205

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
Methane	9.65	9.60	99.5	75-125	
Ethene	16.8	19.1	114	75-125	
Ethane	18.0	19.7	109	75-125	
Propane	26.5	27.2	103	75-125	
N-Butane	35.0	36.0	103	75-125	

right solutions.
right partner.

Form 7

Continuing Calibration Verification (CCV)

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

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Phone (281) 530-5656 Fax (281) 530-5887
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Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020246

RunID 011.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 011.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 13-FEB-2024 1516
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	822	822	0.010	15.7	20.0	Averaged	
Ethene	586	489	489	0.010	16.6	20.0	Averaged	
Ethane	719	734	734	0.010	-2.020	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020246

RunID 022.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 022.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 13-FEB-2024 1809
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	883	883	0.010	9.48	20.0	Averaged	
Ethene	586	476	476	0.010	18.7	20.0	Averaged	
Ethane	719	665	665	0.010	7.64	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020246

RunID 024.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 024.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 13-FEB-2024 1853
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	874	874	0.010	10.4	20.0	Averaged	
Ethene	586	477	477	0.010	18.6	20.0	Averaged	
Ethane	719	668	668	0.010	7.14	20.0	Averaged	

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Analysis Run Log

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

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 Site 16

Workorder **HS24020246**

Dissolved Gasses by Dissolved Gases by RSK-175

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 Site 16

Workorder **HS24020246**

Dissolved Gasses by Dissolved Gases by RSK-175

RUNID FID-4-458696

Run ID FID-4_458696 **Start Date** 02/13/24 **EndDate** 02/13/24

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
15:16	RSK-CCV	CCV	RSK-CCV	011.D	02/13/24	1
15:52	MBLK-240213	MBLK	MBLK-240213	012.D	02/13/24	1
16:10	LCS-240213	LCS	LCS-240213	013.D	02/13/24	1
16:23	LCSD-240213	LCSD	LCSD-240213	014.D	02/13/24	1
16:32	HS24020246-01	SAMP	16WW55-240205	015.D	02/13/24	1
16:41	HS24020246-02	SAMP	16WW41-240205	016.D	02/13/24	1
16:51	HS24020246-03	SAMP	16WW48-240205	017.D	02/13/24	1
17:04	HS24020246-04	SAMP	16EW03-240205	018.D	02/13/24	1
17:26	HS24020246-01	SAMP	16WW55-240205	019.D	02/13/24	50
17:41	HS24020246-02DUP	DUP	HS24020246-02DUP	020.D	02/13/24	1
17:52	HS24020246-03	SAMP	16WW48-240205	021.D	02/13/24	2
18:09	RSK-CCV	CCV	RSK-CCV	022.D	02/13/24	1
18:21	HS24020246-04	SAMP	16EW03-240205	023.D	02/13/24	100
18:53	RSK-CCV	CCV	RSK-CCV	024.D	02/13/24	1

right solutions.
right partner.

RawData

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

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\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

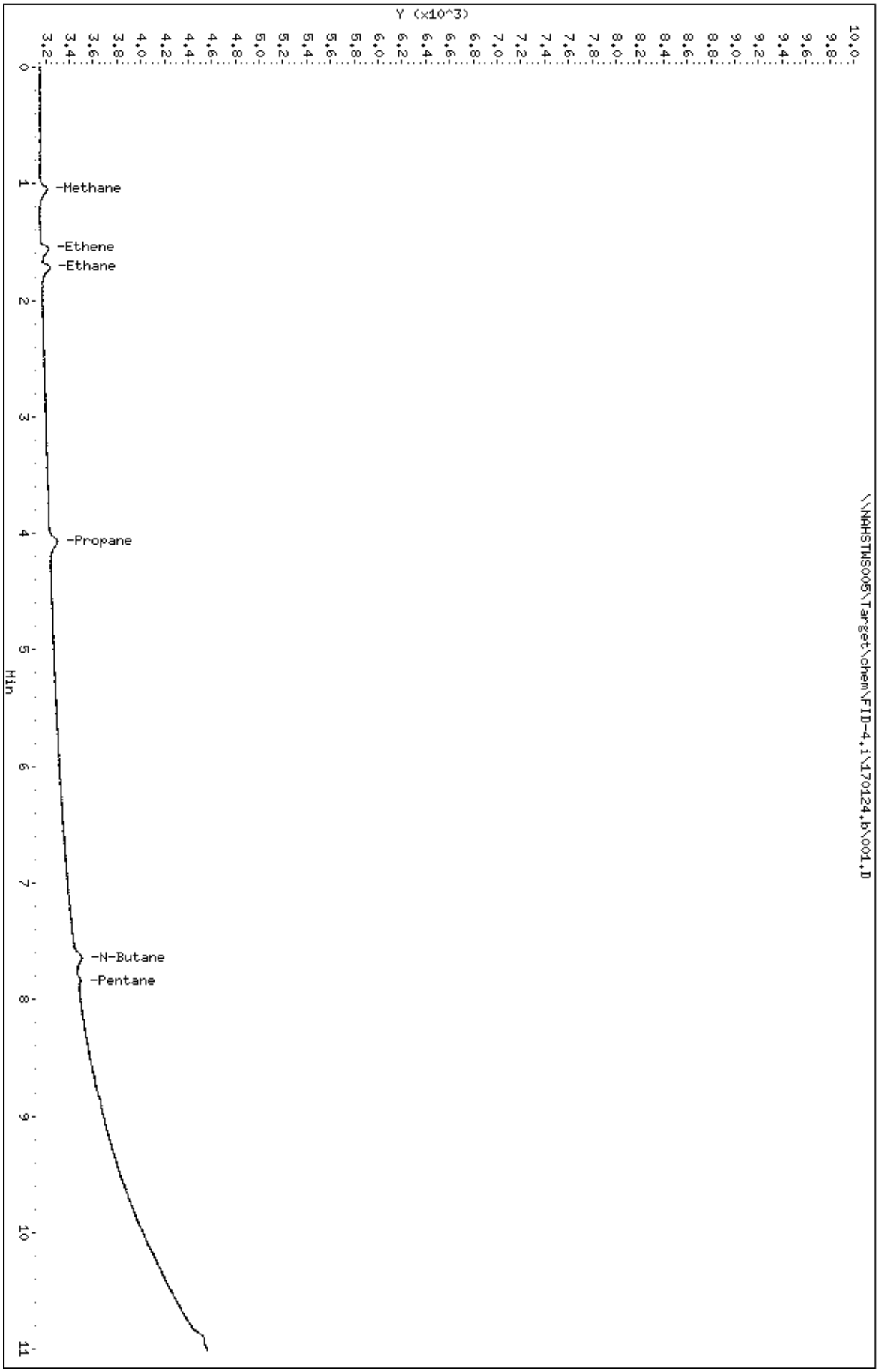
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.043	0.000	374	0.38600	0.383(a)
2 Ethene	1.553	1.553	0.000	361	0.67400	0.615(a)
3 Ethane	1.716	1.716	0.000	435	0.72200	0.590(a)
4 Propane	4.073	4.073	0.000	500	1.05900	1.743
5 N-Butane	7.640	7.640	0.000	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
Sample Info: ICAL1;ICAL1;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: JA
Column diameter: 0.53



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

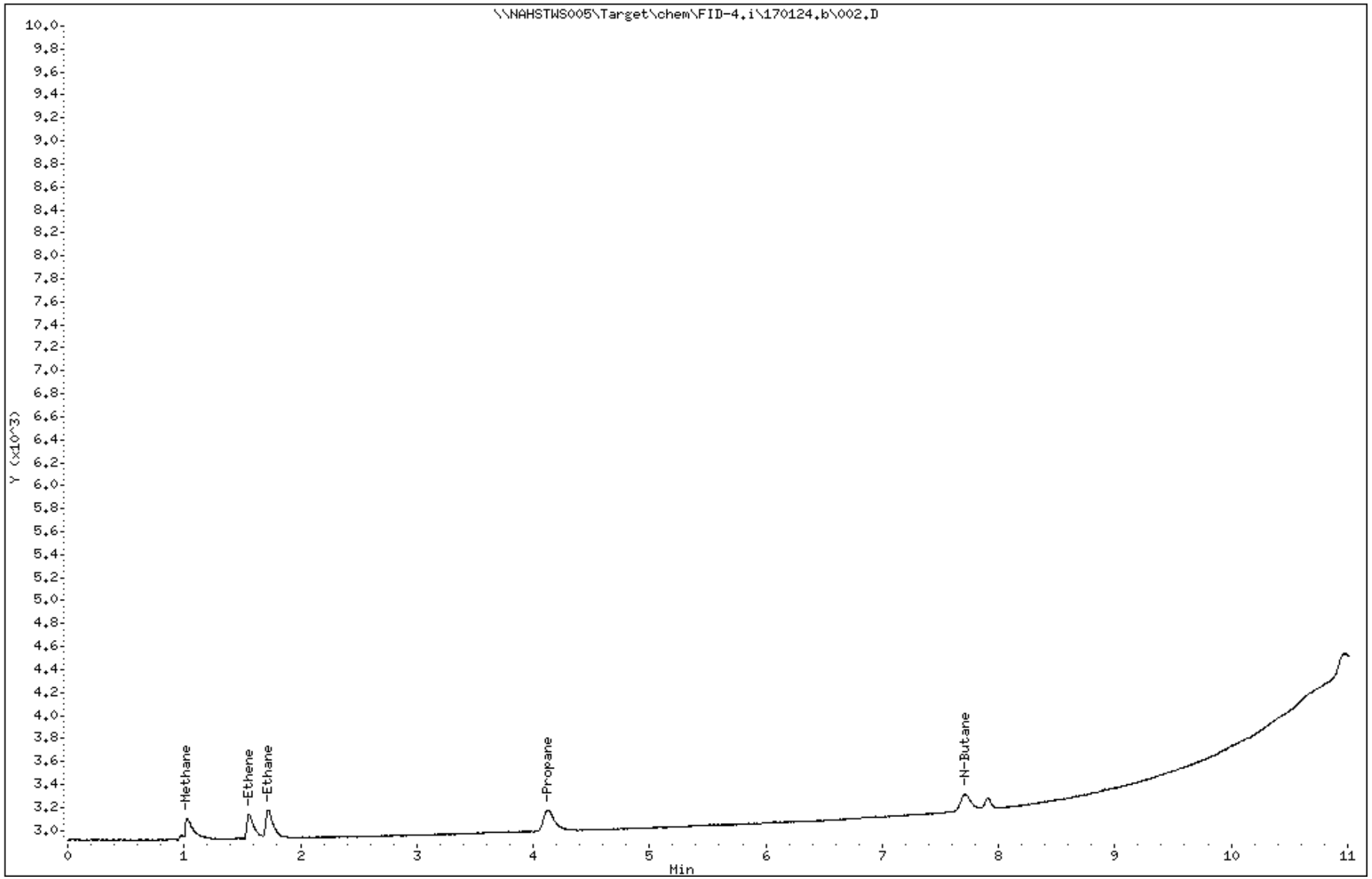
Instrument: FID-4.i

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)	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

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

Date : 24-JAN-2017 09:59

Client ID: ICAL3

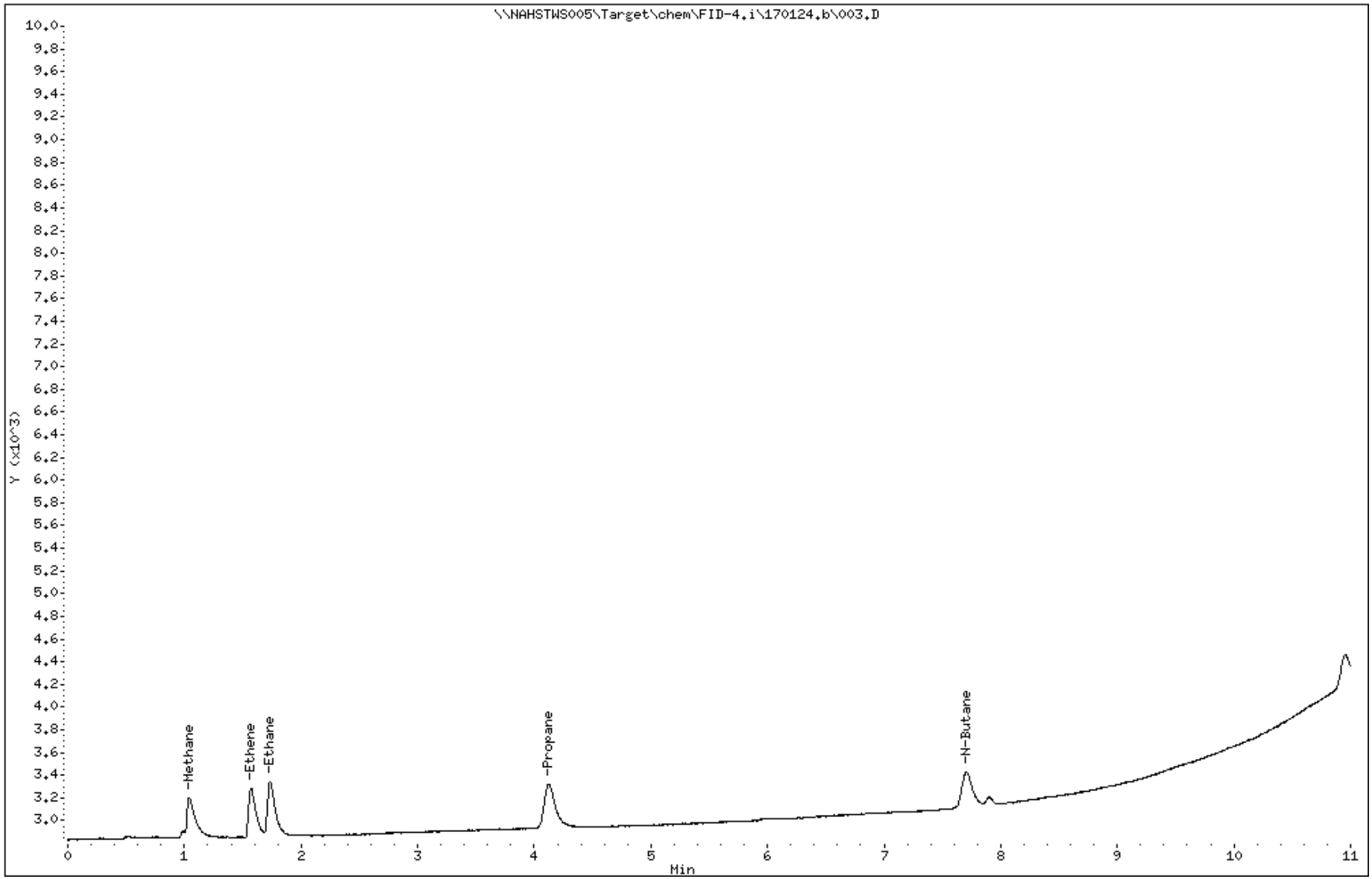
Instrument: FID-4.i

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

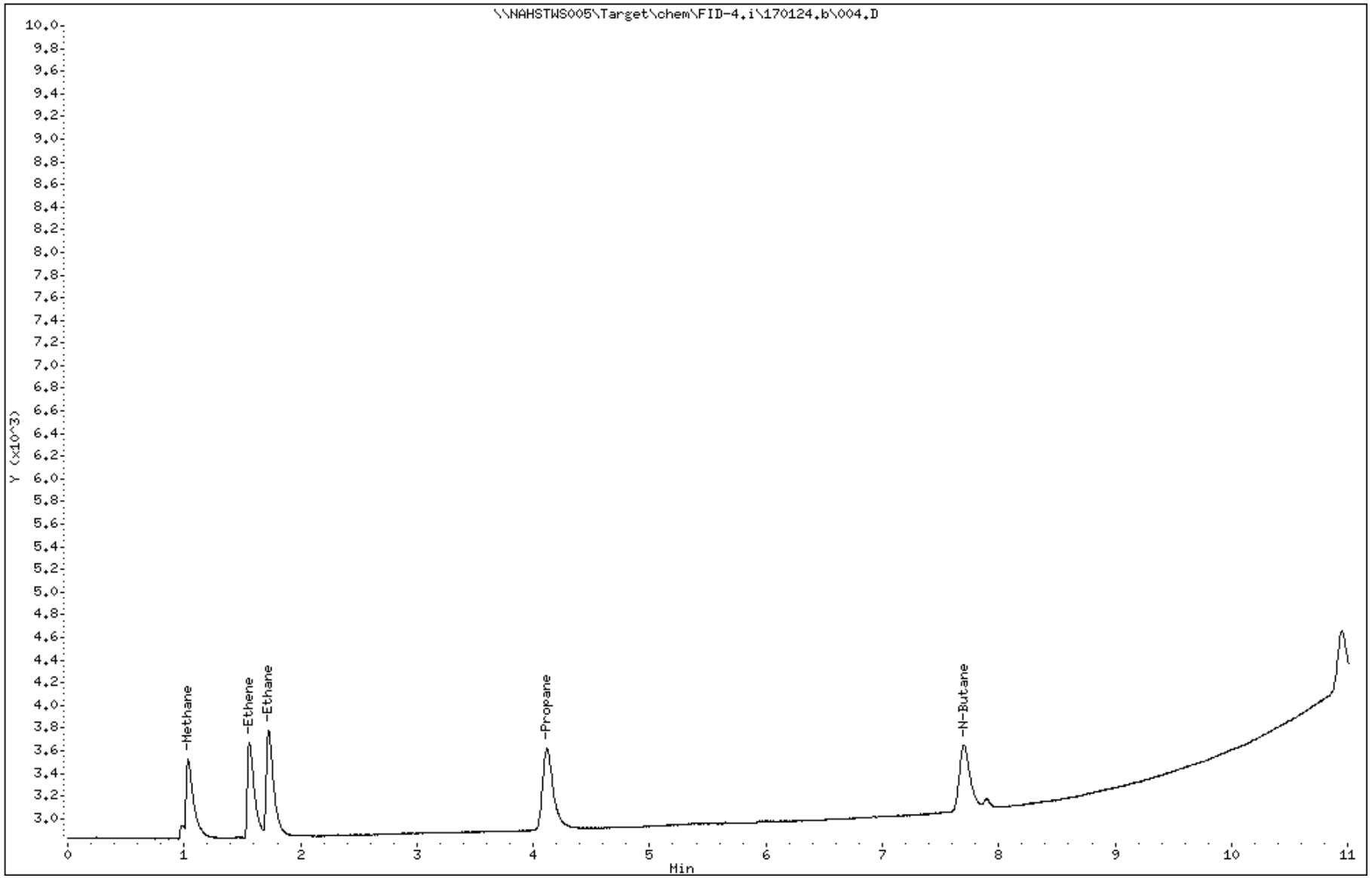
Instrument: FID-4.i

Sample Info: ICAL4;ICAL4;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



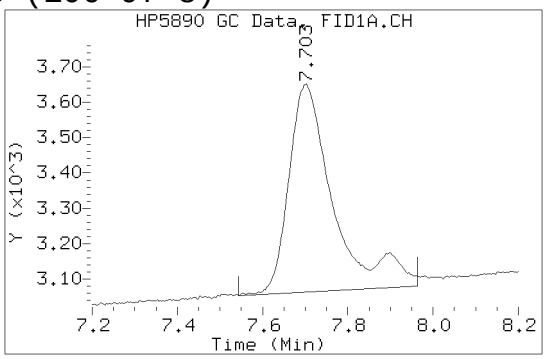
Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Inj Date : 24-JAN-2017 10:15
InstruID : FID-4.i
LabSampID : ICAL4

N-Butane (106-97-8)

Reason Code:

BEFORE

MASS
100
AREA
4292
HEIGHT
591
28-Sep-2022
10:02
linh
pham



AFTER

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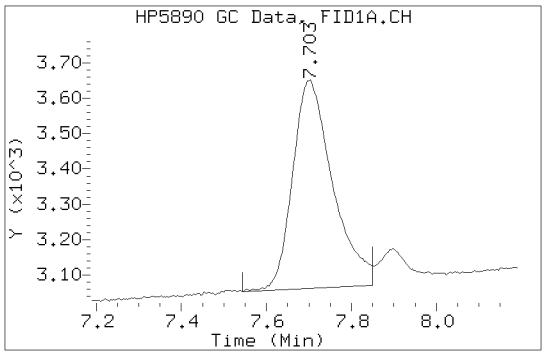
AREA
3864
HEIGHT
591
28-Sep-2022
10:02
linh
pham



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

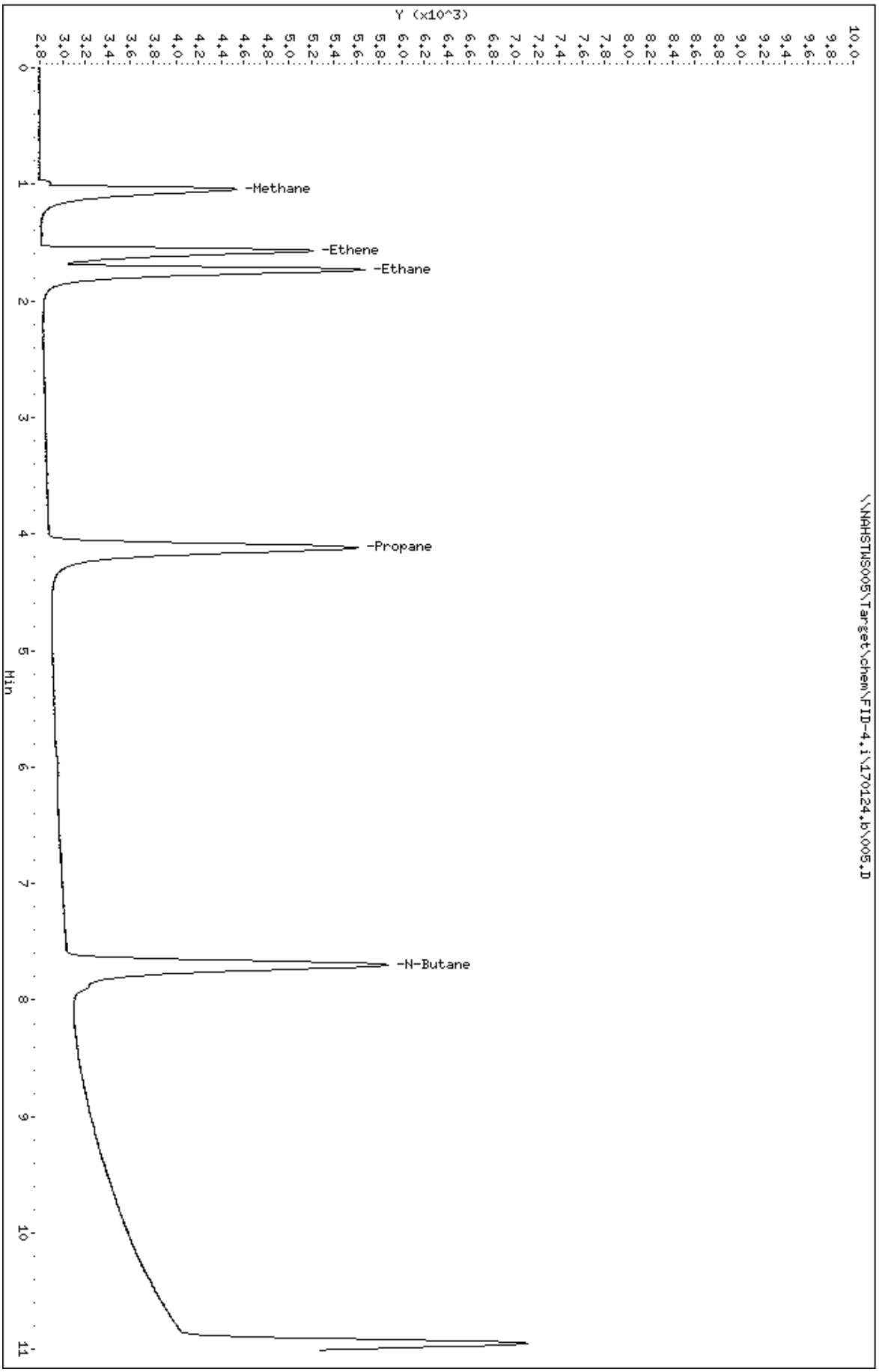
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.043	0.000	9268	9.64700	9.511
2 Ethene	1.570	1.570	0.000	11210	16.8500	19.121
3 Ethane	1.733	1.733	0.000	14588	18.0430	19.811
4 Propane	4.120	4.120	0.000	18294	26.4630	27.415
5 N-Butane	7.700	7.700	0.000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



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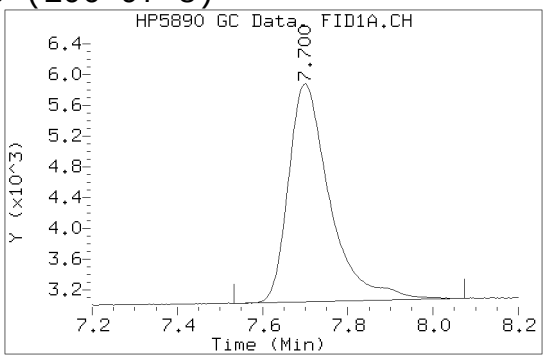
Inj Date : 24-JAN-2017 10:39
InstruID : FID-4.i
LabSampID : ICAL5

N-Butane (106-97-8)

Reason Code:

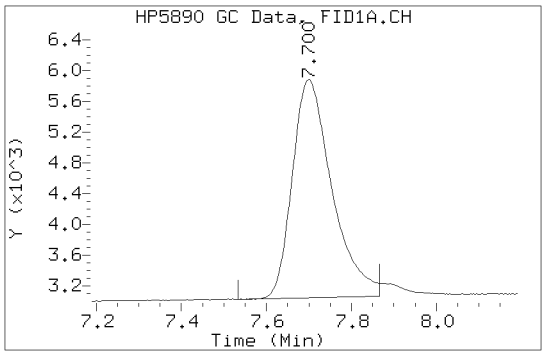
BEFORE

MASS
100
AREA
19142
HEIGHT
2839
28-Sep-2022
10:02
linh
pham



AFTER

MASS
100
AREA
18446
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

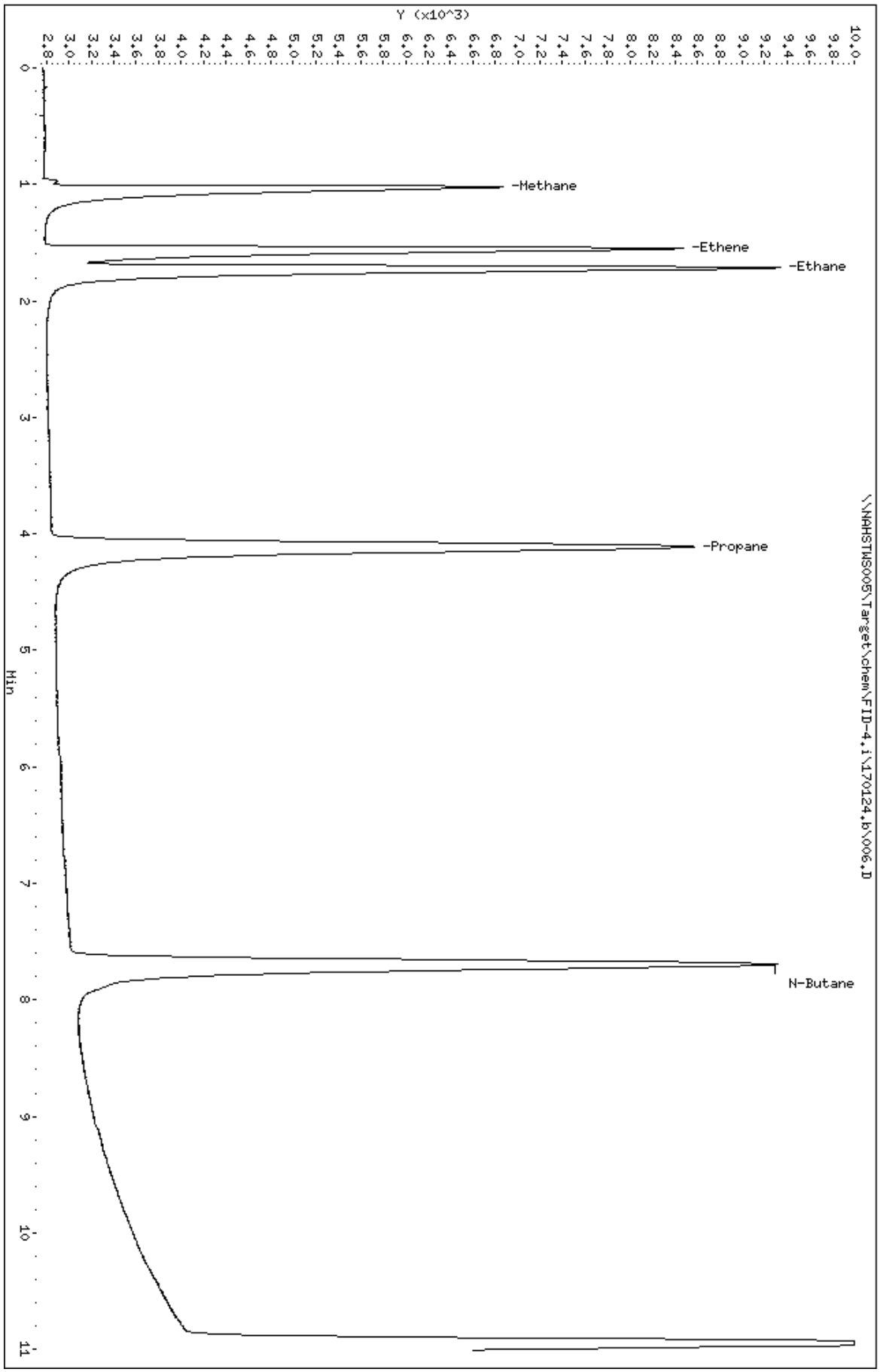
ALS Laboratory Group

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

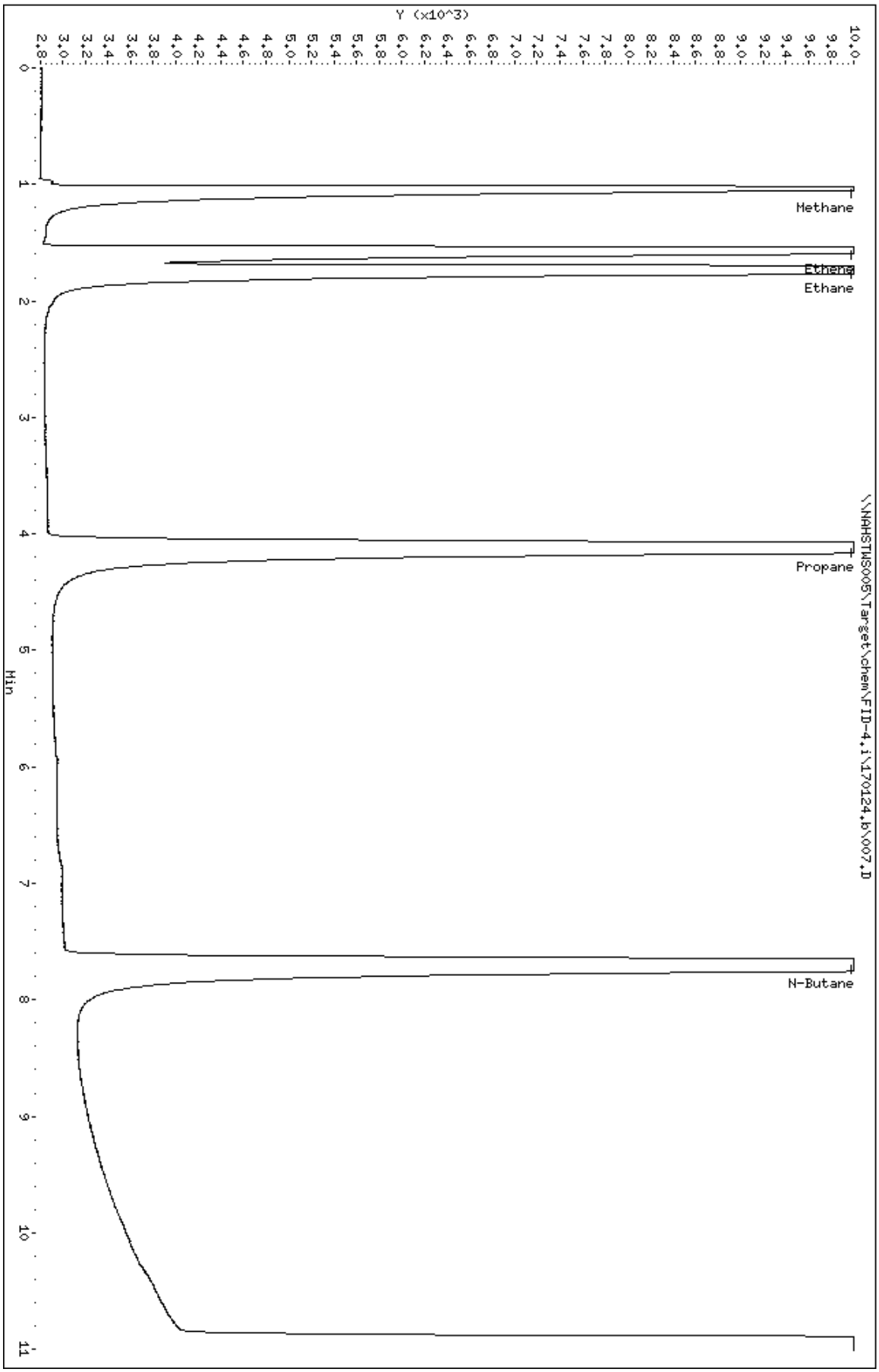
Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D
Lab Smp Id: ICAL7 Client Smp ID: ICAL7
Inj Date : 24-JAN-2017 11:13
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL7;ICAL7;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 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)	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.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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

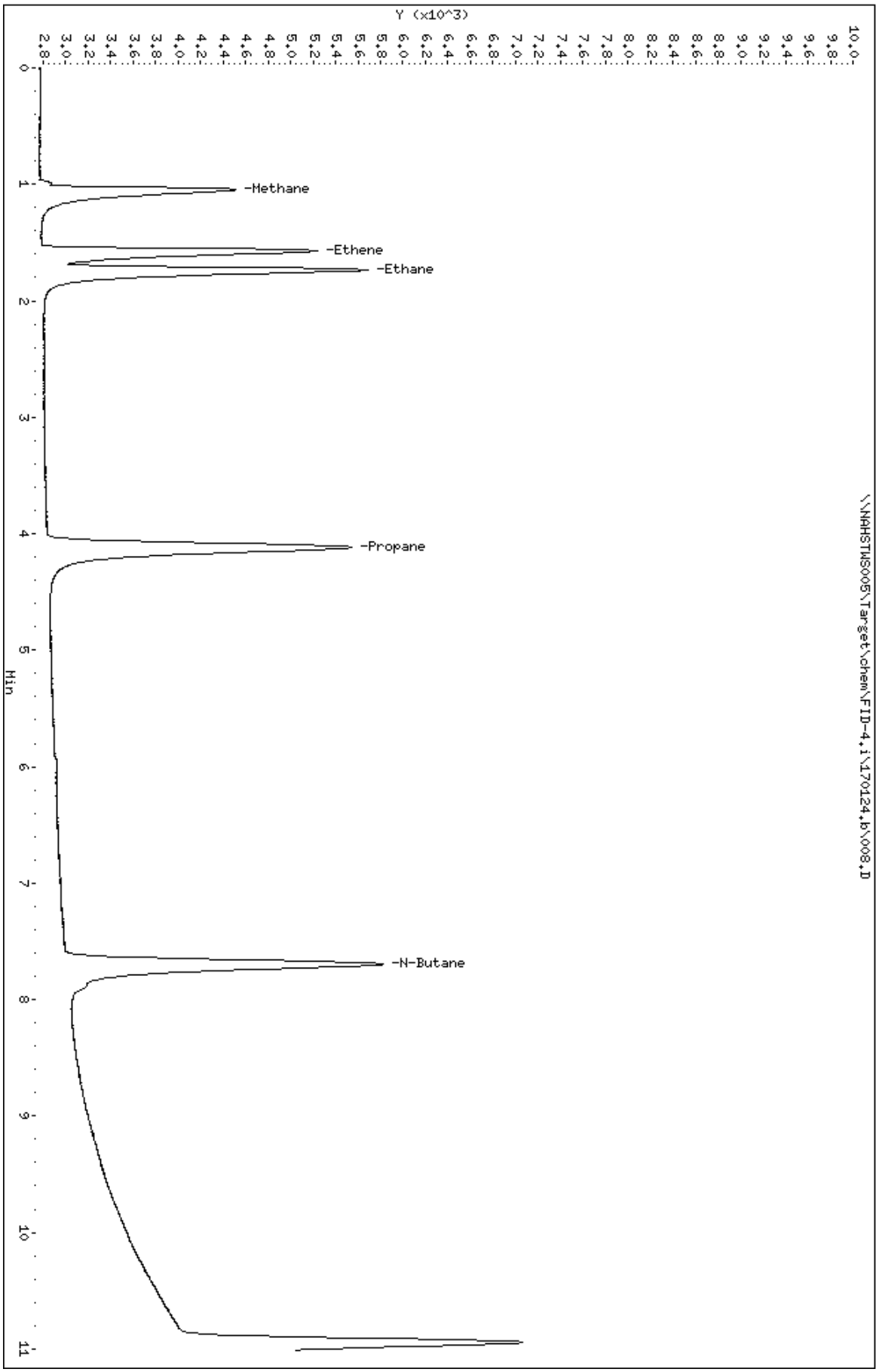
Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-JAN-2017 12:05
Operator : MA Inst ID: FID-4.i
Smp Info : ICV;ICV;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i 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
Sample Info: ICV;ICV;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: MA
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.

RawData

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020246

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/23/2024

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

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 13-FEB-2024 15:16
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 13-Feb-2024 15:54 elona.hasa 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: NAHSTW7025

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	0.436	0.436	0.000	7927	9.64700	8.130
2 Ethene	0.640	0.640	0.000	8235	16.8500	14.058
3 Ethane	0.703	0.703	0.000	13244	18.0430	18.407

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\011.D

Date : 13-FEB-2024 15:16

Client ID: RSK-CCV

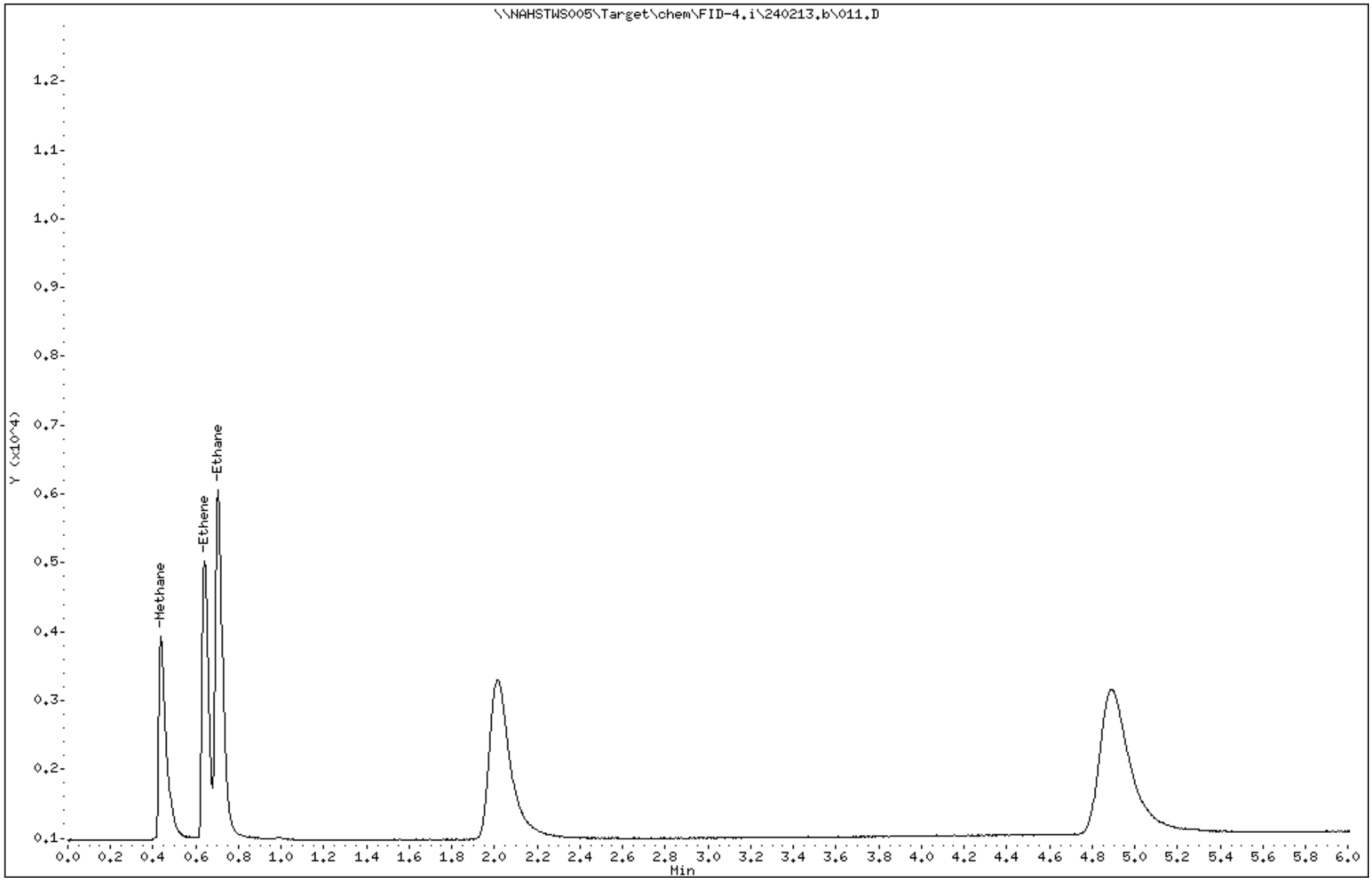
Instrument: FID-4.i

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

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



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Inj Date : 13-FEB-2024 15:16
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\012.D Page 1
Report Date: 14-Feb-2024 07:32

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\012.D
Lab Smp Id: MBLK-240213 Client Smp ID: MBLK-240213
Inj Date : 13-FEB-2024 15:52
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-240213;MBLK-240213;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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\240213.b\012.D

Date : 13-FEB-2024 15:52

Client ID: MBLK-240213

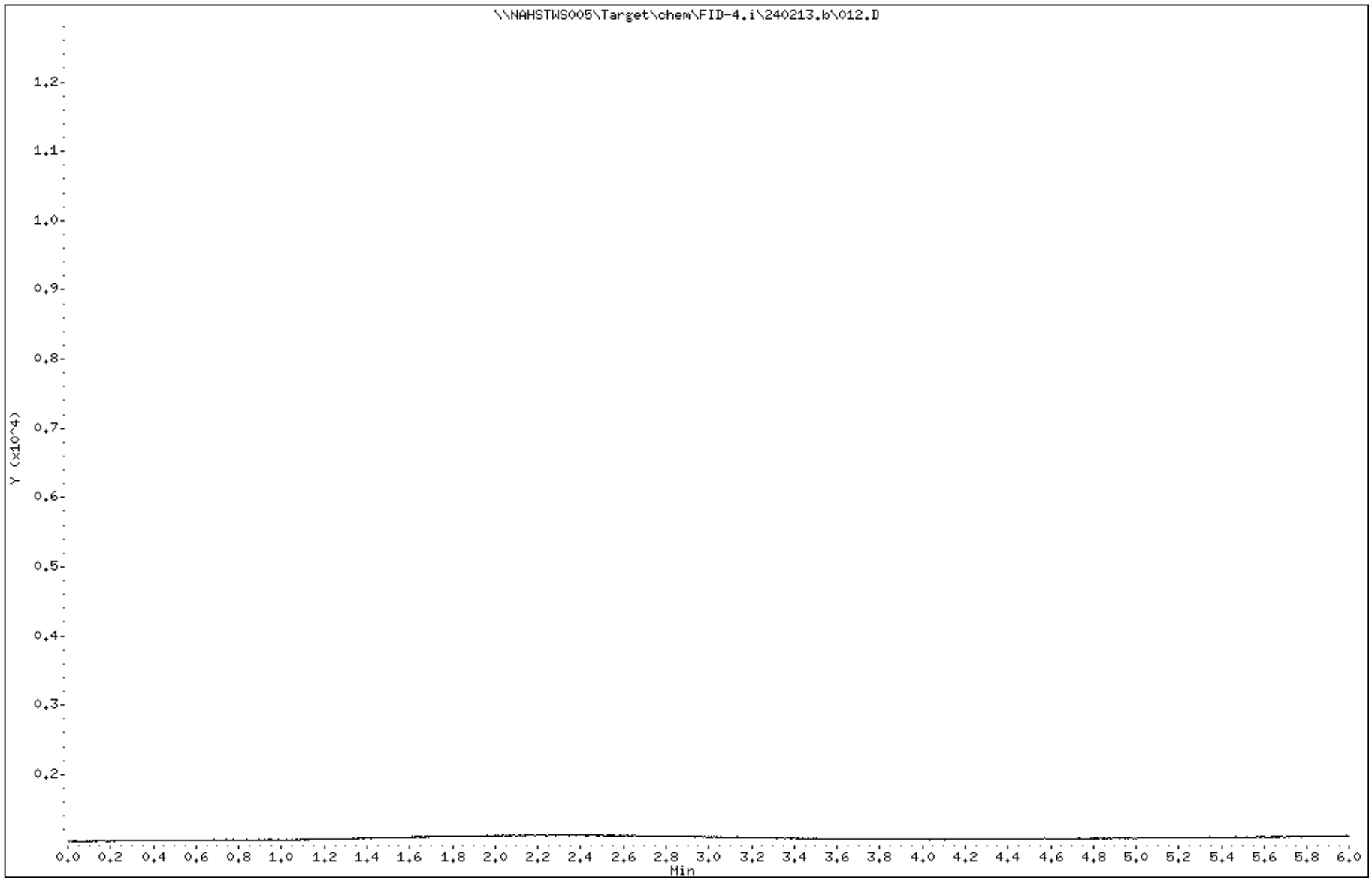
Instrument: FID-4.i

Sample Info: MBLK-240213;MBLK-240213;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\012.D
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InstruID : FID-4.i
LabSampID : MBLK-240213

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\013.D Page 1
Report Date: 13-Feb-2024 17:21

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\013.D
Lab Smp Id: LCS-240213 Client Smp ID: LCS-240213
Inj Date : 13-FEB-2024 16:10
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-240213;LCS-240213;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 13-Feb-2024 15:54 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.436	-0.003	7708	7.90570	7.905
2 Ethene	0.636	0.640	-0.004	8074	13.7838	13.783
3 Ethane	0.700	0.703	-0.003	12195	16.9495	16.949

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\013.D

Date : 13-FEB-2024 16:10

Client ID: LCS-240213

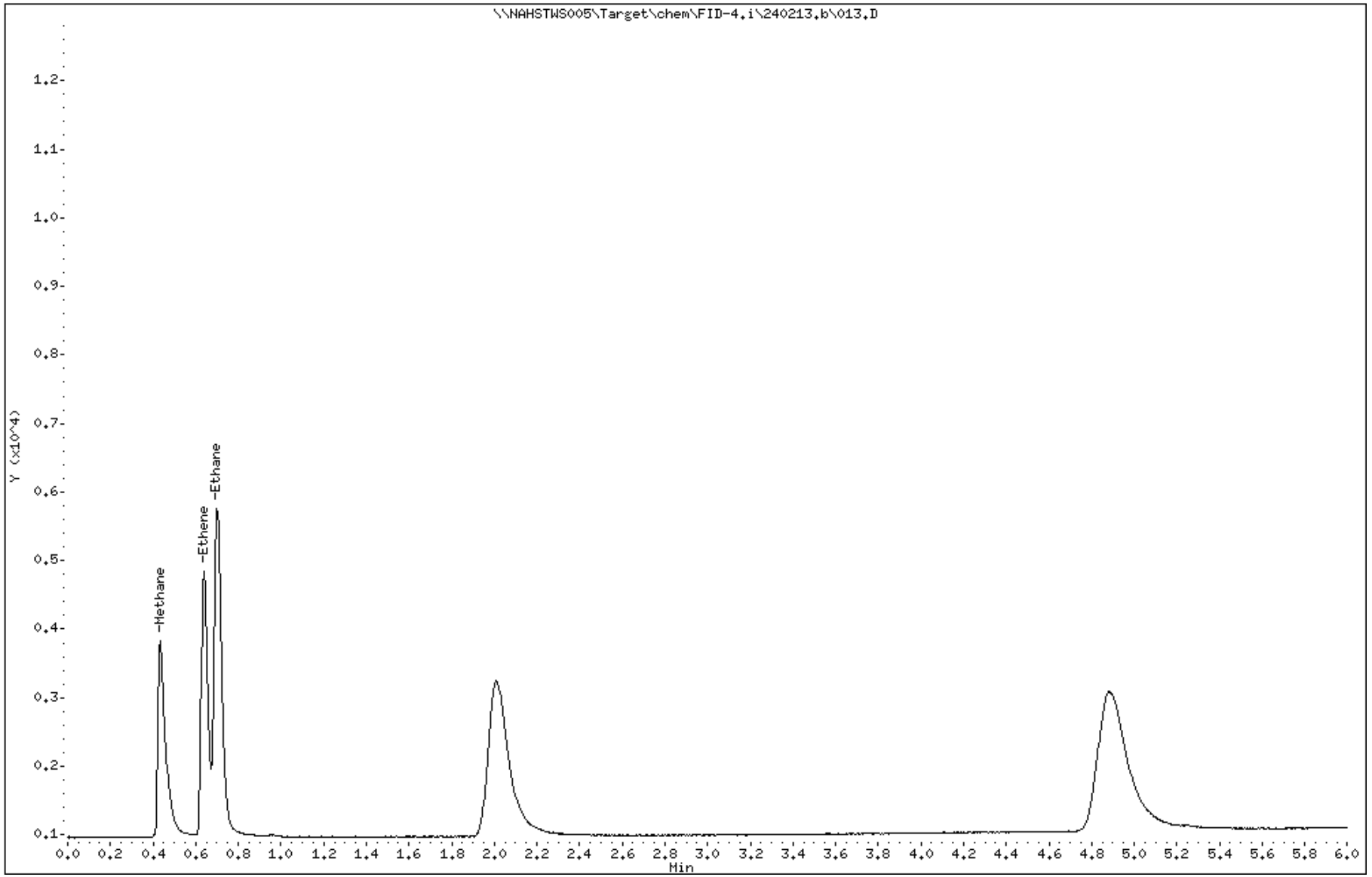
Instrument: FID-4.i

Sample Info: LCS-240213;LCS-240213;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\013.D
Inj Date : 13-FEB-2024 16:10
InstruID : FID-4.i
LabSampID : LCS-240213

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\014.D Page 1
Report Date: 13-Feb-2024 17:21

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\014.D
Lab Smp Id: LCSD-240213 Client Smp ID: LCSD-240213
Inj Date : 13-FEB-2024 16:23
Operator : PL Inst ID: FID-4.i
Smp Info : LCSD-240213;LCSD-240213;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 13-Feb-2024 15:54 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.436	0.000	7847	8.04827	8.048
2 Ethene	0.640	0.640	0.000	8697	14.8474	14.847
3 Ethane	0.703	0.703	0.000	11443	15.9043	15.904(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\014.D

Date : 13-FEB-2024 16:23

Client ID: LCSD-240213

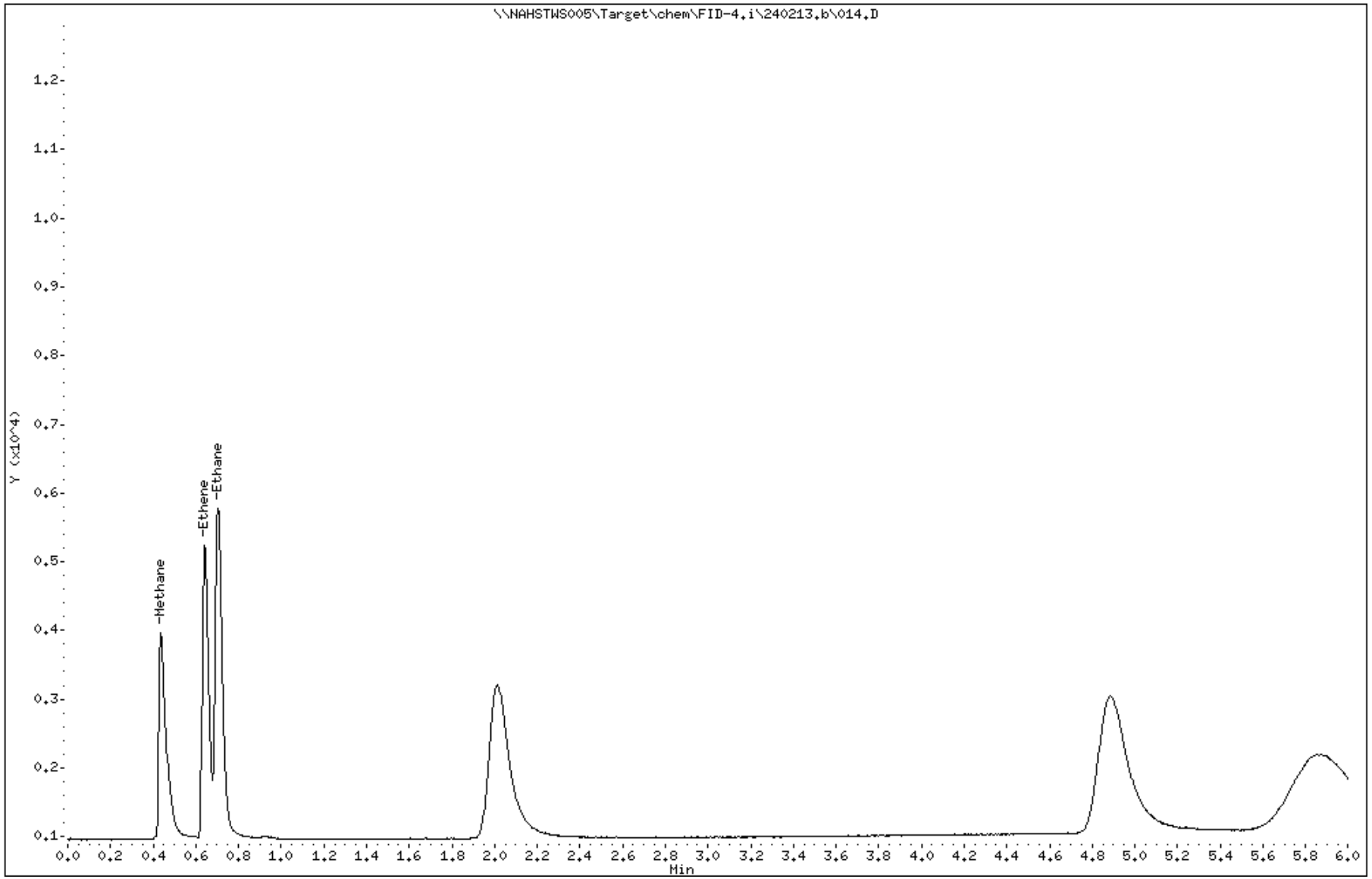
Instrument: FID-4.i

Sample Info: LCSD-240213;LCSD-240213;3;;LCSD

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



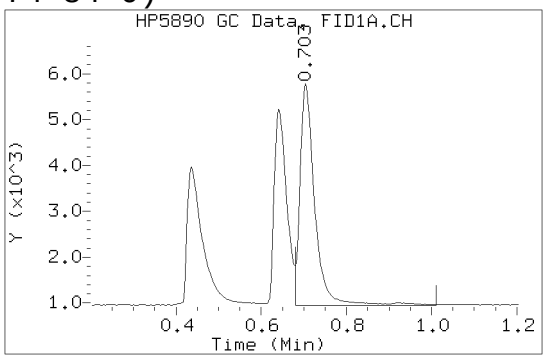
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\014.D
Inj Date : 13-FEB-2024 16:23
InstruID : FID-4.i
LabSampID : LCSD-240213

Ethane (74-84-0)

Reason Code:

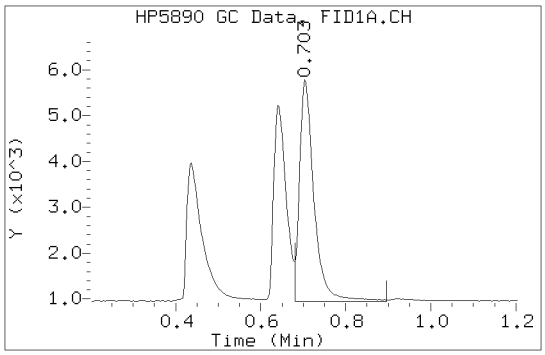
BEFORE

MASS
44
AREA
11535
HEIGHT
4828
13-Feb-2024
16:31
ALSHS
Server



AFTER

MASS
44
AREA
11443
HEIGHT
4828
13-Feb-2024
17:21
ALSHS
Server



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\015.D
Lab Smp Id: HS24020246-01 Client Smp ID: HS24020246-01
Inj Date : 13-FEB-2024 16:32
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020246-01;HS24020246-01
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 13-Feb-2024 15:54 elona.hasa 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: NAHSTW7025

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	942035	966.197	966.197(A)
2 Ethene	0.633	0.640	-0.007	11314	19.3151	19.315(M)
3 Ethane	0.690	0.703	-0.013	2451	3.40658	3.406(M)

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\015.D

Date : 13-FEB-2024 16:32

Client ID: HS24020246-01

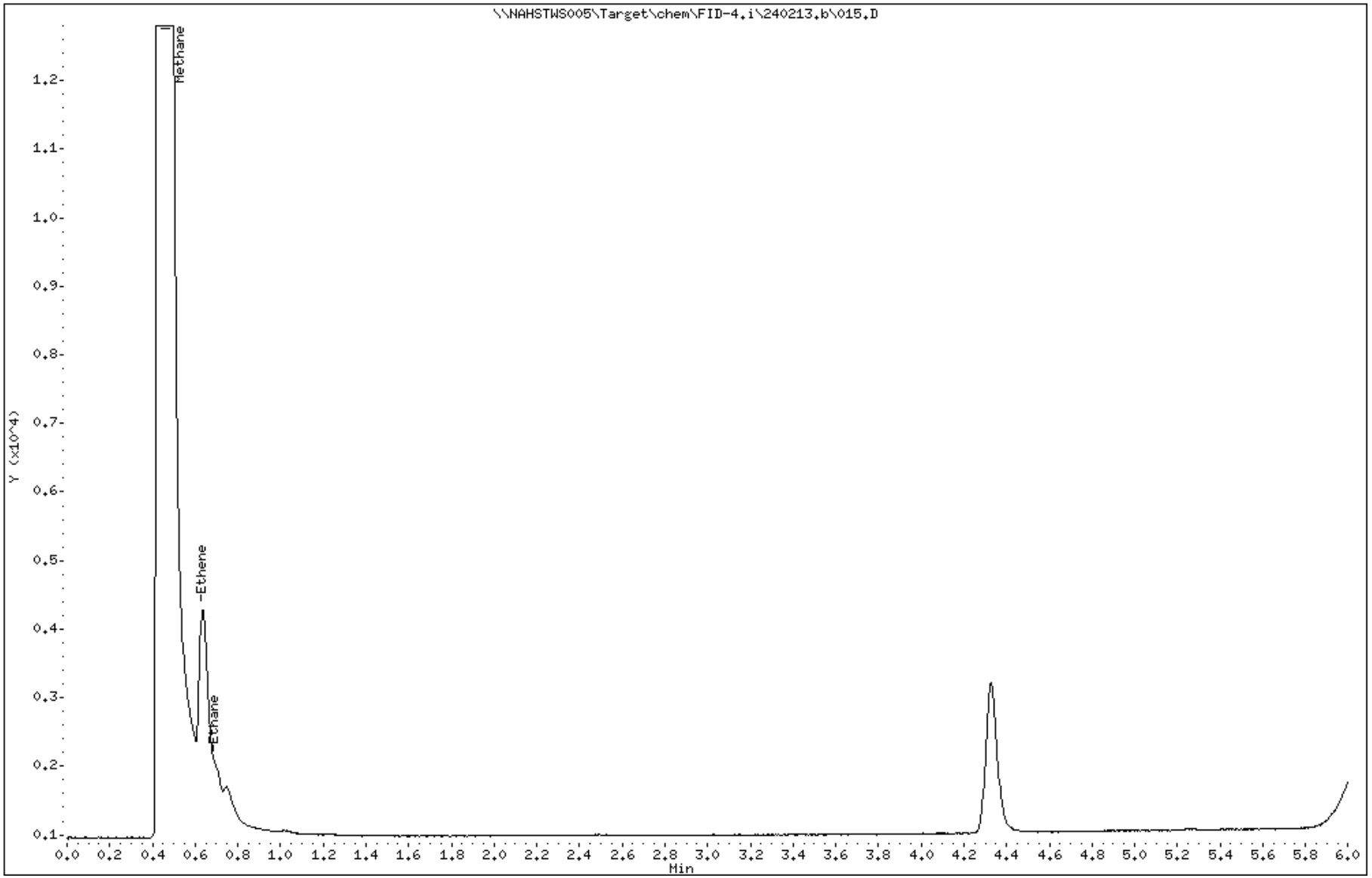
Instrument: FID-4.i

Sample Info: HS24020246-01;HS24020246-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



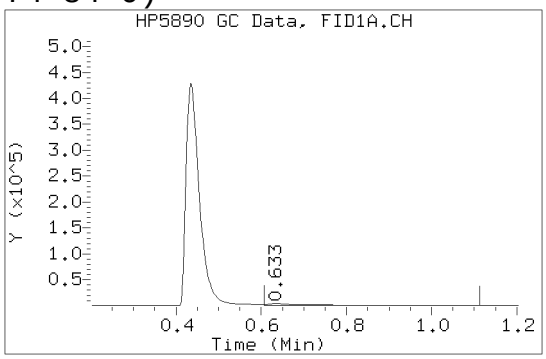
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\015.D
Inj Date : 13-FEB-2024 16:32
InstruID : FID-4.i
LabSampID : HS24020246-01

Ethane (74-84-0)

Reason Code:

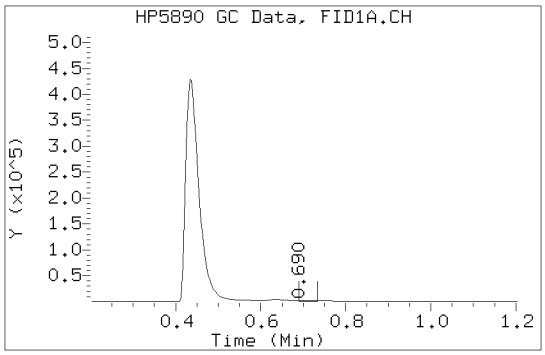
BEFORE

MASS
44
AREA
17589
HEIGHT
3318
13-Feb-2024
16:40
ALSHS
Server



AFTER

MASS
44
AREA
2451
HEIGHT
1126
13-Feb-2024
17:22
ALSHS
Server

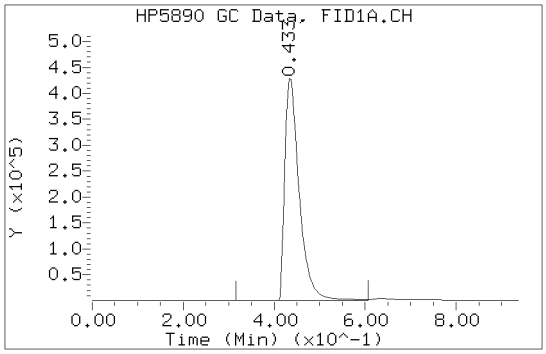


Ethene (74-85-1)

Reason Code:

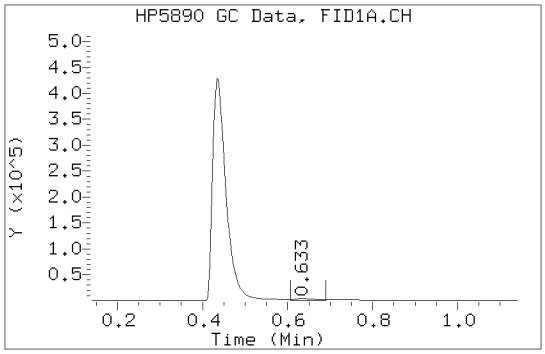
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
16:40
ALSHS
Server



AFTER

MASS
100
AREA
11314
HEIGHT
3318
13-Feb-2024
17:22
ALSHS
Server



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\016.D Page 1
Report Date: 14-Feb-2024 07:48

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\016.D
Lab Smp Id: HS24020246-02 Client Smp ID: HS24020246-02
Inj Date : 13-FEB-2024 16:41
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020246-02;HS24020246-02
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa 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: NAHSTW7025

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	0.436	0.000	14571	14.9447	14.944(M)
2 Ethene	0.630	0.640	-0.010	17409	29.7203	29.720(M)
3 Ethane	0.686	0.703	-0.017	2553	3.54835	3.548(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\016.D

Date : 13-FEB-2024 16:41

Client ID: HS24020246-02

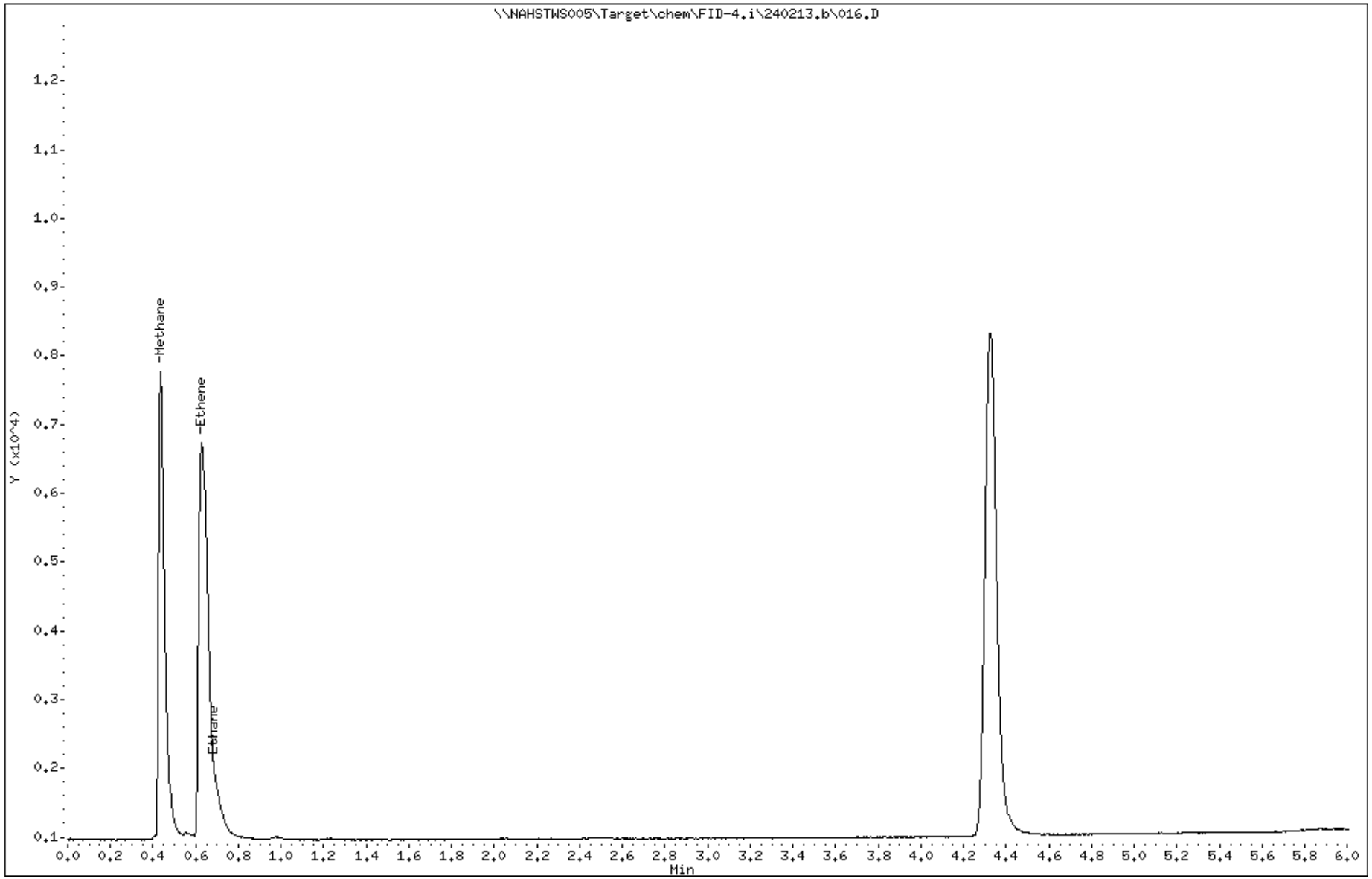
Instrument: FID-4.i

Sample Info: HS24020246-02;HS24020246-02

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53

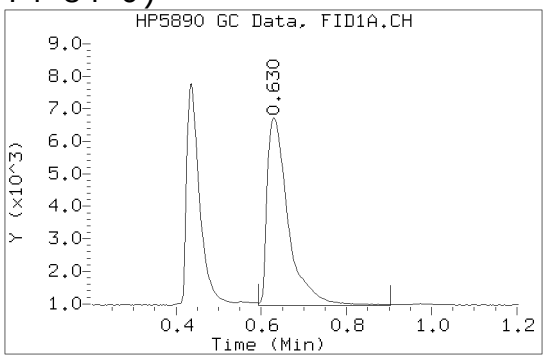


Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\016.D
Inj Date : 13-FEB-2024 16:41
InstruID : FID-4.i
LabSampID : HS24020246-02

Ethane (74-84-0)

BEFORE

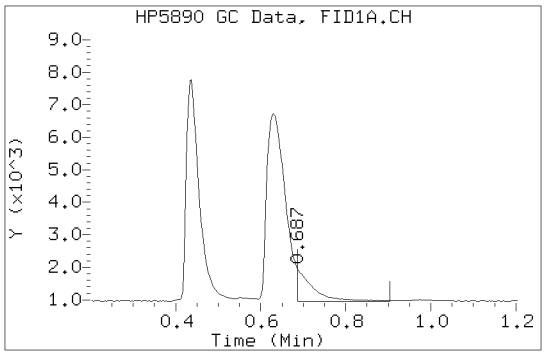
MASS
44
AREA
19630
HEIGHT
5765
13-Feb-2024
16:48
ALSHS
Server



Reason Code:

AFTER

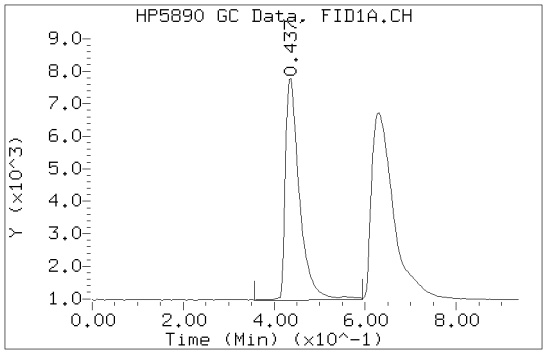
MASS
44
AREA
2553
HEIGHT
998
14-Feb-2024
07:48
ALSHS
Server



Methane (74-82-8)

BEFORE

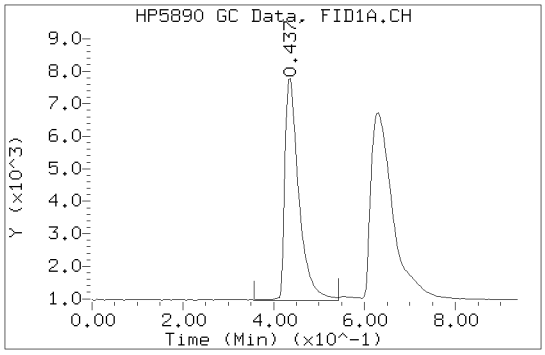
MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
16:48
ALSHS
Server



Reason Code:

AFTER

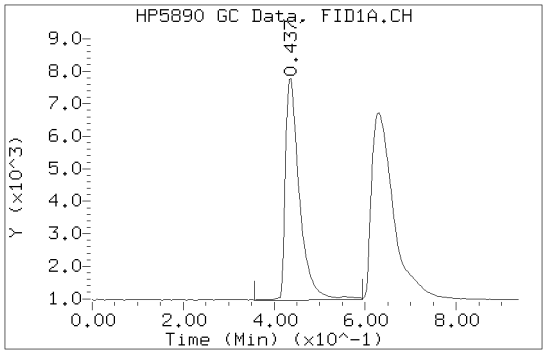
MASS
100
AREA
14571
HEIGHT
6814
14-Feb-2024
07:48
ALSHS
Server



Ethene (74-85-1)

BEFORE

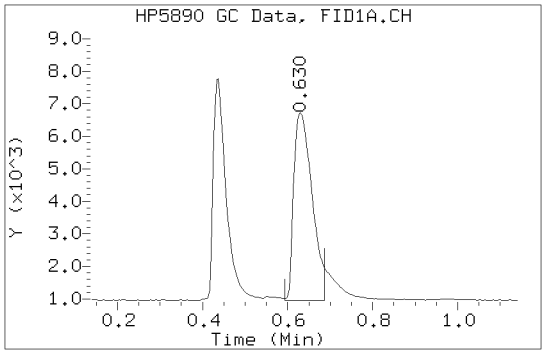
MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
16:48
ALSHS
Server



Reason Code:

AFTER

MASS
100
AREA
17409
HEIGHT
5771
14-Feb-2024
07:48
ALSHS
Server



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\017.D Page 1
Report Date: 14-Feb-2024 07:49

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\017.D
Lab Smp Id: HS24020246-03 Client Smp ID: HS24020246-03
Inj Date : 13-FEB-2024 16:51
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020246-03;HS24020246-03
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa 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: NAHSTW7025

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

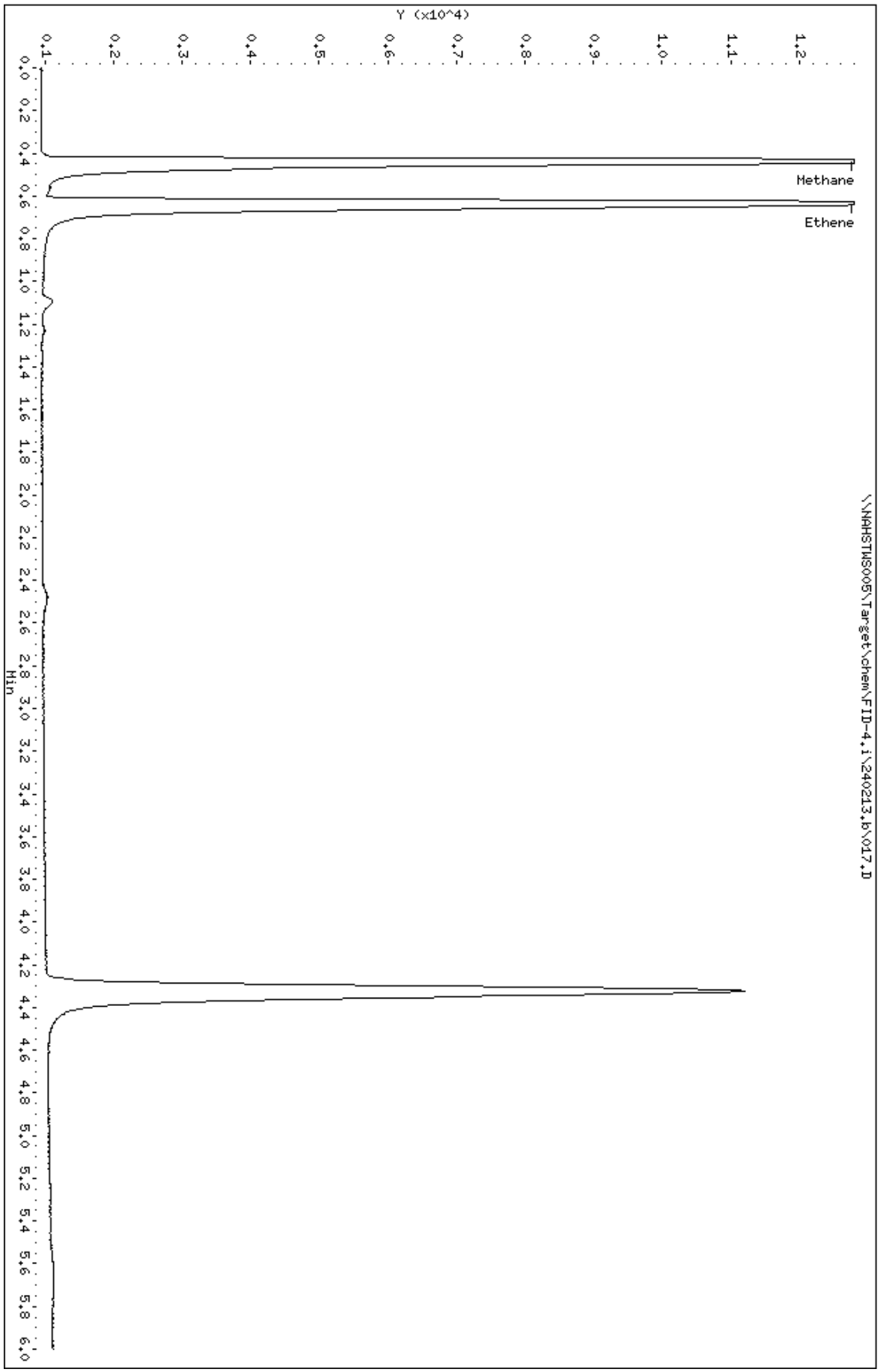
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.433	0.436	-0.003	38318	39.3008	39.300(AM)
2 Ethene	0.633	0.640	-0.007	36201	61.8017	61.801(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\017.D
Date : 13-FEB-2024 16:51
Client ID: HS24020246-03
Sample Info: HS24020246-03;HS24020246-03
Column phase: Rtx-PLOT

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



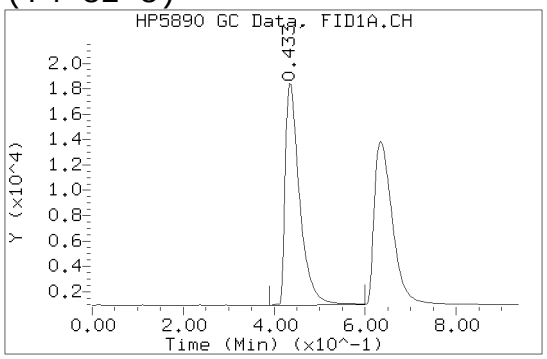
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\017.D
Inj Date : 13-FEB-2024 16:51
InstruID : FID-4.i
LabSampID : HS24020246-03

Methane (74-82-8)

Reason Code:

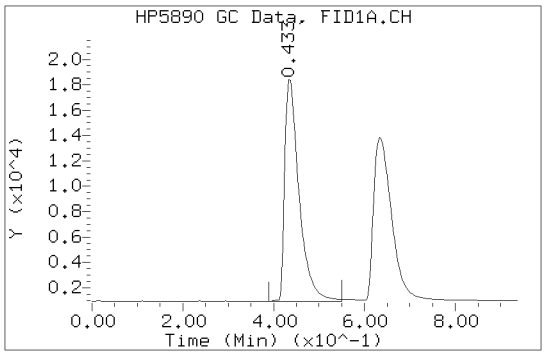
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
16:59
ALSHS
Server



AFTER

MASS
100
AREA
38318
HEIGHT
17458
14-Feb-2024
07:49
ALSHS
Server

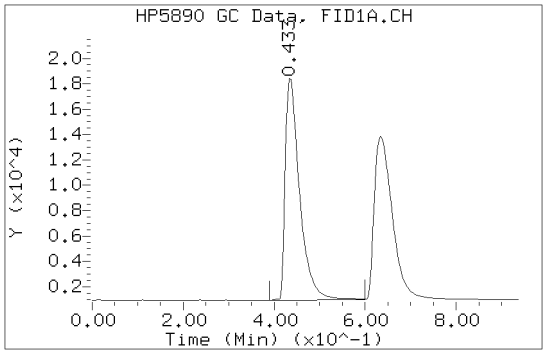


Ethene (74-85-1)

Reason Code:

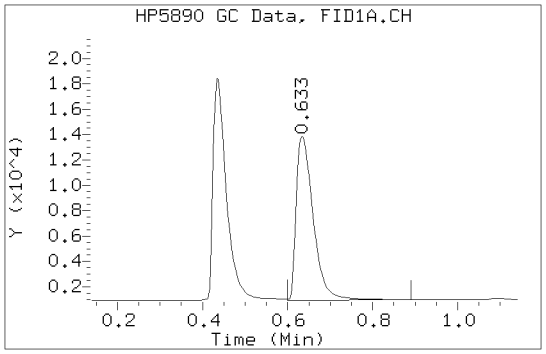
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
16:59
ALSHS
Server



AFTER

MASS
100
AREA
36201
HEIGHT
12921
14-Feb-2024
07:49
ALSHS
Server



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\018.D
Lab Smp Id: HS24020246-04 Client Smp ID: HS24020246-04
Inj Date : 13-FEB-2024 17:04
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020246-04;HS24020246-04
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: 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	0.436	0.436	0.000	1897393	1946.06	1946.059(A)
2 Ethene	0.633	0.640	-0.007	115743	197.594	197.594(A)

QC Flag Legend

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

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\018.D

Date : 13-FEB-2024 17:04

Client ID: HS24020246-04

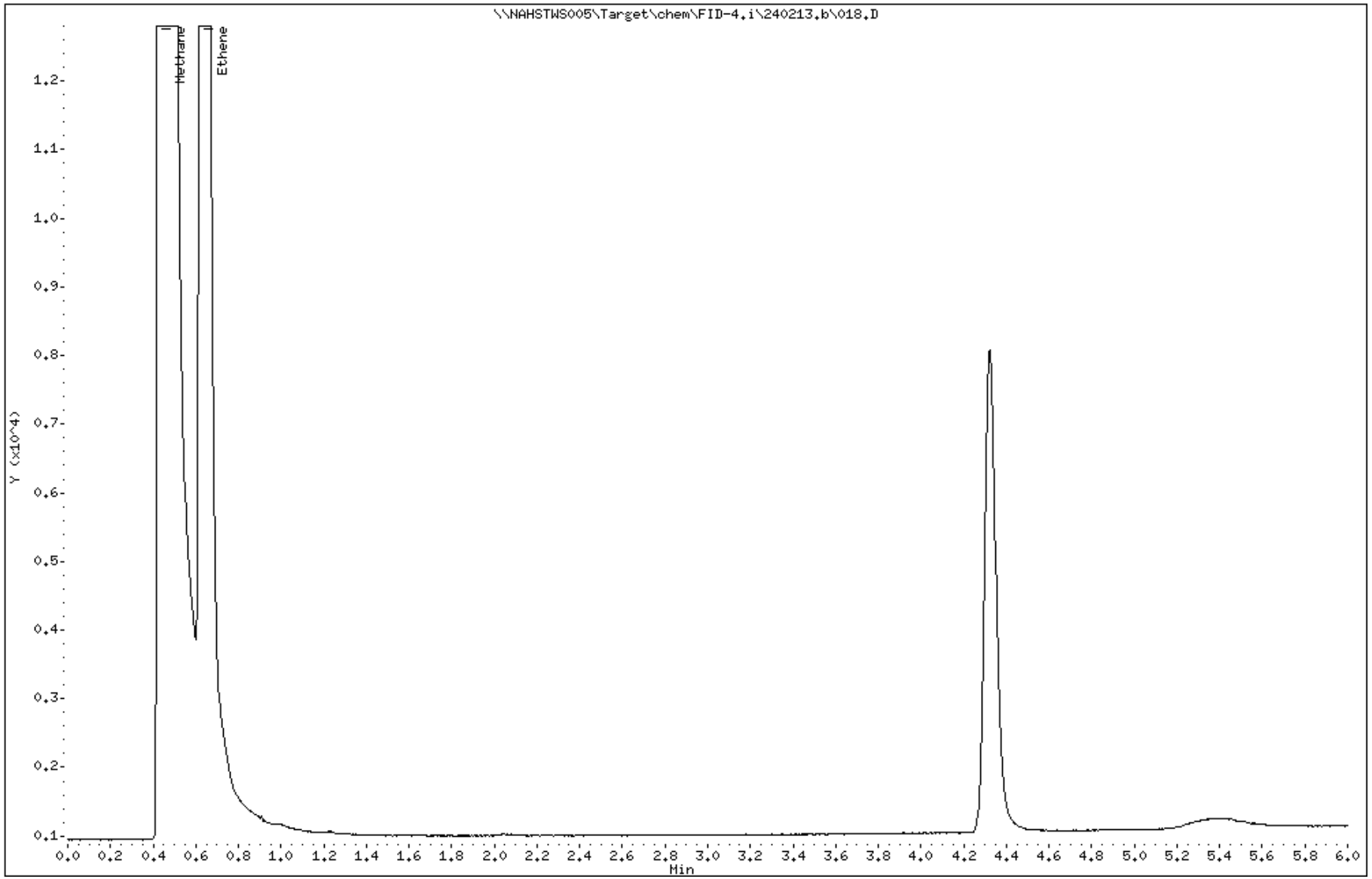
Instrument: FID-4.i

Sample Info: HS24020246-04;HS24020246-04

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\018.D
Inj Date : 13-FEB-2024 17:04
InstruID : FID-4.i
LabSampID : HS24020246-04

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\019.D Page 1
Report Date: 14-Feb-2024 07:34

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\019.D
Lab Smp Id: HS24020246-01 Client Smp ID: HS24020246-01
Inj Date : 13-FEB-2024 17:26
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020246-01;HS24020246-01
Misc Info : ;1;0;50
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa 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: NAHSTW7025

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	0.426	0.014	18278	18.7468	937.340(M)
2 Ethene	0.643	0.630	0.013	571	0.97480	48.740(M)
3 Ethane	0.710	0.630	0.080	498	0.69216	34.607(aM)

QC Flag Legend

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

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\019.D

Date : 13-FEB-2024 17:26

Client ID: HS24020246-01

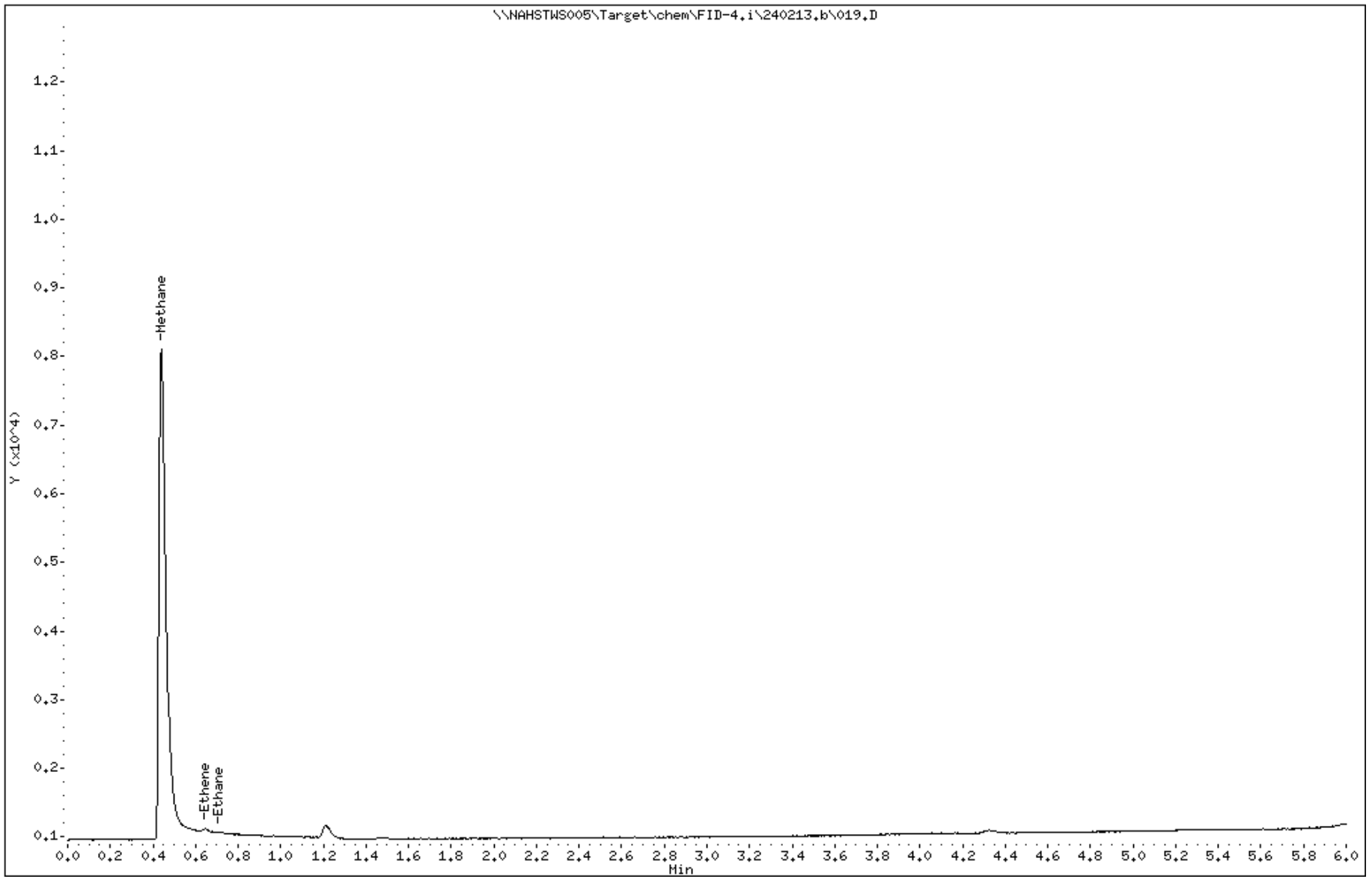
Instrument: FID-4.i

Sample Info: HS24020246-01;HS24020246-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



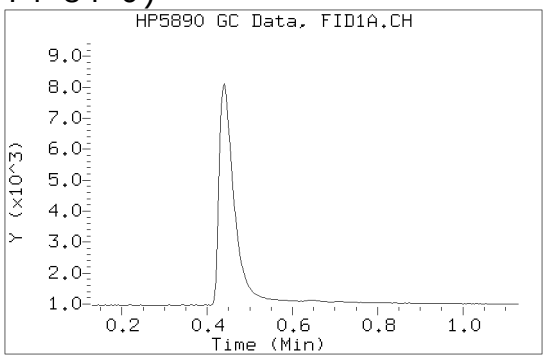
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\019.D
Inj Date : 13-FEB-2024 17:26
InstruID : FID-4.i
LabSampID : HS24020246-01

Ethane (74-84-0)

Reason Code:

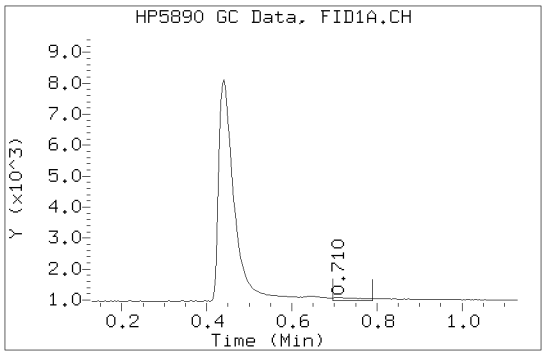
BEFORE

MASS
44
AREA
0
HEIGHT
0
13-Feb-2024
17:34
ALSHS
Server



AFTER

MASS
44
AREA
498
HEIGHT
104
14-Feb-2024
07:34
ALSHS
Server

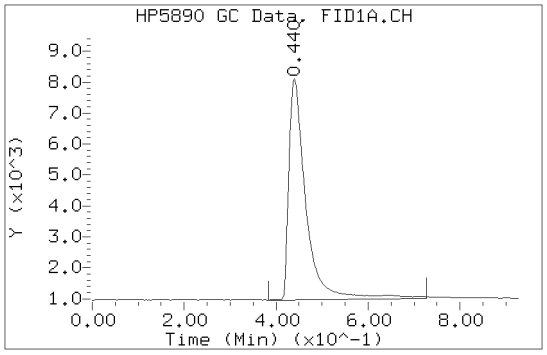


Methane (74-82-8)

Reason Code:

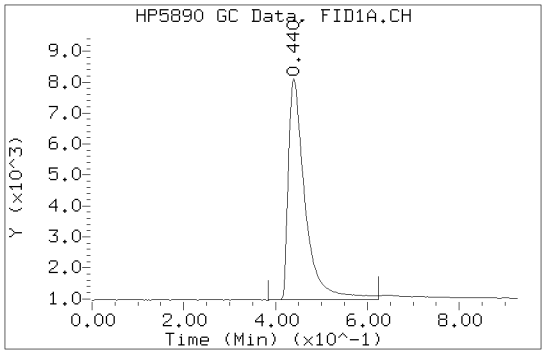
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
17:34
ALSHS
Server



AFTER

MASS
100
AREA
18278
HEIGHT
7149
14-Feb-2024
07:34
ALSHS
Server

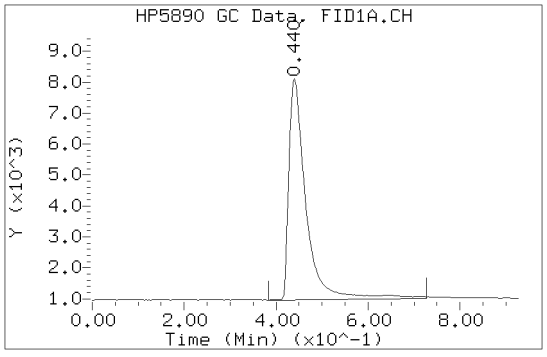


Ethene (74-85-1)

Reason Code:

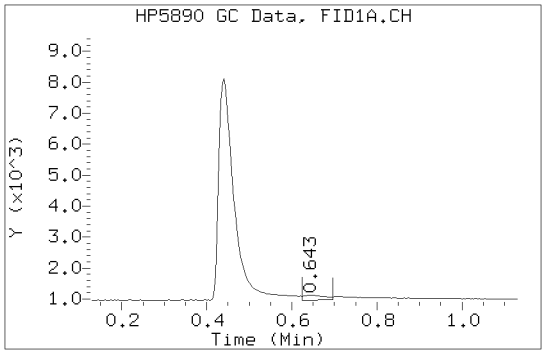
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
17:34
ALSHS
Server



AFTER

MASS
100
AREA
571
HEIGHT
154
14-Feb-2024
07:34
ALSHS
Server



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\020.D Page 1
Report Date: 14-Feb-2024 07:40

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\020.D
Lab Smp Id: HS24020246-02DUP Client Smp ID: HS24020246-02DUP
Inj Date : 13-FEB-2024 17:41
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020246-02DUP;HS24020246-02DUP
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.436	0.000	15083	15.4699	15.469(M)
2 Ethene	0.630	0.640	-0.010	17540	29.9440	29.943(M)
3 Ethane	0.696	0.703	-0.007	2520	3.50248	3.502(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\020.D

Date : 13-FEB-2024 17:41

Client ID: HS24020246-02DUP

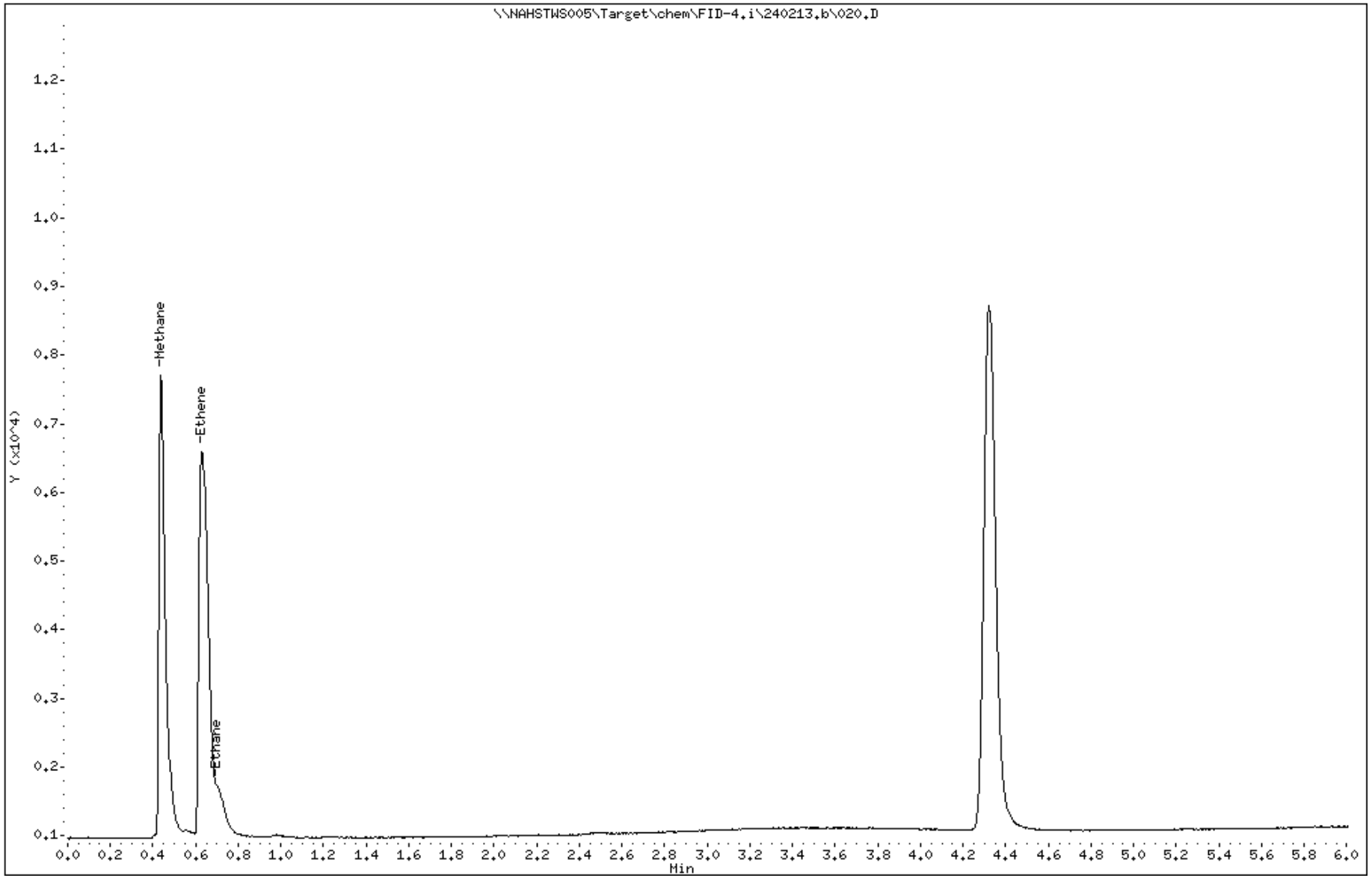
Instrument: FID-4.i

Sample Info: HS24020246-02DUP;HS24020246-02DUP

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53

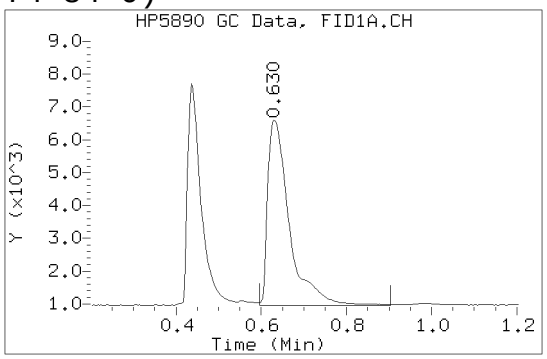


Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\020.D
Inj Date : 13-FEB-2024 17:41
InstruID : FID-4.i
LabSampID : HS24020246-02DUP

Ethane (74-84-0)

BEFORE

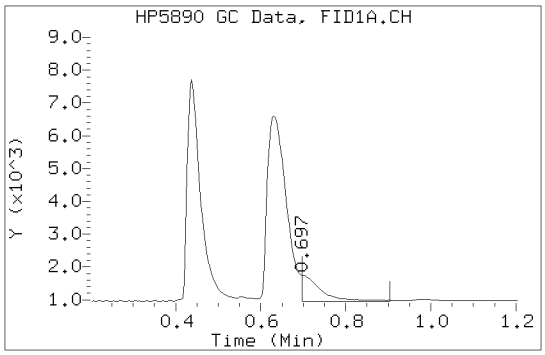
MASS
44
AREA
19823
HEIGHT
5640
13-Feb-2024
17:48
ALSHS
Server



AFTER

MASS
44
AREA
2520
HEIGHT
786
14-Feb-2024
07:40
ALSHS
Server

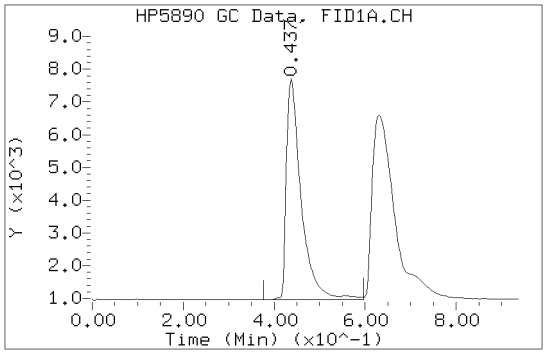
Reason Code:



Methane (74-82-8)

BEFORE

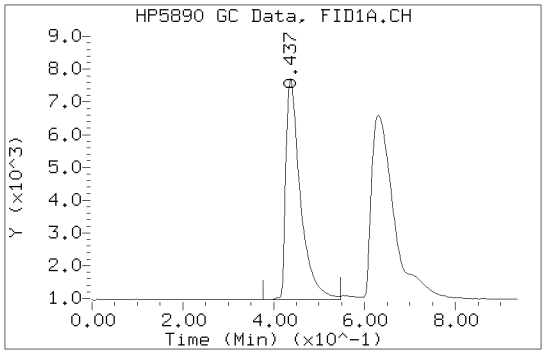
MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
17:48
ALSHS
Server



AFTER

MASS
100
AREA
15083
HEIGHT
6755
14-Feb-2024
07:40
ALSHS
Server

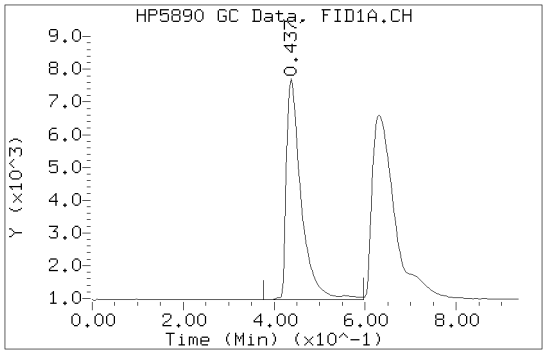
Reason Code:



Ethene (74-85-1)

BEFORE

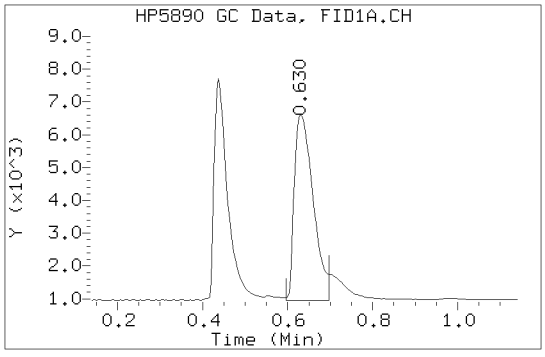
MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
17:48
ALSHS
Server



AFTER

MASS
100
AREA
17540
HEIGHT
5644
14-Feb-2024
07:40
ALSHS
Server

Reason Code:



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\021.D Page 1
Report Date: 14-Feb-2024 07:36

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\021.D
Lab Smp Id: HS24020246-03 Client Smp ID: HS24020246-03
Inj Date : 13-FEB-2024 17:52
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020246-03;HS24020246-03
Misc Info : ;1;0;2
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 21
Dil Factor: 2.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	20778	21.3109	42.621(M)
2 Ethene	0.633	0.630	0.003	19044	32.5116	65.023

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\021.D

Date : 13-FEB-2024 17:52

Client ID: HS24020246-03

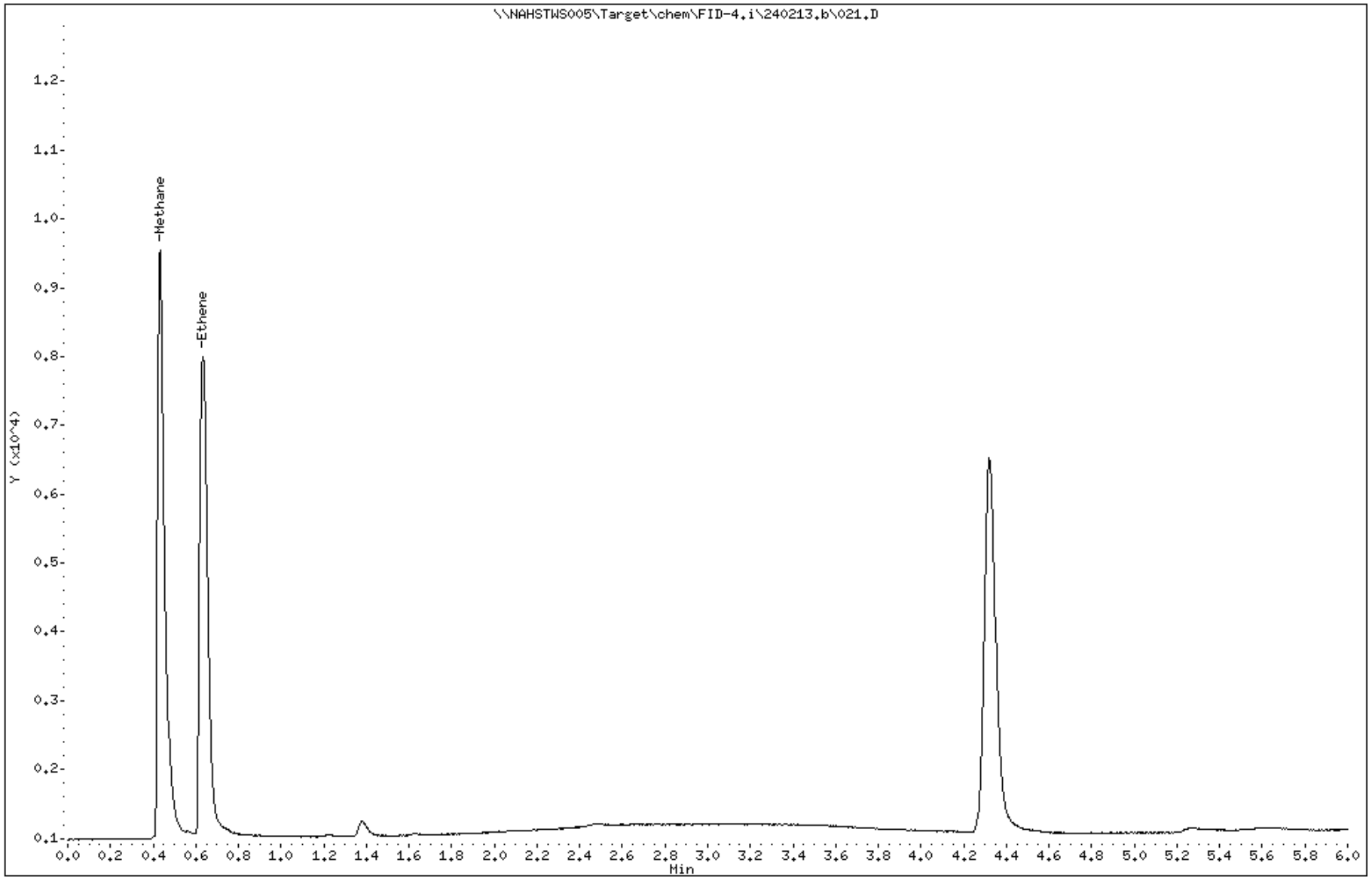
Instrument: FID-4.i

Sample Info: HS24020246-03;HS24020246-03

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



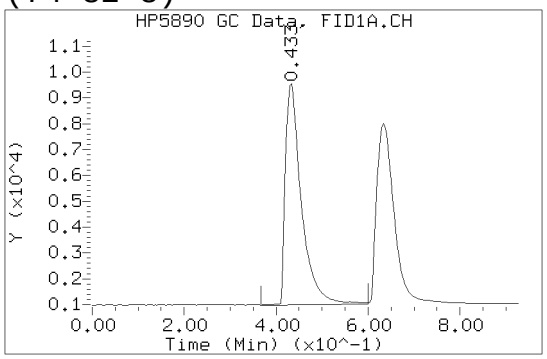
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\021.D
Inj Date : 13-FEB-2024 17:52
InstruID : FID-4.i
LabSampID : HS24020246-03

Methane (74-82-8)

Reason Code:

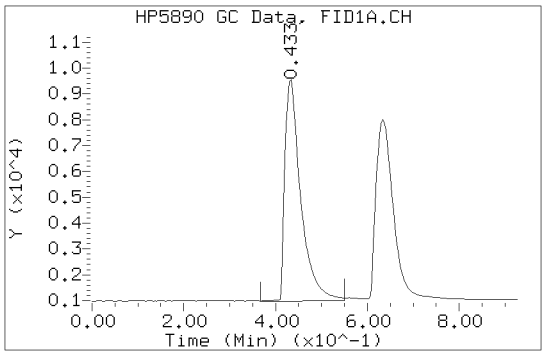
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
18:00
ALSHS
Server



AFTER

MASS
100
AREA
20778
HEIGHT
8561
14-Feb-2024
07:36
ALSHS
Server



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 13-FEB-2024 18:09
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\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.436	0.436	0.000	8514	9.64700	8.732
2 Ethene	0.640	0.640	0.000	8023	16.8500	13.696
3 Ethane	0.703	0.703	0.000	11990	18.0430	16.664

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\022.D

Date : 13-FEB-2024 18:09

Client ID: RSK-CCV

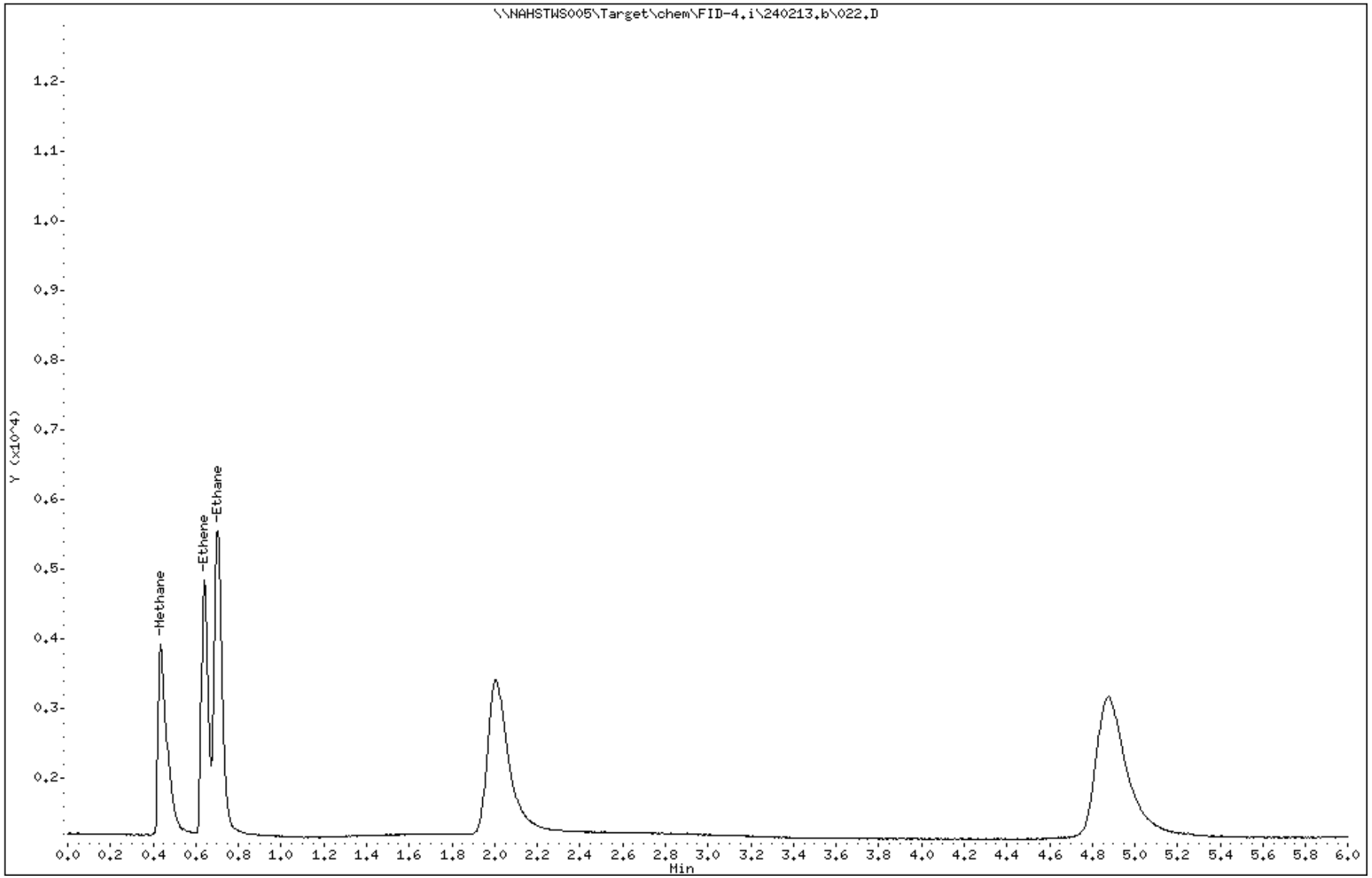
Instrument: FID-4.i

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\240213.b\022.D
Inj Date : 13-FEB-2024 18:09
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\023.D
Lab Smp Id: HS24020246-04 Client Smp ID: HS24020246-04
Inj Date : 13-FEB-2024 18:21
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020246-04;HS24020246-04
Misc Info : ;1;0;100
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 14-Feb-2024 07:28 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 23
Dil Factor: 100.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.443	0.436	0.007	15283	15.6750	1567.499(M)
2 Ethene	0.653	0.640	0.013	1766	3.01488	301.488(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\023.D

Date : 13-FEB-2024 18:21

Client ID: HS24020246-04

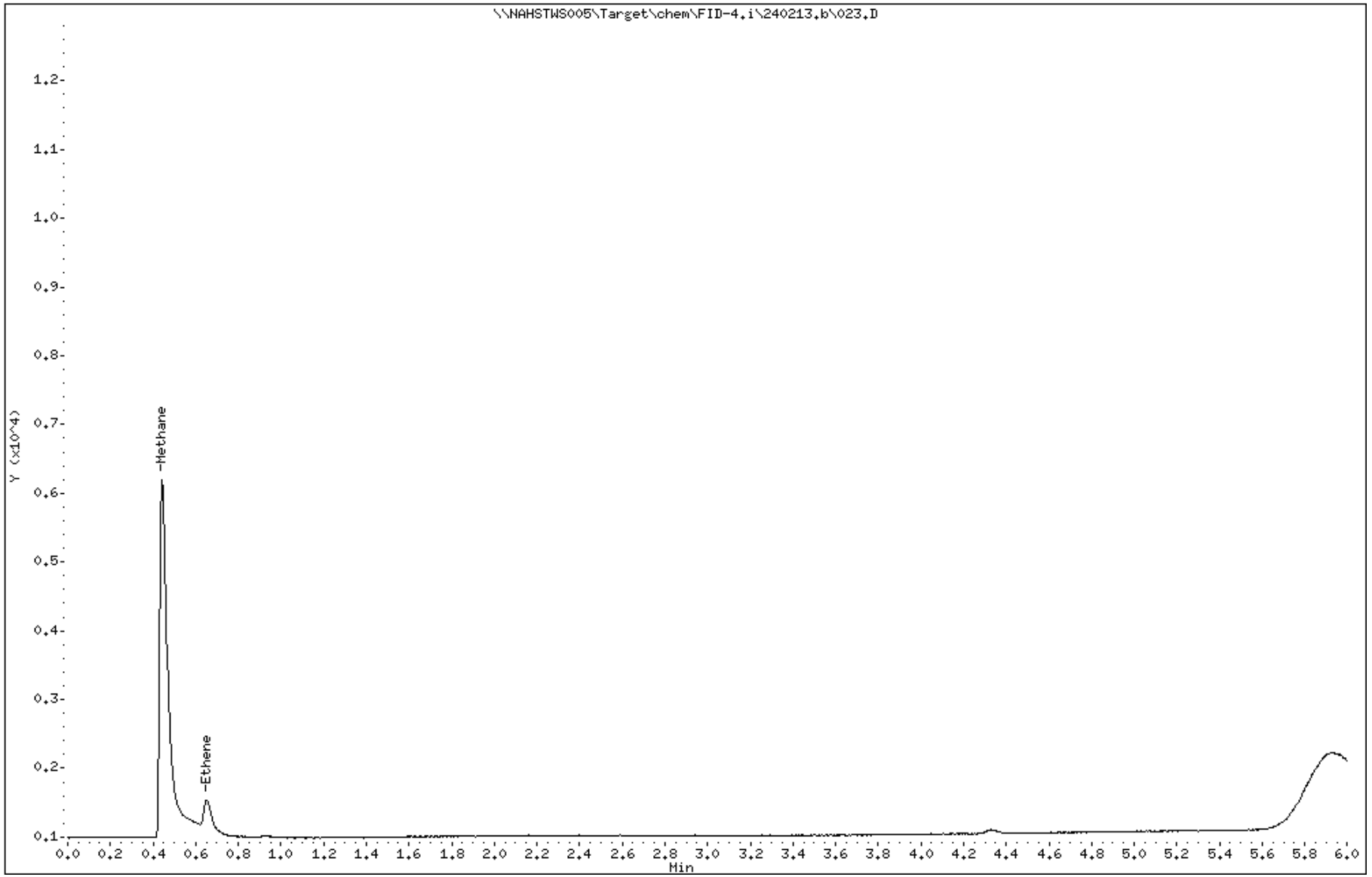
Instrument: FID-4.i

Sample Info: HS24020246-04;HS24020246-04

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



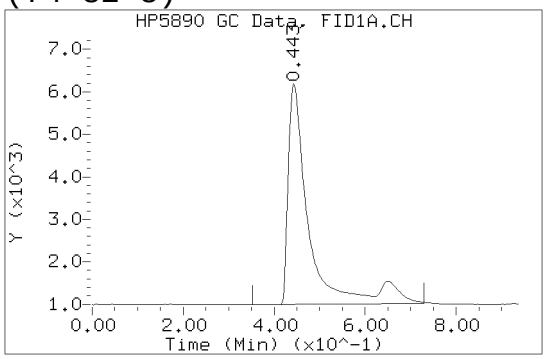
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\023.D
Inj Date : 13-FEB-2024 18:21
InstruID : FID-4.i
LabSampID : HS24020246-04

Methane (74-82-8)

Reason Code:

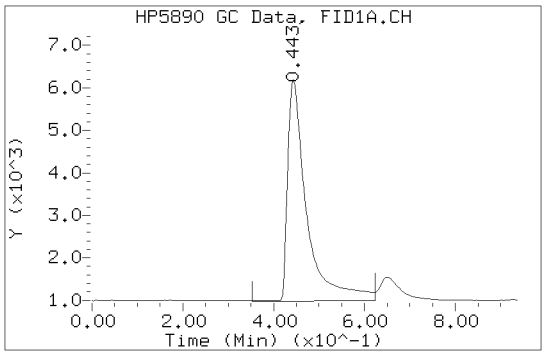
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
18:27
ALSHS
Server



AFTER

MASS
100
AREA
15283
HEIGHT
5206
14-Feb-2024
07:51
ALSHS
Server

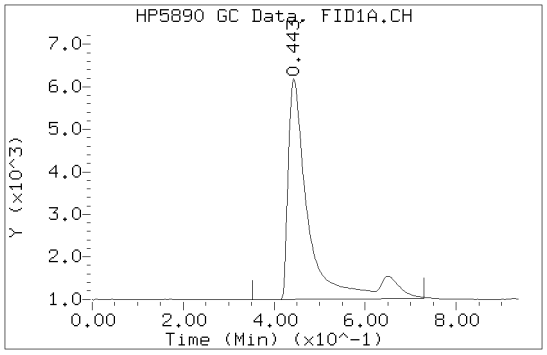


Ethene (74-85-1)

Reason Code:

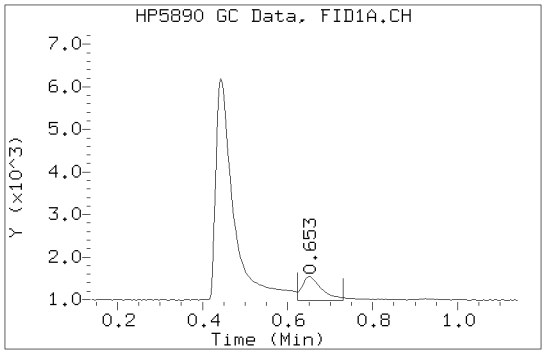
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
18:27
ALSHS
Server



AFTER

MASS
100
AREA
1766
HEIGHT
552
14-Feb-2024
07:51
ALSHS
Server



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\024.D Page 1
Report Date: 13-Feb-2024 19:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\024.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 13-FEB-2024 18:53
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\RSKNI3.m
Meth Date : 13-Feb-2024 19:04 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	8431	9.64700	8.647
2 Ethene	0.630	0.630	0.000	8038	16.8500	13.722(M)
3 Ethane	0.693	0.693	0.000	12055	18.0430	16.754(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240213.b\024.D

Date : 13-FEB-2024 18:53

Client ID: RSK-CCV

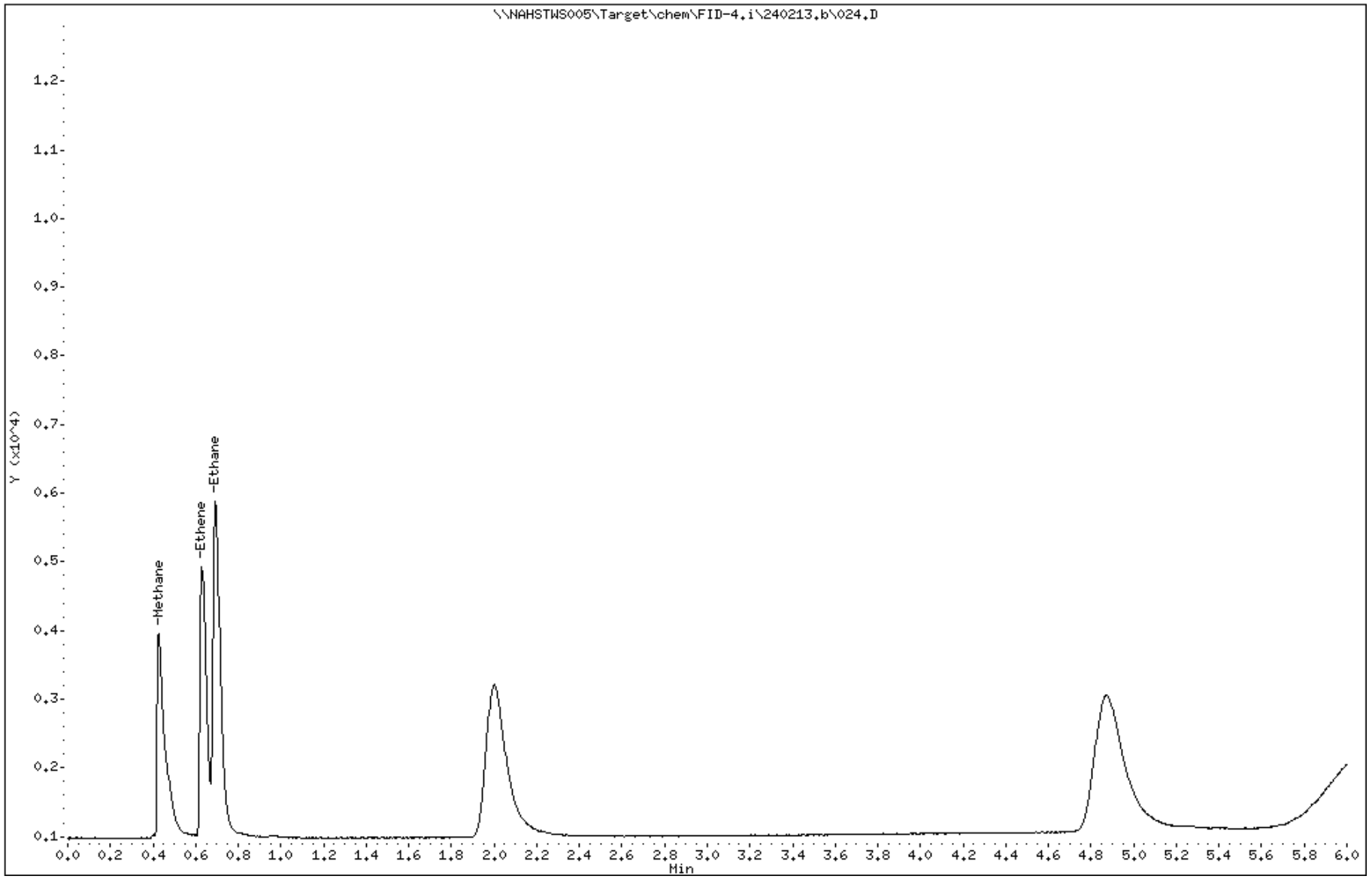
Instrument: FID-4.i

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

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



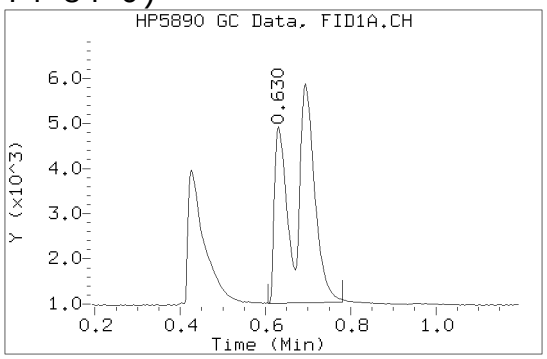
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240213.b\024.D
Inj Date : 13-FEB-2024 18:53
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

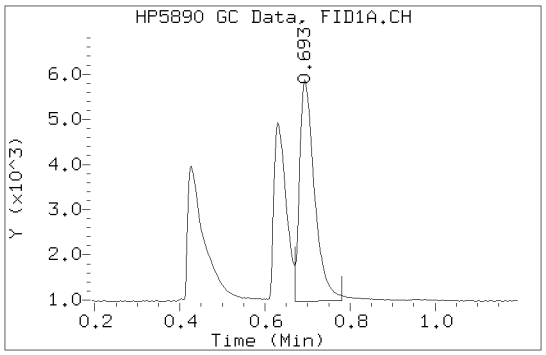
BEFORE

MASS
44
AREA
19399
HEIGHT
3909
13-Feb-2024
19:01
ALSHS
Server



AFTER

MASS
44
AREA
12055
HEIGHT
4901
13-Feb-2024
19:05
ALSHS
Server

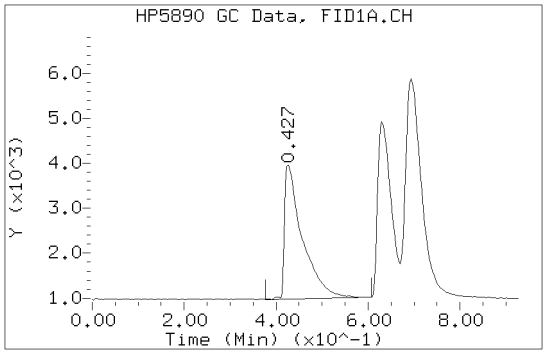


Ethene (74-85-1)

Reason Code:

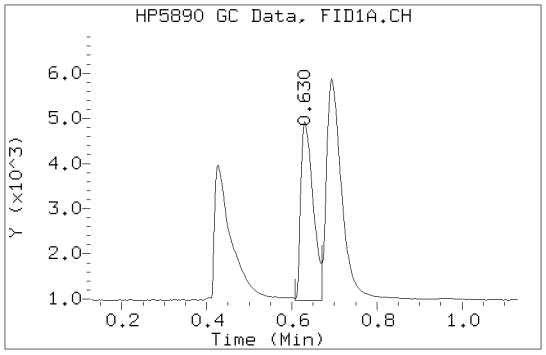
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
19:01
ALSHS
Server



AFTER

MASS
100
AREA
8038
HEIGHT
3952
13-Feb-2024
19:05
ALSHS
Server



HS24020246 Wetchem 9056_W

ALS WO# HS24020246

Sequence: 020624
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	STD1		Calibratio	RA1	1.00	1	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD2		Calibratio	RA2	1.00	2	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD3		Calibratio	RA3	1.00	3	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD4		Calibratio	RA4	1.00	4	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD5		Calibratio	RA5	1.00	5	Anions Program ISO37mM 150mm short 0.4 Constant current
	STD6		Calibratio	RA6	1.00	6	Anions Program ISO37mM 150mm short 0.4 Constant current
	ICV		Unknown	RA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	ICB		Unknown	RA8	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
	MBLK	REP-458108	Unknown	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	LCS	REP-458108	Unknown	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020193-01	REP-458108	Unknown	RA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020193-01MS	REP-458108	Unknown	RA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020193-01MSD	REP-458108	Unknown	RA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020193-02	REP-458108	Unknown	RA4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020193-03	REP-458108	Unknown	RA5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-03	REP-458108	Unknown	RA6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-04	REP-458108	Unknown	RA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-05	REP-458108	Unknown	RA8	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	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-01DF5	REP-458108	Unknown	RB1	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-01DF50	REP-458108	Unknown	RB2	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-02	REP-458108	Unknown	RB3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-02DF10	REP-458108	Unknown	RB4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-06	REP-458108	Unknown	RB5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-07	REP-458108	Unknown	RB6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

Sequence: 020624
Last Update Operator: alshs.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	HS24020201-08	REP-458108	Unknown	RB7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-09	REP-458108	Unknown	RB8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-10	REP-458108	Unknown	RC1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020204-01	REP-458108	Unknown	RC2	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	R4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020201-10DF2	458108-9056	Unknown	RC1	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	MBLK	300-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
	HS24020181-01		Unknown	RC3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020181-01MS		Unknown	RC4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020181-01MSD		Unknown	RC5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020181-01DF10		Unknown	RC6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020222-01DF50		Unknown	RC7	50.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020227-01		Unknown	RC8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020232-01		Unknown	RD1	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
	HS24020004-01DF20		Unknown	RD2	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-01		Unknown	RD3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-01DF10		Unknown	RD4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-02		Unknown	RD5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-02DF10		Unknown	RD6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-03		Unknown	RD7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-03DF10		Unknown	RD8	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-04		Unknown	RE1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-04DF5		Unknown	RE2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknown	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

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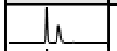
	CCB		Unknowr	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	HS24011537-05		Unknowr	RE3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011537-05DF10		Unknowr	RE4	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-01		Unknowr	RE5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-01MS		Unknowr	RE6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-01MSD		Unknowr	RE7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-01DF5		Unknowr	RE8	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-02		Unknowr	GA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-02DF5		Unknowr	GA2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-03		Unknowr	GA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-03DF5		Unknowr	GA4	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknowr	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknowr	R8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-04		Unknowr	GA5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-04DF10		Unknowr	GA6	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-05		Unknowr	GA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24011543-05DF20		Unknowr	GA8	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknowr	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknowr	R4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	MBLK	300-W-SH-1	Unknowr	R5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	LCS	300-W-SH-1	Unknowr	R2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020261-01	300-W-SH-1	Unknowr	GB1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020261-01DF5	300-W-SH-1	Unknowr	GB2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020261-02	300-W-SH-1	Unknowr	GB3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020261-02MS	300-W-SH-1	Unknowr	GB4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020261-02MSD	300-W-SH-1	Unknowr	GB5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020261-02DF5	300-W-SH-1	Unknowr	GB6	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknowr	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

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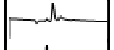
	CCB		Unknowr	R8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
CD	**Name**	**Comment**	**Type**	**Position**	**Dilution**	**Level**	**Instrument Method**
	HS24020246-01	458108-9056	Unknowr	GB7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020246-01DF10	458108-9056	Unknowr	GB8	10.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020246-02DF5	458108-9056	Unknowr	GC1	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020246-02DF100	458108-9056	Unknowr	GC2	100.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020246-03DF2	458108-9056	Unknowr	GC3	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020246-03DF40	458108-9056	Unknowr	GC4	40.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020246-04DF2	458108-9056	Unknowr	GC5	2.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020246-04DF40	458108-9056	Unknowr	GC6	40.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknowr	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknowr	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-09	300-W-SH-1	Unknowr	GC7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-09DF5	300-W-SH-1	Unknowr	GC8	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-10DF5	300-W-SH-1	Unknowr	GD1	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-10DF100	300-W-SH-1	Unknowr	GD2	100.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-11	300-W-SH-1	Unknowr	GD3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-11DF5	300-W-SH-1	Unknowr	GD4	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-12	300-W-SH-1	Unknowr	GD5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-12DF20	300-W-SH-1	Unknowr	GD6	20.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-13	300-W-SH-1	Unknowr	GD7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-13DF5	300-W-SH-1	Unknowr	GD8	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknowr	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknowr	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-14	300-W-SH-1	Unknowr	GE1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-14DF5	300-W-SH-1	Unknowr	GE2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-15	300-W-SH-1	Unknowr	GE3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-15DF5	300-W-SH-1	Unknowr	GE4	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020263-16	300-W-SH-1	Unknowr	GE5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

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CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method
	HS24020263-16DF5	300-W-SH-1	Unknowr	GE6	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020276-03	300-W-SH-1	Unknowr	GE7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020276-02	300-W-SH-1	Unknowr	GE8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020276-01	300-W-SH-1	Unknowr	BA1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020266-01	300-W-SH-1	Unknowr	BA2	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknowr	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknowr	R4	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020271-02	300-W-SH-1	Unknowr	BA3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020271-02DF5	300-W-SH-1	Unknowr	BA4	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020271-03	300-W-SH-1	Unknowr	BA5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020271-03DF5	300-W-SH-1	Unknowr	BA6	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020271-04	300-W-SH-1	Unknowr	BA7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020271-04MS	300-W-SH-1	Unknowr	BA8	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020271-04MSD	300-W-SH-1	Unknowr	BB1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020271-04DF5	300-W-SH-1	Unknowr	BB2	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020284-01	300-W-SH-1	Unknowr	BB3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020284-01DF5	300-W-SH-1	Unknowr	BB4	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV1		Unknowr	R3	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknowr	R7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020284-02	300-W-SH-1	Unknowr	BB5	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020284-02MS	300-W-SH-1	Unknowr	BB6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020284-02MSD	300-W-SH-1	Unknowr	BB7	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	HS24020284-02DF5	300-W-SH-1	Unknowr	BB8	5.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCV		Unknowr	R1	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current
	CCB		Unknowr	R6	1.00		Anions Program ISO37mM 150mm short 0.4 Constant current

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Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		STD1	5.0	Finished	2/4/2024 11:05:14 AM -06:00
Anions Processing Method ISO		STD2	5.0	Finished	2/4/2024 11:11:07 AM -06:00
Anions Processing Method ISO		STD3	5.0	Finished	2/4/2024 11:17:01 AM -06:00
Anions Processing Method ISO		STD4	5.0	Finished	2/4/2024 11:22:55 AM -06:00
Anions Processing Method ISO		STD5	5.0	Finished	2/4/2024 11:28:49 AM -06:00
Anions Processing Method ISO		STD6	5.0	Finished	2/4/2024 11:34:42 AM -06:00
Anions Processing Method ISO		ICV	5.0	Finished	2/4/2024 11:46:30 AM -06:00
Anions Processing Method ISO		ICB	5.0	Finished	2/4/2024 12:04:12 PM -06:00
Anions Processing Method ISO		CCV	5.0	Finished	2/6/2024 8:32:54 AM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 8:38:51 AM -06:00
Anions Processing Method ISO		MBLK	5.0	Finished	2/6/2024 8:50:45 AM -06:00
Anions Processing Method ISO		LCS	5.0	Finished	2/6/2024 9:02:40 AM -06:00
Anions Processing Method ISO		HS24020193-01	5.0	Finished	2/6/2024 9:08:37 AM -06:00
Anions Processing Method ISO		HS24020193-01MS	5.0	Finished	2/6/2024 9:14:35 AM -06:00
Anions Processing Method ISO		HS24020193-01MSD	5.0	Finished	2/6/2024 9:20:32 AM -06:00
Anions Processing Method ISO		HS24020193-02	5.0	Finished	2/6/2024 9:26:29 AM -06:00
Anions Processing Method ISO		HS24020193-03	5.0	Finished	2/6/2024 9:32:26 AM -06:00
Anions Processing Method ISO		HS24020201-03	5.0	Finished	2/6/2024 9:38:24 AM -06:00
Anions Processing Method ISO		HS24020201-04	5.0	Finished	2/6/2024 9:44:21 AM -06:00
Anions Processing Method ISO		HS24020201-05	5.0	Finished	2/6/2024 9:50:18 AM -06:00
Anions Processing Method ISO		CCV1	5.0	Finished	2/6/2024 10:08:10 AM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 10:14:07 AM -06:00
Anions Processing Method ISO		HS24020201-01DF5	5.0	Finished	2/6/2024 10:26:02 AM -06:00
Anions Processing Method ISO		HS24020201-01DF50	5.0	Finished	2/6/2024 10:31:59 AM -06:00
Anions Processing Method ISO		HS24020201-02	5.0	Finished	2/6/2024 10:37:56 AM -06:00
Anions Processing Method ISO		HS24020201-02DF10	5.0	Finished	2/6/2024 10:43:54 AM -06:00
Anions Processing Method ISO		HS24020201-06	5.0	Finished	2/6/2024 10:49:51 AM -06:00
Anions Processing Method ISO		HS24020201-07	5.0	Finished	2/6/2024 10:55:48 AM -06:00

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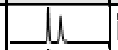
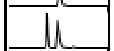
Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		HS24020201-08	5.0	Finished	2/6/2024 11:01:45 AM -06:00
Anions Processing Method ISO		HS24020201-09	5.0	Finished	2/6/2024 11:07:43 AM -06:00
Anions Processing Method ISO		HS24020201-10	5.0	Finished	2/6/2024 11:13:40 AM -06:00
Anions Processing Method ISO		HS24020204-01	5.0	Finished	2/6/2024 11:19:37 AM -06:00
Anions Processing Method ISO		CCV	5.0	Finished	2/6/2024 11:37:29 AM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 11:43:26 AM -06:00
Anions Processing Method ISO		HS24020201-10DF2	5.0	Finished	2/6/2024 11:55:20 AM -06:00
Anions Processing Method ISO		MBLK	5.0	Finished	2/6/2024 12:13:12 PM -06:00
Anions Processing Method ISO		LCS	5.0	Finished	2/6/2024 12:19:09 PM -06:00
Anions Processing Method ISO		HS24020181-01	5.0	Finished	2/6/2024 12:31:04 PM -06:00
Anions Processing Method ISO		HS24020181-01MS	5.0	Finished	2/6/2024 12:37:01 PM -06:00
Anions Processing Method ISO		HS24020181-01MSD	5.0	Finished	2/6/2024 12:42:58 PM -06:00
Anions Processing Method ISO		HS24020181-01DF10	5.0	Finished	2/6/2024 12:48:55 PM -06:00
Anions Processing Method ISO		HS24020222-01DF50	5.0	Finished	2/6/2024 12:54:52 PM -06:00
Anions Processing Method ISO		HS24020227-01	5.0	Finished	2/6/2024 1:00:50 PM -06:00
Anions Processing Method ISO		HS24020232-01	5.0	Finished	2/6/2024 1:06:47 PM -06:00
Anions Processing Method ISO		CCV1	5.0	Finished	2/6/2024 1:18:41 PM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 1:36:33 PM -06:00
Anions Processing Method ISO		HS24020004-01DF20	5.0	Finished	2/6/2024 1:42:30 PM -06:00
Anions Processing Method ISO		HS24011537-01	5.0	Finished	2/6/2024 1:48:27 PM -06:00
Anions Processing Method ISO		HS24011537-01DF10	5.0	Finished	2/6/2024 1:54:24 PM -06:00
Anions Processing Method ISO		HS24011537-02	5.0	Finished	2/6/2024 2:00:21 PM -06:00
Anions Processing Method ISO		HS24011537-02DF10	5.0	Finished	2/6/2024 2:06:18 PM -06:00
Anions Processing Method ISO		HS24011537-03	5.0	Finished	2/6/2024 2:12:15 PM -06:00
Anions Processing Method ISO		HS24011537-03DF10	5.0	Finished	2/6/2024 2:18:12 PM -06:00
Anions Processing Method ISO		HS24011537-04	5.0	Finished	2/6/2024 2:24:09 PM -06:00
Anions Processing Method ISO		HS24011537-04DF5	5.0	Finished	2/6/2024 2:30:06 PM -06:00
Anions Processing Method ISO		CCV	5.0	Finished	2/6/2024 2:42:00 PM -06:00

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Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 2:53:54 PM -06:00
Processing Method	**CD**	**Name**	**me**	**Status**	**Inject Time**
Anions Processing Method ISO		HS24011537-05	5.0	Finished	2/6/2024 3:05:48 PM -06:00
Anions Processing Method ISO		HS24011537-05DF10	5.0	Finished	2/6/2024 3:11:45 PM -06:00
Anions Processing Method ISO		HS24011543-01	5.0	Finished	2/6/2024 3:17:43 PM -06:00
Anions Processing Method ISO		HS24011543-01MS	5.0	Finished	2/6/2024 3:23:40 PM -06:00
Anions Processing Method ISO		HS24011543-01MSD	5.0	Finished	2/6/2024 3:29:37 PM -06:00
Anions Processing Method ISO		HS24011543-01DF5	5.0	Finished	2/6/2024 3:35:34 PM -06:00
Anions Processing Method ISO		HS24011543-02	5.0	Finished	2/6/2024 3:41:31 PM -06:00
Anions Processing Method ISO		HS24011543-02DF5	5.0	Finished	2/6/2024 3:47:28 PM -06:00
Anions Processing Method ISO		HS24011543-03	5.0	Finished	2/6/2024 3:53:25 PM -06:00
Anions Processing Method ISO		HS24011543-03DF5	5.0	Finished	2/6/2024 3:59:22 PM -06:00
Anions Processing Method ISO		CCV1	5.0	Finished	2/6/2024 4:11:16 PM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 4:29:08 PM -06:00
Anions Processing Method ISO		HS24011543-04	5.0	Finished	2/6/2024 4:35:05 PM -06:00
Anions Processing Method ISO		HS24011543-04DF10	5.0	Finished	2/6/2024 4:41:02 PM -06:00
Anions Processing Method ISO		HS24011543-05	5.0	Finished	2/6/2024 4:46:59 PM -06:00
Anions Processing Method ISO		HS24011543-05DF20	5.0	Finished	2/6/2024 4:52:56 PM -06:00
Anions Processing Method ISO		CCV	5.0	Finished	2/6/2024 5:10:48 PM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 5:28:39 PM -06:00
Anions Processing Method ISO		MBLK	5.0	Finished	2/6/2024 5:34:36 PM -06:00
Anions Processing Method ISO		LCS	5.0	Finished	2/6/2024 5:40:33 PM -06:00
Anions Processing Method ISO		HS24020261-01	5.0	Finished	2/6/2024 6:06:36 PM -06:00
Anions Processing Method ISO		HS24020261-01DF5	5.0	Finished	2/6/2024 6:12:33 PM -06:00
Anions Processing Method ISO		HS24020261-02	5.0	Finished	2/6/2024 6:18:30 PM -06:00
Anions Processing Method ISO		HS24020261-02MS	5.0	Finished	2/6/2024 6:24:27 PM -06:00
Anions Processing Method ISO		HS24020261-02MSD	5.0	Finished	2/6/2024 6:30:24 PM -06:00
Anions Processing Method ISO		HS24020261-02DF5	5.0	Finished	2/6/2024 6:36:22 PM -06:00
Anions Processing Method ISO		CCV1	5.0	Finished	2/6/2024 6:57:34 PM -06:00

Sequence: 020624
Last Update Operator: alshs.nouser

Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 7:15:26 PM -06:00
Anions Processing Method ISO		HS24020246-01	5.0	Finished	2/6/2024 7:21:23 PM -06:00
Anions Processing Method ISO		HS24020246-01DF10	5.0	Finished	2/6/2024 7:27:20 PM -06:00
Anions Processing Method ISO		HS24020246-02DF5	5.0	Finished	2/6/2024 7:33:17 PM -06:00
Anions Processing Method ISO		HS24020246-02DF100	5.0	Finished	2/6/2024 7:39:15 PM -06:00
Anions Processing Method ISO		HS24020246-03DF2	5.0	Finished	2/6/2024 7:45:12 PM -06:00
Anions Processing Method ISO		HS24020246-03DF40	5.0	Finished	2/6/2024 7:51:10 PM -06:00
Anions Processing Method ISO		HS24020246-04DF2	5.0	Finished	2/6/2024 7:57:07 PM -06:00
Anions Processing Method ISO		HS24020246-04DF40	5.0	Finished	2/6/2024 8:03:04 PM -06:00
Anions Processing Method ISO		CCV	5.0	Finished	2/6/2024 8:20:56 PM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 8:38:48 PM -06:00
Anions Processing Method ISO		HS24020263-09	5.0	Finished	2/6/2024 8:44:45 PM -06:00
Anions Processing Method ISO		HS24020263-09DF5	5.0	Finished	2/6/2024 8:50:42 PM -06:00
Anions Processing Method ISO		HS24020263-10DF5	5.0	Finished	2/6/2024 8:56:39 PM -06:00
Anions Processing Method ISO		HS24020263-10DF100	5.0	Finished	2/6/2024 9:02:37 PM -06:00
Anions Processing Method ISO		HS24020263-11	5.0	Finished	2/6/2024 9:08:34 PM -06:00
Anions Processing Method ISO		HS24020263-11DF5	5.0	Finished	2/6/2024 9:14:31 PM -06:00
Anions Processing Method ISO		HS24020263-12	5.0	Finished	2/6/2024 9:20:28 PM -06:00
Anions Processing Method ISO		HS24020263-12DF20	5.0	Finished	2/6/2024 9:26:25 PM -06:00
Anions Processing Method ISO		HS24020263-13	5.0	Finished	2/6/2024 9:32:22 PM -06:00
Anions Processing Method ISO		HS24020263-13DF5	5.0	Finished	2/6/2024 9:38:19 PM -06:00
Anions Processing Method ISO		CCV1	5.0	Finished	2/6/2024 9:50:13 PM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 10:02:07 PM -06:00
Anions Processing Method ISO		HS24020263-14	5.0	Finished	2/6/2024 10:14:01 PM -06:00
Anions Processing Method ISO		HS24020263-14DF5	5.0	Finished	2/6/2024 10:19:58 PM -06:00
Anions Processing Method ISO		HS24020263-15	5.0	Finished	2/6/2024 10:25:55 PM -06:00
Anions Processing Method ISO		HS24020263-15DF5	5.0	Finished	2/6/2024 10:31:52 PM -06:00
Anions Processing Method ISO		HS24020263-16	5.0	Finished	2/6/2024 10:37:50 PM -06:00

Sequence: 020624
Last Update Operator: alshs.nouser

Processing Method	CD	Name	me	Status	Inject Time
Anions Processing Method ISO		HS24020263-16DF5	5.0	Finished	2/6/2024 10:43:47 PM -06:00
Anions Processing Method ISO		HS24020276-03	5.0	Finished	2/6/2024 10:49:44 PM -06:00
Anions Processing Method ISO		HS24020276-02	5.0	Finished	2/6/2024 10:55:41 PM -06:00
Anions Processing Method ISO		HS24020276-01	5.0	Finished	2/6/2024 11:01:38 PM -06:00
Anions Processing Method ISO		HS24020266-01	5.0	Finished	2/6/2024 11:07:35 PM -06:00
Anions Processing Method ISO		CCV	5.0	Finished	2/6/2024 11:25:27 PM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/6/2024 11:37:21 PM -06:00
Anions Processing Method ISO		HS24020271-02	5.0	Finished	2/6/2024 11:49:15 PM -06:00
Anions Processing Method ISO		HS24020271-02DF5	5.0	Finished	2/6/2024 11:55:12 PM -06:00
Anions Processing Method ISO		HS24020271-03	5.0	Finished	2/7/2024 12:01:10 AM -06:00
Anions Processing Method ISO		HS24020271-03DF5	5.0	Finished	2/7/2024 12:07:07 AM -06:00
Anions Processing Method ISO		HS24020271-04	5.0	Finished	2/7/2024 12:13:04 AM -06:00
Anions Processing Method ISO		HS24020271-04MS	5.0	Finished	2/7/2024 12:19:01 AM -06:00
Anions Processing Method ISO		HS24020271-04MSD	5.0	Finished	2/7/2024 12:24:58 AM -06:00
Anions Processing Method ISO		HS24020271-04DF5	5.0	Finished	2/7/2024 12:30:55 AM -06:00
Anions Processing Method ISO		HS24020284-01	5.0	Finished	2/7/2024 12:36:52 AM -06:00
Anions Processing Method ISO		HS24020284-01DF5	5.0	Finished	2/7/2024 12:42:48 AM -06:00
Anions Processing Method ISO		CCV1	5.0	Finished	2/7/2024 12:54:42 AM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/7/2024 1:06:36 AM -06:00
Anions Processing Method ISO		HS24020284-02	5.0	Finished	2/7/2024 1:18:29 AM -06:00
Anions Processing Method ISO		HS24020284-02MS	5.0	Finished	2/7/2024 1:24:26 AM -06:00
Anions Processing Method ISO		HS24020284-02MSD	5.0	Finished	2/7/2024 1:30:22 AM -06:00
Anions Processing Method ISO		HS24020284-02DF5	5.0	Finished	2/7/2024 1:36:19 AM -06:00
Anions Processing Method ISO		CCV	5.0	Finished	2/7/2024 1:48:12 AM -06:00
Anions Processing Method ISO		CCB	5.0	Finished	2/7/2024 2:11:59 AM -06:00

Sequence: 020424
Injection #6: STD6

Calibration

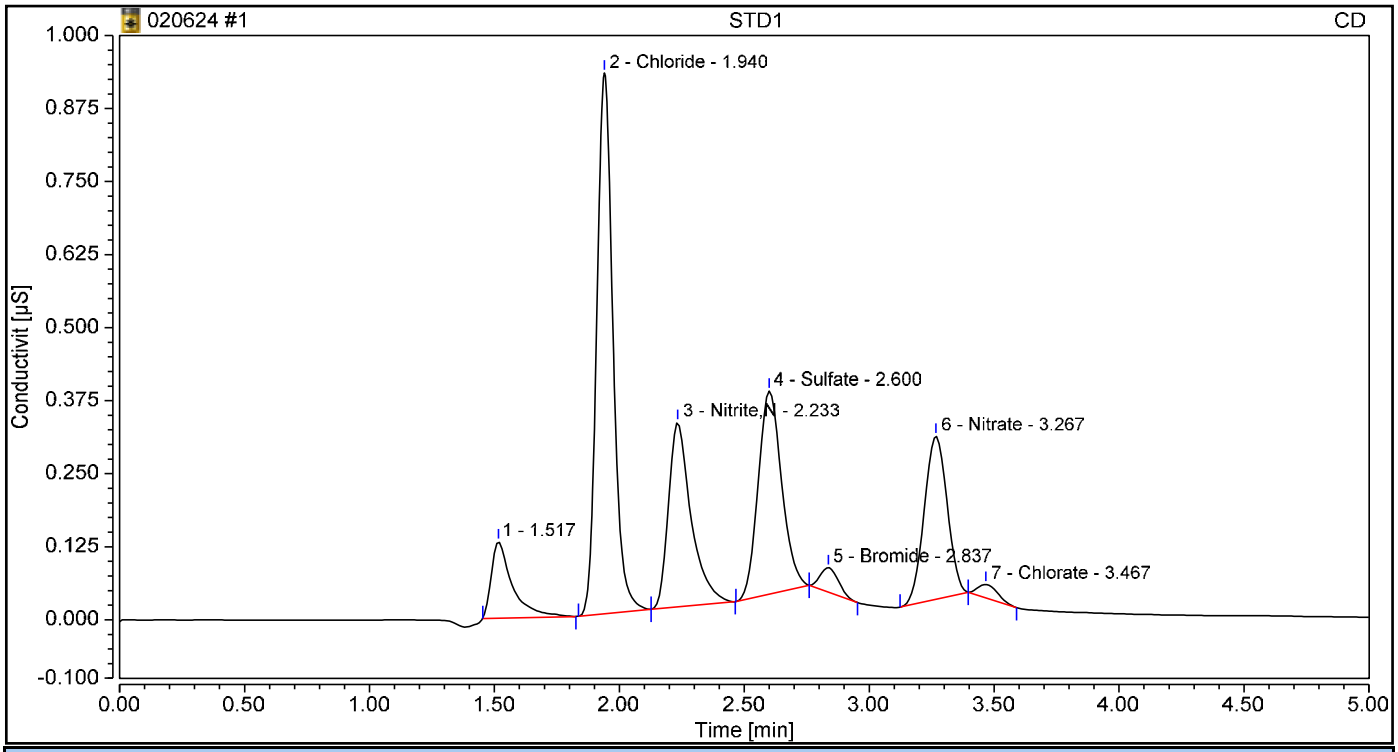
Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	Fluoride	Lin, WithOffset, 1/A	Area	6	12.5278	0.99934	-0.0092	0.1944	0.0000
2	Chloride	Lin, WithOffset, 1/A	Area	6	6.6227	0.99977	-0.0028	0.1427	0.0000
3	Nitrite,N	Quad, WithOffset, 1/A	Area	6	8.3234	0.99966	0.0018	0.3105	-0.0032
4	Sulfate	Quad, WithOffset, 1/A	Area	6	7.1146	0.99983	-0.0111	0.0924	0.0000
5	Bromide	Quad, WithOffset, 1/A	Area	6	5.5114	0.99990	-0.0005	0.0406	0.0003
6	Nitrate	Lin, WithOffset, 1/A	Area	6	5.3444	0.99985	-0.0026	0.3209	0.0000
7	***Chlorate***	***Quad, WithOffset, 1/A***	***Area***	***6***	***7.1552***	***0.99981***	***-0.0009***	***0.0278***	***-0.0001***
n.a.	Phosphate	Lin, WithOffset, 1/A	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					**12.5278**	0.99990			
Minimum					5.3444	**0.99934**			

Chromatogram and Results

Injection Details

Injection Name:	**STD1**	*Run Time (min):*	**5.00**
Vial Number:	**RA1**	*Injection Volume:*	**5.00**
Injection Type:	**Calibration Standard**	*Channel:*	**CD**
Calibration Level:	**1**	*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**04/Feb/24 11:05**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

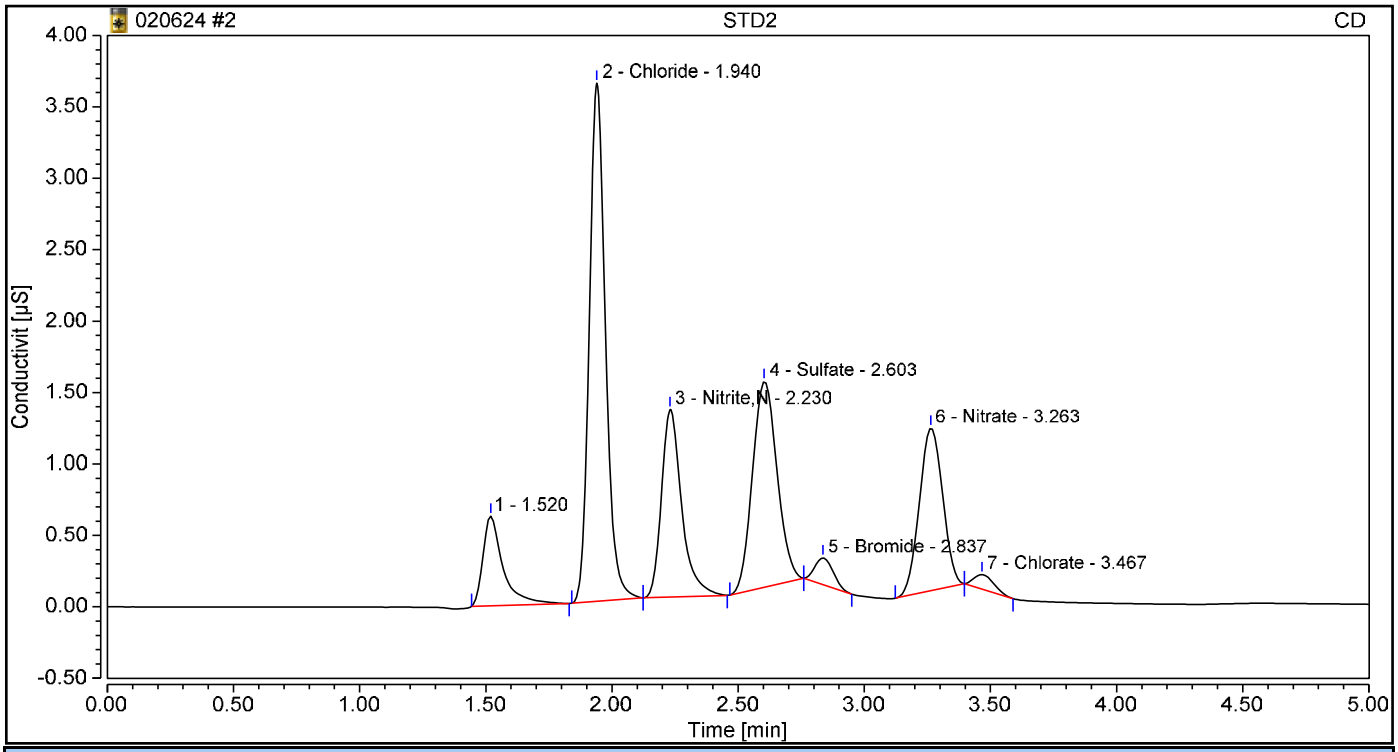
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.517	0.013	0.131	6.75	6.33	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.940	0.069	0.926	36.72	44.85	0.5049
3	Nitrite,N	2.233	0.033	0.316	17.59	15.31	0.1009
4	Sulfate	2.600	0.038	0.348	20.11	16.84	0.5305
5	Bromide	2.837	0.004	0.042	1.90	2.03	0.1001
6	Nitrate	3.267	0.030	0.279	15.80	13.54	0.1010
7	Chlorate	3.467	0.002	0.023	1.13	1.11	0.1085
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.188**	**2.064**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD2**	*Run Time (min):*	**5.00**
Vial Number:	**RA2**	*Injection Volume:*	**5.00**
Injection Type:	**Calibration Standard**	*Channel:*	**CD**
Calibration Level:	**2**	*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**04/Feb/24 11:11**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

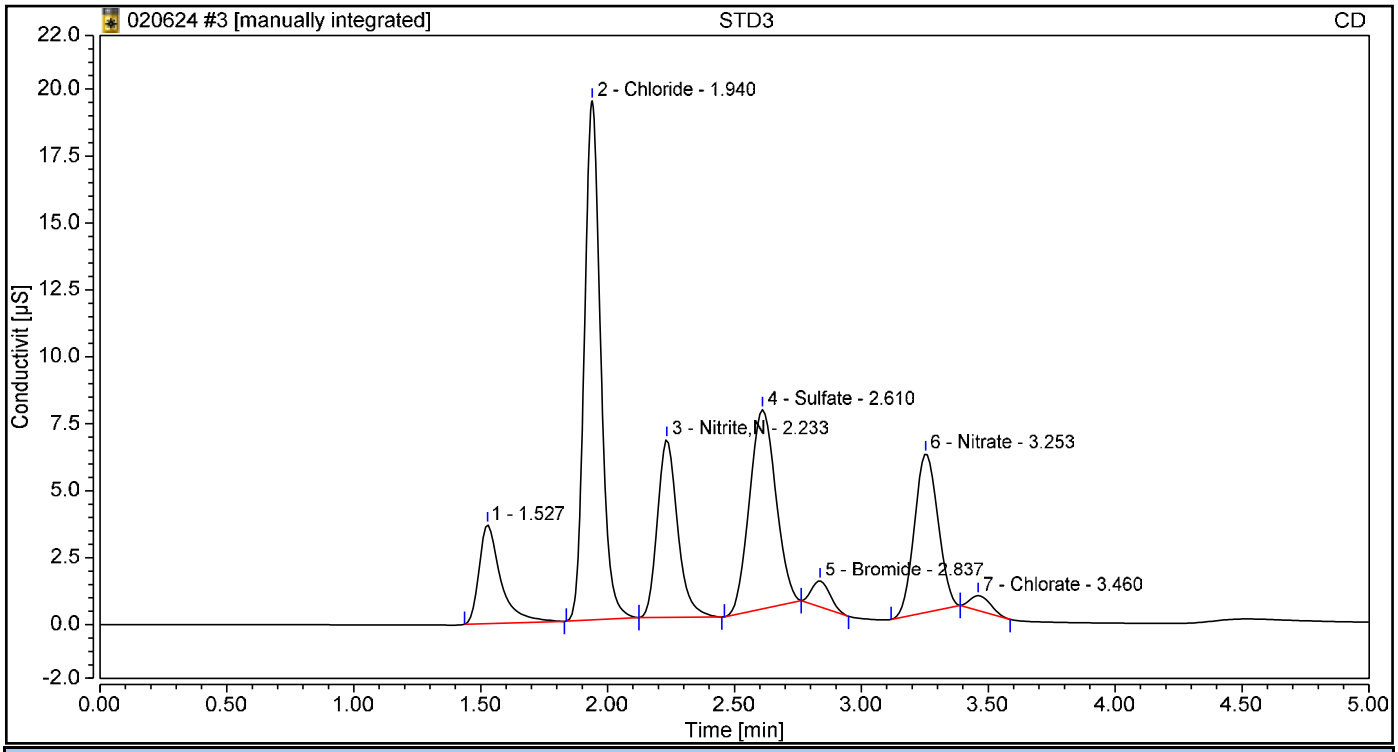
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.520	0.058	0.628	7.66	7.44	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.940	0.269	3.628	35.54	43.00	1.9083
3	Nitrite,N	2.230	0.121	1.313	16.00	15.56	0.3863
4	Sulfate	2.603	0.162	1.441	21.43	17.08	1.8779
5	Bromide	2.837	0.016	0.187	2.09	2.22	0.4003
6	Nitrate	3.263	0.122	1.139	16.05	13.50	0.3874
7	Chlorate	3.467	0.009	0.101	1.24	1.20	0.3695
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.758**	**8.438**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD3**	*Run Time (min):*	**5.00**
Vial Number:	**RA3**	*Injection Volume:*	**5.00**
Injection Type:	**Calibration Standard**	*Channel:*	**CD**
Calibration Level:	**3**	*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**04/Feb/24 11:17**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

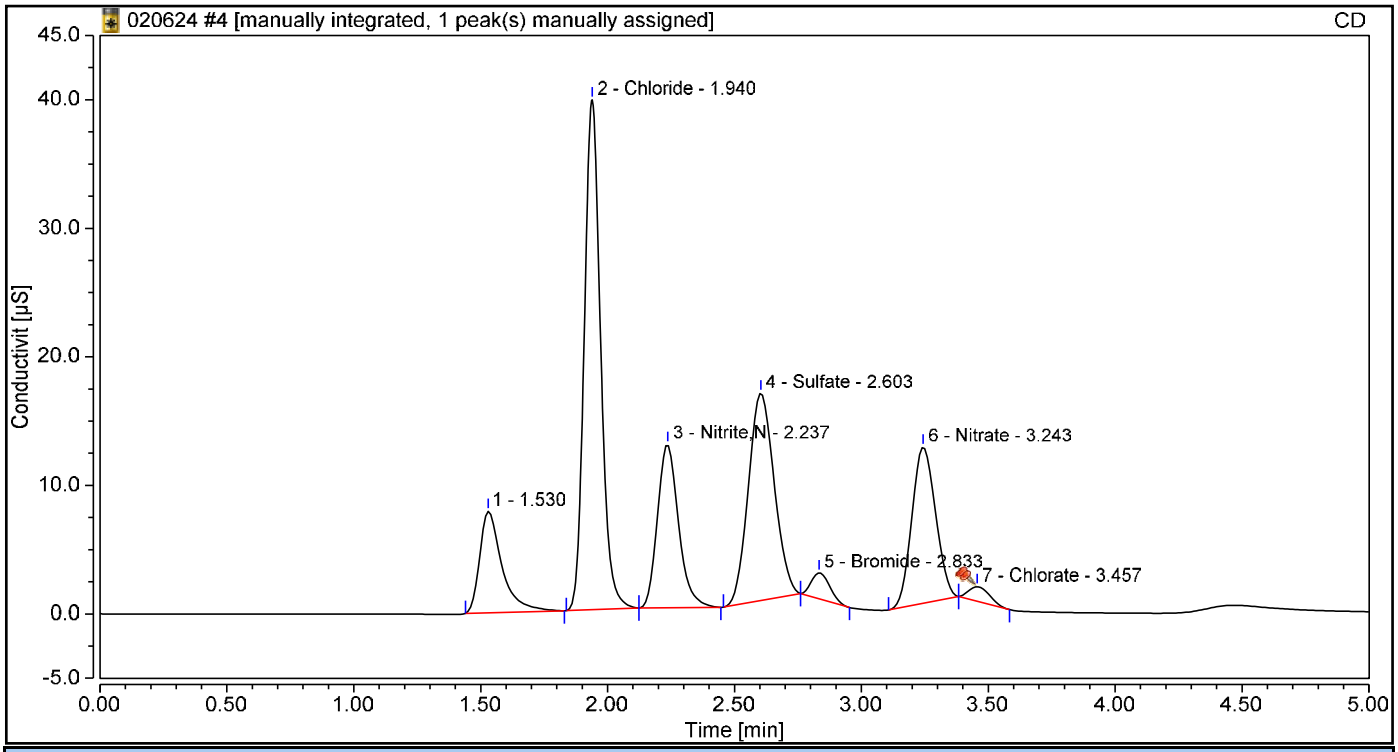
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.527	0.364	3.687	8.91	8.27	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.940	1.440	19.377	35.20	43.46	10.1140
3	Nitrite,N	2.233	0.618	6.647	15.11	14.91	2.0267
4	Sulfate	2.610	0.896	7.433	21.90	16.67	9.7818
5	Bromide	2.837	0.080	0.966	1.96	2.17	1.9634
6	Nitrate	3.253	0.639	5.928	15.63	13.29	2.0010
7	Chlorate	3.460	0.053	0.553	1.29	1.24	1.9448
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**4.091**	**44.591**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD4**	*Run Time (min):*	**5.00**
Vial Number:	**RA4**	*Injection Volume:*	**5.00**
Injection Type:	**Calibration Standard**	*Channel:*	**CD**
Calibration Level:	**4**	*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**04/Feb/24 11:22**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

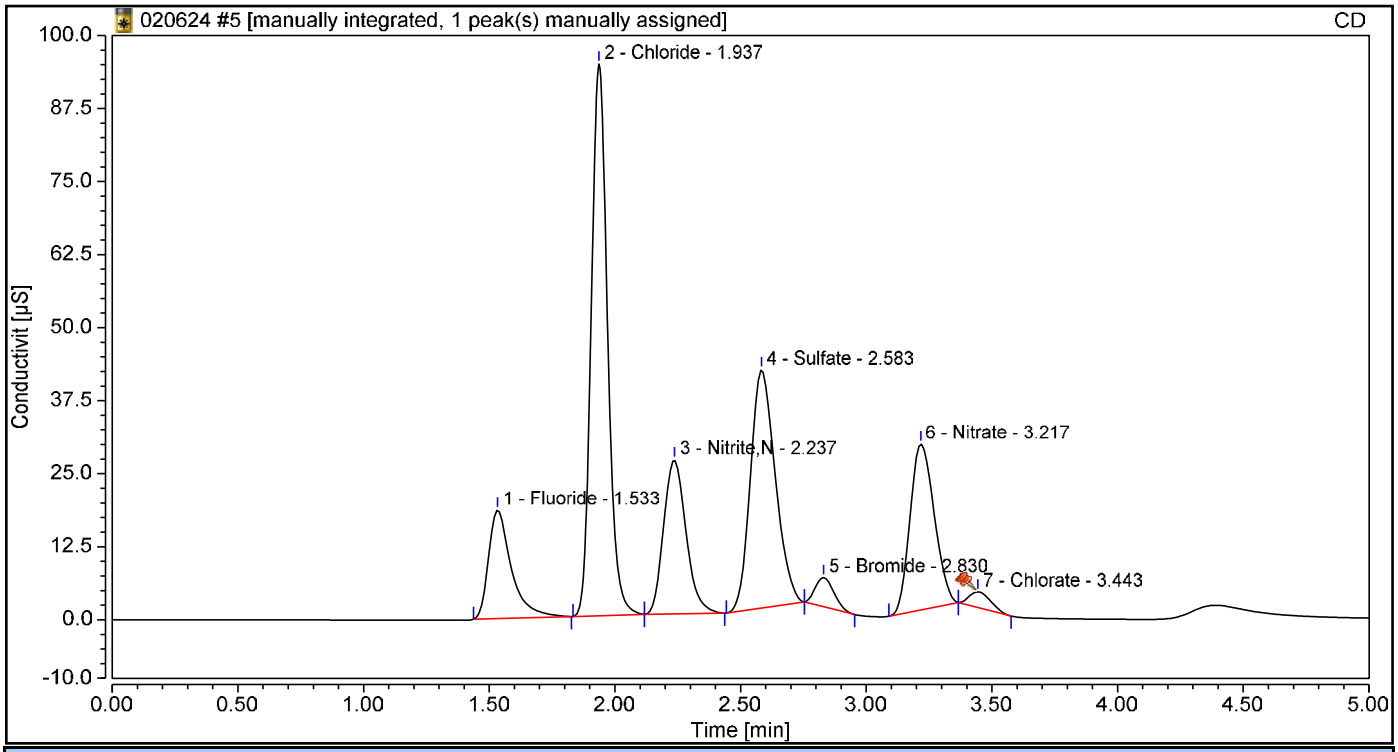
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.530	0.804	7.889	9.47	8.60	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.940	2.956	39.673	34.81	43.25	20.7427
3	Nitrite,N	2.237	1.228	12.710	14.47	13.86	4.1237
4	Sulfate	2.603	1.902	16.141	22.40	17.60	20.5414
5	Bromide	2.833	0.171	2.010	2.01	2.19	4.0956
6	Nitrate	3.243	1.320	12.157	15.54	13.25	4.1223
7	Chlorate	3.457	0.111	1.142	1.30	1.25	4.0636
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.492**	**91.724**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD5**	*Run Time (min):*	**5.00**
Vial Number:	**RA5**	*Injection Volume:*	**5.00**
Injection Type:	**Calibration Standard**	*Channel:*	**CD**
Calibration Level:	**5**	*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**04/Feb/24 11:28**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

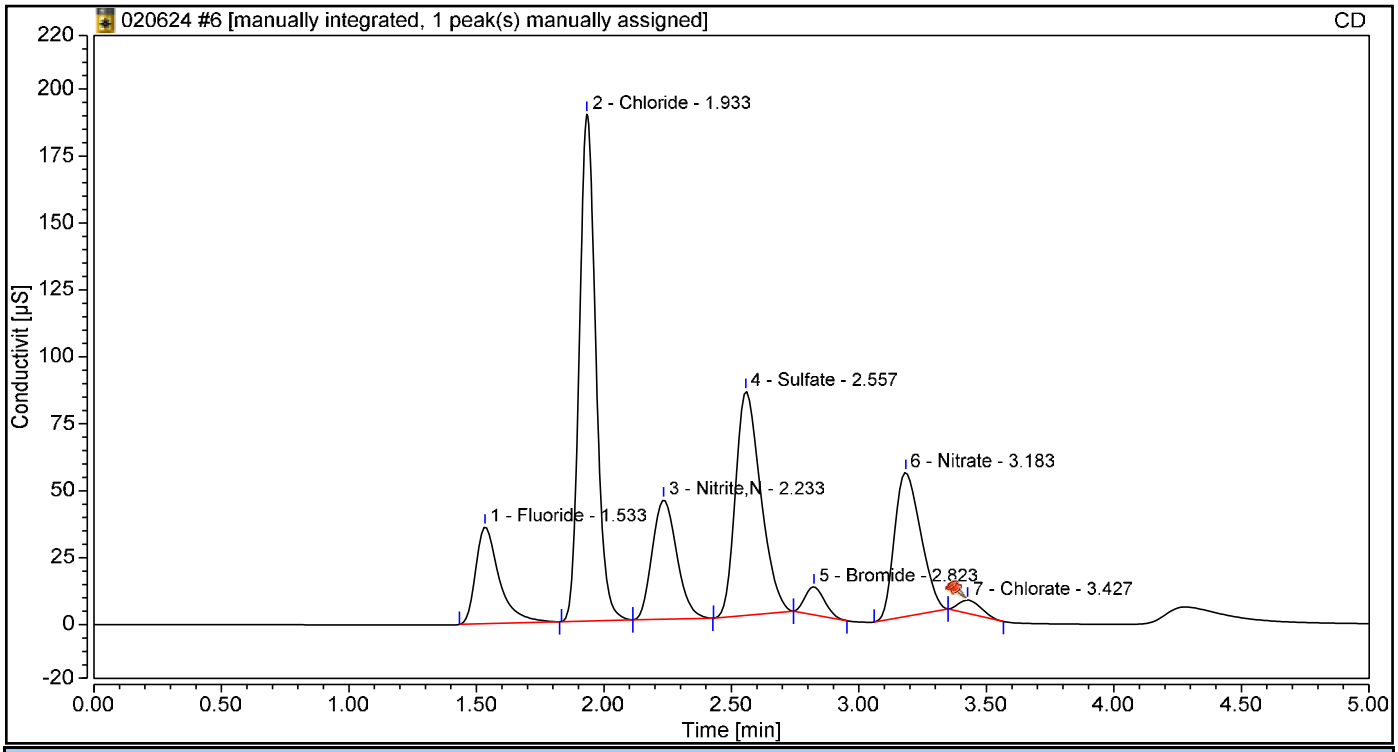
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.533	1.953	18.596	9.63	8.60	10.0000
2	Chloride	1.937	7.062	94.419	34.80	43.66	49.5196
3	Nitrite,N	2.237	2.727	26.367	13.44	12.19	9.7461
4	Sulfate	2.583	4.672	40.798	23.02	18.86	49.7062
5	Bromide	2.830	0.430	4.976	2.12	2.30	9.9169
6	Nitrate	3.217	3.178	28.441	15.66	13.15	9.9131
7	Chlorate	3.443	0.269	2.671	1.32	1.24	10.0449
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**20.292**	**216.268**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD6**	*Run Time (min):*	**5.00**
Vial Number:	**RA6**	*Injection Volume:*	**5.00**
Injection Type:	**Calibration Standard**	*Channel:*	**CD**
Calibration Level:	**6**	*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**04/Feb/24 11:34**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

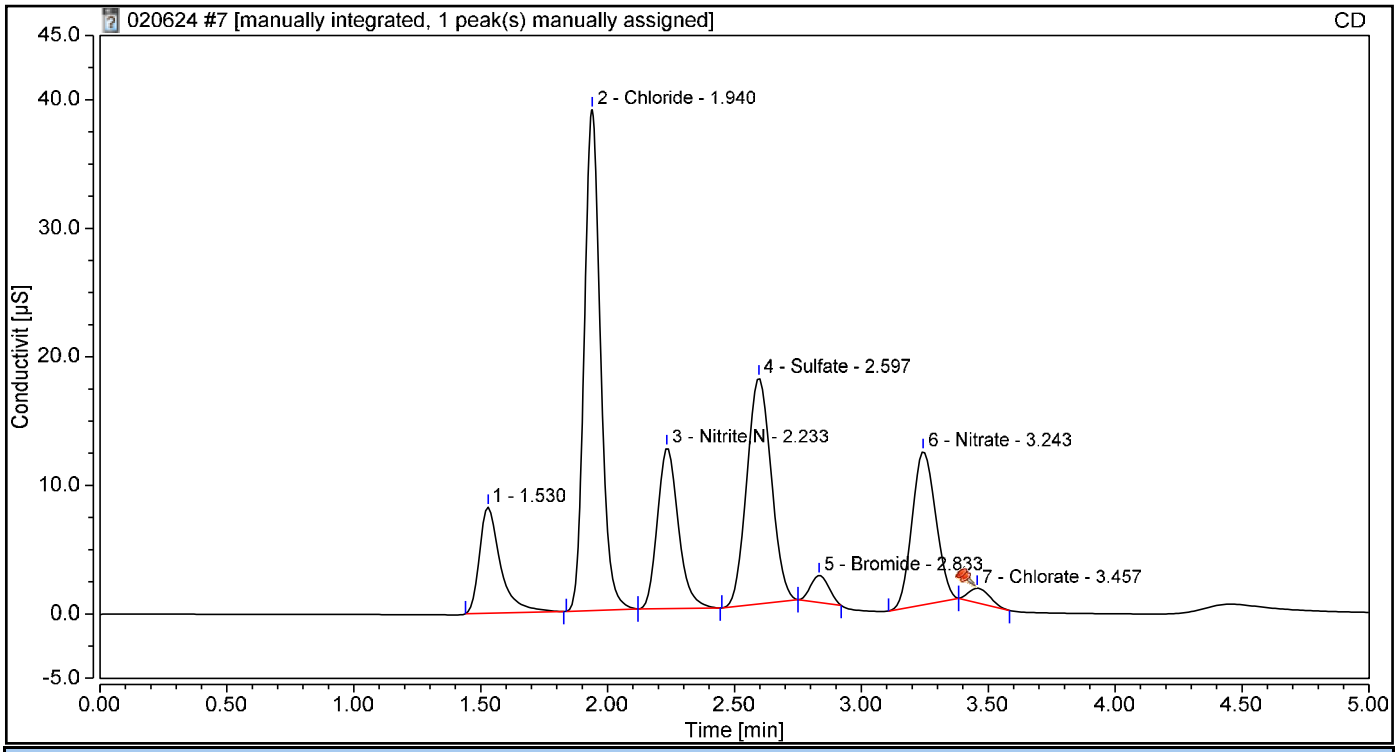
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.533	3.849	36.177	9.50	8.56	20.0000
2	Chloride	1.933	14.222	189.183	35.12	44.74	99.7105
3	Nitrite,N	2.233	4.970	44.547	12.27	10.54	20.1293
4	Sulfate	2.557	9.603	83.678	23.71	19.79	100.0620
5	Bromide	2.823	0.927	10.487	2.29	2.48	20.0241
6	Nitrate	3.183	6.407	53.786	15.82	12.72	19.9752
7	Chlorate	3.427	0.516	4.994	1.27	1.18	19.9683
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**40.493**	**422.852**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**ICV**	*Run Time (min):*	**5.00**
Vial Number:	**RA7**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**04/Feb/24 11:46**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

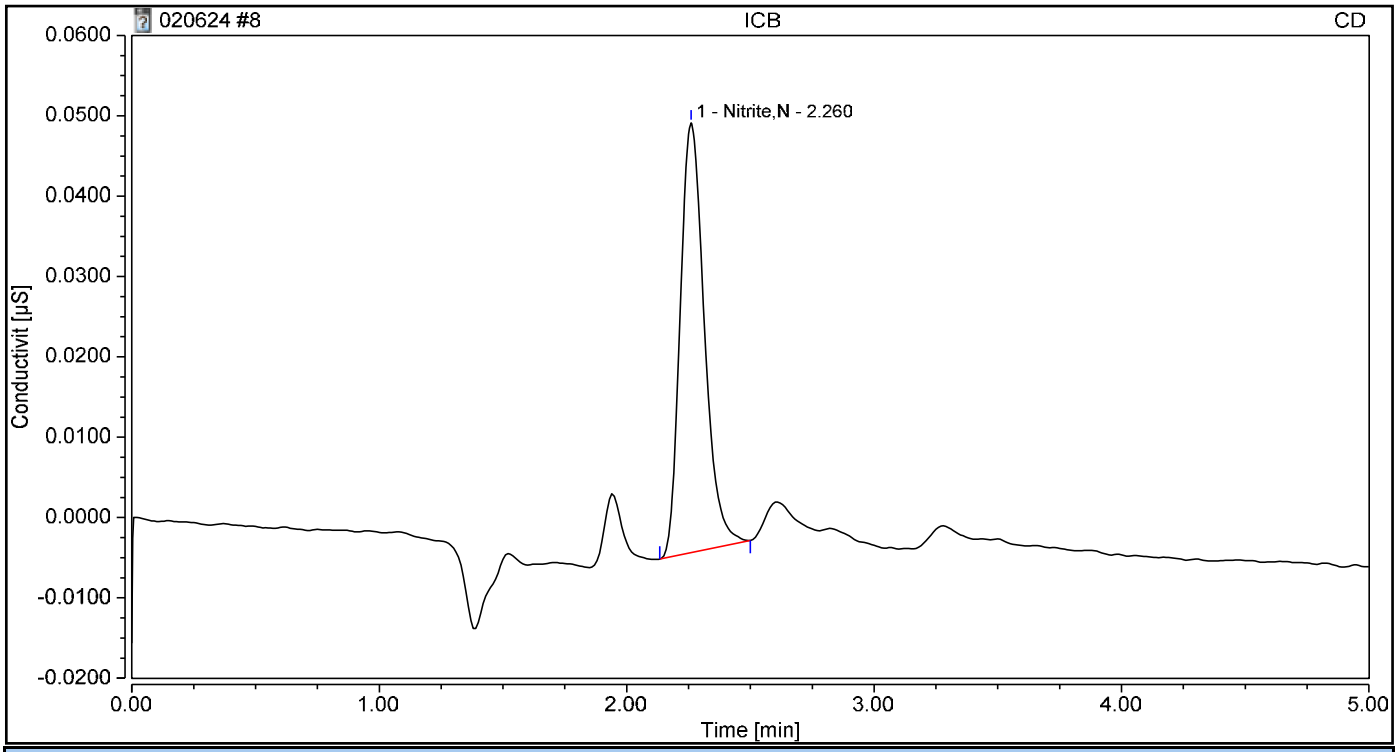
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.530	0.796	8.251	9.44	8.92	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.940	2.893	38.961	34.33	42.13	20.3001
3	Nitrite,N	2.233	1.204	12.516	14.28	13.53	4.0374
4	Sulfate	2.597	1.958	17.595	23.23	19.03	21.1387
5	Bromide	2.833	0.175	2.102	2.08	2.27	4.2082
6	Nitrate	3.243	1.292	11.921	15.33	12.89	4.0362
7	Chlorate	3.457	0.110	1.128	1.30	1.22	4.0248
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.429**	**92.474**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**ICB**	*Run Time (min):*	**5.00**
Vial Number:	**RA8**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**04/Feb/24 12:04**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

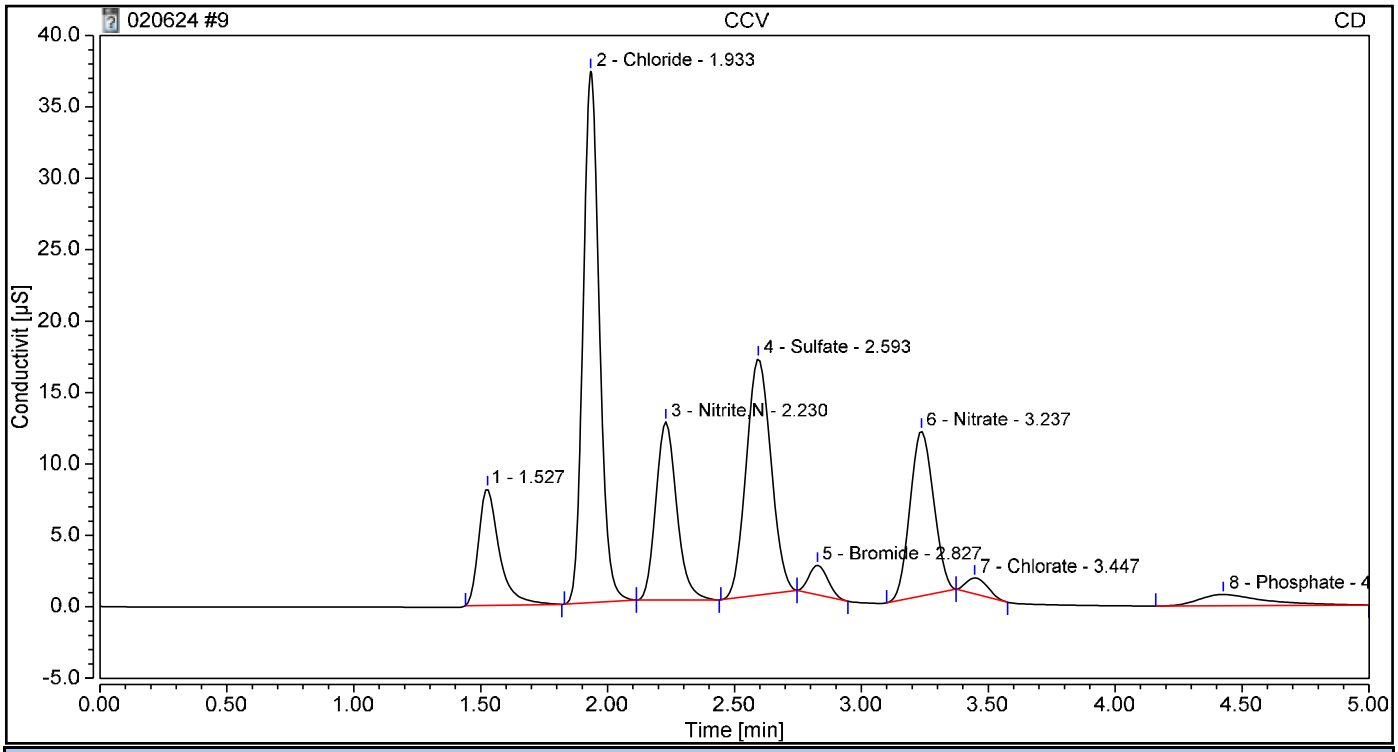
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite,N	2.260	0.006	0.053	100.00	100.00	0.0135
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.006**	**0.053**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**5.00**
Vial Number:	**R1**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 08:32**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

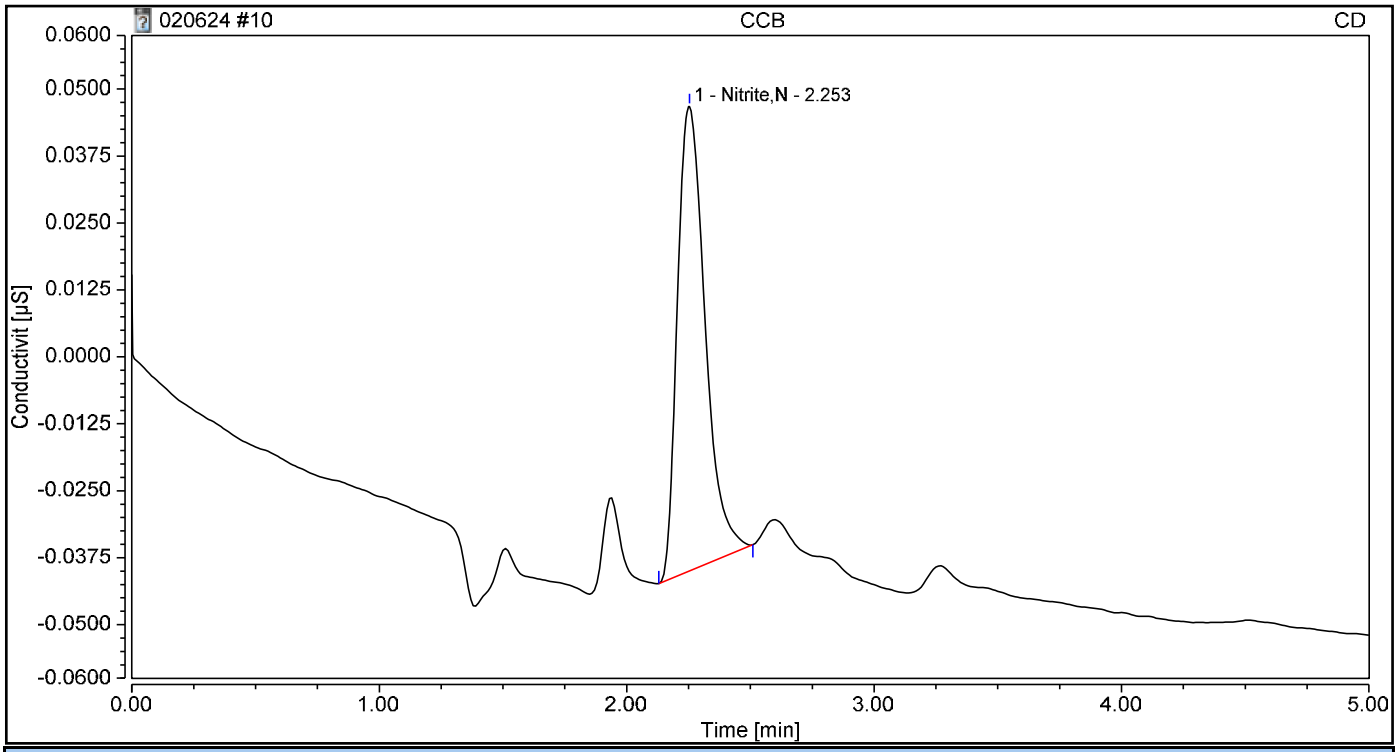
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.527	0.773	8.160	9.21	9.07	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.933	2.777	37.210	33.09	41.37	19.4849
3	Nitrite,N	2.230	1.195	12.479	14.24	13.87	4.0076
4	Sulfate	2.593	1.869	16.563	22.27	18.42	20.1898
5	Bromide	2.827	0.179	2.066	2.14	2.30	4.2967
6	Nitrate	3.237	1.252	11.555	14.93	12.85	3.9118
7	Chlorate	3.447	0.110	1.126	1.32	1.25	4.0561
8	Phosphate	4.427	0.236	0.781	2.81	0.87	n.a.
Total:			**8.392**	**89.939**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**5.00**
Vial Number:	**R6**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 08:38**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

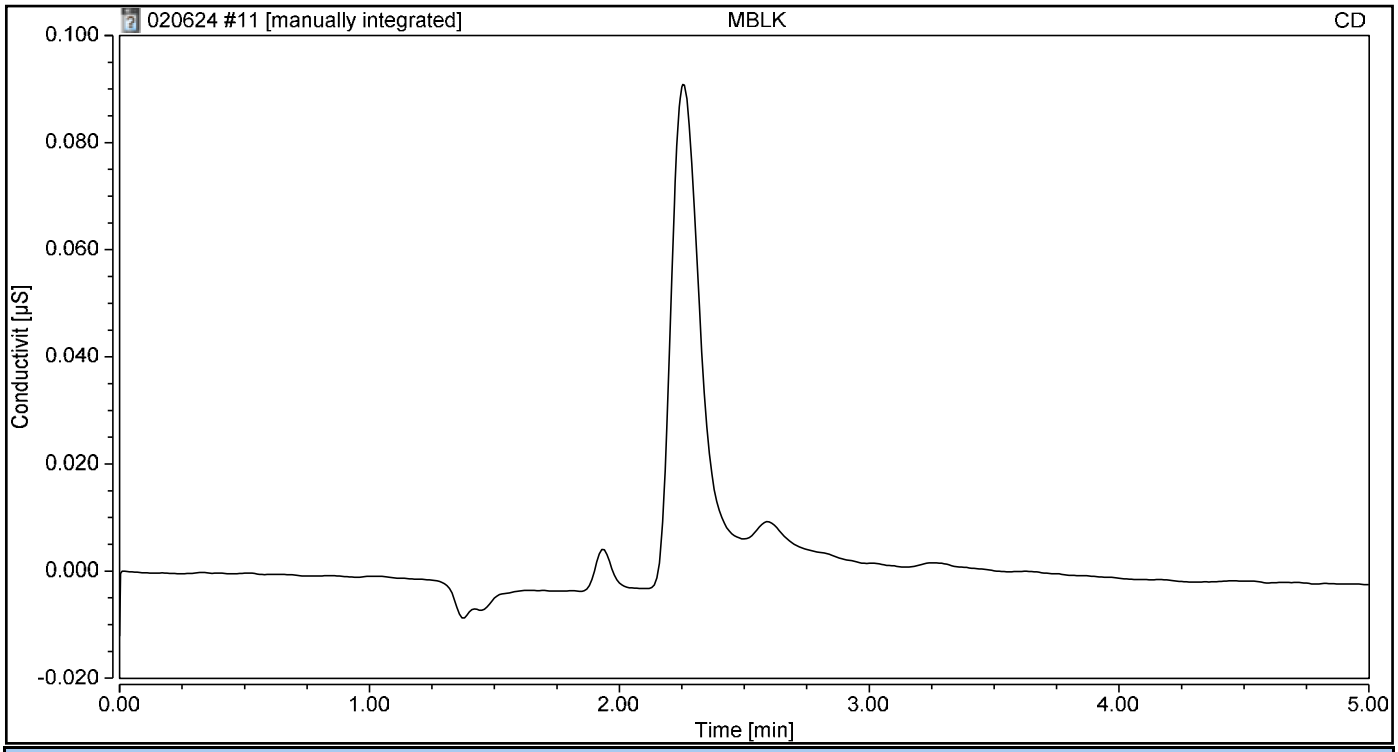
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite,N	2.253	0.011	0.087	100.00	100.00	0.0303
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.011**	**0.087**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**MBLK**	*Run Time (min):*	**5.00**
Vial Number:	**R5**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 08:50**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

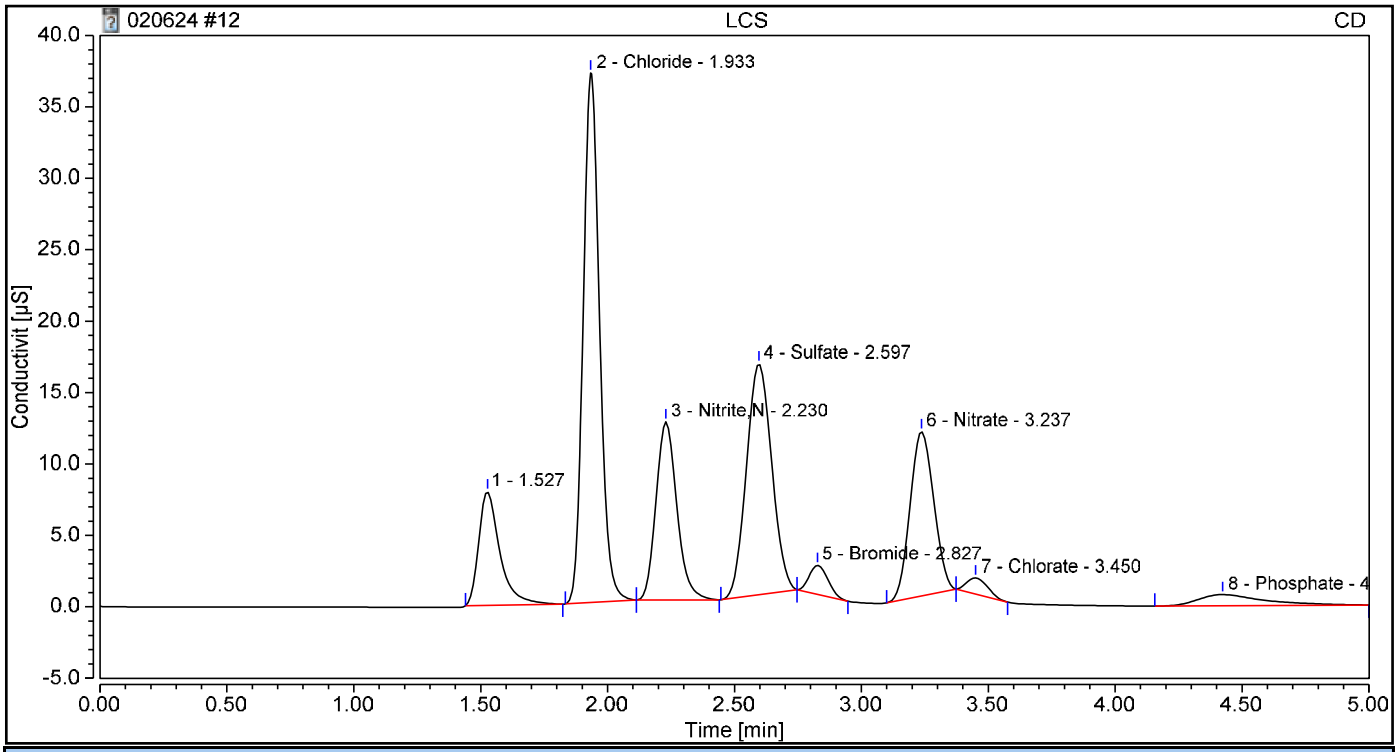
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**LCS**	*Run Time (min):*	**5.00**
Vial Number:	**R2**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 09:02**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

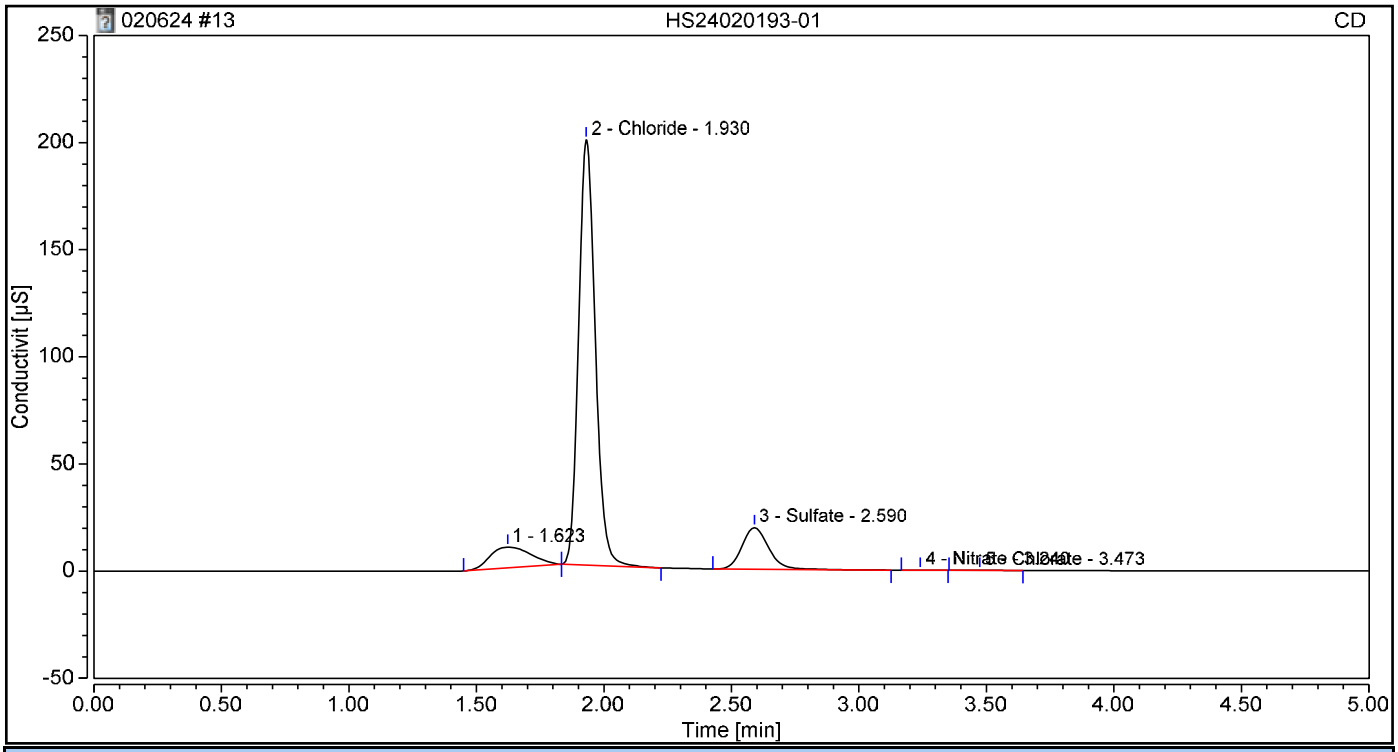
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.527	0.771	7.953	9.20	8.93	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.933	2.780	37.072	33.18	41.60	19.5041
3	Nitrite,N	2.230	1.195	12.468	14.26	13.99	4.0049
4	Sulfate	2.597	1.862	16.167	22.23	18.14	20.1164
5	Bromide	2.827	0.174	2.020	2.08	2.27	4.1818
6	Nitrate	3.237	1.249	11.517	14.91	12.92	3.9020
7	Chlorate	3.450	0.109	1.129	1.31	1.27	4.0209
8	Phosphate	4.423	0.238	0.780	2.84	0.88	n.a.
Total:			**8.378**	**89.106**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020193-01**	*Run Time (min):*	**5.00**
Vial Number:	**RA1**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 09:08**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

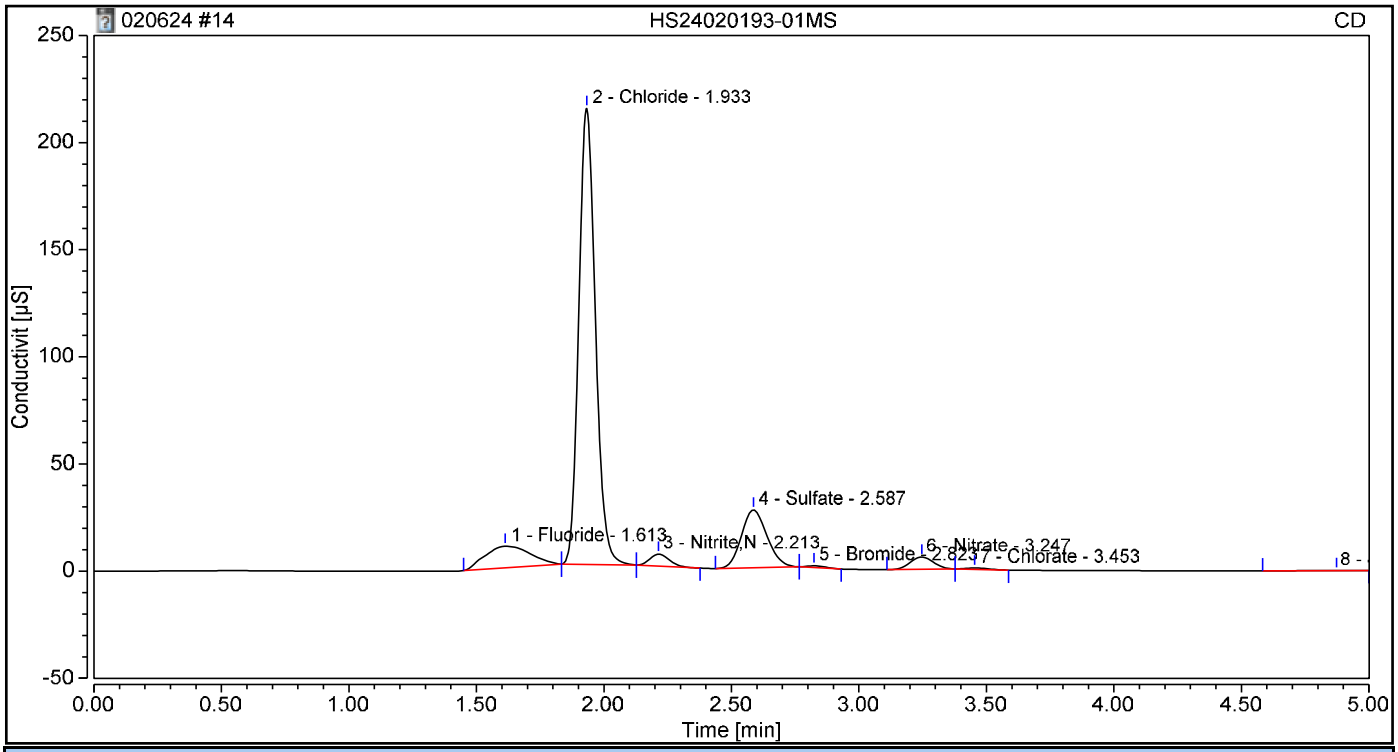
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1		1.623	1.801	9.652	9.37	4.24	n.a.
2	Chloride	1.930	15.048	198.542	78.32	87.18	105.5016
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Sulfate	2.590	2.351	19.423	12.23	8.53	25.3115
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Nitrate	3.240	0.003	0.029	0.02	0.01	0.0173
5	Chlorate	3.473	0.012	0.095	0.06	0.04	0.4653
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**19.215**	**227.740**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020193-01MS**	*Run Time (min):*	**5.00**
Vial Number:	**RA2**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 09:14**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

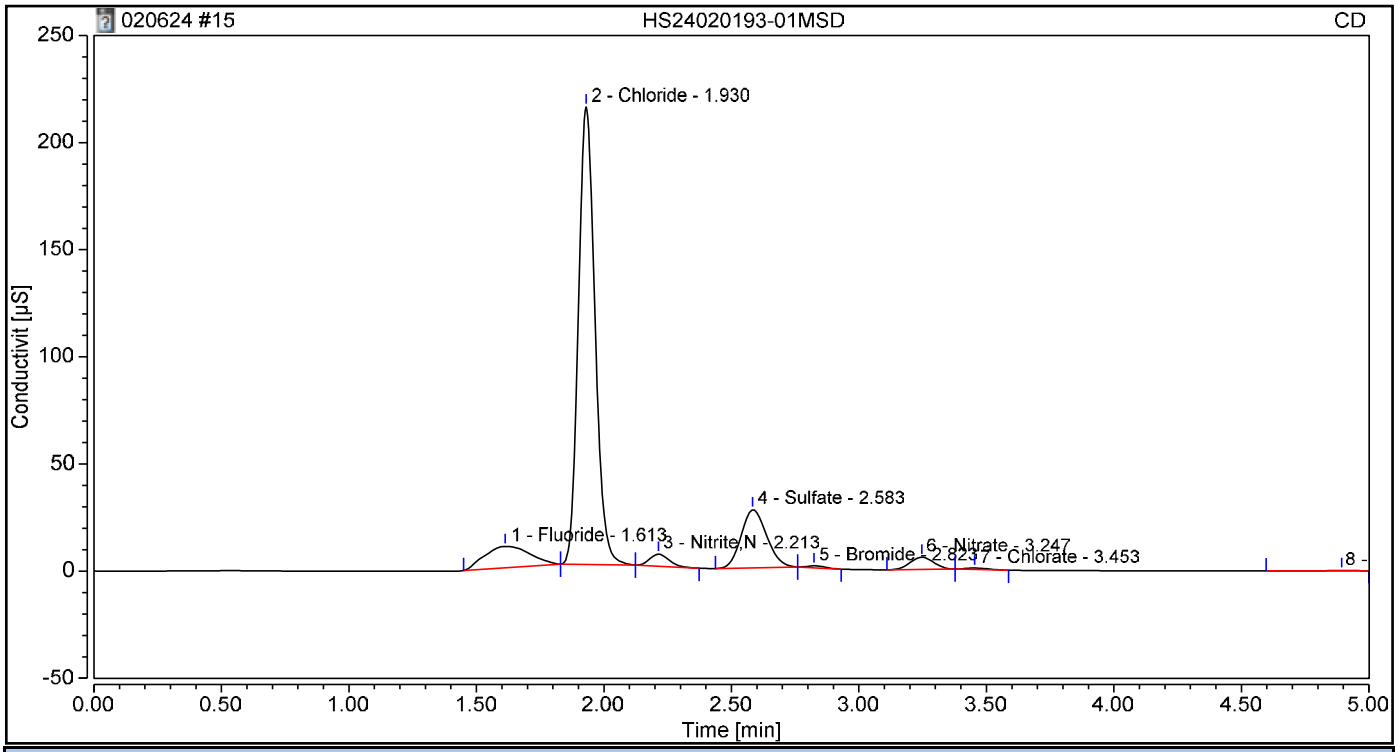
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.613	2.057	10.031	9.14	3.82	10.5452
2	Chloride	1.933	16.075	212.819	71.41	81.03	112.6959
3	Nitrite,N	2.213	0.495	5.603	2.20	2.13	1.6144
4	Sulfate	2.587	3.132	26.974	13.91	10.27	33.5683
5	Bromide	2.823	0.068	0.848	0.30	0.32	1.6613
6	Nitrate	3.247	0.609	5.684	2.71	2.16	1.9070
7	Chlorate	3.453	0.065	0.648	0.29	0.25	2.3822
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.873	0.012	0.048	0.05	0.02	n.a.
Total:			**22.512**	**262.653**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020193-01MSD**	*Run Time (min):*	**5.00**
Vial Number:	**RA3**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 09:20**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

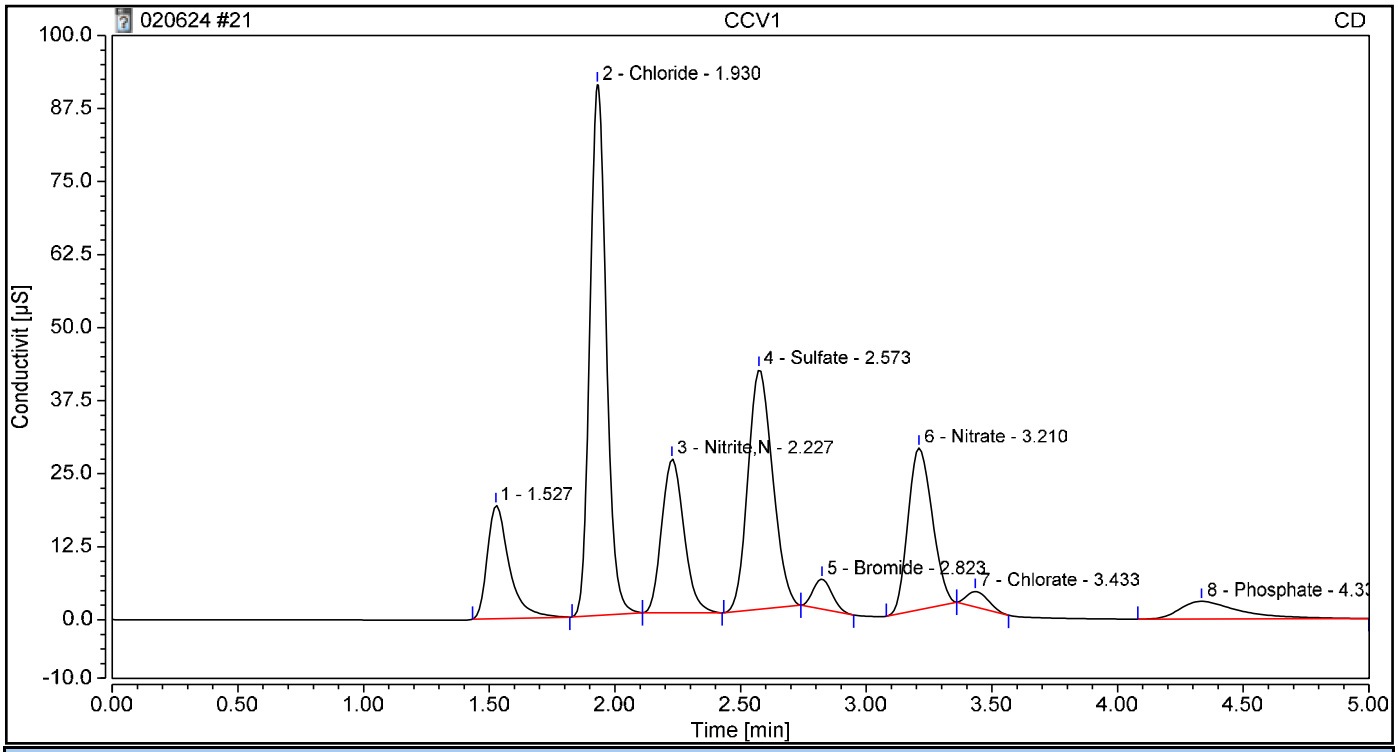
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1	Fluoride	1.613	2.056	10.006	9.11	3.80	10.5392
2	Chloride	1.930	16.113	213.557	71.39	81.01	112.9619
3	Nitrite,N	2.213	0.496	5.608	2.20	2.13	1.6172
4	Sulfate	2.583	3.147	27.147	13.94	10.30	33.7291
5	Bromide	2.823	0.072	0.886	0.32	0.34	1.7601
6	Nitrate	3.247	0.611	5.699	2.71	2.16	1.9113
7	Chlorate	3.453	0.066	0.655	0.29	0.25	2.4076
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8		4.893	0.011	0.042	0.05	0.02	n.a.
Total:			**22.570**	**263.603**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV1**	*Run Time (min):*	**5.00**
Vial Number:	**R3**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 10:08**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

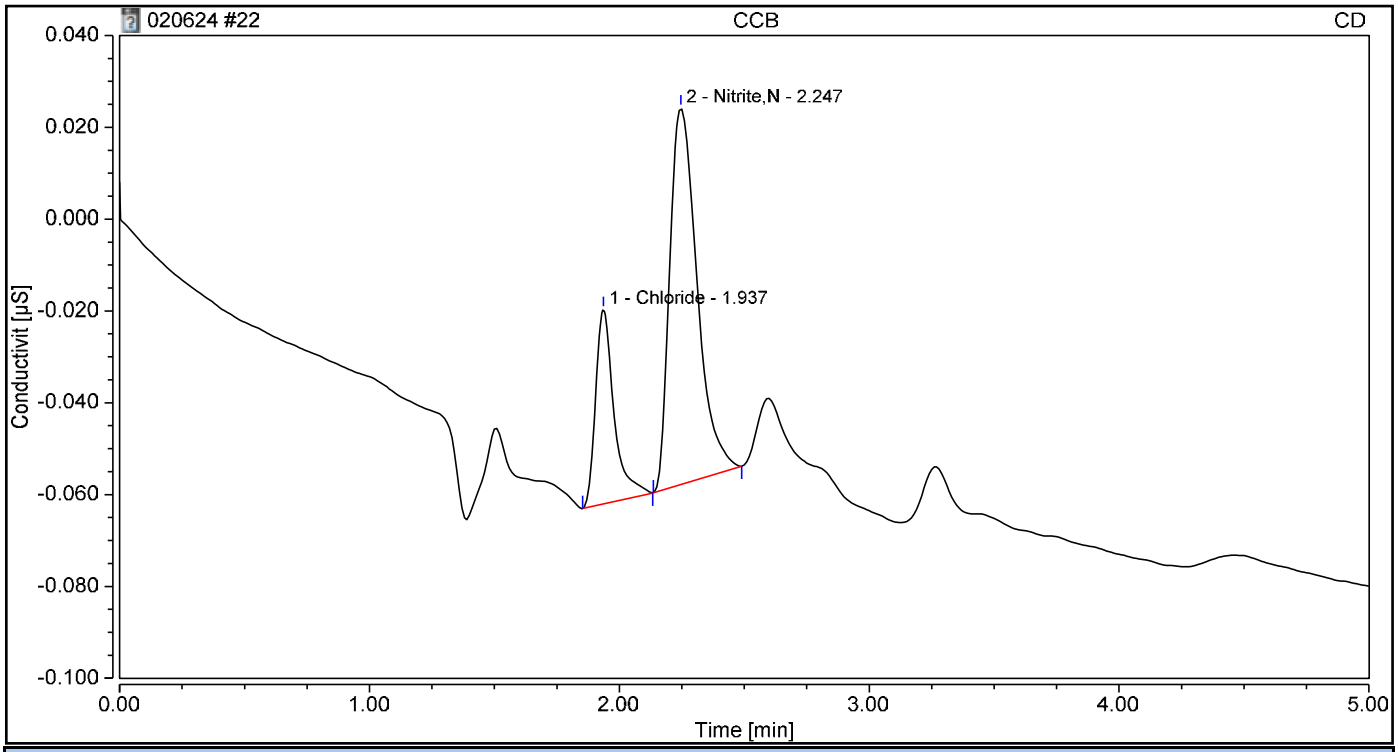
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.527	1.959	19.379	9.40	8.97	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.930	6.852	90.789	32.87	42.05	48.0465
3	Nitrite,N	2.227	2.699	26.275	12.95	12.17	9.6331
4	Sulfate	2.573	4.683	41.068	22.47	19.02	49.8206
5	Bromide	2.823	0.450	5.115	2.16	2.37	10.3335
6	Nitrate	3.210	3.092	27.651	14.84	12.81	9.6458
7	Chlorate	3.433	0.264	2.626	1.27	1.22	9.8745
8	Phosphate	4.333	0.844	3.028	4.05	1.40	n.a.
Total:			**20.844**	**215.931**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**5.00**
Vial Number:	**R7**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 10:14**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

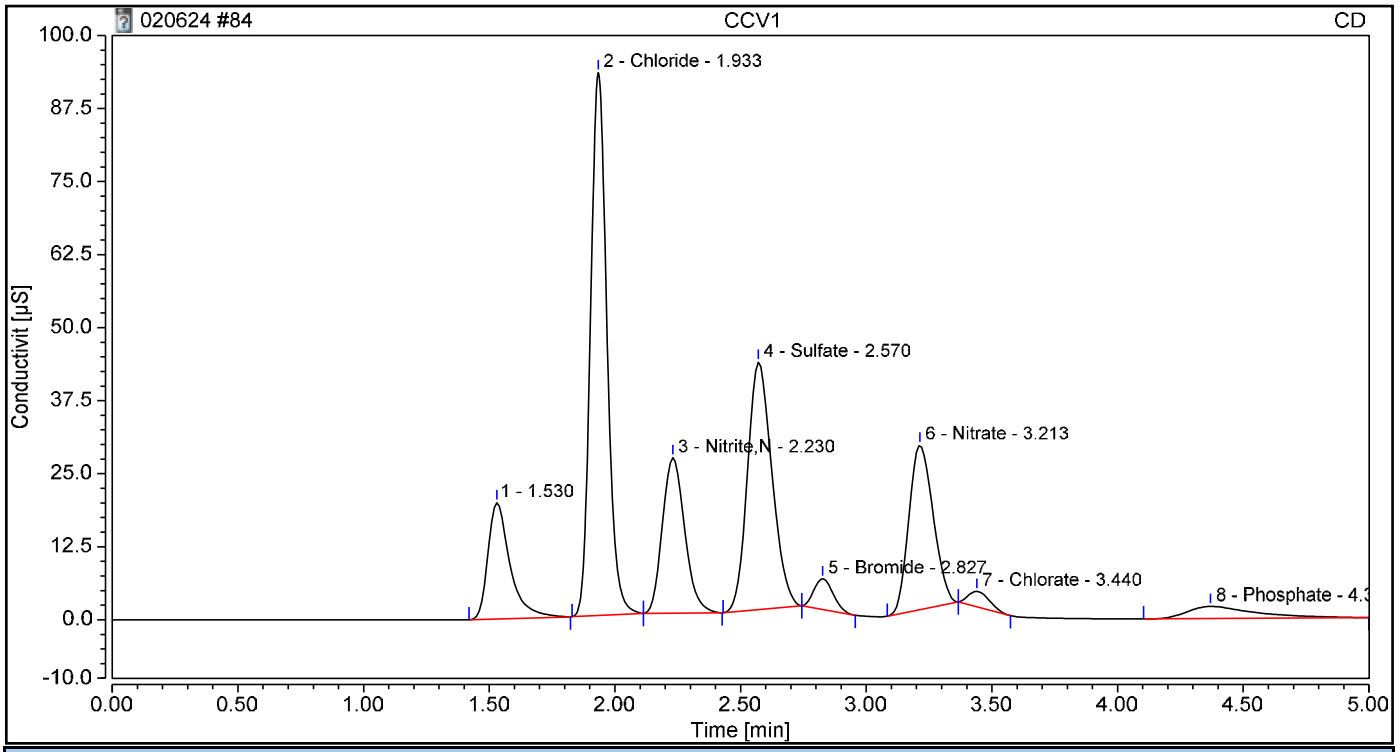
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.937	0.004	0.042	25.78	34.06	0.0451
2	Nitrite,N	2.247	0.010	0.082	74.22	65.94	0.0276
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.014**	**0.124**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV1**	*Run Time (min):*	**5.00**
Vial Number:	**R3**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 18:57**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

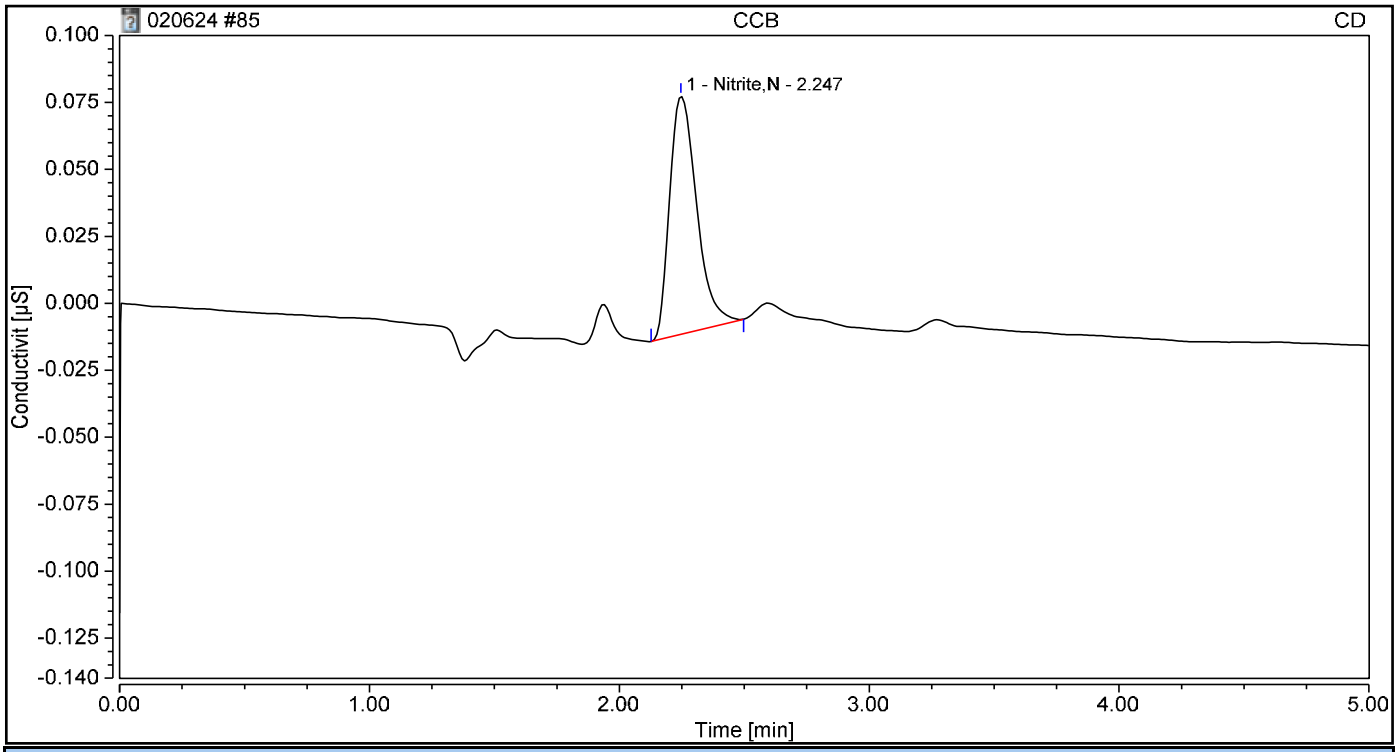
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.530	2.023	19.887	9.58	9.04	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.933	7.014	92.928	33.23	42.26	49.1857
3	Nitrite,N	2.230	2.741	26.604	12.99	12.10	9.8016
4	Sulfate	2.570	4.777	42.331	22.63	19.25	50.7943
5	Bromide	2.827	0.467	5.260	2.21	2.39	10.7094
6	Nitrate	3.213	3.160	28.158	14.97	12.80	9.8571
7	Chlorate	3.440	0.264	2.653	1.25	1.21	9.8652
8	Phosphate	4.370	0.662	2.080	3.14	0.95	n.a.
Total:			**21.108**	**219.904**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**5.00**
Vial Number:	**R8**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 19:15**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

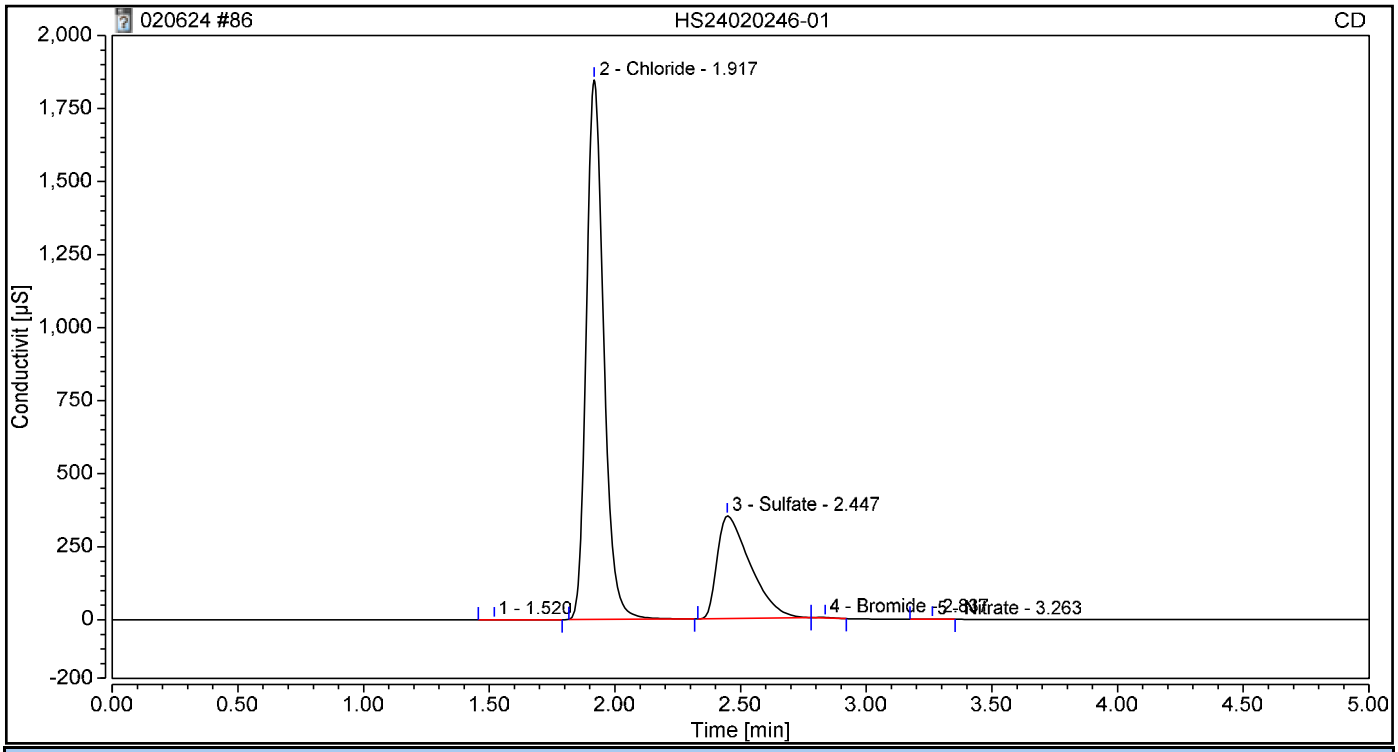
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite,N	2.247	0.011	0.089	100.00	100.00	0.0300
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.011**	**0.089**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020246-01**	*Run Time (min):*	**5.00**
Vial Number:	**GB7**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 19:21**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

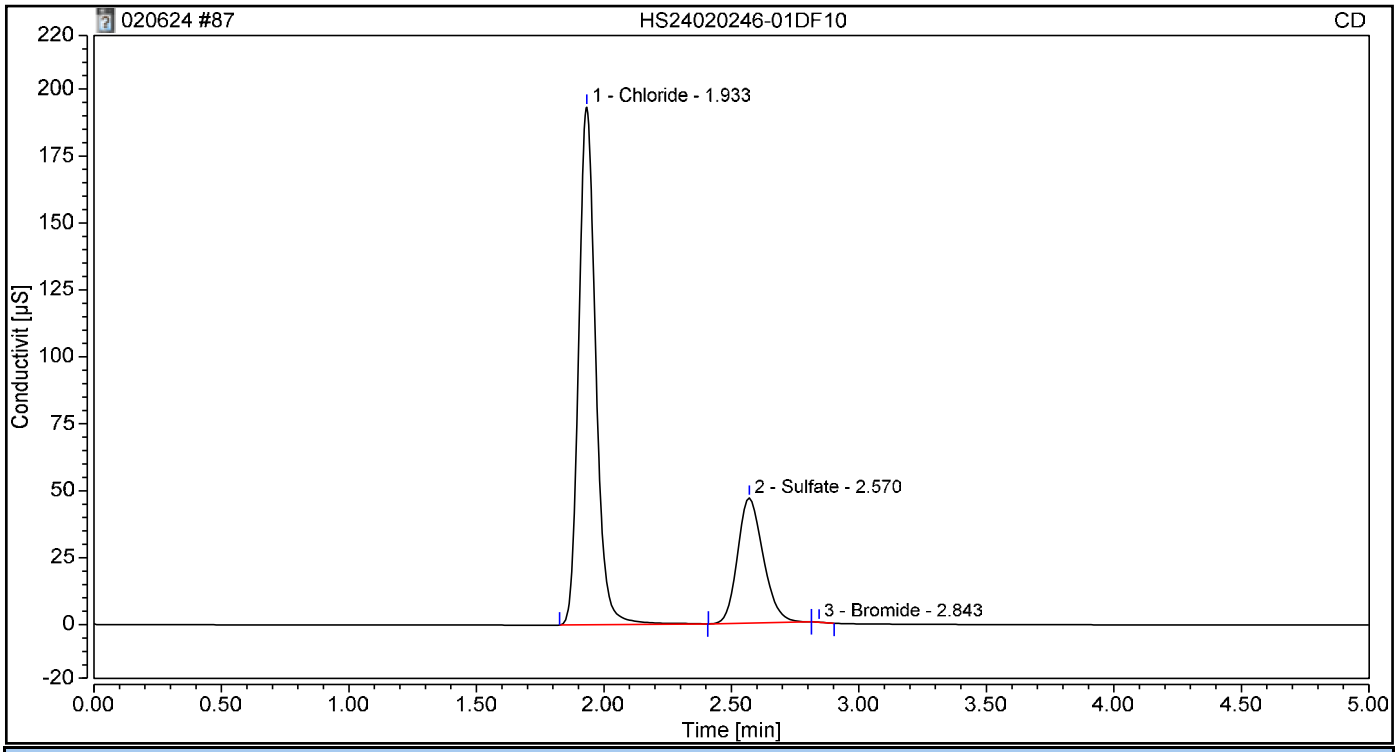
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.520	0.046	0.346	0.02	0.02	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.917	147.716	1845.896	73.36	83.92	1035.4372
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3	Sulfate	2.447	53.469	351.533	26.56	15.98	484.7946
4	Bromide	2.837	0.116	1.650	0.06	0.07	2.8207
5	Nitrate	3.263	0.004	0.041	0.00	0.00	0.0194
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**201.351**	**2199.466**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020246-01DF10**	*Run Time (min):*	**5.00**
Vial Number:	**GB8**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**10.0000**
Injection Date/Time:	**06/Feb/24 19:27**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

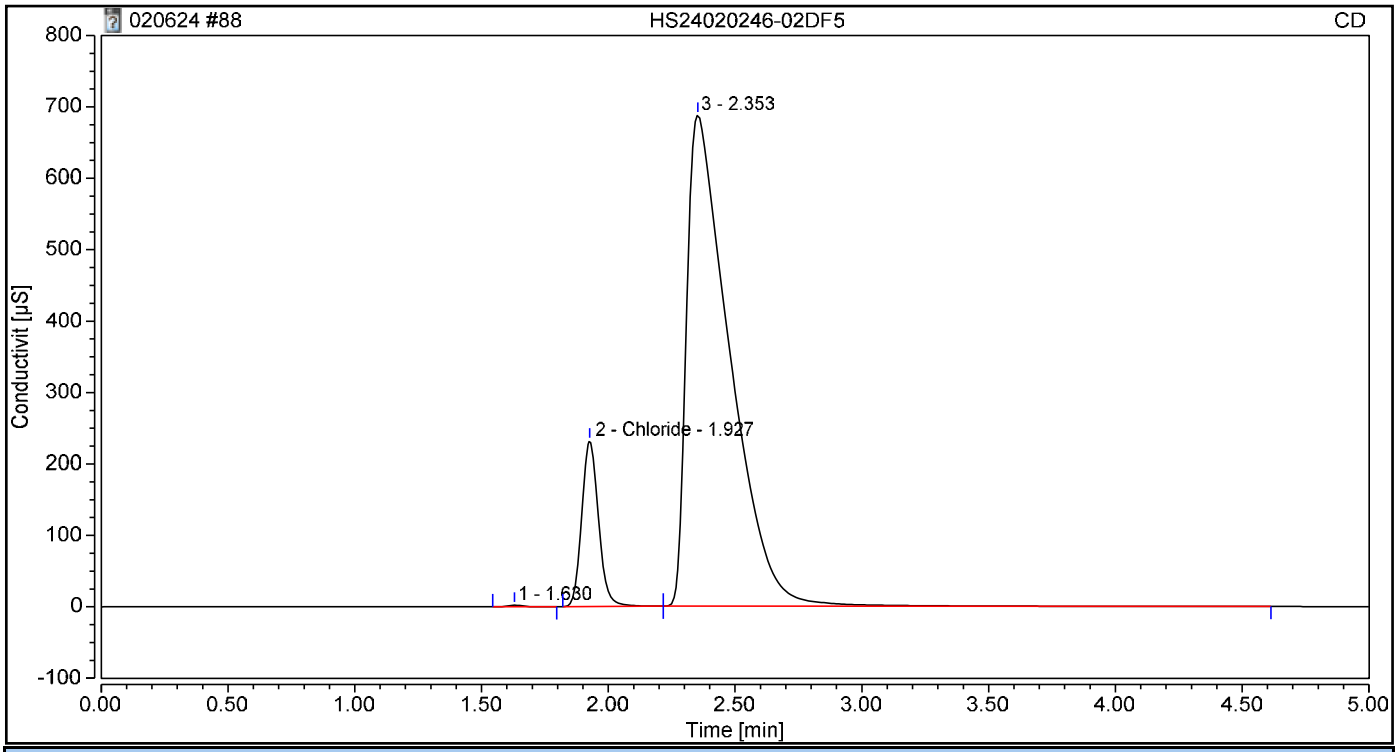
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.933	14.988	193.271	73.41	80.52	1050.7752
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Sulfate	2.570	5.425	46.681	26.57	19.45	575.1997
3	Bromide	2.843	0.003	0.070	0.01	0.03	0.8637
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**20.416**	**240.022**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020246-02DF5**	*Run Time (min):*	**5.00**
Vial Number:	**GC1**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**5.0000**
Injection Date/Time:	**06/Feb/24 19:33**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

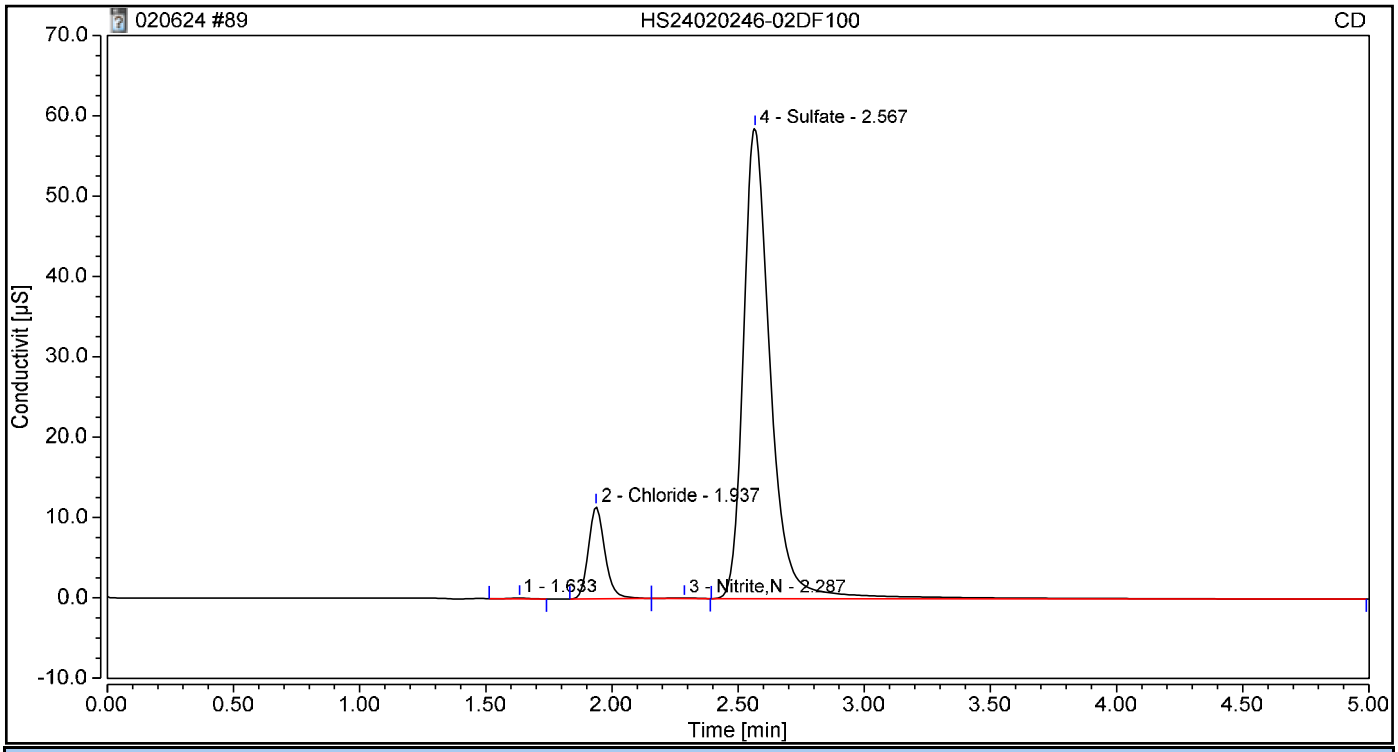
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1		1.630	0.159	2.210	0.10	0.24	n.a.
2	Chloride	1.927	17.713	231.914	11.56	25.16	620.8849
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3		2.353	135.393	687.625	88.34	74.60	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**153.265**	**921.748**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020246-02DF100**	*Run Time (min):*	**5.00**
Vial Number:	**GC2**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**100.0000**
Injection Date/Time:	**06/Feb/24 19:39**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

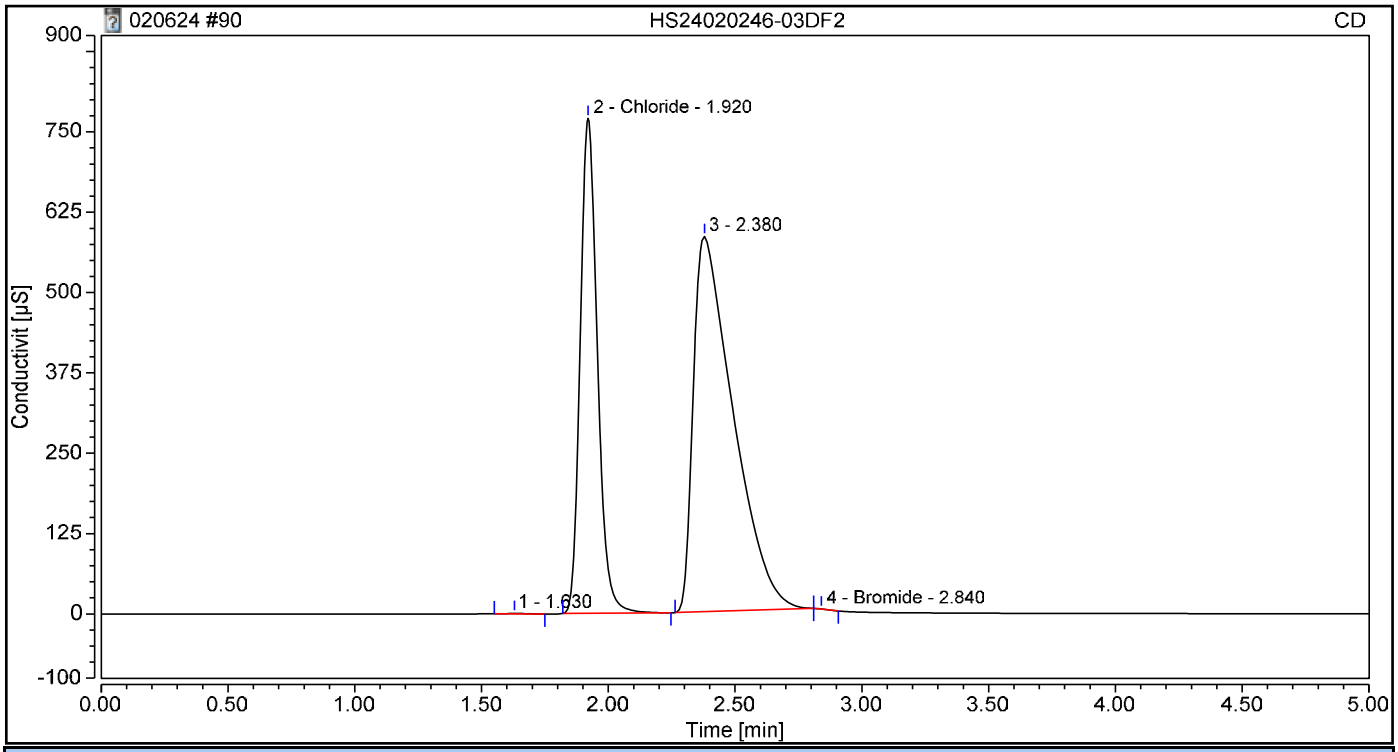
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1		1.633	0.008	0.106	0.09	0.15	n.a.
2	Chloride	1.937	0.869	11.470	10.58	16.34	611.4384
3	Nitrite,N	2.287	0.008	0.057	0.09	0.08	1.8610
4	Sulfate	2.567	7.333	58.541	89.23	83.42	7711.4589
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.217**	**70.175**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020246-03DF2**	*Run Time (min):*	**5.00**
Vial Number:	**GC3**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Injection Date/Time:	**06/Feb/24 19:45**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

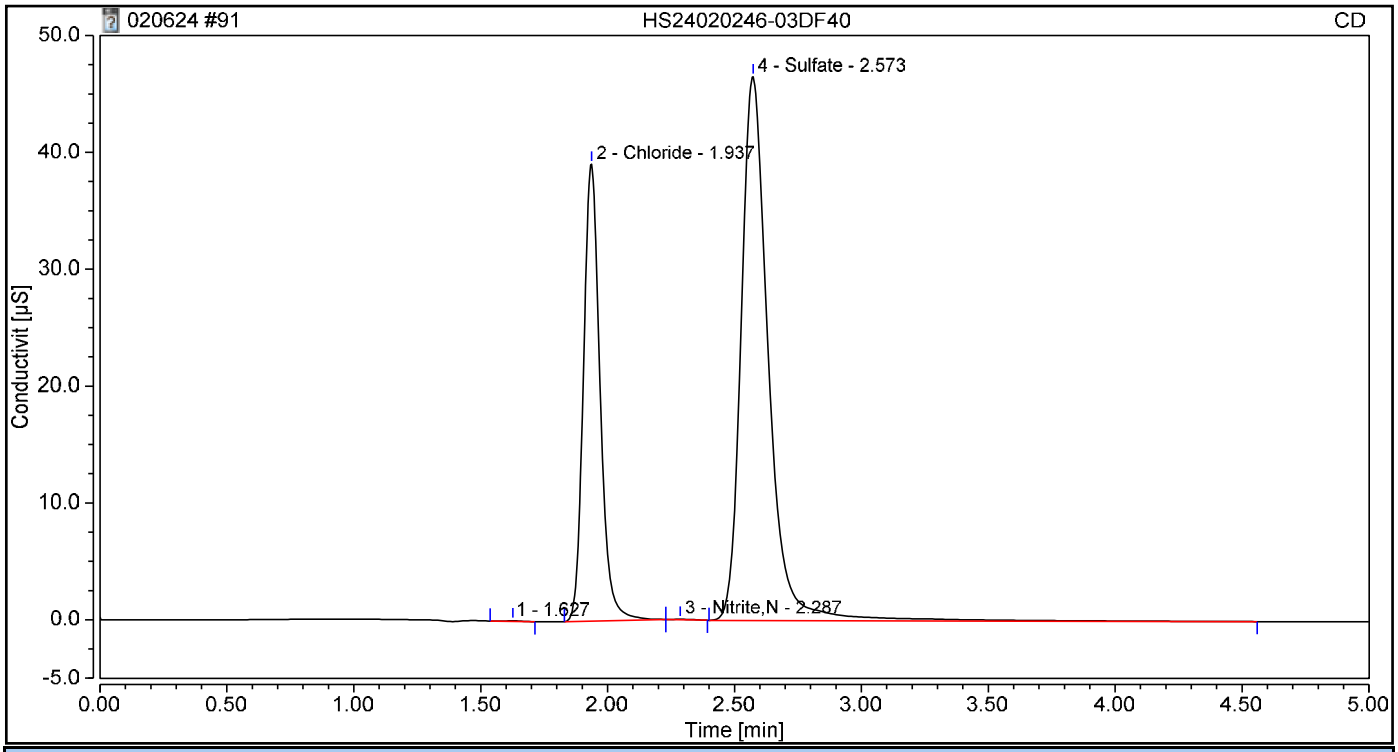
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1		1.630	0.062	0.892	0.04	0.07	n.a.
2	Chloride	1.920	60.325	770.148	36.24	56.83	845.7424
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3		2.380	106.044	583.754	63.71	43.07	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4	Bromide	2.840	0.019	0.427	0.01	0.03	0.9565
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**166.450**	**1355.221**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020246-03DF40**	*Run Time (min):*	**5.00**
Vial Number:	**GC4**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**40.0000**
Injection Date/Time:	**06/Feb/24 19:51**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

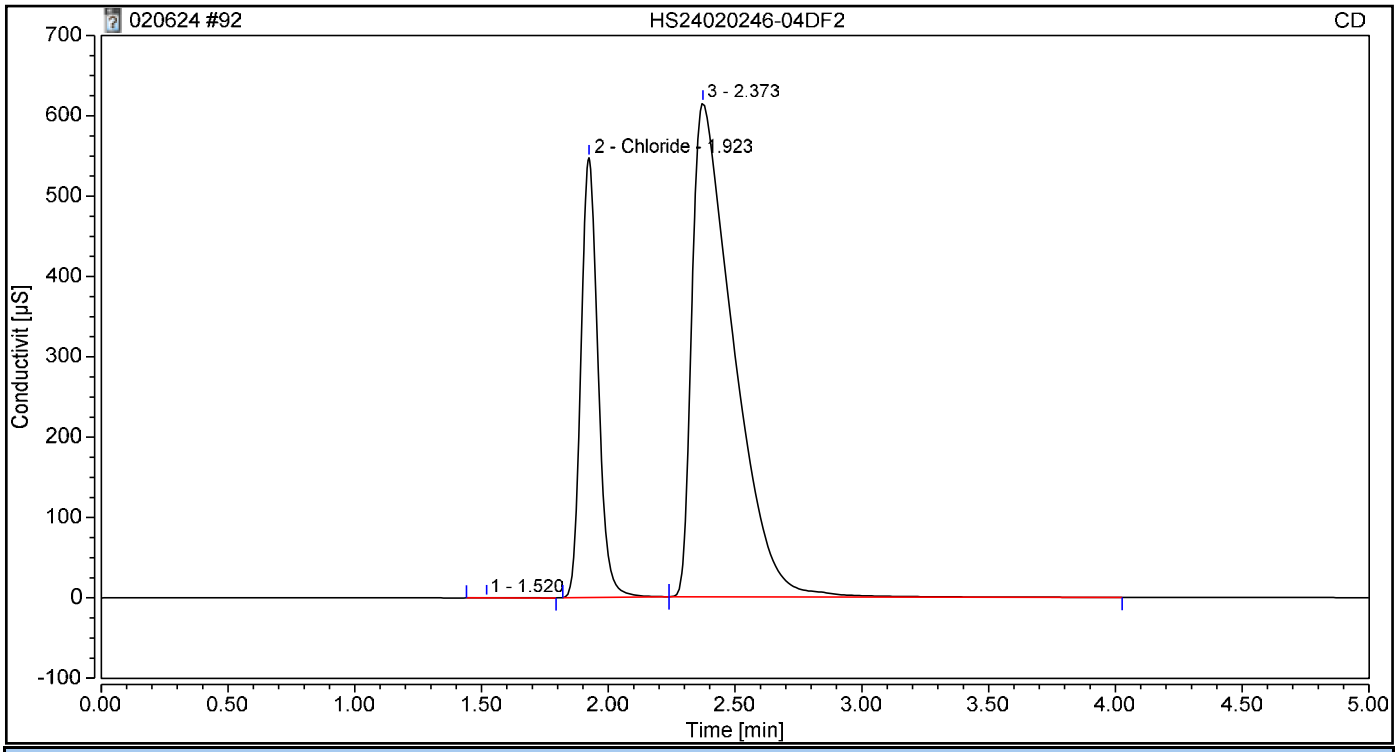
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1		1.627	0.003	0.041	0.03	0.05	n.a.
2	Chloride	1.937	2.975	39.090	33.82	45.62	834.8505
3	Nitrite,N	2.287	0.003	0.033	0.04	0.04	0.2107
4	Sulfate	2.573	5.814	46.513	66.11	54.29	2461.8291
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.795**	**85.677**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020246-04DF2**	*Run Time (min):*	**5.00**
Vial Number:	**GC5**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**2.0000**
Injection Date/Time:	**06/Feb/24 19:57**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

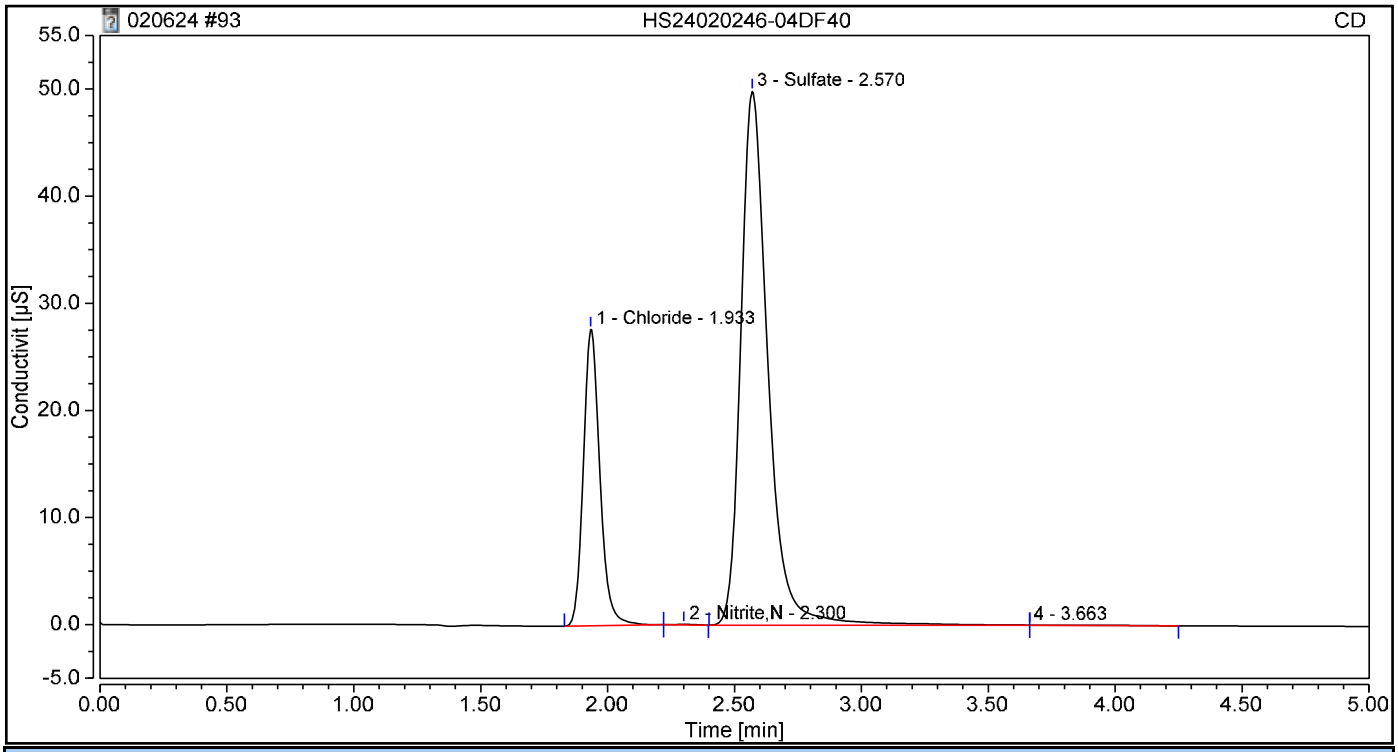
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.520	0.029	0.183	0.02	0.02	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.923	42.612	547.132	26.85	47.08	597.4223
n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
3		2.373	116.047	614.701	73.13	52.90	n.a.
n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**158.688**	**1162.015**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**HS24020246-04DF40**	*Run Time (min):*	**5.00**
Vial Number:	**GC6**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**40.0000**
Injection Date/Time:	**06/Feb/24 20:03**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

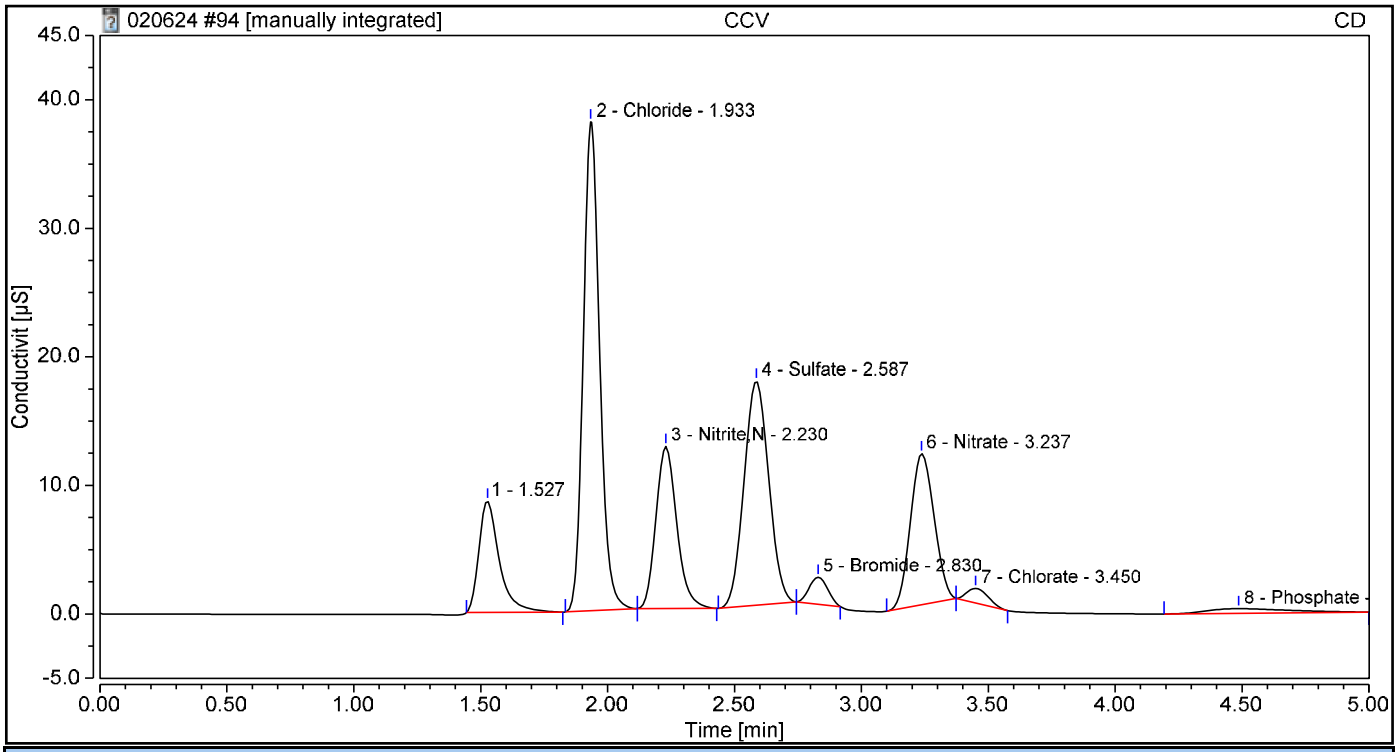
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Chloride	1.933	2.102	27.653	25.36	35.67	590.0697
2	Nitrite,N	2.300	0.005	0.048	0.06	0.06	0.3635
3	Sulfate	2.570	6.175	49.832	74.50	64.27	2610.3072
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
4		3.663	0.007	0.000	0.09	0.00	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**8.288**	**77.533**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV**	*Run Time (min):*	**5.00**
Vial Number:	**R1**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 20:20**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

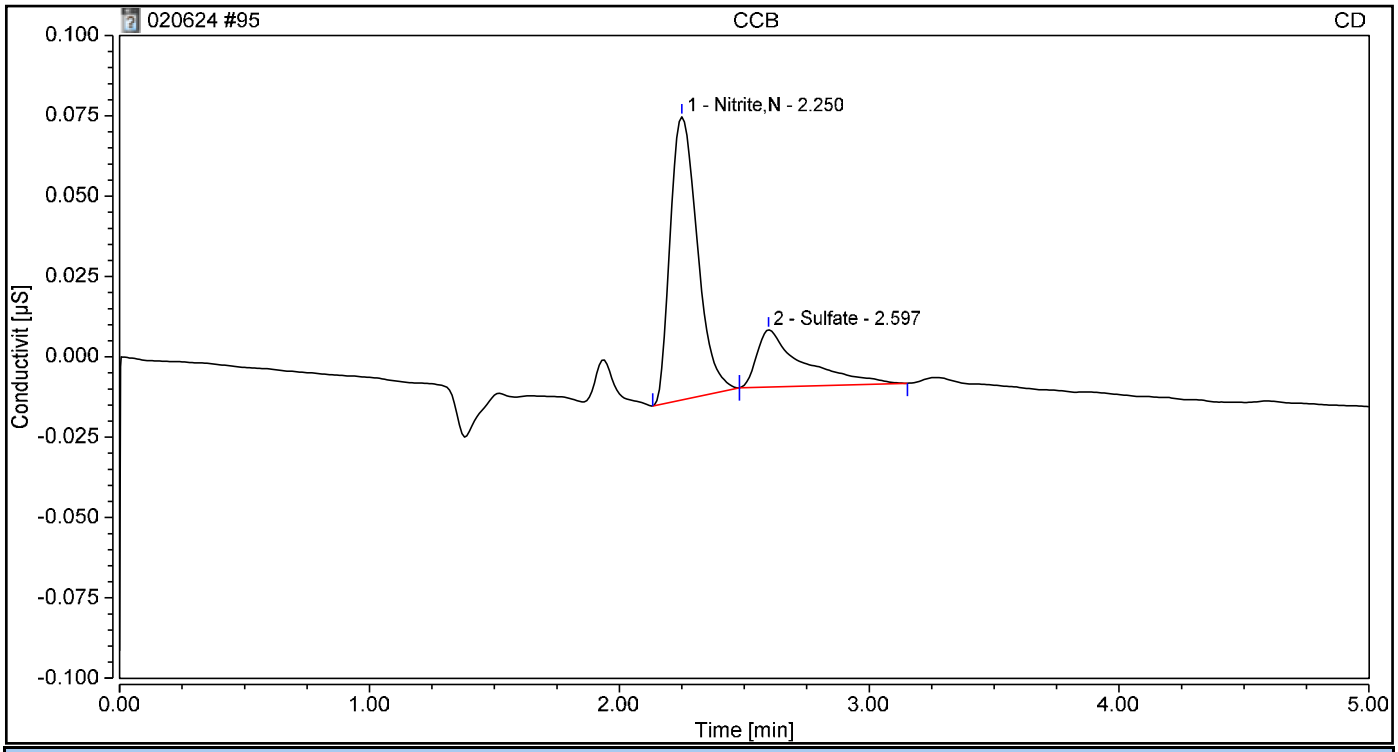
No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
1		1.527	0.812	8.679	9.51	9.42	n.a.
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	Chloride	1.933	2.851	38.023	33.40	41.28	20.0069
3	Nitrite,N	2.230	1.208	12.613	14.15	13.69	4.0526
4	Sulfate	2.587	1.963	17.438	22.99	18.93	21.1860
5	Bromide	2.830	0.179	2.108	2.09	2.29	4.2799
6	Nitrate	3.237	1.277	11.748	14.95	12.75	3.9867
7	Chlorate	3.450	0.111	1.137	1.30	1.23	4.0646
8	Phosphate	4.487	0.137	0.361	1.61	0.39	n.a.
Total:			**8.537**	**92.108**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB**	*Run Time (min):*	**5.00**
Vial Number:	**R6**	*Injection Volume:*	**5.00**
Injection Type:	**Unknown**	*Channel:*	**CD**
Calibration Level:		*Wavelength:*	**n.a.**
Instrument Method:	**Anions Program ISO37mM 150mm short 0.4 Const**	*Bandwidth:*	**n.a.**
Processing Method:	**Anions Processing Method ISO**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**06/Feb/24 20:38**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area µS*min	Height µS	Relative Area %	Relative Height %	Amount ppm
n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	Nitrite,N	2.250	0.011	0.088	74.55	83.21	0.0299
2	Sulfate	2.597	0.004	0.018	25.45	16.79	0.1613
n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.015**	**0.106**	**100.00**	**100.00**	

HS24020246 Wetchem TOC_W 5310B

ALS WO# HS24020246

C:\TOC-L\Data\2024_01_03_001.tlx

	Analysis	Sample Nam	Sample ID	Origin	Result	Status	Date / Time	Vial
1	NPOC	CAL	3100607917	01.03.2024.		Completed	1/3/2024 12:51:	1, 2, 3, 4, 5,
2	NPOC	ICV	3100607901	01.03.2024.	NPOC:9.85	Completed	1/3/2024 1:06:0	8
3	NPOC	ICB		01.03.2024.	NPOC:0.02	Completed	1/3/2024 1:18:2	9

TOC-Control L Report

2024_01_03_001.tlx

Instr.Information

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

Cal. Curve

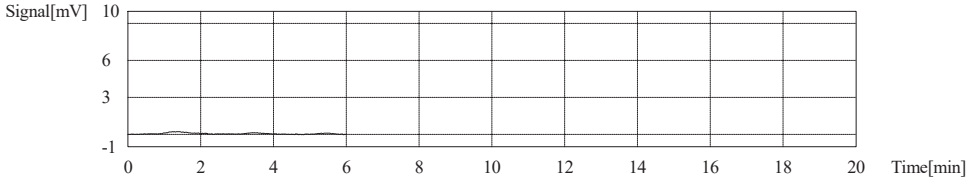
Sample Name:	CAL
Sample ID:	3100607917
Cal. Curve:	01.03.2024.2024_01_03_11_09_20.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.6144	50uL	1.000	*******		1/3/2024 11:17:40 AM
2	0.2411	50uL	1.000	*******		1/3/2024 11:19:49 AM
3	0.1701	50uL	1.000	*******		1/3/2024 11:21:56 AM

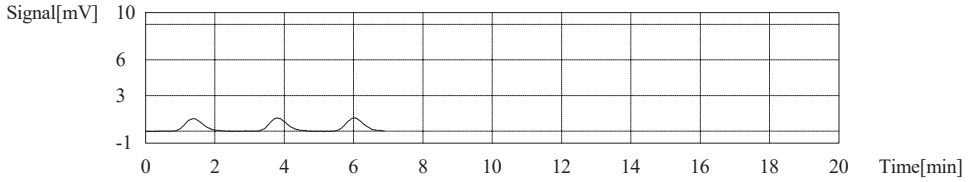
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	0.3419



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.920	50uL	1.000	*******		1/3/2024 11:30:37 AM
2	3.717	50uL	1.000	*******		1/3/2024 11:33:01 AM
3	3.946	50uL	1.000	*******		1/3/2024 11:35:32 AM

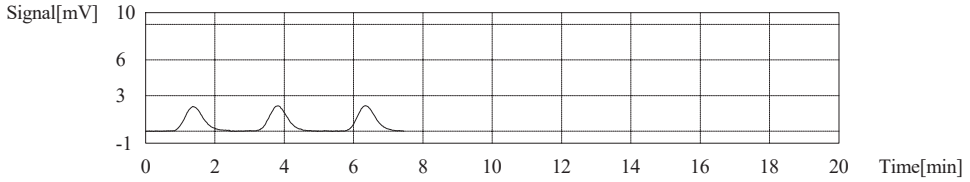
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	3.861



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.396	50uL	1.000	*******		1/3/2024 11:44:12 AM
2	7.846	50uL	1.000	*******		1/3/2024 11:47:00 AM
3	8.019	50uL	1.000	*******		1/3/2024 11:49:42 AM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	7.754



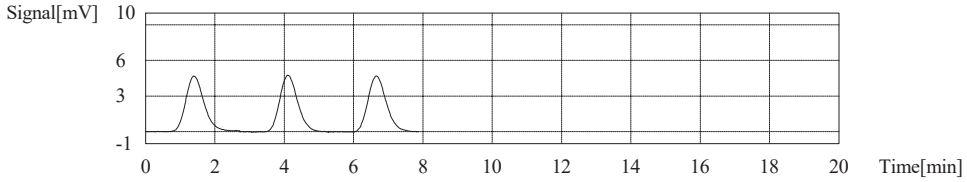
TOC-Control L Report

2024_01_03_001.tlx

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.93	50uL	1.000	*******		1/3/2024 11:58:40 AM
2	17.38	50uL	1.000	*******		1/3/2024 12:01:28 PM
3	17.53	50uL	1.000	*******		1/3/2024 12:04:17 PM

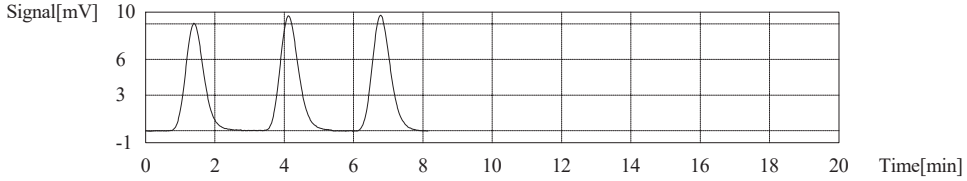
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 17.28



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	33.38	50uL	1.000	*******		1/3/2024 12:13:18 PM
2	36.15	50uL	1.000	*******		1/3/2024 12:16:09 PM
3	36.41	50uL	1.000	*******		1/3/2024 12:19:09 PM

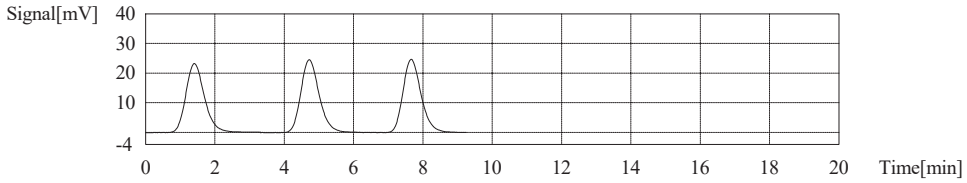
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 35.31



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	87.77	50uL	1.000	*******		1/3/2024 12:28:43 PM
2	91.20	50uL	1.000	*******		1/3/2024 12:31:56 PM
3	90.77	50uL	1.000	*******		1/3/2024 12:35:10 PM

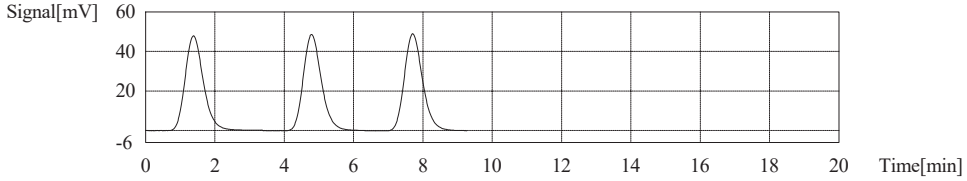
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 89.91



Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	177.2	50uL	1.000	*******		1/3/2024 12:44:48 PM
2	177.8	50uL	1.000	*******		1/3/2024 12:47:59 PM
3	181.4	50uL	1.000	*******		1/3/2024 12:51:11 PM

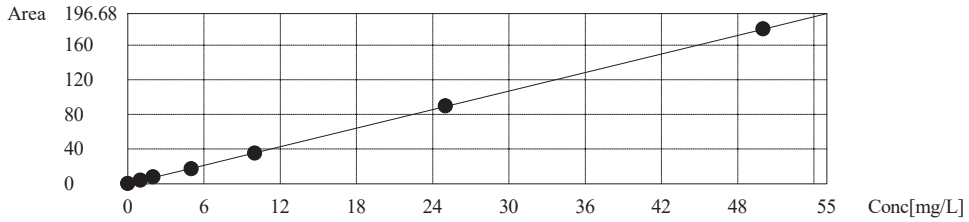
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 178.8



TOC-Control L Report

2024_01_03_001.tlx

Slope:	3.575
Intercept	0.000
r^2	0.9999
r	1.0000
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name:	ICV
Sample ID:	3100607901
Origin:	01.03.2024.cal
Status	Completed
Chk. Result	

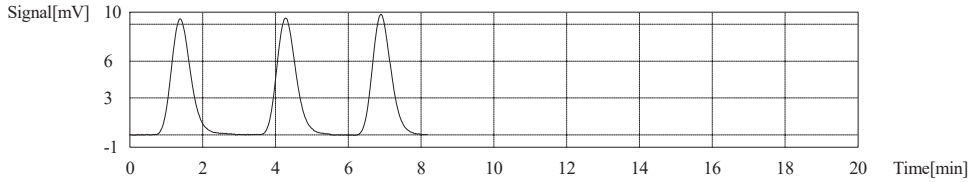
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.858mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.20	9.847mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:00:20 PM
2	34.96	9.780mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:03:11 PM
3	35.56	9.947mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:06:04 PM

Mean Area	35.24
Mean Conc.	9.858mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	01.03.2024.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02773mg/L

1. Det

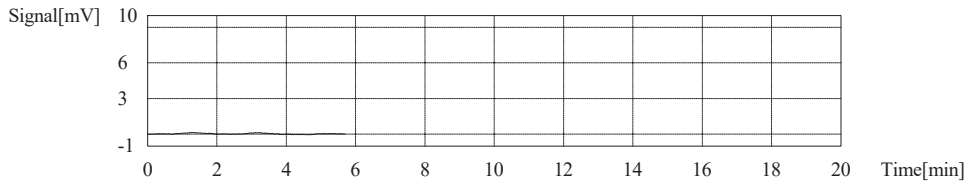
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:14:13 PM
2	0.1391	0.03891mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:16:21 PM
3	0.1583	0.04428mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:18:28 PM

TOC-Control L Report

2024_01_03_001.tlx

Mean Area	0.09913
Mean Conc.	0.02773mg/L



C:\TOC-L\Data\2024_02_14_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:25.1	
2	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.23	
3	Unknown	NPOC	MBLK-02142024		01.03.2024.	1.000	NPOC:0.15	
4	Unknown	NPOC	LCS-02142024		01.03.2024.	1.000	NPOC:9.59	
5	Unknown	NPOC	LCSD-02142024		01.03.2024.	1.000	NPOC:9.55	
6	Unknown	NPOC	HS24020146-10	TOC_W 5310B	01.03.2024.	1.000	NPOC:0.56	
7	Unknown	NPOC	HS24020246-01		01.03.2024.	1.000	NPOC:4.19	
8	Unknown	NPOC	HS24020246-02		01.03.2024.	1.000	NPOC:35.6	
9	Unknown	NPOC	HS24020246-04		01.03.2024.	1.000	NPOC:15.8	
10	Unknown	NPOC	HS24020246-07		01.03.2024.	1.000	NPOC:16.4	
11	Unknown	NPOC	HS24020284-01		01.03.2024.	1.000	NPOC:1.25	
12	Unknown	NPOC	HS24020284-01MS		01.03.2024.	1.000	NPOC:10.1	
13	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.5	
14	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.18	
15	Unknown	NPOC	HS24020284-02		01.03.2024.	1.000	NPOC:0.79	
16	Unknown	NPOC	HS24020310-02		01.03.2024.	1.000	NPOC:0.74	
17	Unknown	NPOC	HS24020310-03		01.03.2024.	1.000	NPOC:2.70	
18	Unknown	NPOC	HS24020310-04		01.03.2024.	1.000	NPOC:0.64	
19	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:23.9	
20	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.17	
21	Unknown	NPOC	MBLK-02142024		01.03.2024.	1.000	NPOC:0.14	
22	Unknown	NPOC	LCS-02142024		01.03.2024.	1.000	NPOC:9.50	
23	Unknown	NPOC	LCSD-02142024		01.03.2024.	1.000	NPOC:9.71	
24	Unknown	NPOC	HS24020310-10	TOC_W 5310B	01.03.2024.	1.000	NPOC:0.19	
25	Unknown	NPOC	HS24020310-17		01.03.2024.	1.000	NPOC:5.42	
26	Unknown	NPOC	HS24020310-19		01.03.2024.	1.000	NPOC:0.43	
27	Unknown	NPOC	HS24020310-53		01.03.2024.	1.000	NPOC:2.18	
28	Unknown	NPOC	HS24020310-54		01.03.2024.	1.000	NPOC:0.26	
29	Unknown	NPOC	HS24020310-56		01.03.2024.	1.000	NPOC:0.36	
30	Unknown	NPOC	HS24020323-01		01.03.2024.	1.000	NPOC:8.69	
31	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.1	
32	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.19	
33	Unknown	NPOC	HS24020323-01MS		01.03.2024.	1.000	NPOC:18.2	
34	Unknown	NPOC	HS24020371-01		01.03.2024.	1.000	NPOC:4.99	
35	Unknown	NPOC	HS24011750-01		01.03.2024.	1.000	NPOC:0.79	
36	Unknown	NPOC	HS24011750-02		01.03.2024.	1.000	NPOC:2.41	
37	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.3	
38	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.14	
39	Unknown	NPOC	MBLK-02142024		01.03.2024.	1.000	NPOC:0.14	
40	Unknown	NPOC	LCS-02142024		01.03.2024.	1.000	NPOC:9.69	
41	Unknown	NPOC	LCSD-02142024		01.03.2024.	1.000	NPOC:9.68	
42	Unknown	NPOC	HS24011750-03	TOC_W 5310B	01.03.2024.	1.000	NPOC:0.66	
43	Unknown	NPOC	HS24011750-03MS		01.03.2024.	1.000	NPOC:9.91	
44	Unknown	NPOC	HS24020148-01		01.03.2024.	1.000	NPOC:7.19	
45	Unknown	NPOC	HS24020148-02		01.03.2024.	1.000	NPOC:3.49	
46	Unknown	NPOC	HS24020148-03DF10		01.03.2024.	1.000	NPOC:107.	
47	Unknown	NPOC	HS24020148-04		01.03.2024.	1.000	NPOC:12.2	
48	Unknown	NPOC	HS24020148-05		01.03.2024.	1.000	NPOC:13.7	
49	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.9	
50	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.23	
51	Unknown	NPOC	HS24020306-01		01.03.2024.	1.000	NPOC:0.99	
52	Unknown	NPOC	HS24020306-02		01.03.2024.	1.000	NPOC:1.55	
53	Unknown	NPOC	HS24020314-01		01.03.2024.	1.000	NPOC:0.58	

C:\TOC-L\Data\2024_02_14_001.tlx

	Status	Date / Time	Vial
1	Completed	2/14/2024 2:	1
2	Completed	2/14/2024 2:	2
3	Completed	2/14/2024 2:	3
4	Completed	2/14/2024 2:	4
5	Completed	2/14/2024 2:	5
6	Completed	2/14/2024 3:	6
7	Completed	2/14/2024 3:	7
8	Completed	2/14/2024 3:	8
9	Completed	2/14/2024 3:	9
10	Completed	2/14/2024 4:	10
11	Completed	2/14/2024 4:	11
12	Completed	2/14/2024 4:	12
13	Completed	2/14/2024 4:	1
14	Completed	2/14/2024 5:	2
15	Completed	2/14/2024 5:	13
16	Completed	2/14/2024 5:	14
17	Completed	2/14/2024 5:	15
18	Completed	2/14/2024 5:	16
19	Completed	2/14/2024 6:	1
20	Completed	2/14/2024 6:	2
21	Completed	2/14/2024 6:	3
22	Completed	2/14/2024 6:	4
23	Completed	2/14/2024 7:	5
24	Completed	2/14/2024 7:	17
25	Completed	2/14/2024 7:	18
26	Completed	2/14/2024 7:	19
27	Completed	2/14/2024 7:	20
28	Completed	2/14/2024 8:	21
29	Completed	2/14/2024 8:	22
30	Completed	2/14/2024 8:	23
31	Completed	2/14/2024 8:	1
32	Completed	2/14/2024 9:	2
33	Completed	2/14/2024 9:	24
34	Completed	2/14/2024 9:	25
35	Completed	2/14/2024 9:	26
36	Completed	2/14/2024 9:	27
37	Completed	2/14/2024 1	50
38	Completed	2/14/2024 1	51
39	Completed	2/14/2024 1	3
40	Completed	2/14/2024 1	4
41	Completed	2/14/2024 1	5
42	Completed	2/14/2024 1	28
43	Completed	2/14/2024 1	29
44	Completed	2/14/2024 1	30
45	Completed	2/14/2024 1	31
46	Completed	2/15/2024 1	32
47	Completed	2/15/2024 1	33
48	Completed	2/15/2024 1	34
49	Completed	2/15/2024 1	50
50	Completed	2/15/2024 1:	51
51	Completed	2/15/2024 1:	35
52	Completed	2/15/2024 1:	36
53	Completed	2/15/2024 1:	37

C:\TOC-L\Data\2024_02_14_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
54	Unknown	NPOC	HS24020314-02		01.03.2024.	1.000	NPOC:1.51	
55	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.0	
56	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.20	
57	Unknown	NPOC	MBLK-02142024		01.03.2024.	1.000	NPOC:0.15	
58	Unknown	NPOC	LCS-02142024		01.03.2024.	1.000	NPOC:9.90	
59	Unknown	NPOC	LCSD-02142024		01.03.2024.	1.000	NPOC:9.82	
60	Unknown	NPOC	HS24020314-03	TOC_W 5310B	01.03.2024.	1.000	NPOC:1.26	
61	Unknown	NPOC	HS24020314-03MS		01.03.2024.	1.000	NPOC:10.4	
62	Unknown	NPOC	HS24020575-01		01.03.2024.	1.000	NPOC:1.14	
63	Unknown	NPOC	HS24020575-02		01.03.2024.	1.000	NPOC:1.02	
64	Unknown	NPOC	HS24020575-03		01.03.2024.	1.000	NPOC:1.05	
65	Unknown	NPOC	HS24020575-04		01.03.2024.	1.000	NPOC:1.34	
66	Unknown	NPOC	HS24020576-01		01.03.2024.	1.000	NPOC:1.84	
67	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:23.4	
68	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.15	
69	Unknown	NPOC	HS24020576-05		01.03.2024.	1.000	NPOC:4.80	
70	Unknown	NPOC	HS24020576-10		01.03.2024.	1.000	NPOC:1.75	
71	Unknown	NPOC	HS24020169-01		01.03.2024.	1.000	NPOC:0.79	
72	Unknown	NPOC	HS24020169-02		01.03.2024.	1.000	NPOC:0.45	
73	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:25.0	
74	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.21	

	Status	Date / Time	Vial
54	Completed	2/15/2024 2:	38
55	Completed	2/15/2024 2:	50
56	Completed	2/15/2024 2:	51
57	Completed	2/15/2024 2:	3
58	Completed	2/15/2024 2:	4
59	Completed	2/15/2024 3:	5
60	Completed	2/15/2024 3:	39
61	Completed	2/15/2024 3:	40
62	Completed	2/15/2024 3:	41
63	Completed	2/15/2024 4:	42
64	Completed	2/15/2024 4:	43
65	Completed	2/15/2024 4:	44
66	Completed	2/15/2024 4:	45
67	Completed	2/15/2024 4:	50
68	Completed	2/15/2024 5:	51
69	Completed	2/15/2024 5:	46
70	Completed	2/15/2024 5:	47
71	Completed	2/15/2024 5:	48
72	Completed	2/15/2024 6:	49
73	Completed	2/15/2024 6:	52
74	Completed	2/15/2024 6:	53

TOC-Control L Report

Instr.Information

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

Sample

Sample Name: CCV
Sample ID: 3100607917
Origin: 01.03.2024.cal
Status Completed
Chk. Result

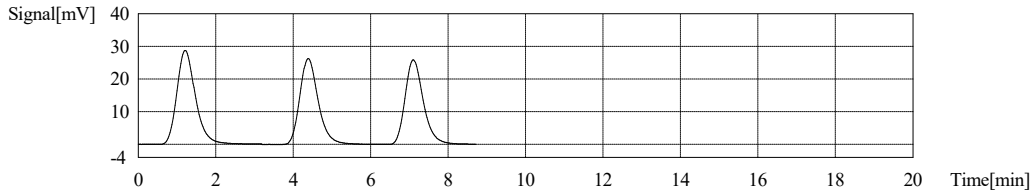
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.18mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	97.13	27.17mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 1:56:52 PM
2	87.55	24.49mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 1:59:51 PM
3	85.40	23.89mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:02:53 PM

Mean Area 90.03
Mean Conc. 25.18mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2366mg/L

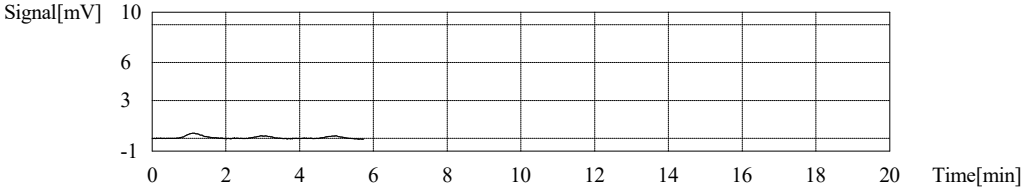
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.138	0.3183mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:11:02 PM
2	0.6665	0.1864mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:13:10 PM
3	0.7325	0.2049mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:15:19 PM

TOC-Control L Report

Mean Area 0.8457
Mean Conc. 0.2366mg/L



Sample

Sample Name: MBLK-02142024
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

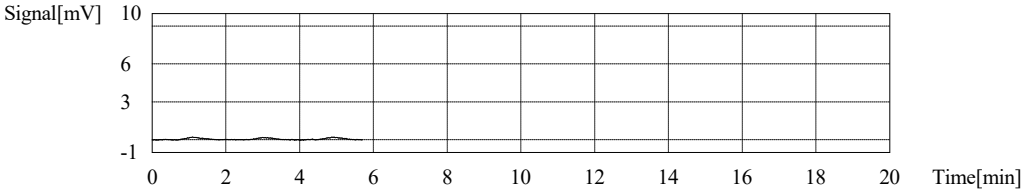
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1598mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6756	0.1890mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:23:28 PM
2	0.4251	0.1189mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:25:35 PM
3	0.6128	0.1714mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:27:42 PM

Mean Area 0.5712
Mean Conc. 0.1598mg/L



Sample

Sample Name: LCS-02142024
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.593mg/L

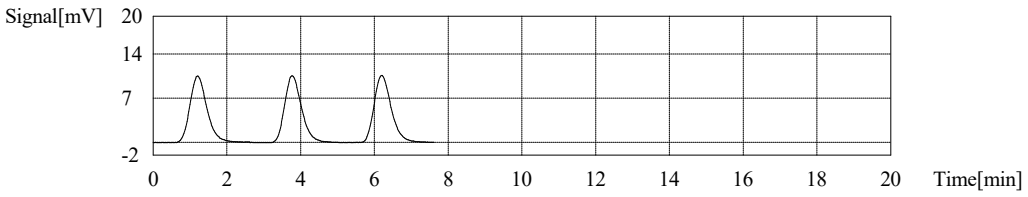
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.10	9.539mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:36:34 PM
2	33.93	9.491mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:39:13 PM
3	34.85	9.749mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:42:02 PM

TOC-Control L Report

Mean Area 34.29
Mean Conc. 9.593mg/L



Sample

Sample Name: LCSD-02142024
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

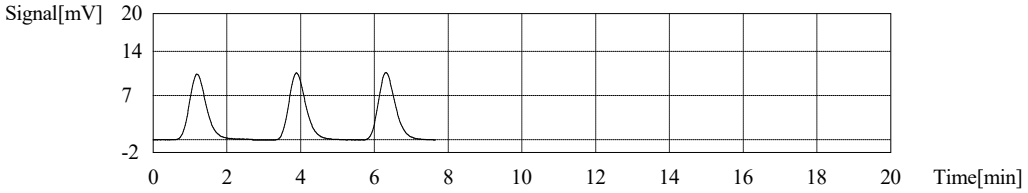
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.551mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	33.50	9.371mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:50:59 PM
2	34.35	9.609mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:53:40 PM
3	34.58	9.673mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 2:56:25 PM

Mean Area 34.14
Mean Conc. 9.551mg/L



Sample

Sample Name: HS24020146-10
Sample ID: TOC_W 5310B
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5618mg/L

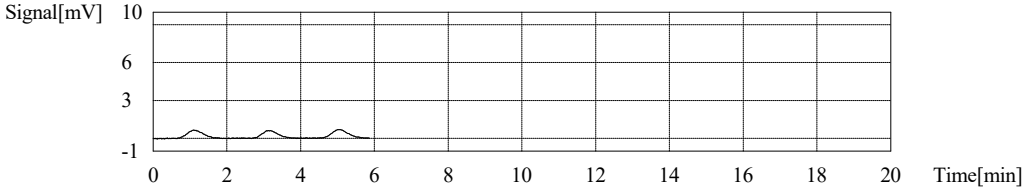
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.256	0.6311mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:04:42 PM
2	1.797	0.5027mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:06:49 PM
3	1.972	0.5516mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:08:58 PM

TOC-Control L Report

Mean Area 2.008
Mean Conc. 0.5618mg/L



Sample

Sample Name: HS24020246-01
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

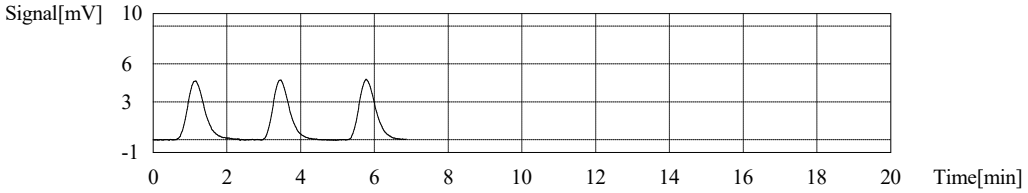
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.198mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.02	4.202mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:17:34 PM
2	14.92	4.174mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:20:10 PM
3	15.08	4.218mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:22:35 PM

Mean Area 15.01
Mean Conc. 4.198mg/L



Sample

Sample Name: HS24020246-02
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:35.65mg/L

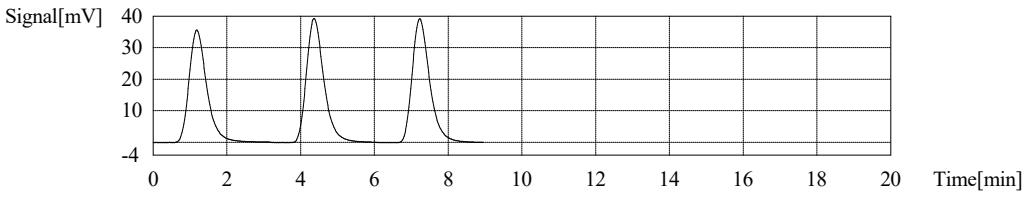
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	120.2	33.62mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:32:02 PM
2	130.9	36.62mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:35:09 PM
3	131.2	36.70mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:38:15 PM

TOC-Control L Report

Mean Area 127.4
Mean Conc. 35.65mg/L



Sample

Sample Name: HS24020246-04
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

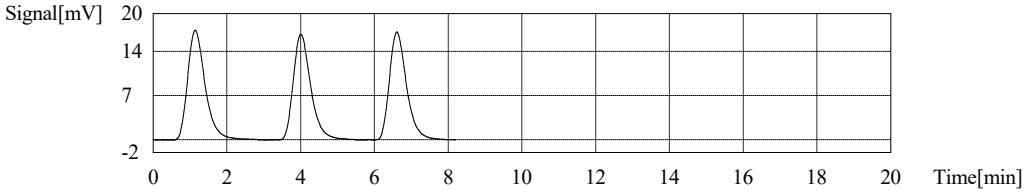
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	57.93	16.21mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:47:22 PM
2	55.41	15.50mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:50:13 PM
3	56.09	15.69mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 3:53:12 PM

Mean Area 56.48
Mean Conc. 15.80mg/L



Sample

Sample Name: HS24020246-07
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.41mg/L

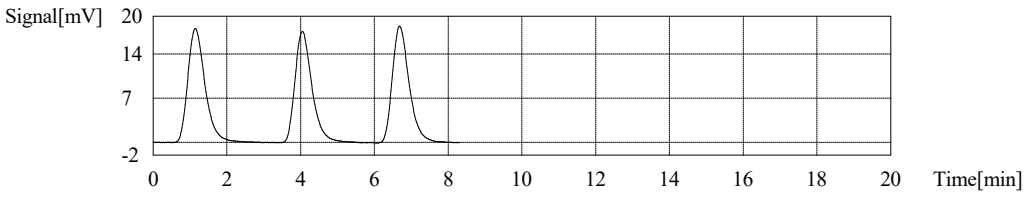
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.33	16.60mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:02:22 PM
2	57.02	15.95mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:05:13 PM
3	59.69	16.70mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:08:11 PM

TOC-Control L Report

Mean Area 58.68
Mean Conc. 16.41mg/L



Sample

Sample Name: HS24020284-01
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

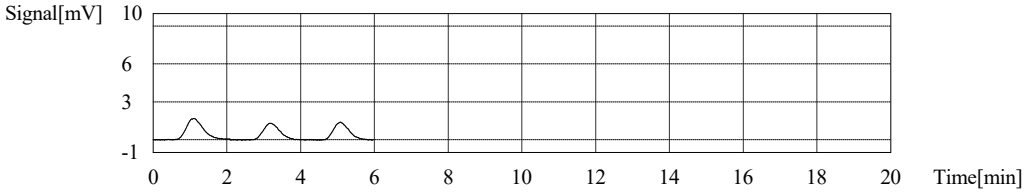
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.258mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.306	1.484mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:16:32 PM
2	4.033	1.128mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:18:40 PM
3	4.150	1.161mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:20:52 PM

Mean Area 4.496
Mean Conc. 1.258mg/L



Sample

Sample Name: HS24020284-01MS
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.18mg/L

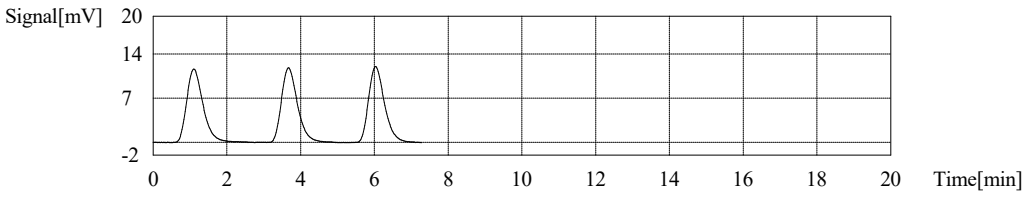
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.21	10.13mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:29:41 PM
2	36.23	10.13mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:32:17 PM
3	36.72	10.27mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:34:51 PM

TOC-Control L Report

Mean Area 36.39
Mean Conc. 10.18mg/L



Sample

Sample Name: CCV
Sample ID: 3100607917
Origin: 01.03.2024.cal
Status Completed
Chk. Result

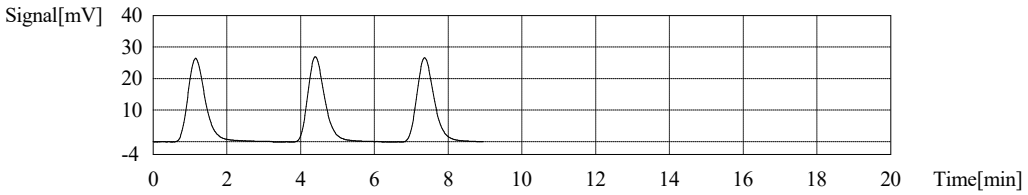
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	88.03	24.63mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:44:31 PM
2	87.29	24.42mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:47:43 PM
3	87.83	24.57mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:50:43 PM

Mean Area 87.72
Mean Conc. 24.54mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1846mg/L

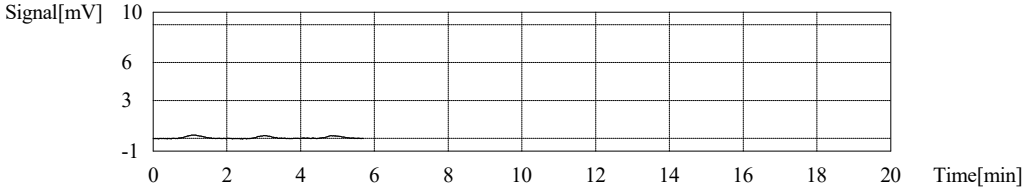
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7664	0.2144mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 4:58:53 PM
2	0.5914	0.1654mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 5:01:00 PM
3	0.6216	0.1739mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 5:03:07 PM

TOC-Control L Report

Mean Area 0.6598
Mean Conc. 0.1846mg/L



Sample

Sample Name: HS24020284-02
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

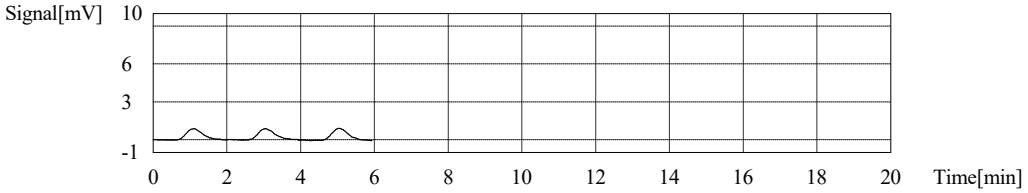
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7984mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.792	0.7810mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 5:11:25 PM
2	2.772	0.7754mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 5:13:38 PM
3	2.998	0.8386mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 5:15:51 PM

Mean Area 2.854
Mean Conc. 0.7984mg/L



Sample

Sample Name: HS24020310-02
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7469mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.920	0.8168mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 5:24:05 PM
2	2.485	0.6951mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 5:26:18 PM
3	2.605	0.7287mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/14/2024 5:28:25 PM

HS24020246 E2400112 Perch Level IV Report Revised

ALS WO# HS24020246

February 14, 2024 Service Request No:E2400112

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS24020246

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory February 06, 2024
For your reference, these analyses have been assigned our service request number **E2400112.**

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

H Kelany

Hussam Kelany
Project Manager

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

Certificate of Analysis

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

Client:	ALS Environmental - US	**Service Request No.:**	E2400112
Project:	HS24020246	**Date Received:**	02/06/24
Sample Matrix:	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

Eight samples were received for analysis at ALS Environmental in Houston on 02/06/24.

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:

EQ2400081: 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.

Client: ALS Environmental - US **Service Request:**E2400112
Project: HS24020246

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2400112-001	16WW55-240205	2/5/2024	0725
E2400112-002	16WW55-240205	2/5/2024	0815
E2400112-003	16WW48-240205	2/5/2024	0905
E2400112-004	16WW48-240205	2/5/2024	0950
E2400112-005	16EW08-240205	2/5/2024	1035
E2400112-006	16EW08-240205	2/5/2024	1115
E2400112-007	16EW01-240205	2/5/2024	1200
E2400112-008	16EW01-240205	2/5/2024	1245

Service Request Summary

Folder #: **E2400112**
Client Name: ALS Environmental - US
Project Name: HS24020246
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/06/24
Internal Due Date: 2/13/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: EQUIS APTIM
LONGHORN EFWEDD

8 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10A
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	Semivoa GCMS ClO4 DOD/6850
E2400112-001	16WW55-240205	Water	02/05/24 0725	**IV**
E2400112-002	16WW55-240205	Water	02/05/24 0815	**IV**
E2400112-003	16WW48-240205	Water	02/05/24 0905	**IV**
E2400112-004	16WW48-240205	Water	02/05/24 0950	**IV**
E2400112-005	16EW08-240205	Water	02/05/24 1035	**IV**
E2400112-006	16EW08-240205	Water	02/05/24 1115	**IV**
E2400112-007	16EW01-240205	Water	02/05/24 1200	**IV**
E2400112-008	16EW01-240205	Water	02/05/24 1245	**IV**

Service Request Summary

Folder #: **E2400112**
Client Name: ALS Environmental - US
Project Name: HS24020246
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/06/24
Internal Due Date: 2/13/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: EQUIS APTIM
LONGHORN EFWEDD

8 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10A
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
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
Louisiana Department of Health and Hospitals	LA028-2024	12/31/2024
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343-2023	6/30/2024
Michigan Depratment of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2645386	12/31/2024
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2023-140	8/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
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	TX026932023-14	7/31/2024
Washington Department of Ecology	C819-23	11/14/2024

Chain of Custody

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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E2400112 5
ALS Group USA, Corp.
HS24020246

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Houston, TX 77099
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Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 24665

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff Road, Suite 210
Houston, TX 77099

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: James Guin
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@alsglobal.com
Alternate Contact:
Email:

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS24020246
TSR: Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24020246-01**	**16WW55_240205**	**Groundwater**	**05 Feb 2024 07:25**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
2.	**HS24020246-02**	**16WW41_240205**	**Groundwater**	**05 Feb 2024 08:15**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
3.	**HS24020246-03**	**16WW48_240205**	**Groundwater**	**05 Feb 2024 09:05**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
4.	**HS24020246-04**	**16EW03_240205**	**Groundwater**	**05 Feb 2024 09:50**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
5.	**HS24020246-05**	**16EW08_240205**	**Groundwater**	**05 Feb 2024 10:35**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
6.	**HS24020246-06**	**16EW04_240205**	**Groundwater**	**05 Feb 2024 11:15**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
7.	**HS24020246-07**	**16EW01_240205**	**Groundwater**	**05 Feb 2024 12:00**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
8.	**HS24020246-08**	**16WW49_240205**	**Groundwater**	**05 Feb 2024 12:45**

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **24665**

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.		13 Feb 2024

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: 2/6 1440

Received By: JC Date/Time: _____

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

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Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID: 24665**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff Road, Suite 210
Houston, TX 77099

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: James Guin
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@alsglobal.com
Alternate Contact:
Email:

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS24020246
TSR: Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24020246-01**	**16WW55-240205**	**Groundwater**	**05 Feb 2024 07:25**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
2.	**HS24020246-02**	**16WW41-240205**	**Groundwater**	**05 Feb 2024 08:15**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
3.	**HS24020246-03**	**16WW48-240205**	**Groundwater**	**05 Feb 2024 09:05**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
4.	**HS24020246-04**	**16EW03-240205**	**Groundwater**	**05 Feb 2024 09:50**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
5.	**HS24020246-05**	**16EW08-240205**	**Groundwater**	**05 Feb 2024 10:35**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
6.	**HS24020246-06**	**16EW04-240205**	**Groundwater**	**05 Feb 2024 11:15**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
7.	**HS24020246-07**	**16EW01-240205**	**Groundwater**	**05 Feb 2024 12:00**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			13 Feb 2024
8.	**HS24020246-08**	**16WW49-240205**	**Groundwater**	**05 Feb 2024 12:45**

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID: 24665**

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.		13 Feb 2024

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: _____

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

E2400112 5
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HS24020246

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Sample Receipt Checklist

Work Order ID: HS24020246 **Date/Time received:** 06 Feb 2024 09:30

Client name: Bhate Environmental Associates, Inc. **Received by:** Jacob Coronado

Completed/By: 06 Feb 2024 14:40 (Date/Time) Jacob Coronado (eSignature) **Reviewed/By:** 06 Feb 2024 16:32 (Date/Time) luis.aguilar (eSignature)

Matrices: W **Carrier name:** FedEx

Shipping container/cooler in good condition?	☑ Yes	☐ No	☐ Not Present
Custody seals intact on shipping container/cooler?	☑ Yes	☐ No	☐ Not Present
Custody seals intact on Sample bottles?	☐ Yes	☐ No	☑ Not Present
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐ Yes	☐ No	☑ Not Present
Chain of custody present?	☑ Yes	☐ No	1 Page(s)
Chain of custody signed when relinquished and received?	☑ Yes	☐ No	COC ID(s):
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): 3.7UC/3.6C IR31

Cooler Information: 1 Cooler(s), 50913

Date/Time sample(s) sent to storage: 02/06/2024 1500

Water - VOA vials have zero headspace?	☑ Yes	☐ No	☐ No VOA vials submitted
Water - pH acceptable upon receipt?	☐ Yes	☐ No	☑ Not Applicable
pH adjusted?	☐ Yes	☐ No	☑ Not Applicable

pH adjusted by: _____

Login notes: _____

Client contacted: _____ **Date contacted:** _____ **Person contacted:** _____

Contacted by: _____ **Regarding:** _____

Comments: _____

Corrective action: _____

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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
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Phone (281)530-5656 Fax (281)530-5887
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Preparation Information Benchsheet

Prep Run#: 433879 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/12/24 08:23

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2400101-001	Q1/24-BFT-EOD-7	.01	6850/ClO4 DOD			Water	10mL	
2	E2400101-002	Q1/24-BFT-EOD-6	.01	6850/ClO4 DOD			Water	10mL	
3	E2400101-003	Q1/24-BFT-EOD-5	.01	6850/ClO4 DOD			Water	10mL	
4	E2400101-004	Q1/24-BFT-EOD-1	.01	6850/ClO4 DOD			Water	10mL	
5	E2400101-005	Q1/24-BFT-EOD-8	.01	6850/ClO4 DOD			Water	10mL	
6	E2400101-006	Q1/24-BFT-EOD-9	.01	6850/ClO4 DOD			Water	10mL	
7	E2400101-007	Q1/24-BFT-EOD-2	.02	6850/ClO4 DOD			Water	10mL	
8	E2400101-008	Q1/24-BFT-EOD-10	.01	6850/ClO4 DOD			Water	10mL	
9	E2400101-009	Q1/24-BFT-EOD-10D	.01	6850/ClO4 DOD			Water	10mL	
10	E2400101-010	Q1/24-BFT-EOD-4	.01	6850/ClO4 DOD			Water	10mL	
11	E2400101-011	Q1/24-BFT-EOD-11	.01	6850/ClO4 DOD			Water	10mL	
12	E2400101-012	Q1/24-BFT-EOD-3	.01	6850/ClO4 DOD			Water	10mL	
13	E2400112-001	16WW55-240205	.01	6850/ClO4 DOD			Water	10mL	
14	E2400112-002	16WW55-240205	.01	6850/ClO4 DOD			Water	10mL	
15	E2400112-003	16WW48-240205	.01	6850/ClO4 DOD			Water	10mL	
16	E2400112-004	16WW48-240205	.01	6850/ClO4 DOD			Water	10mL	
17	E2400112-005	16EW08-240205	.01	6850/ClO4 DOD			Water	10mL	
18	E2400112-006	16EW08-240205	.01	6850/ClO4 DOD			Water	10mL	
19	E2400112-007	16EW01-240205	.01	6850/ClO4 DOD			Water	10mL	
20	E2400112-008	16EW01-240205	.01	6850/ClO4 DOD			Water	10mL	
21	EQ2400081-01	MB		6850/ClO4 DOD			Liquid	10mL	
22	EQ2400081-02	LCS		6850/ClO4 DOD			Liquid	10mL	
23	EQ2400081-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
24	EQ2400081-04	Q1/24-BFT-EOD-2 MS	.02	6850/ClO4 DOD			Liquid	10mL	
25	EQ2400081-05	Q1/24-BFT-EOD-2 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
26	EQ2400081-06	ICS		6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock 2 Inventory ID 233555 Logbook Ref: Perchlorate INT. Stock2 Expires On: 08/05/2024

EQ2400081-02 10.00µL EQ2400081-03 10.00µL EQ2400081-04 10.00µL EQ2400081-05 10.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 233561 Logbook Ref: Perchlorate Internal Standard Expires On: 08/05/2024

E2400101-001 100.00µL E2400101-002 100.00µL E2400101-003 100.00µL E2400101-004 100.00µL E2400101-005 100.00µL E2400101-006 100.00µL

Preparation Information Benchsheet

Prep Run#: 433879 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/12/24 08:23

E2400101-007	100.00µL	E2400101-008	100.00µL	E2400101-009	100.00µL	E2400101-011	100.00µL	E2400101-012	100.00µL	E2400112-001	100.00µL
E2400112-002	100.00µL	E2400112-003	100.00µL	E2400112-004	100.00µL	E2400112-005	100.00µL	E2400112-006	100.00µL	E2400112-007	100.00µL
E2400112-008	100.00µL	EQ2400081-01	100.00µL	EQ2400081-02	100.00µL	EQ2400081-03	100.00µL	EQ2400081-04	100.00µL	EQ2400081-05	100.00µL
EQ2400081-06	100.00µL										

Preparation Materials

Water HPLC Grade	HPLC water 083124 (233144)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 0.45 SYRING FILTER (229979)
6850 Luer-Lok Syringes	Luer Lok Syringes (231696)				

Preparation Steps

Step: Preparation
Started: 2/12/24 08:23
Finished: 2/12/24 13:26
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

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
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:**	E2400112
Project:	HS24020246	**Date Collected:**	2/ 5/24 0725
Sample Matrix:	Water	**Date Received:**	2/ 6/24
Sample Name:	16WW55-240205	**Units:**	µg/L
Lab Code:	E2400112-001	**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	**45.8**		0.100	0.0500	0.0250	1	2/12/24	2/13/24 12:40	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	2/ 5/24 0815
Sample Matrix:	Water	**Date Received:**	2/ 6/24
Sample Name:	16WW55-240205	**Units:**	µg/L
Lab Code:	E2400112-002	**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	**31.9**		1.00	0.500	0.250	10	2/12/24	2/13/24 15:22	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	2/ 5/24 0905
Sample Matrix:	Water	**Date Received:**	2/ 6/24
Sample Name:	16WW48-240205	**Units:**	µg/L
Lab Code:	E2400112-003	**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	**2.38**		1.00	0.500	0.250	10	2/12/24	2/13/24 15:27	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	2/ 5/24 0950
Sample Matrix:	Water	**Date Received:**	2/ 6/24
Sample Name:	16WW48-240205	**Units:**	µg/L
Lab Code:	E2400112-004	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	2/12/24	2/13/24 14:39	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	2/ 5/24 1035
Sample Matrix:	Water	**Date Received:**	2/ 6/24
Sample Name:	16EW08-240205	**Units:**	µg/L
Lab Code:	E2400112-005	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	2/12/24	2/13/24 13:27	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	2/ 5/24 1115
Sample Matrix:	Water	**Date Received:**	2/ 6/24
Sample Name:	16EW08-240205	**Units:**	µg/L
Lab Code:	E2400112-006	**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	ND	U	0.100	0.0500	0.0250	1	2/12/24	2/13/24 14:58	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	2/ 5/24 1200
Sample Matrix:	Water	**Date Received:**	2/ 6/24
Sample Name:	16EW01-240205	**Units:**	µg/L
Lab Code:	E2400112-007	**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	**44.2**		0.500	0.250	0.125	5	2/12/24	2/13/24 13:38	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	2/ 5/24 1245
Sample Matrix:	Water	**Date Received:**	2/ 6/24
Sample Name:	16EW01-240205	**Units:**	µg/L
Lab Code:	E2400112-008	**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	2/12/24	2/13/24 13:55	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2400081-01	**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	2/12/24	2/13/24 14:06	433879	832255	

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: HS24020246
Sample Matrix: Water

Service Request: E2400112
Date Analyzed: 2/13/24

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: 433879

	Lab Control Sample EQ2400081-02			Duplicate Lab Control Sample EQ2400081-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.101	0.100	101	0.118	0.100	118	84 - 119	15	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:**	E2400112
Project:	HS24020246	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400081-02	**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	**0.101**		0.100	0.0500	0.0250	1	2/12/24	2/13/24 14:11	433879	832255	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400081-03	**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	**0.118**		0.100	0.0500	0.0250	1	2/12/24	2/13/24 14:17	433879	832255	

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

832255

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: JLJ

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240213-001	IB	Perchlorate6850c.lcm	1x		2/13/2024 9:34
2	20240213-002	Perchlorate ICAL 1	Perchlorate6850c.lcm	1x	233572	2/13/2024 9:40
3	20240213-003	Perchlorate ICAL 2	Perchlorate6850c.lcm	1x	233571	2/13/2024 9:45
4	20240213-004	Perchlorate ICAL 3	Perchlorate6850c.lcm	1x	233570	2/13/2024 9:51
5	20240213-005	Perchlorate ICAL 4	Perchlorate6850c.lcm	1x	233569	2/13/2024 9:56
6	20240213-006	Perchlorate ICAL 5	Perchlorate6850c.lcm	1x	233568	2/13/2024 10:02
7	20240213-007	Perchlorate ICAL 6	Perchlorate6850c.lcm	1x	233567	2/13/2024 10:08
8	20240213-008	Perchlorate ICAL 7	Perchlorate6850c.lcm	1x	233566	2/13/2024 10:13
9	20240213-009	Perchlorate ICAL 8	Perchlorate6850c.lcm	1x	233564	2/13/2024 10:19
10	20240213-010	Perchlorate ICAL 9	Perchlorate6850c.lcm	1x	233563	2/13/2024 10:24
11	20240213-011	Perchlorate ICAL 10	Perchlorate6850c.lcm	1x	233562	2/13/2024 10:30
12	20240213-012	PerchlorateICV	Perchlorate6850c.lcm	1x	230380	2/13/2024 10:35
13	20240213-013	IB	Perchlorate6850c.lcm	1x		2/13/2024 10:41
14	20240213-014	LODV	Perchlorate6850c.lcm	1x		2/13/2024 10:49
15	20240213-015	ICS	Perchlorate6850c.lcm	1x		2/13/2024 10:55
16	20240213-016	E2400101-001	Perchlorate6850c.lcm	1x		2/13/2024 11:18
17	20240213-017	E2400101-002	Perchlorate6850c.lcm	1x		2/13/2024 11:23
18	20240213-018	E2400101-003	Perchlorate6850c.lcm	1x		2/13/2024 11:29
19	20240213-019	E2400101-004	Perchlorate6850c.lcm	1x		2/13/2024 11:34
20	20240213-020	E2400101-005	Perchlorate6850c.lcm	1x		2/13/2024 11:40
21	20240213-021	E2400101-006	Perchlorate6850c.lcm	1x		2/13/2024 11:45
22	20240213-022	E2400101-007	Perchlorate6850c.lcm	1x		2/13/2024 11:51
23	20240213-023	E2400101-008	Perchlorate6850c.lcm	1x		2/13/2024 11:56
24	20240213-024	E2400101-009	Perchlorate6850c.lcm	1x		2/13/2024 12:02
25	20240213-025	E2400101-010	Perchlorate6850c.lcm	1x	DNU-IR-RI	2/13/2024 12:07
26	20240213-026	CCV	Perchlorate6850c.lcm	1x		2/13/2024 12:13
27	20240213-027	IB	Perchlorate6850c.lcm	1x		2/13/2024 12:18
28	20240213-028	E2400101-011	Perchlorate6850c.lcm	1x		2/13/2024 12:24
29	20240213-029	E2400101-012	Perchlorate6850c.lcm	1x		2/13/2024 12:29
30	20240213-030	E2400101-013	Perchlorate6850c.lcm	1x		2/13/2024 12:35
31	20240213-031	E2400112-001	Perchlorate6850c.lcm	1x		2/13/2024 12:40
32	20240213-032	IB	Perchlorate6850c.lcm	1x		2/13/2024 13:03
33	20240213-033	E2400112-002	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:09
34	20240213-034	E2400112-003	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:16
35	20240213-035	E2400112-004	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:22
36	20240213-036	E2400112-005	Perchlorate6850c.lcm	1x		2/13/2024 13:27
37	20240213-037	E2400112-006	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:33
38	20240213-038	E2400112-007x5	Perchlorate6850c.lcm	5x		2/13/2024 13:38
39	20240213-039	CCV	Perchlorate6850c.lcm	1x		2/13/2024 13:44
40	20240213-040	IB	Perchlorate6850c.lcm	1x		2/13/2024 13:49
41	20240213-041	E2400112-008	Perchlorate6850c.lcm	1x		2/13/2024 13:55

832255

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: JLJ

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
42	20240213-042	E2400101-010	Perchlorate6850c.lcm	1x		2/13/2024 14:00
43	20240213-043	E2400081-01 MB	Perchlorate6850c.lcm	1x		2/13/2024 14:06
44	20240213-044	E2400081-02 LCS	Perchlorate6850c.lcm	1x		2/13/2024 14:11
45	20240213-045	E2400081-03 DLCS	Perchlorate6850c.lcm	1x		2/13/2024 14:17
46	20240213-046	E2400081-06 ICS	Perchlorate6850c.lcm	1x		2/13/2024 14:22
47	20240213-047	E2400081-04 MS	Perchlorate6850c.lcm	1x		2/13/2024 14:28
48	20240213-048	E2400081-05 DMS	Perchlorate6850c.lcm	1x		2/13/2024 14:33
49	20240213-049	E2400112-004	Perchlorate6850c.lcm	1x		2/13/2024 14:39
50	20240213-050	CCV	Perchlorate6850c.lcm	1x		2/13/2024 14:45
51	20240213-051	IB	Perchlorate6850c.lcm	1x		2/13/2024 14:51
52	20240213-052	E2400112-006	Perchlorate6850c.lcm	1x		2/13/2024 14:58
53	20240213-053	E2400112-002X10	Perchlorate6850c.lcm	10x		2/13/2024 15:22
54	20240213-054	E2400112-003X10	Perchlorate6850c.lcm	10x		2/13/2024 15:27
55	20240213-055	CCV	Perchlorate6850c.lcm	1x		2/13/2024 15:33
56	20240213-056	IB	Perchlorate6850c.lcm	1x		2/13/2024 15:38

Initial Calibration - Detailed Report

Calibration ID: EC2400004 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2400004-01	Perchlorate ICAL 1	20240213-002	02/13/2024 09:40
02	EC2400004-02	Perchlorate ICAL 2	20240213-003	02/13/2024 09:45
03	EC2400004-03	Perchlorate ICAL 3	20240213-004	02/13/2024 09:51
04	EC2400004-04	Perchlorate ICAL 4	20240213-005	02/13/2024 09:56
05	EC2400004-05	Perchlorate ICAL 5	20240213-006	02/13/2024 10:02
06	EC2400004-06	Perchlorate ICAL 6	20240213-007	02/13/2024 10:08
07	EC2400004-07	Perchlorate ICAL 7	20240213-008	02/13/2024 10:13
08	EC2400004-08	Perchlorate ICAL 8	20240213-009	02/13/2024 10:19
09	EC2400004-09	Perchlorate ICAL 9	20240213-010	02/13/2024 10:24
10	EC2400004-10	Perchlorate ICAL 10	20240213-011	02/13/2024 10:30

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

Perchlorate **Average RF** **RSD = 1.405** **Average RF = 0.1578**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1593	02	0.5000	0.1567	03	0.7000	0.1554	04	1.0000	0.1575
05	2.0000	0.1534	06	5.0000	0.1574	07	10.0000	0.1595	08	20.0000	0.16
09	30.0000	0.1586	10	50.0000	0.1604						

Analyte

Perchlorate RSE = 1.41

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.101	0.9	02	0.5000	0.496	-0.7	03	0.7000	0.689	-1.5
04	1.0000	0.998	-0.2	05	2.0000	1.94	-2.8	06	5.0000	4.99	-0.2
07	10.0000	10.1	1.1	08	20.0000	20.3	1.4	09	30.0000	30.1	0.5
10	50.0000	50.8	1.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2400004	**Instrument ID:**	E-LCMS-01
Datafile ID:	20240213-012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2400004-11	T	Average RF	10	9.980	ng/mL	-0.2	<= 15

Insight Report

Printed at 2/13/2024 3:53:21 PM

Method File: I:\LCMS01\DATA\20240213\ICAL 20240213.lcm
Project File: I:\LCMS01\DATA\20240213\20240213.damlp

IB

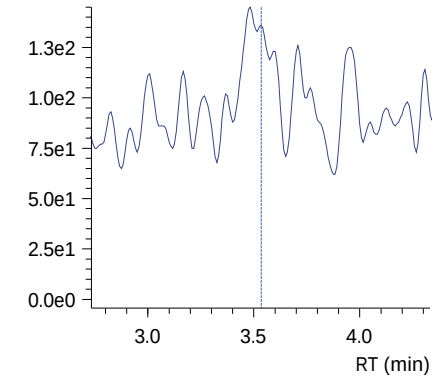
Sample ID: IB
Date Acquired: 2/13/2024 9:34:46 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	487658	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.529	487658	487658	1.0000	ng/mL	----	----	

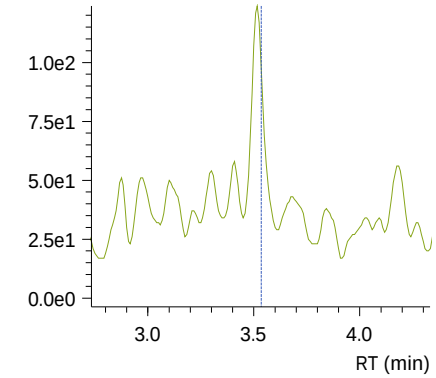
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.45e2



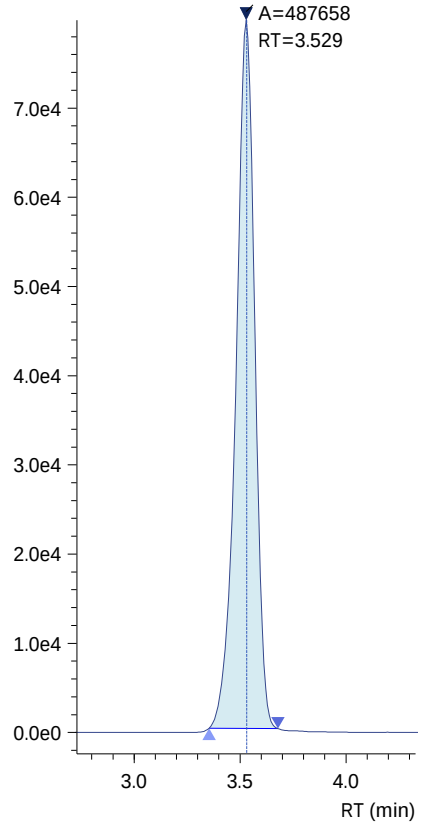
R1 101.00>85.00 (-) 1.24e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.99e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

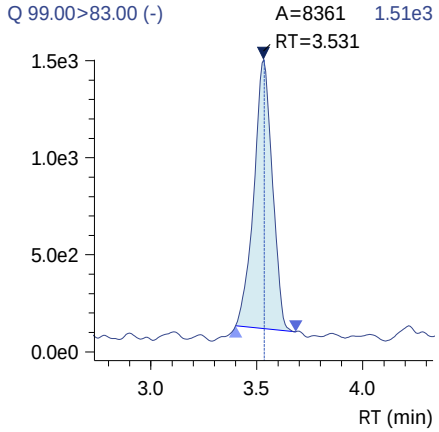
Perchlorate ICAL 1

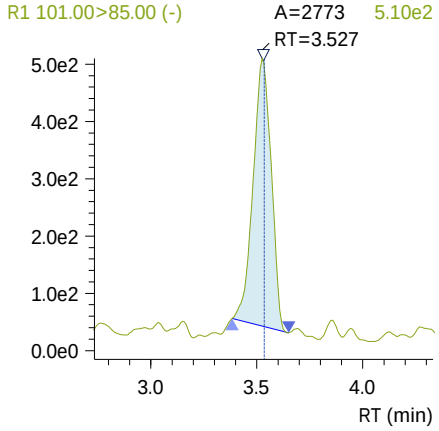
Sample ID: Perchlorate ICAL 1
Date Acquired: 2/13/2024 9:40:17 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	8361	524837	0.1009	ng/mL	101.00 >85.00	33.17	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.529	524837	524837	1.0000	ng/mL	----	----	

Perchlorate

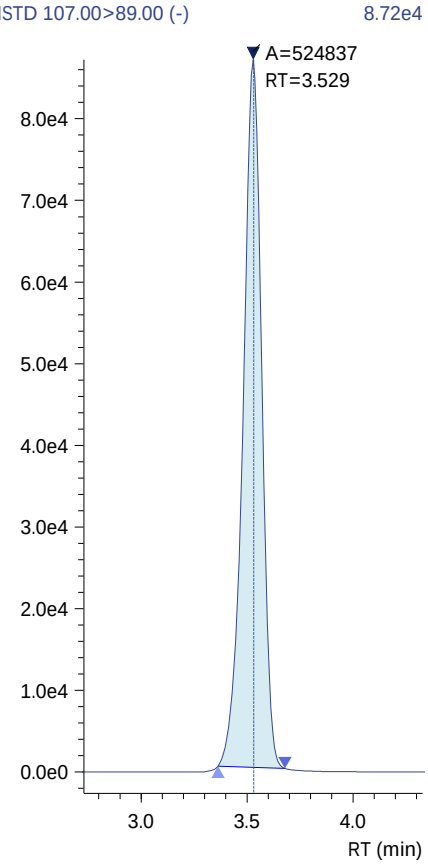
Conc 0.1009
R#1 33.17 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

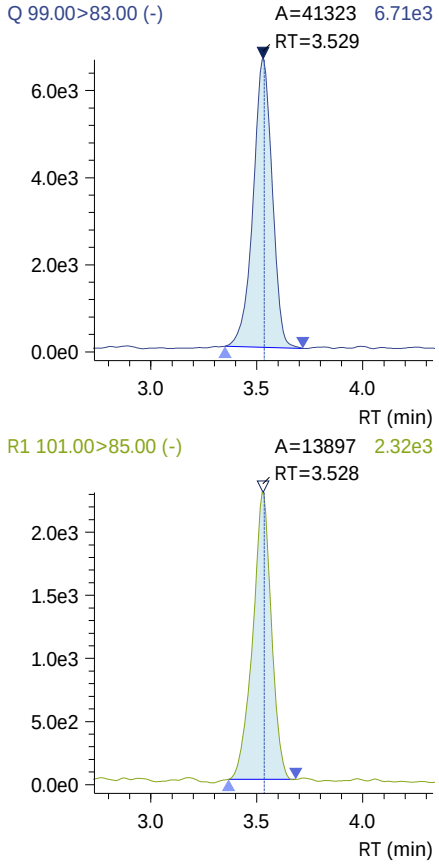
Perchlorate ICAL 2

Sample ID: Perchlorate ICAL 2
Date Acquired: 2/13/2024 9:45:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	41323	527565	0.4963	ng/mL	101.00 >85.00	33.63	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	527565	527565	1.0000	ng/mL	----	----	

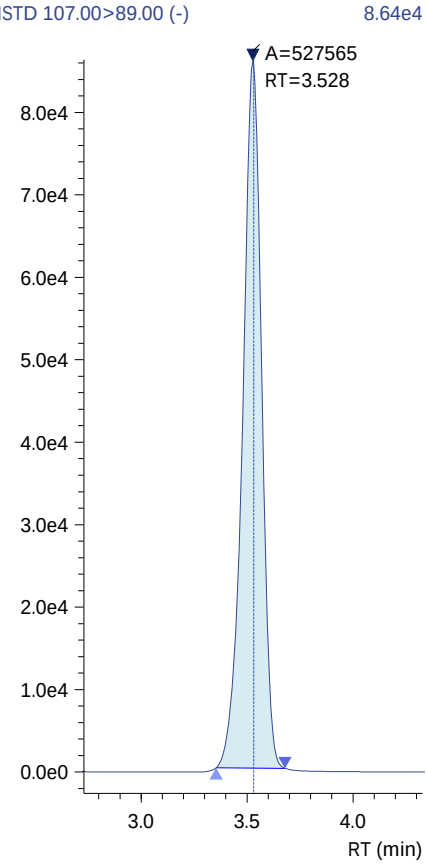
Perchlorate

Conc 0.4963
R#1 33.63 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

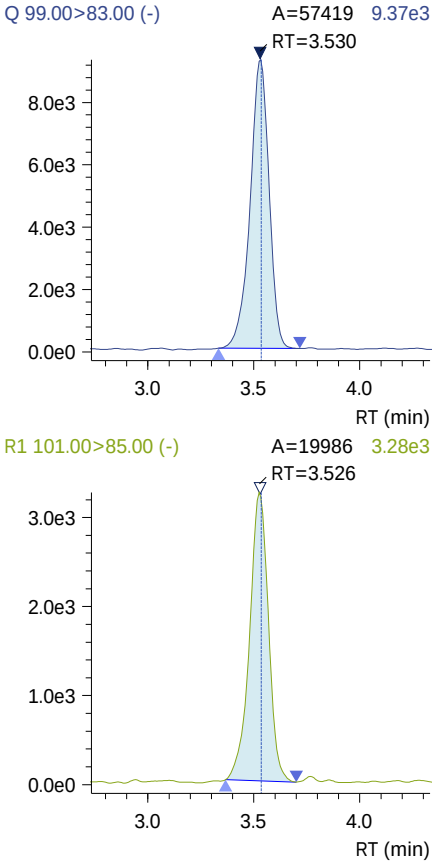
Perchlorate ICAL 3

Sample ID: Perchlorate ICAL 3
Date Acquired: 2/13/2024 9:51:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	57419	527846	0.6893	ng/mL	101.00 >85.00	34.81	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	527846	527846	1.0000	ng/mL	----	----	

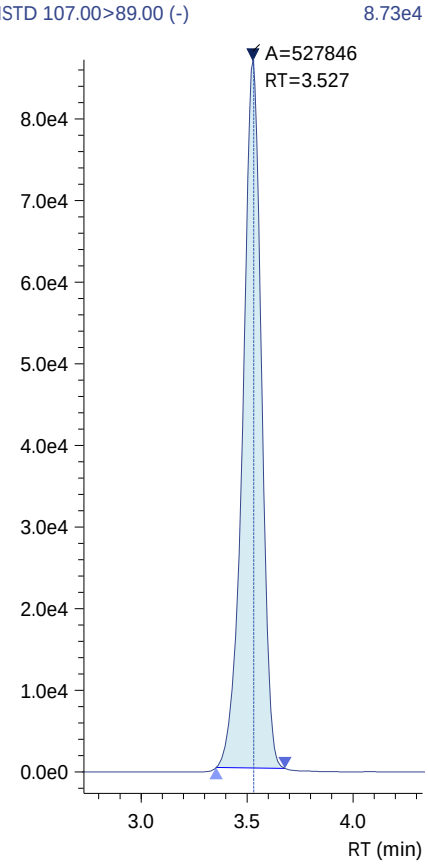
Perchlorate

Conc 0.6893
R#1 34.81 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

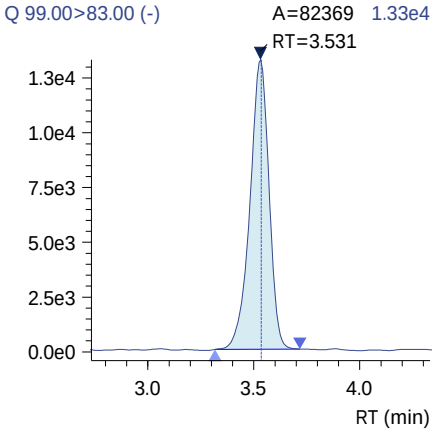
Perchlorate ICAL 4

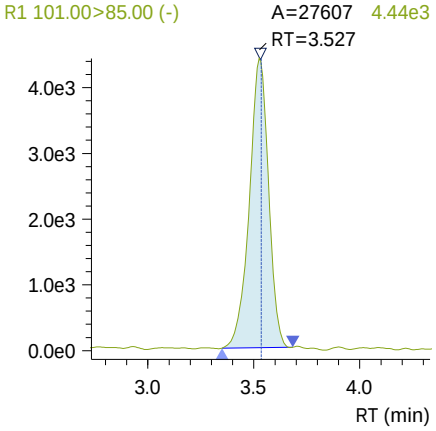
Sample ID: Perchlorate ICAL 4
Date Acquired: 2/13/2024 9:56:57 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-005.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	82369	523106	0.9977	ng/mL	101.00 >85.00	33.52	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	523106	523106	1.0000	ng/mL	----	----	

Perchlorate

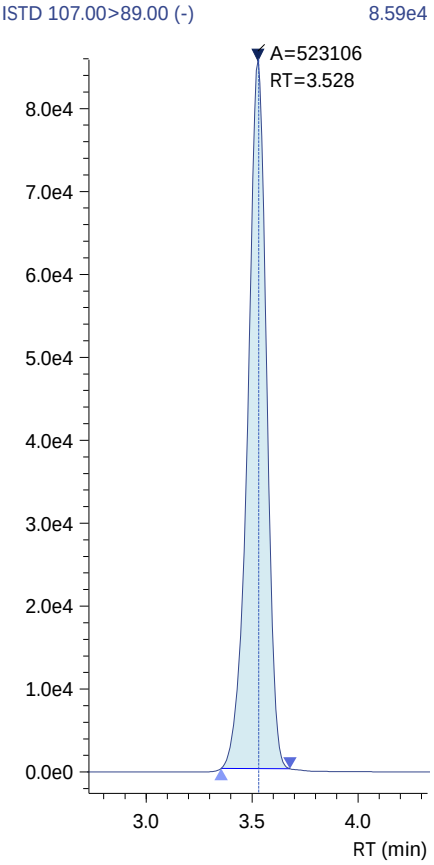
Conc 0.9977
R#1 33.52 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 5

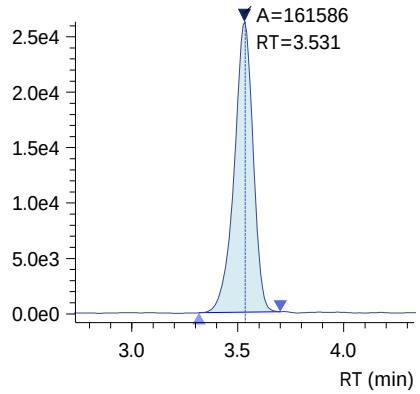
Sample ID: Perchlorate ICAL 5
Date Acquired: 2/13/2024 10:02:32 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-006.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	161586	526634	1.9441	ng/mL	101.00 >85.00	34.10	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.529	526634	526634	1.0000	ng/mL	----	----	

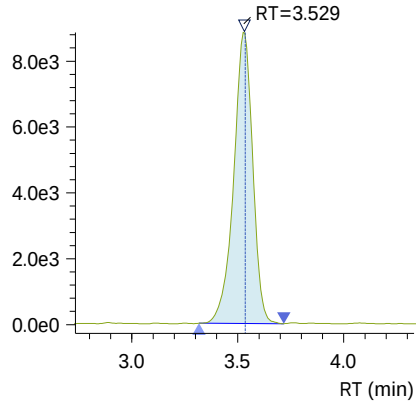
Perchlorate

Conc 1.9441
R#1 34.10 (34.10)

Q 99.00>83.00 (-) 2.64e4



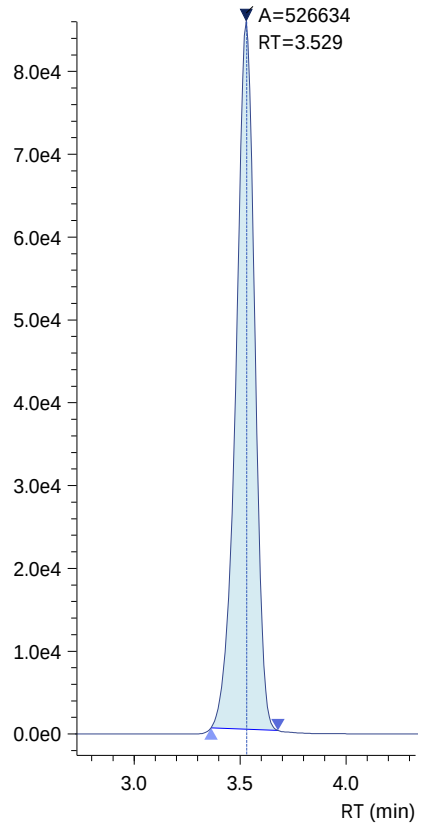
R1 101.00>85.00 (-) A=55098 8.87e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.60e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 6

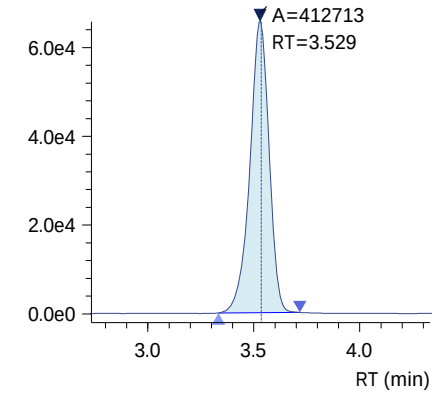
Sample ID: Perchlorate ICAL 6
Date Acquired: 2/13/2024 10:08:05 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-007.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	412713	524318	4.9876	ng/mL	101.00 >85.00	33.17	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	524318	524318	1.0000	ng/mL	----	----	

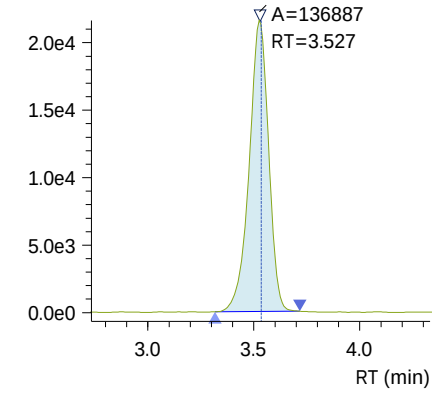
Perchlorate

Conc 4.9876
R#1 33.17 (34.10)

Q 99.00>83.00 (-) 6.58e4



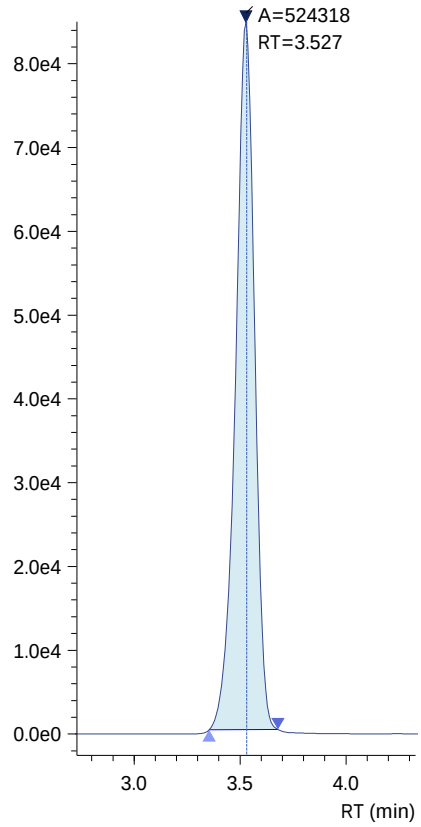
R1 101.00>85.00 (-) 2.16e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.50e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 7

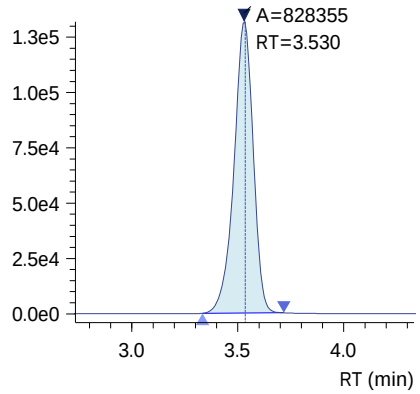
Sample ID: Perchlorate ICAL 7
Date Acquired: 2/13/2024 10:13:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-008.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	828355	519280	10.1076	ng/mL	101.00 >85.00	33.46	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	519280	519280	1.0000	ng/mL	----	----	

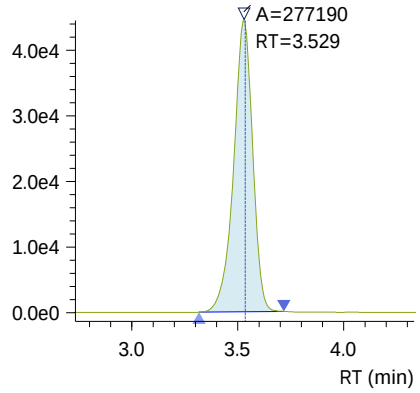
Perchlorate

Conc 10.1076
R#1 33.46 (34.10)

Q 99.00>83.00 (-) 1.32e5



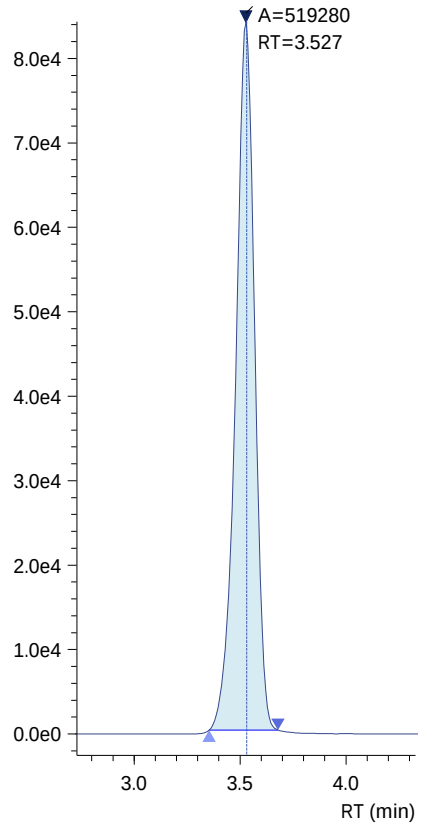
R1 101.00>85.00 (-) 4.45e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.44e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 8

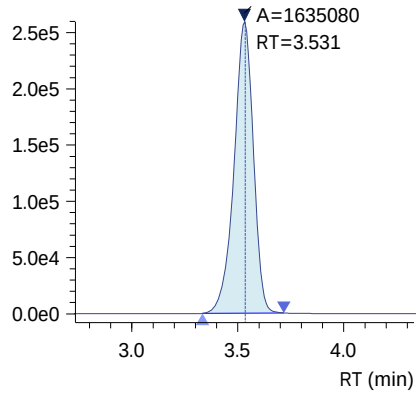
Sample ID: Perchlorate ICAL 8
Date Acquired: 2/13/2024 10:19:12 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-009.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	16350 80	510855	20.2 804	ng/mL	101.00 >85.00	32.92	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	510855	510855	1.0000	ng/mL	----	----	

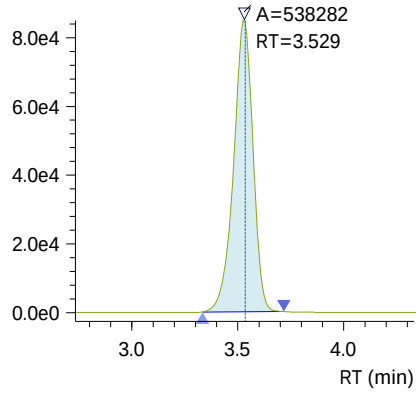
Perchlorate

Conc 20.2804
R#1 32.92 (34.10)

Q 99.00>83.00 (-) 2.60e5



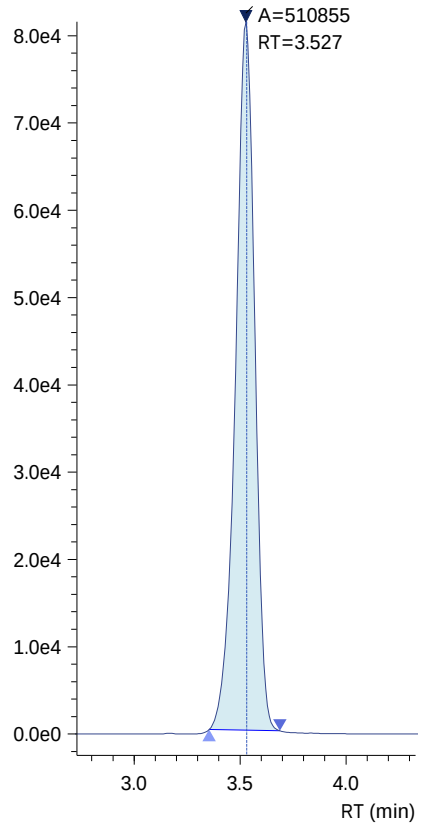
R1 101.00>85.00 (-) 8.50e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.16e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 9

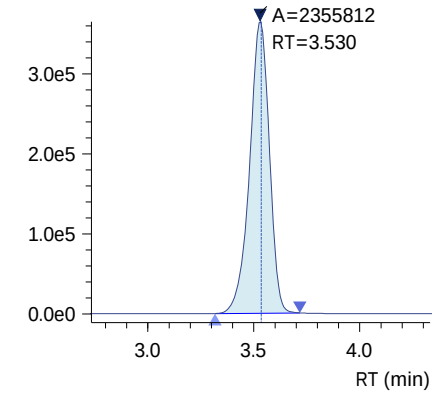
Sample ID: Perchlorate ICAL 9
Date Acquired: 2/13/2024 10:24:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-010.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	23558	495209	30.1	ng/mL	101.00	33.20	26.31
			12		430		>85.00		-43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	495209	495209	1.0000	ng/mL	----	----	

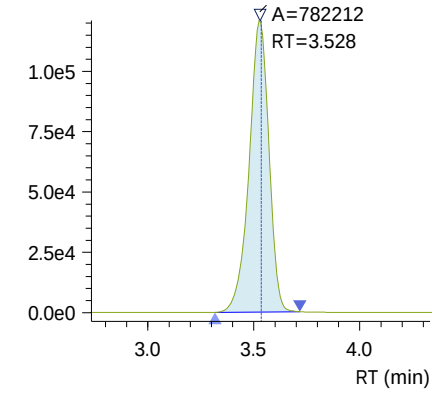
Perchlorate

Conc 30.1430
R#1 33.20 (34.10)

Q 99.00>83.00 (-) 3.65e5



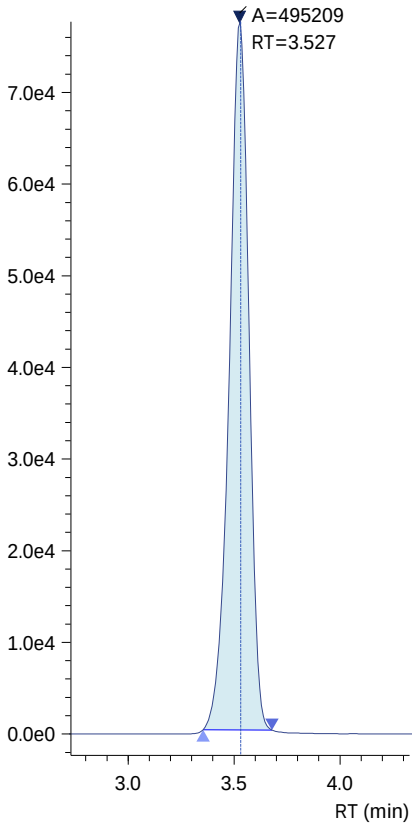
R1 101.00>85.00 (-) 1.21e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.77e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 10

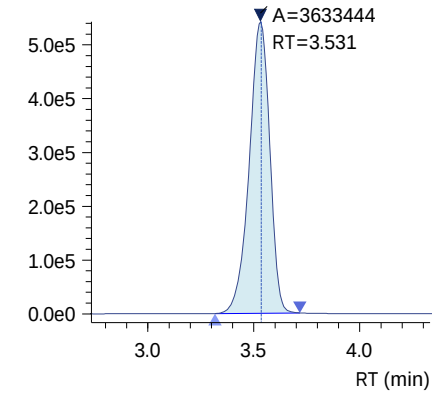
Sample ID: Perchlorate ICAL 10
Date Acquired: 2/13/2024 10:30:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-011.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	36334	452979	50.8	ng/mL	101.00	33.19	26.31
			44		246		>85.00		-43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	452979	452979	1.0000	ng/mL	----	----	

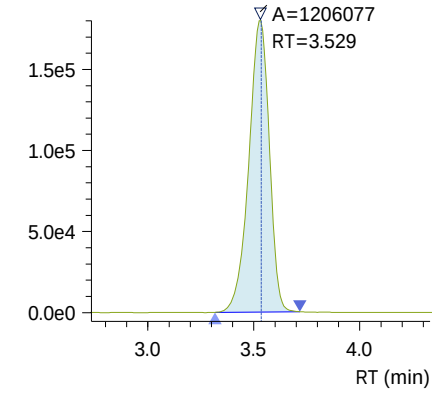
Perchlorate

Conc 50.8246
R#1 33.19 (34.10)

Q 99.00>83.00 (-) 5.43e5



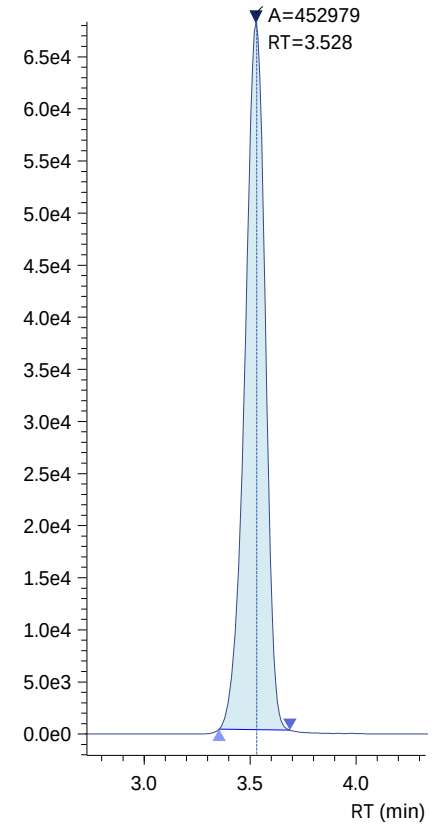
R1 101.00>85.00 (-) 1.80e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.84e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

PerchlorateICV

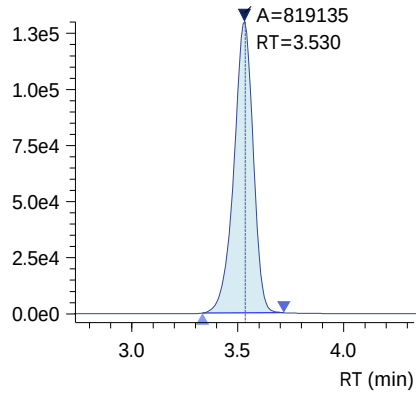
Sample ID: PerchlorateICV
Date Acquired: 2/13/2024 10:35:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-012.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	819135	520077	9.9798	ng/mL	101.00 >85.00	33.19	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	520077	520077	1.0000	ng/mL	----	----	

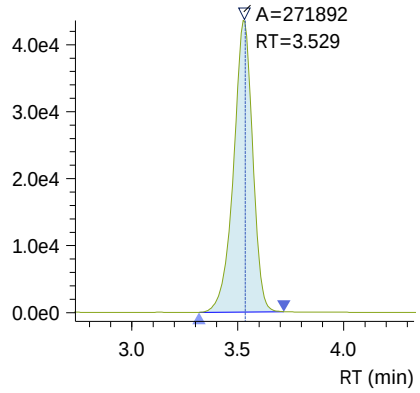
Perchlorate

Conc 9.9798
R#1 33.19 (34.10)

Q 99.00>83.00 (-) 1.30e5



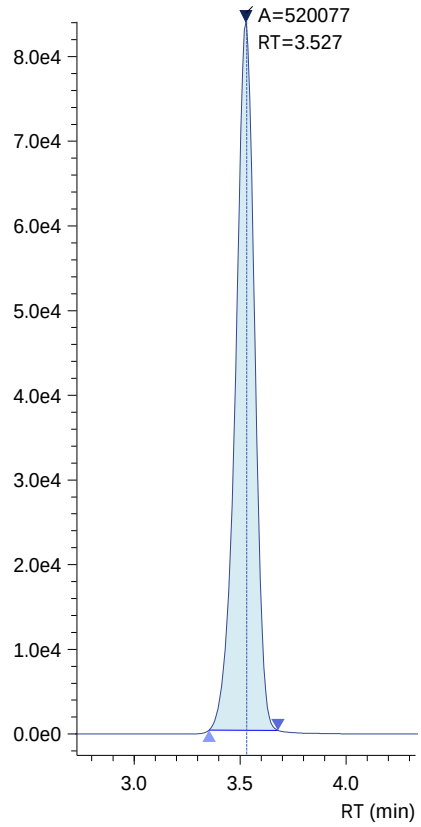
R1 101.00>85.00 (-) 4.36e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.41e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

IB

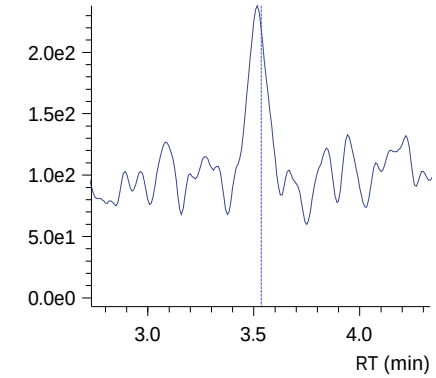
Sample ID: IB
Date Acquired: 2/13/2024 10:41:21 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-013.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	494605	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	494605	494605	1.0000	ng/mL	----	----	

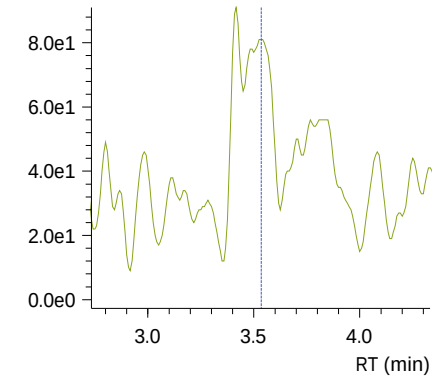
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 2.38e2



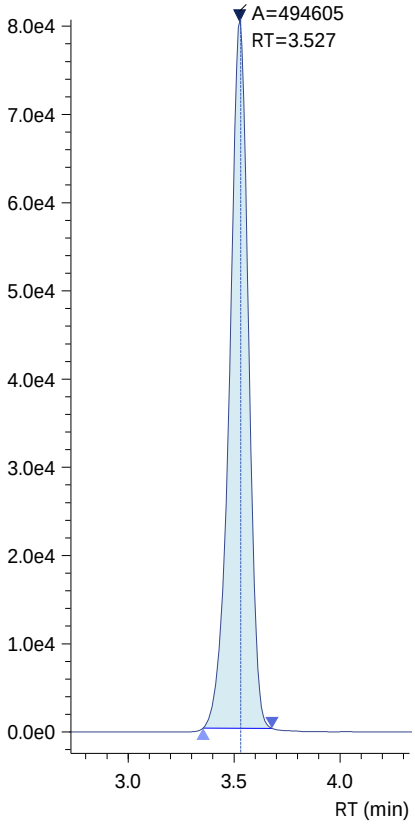
R1 101.00>85.00 (-) 9.10e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.07e4



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

832255

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: JLJ

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240213-001	IB	Perchlorate6850c.lcm	1x		2/13/2024 9:34
2	20240213-002	Perchlorate ICAL 1	Perchlorate6850c.lcm	1x	233572	2/13/2024 9:40
3	20240213-003	Perchlorate ICAL 2	Perchlorate6850c.lcm	1x	233571	2/13/2024 9:45
4	20240213-004	Perchlorate ICAL 3	Perchlorate6850c.lcm	1x	233570	2/13/2024 9:51
5	20240213-005	Perchlorate ICAL 4	Perchlorate6850c.lcm	1x	233569	2/13/2024 9:56
6	20240213-006	Perchlorate ICAL 5	Perchlorate6850c.lcm	1x	233568	2/13/2024 10:02
7	20240213-007	Perchlorate ICAL 6	Perchlorate6850c.lcm	1x	233567	2/13/2024 10:08
8	20240213-008	Perchlorate ICAL 7	Perchlorate6850c.lcm	1x	233566	2/13/2024 10:13
9	20240213-009	Perchlorate ICAL 8	Perchlorate6850c.lcm	1x	233564	2/13/2024 10:19
10	20240213-010	Perchlorate ICAL 9	Perchlorate6850c.lcm	1x	233563	2/13/2024 10:24
11	20240213-011	Perchlorate ICAL 10	Perchlorate6850c.lcm	1x	233562	2/13/2024 10:30
12	20240213-012	PerchlorateICV	Perchlorate6850c.lcm	1x	230380	2/13/2024 10:35
13	20240213-013	IB	Perchlorate6850c.lcm	1x		2/13/2024 10:41
14	20240213-014	LODV	Perchlorate6850c.lcm	1x		2/13/2024 10:49
15	20240213-015	ICS	Perchlorate6850c.lcm	1x		2/13/2024 10:55
16	20240213-016	E2400101-001	Perchlorate6850c.lcm	1x		2/13/2024 11:18
17	20240213-017	E2400101-002	Perchlorate6850c.lcm	1x		2/13/2024 11:23
18	20240213-018	E2400101-003	Perchlorate6850c.lcm	1x		2/13/2024 11:29
19	20240213-019	E2400101-004	Perchlorate6850c.lcm	1x		2/13/2024 11:34
20	20240213-020	E2400101-005	Perchlorate6850c.lcm	1x		2/13/2024 11:40
21	20240213-021	E2400101-006	Perchlorate6850c.lcm	1x		2/13/2024 11:45
22	20240213-022	E2400101-007	Perchlorate6850c.lcm	1x		2/13/2024 11:51
23	20240213-023	E2400101-008	Perchlorate6850c.lcm	1x		2/13/2024 11:56
24	20240213-024	E2400101-009	Perchlorate6850c.lcm	1x		2/13/2024 12:02
25	20240213-025	E2400101-010	Perchlorate6850c.lcm	1x	DNU-IR-RI	2/13/2024 12:07
26	20240213-026	CCV	Perchlorate6850c.lcm	1x		2/13/2024 12:13
27	20240213-027	IB	Perchlorate6850c.lcm	1x		2/13/2024 12:18
28	20240213-028	E2400101-011	Perchlorate6850c.lcm	1x		2/13/2024 12:24
29	20240213-029	E2400101-012	Perchlorate6850c.lcm	1x		2/13/2024 12:29
30	20240213-030	E2400101-013	Perchlorate6850c.lcm	1x		2/13/2024 12:35
31	20240213-031	E2400112-001	Perchlorate6850c.lcm	1x		2/13/2024 12:40
32	20240213-032	IB	Perchlorate6850c.lcm	1x		2/13/2024 13:03
33	20240213-033	E2400112-002	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:09
34	20240213-034	E2400112-003	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:16
35	20240213-035	E2400112-004	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:22
36	20240213-036	E2400112-005	Perchlorate6850c.lcm	1x		2/13/2024 13:27
37	20240213-037	E2400112-006	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:33
38	20240213-038	E2400112-007x5	Perchlorate6850c.lcm	5x		2/13/2024 13:38
39	20240213-039	CCV	Perchlorate6850c.lcm	1x		2/13/2024 13:44
40	20240213-040	IB	Perchlorate6850c.lcm	1x		2/13/2024 13:49
41	20240213-041	E2400112-008	Perchlorate6850c.lcm	1x		2/13/2024 13:55

832255

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: JLJ

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
42	20240213-042	E2400101-010	Perchlorate6850c.lcm	1x		2/13/2024 14:00
43	20240213-043	E2400081-01 MB	Perchlorate6850c.lcm	1x		2/13/2024 14:06
44	20240213-044	E2400081-02 LCS	Perchlorate6850c.lcm	1x		2/13/2024 14:11
45	20240213-045	E2400081-03 DLCS	Perchlorate6850c.lcm	1x		2/13/2024 14:17
46	20240213-046	E2400081-06 ICS	Perchlorate6850c.lcm	1x		2/13/2024 14:22
47	20240213-047	E2400081-04 MS	Perchlorate6850c.lcm	1x		2/13/2024 14:28
48	20240213-048	E2400081-05 DMS	Perchlorate6850c.lcm	1x		2/13/2024 14:33
49	20240213-049	E2400112-004	Perchlorate6850c.lcm	1x		2/13/2024 14:39
50	20240213-050	CCV	Perchlorate6850c.lcm	1x		2/13/2024 14:45
51	20240213-051	IB	Perchlorate6850c.lcm	1x		2/13/2024 14:51
52	20240213-052	E2400112-006	Perchlorate6850c.lcm	1x		2/13/2024 14:58
53	20240213-053	E2400112-002X10	Perchlorate6850c.lcm	10x		2/13/2024 15:22
54	20240213-054	E2400112-003X10	Perchlorate6850c.lcm	10x		2/13/2024 15:27
55	20240213-055	CCV	Perchlorate6850c.lcm	1x		2/13/2024 15:33
56	20240213-056	IB	Perchlorate6850c.lcm	1x		2/13/2024 15:38

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400112
Project:	HS24020246	**Date Analyzed:**	2/13/24 10:35

Internal Standard Area and RT Summary

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

File ID:	\\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-012	**Lab Code:**	EQ2400087-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	832255
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400087-01	520,077	3.53

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:**	E2400112
Project:	HS24020246	**Date Analyzed:**	2/13/24 12:13

Internal Standard Area and RT Summary

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

File ID:	\\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-026	**Lab Code:**	EQ2400087-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	832255
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400087-02	524,130	3.53
16WW55-240205	E2400112-001	484,253	3.53
16EW08-240205	E2400112-005	492,334	3.53
16EW01-240205	E2400112-007	503,259	3.53

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:**	E2400112
Project:	HS24020246	**Date Analyzed:**	2/13/24 13:44

Internal Standard Area and RT Summary

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

File ID:	\\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-039	**Lab Code:**	EQ2400087-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	832255
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400087-03	497,841	3.53
16EW01-240205	E2400112-008	516,517	3.53
Method Blank	EQ2400081-01	508,491	3.53
Lab Control Sample	EQ2400081-02	487,455	3.53
Duplicate Lab Control Sample	EQ2400081-03	393,764	3.53
16WW48-240205	E2400112-004	468,787	3.53

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: HS24020246

Service Request: E2400112
Date Analyzed: 2/13/24 14:45

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

File ID: \\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-050
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2400087-04
Analysis Lot: 832255
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400087-04	525,130	3.38
16EW08-240205	E2400112-006	504,831	3.53
16WW55-240205	E2400112-002	484,754	3.53
16WW48-240205	E2400112-003	484,693	3.53

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:**	E2400112
Project:	HS24020246	**Date Analyzed:**	2/13/24 15:33

Internal Standard Area and RT Summary

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

File ID:	\\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-055	**Lab Code:**	EQ2400087-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	832255
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400087-05	462,971	3.53

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: HS24020246

Service Request: E2400112
Date Analyzed: 2/13/24

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

Analytical Method: 6850
File ID: \\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-012

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 832255
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.98	0.1578	0.1575	-0.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020246

Service Request: E2400112
Date Analyzed: 2/13/24

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

Analytical Method: 6850
File ID: \\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-026

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 832255
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1578	0.1606	1.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020246

Service Request: E2400112
Date Analyzed: 2/13/24

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

Analytical Method: 6850
File ID: \\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-039

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 832255
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1578	0.1591	0.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020246

Service Request: E2400112
Date Analyzed: 2/13/24

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

Analytical Method: 6850
File ID: \\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-050

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 832255
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.0	0.1578	0.1584	0.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020246

Service Request: E2400112
Date Analyzed: 2/13/24

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

Analytical Method: 6850
File ID: \\ALSHSWS004\DInstdata\LCMS01\DATA\20240213\20240213-055

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 832255
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1578	0.1610	2.0	NA	± 15 %	Average RF

Insight Report

Printed at 2/13/2024 3:53:21 PM

IB

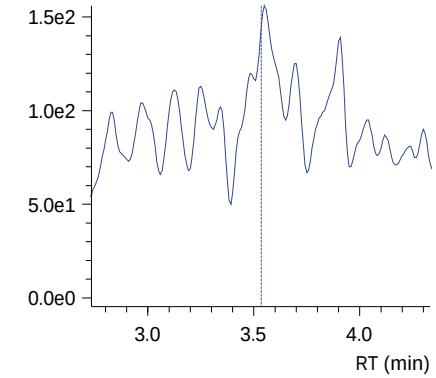
Sample ID: IB
Date Acquired: 2/13/2024 3:38:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-056.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	439556	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.525	439556	439556	1.0000	ng/mL	----	----	

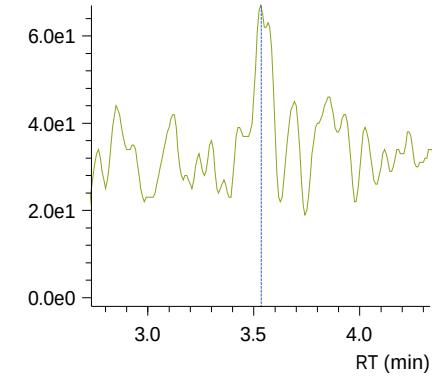
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.56e2



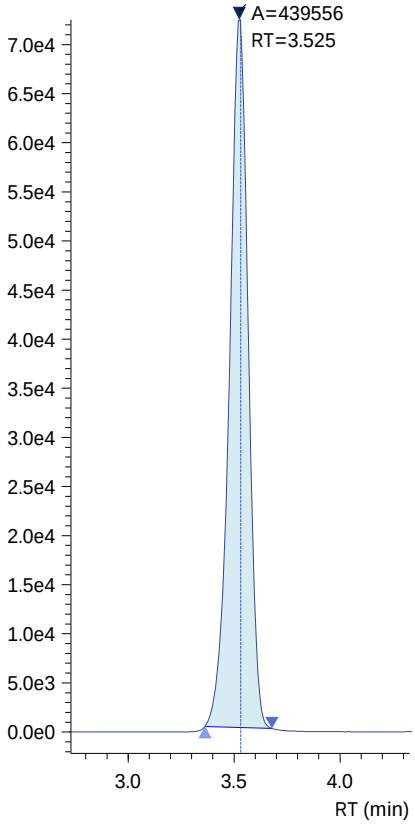
R1 101.00>85.00 (-) 6.70e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.25e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Method File: I:\LCMS01\DATA\20240213\ICAL 20240213.lcm
Project File: I:\LCMS01\DATA\20240213\20240213.damlp

IB

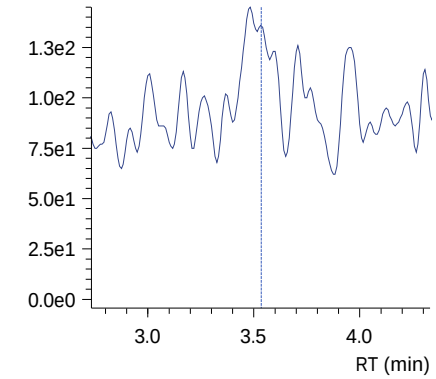
Sample ID: IB
Date Acquired: 2/13/2024 9:34:46 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	487658	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.529	487658	487658	1.0000	ng/mL	----	----	

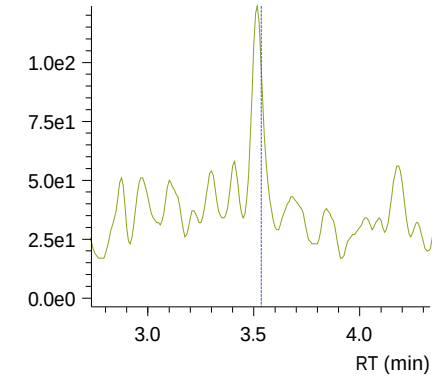
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.45e2



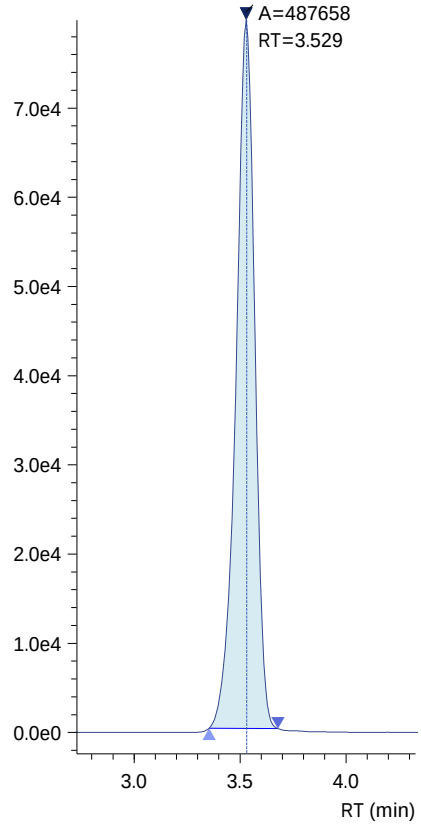
R1 101.00>85.00 (-) 1.24e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.99e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

IB

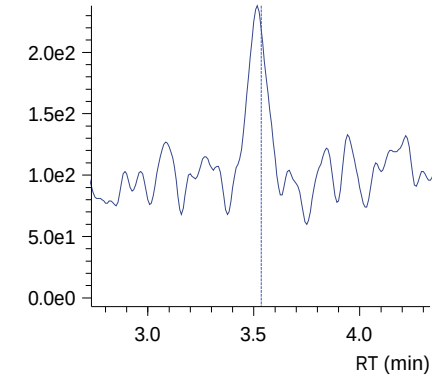
Sample ID: IB
Date Acquired: 2/13/2024 10:41:21 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-013.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	494605	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	494605	494605	1.0000	ng/mL	----	----	

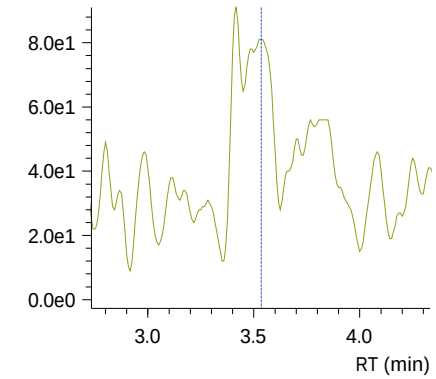
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 2.38e2



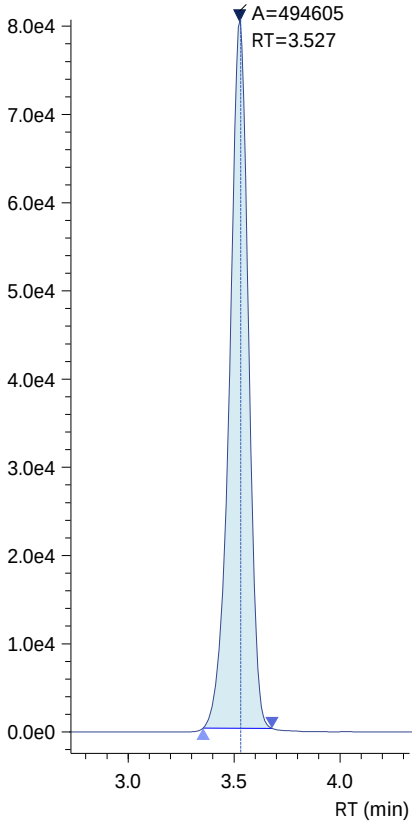
R1 101.00>85.00 (-) 9.10e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.07e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

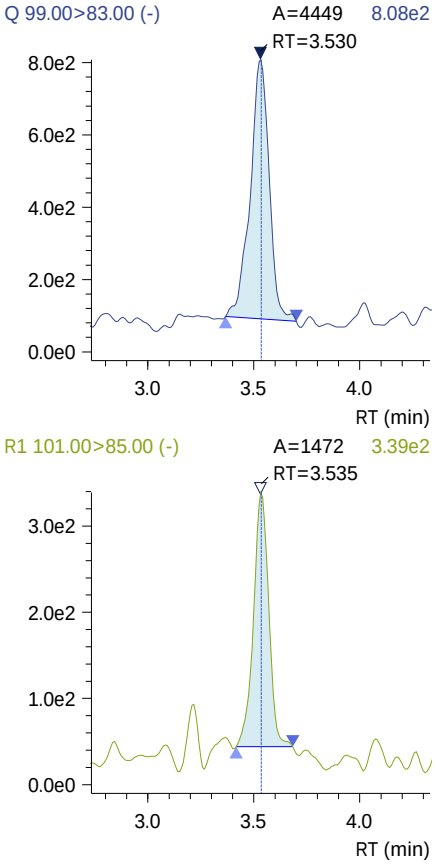
LODV

Sample ID: LODV
Date Acquired: 2/13/2024 10:49:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-014.lcd
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	4449	532628	0.0529	ng/mL	101.00 >85.00	33.08	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.531	532628	532628	1.0000	ng/mL	----	----	

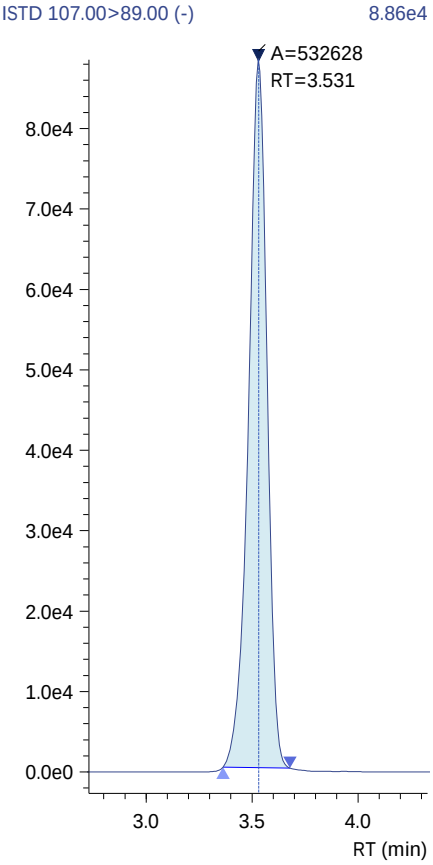
Perchlorate

Conc 0.0529
R#1 33.08 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

ICS

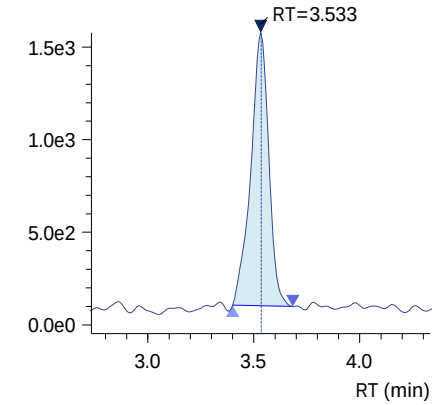
Sample ID: ICS
Date Acquired: 2/13/2024 10:55:24 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-015.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.533	8665	558225	0.0984	ng/mL	101.00 >85.00	30.31	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	558225	558225	1.0000	ng/mL	----	----	

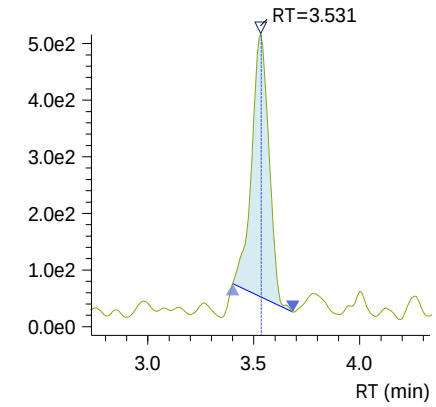
Perchlorate

Conc 0.0984
R#1 30.31 (34.10)

Q 99.00>83.00 (-) A=8665 1.58e3



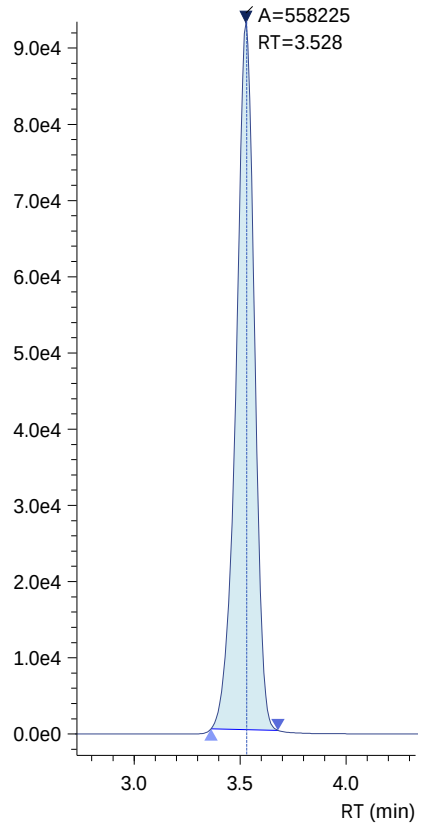
R1 101.00>85.00 (-) A=2627 5.16e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.35e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

CCV

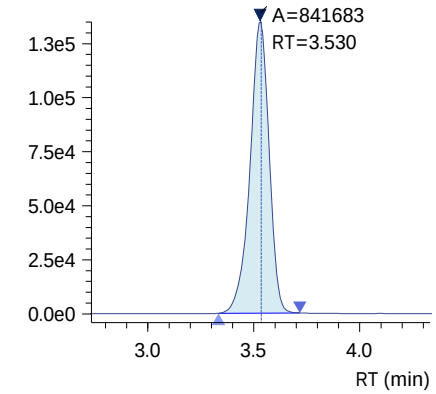
Sample ID: CCV
Date Acquired: 2/13/2024 12:13:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-026.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	841683	524130	10.1	ng/mL	101.00	33.03	26.31
					752		>85.00		-43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	524130	524130	1.0000	ng/mL	----	----	

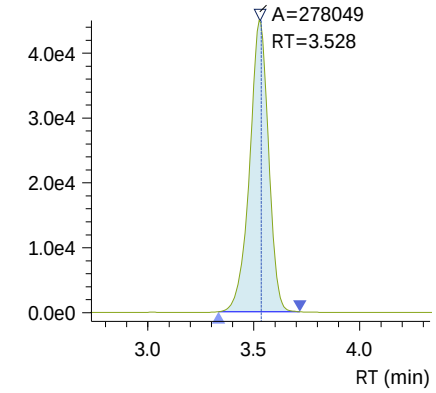
Perchlorate

Conc 10.1752
R#1 33.03 (34.10)

Q 99.00>83.00 (-) 1.35e5



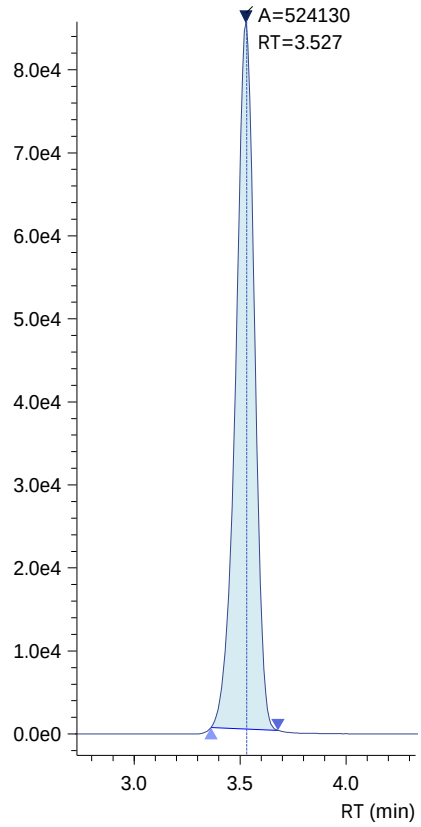
R1 101.00>85.00 (-) 4.51e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.58e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

IB

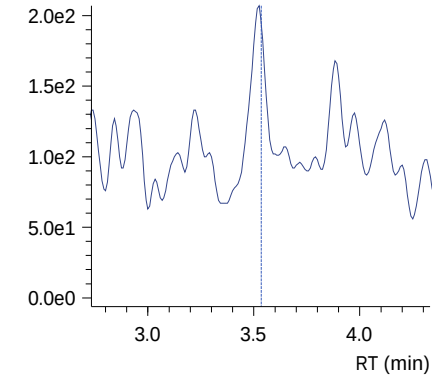
Sample ID: IB
Date Acquired: 2/13/2024 12:18:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-027.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	491785	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.526	491785	491785	1.0000	ng/mL	----	----	

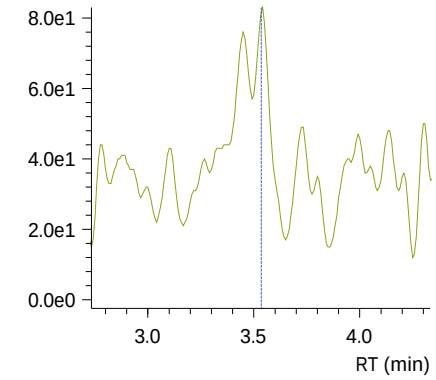
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 2.07e2



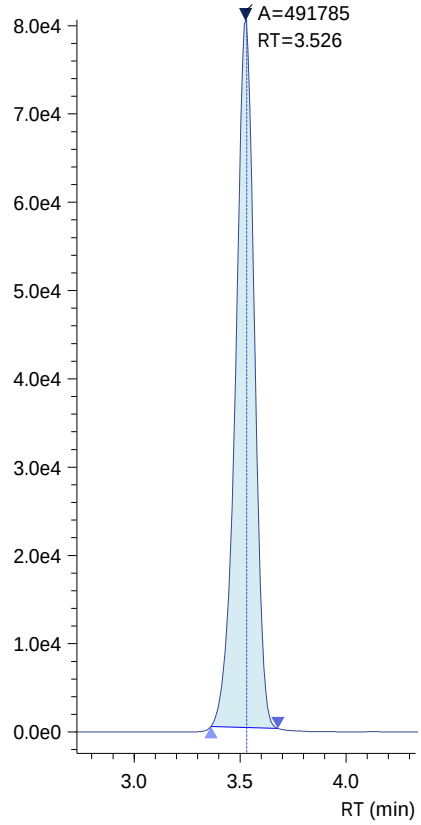
R1 101.00>85.00 (-) 8.30e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.07e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

E2400112-001

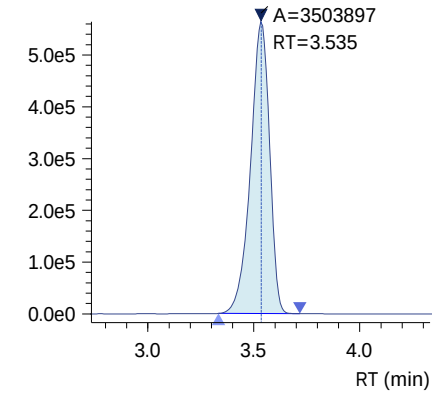
Sample ID: E2400112-001
Date Acquired: 2/13/2024 12:40:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-031.lcd
Vial: 20 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.535	3503897	484253	45.8472	ng/mL	101.00	33.14	26.31
							>85.00		-43.47
Sodium Perchlorate-18O4_IS	Auto	3.532	484253	484253	1.0000	ng/mL	----	----	

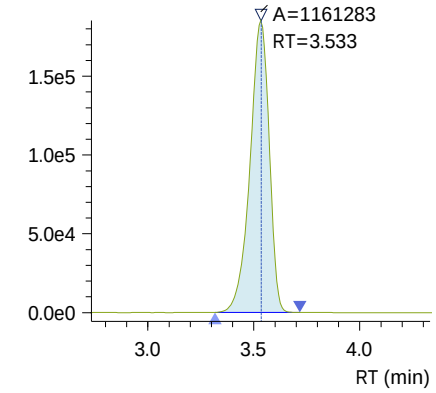
Perchlorate

Conc 45.8472
R#1 33.14 (34.10)

Q 99.00>83.00 (-) 5.64e5



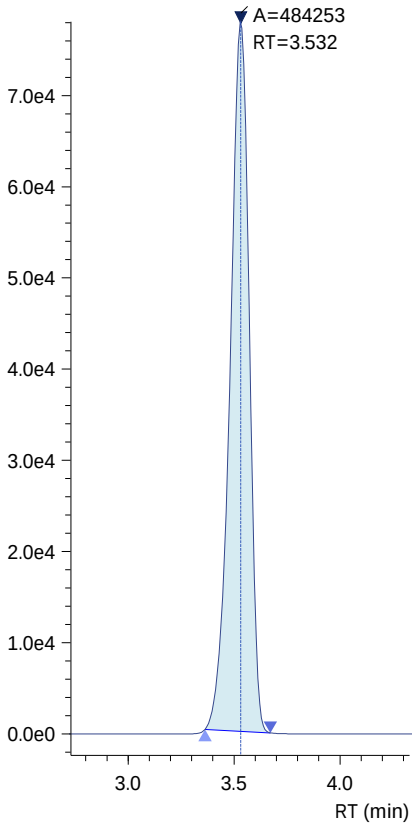
R1 101.00>85.00 (-) 1.85e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.81e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

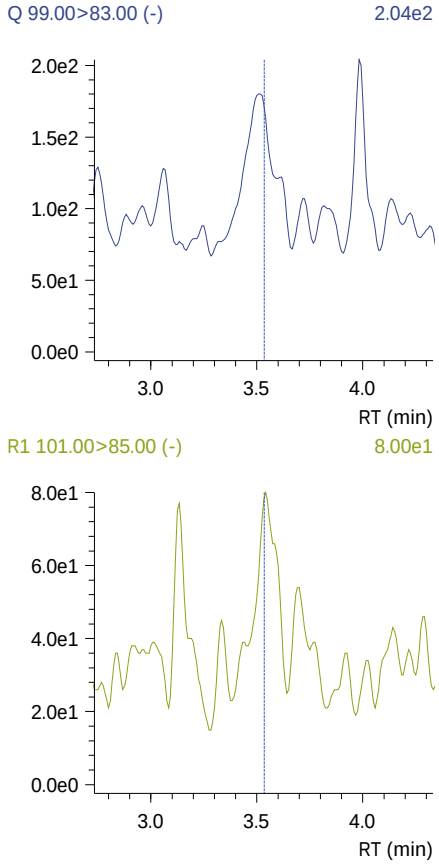
IB

Sample ID: IB
Date Acquired: 2/13/2024 1:03:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-032.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	ND(W/B)	----	----	490173	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	490173	490173	1.0000	ng/mL	----	----	

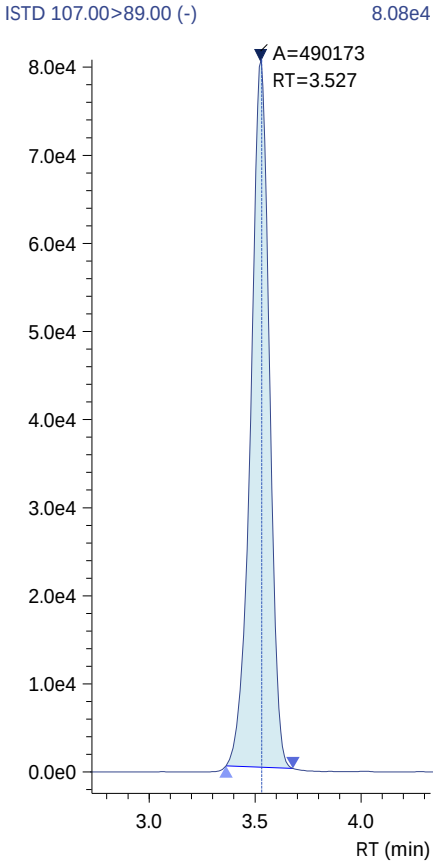
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:55:00 PM

Method File: I:\LCMS01\DATA\20240213\ICAL 20240213.lcm
Project File: I:\LCMS01\DATA\20240213\20240213.damlp

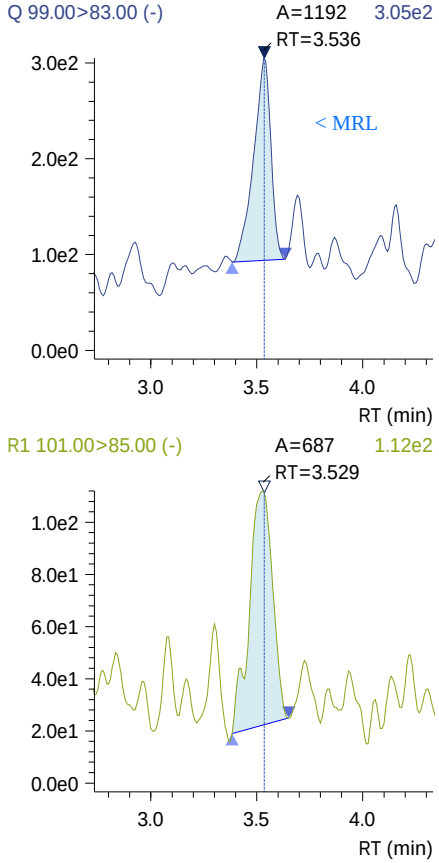
E2400112-005

Sample ID: E2400112-005
Date Acquired: 2/13/2024 1:27:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-036.lcd
Vial: 24 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.536	1192	492334	0.0153	ng/mL	101.00 >85.00	57.60	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.526	4923 34	492334	1.0000	ng/mL	----	----	

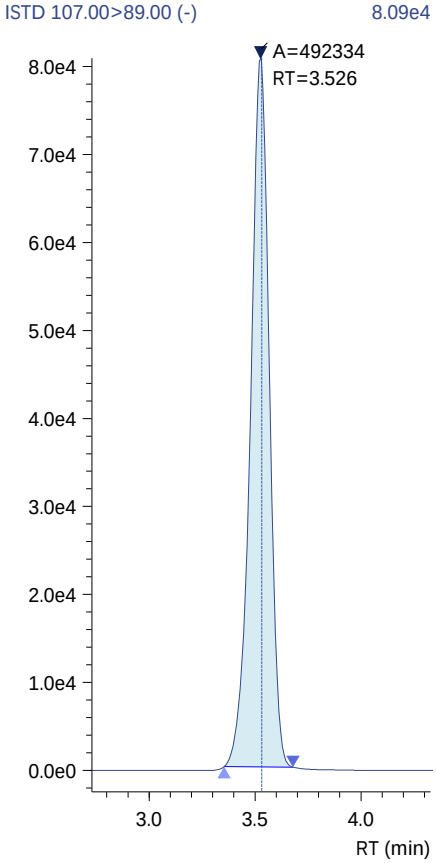
Perchlorate

Conc 0.0153
R#1 57.60 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

E2400112-007x5

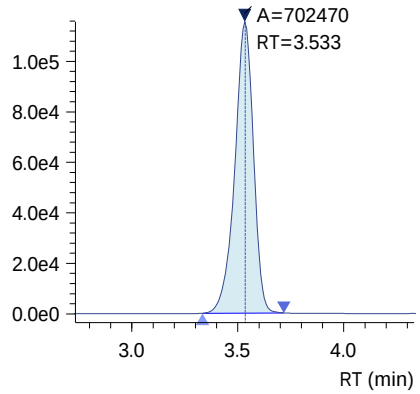
Sample ID: E2400112-007X5
Date Acquired: 2/13/2024 1:38:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-038.lcd
Vial: 26 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.533	702470	503259	8.8444	ng/mL	101.00 >85.00	33.34	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.531	503259	503259	1.0000	ng/mL	----	----	

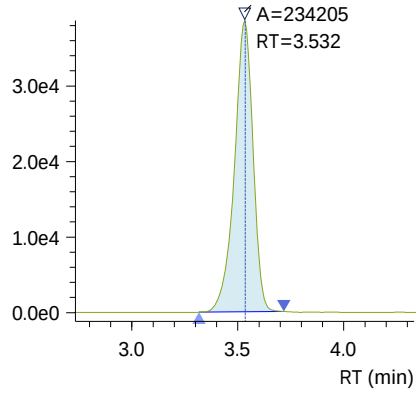
Perchlorate

Conc 8.8444
R#1 33.34 (34.10)

Q 99.00>83.00 (-) 1.16e5



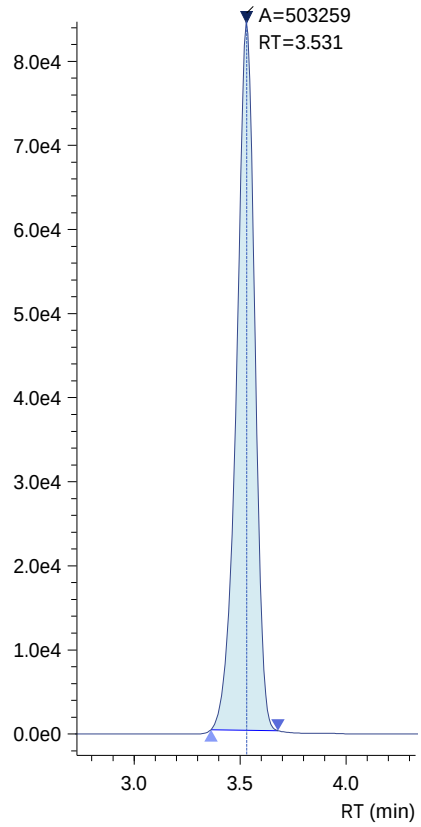
R1 101.00>85.00 (-) 3.87e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.47e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

CCV

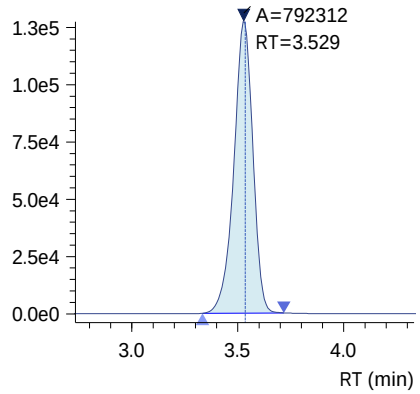
Sample ID: CCV
Date Acquired: 2/13/2024 1:44:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-039.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	792312	497841	10.0842	ng/mL	101.00 >85.00	32.76	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.526	497841	497841	1.0000	ng/mL	----	----	

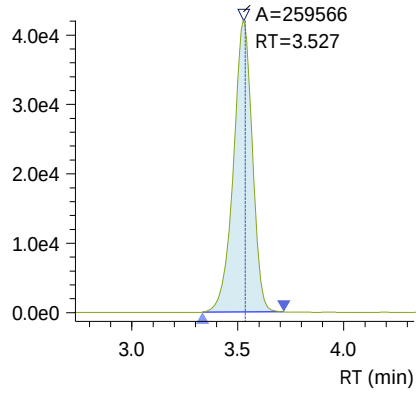
Perchlorate

Conc 10.0842
R#1 32.76 (34.10)

Q 99.00>83.00 (-) 1.27e5



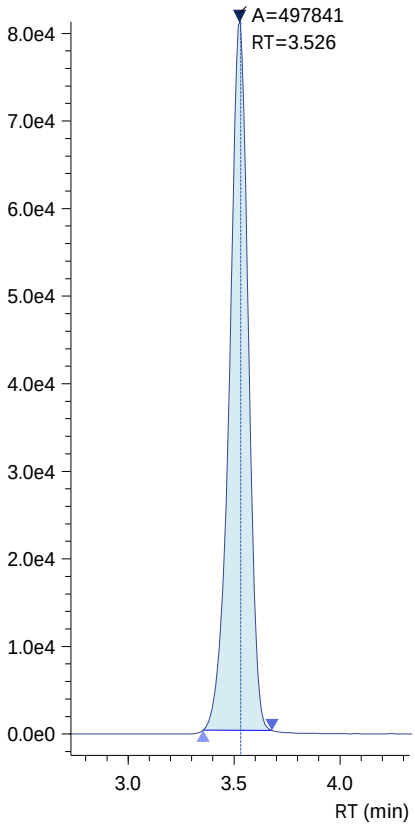
R1 101.00>85.00 (-) 4.21e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.13e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

IB

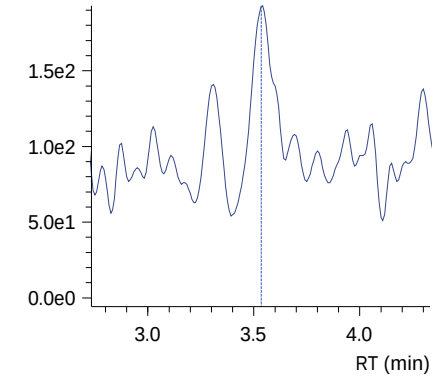
Sample ID: IB
Date Acquired: 2/13/2024 1:49:41 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-040.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	464143	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.526	464143	464143	1.0000	ng/mL	----	----	

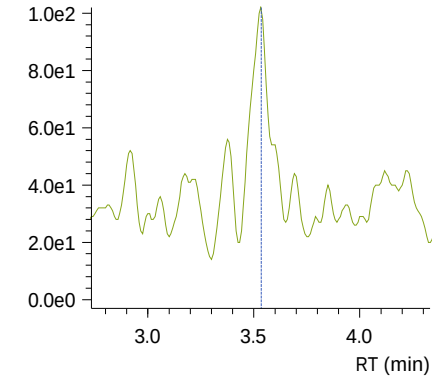
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.93e2



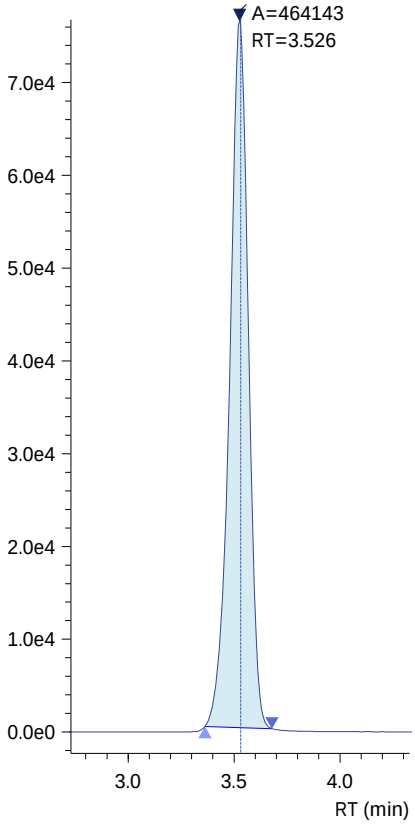
R1 101.00>85.00 (-) 1.02e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.68e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

E2400112-008

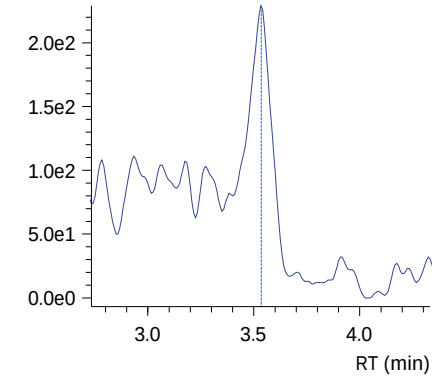
Sample ID: E2400112-008
Date Acquired: 2/13/2024 1:55:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-041.lcd
Vial: 27 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	516517	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.530	516517	516517	1.0000	ng/mL	----	----	

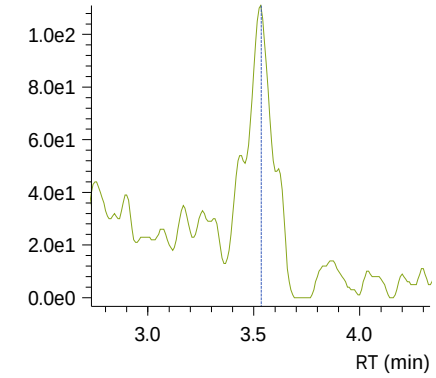
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 2.29e2



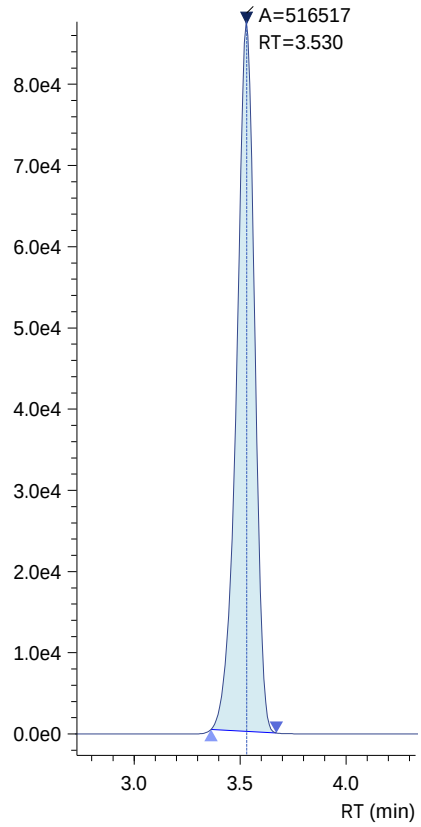
R1 101.00>85.00 (-) 1.11e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.77e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

E2400081-01 MB

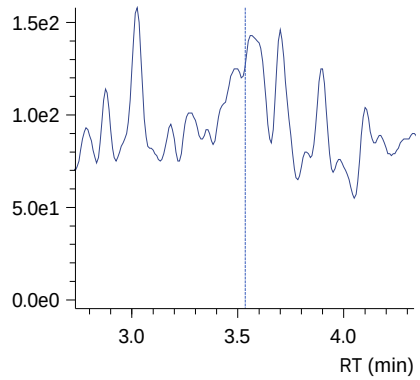
Sample ID: E2400081-01 MB
Date Acquired: 2/13/2024 2:06:15 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-043.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	508491	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	508491	508491	1.0000	ng/mL	----	----	

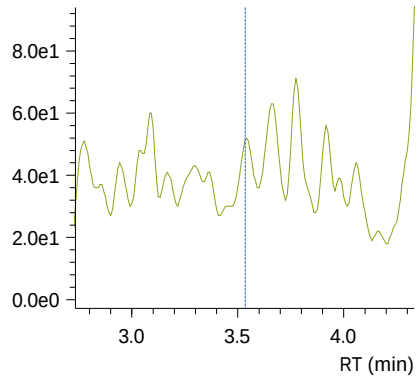
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.58e2



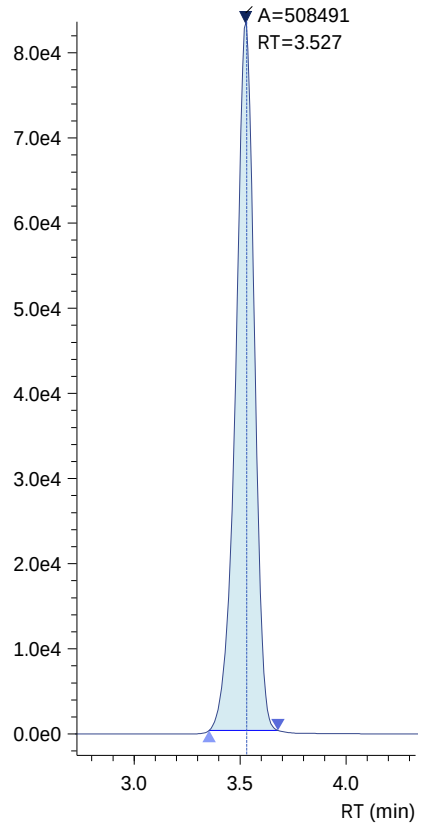
R1 101.00>85.00 (-) 9.40e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.37e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

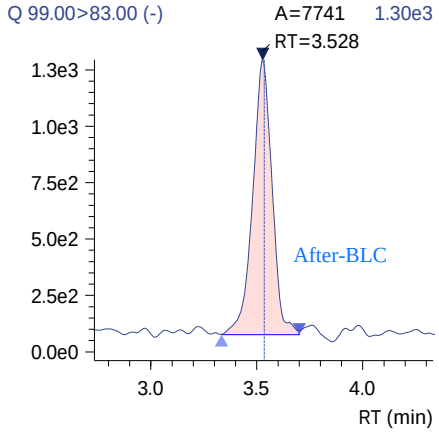
E2400081-02 LCS

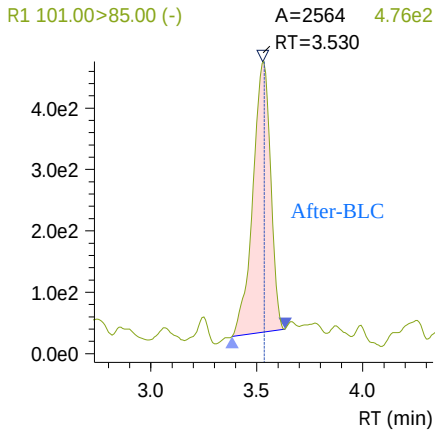
Sample ID: E2400081-02 LCS
Date Acquired: 2/13/2024 2:11:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-044.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.528	7741	487455	0.1006	ng/mL	101.00 >85.00	33.12	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	487455	487455	1.0000	ng/mL	----	----	

Perchlorate

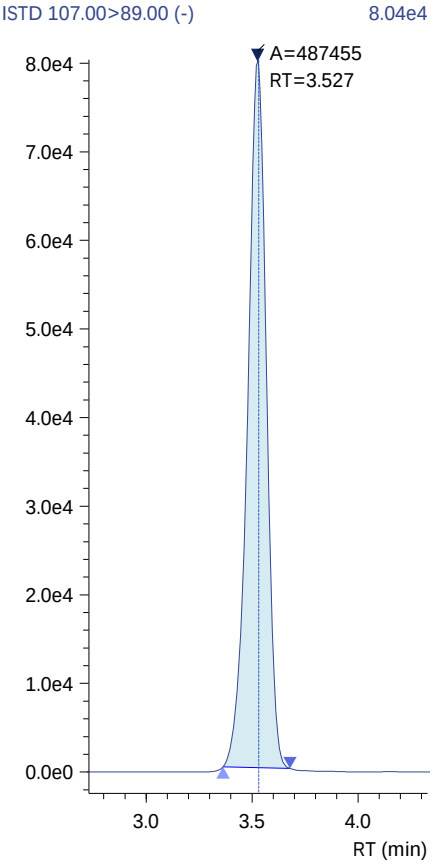
Conc 0.1006
R#1 33.12 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:56:08 PM

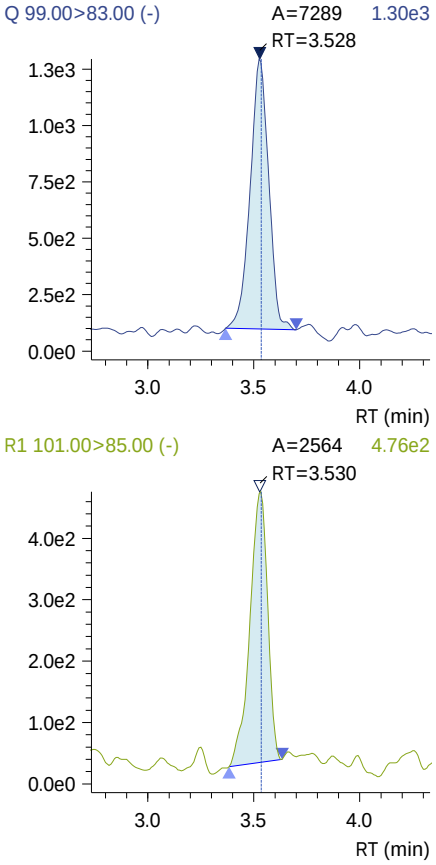
Method File: I:\LCMS01\DATA\20240213\ICAL 20240213.lcm
Project File: I:\LCMS01\DATA\20240213\20240213.damlp

E2400081-02 LCS

Sample ID: E2400081-02 LCS
Date Acquired: 2/13/2024 2:11:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-044.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 5

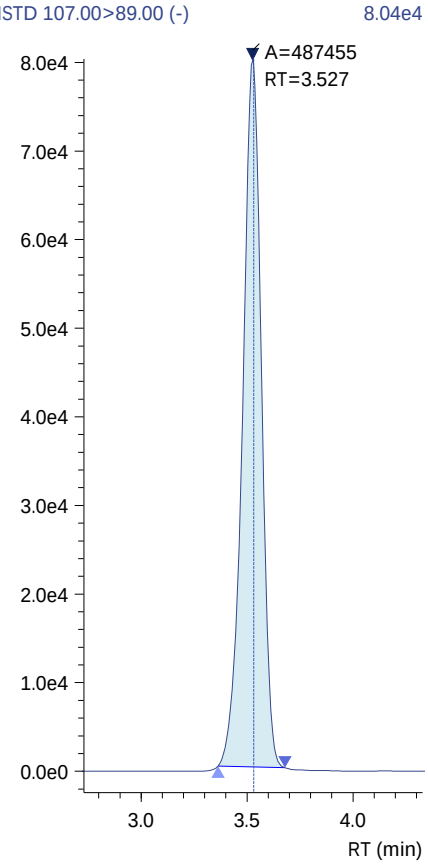
Perchlorate

Conc 0.0948
R#1 35.17 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

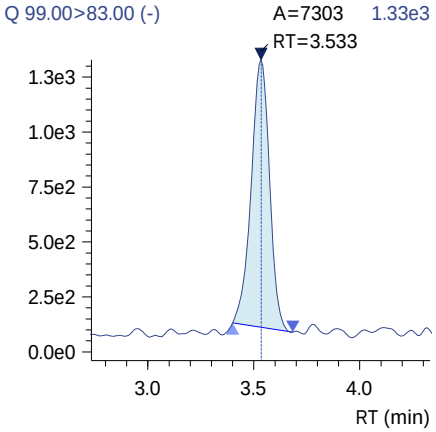
E2400081-03 DLCS

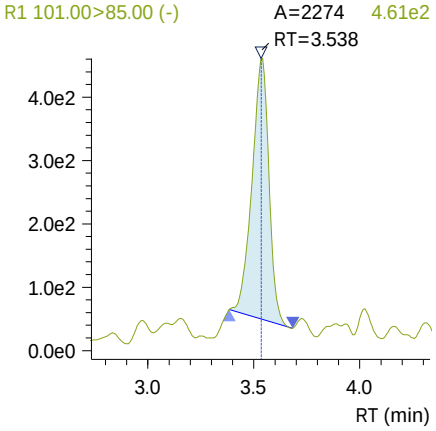
Sample ID: E2400081-03 DLCS
Date Acquired: 2/13/2024 2:17:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-045.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.533	7303	393764	0.1175	ng/mL	101.00 >85.00	31.13	26.31 -43.47
Sodium Perchlorate -18O4_IS	M	3.525	393764	393764	1.0000	ng/mL	----	----	

Perchlorate

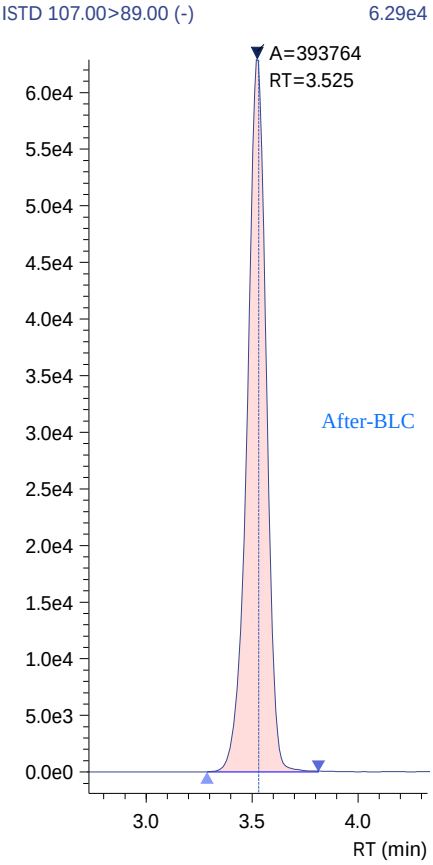
Conc 0.1175
R#1 31.13 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

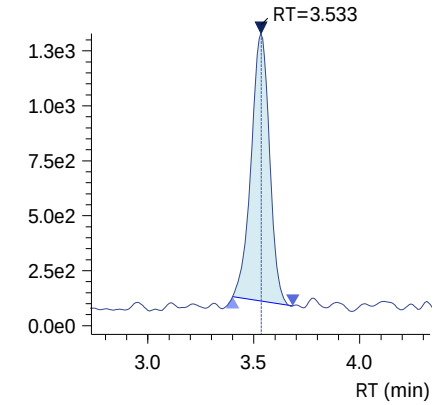
E2400081-03 DLCS

Sample ID: E2400081-03 DLCS
Date Acquired: 2/13/2024 2:17:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-045.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 5

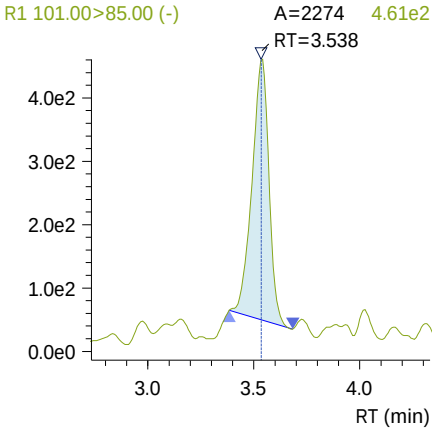
Perchlorate

Conc 0.1198
R#1 31.13 (34.10)

Q 99.00>83.00 (-) A=7303 1.33e3



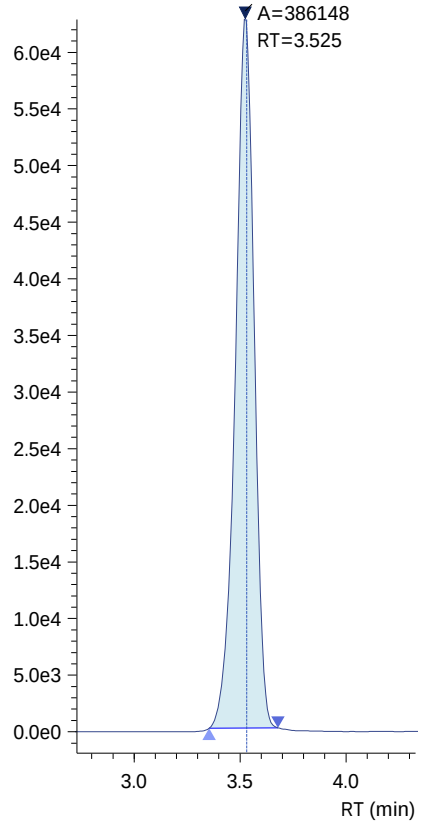
R1 101.00>85.00 (-) A=2274 4.61e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.29e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

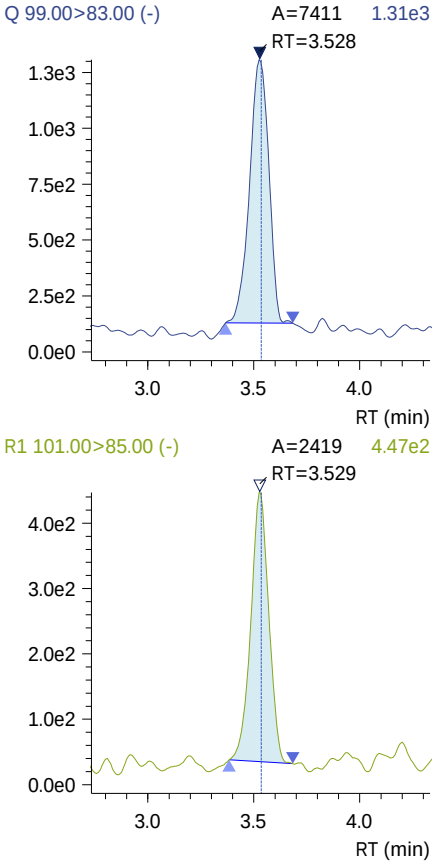
E2400081-06 ICS

Sample ID: E2400081-06 ICS
Date Acquired: 2/13/2024 2:22:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-046.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.528	7411	499616	0.0940	ng/mL	101.00 >85.00	32.64	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	499616	499616	1.0000	ng/mL	----	----	

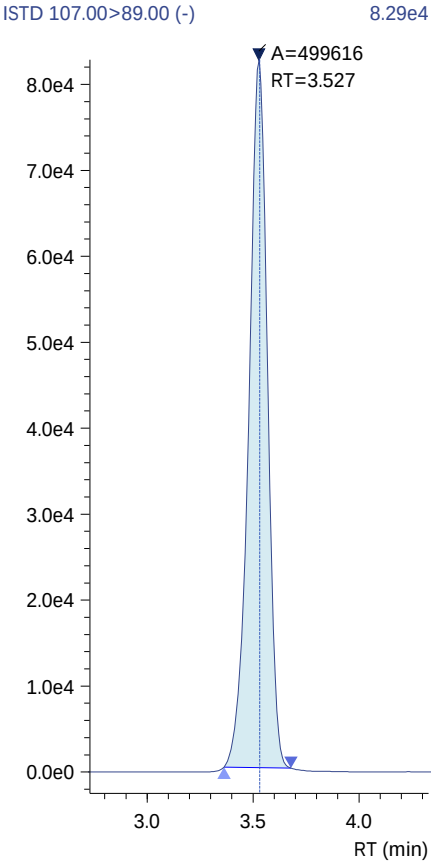
Perchlorate

Conc 0.0940
R#1 32.64 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

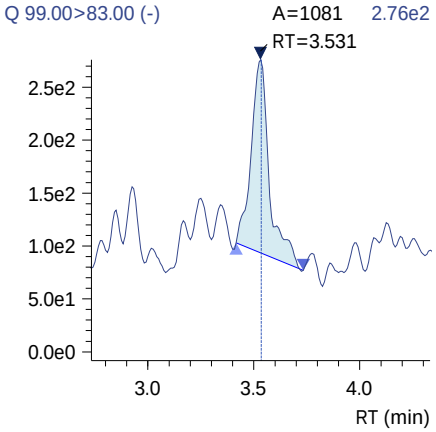
E2400112-004

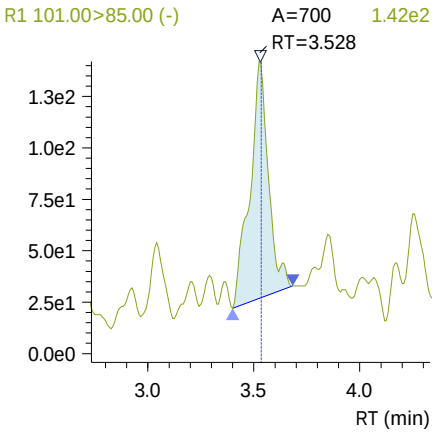
Sample ID: E2400112-004
Date Acquired: 2/13/2024 2:39:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-049.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	1081	468787	0.0146	ng/mL	101.00 >85.00	64.73	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.526	468787	468787	1.0000	ng/mL	----	----	

Perchlorate

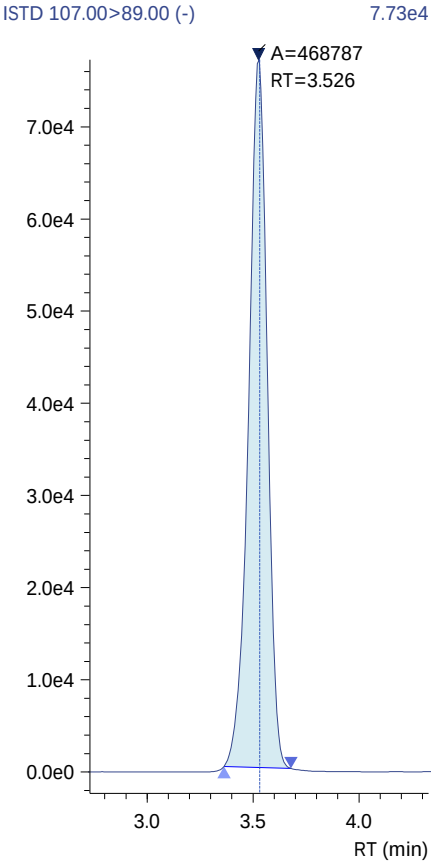
Conc 0.0146
R#1 64.73 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

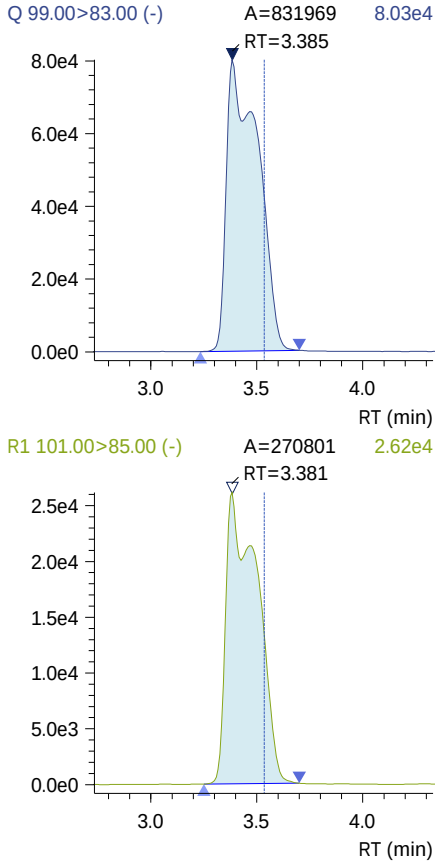
CCV

Sample ID: CCV
Date Acquired: 2/13/2024 2:45:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-050.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.385	831969	525130	10.0386	ng/mL	101.00 >85.00	32.55	26.31 -43.47
Sodium Perchlorate -18O4_IS	M	3.382	525130	525130	1.0000	ng/mL	----	----	

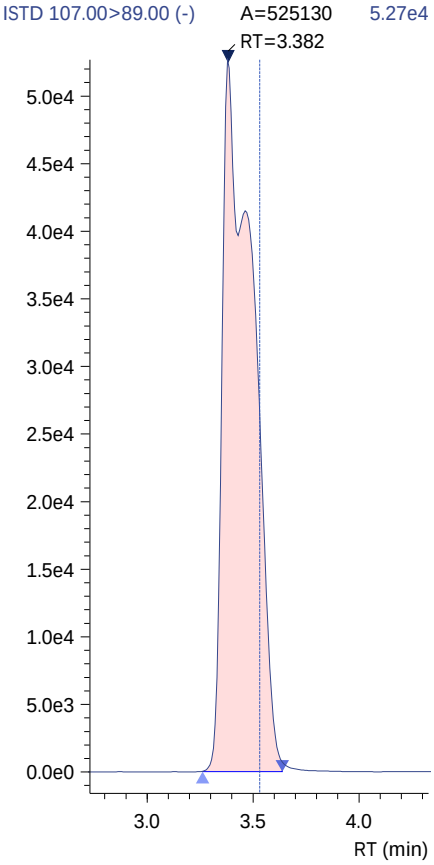
Perchlorate

Conc 10.0386
R#1 32.55 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:56:08 PM

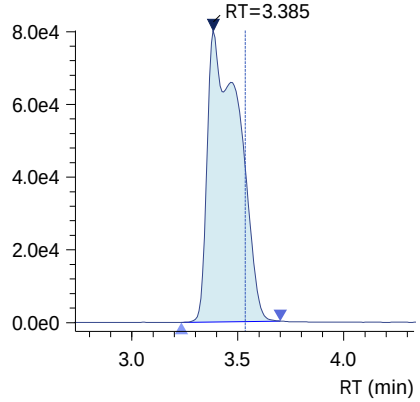
CCV

Sample ID: CCV
Date Acquired: 2/13/2024 2:45:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-050.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

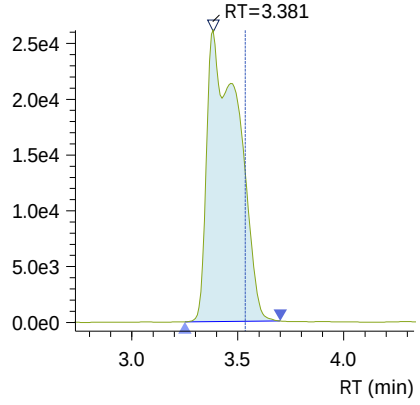
Perchlorate

Conc 18.3732
R#1 32.55 (34.10)

Q 99.00>83.00 (-) A=831969 8.03e4



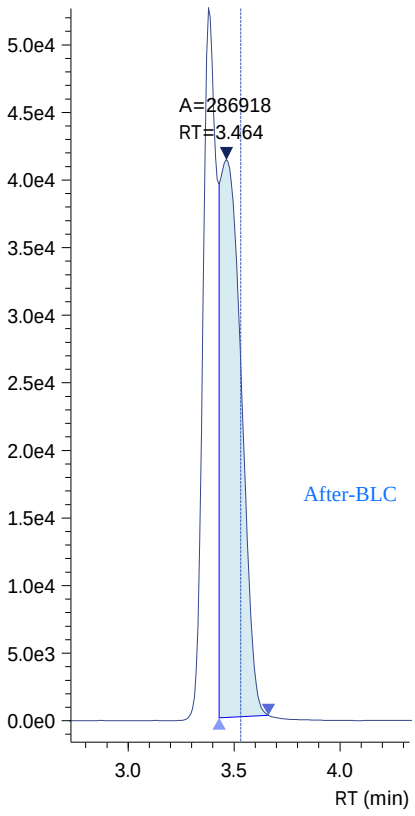
R1 101.00>85.00 (-) A=270801 2.62e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.27e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

IB

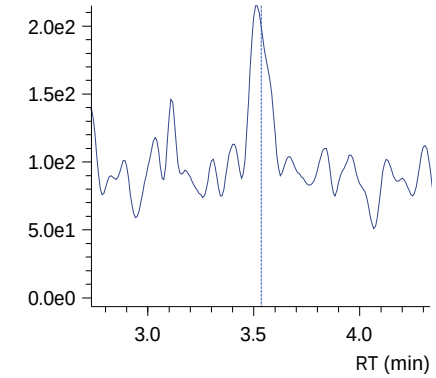
Sample ID: IB
Date Acquired: 2/13/2024 2:51:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-051.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	449694	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.526	449694	449694	1.0000	ng/mL	----	----	

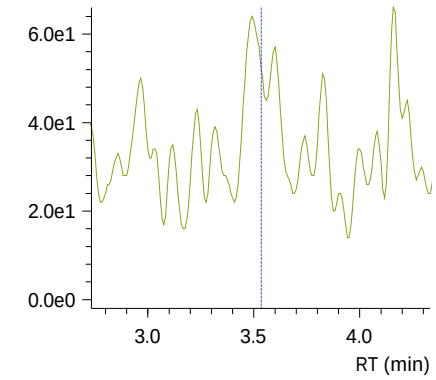
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 2.15e2



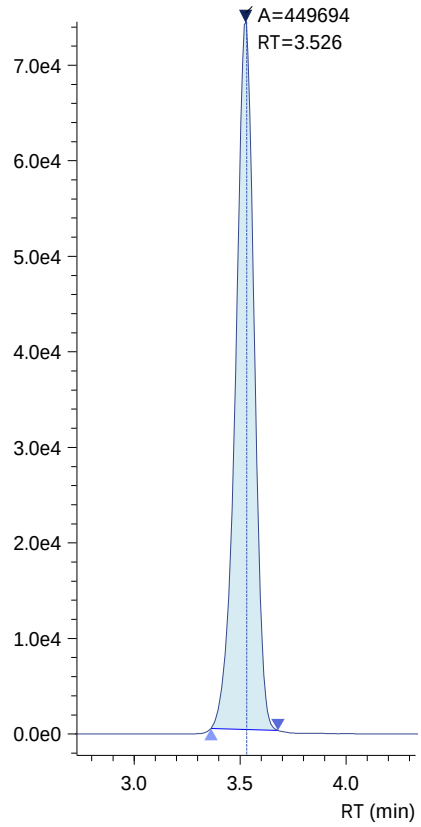
R1 101.00>85.00 (-) 6.60e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.46e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

E2400112-006

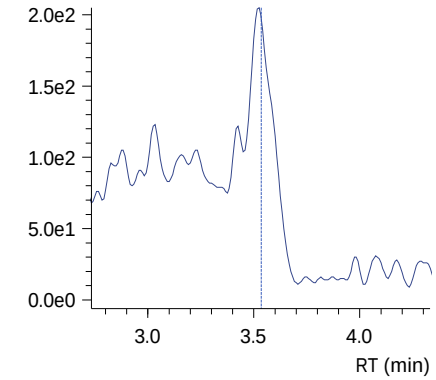
Sample ID: E2400112-006
Date Acquired: 2/13/2024 2:58:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-052.lcd
Vial: 25 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	504831	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.530	504831	504831	1.0000	ng/mL	----	----	

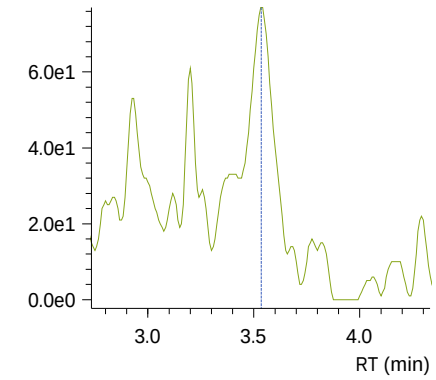
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 2.05e2



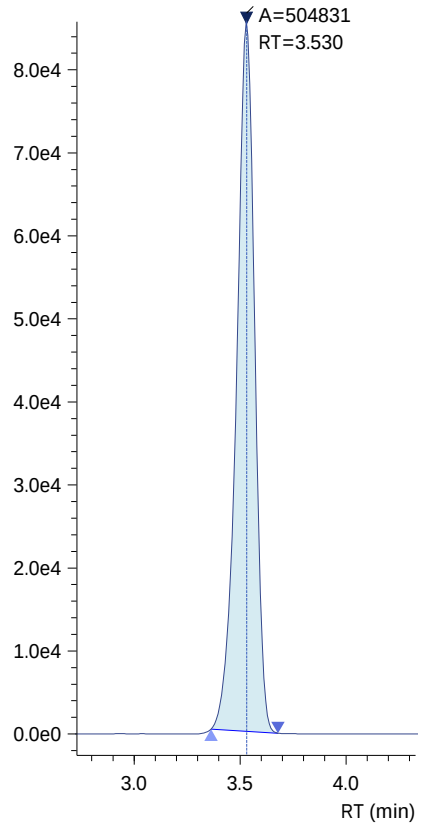
R1 101.00>85.00 (-) 7.70e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.58e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

E2400112-002X10

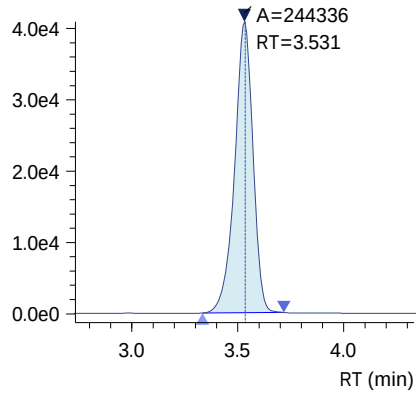
Sample ID: E2400112-002X10
Date Acquired: 2/13/2024 3:22:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-053.lcd
Vial: 21 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	244336	484754	3.1938	ng/mL	101.00 >85.00	33.54	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	484754	484754	1.0000	ng/mL	----	----	

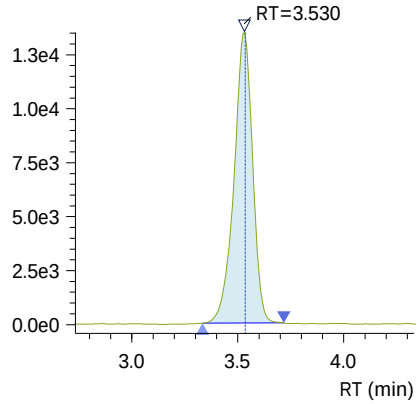
Perchlorate

Conc 3.1938
R#1 33.54 (34.10)

Q 99.00>83.00 (-) 4.10e4



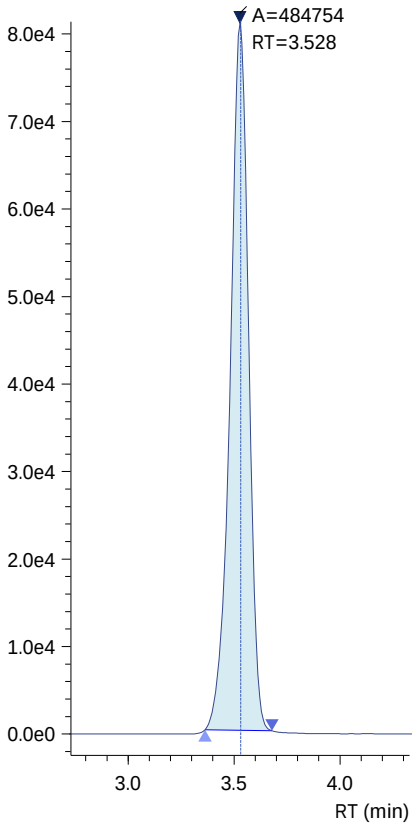
R1 101.00>85.00 (-) A=81944 1.35e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.14e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

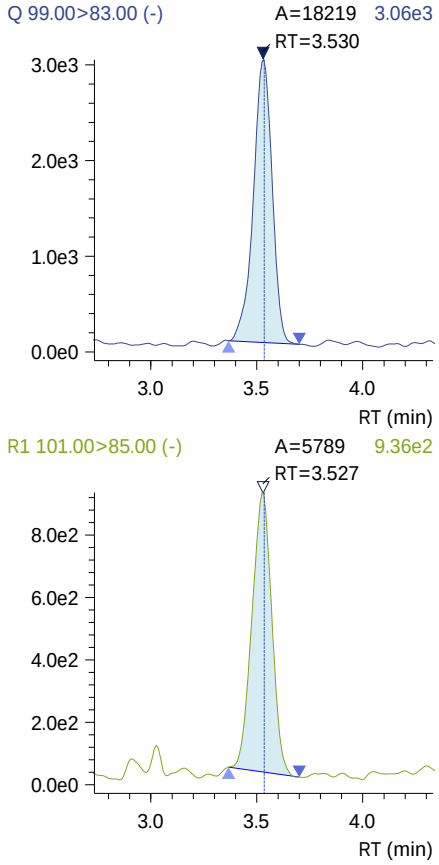
E2400112-003X10

Sample ID: E2400112-003X10
Date Acquired: 2/13/2024 3:27:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-054.lcd
Vial: 22 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	18219	484693	0.2382	ng/mL	101.00 >85.00	31.77	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	484693	484693	1.0000	ng/mL	----	----	

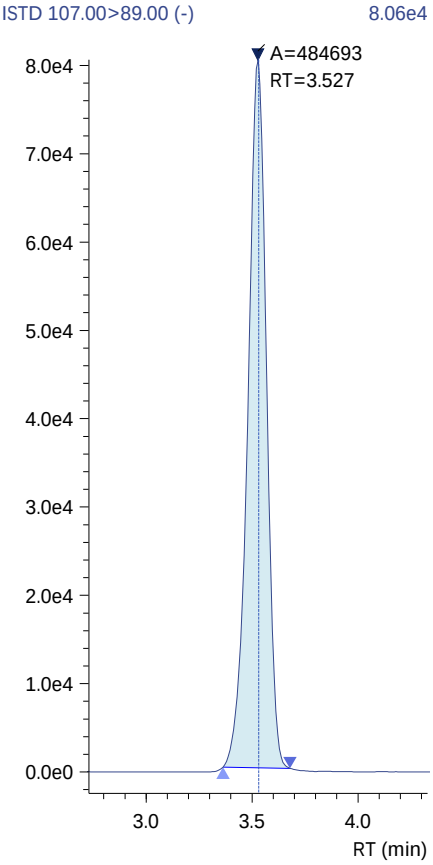
Perchlorate

Conc 0.2382
R#1 31.77 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

CCV

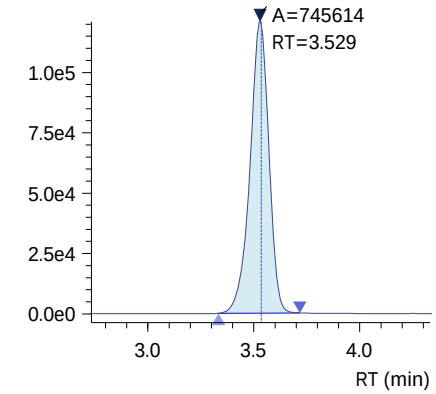
Sample ID: CCV
Date Acquired: 2/13/2024 3:33:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-055.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	745614	462971	10.2046	ng/mL	101.00 >85.00	33.24	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.526	462971	462971	1.0000	ng/mL	----	----	

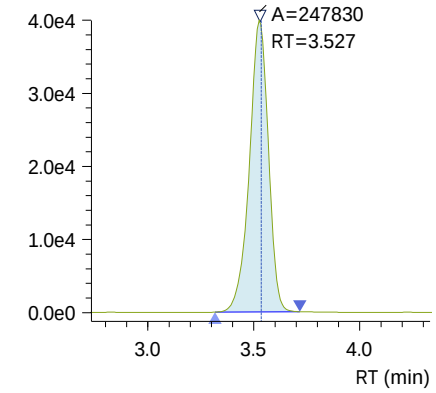
Perchlorate

Conc 10.2046
R#1 33.24 (34.10)

Q 99.00>83.00 (-) 1.21e5



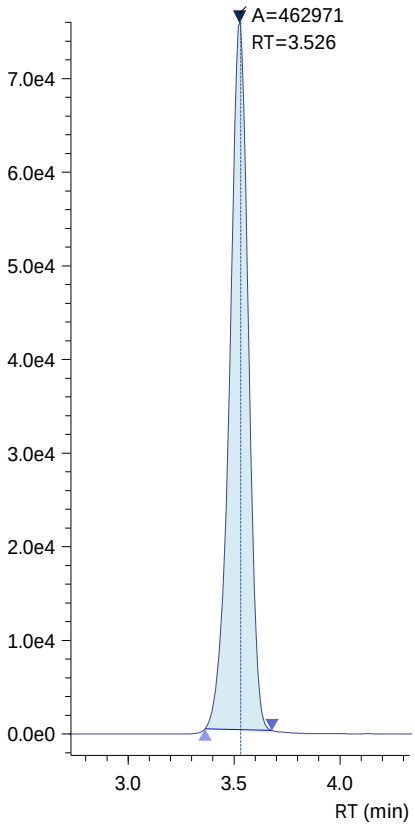
R1 101.00>85.00 (-) 4.00e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.61e4



HS24020246 Eurofins Lab J159923-1 Std_Tal_L4 Rev(1) Final Report

ALS WO# HS24020246

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ANALYTICAL REPORT

PREPARED FOR

Attn: James Guin
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Suite 210
Houston TX 77099

Generated 02/21/2024 Revision 1

JOB DESCRIPTION

HS24020246

JOB NUMBER

410-159923-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

myEOL

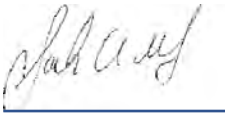
Eurofins Lancaster Laboratories Environment Testing, LLC

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
02/21/2024
Revision 1

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Designee for
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
Job ID: 410-159923-1
Project/Site: HS24020246

Qualifiers

GC VOA

Qualifier	Qualifier Description
D	The reported value is from a dilution.
M	Manual integrated compound.
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
410-159923-1

REVISION

The report being provided is a revision of the original report sent on 2/12/2024. The report (revision 1) is being revised due to sample IDs being updated to have a dash (-) instead of an underscore (_).

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- 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 may be 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.

Receipt
The samples were received on 2/7/2024 10:00 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 0.7°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: HS24020246

Job ID: 410-159923-1

Client Sample ID: 16WW55-240205 — Lab Sample ID: 410-159923-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	220000	M	12000	11000	5600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 16WW41-240205 — Lab Sample ID: 410-159923-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	830000	D	120000	110000	56000	ug/L	10		RSK-175	Total/NA

Client Sample ID: 16WW48-240205 — Lab Sample ID: 410-159923-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	240000	M	12000	11000	5600	ug/L	1		RSK-175	Total/NA

Client Sample ID: 16EW03-240205 — Lab Sample ID: 410-159923-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	170000		12000	11000	5600	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: HS24020246

Job ID: 410-159923-1

Client Sample ID: 16WW55-240205
Lab Sample ID: 410-159923-1
Date Collected: 02/05/24 07:25
Matrix: Water
Date Received: 02/07/24 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	220000	M	12000	11000	5600	ug/L		02/08/24 14:54	1

Client Sample ID: 16WW41-240205
Lab Sample ID: 410-159923-2
Date Collected: 02/05/24 08:15
Matrix: Water
Date Received: 02/07/24 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	830000	D	120000	110000	56000	ug/L		02/09/24 12:02	10

Client Sample ID: 16WW48-240205
Lab Sample ID: 410-159923-3
Date Collected: 02/05/24 09:05
Matrix: Water
Date Received: 02/07/24 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	240000	M	12000	11000	5600	ug/L		02/08/24 15:10	1

Client Sample ID: 16EW03-240205
Lab Sample ID: 410-159923-4
Date Collected: 02/05/24 09:50
Matrix: Water
Date Received: 02/07/24 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	170000		12000	11000	5600	ug/L		02/08/24 15:27	1

Default Detection Limits

Client: ALS Group USA, Corp
Project/Site: HS24020246

Job ID: 410-159923-1

Method: RSK-175 - Dissolved Gases (GC)

Prep: RSK-175

Analyte	LOQ	DL	Units
Carbon dioxide	12000	5600	ug/L

QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS24020246

Job ID: 410-159923-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-471442/1-A
Matrix: Water
Analysis Batch: 471392

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 471442

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	5600	U	12000	11000	5600	ug/L		02/08/24 13:56	1

Lab Sample ID: LCS 410-471442/2-A
Matrix: Water
Analysis Batch: 471392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 471442

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon dioxide			35800	37000		ug/L		103	80 - 122		

Lab Sample ID: MB 410-471859/1-A
Matrix: Water
Analysis Batch: 471838

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 471859

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	5600	U	12000	11000	5600	ug/L		02/09/24 09:56	1

Lab Sample ID: LCS 410-471859/2-A
Matrix: Water
Analysis Batch: 471838

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 471859

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Carbon dioxide			35800	39800		ug/L		111	80 - 122		

QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS24020246

Job ID: 410-159923-1

GC VOA

Analysis Batch: 471392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-159923-1	16WW55-240205	Total/NA	Water	RSK-175	471442
410-159923-3	16WW48-240205	Total/NA	Water	RSK-175	471442
410-159923-4	16EW03-240205	Total/NA	Water	RSK-175	471442
MB 410-471442/1-A	Method Blank	Total/NA	Water	RSK-175	471442
LCS 410-471442/2-A	Lab Control Sample	Total/NA	Water	RSK-175	471442

Prep Batch: 471442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-159923-1	16WW55-240205	Total/NA	Water	RSK-175	
410-159923-3	16WW48-240205	Total/NA	Water	RSK-175	
410-159923-4	16EW03-240205	Total/NA	Water	RSK-175	
MB 410-471442/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-471442/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Analysis Batch: 471838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-159923-2	16WW41-240205	Total/NA	Water	RSK-175	471859
MB 410-471859/1-A	Method Blank	Total/NA	Water	RSK-175	471859
LCS 410-471859/2-A	Lab Control Sample	Total/NA	Water	RSK-175	471859

Prep Batch: 471859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-159923-2	16WW41-240205	Total/NA	Water	RSK-175	
MB 410-471859/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-471859/2-A	Lab Control Sample	Total/NA	Water	RSK-175	

Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS24020246

Job ID: 410-159923-1

Client Sample ID: 16WW55-240205
Lab Sample ID: 410-159923-1
Date Collected: 02/05/24 07:25
Matrix: Water
Date Received: 02/07/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			471442	HQR6	ELLE	02/08/24 09:54
Total/NA	Analysis	RSK-175		1	471392	LXF2	ELLE	02/08/24 14:54

Client Sample ID: 16WW41-240205
Lab Sample ID: 410-159923-2
Date Collected: 02/05/24 08:15
Matrix: Water
Date Received: 02/07/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			471859	HQR6	ELLE	02/09/24 09:54
Total/NA	Analysis	RSK-175		10	471838	LXF2	ELLE	02/09/24 12:02

Client Sample ID: 16WW48-240205
Lab Sample ID: 410-159923-3
Date Collected: 02/05/24 09:05
Matrix: Water
Date Received: 02/07/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			471442	HQR6	ELLE	02/08/24 09:54
Total/NA	Analysis	RSK-175		1	471392	LXF2	ELLE	02/08/24 15:10

Client Sample ID: 16EW03-240205
Lab Sample ID: 410-159923-4
Date Collected: 02/05/24 09:50
Matrix: Water
Date Received: 02/07/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			471442	HQR6	ELLE	02/08/24 09:54
Total/NA	Analysis	RSK-175		1	471392	LXF2	ELLE	02/08/24 15:27

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
Job ID: 410-159923-1
Project/Site: HS24020246

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: HS24020246

Job ID: 410-159923-1

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: HS24020246

Job ID: 410-159923-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-159923-1	16WW55-240205	Water	02/05/24 07:25	02/07/24 10:00
410-159923-2	16WW41-240205	Water	02/05/24 08:15	02/07/24 10:00
410-159923-3	16WW48-240205	Water	02/05/24 09:05	02/07/24 10:00
410-159923-4	16EW03-240205	Water	02/05/24 09:50	02/07/24 10:00

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

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

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Instrument ID: 19506-B Analysis Batch Number: 471392

Lab Sample ID: 410-159923-1 Client Sample ID: 16WW55-240205

Date Analyzed: 02/08/24 14:54 Lab File ID: 312024_2_8BB.0033.d GC Column: 19809 ID: 1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon dioxide	1.99	Baseline Smoothing	LXF2	02/09/24 03:45

Lab Sample ID: 410-159923-3 Client Sample ID: 16WW48-240205

Date Analyzed: 02/08/24 15:10 Lab File ID: 312024_2_8BB.0035.d GC Column: 19809 ID: 1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon dioxide	1.99	Baseline Smoothing	LXF2	02/09/24 03:45

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

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 %
EPH_CO2MS_00006	07/18/24	07/18/23	DI Water, Lot In House	1 g	EPH_CO2CRV_00003	0.0018 g	Carbon dioxide	1791000 ppb
.EPH_CO2CRV_00003	07/18/24	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.: 410-159923-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 312024_2_8BB.0027.d

Lab ID: LCS 410-471442/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Carbon dioxide	35800	37000	103	80-122	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 312024_2_9BB.0004.d

Lab ID: LCS 410-471859/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Carbon dioxide	35800	39800	111	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.: 410-159923-1

SDG No.:

Lab File ID: 312024_2_8BB.0026.d Lab Sample ID: MB 410-471442/1-A

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

Instrument ID: 19506-B Date Analyzed: 02/08/2024 13:56

GC Column: 19809 ID: 1(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-471442/2-A	312024_2_8BB.0027.d	02/08/2024 14:03
16WW55-240205	410-159923-1	312024_2_8BB.0033.d	02/08/2024 14:54
16WW48-240205	410-159923-3	312024_2_8BB.0035.d	02/08/2024 15:10
16EW03-240205	410-159923-4	312024_2_8BB.0037.d	02/08/2024 15:27

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab File ID: 312024_2_9BB.0003.d Lab Sample ID: MB 410-471859/1-A

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

Instrument ID: 19506-B Date Analyzed: 02/09/2024 09:56

GC Column: 19809 ID: 1(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-471859/2-A	312024_2_9BB.0004.d	02/09/2024 10:04
16WW41-240205	410-159923-2	312024_2_9BB.0017.d	02/09/2024 12:02

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Client Sample ID: 16WW55-240205 Lab Sample ID: 410-159923-1

Matrix: Water Lab File ID: 312024_2_8BB.0033.d

Analysis Method: RSK-175 Date Collected: 02/05/2024 07:25

Sample wt/vol: 5(mL) Date Analyzed: 02/08/2024 14:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: 19809 ID: 1(mm)

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

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

Analysis Batch No.: 471392 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-38-9	Carbon dioxide	220000	M	12000	11000	5600

Report Date: 09-Feb-2024 03:46:18 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0033.d				
Lims ID:	410-159923-A-1-A				
Client ID:	16WW55_240205				
Sample Type:	Client				
Inject. Date:	08-Feb-2024 14:54:00	ALS Bottle#:	0	Worklist Smp#:	33
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-033				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:15	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				
First Level Reviewer: LXF2		Date:	09-Feb-2024 03:45:32		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.993	2.042	-0.049	738020663H	224314	Ma

QC Flag Legend

Processing Flags

H - Response Measured by Height

Review Flags

M - Manually Integrated

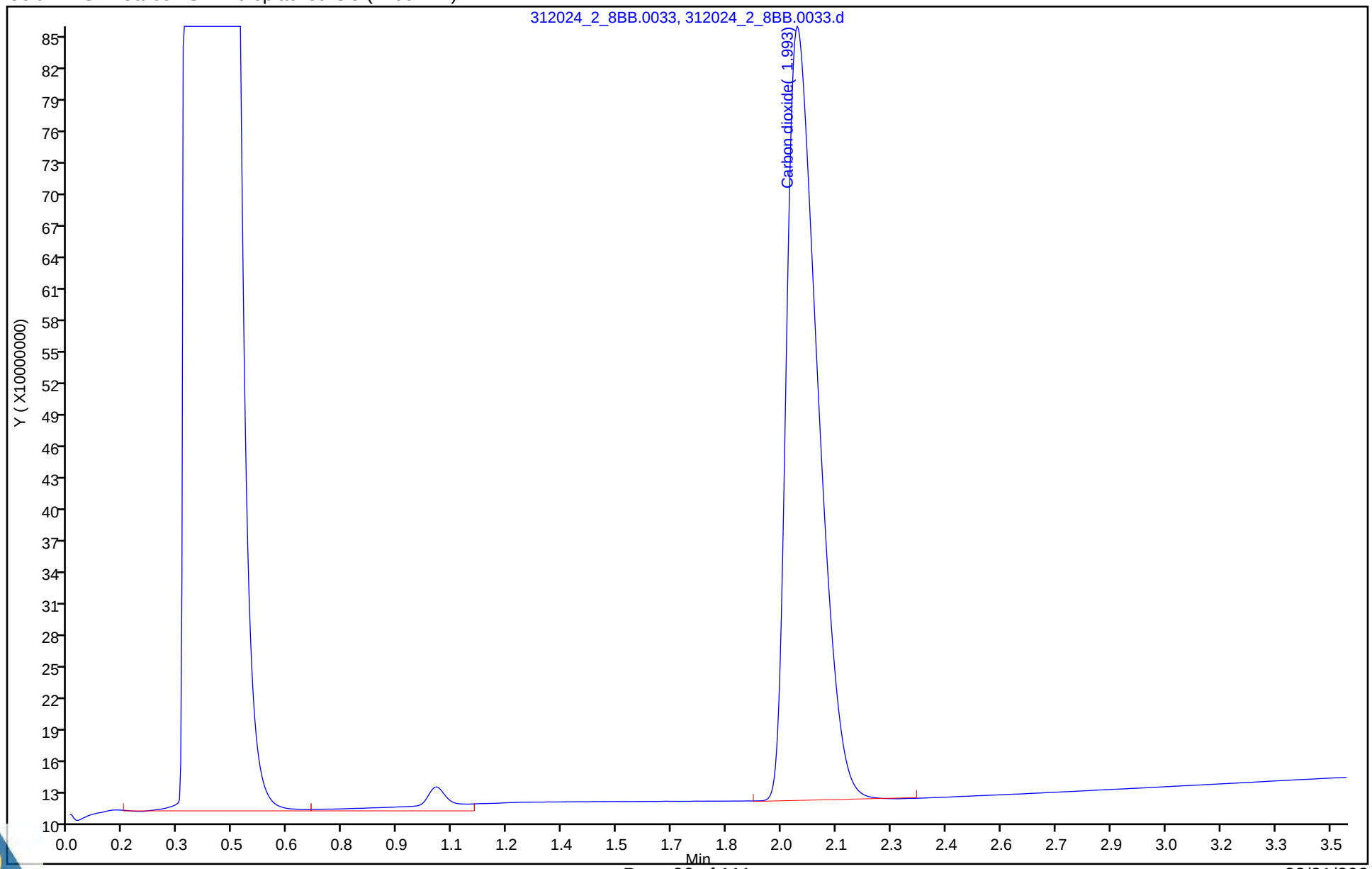
a - User Assigned ID

Report Date: 09-Feb-2024 03:46:18 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0033.d				
Injection Date:	08-Feb-2024 14:54:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-159923-A-1-A	Lab Sample ID:	410-159923-1	Worklist Smp#:	33
Client ID:	16WW55_240205				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



Report Date: 09-Feb-2024 03:46:18 Chrom Revision: 2.3 02-Feb-2024 10:24:08 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

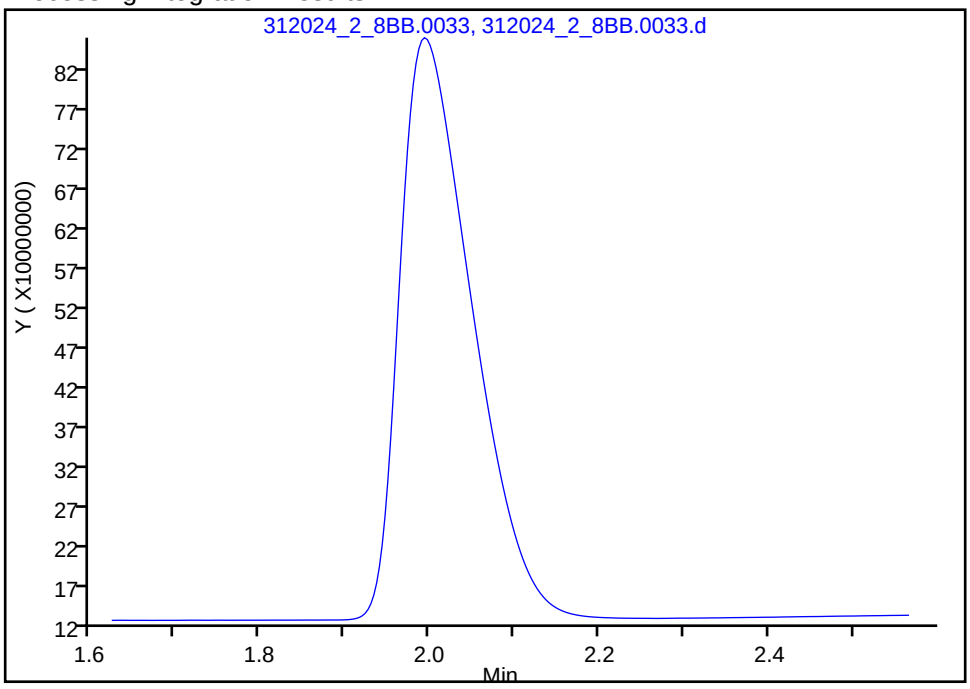
Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0033.d		
Injection Date:	08-Feb-2024 14:54:00	Instrument ID:	19506-B
Lims ID:	410-159923-A-1-A	Lab Sample ID:	410-159923-1
Client ID:	16WW55_240205		
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 33
Purge Vol:	1.000 mL	Dil. Factor:	1.0000
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2
Column:	ShinCarbon ST Microplacked GC (1.00 mm)	Detector	0FIDA

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

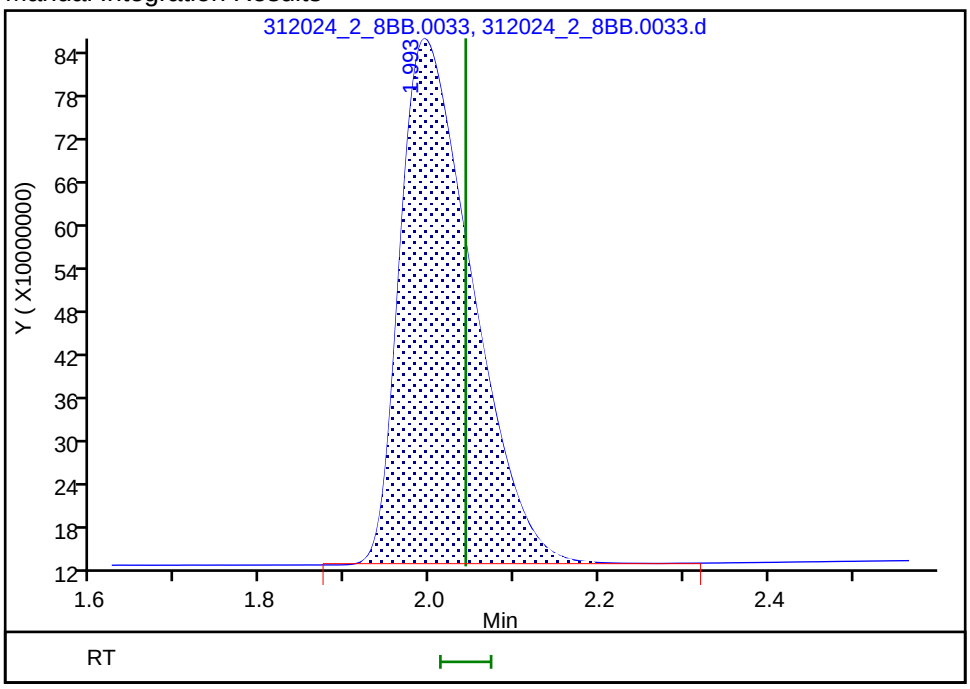
Not Detected
Expected RT: 2.04

Processing Integration Results



Manual Integration Results

RT: 1.99
Height: 738020663
Amount: 224314
Amount Units: ug/l



Reviewer: LXF2, 09-Feb-2024 03:45:31 -05:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Client Sample ID: 16WW41-240205 Lab Sample ID: 410-159923-2

Matrix: Water Lab File ID: 312024_2_9BB.0017.d

Analysis Method: RSK-175 Date Collected: 02/05/2024 08:15

Sample wt/vol: 5(mL) Date Analyzed: 02/09/2024 12:02

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: 19809 ID: 1(mm)

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

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

Analysis Batch No.: 471838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-38-9	Carbon dioxide	830000	D	120000	110000	56000

Report Date: 12-Feb-2024 03:20:44 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0017.d				
Lims ID:	410-159923-B-2-A DL				
Client ID:	16WW41_240205				
Sample Type:	Client				
Inject. Date:	09-Feb-2024 12:02:00	ALS Bottle#:	0	Worklist Smp#:	17
Purge Vol:	1.000 mL	Dil. Factor:	10.0000		
Sample Info:					
Misc. Info.:	410-0105978-017				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	12-Feb-2024 03:20:43	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1662				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.030	2.042	-0.012	272727940	82893	H

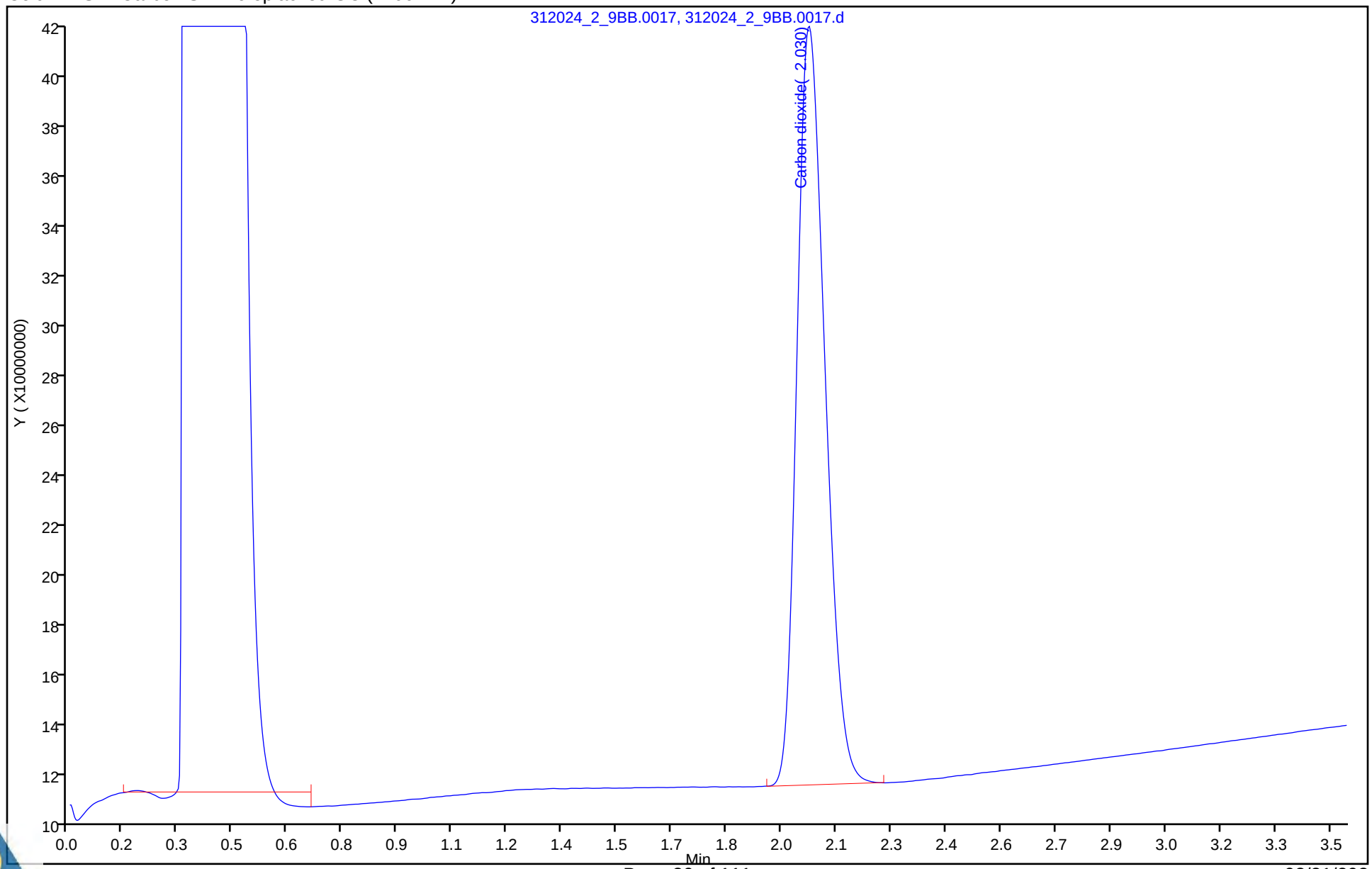
Report Date: 12-Feb-2024 03:20:44 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0017.d

Injection Date:	09-Feb-2024 12:02:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-159923-B-2-A DL	Lab Sample ID:	410-159923-2	Worklist Smp#:	17
Client ID:	16WW41_240205				
Purge Vol:	1.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Client Sample ID: 16WW48-240205 Lab Sample ID: 410-159923-3

Matrix: Water Lab File ID: 312024_2_8BB.0035.d

Analysis Method: RSK-175 Date Collected: 02/05/2024 09:05

Sample wt/vol: 5(mL) Date Analyzed: 02/08/2024 15:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: 19809 ID: 1(mm)

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

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

Analysis Batch No.: 471392 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-38-9	Carbon dioxide	240000	M	12000	11000	5600

Report Date: 09-Feb-2024 03:46:18 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0035.d				
Lims ID:	410-159923-A-3-A				
Client ID:	16WW48_240205				
Sample Type:	Client				
Inject. Date:	08-Feb-2024 15:10:00	ALS Bottle#:	0	Worklist Smp#:	35
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-035				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:15	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				
First Level Reviewer: LXF2		Date:	09-Feb-2024 03:45:46		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.990	2.042	-0.052	792931049H	241004	Ma

QC Flag Legend

Processing Flags

H - Response Measured by Height

Review Flags

M - Manually Integrated

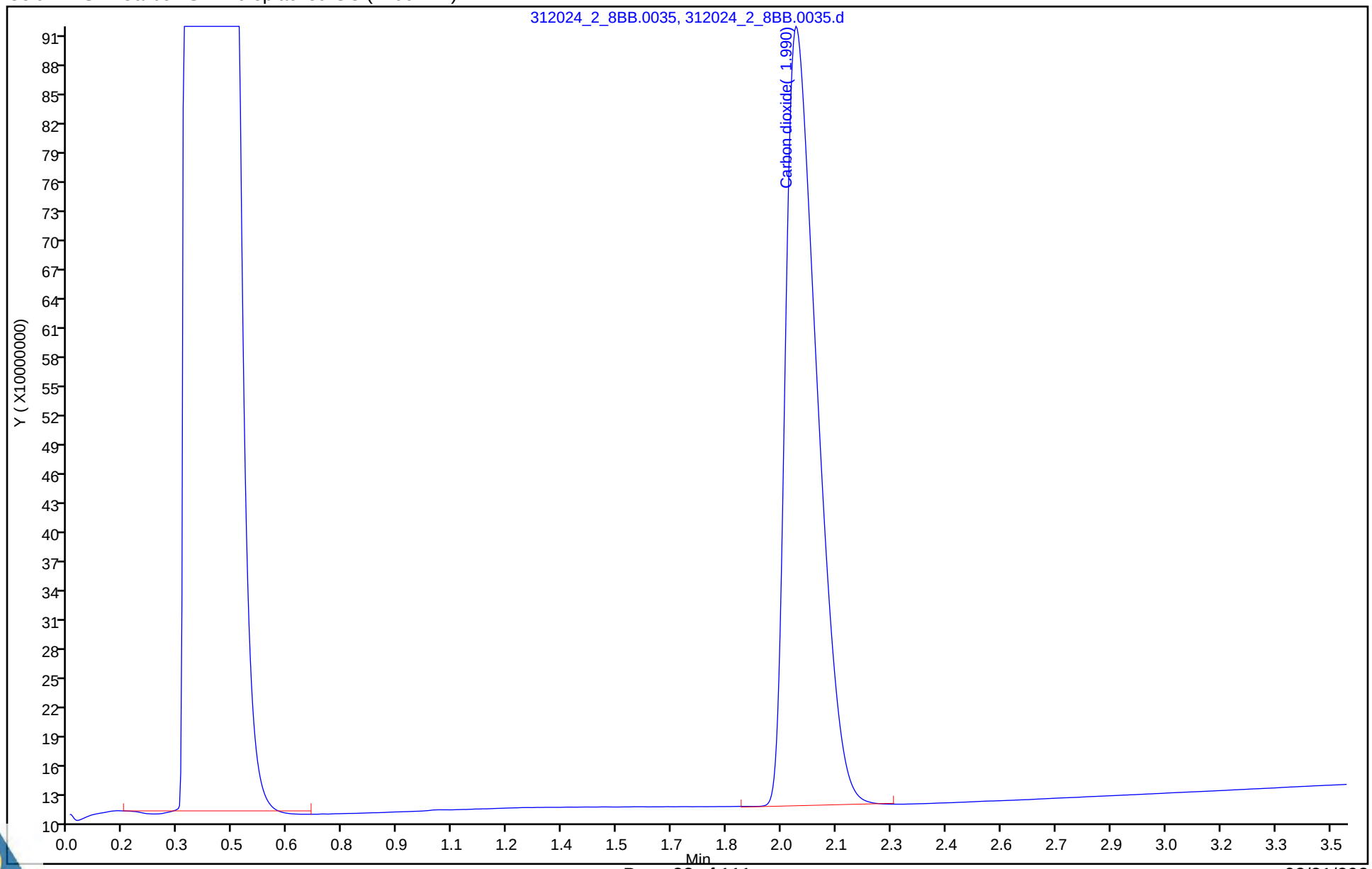
a - User Assigned ID

Report Date: 09-Feb-2024 03:46:18 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0035.d				
Injection Date:	08-Feb-2024 15:10:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-159923-A-3-A	Lab Sample ID:	410-159923-3	Worklist Smp#:	35
Client ID:	16WW48_240205				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



Report Date: 09-Feb-2024 03:46:18

Chrom Revision: 2.3 02-Feb-2024 10:24:08 Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing, LLC

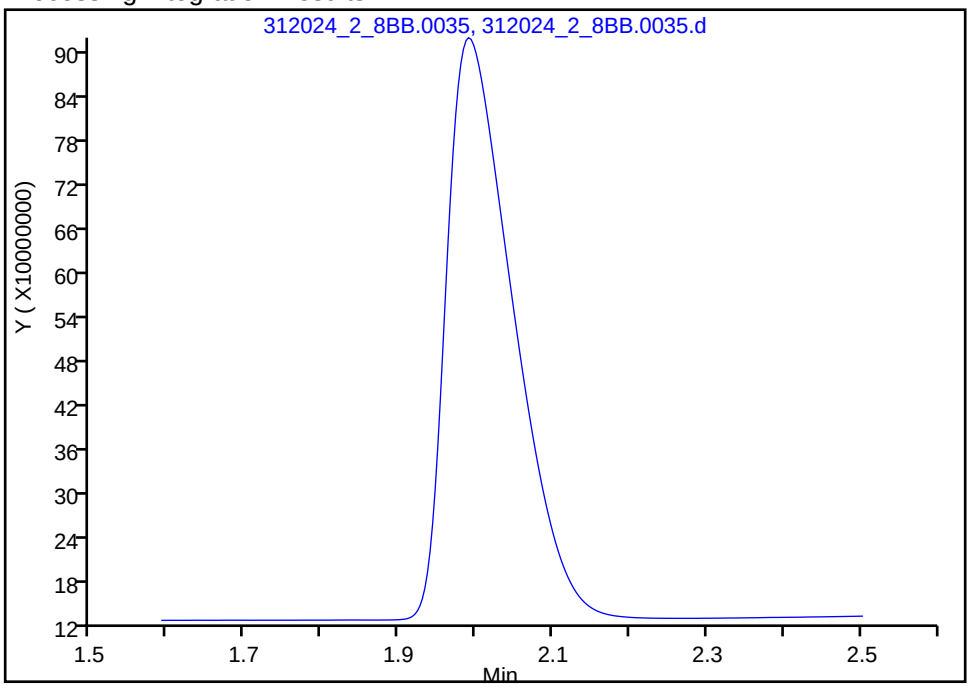
Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0035.d				
Injection Date:	08-Feb-2024 15:10:00	Instrument ID:	19506-B		
Lims ID:	410-159923-A-3-A	Lab Sample ID:	410-159923-3		
Client ID:	16WW48_240205				
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	35
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		
Column:	ShinCarbon ST Microplacked GC (1.00 mm)	Detector	0FIDA		

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

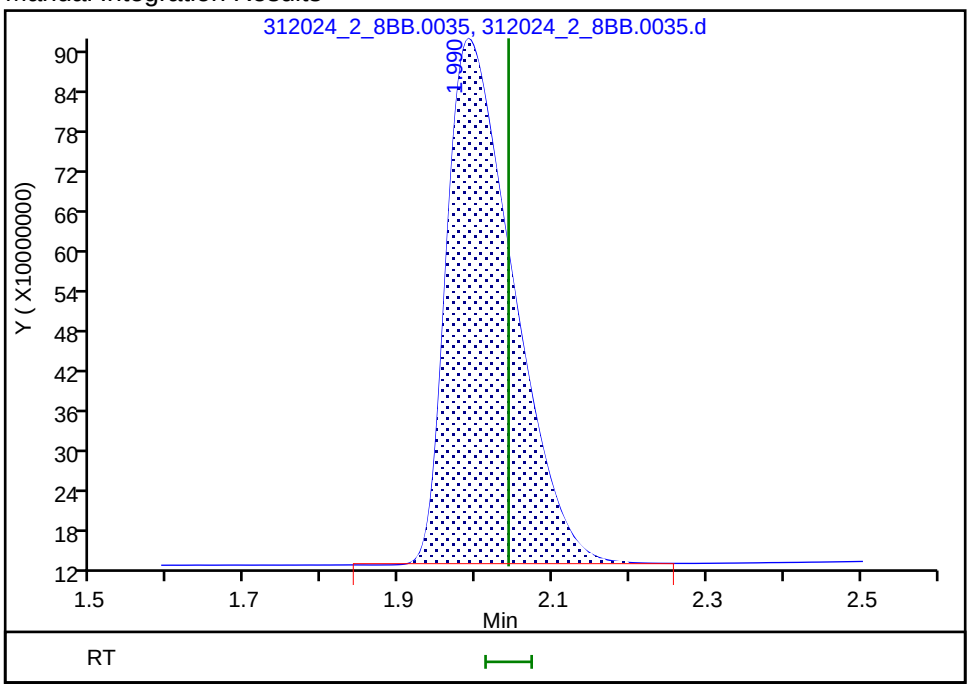
Not Detected
Expected RT: 2.04

Processing Integration Results



Manual Integration Results

RT: 1.99
Height: 792931049
Amount: 241004
Amount Units: ug/l



Reviewer: LXF2, 09-Feb-2024 03:45:44 -05:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Client Sample ID: 16EW03-240205 Lab Sample ID: 410-159923-4

Matrix: Water Lab File ID: 312024_2_8BB.0037.d

Analysis Method: RSK-175 Date Collected: 02/05/2024 09:50

Sample wt/vol: 5(mL) Date Analyzed: 02/08/2024 15:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: 19809 ID: 1(mm)

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

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

Analysis Batch No.: 471392 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-38-9	Carbon dioxide	170000		12000	11000	5600

Report Date: 09-Feb-2024 03:46:19 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0037.d				
Lims ID:	410-159923-A-4-A				
Client ID:	16EW03_240205				
Sample Type:	Client				
Inject. Date:	08-Feb-2024 15:27:00	ALS Bottle#:	0	Worklist Smp#:	37
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-037				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:19	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.013	2.042	-0.029	574430101	174592	H

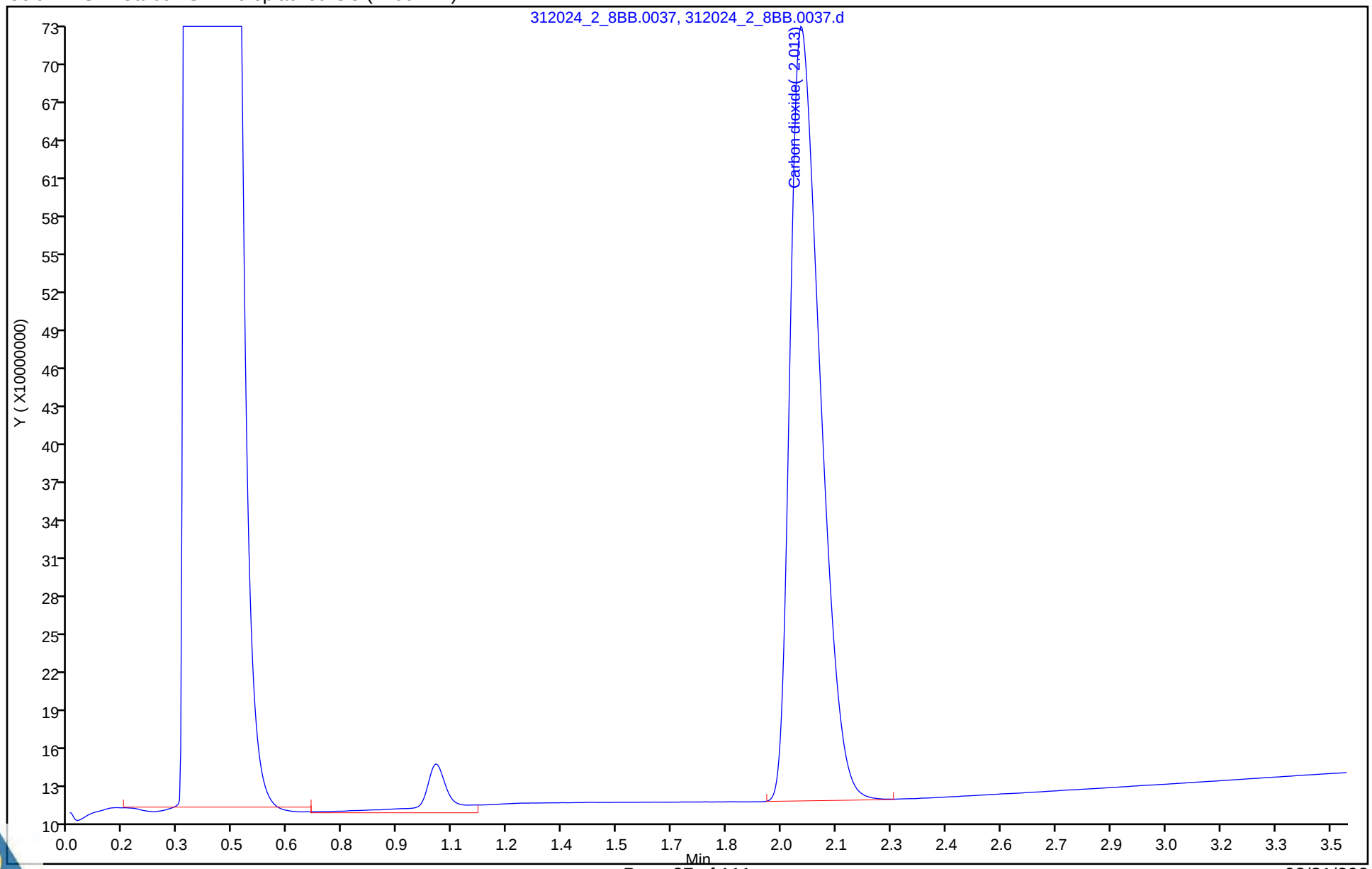
Report Date: 09-Feb-2024 03:46:19 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0037.d

Injection Date:	08-Feb-2024 15:27:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	410-159923-A-4-A	Lab Sample ID:	410-159923-4	Worklist Smp#:	37
Client ID:	16EW03_240205				
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1 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.: 410-159923-1 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 Environment Testing, LLC Job No.: 410-159923-1 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 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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

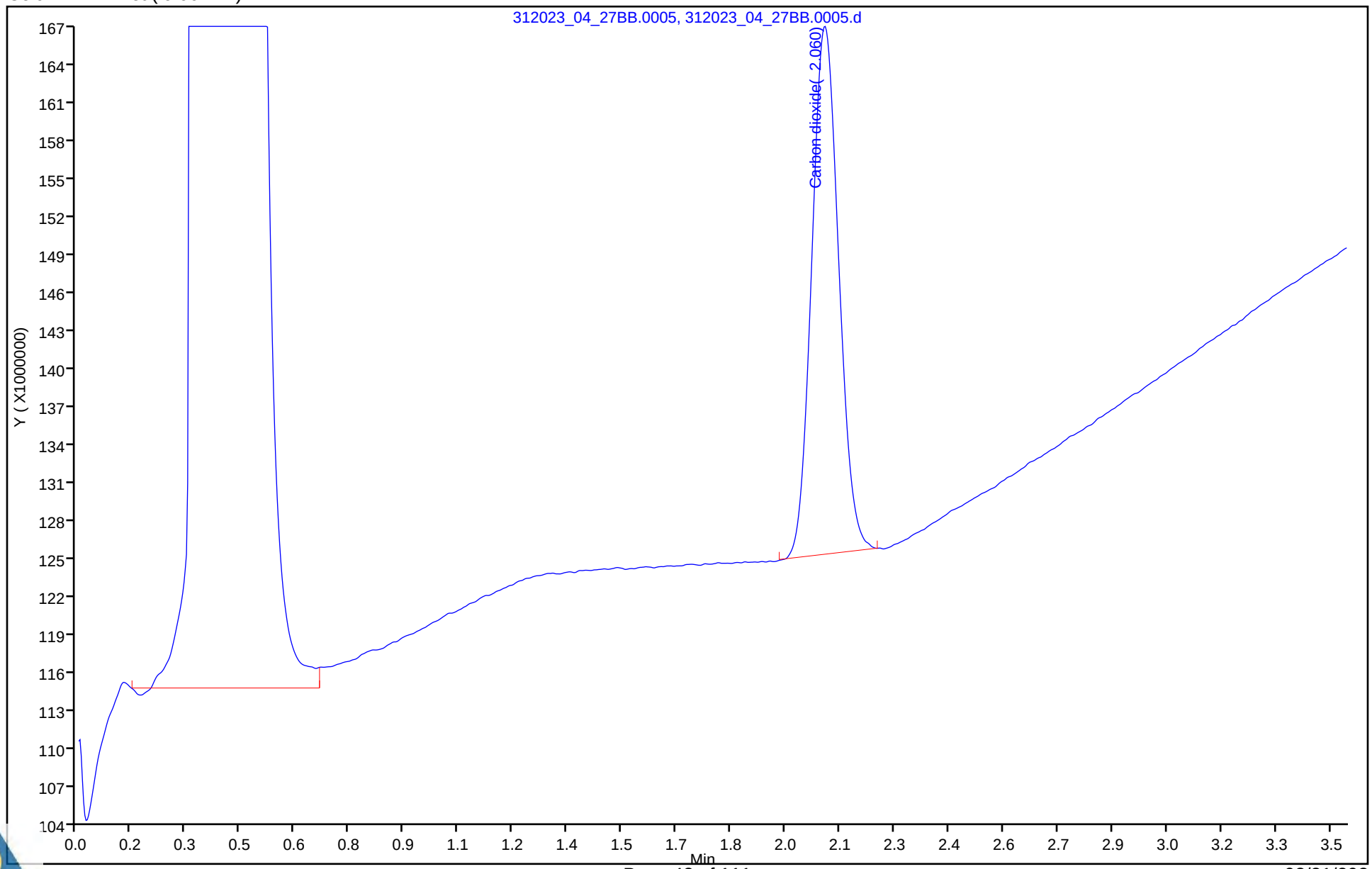
Report Date: 28-Apr-2023 07:19:05 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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

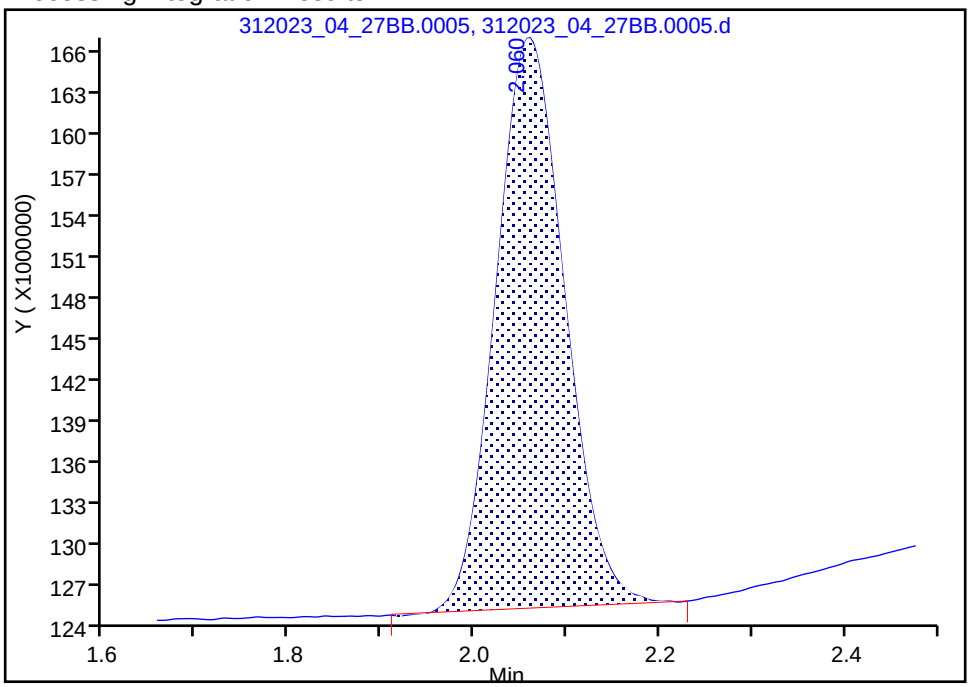
Data File: \\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0005.d
Injection Date: 27-Apr-2023 09:59:00 Instrument ID: 19506-B
Lims ID: ic
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm) Detector 0FIDA

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

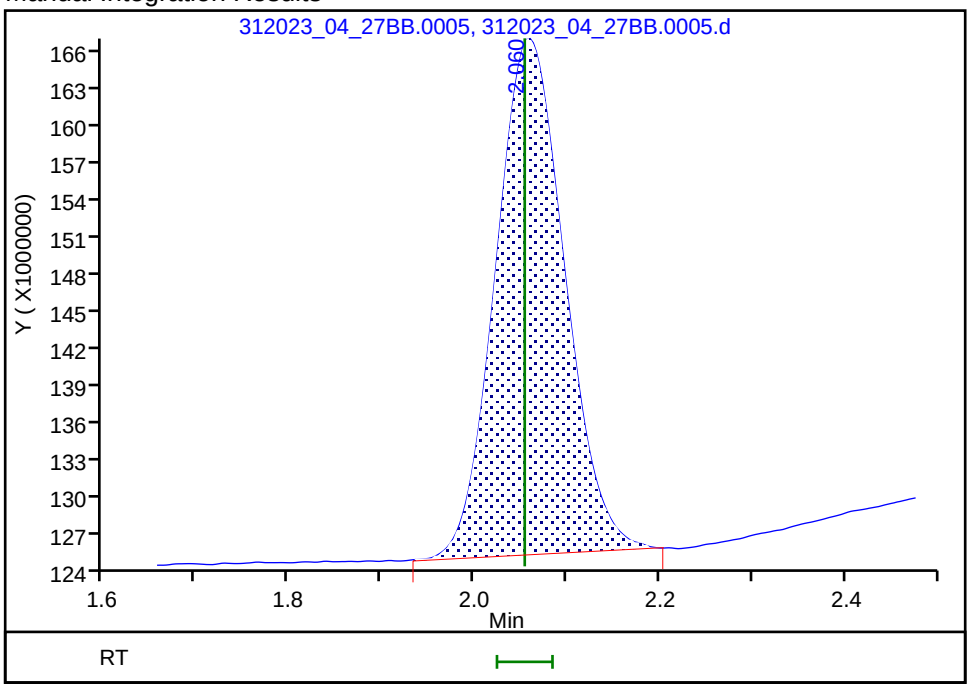
Processing Integration Results

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



Reviewer: WN7O, 28-Apr-2023 07:18:28
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Report Date: 28-Apr-2023 07:19:06 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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	70308888H	21492	21370	

Reagents:

EPH_CO2MS_00004 Amount Added: 60.00 Units: uL

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:

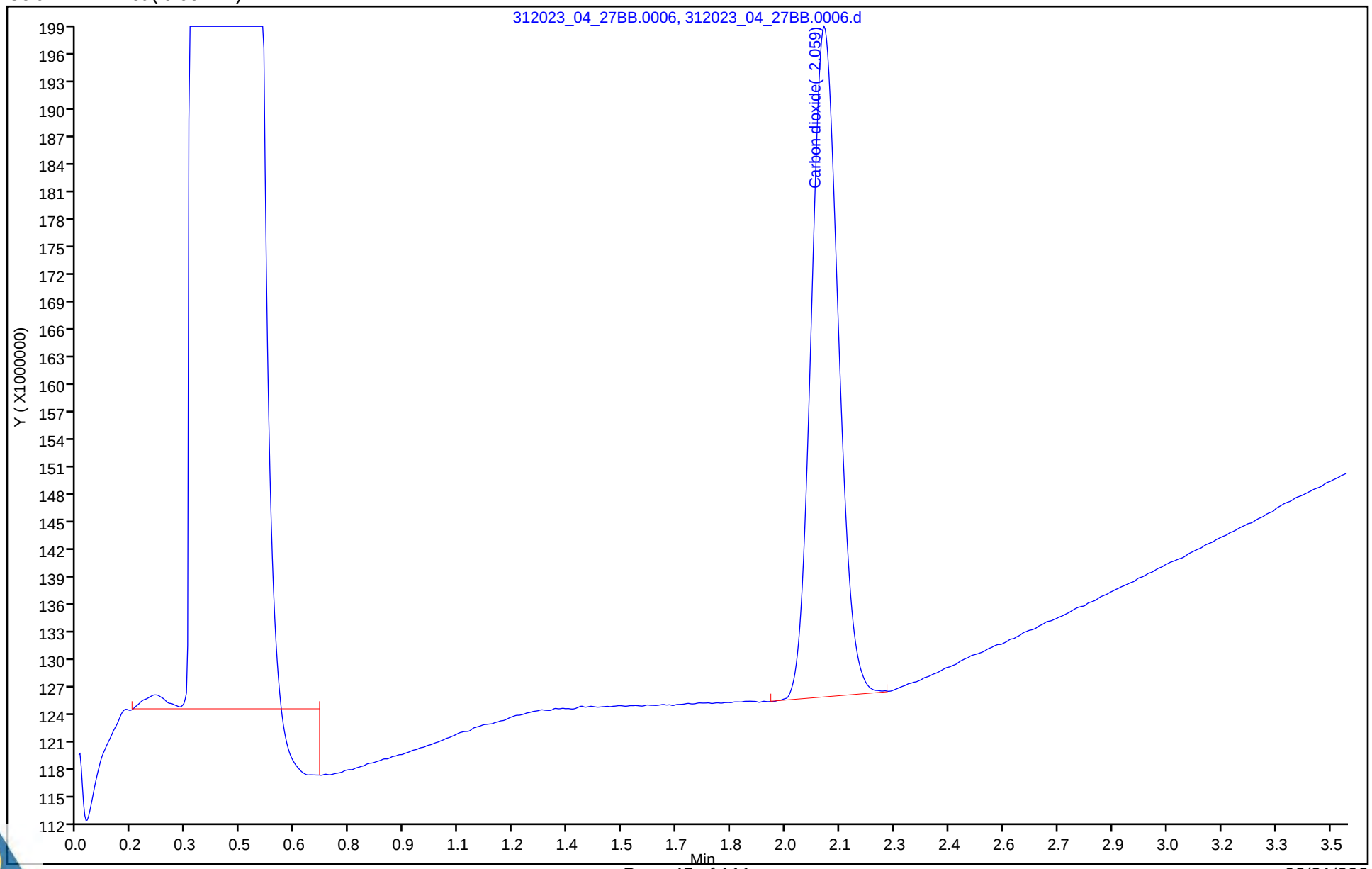
Lims ID: ic Worklist Smp#: 6

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 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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	121893696	H 35820	37048	

Reagents:

EPH_CO2MS_00004 Amount Added: 100.00 Units: uL

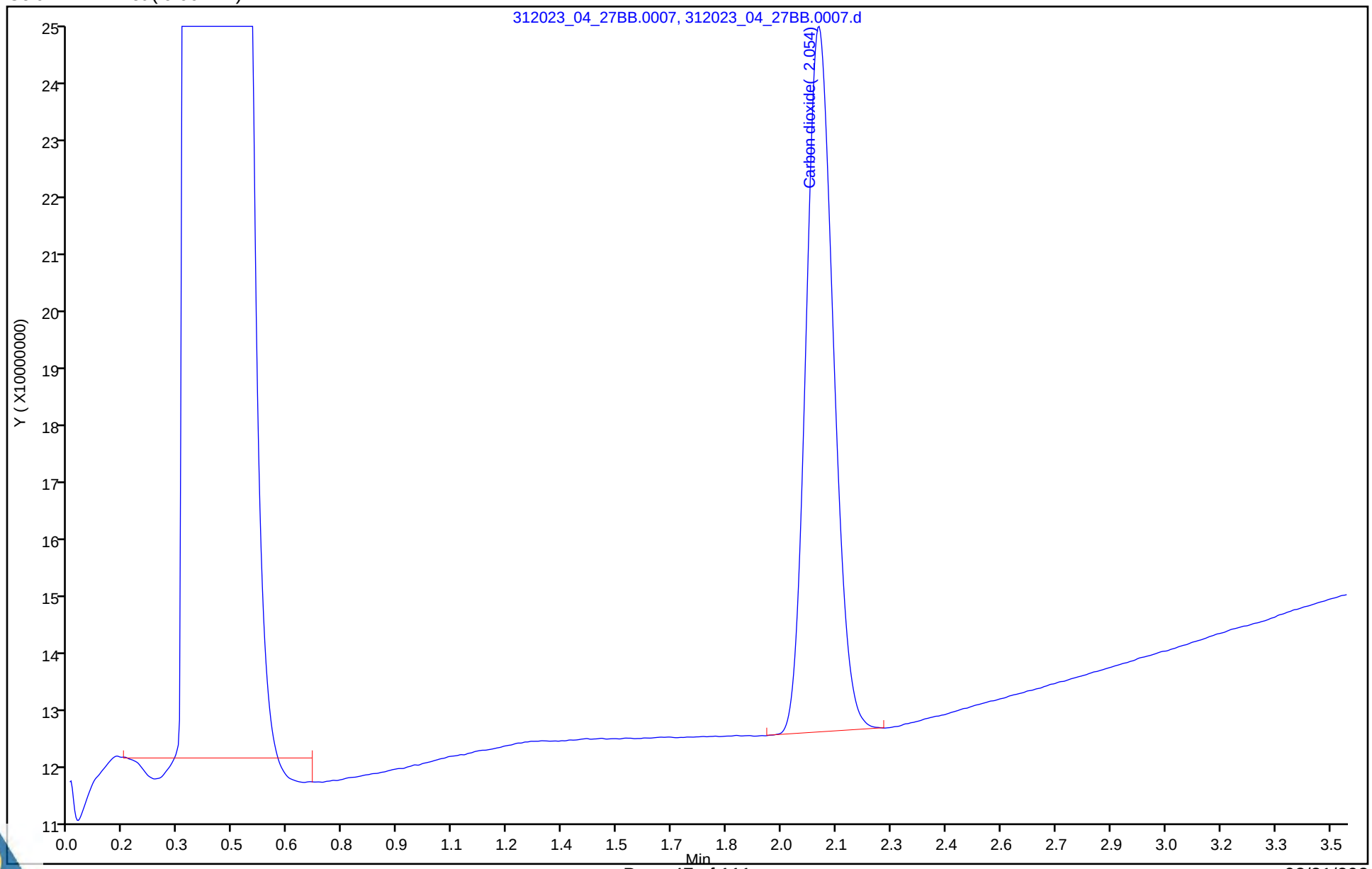
Report Date: 28-Apr-2023 07:19:08 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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

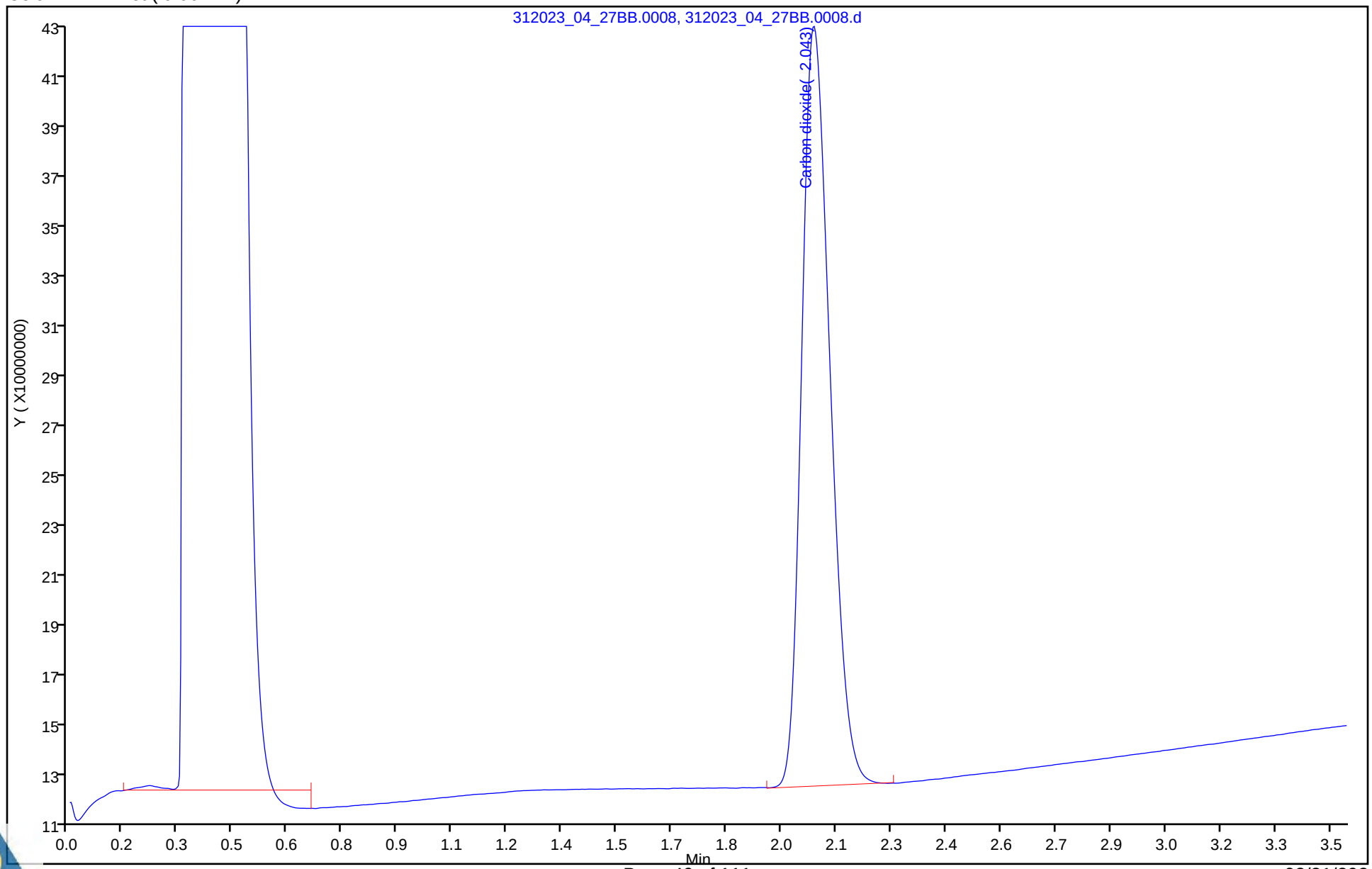
Report Date: 28-Apr-2023 07:19:09 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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	561047460	H 179100	170525	

Reagents:

EPH_CO2MS_00004 Amount Added: 500.00 Units: uL

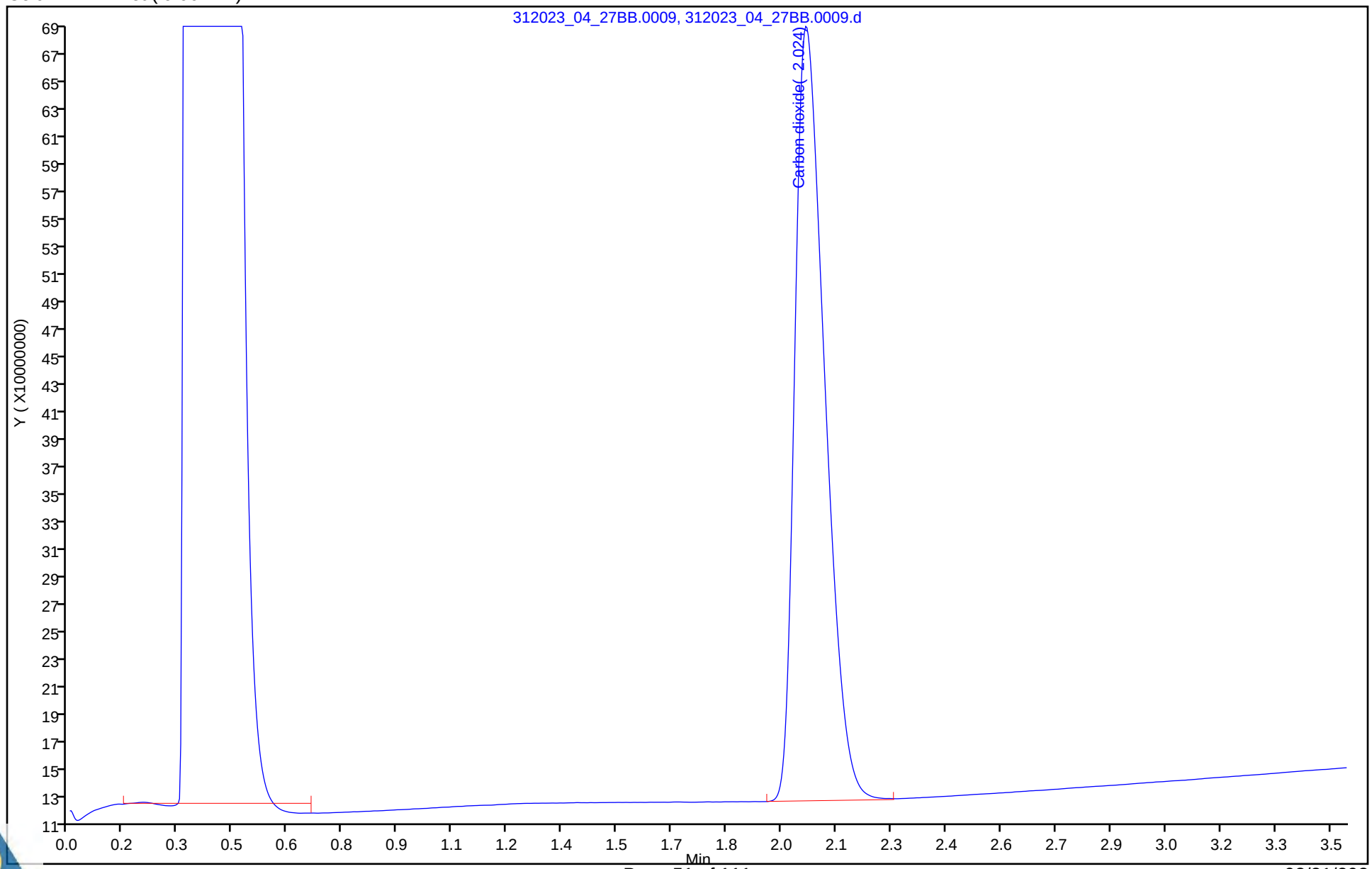
Report Date: 28-Apr-2023 07:19:10 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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

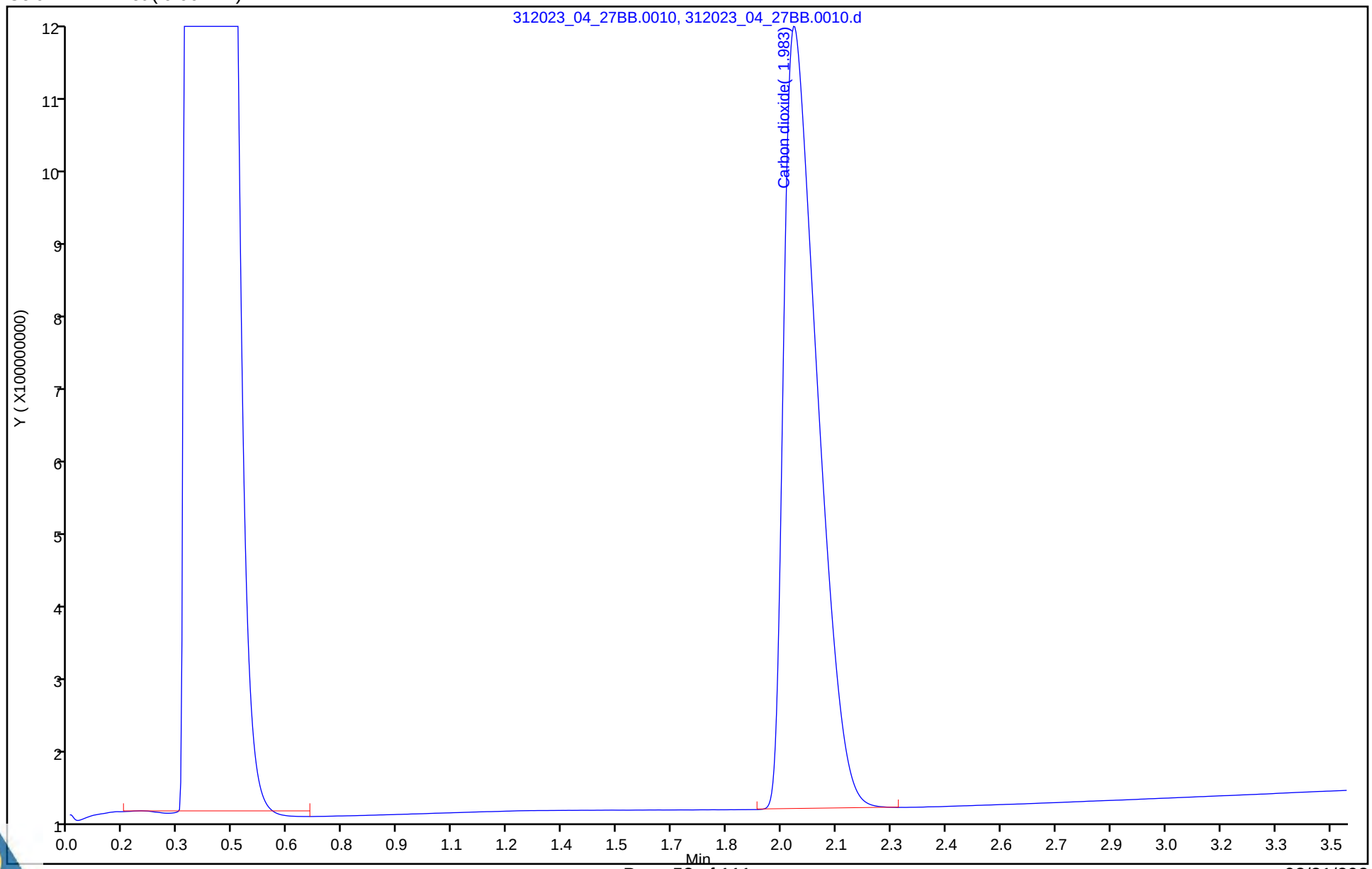
Report Date: 28-Apr-2023 07:19:12 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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

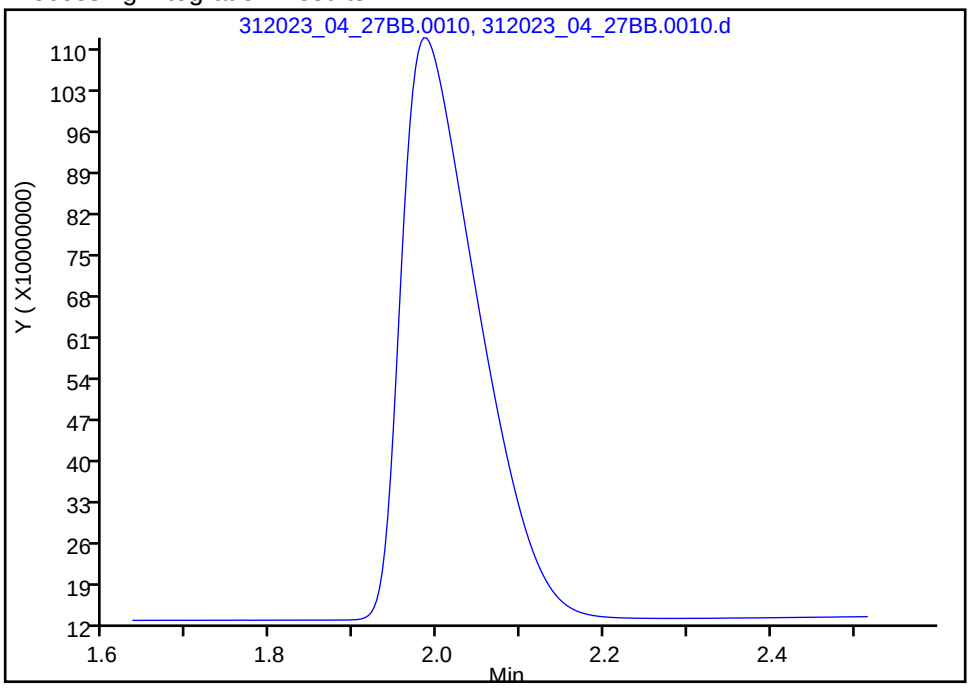
Data File:	\\chromfs\Lancaster\ChromData\19506-B\20230427-82537.b\312023_04_27BB.0010.d		
Injection Date:	27-Apr-2023 10:37:00	Instrument ID:	19506-B
Lims ID:	ic		
Client ID:			
Operator ID:		ALS Bottle#:	0 Worklist Smp#: 10
Purge Vol:	1.000 mL	Dil. Factor:	1.0000
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2
Column:	HP Plot (0.00 mm)	Detector	0FIDA

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

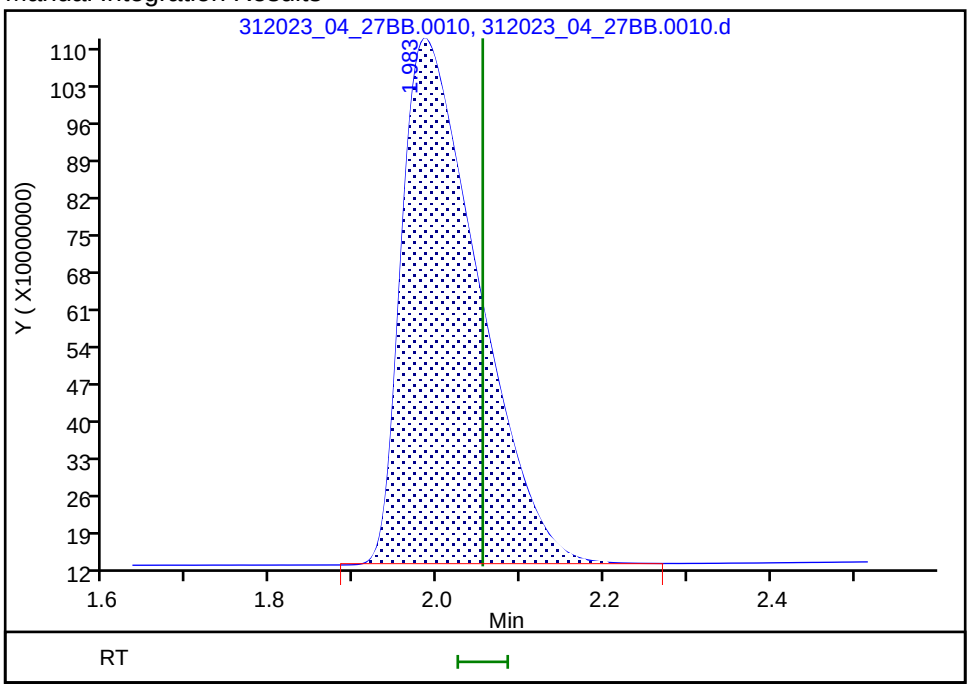
Not Detected
Expected RT: 2.05

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

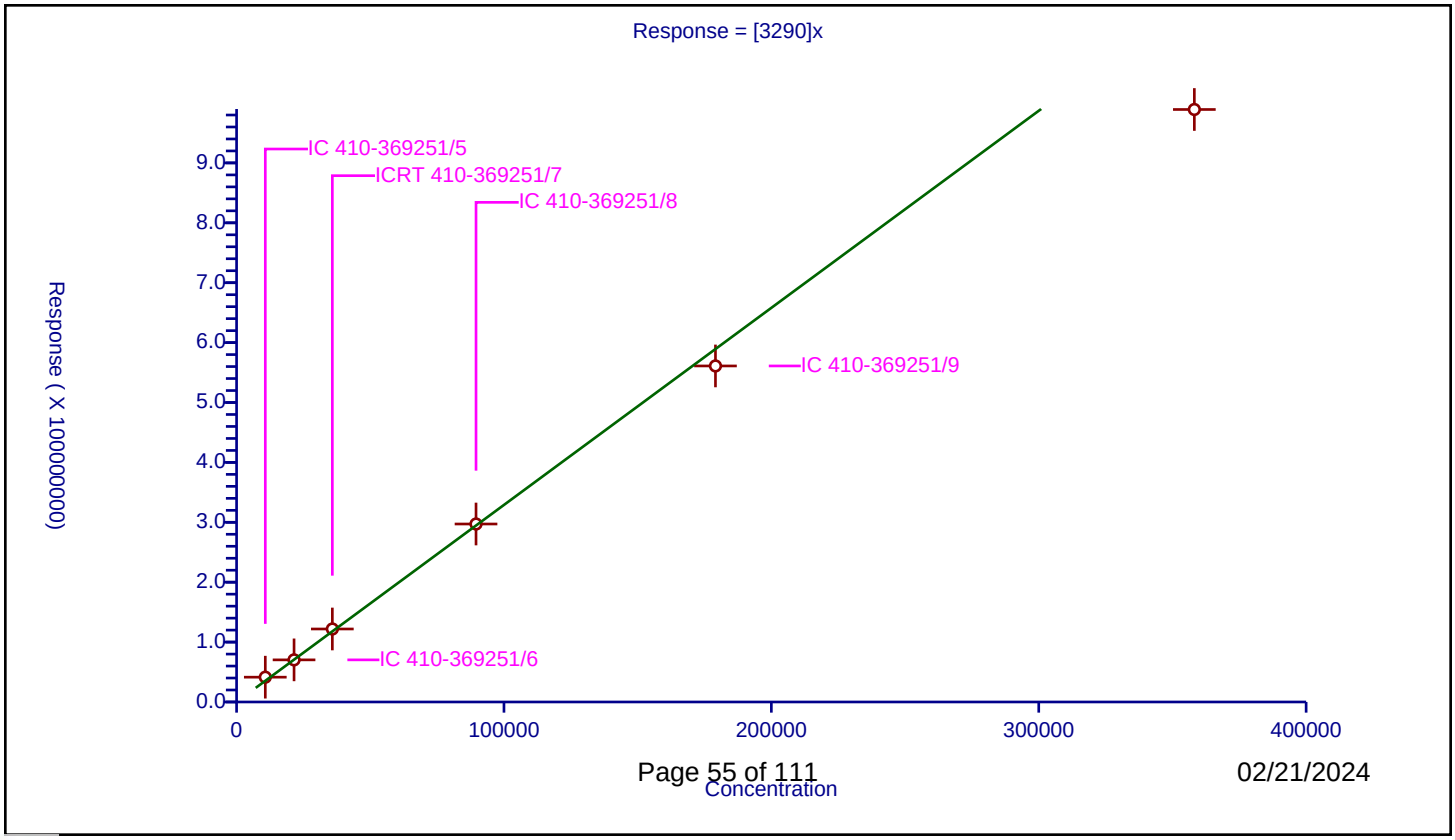
Curve Coefficients

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 Environment Testing, LLC Job No.: 410-159923-1

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 Environment Testing, LLC Job No.: 410-159923-1

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 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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

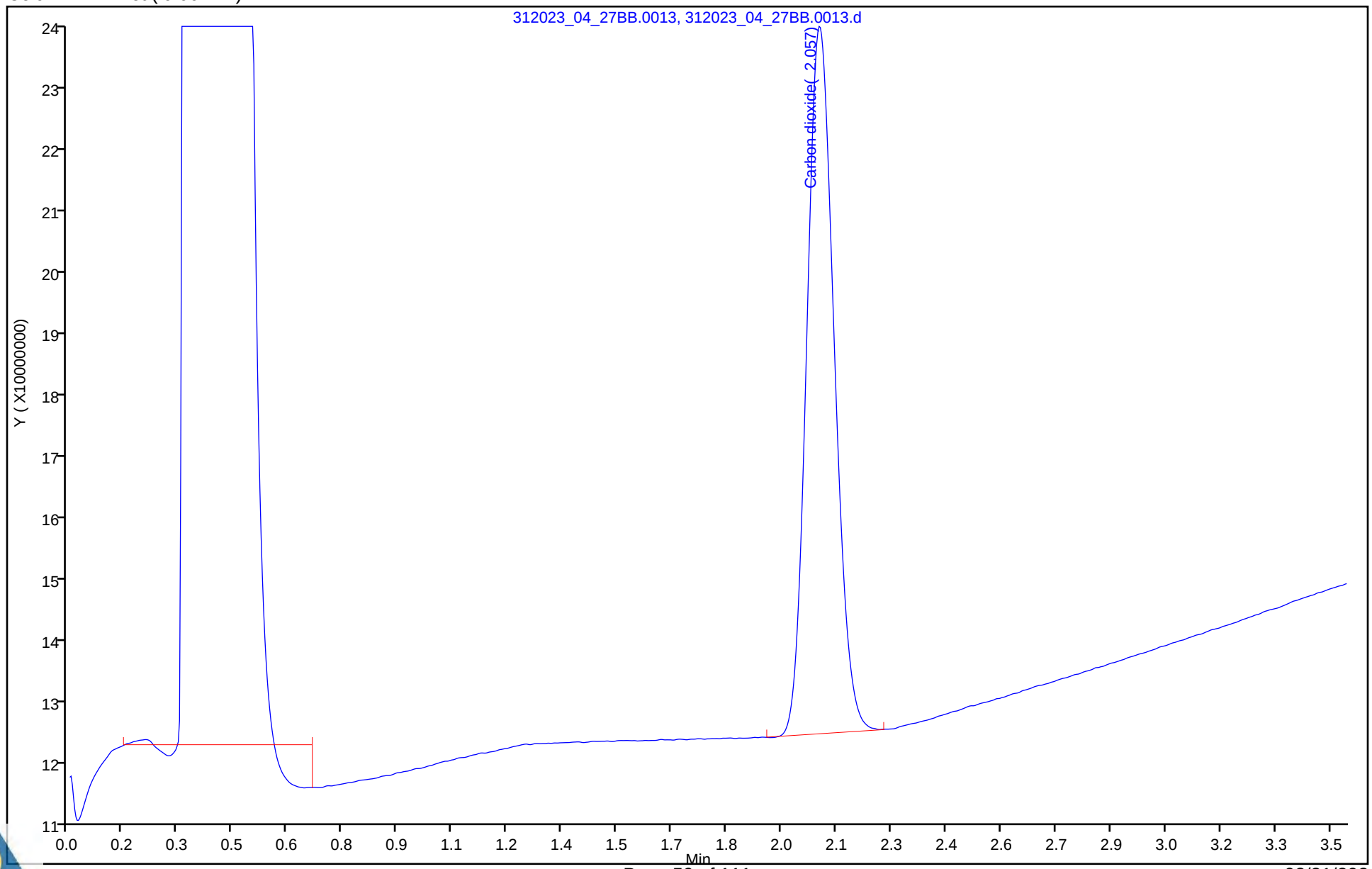
Report Date: 28-Apr-2023 08:51:00 Chrom Revision: 2.3 20-Apr-2023 08:27:48

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 Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCVRT 410-471392/6 Calibration Date: 02/08/2024 10:44

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_8BB.0006.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	3723		40500	35800	13.2	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCVRT 410-471392/6
Calibration Date: 02/08/2024 10:44

Instrument ID: 19506-B
Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm)
Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_8BB.0006.d
Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.04	2.01	2.07

Report Date: 09-Feb-2024 03:46:09 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0006.d				
Lims ID:	ccvrt				
Client ID:					
Sample Type:	CCVRT				
Inject. Date:	08-Feb-2024 10:44:00	ALS Bottle#:	0	Worklist Smp#:	6
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-006				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:08	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.042	2.042	0.000	133356757	H 35820	40532	

Reagents:

EPH_CO2MS_00006 Amount Added: 100.00 Units: uL

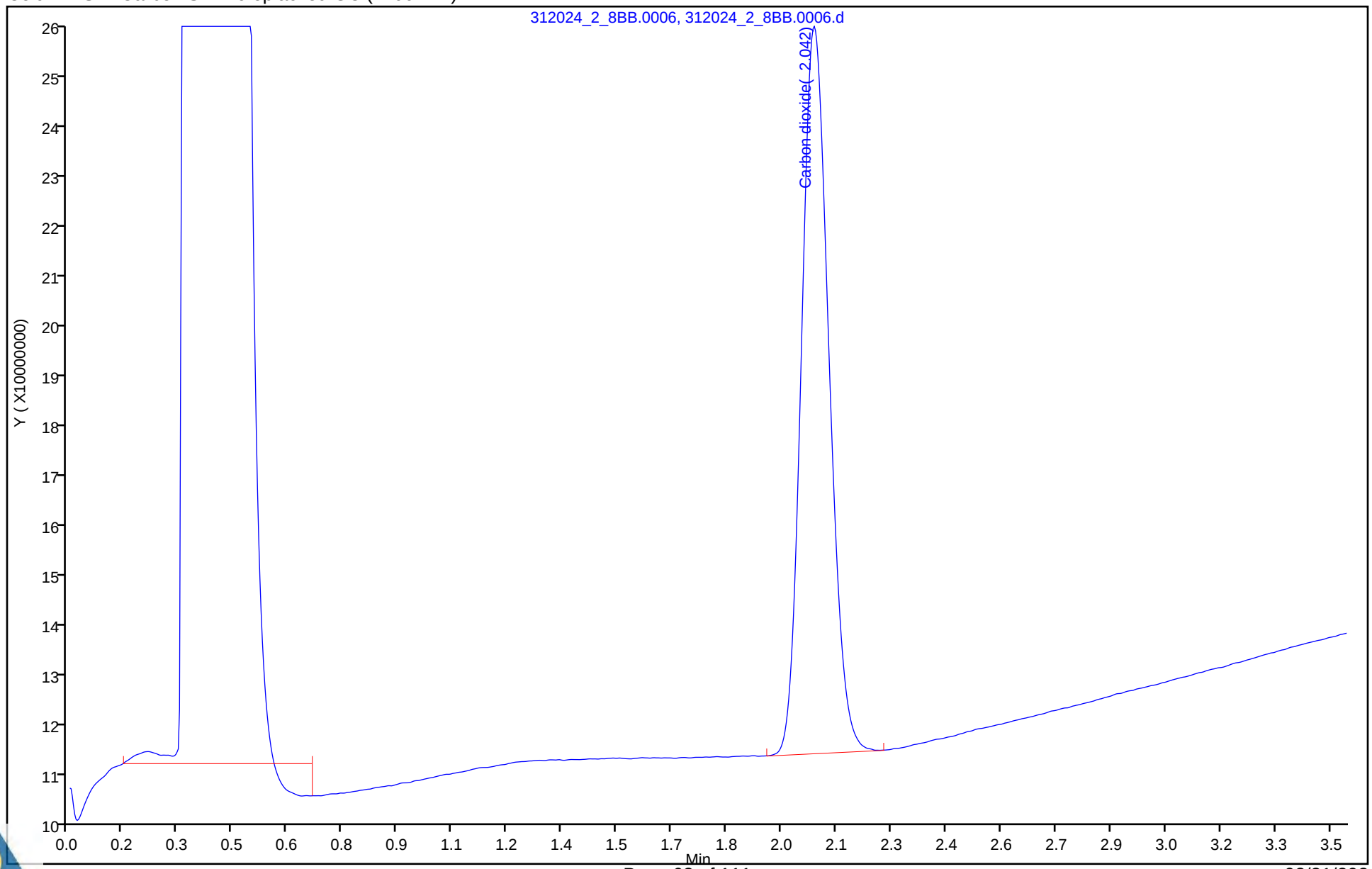
Report Date: 09-Feb-2024 03:46:09 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0006.d

Injection Date:	08-Feb-2024 10:44:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccvrt			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: ShinCarbon ST Microplacked GC (1.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471392/25 Calibration Date: 02/08/2024 13:48

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_8BB.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	3607		39300	35800	9.6	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471392/25 Calibration Date: 02/08/2024 13:48

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_8BB.0025.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.04	2.01	2.07

Report Date: 09-Feb-2024 03:46:15 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0025.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	08-Feb-2024 13:48:00	ALS Bottle#:	0	Worklist Smp#:	25
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-025				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:15	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.042	2.042	0.000	129211046	H 35820	39272	

Reagents:

EPH_CO2MS_00006 Amount Added: 100.00 Units: uL

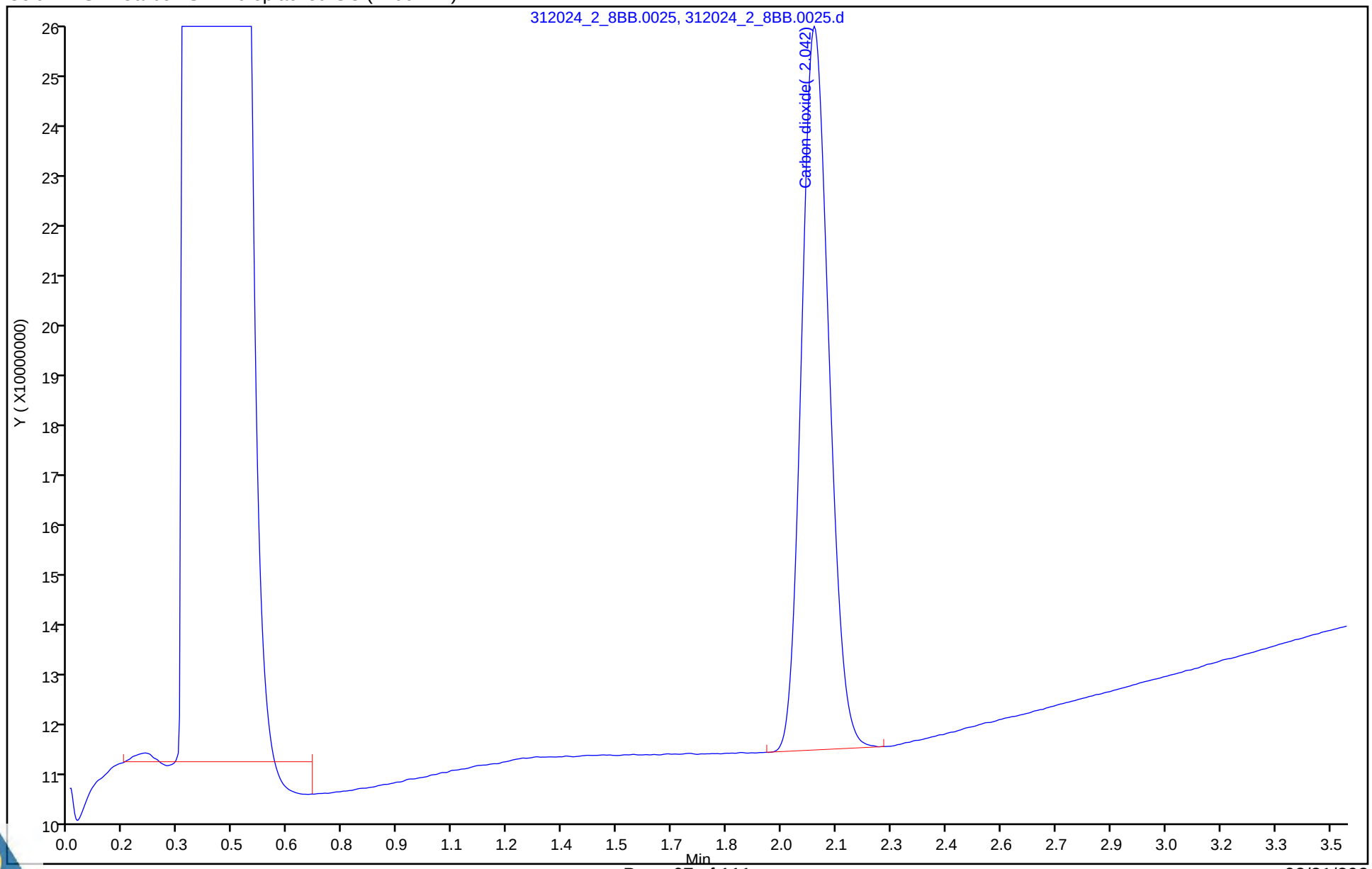
Report Date: 09-Feb-2024 03:46:15 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0025.d

Injection Date:	08-Feb-2024 13:48:00	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: ShinCarbon ST Microplacked GC (1.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471392/36 Calibration Date: 02/08/2024 15:18

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_8BB.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	3435		37400	35800	4.4	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471392/36 Calibration Date: 02/08/2024 15:18

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_8BB.0036.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.04	2.01	2.07

Report Date: 09-Feb-2024 03:46:19 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0036.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	08-Feb-2024 15:18:00	ALS Bottle#:	0	Worklist Smp#:	36
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-036				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:19	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.044	2.042	0.002	123039426	H 35820	37397	

Reagents:

EPH_CO2MS_00006 Amount Added: 100.00 Units: uL

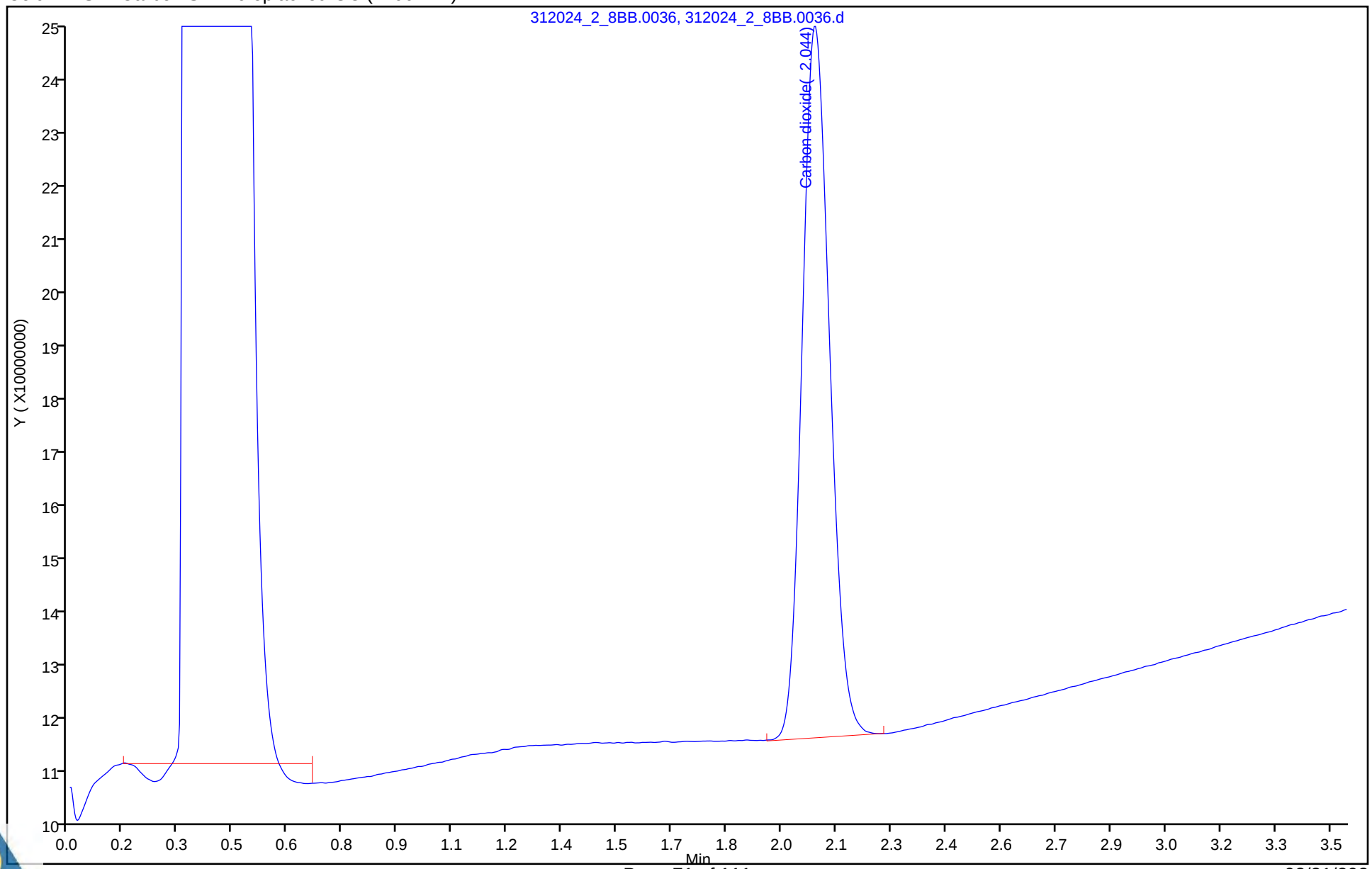
Report Date: 09-Feb-2024 03:46:19 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0036.d

Injection Date:	08-Feb-2024 15:18:00	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: ShinCarbon ST Microplacked GC (1.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471392/43 Calibration Date: 02/08/2024 16:16

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_8BB.0043.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	3350		36500	35800	1.8	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471392/43 Calibration Date: 02/08/2024 16:16

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_8BB.0043.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.04	2.01	2.07

Report Date: 09-Feb-2024 03:46:21 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0043.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	08-Feb-2024 16:16:00	ALS Bottle#:	0	Worklist Smp#:	43
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-043				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:21	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.042	2.042	0.000	119981108	H 35820	36467	

Reagents:

EPH_CO2MS_00006 Amount Added: 100.00 Units: uL

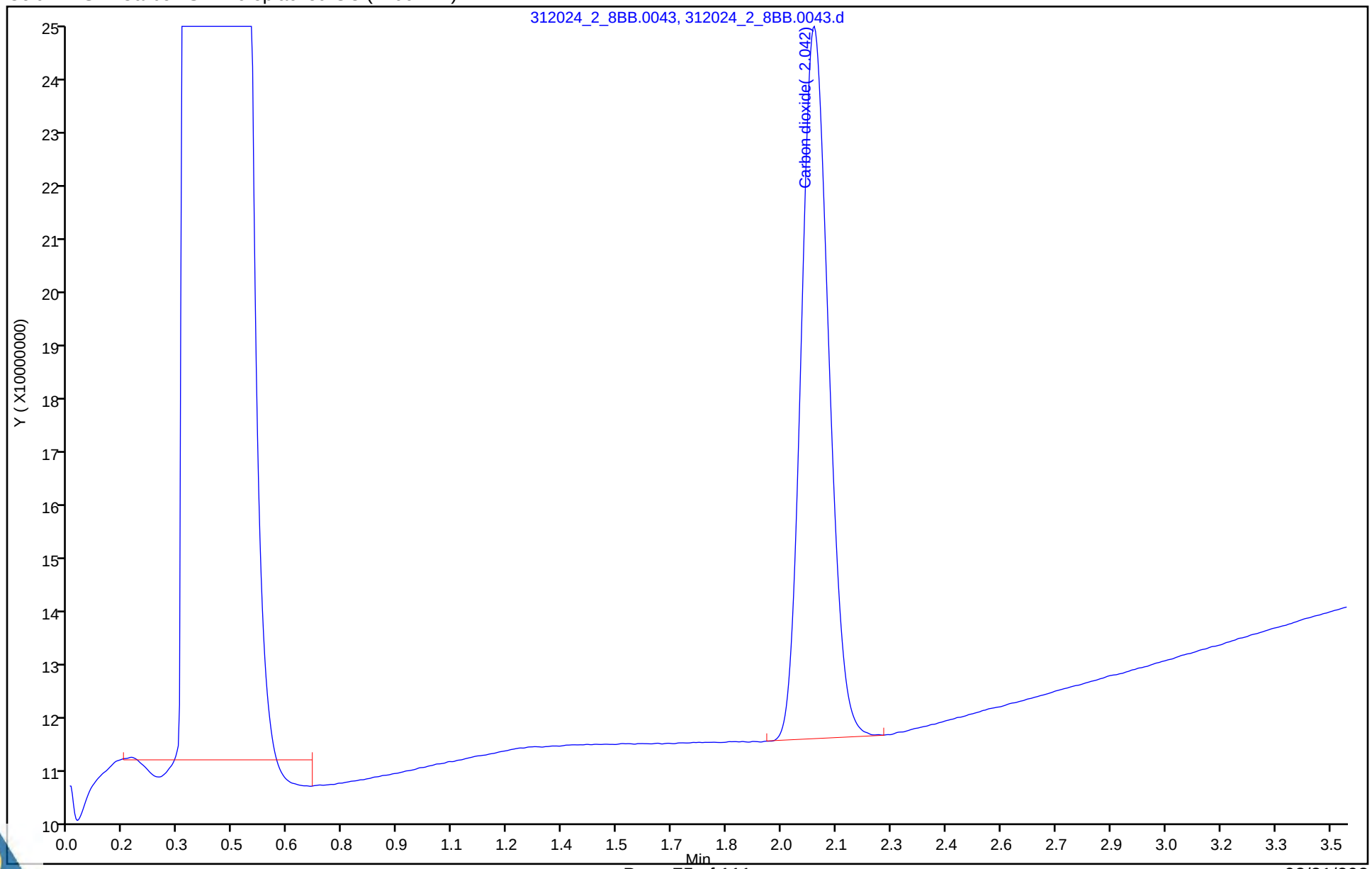
Report Date: 09-Feb-2024 03:46:21 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0043.d

Injection Date:	08-Feb-2024 16:16:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	43
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCVRT 410-471838/2 Calibration Date: 02/09/2024 09:38

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_9BB.0002.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	3597		39200	35800	9.3	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC
Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCVRT 410-471838/2
Calibration Date: 02/09/2024 09:38

Instrument ID: 19506-B
Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm)
Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_9BB.0002.d
Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.04	2.01	2.07

Report Date: 12-Feb-2024 03:20:39 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0002.d				
Lims ID:	ccvrt				
Client ID:					
Sample Type:	CCVRT				
Inject. Date:	09-Feb-2024 09:38:00	ALS Bottle#:	0	Worklist Smp#:	2
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:	ccvrt				
Misc. Info.:	410-0105978-002				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	12-Feb-2024 03:20:39	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1662				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.042	2.042	0.000	128827143	H 35820	39156	

Reagents:

EPH_CO2MS_00006 Amount Added: 100.00 Units: uL

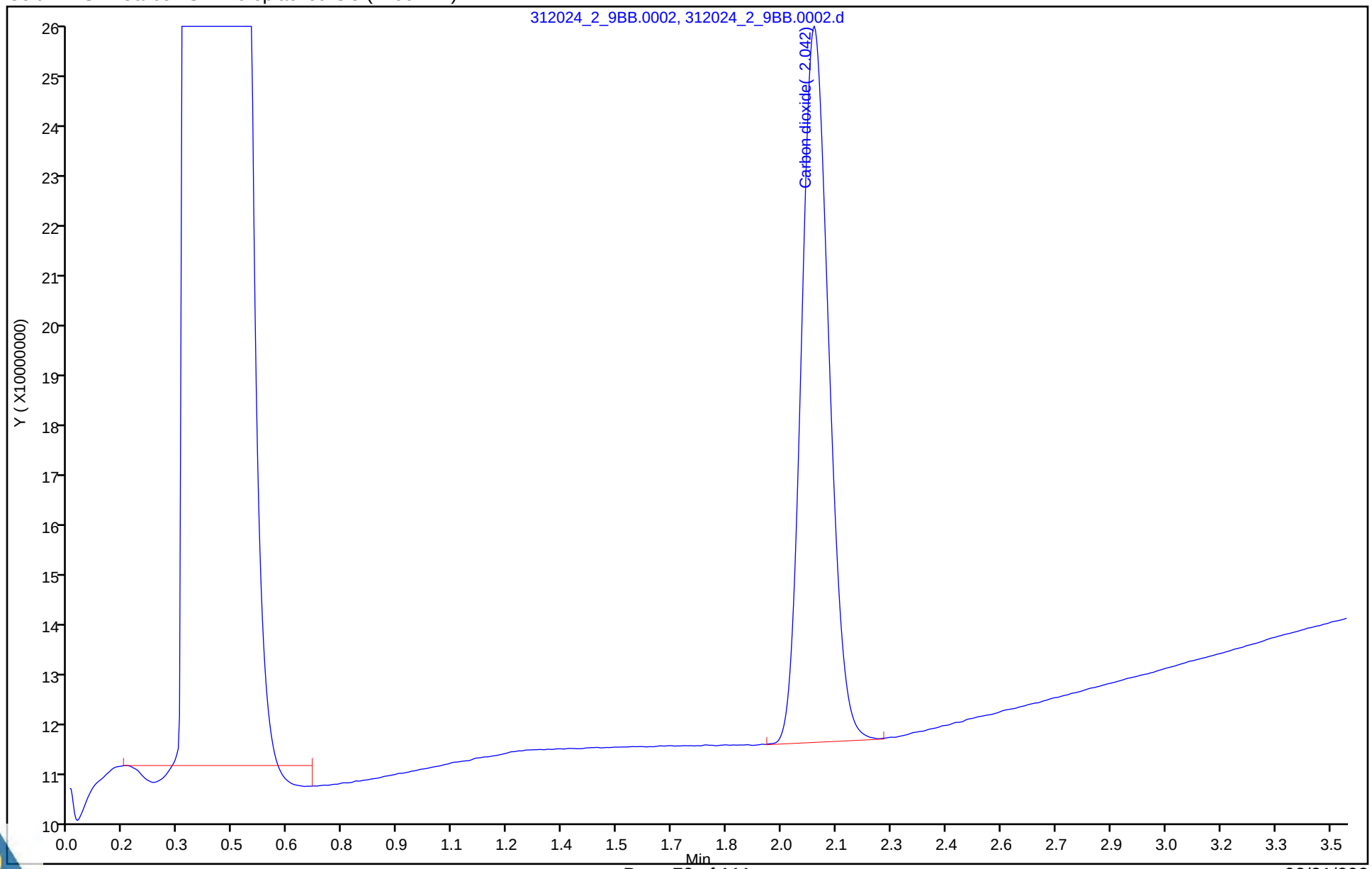
Report Date: 12-Feb-2024 03:20:39 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0002.d

Injection Date:	09-Feb-2024 09:38:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccvrt			Worklist Smp#:	2
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471838/13 Calibration Date: 02/09/2024 11:31

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_9BB.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	3403		37000	35800	3.4	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471838/13 Calibration Date: 02/09/2024 11:31

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_9BB.0013.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.04	2.01	2.07

Report Date: 12-Feb-2024 03:20:43 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0013.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	09-Feb-2024 11:31:00	ALS Bottle#:	0	Worklist Smp#:	13
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105978-013				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	12-Feb-2024 03:20:43	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1662				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.042	2.042	0.000	121881678	H 35820	37045	

Reagents:

EPH_CO2MS_00006 Amount Added: 100.00 Units: uL

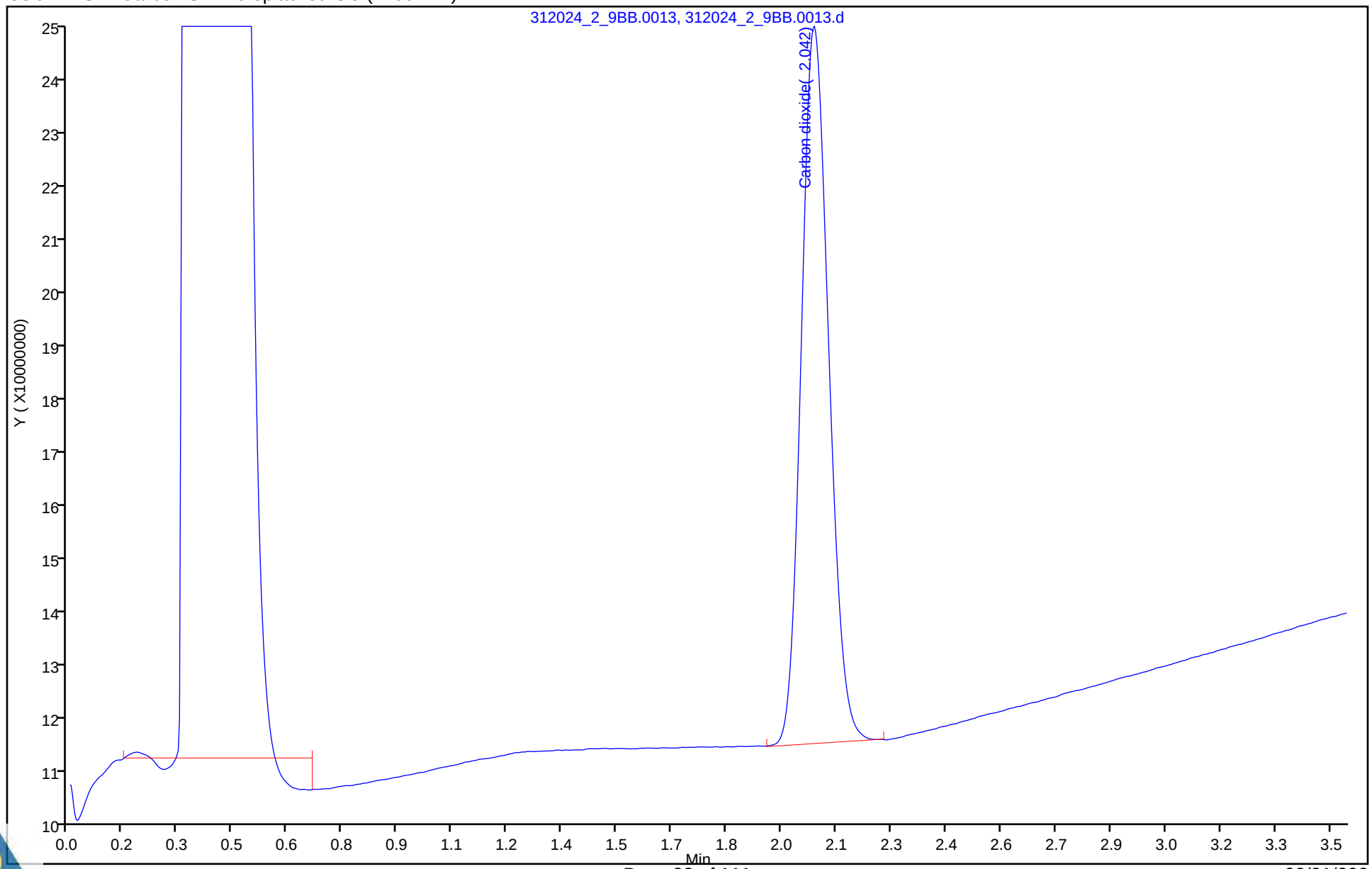
Report Date: 12-Feb-2024 03:20:43 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0013.d

Injection Date:	09-Feb-2024 11:31:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			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: ShinCarbon ST Microplacked GC (1.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471838/18 Calibration Date: 02/09/2024 12:10

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_9BB.0018.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	3483		37900	35800	5.9	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Lab Sample ID: CCV 410-471838/18 Calibration Date: 02/09/2024 12:10

Instrument ID: 19506-B Calib Start Date: 04/27/2023 09:59

GC Column: 19809 ID: 1.00(mm) Calib End Date: 04/27/2023 10:37

Lab File ID: 312024_2_9BB.0018.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	2.04	2.01	2.07

Report Date: 12-Feb-2024 03:20:44 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0018.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	09-Feb-2024 12:10:00	ALS Bottle#:	0	Worklist Smp#:	18
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105978-018				
Operator ID:		Instrument ID:	19506-B		
Sublist:	chrom-RSK_CO2_19506B*sub1				
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	12-Feb-2024 03:20:44	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1662				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.043	2.042	0.000	124772722H	35820	37923	

Reagents:

EPH_CO2MS_00006 Amount Added: 100.00 Units: uL

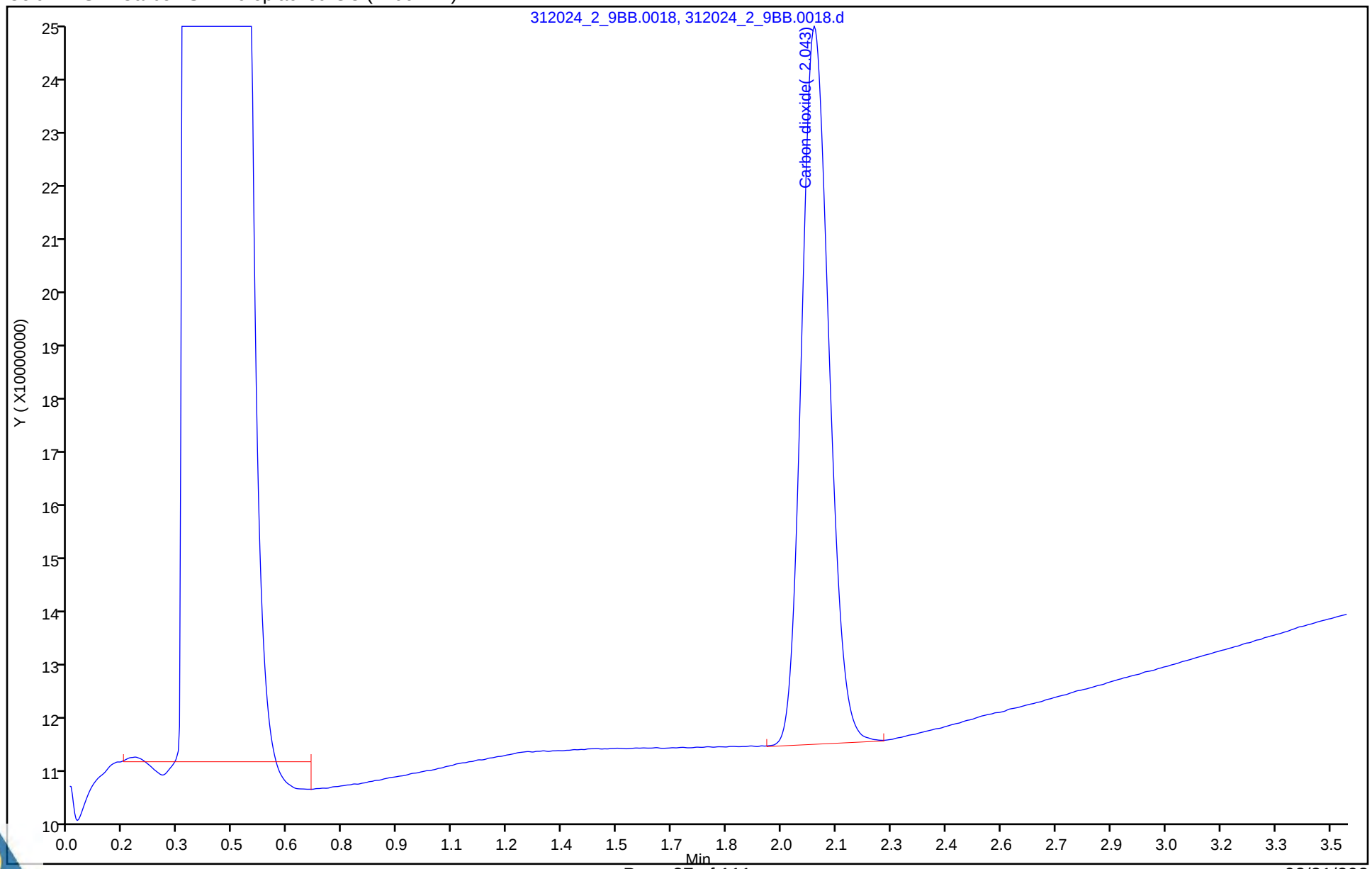
Report Date: 12-Feb-2024 03:20:44 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0018.d

Injection Date:	09-Feb-2024 12:10:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	18
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-471442/1-A

Matrix: Water Lab File ID: 312024_2_8BB.0026.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 02/08/2024 13:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: 19809 ID: 1(mm)

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

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

Analysis Batch No.: 471392 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-38-9	Carbon dioxide	5600	U	12000	11000	5600

Report Date: 09-Feb-2024 03:46:15 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0026.d				
Lims ID:	MB 410-471442/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	08-Feb-2024 13:56:00	ALS Bottle#:	0	Worklist Smp#:	26
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-026				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:15	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.054	2.042	0.012	1675595	H	509.3	

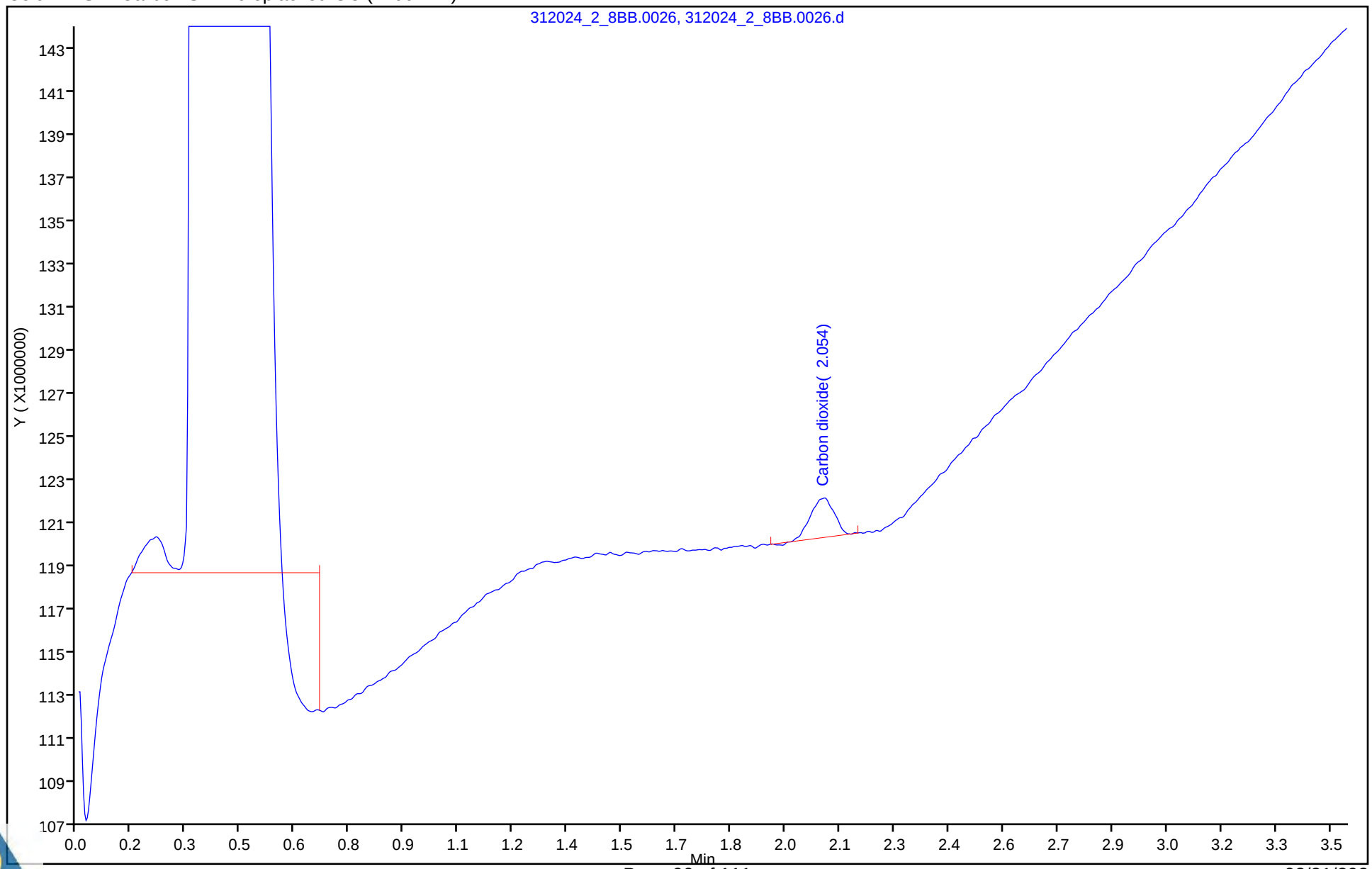
Report Date: 09-Feb-2024 03:46:15 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0026.d

Injection Date:	08-Feb-2024 13:56:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	MB 410-471442/1-A			Worklist Smp#:	26
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-471859/1-A

Matrix: Water Lab File ID: 312024_2_9BB.0003.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 02/09/2024 09:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: 19809 ID: 1(mm)

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

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

Analysis Batch No.: 471838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-38-9	Carbon dioxide	5600	U	12000	11000	5600

Report Date: 12-Feb-2024 03:20:39 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0003.d				
Lims ID:	MB 410-471859/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	09-Feb-2024 09:56:00	ALS Bottle#:	0	Worklist Smp#:	3
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105978-003				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	12-Feb-2024 03:20:39	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1662				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.050	2.042	0.008	2530048H		769.0	

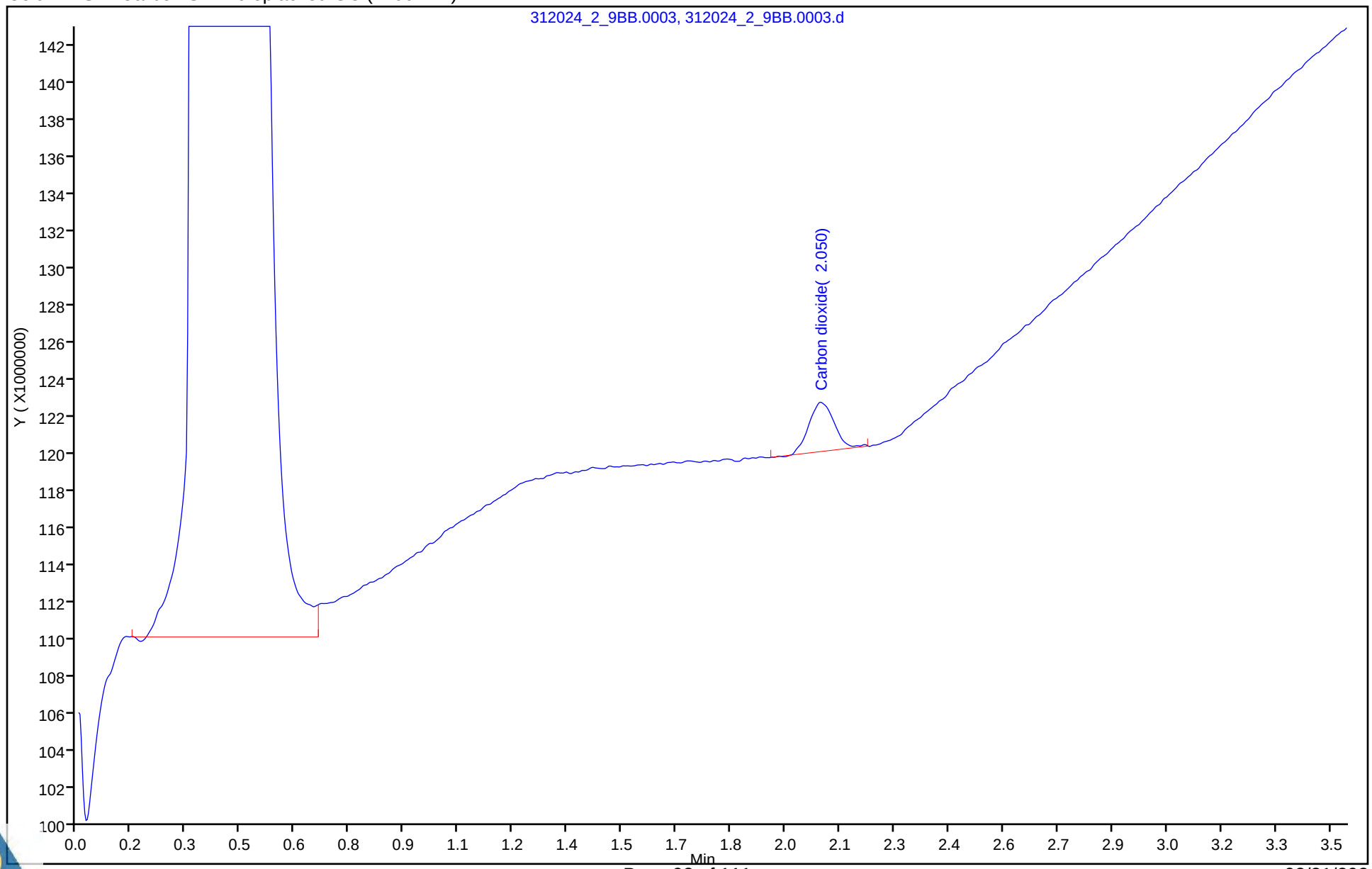
Report Date: 12-Feb-2024 03:20:39 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0003.d

Injection Date:	09-Feb-2024 09:56:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	MB 410-471859/1-A			Worklist Smp#:	3
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-471442/2-A

Matrix: Water Lab File ID: 312024_2_8BB.0027.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 02/08/2024 14:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: 19809 ID: 1(mm)

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

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

Analysis Batch No.: 471392 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-38-9	Carbon dioxide	37000		12000	11000	5600

Report Date: 09-Feb-2024 03:46:16 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0027.d				
Lims ID:	LCS 410-471442/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	08-Feb-2024 14:03:00	ALS Bottle#:	0	Worklist Smp#:	27
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105871-027				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	09-Feb-2024 03:46:15	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1614				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.044	2.042	0.002	121710244	H 35820	36993	

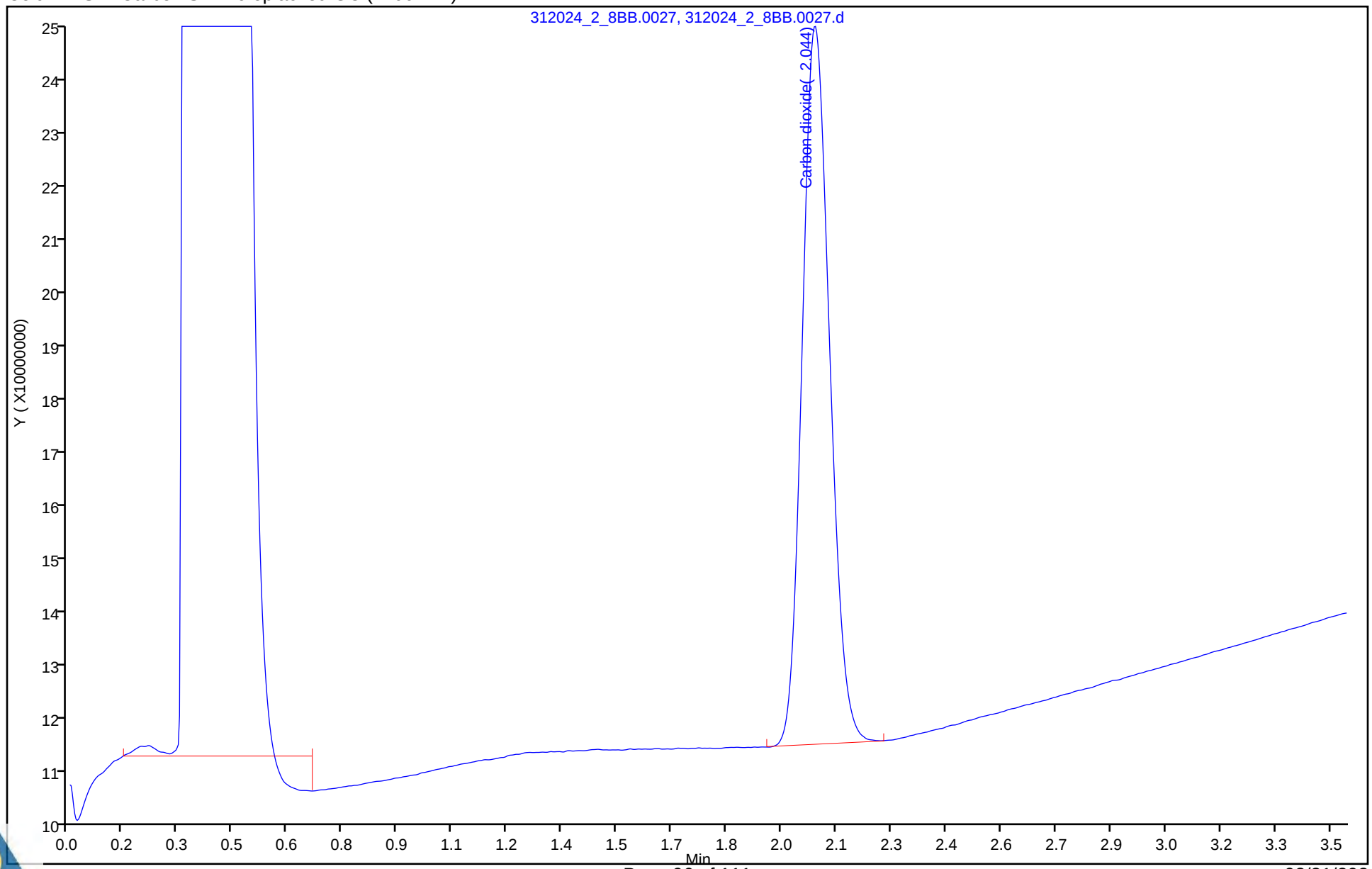
Report Date: 09-Feb-2024 03:46:16 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240208-105871.b\312024_2_8BB.0027.d

Injection Date:	08-Feb-2024 14:03:00	Instrument ID:	19506-B	Operator ID:	
Lims ID:	LCS 410-471442/2-A			Worklist Smp#:	27
Client ID:					
Purge Vol:	1.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	RSK_CO2_19506B	Limit Group:	GCV - RSK175 CO2		

Column: ShinCarbon ST Microplacked GC (1.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-471859/2-A

Matrix: Water Lab File ID: 312024_2_9BB.0004.d

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 02/09/2024 10:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: 19809 ID: 1(mm)

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

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

Analysis Batch No.: 471838 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-38-9	Carbon dioxide	39800		12000	11000	5600

Report Date: 12-Feb-2024 03:20:40 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0004.d				
Lims ID:	LCS 410-471859/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	09-Feb-2024 10:04:00	ALS Bottle#:	0	Worklist Smp#:	4
Purge Vol:	1.000 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	410-0105978-004				
Operator ID:		Instrument ID:	19506-B		
Method:	\\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\RSK_CO2_19506B.m				
Limit Group:	GCV - RSK175 CO2				
Last Update:	12-Feb-2024 03:20:39	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 :	ShinCarbon ST Microplacked GC (1.00 mm)		Det: 0FIDA		
Process Host:	CTX1662				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	2.041	2.042	-0.001	131007297H	35820	39818	

Report Date: 12-Feb-2024 03:20:40 Chrom Revision: 2.3 02-Feb-2024 10:24:08

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20240209-105978.b\312024_2_9BB.0004.d

Injection Date: 09-Feb-2024 10:04:00 Instrument ID: 19506-B Operator ID:

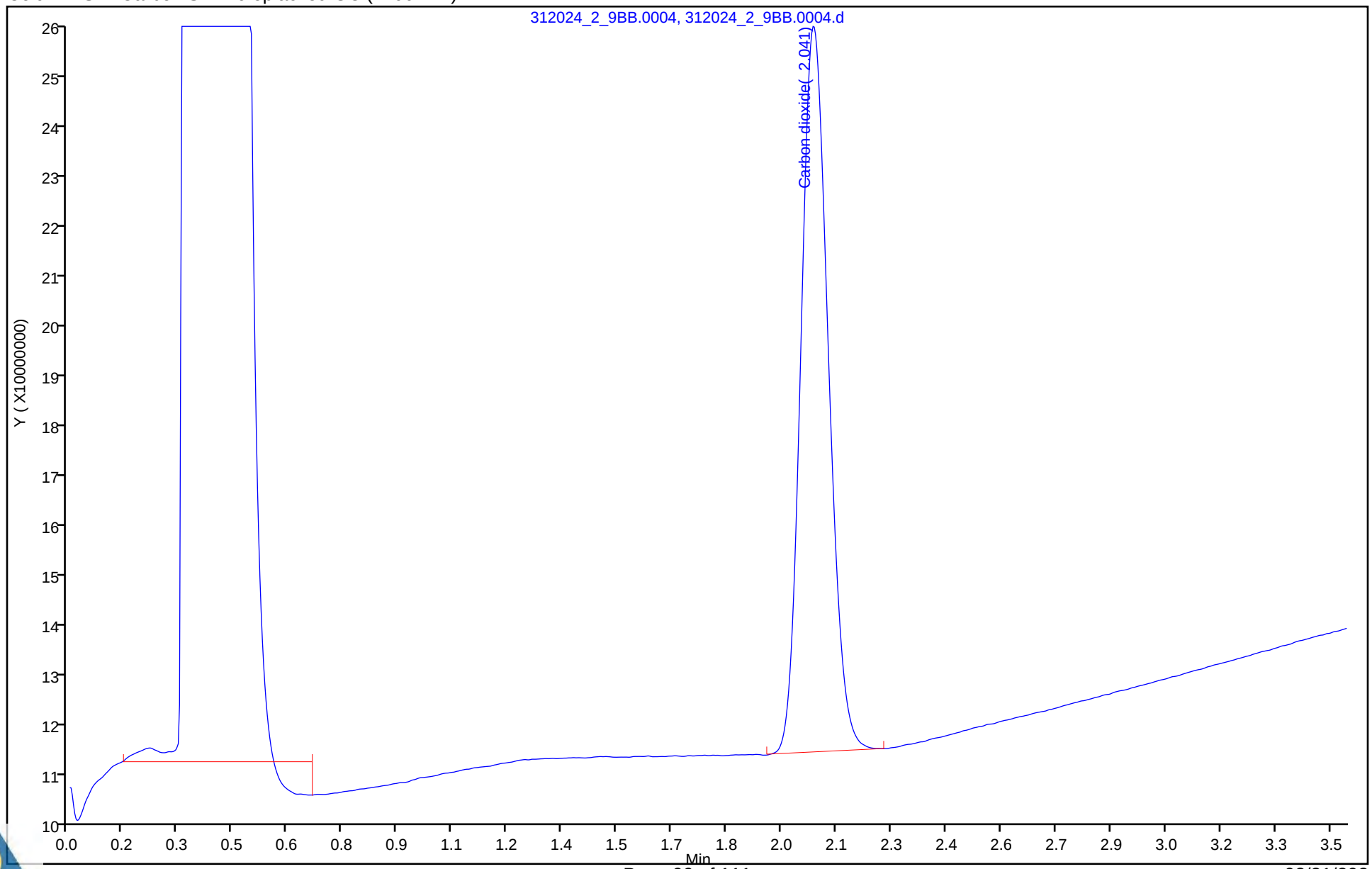
Lims ID: LCS 410-471859/2-A Worklist Smp#: 4

Client ID:

Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0

Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2

Column: ShinCarbon ST Microplacked GC (1.00 mm)



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC Job No.: 410-159923-1

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)
ZZZZZ		04/27/2023 14:50	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 14:58	1		HP Plot 0.53(mm)
ZZZZZ		04/27/2023 15:06	1		HP Plot 0.53(mm)
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)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC

Job No.: 410-159923-1

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 16:28	1		HP Plot 0.53(mm)
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 Environment Testing, LLC

Job No.: 410-159923-1

SDG No.:

Instrument ID: 19506-B

Start Date: 02/08/2024 10:44

Analysis Batch Number: 471392

End Date: 02/08/2024 16:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 410-471392/6		02/08/2024 10:44	1	312024_2_8BB.0006.d	19809 1(mm)
ZZZZZ		02/08/2024 11:06	1		19809 1(mm)
ZZZZZ		02/08/2024 11:14	1		19809 1(mm)
ZZZZZ		02/08/2024 11:22	1		19809 1(mm)
ZZZZZ		02/08/2024 11:29	1		19809 1(mm)
ZZZZZ		02/08/2024 11:37	1		19809 1(mm)
ZZZZZ		02/08/2024 11:45	1		19809 1(mm)
ZZZZZ		02/08/2024 11:53	1		19809 1(mm)
ZZZZZ		02/08/2024 12:01	1		19809 1(mm)
ZZZZZ		02/08/2024 12:08	1		19809 1(mm)
ZZZZZ		02/08/2024 12:16	1		19809 1(mm)
CCV 410-471392/17		02/08/2024 12:24	1		19809 1(mm)
ZZZZZ		02/08/2024 12:55	1		19809 1(mm)
ZZZZZ		02/08/2024 13:02	1		19809 1(mm)
ZZZZZ		02/08/2024 13:10	1		19809 1(mm)
ZZZZZ		02/08/2024 13:17	1		19809 1(mm)
ZZZZZ		02/08/2024 13:25	1		19809 1(mm)
ZZZZZ		02/08/2024 13:33	1		19809 1(mm)
ZZZZZ		02/08/2024 13:40	10		19809 1(mm)
CCV 410-471392/25		02/08/2024 13:48	1	312024_2_8BB.0025.d	19809 1(mm)
MB 410-471442/1-A		02/08/2024 13:56	1	312024_2_8BB.0026.d	19809 1(mm)
LCS 410-471442/2-A		02/08/2024 14:03	1	312024_2_8BB.0027.d	19809 1(mm)
ZZZZZ		02/08/2024 14:11	1		19809 1(mm)
ZZZZZ		02/08/2024 14:19	1		19809 1(mm)
ZZZZZ		02/08/2024 14:26	1		19809 1(mm)
ZZZZZ		02/08/2024 14:34	1		19809 1(mm)
ZZZZZ		02/08/2024 14:41	1		19809 1(mm)
410-159923-1	16WW55-240205	02/08/2024 14:54	1	312024_2_8BB.0033.d	19809 1(mm)
ZZZZZ		02/08/2024 15:02	1		19809 1(mm)
410-159923-3	16WW48-240205	02/08/2024 15:10	1	312024_2_8BB.0035.d	19809 1(mm)
CCV 410-471392/36		02/08/2024 15:18	1	312024_2_8BB.0036.d	19809 1(mm)
410-159923-4	16EW03-240205	02/08/2024 15:27	1	312024_2_8BB.0037.d	19809 1(mm)
ZZZZZ		02/08/2024 15:35	1		19809 1(mm)
ZZZZZ		02/08/2024 15:43	1		19809 1(mm)
ZZZZZ		02/08/2024 15:51	1		19809 1(mm)
ZZZZZ		02/08/2024 15:59	1		19809 1(mm)
ZZZZZ		02/08/2024 16:08	1		19809 1(mm)
CCV 410-471392/43		02/08/2024 16:16	1	312024_2_8BB.0043.d	19809 1(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Environment Testing, LLC

Job No.: 410-159923-1

SDG No.:

Instrument ID: 19506-B

Start Date: 02/09/2024 09:38

Analysis Batch Number: 471838

End Date: 02/09/2024 12:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 410-471838/2		02/09/2024 09:38	1	312024_2_9BB.0002.d	19809 1(mm)
MB 410-471859/1-A		02/09/2024 09:56	1	312024_2_9BB.0003.d	19809 1(mm)
LCS 410-471859/2-A		02/09/2024 10:04	1	312024_2_9BB.0004.d	19809 1(mm)
ZZZZZ		02/09/2024 10:28	1		19809 1(mm)
ZZZZZ		02/09/2024 10:36	1		19809 1(mm)
ZZZZZ		02/09/2024 10:44	1		19809 1(mm)
ZZZZZ		02/09/2024 10:52	1		19809 1(mm)
ZZZZZ		02/09/2024 10:59	1		19809 1(mm)
ZZZZZ		02/09/2024 11:07	1		19809 1(mm)
ZZZZZ		02/09/2024 11:15	1		19809 1(mm)
ZZZZZ		02/09/2024 11:23	1		19809 1(mm)
CCV 410-471838/13		02/09/2024 11:31	1	312024_2_9BB.0013.d	19809 1(mm)
ZZZZZ		02/09/2024 11:39	1		19809 1(mm)
ZZZZZ		02/09/2024 11:46	1		19809 1(mm)
ZZZZZ		02/09/2024 11:54	1		19809 1(mm)
410-159923-2	16WW41-240205	02/09/2024 12:02	10	312024_2_9BB.0017.d	19809 1(mm)
CCV 410-471838/18		02/09/2024 12:10	1	312024_2_9BB.0018.d	19809 1(mm)

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-159923-1

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.: 410-159923-1

SDG No.:

Batch Number: 471442 Batch Start Date: 02/08/24 09:54 Batch Analyst: Omorogbe, Malachi

Batch Method: RSK-175 Batch End Date: 02/08/24 10:56

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	Headspace	EPH_CO2MS 00006	
MB 410-471442/1		RSK-175, RSK-175			5 mL	5 mL			
LCS 410-471442/2		RSK-175, RSK-175			5 mL	5 mL		0.1 mL	
410-159923-A-1	16WW55-240205	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		
410-159923-A-3	16WW48-240205	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		
410-159923-A-4	16EW03-240205	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		

Batch Notes	
Pipette/Syringe/Dispenser ID	7105
pH Indicator ID	10BDH2631

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.: 410-159923-1

SDG No.:

Batch Number: 471859 Batch Start Date: 02/09/24 09:54 Batch Analyst: Omorogbe, Malachi

Batch Method: RSK-175 Batch End Date: 02/09/24 10:19

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	Headspace	EPH_CO2MS 00006	AnalysisComment
MB 410-471859/1		RSK-175, RSK-175			5 mL	5 mL			
LCS 410-471859/2		RSK-175, RSK-175			5 mL	5 mL		0.1 mL	
410-159923-B-2	16WW41-240205	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	No		DF10

Batch Notes	
Pipette/Syringe/Dispenser ID	7105
pH Indicator ID	10BDH2631

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: **Dept of Defense** **COC ID:** **24666**

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: James Guin
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: James.Guin@alsglobal.com
Alternate Contact:
Email:

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS24020246
TSR: Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24020246-01**	**16WW55_240205**	**Groundwater**	**05 Feb 2024 07:25**
	RSK-CO2; Level II & IV, DoD, Equ_APTIM_GISKey (Aptim)			13 Feb 2024
2.	**HS24020246-02**	**16WW41_240205**	**Groundwater**	**05 Feb 2024 08:15**
	RSK-CO2; Level II & IV, DoD, Equ_APTIM_GISKey (Aptim)			13 Feb 2024
3.	**HS24020246-03**	**16WW48_240205**	**Groundwater**	**05 Feb 2024 09:05**
	RSK-CO2; Level II & IV, DoD, Equ_APTIM_GISKey (Aptim)			13 Feb 2024
4.	**HS24020246-04**	**16EW03_240205**	**Groundwater**	**05 Feb 2024 09:50**
	RSK-CO2; Level II & IV, DoD, Equ_APTIM_GISKey (Aptim)			13 Feb 2024

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: 2/6/24 1800;

Received By: _____ Date/Time: 2/7/24 1000

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

Raw 0.7- COR 0.7

10450 Stancliff Rd, Ste 210
Houston, TX 77099
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Purchase Order

PO: HS24020246

VENDOR:

Eurofins Lancaster Laboratories Envt Testing
2425 New Holland Pike
Lancaster, PA 17601

Phone: +1 717 656 2300

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@alsglobal.com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	24666
TSR:	Sonia West

	Item	Catalog No	Unit Price	Quantity	Ext Price
1.	RSK-CO2; Level II & IV, DoD, Equ_APTIM_GISKey (Aptim)	NA		4	

Order Total:

RIGHT SOLUTIONS | RIGHT PARTNER

410-159923 Chain of Custody

10450 Stancliff Rd, Ste 210
Houston, TX 77099
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F: +1 281 530 5887
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Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **24666**

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:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone	+1 281 530 5656
Email:	James Guin@alsglobal com
Alternate Contact:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone.	+1 281 530 5656
Reference·	HS24020246
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24020246-01**	**16WW55_240205**	**Groundwater**	**05 Feb 2024 07:25**
	RSK-CO2, Level II & IV DoD, Equ_APTIM_GISKey (Aptim)			13 Feb 2024
2.	**HS24020246-02**	**16WW41_240205**	**Groundwater**	**05 Feb 2024 08:15**
	RSK-CO2 Level II & IV DoD, Equ_APTIM_GISKey (Aptim)			13 Feb 2024
3.	**HS24020246-03**	**16WW48_240205**	**Groundwater**	**05 Feb 2024 09:05**
	RSK-CO2, Level II & IV, DoD Equ_APTIM_GISKey (Aptim)			13 Feb 2024
4.	**HS24020246-04**	**16EW03_240205**	**Groundwater**	**05 Feb 2024 09:50**
	RSK CO2 Level II & IV, DoD Equ_APTIM_GISKey (Aptim)			13 Feb 2024

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 2/6/24 1800

Received By _____ Date/Time 2/7/24 1000

Cooler ID(s) _____ Temperature(s) _____

Raw 0.7-0.0-0.7

Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-159923-1

Login Number: 159923
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 acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=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	

HS24020576 LHAAP Site 16 Cover Page

ALS WO# HS24020576

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Form 7 - CCV

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Raw Data VOA9_458576 U240209

Raw Data VOA9_458837 U240214

Raw Data VOA9_458986 V240215

Raw Data VOA9_458988 V240215

HS24020576-GCSEMI-RSK-175

Form 1 - Sample Results

Form 3A - MS/MSD

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Raw Data FID_4_322102 170124

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HS24020576 Wetchem TOC_W 5310B

HS24020576 E2400136 Perch Level IV Report

CoverLetter

Certificate of Analysis

Chain of Custody

Preparation Sheets

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WorkOrder: HS24020576

LHAAP Site 16

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

27-Feb-2024

HS24020576 LHAAP Site 16 Final REV01

ALS WO# HS24020576

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February 28, 2024

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS24020576**

Laboratory Results for: **LHAAP Site 16**

Dear Marcia Olive,

ALS Environmental received 11 sample(s) on Feb 07, 2024 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: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Work Order: HS24020576

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24020576-01	16RW09-240206	Groundwater		06-Feb-2024 07:10	07-Feb-2024 09:20	☐
HS24020576-02	16RW10-240206	Groundwater		06-Feb-2024 07:55	07-Feb-2024 09:20	☐
HS24020576-03	16RW12-240206	Groundwater		06-Feb-2024 08:40	07-Feb-2024 09:20	☐
HS24020576-04	16RW12-240206-FD	Groundwater		06-Feb-2024 08:40	07-Feb-2024 09:20	☐
HS24020576-05	16WW40-240206	Groundwater		06-Feb-2024 09:25	07-Feb-2024 09:20	☐
HS24020576-06	16WW12-240206	Groundwater		06-Feb-2024 10:15	07-Feb-2024 09:20	☐
HS24020576-07	16WW34-240206	Groundwater		06-Feb-2024 11:00	07-Feb-2024 09:20	☐
HS24020576-08	16WW33-240206	Groundwater		06-Feb-2024 11:40	07-Feb-2024 09:20	☐
HS24020576-09	16WW25-240206	Groundwater		06-Feb-2024 12:30	07-Feb-2024 09:20	☐
HS24020576-10	16WW26-240206	Groundwater		06-Feb-2024 13:10	07-Feb-2024 09:20	☐
HS24020576-11	Trip Blank-240206	Water	CG-111123-494	06-Feb-2024 00:00	07-Feb-2024 09:20	☐

Revision:1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: LHAAP Site 16
Work Order: HS24020576

Work Order Comments

• This report was revised 02/28/24 to update the sample IDs to include a dash (-) rather than an underscore (_).

Work Order Comments

• 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: R458796

Sample ID: HS24020341-08DUP

• DUP is for an unrelated sample (Ethene)

Sample ID: HS24020773-05MS

• MS and MSD are for an unrelated sample

GCMS Volatiles by Method SW8260

Batch ID: R458988

Sample ID: 16RW09_240206 (HS24020576-01)

• Lowest possible dilution due to high concentrations of target analytes.

Sample ID: 16RW10_240206 (HS24020576-02)

• Lowest possible dilution due to high concentrations of target analytes.

Sample ID: 16WW12_240206 (HS24020576-06)

• Lowest possible dilution due to high concentrations of target analytes.

Sample ID: 16WW26_240206 (HS24020576-10)

• Lowest possible dilution due to high concentrations of target analytes.

Sample ID: 16WW40_240206 (HS24020576-05)

• Lowest possible dilution due to high concentrations of target analytes.

Batch ID: R458837

Sample ID: 16RW12_240206-FD (HS24020576-04)

• Surrogate failed outside control limits low. This surrogate is not associated with the target compounds.

WetChemistry by Method SM5310B

Batch ID: R458864

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

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16RW09-240206
Collection Date: 06-Feb-2024 07:10

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	25	U	7.5	25	25	ug/L	25	16-Feb-2024 05:42
1,1-Dichloroethene	25	U	5.0	25	25	ug/L	25	16-Feb-2024 05:42
1,2-Dichloroethane	25	U	5.0	25	25	ug/L	25	16-Feb-2024 05:42
cis-1,2-Dichloroethene	**260**		**5.0**	**25**	**25**	**ug/L**	25	16-Feb-2024 05:42
Methylene chloride	25	U	10	25	50	ug/L	25	16-Feb-2024 05:42
Trichloroethene	**2,800**		**5.0**	**25**	**25**	**ug/L**	25	16-Feb-2024 05:42
Vinyl chloride	**140**		**5.0**	**25**	**25**	**ug/L**	25	16-Feb-2024 05:42
Surr: 1,2-Dichloroethane-d4	*118*			**0**	*81-118*	*%REC*	*25*	*16-Feb-2024 05:42*
Surr: 4-Bromofluorobenzene	*90.3*			**0**	*85-114*	*%REC*	*25*	*16-Feb-2024 05:42*
Surr: Dibromofluoromethane	*113*			**0**	*80-119*	*%REC*	*25*	*16-Feb-2024 05:42*
Surr: Toluene-d8	*102*			**0**	*89-112*	*%REC*	*25*	*16-Feb-2024 05:42*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: E.H.
Ethane	**0.00927**		**0.000144**	**0.000500**	**0.00100**	**mg/L**	1	14-Feb-2024 09:24
Ethene	**0.0351**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	14-Feb-2024 09:24
Methane	**0.849**		**0.00535**	**0.0250**	**0.0250**	**mg/L**	50	14-Feb-2024 10:47
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: DW
Organic Carbon, Total	**1.84**		**0.500**	**1.00**	**1.00**	**mg/L**	1	15-Feb-2024 04:42
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16RW10-240206
Collection Date: 06-Feb-2024 07:55

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	20	U	6.0	20	20	ug/L	20	16-Feb-2024 06:04
1,1-Dichloroethene	20	U	4.0	20	20	ug/L	20	16-Feb-2024 06:04
1,2-Dichloroethane	20	U	4.0	20	20	ug/L	20	16-Feb-2024 06:04
cis-1,2-Dichloroethene	**780**		**4.0**	**20**	**20**	**ug/L**	20	16-Feb-2024 06:04
Methylene chloride	20	U	8.0	20	40	ug/L	20	16-Feb-2024 06:04
Trichloroethene	**1,800**		**4.0**	**20**	**20**	**ug/L**	20	16-Feb-2024 06:04
Vinyl chloride	**310**		**4.0**	**20**	**20**	**ug/L**	20	16-Feb-2024 06:04
Surr: 1,2-Dichloroethane-d4	*118*			**0**	*81-118*	*%REC*	*20*	*16-Feb-2024 06:04*
Surr: 4-Bromofluorobenzene	*89.0*			**0**	*85-114*	*%REC*	*20*	*16-Feb-2024 06:04*
Surr: Dibromofluoromethane	*113*			**0**	*80-119*	*%REC*	*20*	*16-Feb-2024 06:04*
Surr: Toluene-d8	*99.9*			**0**	*89-112*	*%REC*	*20*	*16-Feb-2024 06:04*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: E.H.
Ethane	**0.0160**		**0.000144**	**0.000500**	**0.00100**	**mg/L**	1	14-Feb-2024 10:09
Ethene	**0.0246**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	14-Feb-2024 10:09
Methane	**2.10**		**0.0107**	**0.0500**	**0.0500**	**mg/L**	100	14-Feb-2024 10:58
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

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

Revision: 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16RW12-240206
Collection Date: 06-Feb-2024 08:40

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 03:06
1,1-Dichloroethene	**1.3**		**0.20**	**1.0**	**1.0**	**ug/L**	1	15-Feb-2024 03:06
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 03:06
cis-1,2-Dichloroethene	**110**		**0.20**	**1.0**	**1.0**	**ug/L**	1	15-Feb-2024 03:06
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 03:06
Trichloroethene	**57**		**0.20**	**1.0**	**1.0**	**ug/L**	1	15-Feb-2024 03:06
Vinyl chloride	**15**		**0.20**	**1.0**	**1.0**	**ug/L**	1	15-Feb-2024 03:06
Surr: 1,2-Dichloroethane-d4	*89.4*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 03:06*
Surr: 4-Bromofluorobenzene	*90.2*			**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 03:06*
Surr: Dibromofluoromethane	*89.9*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 03:06*
Surr: Toluene-d8	*96.1*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 03:06*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16RW12-240206-FD
Collection Date: 06-Feb-2024 08:40

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 03:28
1,1-Dichloroethene	**1.4**		**0.20**	**1.0**	**1.0**	**ug/L**	1	15-Feb-2024 03:28
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 03:28
cis-1,2-Dichloroethene	**120**		**0.20**	**1.0**	**1.0**	**ug/L**	1	15-Feb-2024 03:28
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 03:28
Trichloroethene	**57**		**0.20**	**1.0**	**1.0**	**ug/L**	1	15-Feb-2024 03:28
Vinyl chloride	**15**		**0.20**	**1.0**	**1.0**	**ug/L**	1	15-Feb-2024 03:28
Surr: 1,2-Dichloroethane-d4	*87.3*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 03:28*
Surr: 4-Bromofluorobenzene	*84.0*	*S*		**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 03:28*
Surr: Dibromofluoromethane	*87.9*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 03:28*
Surr: Toluene-d8	*90.4*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 03:28*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW40-240206
Collection Date: 06-Feb-2024 09:25

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	5.0	U	1.5	5.0	5.0	ug/L	5	16-Feb-2024 06:26
1,1-Dichloroethene	5.0	U	1.0	5.0	5.0	ug/L	5	16-Feb-2024 06:26
1,2-Dichloroethane	5.0	U	1.0	5.0	5.0	ug/L	5	16-Feb-2024 06:26
cis-1,2-Dichloroethene	**260**		**1.0**	**5.0**	**5.0**	**ug/L**	5	16-Feb-2024 06:26
Methylene chloride	5.0	U	2.0	5.0	10	ug/L	5	16-Feb-2024 06:26
Trichloroethene	**430**		**1.0**	**5.0**	**5.0**	**ug/L**	5	16-Feb-2024 06:26
Vinyl chloride	5.0	U	1.0	5.0	5.0	ug/L	5	16-Feb-2024 06:26
Surr: 1,2-Dichloroethane-d4	*116*			**0**	*81-118*	*%REC*	*5*	*16-Feb-2024 06:26*
Surr: 4-Bromofluorobenzene	*91.6*			**0**	*85-114*	*%REC*	*5*	*16-Feb-2024 06:26*
Surr: Dibromofluoromethane	*118*			**0**	*80-119*	*%REC*	*5*	*16-Feb-2024 06:26*
Surr: Toluene-d8	*101*			**0**	*89-112*	*%REC*	*5*	*16-Feb-2024 06:26*
DISSOLVED GASES BY RSK-175		**Method:RSK-175**						Analyst: E.H.
Ethane	**0.00669**		**0.000144**	**0.000500**	**0.00100**	**mg/L**	1	14-Feb-2024 10:31
Ethene	**0.00417**		**0.000234**	**0.000500**	**0.00100**	**mg/L**	1	14-Feb-2024 10:31
Methane	**0.575**		**0.00214**	**0.0100**	**0.0100**	**mg/L**	20	14-Feb-2024 11:07
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: DW
Organic Carbon, Total	**4.80**		**0.500**	**1.00**	**1.00**	**mg/L**	1	15-Feb-2024 05:24
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW12-240206
Collection Date: 06-Feb-2024 10:15

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	5.0	U	1.5	5.0	5.0	ug/L	5	16-Feb-2024 06:48
1,1-Dichloroethene	5.0	U	1.0	5.0	5.0	ug/L	5	16-Feb-2024 06:48
1,2-Dichloroethane	5.0	U	1.0	5.0	5.0	ug/L	5	16-Feb-2024 06:48
cis-1,2-Dichloroethene	**190**		**1.0**	**5.0**	**5.0**	**ug/L**	5	16-Feb-2024 06:48
Methylene chloride	5.0	U	2.0	5.0	10	ug/L	5	16-Feb-2024 06:48
Trichloroethene	**470**		**1.0**	**5.0**	**5.0**	**ug/L**	5	16-Feb-2024 06:48
Vinyl chloride	**2.2**	J	**1.0**	**5.0**	**5.0**	**ug/L**	5	16-Feb-2024 06:48
Surr: 1,2-Dichloroethane-d4	*115*			**0**	*81-118*	*%REC*	*5*	*16-Feb-2024 06:48*
Surr: 4-Bromofluorobenzene	*86.8*			**0**	*85-114*	*%REC*	*5*	*16-Feb-2024 06:48*
Surr: Dibromofluoromethane	*108*			**0**	*80-119*	*%REC*	*5*	*16-Feb-2024 06:48*
Surr: Toluene-d8	*99.3*			**0**	*89-112*	*%REC*	*5*	*16-Feb-2024 06:48*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW34-240206
Collection Date: 06-Feb-2024 11:00

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-07
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 03:50
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 03:50
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 03:50
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 03:50
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 03:50
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 03:50
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 03:50
Surr: 1,2-Dichloroethane-d4	*90.9*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 03:50*
Surr: 4-Bromofluorobenzene	*89.0*			**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 03:50*
Surr: Dibromofluoromethane	*91.4*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 03:50*
Surr: Toluene-d8	*95.5*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 03:50*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW33-240206
Collection Date: 06-Feb-2024 11:40

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-08
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 04:12
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:12
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:12
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:12
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 04:12
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:12
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:12
Surr: 1,2-Dichloroethane-d4	*95.9*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 04:12*
Surr: 4-Bromofluorobenzene	*89.3*			**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 04:12*
Surr: Dibromofluoromethane	*93.0*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 04:12*
Surr: Toluene-d8	*97.4*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 04:12*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW25-240206
Collection Date: 06-Feb-2024 12:30

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-09
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 04:34
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:34
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:34
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:34
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 04:34
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:34
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:34
Surr: 1,2-Dichloroethane-d4	*95.7*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 04:34*
Surr: 4-Bromofluorobenzene	*89.4*			**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 04:34*
Surr: Dibromofluoromethane	*94.7*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 04:34*
Surr: Toluene-d8	*95.7*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 04:34*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW26-240206
Collection Date: 06-Feb-2024 13:10

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-10
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	10	U	3.0	10	10	ug/L	10	16-Feb-2024 07:10
1,1-Dichloroethene	10	U	2.0	10	10	ug/L	10	16-Feb-2024 07:10
1,2-Dichloroethane	10	U	2.0	10	10	ug/L	10	16-Feb-2024 07:10
cis-1,2-Dichloroethene	**66**		**2.0**	**10**	**10**	**ug/L**	10	16-Feb-2024 07:10
Methylene chloride	10	U	4.0	10	20	ug/L	10	16-Feb-2024 07:10
Trichloroethene	**910**		**2.0**	**10**	**10**	**ug/L**	10	16-Feb-2024 07:10
Vinyl chloride	10	U	2.0	10	10	ug/L	10	16-Feb-2024 07:10
Surr: 1,2-Dichloroethane-d4	*112*			**0**	*81-118*	*%REC*	*10*	*16-Feb-2024 07:10*
Surr: 4-Bromofluorobenzene	*85.3*			**0**	*85-114*	*%REC*	*10*	*16-Feb-2024 07:10*
Surr: Dibromofluoromethane	*105*			**0**	*80-119*	*%REC*	*10*	*16-Feb-2024 07:10*
Surr: Toluene-d8	*95.7*			**0**	*89-112*	*%REC*	*10*	*16-Feb-2024 07:10*
TOTAL ORGANIC CARBON - SM5310B-2011		**Method:SM5310B**						Analyst: DW
Organic Carbon, Total	**1.76**		**0.500**	**1.00**	**1.00**	**mg/L**	1	15-Feb-2024 05:37
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: Trip Blank-240206
Collection Date: 06-Feb-2024 00:00

ANALYTICAL REPORT
WorkOrder:HS24020576
Lab ID:HS24020576-11
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	14-Feb-2024 22:40
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	14-Feb-2024 22:40
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	14-Feb-2024 22:40
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	14-Feb-2024 22:40
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	14-Feb-2024 22:40
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	14-Feb-2024 22:40
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	14-Feb-2024 22:40
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*1*	*14-Feb-2024 22:40*
Surr: 4-Bromofluorobenzene	*91.7*			**0**	*85-114*	*%REC*	*1*	*14-Feb-2024 22:40*
Surr: Dibromofluoromethane	*106*			**0**	*80-119*	*%REC*	*1*	*14-Feb-2024 22:40*
Surr: Toluene-d8	*97.5*			**0**	*89-112*	*%REC*	*1*	*14-Feb-2024 22:40*

Note: See Qualifiers Page for a list of qualifiers and their explanation. **Revision:** 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020576

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R458796 (0)	**Test Name :** DISSOLVED GASES BY RSK-175				**Matrix:** Groundwater	
HS24020576-01	16RW09-240206	06 Feb 2024 07:10			14 Feb 2024 10:47	50
HS24020576-01	16RW09-240206	06 Feb 2024 07:10			14 Feb 2024 09:24	1
HS24020576-02	16RW10-240206	06 Feb 2024 07:55			14 Feb 2024 10:58	100
HS24020576-02	16RW10-240206	06 Feb 2024 07:55			14 Feb 2024 10:09	1
HS24020576-05	16WW40-240206	06 Feb 2024 09:25			14 Feb 2024 11:07	20
HS24020576-05	16WW40-240206	06 Feb 2024 09:25			14 Feb 2024 10:31	1
Batch ID: R458837 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS24020576-11	Trip Blank-240206	06 Feb 2024 00:00			14 Feb 2024 22:40	1
Batch ID: R458837 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS24020576-03	16RW12-240206	06 Feb 2024 08:40			15 Feb 2024 03:06	1
HS24020576-04	16RW12-240206-FD	06 Feb 2024 08:40			15 Feb 2024 03:28	1
HS24020576-07	16WW34-240206	06 Feb 2024 11:00			15 Feb 2024 03:50	1
HS24020576-08	16WW33-240206	06 Feb 2024 11:40			15 Feb 2024 04:12	1
HS24020576-09	16WW25-240206	06 Feb 2024 12:30			15 Feb 2024 04:34	1
Batch ID: R458864 (0)	**Test Name :** TOTAL ORGANIC CARBON - SM5310B-2011				**Matrix:** Groundwater	
HS24020576-01	16RW09-240206	06 Feb 2024 07:10			15 Feb 2024 04:42	1
HS24020576-05	16WW40-240206	06 Feb 2024 09:25			15 Feb 2024 05:24	1
HS24020576-10	16WW26-240206	06 Feb 2024 13:10			15 Feb 2024 05:37	1
Batch ID: R458988 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS24020576-01	16RW09-240206	06 Feb 2024 07:10			16 Feb 2024 05:42	25
HS24020576-02	16RW10-240206	06 Feb 2024 07:55			16 Feb 2024 06:04	20
HS24020576-05	16WW40-240206	06 Feb 2024 09:25			16 Feb 2024 06:26	5
HS24020576-06	16WW12-240206	06 Feb 2024 10:15			16 Feb 2024 06:48	5
HS24020576-10	16WW26-240206	06 Feb 2024 13:10			16 Feb 2024 07:10	10
Batch ID: R459828 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Groundwater	
HS24020576-01	16RW09-240206	06 Feb 2024 07:10			26 Feb 2024 14:03	1
HS24020576-02	16RW10-240206	06 Feb 2024 07:55			26 Feb 2024 14:03	1
HS24020576-03	16RW12-240206	06 Feb 2024 08:40			26 Feb 2024 14:03	1
HS24020576-04	16RW12-240206-FD	06 Feb 2024 08:40			26 Feb 2024 14:03	1
HS24020576-05	16WW40-240206	06 Feb 2024 09:25			26 Feb 2024 14:03	1
HS24020576-06	16WW12-240206	06 Feb 2024 10:15			26 Feb 2024 14:03	1
HS24020576-07	16WW34-240206	06 Feb 2024 11:00			26 Feb 2024 14:03	1
HS24020576-08	16WW33-240206	06 Feb 2024 11:40			26 Feb 2024 14:03	1
HS24020576-09	16WW25-240206	06 Feb 2024 12:30			26 Feb 2024 14:03	1
HS24020576-10	16WW26-240206	06 Feb 2024 13:10			26 Feb 2024 14:03	1

Revision: 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020576

QC BATCH REPORT

Batch ID: R458796 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MBLK Sample ID: **MBLK-240214** Units: **mg/L** Analysis Date: **14-Feb-2024 08:18**
Client ID: Run ID: **FID-4_458796** SeqNo: **7830618** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.000500	0.00100								U
Ethene	0.000500	0.00100								U
Methane	0.000500	0.000500								U

LCS Sample ID: **LCS-240214** Units: **mg/L** Analysis Date: **14-Feb-2024 08:39**
Client ID: Run ID: **FID-4_458796** SeqNo: **7830619** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0198	0.00100	0.01804	0	110	75 - 125				
Ethene	0.0174	0.00100	0.0168	0	104	75 - 125				
Methane	0.00934	0.000500	0.009647	0	96.9	75 - 125				

LCSD Sample ID: **LCSD-240214** Units: **mg/L** Analysis Date: **14-Feb-2024 08:49**
Client ID: Run ID: **FID-4_458796** SeqNo: **7830620** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0222	0.00100	0.01804	0	123	75 - 125	0.01983	11.1	30	
Ethene	0.0169	0.00100	0.0168	0	101	75 - 125	0.01741	2.73	30	
Methane	0.00939	0.000500	0.009647	0	97.3	75 - 125	0.009345	0.46	30	

MS Sample ID: **HS24020773-05MS** Units: **mg/L** Analysis Date: **14-Feb-2024 13:02**
Client ID: Run ID: **FID-4_458796** SeqNo: **7834890** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0439	0.00100	0.01804	0	243	75 - 125				S
Ethene	0.0685	0.00100	0.0168	0	408	75 - 125				S
Methane	7.72	0.000500	0.009647	7.470	2590	75 - 125				SEO

Revision: 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020576

QC BATCH REPORT

Batch ID: R458796 (0) **Instrument:** FID-4 **Method:** DISSOLVED GASES BY RSK-175

MSD Sample ID: **HS24020773-05MSD** Units: **mg/L** Analysis Date: **14-Feb-2024 13:47**
Client ID: Run ID: **FID-4_458796** SeqNo: **7834891** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.0314	0.00100	0.01804	0	174	75 - 125	0.04389	33.1	30	SR
Ethene	0.0668	0.00100	0.0168	0	398	75 - 125	0.06851	2.45	30	S
Methane	7.74	0.000500	0.009647	7.470	2840	75 - 125	7.720	0.317	30	SEO

DUP Sample ID: **HS24020341-08DUP** Units: **mg/L** Analysis Date: **16-Feb-2024 12:39**
Client ID: Run ID: **FID-4_458796** SeqNo: **7836612** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethane	0.000500	0.00100					0	0	30	U
Ethene	0.00129	0.00100					0	200	30	R
Methane	0.00856	0.000500					0.008592	0.371	30	

The following samples were analyzed in this batch: HS24020576-01 HS24020576-02 HS24020576-05

Revision: 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020576

QC BATCH REPORT

Batch ID: R458837 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-240214** Units: **ug/L** Analysis Date: **14-Feb-2024 22:18**
Client ID: Run ID: **VOA9_458837** SeqNo: **7831761** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	1.0	1.0								U
1,2-Dichloroethane	1.0	1.0								U
cis-1,2-Dichloroethene	1.0	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	1.0	1.0								U
Vinyl chloride	1.0	1.0								U
Surr: 1,2-Dichloroethane-d4	*47.88*	*35*	*50*	*0*	*95.8*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.45*	*35*	*50*	*0*	*94.9*	*85 - 114*				
Surr: Dibromofluoromethane	*47.65*	*35*	*50*	*0*	*95.3*	*80 - 119*				
Surr: Toluene-d8	*49.71*	*35*	*50*	*0*	*99.4*	*89 - 112*				

LCS Sample ID: **VLCSW-240214** Units: **ug/L** Analysis Date: **14-Feb-2024 21:12**
Client ID: Run ID: **VOA9_458837** SeqNo: **7831759** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	22.71	1.0	20	0	114	80 - 119				
1,1-Dichloroethene	20.74	1.0	20	0	104	71 - 131				
1,2-Dichloroethane	22.23	1.0	20	0	111	73 - 128				
cis-1,2-Dichloroethene	19.73	1.0	20	0	98.7	78 - 123				
Methylene chloride	20.58	2.0	20	0	103	74 - 124				
Trichloroethene	22.72	1.0	20	0	114	79 - 123				
Vinyl chloride	20.87	1.0	20	0	104	58 - 137				
Surr: 1,2-Dichloroethane-d4	*45.07*	*35*	*50*	*0*	*90.1*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.79*	*35*	*50*	*0*	*97.6*	*85 - 114*				
Surr: Dibromofluoromethane	*46.2*	*35*	*50*	*0*	*92.4*	*80 - 119*				
Surr: Toluene-d8	*49.36*	*35*	*50*	*0*	*98.7*	*89 - 112*				

Revision: 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020576

QC BATCH REPORT

Batch ID: R458837 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCSD Sample ID: **VLCSDW-240214** Units: **ug/L** Analysis Date: **14-Feb-2024 21:34**
Client ID: Run ID: **VOA9_458837** SeqNo: **7831760** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	22.95	1.0	20	0	115	80 - 119	22.71	1.06	20	
1,1-Dichloroethene	20.34	1.0	20	0	102	71 - 131	20.74	1.93	20	
1,2-Dichloroethane	21.42	1.0	20	0	107	73 - 128	22.23	3.7	20	
cis-1,2-Dichloroethene	19.95	1.0	20	0	99.8	78 - 123	19.73	1.12	20	
Methylene chloride	21.46	2.0	20	0	107	74 - 124	20.58	4.18	20	
Trichloroethene	23.5	1.0	20	0	118	79 - 123	22.72	3.38	20	
Vinyl chloride	20.39	1.0	20	0	102	58 - 137	20.87	2.34	20	
Surr: 1,2-Dichloroethane-d4	*46.53*	*35*	*50*	*0*	*93.1*	*81 - 118*	*45.07*	*3.2*	*20*	
Surr: 4-Bromofluorobenzene	*50.25*	*35*	*50*	*0*	*101*	*85 - 114*	*48.79*	*2.95*	*20*	
Surr: Dibromofluoromethane	*47.08*	*35*	*50*	*0*	*94.2*	*80 - 119*	*46.2*	*1.89*	*20*	
Surr: Toluene-d8	*49.73*	*35*	*50*	*0*	*99.5*	*89 - 112*	*49.36*	*0.736*	*20*	

The following samples were analyzed in this batch: HS24020576-03 HS24020576-04 HS24020576-07 HS24020576-08 HS24020576-09 HS24020576-11

Revision: 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020576

QC BATCH REPORT

Batch ID: R458988 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-240215** Units: **ug/L** Analysis Date: **15-Feb-2024 23:03**
Client ID: Run ID: **VOA9_458988** SeqNo: **7834912** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	1.0	1.0								U
1,2-Dichloroethane	1.0	1.0								U
cis-1,2-Dichloroethene	1.0	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	1.0	1.0								U
Vinyl chloride	1.0	1.0								U
Surr: 1,2-Dichloroethane-d4	*44.97*	*35*	*50*	*0*	*89.9*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*43.05*	*35*	*50*	*0*	*86.1*	*85 - 114*				
Surr: Dibromofluoromethane	*43.16*	*35*	*50*	*0*	*86.3*	*80 - 119*				
Surr: Toluene-d8	*44.6*	*35*	*50*	*0*	*89.2*	*89 - 112*				

LCS Sample ID: **VLCSW-240215** Units: **ug/L** Analysis Date: **15-Feb-2024 22:19**
Client ID: Run ID: **VOA9_458988** SeqNo: **7834911** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	20.68	1.0	20	0	103	80 - 119				
1,1-Dichloroethene	20.27	1.0	20	0	101	71 - 131				
1,2-Dichloroethane	21	1.0	20	0	105	73 - 128				
cis-1,2-Dichloroethene	21.99	1.0	20	0	110	78 - 123				
Methylene chloride	19.45	2.0	20	0	97.2	74 - 124				
Trichloroethene	21.97	1.0	20	0	110	79 - 123				
Vinyl chloride	20.55	1.0	20	0	103	58 - 137				
Surr: 1,2-Dichloroethane-d4	*49.09*	*35*	*50*	*0*	*98.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.39*	*35*	*50*	*0*	*98.8*	*85 - 114*				
Surr: Dibromofluoromethane	*49.15*	*35*	*50*	*0*	*98.3*	*80 - 119*				
Surr: Toluene-d8	*49.87*	*35*	*50*	*0*	*99.7*	*89 - 112*				

Revision: 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020576

QC BATCH REPORT

Batch ID: R458988 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS24020577-03MS** Units: **ug/L** Analysis Date: **16-Feb-2024 00:32**
Client ID: Run ID: **VOA9_458988** SeqNo: **7834916** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	22.77	1.0	20	0	114	80 - 119				
1,1-Dichloroethene	23.89	1.0	20	0	119	71 - 131				
1,2-Dichloroethane	22.76	1.0	20	0	114	73 - 128				
cis-1,2-Dichloroethene	22.74	1.0	20	0	114	78 - 123				
Methylene chloride	21.01	2.0	20	0	105	74 - 124				
Trichloroethene	23.35	1.0	20	0	117	79 - 123				
Vinyl chloride	23.45	1.0	20	0	117	58 - 137				
Surr: 1,2-Dichloroethane-d4	*52.08*	*35*	*50*	*0*	*104*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.72*	*35*	*50*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*51.27*	*35*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*53.16*	*35*	*50*	*0*	*106*	*89 - 112*				

MSD Sample ID: **HS24020577-03MSD** Units: **ug/L** Analysis Date: **16-Feb-2024 00:54**
Client ID: Run ID: **VOA9_458988** SeqNo: **7834917** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	22.86	1.0	20	0	114	80 - 119	22.77	0.408	20	
1,1-Dichloroethene	24.1	1.0	20	0	120	71 - 131	23.89	0.888	20	
1,2-Dichloroethane	22.91	1.0	20	0	115	73 - 128	22.76	0.615	20	
cis-1,2-Dichloroethene	22.72	1.0	20	0	114	78 - 123	22.74	0.0858	20	
Methylene chloride	20.87	2.0	20	0	104	74 - 124	21.01	0.627	20	
Trichloroethene	22.37	1.0	20	0	112	79 - 123	23.35	4.3	20	
Vinyl chloride	23.36	1.0	20	0	117	58 - 137	23.45	0.352	20	
Surr: 1,2-Dichloroethane-d4	*52.96*	*35*	*50*	*0*	*106*	*81 - 118*	*52.08*	*1.68*	*20*	
Surr: 4-Bromofluorobenzene	*51.08*	*35*	*50*	*0*	*102*	*85 - 114*	*51.72*	*1.25*	*20*	
Surr: Dibromofluoromethane	*52.25*	*35*	*50*	*0*	*105*	*80 - 119*	*51.27*	*1.89*	*20*	
Surr: Toluene-d8	*53.32*	*35*	*50*	*0*	*107*	*89 - 112*	*53.16*	*0.287*	*20*	

The following samples were analyzed in this batch: HS24020576-01 HS24020576-02 HS24020576-05 HS24020576-06 HS24020576-10

Revision: 1

ALS Houston, US Date: 28-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020576

QC BATCH REPORT

Batch ID: R458864 (0) **Instrument:** TOC_05 **Method:** TOTAL ORGANIC CARBON - SM5310B-2011

MBLK Sample ID: **MBLK-02142024** Units: **mg/L** Analysis Date: **15-Feb-2024 02:41**
Client ID: Run ID: **TOC_05_458864** SeqNo: **7832350** 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-02142024** Units: **mg/L** Analysis Date: **15-Feb-2024 02:55**
Client ID: Run ID: **TOC_05_458864** SeqNo: **7832351** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	9.902	1.00	10	0	99.0	85 - 115				

LCSD Sample ID: **LCSD-02142024** Units: **mg/L** Analysis Date: **15-Feb-2024 03:09**
Client ID: Run ID: **TOC_05_458864** SeqNo: **7832352** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	9.827	1.00	10	0	98.3	85 - 115	9.902	0.76	20	

MS Sample ID: **HS24020314-03MS** Units: **mg/L** Analysis Date: **15-Feb-2024 03:36**
Client ID: Run ID: **TOC_05_458864** SeqNo: **7832354** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.4	1.00	10	1.268	91.3	80 - 120				

The following samples were analyzed in this batch: HS24020576-01 HS24020576-05 HS24020576-10

Revision: 1

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: **HS24020576**

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
California	2919; 2024	30-Apr-2024
Dept of Defense	L22-90-R2	31-Mar-2024
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

ALS Houston, US Date: 28-Feb-24

Sample Receipt Checklist

Work Order ID: HS24020576 **Date/Time Received:** 07-Feb-2024 09:20

Client Name: Bhate Environmental **Received by:** Jacob Coronado

Completed By:	/S/ Paresh M. Giga	10-Feb-2024 12:46	**Reviewed by:**	/S/ luis.aguilar	12-Feb-2024 09:55
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **GW/Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	3.8C/3.7C U/C	IR31
Cooler(s)/Kit(s):	Blue	
Date/Time sample(s) sent to storage:	2/10/24 13:15	

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

Page: ____ of ____

Project/Phase

No: JVPCIBH.0001

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205

Chain of Custody and Analytical Request

COC Number(1):

LIMS Number: ____

Facility/Base I.D.: LHAAP / BILL to PCI

Project/Site Name: LHAAP / Site 16

Client Name:

Collected by: Scott Beesinger

Sample Analysis Requested [5] | Quality Assurance Samples [6]

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	Dissolved Gases	TOC	Carbon Dioxide	Anions	Perchlorate	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
16RW09_240206	06 FEB2024	0710	-	N		wb	9	X	X	X			X				
16RW10_240206	06 FEB 2024	0755	-	N		wb	7	X	X				X				
16RW12_240206	06 FEB2024	0840	-	N		wb	4	X					X				
16RW12_240206-FD	06 FEB 2024	0840		FB		wb	4	X					X				
16WW40_240206	06 FEB 2024	0925		N		wb	9	X	X	X			X				
16WW12_240206	06 FEB2024	1015	-	N		wb	4	X					X				
16WW34_240206	06 FEB 2024	1100	-	N		wb	4	X					X				
16WW33_240206	06 FEB 2024	1140	-	N		wb	4	X					X				
16WW35_240206	06 FEB 2024	1230	-	N		wb	4	X					X				
16WW26_240206	06 FEB 2024	1310	-	N		wb	6	X		X			X				
Trip Blank_240206	06 FEB 2024		-	N		wb	2	X									

HS24020576

Bhate Environmental Associates, Inc.
LHAAP Site 16

COMMENTS: STANDARD TAT

Custody Transfers Prior to Receipt by Laboratory

Relinquished by (Signed)	Date	Time	Received by (signed)	Date	Time
1. Scott Beesinger	2/6/24	1430	1.	2/7/24	0420
2.			2.		
3.			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: Dana Wagaesy Lab Recipient: Delivery Date/Time:

1-LARGE BLUE
3.2C

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

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

CUSTODY SEAL

Date: Time:
Name:
Company:

Seal Broken By:
Date:

Must Deliver Next Business Day
Time and Tempature Sensitive!

FedEx.
6862 6808 5440
WED - 01 PRIORITY OVERNIGHT
77099
AB SGRA

February 26, 2024 Service Request No:E2400136

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS24020576

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory February 10, 2024
For your reference, these analyses have been assigned our service request number **E2400136.**

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Hussam Kelany
Project Manager

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

Certificate of Analysis

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

Client:	ALS Environmental - US	**Service Request No.:**	E2400136
Project:	HS24020576	**Date Received:**	02/10/24
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

Ten samples were received for analysis at ALS Environmental in Houston on 02/10/24.

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:

EQ2400093: 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.

Client: ALS Environmental - US **Service Request:**E2400136
Project: HS24020576

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2400136-001	16RW09-240206	2/6/2024	0710
E2400136-002	16RW10-240206	2/6/2024	0755
E2400136-003	16RW12-240206	2/6/2024	0840
E2400136-004	16RW12-240206-FD	2/6/2024	0840
E2400136-005	16WW40-240206	2/6/2024	0925
E2400136-006	16WW12-240206	2/6/2024	1015
E2400136-007	16WW34-240206	2/6/2024	1100
E2400136-008	16WW33-240206	2/6/2024	1140
E2400136-009	16WW25-240206	2/6/2024	1230
E2400136-010	16WW26-240206	2/6/2024	1310

Service Request Summary

Folder #: **E2400136**
Client Name: ALS Environmental - US
Project Name: HS24020576
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/10/24
Internal Due Date: 2/19/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: EQUIS APTIM
LONGHORN EFWEDD

10 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	Semivoa GCMS ClO4 DOD/6850
E2400136-001	16RW09-240206	Water	02/06/24 0710	**IV***
E2400136-002	16RW10-240206	Water	02/06/24 0755	**IV***
E2400136-003	16RW12-240206	Water	02/06/24 0840	**IV***
E2400136-004	16RW12-240206-FD	Water	02/06/24 0840	**IV***
E2400136-005	16WW40-240206	Water	02/06/24 0925	**IV***
E2400136-006	16WW12-240206	Water	02/06/24 1015	**IV***
E2400136-007	16WW34-240206	Water	02/06/24 1100	**IV***
E2400136-008	16WW33-240206	Water	02/06/24 1140	**IV***
E2400136-009	16WW25-240206	Water	02/06/24 1230	**IV***
E2400136-010	16WW26-240206	Water	02/06/24 1310	**IV***

Service Request Summary

Folder #: **E2400136**
Client Name: ALS Environmental - US
Project Name: HS24020576
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/10/24
Internal Due Date: 2/19/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: EQUIS APTIM
LONGHORN EFWEDD

10 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10B
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
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
Louisiana Department of Health and Hospitals	LA028-2024	12/31/2024
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343-2023	6/30/2024
Michigan Depratment of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2645386	12/31/2024
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2023-140	8/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
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	TX026932023-14	7/31/2024
Washington Department of Ecology	C819-23	11/14/2024

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
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Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 24710

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@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:	HS24020576
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	HS24020576-01	16RW09-240206	Groundwater	06 Feb 2024 07:10
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
2.	HS24020576-02	16RW10-240206	Groundwater	06 Feb 2024 07:55
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
3.	HS24020576-03	16RW12-240206	Groundwater	06 Feb 2024 08:40
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
4.	HS24020576-04	16RW12-240206-FD	Groundwater	06 Feb 2024 08:40
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
5.	HS24020576-05	16WW40-240206	Groundwater	06 Feb 2024 09:25
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
6.	HS24020576-06	16WW12-240206	Groundwater	06 Feb 2024 10:15
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
7.	HS24020576-07	16WW34-240206	Groundwater	06 Feb 2024 11:00
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
8.	HS24020576-08	16WW33-240206	Groundwater	06 Feb 2024 11:40

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 24710

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
9.	HS24020576-09	16WW25-240206	Groundwater	06 Feb 2024 12:30
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
10.	HS24020576-10	16WW26-240206	Groundwater	06 Feb 2024 13:10
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024

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: 2/10 1246

Received By: JC Date/Time: _____

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

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Houston, TX 77099
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www.alsglobal.com

Sample Receipt Checklist

Work Order ID: HS24020576 **Date/Time received:** 07 Feb 2024 09:20

Client name: Bhate Environmental Associates, Inc. **Received by:** Jacob Coronado

Completed/By: 10 Feb 2024 12:46 (Date/Time) Paresh M. Giga (eSignature) **Reviewed/By:** _____ (Date/Time) _____ (eSignature)

Matrices: GW/Water **Carrier name:** FedEx Priority Overnight

Shipping container/cooler in good condition?	☑ Yes	☐ No	☐ Not Present
Custody seals intact on shipping container/cooler?	☑ Yes	☐ No	☐ Not Present
Custody seals intact on Sample bottles?	☐ Yes	☐ No	☑ Not Present
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐ Yes	☐ No	☑ Not Present
Chain of custody present?	☑ Yes	☐ No	1 Page(s)
Chain of custody signed when relinquished and received?	☑ Yes	☐ No	COC ID(s): none
Samplers name present on COC?	☑ Yes	☐ No	
Chain of custody agrees with sample labels?	☑ Yes	☐ No	
Samples in proper container/bottle?	☑ Yes	☐ No	
Sample containers intact?	☑ Yes	☐ No	
Sufficient sample volume for indicated test?	☑ Yes	☐ No	
All samples received within holding time?	☑ Yes	☐ No	
Container/Temp Blank temperature in compliance?	☑ Yes	☐ No	

Temperature(s)/Thermometer(s): 3.8C/3.7C U/C IR31

Cooler Information: 1 Cooler(s), Blue

Date/Time sample(s) sent to storage: 2/10/24 13:15

Water - VOA vials have zero headspace?	☑ Yes	☐ No	☐ No VOA vials submitted
Water - pH acceptable upon receipt?	☐ Yes	☐ No	☑ Not Applicable
pH adjusted?	☐ Yes	☐ No	☑ Not Applicable

pH adjusted by: _____

Login notes: _____

Client contacted: _____ **Date contacted:** _____ **Person contacted:** _____

Contacted by: _____ **Regarding:** _____

Comments: _____

Corrective action: _____

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Houston, TX 77099
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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#: 434181 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/19/24 09:00

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2400131-001	2402071322X PL-7-630	.01	6850/ClO4 DOD			Water	10mL	
2	E2400132-001	16WW23-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2400132-002	16WW23-240207-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2400132-003	16WW24-240207	.02	6850/ClO4 DOD			Ground Water	10mL	
5	E2400132-004	16WW24-240207-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2400132-005	16WW27-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2400132-006	16WW43-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2400136-001	16RW09-240206	.01	6850/ClO4 DOD			Water	10mL	
9	E2400136-002	16RW10-240206	.01	6850/ClO4 DOD			Water	10mL	
10	E2400136-003	16RW12-240206	.01	6850/ClO4 DOD			Water	10mL	
11	E2400136-004	16RW12-240206-FD	.01	6850/ClO4 DOD			Water	10mL	
12	E2400136-005	16WW40-240206	.01	6850/ClO4 DOD			Water	10mL	
13	E2400136-006	16WW12-240206	.01	6850/ClO4 DOD			Water	10mL	
14	E2400136-007	16WW34-240206	.01	6850/ClO4 DOD			Water	10mL	
15	E2400136-008	16WW33-240206	.01	6850/ClO4 DOD			Water	10mL	
16	E2400136-009	16WW25-240206	.01	6850/ClO4 DOD			Water	10mL	
17	E2400136-010	16WW26-240206	.01	6850/ClO4 DOD			Water	10mL	
18	E2400160-001	LGAC INF 021224	.05	6850/ClO4 DOD			Water	10mL	
19	EQ2400093-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2400093-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2400093-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2400093-04	ICS		6850/ClO4 DOD			Liquid	10mL	
23	EQ2400093-05	16WW24-240207 MS	.02	6850/ClO4 DOD			Liquid	10mL	
24	EQ2400093-06	16WW24-240207 DMS	.02	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock 2 Inventory ID 233555 Logbook Ref: Perchlorate INT. Stock2 Expires On: 08/05/2024

EQ2400093-02	10.00µL	EQ2400093-03	10.00µL	EQ2400093-04	10.00µL	EQ2400093-05	10.00µL	EQ2400093-06	10.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 233561 Logbook Ref: Perchlorate Internal Standard Expires On: 08/05/2024

E2400131-001	100.00µL	E2400132-001	100.00µL	E2400132-002	100.00µL	E2400132-003	100.00µL	E2400132-004	100.00µL	E2400132-005	100.00µL
E2400132-006	100.00µL	E2400136-001	100.00µL	E2400136-002	100.00µL	E2400136-003	100.00µL	E2400136-004	100.00µL	E2400136-005	100.00µL
E2400136-006	100.00µL	E2400136-007	100.00µL	E2400136-008	100.00µL	E2400136-009	100.00µL	E2400136-010	100.00µL	E2400160-001	100.00µL
EQ2400093-01	100.00µL	EQ2400093-02	100.00µL	EQ2400093-03	100.00µL	EQ2400093-04	100.00µL	EQ2400093-05	100.00µL	EQ2400093-06	100.00µL

Preparation Information Benchsheet

Prep Run#: 434181 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/19/24 09:00

Name:	Perchlorate Anion Spiking Soln. 25,000 ppm	Inventory ID	233595	Logbook Ref:	Expires On:	08/04/2024

EQ2400093-04 20.00µL

Preparation Materials

6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979) 6850 Luer-Lok Syringes Luer Lok Syringes (231696)
6850 20mM amonium acetate in H2O (233412)

Preparation Steps

Step: Preparation
Started: 2/19/24 09:00
Finished: 2/19/24 10:30
By: JOSEL.JUAREZ
Comments

Comments: _____

Reviewed By: _____ Date: _____

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
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0710
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16RW09-240206	**Units:**	µg/L
Lab Code:	E2400136-001	**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	**0.0629**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:09	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0755
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16RW10-240206	**Units:**	µg/L
Lab Code:	E2400136-002	**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	**7.57**		0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:15	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0840
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16RW12-240206	**Units:**	µg/L
Lab Code:	E2400136-003	**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	**0.0282**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:20	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0840
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16RW12-240206-FD	**Units:**	µg/L
Lab Code:	E2400136-004	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:26	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0925
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW40-240206	**Units:**	µg/L
Lab Code:	E2400136-005	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	1.00	0.500	0.250	10	2/19/24	2/21/24 11:30	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1015
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW12-240206	**Units:**	µg/L
Lab Code:	E2400136-006	**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	**12.2**		1.00	0.500	0.250	10	2/19/24	2/21/24 10:32	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1100
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW34-240206	**Units:**	µg/L
Lab Code:	E2400136-007	**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	**0.147**		0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:43	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1140
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW33-240206	**Units:**	µg/L
Lab Code:	E2400136-008	**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	2/19/24	2/19/24 15:00	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1230
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW25-240206	**Units:**	µg/L
Lab Code:	E2400136-009	**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	1.00	0.500	0.250	10	2/19/24	2/22/24 10:44	434181	833241	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1310
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW26-240206	**Units:**	µg/L
Lab Code:	E2400136-010	**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	2/19/24	2/19/24 15:11	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2400093-01	**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	2/19/24	2/19/24 12:45	434181	833219	

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: HS24020576
Sample Matrix: Water

Service Request: E2400136
Date Analyzed: 2/19/24

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: 434181

	Lab Control Sample EQ2400093-02			Duplicate Lab Control Sample EQ2400093-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0877	0.100	88	0.0854	0.100	85	84 - 119	3	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:**	E2400136
Project:	HS24020576	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400093-02	**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	**0.0877**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 12:51	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400093-03	**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	**0.0854**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 12:56	434181	833219	

HS24020576-MSVOA-SW8260

ALS WO# HS24020576

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Form 1

Organic Analysis Data Sheet

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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.	Workorder	
Project	LHAAP Site 16	HS24020576	

Volatiles by EPA Volatiles Organics by Method 8260C

16RW09-240206	Collected	Received	Matrix	Basis
HS24020576-01	02/06/24 07:10	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	25	U	7.5	25	25	25	02/16/24 05:42	VOA9_458988	V021523.D
1,1-Dichloroethene	ug/L	25	U	5.0	25	25	25	02/16/24 05:42	VOA9_458988	V021523.D
1,2-Dichloroethane	ug/L	25	U	5.0	25	25	25	02/16/24 05:42	VOA9_458988	V021523.D
cis-1,2-Dichloroethene	ug/L	260		5.0	25	25	25	02/16/24 05:42	VOA9_458988	V021523.D
Methylene chloride	ug/L	50	U	10	50	50	25	02/16/24 05:42	VOA9_458988	V021523.D
Trichloroethene	ug/L	2,800		5.0	25	25	25	02/16/24 05:42	VOA9_458988	V021523.D
Vinyl chloride	ug/L	140		5.0	25	25	25	02/16/24 05:42	VOA9_458988	V021523.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

16RW10-240206	Collected	Received	Matrix	Basis
HS24020576-02	02/06/24 07:55	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	20	U	6.0	20	20	20	02/16/24 06:04	VOA9_458988	V021524.D
1,1-Dichloroethene	ug/L	20	U	4.0	20	20	20	02/16/24 06:04	VOA9_458988	V021524.D
1,2-Dichloroethane	ug/L	20	U	4.0	20	20	20	02/16/24 06:04	VOA9_458988	V021524.D
cis-1,2-Dichloroethene	ug/L	780		4.0	20	20	20	02/16/24 06:04	VOA9_458988	V021524.D
Methylene chloride	ug/L	40	U	8.0	40	40	20	02/16/24 06:04	VOA9_458988	V021524.D
Trichloroethene	ug/L	1,800		4.0	20	20	20	02/16/24 06:04	VOA9_458988	V021524.D
Vinyl chloride	ug/L	310		4.0	20	20	20	02/16/24 06:04	VOA9_458988	V021524.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

16RW12-240206	Collected	Received	Matrix	Basis
HS24020576-03	02/06/24 08:40	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 03:06	VOA9_458837	V021419.D
1,1-Dichloroethene	ug/L	1.3		0.20	1.0	1.0	1	02/15/24 03:06	VOA9_458837	V021419.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 03:06	VOA9_458837	V021419.D
cis-1,2-Dichloroethene	ug/L	110		0.20	1.0	1.0	1	02/15/24 03:06	VOA9_458837	V021419.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 03:06	VOA9_458837	V021419.D
Trichloroethene	ug/L	57		0.20	1.0	1.0	1	02/15/24 03:06	VOA9_458837	V021419.D
Vinyl chloride	ug/L	15		0.20	1.0	1.0	1	02/15/24 03:06	VOA9_458837	V021419.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

16RW12-240206-FD	Collected	Received	Matrix	Basis
HS24020576-04	02/06/24 08:40	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 03:28	VOA9_458837	V021420.D
1,1-Dichloroethene	ug/L	1.4		0.20	1.0	1.0	1	02/15/24 03:28	VOA9_458837	V021420.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 03:28	VOA9_458837	V021420.D
cis-1,2-Dichloroethene	ug/L	120		0.20	1.0	1.0	1	02/15/24 03:28	VOA9_458837	V021420.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 03:28	VOA9_458837	V021420.D
Trichloroethene	ug/L	57		0.20	1.0	1.0	1	02/15/24 03:28	VOA9_458837	V021420.D
Vinyl chloride	ug/L	15		0.20	1.0	1.0	1	02/15/24 03:28	VOA9_458837	V021420.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

16WW40-240206	Collected	Received	Matrix	Basis
HS24020576-05	02/06/24 09:25	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	5.0	U	1.5	5.0	5.0	5	02/16/24 06:26	VOA9_458988	V021525.D
1,1-Dichloroethene	ug/L	5.0	U	1.0	5.0	5.0	5	02/16/24 06:26	VOA9_458988	V021525.D
1,2-Dichloroethane	ug/L	5.0	U	1.0	5.0	5.0	5	02/16/24 06:26	VOA9_458988	V021525.D
cis-1,2-Dichloroethene	ug/L	260		1.0	5.0	5.0	5	02/16/24 06:26	VOA9_458988	V021525.D
Methylene chloride	ug/L	10	U	2.0	10	10	5	02/16/24 06:26	VOA9_458988	V021525.D
Trichloroethene	ug/L	430		1.0	5.0	5.0	5	02/16/24 06:26	VOA9_458988	V021525.D
Vinyl chloride	ug/L	5.0	U	1.0	5.0	5.0	5	02/16/24 06:26	VOA9_458988	V021525.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

16WW12-240206	Collected	Received	Matrix	Basis
HS24020576-06	02/06/24 10:15	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	5.0	U	1.5	5.0	5.0	5	02/16/24 06:48	VOA9_458988	V021526.D
1,1-Dichloroethene	ug/L	5.0	U	1.0	5.0	5.0	5	02/16/24 06:48	VOA9_458988	V021526.D
1,2-Dichloroethane	ug/L	5.0	U	1.0	5.0	5.0	5	02/16/24 06:48	VOA9_458988	V021526.D
cis-1,2-Dichloroethene	ug/L	190		1.0	5.0	5.0	5	02/16/24 06:48	VOA9_458988	V021526.D
Methylene chloride	ug/L	10	U	2.0	10	10	5	02/16/24 06:48	VOA9_458988	V021526.D
Trichloroethene	ug/L	470		1.0	5.0	5.0	5	02/16/24 06:48	VOA9_458988	V021526.D
Vinyl chloride	ug/L	2.2	J	1.0	5.0	5.0	5	02/16/24 06:48	VOA9_458988	V021526.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020576	

Volatiles by EPA Volatiles Organics by Method 8260C

16WW34-240206	Collected	Received	Matrix	Basis
HS24020576-07	02/06/24 11:00	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 03:50	VOA9_458837	V021421.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 03:50	VOA9_458837	V021421.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 03:50	VOA9_458837	V021421.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 03:50	VOA9_458837	V021421.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 03:50	VOA9_458837	V021421.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 03:50	VOA9_458837	V021421.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 03:50	VOA9_458837	V021421.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

16WW33-240206	Collected	Received	Matrix	Basis
HS24020576-08	02/06/24 11:40	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 04:12	VOA9_458837	V021422.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:12	VOA9_458837	V021422.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:12	VOA9_458837	V021422.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:12	VOA9_458837	V021422.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 04:12	VOA9_458837	V021422.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:12	VOA9_458837	V021422.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:12	VOA9_458837	V021422.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

16WW25-240206	Collected	Received	Matrix	Basis
HS24020576-09	02/06/24 12:30	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 04:34	VOA9_458837	V021423.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:34	VOA9_458837	V021423.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:34	VOA9_458837	V021423.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:34	VOA9_458837	V021423.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 04:34	VOA9_458837	V021423.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:34	VOA9_458837	V021423.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:34	VOA9_458837	V021423.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

16WW26-240206	Collected	Received	Matrix	Basis
HS24020576-10	02/06/24 13:10	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	10	U	3.0	10	10	10	02/16/24 07:10	VOA9_458988	V021527.D
1,1-Dichloroethene	ug/L	10	U	2.0	10	10	10	02/16/24 07:10	VOA9_458988	V021527.D
1,2-Dichloroethane	ug/L	10	U	2.0	10	10	10	02/16/24 07:10	VOA9_458988	V021527.D
cis-1,2-Dichloroethene	ug/L	66		2.0	10	10	10	02/16/24 07:10	VOA9_458988	V021527.D
Methylene chloride	ug/L	20	U	4.0	20	20	10	02/16/24 07:10	VOA9_458988	V021527.D
Trichloroethene	ug/L	910		2.0	10	10	10	02/16/24 07:10	VOA9_458988	V021527.D
Vinyl chloride	ug/L	10	U	2.0	10	10	10	02/16/24 07:10	VOA9_458988	V021527.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020576	

Volatiles by EPA Volatiles Organics by Method 8260C

Trip Blank-240206

	Collected	Received	Matrix	Basis
HS24020576-11	02/06/24 00:00	02/07/24 09:20	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/14/24 22:40	VOA9_458837	V021407.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/14/24 22:40	VOA9_458837	V021407.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/14/24 22:40	VOA9_458837	V021407.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/14/24 22:40	VOA9_458837	V021407.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/14/24 22:40	VOA9_458837	V021407.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/14/24 22:40	VOA9_458837	V021407.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/14/24 22:40	VOA9_458837	V021407.D

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Form 2

System Monitoring Compound Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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 Site 16
Workorder: HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID: VOA9-458837

CCV

	Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID: CCV V021402.D Instrument ID: VOA9	Aqueous	02/14/24 20:50	%REC	1

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021402.D	47.96	50	95.9		80-120
4-Bromofluorobenzene	V021402.D	51.74	50	103		80-120
Dibromofluoromethane	V021402.D	48.7	50	97.4		80-120
Toluene-d8	V021402.D	50.77	50	102		80-120

16RW12-240206

	Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID: HS24020576-03 Instrument ID: VOA9	Groundwater	02/15/24 03:06	%REC	1

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021419.D	45	50	89.4		81-118
4-Bromofluorobenzene	V021419.D	45	50	90.2		85-114
Dibromofluoromethane	V021419.D	45	50	89.9		80-119
Toluene-d8	V021419.D	48	50	96.1		89-112

16RW12-240206-FD

	Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID: HS24020576-04 Instrument ID: VOA9	Groundwater	02/15/24 03:28	%REC	1

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021420.D	44	50	87.3		81-118
4-Bromofluorobenzene	V021420.D	42	50	84.0		85-114
Dibromofluoromethane	V021420.D	44	50	87.9		80-119
Toluene-d8	V021420.D	45	50	90.4		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020576**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458837

16WW34-240206

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020576-07	Groundwater	02/15/24 03:50	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021421.D	45	50	90.9		81-118
4-Bromofluorobenzene	V021421.D	44	50	89.0		85-114
Dibromofluoromethane	V021421.D	46	50	91.4		80-119
Toluene-d8	V021421.D	48	50	95.5		89-112

16WW33-240206

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020576-08	Groundwater	02/15/24 04:12	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021422.D	48	50	95.9		81-118
4-Bromofluorobenzene	V021422.D	45	50	89.3		85-114
Dibromofluoromethane	V021422.D	46	50	93.0		80-119
Toluene-d8	V021422.D	49	50	97.4		89-112

16WW25-240206

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020576-09	Groundwater	02/15/24 04:34	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021423.D	48	50	95.7		81-118
4-Bromofluorobenzene	V021423.D	45	50	89.4		85-114
Dibromofluoromethane	V021423.D	47	50	94.7		80-119
Toluene-d8	V021423.D	48	50	95.7		89-112

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Workorder: HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID: VOA9-458837

Trip Blank-240206

Lab Sample ID	Instrument ID	Matrix	Analysis Date	Conc Units	Dilution
HS24020576-11	VOA9	Water	02/14/24 22:40	%REC	1

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021407.D	53	50	106		81-118
4-Bromofluorobenzene	V021407.D	46	50	91.7		85-114
Dibromofluoromethane	V021407.D	53	50	106		80-119
Toluene-d8	V021407.D	49	50	97.5		89-112

VBLKW-240214

Lab Sample ID	Instrument ID	Matrix	Analysis Date	Conc Units	Dilution
VBLKW-240214	VOA9	Aqueous	02/14/24 22:18	%REC	1

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021406.D	47.88	50	95.8		81-118
4-Bromofluorobenzene	V021406.D	47.45	50	94.9		85-114
Dibromofluoromethane	V021406.D	47.65	50	95.3		80-119
Toluene-d8	V021406.D	49.71	50	99.4		89-112

VLCSDW-240214

Lab Sample ID	Instrument ID	Matrix	Analysis Date	Conc Units	Dilution
VLCSDW-240214	VOA9	Aqueous	02/14/24 21:34	%REC	1

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021404.D	46.53	50	93.1		81-118
4-Bromofluorobenzene	V021404.D	50.25	50	101		85-114
Dibromofluoromethane	V021404.D	47.08	50	94.2		80-119
Toluene-d8	V021404.D	49.73	50	99.5		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458837

VLCSW-240214

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	VLCSW-240214	Aqueous	02/14/24 21:12	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021403.D	45.07	50	90.1		81-118
4-Bromofluorobenzene	V021403.D	48.79	50	97.6		85-114
Dibromofluoromethane	V021403.D	46.2	50	92.4		80-119
Toluene-d8	V021403.D	49.36	50	98.7		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020576**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458988

CCV

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	CCV V021502.D	Aqueous	02/15/24 21:57	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021502.D	49.85	50	99.7		80-120
4-Bromofluorobenzene	V021502.D	49.51	50	99.0		80-120
Dibromofluoromethane	V021502.D	49.32	50	98.6		80-120
Toluene-d8	V021502.D	49.66	50	99.3		80-120

16RW09-240206

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020576-01	Groundwater	02/16/24 05:42	%REC	25
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021523.D	1500	1250	118		81-118
4-Bromofluorobenzene	V021523.D	1100	1250	90.3		85-114
Dibromofluoromethane	V021523.D	1400	1250	113		80-119
Toluene-d8	V021523.D	1300	1250	102		89-112

16RW10-240206

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020576-02	Groundwater	02/16/24 06:04	%REC	20
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021524.D	1200	1000	118		81-118
4-Bromofluorobenzene	V021524.D	890	1000	89.0		85-114
Dibromofluoromethane	V021524.D	1100	1000	113		80-119
Toluene-d8	V021524.D	1000	1000	99.9		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020576**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458988

16WW40-240206

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020576-05	Groundwater	02/16/24 06:26	%REC	5
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021525.D	290	250	116		81-118
4-Bromofluorobenzene	V021525.D	230	250	91.6		85-114
Dibromofluoromethane	V021525.D	290	250	118		80-119
Toluene-d8	V021525.D	250	250	101		89-112

16WW12-240206

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020576-06	Groundwater	02/16/24 06:48	%REC	5
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021526.D	290	250	115		81-118
4-Bromofluorobenzene	V021526.D	220	250	86.8		85-114
Dibromofluoromethane	V021526.D	270	250	108		80-119
Toluene-d8	V021526.D	250	250	99.3		89-112

16WW26-240206

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020576-10	Groundwater	02/16/24 07:10	%REC	10
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021527.D	560	500	112		81-118
4-Bromofluorobenzene	V021527.D	430	500	85.3		85-114
Dibromofluoromethane	V021527.D	520	500	105		80-119
Toluene-d8	V021527.D	480	500	95.7		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020576**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458988

BatchQC

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-03MS	Aqueous	02/16/24 00:32	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021509.D	52.08	50	104		81-118
4-Bromofluorobenzene	V021509.D	51.72	50	103		85-114
Dibromofluoromethane	V021509.D	51.27	50	103		80-119
Toluene-d8	V021509.D	53.16	50	106		89-112

BatchQC

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-03MSD	Aqueous	02/16/24 00:54	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021510.D	52.96	50	106		81-118
4-Bromofluorobenzene	V021510.D	51.08	50	102		85-114
Dibromofluoromethane	V021510.D	52.25	50	105		80-119
Toluene-d8	V021510.D	53.32	50	107		89-112

VBLKW-240215

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	VBLKW-240215	Aqueous	02/15/24 23:03	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021505.D	44.97	50	89.9		81-118
4-Bromofluorobenzene	V021505.D	43.05	50	86.1		85-114
Dibromofluoromethane	V021505.D	43.16	50	86.3		80-119
Toluene-d8	V021505.D	44.6	50	89.2		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458988

VLCSW-240215

Lab Sample ID	Instrument ID	Matrix	Analysis Date	Conc Units	Dilution
VLCSW-240215	VOA9	Aqueous	02/15/24 22:19	%REC	1

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021503.D	49.09	50	98.2		81-118
4-Bromofluorobenzene	V021503.D	49.39	50	98.8		85-114
Dibromofluoromethane	V021503.D	49.15	50	98.3		80-119
Toluene-d8	V021503.D	49.87	50	99.7		89-112

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020576**

SAMPLENUM HS24020577-03MS

Volatiles by EPA Volatiles Organics by Method 8260C

BatchQC (HS24020577-03)				HS24020577-03MS				HS24020577-03MSD						
Spike Matrix Aqueous	Result Units ug/L			Run Date 02/16/24				Run Date 02/16/24						
Instrument ID VOA9				Run Time 00:32				Run Time 00:54						
				Data File V021509.D				Data File V021510.D						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,2-Trichloroethane	80-119	1	0	22.7714	20	114		22.8645	20	114		20	0.408	
1,1-Dichloroethene	71-131	1	0	23.8857	20	119		24.0987	20	120		20	0.888	
1,2-Dichloroethane	73-128	1	0	22.7650	20	114		22.9054	20	115		20	0.615	
cis-1,2-Dichloroethene	78-123	1	0	22.7397	20	114		22.7202	20	114		20	0.0858	
Methylene chloride	74-124	1	0	21.0058	20	105		20.8744	20	104		20	0.627	
Trichloroethene	79-123	1	0	23.3521	20	117		22.3690	20	112		20	4.3	
Vinyl chloride	58-137	1	0	23.4461	20	117		23.3637	20	117		20	0.352	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

SAMPLENUM VLCSW-240214

VOA9_458837			VLCSW-240214			VLCSDW-240214					
Spike Matrix Aqueous	Result Units ug/L		Run Date 02/14/24 Run Time 21:12			Run Date 02/14/24 Run Time 21:34					
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
1,1,2-Trichloroethane	80-119	20	22.71	114		22.95	115		20	1.06	
1,1-Dichloroethene	71-131	20	20.74	104		20.34	102		20	1.93	
1,2-Dichloroethane	73-128	20	22.23	111		21.42	107		20	3.7	
cis-1,2-Dichloroethene	78-123	20	19.73	99		19.95	100		20	1.12	
Methylene chloride	74-124	20	20.58	103		21.46	107		20	4.18	
Trichloroethene	79-123	20	22.72	114		23.5	118		20	3.38	
Vinyl chloride	58-137	20	20.87	104		20.39	102		20	2.34	

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

SAMPLENUM VLCSW-240215

VOA9_458988			VLCSW-240215				
Spike Matrix Aqueous	Result Units ug/L		Run Date 02/15/24 Run Time 22:19				
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q		
1,1,2-Trichloroethane	80-119	20	20.68	103			
1,1-Dichloroethene	71-131	20	20.27	101			
1,2-Dichloroethane	73-128	20	21	105			
cis-1,2-Dichloroethene	78-123	20	21.99	110			
Methylene chloride	74-124	20	19.45	97.2			
Trichloroethene	79-123	20	21.97	110			
Vinyl chloride	58-137	20	20.55	103			

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Form 4

Method Blank Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

METHOD BLANK	Matrix	Analysis Date	Analysis Batch	Inst ID
VBLKW-240214	Aqueous	02/14/24 22:18	R458837	VOA9

Client Sample ID	Lab Sample ID	Type	Analysis Date	Analysis Batch	Inst ID	FileID
VLCSW-240214	VLCSW-240214	LCS	02/14/24 21:12	R458837	VOA9	V021403.D
VLCSDW-240214	VLCSDW-240214	LCSD	02/14/24 21:34	R458837	VOA9	V021404.D
Trip Blank-240206	HS24020576-11	SAMP	02/14/24 22:40	R458837	VOA9	V021407.D
16RW12-240206	HS24020576-03	SAMP	02/15/24 03:06	R458837	VOA9	V021419.D
16RW12-240206-FD	HS24020576-04	SAMP	02/15/24 03:28	R458837	VOA9	V021420.D
16WW34-240206	HS24020576-07	SAMP	02/15/24 03:50	R458837	VOA9	V021421.D
16WW33-240206	HS24020576-08	SAMP	02/15/24 04:12	R458837	VOA9	V021422.D
16WW25-240206	HS24020576-09	SAMP	02/15/24 04:34	R458837	VOA9	V021423.D

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020576

Volatiles by EPA Volatiles Organics by Method 8260C

METHOD BLANK	Matrix	Analysis Date	Analysis Batch	Inst ID
VBLKW-240215	Aqueous	02/15/24 23:03	R458988	VOA9

Client Sample ID	Lab Sample ID	Type	Analysis Date	Analysis Batch	Inst ID	FileID
VLCSW-240215	VLCSW-240215	LCS	02/15/24 22:19	R458988	VOA9	V021503.D
BatchQC	HS24020577-03MS	MS	02/16/24 00:32	R458988	VOA9	V021509.D
BatchQC	HS24020577-03MSD	MSD	02/16/24 00:54	R458988	VOA9	V021510.D
16RW09-240206	HS24020576-01	SAMP	02/16/24 05:42	R458988	VOA9	V021523.D
16RW10-240206	HS24020576-02	SAMP	02/16/24 06:04	R458988	VOA9	V021524.D
16WW40-240206	HS24020576-05	SAMP	02/16/24 06:26	R458988	VOA9	V021525.D
16WW12-240206	HS24020576-06	SAMP	02/16/24 06:48	R458988	VOA9	V021526.D
16WW26-240206	HS24020576-10	SAMP	02/16/24 07:10	R458988	VOA9	V021527.D

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Form 5

Instrument Performance Check

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9

Lab File ID: U020901 DFTPP Injection Date: 02/09/24

Instrument ID: VOA9 DFTPP Injection Time: 0740

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	45.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	100.1
175	5.0 - 9.0% of mass 174	8.7 (8.7)1
176	95.0 - 101.0% of mass 174	97.5 (97.4)1
177	5.0 - 9.0% of mass 176	6.6 (6.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD00.25	VSTD00.25	U020902	02/09/24	0922
02	VSTD00.5	VSTD00.5	U020903	02/09/24	0944
03	VSTD001	VSTD001	U020904	02/09/24	1006
04	VSTD002	VSTD002	U020905	02/09/24	1029
05	VSTD005	VSTD005	U020906	02/09/24	1051
06	VSTD020	VSTD020	U020907	02/09/24	1113
07	VSTD050	VSTD050	U020908	02/09/24	1135
08	VSTD100	VSTD100	U020909	02/09/24	1158
09	VSTD150	VSTD150	U020910	02/09/24	1220
10	VSTD200	VSTD200	U020911	02/09/24	1242
11	ICV	ICV	U020913	02/09/24	1327
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020576**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458837

Tune File V021401.D 02/14/24 2/14/2024

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	15.6 (15.6)
75	30.0 - 60.0% of mass 95	45.2 (45.2)
95	Base peak, 100% RA	100 (91.1)
96	5.0 - 9.0% of mass 95	7.1 (7.1)
173	Less than 2.0% of mass 174	0 (0) 1
174	greater than 50.0% of mass 95	109.7 (110) 1
175	5.0 - 9.0% of mass 174	9.7 (8.83) 1
176	> 95% but < 101% of mass 174	108.1 (98.5) 1
177	5.0 - 9.0% of mass 176	7.2 (6.65) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	2/14/2024	V021402	CCV
2	VLCSW-	LCS	2/14/2024	V021403	VLCSW-240214
3	VLCSDW-	LCSD	2/14/2024	V021404	VLCSDW-240214
4	VBLKW-	MBLK	2/14/2024	V021406	VBLKW-240214
5	HS24020576-	SAMP	2/14/2024	V021407	Trip Blank-240206
6	HS24020576-	SAMP	2/15/2024	V021419	16RW12-240206
7	HS24020576-	SAMP	2/15/2024	V021420	16RW12-240206-FD
8	HS24020576-	SAMP	2/15/2024	V021421	16WW34-240206
9	HS24020576-	SAMP	2/15/2024	V021422	16WW33-240206
10	HS24020576-	SAMP	2/15/2024	V021423	16WW25-240206
11	CCV-END	CCV_EN	2/15/2024	V021427	CCV-END

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9

Lab File ID: U021501 DFTPP Injection Date: 02/15/24

Instrument ID: VOA9 DFTPP Injection Time: 1603

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.5
75	30.0 - 60.0% of mass 95	48.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	93.9
175	5.0 - 9.0% of mass 174	7.3 (7.8)1
176	95.0 - 101.0% of mass 174	90.0 (95.8)1
177	5.0 - 9.0% of mass 176	5.4 (6.0)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD00.25	VSTD00.25	U021502	02/15/24	1625
02	VSTD00.5	VSTD00.5	U021503	02/15/24	1647
03	VSTD001	VSTD001	U021504	02/15/24	1709
04	VSTD002	VSTD002	U021505	02/15/24	1732
05	VSTD005	VSTD005	U021506	02/15/24	1754
06	VSTD020	VSTD020	U021507	02/15/24	1816
07	VSTD050	VSTD050	U021508	02/15/24	1838
08	VSTD100	VSTD100	U021509	02/15/24	1900
09	VSTD150	VSTD150	U021510	02/15/24	1922
10	VSTD200	VSTD200	U021511	02/15/24	1944
11	ICV	ICV	U021513	02/15/24	2029
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020576**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458988

Tune File V021501.D 02/15/24 2/15/2024

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	20.2 (20.2)
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	7.6 (7.59)
173	Less than 2.0% of mass 174	0 (0) 1
174	greater than 50.0% of mass 95	79.9 (79.9) 1
175	5.0 - 9.0% of mass 174	6.9 (8.69) 1
176	> 95% but < 101% of mass 174	76 (95.1) 1
177	5.0 - 9.0% of mass 176	5.2 (6.87) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	2/15/2024	V021502	CCV
2	VLCSW-	LCS	2/15/2024	V021503	VLCSW-240215
3	VBLKW-	MBLK	2/15/2024	V021505	VBLKW-240215
4	HS24020577-	MS	2/16/2024	V021509	ZZZZZZMS
5	HS24020577-	MSD	2/16/2024	V021510	ZZZZZZMSD
6	HS24020576-	SAMP	2/16/2024	V021523	16RW09-240206
7	HS24020576-	SAMP	2/16/2024	V021524	16RW10-240206
8	HS24020576-	SAMP	2/16/2024	V021525	16WW40-240206
9	HS24020576-	SAMP	2/16/2024	V021526	16WW12-240206
10	HS24020576-	SAMP	2/16/2024	V021527	16WW26-240206
11	CCV-END	CCV_EN	2/16/2024	V021528	CCV-END

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Form 6

Initial Calibration Data

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Calibration File Names:
Level 1: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020902.D
Level 2: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020903.D
Level 3: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020904.D
Level 4: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D
Level 5: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D
Level 6: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D
Level 7: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020908.D
Level 8: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020909.D
Level 9: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020910.D
Level 10: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D

Compound	0.2500000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
2 Dichlorodifluoromethane	+++++	907	1508	2577	6902	27310					
	69589	142137	224828	297253			LINR	0.00255	0.32866		0.99854
3 Chloromethane	+++++	1281	2409	3934	8108	33475					
	80606	165791	256738	364440			LINR	0.00907	0.39182		0.99923
4 Propionitrile	+++++	0.06367	0.06892	0.04886	0.04684	0.05053					
	0.05123	0.05041	0.05210	0.05070			AVRG		0.05370		13.81094

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Vinyl Chloride	+++++	1370	1927	3412	7991	37094					
	92433	190664	290301	396253			LINR	0.00129	0.43367		0.99967
6 Bromomethane	+++++	1565	2599	3483	6995	23818					
	58408	122501	199120	274596			LINR	0.01225	0.29723		0.99796
7 Chloroethane	+++++	835	1401	2571	6630	25799					
	66462	129608	202297	273442			LINR	-0.00583	0.29935		0.99924
8 Trichlorofluoromethane	+++++	1847	2869	5784	13984	59528					
	150246	304288	458326	621502			LINR	-0.00811	0.68183		0.99959
9 Acrolein	+++++	+++++	279	413	908	3533					
	8060	16273	23107	33950			LINR	-0.04997	0.01803		0.99913
10 Acetone	+++++	1848	2336	3695	6278	24798					
	56771	111939	166382	219721			LINR	-0.10621	0.12074		0.99863
11 1,1-Dichloroethene	+++++	1102	1781	3506	7671	34207					
	88113	176082	274360	372803			LINR	0.00303	0.40805		0.99938

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
12 Isobutyl Alcohol	+++++	0.06470	0.05527	0.04297	0.04261	0.04516					
	0.04593	0.04643	0.04967	0.04888			AVRG		0.04907		14.30443
13 Acetonitrile	+++++	0.04397	0.05008	0.03892	0.04459	0.03918					
	0.03946	0.03953	0.04022	0.03812			AVRG		0.04156		9.40537
14 Allyl Chloride	+++++	2623	3615	7042	16899	69739					
	175939	361060	547492	733286			LINR	-0.00813	0.80804		0.99928
15 Iodomethane	+++++	1327	2369	5358	16927	95233					
	266005	543854	+++++	+++++			LINR	0.03639	0.61682		0.99959
16 Acrylonitrile	+++++	738	1158	2213	5479	22101					
	54913	115719	171648	235255			LINR	-0.00964	0.12868		0.99979
17 Methylene Chloride	+++++	2539	3682	5315	10413	41234					
	99973	199305	302564	405366			LINR	-0.02769	0.44414		0.99929
18 Methyl tert-butyl ether	+++++	3059	4946	9274	23203	94025					
	236782	489347	747890	1023738			LINR	0.00217	1.11846		0.99967

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
19 Carbon Disulfide	+++++	1.55194	1.40676	1.06487	1.04257	1.09505					
	1.11745	1.10607	1.17408	1.14413			AVRG		1.18921		14.53602
20 trans-1,2-Dichloroethene	+++++	1223	2406	4308	8449	40157					
	98160	204716	310253	425570			LINR	0.00071	0.46479		0.99974
21 Vinyl Acetate	+++++	1.26588	1.18715	0.86129	0.85524	0.88643					
	0.94049	0.91488	0.98986	0.95177			AVRG		0.98367		14.80312
22 1,1-Dichloroethane	+++++	1948	3356	6310	14081	62090					
	156179	312101	492499	662807			LINR	0.00216	0.72727		0.99905
23 Chloroprene	+++++	379	752	1068	2540	10723					
	26781	54641	90341	123052			LINR	0.02339	0.13424		0.99783
24 2-Butanone	+++++	0.18677	0.17098	0.13755	0.12203	0.14259					
	0.14925	0.14929	0.15421	0.15106			AVRG		0.15152		12.31014
25 Methacrylonitrile	+++++	0.45129	0.42992	0.40786	0.34609	0.32310					
	0.33646	0.34310	0.35028	0.34072			AVRG		0.36987		12.64528

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
26 2,2-Dichloropropane	+++++	0.78806	0.66854	0.54601	0.48656	0.55051					
	0.55774	0.56094	0.60957	0.58314			AVRG		0.59456		14.77281
27 cis-1,2-Dichloroethene	+++++	0.64621	0.72515	0.51180	0.48270	0.51076					
	0.52483	0.50493	0.53462	0.51741			AVRG		0.55093		14.55155
28 Chloroform	+++++	2075	4001	6621	16177	68933					
	176056	352850	545173	735037			LINR	-0.00294	0.80695		0.99934
29 Bromochloromethane	+++++	750	1379	2531	5510	24362					
	62198	119737	181633	241921			LINR	-0.02154	0.26676		0.99886
31 1,1,1-Trichloroethane	+++++	0.89313	0.87988	0.58165	0.62962	0.66913					
	0.69189	0.69179	0.74070	0.70946			AVRG		0.72081		14.51334
32 1,1-Dichloropropene	+++++	1840	2580	4621	10861	49955					
	126795	255824	398596	540113			LINR	0.00281	0.41302		0.99918
33 1,2-Dichloroethane	+++++	1585	2847	5396	11071	51739					
	130130	254319	388749	523717			LINR	-0.01401	0.40105		0.99918

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
34 Carbon Tetrachloride	+++++	0.53508	0.51552	0.42977	0.39176	0.43372						
	0.44112	0.42974	0.46351	0.45507			AVRG		0.45503		9.84915	
37 Benzene	+++++	4782	8539	14779	33049	149249						
	375334	760852	1187546	1608657			LINR	0.00259	1.22973		0.99915	
38 Trichloroethene	+++++	1597	2818	4366	10696	47513						
	120027	245643	379920	517591			LINR	0.00354	0.39513		0.99936	
39 Bromodichloromethane	+++++	0.55611	0.44317	0.37489	0.34469	0.41718						
	0.42192	0.40224	0.43198	0.42470			AVRG		0.42410		13.72635	
40 Methyl Methacrylate	+++++	0.35673	0.35067	0.24017	0.27283	0.26983						
	0.29093	0.30696	0.31992	0.30477			AVRG		0.30142		12.60358	
41 2-Chloroethylvinyl ether	+++++	+++++	+++++	0.00122	0.00073	0.00245						
	0.00215	0.00387	0.00488	0.00519			AVRG		0.00293		59.75125	<-
42 1,2-Dichloropropane	+++++	1218	2163	4042	7727	35658						
	92135	182962	286290	385455			LINR	-0.00139	0.29520		0.99899	

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Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
43 2-Nitropropane	+++++	0.87947	0.83430	0.60067	0.61496	0.69726					
	0.71892	0.73685	0.78194	0.77233			AVRG		0.73741		12.54093
44 Dibromomethane	+++++	0.22779	0.26752	0.20569	0.18111	0.21244					
	0.21604	0.19467	0.20807	0.20209			AVRG		0.21283		11.44942
45 4-Methyl-2-Pentanone	+++++	0.35251	0.31190	0.23583	0.22440	0.27001					
	0.27429	0.27092	0.28471	0.28885			AVRG		0.27927		13.65206
46 cis-1,3-Dichloropropene	+++++	0.48540	0.43647	0.37826	0.33341	0.42127					
	0.46391	0.46492	0.50976	0.49931			AVRG		0.44363		13.10883
49 Ethyl Methacrylate	+++++	0.38603	0.34638	0.33442	0.34418	0.37844					
	0.39596	0.39428	0.42928	0.41964			AVRG		0.38096		8.79464
50 Toluene	+++++	2.07291	1.70797	1.43284	1.32102	1.51629					
	1.49853	1.41153	1.48634	1.47635			AVRG		1.54709		14.39741
51 trans-1,3-Dichloropropene	+++++	818	1606	3131	7589	44026					
	121449	258370	407217	554885			LINR	0.03366	0.42601		0.99894

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52 2-Hexanone	+++++	1322	2163	3749	8227	40547					
	105869	227893	357378	493142			LINR	0.05064	0.19932		0.99925
53 1,1,2-Trichloroethane	+++++	950	1420	3115	6711	29813					
	75785	151138	234464	318353			LINR	-0.00424	0.25782		0.99960
54 1,3-Dichloropropane	+++++	1884	3251	5927	13330	61623					
	161117	321486	492698	671252			LINR	-0.00352	0.54386		0.99970
55 Dibromochloromethane	+++++	0.47483	0.40133	0.31181	0.30759	0.39087					
	0.42419	0.40022	0.41806	0.42272			AVRG		0.39462		13.63740
56 Tetrachloroethene	+++++	1157	2061	3789	9440	40498					
	101511	206130	322517	435734			LINR	0.00008	0.35352		0.99956
57 1,2-Dibromoethane	+++++	0.36697	0.36508	0.33135	0.31136	0.35439					
	0.35724	0.33690	0.34857	0.34426			AVRG		0.34624		5.11266
58 1-Chlorohexane	+++++	2590	2981	4112	8072	30758					
	74982	155922	243289	328757			LINR	-0.00956	0.25039		0.99904

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59 Chlorobenzene	+++++	3697	6126	12192	26047	116535						
	299817	601383	936714	1257280			LINR	-0.00419	1.02278		0.99957	
60 1,1,1,2-Tetrachloroethane	+++++	0.46078	0.46080	0.37671	0.33550	0.38200						
	0.39651	0.37742	0.39819	0.39619			AVRG		0.39823		10.09482	
61 Ethylbenzene	+++++	0.60047	0.61729	0.46115	0.45927	0.51461						
	0.53382	0.50052	0.52578	0.52112			AVRG		0.52600		10.28236	
62 m,p-Xylenes	+++++	0.78705	0.69337	0.55417	0.53900	0.64725						
	0.65948	0.62809	0.65717	0.65184			AVRG		0.64638		11.30021	
63 o-Xylene	+++++	0.71081	0.65897	0.59808	0.51558	0.64999						
	0.66016	0.61584	0.64952	0.63782			AVRG		0.63297		8.53538	
64 Styrene	+++++	1.04472	0.97304	0.84988	0.83998	1.09440						
	1.14368	1.08845	1.15098	1.14011			AVRG		1.03614		11.76692	
65 cis-1,4-Dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-

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66 Bromoform	+++++	0.33267	0.28998	0.24851	0.20614	0.27089					
	0.29892	0.28941	0.31424	0.31777			AVRG		0.28539		13.67563
67 Isopropylbenzene	+++++	1.81462	1.83126	1.43359	1.35449	1.60942					
	1.65347	1.57728	1.66119	1.63096			AVRG		1.61848		9.58695
68 1,1,2,2-Tetrachloroethane	+++++	1437	2264	4391	10355	47752					
	123522	242003	375701	518878			LINR	-0.00379	0.75351		0.99960
71 1,2,3-Trichloropropane	+++++	0.86255	1.05835	0.79368	0.67556	0.71745					
	0.77873	0.75686	0.80362	0.78248			AVRG		0.80326		13.60449
72 trans-1,4-Dichloro-2-butene	+++++	0.06653	0.09138	0.07880	0.06446	0.07062					
	0.08003	0.08227	0.08630	0.09135			AVRG		0.07908		12.70659
73 n-Propylbenzene	+++++	3.82034	3.25727	2.46525	2.60719	3.06370					
	3.13984	3.04056	3.21217	3.20423			AVRG		3.09006		12.62935
74 Bromobenzene	+++++	1584	2658	4619	11779	56951					
	143938	288234	453792	612518			LINR	-0.00106	0.89742		0.99928

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75 1,3,5-Trimethylbenzene	+++++	2.63514	2.31176	1.93345	1.95433	2.31544					
	2.43034	2.36165	2.48668	2.40318			AVRG		2.31466		10.02655
76 2-Chlorotoluene	+++++	2.68341	2.37426	1.89143	1.76345	1.95376					
	1.97812	1.91132	1.99450	1.91793			AVRG		2.05202		14.07935
77 4-Chlorotoluene	+++++	2.96423	2.67671	2.12775	1.93511	2.27990					
	2.27281	2.18021	2.30305	2.22224			AVRG		2.32911		13.23200
78 tert-Butylbenzene	+++++	2.54341	2.35496	1.83122	1.80050	2.08978					
	2.13026	2.08065	2.16949	2.06558			AVRG		2.11843		10.91744
79 1,2,4-Trimethylbenzene	+++++	2.49030	2.36671	1.94325	1.93309	2.28698					
	2.39238	2.31976	2.44952	2.36538			AVRG		2.28304		8.97251
80 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
81 sec-Butylbenzene	+++++	3.18791	2.98628	2.23663	2.29988	2.60319					
	2.73185	2.69178	2.82999	2.73044			AVRG		2.69977		11.13594

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82 p-Isopropyltoluene	+++++	2.82825	2.44767	1.87743	1.94855	2.39290						
	2.55446	2.53126	2.66366	2.55189			AVRG		2.42178		12.99221	
83 1,3-Dichlorobenzene	+++++	2757	4590	8846	20783	97541						
	246607	502145	787039	1055922			LINR	-0.00195	1.55125		0.99923	
84 1,4-Dichlorobenzene	+++++	3199	5524	10205	21781	102103						
	253657	523178	801340	1084669			LINR	-0.00805	1.58864		0.99958	
85 bis(2-Chloro-isopropyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
86 Benzyl Chloride	+++++	1114	1659	2971	7297	33746						
	106029	266227	459017	673728			QUAD	0.03930	2.47859	-0.31374	0.99860	
87 n-Butylbenzene	+++++	2.00512	1.96904	1.60242	1.58943	1.82880						
	1.99989	1.98942	2.11502	2.02230			AVRG		1.90238		9.92174	
88 1,2-Dichlorobenzene	+++++	2762	4790	9072	20035	95888						
	243811	488949	762567	1028628			LINR	-0.00530	1.50750		0.99936	

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89 1,2-Dibromo-3-Chloropropane	+++++	72.00000	191	613	1238	7047					
	20432	44556	71535	102920			LINR	0.05747	0.14852		0.99792
90 1,2,4-Trichlorobenzene	+++++	1.01221	1.09694	0.77635	0.80425	0.98893					
	1.03804	1.04446	1.08766	1.05830			AVRG		0.98968		11.93156
91 Hexachlorobutadiene	+++++	860	1570	2247	5773	27240					
	71490	147841	225725	309875			LINR	0.00202	0.45241		0.99980
92 Naphthalene	+++++	2654	4198	8602	21969	130928					
	351457	739697	1165768	1594607			LINR	0.02490	2.33701		0.99940
93 1,2,3-Trichlorobenzene	+++++	0.91405	1.10659	0.80226	0.81400	0.94892					
	0.98962	0.93844	1.01084	0.97068			AVRG		0.94393		10.02496
130 Ethyl Acetate	+++++	1001	2103	4030	6852	29757					
	77144	153125	235617	323855			LINR	-0.00358	0.35252		0.99963
131 Methyl Acrylate	+++++	0.37459	0.44066	0.47963	0.41396	0.38464					
	0.39253	0.40642	0.42694	0.41993			AVRG		0.41548		7.67471

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132 n-Butanol	+++++	465	707	1236	3384	15663					
	45058	99387	162932	224072			LINR	1.10001	0.01228		0.99752
133 Ethyl Acrylate	+++++	0.85005	0.88597	0.70796	0.85040	0.82984					
	0.88090	0.90863	0.95265	0.93744			AVRG		0.86709		8.33873
134 Cyclohexanone	+++++	0.04083	0.03060	0.02338	0.02943	0.03036					
	0.03173	0.03134	0.03244	0.03093			AVRG		0.03123		14.32777
135 1,4-Dioxane	72.00000	308	478	742	1680	9244					
	22915	48044	74347	100798			LINR	0.19282	0.00553		0.99940
136 n-Hexane	+++++	1133	1770	2842	7699	33189					
	86336	180035	280489	381403			LINR	0.01362	0.41820		0.99931
137 n-Pentane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
138 Freon TF	+++++	1206	1903	3605	8106	34996					
	88837	178255	280437	374690			LINR	0.00015	0.41241		0.99893

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146 Methyl Acetate	+++++	726	2321	3096	5663	25789						
	64996	131072	197033	272795			LINR	-0.00812	0.29644		0.99987	
147 Methylcyclohexane	+++++	0.61840	0.59616	0.49358	0.56972	0.60363						
	0.62501	0.62387	0.66326	0.65680			AVRG		0.60560		8.40954	
149 Isopropyl alcohol	+++++	1338	2389	5220	8964	35913						
	95411	202950	308676	415230			LINR	0.04153	0.02286		0.99924	
152 Amyl alcohol	+++++	563	804	1113	2584	15715						
	46354	101657	167568	233541			LINR	1.22785	0.00944		0.99723	<-
150 Allyl alcohol	+++++	1133	1770	2842	7699	33189						
	86336	180035	280489	381403			LINR	0.27243	0.02091		0.99931	
151 4-Methyl-2-pentanol	+++++	3817	5668	11002	31481	153731						
	399304	884233	1459098	2014969			LINR	1.06560	0.07686		0.99698	
148 Tert-butyl alcohol	+++++	2997	3825	7150	16928	69193						
	173854	360713	547562	748988			LINR	-0.02055	0.04092		0.99971	

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139 Diethyl ether	+++++	732	1393	2342	6168	24074					
	62060	125748	185997	252083			LINR	-0.01472	0.27684		0.99951
140 1,3-Butadiene	+++++	1034	1880	2918	6867	32002					
	83934	167421	256882	353164			LINR	0.00342	0.38539		0.99967
141 Cyclohexane	+++++	2861	4524	6449	12221	47234					
	116003	240373	370929	509886			LINR	-0.00527	0.55372		0.99951
142 Tetrahydrofuran	+++++	561	572	990	2954	9512					
	25951	53751	81271	113004			LINR	0.00725	0.06139		0.99973
143 1-Chlorobutane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
144 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
145 alpha-Methylstyrene	+++++	996	2213	4011	10802	59463					
	161960	346480	550685	744171			LINR	0.02750	1.09588		0.99906

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153 Tetraethyl lead	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
154 2,3-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
155 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
156 Diisopropyl ether	+++++	1.31920	1.33709	1.11450	1.13464	1.09639						
	1.12681	1.09696	1.15524	1.11586			AVRG		1.16630		8.02921	
157 n-Heptane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
158 Dichlorofluoromethane	+++++	0.86949	0.89991	0.78116	0.71363	0.67533						
	0.67165	0.66017	0.69135	0.65281			AVRG		0.73505		12.69866	
159 Propylene oxide	+++++	+++++	81.00000	572	1008	3888						
	7793	16012	23413	32675			LINR	-0.08543	0.01758		0.99953	<-

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160 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
161 3-Methyl-1-butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
162 Butyl acrylate	+++++	1055	1464	3846	9254	44204						
	132648	316240	540481	753691			QUAD	0.03407	2.02198	-0.17264	0.99857	
163 Butyl methacrylate	+++++	0.53346	0.54491	0.54108	0.56094	0.44384						
	0.46304	0.49934	0.57927	0.56984			AVRG		0.52619		9.02613	
164 Dicyclopentadiene	+++++	2.96020	2.87260	2.57046	2.64654	2.50743						
	2.63278	2.57601	2.71567	2.57512			AVRG		2.67298		5.66424	
165 4-Vinyl-1-cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
166 1,2,3-Trimethylbenzene	+++++	1.74925	1.77105	1.64671	1.60948	1.71451						
	1.73903	1.65508	1.76098	1.67589			AVRG		1.70244		3.38099	

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Start Cal Date : 09-FEB-2024 09:22
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Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
167 Ethanol	+++++	367	603	929	1465	6987					
	17697	35912	56305	74560			LINR	-0.12210	0.00411		0.99868
168 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
170 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
172 tert-Butyl formate	+++++	1692	2140	4458	11099	42450					
	115450	251341	401953	570864			LINR	0.08877	0.30849		0.99791
173 3,3-Dimethyl-1-butanol	+++++	2924	3895	7767	16416	78105					
	188703	411223	659546	911976			LINR	0.56488	0.03675		0.99849
174 tert-Amyl methyl ether	+++++	1.25458	1.30864	1.32083	1.06053	1.09656					
	1.16550	1.14517	1.22605	1.20760			AVRG		1.19838		7.48934
175 tert-Butyl ethyl ether	+++++	1.23147	1.19949	1.00949	1.11075	1.05326					
	1.12038	1.10880	1.18732	1.14883			AVRG		1.12998		6.26472

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
176 tert-Amyl alcohol	+++++	1680	1782	3734	10755	43101						
	115450	251341	401953	570864			LINR	0.91403	0.03086		0.99798	
177 Dimethyl ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
178 Ethylene oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
179 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
180 1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
181 2-Furfural	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
182 Epichlorohydrin	+++++	24.00000	217	553	1420	6430						
	18021	39784	67174	92467			LINR	0.25882	0.01768		0.99600	

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183 2-Methylpropane(1)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
184 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
185 Isoprene	+++++	0.13239	0.12715	0.12236	0.09375	0.10267	AVRG		0.10863		13.42256	
	0.10487	0.09981	0.09810	0.09658								
186 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
187 n-Amyl acetate	+++++	1619	2428	4630	9522	41714	QUAD	0.01142	2.50185	-0.26505	0.99897	
	112669	257180	439239	616175								
188 Isopropyl acetate	+++++	0.90773	0.78344	0.60553	0.58623	0.66077	AVRG		0.69012		14.39698	
	0.65179	0.63910	0.69161	0.68489								

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189 n-Butyl acetate	+++++	1760	2500	3378	8826	35752						
	83180	165842	259125	352075			LINR	-0.01572	0.28376		0.99940	
190 Propanal	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
191 n-Buteraldehyde	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
192 Isobuteraldehyde	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
193 2-Ethyl-1-hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
194 Acetaldehyde	+++++	173	736	947	3492	14266						
	31551	81064	107895	144165			QUAD	0.13204	20.35987	7.58271	0.99687	
195 Methyl Amyl Ketone	+++++	0.47070	0.49292	0.41973	0.43621	0.48060						
	0.52283	0.55871	0.61457	0.63200			AVRG		0.51425		14.50094	

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196 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
197 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
198 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
199 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
200 Dimethyl Disulfide	+++++	537	1377	2597	6785	35657						
	114686	288382	501140	717349			QUAD	0.04803	2.24932	-0.24661	0.99818	
201 1-Butene(1)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
202 Isobutylene	+++++	475	951	1684	4184	14885					
	36833	77662	118906	160570			LINR	-0.00307	0.17611		0.99937
203 2-Ethylhexyl Acrylate	+++++	268	864	1755	5622	29386					
	93637	226006	369480	503204			LINR	0.07187	0.74411		0.99707
M 94 1,2-Dichloroethylene (total)	+++++	0.64437	0.71180	0.51353	0.45566	0.48810					
	0.49015	0.48198	0.50374	0.48967			AVRG		0.53100		16.29360
M 95 Xylenes (total)	+++++	0.70440	0.61935	0.51055	0.48763	0.60877					
	0.61342	0.58266	0.62586	0.60618			AVRG		0.59542		10.78305
$ 30 Dibromofluoromethane	+++++	1601	2659	4395	12182	46132					
	111088	225353	339618	471863			LINR	-0.00876	0.51162		0.99988
$ 35 1,2-Dichloroethane-d4	+++++	1632	2589	4833	11550	46575					
	114391	226192	338611	468937			LINR	-0.01505	0.50914		0.99986
$ 48 Toluene-d8	+++++	5559	9135	14699	39372	159212					
	391087	794101	1215187	1698429			LINR	-0.00110	1.36113		0.99943

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Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 69 4-Bromofluorobenzene	+++++	2317	3587	5431	13924	59177					
	144170	295803	452247	620366			LINR	-0.00574	0.50049		0.99976

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Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

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INITIAL CALIBRATION DATA

Start Cal Date : 15-FEB-2024 16:25
End Cal Date : 15-FEB-2024 19:44
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Last Edit : 22-Feb-2024 16:17 Linh.Pham

Calibration File Names:
Level 1: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021502.D
Level 2: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D
Level 3: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021504.D
Level 4: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Level 5: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021506.D
Level 6: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D
Level 7: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021508.D
Level 8: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D
Level 9: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021510.D
Level 10: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D

Compound	0.2500000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
2 Dichlorodifluoromethane	+++++	1.61858	1.12258	0.61888	0.62557	0.56807						
	0.49173	0.51540	0.64993	0.53167			AVRG		0.74916		50.35413	<-
3 Chloromethane	+++++	2.84597	1.67801	1.03633	0.98373	0.85980						
	0.73862	0.72198	0.98802	0.77621			AVRG		1.18096		58.27978	<-
4 Propionitrile	+++++	0.28822	0.18152	0.11494	0.10335	0.09839						
	0.09559	0.09426	0.12111	0.09580			AVRG		0.13257		48.64639	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
5 Vinyl Chloride	+++++ / 207106	2686 / 441981	4995 / 729037	9607 / +++++	21964	89488	QUAD	-0.04560	1.55780	-0.18096	0.99914	
6 Bromomethane	+++++ / 0.36615	1.80589 / 0.38797	1.22496 / 0.47970	0.68925 / 0.39160	0.55743	0.41926	AVRG		0.70247		70.28693	<-
7 Chloroethane	+++++ / 0.53054	1.89697 / 0.52372	1.51071 / 0.65280	0.86524 / 0.50415	0.68755	0.60774	AVRG		0.86438		57.60059	<-
8 Trichlorofluoromethane	+++++ / 0.89484	3.33651 / 0.92208	2.11934 / 1.16571	1.24336 / 0.93162	1.15978	1.05137	AVRG		1.42496		56.70696	<-
9 Acrolein	+++++ / 13924	70.00000 / 28448	187 / 43606	740 / +++++	1669	5380	QUAD	-0.06738	46.13002	-68.74463	0.99924	
10 Acetone	+++++ / 0.27480	1.69464 / 0.24121	1.15336 / 0.30246	0.42056 / 0.23167	0.32602	0.28207	AVRG		0.54742		94.62568	<-
11 1,1-Dichloroethene	+++++ / 141341	1843 / 289798	3507 / 485516	6759 / +++++	14587	61875	QUAD	-0.05222	2.35008	-0.41085	0.99841	

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Compound	0.2500000 Level 1 50.0000 Level 7	0.5000000 Level 2 100.0000 Level 8	1.0000 Level 3 150.0000 Level 9	2.0000 Level 4 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
12 Isobutyl Alcohol	+++++	0.17065	0.11549	0.08353	0.08371	0.08476						
	0.08197	0.08442	0.10862	0.08947			AVRG		0.10029		28.96965	<-
13 Acetonitrile	+++++	931	2213	3614	7819	29219						
	73241	144866	225497	+++++			QUAD	-0.51030	45.48124	-13.56455	0.99883	
14 Allyl Chloride	+++++	3.62214	1.80415	1.18489	0.97106	0.88937						
	0.83348	0.78859	1.00188	0.79187			AVRG		1.32083		69.59013	<-
15 Iodomethane	+++++	0.77617	0.57066	0.37596	0.52233	0.66338						
	0.67269	0.72859	+++++	+++++			AVRG		0.61568		22.21458	<-
16 Acrylonitrile	+++++	1469	3409	6963	12265	55078						
	142490	281335	467729	+++++			QUAD	-0.08290	4.75766	-0.82813	0.99846	
17 Methylene Chloride	+++++	4152	7151	10938	20251	77125						
	174452	346045	+++++	+++++			LINR	-0.05485	0.60198		0.99936	
18 Methyl tert-butyl ether	+++++	4423	8958	20219	39677	160160						
	423342	852991	1427264	+++++			QUAD	-0.03883	0.79328	-0.04693	0.99892	

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19 Carbon Disulfide	+++++	5.75144	3.37944	1.97160	1.88178	1.76681						
	1.56474	1.58589	2.04759	1.64875			AVRG		2.39978		57.23704	<-
20 trans-1,2-Dichloroethene	+++++	1525	4050	7041	17111	70382						
	171444	351188	581359	+++++			QUAD	-0.04076	1.92509	-0.27308	0.99882	
21 Vinyl Acetate	+++++	4.16960	2.90264	2.16612	1.96931	1.98896						
	1.92551	1.96002	2.48760	2.02459			AVRG		2.39937		30.77023	<-
22 1,1-Dichloroethane	+++++	3.28166	2.46766	1.49213	1.39857	1.29623						
	1.15979	1.17852	1.49424	1.21434			AVRG		1.66479		43.62069	<-
23 Chloroprene	+++++	536	843	2626	5747	23597						
	56472	123345	199783	+++++			QUAD	-0.03112	5.56090	-2.28473	0.99951	
24 2-Butanone	+++++	0.47709	0.58320	0.28016	0.29782	0.30927						
	0.30563	0.30013	0.39079	0.31788			AVRG		0.36244		28.53218	<-
25 Methacrylonitrile	+++++	845	2142	3192	6743	28858						
	76219	150658	250288	+++++			QUAD	-0.04147	4.45191	-1.45279	0.99856	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
26 2,2-Dichloropropane	+++++	2.67314	1.68437	0.82520	0.86090	0.83556						
	0.77602	0.82690	1.09317	0.88740			AVRG		1.16252		54.47593	<-
27 cis-1,2-Dichloroethene	+++++	2003	3678	8361	18909	78448						
	190476	391824	647036	+++++			QUAD	-0.04014	1.72650	-0.21939	0.99889	
28 Chloroform	+++++	3607	7268	14505	33698	133268						
	316607	648109	1061272	+++++			QUAD	-0.04696	1.04285	-0.07894	0.99876	
29 Bromochloromethane	+++++	1.37745	0.80170	0.42206	0.41767	0.38225						
	0.34070	0.34243	0.43222	0.33905			AVRG		0.53950		64.01861	<-
31 1,1,1-Trichloroethane	+++++	2.41027	1.73221	1.08549	1.08318	0.99615						
	0.90335	0.93942	1.21546	0.99018			AVRG		1.26175		39.45069	<-
32 1,1-Dichloropropene	+++++	1.38218	1.04646	0.63640	0.53485	0.56853						
	0.50701	0.53208	0.68346	0.54779			AVRG		0.71542		41.95561	<-
33 1,2-Dichloroethane	+++++	2663	5952	12481	28362	109373						
	258913	517470	845674	+++++			QUAD	-0.04530	2.12225	-0.31982	0.99871	

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Compound	0.2500000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
34 Carbon Tetrachloride	+++++	2477	4229	9087	20799	86103						
	209448	442212	+++++	+++++			LINR	-0.00605	0.47531		0.99866	
37 Benzene	+++++	7043	14872	31823	74151	302226						
	721041	1477867	2438420	+++++			QUAD	-0.03763	0.75016	-0.04106	0.99903	
38 Trichloroethene	+++++	2136	4231	7995	17702	74057						
	176731	370838	613589	+++++			QUAD	-0.03806	3.02843	-0.68017	0.99931	
39 Bromodichloromethane	+++++	2117	4384	9982	21410	95243						
	233014	486964	819897	+++++			QUAD	-0.02993	2.30020	-0.39928	0.99931	
40 Methyl Methacrylate	+++++	+++++	0.96498	0.69936	0.64383	0.58384						
	0.52185	0.52642	0.65323	0.53446			AVRG		0.64100		22.87297	<-
41 2-Chloroethylvinyl ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
42 1,2-Dichloropropane	+++++	1.12826	0.76163	0.49376	0.47141	0.48456						
	0.42698	0.44239	0.56124	0.44675			AVRG		0.57966		39.63955	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
43 2-Nitropropane	+++++	2.54688	1.90621	1.48432	1.45629	1.56298						
	1.47564	1.54868	2.00603	1.68403			AVRG		1.74123		20.66958	<-
44 Dibromomethane	+++++	0.84742	0.46433	0.29557	0.29051	0.28676						
	0.24914	0.25865	0.32430	0.26032			AVRG		0.36411		52.86674	<-
45 4-Methyl-2-Pentanone	+++++	2977	5697	14827	34940	163146						
	408001	868111	1452742	+++++			QUAD	-0.04027	2.48412	-0.23063	0.99947	
46 cis-1,3-Dichloropropene	+++++	1.30387	0.80686	0.48200	0.48709	0.57395						
	0.56534	0.63093	0.83253	0.67411			AVRG		0.70630		36.29071	<-
49 Ethyl Methacrylate	+++++	0.98448	0.78052	0.47119	0.50859	0.49413						
	0.44962	0.46970	0.61689	0.51090			AVRG		0.58734		30.86719	<-
50 Toluene	+++++	6331	13786	29146	72586	321152						
	766250	1569859	2573676	+++++			QUAD	-0.03184	0.67426	-0.03230	0.99886	
51 trans-1,3-Dichloropropene	+++++	0.71648	0.64484	0.35664	0.36671	0.49316						
	0.48888	0.53421	0.70047	0.56904			AVRG		0.54116		24.20034	<-

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52 2-Hexanone	+++++	0.67734	0.44762	0.28051	0.29933	0.34208						
	0.32630	0.34174	0.43311	0.36106			AVRG		0.38990		31.07899	<-
53 1,1,2-Trichloroethane	+++++	1287	3272	6740	14362	62634						
	144965	296494	481328	+++++			QUAD	-0.03975	3.57000	-0.88944	0.99873	
54 1,3-Dichloropropane	+++++	1.86556	1.36135	0.82546	0.78334	0.81002						
	0.70606	0.71378	0.89695	0.72087			AVRG		0.96482		40.78884	<-
55 Dibromochloromethane	+++++	1364	3319	6848	16676	71845						
	181717	383886	653133	+++++			QUAD	-0.02543	2.82707	-0.60702	0.99947	
56 Tetrachloroethene	+++++	1578	3472	6199	15149	59413						
	140382	290731	481044	+++++			QUAD	-0.04322	3.70619	-0.99837	0.99904	
57 1,2-Dibromoethane	+++++	1.05605	0.73481	0.42545	0.40773	0.41321						
	0.36884	0.37542	0.48416	0.39188			AVRG		0.51751		44.68703	<-
58 1-Chlorohexane	+++++	1.51740	1.26375	0.59452	0.47558	0.41123						
	0.34769	0.37094	0.47108	0.37956			AVRG		0.64797		66.69130	<-

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59 Chlorobenzene	+++++	5026	10769	22406	51478	210166						
	490604	1006357	1660036	+++++			QUAD	-0.04215	1.06207	-0.08101	0.99881	
60 1,1,1,2-Tetrachloroethane	+++++	1.07187	0.71174	0.39638	0.39117	0.40914						
	0.38728	0.39962	0.51450	0.41470			AVRG		0.52182		44.36126	<-
61 Ethylbenzene	+++++	2000	4753	9353	23907	103214						
	247295	513090	863680	+++++			QUAD	-0.03248	2.09391	-0.32526	0.99898	
62 m,p-Xylenes	+++++	5072	10243	22908	58327	262023						
	630783	1310958	2169718	+++++			QUAD	-0.05604	1.62699	-0.09617	0.99905	
63 o-Xylene	+++++	2363	5255	11241	27904	120768						
	302454	637581	1069987	+++++			QUAD	-0.02546	1.69338	-0.21435	0.99943	
64 Styrene	+++++	3596	8645	17274	44038	219130						
	549384	1149524	1912397	+++++			QUAD	-0.01899	0.92841	-0.06344	0.99928	
65 cis-1,4-Dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-

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66 Bromoform	+++++	1108	1984	3819	9703	44824						
	117490	255707	441113	+++++			QUAD	-0.01709	4.29441	-1.43566	0.99976	
67 Isopropylbenzene	+++++	3.93482	2.46191	1.61304	1.74287	1.90141						
	1.75367	1.85041	2.32116	1.87961			AVRG		2.16210		33.29883	<-
68 1,1,2,2-Tetrachloroethane	+++++	4.23645	2.51511	1.41755	1.22869	1.19228						
	1.05642	1.07829	1.35927	1.12184			AVRG		1.68954		62.45559	<-
71 1,2,3-Trichloropropane	+++++	1.84568	1.98548	1.00466	1.10825	1.13266						
	1.02751	1.09777	1.43154	1.21244			AVRG		1.31622		27.62131	<-
72 trans-1,4-Dichloro-2-butene	+++++	+++++	0.13570	0.09520	0.09099	0.10887						
	0.11034	0.11844	0.17643	0.15027			AVRG		0.12328		23.62455	<-
73 n-Propylbenzene	+++++	8.45925	5.56920	3.99106	4.09123	4.33329						
	3.97050	4.04730	5.11409	4.17524			AVRG		4.86124		30.04528	<-
74 Bromobenzene	+++++	2.92494	1.66115	1.01200	1.02310	0.98266						
	0.89001	0.93083	1.18355	0.96751			AVRG		1.28620		51.11623	<-

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75 1,3,5-Trimethylbenzene	+++++	6.43460	3.92803	2.51259	2.81400	3.06375						
	2.80231	2.97268	3.75505	3.06686			AVRG		3.48332		34.33903	<-
76 2-Chlorotoluene	+++++	5.22145	4.24555	2.53510	2.63559	2.71335						
	2.40784	2.45086	3.13457	2.56310			AVRG		3.10082		31.61246	<-
77 4-Chlorotoluene	+++++	5.62720	4.20177	2.79804	2.95313	3.17745						
	2.79053	2.92756	3.66228	2.97458			AVRG		3.45695		27.11702	<-
78 tert-Butylbenzene	+++++	5.43457	3.39585	2.20377	2.40210	2.51846						
	2.27582	2.42740	3.07075	2.53129			AVRG		2.91778		34.95843	<-
79 1,2,4-Trimethylbenzene	+++++	5.92093	3.78733	2.48412	2.81269	3.05480						
	2.80860	2.98357	3.70654	3.04070			AVRG		3.39992		30.41425	<-
80 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
81 sec-Butylbenzene	+++++	7.25293	4.49166	2.92175	3.24795	3.41650						
	3.14884	3.37611	4.27005	3.52454			AVRG		3.96115		33.74168	<-

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82 p-Isopropyltoluene	+++++	4.73237	3.79923	2.55710	2.84255	3.05896						
	2.82826	3.04504	3.84699	3.16393			AVRG		3.31938		20.54893	<-
83 1,3-Dichlorobenzene	+++++	4.80204	2.89087	1.91671	1.88350	1.80684						
	1.61081	1.68695	2.13546	1.77113			AVRG		2.27826		44.77936	<-
84 1,4-Dichlorobenzene	+++++	5.00150	3.14548	2.14832	2.02137	1.89913						
	1.69302	1.77174	2.21102	1.81860			AVRG		2.41224		44.08706	<-
85 bis(2-Chloro-isopropyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
86 Benzyl Chloride	+++++	0.74293	0.50248	0.31759	0.33357	0.45461						
	0.53650	0.68305	0.96370	0.83310			AVRG		0.59639		37.45756	<-
87 n-Butylbenzene	+++++	5.09167	3.18289	2.47753	2.51479	2.74653						
	2.53817	2.76132	3.51778	2.90331			AVRG		3.08155		26.83117	<-
88 1,2-Dichlorobenzene	+++++	4.68046	3.36864	1.93560	1.86437	1.83277						
	1.62878	1.68416	2.10077	1.75021			AVRG		2.31619		44.55231	<-

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89 1,2-Dibromo-3-Chloropropane	+++++	0.36340	0.19425	0.12606	0.12553	0.13070						
	0.12572	0.13730	0.18607	0.16465			AVRG		0.17263		44.25732	<-
90 1,2,4-Trichlorobenzene	+++++	2.51373	1.57869	0.96227	1.02113	1.07914						
	1.03837	1.14974	1.44895	1.23538			AVRG		1.33638		36.43743	<-
91 Hexachlorobutadiene	+++++	1.45496	0.87648	0.56891	0.52076	0.46959						
	0.42302	0.44956	0.58017	0.48720			AVRG		0.64785		51.13914	<-
92 Naphthalene	+++++	3519	6831	16149	42279	241679						
	631757	1339078	2218825	+++++			QUAD	-0.00894	0.41652	-0.01290	0.99956	
93 1,2,3-Trichlorobenzene	+++++	2.88806	1.60462	0.87537	1.01449	1.07597						
	0.99958	1.06322	1.35929	1.15156			AVRG		1.33691		46.45968	<-
130 Ethyl Acetate	+++++	+++++	+++++	0.70477	0.75837	0.70915						
	0.62779	0.61927	0.78559	0.65202			AVRG		0.69385		9.22975	<-
131 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	0.22038	0.17858			AVRG		0.19948		14.81569	<-

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Compound	0.2500000 Level 1 50.0000 Level 7	0.5000000 Level 2 100.0000 Level 8	1.0000 Level 3 150.0000 Level 9	2.0000 Level 4 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
132 n-Butanol	+++++	+++++	0.01991	0.01726	0.01519	0.01565						
	0.01740	0.01896	0.02566	0.02173			AVRG		0.01897		18.25297	<-
133 Ethyl Acrylate	+++++	+++++	+++++	+++++	+++++	0.01078						
	0.00912	0.00852	0.00983	0.00811			AVRG		0.00927		11.45708	<-
134 Cyclohexanone	+++++	0.08511	0.06535	0.04847	0.04306	0.04475						
	0.04942	0.04871	0.06307	0.04975			AVRG		0.05530		24.48606	<-
135 1,4-Dioxane	0.01542	0.03037	0.01379	0.00953	0.00910	0.00731						
	0.00780	0.00798	0.01051	0.00885			AVRG		0.01207		57.60813	<-
136 n-Hexane	+++++	1.51612	1.11555	0.72689	0.75374	0.73296						
	0.64682	0.69832	0.90193	0.73201			AVRG		0.86937		32.27620	<-
137 n-Pentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
138 Freon TF	+++++	1.99425	1.30594	0.75603	0.67796	0.58861						
	0.51376	0.52109	0.66872	0.53958			AVRG		0.84066		59.08335	<-

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146 Methyl Acetate	+++++	+++++	1.75530	0.82860	0.65950	0.62649						
	0.55963	0.54322	0.67667	0.55776			AVRG		0.77590		52.38011	<-
147 Methylcyclohexane	+++++	+++++	0.02874	0.04920	0.02110	0.02809						
	0.03574	0.03935	0.05306	0.04582			AVRG		0.03764		29.93814	<-
149 Isopropyl alcohol	+++++	0.15420	0.08648	0.05818	0.04738	0.04347						
	0.04128	0.03994	0.05205	0.04249			AVRG		0.06283		59.18245	<-
152 Amyl alcohol	+++++	+++++	0.02124	0.01412	0.01071	0.01244						
	0.01296	0.01480	0.01986	0.01690			AVRG		0.01538		23.93711	<-
150 Allyl alcohol	+++++	0.07581	0.05578	0.03634	0.03769	0.03665						
	0.03234	0.03492	0.04510	0.03660			AVRG		0.04347		32.27620	<-
151 4-Methyl-2-pentanol	+++++	0.23397	0.15794	0.10244	0.10132	0.11135						
	0.11086	0.12297	0.16595	0.13610			AVRG		0.13810		31.01402	<-
148 Tert-butyl alcohol	+++++	0.23549	0.15408	0.08677	0.07150	0.06430						
	0.06147	0.06162	0.07804	0.06410			AVRG		0.09749		60.91998	<-

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139 Diethyl ether	+++++	1.50370	0.74649	0.55411	0.52062	0.45320						
	0.44642	0.43645	0.54544	0.42059			AVRG		0.62523		55.05427	<-
140 1,3-Butadiene	+++++	1847	4079	9240	19893	85358						
	204149	432924	717788	+++++			QUAD	-0.03655	1.57988	-0.18688	0.99919	
141 Cyclohexane	+++++	3.94296	2.44424	1.38731	1.11419	0.99824						
	0.87754	0.92445	1.19847	0.97457			AVRG		1.54022		66.30743	<-
142 Tetrahydrofuran	+++++	+++++	0.18052	0.20688	0.12225	0.11717						
	0.11671	0.11502	0.14532	0.11647			AVRG		0.14004		25.17244	<-
143 1-Chlorobutane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
144 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
145 alpha-Methylstyrene	+++++	2.33886	1.44097	0.96289	1.01212	1.15784						
	1.11022	1.20390	1.53676	1.26814			AVRG		1.33686		31.35827	<-

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 15-FEB-2024 16:25
End Cal Date : 15-FEB-2024 19:44
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Last Edit : 22-Feb-2024 16:17 Linh.Pham

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
153 Tetraethyl lead	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
154 2,3-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
155 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
156 Diisopropyl ether	+++++	4.64565	3.77594	2.25226	2.11388	2.16469	AVRG		2.67194		34.38875	<-
	2.18296	2.10724	2.71205	2.09279								
157 n-Heptane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
	+++++	+++++	+++++	+++++								
158 Dichlorofluoromethane	+++++	3.33133	2.29032	+++++	1.28457	1.18103	AVRG		1.58464		51.27097	<-
	1.12464	1.09192	1.34098	1.03233								
159 Propylene oxide	+++++	+++++	0.18353	0.11463	0.05969	0.06250	AVRG		0.07944		59.18795	<-
	0.05341	0.04869	0.06157	0.05148								

ALS Laboratory Group

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
160 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
161 3-Methyl-1-butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
162 Butyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	0.00321	0.00406	0.00589	0.00439			AVRG		0.00439		25.55138	<-
163 Butyl methacrylate	+++++	+++++	+++++	+++++	+++++	0.10730						
	0.10960	0.12140	0.17211	0.13674			AVRG		0.12943		20.52210	<-
164 Dicyclopentadiene	+++++	10.71068	6.83590	4.81918	4.08106	3.99973						
	3.88112	3.86634	4.96338	3.92188			AVRG		5.23103		43.31970	<-
165 4-Vinyl-1-cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
166 1,2,3-Trimethylbenzene	+++++	6.00426	4.09210	2.97247	2.69722	2.69287						
	2.65328	2.66513	3.34636	2.64256			AVRG		3.30736		33.86334	<-

ALS Laboratory Group

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Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Last Edit : 22-Feb-2024 16:17 Linh.Pham

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
167 Ethanol	+++++	0.04191	0.01840	0.01157	0.00937	0.00836						
	0.00770	0.00767	0.00950	0.00803			AVRG		0.01361		81.79716	<-
168 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
170 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
172 tert-Butyl formate	+++++	1.38883	+++++	+++++	0.40086	0.37528						
	0.39543	0.42777	0.58769	0.51781			AVRG		0.58481		62.01622	<-
173 3,3-Dimethyl-1-butanol	+++++	0.11441	+++++	0.05058	0.04887	0.04776						
	0.04732	0.04973	0.06619	0.05564			AVRG		0.06006		37.99661	<-
174 tert-Amyl methyl ether	+++++	3.66457	2.40476	1.66111	1.49831	1.58384						
	1.63869	1.64155	2.17932	1.71682			AVRG		1.99877		34.68804	<-
175 tert-Butyl ethyl ether	+++++	4.49249	2.56436	1.87565	1.61097	1.60208						
	1.68034	1.70714	2.25466	1.78241			AVRG		2.17445		42.65538	<-

ALS Laboratory Group

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Method file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
176 tert-Amyl alcohol	+++++	0.15787	0.07890	0.05457	0.04081	0.03753						
	0.03954	0.04278	0.05877	0.05178			AVRG		0.06251		60.83190	<-
177 Dimethyl ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
178 Ethylene oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
179 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
180 1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
181 2-Furfural	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
182 Epichlorohydrin	+++++	+++++	+++++	1465	3848	17509						
	49704	102824	186074	+++++			QUAD	-0.05517	43.85832	-38.46575	0.99934	<-

ALS Laboratory Group

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
183 2-Methylpropane(1)	+++++	+++++	+++++	+++++	+++++	+++++						
							AVRG		0.000e+000		0.000e+000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
184 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
185 Isoprene	+++++	+++++	0.43565	0.18710	0.27509	0.23384						
	0.18165	0.16042	0.20522	0.16581			AVRG		0.23060		39.50457	<-
186 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
187 n-Amyl acetate	+++++	+++++	+++++	+++++	+++++	0.74901						
	0.69029	0.76613	1.00762	0.84293			AVRG		0.81120		15.11143	<-
188 Isopropyl acetate	+++++	1.51006	1.58296	1.01690	0.97773	1.03640						
	+++++	1.03347	1.31570	1.06193			AVRG		1.19189		20.35811	<-

ALS Laboratory Group

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Last Edit : 22-Feb-2024 16:17 Linh.Pham

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
189 n-Butyl acetate	+++++	+++++	1.30441	0.75392	0.73487	0.60359						
	0.49156	0.47807	0.60041	0.49306			AVRG		0.68249		40.00159	<-
190 Propanal	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
191 n-Buteraldehyde	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
192 Isobuteraldehyde	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
193 2-Ethyl-1-hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
194 Acetaldehyde	+++++	+++++	4370	10033	22369	91174						
	218362	400473	612666	+++++			QUAD	-0.22635	6.23399	-0.54333	0.99658	<-
195 Methyl Amyl Ketone	+++++	+++++	0.97213	0.72699	0.71679	0.88185						
	0.97313	1.04612	1.38669	1.12100			AVRG		0.97809		22.28803	<-

ALS Laboratory Group

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
196 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
197 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
198 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
199 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
200 Dimethyl Disulfide	+++++	1.06594	0.47713	0.33941	0.33725	0.35757						
	0.46258	0.59099	0.85604	0.69558			AVRG		0.57583		44.11810	<-
201 1-Butene(1)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-

ALS Laboratory Group

INITIAL CALIBRATION DATA

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Integrator : HP RTE
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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
202 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
203 2-Ethylhexyl Acrylate	+++++	+++++	0.76087	0.50724	0.55279	0.76193						
	0.96918	1.11909	1.54111	1.28947			AVRG		0.93771		38.60570	<-
M 94 1,2-Dichloroethylene (total)	+++++	1.82556	1.29289	0.77094	0.75065	0.71292						
	0.65449	0.66276	0.84812	0.67082			AVRG		0.90990		43.54429	<-
M 95 Xylenes (total)	+++++	1.51638	1.03842	0.64073	0.68070	0.73934						
	0.66935	0.70859	0.90023	0.72234			AVRG		0.84623		33.30857	<-
$ 30 Dibromofluoromethane	+++++	1818	4050	6913	18053	75713						
	175024	355456	583421	+++++			QUAD	-0.04567	1.88676	-0.25688	0.99831	
$ 35 1,2-Dichloroethane-d4	+++++	2121	4585	8676	22461	93658						
	216883	435109	711802	+++++			QUAD	-0.04544	1.52981	-0.16680	0.99808	
$ 48 Toluene-d8	+++++	5625	12807	22021	60442	279697						
	663921	1360843	2234434	+++++			QUAD	-0.03048	0.77696	-0.04295	0.99878	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 69 4-Bromofluorobenzene	+++++	2332	5364	9030	24236	103152					
	250338	510054	832825	+++++			QUAD	-0.03399	2.07499	-0.30399	0.99895

ALS Laboratory Group

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Last Edit : 22-Feb-2024 16:17 Linh.Pham

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

right solutions.
right partner.

Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID U020913.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U020913.D

Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 09-FEB-2024 1327

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.0	46.0	92.1	80-120	
1,1,1-Trichloroethane	50.0	44.7	89.5	80-120	
1,1,2,2-Tetrachloroethane	50.0	48.3	96.7	80-120	
Freon TF	50.0	43.5	87.1	80-120	
Methyl Acetate	50.0	45.8	91.6	80-120	
Cyclohexane	50.0	46.0	92.1	80-120	
Methylcyclohexane	50.0	50.1	100	80-120	
Carbon Disulfide	100	86.8	86.9	80-120	
2-Hexanone	100	93.6	93.6	80-120	
1,1,2-Trichloroethane	50.0	48.4	96.9	80-120	
1,1-Dichloroethane	50.0	46.5	93.0	80-120	
1,1-Dichloroethene	50.0	45.4	90.9	80-120	
1,1-Dichloropropene	50.0	47.3	94.7	80-120	
1,2,3-Trichlorobenzene	50.0	50.2	100	80-120	
1,2,3-Trichloropropane	50.0	44.3	88.6	80-120	
1,2,4-Trichlorobenzene	50.0	50.6	101	80-120	
1,2,4-Trimethylbenzene	50.0	49.6	99.3	80-120	
1,2-Dibromo-3-Chloropropane	50.0	45.5	91.1	80-120	
1,2-Dibromoethane	50.0	48.3	96.6	80-120	
Acrolein	100	90.0	90.0	80-120	
Acrylonitrile	100	94.3	94.3	80-120	
1,2-Dichlorobenzene	50.0	47.7	95.4	80-120	
1,2-Dichloroethane	50.0	47.3	94.6	80-120	
1,2-Dichloropropane	50.0	47.1	94.2	80-120	
1,3,5-Trimethylbenzene	50.0	49.7	99.4	80-120	
1,3-Dichlorobenzene	50.0	47.4	94.8	80-120	
1,3-Dichloropropane	50.0	47.9	95.9	80-120	
1,4-Dichlorobenzene	50.0	48.0	96.0	80-120	
1-Chlorohexane	50.0	45.8	91.5	80-120	
2,2-Dichloropropane	50.0	42.7	85.3	80-120	
2-Butanone	100	91.1	91.1	80-120	
2-Chloroethylvinyl ether	100	0.000		80-120	*
2-Chlorotoluene	50.0	45.3	90.7	80-120	
4-Chlorotoluene	50.0	45.8	91.6	80-120	

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID U020913.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U020913.D

Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 09-FEB-2024 1327

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.0	50.1	100	80-120	
4-Methyl-2-Pentanone	100	96.0	96.0	80-120	
Acetone	100	91.9	91.9	80-120	
Acetonitrile	500	444	88.9	80-120	
Allyl Chloride	50.0	48.0	96.1	80-120	
Benzene	50.0	47.4	94.9	80-120	
Bromobenzene	50.0	47.7	95.5	80-120	
Bromochloromethane	50.0	49.4	98.7	80-120	
Bromodichloromethane	50.0	46.0	91.9	80-120	
Bromoform	50.0	48.6	97.3	80-120	
Bromomethane	50.0	53.4	107	80-120	
Carbon Tetrachloride	50.0	44.9	89.7	80-120	
Chlorobenzene	50.0	47.6	95.2	80-120	
Chloroethane	50.0	45.4	90.9	80-120	
Chloroform	50.0	46.3	92.7	80-120	
Chloromethane	50.0	50.8	102	80-120	
Chloroprene	50.0	44.8	89.6	80-120	
cis-1,2-Dichloroethene	50.0	44.5	89.0	80-120	
cis-1,3-Dichloropropene	50.0	50.1	100	80-120	
Dibromochloromethane	50.0	48.7	97.4	80-120	
Dibromomethane	50.0	46.1	92.2	80-120	
Dichlorodifluoromethane	50.0	42.4	84.8	80-120	
Ethylbenzene	50.0	46.5	93.0	80-120	
Ethyl Methacrylate	50.0	52.5	105	80-120	
Iodomethane	100	80.9	80.9	80-120	
Isobutyl Alcohol	1000	879	87.9	70-130	
Propionitrile	500	462	92.5	70-130	
Hexachlorobutadiene	50.0	47.4	94.7	80-120	
Isopropylbenzene	50.0	47.9	95.9	80-120	
m,p-Xylenes	100	96.4	96.4	80-120	
Methyl tert-butyl ether	50.0	46.4	92.7	80-120	
Methylene Chloride	50.0	46.5	93.0	80-120	
Methacrylonitrile	50.0	44.5	89.0	80-120	
Methyl Methacrylate	50.0	47.5	95.1	80-120	

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID U020913.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U020913.D

Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 09-FEB-2024 1327

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.0	48.9	97.9	80-120	
n-Propylbenzene	50.0	49.4	98.9	80-120	
Naphthalene	50.0	47.7	95.3	80-120	
o-Xylene	50.0	48.3	96.6	80-120	
sec-Butylbenzene	50.0	48.0	96.0	80-120	
Styrene	50.0	51.1	102	80-120	
tert-Butylbenzene	50.0	47.2	94.4	80-120	
Tetrachloroethene	50.0	47.4	94.9	80-120	
Toluene	50.0	45.8	91.7	80-120	
trans-1,2-Dichloroethene	50.0	46.4	92.8	80-120	
trans-1,3-Dichloropropene	50.0	45.5	91.1	80-120	
trans-1,4-Dichloro-2-butene	50.0	46.0	92.0	80-120	
Trichloroethene	50.0	47.0	94.1	80-120	
Trichlorofluoromethane	50.0	44.5	88.9	80-120	
Vinyl Acetate	100	90.9	90.9	80-120	
Vinyl Chloride	50.0	45.4	90.8	80-120	
1,2-Dichloroethylene (total)	100	86.8	86.8	80-120	
Xylenes (total)	150	145	96.7	80-120	
1,4-Dioxane	1000	916	91.6	80-120	
Dibromofluoromethane	50.0	47.3	94.6	71-125	
1,2-Dichloroethane-d4	50.0	47.0	94.0	70-125	
Toluene-d8	50.0	49.7	99.4	75-125	
4-Bromofluorobenzene	50.0	48.8	97.7	72-125	

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID U021513.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U021513.D
Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 15-FEB-2024 2029

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.0	0.000		80-120	*
1,1,1-Trichloroethane	50.0	0.000		80-120	*
1,1,2,2-Tetrachloroethane	50.0	0.000		80-120	*
Freon TF	50.0	0.000		80-120	*
Methyl Acetate	50.0	0.000		80-120	*
Cyclohexane	50.0	0.000		80-120	*
Methylcyclohexane	50.0	0.000		80-120	*
1,3-Butadiene	50.0	56.8	114	80-120	
Epichlorohydrin	200	213	106	80-120	
Acetaldehyde	200	215	108	80-120	
Carbon Disulfide	100	0.000		80-120	*
2-Hexanone	100	0.000		80-120	*
1,1,2-Trichloroethane	50.0	58.0	116	80-120	
1,1-Dichloroethane	50.0	0.000		80-120	*
1,1-Dichloroethene	50.0	57.3	115	80-120	
1,1-Dichloropropene	50.0	0.000		80-120	*
1,2,3-Trichlorobenzene	50.0	0.000		80-120	*
1,2,3-Trichloropropane	50.0	0.000		80-120	*
1,2,4-Trichlorobenzene	50.0	0.000		80-120	*
1,2,4-Trimethylbenzene	50.0	0.000		80-120	*
1,2-Dibromo-3-Chloropropane	50.0	0.000		80-120	*
1,2-Dibromoethane	50.0	0.000		80-120	*
Acrolein	100	112	112	80-120	
Acrylonitrile	100	104	104	80-120	
1,2-Dichlorobenzene	50.0	0.000		80-120	*
1,2-Dichloroethane	50.0	56.5	113	80-120	
1,2-Dichloropropane	50.0	0.000		80-120	*
1,3,5-Trimethylbenzene	50.0	0.000		80-120	*
1,3-Dichlorobenzene	50.0	0.000		80-120	*
1,3-Dichloropropane	50.0	0.000		80-120	*
1,4-Dichlorobenzene	50.0	0.000		80-120	*
1-Chlorohexane	50.0	0.000		80-120	*
2,2-Dichloropropane	50.0	0.000		80-120	*
2-Butanone	100	0.000		80-120	*

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID U021513.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U021513.D

Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 15-FEB-2024 2029

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
2-Chloroethylvinyl ether	100	0.000		80-120	*
2-Chlorotoluene	50.0	0.000		80-120	*
4-Chlorotoluene	50.0	0.000		80-120	*
p-Isopropyltoluene	50.0	0.000		80-120	*
4-Methyl-2-Pentanone	100	116	116	80-120	
Acetone	100	0.000		80-120	*
Acetonitrile	500	536	107	80-120	
Allyl Chloride	50.0	0.000		80-120	*
Benzene	50.0	57.4	115	80-120	
Bromobenzene	50.0	0.000		80-120	*
Bromochloromethane	50.0	0.000		80-120	*
Bromodichloromethane	50.0	56.7	113	80-120	
Bromoform	50.0	58.5	117	80-120	
Bromomethane	50.0	0.000		80-120	*
Carbon Tetrachloride	50.0	52.8	106	80-120	
Chlorobenzene	50.0	57.3	115	80-120	
Chloroethane	50.0	0.000		80-120	*
Chloroform	50.0	57.1	114	80-120	
Chloromethane	50.0	0.000		80-120	*
Chloroprene	50.0	55.6	111	80-120	
cis-1,2-Dichloroethene	50.0	57.9	116	80-120	
cis-1,3-Dichloropropene	50.0	0.000		80-120	*
Dibromochloromethane	50.0	57.9	116	80-120	
Dibromomethane	50.0	0.000		80-120	*
Dichlorodifluoromethane	50.0	0.000		80-120	*
Ethylbenzene	50.0	58.4	117	80-120	
Ethyl Methacrylate	50.0	0.000		80-120	*
Iodomethane	100	0.000		80-120	*
Isobutyl Alcohol	1000	0.000		70-130	*
Propionitrile	500	0.000		70-130	*
Hexachlorobutadiene	50.0	0.000		80-120	*
Isopropylbenzene	50.0	0.000		80-120	*
m,p-Xylenes	100	115	115	80-120	
Methyl tert-butyl ether	50.0	51.6	103	80-120	

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID U021513.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U021513.D

Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 15-FEB-2024 2029

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
Methylene Chloride	50.0	54.8	110	80-120	
Methacrylonitrile	50.0	56.2	112	80-120	
Methyl Methacrylate	50.0	0.000		80-120	*
n-Butylbenzene	50.0	0.000		80-120	*
n-Propylbenzene	50.0	0.000		80-120	*
Naphthalene	50.0	59.8	120	80-120	
o-Xylene	50.0	57.3	115	80-120	
sec-Butylbenzene	50.0	0.000		80-120	*
Styrene	50.0	57.5	115	80-120	
tert-Butylbenzene	50.0	0.000		80-120	*
Tetrachloroethene	50.0	57.4	115	80-120	
Toluene	50.0	57.8	116	80-120	
trans-1,2-Dichloroethene	50.0	57.7	115	80-120	
trans-1,3-Dichloropropene	50.0	0.000		80-120	*
trans-1,4-Dichloro-2-butene	50.0	0.000		80-120	*
Trichloroethene	50.0	58.1	116	80-120	
Trichlorofluoromethane	50.0	0.000		80-120	*
Vinyl Acetate	100	0.000		80-120	*
Vinyl Chloride	50.0	57.4	115	80-120	
1,2-Dichloroethylene (total)	100	80.0	80.0	80-120	
Xylenes (total)	150	133	88.4	80-120	
1,4-Dioxane	1000	0.000		80-120	*
Dibromofluoromethane	50.0	57.0	114	71-125	
1,2-Dichloroethane-d4	50.0	57.2	114	70-125	
Toluene-d8	50.0	57.3	115	75-125	
4-Bromofluorobenzene	50.0	56.2	112	72-125	

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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID V021402.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021402.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 14-FEB-2024 2050
ICAL Date(s) 09-FEB-2024, 09-FEB-2024
ICAL Times 09:22, 12:42
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
30 Dibromofluoromethane	50.0	48.7	0.503	0.100	2.61	20.0	Linear	
35 1,2-Dichloroethane-d4	50.0	48.0	0.496	0.100	4.08	20.0	Linear	
48 Toluene-d8	50.0	50.8	1.38	0.100	-1.536	20.0	Linear	
69 4-Bromofluorobenzene	50.0	51.7	0.521	0.100	-3.483	20.0	Linear	
Vinyl Chloride	50.0	51.0	0.442	0.100	-2.042	20.0	Linear	
1,1-Dichloroethene	50.0	51.0	0.415	0.100	-2.043	20.0	Linear	
Methylene Chloride	50.0	53.2	0.485	0.100	-6.322	20.0	Linear	
Methyl tert-butyl ether	50.0	51.3	1.15	0.100	-2.622	20.0	Linear	
trans-1,2-Dichloroethene	50.0	53.1	0.493	0.100	-6.144	20.0	Linear	
cis-1,2-Dichloroethene	0.551	0.569	0.569	0.100	-3.308	20.0	Averaged	
1,2-Dichloroethane	50.0	54.3	0.441	0.100	-8.661	20.0	Linear	
Benzene	50.0	55.6	1.36	0.500	-11.126	20.0	Linear	
Trichloroethene	50.0	57.5	0.453	0.200	-14.954	20.0	Linear	
Tetrachloroethene	50.0	56.0	0.396	0.200	-11.948	20.0	Linear	
1,1,2-Trichloroethane	50.0	57.5	0.297	0.100	-14.951	20.0	Linear	
Toluene	1.55	1.63	1.63	0.400	-5.653	20.0	Averaged	
Ethylbenzene	0.526	0.579	0.579	0.100	-10.162	20.0	Averaged	
m,p-Xylenes	0.646	0.734	0.734	0.100	-13.581	20.0	Averaged	
o-Xylene	0.633	0.715	0.715	0.300	-13.031	20.0	Averaged	
Naphthalene	50.0	59.0	2.70	0.200	-18.044	20.0	Linear	
95 Xylenes (total)	0.595	0.696	0.696	0.100	-16.835	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID V021427.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021427.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-FEB-2024 0603
ICAL Date(s) 09-FEB-2024, 09-FEB-2024
ICAL Times 09:22, 12:42
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
30 Dibromofluoromethane	50.0	49.7	0.513	0.100	0.605	50.0	Linear	
35 1,2-Dichloroethane-d4	50.0	48.7	0.504	0.100	2.55	50.0	Linear	
48 Toluene-d8	50.0	49.4	1.35	0.100	1.27	50.0	Linear	
69 4-Bromofluorobenzene	50.0	50.3	0.506	0.100	-0.583	50.0	Linear	
Vinyl Chloride	50.0	46.0	0.398	0.100	8.02	50.0	Linear	
1,1-Dichloroethene	50.0	48.3	0.393	0.100	3.44	50.0	Linear	
Methylene Chloride	50.0	53.3	0.486	0.100	-6.598	50.0	Linear	
Methyl tert-butyl ether	50.0	49.9	1.11	0.100	0.239	50.0	Linear	
trans-1,2-Dichloroethene	50.0	50.5	0.469	0.100	-0.974	50.0	Linear	
cis-1,2-Dichloroethene	0.551	0.534	0.534	0.100	3.09	50.0	Averaged	
1,2-Dichloroethane	50.0	53.5	0.435	0.100	-6.952	50.0	Linear	
Benzene	50.0	51.8	1.27	0.500	-3.572	50.0	Linear	
Trichloroethene	50.0	55.2	0.435	0.200	-10.426	50.0	Linear	
Tetrachloroethene	50.0	53.2	0.376	0.200	-6.419	50.0	Linear	
1,1,2-Trichloroethane	50.0	54.4	0.282	0.100	-8.818	50.0	Linear	
Toluene	1.55	1.55	1.55	0.400	-0.032	50.0	Averaged	
Ethylbenzene	0.526	0.537	0.537	0.100	-2.094	50.0	Averaged	
m,p-Xylenes	0.646	0.687	0.687	0.100	-6.269	50.0	Averaged	
o-Xylene	0.633	0.663	0.663	0.300	-4.674	50.0	Averaged	
Naphthalene	50.0	55.9	2.55	0.200	-11.754	50.0	Linear	
95 Xylenes (total)	0.595	0.660	0.660	0.100	-10.812	50.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID V021502.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021502.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 15-FEB-2024 2157
ICAL Date(s) 15-FEB-2024, 15-FEB-2024
ICAL Times 16:25, 19:44
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
30 Dibromofluoromethane	50.0	49.3	0.595	0.100	1.35	20.0	Quadratic	
35 1,2-Dichloroethane-d4	50.0	49.9	0.741	0.100	0.292	20.0	Quadratic	
48 Toluene-d8	50.0	49.7	1.43	0.100	0.686	20.0	Quadratic	
69 4-Bromofluorobenzene	50.0	49.5	0.536	0.100	0.988	20.0	Quadratic	
Vinyl Chloride	50.0	46.8	0.685	0.100	6.31	20.0	Quadratic	
1,1-Dichloroethene	50.0	47.8	0.467	0.100	4.48	20.0	Quadratic	
Methylene Chloride	50.0	45.4	0.579	0.100	9.30	20.0	Linear	
Methyl tert-butyl ether	50.0	53.6	1.54	0.100	-7.147	20.0	Quadratic	
trans-1,2-Dichloroethene	50.0	47.6	0.561	0.100	4.74	20.0	Quadratic	
Chloroprene	++++	++++	1.603e+65	0.100	++++	20.0	Quadratic	*
cis-1,2-Dichloroethene	50.0	49.3	0.647	0.100	1.48	20.0	Quadratic	
1,2-Dichloroethane	50.0	48.6	0.521	0.100	2.70	20.0	Quadratic	
Carbon Tetrachloride	50.0	43.6	0.418	0.100	12.7	20.0	Linear	
Benzene	50.0	48.6	1.46	0.500	2.81	20.0	Quadratic	
Trichloroethene	50.0	48.7	0.364	0.200	2.57	20.0	Quadratic	
Tetrachloroethene	50.0	47.9	0.293	0.200	4.22	20.0	Quadratic	
1,1,2-Trichloroethane	50.0	48.5	0.307	0.100	2.90	20.0	Quadratic	
Toluene	50.0	47.9	1.59	0.400	4.25	20.0	Quadratic	
Ethylbenzene	50.0	48.3	0.519	0.100	3.31	20.0	Quadratic	
m,p-Xylenes	100	95.9	0.658	0.100	4.12	20.0	Quadratic	
o-Xylene	50.0	48.3	0.637	0.300	3.33	20.0	Quadratic	
Naphthalene	50.0	49.6	2.62	0.200	0.759	20.0	Quadratic	
4-Methyl-2-Pentanone	100	99.0	0.445	0.100	0.534	20.0	Quadratic	
Acetonitrile	500	443	0.022	0.005	11.4	20.0	Quadratic	
Acrolein	100	97.5	0.024	0.010	2.49	20.0	Quadratic	
Acrylonitrile	100	106	0.254	0.050	-6.114	20.0	Quadratic	
Methacrylonitrile	50.0	53.1	0.272	0.100	-6.284	20.0	Quadratic	
Acetaldehyde	200	237	0.215	0.001	-18.430	20.0	Quadratic	
Styrene	++++	++++	1.603e+65	0.300	++++	20.0	Quadratic	*
1,3-Butadiene	++++	++++	1.603e+65	0.100	++++	20.0	Quadratic	*
Chloroform	++++	++++	1.603e+65	0.200	++++	20.0	Quadratic	*
Chlorobenzene	++++	++++	1.603e+65	0.500	++++	20.0	Quadratic	*
Bromodichloromethane	++++	++++	1.603e+65	0.200	++++	20.0	Quadratic	*
Dibromochloromethane	++++	++++	1.603e+65	0.100	++++	20.0	Quadratic	*

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID V021502.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021502.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 15-FEB-2024 2157
ICAL Date(s) 15-FEB-2024, 15-FEB-2024
ICAL Times 16:25, 19:44
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Bromoform	++++	++++	1.603e+65	0.100	++++	20.0	Quadratic	*
Epichlorohydrin	++++	++++	1.603e+65	0.001	++++	20.0	Quadratic	*
95 Xylenes (total)	0.846	0.628	0.628	0.100	25.7	20.0	Averaged	*
94 1,2-Dichloroethylene (total	0.910	0.604	0.604	0.200	33.6	20.0	Averaged	*

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID V021528.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021528.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 16-FEB-2024 0733
ICAL Date(s) 15-FEB-2024, 15-FEB-2024
ICAL Times 16:25, 19:44
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
30 Dibromofluoromethane	50.0	54.1	0.656	0.100	-8.210	50.0	Quadratic	
35 1,2-Dichloroethane-d4	50.0	56.3	0.844	0.100	-12.632	50.0	Quadratic	
48 Toluene-d8	50.0	50.5	1.46	0.100	-0.952	50.0	Quadratic	
69 4-Bromofluorobenzene	50.0	50.6	0.548	0.100	-1.220	50.0	Quadratic	
Vinyl Chloride	50.0	55.3	0.816	0.100	-10.541	50.0	Quadratic	
1,1-Dichloroethene	50.0	57.7	0.570	0.100	-15.318	50.0	Quadratic	
Methylene Chloride	50.0	56.8	0.717	0.100	-13.636	50.0	Linear	
Methyl tert-butyl ether	50.0	54.0	1.55	0.100	-8.062	50.0	Quadratic	
trans-1,2-Dichloroethene	50.0	53.7	0.636	0.100	-7.326	50.0	Quadratic	
Chloroprene	++++	++++	1.603e+65	0.100	++++	50.0	Quadratic	*
cis-1,2-Dichloroethene	50.0	55.7	0.738	0.100	-11.455	50.0	Quadratic	
1,2-Dichloroethane	50.0	56.2	0.606	0.100	-12.363	50.0	Quadratic	
Carbon Tetrachloride	50.0	49.5	0.473	0.100	1.03	50.0	Linear	
Benzene	50.0	54.7	1.66	0.500	-9.468	50.0	Quadratic	
Trichloroethene	50.0	52.7	0.395	0.200	-5.312	50.0	Quadratic	
Tetrachloroethene	50.0	49.9	0.306	0.200	0.182	50.0	Quadratic	
1,1,2-Trichloroethane	50.0	53.5	0.339	0.100	-6.914	50.0	Quadratic	
Toluene	50.0	52.8	1.76	0.400	-5.521	50.0	Quadratic	
Ethylbenzene	50.0	51.9	0.561	0.100	-3.900	50.0	Quadratic	
m,p-Xylenes	100	104	0.714	0.100	-3.531	50.0	Quadratic	
o-Xylene	50.0	51.6	0.683	0.300	-3.107	50.0	Quadratic	
Naphthalene	50.0	52.4	2.77	0.200	-4.723	50.0	Quadratic	
4-Methyl-2-Pentanone	100	110	0.496	0.100	-9.858	50.0	Quadratic	
Acetonitrile	500	639	0.032	0.005	-27.813	50.0	Quadratic	
Acrolein	100	136	0.034	0.010	-36.061	50.0	Quadratic	
Acrylonitrile	100	113	0.272	0.050	-12.909	50.0	Quadratic	
Methacrylonitrile	50.0	62.9	0.327	0.100	-25.799	50.0	Quadratic	
Acetaldehyde	200	269	0.245	0.001	-34.273	50.0	Quadratic	
Styrene	50.0	++++	1.25	0.300	++++	50.0	Quadratic	*
1,3-Butadiene	50.0	++++	0.807	0.100	++++	50.0	Quadratic	*
Chloroform	50.0	++++	1.26	0.200	++++	50.0	Quadratic	*
Chlorobenzene	50.0	++++	1.12	0.500	++++	50.0	Quadratic	*
Bromodichloromethane	50.0	++++	0.541	0.200	++++	50.0	Quadratic	*
Dibromochloromethane	50.0	++++	0.412	0.100	++++	50.0	Quadratic	*

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID V021528.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021528.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 16-FEB-2024 0733
ICAL Date(s) 15-FEB-2024, 15-FEB-2024
ICAL Times 16:25, 19:44
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Bromoform	50.0	++++	0.262	0.100	++++	50.0	Quadratic	*
Epichlorohydrin	200	++++	0.026	0.001	++++	50.0	Quadratic	*
95 Xylenes (total)	0.846	0.701	0.701	0.100	17.1	50.0	Averaged	
94 1,2-Dichloroethylene (total	0.910	0.687	0.687	0.200	24.5	50.0	Averaged	

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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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 Site 16

Workorder HS24020576

EPA SW8260

VOA9_458837		Pentafluorobenzene				1,4 Difluorobenzene				Chlorobenzene d5				1,4-Dichlorobenzene d4			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12-HOUR STD (CCV)	V021402.D	185244	#	4.82	#	255430	#	5.55	#	244108	#	8.19	#	144982	#	10.17	#
HS24020576-03	V021419.D	167136		4.82		224293		5.56		206413		8.19		109396		10.17	
HS24020576-04	V021420.D	162286		4.82		222039		5.56		206236		8.19		111710		10.17	
HS24020576-07	V021421.D	158126		4.82		216170		5.55		204394		8.19		108416		10.17	
HS24020576-08	V021422.D	156131		4.82		212885		5.55		200425		8.19		108836		10.17	
HS24020576-09	V021423.D	148715		4.82		204984		5.55		192046		8.19		105106		10.17	
HS24020576-11	V021407.D	149378		4.82		231144		5.55		214098		8.19		107691		10.17	
VBLKW-240214	V021406.D	158930		4.82		221792		5.56		212110		8.19		114119		10.17	
VLCSDW-240214	V021404.D	191632		4.82		265001		5.55		249804		8.19		147865		10.17	
VLCSW-240214	V021403.D	202744		4.82		276289		5.55		263283		8.19		155052		10.17	

AREA UPPER LIMIT = +100% of STD IS Area
AREA LOWER LIMIT = - 50% of STD IS Area
RT - Retention IS - Internal StandardTime

RT UPPER LIMIT = + 0.50 of STD IS RT
RT LOWER LIMIT = - 0.50 of 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 Site 16

Workorder HS24020576

EPA SW8260

VOA9_458988		Pentafluorobenzene				1,4 Difluorobenzene				Chlorobenzene d5				1,4-Dichlorobenzene d4			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12-HOUR STD (CCV)	V021502.D	306536	#	4.82	#	505047	#	5.55	#	487567	#	8.19	#	252873	#	10.17	#
HS24020576-01	V021523.D	224041		4.82		403323		5.55		376488		8.19		168935		10.17	
HS24020576-02	V021524.D	214719		4.82		385148		5.55		358544		8.19		162108		10.17	
HS24020576-05	V021525.D	202934		4.82		357267		5.55		332478		8.19		147003		10.17	
HS24020576-06	V021526.D	229135		4.82		400563		5.55		378179		8.19		171237		10.17	
HS24020576-10	V021527.D	222752		4.82		391300		5.55		367177		8.19		165654		10.17	
VBLKW-240215	V021505.D	306787		4.82		516066		5.55		474220		8.19		229639		10.17	
VLCSW-240215	V021503.D	314244		4.82		518050		5.55		496568		8.19		256883		10.17	
MS-ZZZZZZMS	V021509.D	276493		4.82		452421		5.55		432183		8.19		227792		10.17	
ZZZZZZMSD	V021510.D	267758		4.82		445359		5.55		421790		8.19		217514		10.17	

AREA UPPER LIMIT = +100% of STD IS Area
AREA LOWER LIMIT = - 50% of STD IS Area
RT - Retention IS - Internal StandardTime

RT UPPER LIMIT = + 0.50 of STD IS RT
RT LOWER LIMIT = - 0.50 of STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

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Analysis Run Log

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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

MSVOA09 -Logbook

Batch: 58855 **Analyst:** Tianna Smith

Date: 02-09-2024 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	02-09-2024 07:40 am	1.00	0.00 mL	0.00 mL	U020901.D	Liquid	Y	NA
2	VSTD00.25	ICAL1	02-09-2024 09:22 am	1.00	5.00 mL	0.00 mL	U020902.D	Liquid	Y	NA
3	VSTD00.5	ICAL2	02-09-2024 09:44 am	1.00	5.00 mL	0.00 mL	U020903.D	Liquid	Y	NA
4	VSTD001	ICAL3	02-09-2024 10:06 am	1.00	5.00 mL	0.00 mL	U020904.D	Liquid	Y	NA
5	VSTD002	ICAL4	02-09-2024 10:29 am	1.00	5.00 mL	0.00 mL	U020905.D	Liquid	Y	NA
6	VSTD005	ICAL5	02-09-2024 10:51 am	1.00	5.00 mL	0.00 mL	U020906.D	Liquid	Y	NA
7	VSTD020	ICAL6	02-09-2024 11:13 am	1.00	5.00 mL	0.00 mL	U020907.D	Liquid	Y	NA
8	VSTD050	ICAL7	02-09-2024 11:35 am	1.00	5.00 mL	0.00 mL	U020908.D	Liquid	Y	NA
9	VSTD100	ICAL8	02-09-2024 11:58 am	1.00	5.00 mL	0.00 mL	U020909.D	Liquid	Y	NA
10	VSTD150	ICAL9	02-09-2024 12:20 pm	1.00	5.00 mL	0.00 mL	U020910.D	Liquid	Y	NA
11	VSTD200	ICAL	02-09-2024 12:42 pm	1.00	5.00 mL	0.00 mL	U020911.D	Liquid	Y	NA
12	BLK	SAMP	02-09-2024 01:05 pm	1.00	5.00 mL	0.00 mL	U020912.D	Liquid	Y	NA
13	ICV	ICV	02-09-2024 01:27 pm	1.00	5.00 mL	0.00 mL	U020913.D	Liquid	Y	NA
14	BFB	TUNE	02-09-2024 01:49 pm	1.00	0.00 mL	0.00 mL	V020901.D	Liquid	Y	NA
15	CCV	CCV	02-09-2024 02:11 pm	1.00	5.00 mL	0.00 mL	V020902.D	Liquid	Y	NA
16	CCV	CCV	02-09-2024 02:34 pm	1.00	5.00 mL	0.00 mL	V020903.D	Liquid	Y	NA
17	VLCSW-240209	LCS	02-09-2024 02:56 pm	1.00	5.00 mL	0.00 mL	V020904.D	Liquid	Y	NA
18	VLCSDW-240209	LCSD	02-09-2024 03:18 pm	1.00	5.00 mL	0.00 mL	V020905.D	Liquid	Y	NA
19	BLK	SAMP	02-09-2024 03:46 pm	1.00	5.00 mL	0.00 mL	V020906.D	Liquid	Y	NA
20	VBLKW-240209	MBLK	02-09-2024 04:08 pm	1.00	5.00 mL	0.00 mL	V020907.D	Liquid	Y	NA
21	HS24020406-01	SAMP	02-09-2024 04:31 pm	1.00	5.00 mL	0.00 mL	V020908.D	Liquid	Y	NA
22	HS24020435-01	SAMP	02-09-2024 04:53 pm	1.00	5.00 mL	0.00 mL	V020909.D	Liquid	Y	NA
23	HS24020413-08	SAMP	02-09-2024 05:16 pm	1.00	5.00 mL	0.00 mL	V020910.D	Liquid	Y	NA
24	HS24020386-01	SAMP	02-09-2024 05:38 pm	1.00	5.00 mL	0.00 mL	V020911.D	Liquid	Y	NA
25	HS24020507-01	SAMP	02-09-2024 06:00 pm	1.00	5.00 mL	0.00 mL	V020912.D	Liquid	Y	NA
26	HS24020310-37	SAMP	02-09-2024 06:23 pm	1.00	5.00 mL	0.00 mL	V020913.D	Liquid	Y	NA
27	HS24020310-38	SAMP	02-09-2024 06:45 pm	1.00	5.00 mL	0.00 mL	V020914.D	Liquid	Y	NA
28	HS24020414-01	SAMP	02-09-2024 07:08 pm	1.00	5.00 mL	0.00 mL	V020915.D	Liquid	Y	NA
29	HS24020414-02	SAMP	02-09-2024 07:30 pm	1.00	5.00 mL	0.00 mL	V020916.D	Liquid	Y	NA
30	HS24020414-03	SAMP	02-09-2024 07:53 pm	1.00	5.00 mL	0.00 mL	V020917.D	Liquid	Y	NA
31	HS24020414-04	SAMP	02-09-2024 08:15 pm	1.00	5.00 mL	0.00 mL	V020918.D	Liquid	Y	NA
32	HS24020414-05	SAMP	02-09-2024 08:37 pm	1.00	5.00 mL	0.00 mL	V020919.D	Liquid	Y	NA
33	HS24020414-06	SAMP	02-09-2024 09:00 pm	1.00	5.00 mL	0.00 mL	V020920.D	Liquid	Y	NA
34	HS24020414-07	SAMP	02-09-2024 09:22 pm	1.00	5.00 mL	0.00 mL	V020921.D	Liquid	Y	NA
35	HS24020398-01	SAMP	02-09-2024 09:45 pm	1.00	5.00 mL	0.00 mL	V020922.D	Liquid	Y	NA
36	HS24020381-02	SAMP	02-09-2024 10:07 pm	1.00	5.00 mL	0.00 mL	V020923.D	Liquid	Y	NA
37	HS24020459-01	SAMP	02-09-2024 10:29 pm	1.00	5.00 mL	0.00 mL	V020924.D	Liquid	Y	NA
38	HS24020459-02	SAMP	02-09-2024 10:52 pm	1.00	5.00 mL	0.00 mL	V020925.D	Liquid	Y	NA
39	HS24020466-01	SAMP	02-09-2024 11:14 pm	1.00	5.00 mL	0.00 mL	V020926.D	Liquid	Y	NA
40	HS24020501-01	SAMP	02-09-2024 11:37 pm	1.00	5.00 mL	0.00 mL	V020927.D	Liquid	Y	NA
41	BLK	SAMP	02-09-2024 11:59 pm	1.00	5.00 mL	0.00 mL	V020928.D	Liquid	Y	NA

MSVOA09 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	BLK	SAMP	02-10-2024 12:21 am	1.00	5.00 mL	0.00 mL	V020929.D	Liquid	Y	NA

MSVOA09 -Logbook

Batch: 58879 **Analyst:** Tianna Smith

Date: 02-14-2024 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	02-14-2024 08:51 am	1.00	0.00 mL	0.00 mL	U021401.D	Liquid	Y	NA
2	CCV	CCV	02-14-2024 09:13 am	1.00	5.00 mL	0.00 mL	U021402.D	Liquid	Y	NA
3	VLCSW-240214	LCS	02-14-2024 09:35 am	1.00	5.00 mL	0.00 mL	U021403.D	Liquid	Y	NA
4	BLK	SAMP	02-14-2024 09:58 am	1.00	5.00 mL	0.00 mL	U021404.D	Liquid	Y	NA
5	VBLKW-240214	MBLK	02-14-2024 10:20 am	1.00	5.00 mL	0.00 mL	U021405.D	Liquid	Y	NA
6	HS24020411-01	SAMP	02-14-2024 10:51 am	1.00	5.00 mL	0.00 mL	U021406.D	Liquid	Y	NA
7	HS24020411-03	SAMP	02-14-2024 11:13 am	1.00	5.00 mL	0.00 mL	U021407.D	Liquid	Y	NA
8	HS24020411-04	SAMP	02-14-2024 11:36 am	1.00	5.00 mL	0.00 mL	U021408.D	Liquid	Y	NA
9	HS24020411-05	SAMP	02-14-2024 11:58 am	1.00	5.00 mL	0.00 mL	U021409.D	Liquid	Y	NA
10	HS24020411-06	SAMP	02-14-2024 12:20 pm	1.00	5.00 mL	0.00 mL	U021410.D	Liquid	Y	NA
11	HS24020411-06MS	MS	02-14-2024 12:42 pm	1.00	5.00 mL	0.00 mL	U021411.D	Liquid	Y	NA
12	HS24020411-06MSD	MSD	02-14-2024 01:04 pm	1.00	5.00 mL	0.00 mL	U021412.D	Liquid	Y	NA
13	HS24020411-02	SAMP	02-14-2024 01:26 pm	1.00	5.00 mL	0.00 mL	U021413.D	Liquid	Y	NA
14	HS24020411-07	SAMP	02-14-2024 01:49 pm	1.00	5.00 mL	0.00 mL	U021414.D	Liquid	Y	NA
15	HS24020411-08	SAMP	02-14-2024 02:11 pm	1.00	5.00 mL	0.00 mL	U021415.D	Liquid	Y	NA
16	HS24020411-09	SAMP	02-14-2024 02:33 pm	1.00	5.00 mL	0.00 mL	U021416.D	Liquid	Y	NA
17	HS24020411-10	SAMP	02-14-2024 02:55 pm	1.00	5.00 mL	0.00 mL	U021417.D	Liquid	Y	NA
18	HS24020411-11	SAMP	02-14-2024 03:17 pm	1.00	5.00 mL	0.00 mL	U021418.D	Liquid	Y	NA
19	HS24020411-12	SAMP	02-14-2024 03:39 pm	1.00	5.00 mL	0.00 mL	U021419.D	Liquid	Y	NA
20	HS24020411-13	SAMP	02-14-2024 04:02 pm	1.00	5.00 mL	0.00 mL	U021420.D	Liquid	Y	NA
21	HS24020411-14	SAMP	02-14-2024 04:24 pm	1.00	5.00 mL	0.00 mL	U021421.D	Liquid	Y	NA
22	HS24020269-02	SAMP	02-14-2024 04:46 pm	1.00	5.00 mL	0.00 mL	U021422.D	Liquid	Y	NA
23	HS24020269-05	SAMP	02-14-2024 05:08 pm	1.00	5.00 mL	0.00 mL	U021423.D	Liquid	Y	NA
24	HS24020269-06	SAMP	02-14-2024 05:30 pm	1.00	5.00 mL	0.00 mL	U021424.D	Liquid	Y	NA
25	HS24020269-07	SAMP	02-14-2024 05:52 pm	1.00	5.00 mL	0.00 mL	U021425.D	Liquid	Y	NA
26	HS24020269-08	SAMP	02-14-2024 06:14 pm	1.00	5.00 mL	0.00 mL	U021426.D	Liquid	Y	NA
27	HS24020269-10	SAMP	02-14-2024 06:37 pm	1.00	5.00 mL	0.00 mL	U021427.D	Liquid	Y	NA
28	CCV-END	CCV	02-14-2024 06:59 pm	1.00	5.00 mL	0.00 mL	U021428.D	Liquid	Y	NA
29	BFB	TUNE	02-14-2024 07:21 pm	1.00	0.00 mL	0.00 mL	V021401.D	Liquid	Y	NA
30	CCV	CCV	02-14-2024 08:50 pm	1.00	5.00 mL	0.00 mL	V021402.D	Liquid	Y	NA
31	VLCSW-240214	LCS	02-14-2024 09:12 pm	1.00	5.00 mL	0.00 mL	V021403.D	Liquid	Y	NA
32	VLCSDW-240214	LCSD	02-14-2024 09:34 pm	1.00	5.00 mL	0.00 mL	V021404.D	Liquid	Y	NA
33	BLK	SAMP	02-14-2024 09:56 pm	1.00	5.00 mL	0.00 mL	V021405.D	Liquid	Y	NA
34	VBLKW-240214	MBLK	02-14-2024 10:18 pm	1.00	5.00 mL	0.00 mL	V021406.D	Liquid	Y	NA
35	HS24020576-11	SAMP	02-14-2024 10:40 pm	1.00	5.00 mL	0.00 mL	V021407.D	Liquid	Y	NA
36	HS24020577-07	SAMP	02-14-2024 11:02 pm	1.00	5.00 mL	0.00 mL	V021408.D	Liquid	Y	NA
37	HS24020271-02	SAMP	02-14-2024 11:24 pm	1.00	5.00 mL	0.00 mL	V021409.D	Liquid	Y	NA
38	HS24020271-03	SAMP	02-14-2024 11:46 pm	1.00	5.00 mL	0.00 mL	V021410.D	Liquid	Y	NA
39	HS24020269-11	SAMP	02-15-2024 12:08 am	1.00	5.00 mL	0.00 mL	V021411.D	Liquid	Y	NA
40	HS24020269-12	SAMP	02-15-2024 12:31 am	1.00	5.00 mL	0.00 mL	V021412.D	Liquid	Y	NA
41	HS24020269-13	SAMP	02-15-2024 12:53 am	1.00	5.00 mL	0.00 mL	V021413.D	Liquid	Y	NA

MSVOA09 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	HS24020260-01	SAMP	02-15-2024 01:15 am	1.00	5.00 mL	0.00 mL	V021414.D	Liquid	Y	NA
43	HS24020260-02	SAMP	02-15-2024 01:37 am	1.00	5.00 mL	0.00 mL	V021415.D	Liquid	Y	NA
44	HS24020260-03	SAMP	02-15-2024 01:59 am	1.00	5.00 mL	0.00 mL	V021416.D	Liquid	Y	NA
45	HS24020260-04	SAMP	02-15-2024 02:22 am	1.00	5.00 mL	0.00 mL	V021417.D	Liquid	Y	NA
46	HS24020260-06	SAMP	02-15-2024 02:44 am	1.00	5.00 mL	0.00 mL	V021418.D	Liquid	Y	NA
47	HS24020576-03	SAMP	02-15-2024 03:06 am	1.00	5.00 mL	0.00 mL	V021419.D	Liquid	Y	NA
48	HS24020576-04	SAMP	02-15-2024 03:28 am	1.00	5.00 mL	0.00 mL	V021420.D	Liquid	Y	NA
49	HS24020576-07	SAMP	02-15-2024 03:50 am	1.00	5.00 mL	0.00 mL	V021421.D	Liquid	Y	NA
50	HS24020576-08	SAMP	02-15-2024 04:12 am	1.00	5.00 mL	0.00 mL	V021422.D	Liquid	Y	NA
51	HS24020576-09	SAMP	02-15-2024 04:34 am	1.00	5.00 mL	0.00 mL	V021423.D	Liquid	Y	NA
52	HS24020577-01	SAMP	02-15-2024 04:56 am	1.00	5.00 mL	0.00 mL	V021424.D	Liquid	Y	NA
53	HS24020577-02	SAMP	02-15-2024 05:19 am	1.00	5.00 mL	0.00 mL	V021425.D	Liquid	Y	NA
54	HS24020577-04	SAMP	02-15-2024 05:41 am	1.00	5.00 mL	0.00 mL	V021426.D	Liquid	Y	NA
55	CCV-END	CCV	02-15-2024 06:03 am	1.00	5.00 mL	0.00 mL	V021427.D	Liquid	Y	NA
56	BLK	TUNE	02-15-2024 06:25 am	1.00	0.00 mL	0.00 mL	V021428.D	Liquid	Y	NA

MSVOA09 -Logbook

Batch: 59008 **Analyst:** Tianna Smith

Date: 02-15-2024 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	02-15-2024 04:03 pm	1.00	0.00 mL	0.00 mL	U021501.D	Liquid	Y	NA
2	VSTD00.25	ICAL1	02-15-2024 04:25 pm	1.00	5.00 mL	0.00 mL	U021502.D	Liquid	Y	NA
3	VSTD00.5	ICAL2	02-15-2024 04:47 pm	1.00	5.00 mL	0.00 mL	U021503.D	Liquid	Y	NA
4	VSTD001	ICAL3	02-15-2024 05:09 pm	1.00	5.00 mL	0.00 mL	U021504.D	Liquid	Y	NA
5	VSTD002	ICAL4	02-15-2024 05:32 pm	1.00	5.00 mL	0.00 mL	U021505.D	Liquid	Y	NA
6	VSTD005	ICAL5	02-15-2024 05:54 pm	1.00	5.00 mL	0.00 mL	U021506.D	Liquid	Y	NA
7	VSTD020	ICAL6	02-15-2024 06:16 pm	1.00	5.00 mL	0.00 mL	U021507.D	Liquid	Y	NA
8	VSTD050	ICAL7	02-15-2024 06:38 pm	1.00	5.00 mL	0.00 mL	U021508.D	Liquid	Y	NA
9	VSTD100	ICAL8	02-15-2024 07:00 pm	1.00	5.00 mL	0.00 mL	U021509.D	Liquid	Y	NA
10	VSTD150	ICAL9	02-15-2024 07:22 pm	1.00	5.00 mL	0.00 mL	U021510.D	Liquid	Y	NA
11	VSTD200	ICAL	02-15-2024 07:44 pm	1.00	5.00 mL	0.00 mL	U021511.D	Liquid	Y	NA
12	BLK	SAMP	02-15-2024 08:06 pm	1.00	5.00 mL	0.00 mL	U021512.D	Liquid	Y	NA
13	ICV	CCV	02-15-2024 08:29 pm	1.00	5.00 mL	0.00 mL	U021513.D	Liquid	Y	NA
14	BFB	TUNE	02-15-2024 09:13 pm	1.00	0.00 mL	0.00 mL	V021501.D	Liquid	Y	NA
15	CCV	CCV	02-15-2024 09:57 pm	1.00	5.00 mL	0.00 mL	V021502.D	Liquid	Y	NA
16	VLCSW-240215	LCS	02-15-2024 10:19 pm	1.00	5.00 mL	0.00 mL	V021503.D	Liquid	Y	NA
17	BLK	SAMP	02-15-2024 10:41 pm	1.00	5.00 mL	0.00 mL	V021504.D	Liquid	Y	NA
18	VBLKW-240215	MBLK	02-15-2024 11:03 pm	1.00	5.00 mL	0.00 mL	V021505.D	Liquid	Y	NA
19	HS24020801-01	SAMP	02-15-2024 11:26 pm	1.00	5.00 mL	0.00 mL	V021506.D	Liquid	Y	NA
20	HS24020577-07	SAMP	02-15-2024 11:48 pm	1.00	5.00 mL	0.00 mL	V021507.D	Liquid	Y	NA
21	HS24020577-03	SAMP	02-16-2024 12:10 am	1.00	5.00 mL	0.00 mL	V021508.D	Liquid	Y	NA
22	HS24020577-03MS	MS	02-16-2024 12:32 am	1.00	5.00 mL	0.00 mL	V021509.D	Liquid	Y	NA
23	HS24020577-03MSD	MSD	02-16-2024 12:54 am	1.00	5.00 mL	0.00 mL	V021510.D	Liquid	Y	NA
24	HS24020667-01	SAMP	02-16-2024 01:16 am	100.0(	5.00 mL	0.00 mL	V021511.D	Liquid	Y	NA
25	HS24020667-01	SAMP	02-16-2024 01:38 am	5000.0	5.00 mL	0.00 mL	V021512.D	Liquid	Y	NA
26	HS24020269-08	SAMP	02-16-2024 02:00 am	1.00	5.00 mL	0.00 mL	V021513.D	Liquid	Y	NA
27	HS24020269-10	SAMP	02-16-2024 02:23 am	1.00	5.00 mL	0.00 mL	V021514.D	Liquid	Y	NA
28	HS24020269-13	SAMP	02-16-2024 02:45 am	1.00	5.00 mL	0.00 mL	V021515.D	Liquid	Y	NA
29	HS24020271-02	SAMP	02-16-2024 03:07 am	1.00	5.00 mL	0.00 mL	V021516.D	Liquid	Y	NA
30	HS24020269-06	SAMP	02-16-2024 03:29 am	50.00	5.00 mL	0.00 mL	V021517.D	Liquid	Y	NA
31	HS24020269-07	SAMP	02-16-2024 03:51 am	50.00	5.00 mL	0.00 mL	V021518.D	Liquid	Y	NA
32	HS24020577-05	SAMP	02-16-2024 04:13 am	1.00	5.00 mL	0.00 mL	V021519.D	Liquid	Y	NA
33	HS24020577-06	SAMP	02-16-2024 04:36 am	1.00	5.00 mL	0.00 mL	V021520.D	Liquid	Y	NA
34	HS24020801-02	SAMP	02-16-2024 04:58 am	1.00	5.00 mL	0.00 mL	V021521.D	Liquid	Y	NA
35	HS24020801-03	SAMP	02-16-2024 05:20 am	1.00	5.00 mL	0.00 mL	V021522.D	Liquid	Y	NA
36	HS24020576-01	SAMP	02-16-2024 05:42 am	25.00	5.00 mL	0.00 mL	V021523.D	Liquid	Y	NA
37	HS24020576-02	SAMP	02-16-2024 06:04 am	20.00	5.00 mL	0.00 mL	V021524.D	Liquid	Y	NA
38	HS24020576-05	SAMP	02-16-2024 06:26 am	5.00	5.00 mL	0.00 mL	V021525.D	Liquid	Y	NA
39	HS24020576-06	SAMP	02-16-2024 06:48 am	5.00	5.00 mL	0.00 mL	V021526.D	Liquid	Y	NA
40	HS24020576-10	SAMP	02-16-2024 07:10 am	10.00	5.00 mL	0.00 mL	V021527.D	Liquid	Y	NA
41	CCV-END	CCV	02-16-2024 07:33 am	1.00	5.00 mL	0.00 mL	V021528.D	Liquid	Y	NA

MSVOA09 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	BLK	SAMP	02-16-2024 07:55 am	1.00	5.00 mL	0.00 mL	V021529.D	Liquid	Y	NA
43	BLK	SAMP	02-16-2024 08:17 am	1.00	5.00 mL	0.00 mL	V021530.D	Liquid	Y	NA

right solutions.
right partner.

RawData

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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\U240208.b\V020827.D Page 1
Report Date: 09-Feb-2024 10:48

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\U240208.b\V020827.D
Lab Smp Id: BLK
Inj Date : 09-FEB-2024 07:40
Operator : FT   Inst ID: VOA9.i
Smp Info : BLK
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\U240208.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: 55   QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: all.sub
Target Version: 4.14   Sample Matrix: WATER
Processing Host: NAHSTW7066

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	66104			0.00- 100.00	99.89
9.194	9.180	(0.000)	50	10452			15.00- 40.00	15.81
9.194	9.180	(0.000)	75	29904			30.00- 60.00	45.24
9.194	9.180	(0.000)	96	4979			5.00- 9.00	7.53
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	66176			50.00- 0.00	100.11
9.194	9.180	(0.000)	175	5783			5.00- 9.00	8.74
9.194	9.180	(0.000)	176	64432			95.00- 101.00	97.36
9.194	9.180	(0.000)	177	4331			5.00- 9.00	6.72

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.81
75	30.00 - 60.00% of mass 95	45.24
96	5.00 - 9.00% of mass 95	7.53
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	100.11
175	5.00 - 9.00% of mass 174	8.75 (8.74)
176	95.00 - 101.00% of mass 174	97.47 (97.36)
177	5.00 - 9.00% of mass 176	6.55 (6.72)

Data File: V020827.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 174.00
Number of points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	592	64.00	295	93.00	2773	140.90	648
37.10	2629	65.20	208	94.10	8318	141.80	63
38.10	2120	66.30	53	95.10	66104	142.90	721
39.10	881	68.10	5531	96.10	4979	144.20	64
40.00	118	69.00	6148	97.00	142	144.80	148
43.20	71	70.00	460	103.90	251	146.00	128
44.00	334	72.10	313	104.90	107	147.90	194
45.00	639	73.10	2774	105.90	241	153.10	113
47.10	577	74.10	10000	106.90	102	153.90	106
48.00	487	75.10	29904	115.10	94	154.90	246
49.00	2159	76.10	2841	115.90	325	156.80	91
50.10	10452	77.00	323	116.90	362	159.00	79
51.10	3397	77.90	537	118.00	203	172.00	521
51.90	116	78.90	1315	118.90	329	174.00	66176
55.10	207	79.90	535	124.90	89	175.00	5783
56.00	836	80.90	1464	127.90	254	176.00	64432
57.00	1421	82.00	345	128.80	83	177.00	4331
57.80	61	86.10	148	130.10	226	177.90	143
60.00	519	87.00	2632	130.90	75		
61.00	2432	88.00	2494	134.90	149		
62.10	2540	91.00	218	136.90	111		
63.00	2063	92.10	1630	140.20	109		

Data File: \\NAHSTWS005\Target\chem\voa9.i\u240209.b\u020901.d Page 1

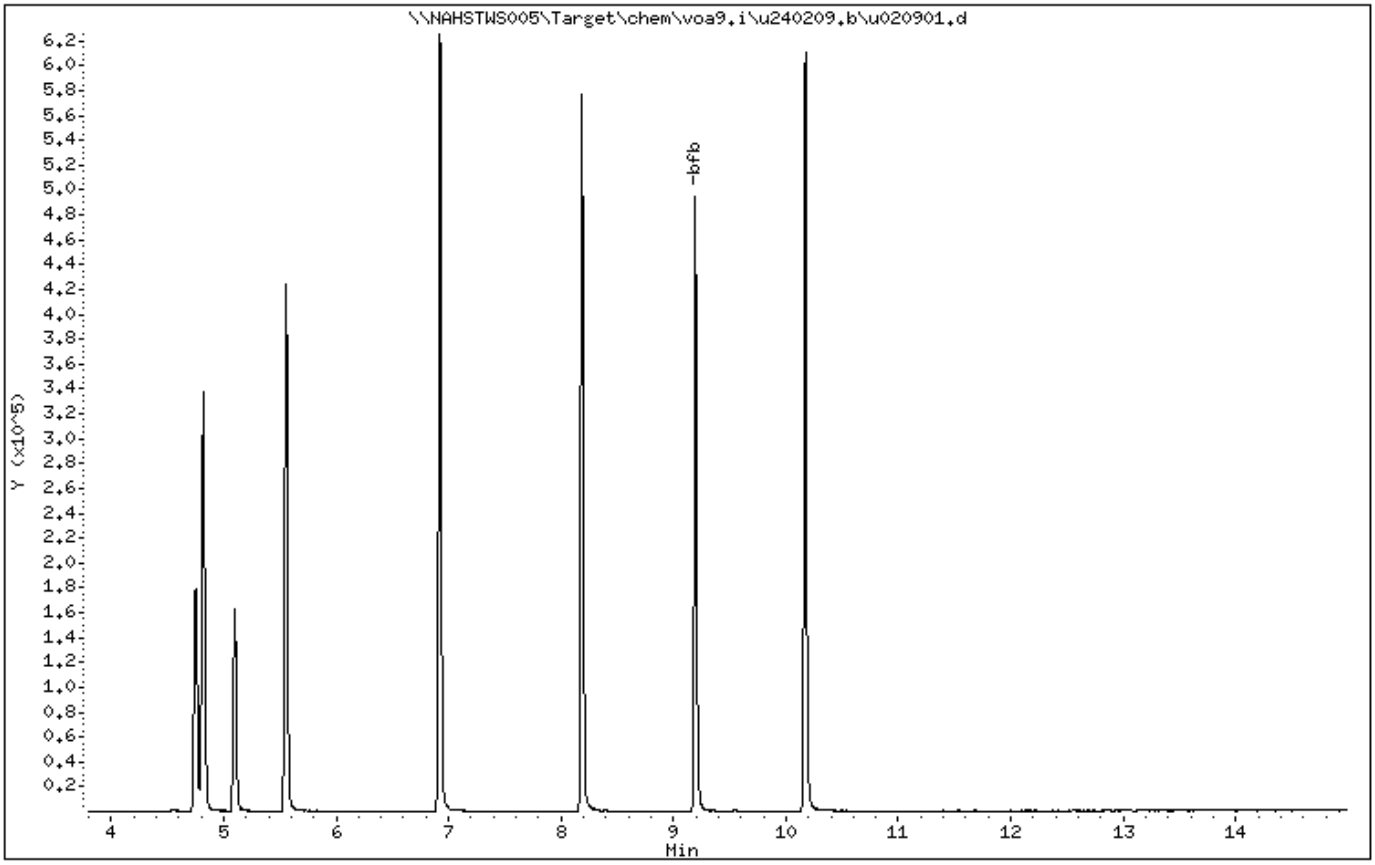
Date : 09-FEB-2024 07:40

Client ID: Instrument: VOA9.i

Sample Info: BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020901.d
Inj Date : 09-FEB-2024 07:40
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020902.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020902.D
Lab Smp Id: VSTD00.25 Client Smp ID: VSTD00.25
Inj Date : 09-FEB-2024 09:22
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD00.25;VSTD00.25;1;1;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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

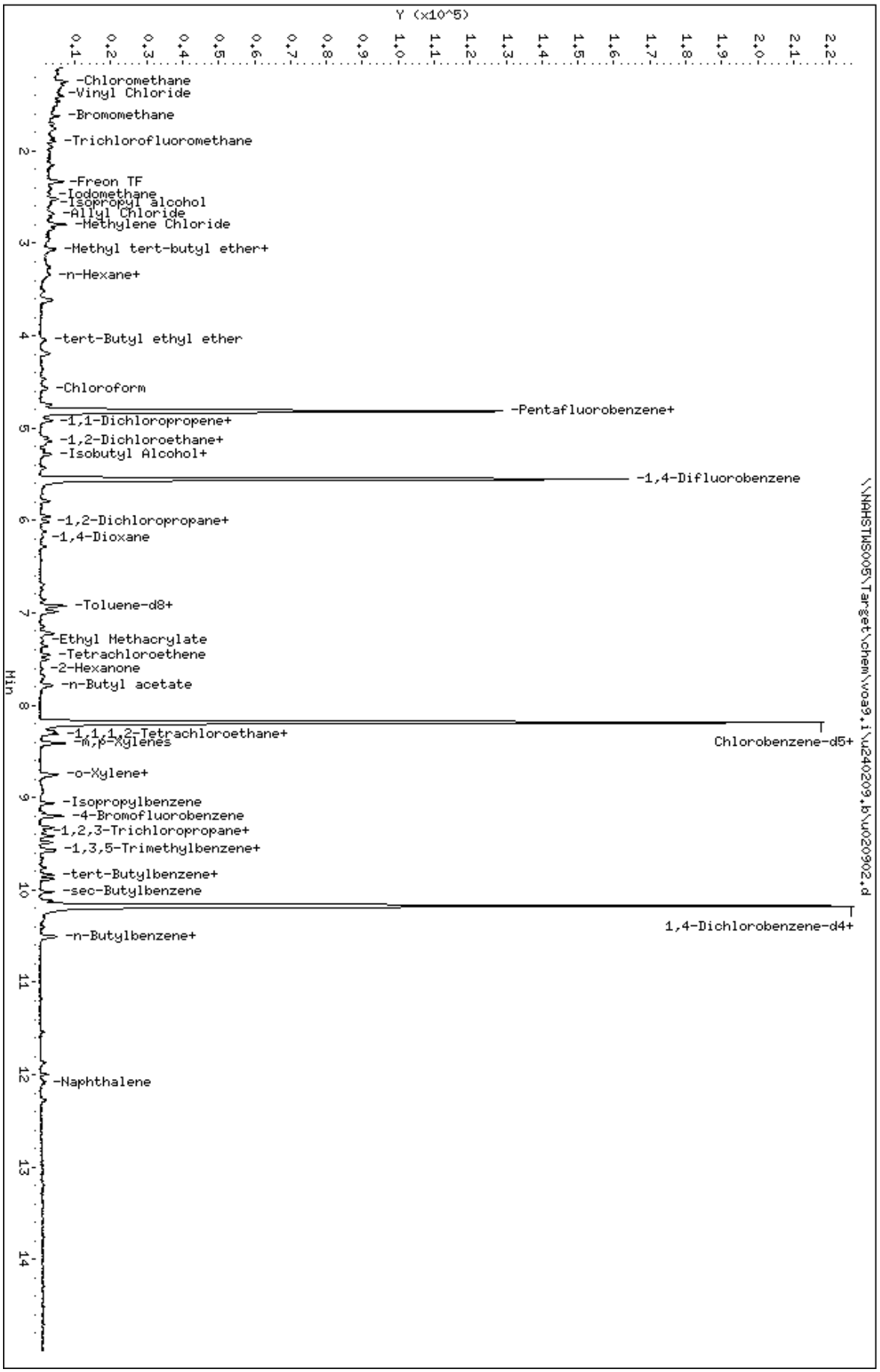
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.815	4.815	(1.000)	101697	50.0000	
	2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	616	0.25000	1.04
	3 Chloromethane	50	1.299	1.299	(0.270)	883	0.25000	1.56
	5 Vinyl Chloride	62	1.378	1.378	(0.286)	645	0.25000	0.79
	6 Bromomethane	94	1.621	1.621	(0.337)	1137	0.25000	2.49
	8 Trichlorofluoromethane	101	1.895	1.895	(0.394)	1272	0.25000	0.51
	15 Iodomethane	142	2.469	2.469	(0.513)	770	0.50000	2.43(T)
	17 Methylene Chloride	84	2.791	2.791	(0.580)	1956	0.25000	0.78
	18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	1558	0.25000	0.79
	20 trans-1,2-Dichloroethene	96	3.061	3.061	(0.636)	801	0.25000	0.88
	28 Chloroform	83	4.575	4.575	(0.950)	1696	0.25000	0.88
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	1429	0.25000	0.93
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	1119	0.25000	0.76
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	938	0.25000	0.93
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1202	0.25000	0.35
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	1031	0.25000	0.79
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	1646	0.25000	0.83(T)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	142579	50.0000	
	37 Benzene	78	5.145	5.145	(0.926)	2825	0.25000	0.93
	42 1,2-Dichloropropane	63	6.015	6.015	(1.083)	625	0.25000	0.67

*	47 Chlorobenzene-d5	117	8.185	8.185 (1.000)	133611	50.0000	
$	48 Toluene-d8	98	6.926	6.926 (0.846)	4938	0.25000	1.30(T)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	50 Toluene	91	6.986	6.986	(0.853)	2857	0.25000	0.69
	52 2-Hexanone	43	7.601	7.601	(0.929)	791	0.50000	4.01(T)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	760	0.25000	0.80
	58 1-Chlorohexane	55	8.185	8.185	(1.474)	1579	0.25000	1.73
	59 Chlorobenzene	112	8.212	8.212	(1.003)	2606	0.25000	0.74
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	726	0.25000	0.68
	61 Ethylbenzene	106	8.313	8.313	(1.016)	848	0.25000	0.60
	62 m,p-Xylenes	106	8.414	8.414	(1.028)	2473	0.50000	1.43
	63 o-Xylene	106	8.748	8.748	(1.069)	1072	0.25000	0.63
	64 Styrene	104	8.770	8.770	(1.071)	1283	0.25000	0.46
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	2667	0.25000	0.61
$	69 4-Bromofluorobenzene	95	9.201	9.201	(1.124)	2106	0.25000	1.28
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	69423	50.0000	
	71 1,2,3-Trichloropropane	75	9.370	9.370	(0.921)	877	0.25000	0.78
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	3456	0.25000	0.80
	74 Bromobenzene	156	9.321	9.321	(0.916)	1071	0.25000	0.80
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	1975	0.25000	0.61
	76 2-Chlorotoluene	91	9.490	9.490	(0.933)	2021	0.25000	0.70
	77 4-Chlorotoluene	91	9.584	9.584	(0.942)	1989	0.25000	0.61
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	2020	0.25000	0.68
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	2079	0.25000	0.65
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	2465	0.25000	0.65
	82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	1784	0.25000	0.53
	83 1,3-Dichlorobenzene	146	10.120	10.120	(0.995)	1816	0.25000	0.74
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1920	0.25000	0.46
	87 n-Butylbenzene	91	10.498	10.498	(1.032)	1523	0.25000	0.57
	88 1,2-Dichlorobenzene	146	10.510	10.510	(1.033)	1823	0.25000	0.60
	92 Naphthalene	128	12.080	12.080	(1.188)	2012	0.25000	1.86
M	94 1,2-Dichloroethylene (total)	96				801	0.50000	
M	95 Xylenes (total)	106				3545	0.75000	
	135 1,4-Dioxane	88	6.180	6.180	(1.283)	72	5.00000	16.03(M)
	141 Cyclohexane	56	4.812	4.812	(0.999)	2235	0.25000	1.72
	138 Freon TF	101	2.341	2.341	(0.486)	749	0.25000	0.90
	147 Methylcyclohexane	55	5.955	5.955	(1.072)	903	0.25000	0.52
	149 Isopropyl Alcohol	45	2.570	2.570	(0.534)	1052	5.00000	24.69(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\u240209.b\u020902.d
Date : 09-FEB-2024 09:22
Client ID: VSTD00.25
Sample Info: VSTD00.25;VSTD00.25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

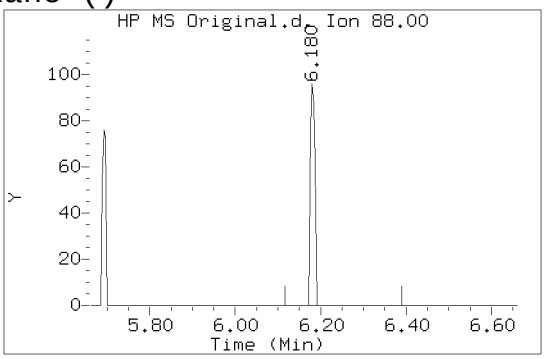
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020902.d
Inj Date : 09-FEB-2024 09:22
InstruID : VOA9.i
LabSampID : VSTD00.25

1,4-Dioxane ()

Reason Code:

BEFORE

MASS
88
AREA
72
HEIGHT
96
09-Feb-2024
11:38
firat
tastan



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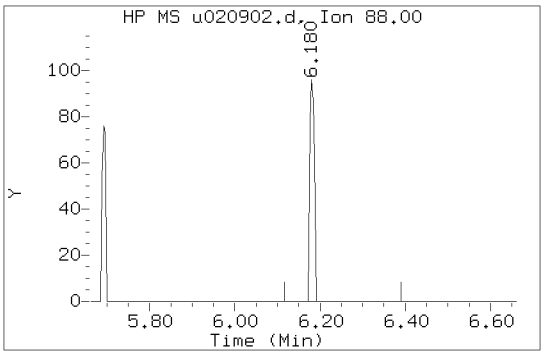

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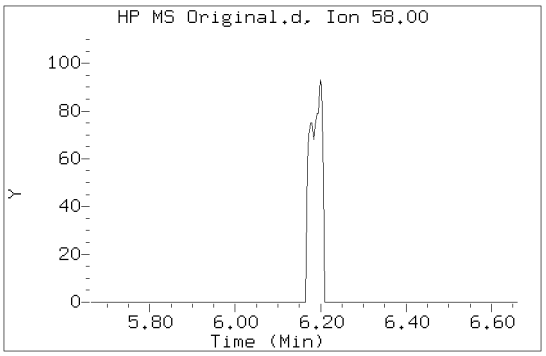

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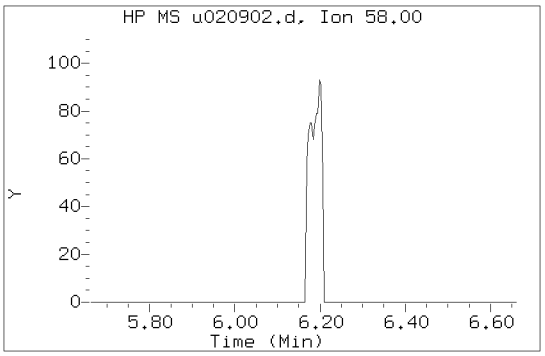

n-Butyl acetate (123-86-4)

Reason Code:

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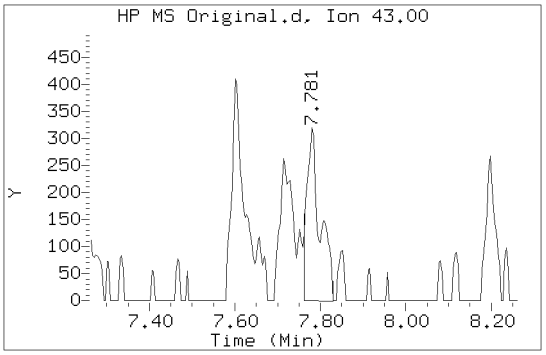

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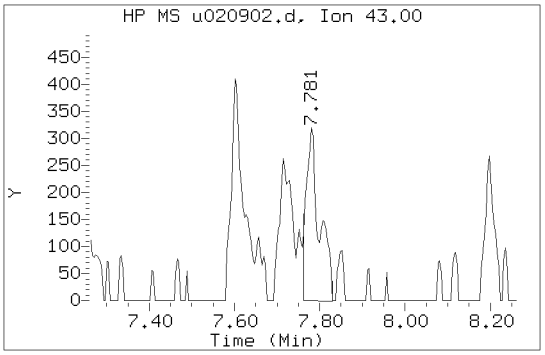

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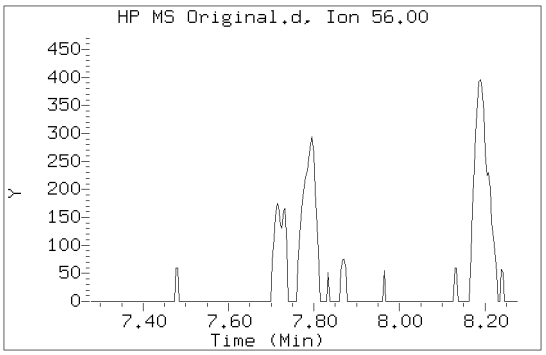

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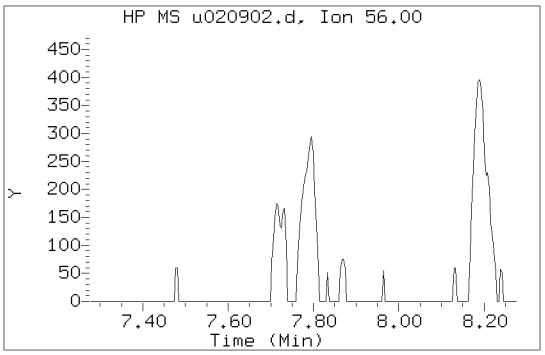

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Inj Date : 09-FEB-2024 09:22
InstruID : VOA9.i
LabSampID : VSTD00.25

n-Butyl acetate (123-86-4)

Reason Code:

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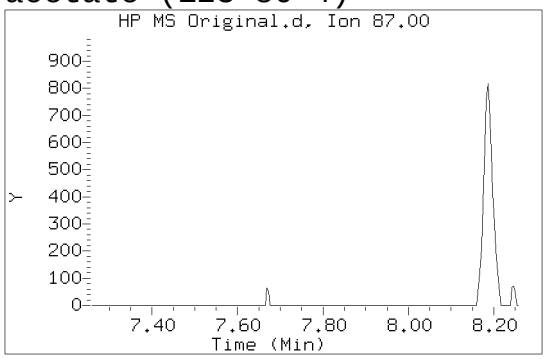

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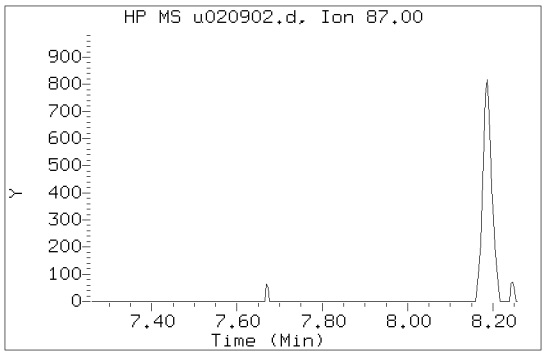

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020903.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020903.D
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Inj Date : 09-FEB-2024 09:44
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD00.5;VSTD00.5;1;2;
Misc Info : V9;WATER;0;1;
Comment   :
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Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 09:22 Cal File: U020902.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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)	190342	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	907	0.50000	0.85
3	Chloromethane	50	1.303	1.303	(0.270)	1281	0.50000	1.31
5	Vinyl Chloride	62	1.381	1.381	(0.287)	1370	0.50000	0.89
6	Bromomethane	94	1.625	1.625	(0.337)	1565	0.50000	1.99
7	Chloroethane	64	1.708	1.708	(0.354)	835	0.50000	0.44(M)
8	Trichlorofluoromethane	101	1.903	1.903	(0.395)	1847	0.50000	0.30
9	Acrolein	56	2.274	2.274	(0.472)	385	1.00000	3.11(M)
10	Acetone	43	2.412	2.412	(0.501)	1848	1.00000	(M)
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	1102	0.50000	0.86(M)
15	Iodomethane	142	2.469	2.469	(0.512)	1327	1.00000	2.38(T)
16	Acrylonitrile	53	3.068	3.068	(0.637)	738	1.00000	1.02
17	Methylene Chloride	84	2.795	2.795	(0.580)	2539	0.50000	0.11
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	3059	0.50000	0.82
19	Carbon Disulfide	76	2.525	2.525	(0.524)	5908	1.00000	1.30
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	1223	0.50000	0.72
21	Vinyl Acetate	43	3.616	3.616	(0.750)	4819	1.00000	1.28(M)
22	1,1-Dichloroethane	63	3.514	3.514	(0.729)	1948	0.50000	0.81(M)
24	2-Butanone	43	4.302	4.302	(0.893)	711	1.00000	1.23(M)
26	2,2-Dichloropropane	77	4.186	4.186	(0.869)	1500	0.50000	0.66(M)

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.871)	1230	0.50000	0.58
28 Chloroform	83	4.579	4.579 (0.950)	2075	0.50000	0.52

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020903.D Page 2
Report Date: 15-Feb-2024 11:14

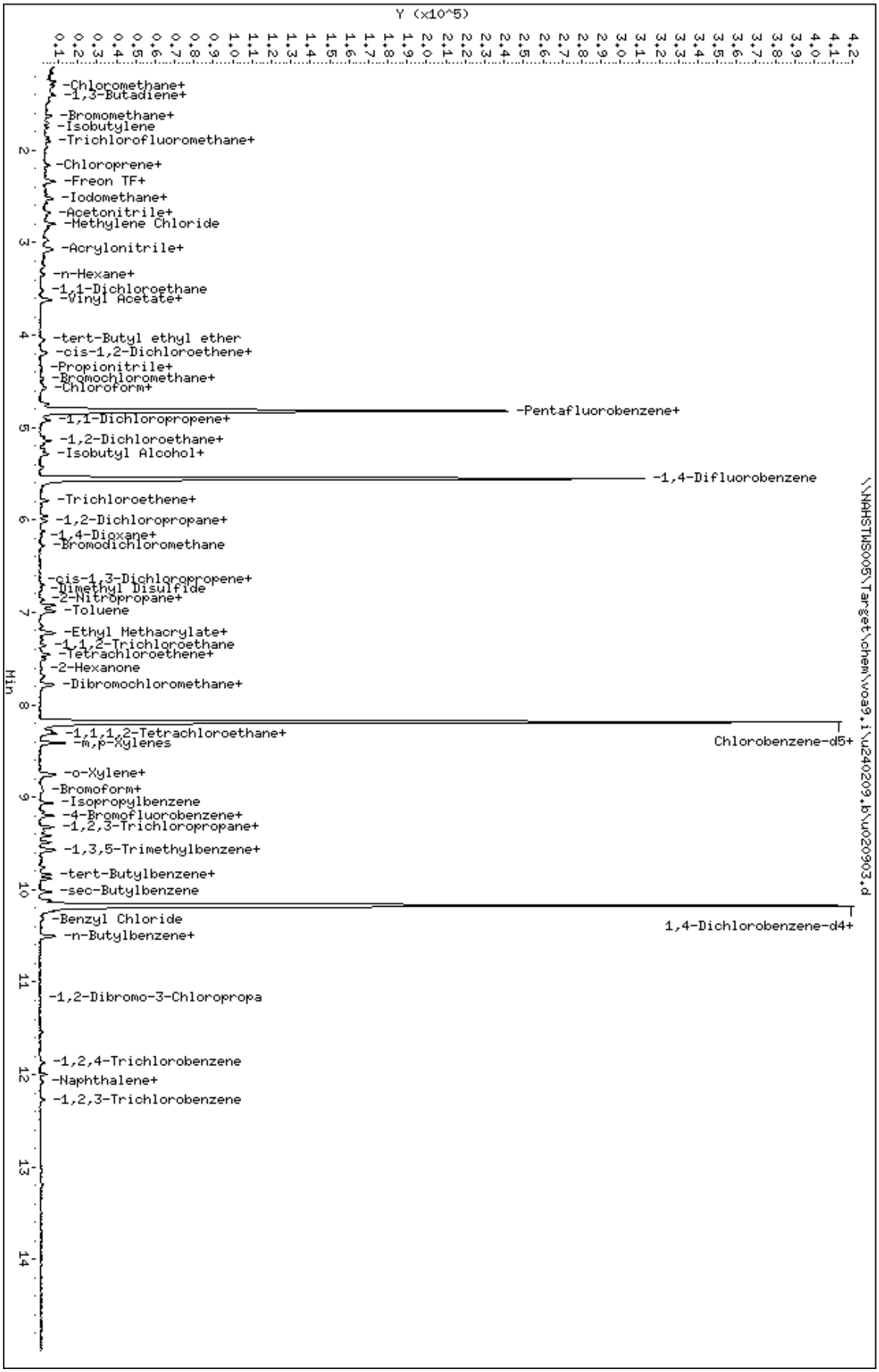
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	750	0.50000	
$	30 Dibromofluoromethane	113	4.759	4.759	(0.988)	1601	0.50000	0.38
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	1700	0.50000	0.61
	32 1,1-Dichloropropene	75	4.931	4.931	(0.888)	1840	0.50000	0.99
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1585	0.50000	0.05
	34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	1400	0.50000	0.58
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	1632	0.50000	0.08(T)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	261641	50.0000	
	37 Benzene	78	5.145	5.145	(0.926)	4782	0.50000	0.87
	38 Trichloroethene	130	5.790	5.790	(1.043)	1597	0.50000	0.94
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	1455	0.50000	0.65(M)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	1218	0.50000	0.71
	44 Dibromomethane	93	6.124	6.124	(1.103)	596	0.50000	0.53(M)
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	1706	1.00000	1.26(M)
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	1270	0.50000	0.54(M)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	241979	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	5559	0.50000	0.78
	50 Toluene	91	6.986	6.986	(0.853)	5016	0.50000	0.66
	51 trans-1,3-Dichloropropene	75	7.203	7.203	(1.297)	818	0.50000	2.05(M)
	52 2-Hexanone	43	7.601	7.601	(0.929)	1322	1.00000	3.90(T)
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	950	0.50000	0.54
	54 1,3-Dichloropropane	76	7.503	7.503	(0.917)	1884	0.50000	0.53(M)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	1149	0.50000	0.60
	56 Tetrachloroethene	164	7.462	7.462	(0.912)	1157	0.50000	0.68
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	888	0.50000	0.52
	58 1-Chlorohexane	55	8.189	8.189	(1.474)	2590	0.50000	1.49
	59 Chlorobenzene	112	8.212	8.212	(1.003)	3697	0.50000	0.53
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	1115	0.50000	0.57
	61 Ethylbenzene	106	8.313	8.313	(1.016)	1453	0.50000	0.57
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	3809	1.00000	1.21
	63 o-Xylene	106	8.751	8.751	(1.069)	1720	0.50000	0.56
	64 Styrene	104	8.766	8.766	(1.071)	2528	0.50000	0.50
	66 Bromoform	173	8.924	8.924	(1.090)	805	0.50000	0.58(M)
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	4391	0.50000	0.56
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1437	0.50000	0.57(M)
$	69 4-Bromofluorobenzene	95	9.198	9.198	(1.124)	2317	0.50000	0.66
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	124282	50.0000	
	71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1072	0.50000	0.53
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	4748	0.50000	0.61
	74 Bromobenzene	156	9.321	9.321	(0.916)	1584	0.50000	0.65
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	3275	0.50000	0.56
	76 2-Chlorotoluene	91	9.486	9.486	(0.933)	3335	0.50000	0.65
	77 4-Chlorotoluene	91	9.584	9.584	(0.942)	3684	0.50000	0.63
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	3161	0.50000	0.60
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	3095	0.50000	0.54
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	3962	0.50000	0.59
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	3515	0.50000	0.58
	83 1,3-Dichlorobenzene	146	10.120	10.120	(0.995)	2757	0.50000	0.61
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	3199	0.50000	0.40
	87 n-Butylbenzene	91	10.495	10.495	(1.032)	2492	0.50000	0.52
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2762	0.50000	0.47
	89 1,2-Dibromo-3-Chloropropane	155	11.177	11.177	(1.099)	72	0.50000	3.06(M)

90 1,2,4-Trichlorobenzene	180	11.867	11.867 (1.167)	1258	0.50000	0.51(M)
91 Hexachlorobutadiene	225	12.002	12.002 (1.180)	860	0.50000	0.86(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	92 Naphthalene	128	12.073	12.073	(1.187)	2654	0.50000	1.70
	93 1,2,3-Trichlorobenzene	180	12.275	12.275	(1.207)	1136	0.50000	0.48(M)
M	94 1,2-Dichloroethylene (total)	96				2453	1.00000	
M	95 Xylenes (total)	106				5529	1.50000	
	135 1,4-Dioxane	88	6.172	6.172	(1.281)	308	10.0000	24.26(M)
	141 Cyclohexane	56	4.815	4.815	(0.999)	2861	0.50000	1.09
	138 Freon TF	101	2.341	2.341	(0.486)	1206	0.50000	0.77
	140 1,3-Butadiene	54	1.404	1.404	(0.291)	1034	0.50000	0.87
	147 Methylcyclohexane	55	5.959	5.959	(1.073)	1618	0.50000	0.51
	146 Methyl Acetate	43	2.716	2.716	(0.564)	726	0.50000	0.23(M)
	148 Tert-Butyl alcohol	59	2.978	2.978	(0.618)	2997	10.0000	18.21(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.



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Sample Info: VSTD00.5;VSTD00.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Chloroethane (75-00-3)

Reason Code:

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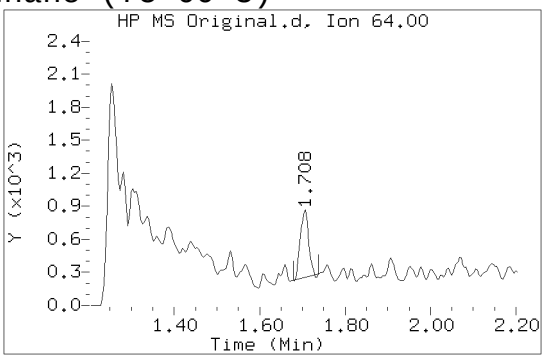
607
09-Feb-2024
11:53
firat
tastan



AFTER

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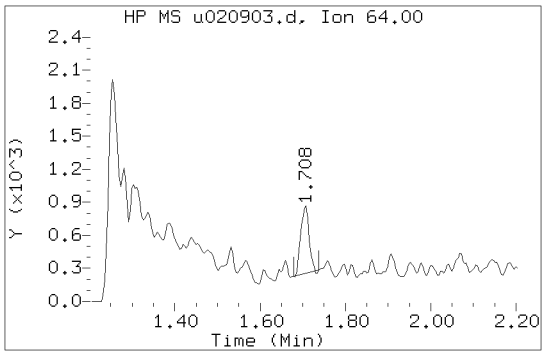

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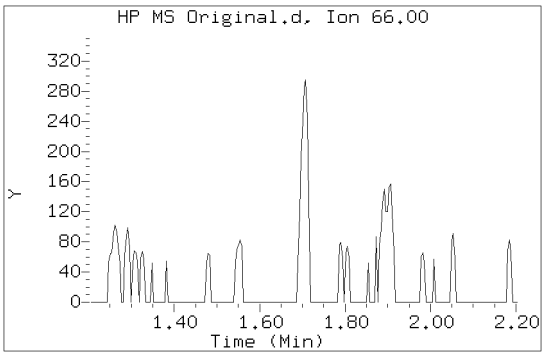

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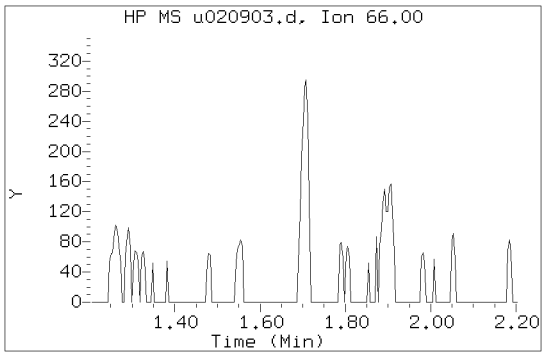

Acetone (67-64-1)

Reason Code:

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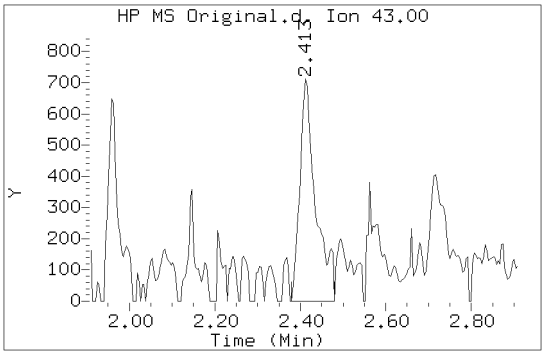

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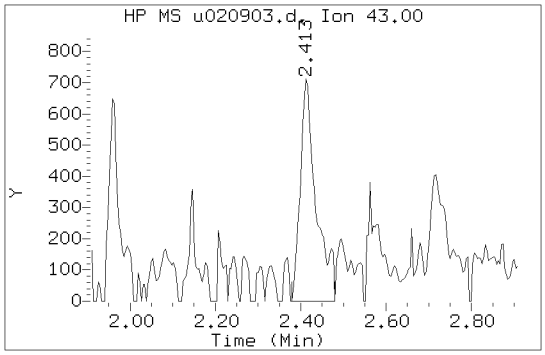

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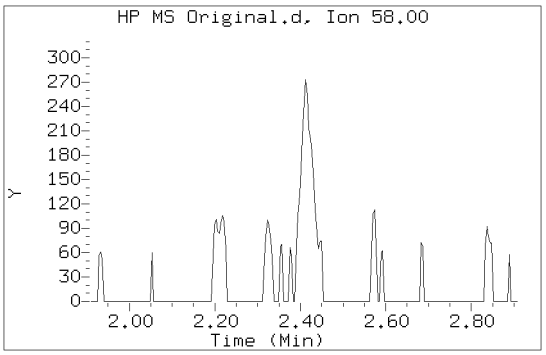

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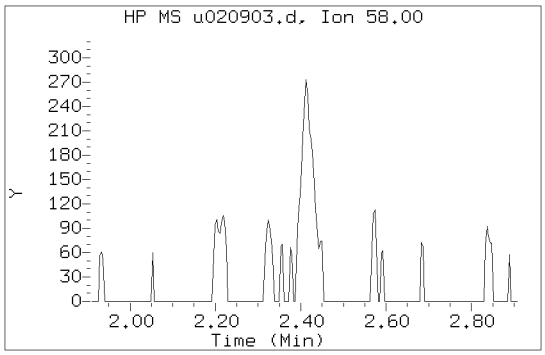

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,1-Dichloroethene (75-35-4)

Reason Code:

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HEIGHT
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09-Feb-2024
11:53
firat
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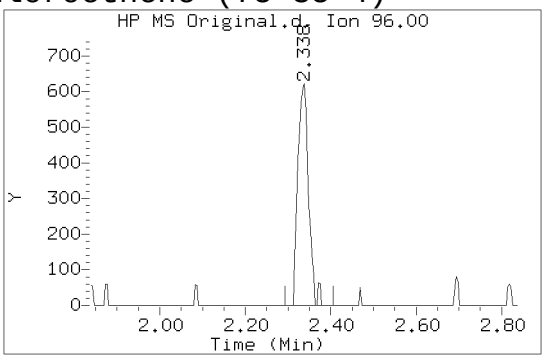

AFTER
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AREA
1102
HEIGHT
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09-Feb-2024
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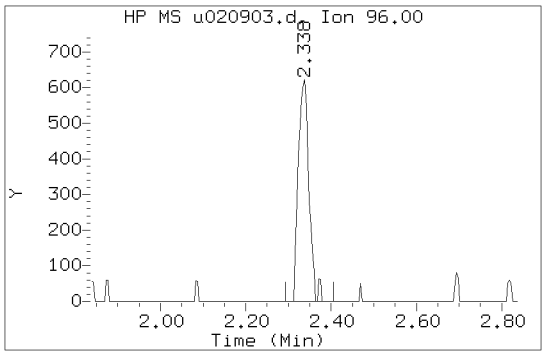

BEFORE
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09-Feb-2024
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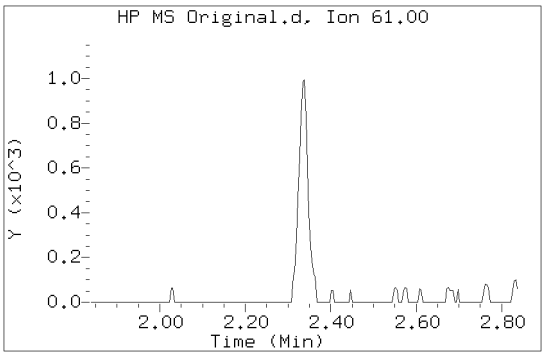

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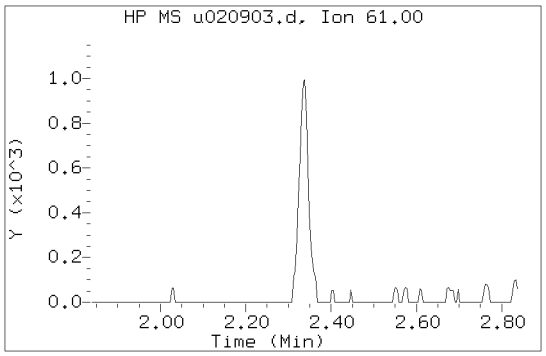

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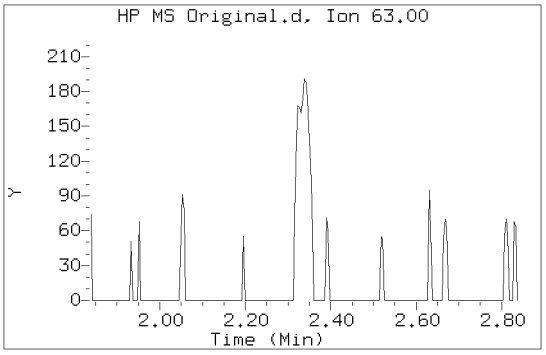

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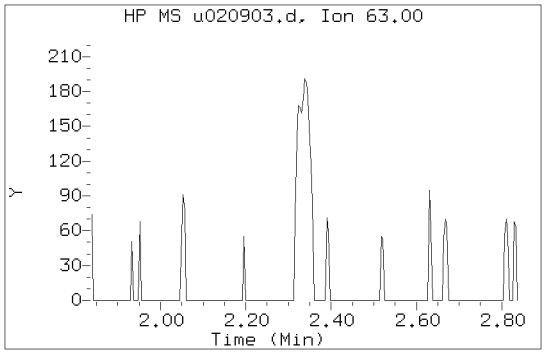

1,1-Dichloroethane (75-34-3)

Reason Code:

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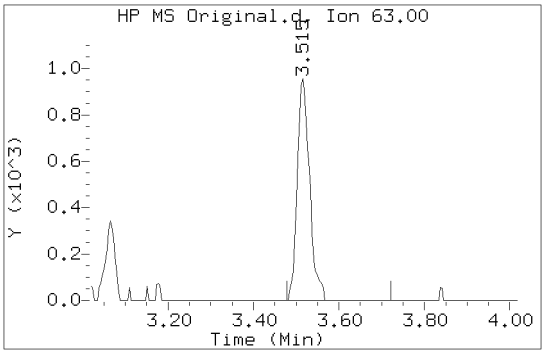

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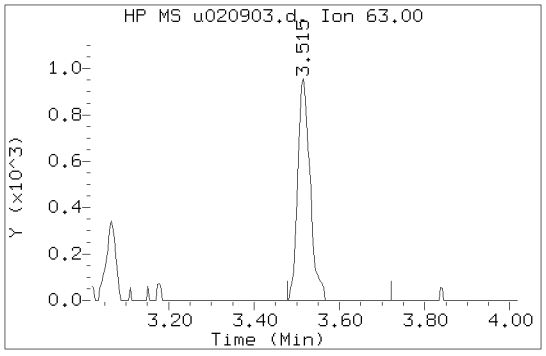

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,1-Dichloroethane (75-34-3)

Reason Code:

BEFORE

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65
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HEIGHT
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09-Feb-2024
11:53
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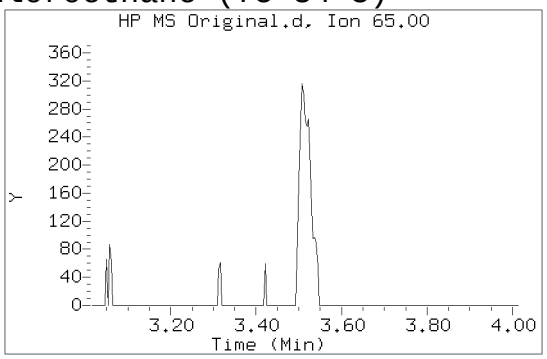

AFTER

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09-Feb-2024
11:53
firat
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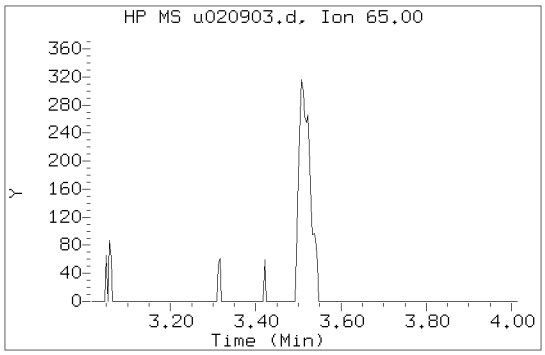

BEFORE

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09-Feb-2024
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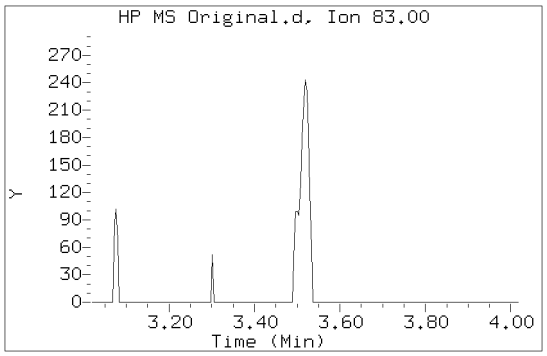

AFTER

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83
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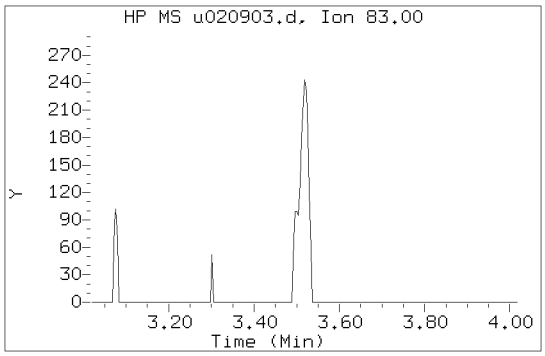

2-Butanone (78-93-3)

Reason Code:

BEFORE

MASS
43
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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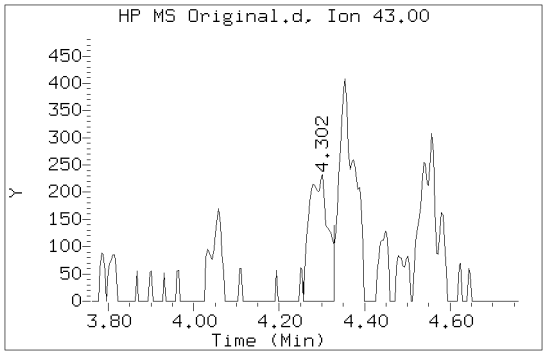

AFTER

MASS
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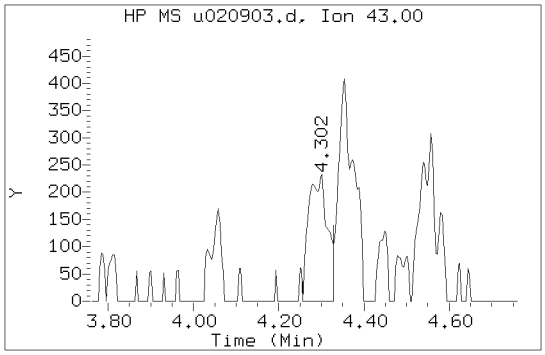
711
HEIGHT
233
09-Feb-2024
11:53
firat
tastan



BEFORE

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72
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09-Feb-2024
11:53
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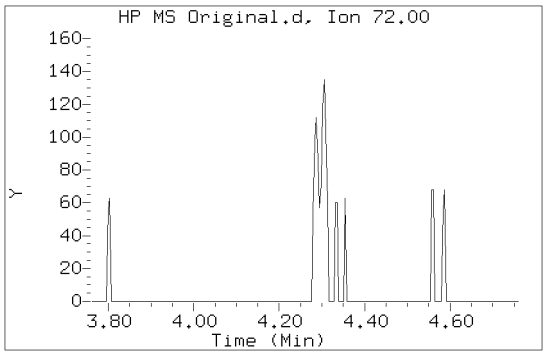

AFTER

MASS
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HEIGHT
0
09-Feb-2024
11:53
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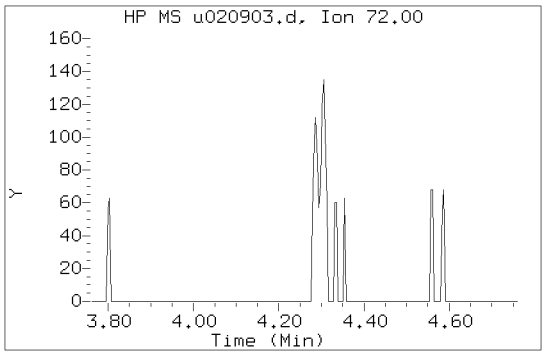

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

2,2-Dichloropropane (594-20-7)

Reason Code:

BEFORE

MASS
77
AREA
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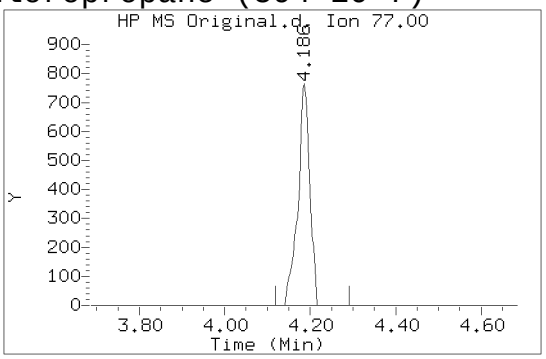
HEIGHT
765
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
1500
HEIGHT
765
09-Feb-2024
11:53
firat
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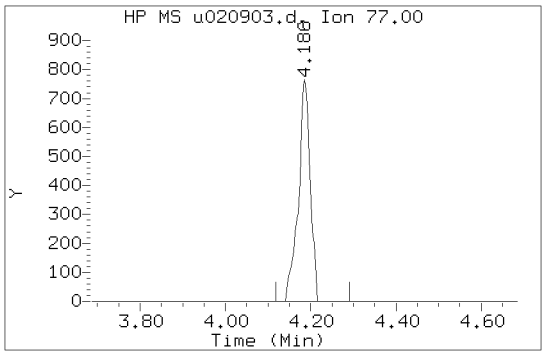

BEFORE

MASS
97
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HEIGHT
0
09-Feb-2024
11:53
firat
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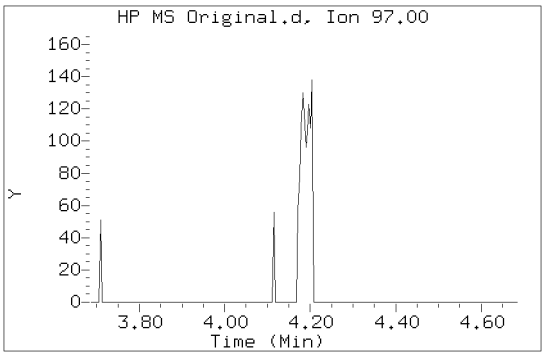

AFTER

MASS
97
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09-Feb-2024
11:53
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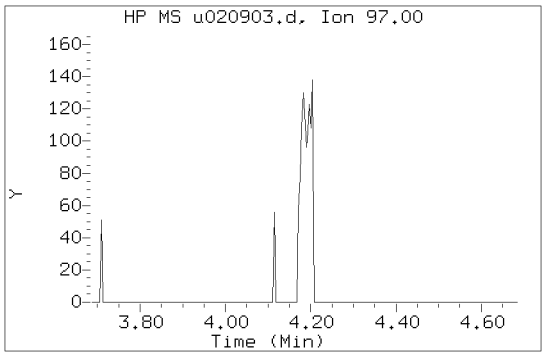
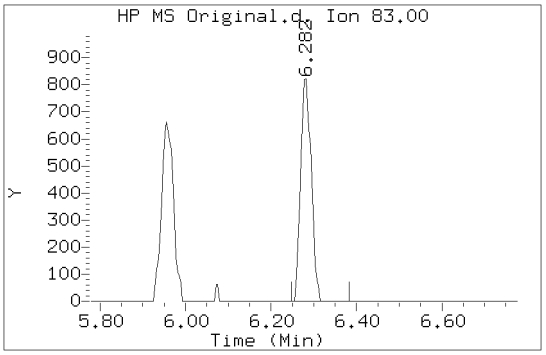


Bromodichloromethane (75-27-4)

Reason Code:

BEFORE

MASS
83
AREA
1455
HEIGHT
822
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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822
09-Feb-2024
11:53
firat
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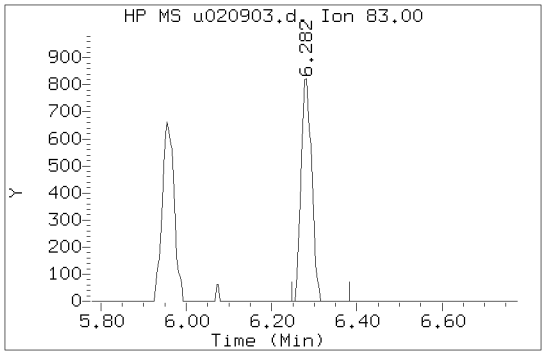

BEFORE

MASS
85
AREA
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HEIGHT
0
09-Feb-2024
11:53
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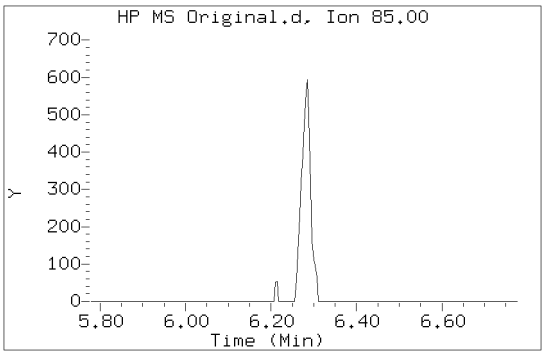

AFTER

MASS
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AREA
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09-Feb-2024
11:53
firat
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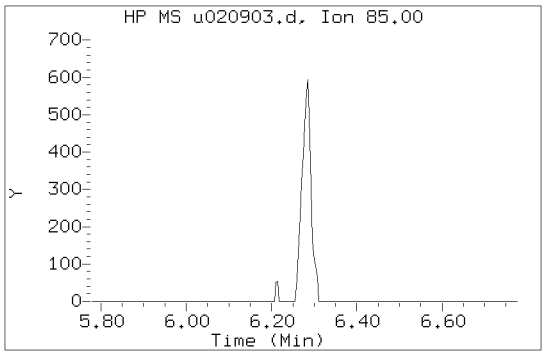

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Bromodichloromethane (75-27-4)

Reason Code:

BEFORE

MASS
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AREA
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HEIGHT
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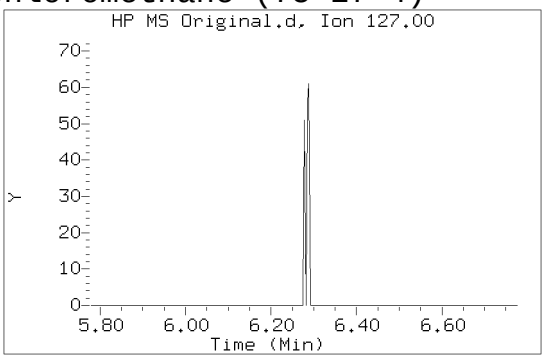
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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HEIGHT
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09-Feb-2024
11:53
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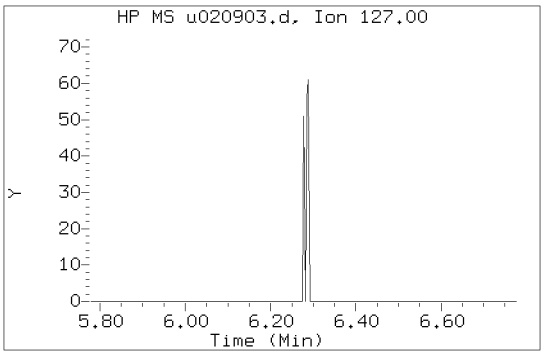

Dibromomethane (74-95-3)

Reason Code:

BEFORE

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93
AREA
596
HEIGHT
388
09-Feb-2024
11:53
firat
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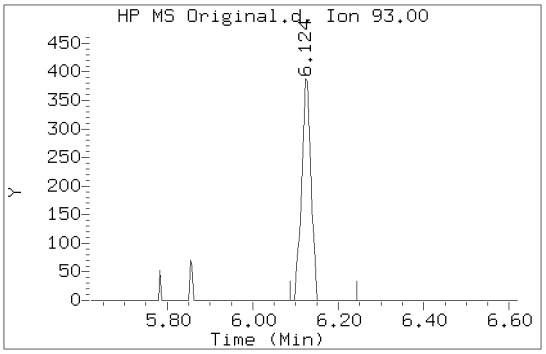

AFTER

MASS
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AREA
596
HEIGHT
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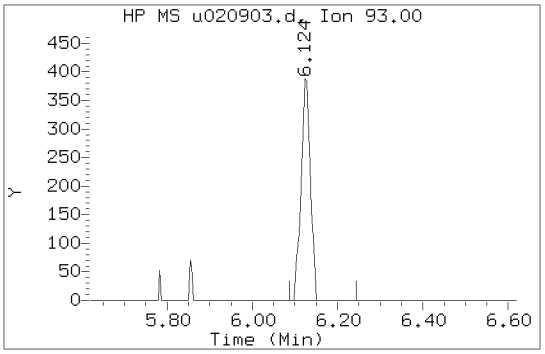
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
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AREA
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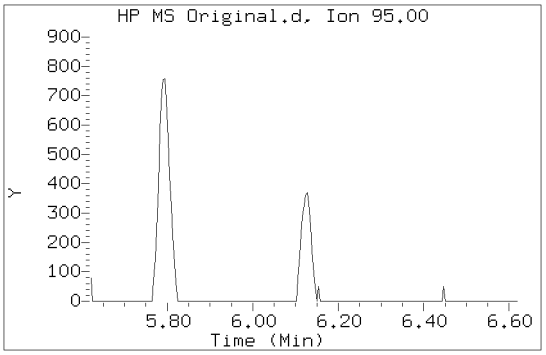
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
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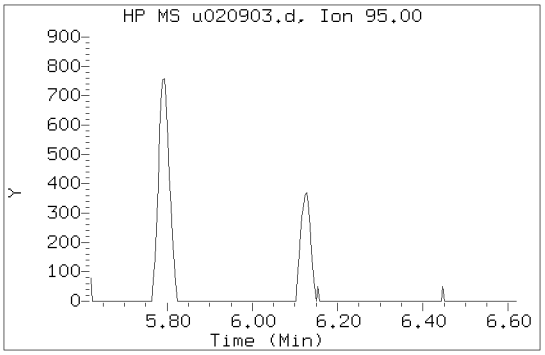
09-Feb-2024
11:53
firat
tastan



BEFORE

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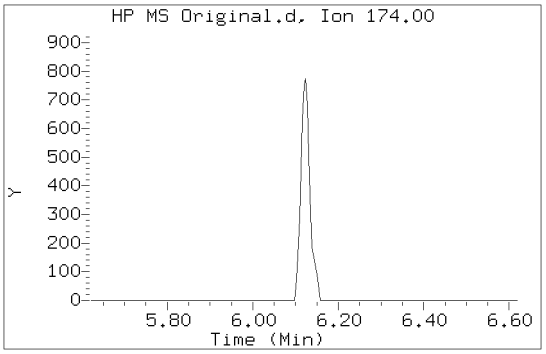

AFTER

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HEIGHT
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09-Feb-2024
11:53
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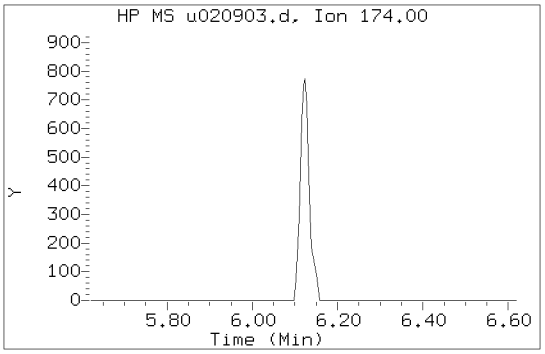

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

4-Methyl-2-Pentanone (108-10-1)

Reason Code:

BEFORE

MASS
43
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1706
HEIGHT
723
09-Feb-2024
11:53
firat
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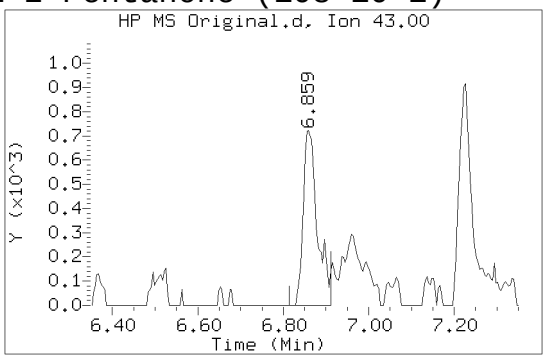

AFTER

MASS
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723
09-Feb-2024
11:53
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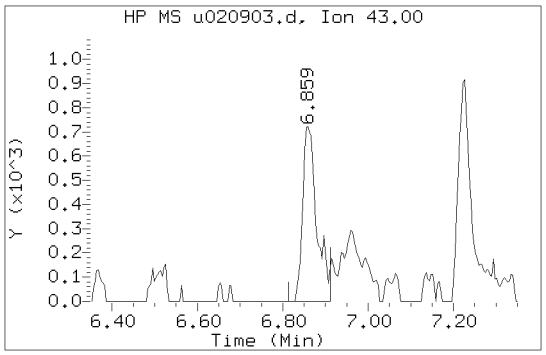

BEFORE

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09-Feb-2024
11:53
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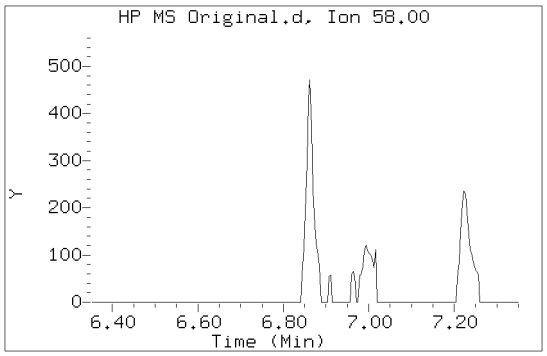

AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
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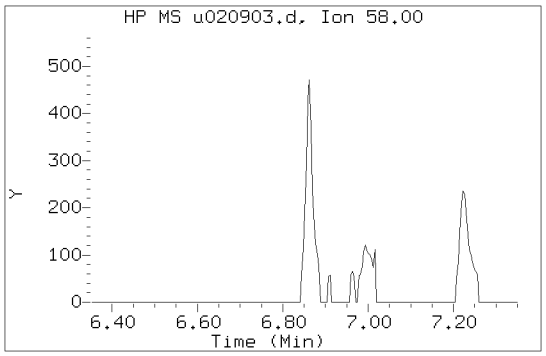

BEFORE

MASS
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HEIGHT
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09-Feb-2024
11:53
firat
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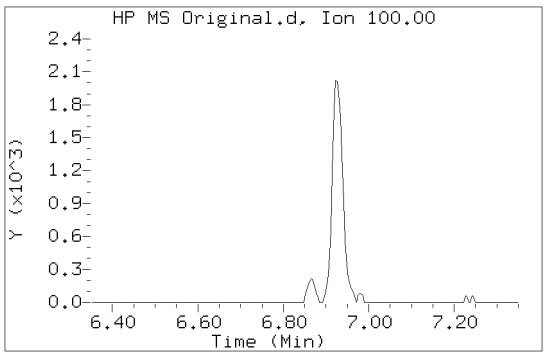

AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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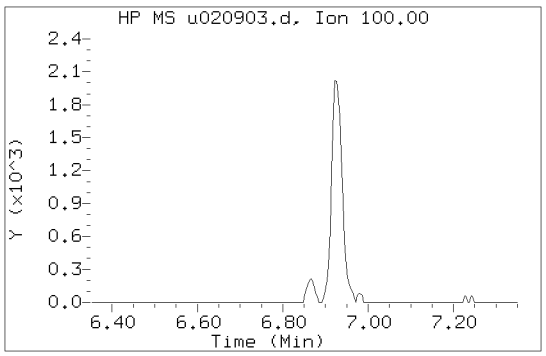

cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

BEFORE

MASS
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AREA
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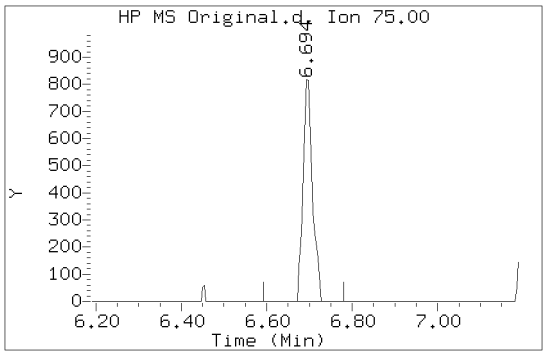
HEIGHT
817
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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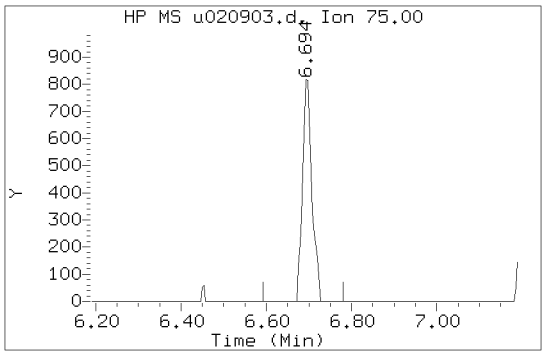
AREA
1270
HEIGHT
817
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

BEFORE
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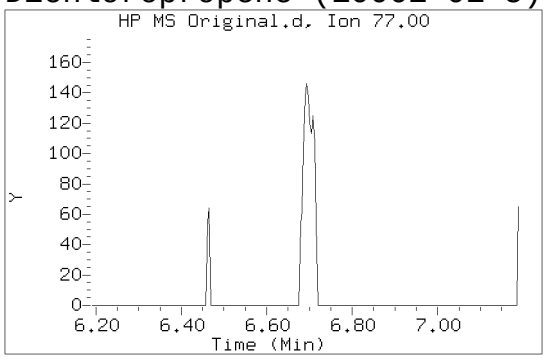
77
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
77
AREA
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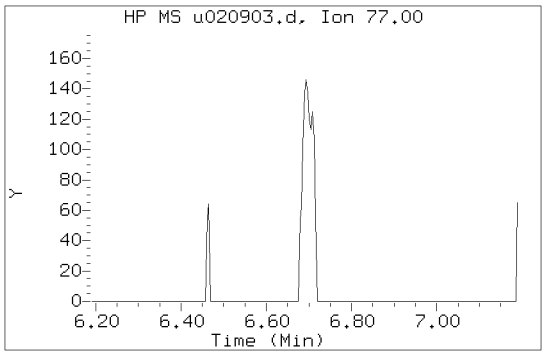
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
39
AREA
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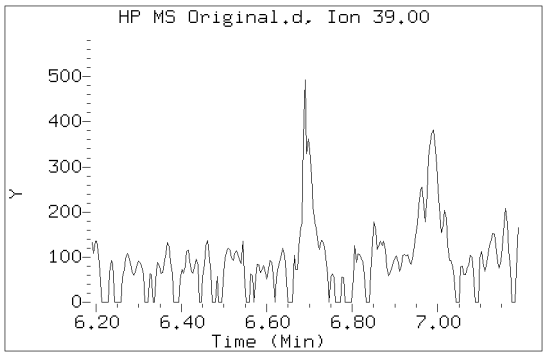
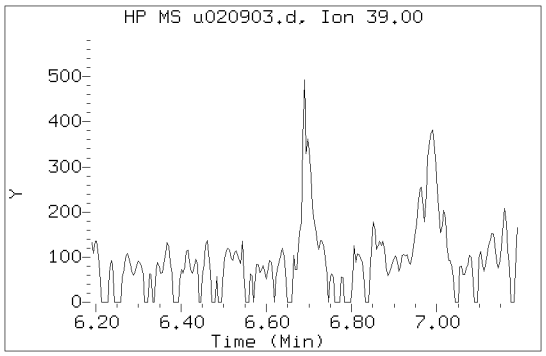
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
39
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE
MASS
75
AREA
818
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515
09-Feb-2024
11:53
firat
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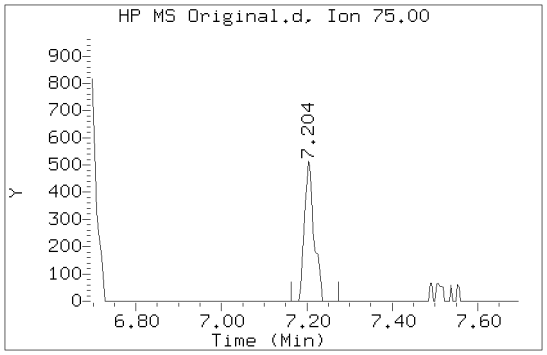

AFTER
MASS
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818
HEIGHT
515
09-Feb-2024
11:53
firat
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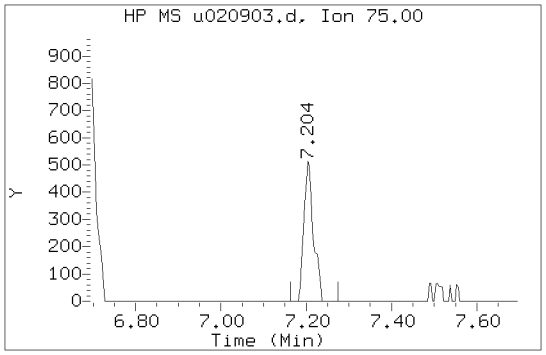

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77
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09-Feb-2024
11:53
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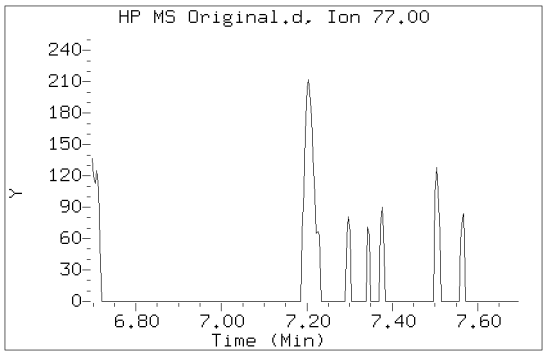

AFTER
MASS
77
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HEIGHT
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09-Feb-2024
11:53
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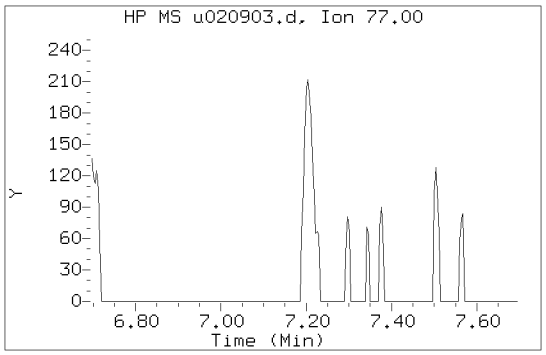

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE

MASS
39
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
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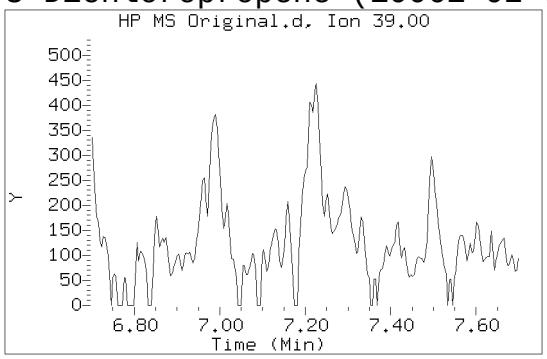

AFTER

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39
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HEIGHT
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09-Feb-2024
11:53
firat
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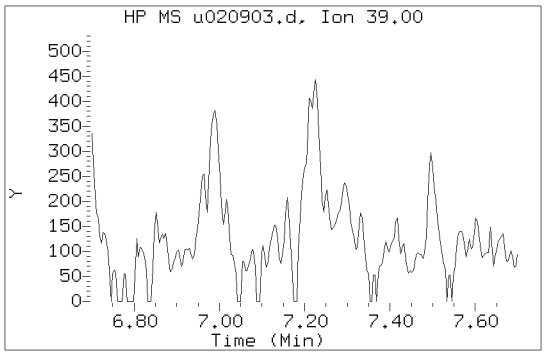
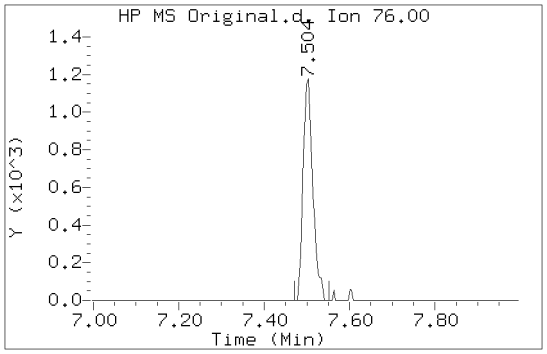


1,3-Dichloropropane (142-28-9)

Reason Code:

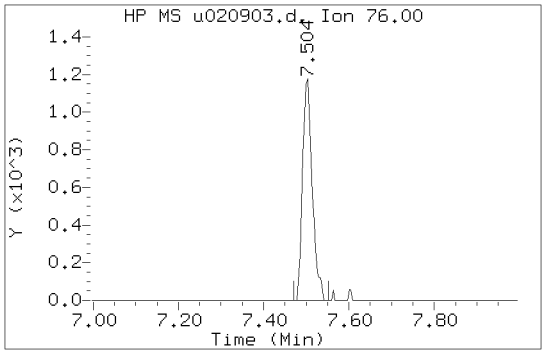
BEFORE

MASS
76
AREA
1884
HEIGHT
1178
09-Feb-2024
11:53
firat
tastan



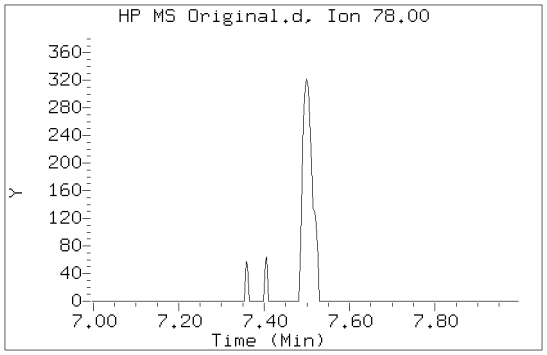
AFTER

MASS
76
AREA
1884
HEIGHT
1178
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
78
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
78
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HEIGHT
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09-Feb-2024
11:53
firat
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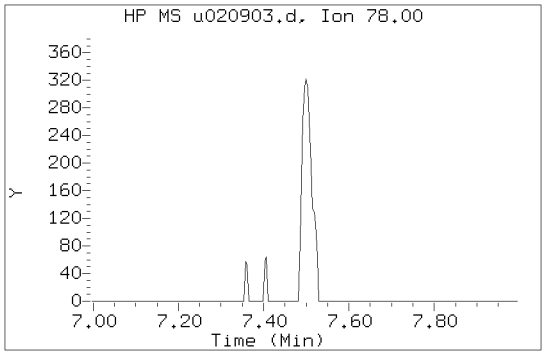
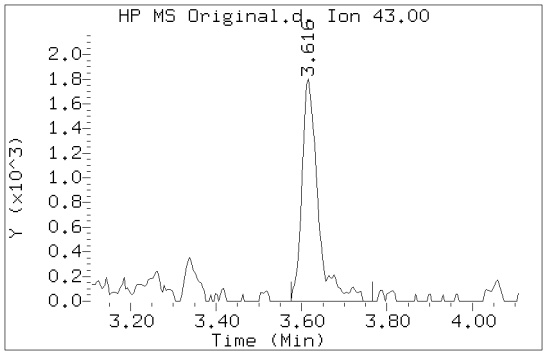


Vinyl Acetate (108-05-4)

Reason Code:

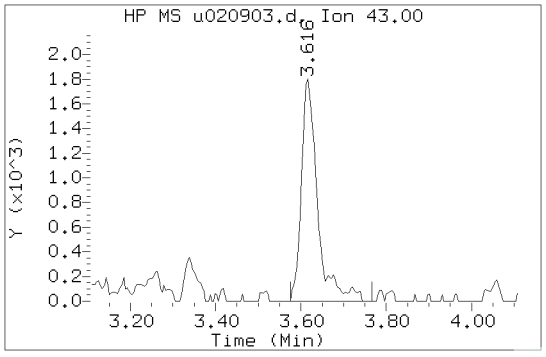
BEFORE

MASS
43
AREA
4819
HEIGHT
1802
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
43
AREA
4819
HEIGHT
1802
09-Feb-2024
11:53
firat
tastan



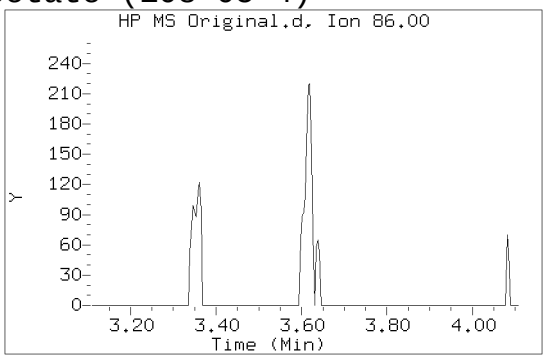
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Vinyl Acetate (108-05-4)

Reason Code:

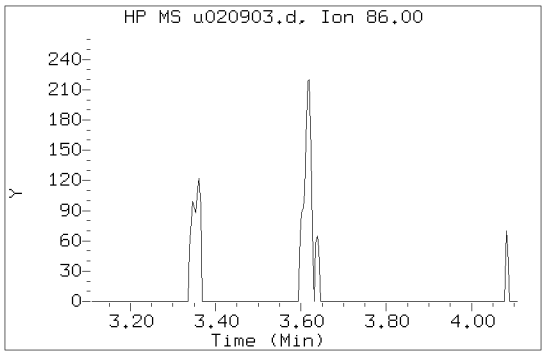
BEFORE

MASS
86
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
86
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

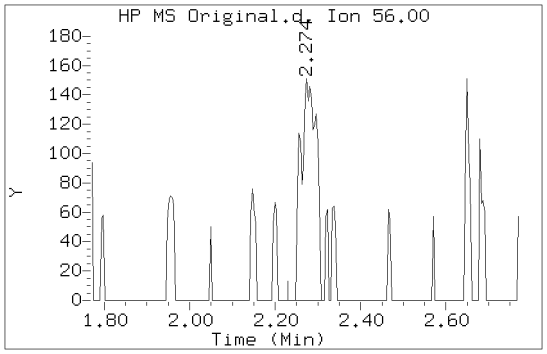


Acrolein (107-02-8)

Reason Code:

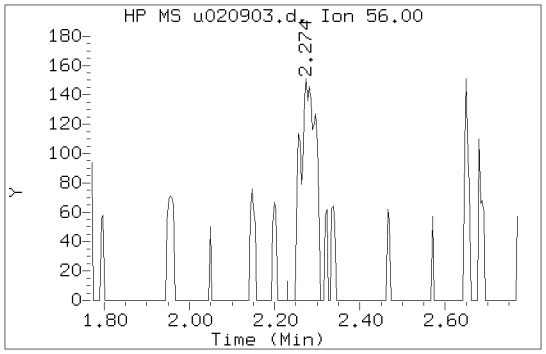
BEFORE

MASS
56
AREA
385
HEIGHT
151
09-Feb-2024
11:53
firat
tastan



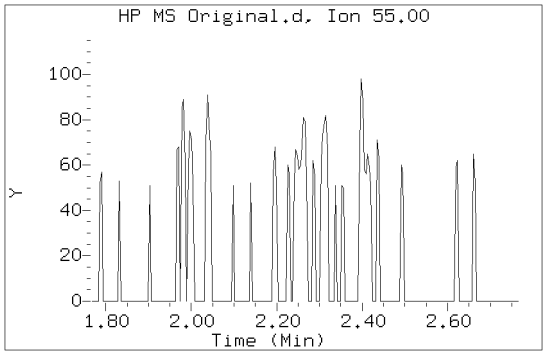
AFTER

MASS
56
AREA
385
HEIGHT
151
09-Feb-2024
11:53
firat
tastan



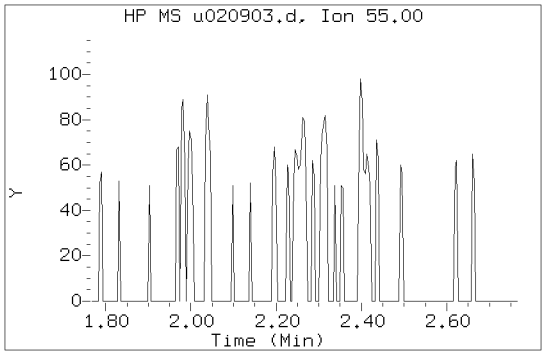
BEFORE

MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

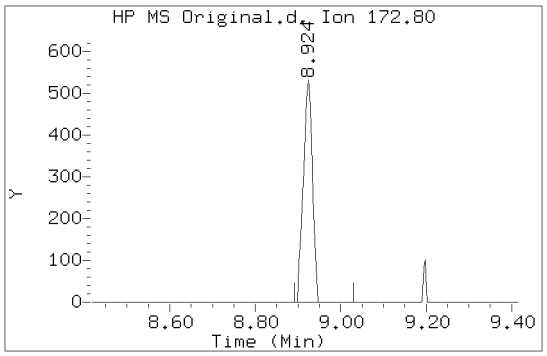


Bromoform (75-25-2)

Reason Code:

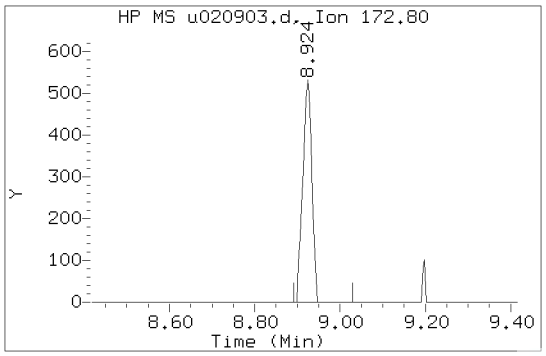
BEFORE

MASS
172.8
AREA
805
HEIGHT
532
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
172.8
AREA
805
HEIGHT
532
09-Feb-2024
11:53
firat
tastan

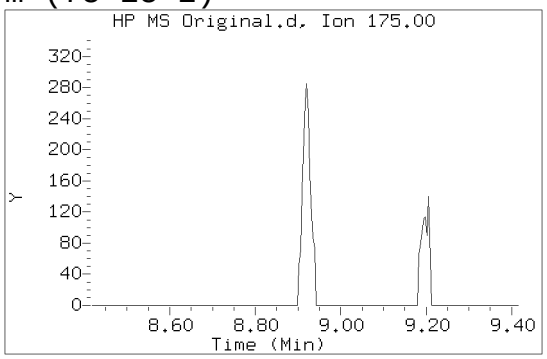


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

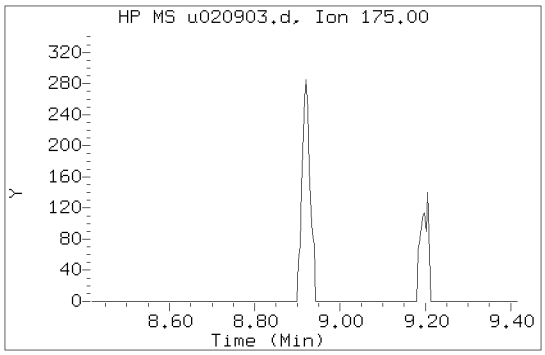
Bromoform (75-25-2)

Reason Code:

BEFORE
MASS
175
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
175
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
254
AREA
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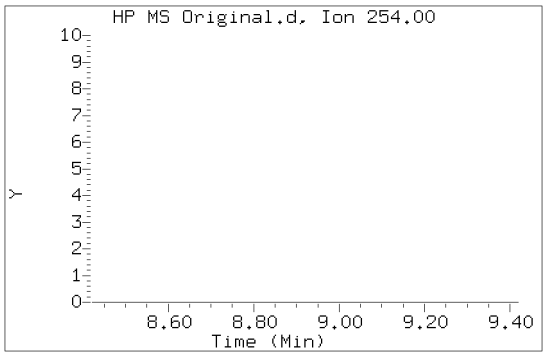
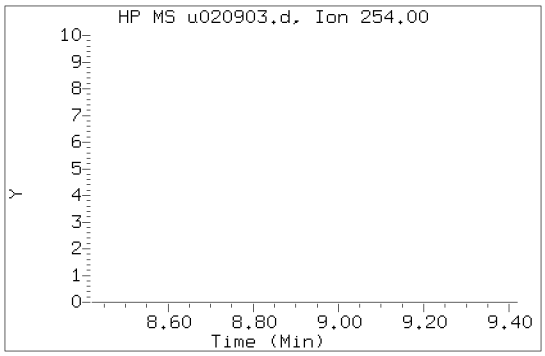
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



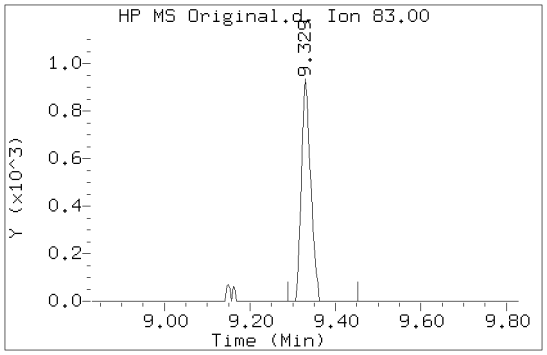
AFTER
MASS
254
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



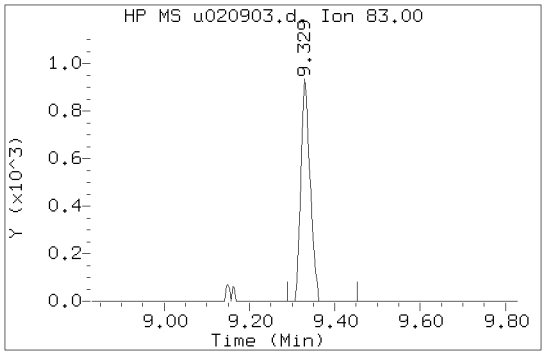
1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

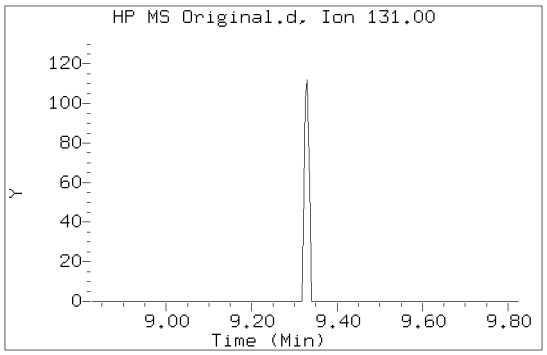
BEFORE
MASS
83
AREA
1437
HEIGHT
935
09-Feb-2024
11:53
firat
tastan



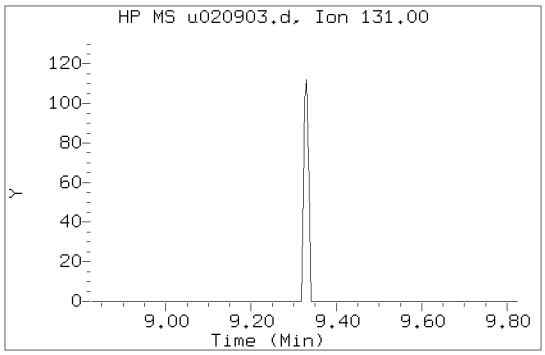
AFTER
MASS
83
AREA
1437
HEIGHT
935
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
131
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
131
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



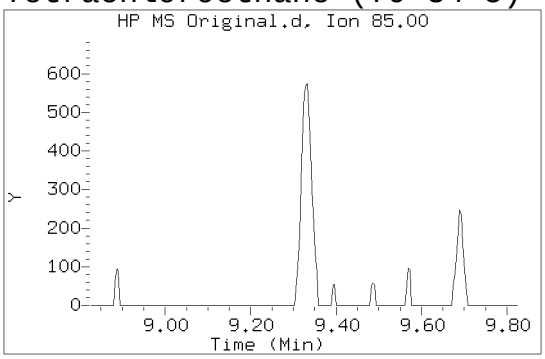
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

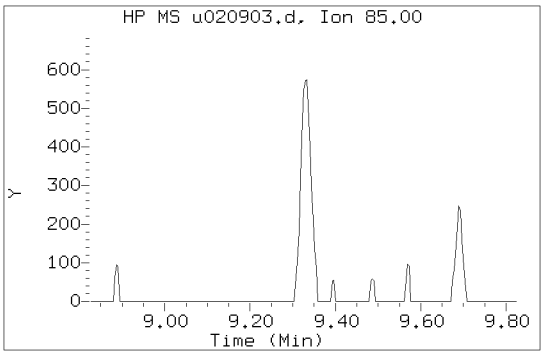
BEFORE

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

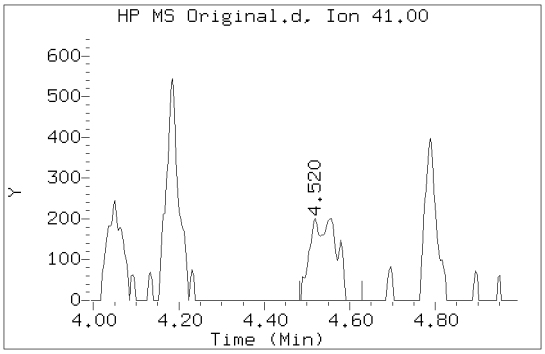


Methacrylonitrile (126-98-7)

Reason Code:

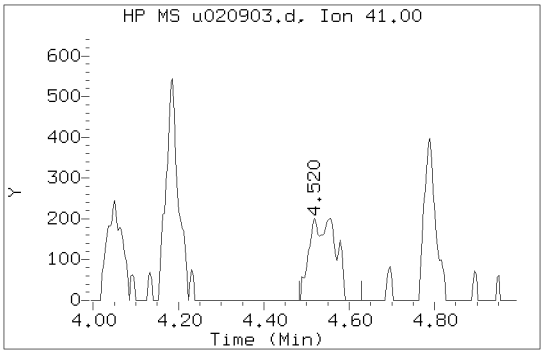
BEFORE

MASS
41
AREA
859
HEIGHT
202
09-Feb-2024
11:53
firat
tastan



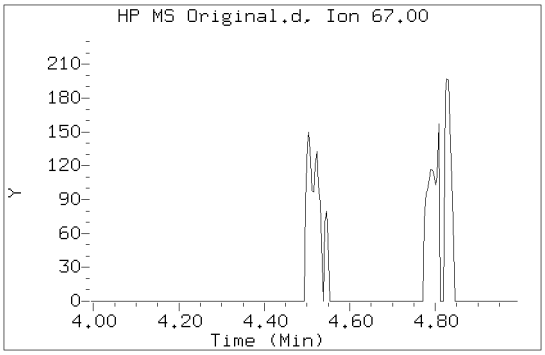
AFTER

MASS
41
AREA
859
HEIGHT
202
09-Feb-2024
11:53
firat
tastan



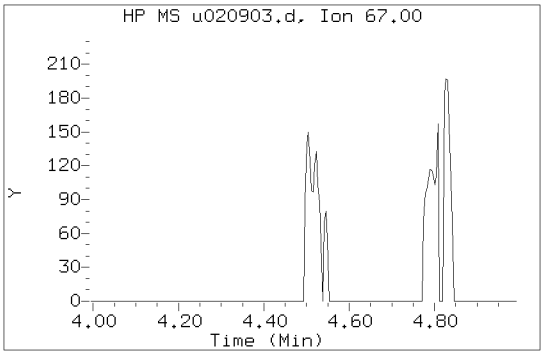
BEFORE

MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
39
AREA
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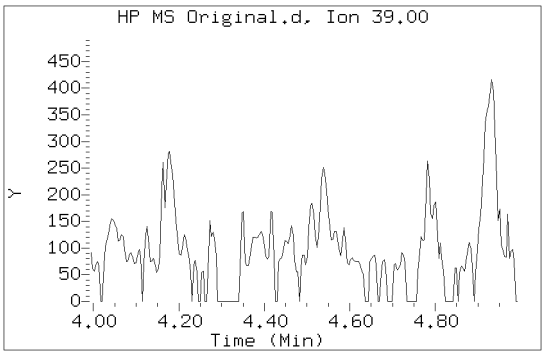
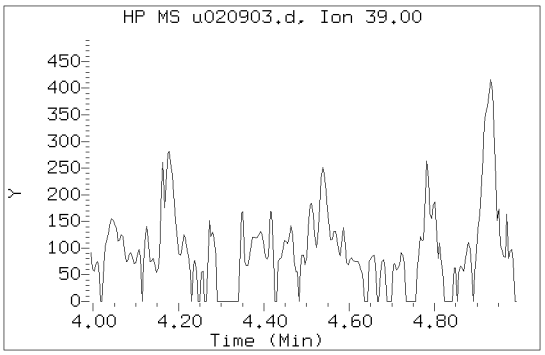
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
39
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

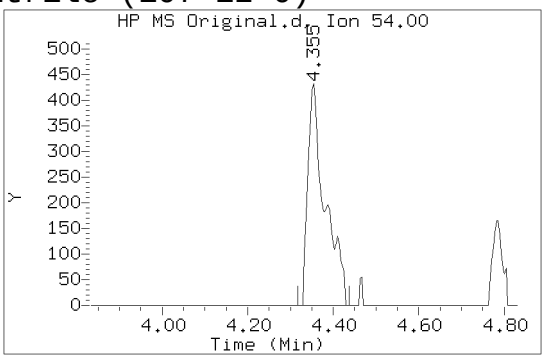


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

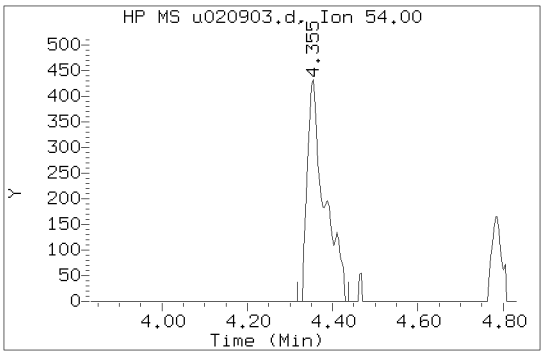
Propionitrile (107-12-0)

Reason Code:

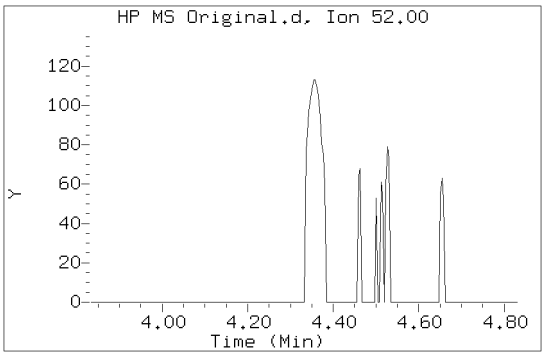
BEFORE
MASS
54
AREA
1212
HEIGHT
432
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
54
AREA
1212
HEIGHT
432
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
52
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
52
AREA
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HEIGHT
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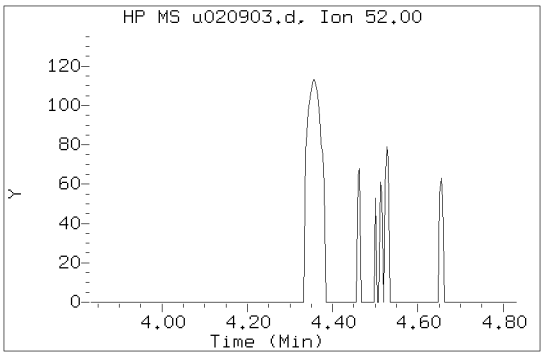
09-Feb-2024
11:53
firat
tastan



BEFORE
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09-Feb-2024
11:53
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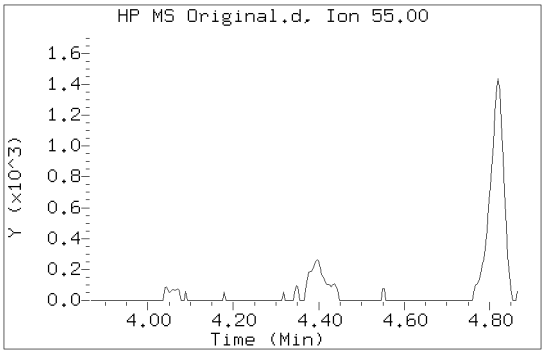

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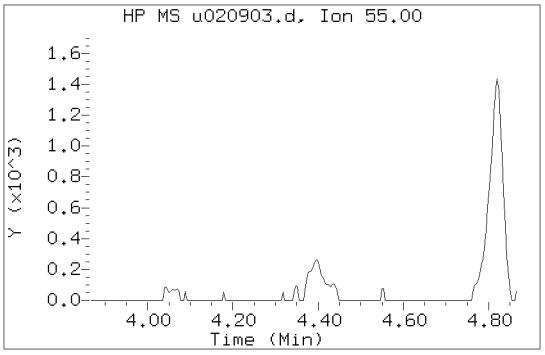

Methyl Methacrylate (80-62-6)

Reason Code:

BEFORE
MASS
41
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firat
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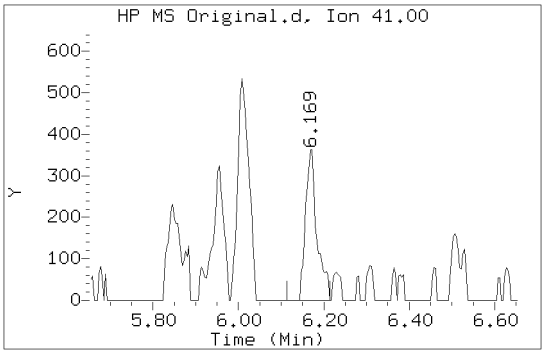

AFTER
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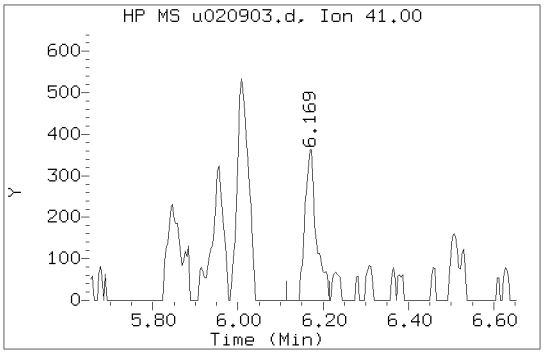

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Methyl Methacrylate (80-62-6)

Reason Code:

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69
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09-Feb-2024
11:53
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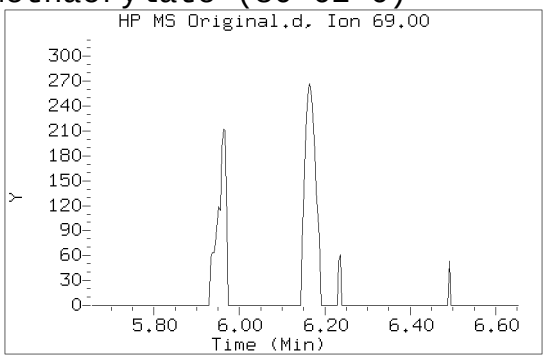

AFTER
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HEIGHT
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09-Feb-2024
11:53
firat
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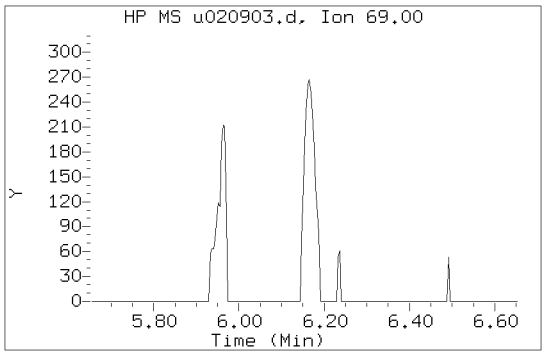

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09-Feb-2024
11:53
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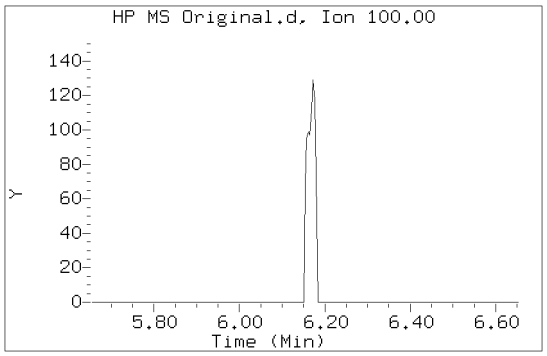

AFTER
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HEIGHT
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09-Feb-2024
11:53
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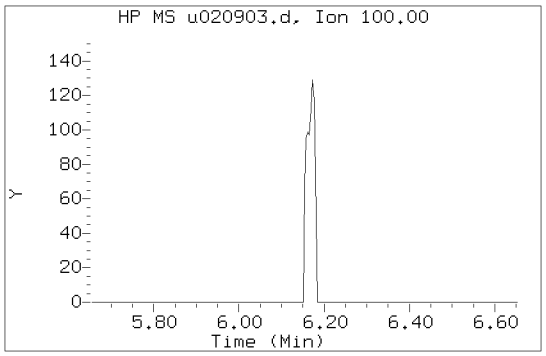

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

BEFORE
MASS
155
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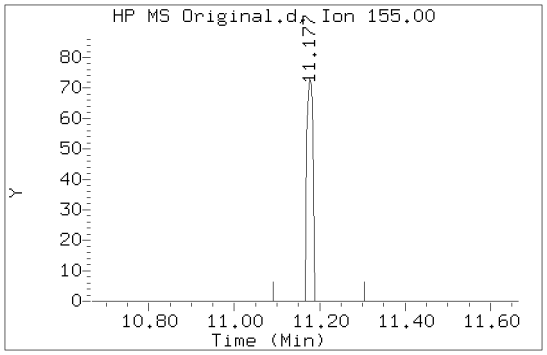
72
HEIGHT
73
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
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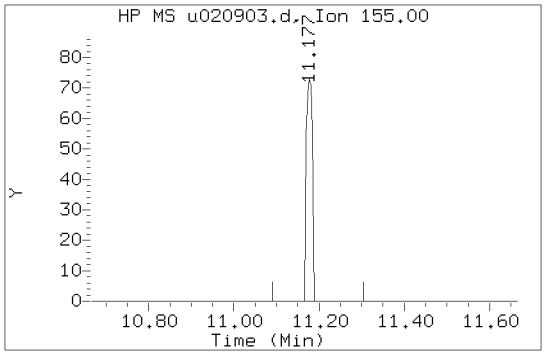
AREA
72
HEIGHT
73
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
157
AREA
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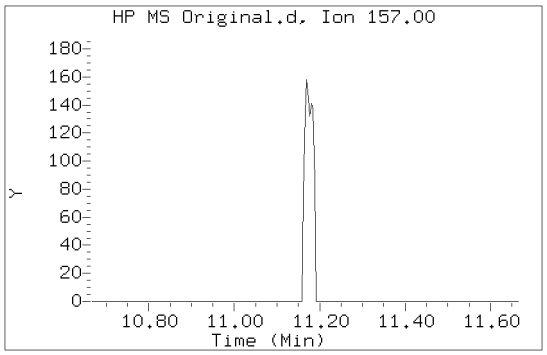
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
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AREA
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HEIGHT
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09-Feb-2024
11:53
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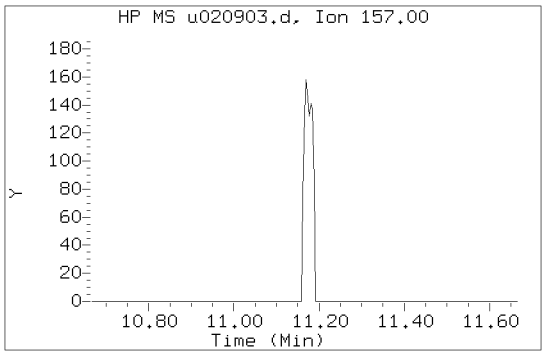


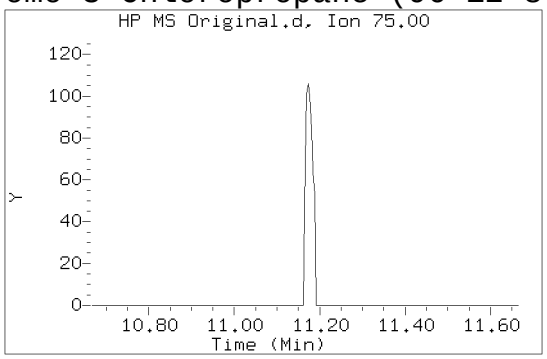
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

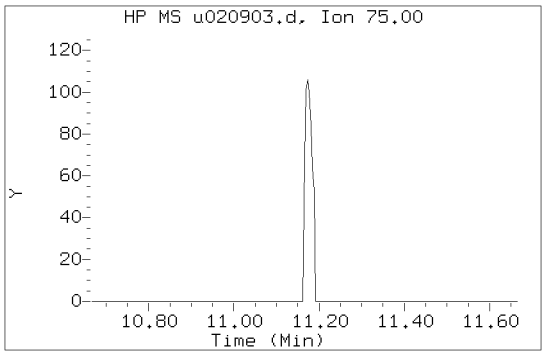
BEFORE

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

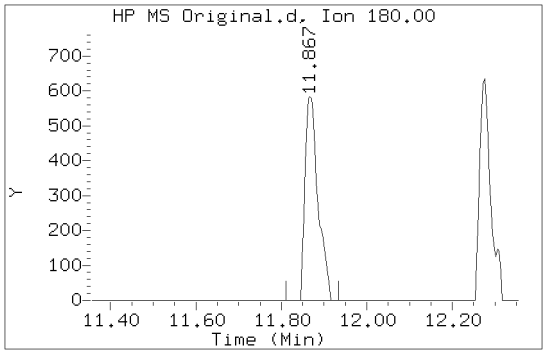


1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

BEFORE

MASS
180
AREA
1258
HEIGHT
583
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
583
09-Feb-2024
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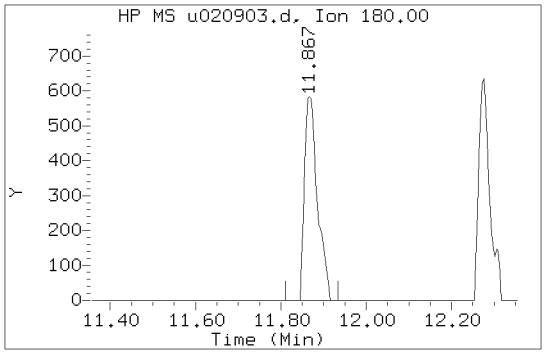

BEFORE

MASS
182
AREA
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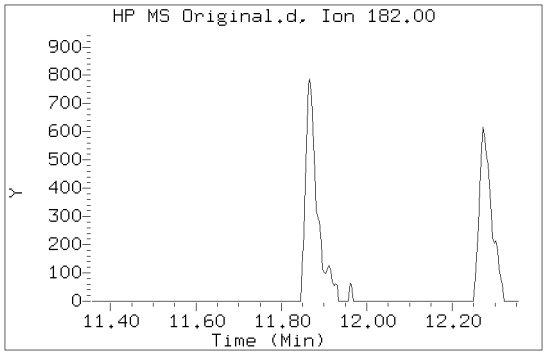
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
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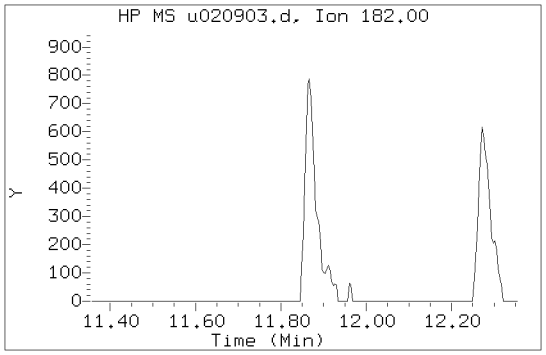
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE

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HEIGHT
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09-Feb-2024
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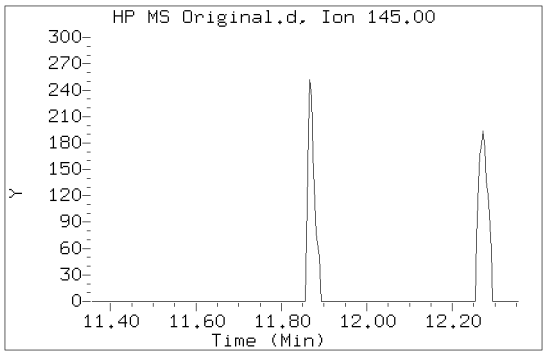

AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
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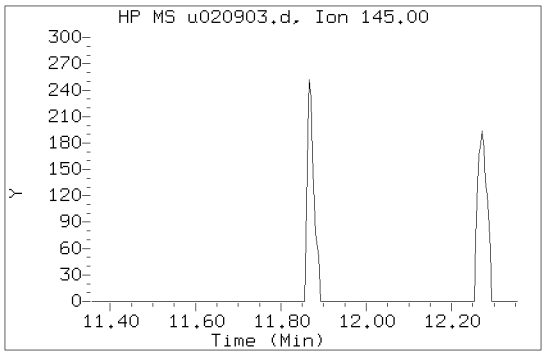

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Hexachlorobutadiene (87-68-3)

Reason Code:

BEFORE

MASS
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AREA
860
HEIGHT
526
09-Feb-2024
11:53
firat
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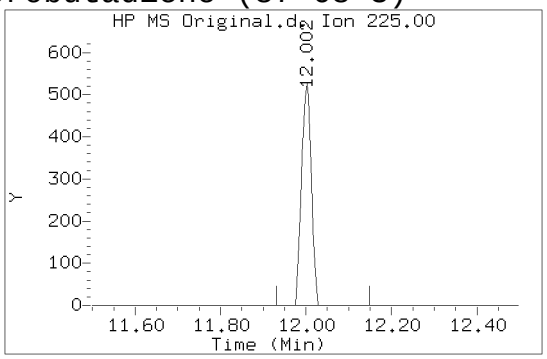

AFTER

MASS
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HEIGHT
526
09-Feb-2024
11:53
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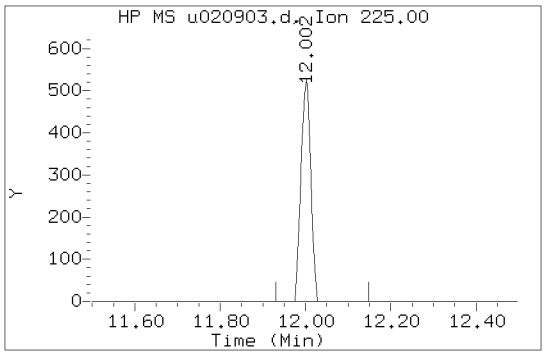

BEFORE

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11:53
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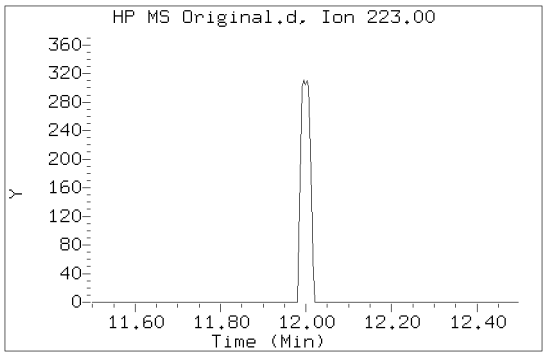

AFTER

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09-Feb-2024
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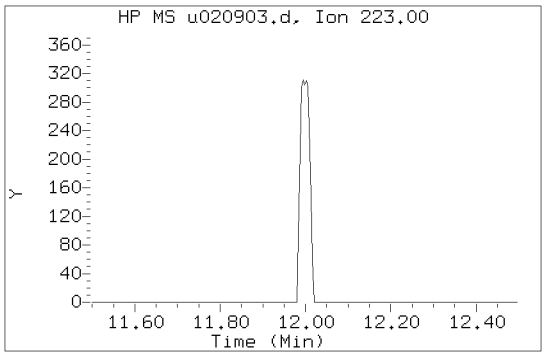

BEFORE

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09-Feb-2024
11:53
firat
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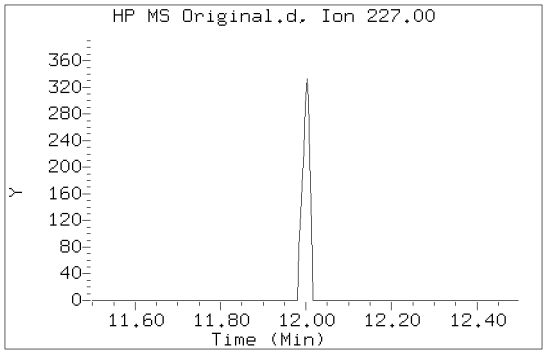

AFTER

MASS
227
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HEIGHT
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09-Feb-2024
11:53
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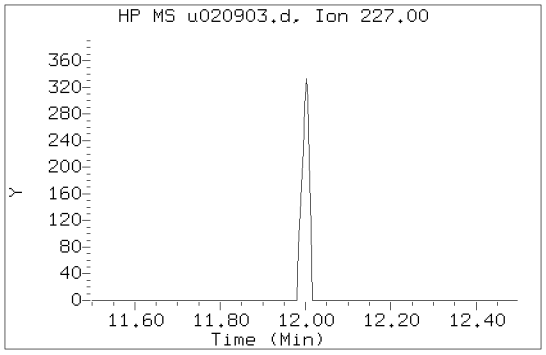

1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE

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09-Feb-2024
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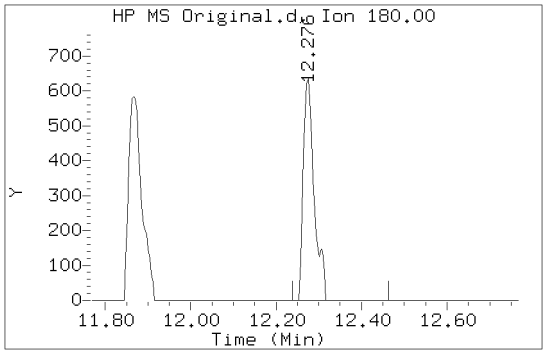

AFTER

MASS
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HEIGHT
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09-Feb-2024
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firat
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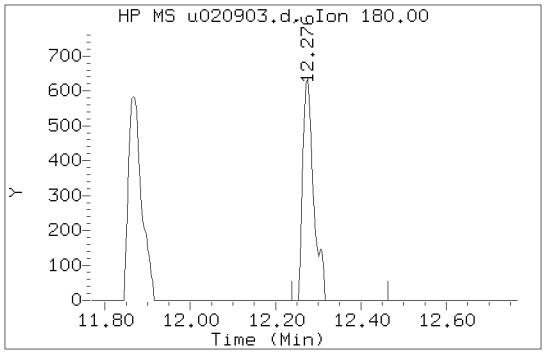

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
182
AREA
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HEIGHT
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09-Feb-2024
11:53
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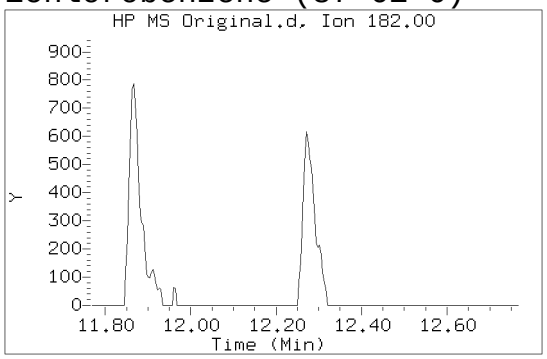

AFTER
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182
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HEIGHT
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09-Feb-2024
11:53
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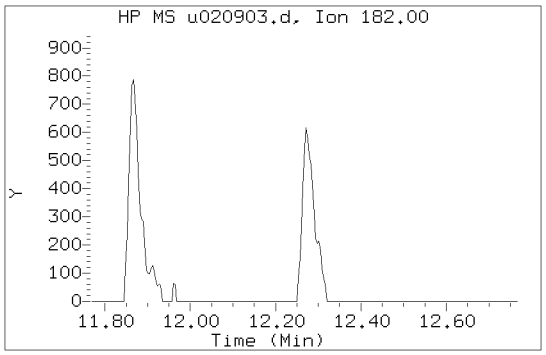

BEFORE
MASS
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HEIGHT
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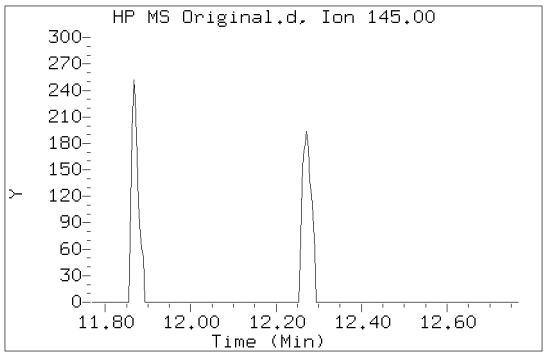
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
145
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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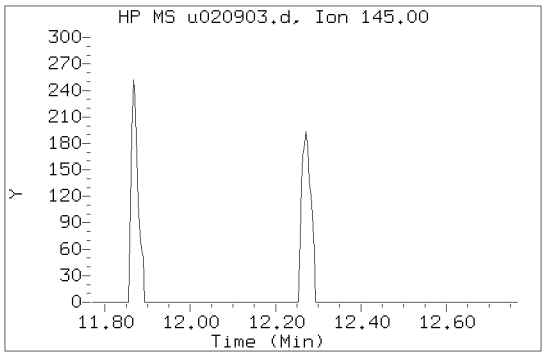
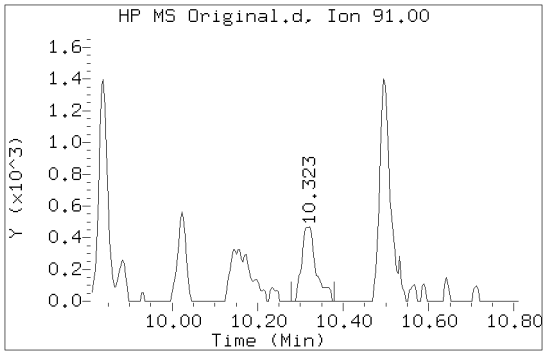


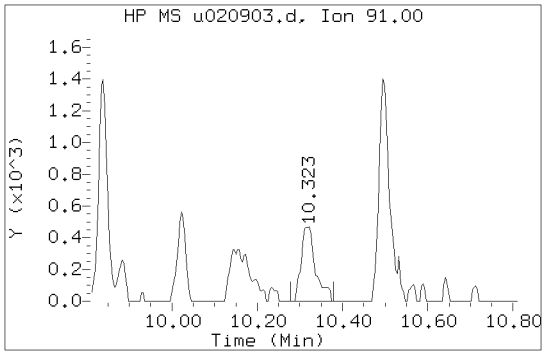
Benzyl Chloride (100-44-7)

Reason Code:

BEFORE
MASS
91
AREA
1114
HEIGHT
469
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
91
AREA
1114
HEIGHT
469
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
126
AREA
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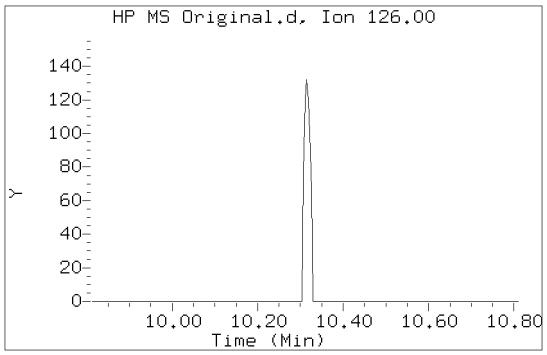
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
126
AREA
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HEIGHT
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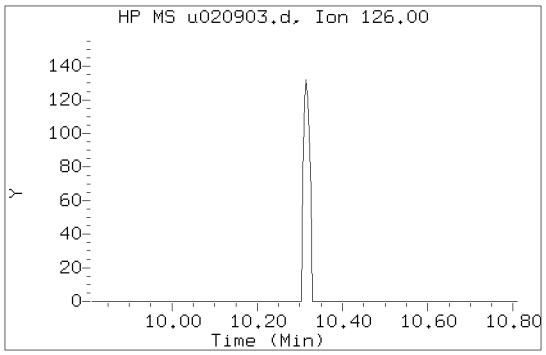
09-Feb-2024
11:53
firat
tastan



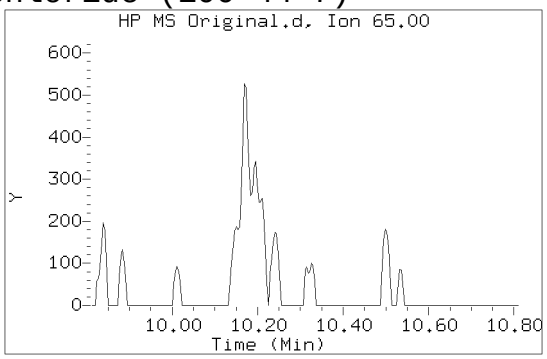
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Benzyl Chloride (100-44-7)

Reason Code:

BEFORE

MASS
65
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
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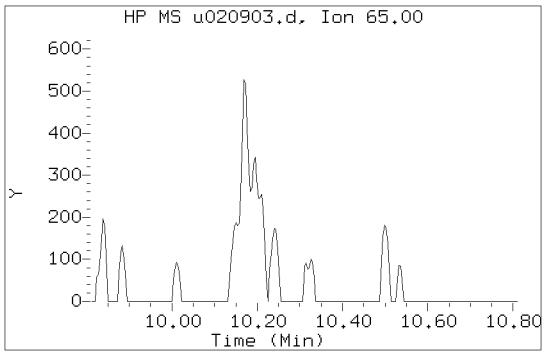
09-Feb-2024
11:53
firat
tastan

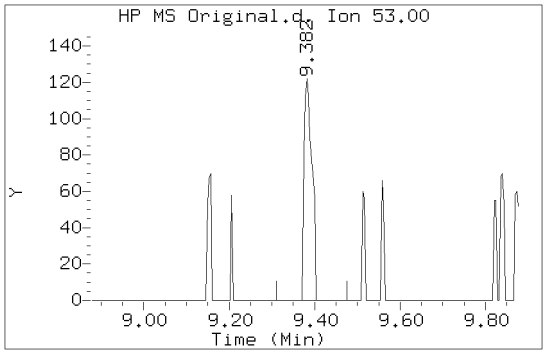


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

BEFORE

MASS
53
AREA
161
HEIGHT
122
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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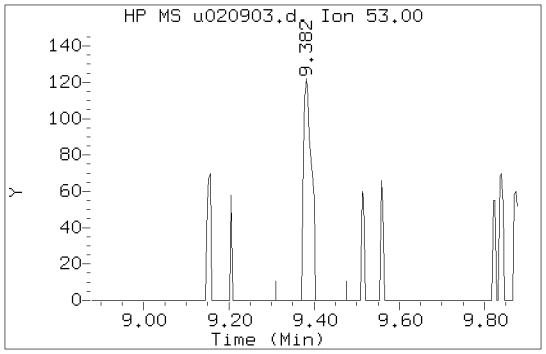
AREA
161
HEIGHT
122
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
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AREA
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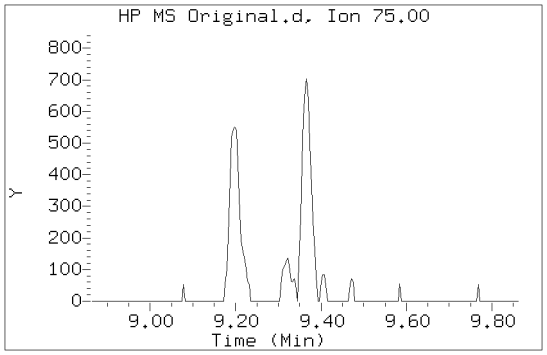
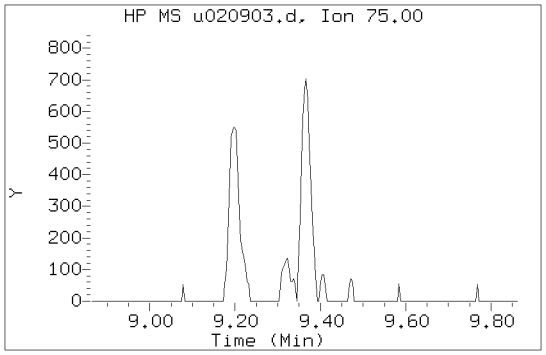
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

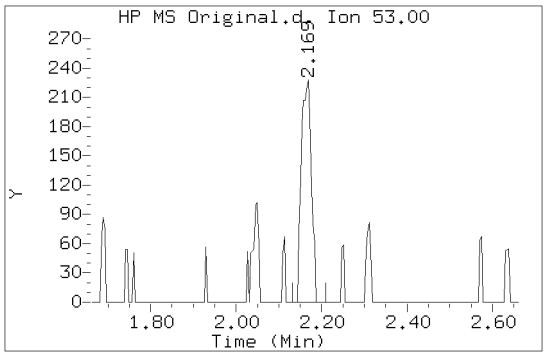


Chloroprene (126-99-8)

Reason Code:

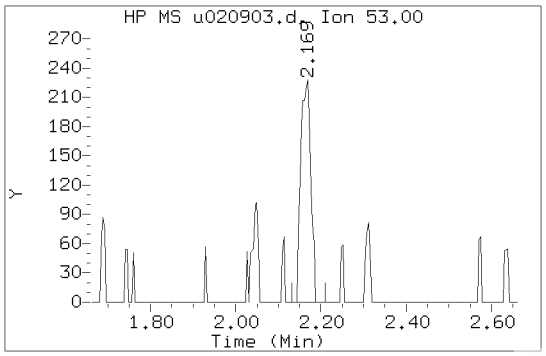
BEFORE

MASS
53
AREA
379
HEIGHT
228
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
53
AREA
379
HEIGHT
228
09-Feb-2024
11:53
firat
tastan



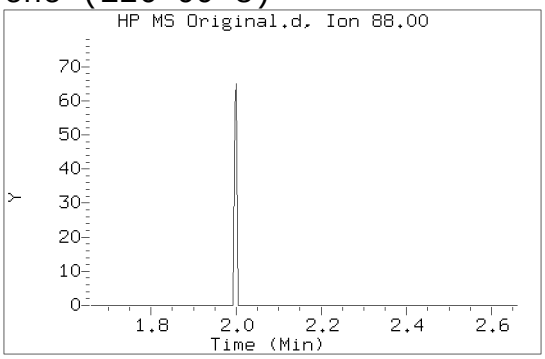
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Chloroprene (126-99-8)

Reason Code:

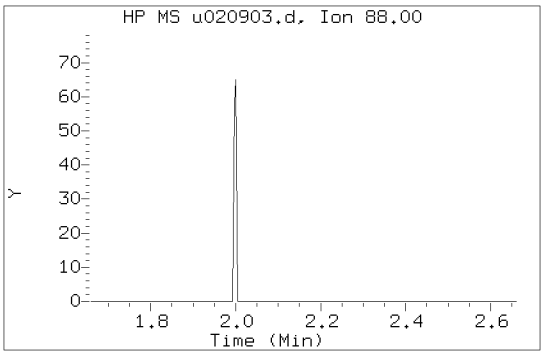
BEFORE

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

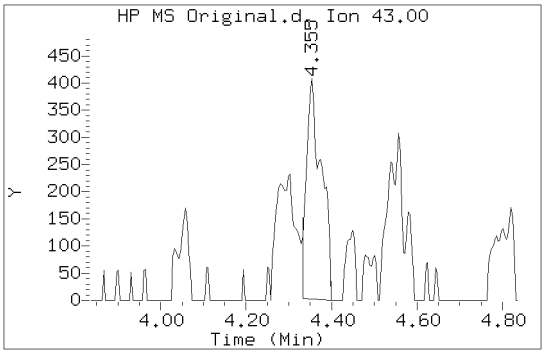


Ethyl Acetate (141-78-6)

Reason Code:

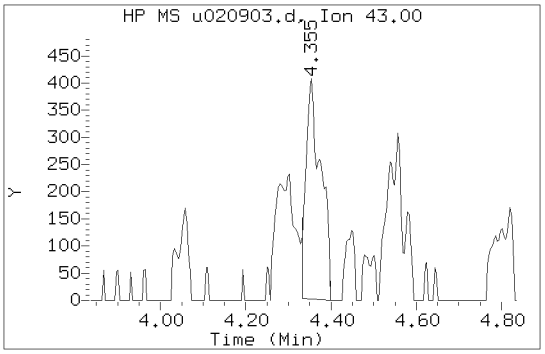
BEFORE

MASS
43
AREA
1001
HEIGHT
405
09-Feb-2024
11:53
firat
tastan



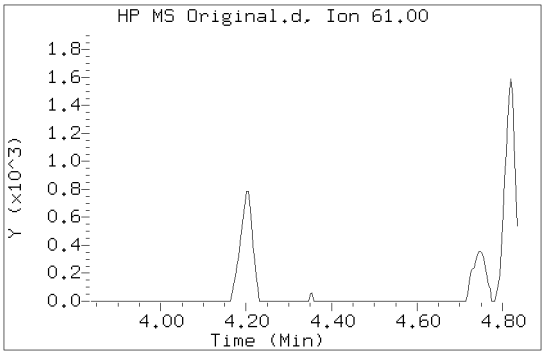
AFTER

MASS
43
AREA
1001
HEIGHT
405
09-Feb-2024
11:53
firat
tastan



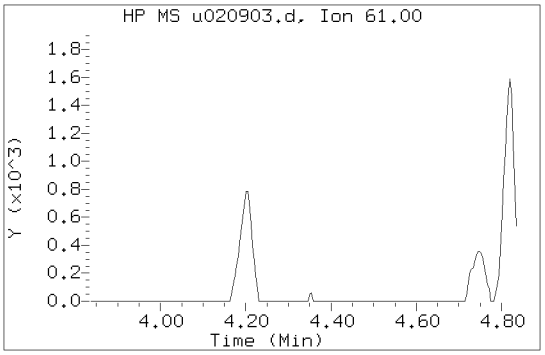
BEFORE

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



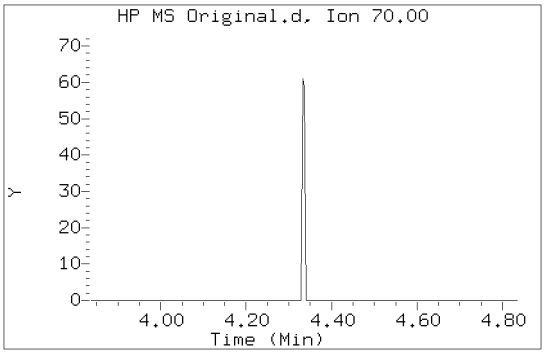
AFTER

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



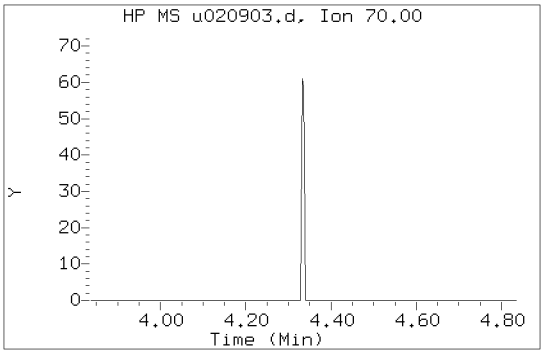
BEFORE

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

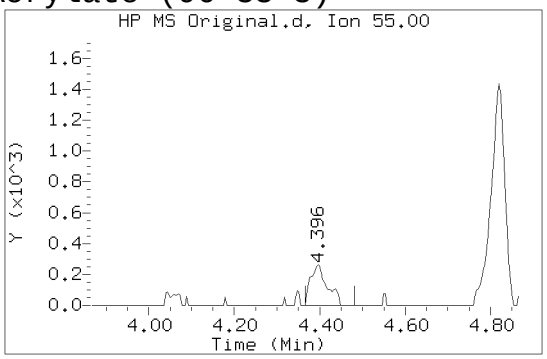
MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

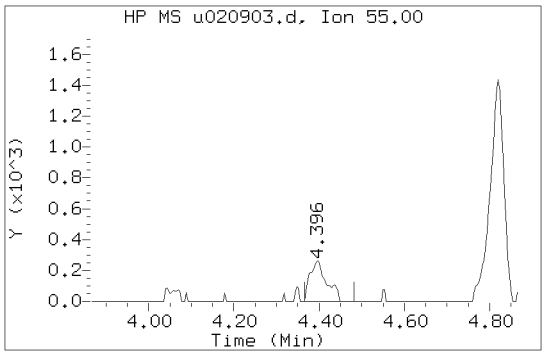
Methyl Acrylate (96-33-3)

BEFORE
MASS
55
AREA
713
HEIGHT
263
09-Feb-2024
11:53
firat
tastan

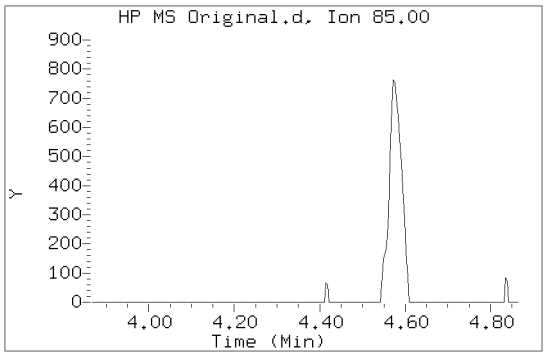


Reason Code:

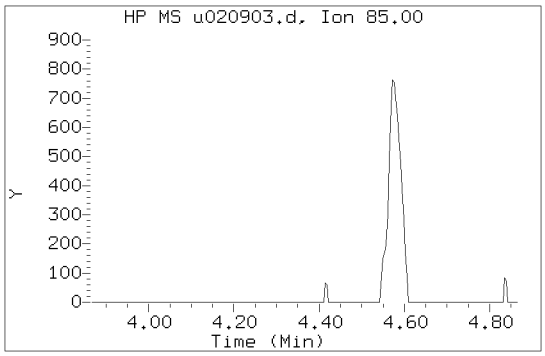
AFTER
MASS
55
AREA
713
HEIGHT
263
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

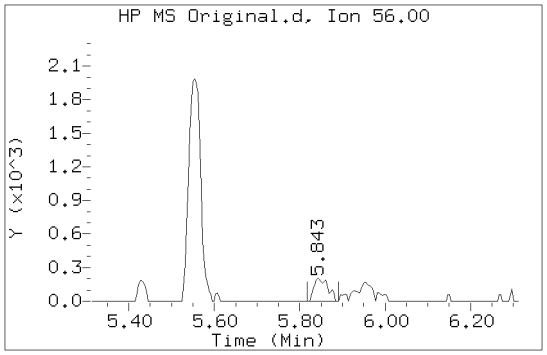


AFTER
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



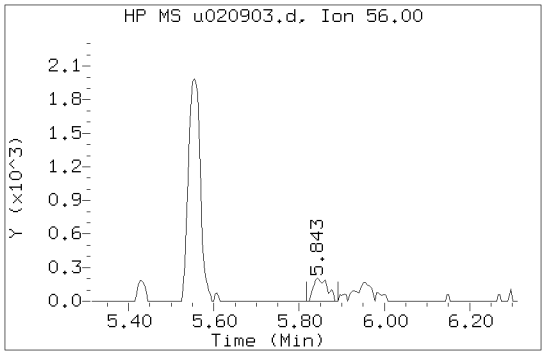
n-Butanol (71-36-3)

BEFORE
MASS
56
AREA
465
HEIGHT
205
09-Feb-2024
11:53
firat
tastan

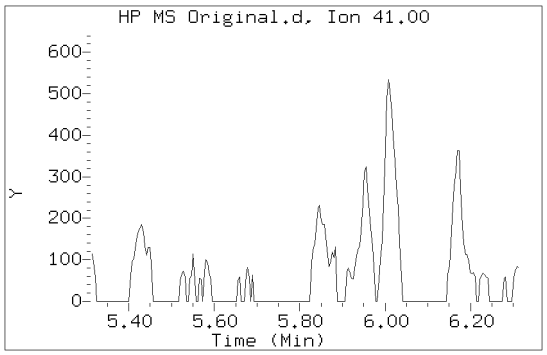


Reason Code:

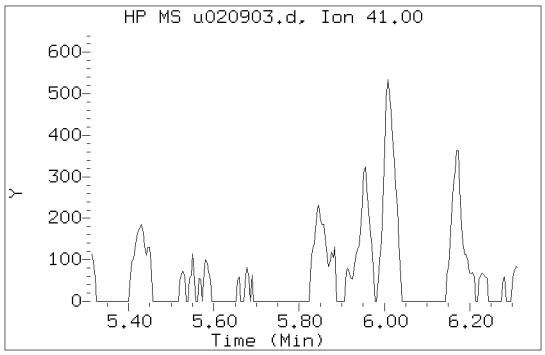
AFTER
MASS
56
AREA
465
HEIGHT
205
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



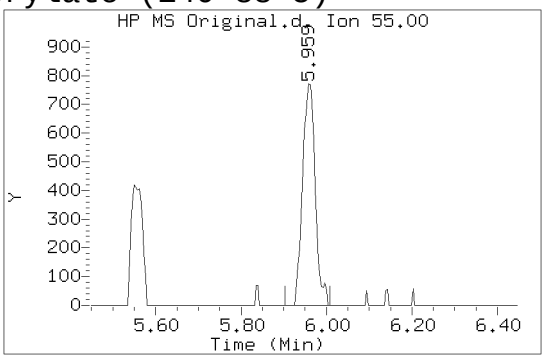
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Ethyl Acrylate (140-88-5)

Reason Code:

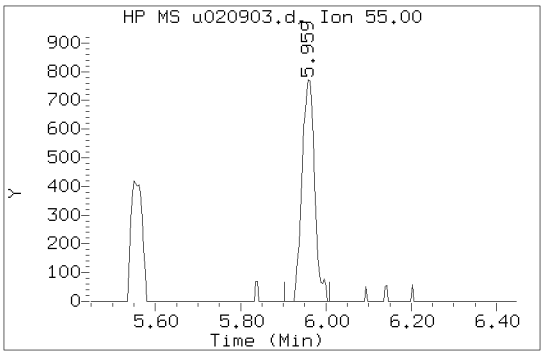
BEFORE

MASS
55
AREA
1618
HEIGHT
772
09-Feb-2024
11:53
firat
tastan



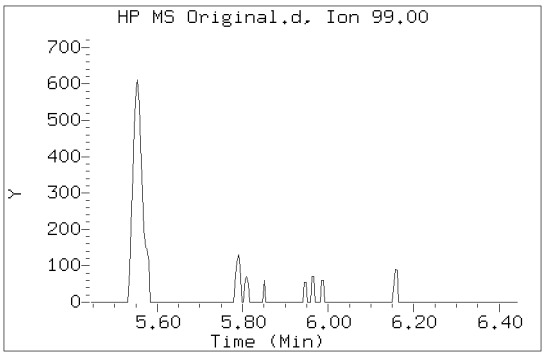
AFTER

MASS
55
AREA
1618
HEIGHT
772
09-Feb-2024
11:53
firat
tastan



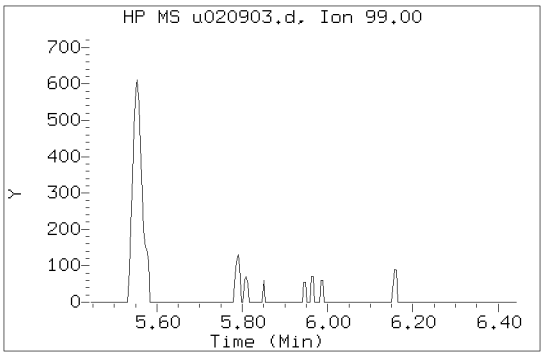
BEFORE

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

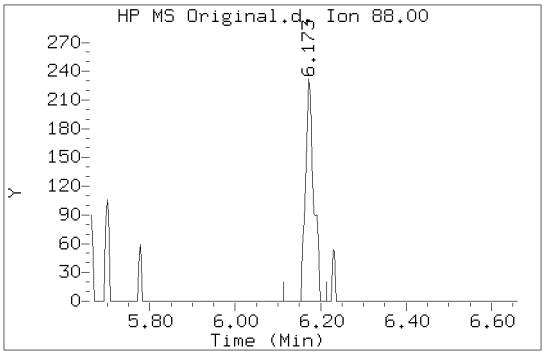


1,4-Dioxane ()

Reason Code:

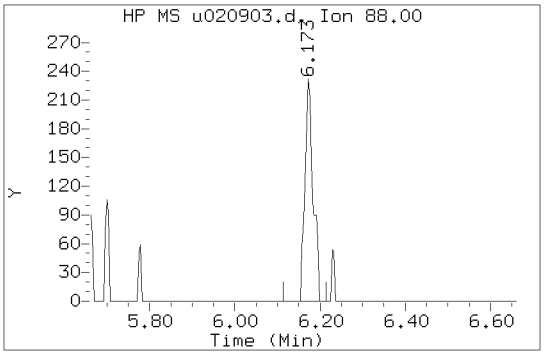
BEFORE

MASS
88
AREA
308
HEIGHT
232
09-Feb-2024
11:53
firat
tastan



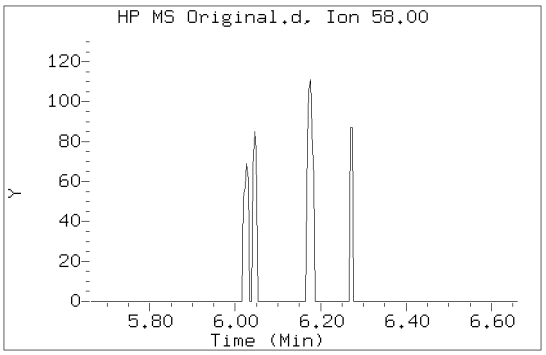
AFTER

MASS
88
AREA
308
HEIGHT
232
09-Feb-2024
11:53
firat
tastan



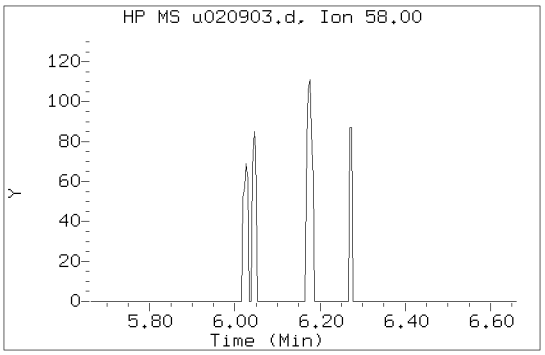
BEFORE

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

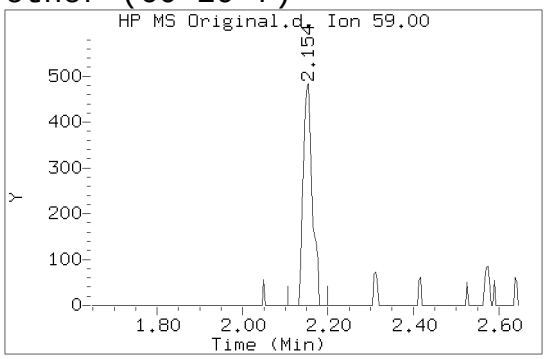


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

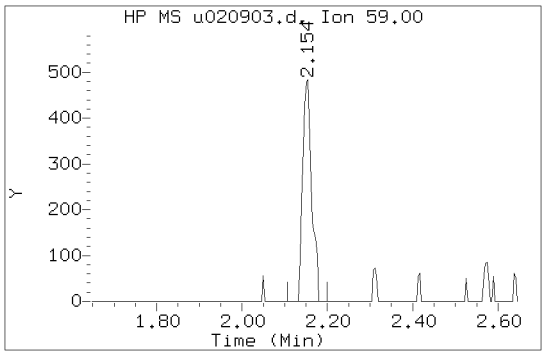
Diethyl ether (60-29-7)

Reason Code:

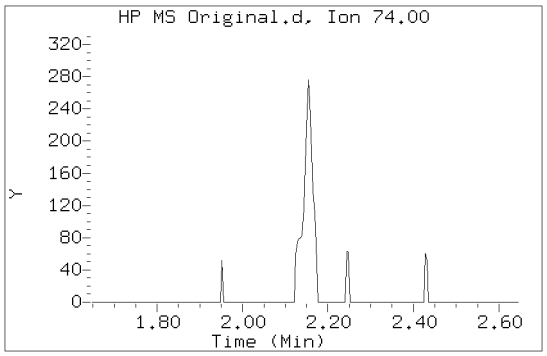
BEFORE
MASS
59
AREA
732
HEIGHT
484
09-Feb-2024
11:53
firat
tastan



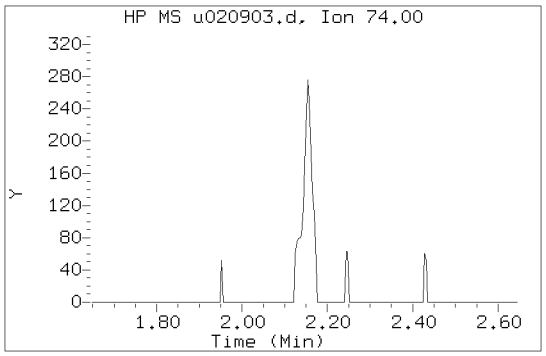
AFTER
MASS
59
AREA
732
HEIGHT
484
09-Feb-2024
11:53
firat
tastan



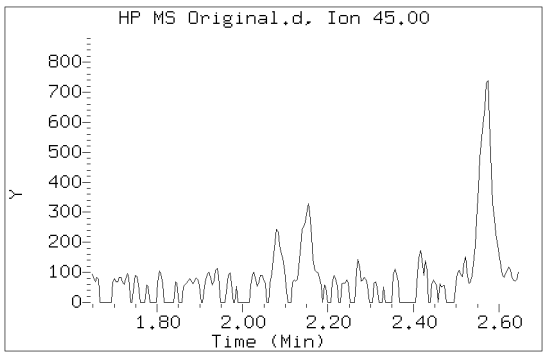
BEFORE
MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



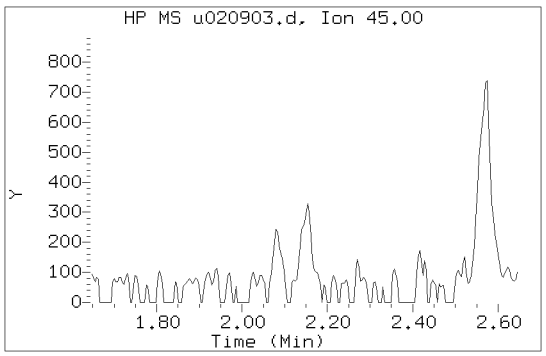
AFTER
MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
45
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



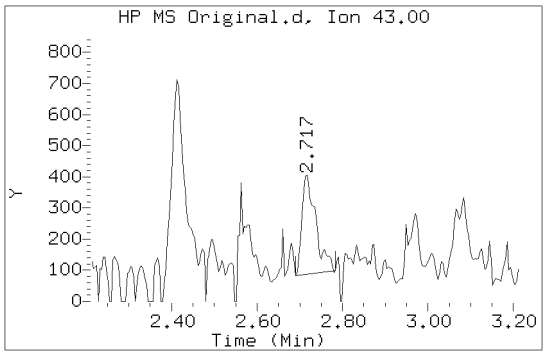
AFTER
MASS
45
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



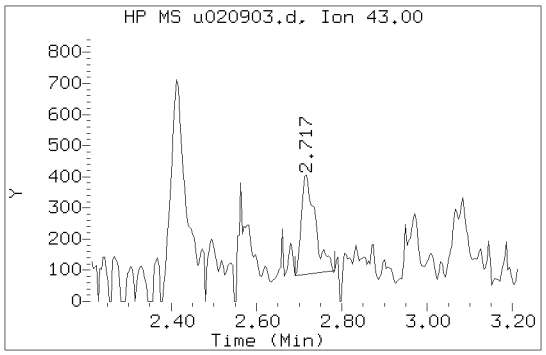
Methyl acetate (79-20-9)

Reason Code:

BEFORE
MASS
43
AREA
726
HEIGHT
318
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
43
AREA
726
HEIGHT
318
09-Feb-2024
11:53
firat
tastan



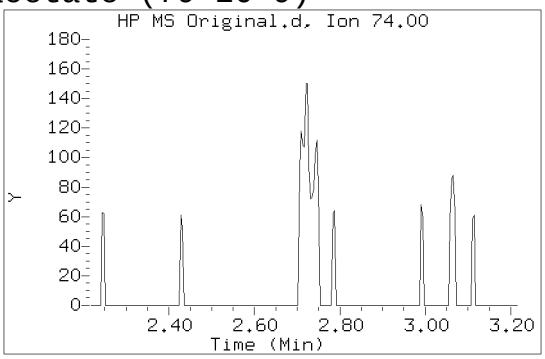
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Methyl acetate (79-20-9)

Reason Code:

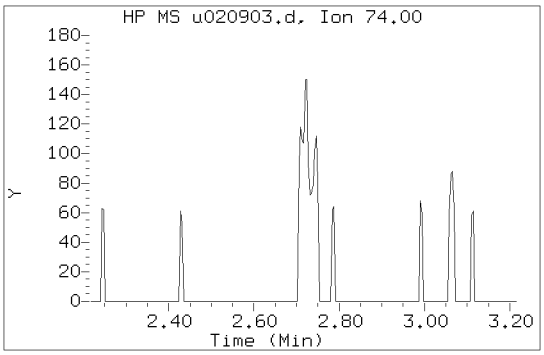
BEFORE

MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

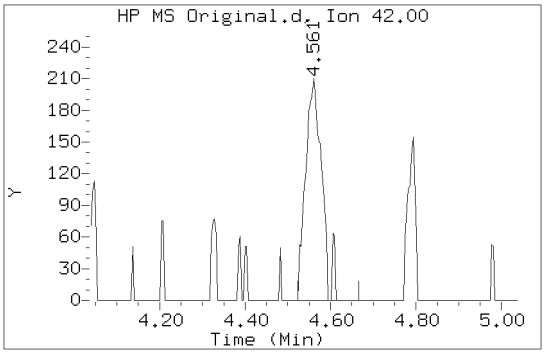


Tetrahydrofuran (109-99-9)

Reason Code:

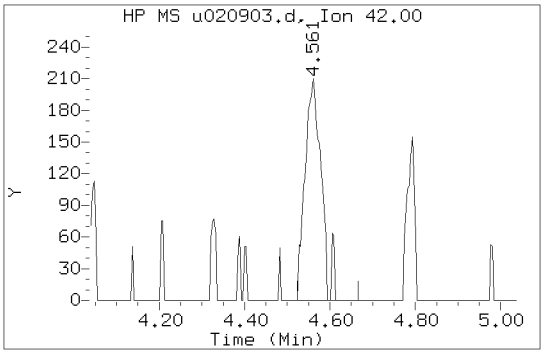
BEFORE

MASS
42
AREA
561
HEIGHT
210
09-Feb-2024
11:53
firat
tastan



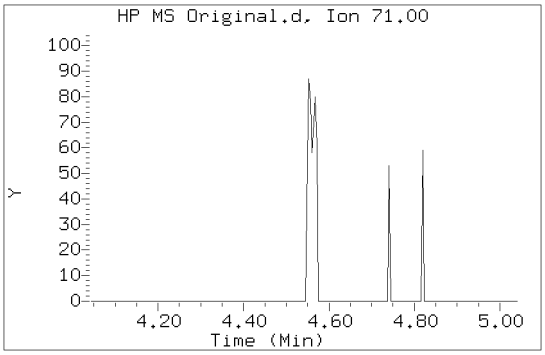
AFTER

MASS
42
AREA
561
HEIGHT
210
09-Feb-2024
11:53
firat
tastan



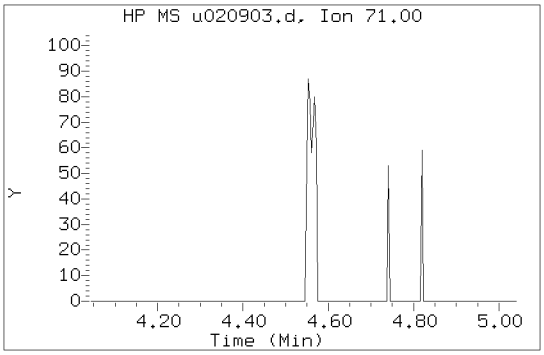
BEFORE

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

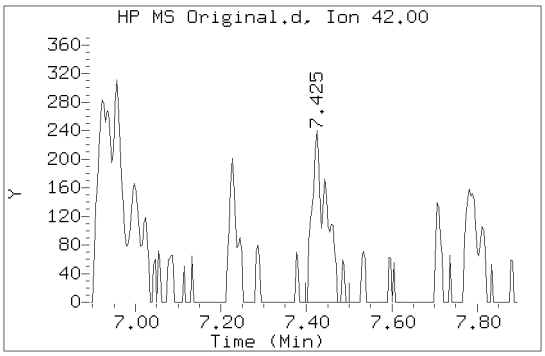


Amyl alcohol (71-41-0)

Reason Code:

BEFORE

MASS
42
AREA
563
HEIGHT
240
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
42
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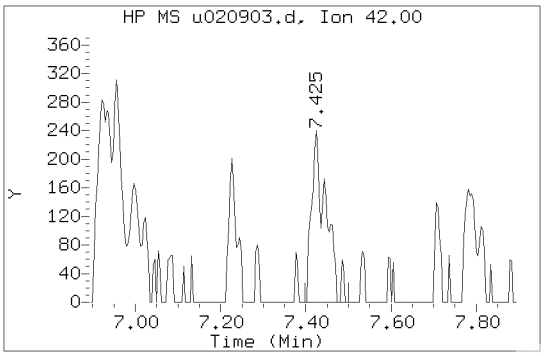
563
HEIGHT
240
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Amyl alcohol (71-41-0)

BEFORE
MASS
55
AREA
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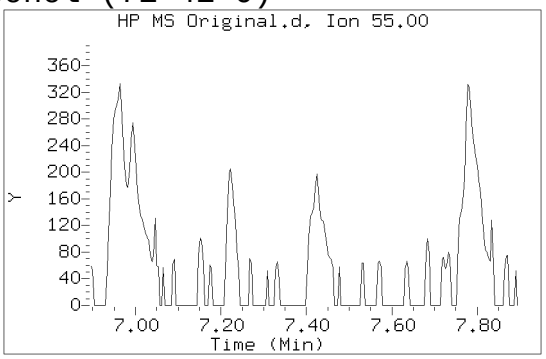
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER
MASS
55
AREA
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HEIGHT
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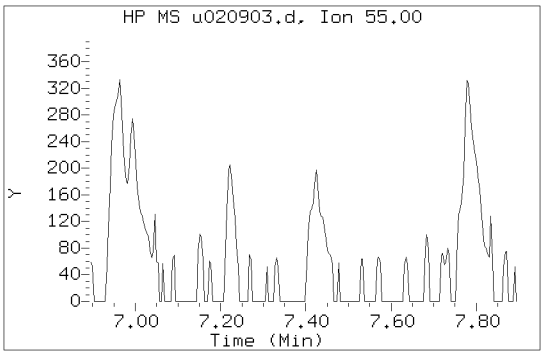
09-Feb-2024
11:53
firat
tastan



BEFORE
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41
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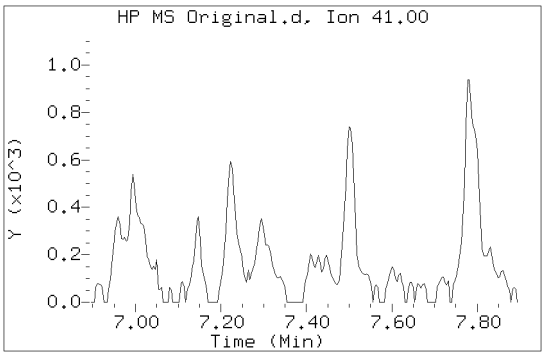
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
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HEIGHT
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09-Feb-2024
11:53
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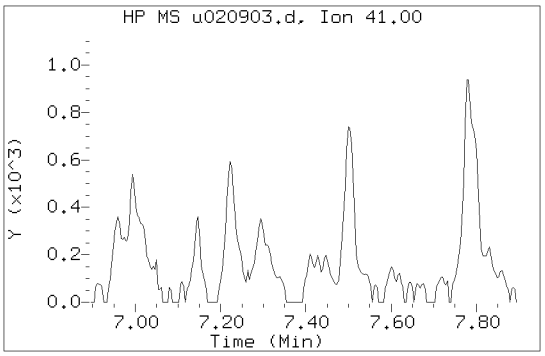
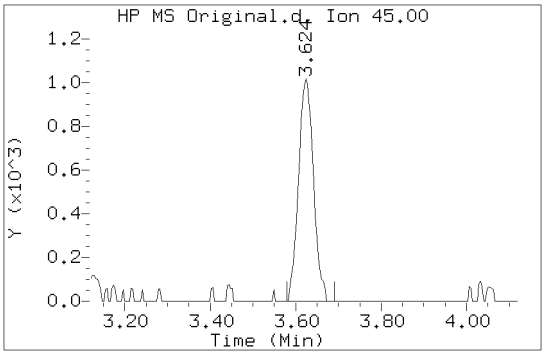


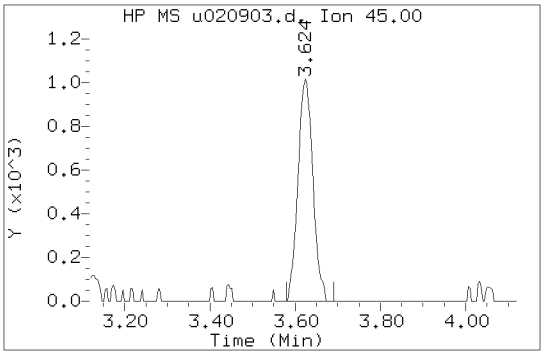
Diisopropyl ether (108-20-3)

BEFORE
MASS
45
AREA
2511
HEIGHT
1016
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER
MASS
45
AREA
2511
HEIGHT
1016
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
59
AREA
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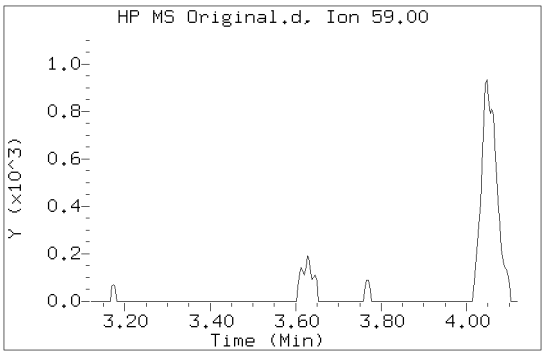
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
59
AREA
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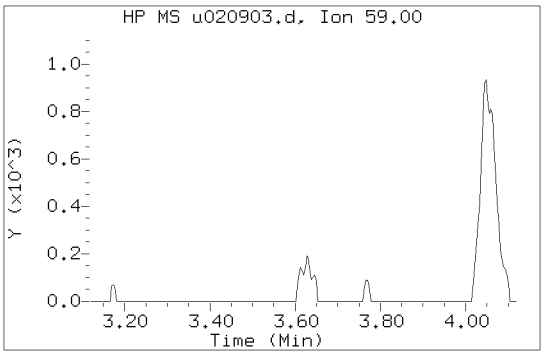
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Diisopropyl ether (108-20-3)

Reason Code:

BEFORE

MASS
72
AREA
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09-Feb-2024
11:53
firat
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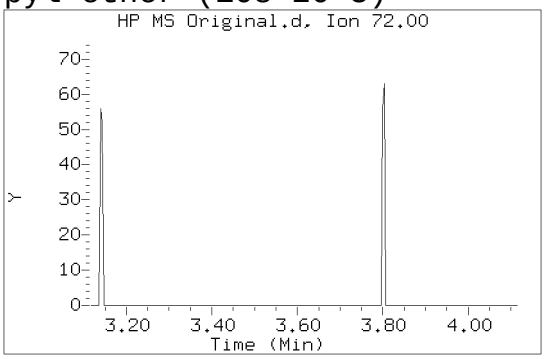
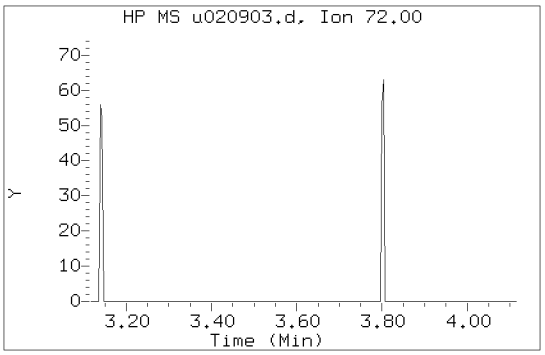


AFTER

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

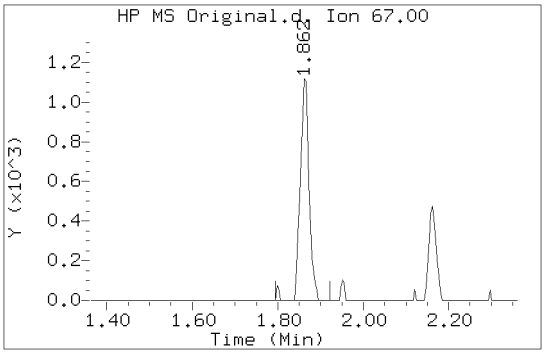


Dichlorofluoromethane (75-43-4)

Reason Code:

BEFORE

MASS
67
AREA
1655
HEIGHT
1118
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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HEIGHT
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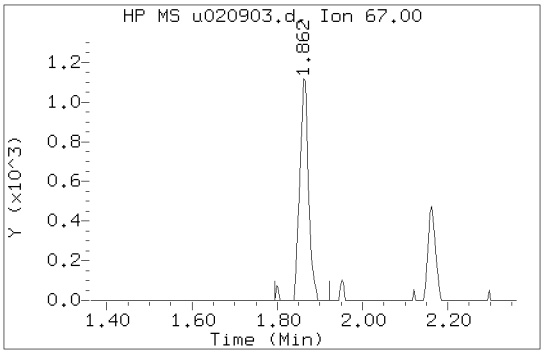
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
69
AREA
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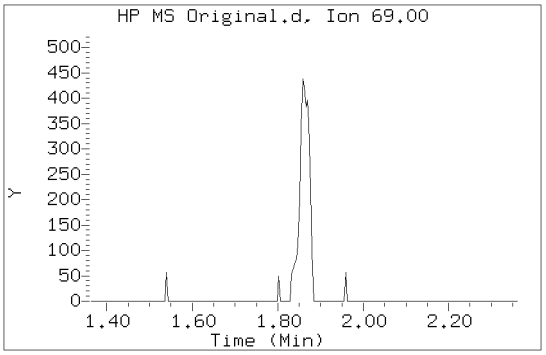
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
69
AREA
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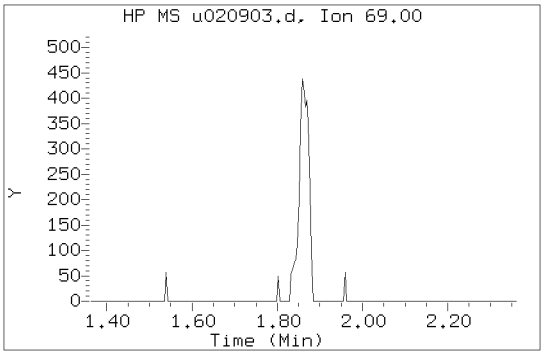
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
37
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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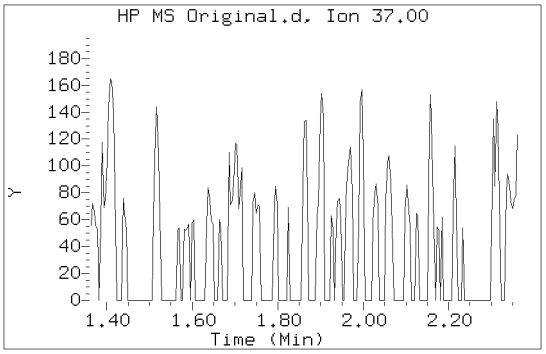

AFTER

MASS
37
AREA
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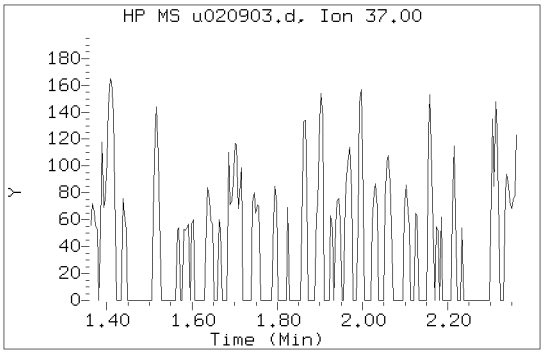
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



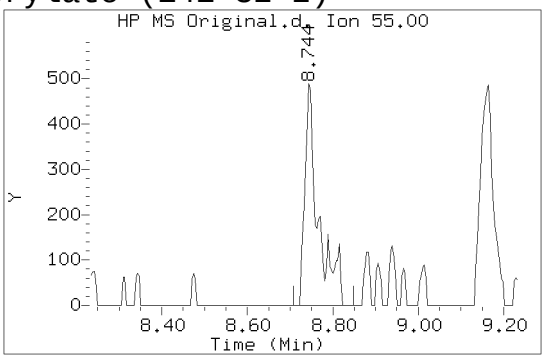
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Butyl acrylate (141-32-2)

Reason Code:

BEFORE

MASS
55
AREA
1055
HEIGHT
489
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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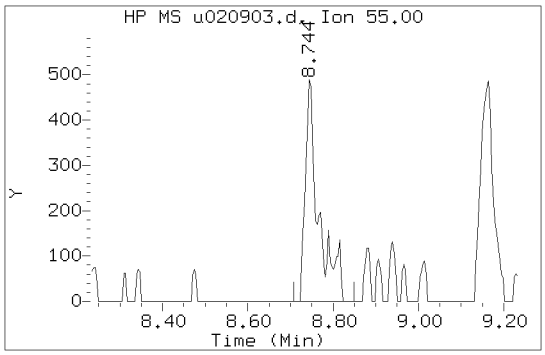
AREA
1055
HEIGHT
489
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
56
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HEIGHT
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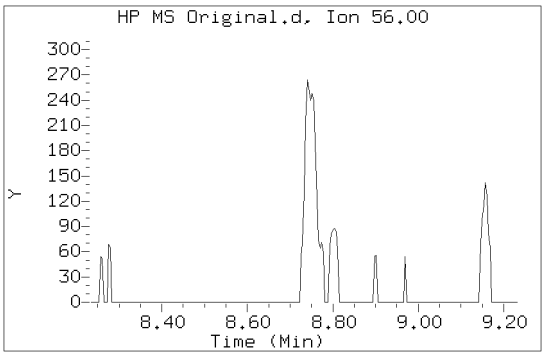
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
56
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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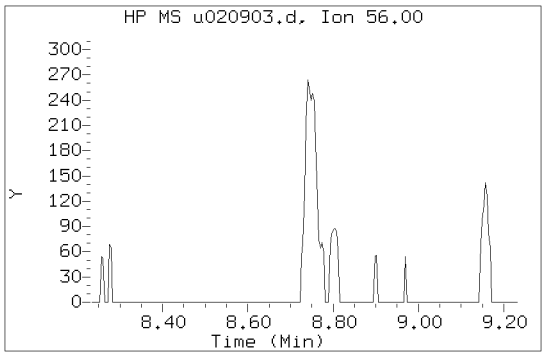

BEFORE

MASS
73
AREA
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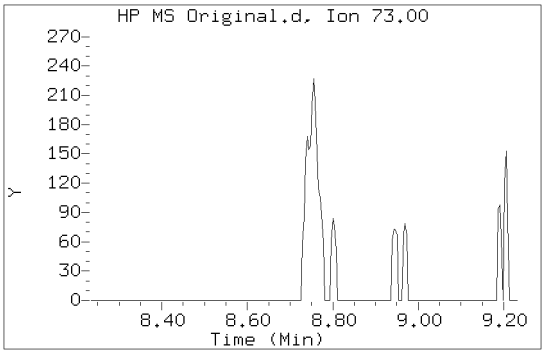
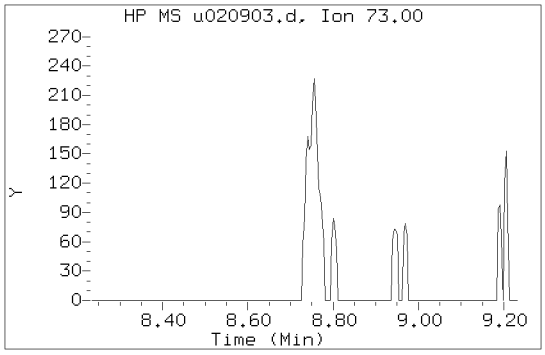
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
73
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Butyl methacrylate (97-88-1)

Reason Code:

BEFORE

MASS
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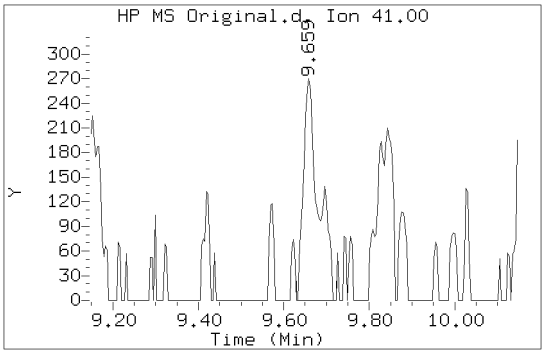
AREA
663
HEIGHT
270
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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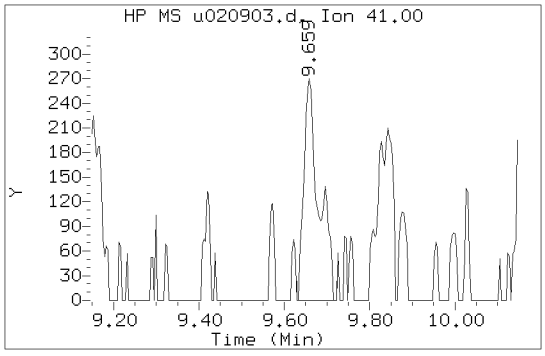
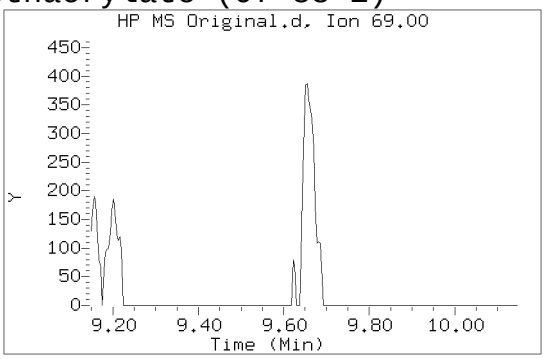
AREA
663
HEIGHT
270
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Butyl methacrylate (97-88-1)

BEFORE
MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER
MASS
69
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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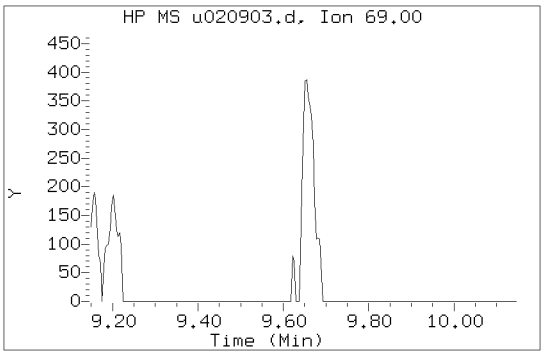

BEFORE
MASS
87
AREA
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HEIGHT
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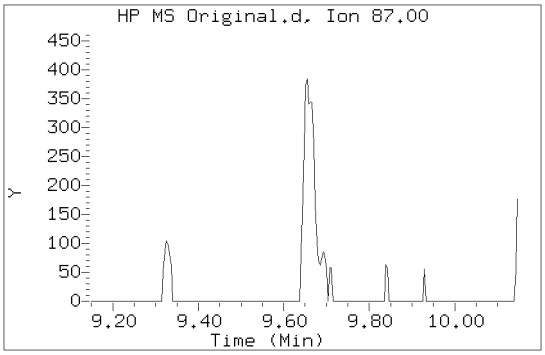
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
87
AREA
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HEIGHT
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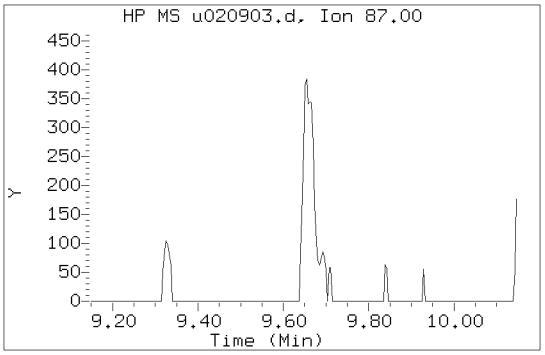
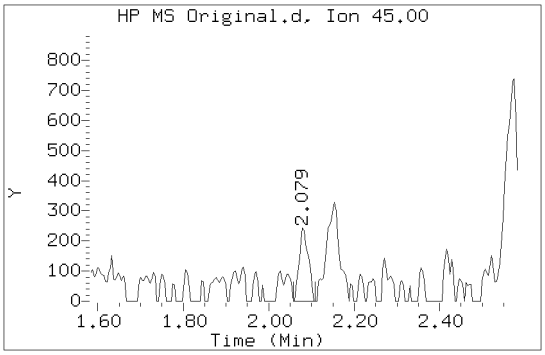
09-Feb-2024
11:53
firat
tastan



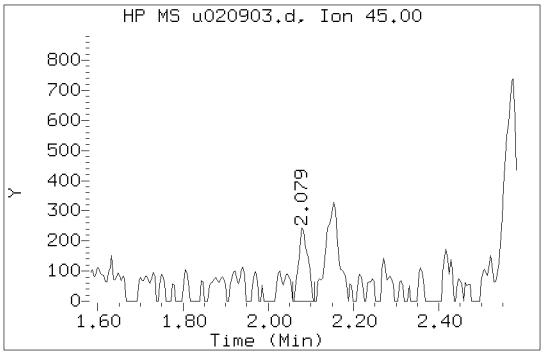
Ethanol (64-17-5)

BEFORE
MASS
45
AREA
367
HEIGHT
243
09-Feb-2024
11:53
firat
tastan

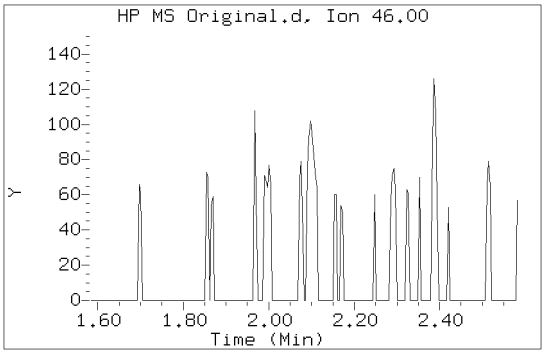


Reason Code:

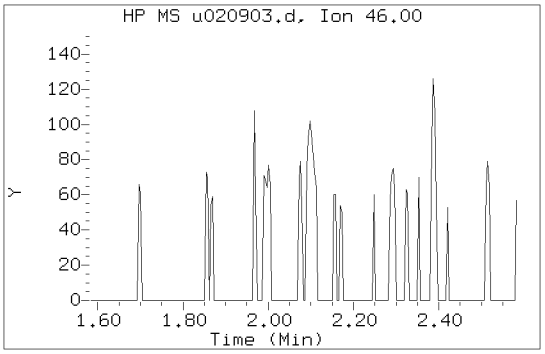
AFTER
MASS
45
AREA
367
HEIGHT
243
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
46
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
46
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



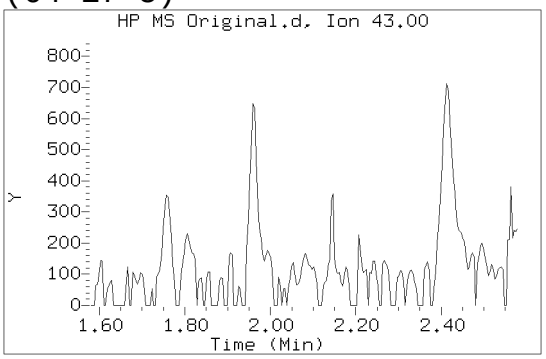
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Ethanol (64-17-5)

Reason Code:

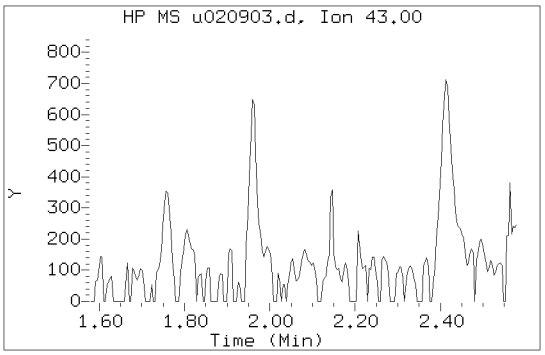
BEFORE

MASS
43
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
43
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

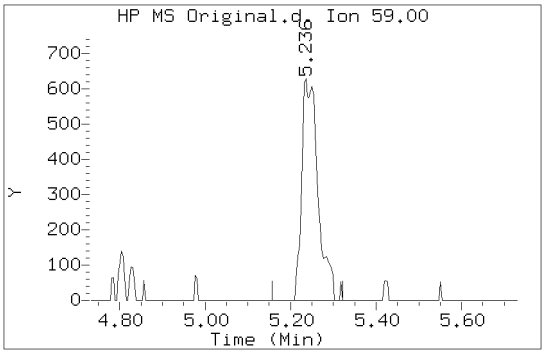


tert-Butyl formate (762-75-4)

Reason Code:

BEFORE

MASS
59
AREA
1692
HEIGHT
629
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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1692
HEIGHT
629
09-Feb-2024
11:53
firat
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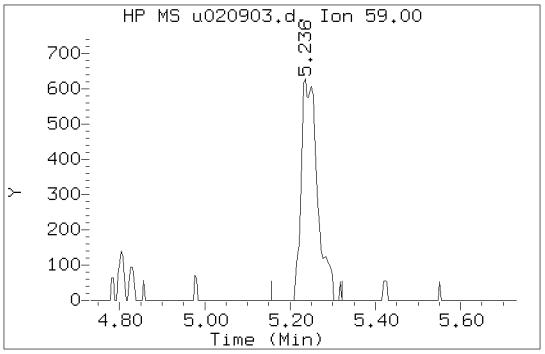
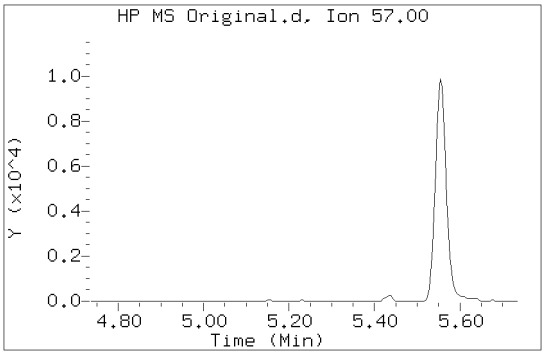


BEFORE

MASS
57
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

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AREA
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HEIGHT
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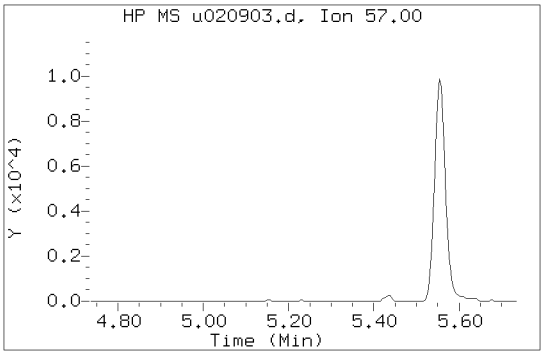
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
41
AREA
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HEIGHT
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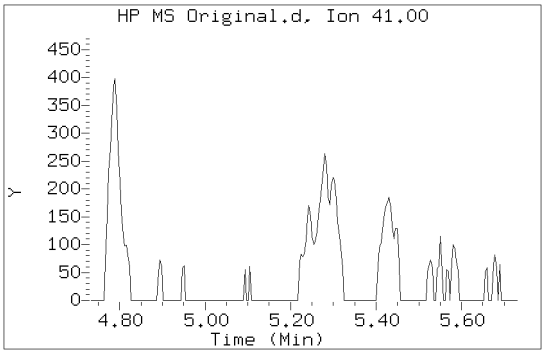
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
41
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HEIGHT
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09-Feb-2024
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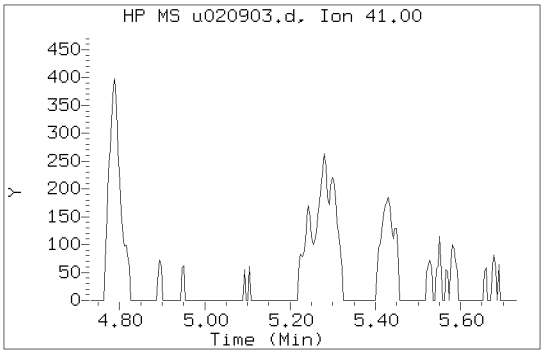

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

3,3-Dimethyl-1-butanol (624-95-3)

Reason Code:

BEFORE

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1260
09-Feb-2024
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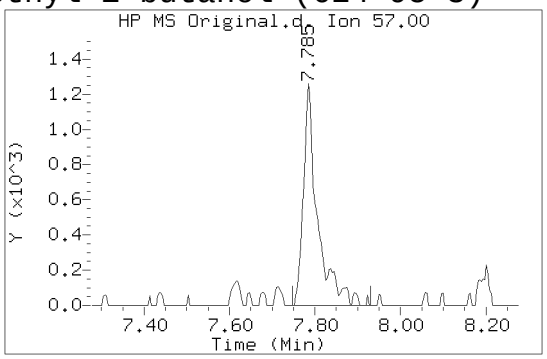

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09-Feb-2024
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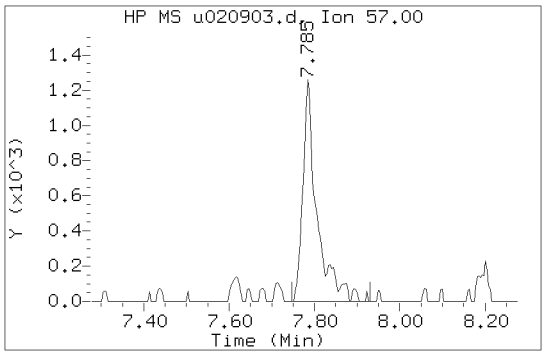

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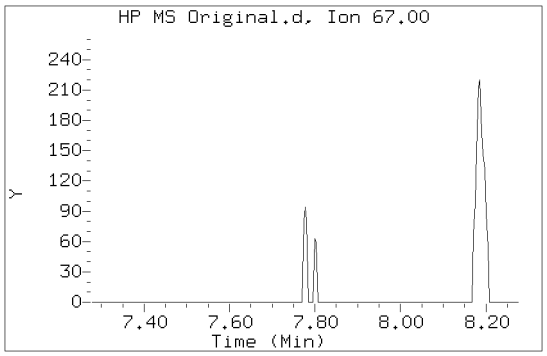

AFTER

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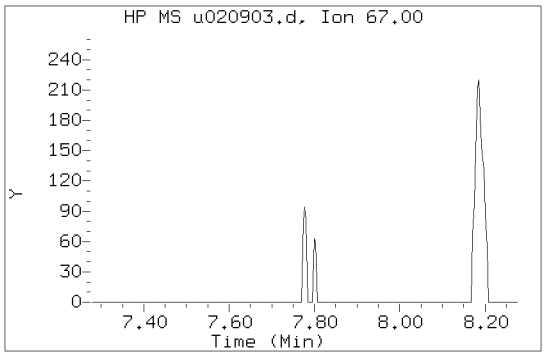

BEFORE

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09-Feb-2024
11:53
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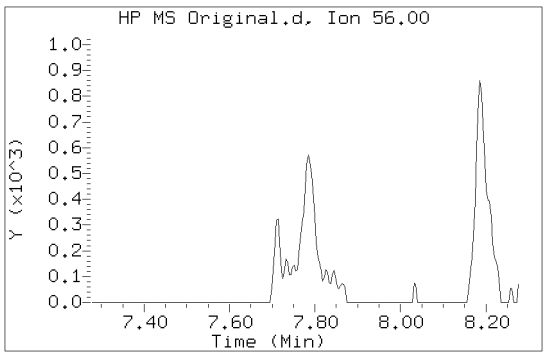

AFTER

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HEIGHT
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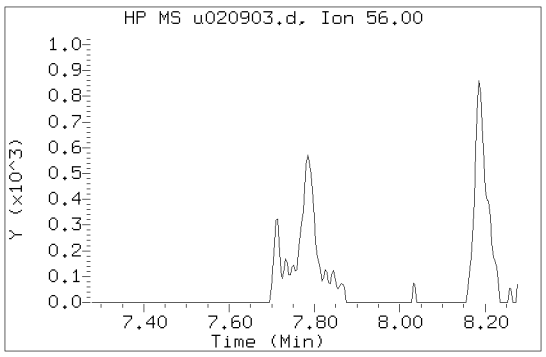
09-Feb-2024
11:53
firat
tastan



Epichlorohydrin (106-89-8)

Reason Code:

BEFORE

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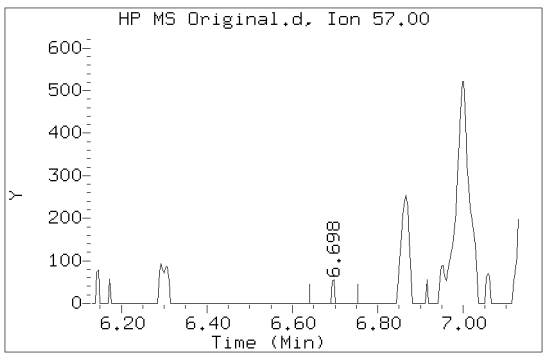

AFTER

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HEIGHT
55
09-Feb-2024
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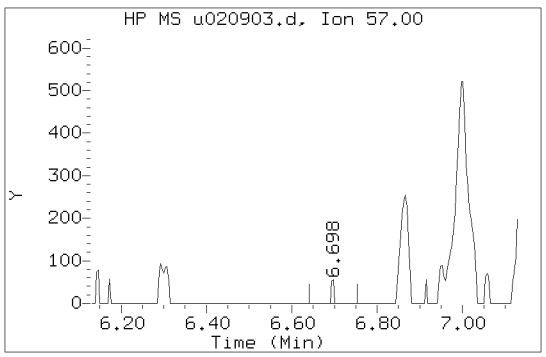

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Epichlorohydrin (106-89-8)

Reason Code:

BEFORE

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09-Feb-2024
11:53
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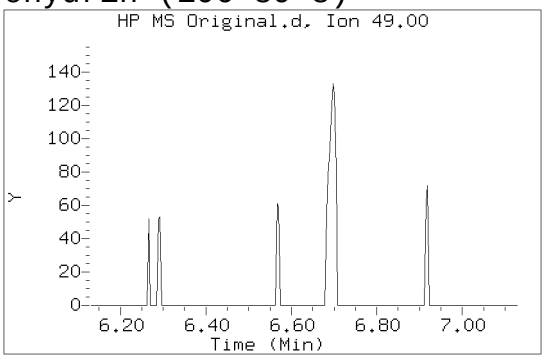

AFTER

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09-Feb-2024
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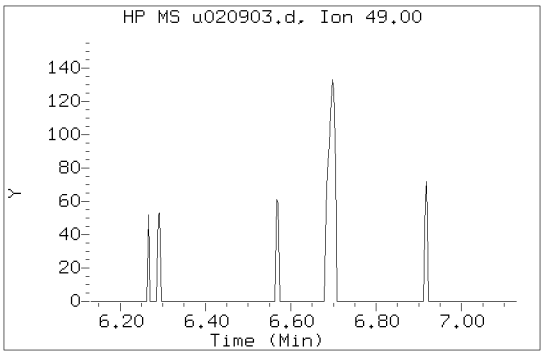

Isoprene (78-79-5)

Reason Code:

BEFORE

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AREA
252
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154
09-Feb-2024
11:53
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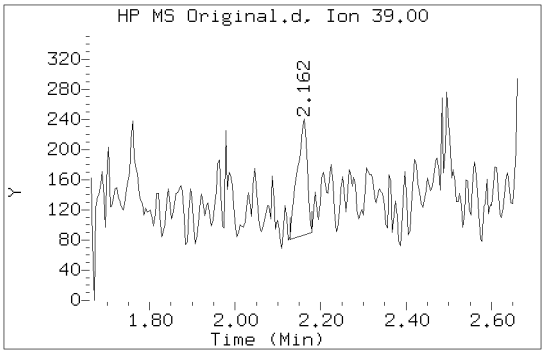

AFTER

MASS
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09-Feb-2024
11:53
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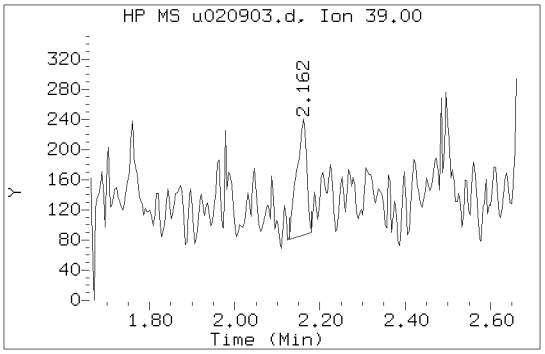

BEFORE

MASS
67
AREA
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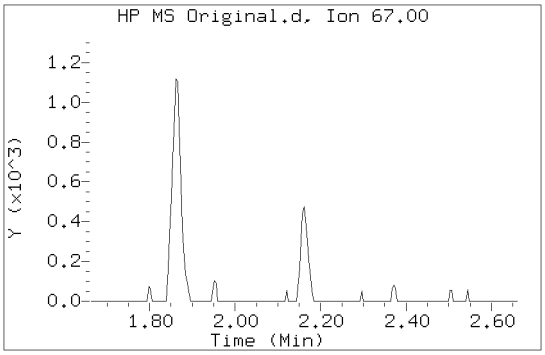
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

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09-Feb-2024
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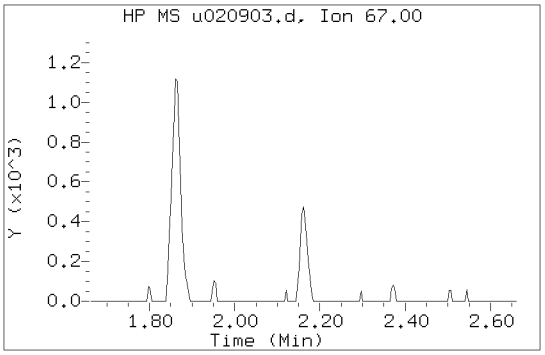

BEFORE

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HEIGHT
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09-Feb-2024
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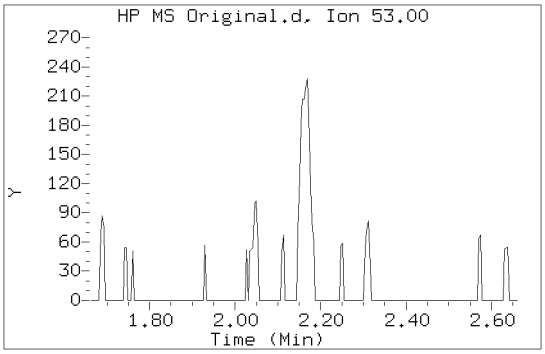

AFTER

MASS
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AREA
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HEIGHT
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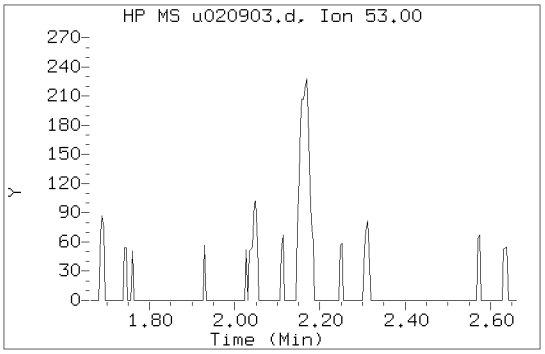
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

n-Amyl acetate (628-63-7)

Reason Code:

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HEIGHT
505
09-Feb-2024
11:53
firat
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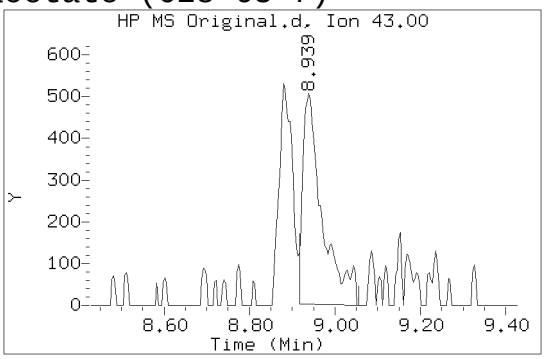

AFTER
MASS
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AREA
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HEIGHT
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09-Feb-2024
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firat
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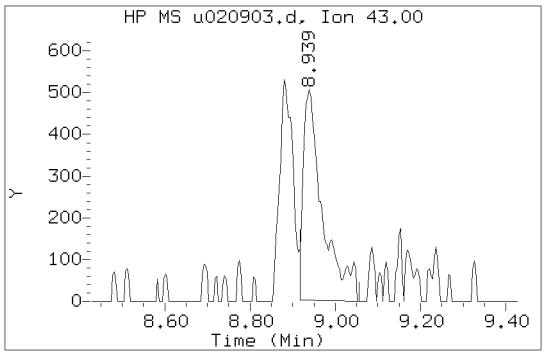

BEFORE
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70
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09-Feb-2024
11:53
firat
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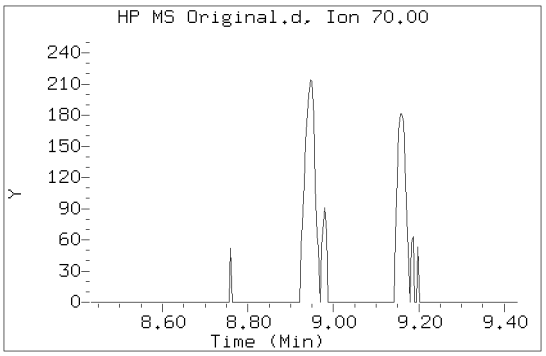

AFTER
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09-Feb-2024
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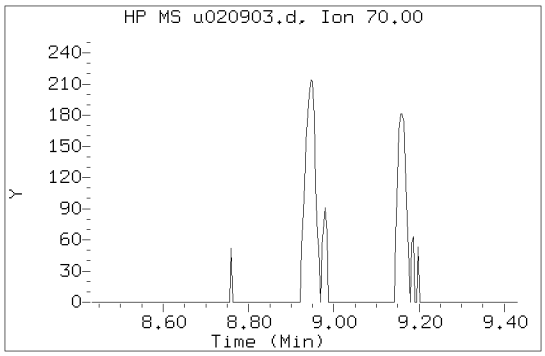

BEFORE
MASS
87
AREA
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HEIGHT
0
09-Feb-2024
11:53
firat
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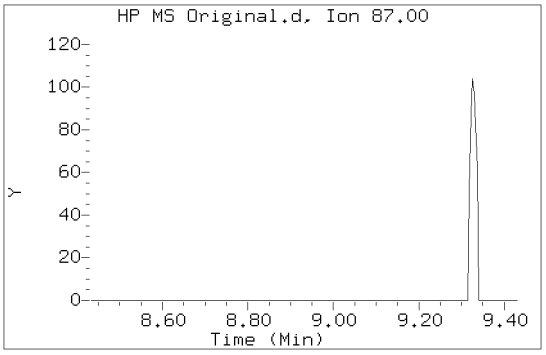

AFTER
MASS
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AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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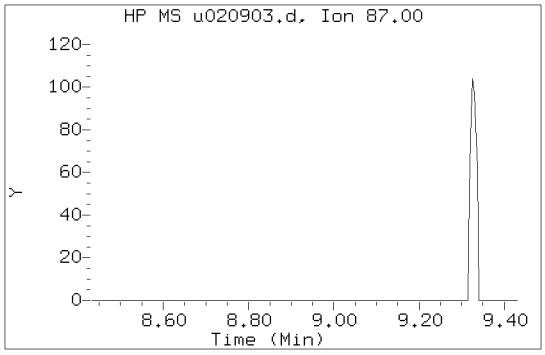

Isopropyl acetate (108-21-4)

Reason Code:

BEFORE
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43
AREA
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HEIGHT
1029
09-Feb-2024
11:53
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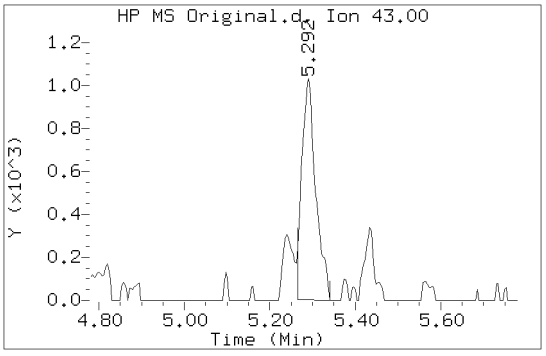

AFTER
MASS
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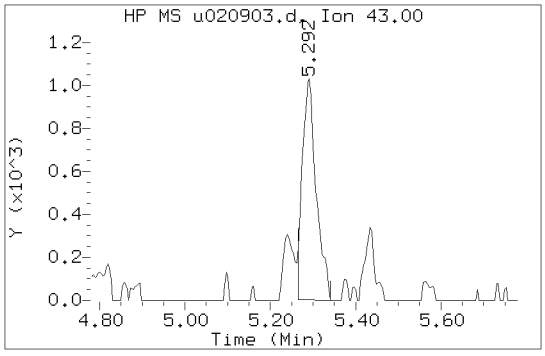
AREA
2375
HEIGHT
1029
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Isopropyl acetate (108-21-4)

Reason Code:

BEFORE

MASS
61
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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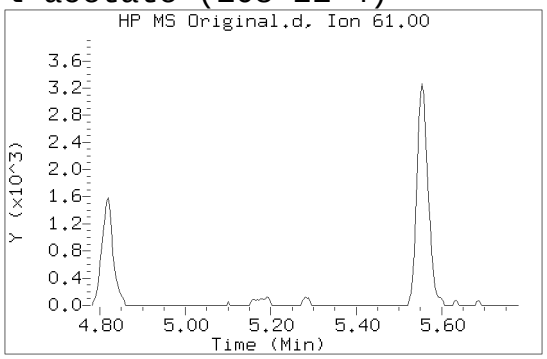

AFTER

MASS
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09-Feb-2024
11:53
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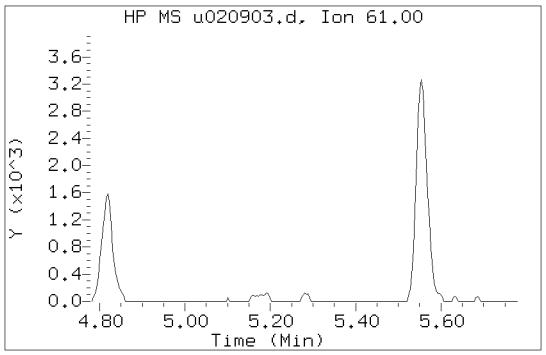

n-Butyl acetate (123-86-4)

Reason Code:

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09-Feb-2024
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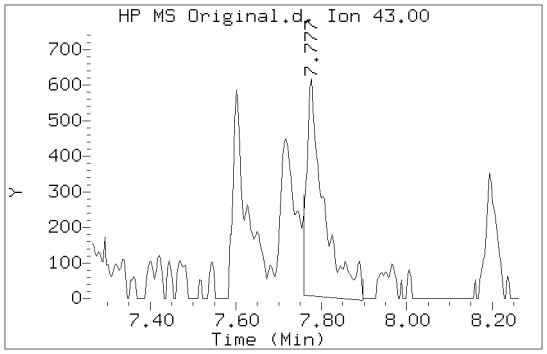

AFTER

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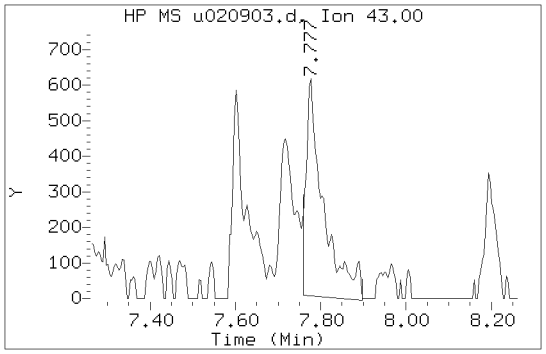

BEFORE

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09-Feb-2024
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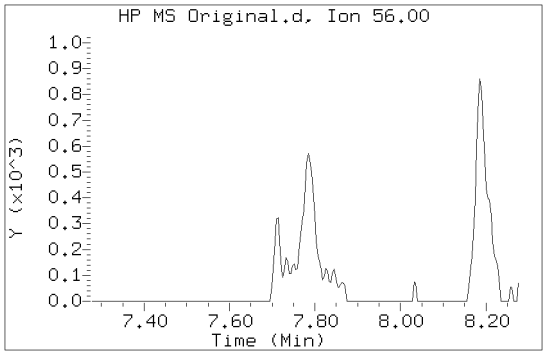

AFTER

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HEIGHT
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09-Feb-2024
11:53
firat
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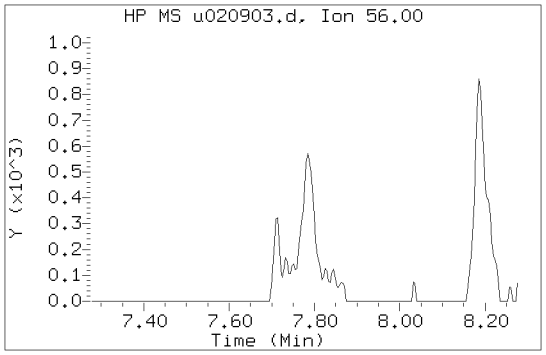

BEFORE

MASS
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09-Feb-2024
11:53
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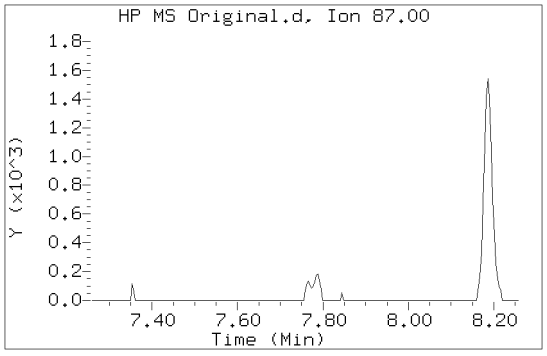

AFTER

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HEIGHT
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09-Feb-2024
11:53
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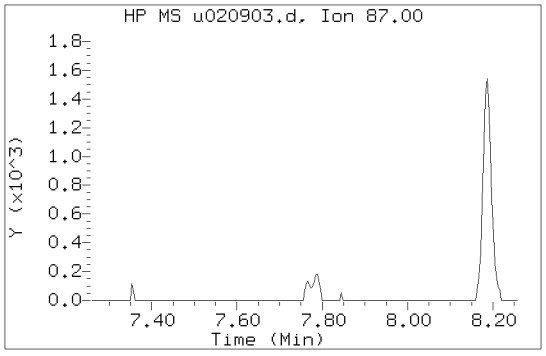

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Acetaldehyde (75-07-0)

Reason Code:

BEFORE
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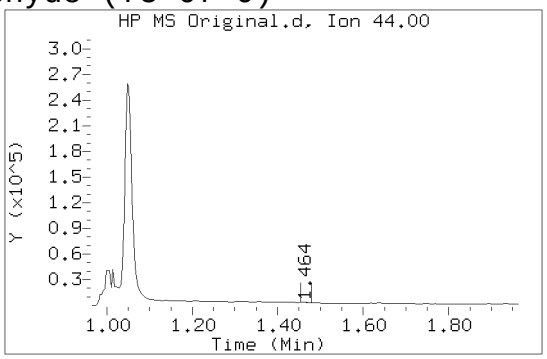
44
AREA
173
HEIGHT
198
09-Feb-2024
11:53
firat
tastan



AFTER
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AREA
173
HEIGHT
198
09-Feb-2024
11:53
firat
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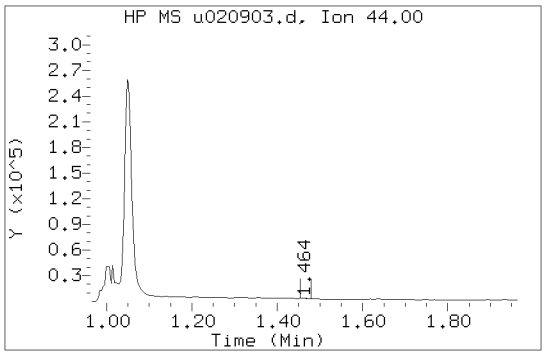

BEFORE
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09-Feb-2024
11:53
firat
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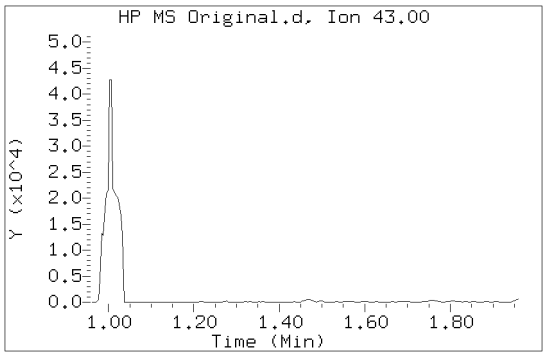

AFTER
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09-Feb-2024
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firat
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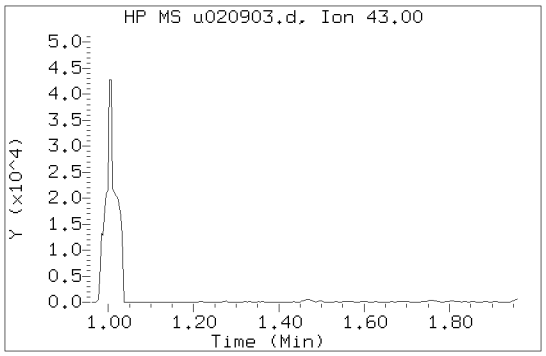

BEFORE
MASS
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09-Feb-2024
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firat
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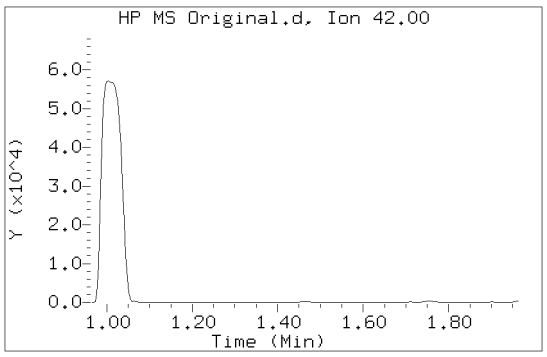

AFTER
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09-Feb-2024
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firat
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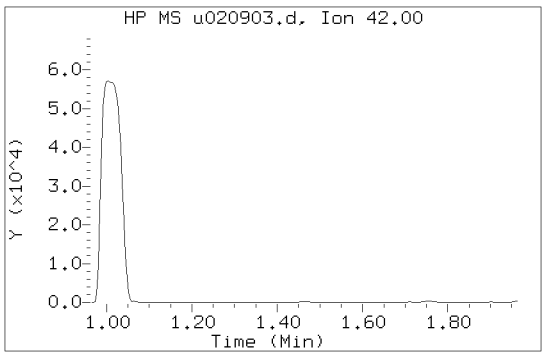

Methyl Amyl Ketone (110-43-0)

Reason Code:

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09-Feb-2024
11:53
firat
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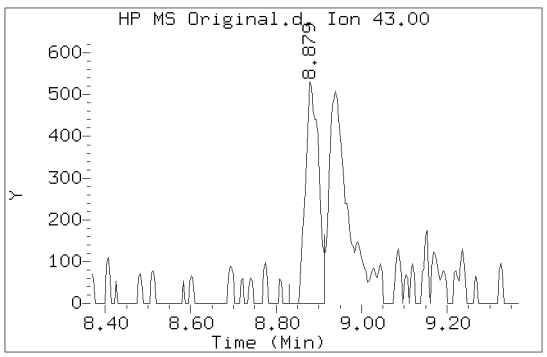

AFTER
MASS
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AREA
1139
HEIGHT
531
09-Feb-2024
11:53
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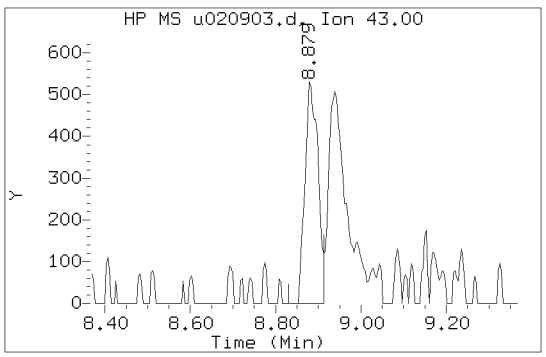

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Methyl Amyl Ketone (110-43-0)

Reason Code:

BEFORE

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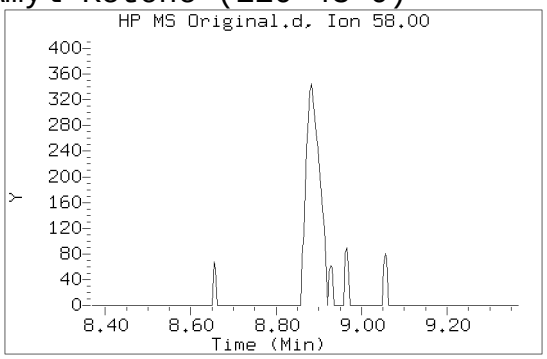

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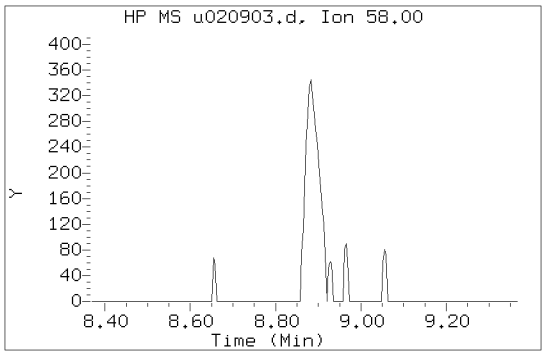

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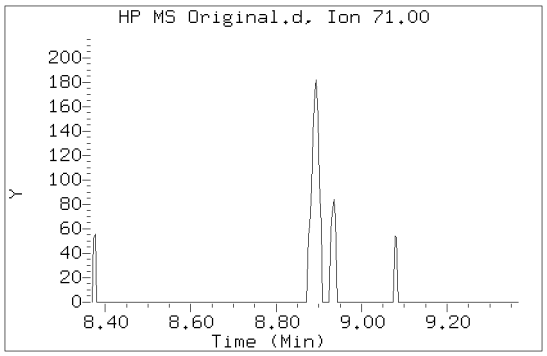

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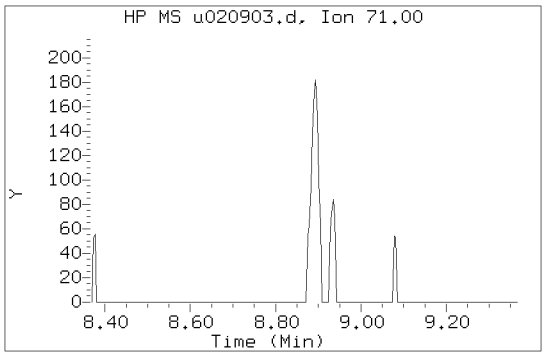

Dimethyl Disulfide (624-92-0)

Reason Code:

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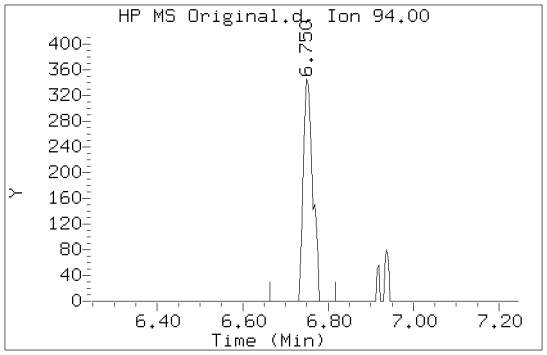

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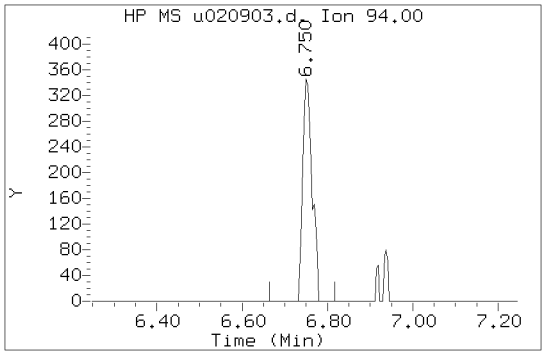

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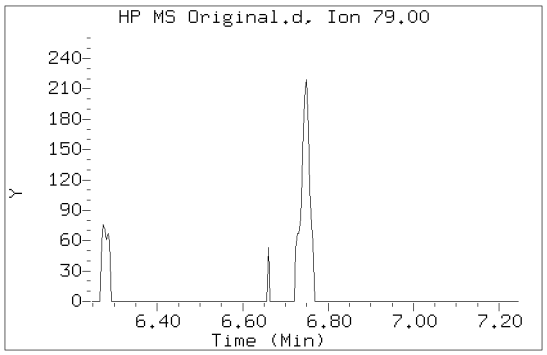

AFTER

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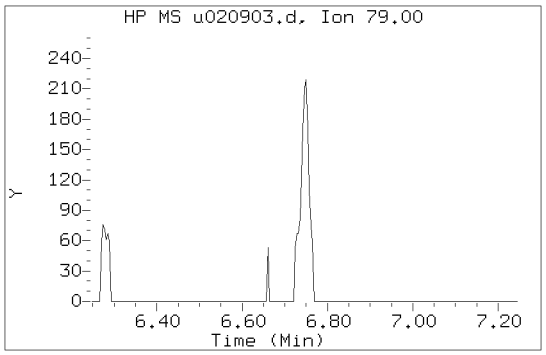

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Dimethyl Disulfide (624-92-0)

Reason Code:

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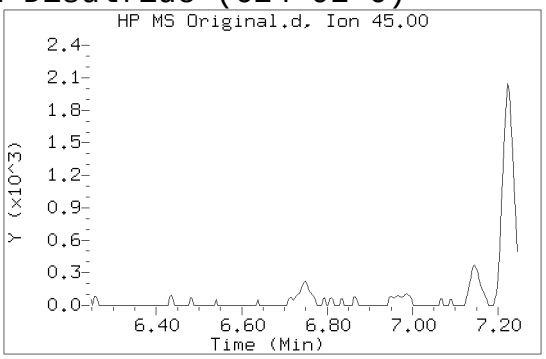

AFTER

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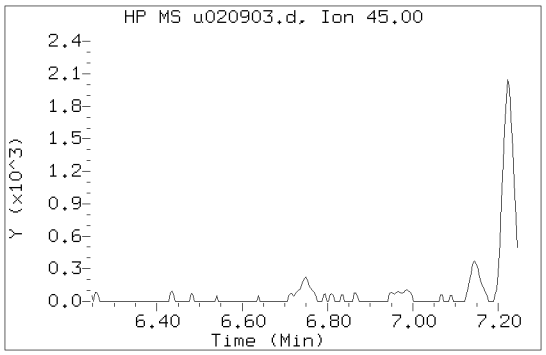

Isobutylene (115-11-7)

Reason Code:

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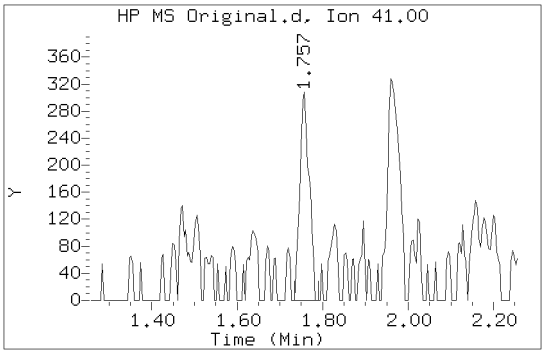

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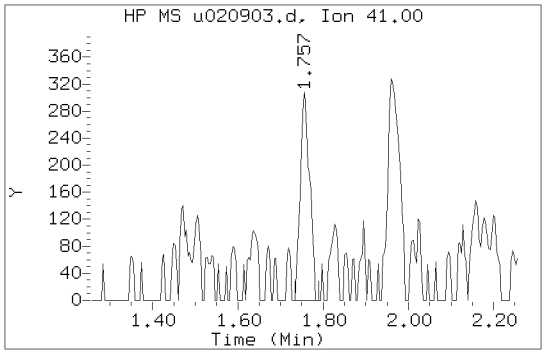

BEFORE

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09-Feb-2024
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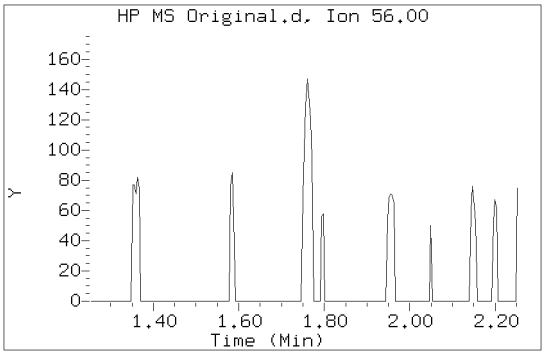

AFTER

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09-Feb-2024
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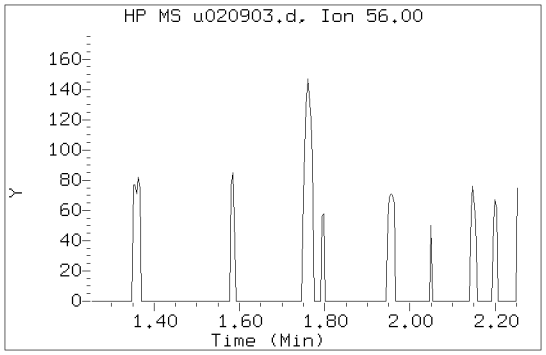

BEFORE

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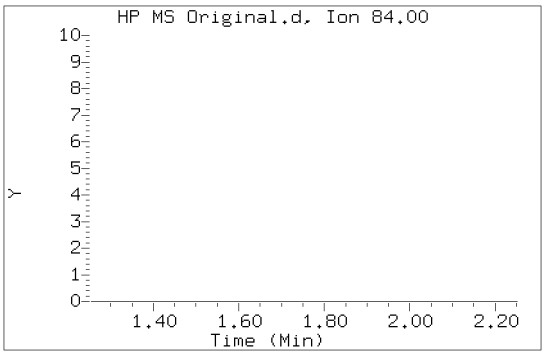

AFTER

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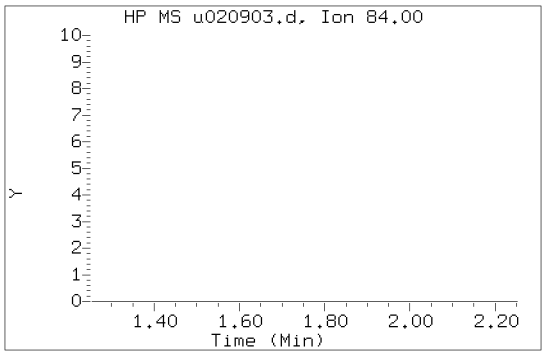

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

BEFORE

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09-Feb-2024
11:53
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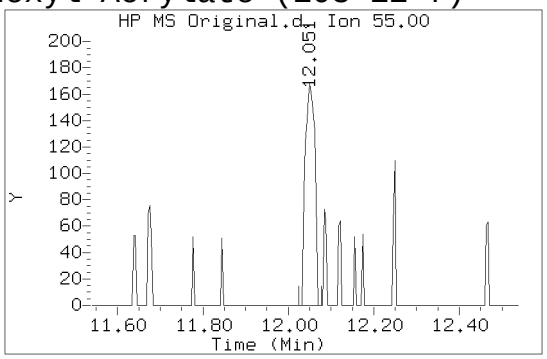

AFTER

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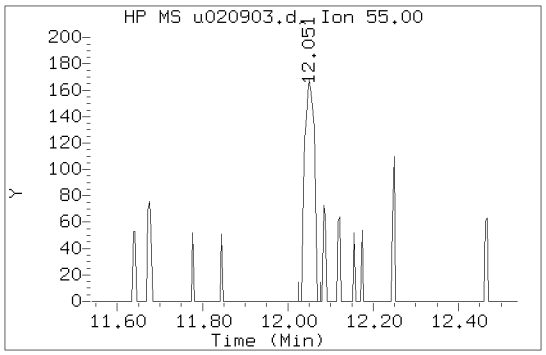

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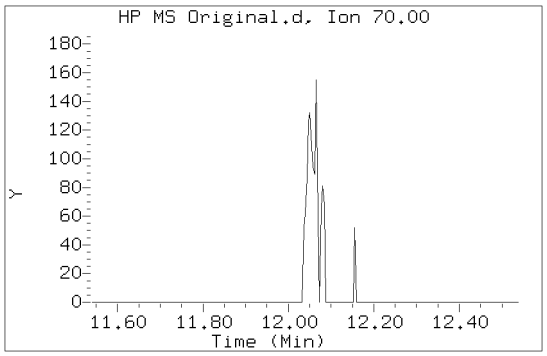

AFTER

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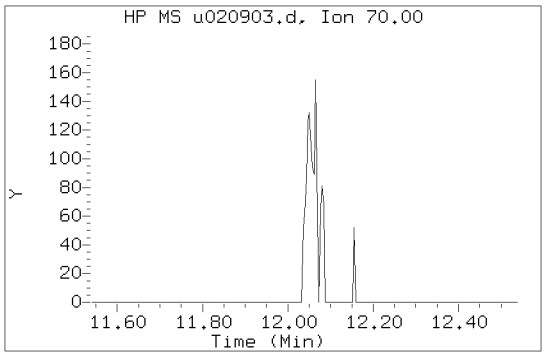


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020904.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020904.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 09-FEB-2024 10:06
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 09:44 Cal File: U020903.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	172240	50.0000	
2	Dichlorodifluoromethane	85	1.160	1.160	(0.241)	1508	1.00000	1.45
3	Chloromethane	50	1.299	1.299	(0.270)	2409	1.00000	2.23
5	Vinyl Chloride	62	1.374	1.374	(0.285)	1927	1.00000	1.35
6	Bromomethane	94	1.621	1.621	(0.337)	2599	1.00000	3.15
7	Chloroethane	64	1.696	1.696	(0.352)	1401	1.00000	1.06
8	Trichlorofluoromethane	101	1.891	1.891	(0.393)	2869	1.00000	0.81
9	Acrolein	56	2.258	2.258	(0.469)	279	2.00000	1.99(M)
10	Acetone	43	2.408	2.408	(0.500)	2336	2.00000	0.30
11	1,1-Dichloroethene	96	2.333	2.333	(0.485)	1781	1.00000	1.41
15	Iodomethane	142	2.465	2.465	(0.512)	2369	2.00000	2.93(T)
16	Acrylonitrile	53	3.061	3.061	(0.636)	1158	2.00000	2.13
17	Methylene Chloride	84	2.791	2.791	(0.580)	3682	1.00000	1.02
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	4946	1.00000	1.39
19	Carbon Disulfide	76	2.517	2.517	(0.523)	9692	2.00000	2.36
20	trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	2406	1.00000	1.53
21	Vinyl Acetate	43	3.612	3.612	(0.750)	8179	2.00000	2.41(M)
22	1,1-Dichloroethane	63	3.511	3.511	(0.729)	3356	1.00000	1.44(T)
24	2-Butanone	43	4.268	4.268	(0.886)	1178	2.00000	2.25(M)
26	2,2-Dichloropropane	77	4.189	4.189	(0.870)	2303	1.00000	1.12

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	2498	1.00000	1.31
28 Chloroform	83	4.568	4.568 (0.949)	4001	1.00000	1.29

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020904.D Page 2
Report Date: 15-Feb-2024 11:14

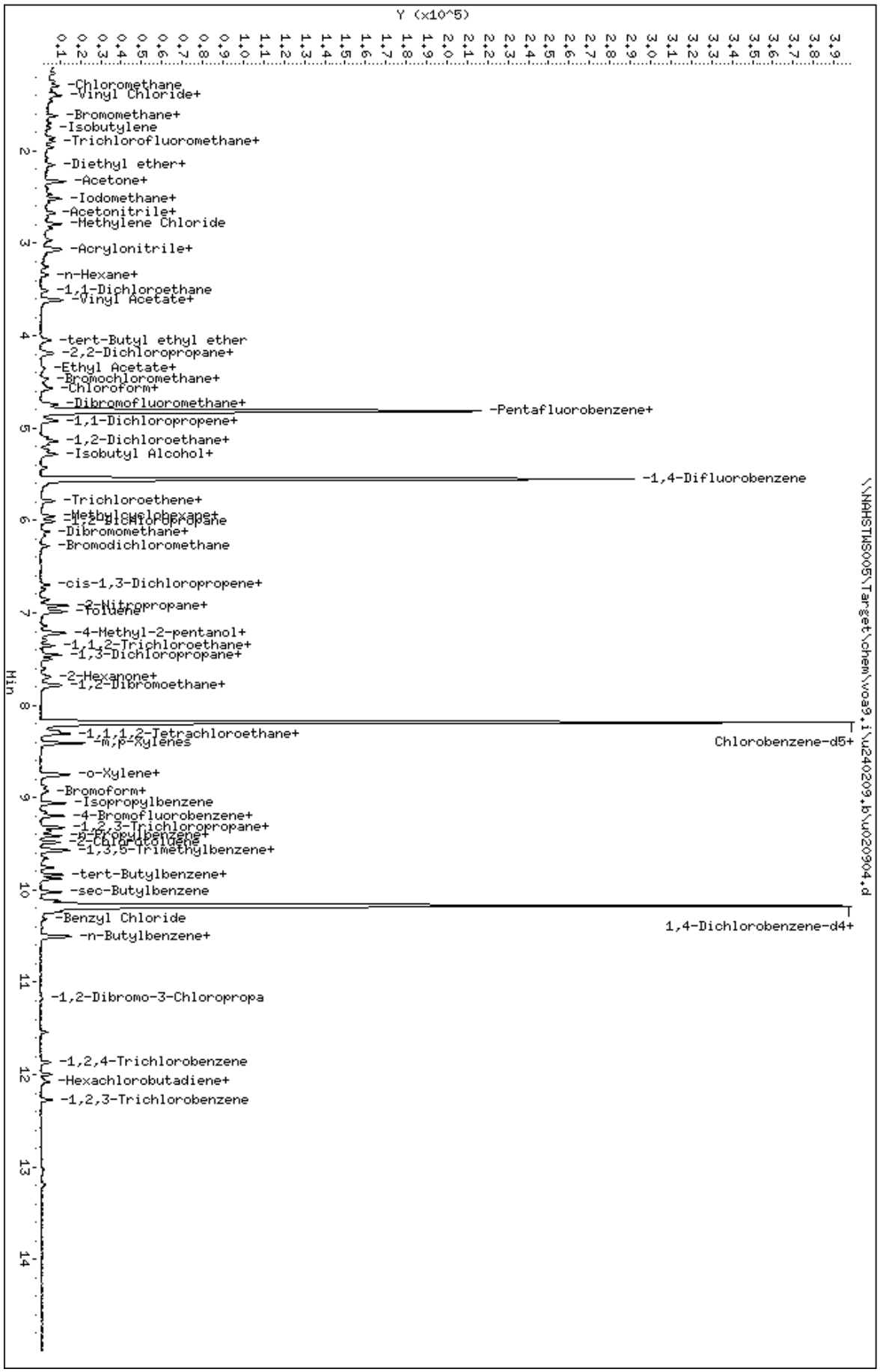
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.466	4.466	(0.928)	1379	1.00000	0.42
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	2659	1.00000	1.07
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	3031	1.00000	1.22
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	2580	1.00000	1.37
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	2847	1.00000	0.69
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	2615	1.00000	1.13
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	2589	1.00000	0.72
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	253625	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	8539	1.00000	1.49
	38 Trichloroethene	130	5.790	5.790	(1.043)	2818	1.00000	1.58
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	2248	1.00000	1.04(M)
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	2163	1.00000	1.37
	44 Dibromomethane	93	6.123	6.123	(1.103)	1357	1.00000	1.25
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	2874	2.00000	2.23
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	2214	1.00000	0.98
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	230361	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	9135	1.00000	1.40
	50 Toluene	91	6.982	6.982	(0.853)	7869	1.00000	1.10
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	1606	1.00000	2.42(M)
	52 2-Hexanone	43	7.600	7.600	(0.929)	2163	2.00000	4.88
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	1420	1.00000	0.98
	54 1,3-Dichloropropane	76	7.503	7.503	(0.917)	3251	1.00000	1.12
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	1849	1.00000	1.01
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	2061	1.00000	1.26
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	1682	1.00000	1.05
	58 1-Chlorohexane	55	8.189	8.189	(1.474)	2981	1.00000	1.86
	59 Chlorobenzene	112	8.208	8.208	(1.003)	6126	1.00000	1.09
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	2123	1.00000	1.15
	61 Ethylbenzene	106	8.309	8.309	(1.015)	2844	1.00000	1.17
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	6389	2.00000	2.14
	63 o-Xylene	106	8.747	8.747	(1.069)	3036	1.00000	1.04
	64 Styrene	104	8.766	8.766	(1.071)	4483	1.00000	0.93
	66 Bromoform	173	8.920	8.920	(1.090)	1336	1.00000	1.01(T)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	8437	1.00000	1.13
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	2264	1.00000	1.07(M)
$	69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	3587	1.00000	1.26
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	119195	50.0000	
	71 1,2,3-Trichloropropane	75	9.359	9.359	(0.920)	2523	1.00000	1.31
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	7765	1.00000	1.05
	74 Bromobenzene	156	9.321	9.321	(0.916)	2658	1.00000	1.18
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	5511	1.00000	0.99
	76 2-Chlorotoluene	91	9.486	9.486	(0.933)	5660	1.00000	1.15
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	6381	1.00000	1.14
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	5614	1.00000	1.11
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	5642	1.00000	1.03
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	7119	1.00000	1.10
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	5835	1.00000	1.01
	83 1,3-Dichlorobenzene	146	10.119	10.119	(0.995)	4590	1.00000	1.14
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	5524	1.00000	1.05
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	4694	1.00000	1.03
	88 1,2-Dichlorobenzene	146	10.509	10.509	(1.033)	4790	1.00000	1.06
	89 1,2-Dibromo-3-Chloropropane	155	11.173	11.173	(1.098)	191	1.00000	3.41(M)

90 1,2,4-Trichlorobenzene	180	11.866	11.866 (1.167)	2615	1.00000	1.10
91 Hexachlorobutadiene	225	12.001	12.001 (1.180)	1570	1.00000	1.55

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	92 Naphthalene	128	12.076	12.076	(1.187)	4198	1.00000	1.99
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	2638	1.00000	1.17
M	94 1,2-Dichloroethylene (total)	96				4904	2.00000	
M	95 Xylenes (total)	106				9425	3.00000	
	135 1,4-Dioxane	88	6.176	6.176	(1.283)	478	20.0000	34.72(M)
	141 Cyclohexane	56	4.808	4.808	(0.998)	4524	1.00000	2.10
	138 Freon TF	101	2.333	2.333	(0.485)	1903	1.00000	1.34
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	1880	1.00000	1.58
	147 Methylcyclohexane	55	5.955	5.955	(1.072)	3024	1.00000	0.98
	146 Methyl Acetate	43	2.708	2.708	(0.563)	2321	1.00000	1.86(M)
	148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	3825	20.0000	26.10(a)
	149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	2389	20.0000	32.40(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.



Data File: \\NAHSTMS005\Target\chem\voa9.i\u240209.b\u020904.d
Date : 09-FEB-2024 10:06
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

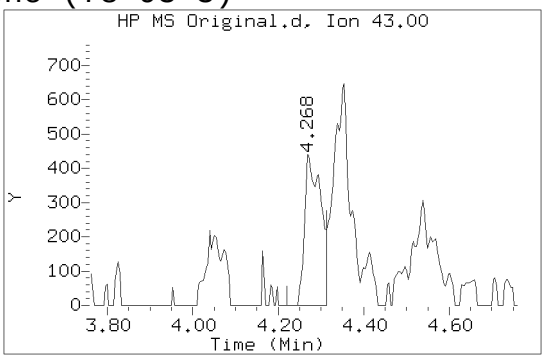
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

2-Butanone (78-93-3)

Reason Code:

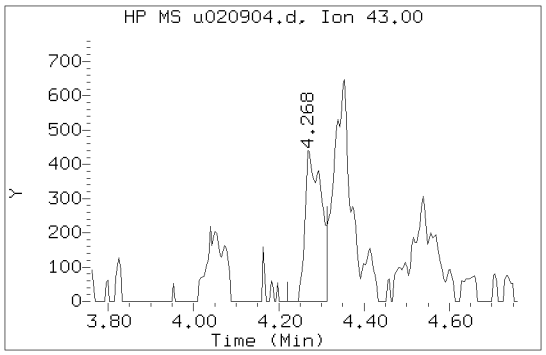
BEFORE

MASS
43
AREA
1178
HEIGHT
439
09-Feb-2024
11:46
firat
tastan



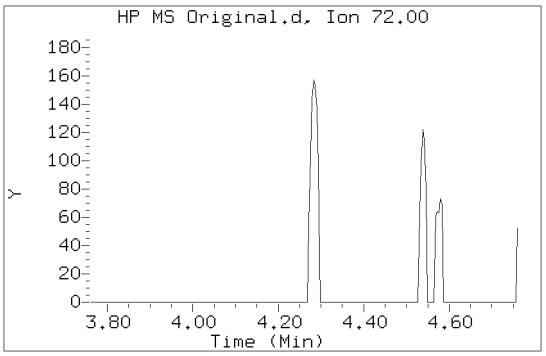
AFTER

MASS
43
AREA
1178
HEIGHT
439
09-Feb-2024
11:46
firat
tastan



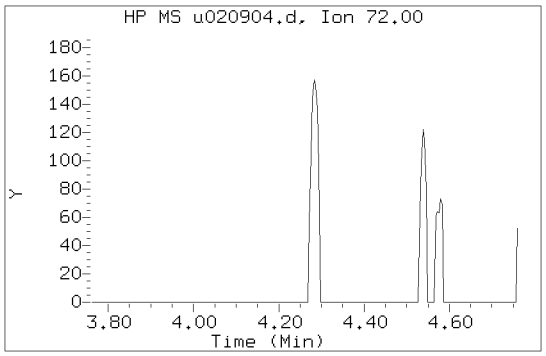
BEFORE

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

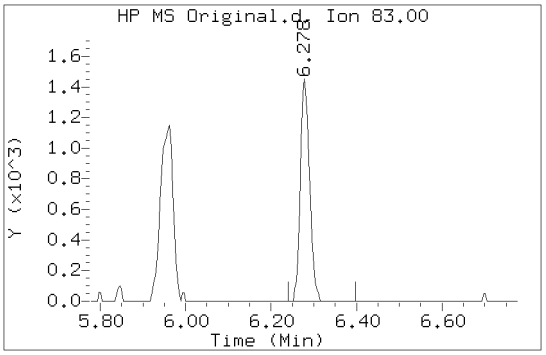


Bromodichloromethane (75-27-4)

Reason Code:

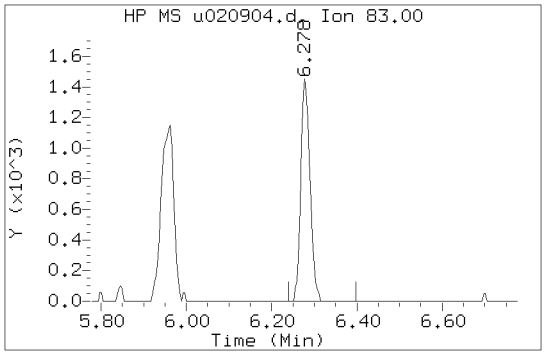
BEFORE

MASS
83
AREA
2248
HEIGHT
1452
09-Feb-2024
11:46
firat
tastan



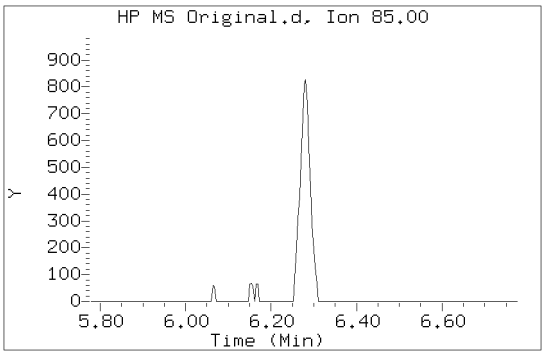
AFTER

MASS
83
AREA
2248
HEIGHT
1452
09-Feb-2024
11:46
firat
tastan



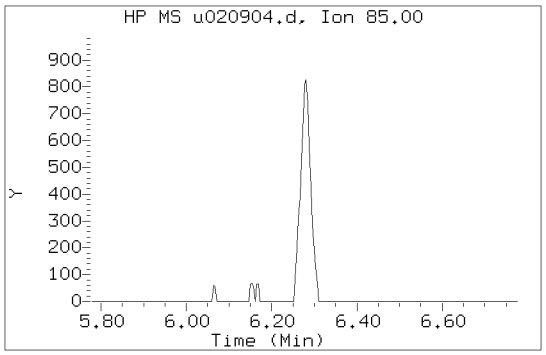
BEFORE

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



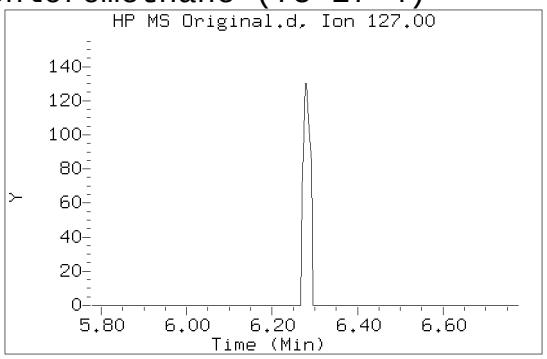
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Bromodichloromethane (75-27-4)

Reason Code:

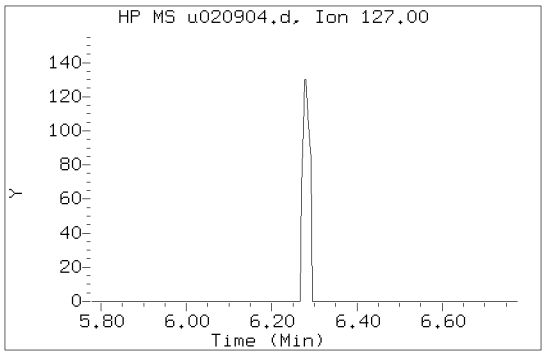
BEFORE

MASS
127
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
127
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

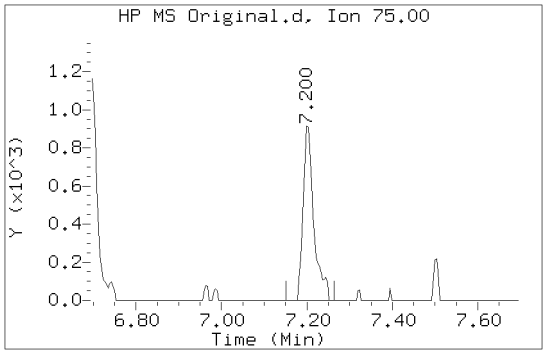


trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

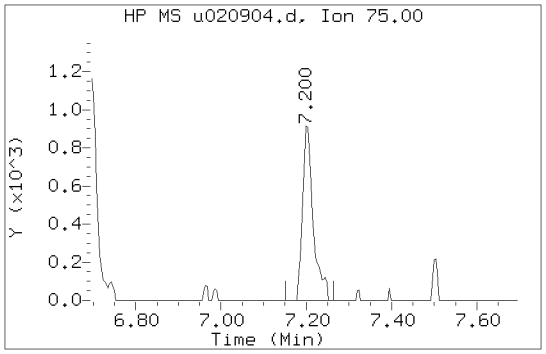
BEFORE

MASS
75
AREA
1606
HEIGHT
914
09-Feb-2024
11:46
firat
tastan



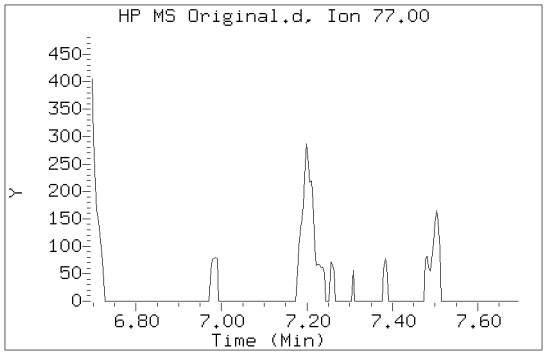
AFTER

MASS
75
AREA
1606
HEIGHT
914
09-Feb-2024
11:46
firat
tastan



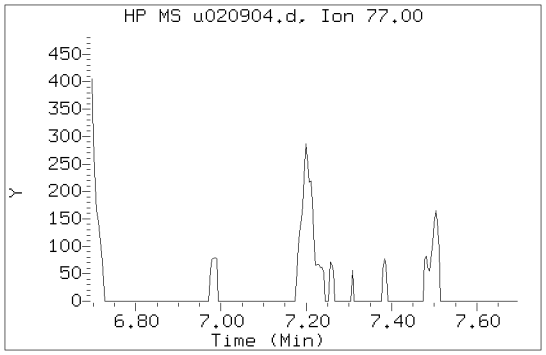
BEFORE

MASS
77
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



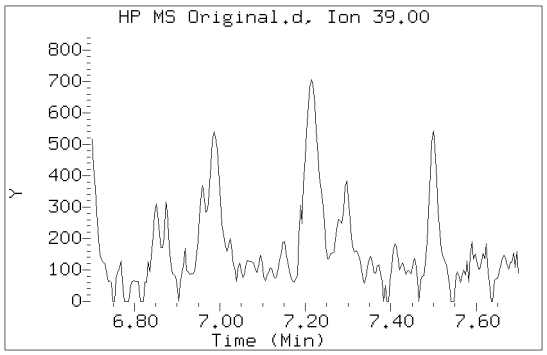
AFTER

MASS
77
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



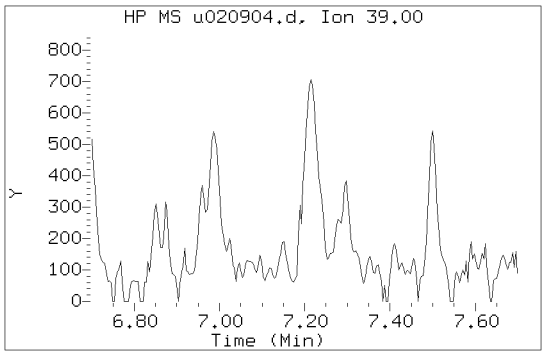
BEFORE

MASS
39
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
39
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



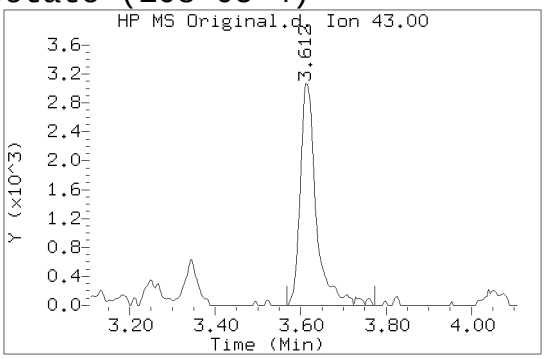
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Vinyl Acetate (108-05-4)

Reason Code:

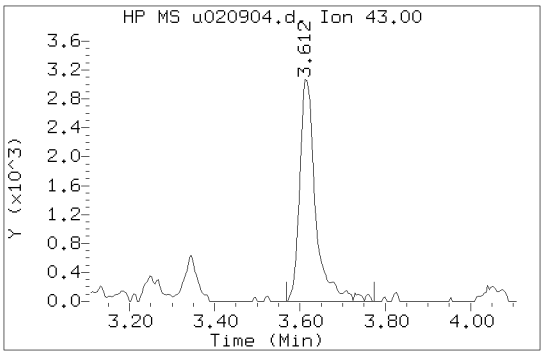
BEFORE

MASS
43
AREA
8179
HEIGHT
3066
09-Feb-2024
11:46
firat
tastan



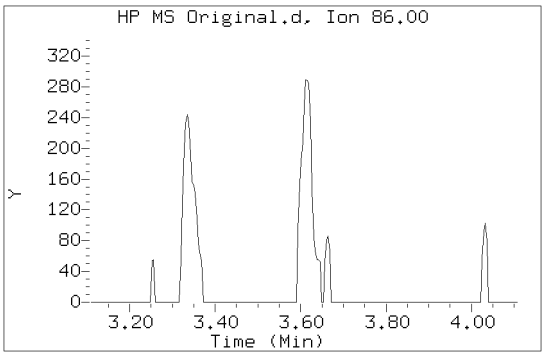
AFTER

MASS
43
AREA
8179
HEIGHT
3066
09-Feb-2024
11:46
firat
tastan



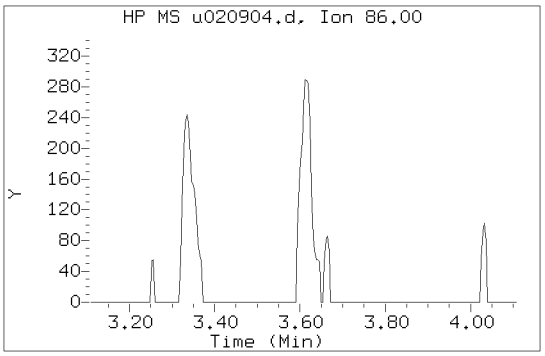
BEFORE

MASS
86
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
86
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

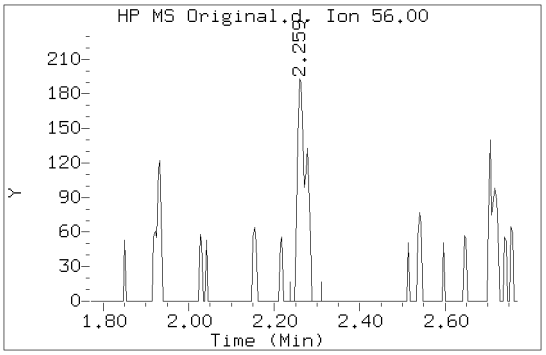


Acrolein (107-02-8)

Reason Code:

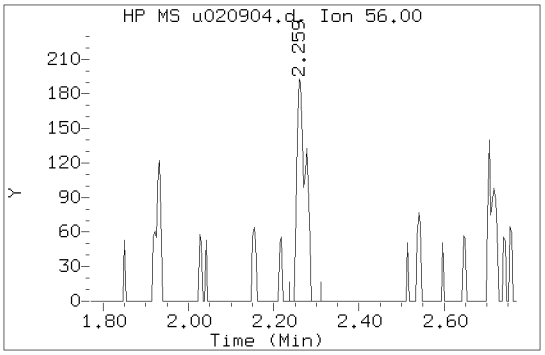
BEFORE

MASS
56
AREA
279
HEIGHT
193
09-Feb-2024
11:46
firat
tastan



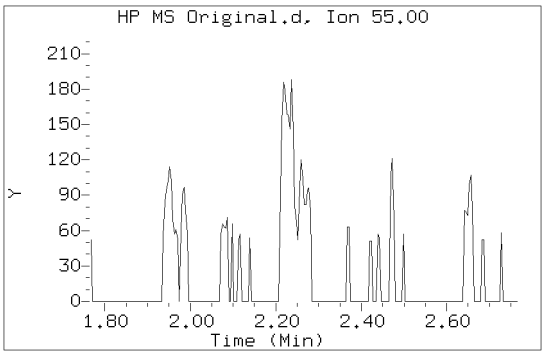
AFTER

MASS
56
AREA
279
HEIGHT
193
09-Feb-2024
11:46
firat
tastan



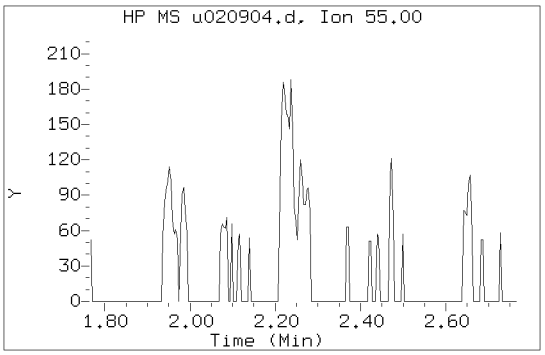
BEFORE

MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

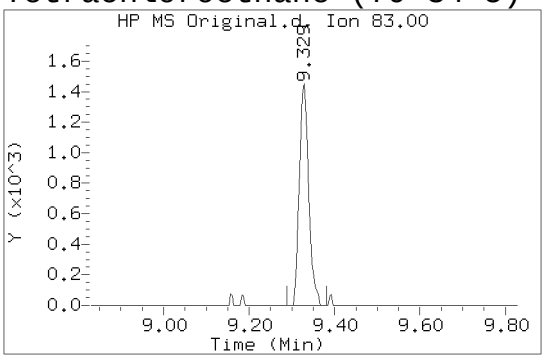


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

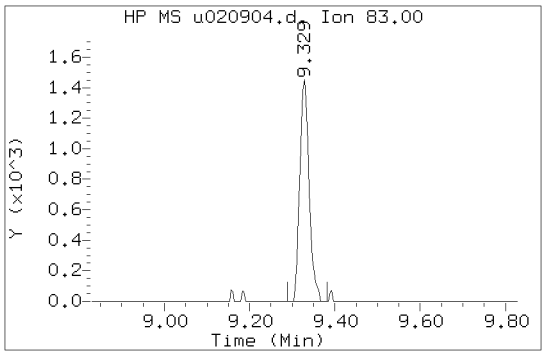
1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

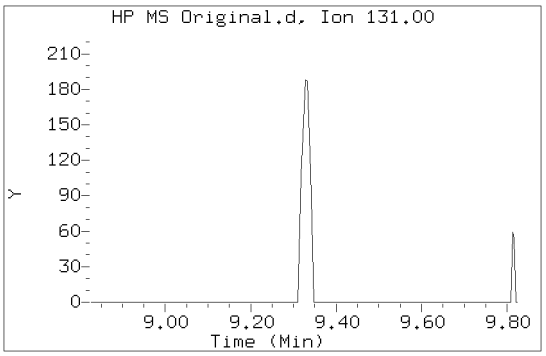
BEFORE
MASS
83
AREA
2264
HEIGHT
1452
09-Feb-2024
11:46
firat
tastan



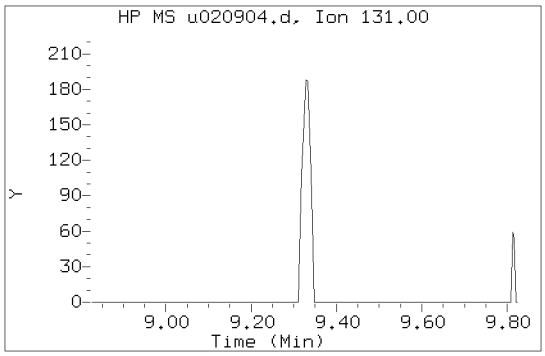
AFTER
MASS
83
AREA
2264
HEIGHT
1452
09-Feb-2024
11:46
firat
tastan



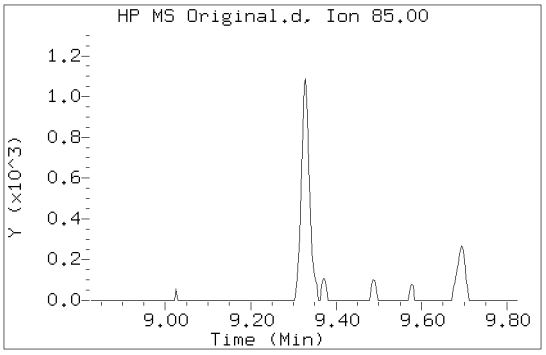
BEFORE
MASS
131
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



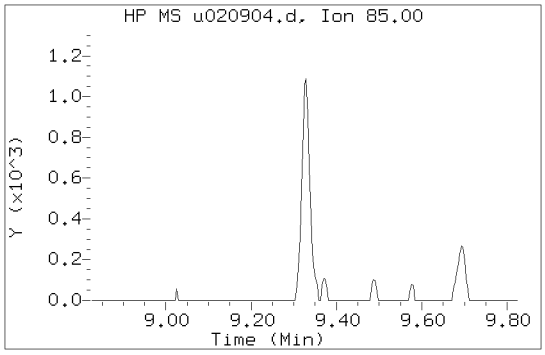
AFTER
MASS
131
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



BEFORE
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



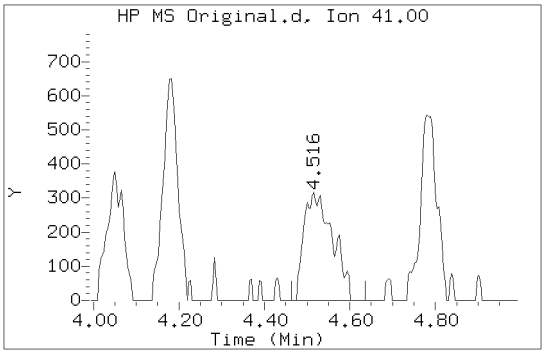
AFTER
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



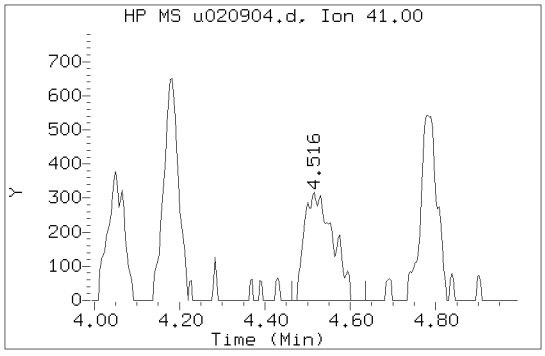
Methacrylonitrile (126-98-7)

Reason Code:

BEFORE
MASS
41
AREA
1481
HEIGHT
317
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
41
AREA
1481
HEIGHT
317
09-Feb-2024
11:46
firat
tastan

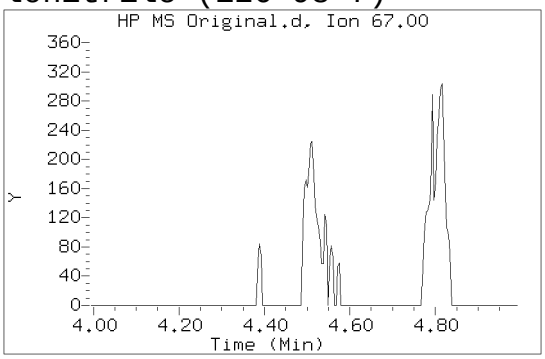


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

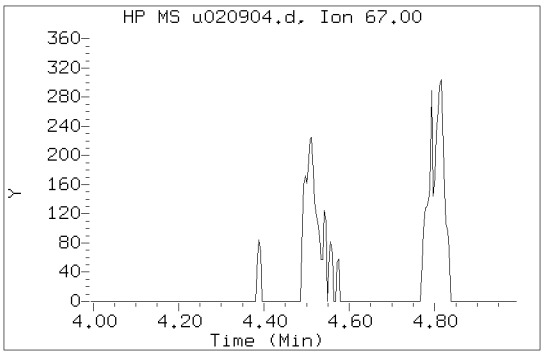
Methacrylonitrile (126-98-7)

Reason Code:

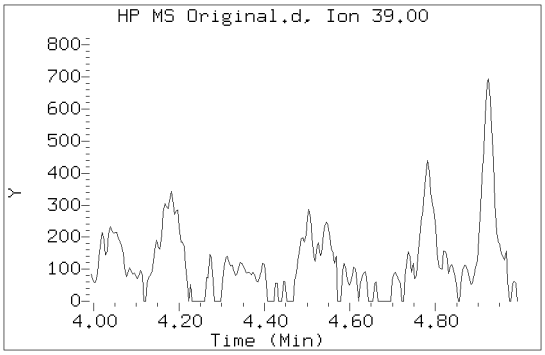
BEFORE
MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



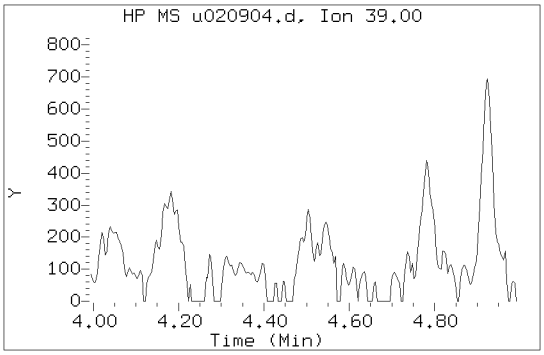
AFTER
MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



BEFORE
MASS
39
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



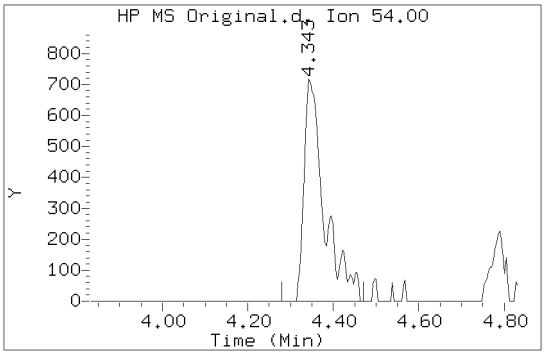
AFTER
MASS
39
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



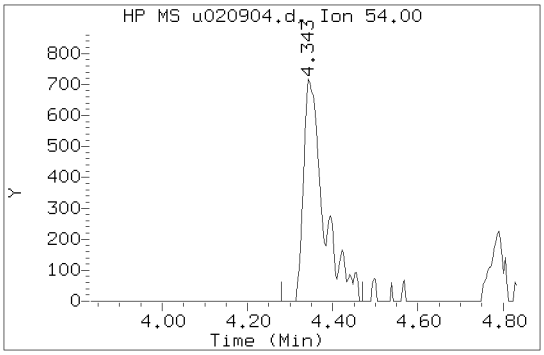
Propionitrile (107-12-0)

Reason Code:

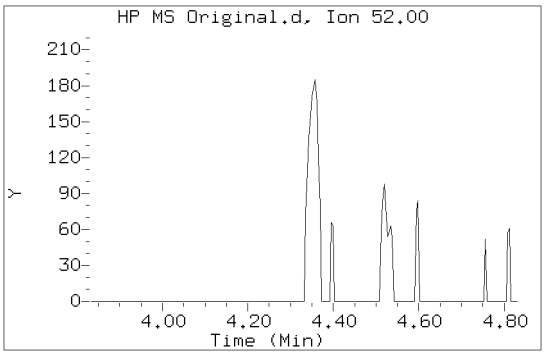
BEFORE
MASS
54
AREA
2374
HEIGHT
718
09-Feb-2024
11:46
firat
tastan



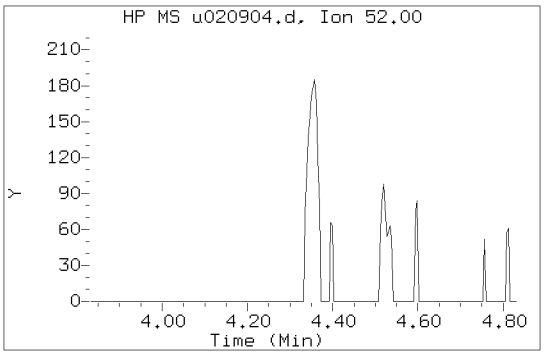
AFTER
MASS
54
AREA
2374
HEIGHT
718
09-Feb-2024
11:46
firat
tastan



BEFORE
MASS
52
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
52
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



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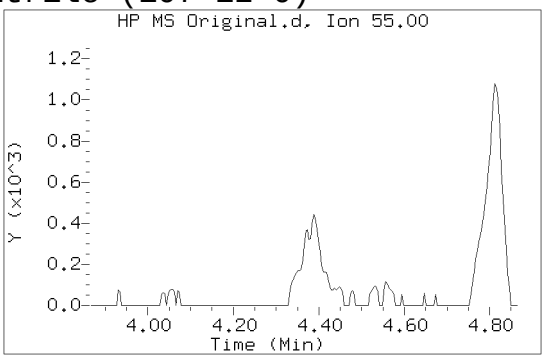
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Propionitrile (107-12-0)

Reason Code:

BEFORE

MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

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HEIGHT
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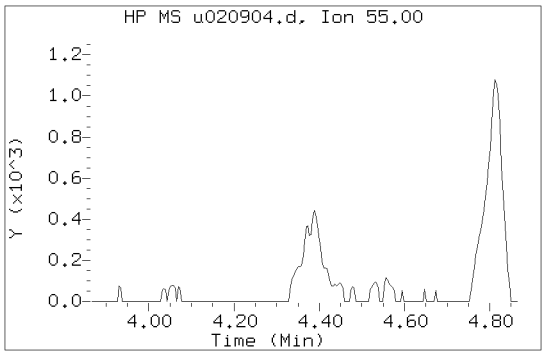
09-Feb-2024
11:46
firat
tastan



Methyl Methacrylate (80-62-6)

Reason Code:

BEFORE

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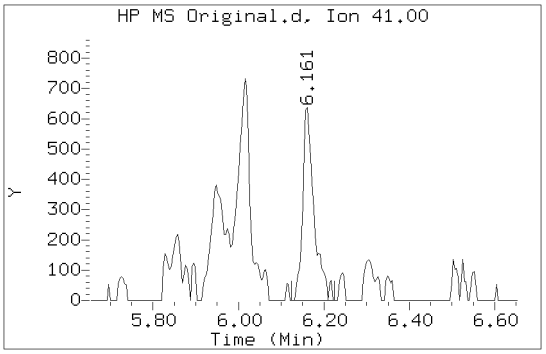
HEIGHT
638
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
41
AREA
1208
HEIGHT
638
09-Feb-2024
11:46
firat
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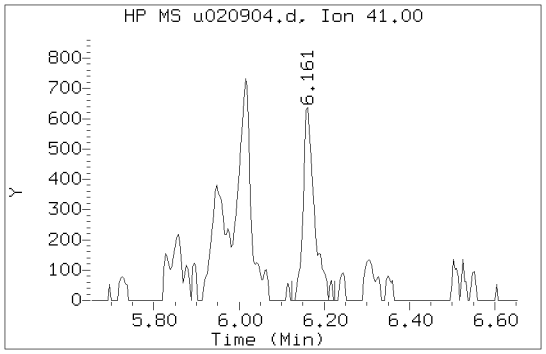

BEFORE

MASS
69
AREA
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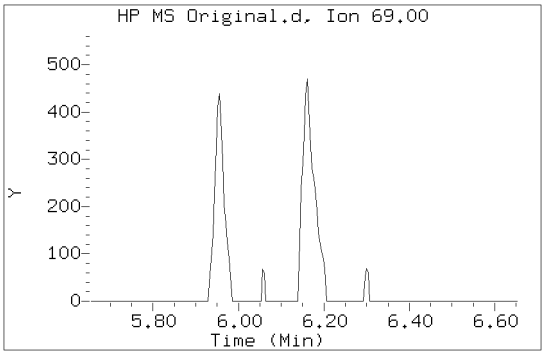
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

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AREA
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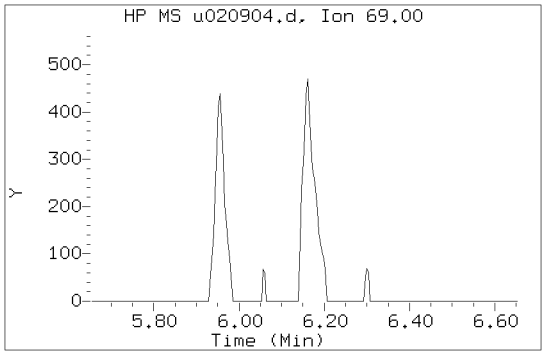
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



BEFORE

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100
AREA
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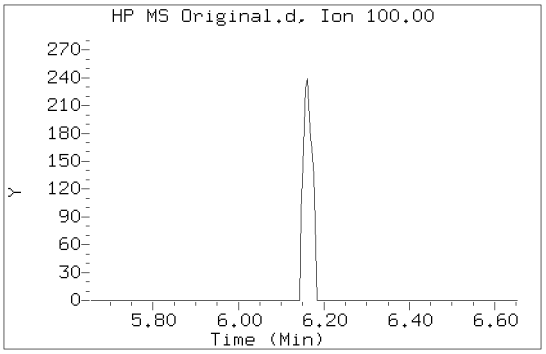
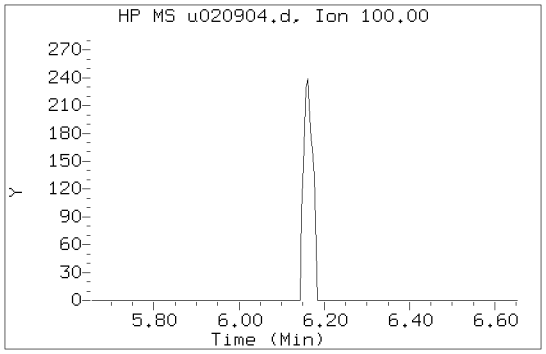
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

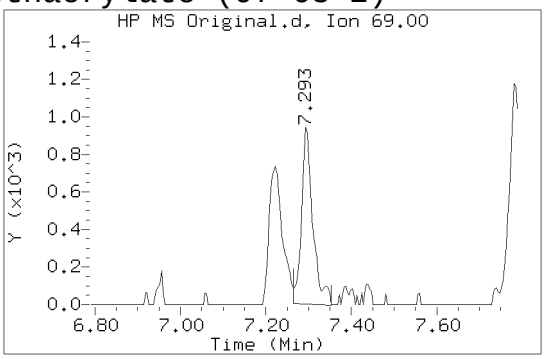
MASS
100
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

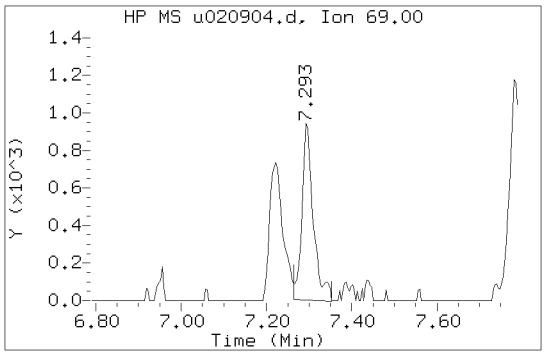
Ethyl Methacrylate (97-63-2)

BEFORE
MASS
69
AREA
1757
HEIGHT
943
09-Feb-2024
11:46
firat
tastan



Reason Code:

AFTER
MASS
69
AREA
1757
HEIGHT
943
09-Feb-2024
11:46
firat
tastan



BEFORE
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AREA
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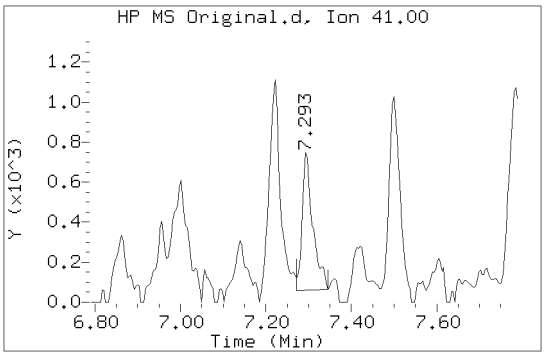
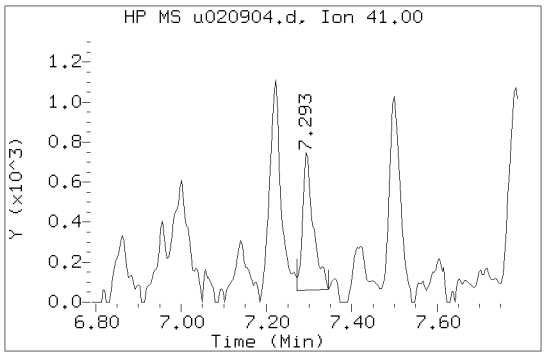
HEIGHT
691
09-Feb-2024
11:46
firat
tastan



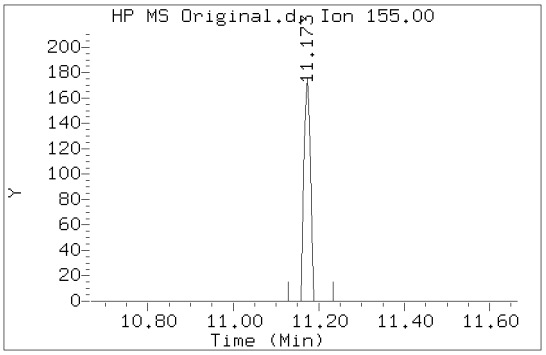
AFTER
MASS
41
AREA
1204
HEIGHT
691
09-Feb-2024
11:46
firat
tastan



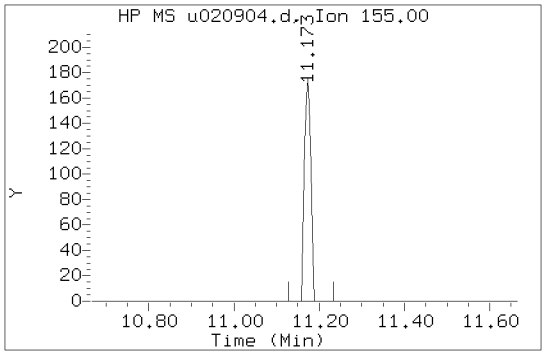
1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

BEFORE
MASS
155
AREA
191
HEIGHT
175
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
155
AREA
191
HEIGHT
175
09-Feb-2024
11:46
firat
tastan



BEFORE
MASS
157
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
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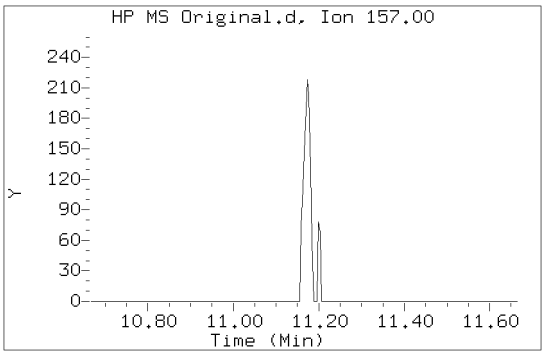
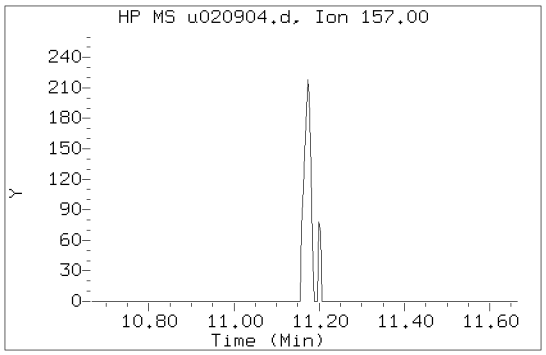


AFTER
MASS
157
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



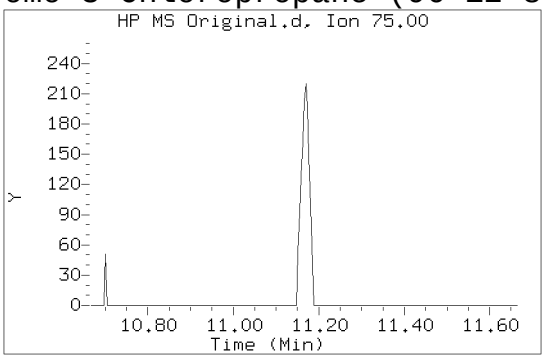
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

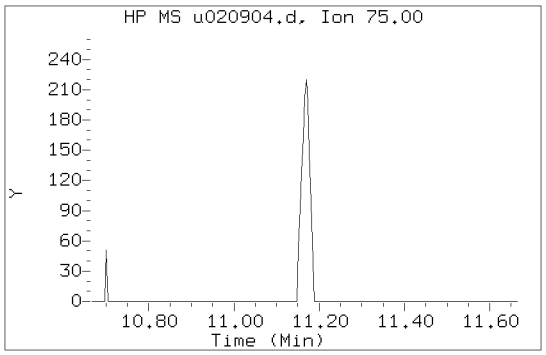
BEFORE

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

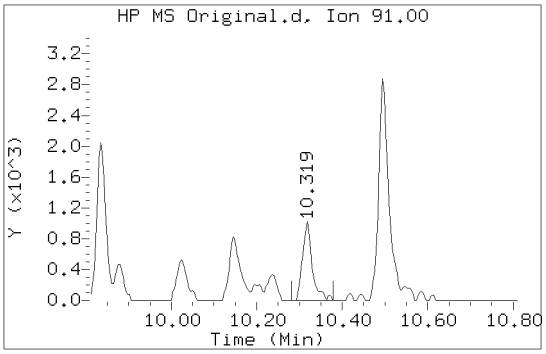


Benzyl Chloride (100-44-7)

Reason Code:

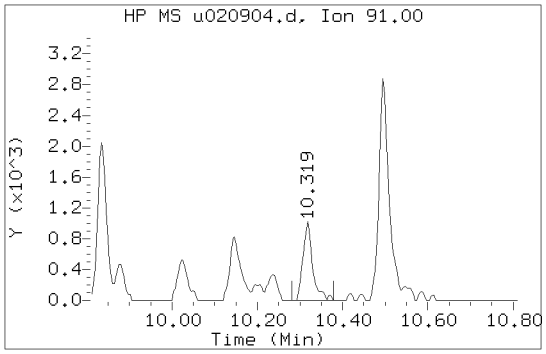
BEFORE

MASS
91
AREA
1659
HEIGHT
1025
09-Feb-2024
11:46
firat
tastan



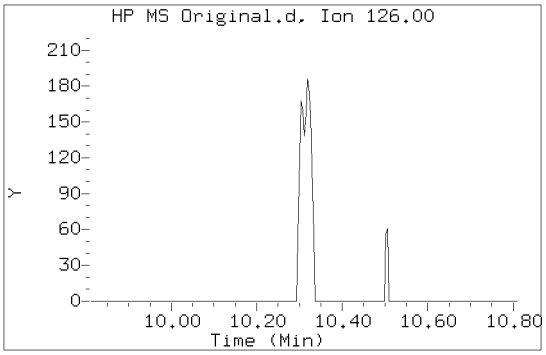
AFTER

MASS
91
AREA
1659
HEIGHT
1025
09-Feb-2024
11:46
firat
tastan



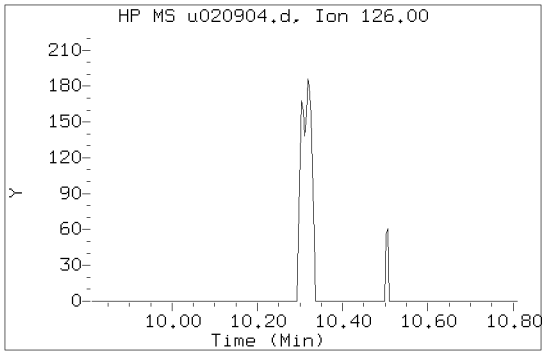
BEFORE

MASS
126
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
126
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
65
AREA
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HEIGHT
0
09-Feb-2024
11:46
firat
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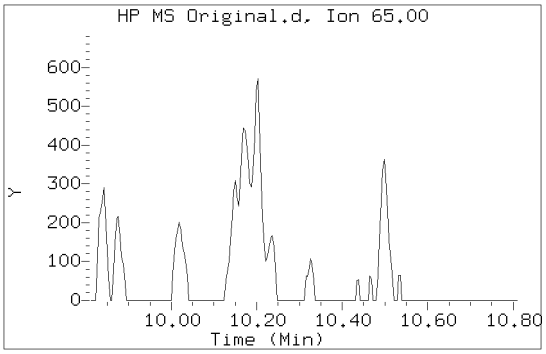
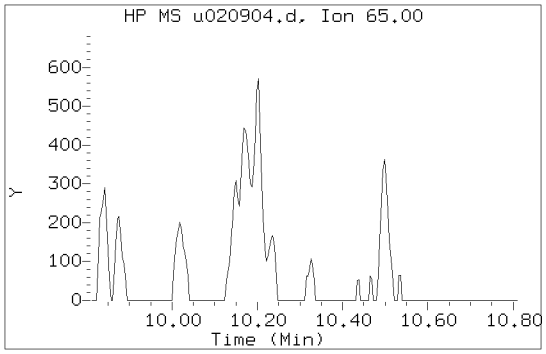


AFTER

MASS
65
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



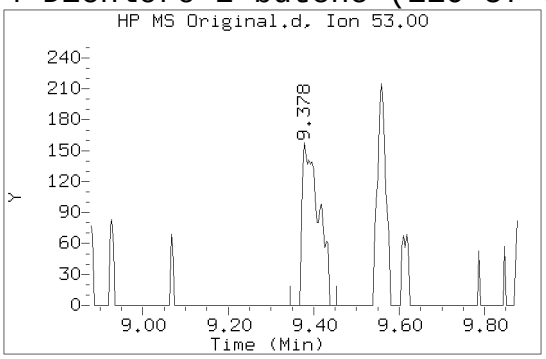
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

BEFORE

MASS
53
AREA
421
HEIGHT
158
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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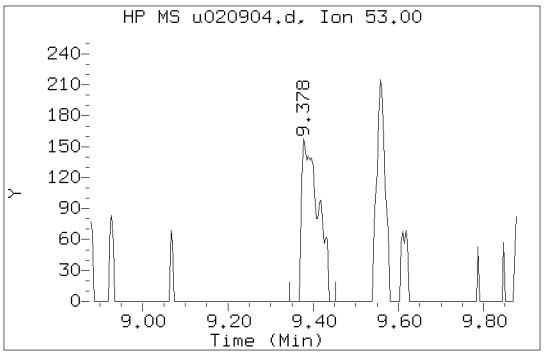
AREA
421
HEIGHT
158
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
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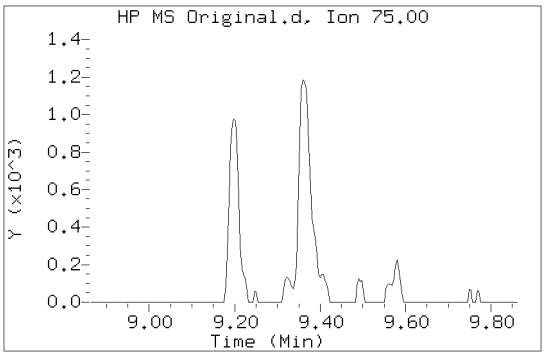
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
0
09-Feb-2024
11:46
firat
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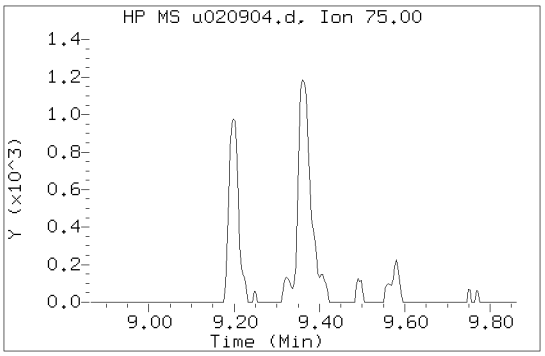
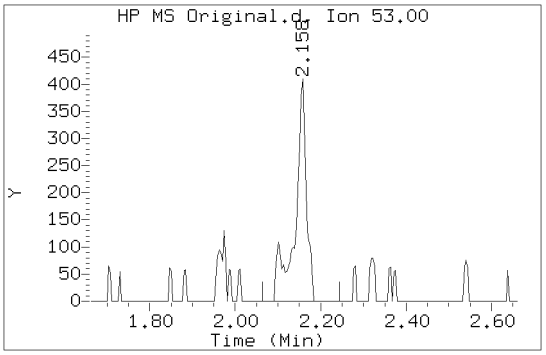


Chloroprene (126-99-8)

Reason Code:

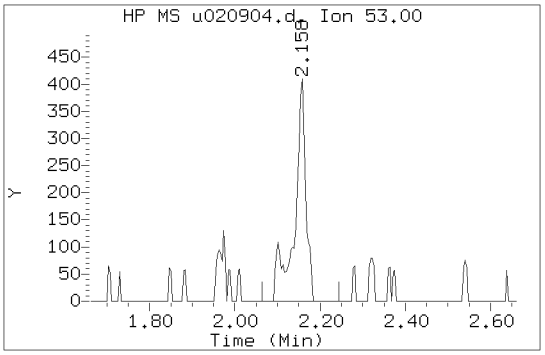
BEFORE

MASS
53
AREA
752
HEIGHT
410
09-Feb-2024
11:46
firat
tastan



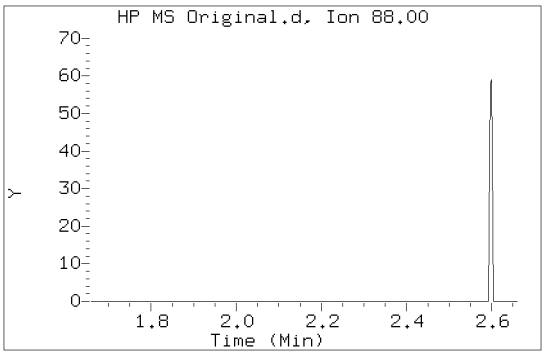
AFTER

MASS
53
AREA
752
HEIGHT
410
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
88
AREA
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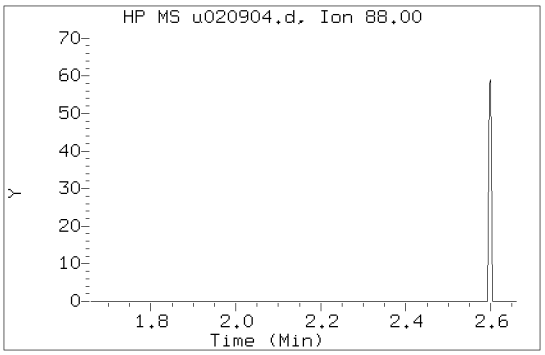
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



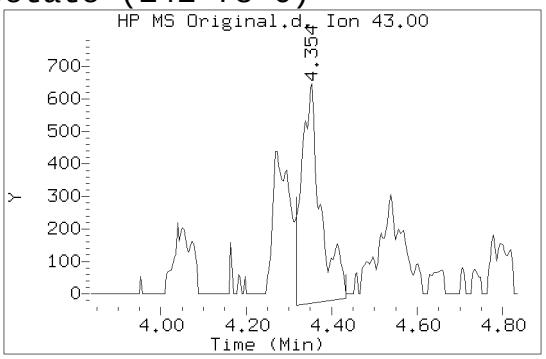
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Ethyl Acetate (141-78-6)

Reason Code:

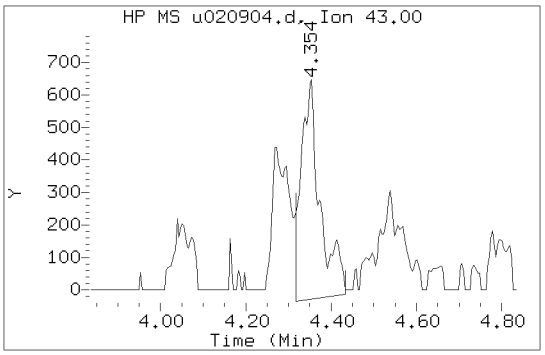
BEFORE

MASS
43
AREA
2103
HEIGHT
675
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
43
AREA
2103
HEIGHT
675
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
61
AREA
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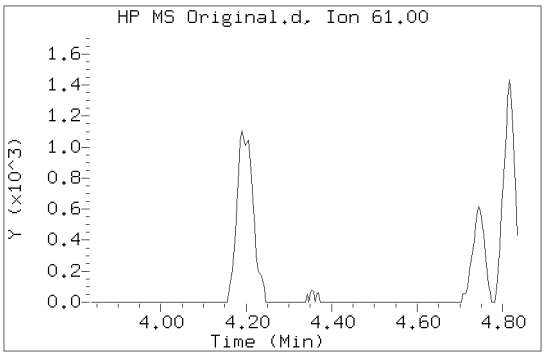
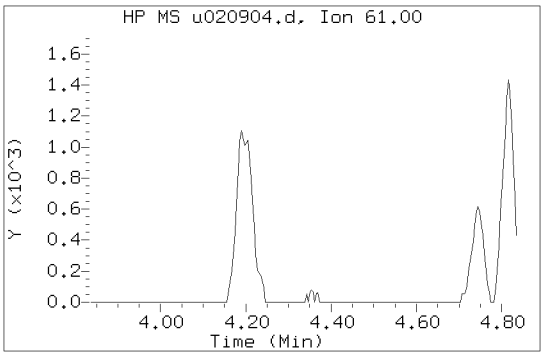
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



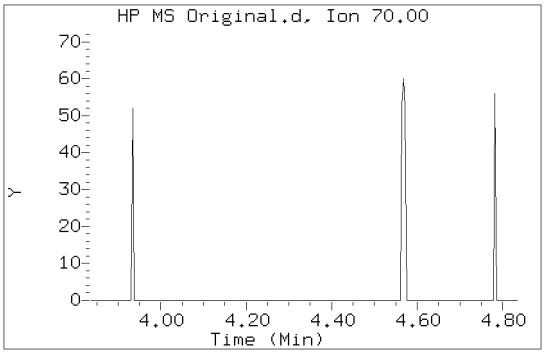
AFTER

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



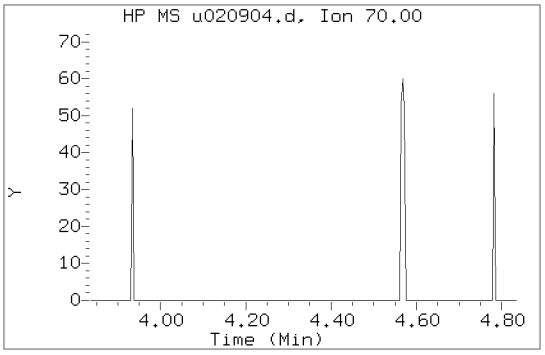
BEFORE

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

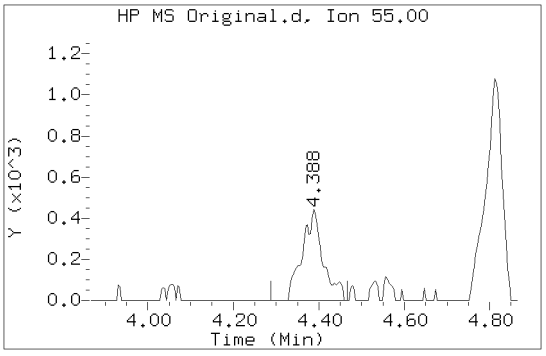


Methyl Acrylate (96-33-3)

Reason Code:

BEFORE

MASS
55
AREA
1518
HEIGHT
442
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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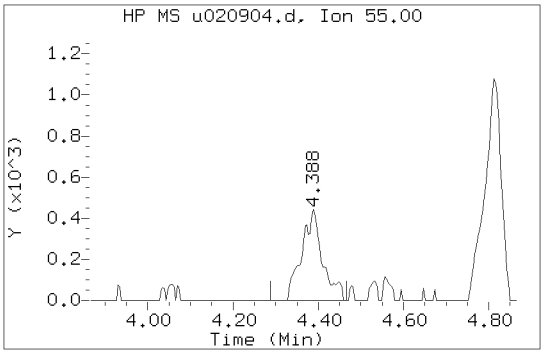
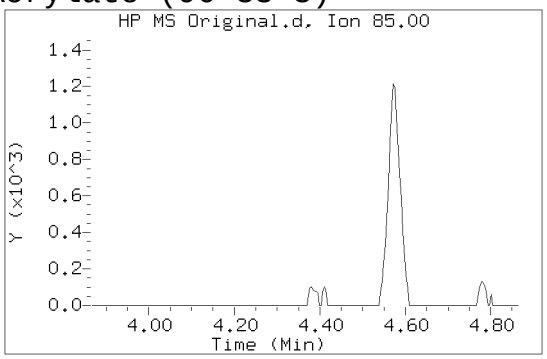
AREA
1518
HEIGHT
442
09-Feb-2024
11:46
firat
tastan



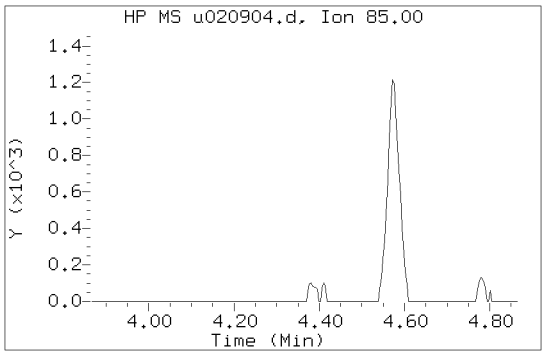
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Methyl Acrylate (96-33-3)



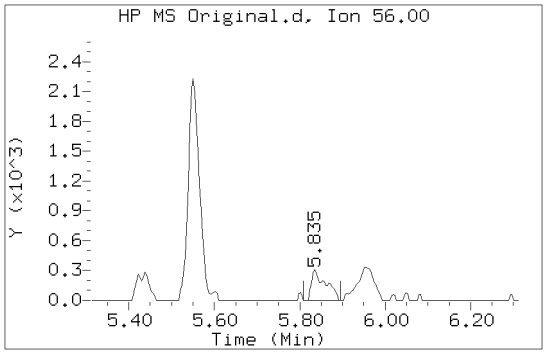
BEFORE
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

Reason Code:



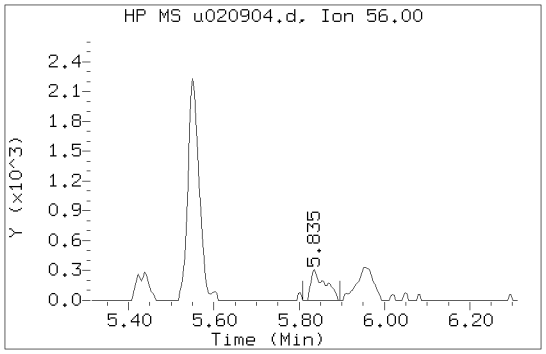
AFTER
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

n-Butanol (71-36-3)

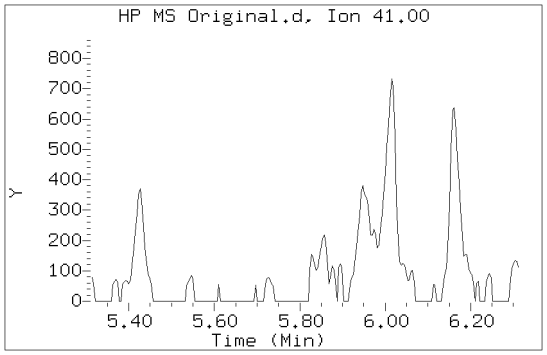


BEFORE
MASS
56
AREA
707
HEIGHT
307
09-Feb-2024
11:46
firat
tastan

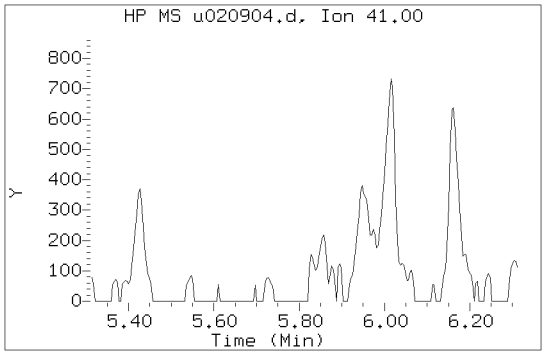
Reason Code:



AFTER
MASS
56
AREA
707
HEIGHT
307
09-Feb-2024
11:46
firat
tastan

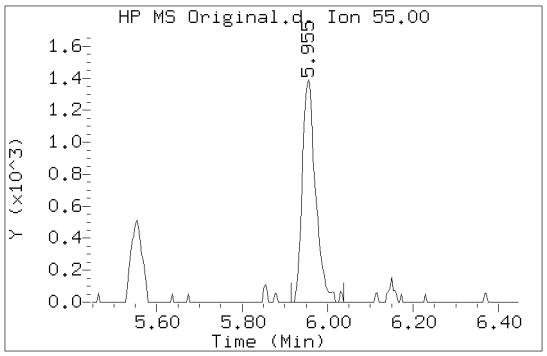


BEFORE
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



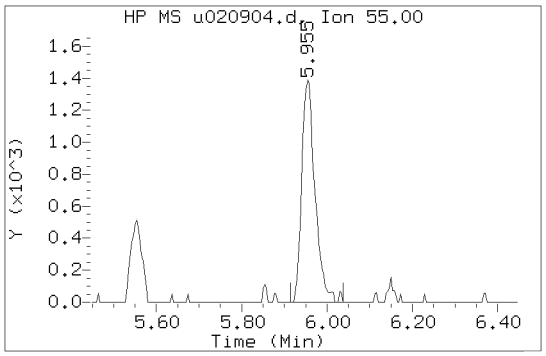
AFTER
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

Ethyl Acrylate (140-88-5)



BEFORE
MASS
55
AREA
3052
HEIGHT
1390
09-Feb-2024
11:46
firat
tastan

Reason Code:



AFTER
MASS
55
AREA
3052
HEIGHT
1390
09-Feb-2024
11:46
firat
tastan

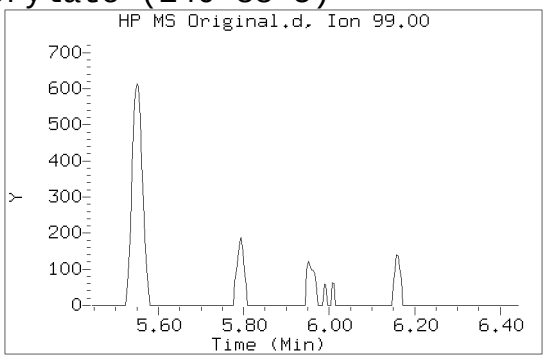
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Ethyl Acrylate (140-88-5)

Reason Code:

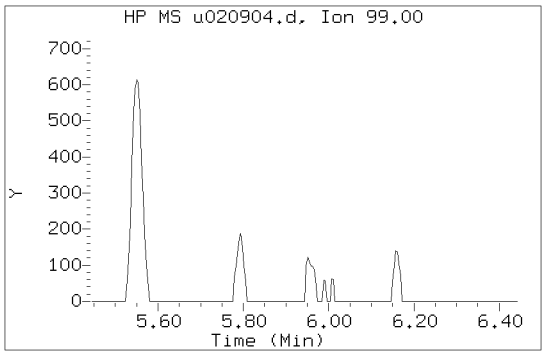
BEFORE

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

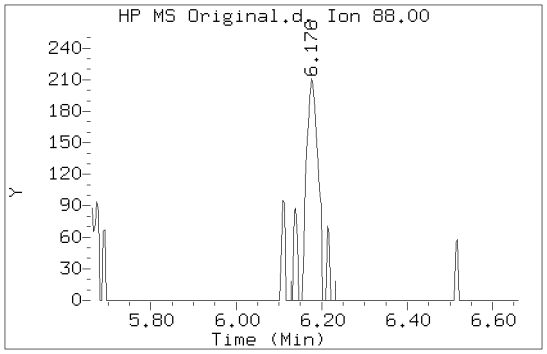


1,4-Dioxane ()

Reason Code:

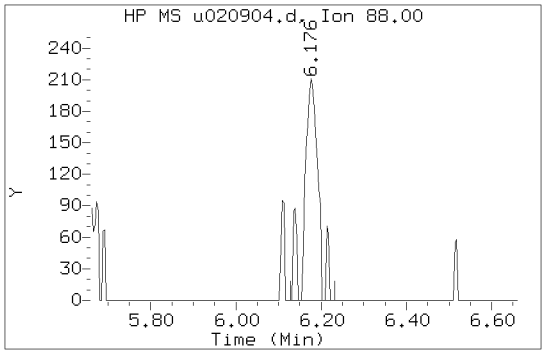
BEFORE

MASS
88
AREA
478
HEIGHT
211
09-Feb-2024
11:46
firat
tastan



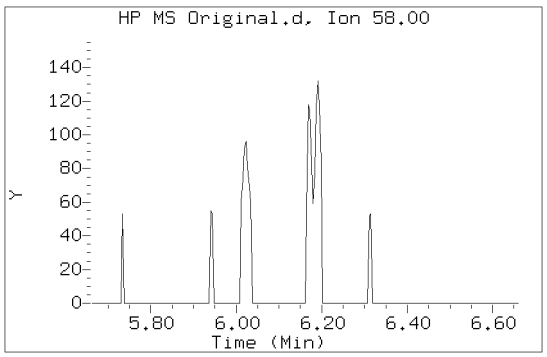
AFTER

MASS
88
AREA
478
HEIGHT
211
09-Feb-2024
11:46
firat
tastan



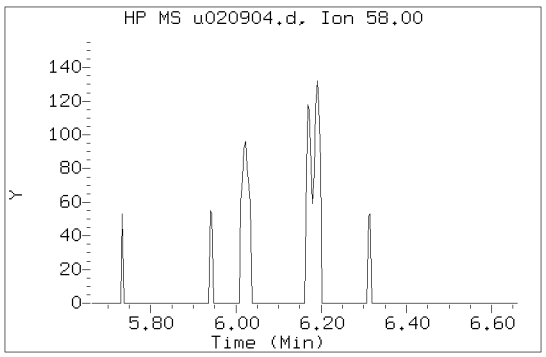
BEFORE

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

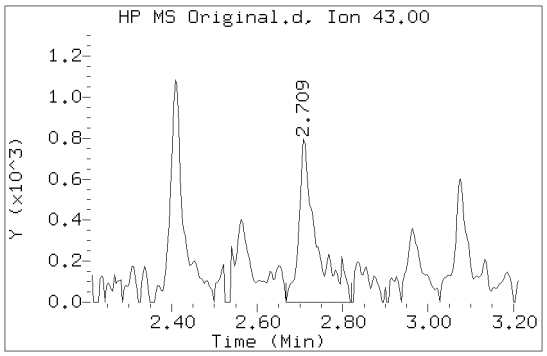


Methyl acetate (79-20-9)

Reason Code:

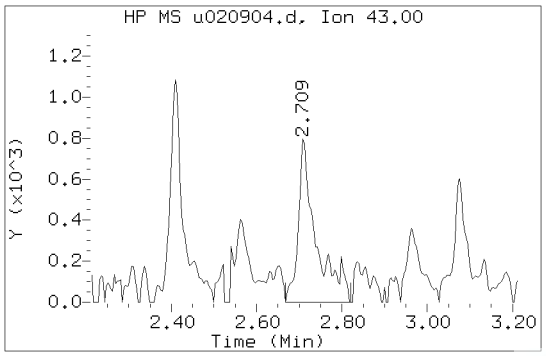
BEFORE

MASS
43
AREA
2321
HEIGHT
795
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
43
AREA
2321
HEIGHT
795
09-Feb-2024
11:46
firat
tastan



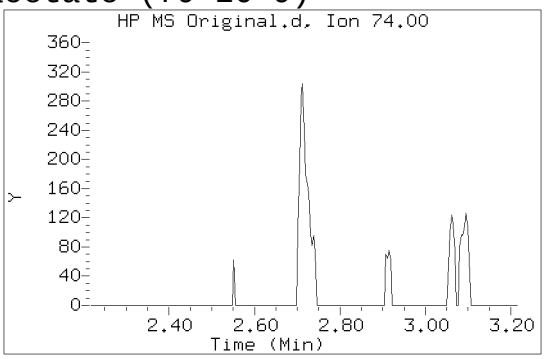
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Methyl acetate (79-20-9)

Reason Code:

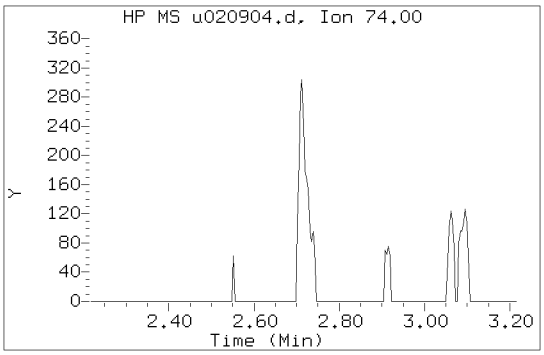
BEFORE

MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

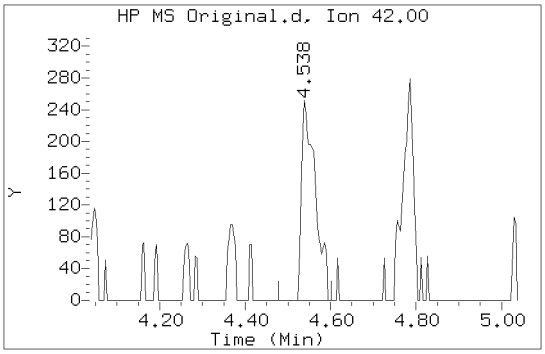


Tetrahydrofuran (109-99-9)

Reason Code:

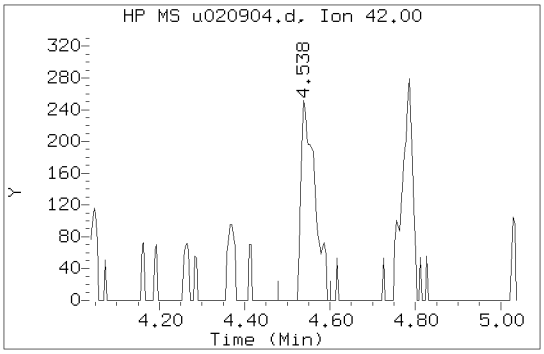
BEFORE

MASS
42
AREA
572
HEIGHT
252
09-Feb-2024
11:46
firat
tastan



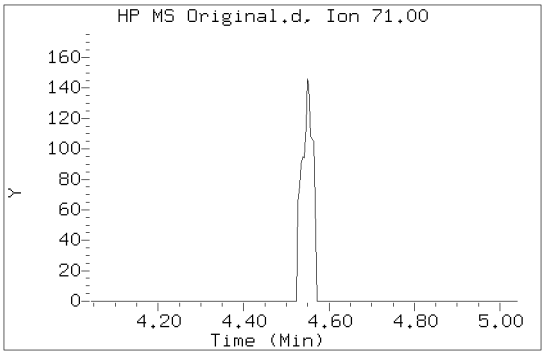
AFTER

MASS
42
AREA
572
HEIGHT
252
09-Feb-2024
11:46
firat
tastan



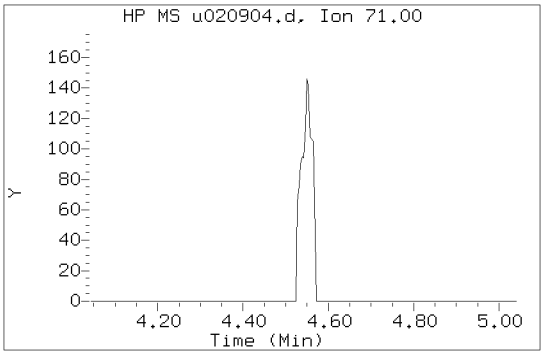
BEFORE

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

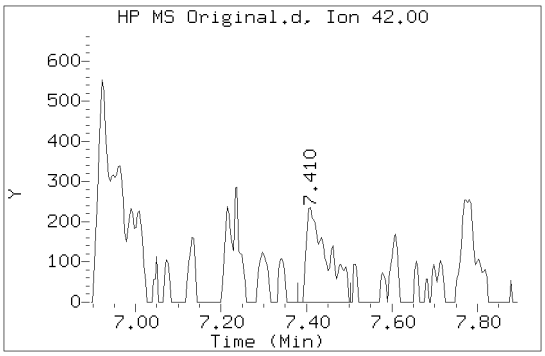


Amyl alcohol (71-41-0)

Reason Code:

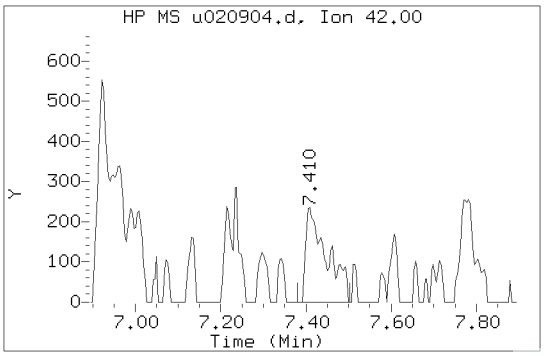
BEFORE

MASS
42
AREA
804
HEIGHT
235
09-Feb-2024
11:46
firat
tastan



AFTER

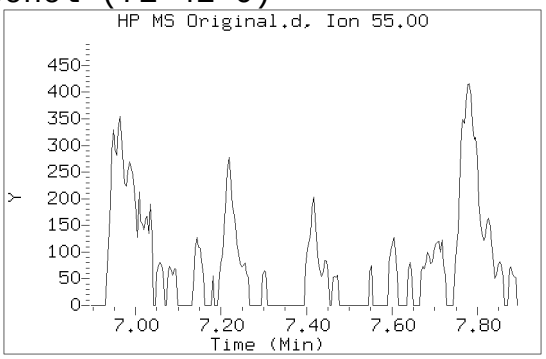
MASS
42
AREA
804
HEIGHT
235
09-Feb-2024
11:46
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

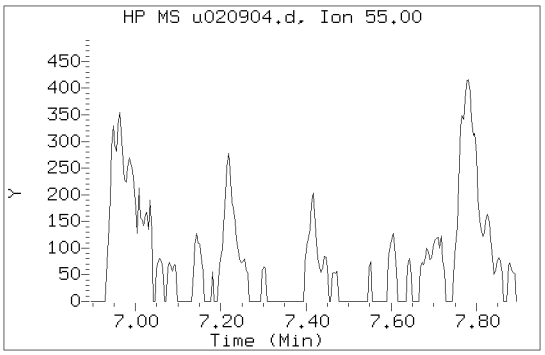
Amyl alcohol (71-41-0)

BEFORE
MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



Reason Code:

AFTER
MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



BEFORE
MASS
41
AREA
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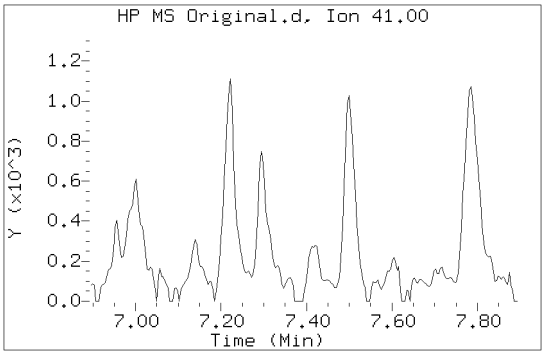
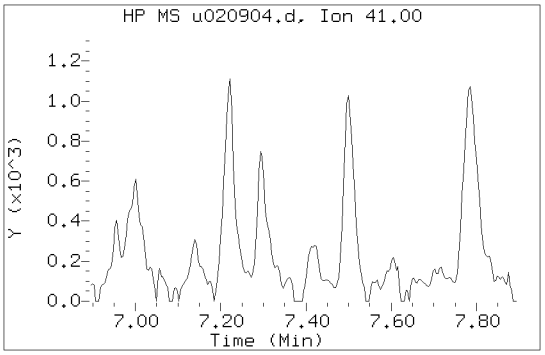
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

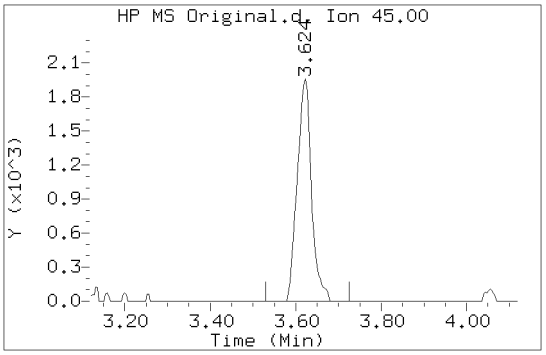


AFTER
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



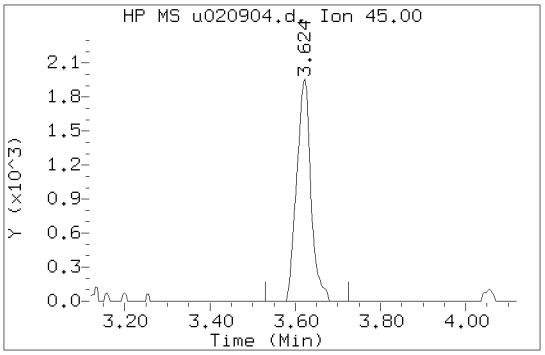
Diisopropyl ether (108-20-3)

BEFORE
MASS
45
AREA
4606
HEIGHT
1960
09-Feb-2024
11:46
firat
tastan

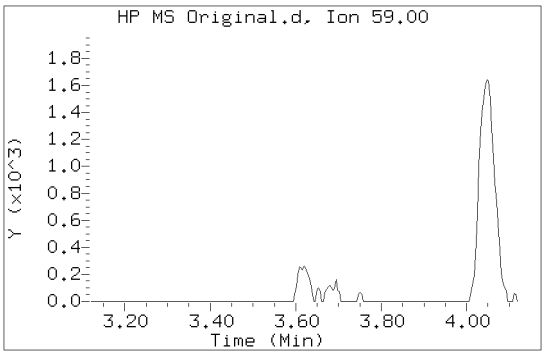


Reason Code:

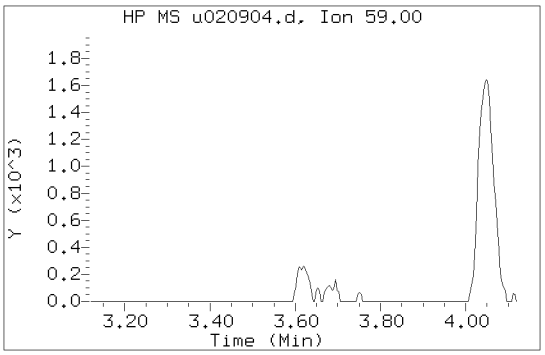
AFTER
MASS
45
AREA
4606
HEIGHT
1960
09-Feb-2024
11:46
firat
tastan



BEFORE
MASS
59
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
59
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



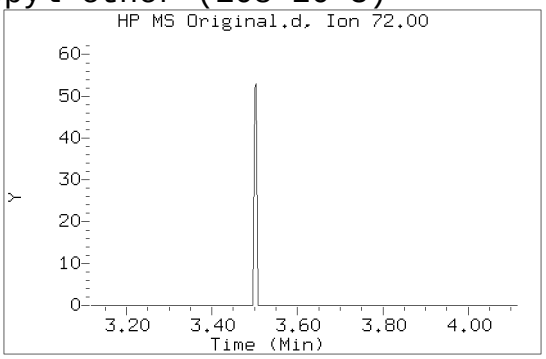
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Diisopropyl ether (108-20-3)

Reason Code:

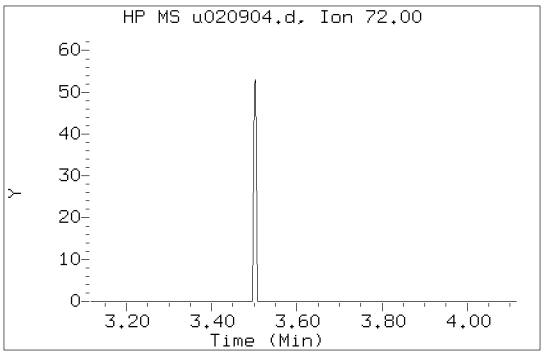
BEFORE

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

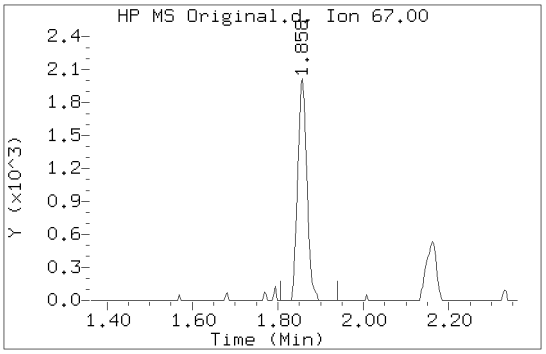


Dichlorofluoromethane (75-43-4)

Reason Code:

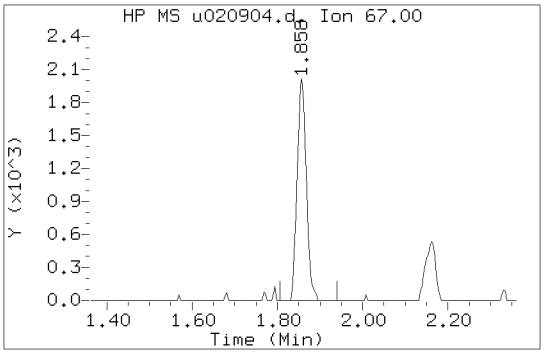
BEFORE

MASS
67
AREA
3100
HEIGHT
2017
09-Feb-2024
11:46
firat
tastan



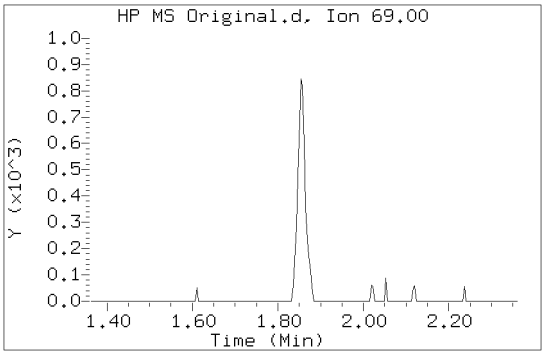
AFTER

MASS
67
AREA
3100
HEIGHT
2017
09-Feb-2024
11:46
firat
tastan



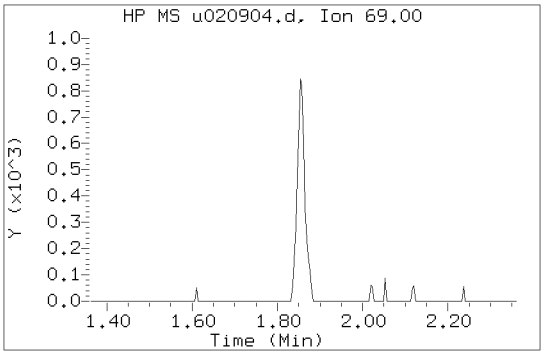
BEFORE

MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



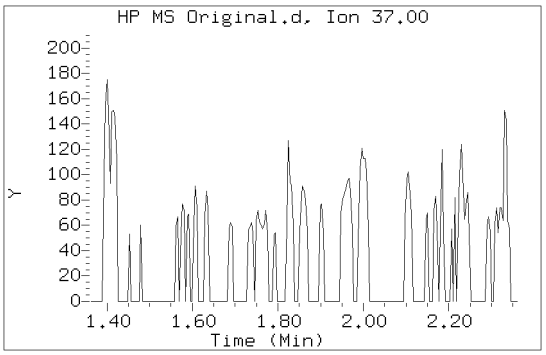
AFTER

MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



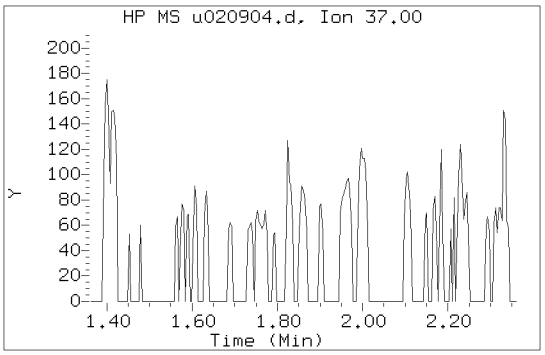
BEFORE

MASS
37
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
37
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

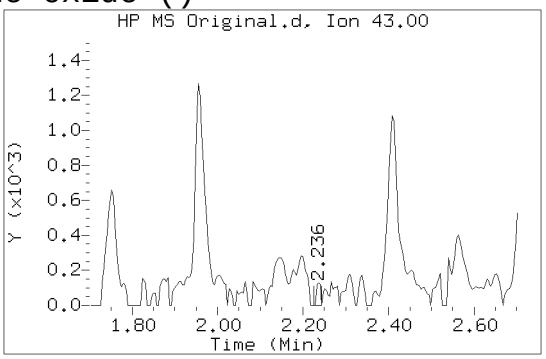


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Propylene oxide ()

Reason Code:

BEFORE
MASS
43
AREA
81
HEIGHT
130
09-Feb-2024
11:46
firat
tastan



AFTER
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AREA
81
HEIGHT
130
09-Feb-2024
11:46
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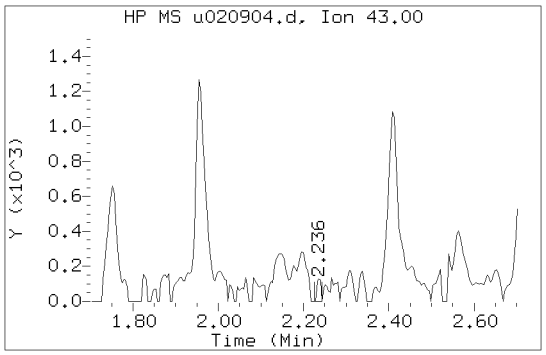

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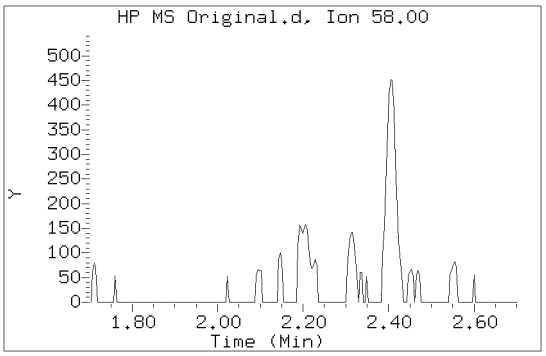

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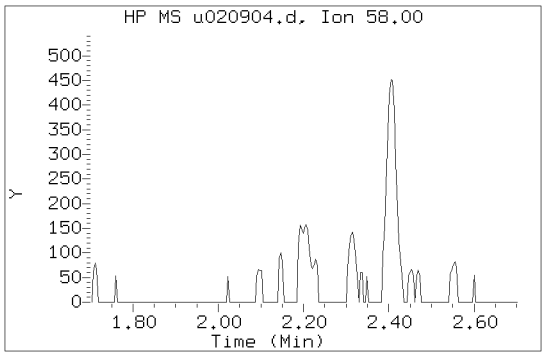

Ethanol (64-17-5)

Reason Code:

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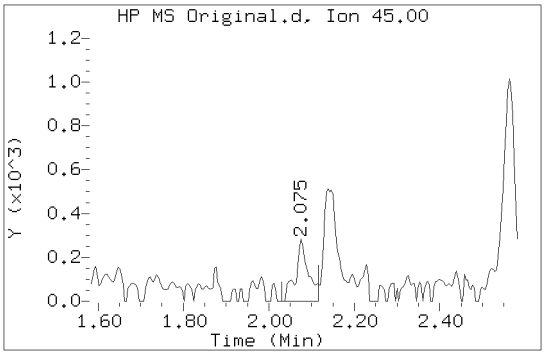

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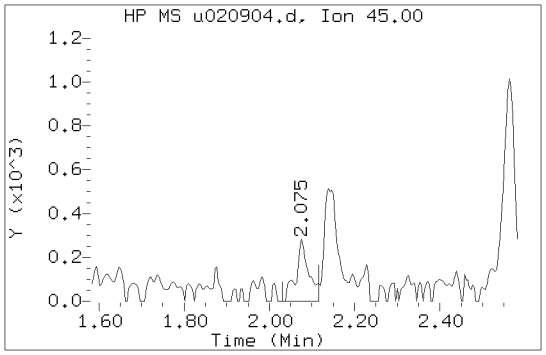

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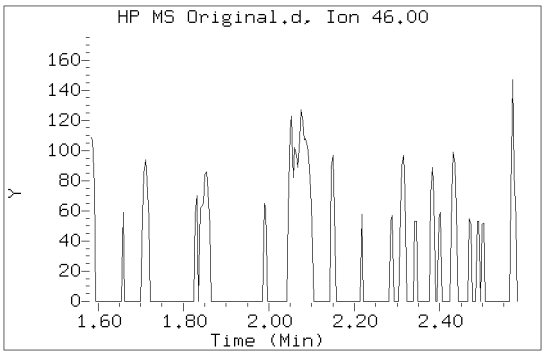

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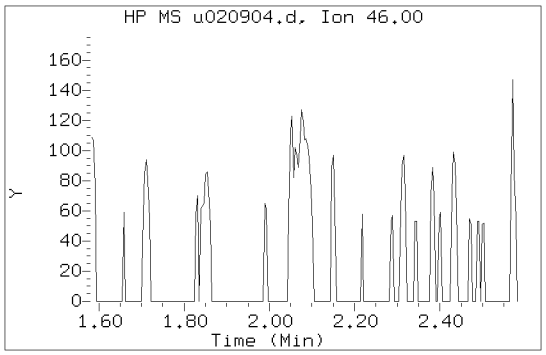

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Ethanol (64-17-5)

Reason Code:

BEFORE

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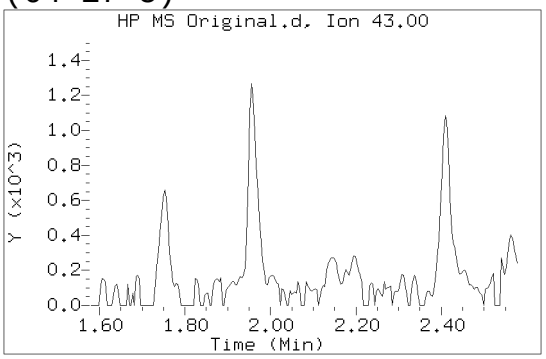

AFTER

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11:46
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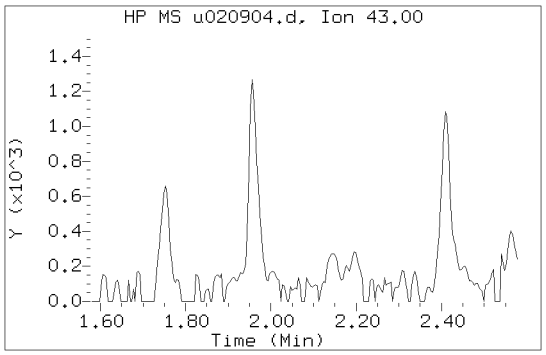

tert-Butyl formate (762-75-4)

Reason Code:

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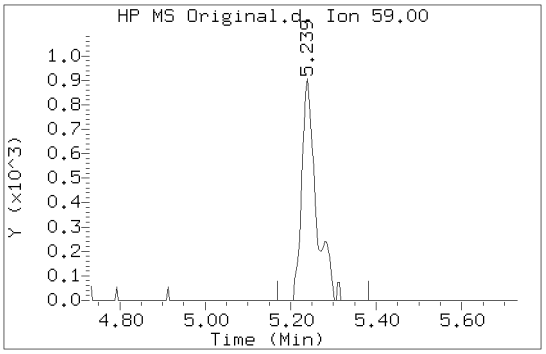

AFTER

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907
09-Feb-2024
11:46
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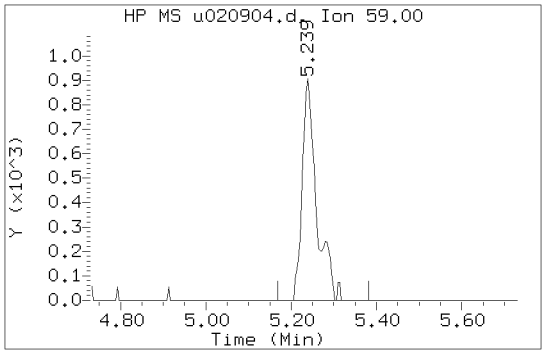

BEFORE

MASS
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HEIGHT
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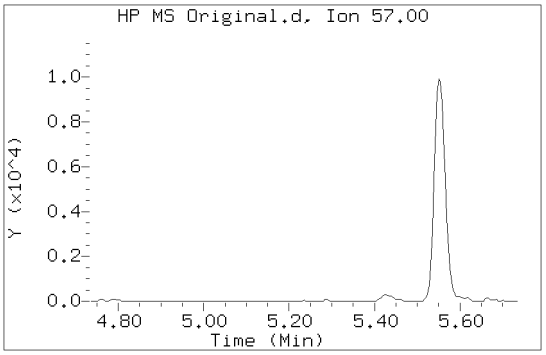
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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HEIGHT
0
09-Feb-2024
11:46
firat
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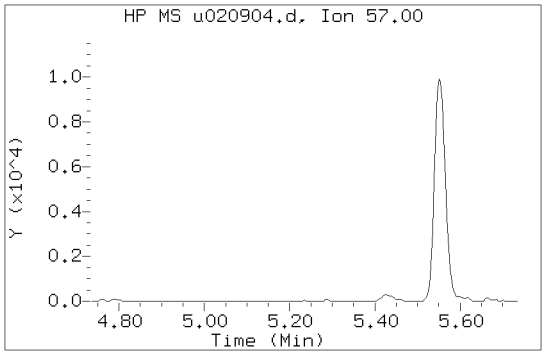

BEFORE

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09-Feb-2024
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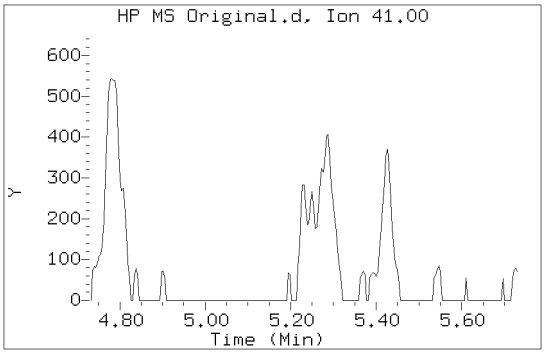

AFTER

MASS
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09-Feb-2024
11:46
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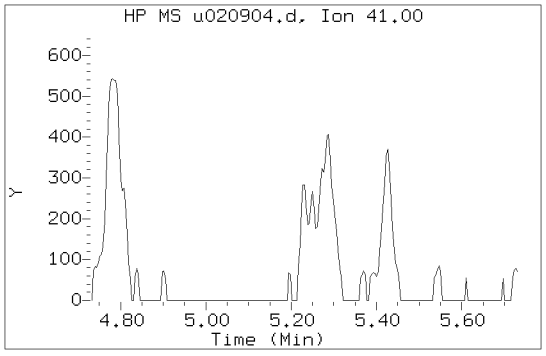

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

3,3-Dimethyl-1-butanol (624-95-3)

Reason Code:

BEFORE
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57
AREA
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HEIGHT
1675
09-Feb-2024
11:46
firat
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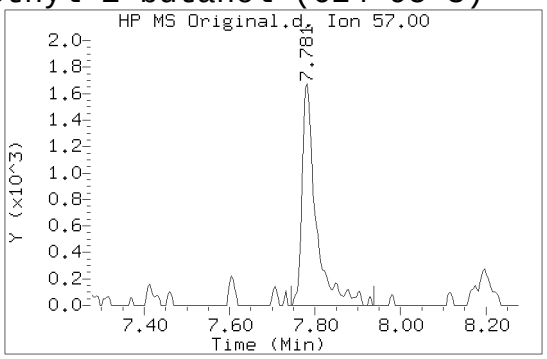

AFTER
MASS
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AREA
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HEIGHT
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09-Feb-2024
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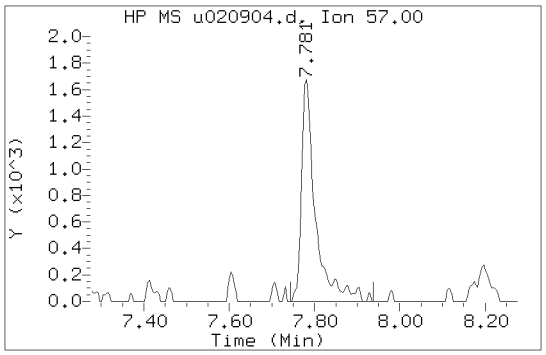

BEFORE
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09-Feb-2024
11:46
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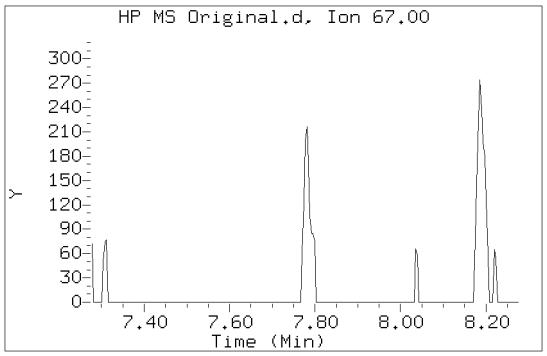

AFTER
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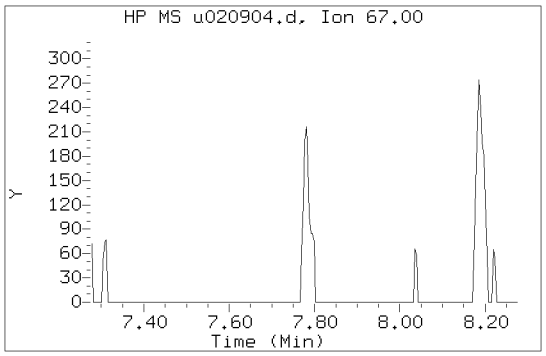

BEFORE
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HEIGHT
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09-Feb-2024
11:46
firat
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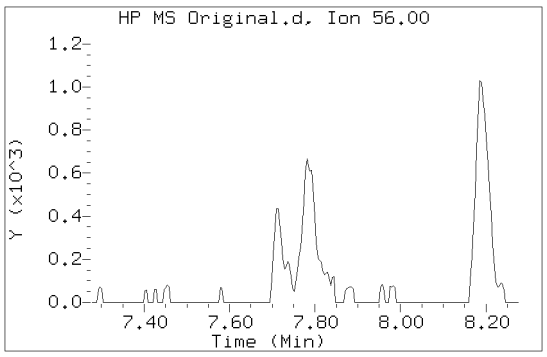

AFTER
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09-Feb-2024
11:46
firat
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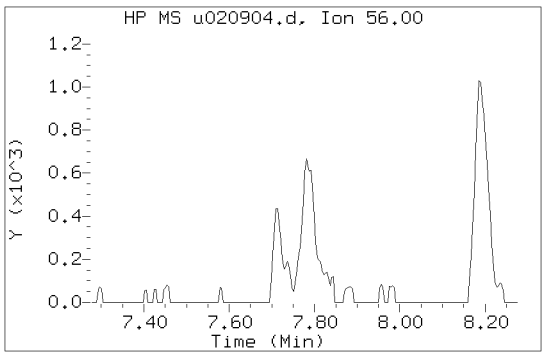

Epichlorohydrin (106-89-8)

Reason Code:

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09-Feb-2024
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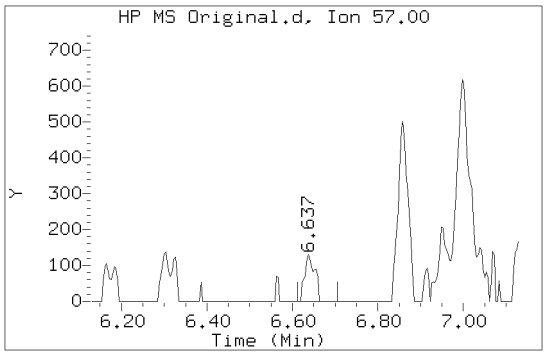

AFTER
MASS
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AREA
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HEIGHT
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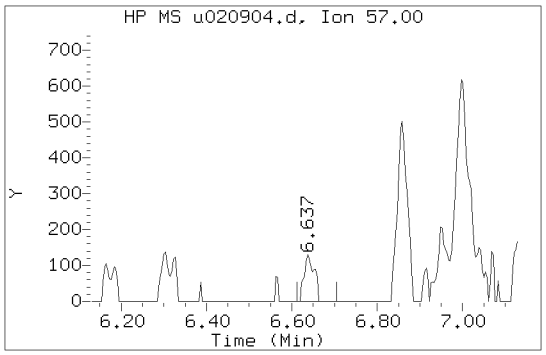
09-Feb-2024
11:46
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Epichlorohydrin (106-89-8)

Reason Code:

BEFORE

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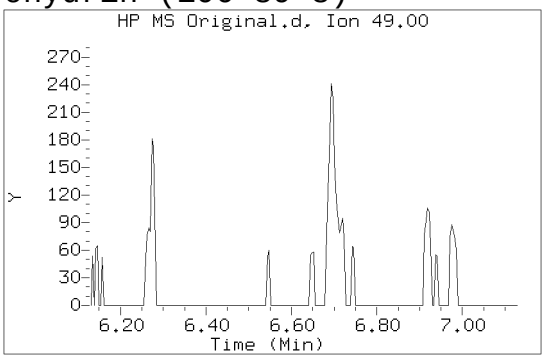
09-Feb-2024
11:46
firat
tastan



AFTER

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09-Feb-2024
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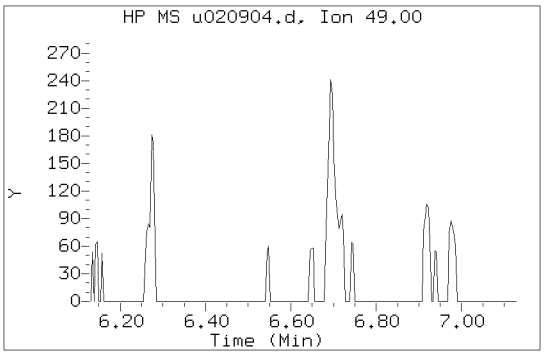

Isoprene (78-79-5)

Reason Code:

BEFORE

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223
09-Feb-2024
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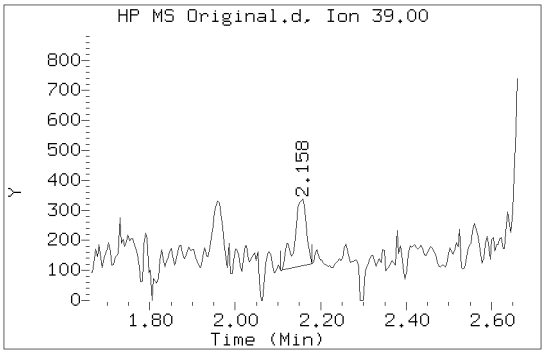

AFTER

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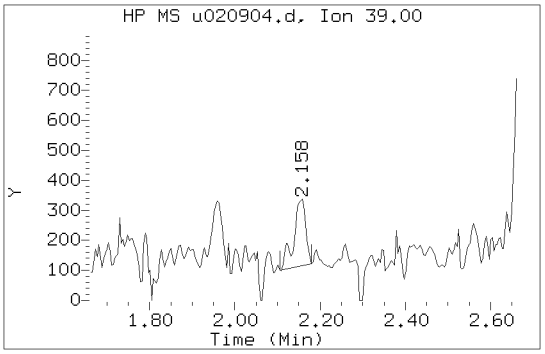

BEFORE

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09-Feb-2024
11:46
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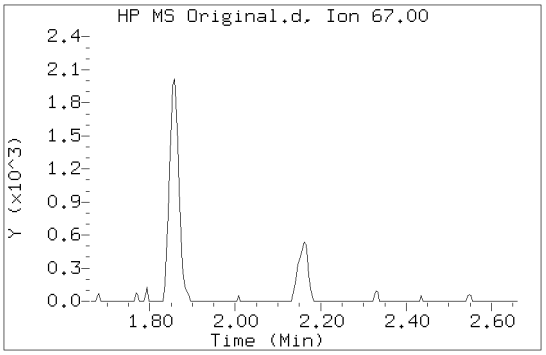

AFTER

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11:46
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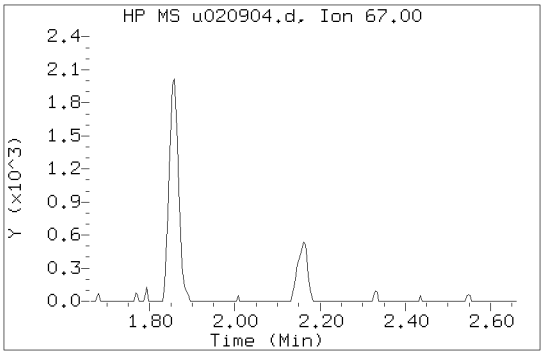

BEFORE

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09-Feb-2024
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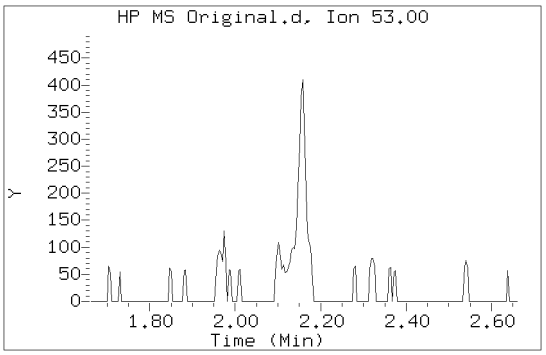

AFTER

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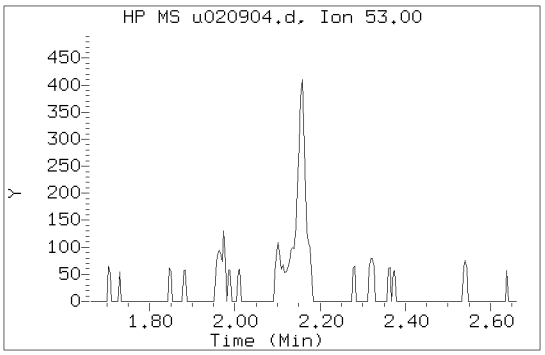

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

n-Amyl acetate (628-63-7)

Reason Code:

BEFORE

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43
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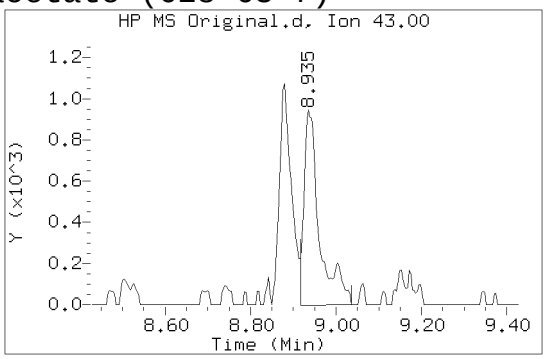
2428
HEIGHT
947
09-Feb-2024
11:46
firat
tastan



AFTER

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09-Feb-2024
11:46
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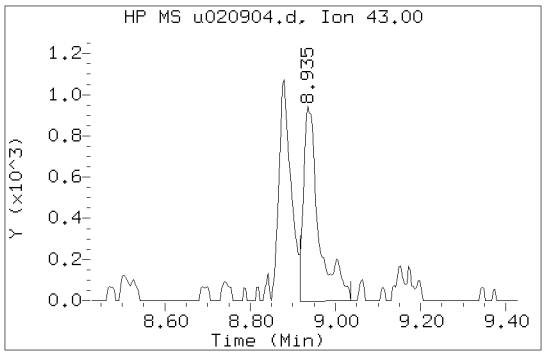

BEFORE

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09-Feb-2024
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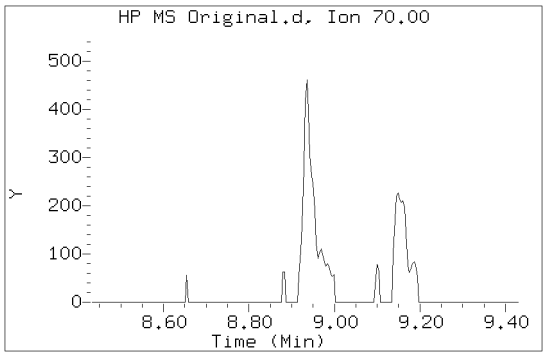

AFTER

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09-Feb-2024
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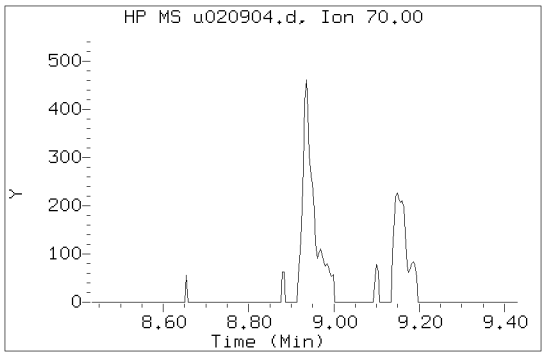

BEFORE

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09-Feb-2024
11:46
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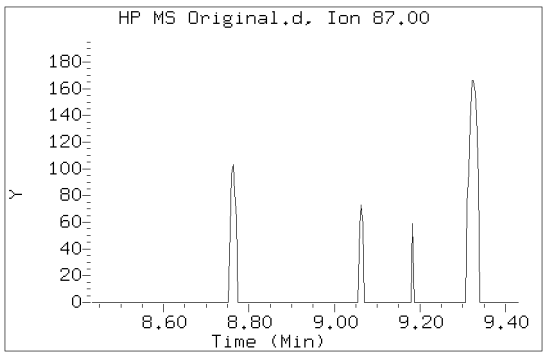

AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:46
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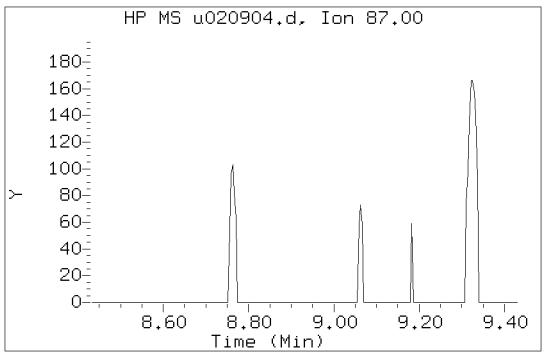

Isopropyl acetate (108-21-4)

Reason Code:

BEFORE

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AREA
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HEIGHT
1557
09-Feb-2024
11:46
firat
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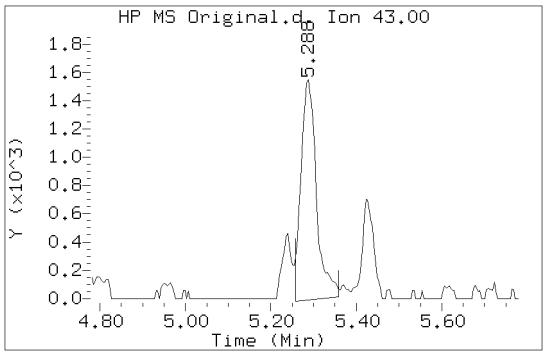

AFTER

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1557
09-Feb-2024
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firat
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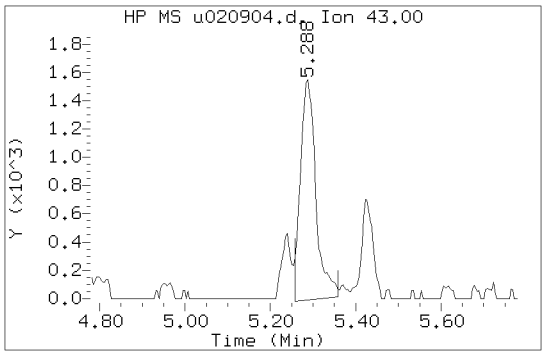

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Isopropyl acetate (108-21-4)

Reason Code:

BEFORE

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AREA
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HEIGHT
0
09-Feb-2024
11:46
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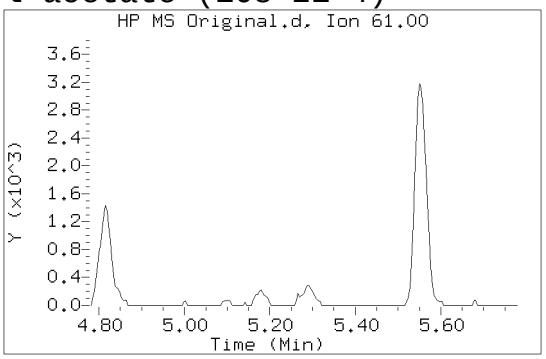
tastan



AFTER

MASS
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AREA
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HEIGHT
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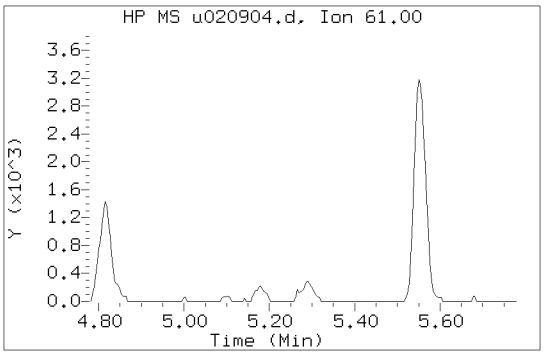
09-Feb-2024
11:46
firat
tastan



n-Butyl acetate (123-86-4)

Reason Code:

BEFORE

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09-Feb-2024
11:46
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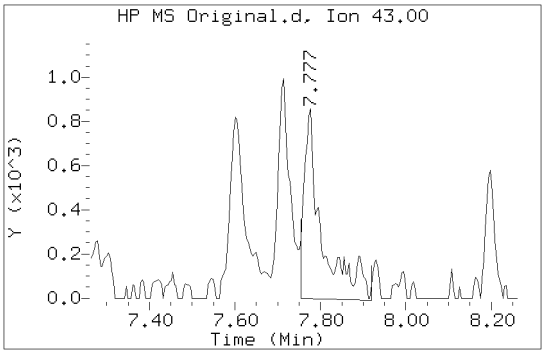

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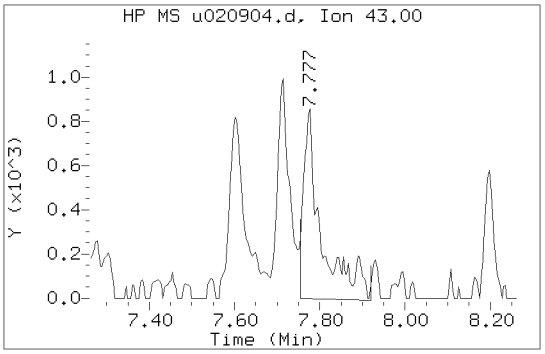

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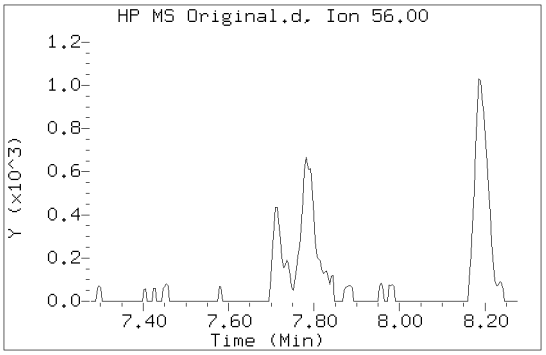

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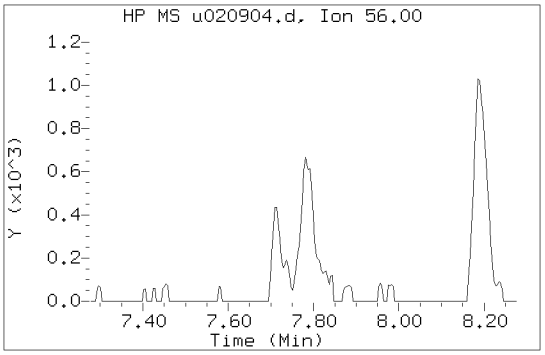

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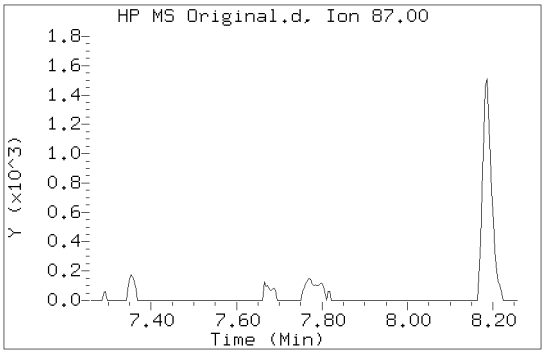

AFTER

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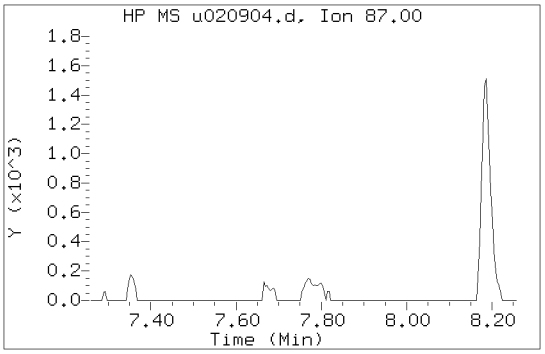

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Acetaldehyde (75-07-0)

Reason Code:

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11:46
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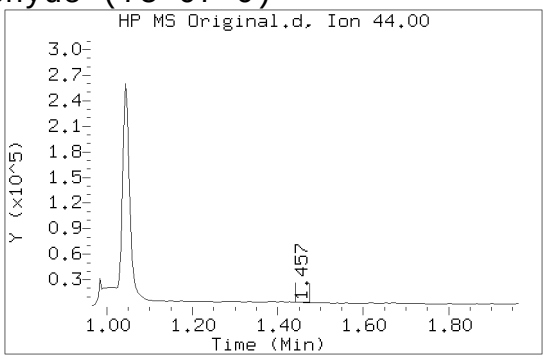

AFTER
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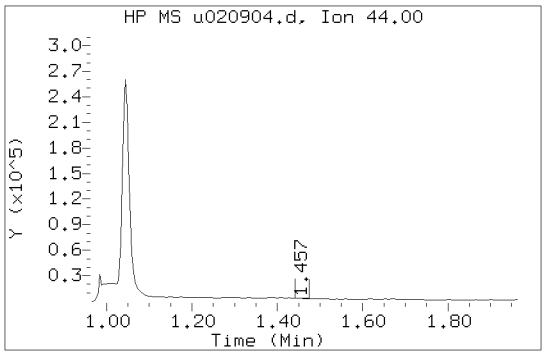

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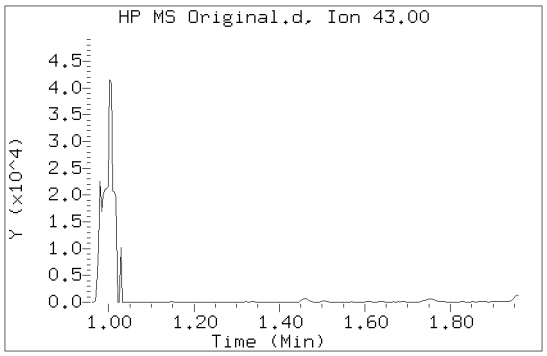

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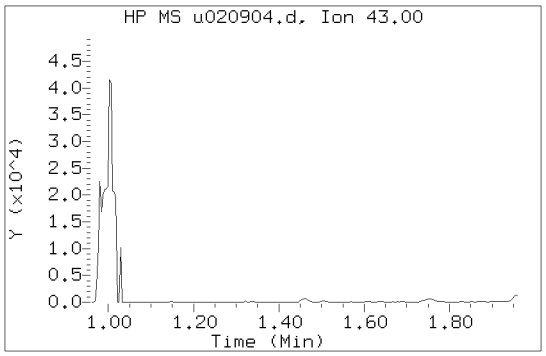

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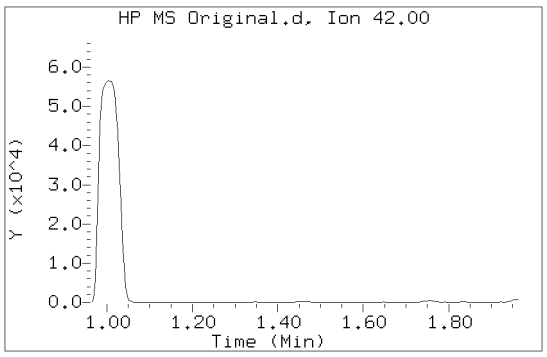

AFTER
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09-Feb-2024
11:46
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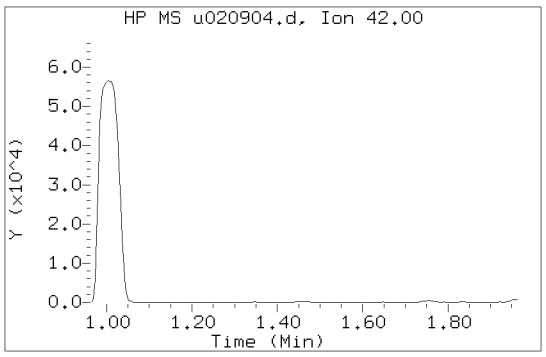

Methyl Amyl Ketone (110-43-0)

Reason Code:

BEFORE
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09-Feb-2024
11:46
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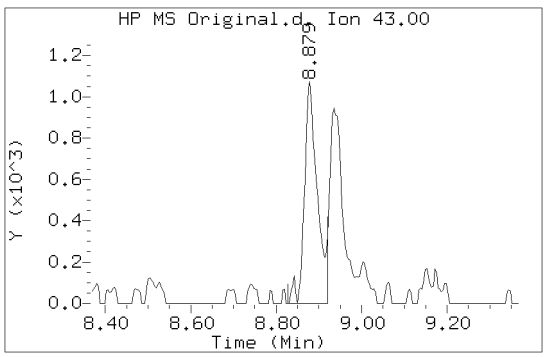

AFTER
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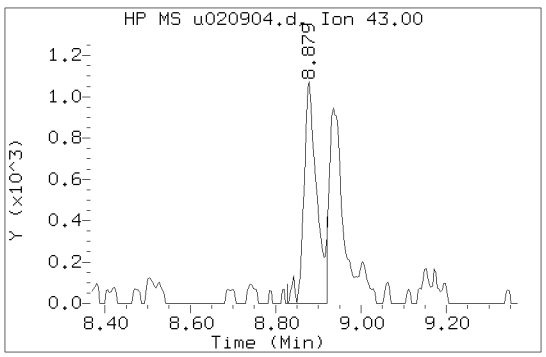

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Methyl Amyl Ketone (110-43-0)

BEFORE
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09-Feb-2024
11:46
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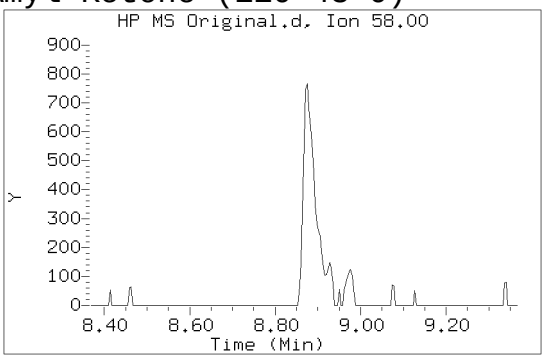

Reason Code:

AFTER
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58
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09-Feb-2024
11:46
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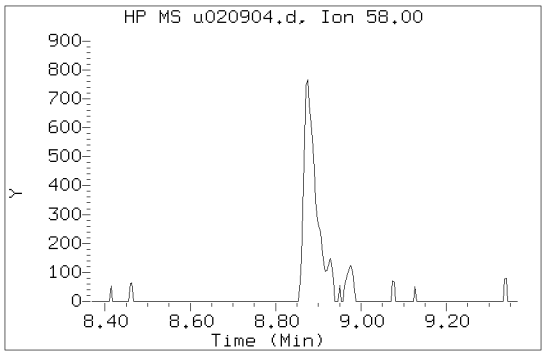

BEFORE
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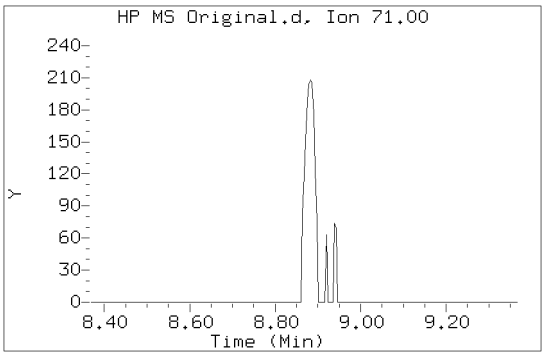

AFTER
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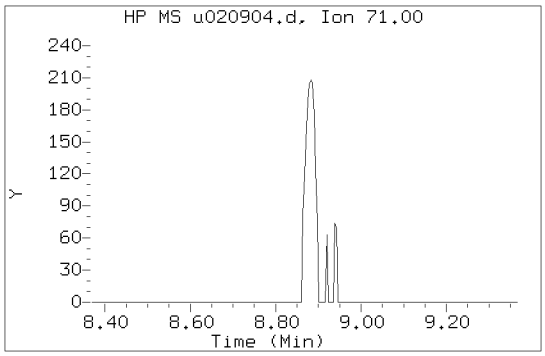

Dimethyl Disulfide (624-92-0)

BEFORE
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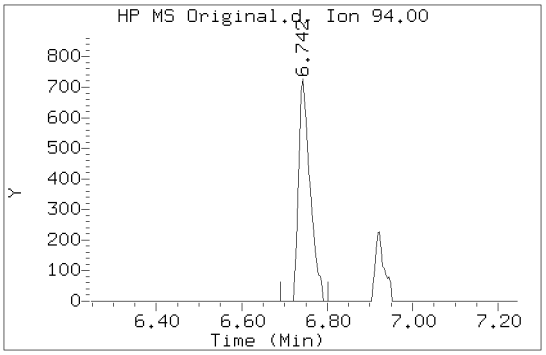
11:46
firat
tastan



Reason Code:

AFTER
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HEIGHT
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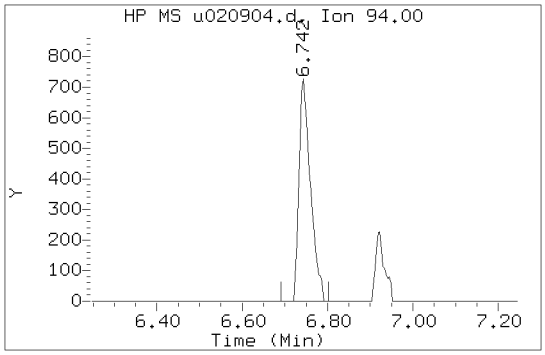
11:46
firat
tastan



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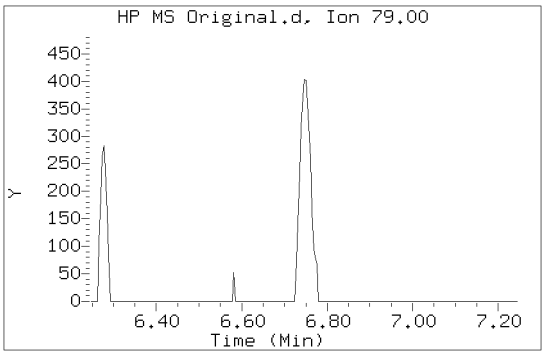

AFTER
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09-Feb-2024
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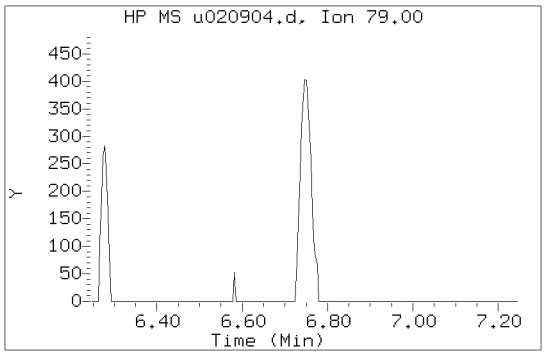

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Dimethyl Disulfide (624-92-0)

Reason Code:

BEFORE

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11:46
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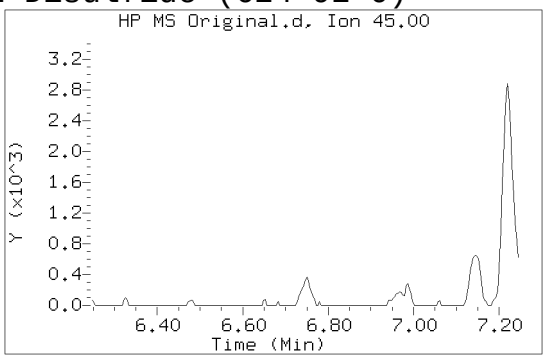

AFTER

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09-Feb-2024
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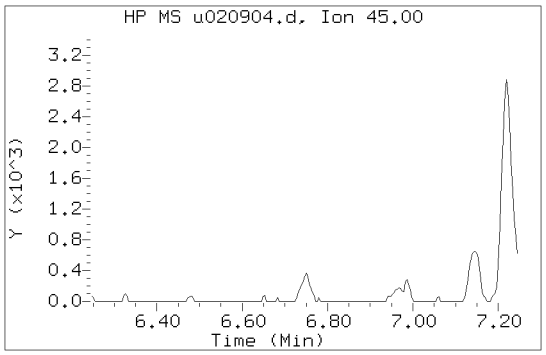

Isobutylene (115-11-7)

Reason Code:

BEFORE

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11:46
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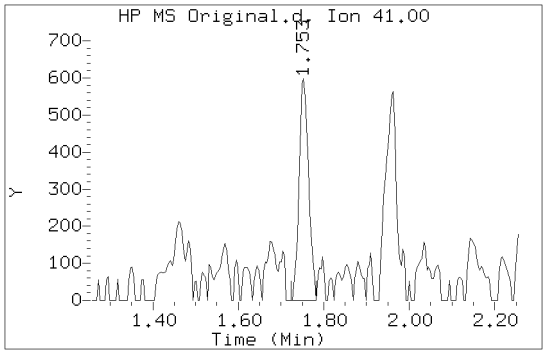

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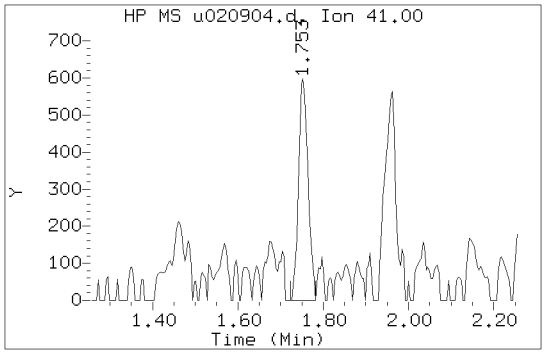

BEFORE

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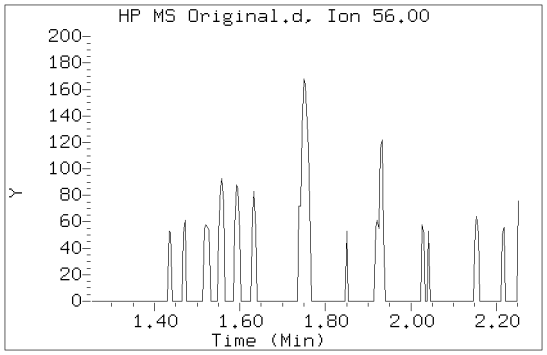

AFTER

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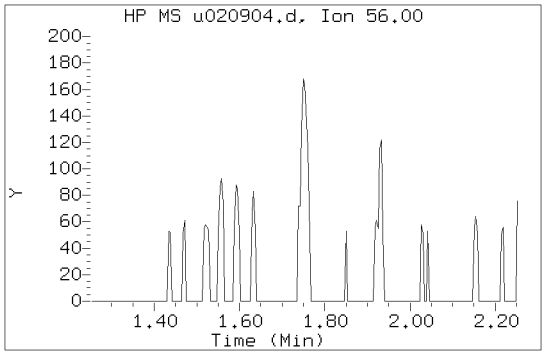

BEFORE

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09-Feb-2024
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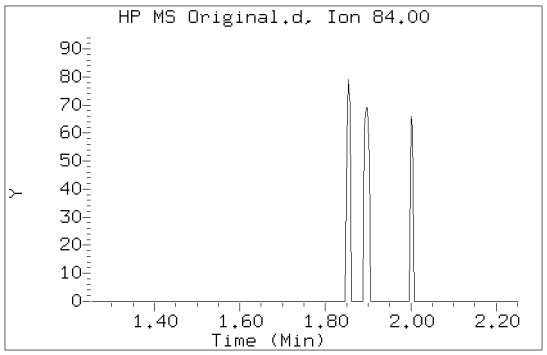

AFTER

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09-Feb-2024
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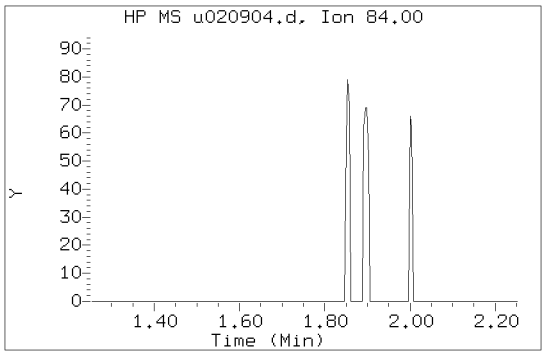

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D
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Inj Date : 09-FEB-2024 10:29
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 10:06 Cal File: U020904.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	209017	50.0000	
2	Dichlorodifluoromethane	85	1.164	1.164	(0.242)	2577	2.00000	2.00
3	Chloromethane	50	1.303	1.303	(0.271)	3934	2.00000	2.85
5	Vinyl Chloride	62	1.378	1.378	(0.286)	3412	2.00000	1.94
6	Bromomethane	94	1.625	1.625	(0.338)	3483	2.00000	3.41
7	Chloroethane	64	1.700	1.700	(0.353)	2571	2.00000	1.76
8	Trichlorofluoromethane	101	1.895	1.895	(0.394)	5784	2.00000	1.62
9	Acrolein	56	2.270	2.270	(0.471)	413	4.00000	2.98(M)
10	Acetone	43	2.412	2.412	(0.501)	3695	4.00000	2.01
11	1,1-Dichloroethene	96	2.334	2.334	(0.485)	3506	2.00000	2.20
15	Iodomethane	142	2.469	2.469	(0.513)	5358	4.00000	3.89
16	Acrylonitrile	53	3.065	3.065	(0.636)	2213	4.00000	3.63
17	Methylene Chloride	84	2.799	2.799	(0.581)	5315	2.00000	1.47
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	9274	2.00000	2.09
19	Carbon Disulfide	76	2.521	2.521	(0.524)	17806	4.00000	3.58
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.636)	4308	2.00000	2.25
21	Vinyl Acetate	43	3.612	3.612	(0.750)	14402	4.00000	3.50
22	1,1-Dichloroethane	63	3.515	3.515	(0.730)	6310	2.00000	2.18
24	2-Butanone	43	4.279	4.279	(0.889)	2300	4.00000	3.63
26	2,2-Dichloropropane	77	4.182	4.182	(0.868)	4565	2.00000	1.83

27 cis-1,2-Dichloroethene	96	4.201	4.201 (0.872)	4279	2.00000	1.85
28 Chloroform	83	4.575	4.575 (0.950)	6621	2.00000	1.81

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D Page 2
Report Date: 15-Feb-2024 11:14

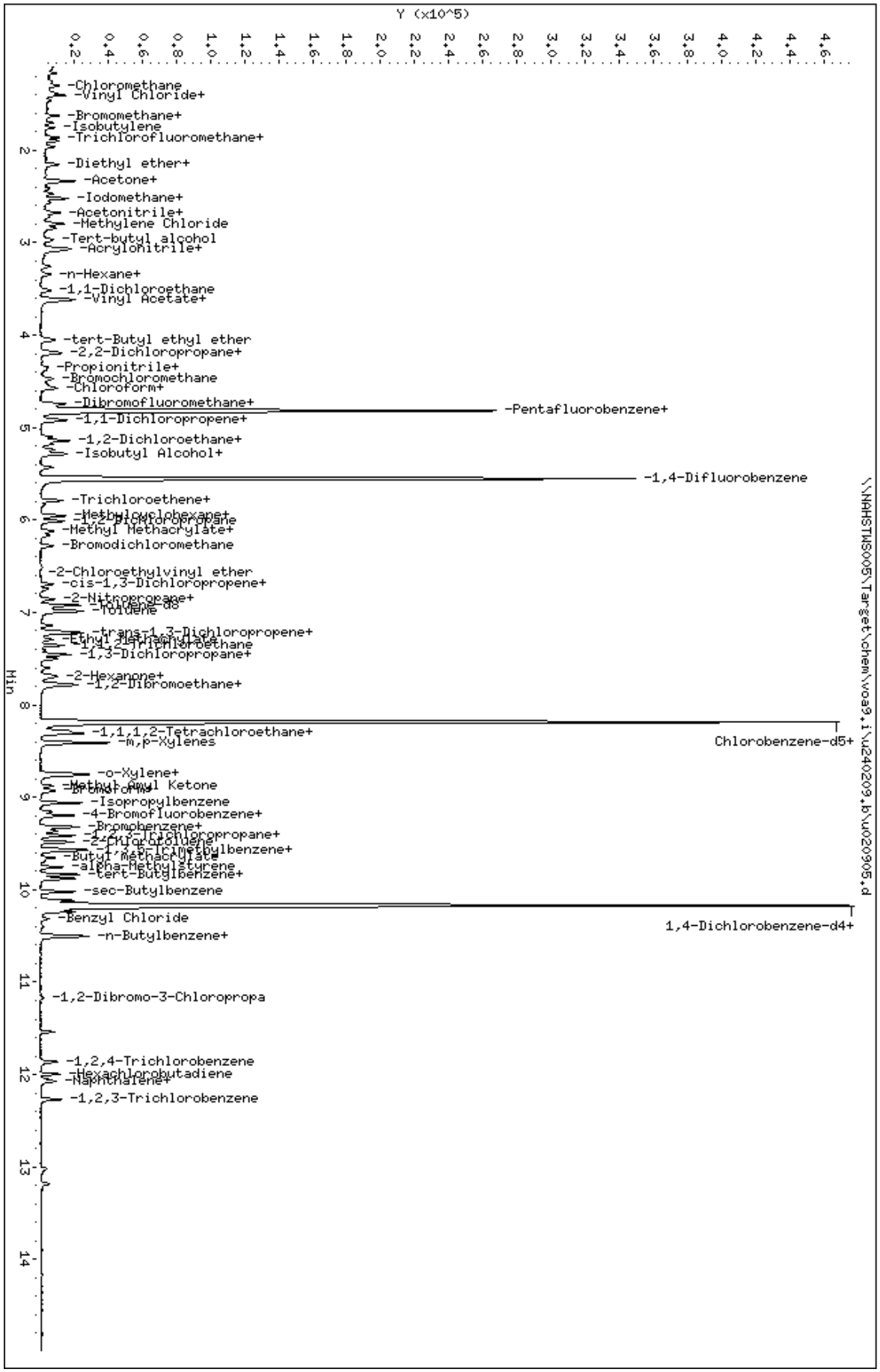
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
29	Bromochloromethane	128	4.474	4.474	(0.929)	2531	2.00000	1.19
$ 30	Dibromofluoromethane	113	4.752	4.752	(0.987)	4395	2.00000	1.61
31	1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	4863	2.00000	1.61
32	1,1-Dichloropropene	75	4.928	4.928	(0.887)	4621	2.00000	2.02
33	1,2-Dichloroethane	62	5.179	5.179	(0.933)	5396	2.00000	1.56
34	Carbon Tetrachloride	117	4.917	4.917	(0.885)	5098	2.00000	1.88
$ 35	1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	4833	2.00000	1.51
* 36	1,4-Difluorobenzene	114	5.554	5.554	(1.000)	296557	50.0000	
37	Benzene	78	5.141	5.141	(0.926)	14779	2.00000	2.15
38	Trichloroethene	130	5.790	5.790	(1.043)	4366	2.00000	2.04
39	Bromodichloromethane	83	6.277	6.277	(1.130)	4447	2.00000	1.76(M)
41	2-Chloroethylvinyl ether	63	6.566	6.566	(1.182)	29	4.00000	1.67(MH)
42	1,2-Dichloropropane	63	6.015	6.015	(1.083)	4042	2.00000	2.23
44	Dibromomethane	93	6.116	6.116	(1.101)	2440	2.00000	1.93
45	4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	5022	4.00000	3.37
46	cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	4487	2.00000	1.70
* 47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	266184	50.0000	
$ 48	Toluene-d8	98	6.922	6.922	(0.846)	14699	2.00000	1.97
50	Toluene	91	6.982	6.982	(0.853)	15256	2.00000	1.85
51	trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	3131	2.00000	2.92
52	2-Hexanone	43	7.597	7.597	(0.928)	3749	4.00000	6.06
53	1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	3115	2.00000	2.05
54	1,3-Dichloropropane	76	7.499	7.499	(0.916)	5927	2.00000	1.87
55	Dibromochloromethane	129	7.691	7.691	(0.940)	3320	2.00000	1.58
56	Tetrachloroethene	164	7.458	7.458	(0.911)	3789	2.00000	2.01
57	1,2-Dibromoethane	107	7.788	7.788	(0.951)	3528	2.00000	1.91
58	1-Chlorohexane	55	8.193	8.193	(1.475)	4112	2.00000	2.29
59	Chlorobenzene	112	8.212	8.212	(1.003)	12192	2.00000	2.02
60	1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	4011	2.00000	1.89
61	Ethylbenzene	106	8.305	8.305	(1.015)	4910	2.00000	1.75
62	m,p-Xylenes	106	8.410	8.410	(1.027)	11801	4.00000	3.42
63	o-Xylene	106	8.748	8.748	(1.069)	6368	2.00000	1.88
64	Styrene	104	8.766	8.766	(1.071)	9049	2.00000	1.64
66	Bromoform	173	8.920	8.920	(1.090)	2646	2.00000	1.74(T)
67	Isopropylbenzene	105	9.063	9.063	(1.107)	15264	2.00000	1.77
68	1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	4391	2.00000	1.85(M)
$ 69	4-Bromofluorobenzene	95	9.198	9.198	(1.124)	5431	2.00000	1.75
* 70	1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	142815	50.0000	
71	1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	4534	2.00000	1.97
73	n-Propylbenzene	91	9.415	9.415	(0.926)	14083	2.00000	1.59
74	Bromobenzene	156	9.318	9.318	(0.916)	4619	2.00000	1.74
75	1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	11045	2.00000	1.67
76	2-Chlorotoluene	91	9.482	9.482	(0.932)	10805	2.00000	1.84
77	4-Chlorotoluene	91	9.580	9.580	(0.942)	12155	2.00000	1.82
78	tert-Butylbenzene	119	9.835	9.835	(0.967)	10461	2.00000	1.72
79	1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	11101	2.00000	1.70
81	sec-Butylbenzene	105	10.022	10.022	(0.985)	12777	2.00000	1.65
82	p-Isopropyltoluene	119	10.146	10.146	(0.997)	10725	2.00000	1.55
83	1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	8846	2.00000	1.89
84	1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	10205	2.00000	1.84
87	n-Butylbenzene	91	10.495	10.495	(1.032)	9154	2.00000	1.68
88	1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	9072	2.00000	1.84

89	1,2-Dibromo-3-Chloropropane	155	11.173	11.173 (1.098)	613	2.00000	4.31(M)
90	1,2,4-Trichlorobenzene	180	11.863	11.863 (1.166)	4435	2.00000	1.56

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	2247	2.00000	1.83
	92 Naphthalene	128	12.073	12.073	(1.187)	8602	2.00000	2.53
	93 1,2,3-Trichlorobenzene	180	12.275	12.275	(1.207)	4583	2.00000	1.69
M	94 1,2-Dichloroethylene (total)	96				8587	4.00000	
M	95 Xylenes (total)	106				18169	6.00000	
	135 1,4-Dioxane	88	6.172	6.172	(1.282)	742	40.0000	41.72(M)
	141 Cyclohexane	56	4.785	4.785	(0.994)	6449	2.00000	2.52
	138 Freon TF	101	2.334	2.334	(0.485)	3605	2.00000	2.09
	140 1,3-Butadiene	54	1.404	1.404	(0.292)	2918	2.00000	1.98
	147 Methylcyclohexane	55	5.951	5.951	(1.072)	5855	2.00000	1.63
	146 Methyl Acetate	43	2.716	2.716	(0.564)	3096	2.00000	2.09
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	7150	40.0000	40.76(a)
	149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	5220	40.0000	56.69(TM)

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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Min
2 3 4 5 6 7 8 9 10 11 12 13 14
-Chloromethane
-Vinyl Chloride+
-Bromomethane+
-Isobutylene
-Trichlorofluoromethane+
-Diethyl ether+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Propionitrile+
-Bromochloromethane
-Chloroform+
-Dibromofluoromethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-Methylcyclohexane+
-1,2-Dichloropropane
-Methyl Methacrylate+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene+
-2-Nitropropane+
-Toluene-d8
-trans-1,3-Dichloropropene+
-Ethyl Methacrylate
-1,1,2-Trichloroethane
-1,3-Dichloropropane+
-2-Hexanone+
-1,2-Dibromoethane+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
Chlorobenzene-d5+
-o-Xylene+
-Methyl Amyl Ketone
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-Bromobenzene+
-1,2,3-Trichloropropane+
-2-Chlorotoluene
-1,3,5-Trimethylbenzene+
-Butyl Methacrylate
-alpha-Methylstyrene
-tert-Butylbenzene+
-sec-Butylbenzene
-Benzyl Chloride
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene+
-1,2,3-Trichlorobenzene
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Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9,i
Operator: FT
Column diameter: 0.18
Page 1

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Bromodichloromethane (75-27-4)

Reason Code:

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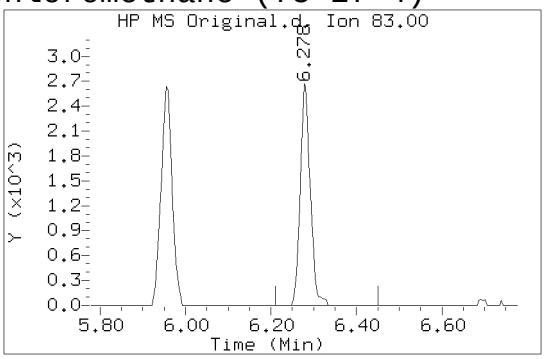
HEIGHT
2671
09-Feb-2024
11:53
firat
tastan



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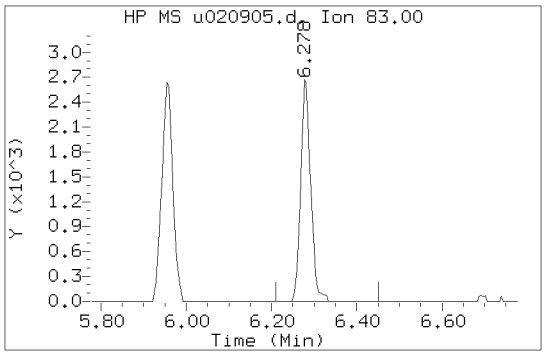

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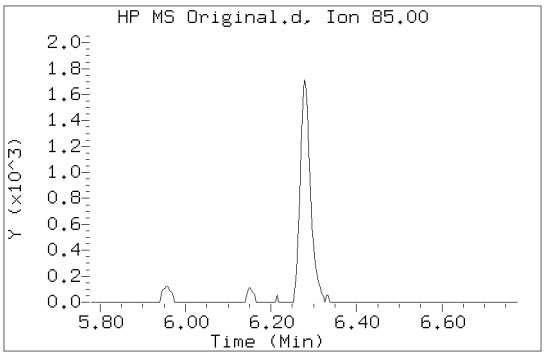

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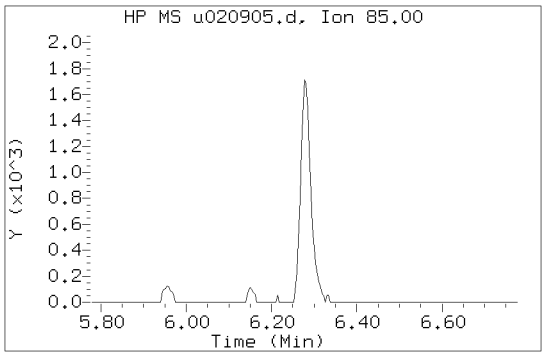

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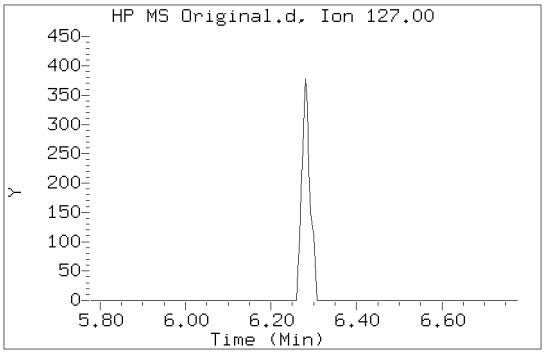

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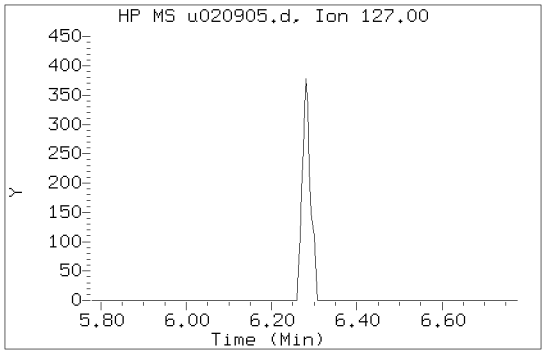

Acrolein (107-02-8)

Reason Code:

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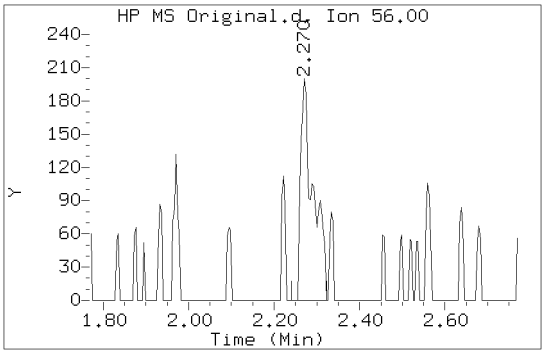

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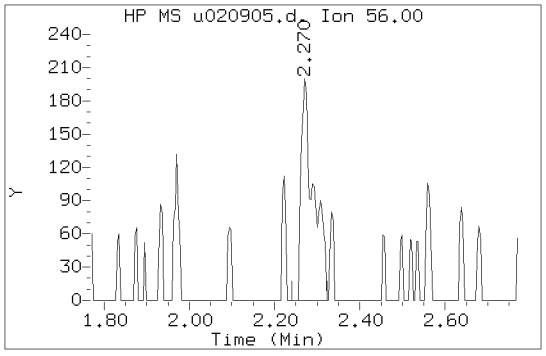

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Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Acrolein (107-02-8)

Reason Code:

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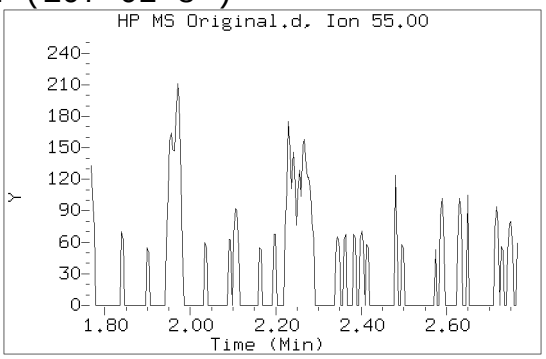

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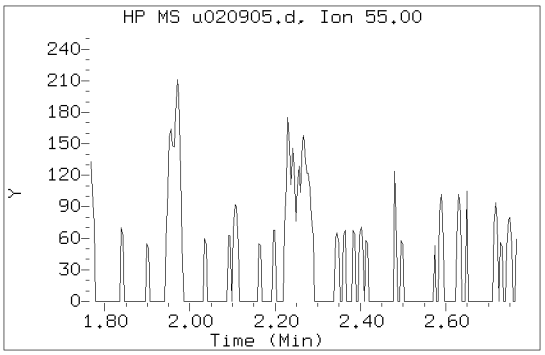

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

BEFORE

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09-Feb-2024
11:53
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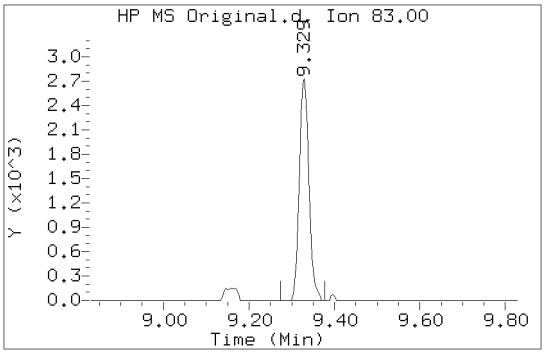

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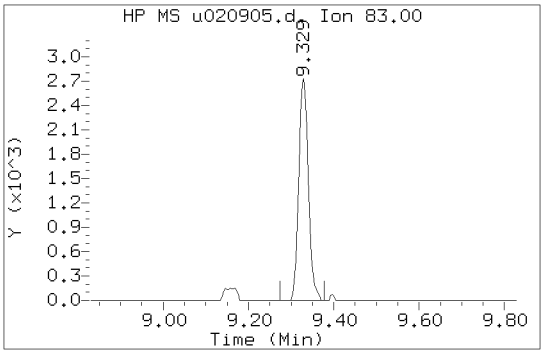

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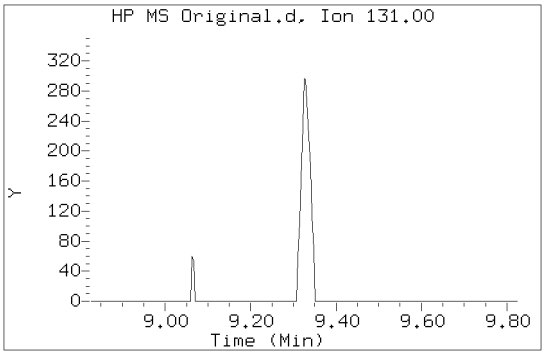

AFTER

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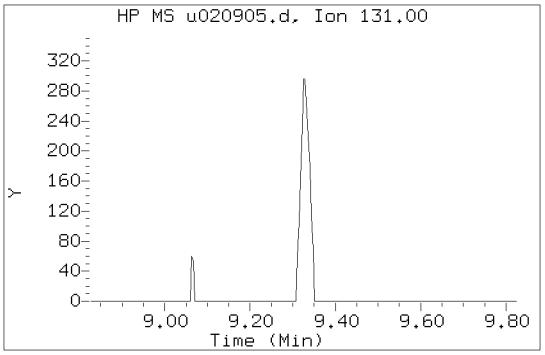

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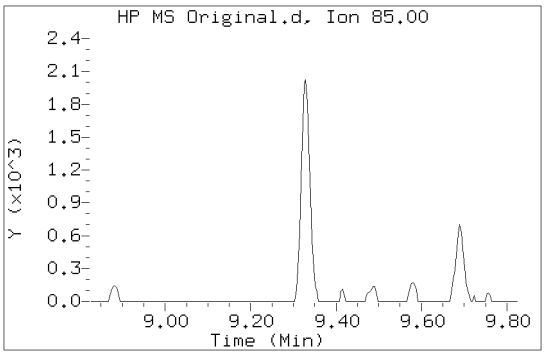

AFTER

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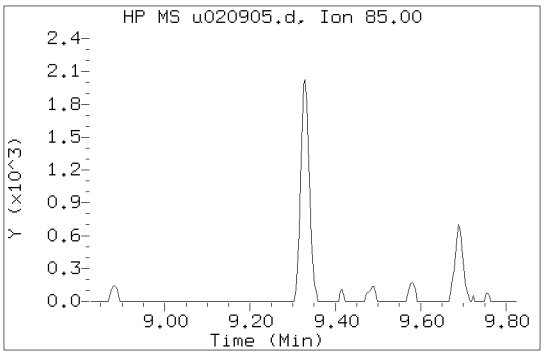

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Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Methacrylonitrile (126-98-7)

Reason Code:

BEFORE
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AREA
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HEIGHT
718
09-Feb-2024
11:53
firat
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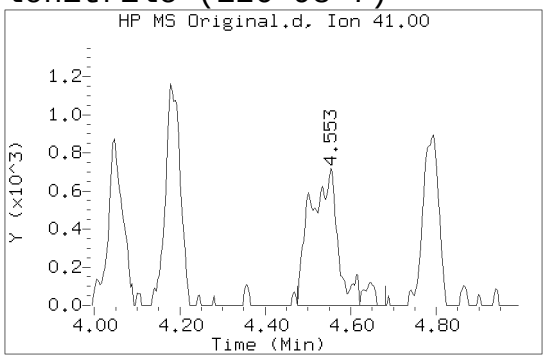

AFTER
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09-Feb-2024
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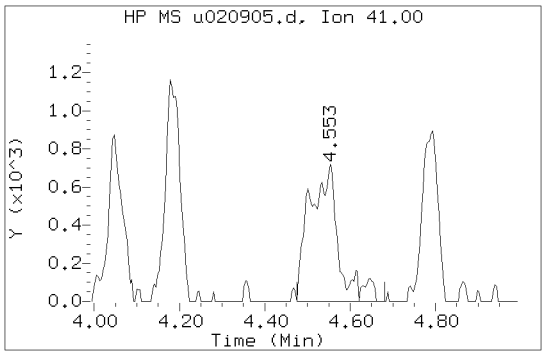

BEFORE
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09-Feb-2024
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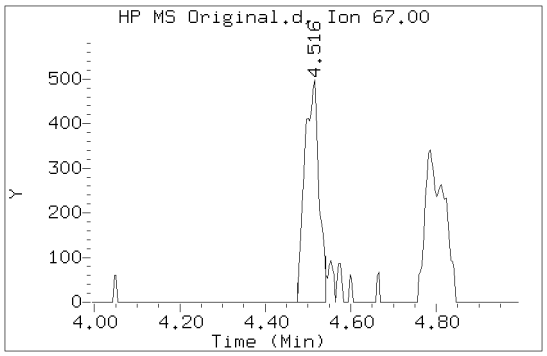

AFTER
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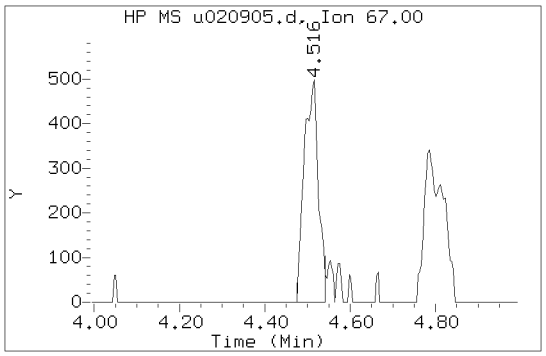

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09-Feb-2024
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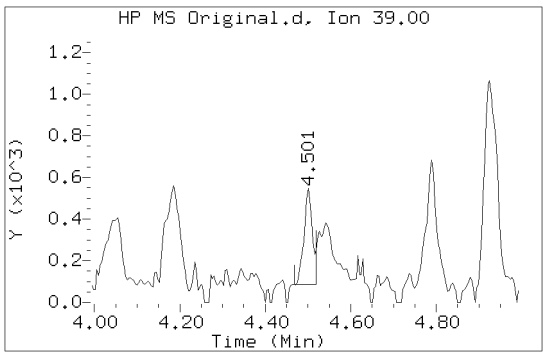

AFTER
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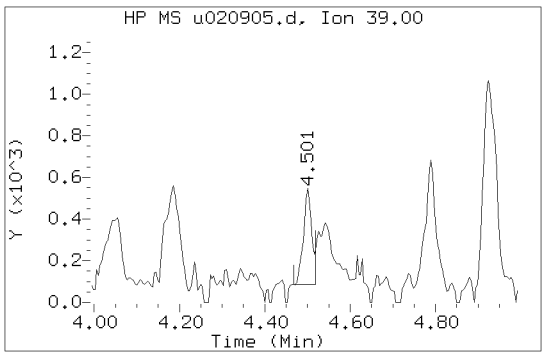

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

BEFORE
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HEIGHT
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09-Feb-2024
11:53
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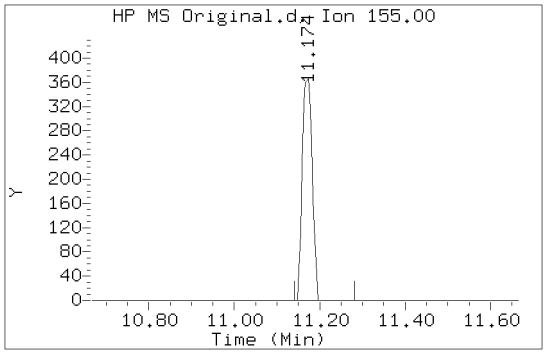

AFTER
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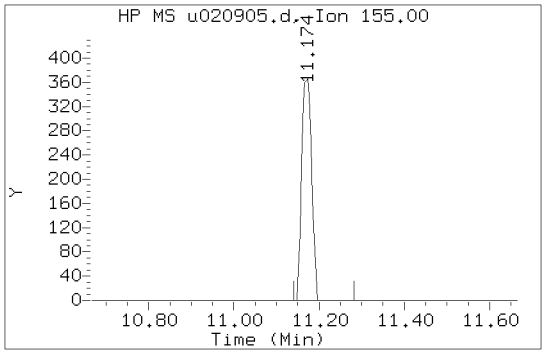

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Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

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09-Feb-2024
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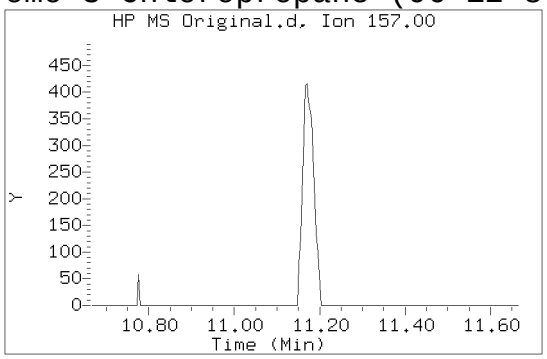

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09-Feb-2024
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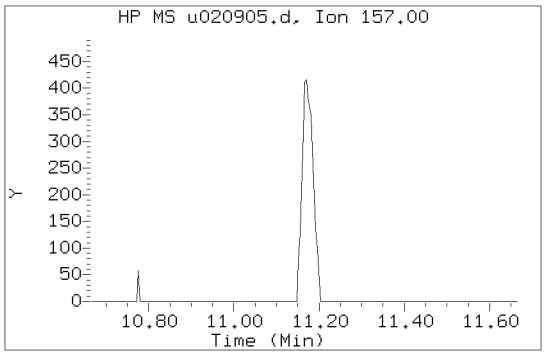
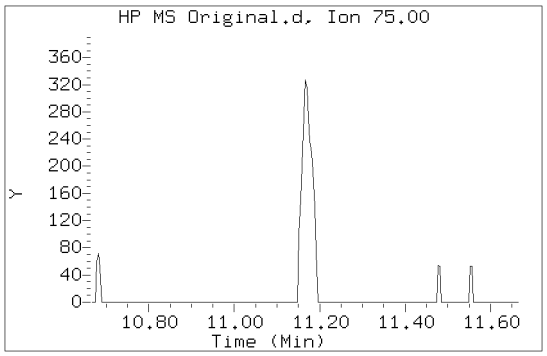
firat
tastan



BEFORE
MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
75
AREA
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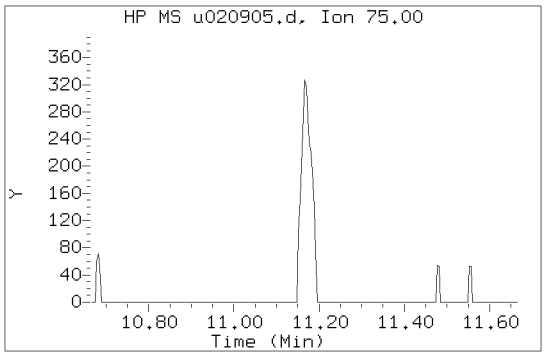
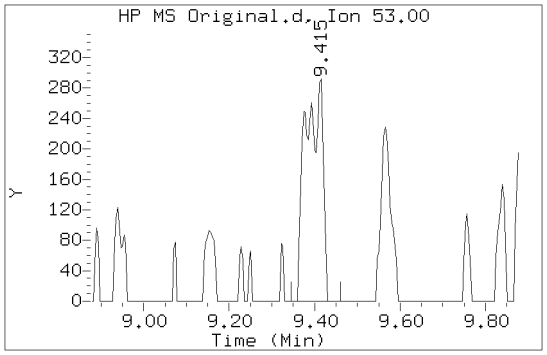
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



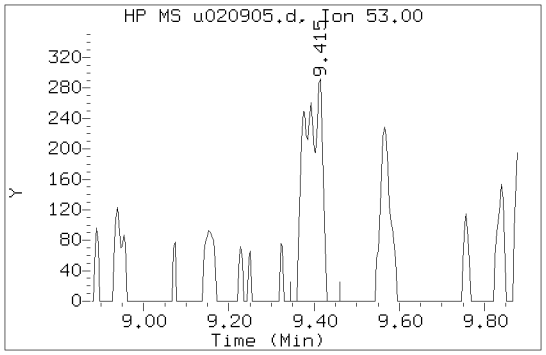
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

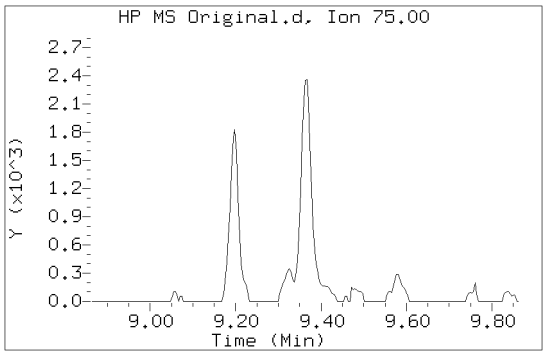
BEFORE
MASS
53
AREA
839
HEIGHT
292
09-Feb-2024
11:53
firat
tastan



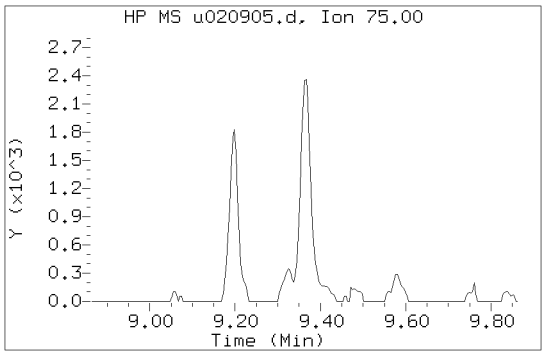
AFTER
MASS
53
AREA
839
HEIGHT
292
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



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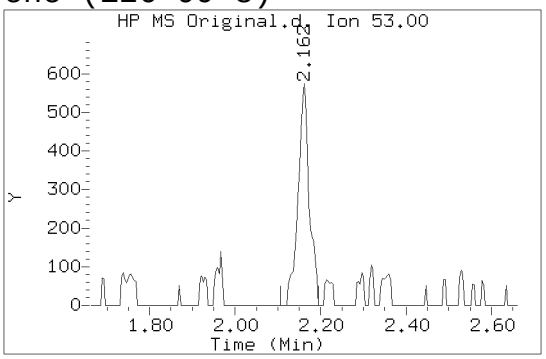
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Chloroprene (126-99-8)

Reason Code:

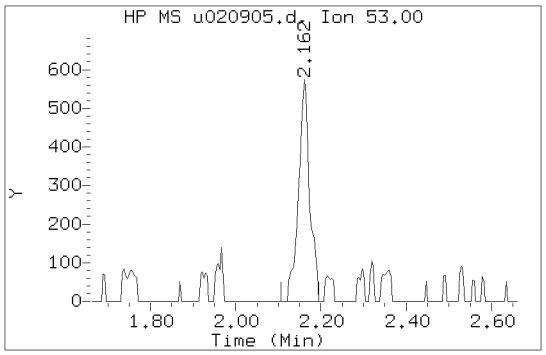
BEFORE

MASS
53
AREA
1068
HEIGHT
574
09-Feb-2024
11:53
firat
tastan



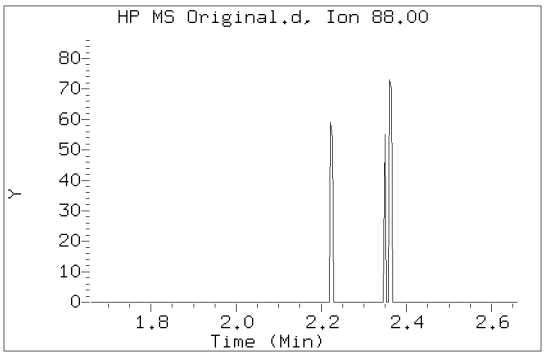
AFTER

MASS
53
AREA
1068
HEIGHT
574
09-Feb-2024
11:53
firat
tastan



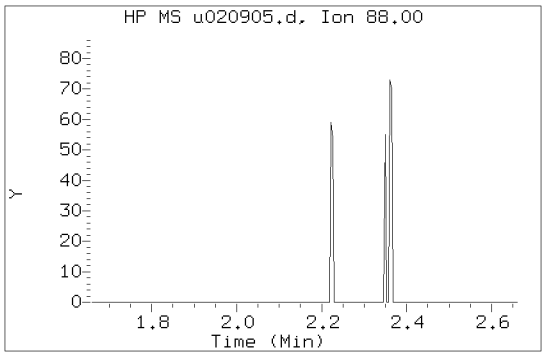
BEFORE

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

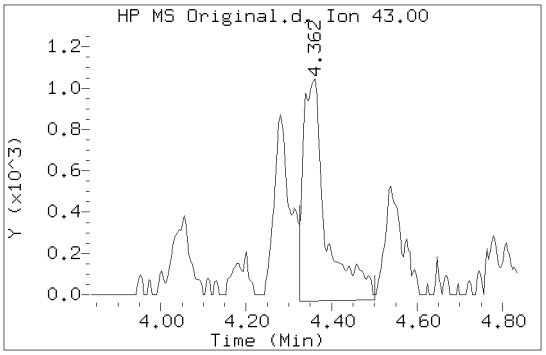


Ethyl Acetate (141-78-6)

Reason Code:

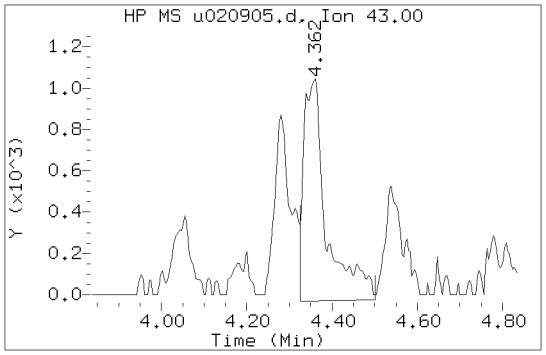
BEFORE

MASS
43
AREA
4030
HEIGHT
1074
09-Feb-2024
11:53
firat
tastan



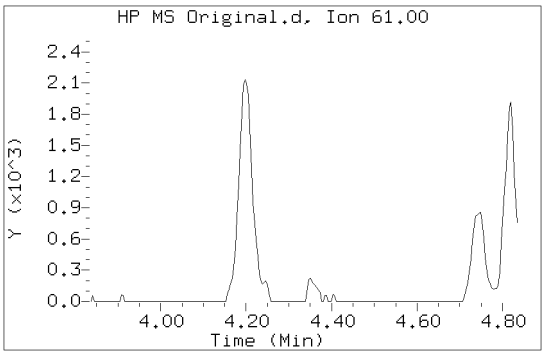
AFTER

MASS
43
AREA
4030
HEIGHT
1074
09-Feb-2024
11:53
firat
tastan



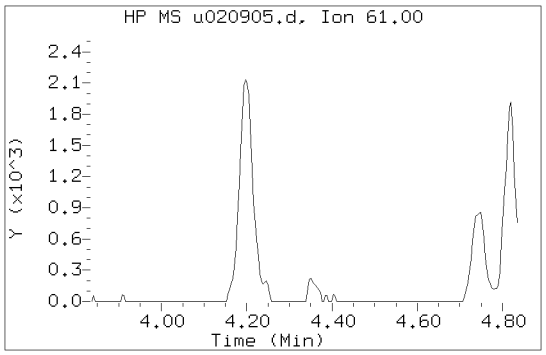
BEFORE

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



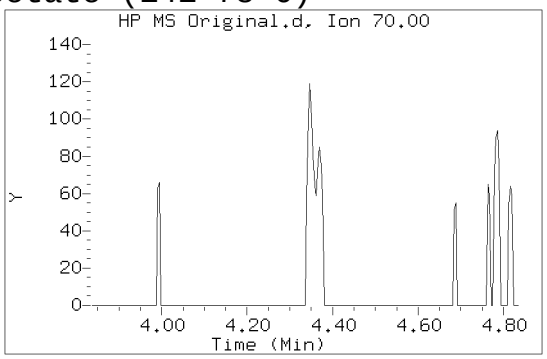
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Ethyl Acetate (141-78-6)

Reason Code:

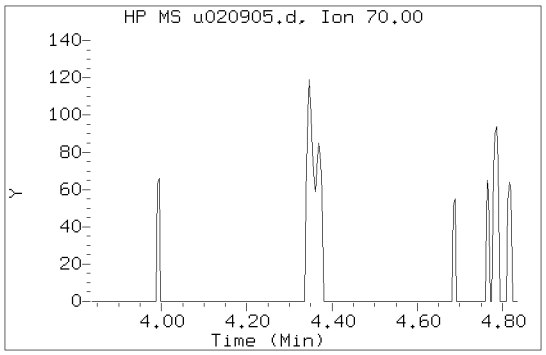
BEFORE

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

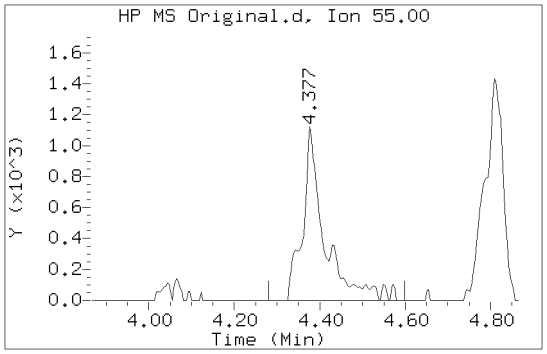


Methyl Acrylate (96-33-3)

Reason Code:

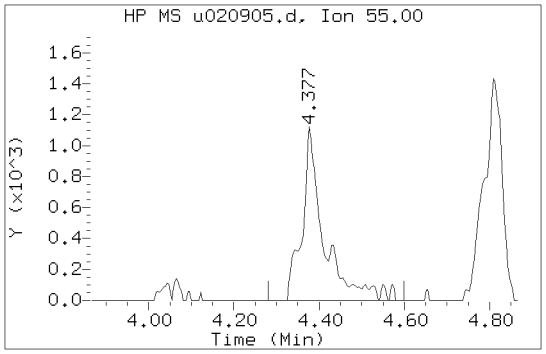
BEFORE

MASS
55
AREA
4010
HEIGHT
1124
09-Feb-2024
11:53
firat
tastan



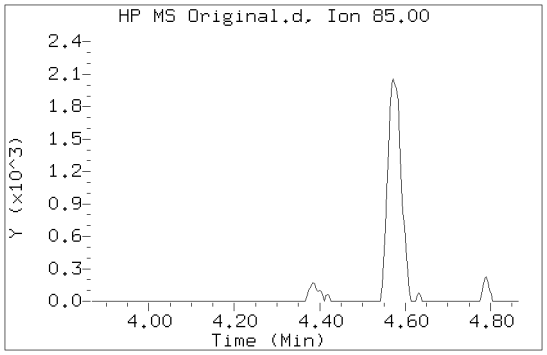
AFTER

MASS
55
AREA
4010
HEIGHT
1124
09-Feb-2024
11:53
firat
tastan



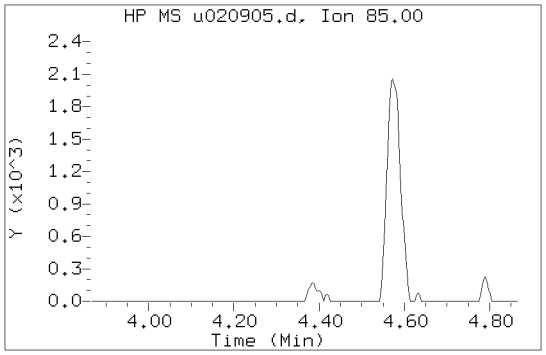
BEFORE

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

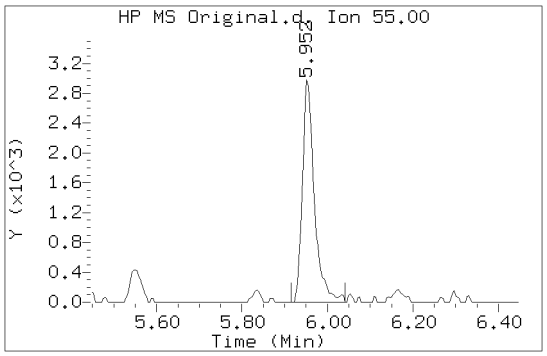


Ethyl Acrylate (140-88-5)

Reason Code:

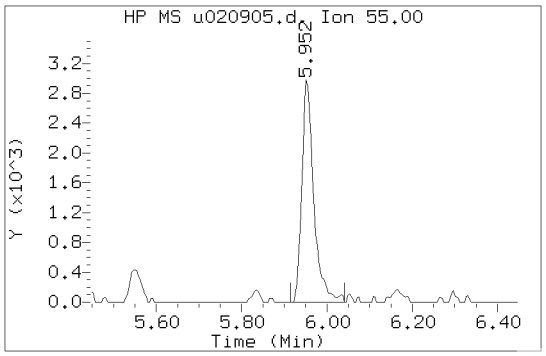
BEFORE

MASS
55
AREA
5919
HEIGHT
2979
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
55
AREA
5919
HEIGHT
2979
09-Feb-2024
11:53
firat
tastan



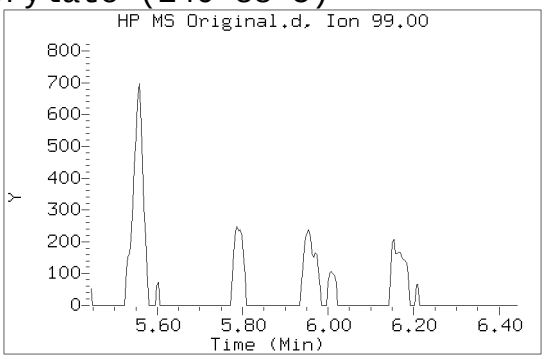
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Ethyl Acrylate (140-88-5)

Reason Code:

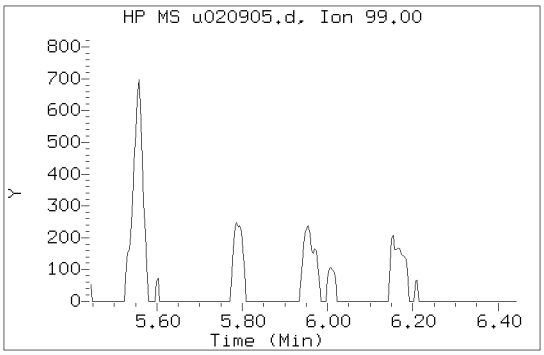
BEFORE

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

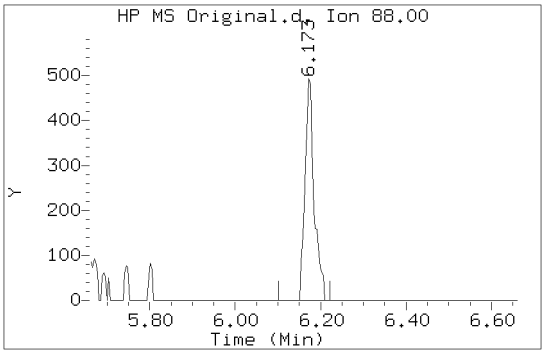


1,4-Dioxane ()

Reason Code:

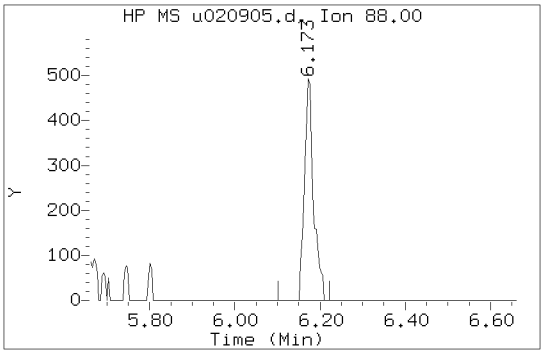
BEFORE

MASS
88
AREA
742
HEIGHT
493
09-Feb-2024
11:53
firat
tastan



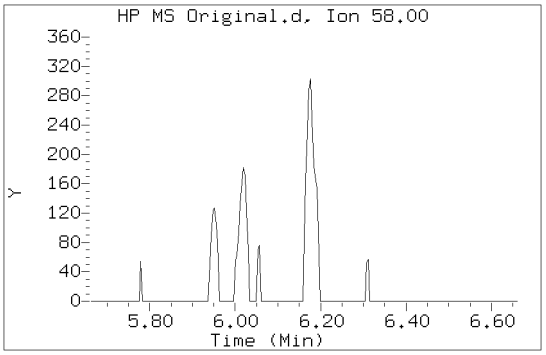
AFTER

MASS
88
AREA
742
HEIGHT
493
09-Feb-2024
11:53
firat
tastan



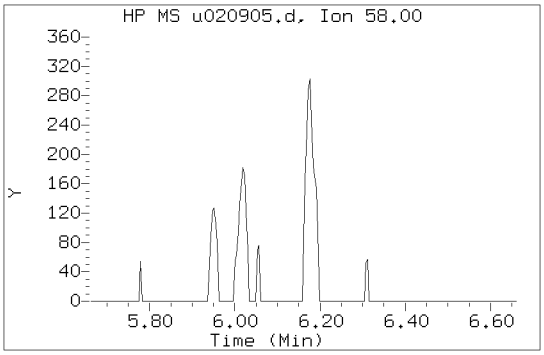
BEFORE

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

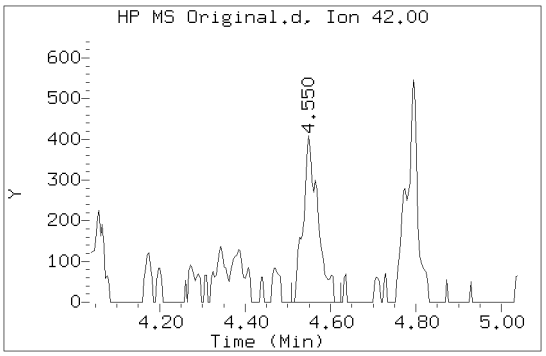


Tetrahydrofuran (109-99-9)

Reason Code:

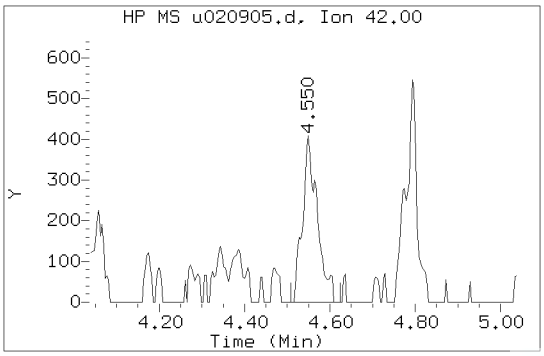
BEFORE

MASS
42
AREA
990
HEIGHT
409
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
42
AREA
990
HEIGHT
409
09-Feb-2024
11:53
firat
tastan



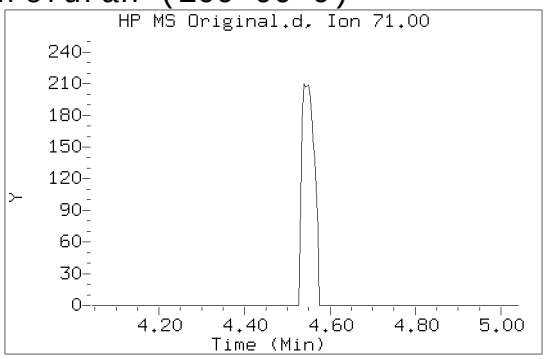
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Tetrahydrofuran (109-99-9)

Reason Code:

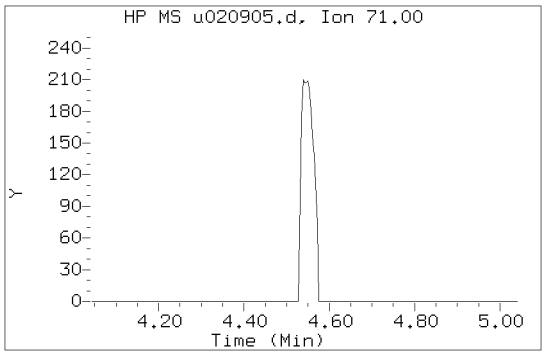
BEFORE

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

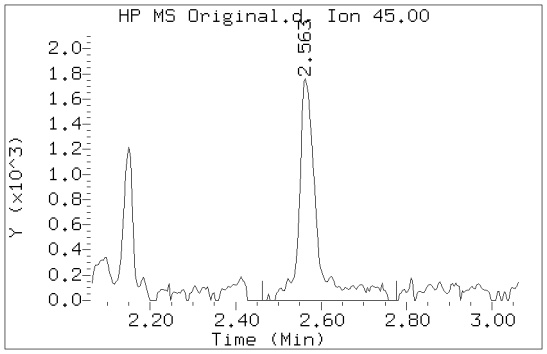


Isopropyl alcohol (67-63-0)

Reason Code:

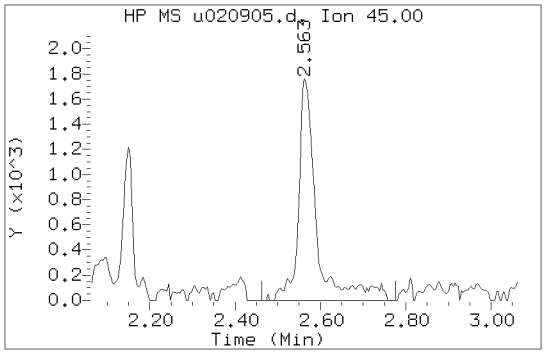
BEFORE

MASS
45
AREA
5220
HEIGHT
1762
09-Feb-2024
11:53
firat
tastan



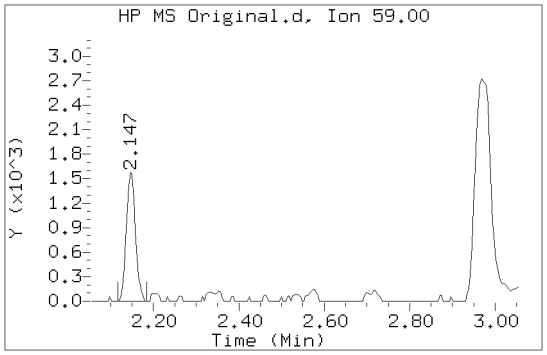
AFTER

MASS
45
AREA
5220
HEIGHT
1762
09-Feb-2024
11:53
firat
tastan



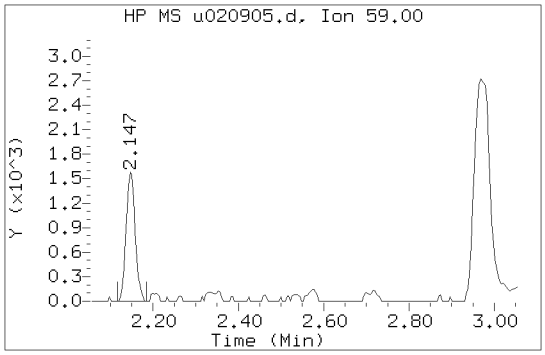
BEFORE

MASS
59
AREA
2342
HEIGHT
1583
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
59
AREA
2342
HEIGHT
1583
09-Feb-2024
11:53
firat
tastan

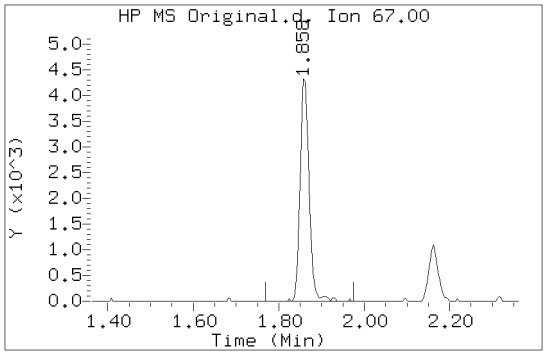


Dichlorofluoromethane (75-43-4)

Reason Code:

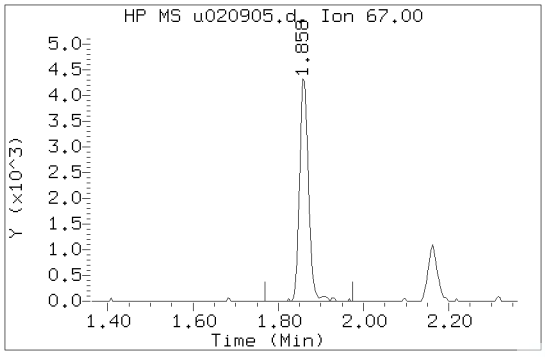
BEFORE

MASS
67
AREA
6531
HEIGHT
4321
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
67
AREA
6531
HEIGHT
4321
09-Feb-2024
11:53
firat
tastan

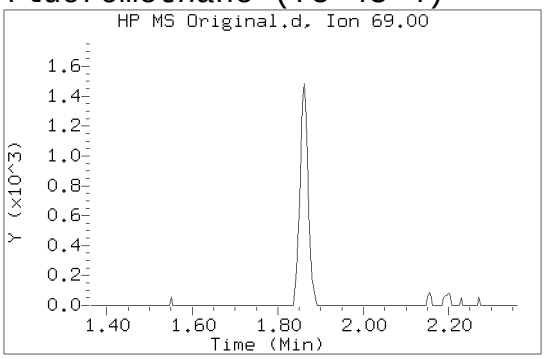


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

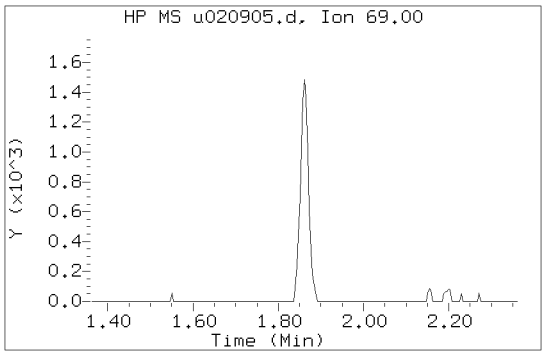
Dichlorofluoromethane (75-43-4)

Reason Code:

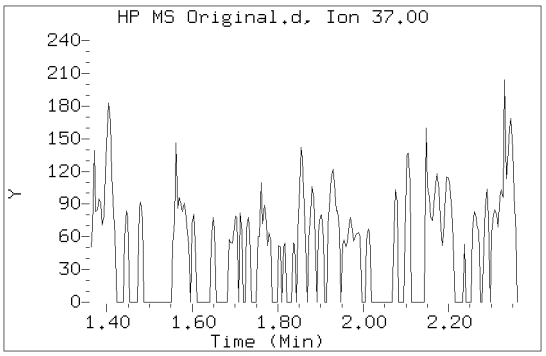
BEFORE
MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
37
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
37
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HEIGHT
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11:53
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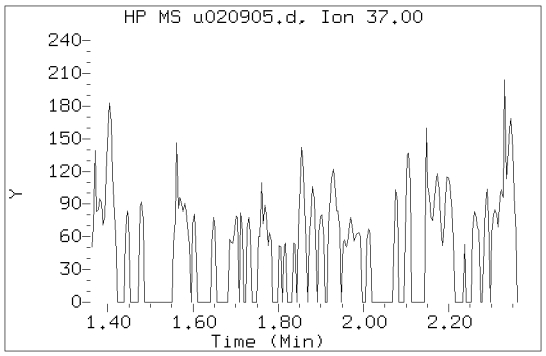

Propylene oxide ()

Reason Code:

BEFORE
MASS
43
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572
HEIGHT
264
09-Feb-2024
11:53
firat
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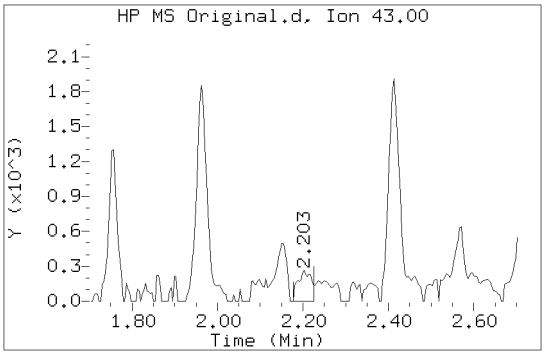

AFTER
MASS
43
AREA
572
HEIGHT
264
09-Feb-2024
11:53
firat
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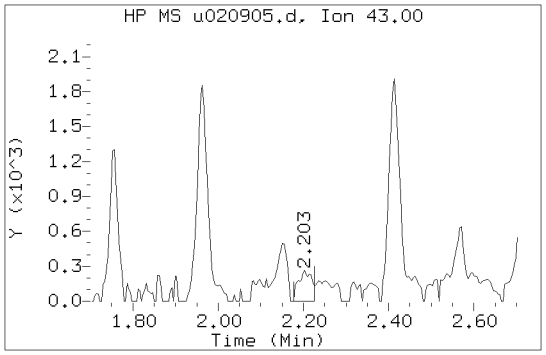

BEFORE
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58
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694
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423
09-Feb-2024
11:53
firat
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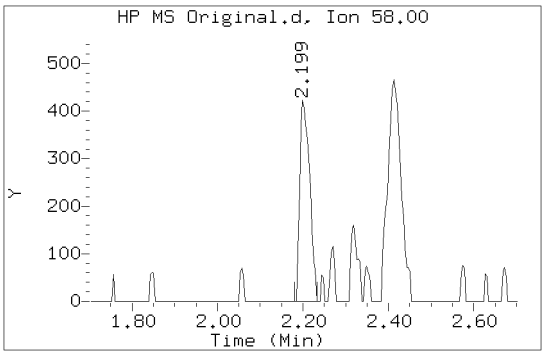
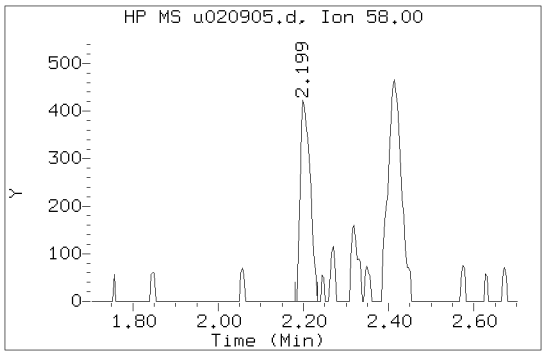


AFTER
MASS
58
AREA
694
HEIGHT
423
09-Feb-2024
11:53
firat
tastan



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Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Ethanol (64-17-5)

Reason Code:

BEFORE

MASS
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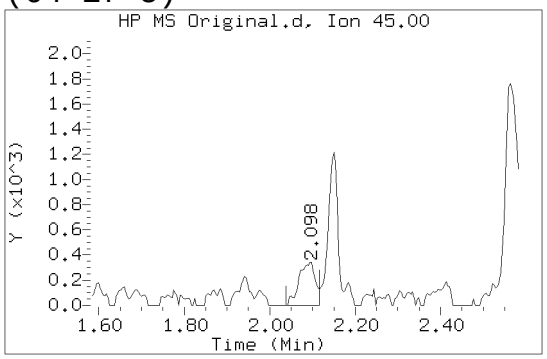
AREA
929
HEIGHT
343
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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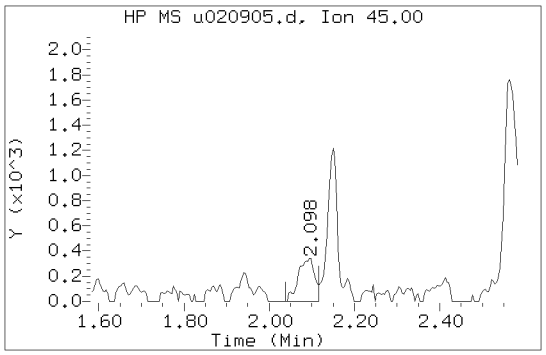
AREA
929
HEIGHT
343
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
46
AREA
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HEIGHT
0
09-Feb-2024
11:53
firat
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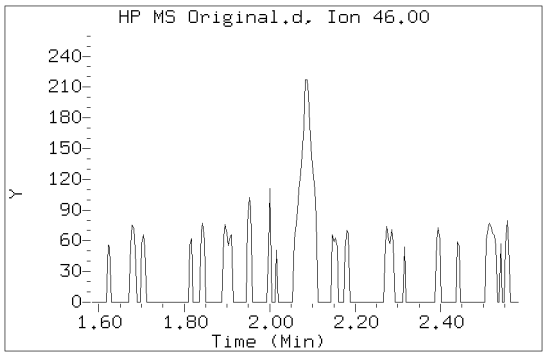

AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:53
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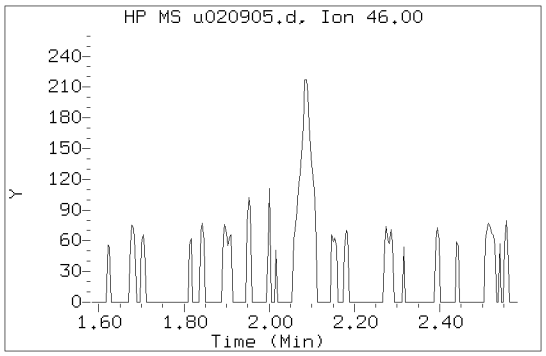
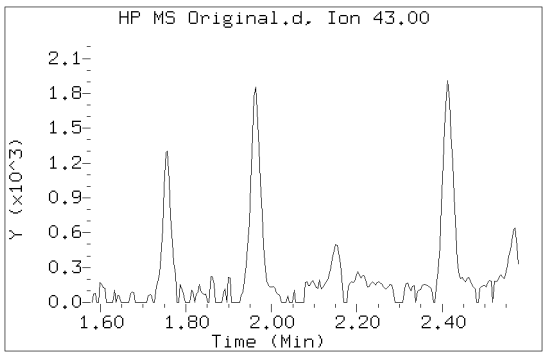


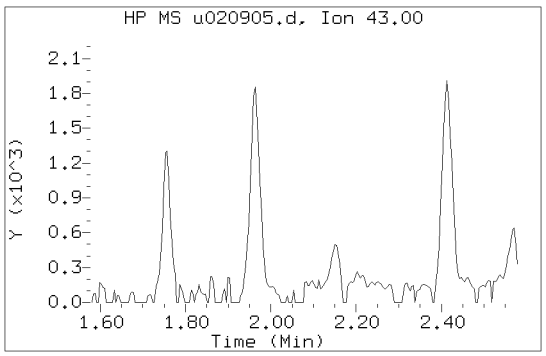
BEFORE

MASS
43
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
43
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

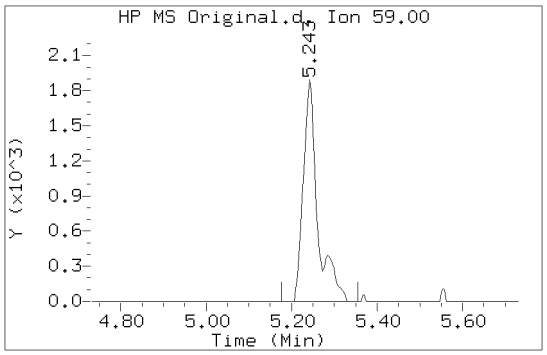


tert-Butyl formate (762-75-4)

Reason Code:

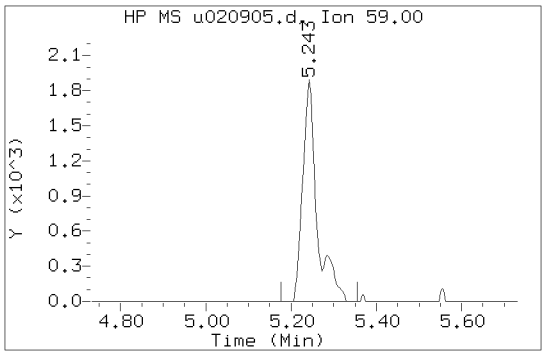
BEFORE

MASS
59
AREA
4458
HEIGHT
1893
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
59
AREA
4458
HEIGHT
1893
09-Feb-2024
11:53
firat
tastan

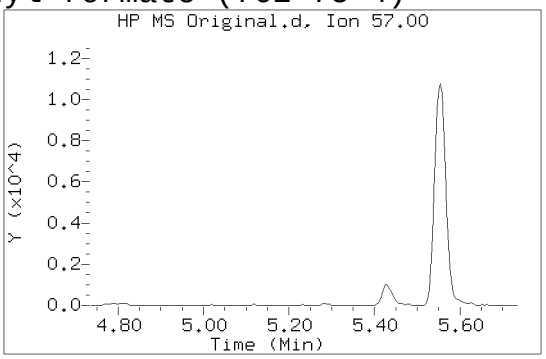


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

tert-Butyl formate (762-75-4)

Reason Code:

BEFORE
MASS
57
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
57
AREA
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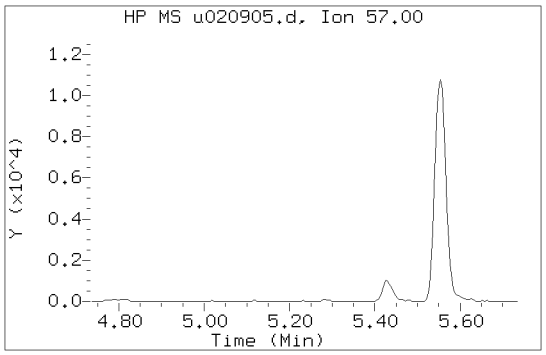
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
41
AREA
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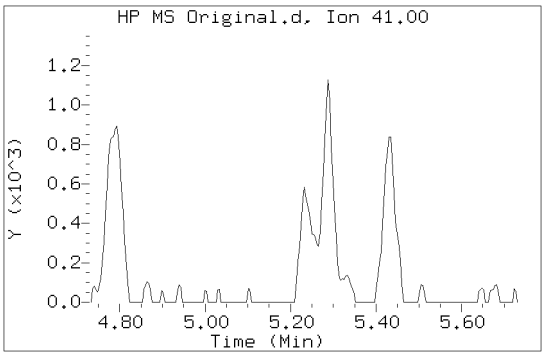
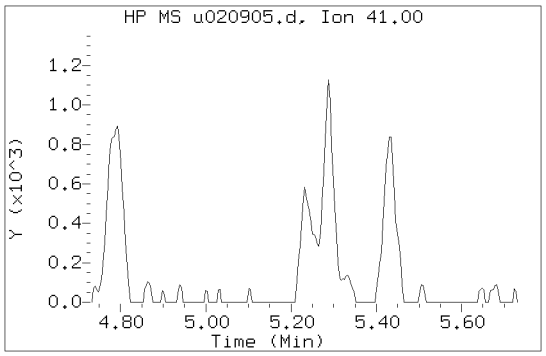
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



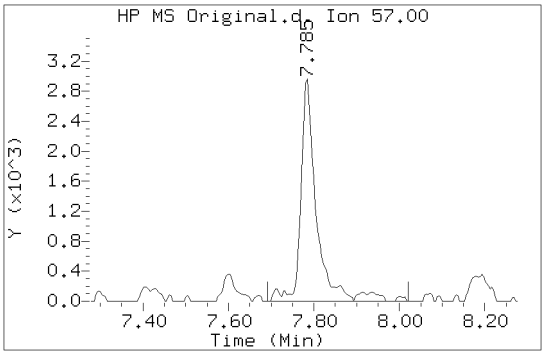
AFTER
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



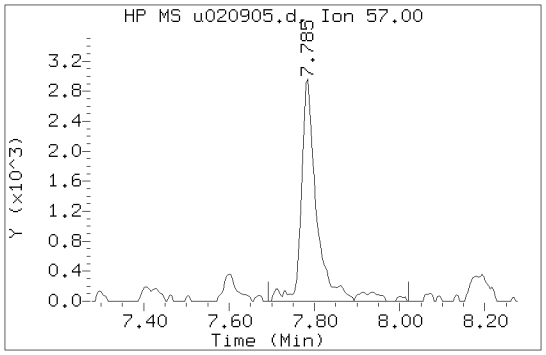
3,3-Dimethyl-1-butanol (624-95-3)

Reason Code:

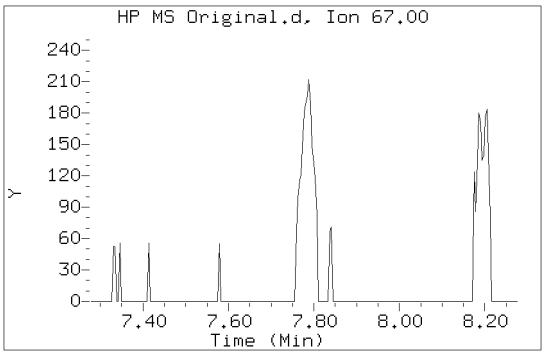
BEFORE
MASS
57
AREA
7767
HEIGHT
2963
09-Feb-2024
11:53
firat
tastan



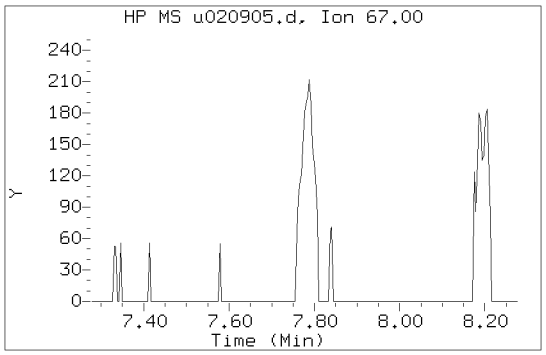
AFTER
MASS
57
AREA
7767
HEIGHT
2963
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

3,3-Dimethyl-1-butanol (624-95-3)

Reason Code:

BEFORE

MASS
56
AREA
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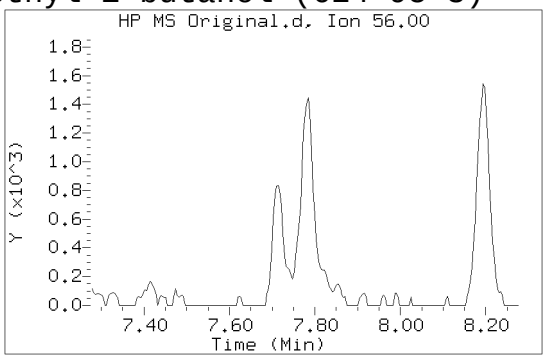
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
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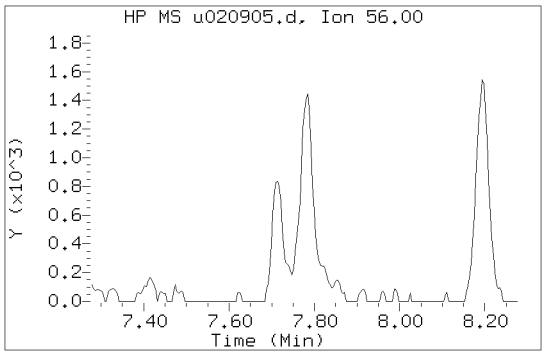
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



tert-Amyl methyl ether (974-05-08)

Reason Code:

BEFORE

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73
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11043
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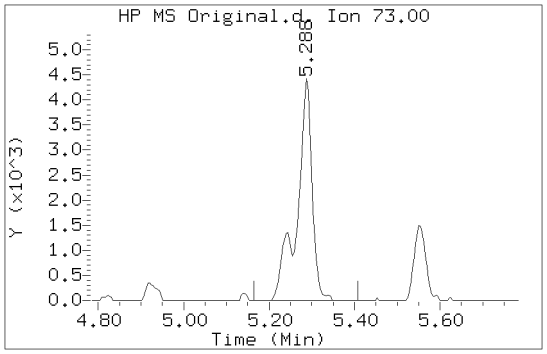
4424
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
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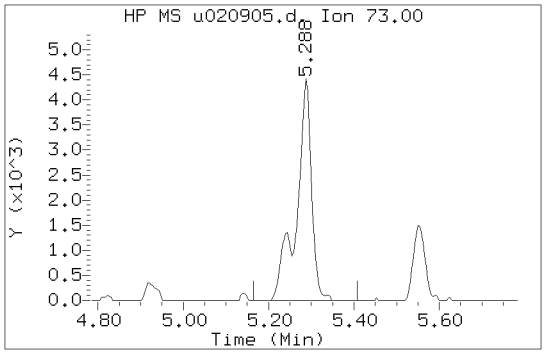
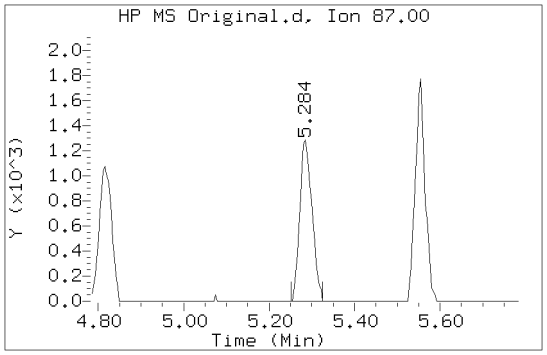
HEIGHT
4424
09-Feb-2024
11:53
firat
tastan



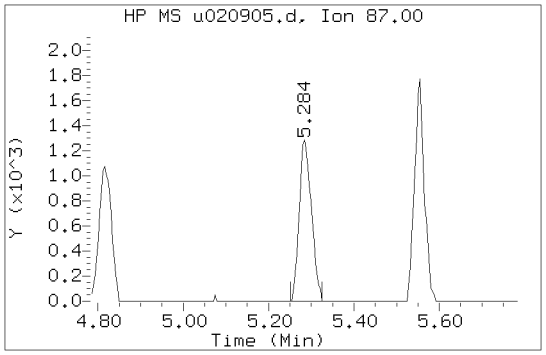
BEFORE

MASS
87
AREA
2602
HEIGHT
1288
09-Feb-2024
11:53
firat
tastan



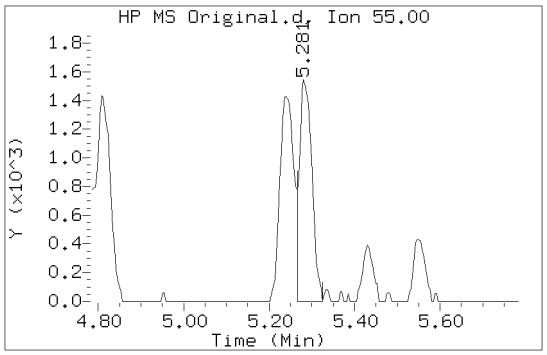
AFTER

MASS
87
AREA
2602
HEIGHT
1288
09-Feb-2024
11:53
firat
tastan



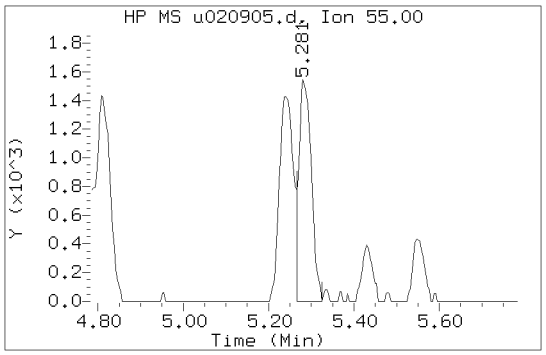
BEFORE

MASS
55
AREA
3222
HEIGHT
1545
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
55
AREA
3222
HEIGHT
1545
09-Feb-2024
11:53
firat
tastan



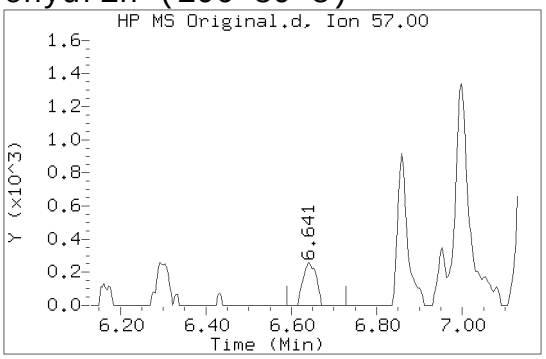
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Epichlorohydrin (106-89-8)

Reason Code:

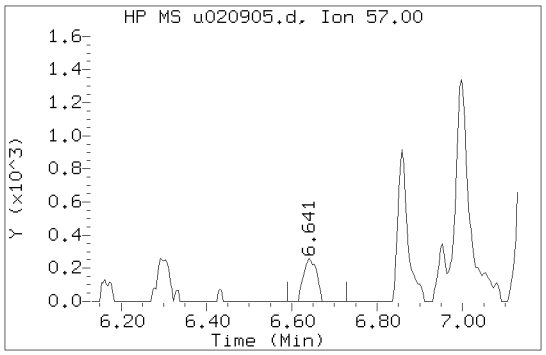
BEFORE

MASS
57
AREA
553
HEIGHT
260
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
57
AREA
553
HEIGHT
260
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
49
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
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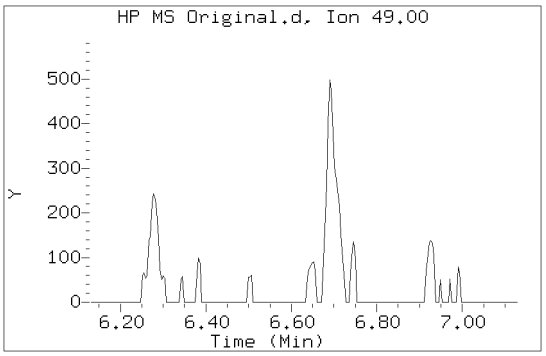
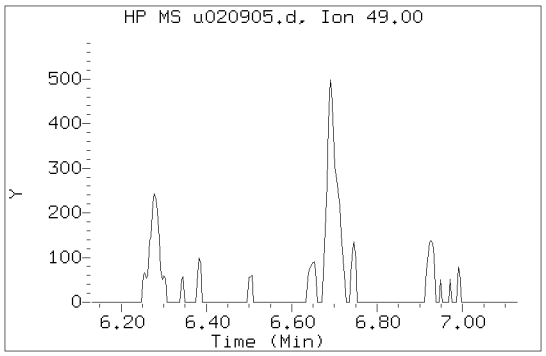


AFTER

MASS
49
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

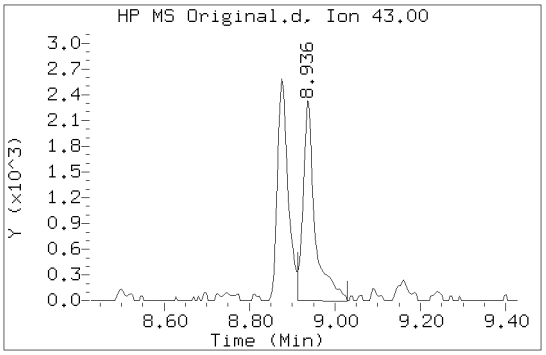


n-Amyl acetate (628-63-7)

Reason Code:

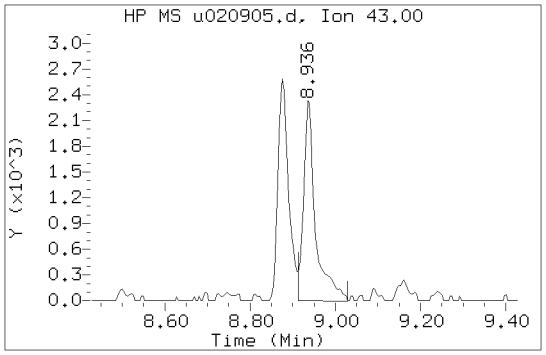
BEFORE

MASS
43
AREA
4630
HEIGHT
2329
09-Feb-2024
11:53
firat
tastan



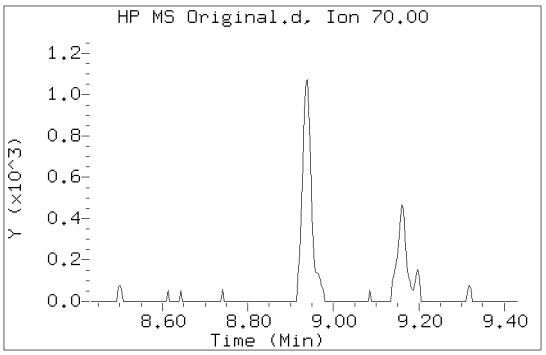
AFTER

MASS
43
AREA
4630
HEIGHT
2329
09-Feb-2024
11:53
firat
tastan



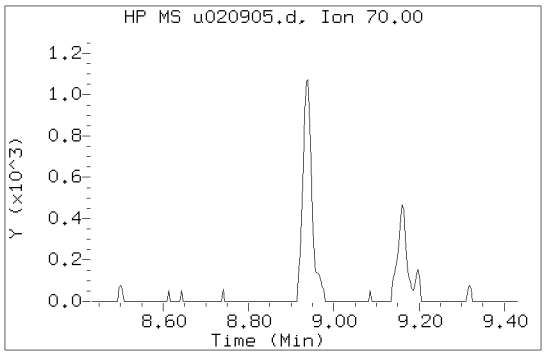
BEFORE

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



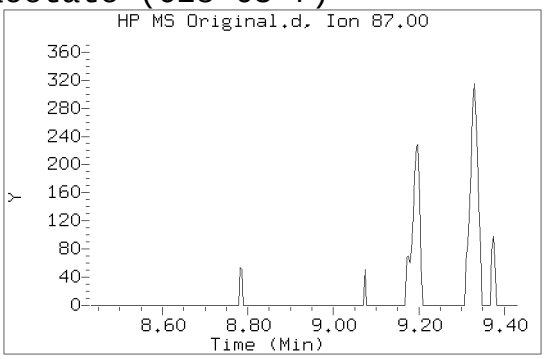
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

n-Amyl acetate (628-63-7)

Reason Code:

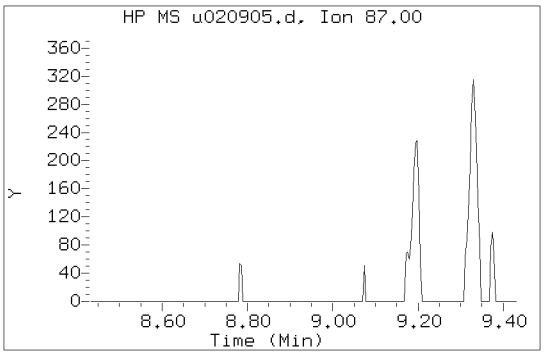
BEFORE

MASS
87
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
87
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Acetaldehyde (75-07-0)

Reason Code:

BEFORE

MASS
44
AREA
947
HEIGHT
818
09-Feb-2024
11:53
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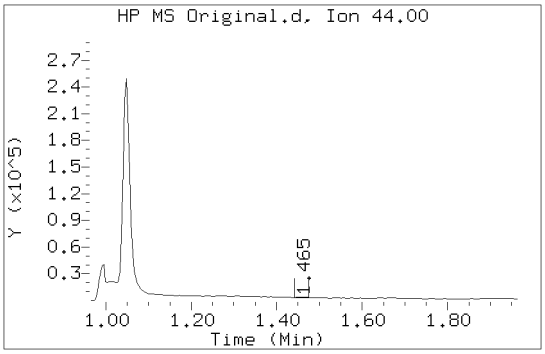

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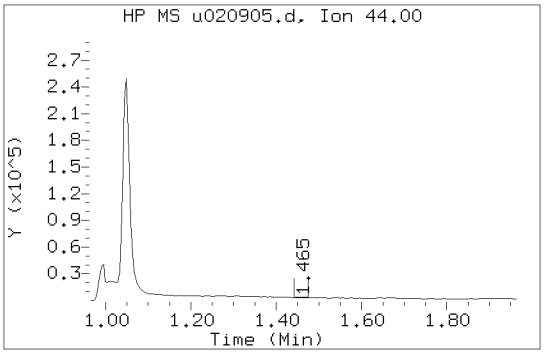

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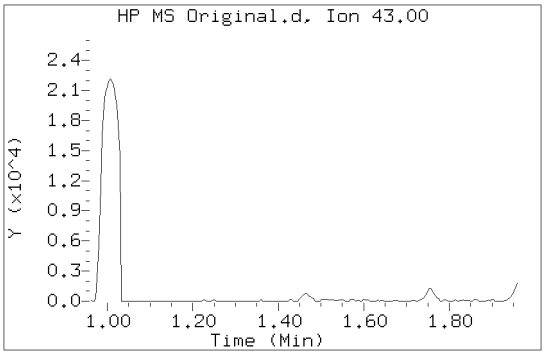

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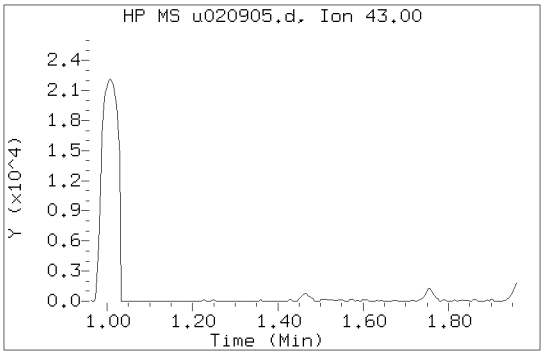

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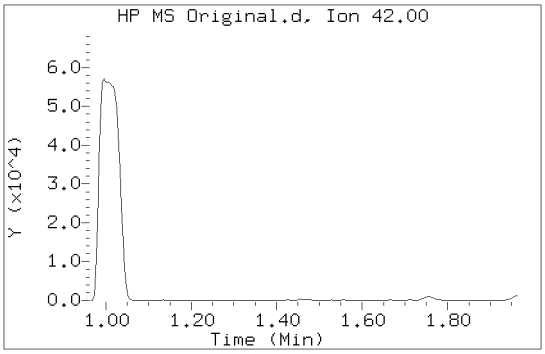

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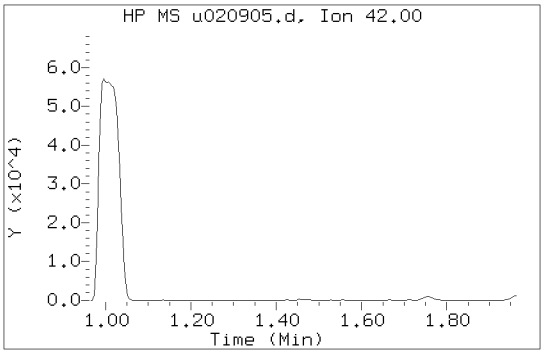

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InstruID : VOA9.i
LabSampID : VSTD002

Isobutylene (115-11-7)

Reason Code:

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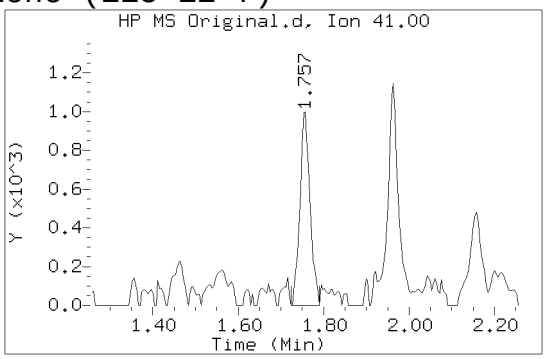

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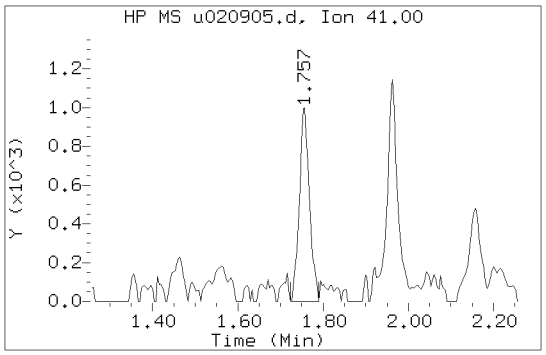

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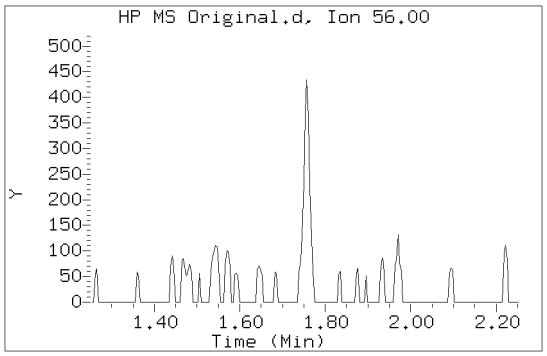

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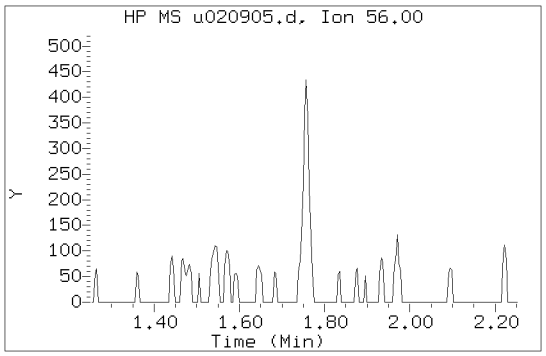

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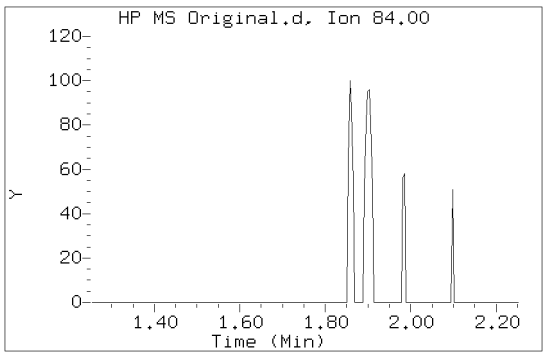

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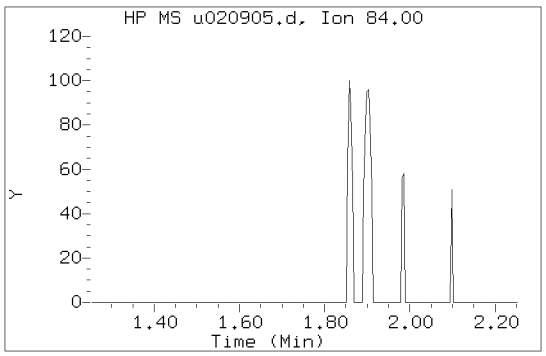

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D
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Inj Date : 09-FEB-2024 10:51
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : V9;WATER;0;1;
Comment   :
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Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 10:29 Cal File: U020905.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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)	197119	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	6902	5.00000	5.45
3	Chloromethane	50	1.303	1.303	(0.270)	8108	5.00000	5.70
5	Vinyl Chloride	62	1.381	1.381	(0.287)	7991	5.00000	4.73
6	Bromomethane	94	1.625	1.625	(0.337)	6995	5.00000	6.58
7	Chloroethane	64	1.704	1.704	(0.354)	6630	5.00000	5.32
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	13984	5.00000	4.79
9	Acrolein	56	2.270	2.270	(0.471)	908	10.0000	10.27
10	Acetone	43	2.412	2.412	(0.501)	6278	10.0000	7.87
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	7671	5.00000	4.91
15	Iodomethane	142	2.472	2.472	(0.513)	16927	10.0000	8.78
16	Acrylonitrile	53	3.072	3.072	(0.638)	5479	10.0000	10.31
17	Methylene Chloride	84	2.798	2.798	(0.581)	10413	5.00000	4.56
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	23203	5.00000	5.37
19	Carbon Disulfide	76	2.525	2.525	(0.524)	41102	10.0000	8.76
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	8449	5.00000	4.64
21	Vinyl Acetate	43	3.616	3.616	(0.750)	33717	10.0000	8.69
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	14081	5.00000	5.01
24	2-Butanone	43	4.275	4.275	(0.887)	4811	10.0000	8.05
26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	9591	5.00000	4.09

27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	9515	5.00000	4.38
28 Chloroform	83	4.575	4.575 (0.949)	16177	5.00000	4.93

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D Page 2
Report Date: 15-Feb-2024 11:14

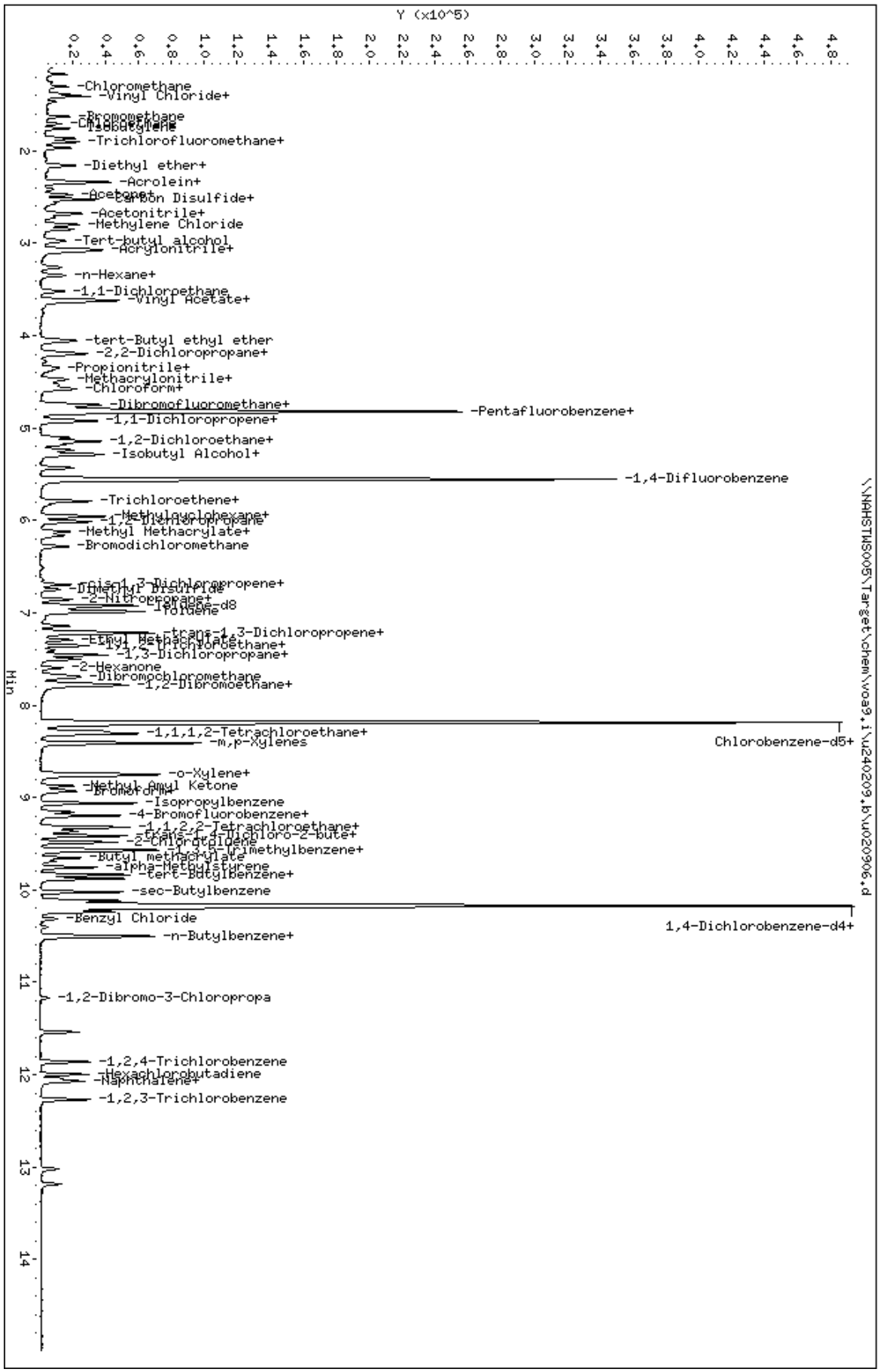
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	5510	5.00000	4.16
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	12182	5.00000	5.60
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	12411	5.00000	4.36
	32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	10861	5.00000	4.60
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	11071	5.00000	3.99
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	11527	5.00000	4.30
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	11550	5.00000	5.00
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	294234	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	33049	5.00000	4.69
	38 Trichloroethene	130	5.794	5.794	(1.043)	10696	5.00000	4.77
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	10142	5.00000	4.06
	41 2-Chloroethylvinyl ether	63	6.648	6.648	(1.083)	43	10.0000	2.49(MH)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	7727	5.00000	4.37
	44 Dibromomethane	93	6.120	6.120	(1.102)	5329	5.00000	4.25
	45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	12122	10.0000	8.03
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	9810	5.00000	3.75
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	270102	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	39372	5.00000	5.29
	50 Toluene	91	6.982	6.982	(0.853)	35681	5.00000	4.26
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	7589	5.00000	4.71
	52 2-Hexanone	43	7.597	7.597	(0.928)	8227	10.0000	10.17
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	6711	5.00000	4.60
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	13330	5.00000	4.36
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	8308	5.00000	3.89
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	9440	5.00000	4.94
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	8410	5.00000	4.49
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	8072	5.00000	5.00
	59 Chlorobenzene	112	8.211	8.211	(1.003)	26047	5.00000	4.50
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	9062	5.00000	4.21
	61 Ethylbenzene	106	8.309	8.309	(1.015)	12405	5.00000	4.36
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	29117	10.0000	8.33
	63 o-Xylene	106	8.748	8.748	(1.069)	13926	5.00000	4.07
	64 Styrene	104	8.763	8.763	(1.071)	22688	5.00000	4.05
	66 Bromoform	173	8.916	8.916	(1.089)	5568	5.00000	3.61
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	36585	5.00000	4.18
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	10355	5.00000	4.59
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	13924	5.00000	4.86
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	143599	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	9701	5.00000	4.20
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	37439	5.00000	4.21
	74 Bromobenzene	156	9.317	9.317	(0.916)	11779	5.00000	4.51
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	28064	5.00000	4.22
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	25323	5.00000	4.29
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	27788	5.00000	4.15
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	25855	5.00000	4.24
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	27759	5.00000	4.23
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	33026	5.00000	4.25
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	27981	5.00000	4.02
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	20783	5.00000	4.56
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	21781	5.00000	4.37
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	22824	5.00000	4.17
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	20035	5.00000	4.36

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	1238	5.00000	5.77
90	1,2,4-Trichlorobenzene	180	11.863	11.863 (1.166)	11549	5.00000	4.06

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	5773	5.00000	4.54
	92 Naphthalene	128	12.069	12.069	(1.186)	21969	5.00000	4.51
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	11689	5.00000	4.31
M	94 1,2-Dichloroethylene (total)	96				17964	10.0000	
M	95 Xylenes (total)	106				43043	15.0000	
	135 1,4-Dioxane	88	6.168	6.168	(1.280)	1680	100.000	86.67
	141 Cyclohexane	56	4.789	4.789	(0.994)	12221	5.00000	5.33
	138 Freon TF	101	2.341	2.341	(0.486)	8106	5.00000	4.99
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	6867	5.00000	4.69
	147 Methylcyclohexane	55	5.951	5.951	(1.072)	16763	5.00000	4.70
	146 Methyl Acetate	43	2.720	2.720	(0.564)	5663	5.00000	4.43
	148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	16928	100.000	103.89
	149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	8964	100.000	101.52(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.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Min
1 2 3 4 5 6 7 8 9 10 11 12 13 14
-Chloromethane
-Vinyl Chloride+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Diethyl ether+
-Acrolein+
-Acetone+
-Carbon Disulfide+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichlorpethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Propionitrile+
-Methacrylonitrile+
-Chloroform+
-Dibromofluoromethane+
-Pentafluorobenzene+
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-Trichloroethene+
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-Hexachlorobutadiene
-Naphthalene+
-1,2,3-Trichlorobenzene
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Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9,i
Operator: FT
Column diameter: 0.18
Page 1

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Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

Chloroprene (126-99-8)

Reason Code:

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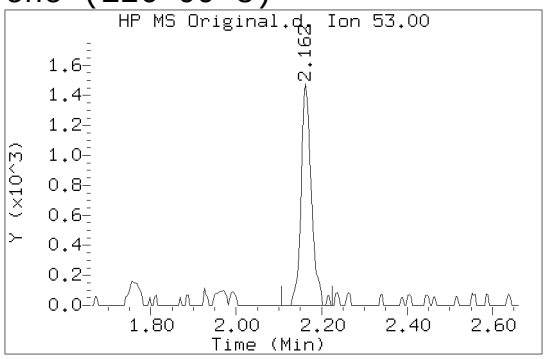

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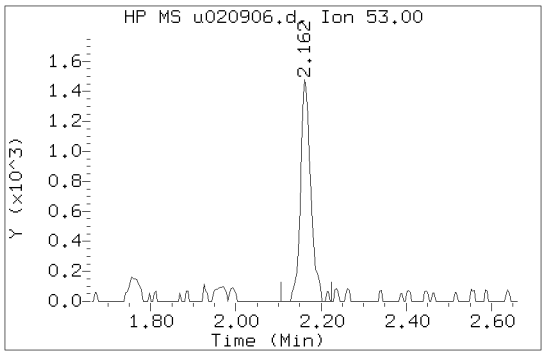

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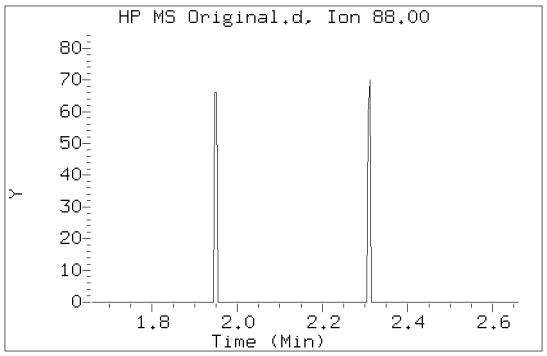

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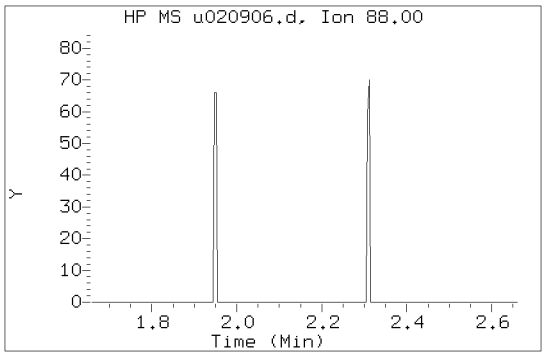
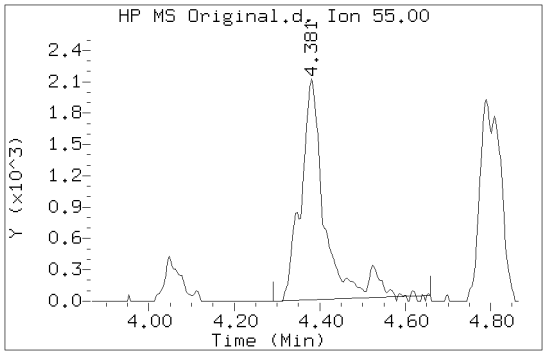


Methyl Acrylate (96-33-3)

Reason Code:

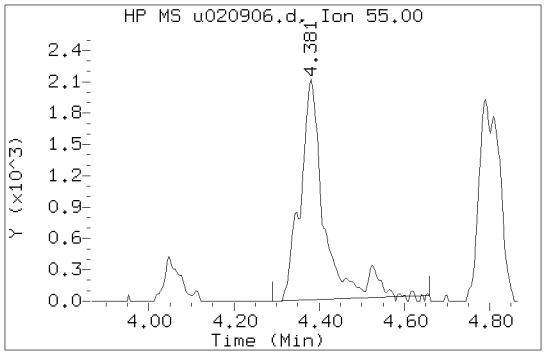
BEFORE

MASS
55
AREA
8160
HEIGHT
2113
09-Feb-2024
11:54
firat
tastan



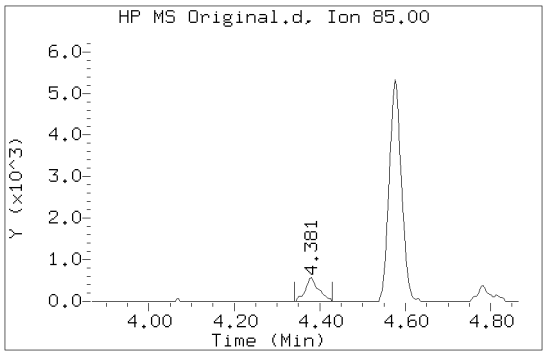
AFTER

MASS
55
AREA
8160
HEIGHT
2113
09-Feb-2024
11:54
firat
tastan



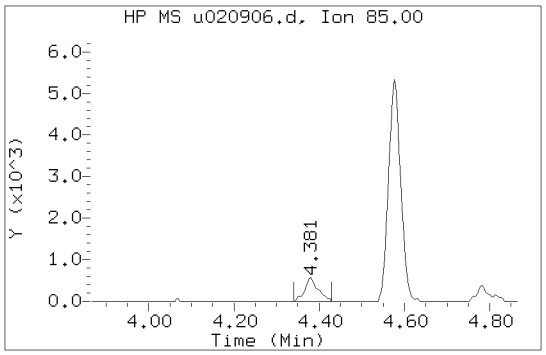
BEFORE

MASS
85
AREA
1241
HEIGHT
577
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
85
AREA
1241
HEIGHT
577
09-Feb-2024
11:54
firat
tastan



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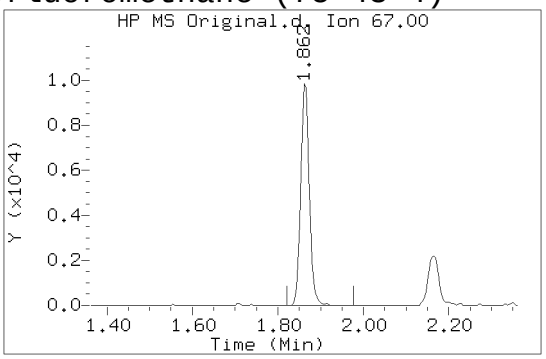
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

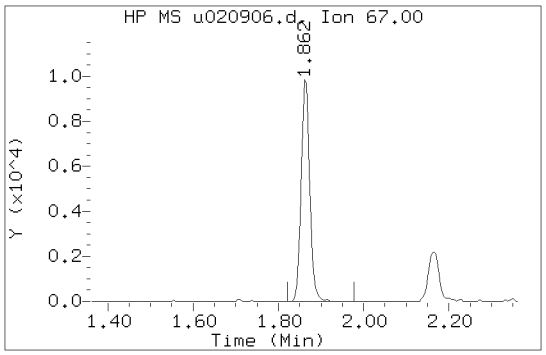
Dichlorofluoromethane (75-43-4)

Reason Code:

BEFORE
MASS
67
AREA
14067
HEIGHT
9847
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
67
AREA
14067
HEIGHT
9847
09-Feb-2024
11:54
firat
tastan



BEFORE
MASS
69
AREA
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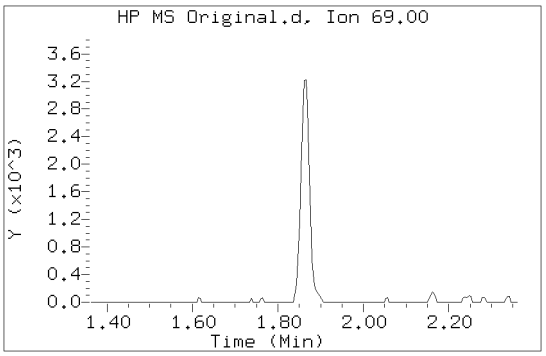
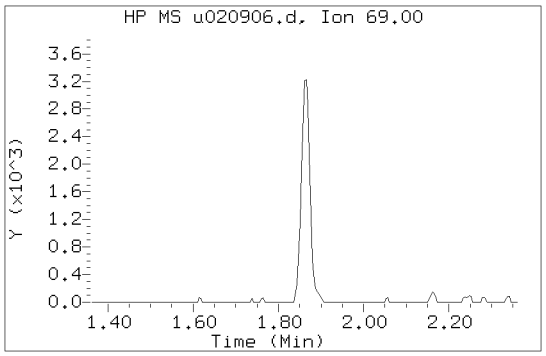
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



BEFORE
MASS
37
AREA
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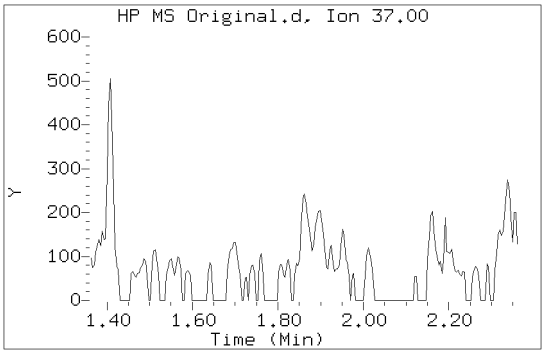
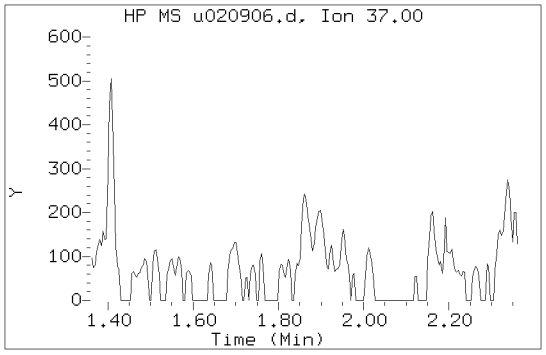
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



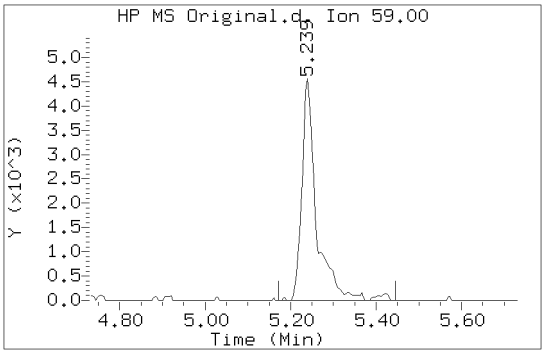
AFTER
MASS
37
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



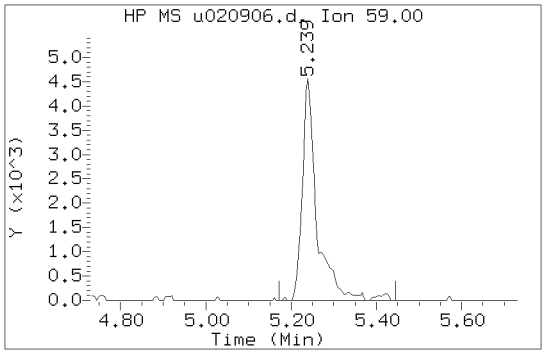
tert-Butyl formate (762-75-4)

Reason Code:

BEFORE
MASS
59
AREA
11099
HEIGHT
4562
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
59
AREA
11099
HEIGHT
4562
09-Feb-2024
11:54
firat
tastan



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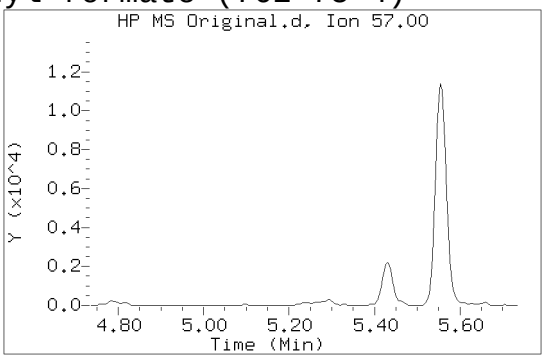
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

tert-Butyl formate (762-75-4)

Reason Code:

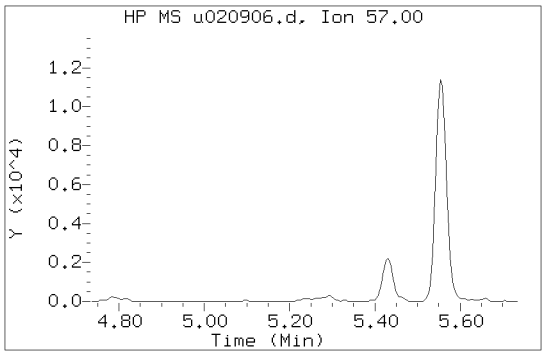
BEFORE

MASS
57
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
57
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



BEFORE

MASS
41
AREA
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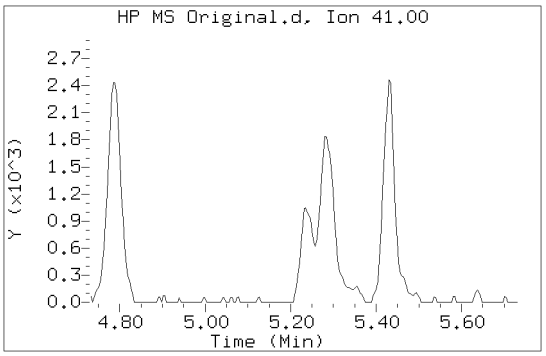
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
41
AREA
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HEIGHT
0
09-Feb-2024
11:54
firat
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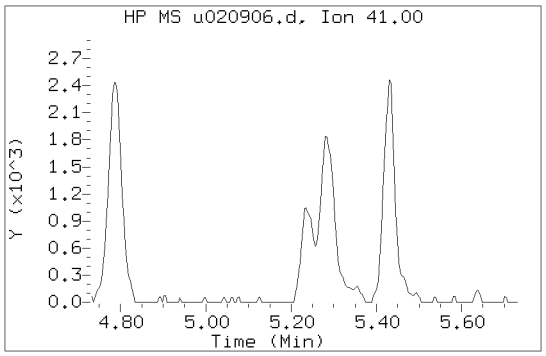
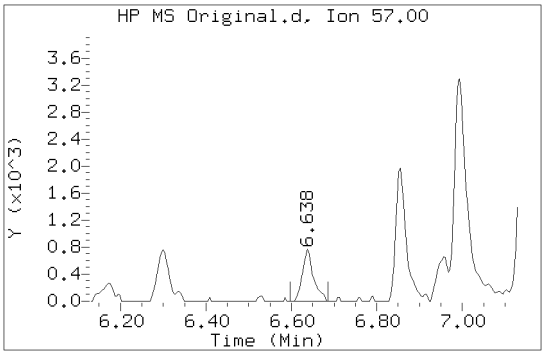


Epichlorohydrin (106-89-8)

Reason Code:

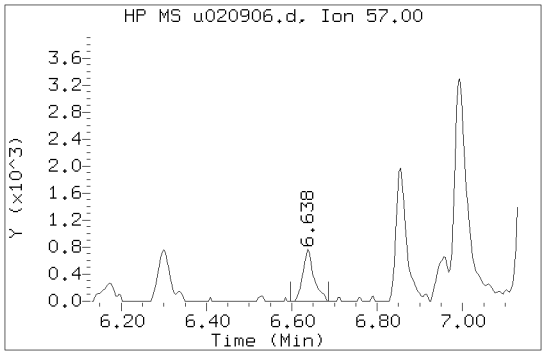
BEFORE

MASS
57
AREA
1420
HEIGHT
773
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
57
AREA
1420
HEIGHT
773
09-Feb-2024
11:54
firat
tastan



BEFORE

MASS
49
AREA
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HEIGHT
0
09-Feb-2024
11:54
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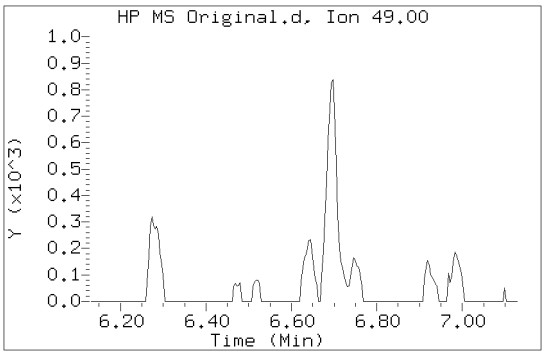

AFTER

MASS
49
AREA
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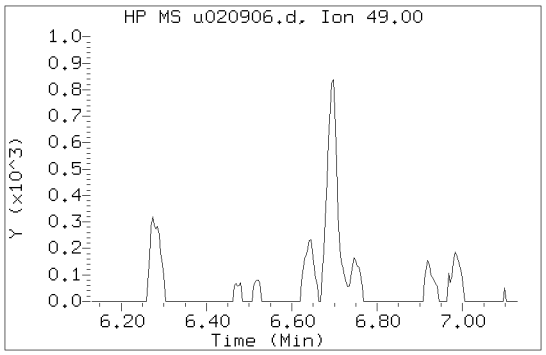
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



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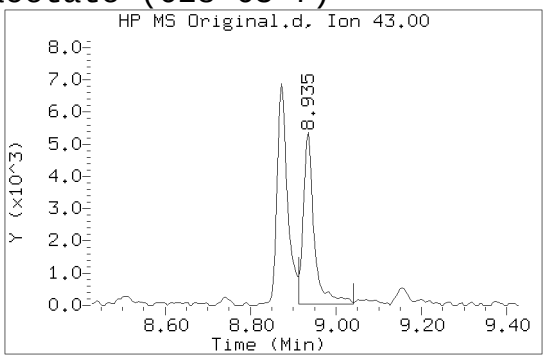
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

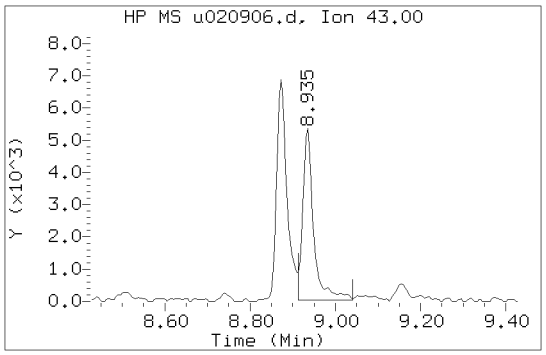
n-Amyl acetate (628-63-7)

Reason Code:

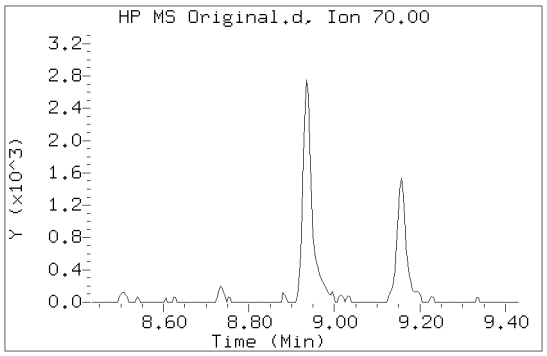
BEFORE
MASS
43
AREA
9522
HEIGHT
5327
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
43
AREA
9522
HEIGHT
5327
09-Feb-2024
11:54
firat
tastan



BEFORE
MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
70
AREA
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HEIGHT
0
09-Feb-2024
11:54
firat
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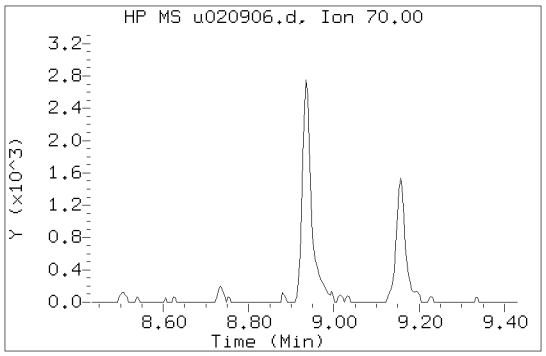
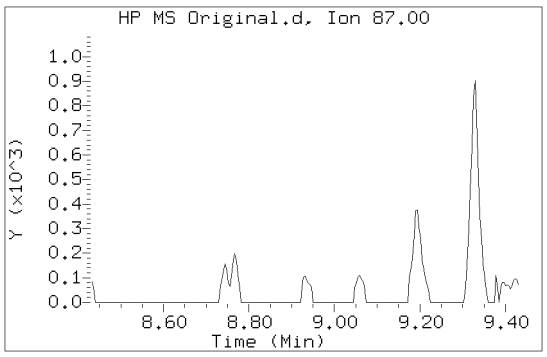
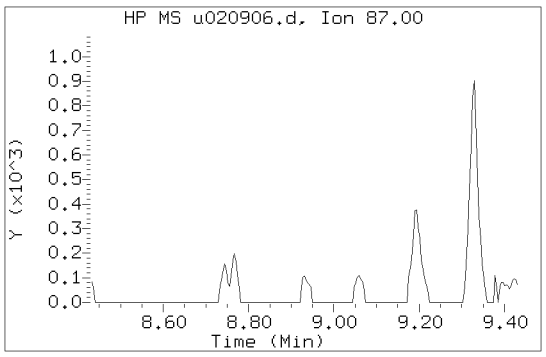


BEFORE
MASS
87
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
87
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



Acetaldehyde (75-07-0)

Reason Code:

BEFORE
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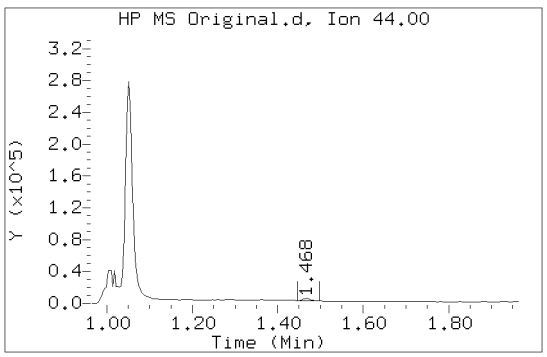
44
AREA
3492
HEIGHT
2970
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
44
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3492
HEIGHT
2970
09-Feb-2024
11:54
firat
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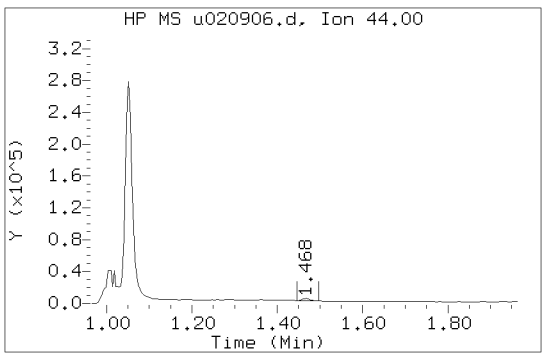

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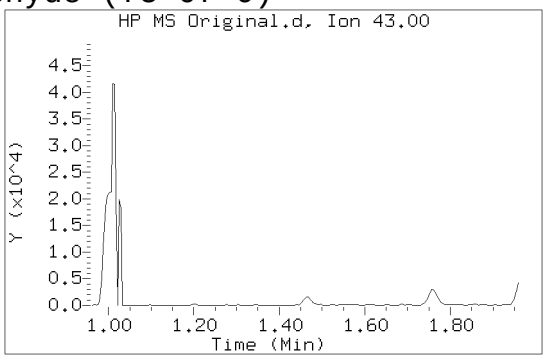
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

Acetaldehyde (75-07-0)

Reason Code:

BEFORE
MASS
43
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
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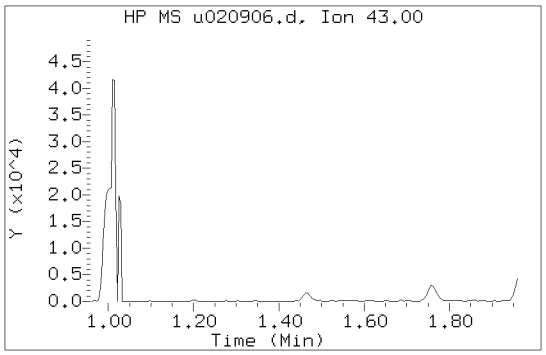
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



BEFORE
MASS
42
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
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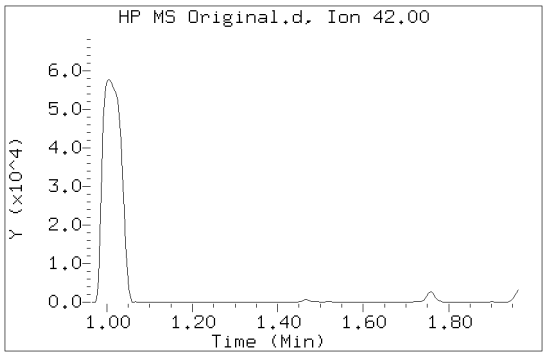
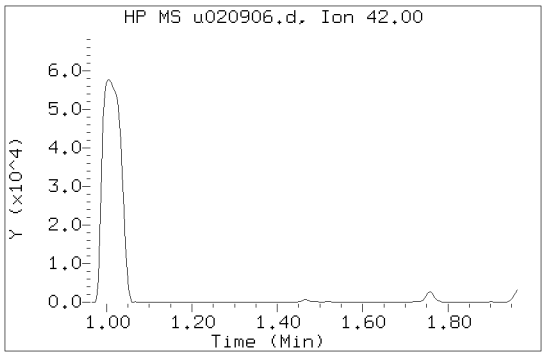


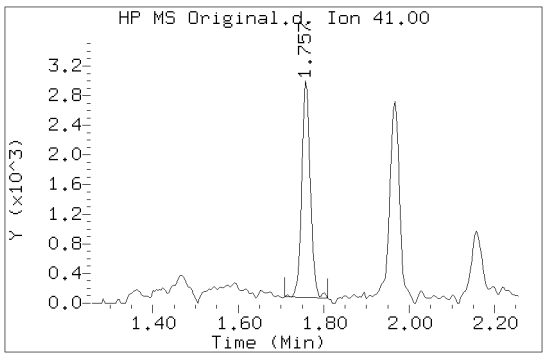
AFTER
MASS
42
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



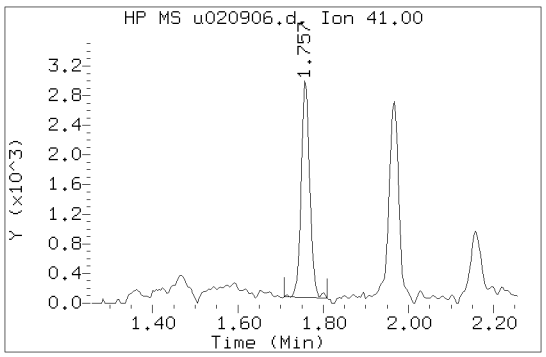
Isobutylene (115-11-7)

Reason Code:

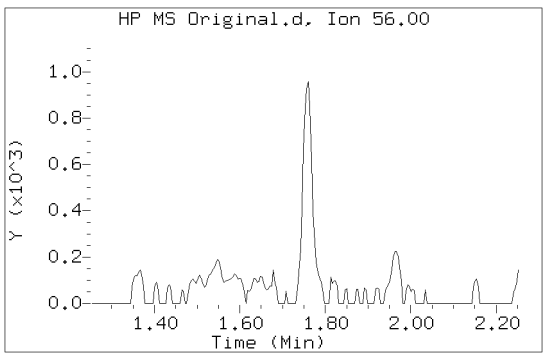
BEFORE
MASS
41
AREA
4184
HEIGHT
2923
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
41
AREA
4184
HEIGHT
2923
09-Feb-2024
11:54
firat
tastan



BEFORE
MASS
56
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
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AREA
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HEIGHT
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09-Feb-2024
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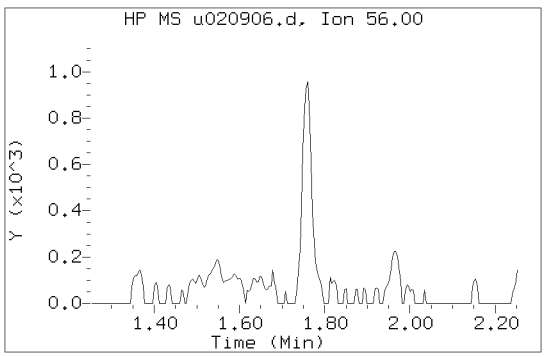

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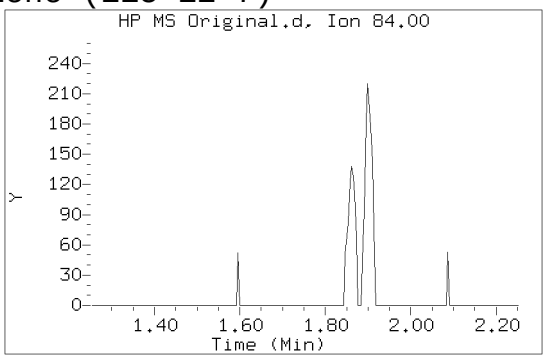
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

Isobutylene (115-11-7)

Reason Code:

BEFORE

MASS
84
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
84
AREA
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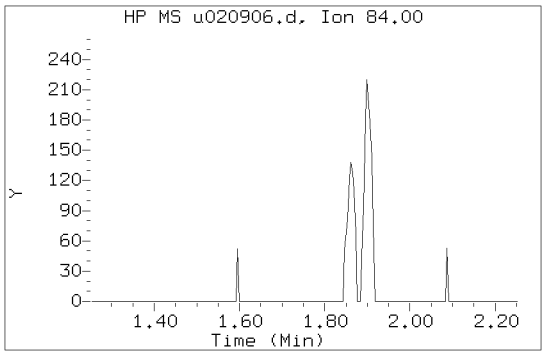
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 09-FEB-2024 11:13
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 10:51 Cal File: U020906.D
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	215695	50.0000	
2	Dichlorodifluoromethane	85	1.164	1.164	(0.242)	27310	20.0000	19.38
3	Chloromethane	50	1.299	1.299	(0.270)	33475	20.0000	20.25
5	Vinyl Chloride	62	1.378	1.378	(0.286)	37094	20.0000	19.89
6	Bromomethane	94	1.621	1.621	(0.337)	23818	20.0000	19.18
7	Chloroethane	64	1.700	1.700	(0.353)	25799	20.0000	19.68
8	Trichlorofluoromethane	101	1.895	1.895	(0.394)	59528	20.0000	19.83
9	Acrolein	56	2.262	2.262	(0.470)	3533	40.0000	42.92
10	Acetone	43	2.409	2.409	(0.500)	24798	40.0000	42.29
11	1,1-Dichloroethene	96	2.334	2.334	(0.485)	34207	20.0000	19.58
15	Iodomethane	142	2.469	2.469	(0.513)	95233	40.0000	37.60
16	Acrylonitrile	53	3.065	3.065	(0.636)	22101	40.0000	39.33
17	Methylene Chloride	84	2.791	2.791	(0.580)	41234	20.0000	20.13
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	94025	20.0000	19.59
19	Carbon Disulfide	76	2.521	2.521	(0.524)	188957	40.0000	36.83
20	trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	40157	20.0000	20.06
21	Vinyl Acetate	43	3.608	3.608	(0.749)	152958	40.0000	36.04
22	1,1-Dichloroethane	63	3.514	3.514	(0.730)	62090	20.0000	19.89
24	2-Butanone	43	4.264	4.264	(0.886)	24604	40.0000	37.64
26	2,2-Dichloropropane	77	4.182	4.182	(0.868)	47497	20.0000	18.51

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	44067	20.0000	18.54
28 Chloroform	83	4.572	4.572 (0.949)	68933	20.0000	19.65

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.467	4.467	(0.928)	24362	20.0000	20.09
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	46132	20.0000	20.46
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	57731	20.0000	18.56
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	49955	20.0000	20.53
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	51739	20.0000	21.05
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	51444	20.0000	19.06
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	46575	20.0000	20.45
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	296529	50.0000	
	37 Benzene	78	5.138	5.138	(0.925)	149249	20.0000	20.59
	38 Trichloroethene	130	5.790	5.790	(1.043)	47513	20.0000	20.45
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	49482	20.0000	19.67
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	581	40.0000	33.47(M)
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	35658	20.0000	20.29
	44 Dibromomethane	93	6.120	6.120	(1.102)	25198	20.0000	19.96
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	60158	40.0000	38.67
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	49967	20.0000	18.99
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	278504	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	159212	20.0000	20.94
	50 Toluene	91	6.978	6.978	(0.853)	168917	20.0000	19.60
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	44026	20.0000	19.10
	52 2-Hexanone	43	7.589	7.589	(0.927)	40547	40.0000	39.05
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	29813	20.0000	20.54
	54 1,3-Dichloropropane	76	7.496	7.496	(0.916)	61623	20.0000	20.16
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	43543	20.0000	19.80
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	40498	20.0000	20.57
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	39480	20.0000	20.47
	58 1-Chlorohexane	55	8.197	8.197	(1.476)	30758	20.0000	20.23
	59 Chlorobenzene	112	8.208	8.208	(1.003)	116535	20.0000	20.24
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	42555	20.0000	19.18
	61 Ethylbenzene	106	8.305	8.305	(1.015)	57328	20.0000	19.56
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	144210	40.0000	40.05
	63 o-Xylene	106	8.748	8.748	(1.069)	72410	20.0000	20.53
	64 Styrene	104	8.759	8.759	(1.070)	121918	20.0000	21.12
	66 Bromoform	173	8.916	8.916	(1.089)	30178	20.0000	18.98
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	179292	20.0000	19.88
	68 1,1,2,2-Tetrachloroethane	83	9.325	9.325	(0.917)	47752	20.0000	20.26
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	59177	20.0000	20.94
*	70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	154882	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	44448	20.0000	17.86
	73 n-Propylbenzene	91	9.411	9.411	(0.926)	189805	20.0000	19.82
	74 Bromobenzene	156	9.317	9.317	(0.916)	56951	20.0000	20.43
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	143448	20.0000	20.00
	76 2-Chlorotoluene	91	9.482	9.482	(0.933)	121041	20.0000	19.04
	77 4-Chlorotoluene	91	9.576	9.576	(0.942)	141246	20.0000	19.57
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	129468	20.0000	19.72
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.972)	141685	20.0000	20.03
	81 sec-Butylbenzene	105	10.022	10.022	(0.986)	161275	20.0000	19.28
	82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	148247	20.0000	19.76
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	97541	20.0000	20.20
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	102103	20.0000	20.34
	87 n-Butylbenzene	91	10.491	10.491	(1.032)	113299	20.0000	19.22
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	95888	20.0000	20.26

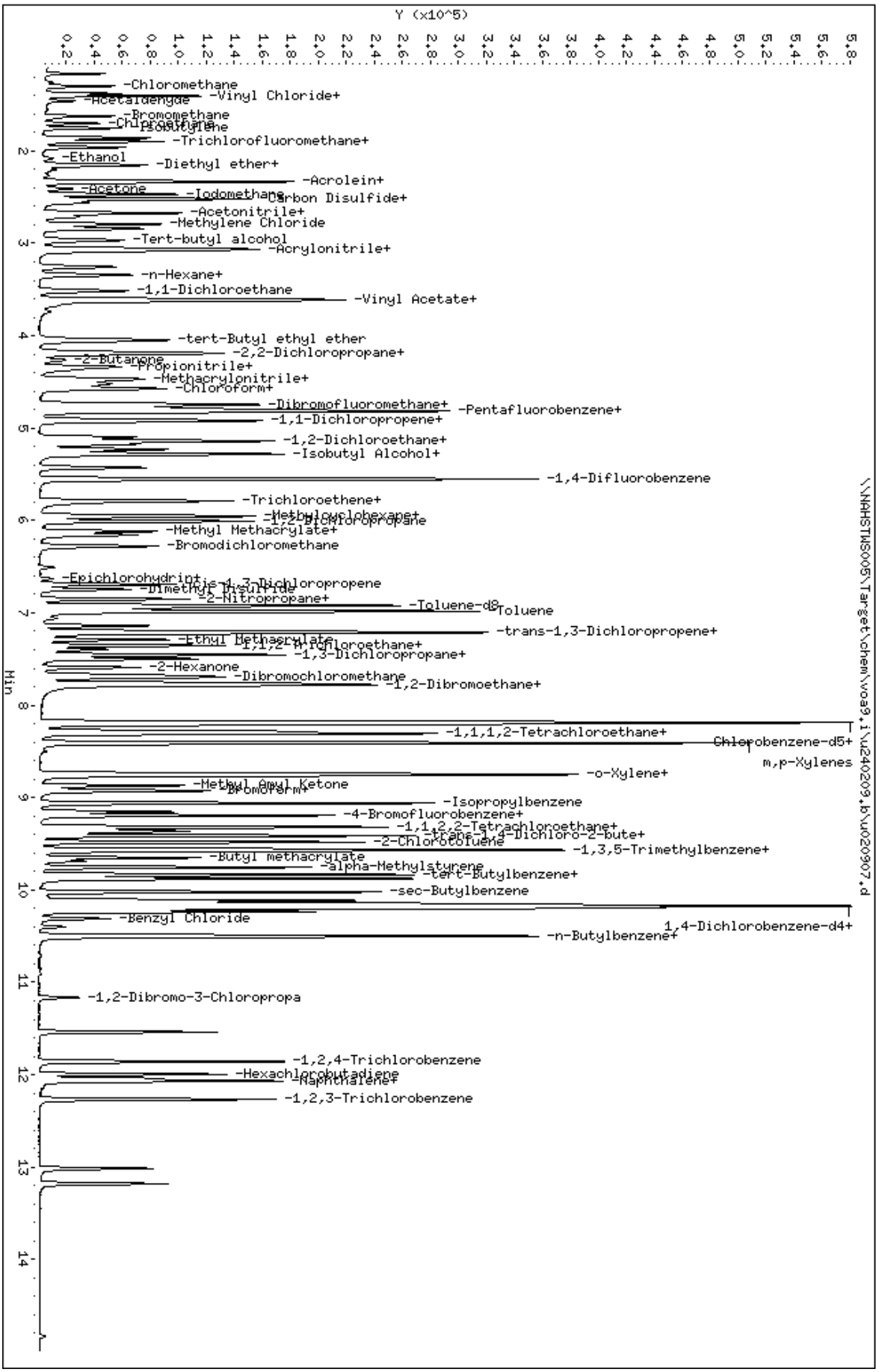
89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	7047	20.0000	18.19
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	61267	20.0000	19.98

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D Page 3
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	27240	20.0000	19.53
	92 Naphthalene	128	12.065	12.065	(1.187)	130928	20.0000	19.33
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	58788	20.0000	20.10
M	94 1,2-Dichloroethylene (total)	96				84224	40.0000	
M	95 Xylenes (total)	106				216620	60.0000	
	135 1,4-Dioxane	88	6.165	6.165	(1.280)	9244	400.000	396.98
	141 Cyclohexane	56	4.785	4.785	(0.994)	47234	20.0000	19.51
	138 Freon TF	101	2.334	2.334	(0.485)	34996	20.0000	19.67
	140 1,3-Butadiene	54	1.404	1.404	(0.292)	32002	20.0000	19.42
	147 Methylcyclohexane	55	5.947	5.947	(1.071)	71597	20.0000	19.93
	146 Methyl Acetate	43	2.712	2.712	(0.563)	25789	20.0000	19.75
	148 Tert-Butyl alcohol	59	2.963	2.963	(0.615)	69193	400.000	390.91
	149 Isopropyl Alcohol	45	2.559	2.559	(0.531)	35913	400.000	366.18(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.


Y (x10^5)
Min
-Chloromethane
-Vinyl Chloride+
-Acetaldehyde
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Ethanol
-Diethyl ether+
-Acrolein+
-Acetone
-Iodomethane
-Carbon Disulfide+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-2-Butanone
-Propionitrile+
-Methacrylonitrile+
-Chloroform+
-Dibromofluoromethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-Methylcyclohexane+
-1,2-Dichloropropane
-Methyl Methacrylate+
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-Epichlorohydrin
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-2-Hexanone
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-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
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-2-Chlorotoluene
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-Benzyl Chloride
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-1,2,3-Trichlorobenzene
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Operator: FT
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Page 1

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LabSampID : VSTD020

Chloroprene (126-99-8)

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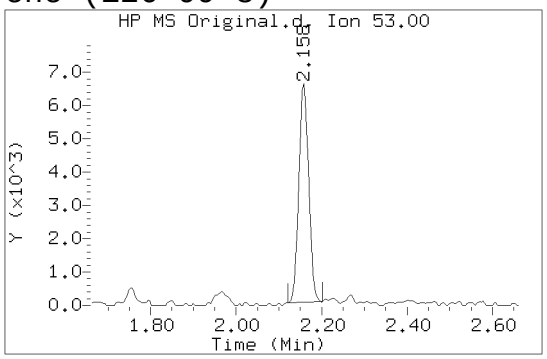

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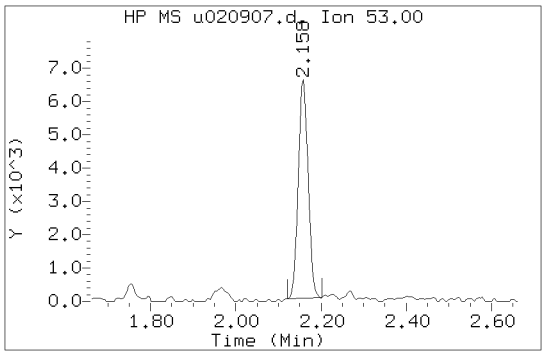

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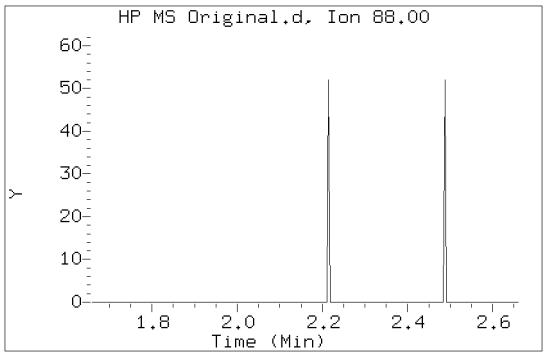

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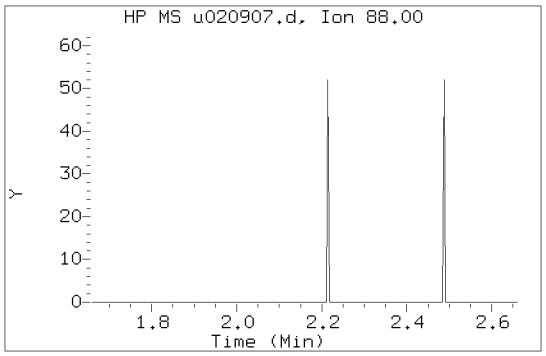

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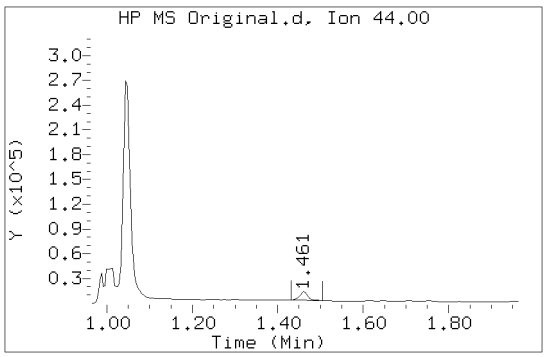

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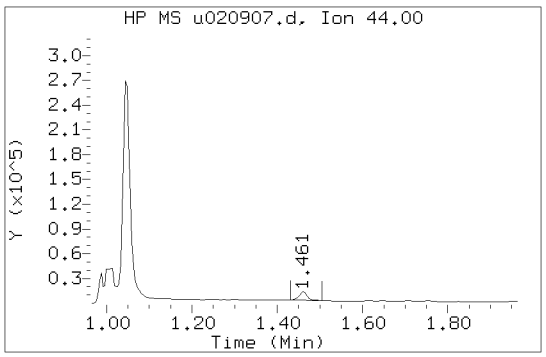

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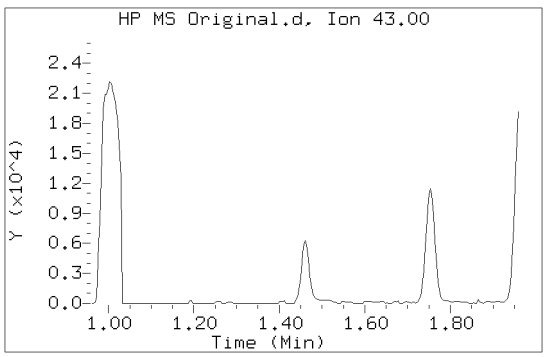

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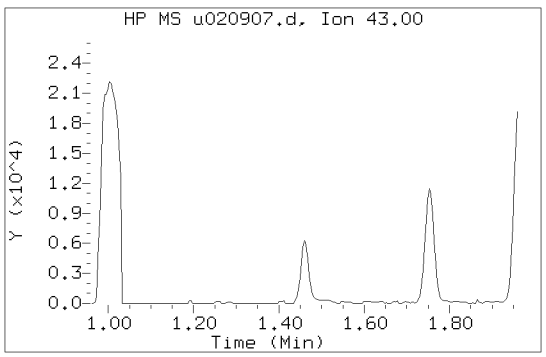

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LabSampID : VSTD020

Acetaldehyde (75-07-0)

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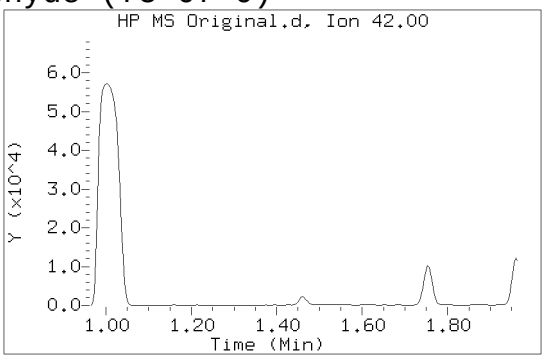

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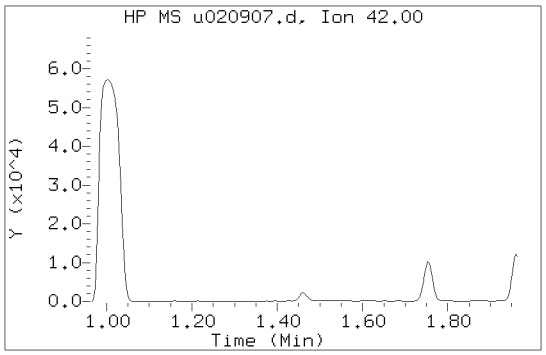

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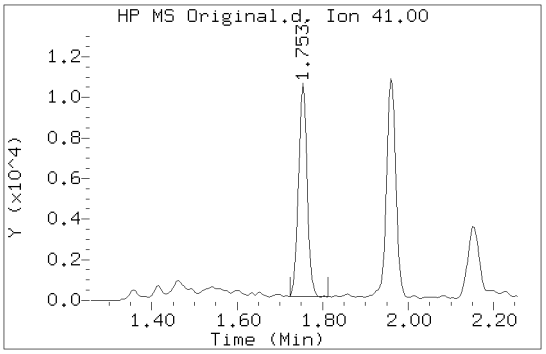

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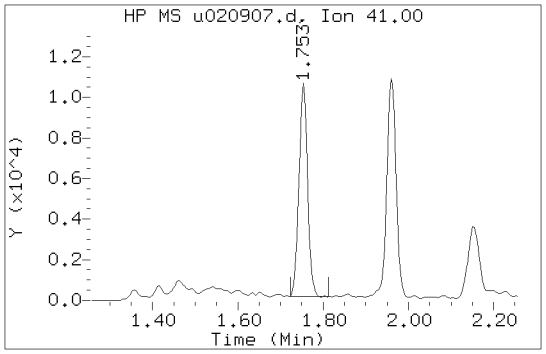

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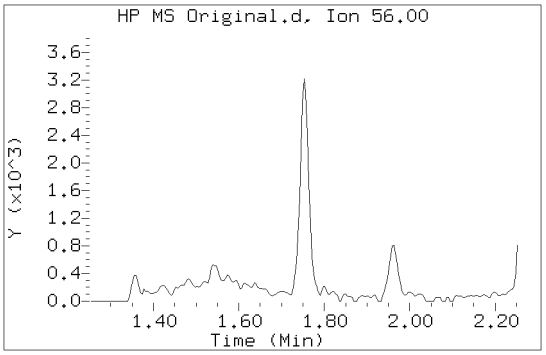

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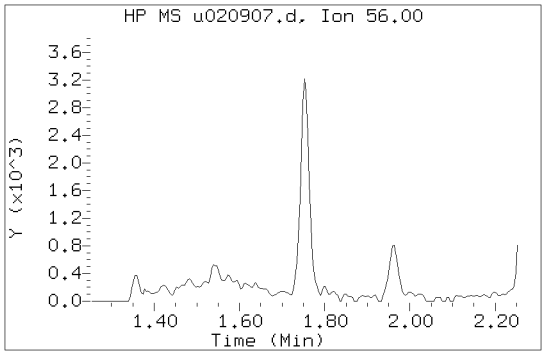

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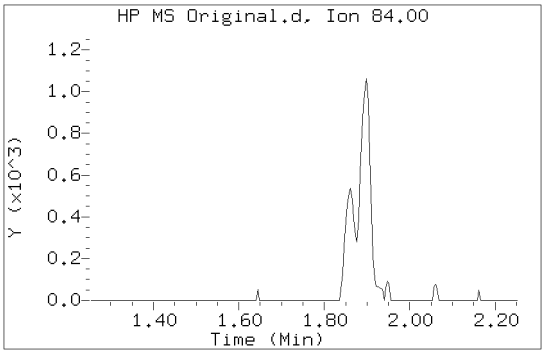

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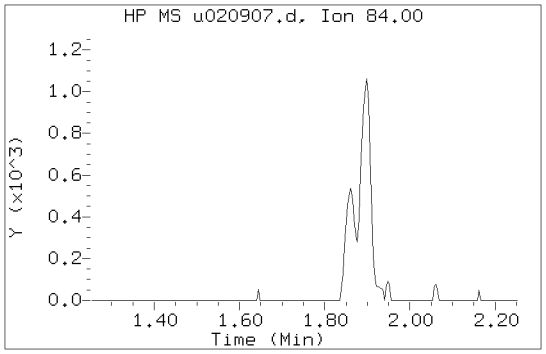

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Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

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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)	215511	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	69589	50.0000	49.25
3	Chloromethane	50	1.303	1.303	(0.270)	80606	50.0000	48.18
5	Vinyl Chloride	62	1.381	1.381	(0.287)	92433	50.0000	49.51
6	Bromomethane	94	1.625	1.625	(0.337)	58408	50.0000	46.20
7	Chloroethane	64	1.704	1.704	(0.354)	66462	50.0000	51.21
8	Trichlorofluoromethane	101	1.899	1.899	(0.394)	150246	50.0000	50.71
9	Acrolein	56	2.266	2.266	(0.470)	8060	100.000	101.21
10	Acetone	43	2.412	2.412	(0.501)	56771	100.000	103.77
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	88113	50.0000	50.25
15	Iodomethane	142	2.472	2.472	(0.513)	266005	100.000	101.87
16	Acrylonitrile	53	3.068	3.068	(0.637)	54913	100.000	98.52
17	Methylene Chloride	84	2.795	2.795	(0.580)	99973	50.0000	50.83
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	236782	50.0000	49.22
19	Carbon Disulfide	76	2.525	2.525	(0.524)	481645	100.000	93.96
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	98160	50.0000	49.03
21	Vinyl Acetate	43	3.608	3.608	(0.749)	405373	100.000	95.61
22	1,1-Dichloroethane	63	3.514	3.514	(0.729)	156179	50.0000	49.93
24	2-Butanone	43	4.260	4.260	(0.884)	64328	100.000	98.49
26	2,2-Dichloropropane	77	4.186	4.186	(0.869)	120199	50.0000	46.90

27	cis-1,2-Dichloroethene	96	4.197	4.197 (0.871)	113107	50.0000	47.63
28	Chloroform	83	4.575	4.575 (0.949)	176056	50.0000	50.47

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020908.D Page 2
Report Date: 15-Feb-2024 11:14

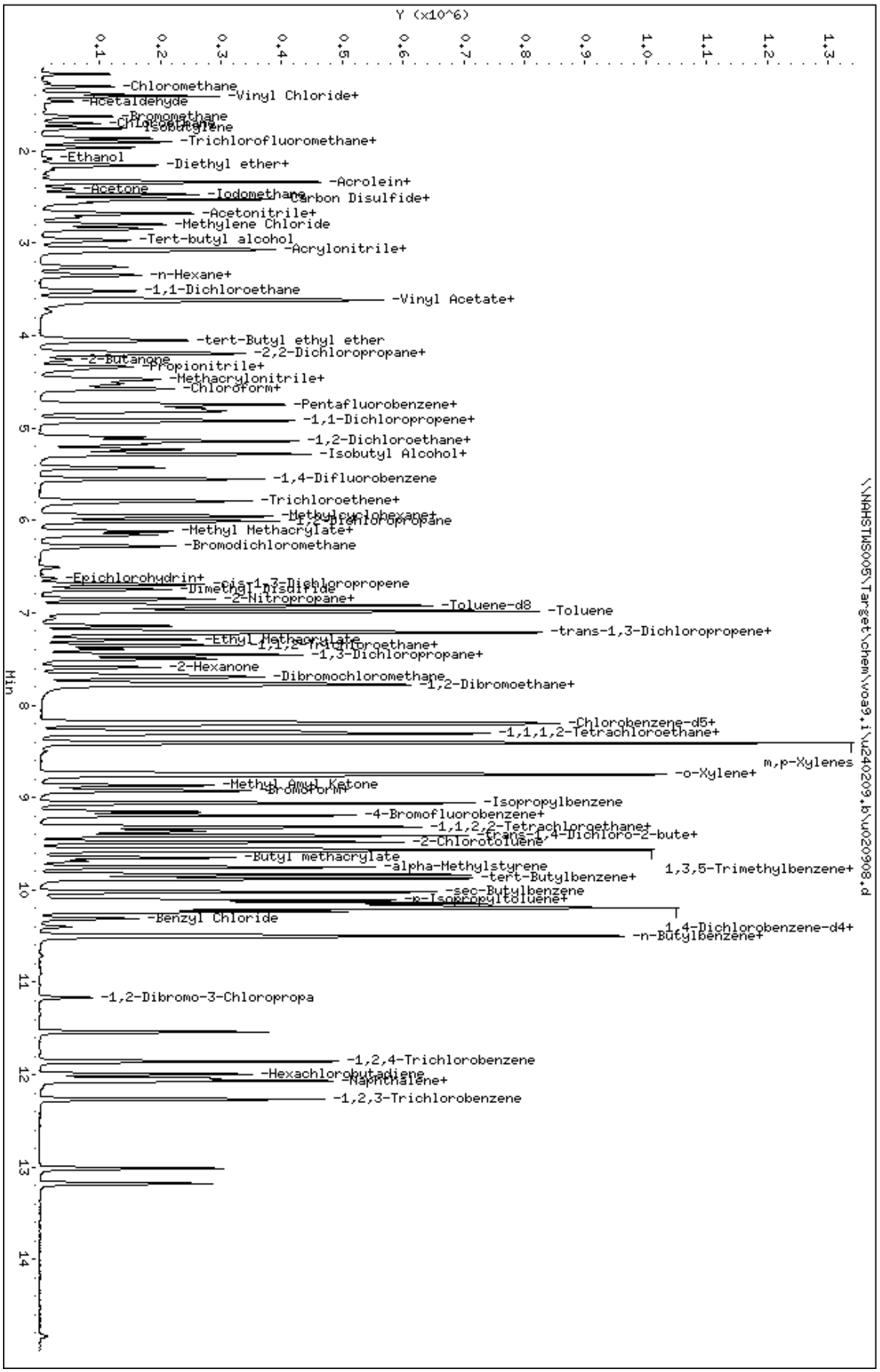
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	62198	50.0000	53.01
$	30 Dibromofluoromethane	113	4.748	4.748	(0.985)	111088	50.0000	49.93
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	149110	50.0000	47.99
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	126795	50.0000	50.67
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	130130	50.0000	52.71
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	133989	50.0000	48.47
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	114391	50.0000	51.37
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	303747	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	375334	50.0000	50.37
	38 Trichloroethene	130	5.790	5.790	(1.043)	120027	50.0000	50.18
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	128157	50.0000	49.74
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.185)	1308	100.000	73.57(M)
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	92135	50.0000	51.30
	44 Dibromomethane	93	6.120	6.120	(1.102)	65623	50.0000	50.75
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	154936	100.000	98.21
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	140911	50.0000	52.28
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	282435	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	391087	50.0000	50.81
	50 Toluene	91	6.982	6.982	(0.853)	423236	50.0000	48.43
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	121449	50.0000	48.61
	52 2-Hexanone	43	7.589	7.589	(0.927)	105869	100.000	96.56
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	75785	50.0000	51.82
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	161117	50.0000	52.26
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	119806	50.0000	53.74
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	101511	50.0000	50.83
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	100897	50.0000	51.58
	58 1-Chlorohexane	55	8.197	8.197	(1.476)	74982	50.0000	48.81
	59 Chlorobenzene	112	8.208	8.208	(1.003)	299817	50.0000	51.68
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	111988	50.0000	49.78
	61 Ethylbenzene	106	8.305	8.305	(1.015)	150769	50.0000	50.74
	62 m,p-Xylenes	106	8.407	8.407	(1.027)	372519	100.000	102.02
	63 o-Xylene	106	8.748	8.748	(1.069)	186453	50.0000	52.14
	64 Styrene	104	8.759	8.759	(1.070)	323014	50.0000	55.18
	66 Bromoform	173	8.916	8.916	(1.089)	84425	50.0000	52.36
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	466998	50.0000	51.08
	68 1,1,2,2-Tetrachloroethane	83	9.325	9.325	(0.917)	123522	50.0000	51.84
$	69 4-Bromofluorobenzene	95	9.190	9.190	(1.123)	144170	50.0000	50.70
*	70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	157506	50.0000	
	71 1,2,3-Trichloropropane	75	9.359	9.359	(0.920)	122655	50.0000	48.47
	73 n-Propylbenzene	91	9.411	9.411	(0.926)	494543	50.0000	50.80
	74 Bromobenzene	156	9.317	9.317	(0.916)	143938	50.0000	50.86
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	382793	50.0000	52.49
	76 2-Chlorotoluene	91	9.482	9.482	(0.933)	311566	50.0000	48.19
	77 4-Chlorotoluene	91	9.576	9.576	(0.942)	357981	50.0000	48.79
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	335529	50.0000	50.27
	79 1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	376814	50.0000	52.39
	81 sec-Butylbenzene	105	10.022	10.022	(0.986)	430282	50.0000	50.59
	82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	402342	50.0000	52.73
	83 1,3-Dichlorobenzene	146	10.112	10.112	(0.994)	246607	50.0000	50.36
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	253657	50.0000	50.28
	87 n-Butylbenzene	91	10.491	10.491	(1.032)	314995	50.0000	52.56
	88 1,2-Dichlorobenzene	146	10.502	10.502	(1.033)	243811	50.0000	51.07

89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	20432	50.0000	46.54
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	163497	50.0000	52.44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	71490	50.0000	50.26
	92 Naphthalene	128	12.065	12.065	(1.187)	351457	50.0000	48.98
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	155871	50.0000	52.42
M	94 1,2-Dichloroethylene (total)	96				211267	100.000	
M	95 Xylenes (total)	106				558972	150.000	
	135 1,4-Dioxane	88	6.161	6.161	(1.278)	22915	1000.00	970.64
	141 Cyclohexane	56	4.789	4.789	(0.994)	116003	50.0000	48.34
	138 Freon TF	101	2.337	2.337	(0.485)	88837	50.0000	49.98
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	83934	50.0000	50.70
	147 Methylcyclohexane	55	5.947	5.947	(1.071)	189844	50.0000	51.60
	146 Methyl Acetate	43	2.716	2.716	(0.564)	64996	50.0000	50.46
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	173854	1000.00	984.61
	149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	95411	1000.00	970.24

QC Flag Legend

M - Compound response manually integrated.



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Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

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Inj Date : 09-FEB-2024 11:35
InstruID : VOA9.i
LabSampID : VSTD050

Chloroprene (126-99-8)

Reason Code:

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09-Feb-2024
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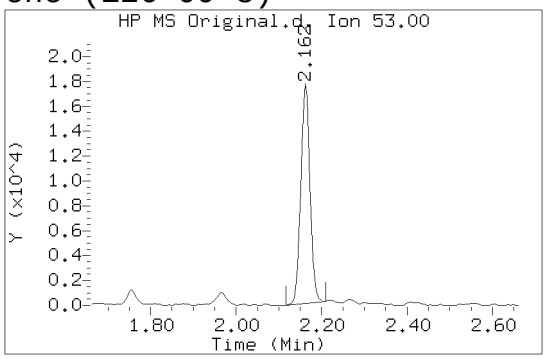

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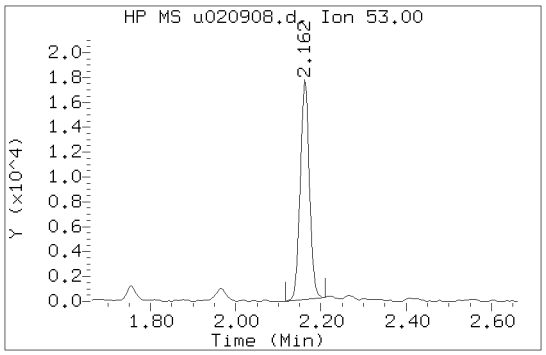

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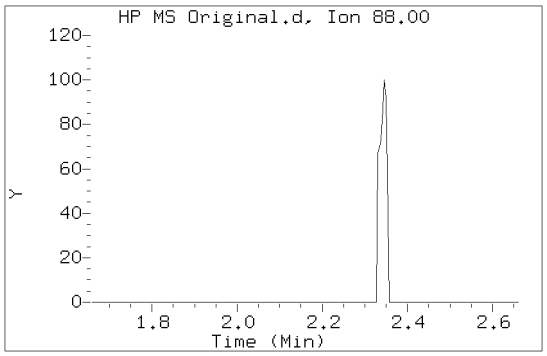

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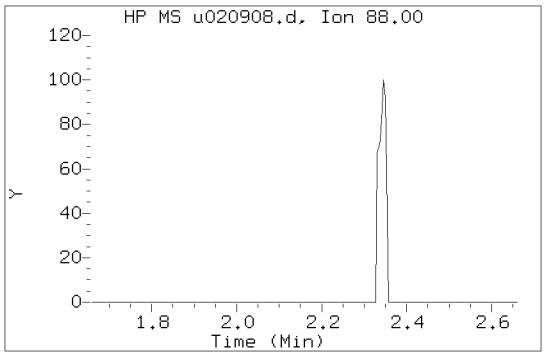

Acetaldehyde (75-07-0)

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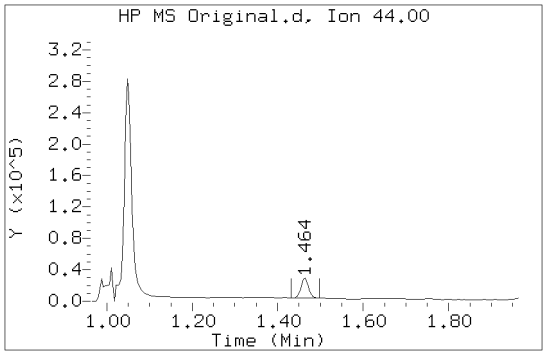

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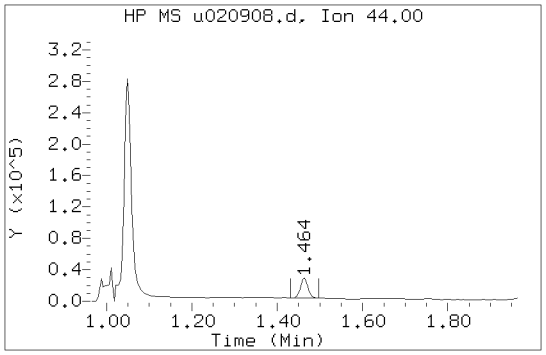

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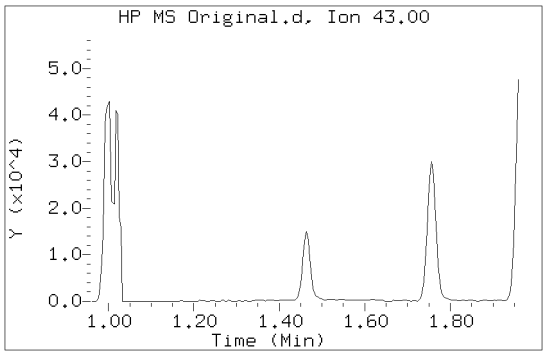

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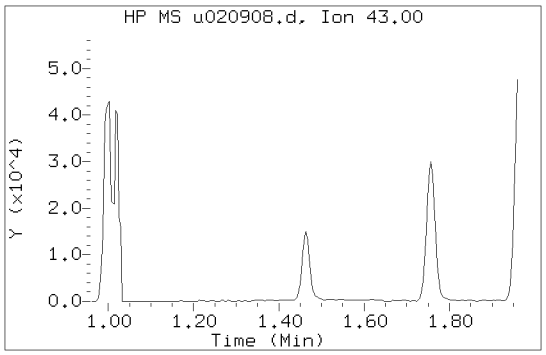

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Inj Date : 09-FEB-2024 11:35
InstruID : VOA9.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

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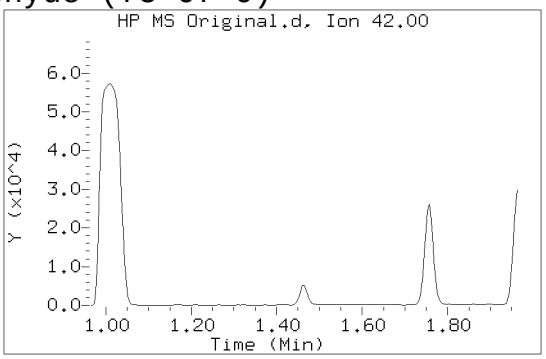

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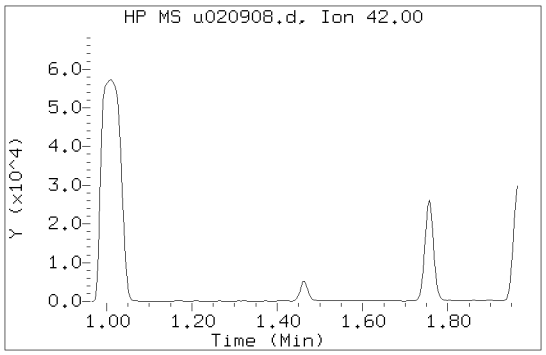

Isobutylene (115-11-7)

Reason Code:

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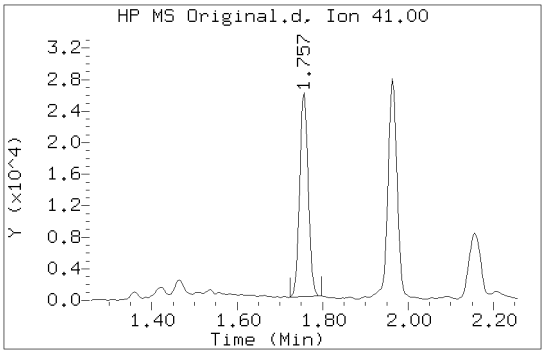

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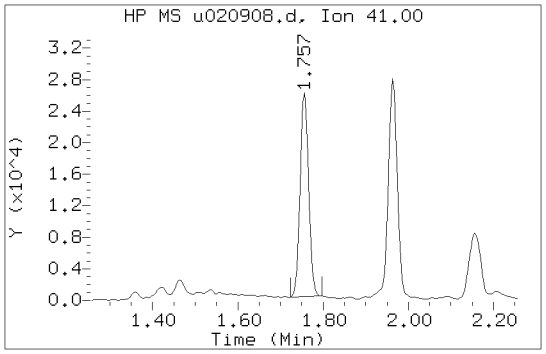

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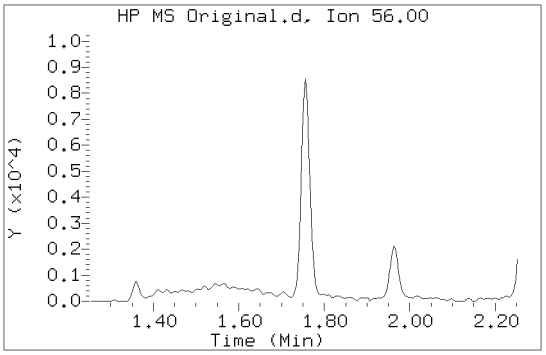

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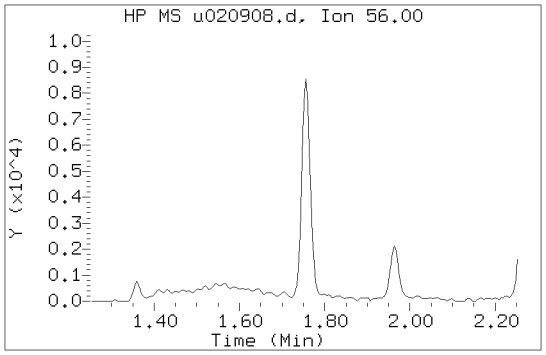

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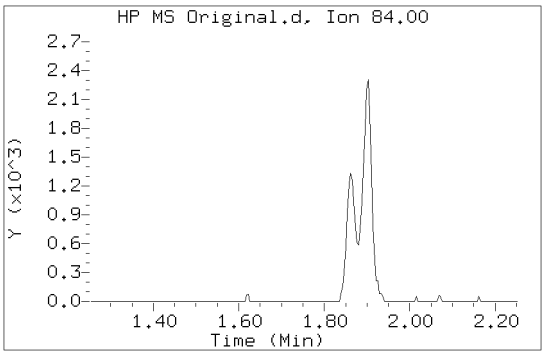

AFTER

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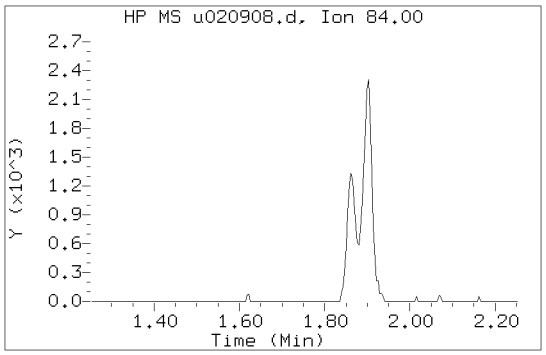

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Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020909.D
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Inj Date : 09-FEB-2024 11:58
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : V9;WATER;0;1;
Comment   :
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Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 11:35 Cal File: U020908.D
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	222991	50.0000	
2	Dichlorodifluoromethane	85	1.160	1.160	(0.241)	142137	100.000	97.09
3	Chloromethane	50	1.295	1.295	(0.269)	165791	100.000	95.32
5	Vinyl Chloride	62	1.374	1.374	(0.285)	190664	100.000	98.64
6	Bromomethane	94	1.618	1.618	(0.336)	122501	100.000	93.02
7	Chloroethane	64	1.696	1.696	(0.352)	129608	100.000	96.78
8	Trichlorofluoromethane	101	1.895	1.895	(0.394)	304288	100.000	99.66
9	Acrolein	56	2.262	2.262	(0.470)	16273	200.000	199.87
10	Acetone	43	2.405	2.405	(0.499)	111939	200.000	202.56(A)
11	1,1-Dichloroethene	96	2.330	2.330	(0.484)	176082	100.000	96.90
15	Iodomethane	142	2.465	2.465	(0.512)	543854	200.000	199.51
16	Acrylonitrile	53	3.061	3.061	(0.636)	115719	200.000	201.15
17	Methylene Chloride	84	2.791	2.791	(0.580)	199305	100.000	99.23
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	489347	100.000	98.21
19	Carbon Disulfide	76	2.517	2.517	(0.523)	986579	200.000	186.01
20	trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	204716	100.000	98.79
21	Vinyl Acetate	43	3.604	3.604	(0.749)	816037	200.000	186.01
22	1,1-Dichloroethane	63	3.511	3.511	(0.729)	312101	100.000	96.33
24	2-Butanone	43	4.257	4.257	(0.884)	133157	200.000	197.04
26	2,2-Dichloropropane	77	4.182	4.182	(0.868)	250168	100.000	94.34

27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	225189	100.000	91.64
28 Chloroform	83	4.572	4.572 (0.949)	352850	100.000	97.89

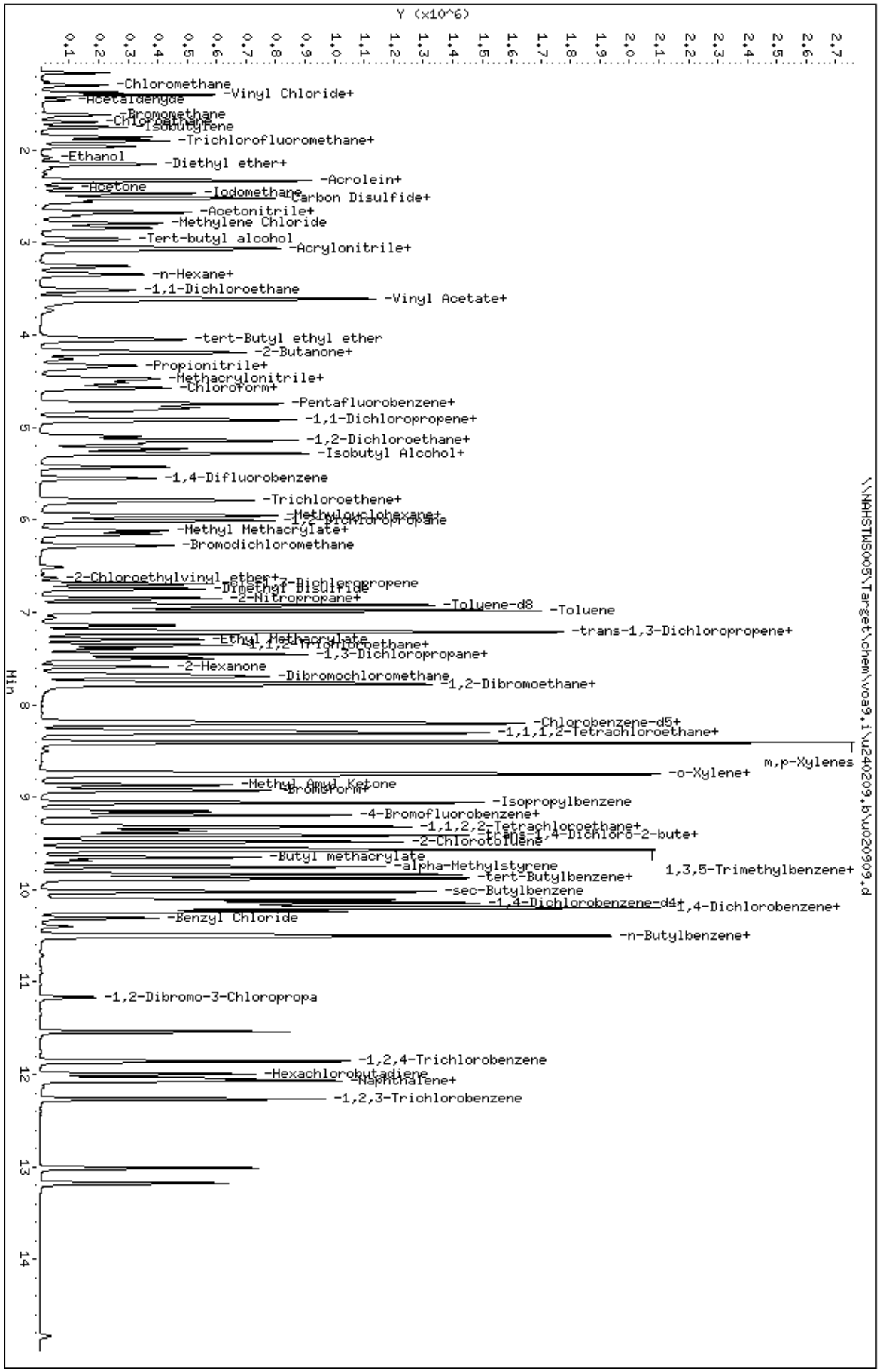
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
29	Bromochloromethane	128	4.467	4.467	(0.928)	119737	100.000	99.56
$ 30	Dibromofluoromethane	113	4.748	4.748	(0.986)	225353	100.000	98.32
31	1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	308526	100.000	95.97
32	1,1-Dichloropropene	75	4.920	4.920	(0.887)	255824	100.000	95.49
33	1,2-Dichloroethane	62	5.171	5.171	(0.932)	254319	100.000	96.92
34	Carbon Tetrachloride	117	4.913	4.913	(0.885)	279136	100.000	94.44
$ 35	1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	226192	100.000	98.86
* 36	1,4-Difluorobenzene	114	5.550	5.550	(1.000)	324772	50.0000	
37	Benzene	78	5.138	5.138	(0.926)	760852	100.000	95.38
38	Trichloroethene	130	5.786	5.786	(1.043)	245643	100.000	95.88
39	Bromodichloromethane	83	6.277	6.277	(1.131)	261272	100.000	94.84
41	2-Chloroethylvinyl ether	63	6.577	6.577	(1.185)	5023	200.000	264.25
42	1,2-Dichloropropane	63	6.007	6.007	(1.082)	182962	100.000	95.35
44	Dibromomethane	93	6.116	6.116	(1.102)	126446	100.000	91.46
45	4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	328621	200.000	194.01
46	cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	301987	100.000	104.79
* 47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	303250	50.0000	
$ 48	Toluene-d8	98	6.922	6.922	(0.846)	794101	100.000	96.13
50	Toluene	91	6.978	6.978	(0.853)	856091	100.000	91.23
51	trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	258370	100.000	95.05
52	2-Hexanone	43	7.589	7.589	(0.927)	227893	200.000	191.04
53	1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	151138	100.000	96.44
54	1,3-Dichloropropane	76	7.496	7.496	(0.916)	321486	100.000	97.28
55	Dibromochloromethane	129	7.691	7.691	(0.940)	242732	100.000	101.41
56	Tetrachloroethene	164	7.458	7.458	(0.911)	206130	100.000	96.14
57	1,2-Dibromoethane	107	7.784	7.784	(0.951)	204332	100.000	97.30
58	1-Chlorohexane	55	8.197	8.197	(1.477)	155922	100.000	95.39
59	Chlorobenzene	112	8.208	8.208	(1.003)	601383	100.000	96.73
60	1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	228908	100.000	94.77
61	Ethylbenzene	106	8.305	8.305	(1.015)	303567	100.000	95.15
62	m,p-Xylenes	106	8.407	8.407	(1.027)	761879	200.000	194.34
63	o-Xylene	106	8.748	8.748	(1.069)	373505	100.000	97.29
64	Styrene	104	8.759	8.759	(1.070)	660147	100.000	105.04
66	Bromoform	173	8.916	8.916	(1.089)	175528	100.000	101.40
67	Isopropylbenzene	105	9.063	9.063	(1.107)	956619	100.000	97.45
68	1,1,2,2-Tetrachloroethane	83	9.325	9.325	(0.917)	242003	100.000	96.77
$ 69	4-Bromofluorobenzene	95	9.194	9.194	(1.123)	295803	100.000	97.16
* 70	1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	165613	50.0000	
71	1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	250693	100.000	94.22
73	n-Propylbenzene	91	9.411	9.411	(0.926)	1007111	100.000	98.39
74	Bromobenzene	156	9.317	9.317	(0.916)	288234	100.000	96.91
75	1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	782239	100.000	102.02
76	2-Chlorotoluene	91	9.482	9.482	(0.933)	633078	100.000	93.14
77	4-Chlorotoluene	91	9.576	9.576	(0.942)	722143	100.000	93.60
78	tert-Butylbenzene	119	9.835	9.835	(0.967)	689164	100.000	98.21
79	1,2,4-Trimethylbenzene	105	9.880	9.880	(0.972)	768364	100.000	101.60
81	sec-Butylbenzene	105	10.022	10.022	(0.986)	891589	100.000	99.70
82	p-Isopropyltoluene	119	10.146	10.146	(0.998)	838420	100.000	104.52
83	1,3-Dichlorobenzene	146	10.112	10.112	(0.994)	502145	100.000	97.63
84	1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	523178	100.000	99.02
87	n-Butylbenzene	91	10.491	10.491	(1.032)	658949	100.000	104.57
88	1,2-Dichlorobenzene	146	10.502	10.502	(1.033)	488949	100.000	97.65

89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	44556	100.000	93.44
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	345953	100.000	105.53

		QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	147841	100.000	98.75
	92 Naphthalene	128	12.065	12.065	(1.187)	739697	100.000	96.80
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	310835	100.000	99.41
M	94 1,2-Dichloroethylene (total)	96				429905	200.000	
M	95 Xylenes (total)	106				1135384	300.000	
	135 1,4-Dioxane	88	6.161	6.161	(1.279)	48044	2000.00	1956.91
	141 Cyclohexane	56	4.785	4.785	(0.994)	240373	100.000	97.07
	138 Freon TF	101	2.334	2.334	(0.485)	178255	100.000	96.92
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	167421	100.000	97.57
	147 Methylcyclohexane	55	5.944	5.944	(1.071)	405233	100.000	103.01(A)
	146 Methyl Acetate	43	2.709	2.709	(0.563)	131072	100.000	98.73
	148 Tert-Butyl alcohol	59	2.963	2.963	(0.615)	360713	2000.00	1975.38
	149 Isopropyl Alcohol	45	2.559	2.559	(0.531)	202950	2000.00	1992.39

QC Flag Legend

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



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Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020909.d
Inj Date : 09-FEB-2024 11:58
InstruID : VOA9.i
LabSampID : VSTD100

Chloroprene (126-99-8)

Reason Code:

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09-Feb-2024
12:30
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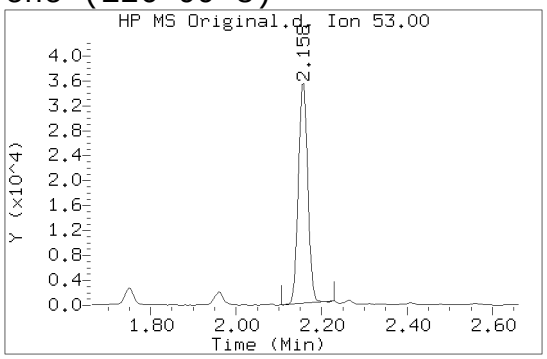

AFTER

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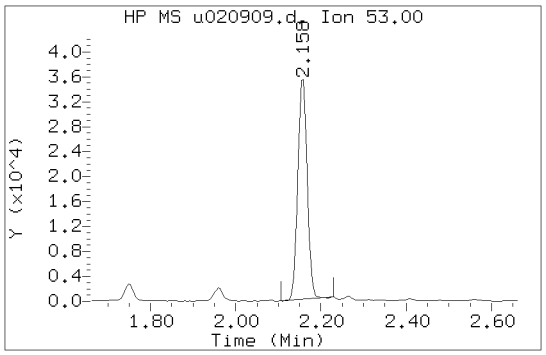

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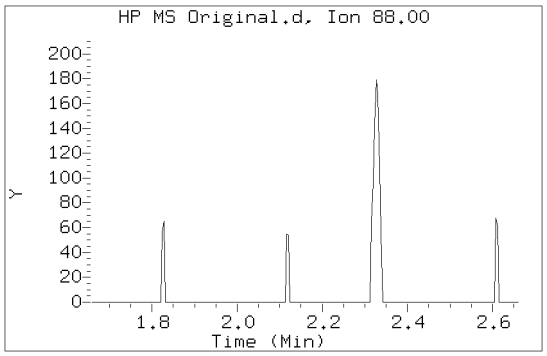

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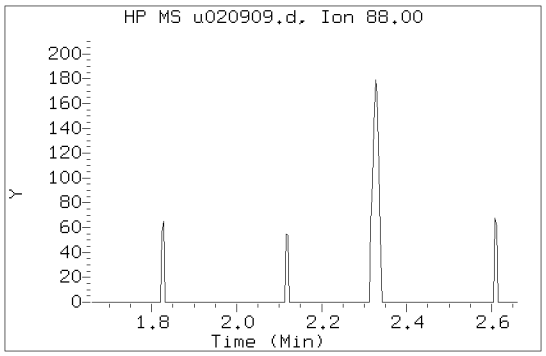

Isobutylene (115-11-7)

Reason Code:

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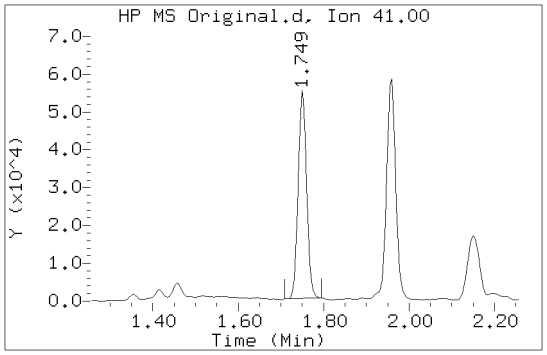

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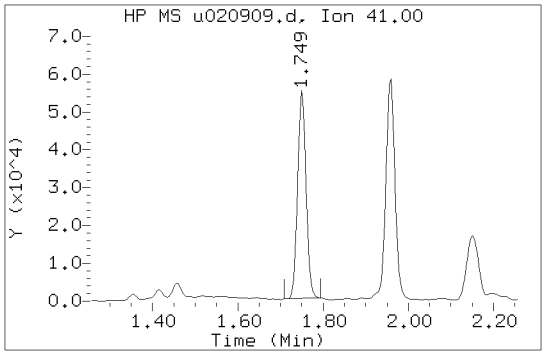

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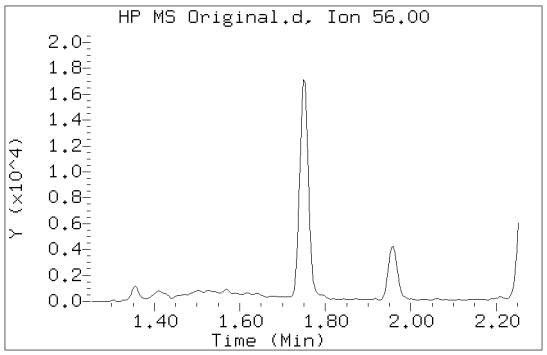

AFTER

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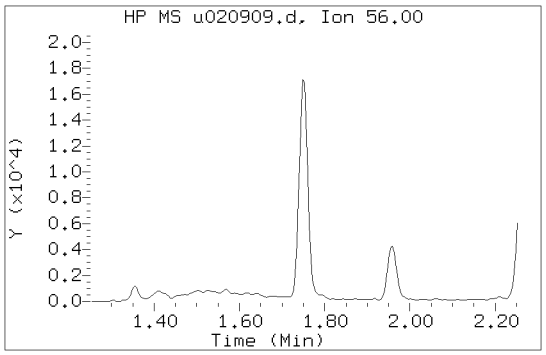

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Inj Date : 09-FEB-2024 11:58
InstruID : VOA9.i
LabSampID : VSTD100

Isobutylene (115-11-7)

Reason Code:

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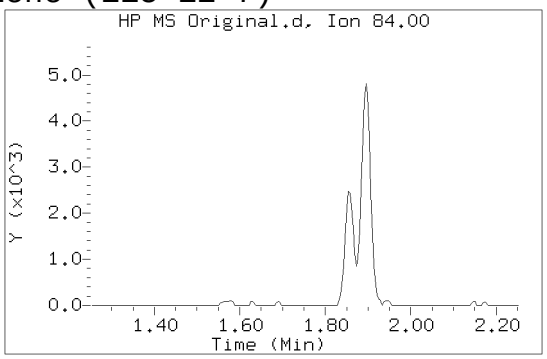

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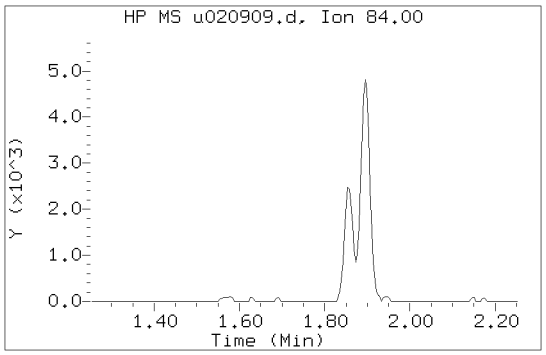


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020910.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020910.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 09-FEB-2024 12:20
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 11:58 Cal File: U020909.D
Als bottle: 10 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.823	4.823	(1.000)	218706	50.0000	
2	Dichlorodifluoromethane	85	1.172	1.172	(0.243)	224828	150.000	156.52
3	Chloromethane	50	1.307	1.307	(0.271)	256738	150.000	150.25
5	Vinyl Chloride	62	1.385	1.385	(0.287)	290301	150.000	153.10
6	Bromomethane	94	1.625	1.625	(0.337)	199120	150.000	153.76
7	Chloroethane	64	1.708	1.708	(0.354)	202297	150.000	154.20
8	Trichlorofluoromethane	101	1.906	1.906	(0.395)	458326	150.000	153.27
9	Acrolein	56	2.274	2.274	(0.472)	23107	300.000	290.48
10	Acetone	43	2.416	2.416	(0.501)	166382	300.000	309.72(A)
11	1,1-Dichloroethene	96	2.341	2.341	(0.485)	274360	150.000	153.86
15	Iodomethane	142	2.476	2.476	(0.513)	836922	300.000	312.01
16	Acrylonitrile	53	3.072	3.072	(0.637)	171648	300.000	304.47
17	Methylene Chloride	84	2.802	2.802	(0.581)	302564	150.000	154.35
18	Methyl tert-butyl ether	73	3.087	3.087	(0.640)	747890	150.000	152.97
19	Carbon Disulfide	76	2.529	2.529	(0.524)	1540667	300.000	296.18
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.635)	310253	150.000	152.64
21	Vinyl Acetate	43	3.612	3.612	(0.749)	1298924	300.000	301.88
22	1,1-Dichloroethane	63	3.522	3.522	(0.730)	492499	150.000	154.92
24	2-Butanone	43	4.264	4.264	(0.884)	202359	300.000	305.31
26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	399948	150.000	153.78

27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	350772	150.000	145.55
28 Chloroform	83	4.579	4.579 (0.949)	545173	150.000	154.30

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020910.D Page 2
Report Date: 15-Feb-2024 11:14

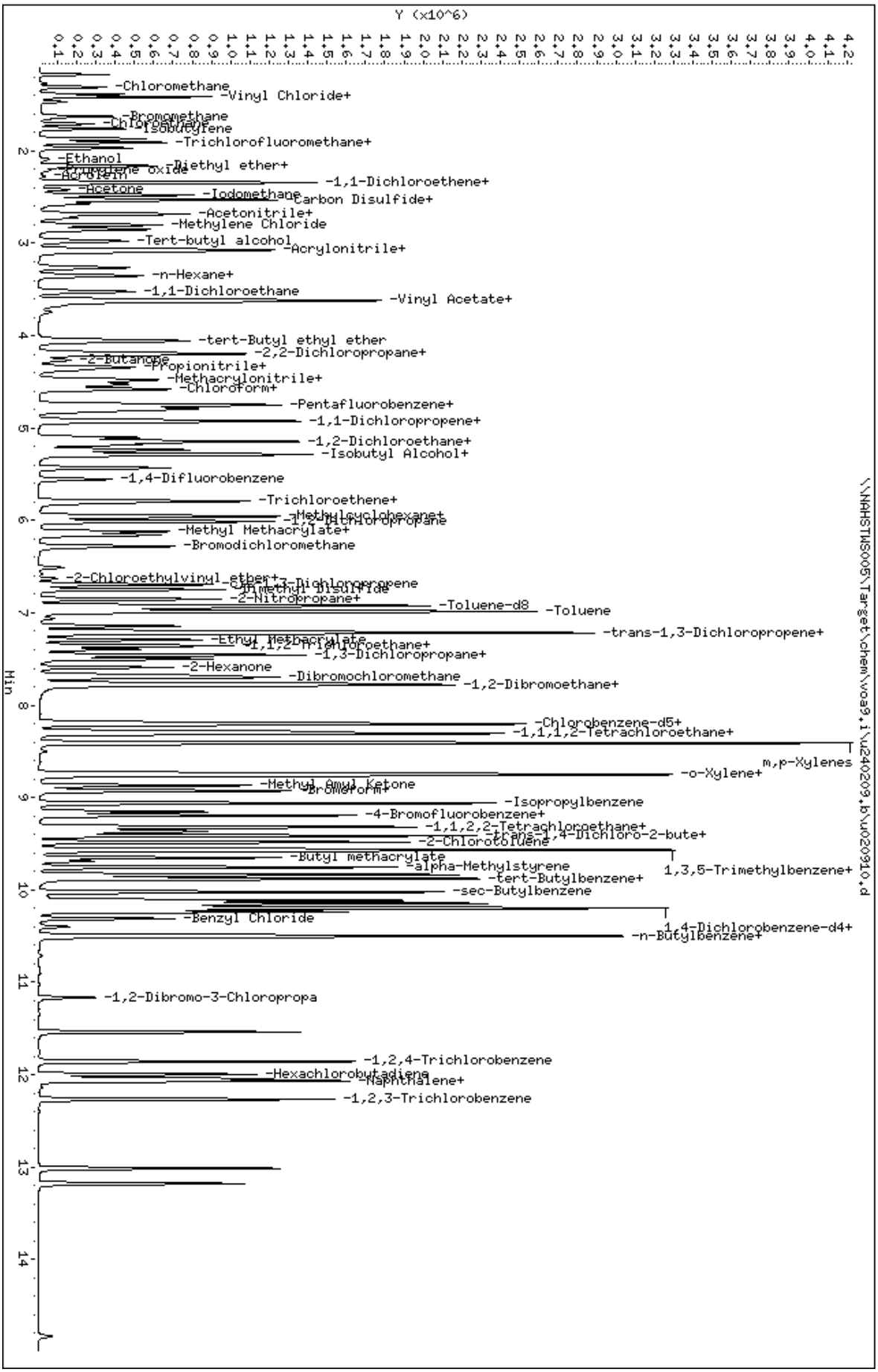
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
29	Bromochloromethane	128	4.474	4.474	(0.928)	181633	150.000	154.58
$ 30	Dibromofluoromethane	113	4.752	4.752	(0.985)	339618	150.000	151.32
31	1,1,1-Trichloroethane	97	4.748	4.748	(0.984)	485989	150.000	154.14
32	1,1-Dichloropropene	75	4.928	4.928	(0.887)	398596	150.000	153.75
33	1,2-Dichloroethane	62	5.179	5.179	(0.932)	388749	150.000	153.58
34	Carbon Tetrachloride	117	4.917	4.917	(0.885)	436813	150.000	152.79
$ 35	1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	338611	150.000	151.29
* 36	1,4-Difluorobenzene	114	5.558	5.558	(1.000)	314131	50.0000	
37	Benzene	78	5.145	5.145	(0.926)	1187546	150.000	153.83
38	Trichloroethene	130	5.790	5.790	(1.042)	379920	150.000	153.21
39	Bromodichloromethane	83	6.281	6.281	(1.130)	407099	150.000	152.78
41	2-Chloroethylvinyl ether	63	6.577	6.577	(1.183)	9190	300.000	499.85(A)
42	1,2-Dichloropropane	63	6.011	6.011	(1.082)	286290	150.000	154.29
44	Dibromomethane	93	6.120	6.120	(1.101)	196084	150.000	146.64
45	4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	513045	300.000	305.84
46	cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	480393	150.000	172.35
* 47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	300329	50.0000	
$ 48	Toluene-d8	98	6.922	6.922	(0.846)	1215187	150.000	148.57
50	Toluene	91	6.982	6.982	(0.853)	1339174	150.000	144.11
51	trans-1,3-Dichloropropene	75	7.196	7.196	(1.295)	407217	150.000	153.82
52	2-Hexanone	43	7.589	7.589	(0.927)	357378	300.000	301.03
53	1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	234464	150.000	151.19
54	1,3-Dichloropropane	76	7.499	7.499	(0.916)	492698	150.000	150.64
55	Dibromochloromethane	129	7.691	7.691	(0.940)	376669	150.000	158.90
56	Tetrachloroethene	164	7.458	7.458	(0.911)	322517	150.000	151.88
57	1,2-Dibromoethane	107	7.784	7.784	(0.951)	314056	150.000	151.01
58	1-Chlorohexane	55	8.197	8.197	(1.475)	243289	150.000	154.17
59	Chlorobenzene	112	8.208	8.208	(1.003)	936714	150.000	152.26
60	1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	358760	150.000	149.98
61	Ethylbenzene	106	8.305	8.305	(1.015)	473719	150.000	149.93
62	m,p-Xylenes	106	8.410	8.410	(1.027)	1184202	300.000	305.00
63	o-Xylene	106	8.748	8.748	(1.069)	585211	150.000	153.92
64	Styrene	104	8.763	8.763	(1.071)	1037018	150.000	166.62
66	Bromoform	173	8.916	8.916	(1.089)	283123	150.000	165.15
67	Isopropylbenzene	105	9.063	9.063	(1.107)	1496713	150.000	153.95
68	1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	375701	150.000	151.87
$ 69	4-Bromofluorobenzene	95	9.194	9.194	(1.123)	452247	150.000	150.15
* 70	1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	163945	50.0000	
71	1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	395249	150.000	150.06
73	n-Propylbenzene	91	9.411	9.411	(0.926)	1579857	150.000	155.92
74	Bromobenzene	156	9.318	9.318	(0.916)	453792	150.000	154.16
75	1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	1223036	150.000	161.14
76	2-Chlorotoluene	91	9.482	9.482	(0.933)	980965	150.000	145.79
77	4-Chlorotoluene	91	9.576	9.576	(0.942)	1132721	150.000	148.32
78	tert-Butylbenzene	119	9.835	9.835	(0.967)	1067033	150.000	153.61
79	1,2,4-Trimethylbenzene	105	9.880	9.880	(0.972)	1204758	150.000	160.93
81	sec-Butylbenzene	105	10.022	10.022	(0.986)	1391890	150.000	157.23
82	p-Isopropyltoluene	119	10.146	10.146	(0.998)	1310079	150.000	164.98
83	1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	787039	150.000	154.63
84	1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	801340	150.000	153.43
87	n-Butylbenzene	91	10.491	10.491	(1.032)	1040243	150.000	166.76
88	1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	762567	150.000	154.00

89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	71535	150.000	149.76
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	534948	150.000	164.84

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	225725	150.000	152.26
	92 Naphthalene	128	12.065	12.065	(1.187)	1165768	150.000	153.37
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	497166	150.000	160.63
M	94 1,2-Dichloroethylene (total)	96				661025	300.000	
M	95 Xylenes (total)	106				1769413	450.000	
	135 1,4-Dioxane	88	6.165	6.165	(1.278)	74347	3000.00	3082.03
	141 Cyclohexane	56	4.789	4.789	(0.993)	370929	150.000	152.88(A)
	138 Freon TF	101	2.345	2.345	(0.486)	280437	150.000	155.46
	140 1,3-Butadiene	54	1.415	1.415	(0.294)	256882	150.000	152.55
	147 Methylcyclohexane	55	5.947	5.947	(1.070)	625053	150.000	164.28(A)
	146 Methyl Acetate	43	2.724	2.724	(0.565)	197033	150.000	151.54
	148 Tert-Butyl alcohol	59	2.975	2.975	(0.617)	547562	3000.00	3057.95
	149 Isopropyl Alcohol	45	2.574	2.574	(0.534)	308676	3000.00	3088.55

QC Flag Legend

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



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Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020910.d
Inj Date : 09-FEB-2024 12:20
InstruID : VOA9.i
LabSampID : VSTD150

Chloroprene (126-99-8)

Reason Code:

BEFORE
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53
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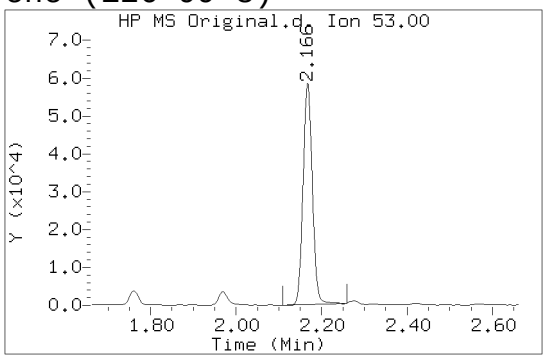
90341
HEIGHT
58294
09-Feb-2024
13:01
firat
tastan



AFTER
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09-Feb-2024
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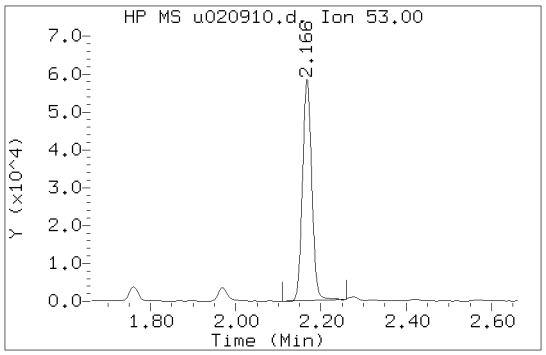

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09-Feb-2024
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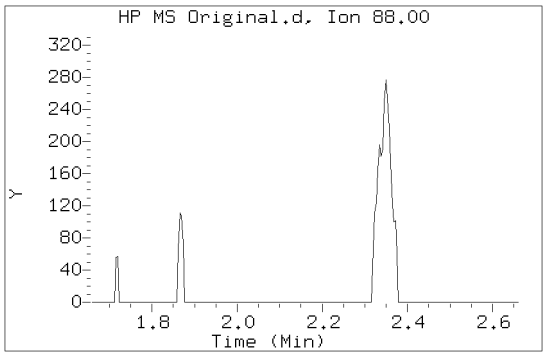

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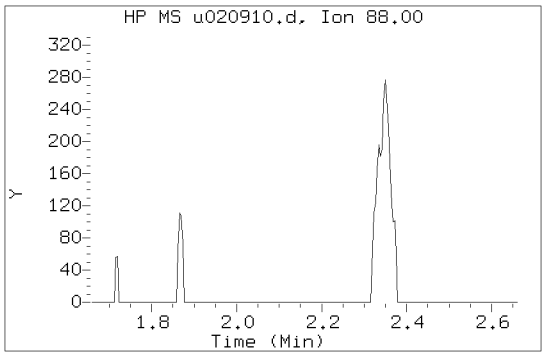

Isobutylene (115-11-7)

Reason Code:

BEFORE
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HEIGHT
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09-Feb-2024
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firat
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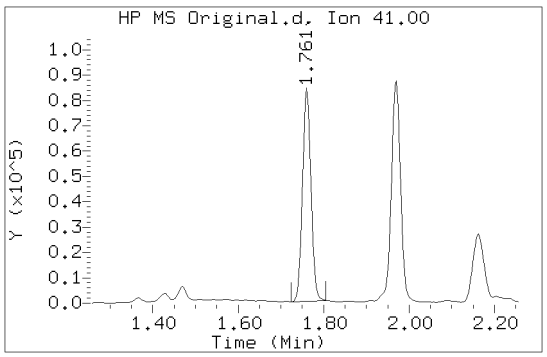

AFTER
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09-Feb-2024
13:01
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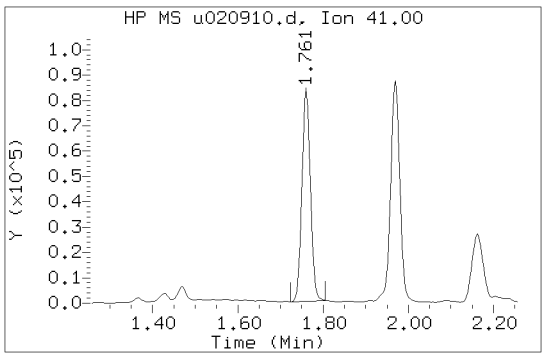

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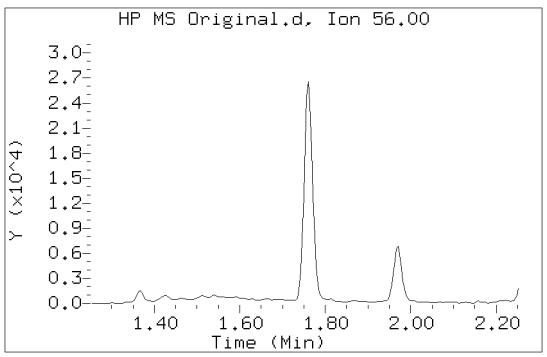

AFTER
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09-Feb-2024
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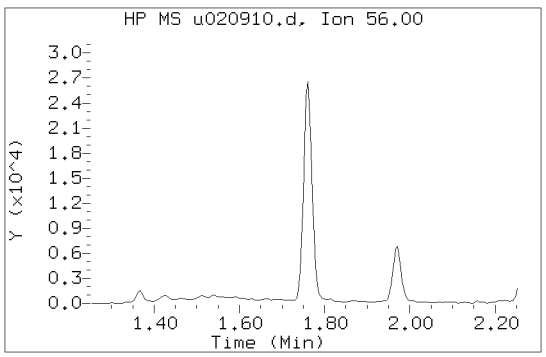

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Inj Date : 09-FEB-2024 12:20
InstruID : VOA9.i
LabSampID : VSTD150

Isobutylene (115-11-7)

Reason Code:

BEFORE

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HEIGHT
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09-Feb-2024
13:01
firat
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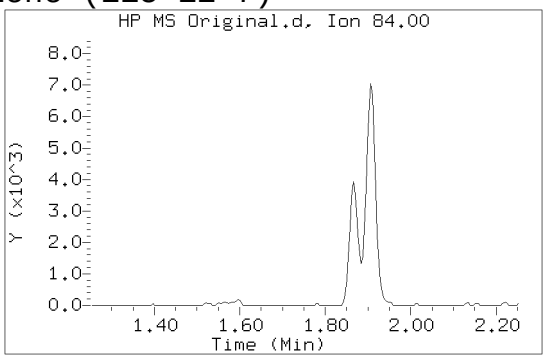

AFTER

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09-Feb-2024
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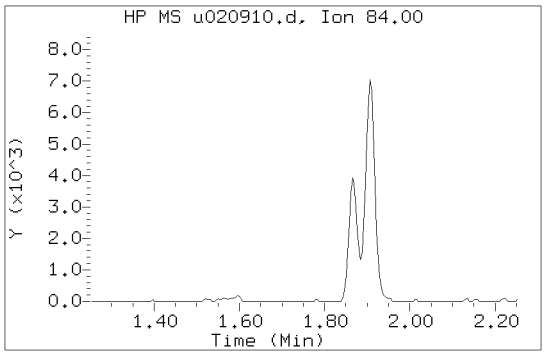


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 09-FEB-2024 12:42
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:20 Cal File: U020910.D
Als bottle: 11 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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)	230325	50.0000	
2	Dichlorodifluoromethane	85	1.167	1.167	(0.242)	297253	200.000	196.46
3	Chloromethane	50	1.302	1.302	(0.270)	364440	200.000	202.36(A)
5	Vinyl Chloride	62	1.381	1.381	(0.287)	396253	200.000	198.41
6	Bromomethane	94	1.617	1.617	(0.336)	274596	200.000	201.16(A)
7	Chloroethane	64	1.700	1.700	(0.353)	273442	200.000	198.00
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	621502	200.000	197.47
9	Acrolein	56	2.270	2.270	(0.471)	33950	400.000	406.25(A)
10	Acetone	43	2.412	2.412	(0.501)	219721	400.000	389.73(A)
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	372803	200.000	198.48
15	Iodomethane	142	2.472	2.472	(0.513)	1096640	400.000	387.77
16	Acrylonitrile	53	3.068	3.068	(0.637)	235255	400.000	396.39
17	Methylene Chloride	84	2.798	2.798	(0.581)	405366	200.000	196.74
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	1023738	200.000	198.80
19	Carbon Disulfide	76	2.524	2.524	(0.524)	2108182	400.000	384.83
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	425570	200.000	198.80
21	Vinyl Acetate	43	3.608	3.608	(0.749)	1753724	400.000	387.02
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	662807	200.000	197.95
24	2-Butanone	43	4.260	4.260	(0.884)	278335	400.000	398.76
26	2,2-Dichloropropane	77	4.185	4.185	(0.869)	537243	200.000	196.15

27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	476692	200.000	187.83
28 Chloroform	83	4.575	4.575 (0.949)	735037	200.000	197.59

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	241921	200.000	195.79
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	471863	200.000	199.77
	31 1,1,1-Trichloroethane	97	4.747	4.747	(0.985)	653629	200.000	196.85
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	540113	200.000	199.03
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	523717	200.000	197.91
	34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	598406	200.000	200.01(A)
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	468937	200.000	199.18
*	36 1,4-Difluorobenzene	114	5.553	5.553	(1.000)	328741	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	1608657	200.000	199.09
	38 Trichloroethene	130	5.790	5.790	(1.043)	517591	200.000	199.41
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	558464	200.000	200.28(A)
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	13641	400.000	708.97(A)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	385455	200.000	198.53
	44 Dibromomethane	93	6.119	6.119	(1.102)	265739	200.000	189.90
	45 4-Methyl-2-Pentanone	43	6.850	6.850	(0.837)	711544	400.000	413.72(A)
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	656574	200.000	225.10(A)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	307921	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	1698429	200.000	202.56(A)
	50 Toluene	91	6.982	6.982	(0.853)	1818396	200.000	190.85
	51 trans-1,3-Dichloropropene	75	7.195	7.195	(1.296)	554885	200.000	199.78
	52 2-Hexanone	43	7.589	7.589	(0.927)	493142	400.000	404.27(A)
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	318353	200.000	200.29(A)
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	671252	200.000	200.23(A)
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	520656	200.000	214.23(A)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	435734	200.000	200.14(A)
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	424019	200.000	198.85
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	328757	200.000	199.22
	59 Chlorobenzene	112	8.207	8.207	(1.003)	1257280	200.000	199.40
	60 1,1,1,2-Tetrachloroethane	131	8.282	8.282	(1.012)	487985	200.000	198.97
	61 Ethylbenzene	106	8.309	8.309	(1.015)	641854	200.000	198.14
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	1605717	400.000	403.37(A)
	63 o-Xylene	106	8.747	8.747	(1.069)	785587	200.000	201.52(A)
	64 Styrene	104	8.762	8.762	(1.071)	1404250	200.000	220.06(A)
	66 Bromoform	173	8.916	8.916	(1.089)	391387	200.000	222.68(A)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	2008831	200.000	201.54(A)
	68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	518878	200.000	199.64
$	69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	620366	200.000	200.98(A)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	172299	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	539282	200.000	194.82
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	2208340	200.000	207.38(A)
	74 Bromobenzene	156	9.317	9.317	(0.916)	612518	200.000	198.01
	75 1,3,5-Trimethylbenzene	105	9.564	9.564	(0.940)	1656263	200.000	207.64(A)
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	1321830	200.000	186.93
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1531559	200.000	190.82
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1423591	200.000	195.01
	79 1,2,4-Trimethylbenzene	105	9.879	9.879	(0.971)	1630213	200.000	207.21(A)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1881810	200.000	202.27(A)
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	1758751	200.000	210.74(A)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	1055922	200.000	197.43
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1084669	200.000	197.73
	87 n-Butylbenzene	91	10.490	10.490	(1.031)	1393758	200.000	212.60(A)
	88 1,2-Dichlorobenzene	146	10.505	10.505	(1.033)	1028628	200.000	197.74

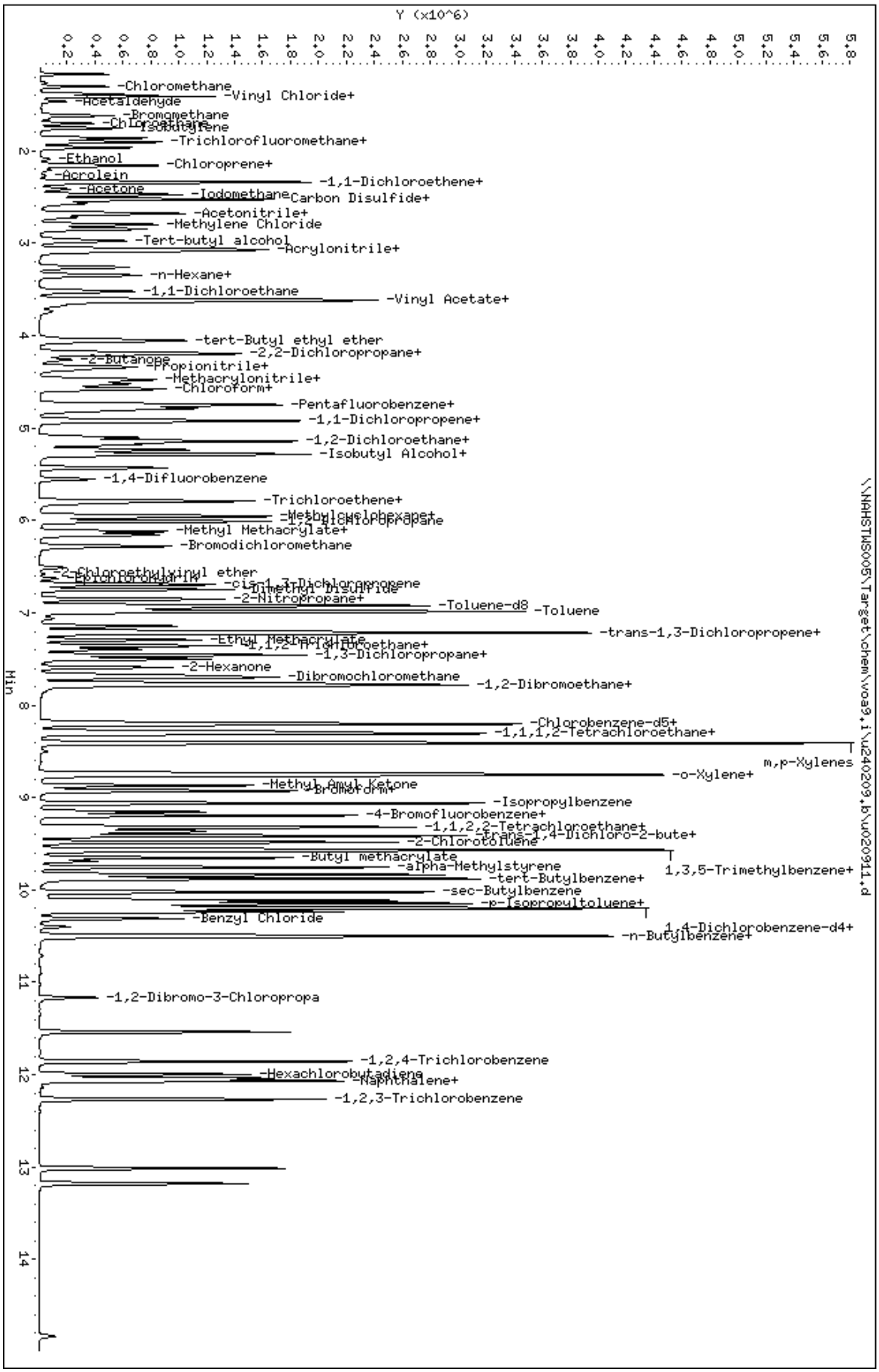
89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	102920	200.000	203.97(A)
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.165)	729375	200.000	213.86(A)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D Page 3
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.997	11.997	(1.179)	309875	200.000	198.86
	92 Naphthalene	128	12.065	12.065	(1.186)	1594607	200.000	199.25
	93 1,2,3-Trichlorobenzene	180	12.267	12.267	(1.206)	668989	200.000	205.66(A)
M	94 1,2-Dichloroethylene (total)	96				902262	400.000	
M	95 Xylenes (total)	106				2391304	600.000	
	135 1,4-Dioxane	88	6.164	6.164	(1.279)	100798	4000.00	3964.99
	141 Cyclohexane	56	4.789	4.789	(0.994)	509886	200.000	199.63(A)
	138 Freon TF	101	2.337	2.337	(0.485)	374690	200.000	197.23
	140 1,3-Butadiene	54	1.407	1.407	(0.292)	353164	200.000	199.10
	147 Methylcyclohexane	55	5.947	5.947	(1.071)	863668	200.000	216.90(A)
	146 Methyl Acetate	43	2.716	2.716	(0.564)	272795	200.000	199.36
	148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	748988	4000.00	3972.14
	149 Isopropyl Alcohol	45	2.569	2.569	(0.533)	415230	4000.00	3944.54

QC Flag Legend

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



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Date : 09-FEB-2024 12:42
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

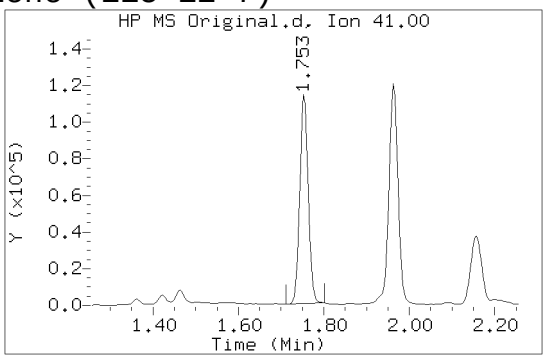
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020911.d
Inj Date : 09-FEB-2024 12:42
InstruID : VOA9.i
LabSampID : VSTD200

Isobutylene (115-11-7)

Reason Code:

BEFORE

MASS
41
AREA
160570
HEIGHT
114264
09-Feb-2024
13:03
firat
tastan



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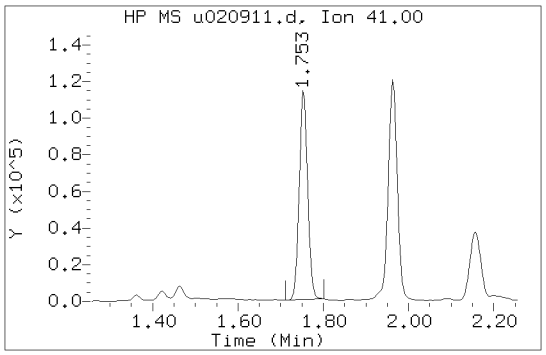

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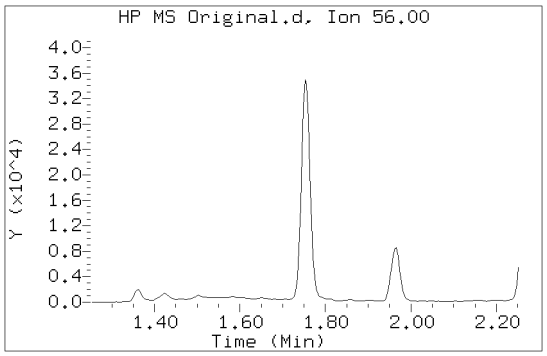

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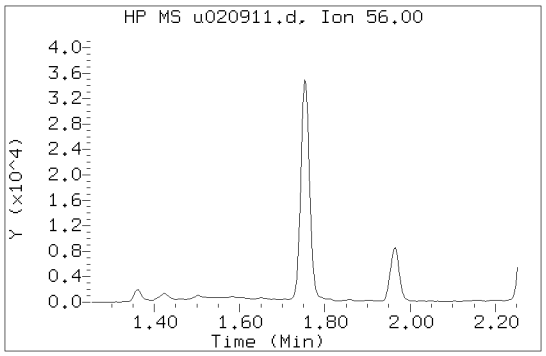

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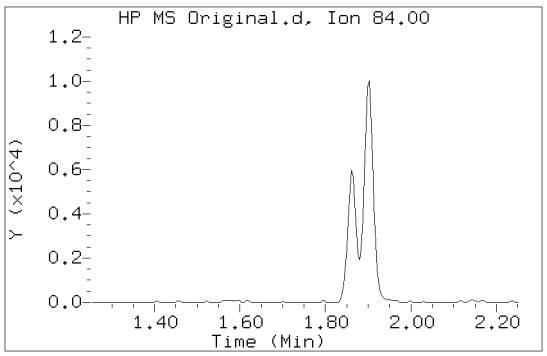

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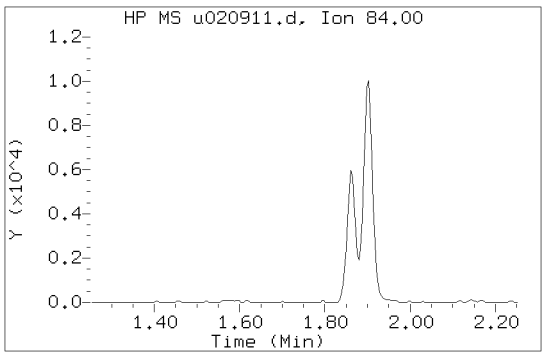


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020913.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020913.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 09-FEB-2024 13:27
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD050;VSTD050;2;;ICV
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 13 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.819	(1.000)	247136	50.0000	
2 Dichlorodifluoromethane	85	1.164	1.167	(0.242)	68711	42.4252	42.42
3 Chloromethane	50	1.299	1.302	(0.270)	97477	50.7861	50.78
5 Vinyl Chloride	62	1.378	1.381	(0.286)	97135	45.3797	45.37
6 Bromomethane	94	1.621	1.617	(0.337)	77533	53.3880	53.38
7 Chloroethane	64	1.700	1.700	(0.353)	67671	45.4441	45.44
8 Trichlorofluoromethane	101	1.899	1.902	(0.394)	151220	44.4657	44.46
9 Acrolein	56	2.266	2.270	(0.471)	8248	90.0515	90.05
10 Acetone	43	2.409	2.412	(0.500)	58015	91.9008	91.90
11 1,1-Dichloroethene	96	2.334	2.337	(0.485)	91319	45.4288	45.42
15 Iodomethane	142	2.468	2.472	(0.513)	241206	80.9356	80.93(M)
16 Acrylonitrile	53	3.065	3.068	(0.636)	60264	94.2694	94.26
17 Methylene Chloride	84	2.795	2.798	(0.580)	105106	46.4945	46.49
18 Methyl tert-butyl ether	73	3.080	3.083	(0.640)	255656	46.3538	46.35
19 Carbon Disulfide	76	2.521	2.524	(0.524)	510531	86.8553	86.85
20 trans-1,2-Dichloroethene	96	3.057	3.061	(0.635)	106504	46.3956	46.39
21 Vinyl Acetate	43	3.604	3.608	(0.749)	441763	90.8607	90.86
22 1,1-Dichloroethane	63	3.514	3.518	(0.730)	166714	46.4860	46.48
24 2-Butanone	43	4.260	4.260	(0.885)	68210	91.0754	91.07
26 2,2-Dichloropropane	77	4.185	4.185	(0.869)	125393	42.6688	42.66

27 cis-1,2-Dichloroethene	96	4.197	4.200 (0.872)	121249	44.5259	44.52
28 Chloroform	83	4.572	4.575 (0.949)	185412	46.3396	46.33

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020913.D Page 2
Report Date: 15-Feb-2024 11:14

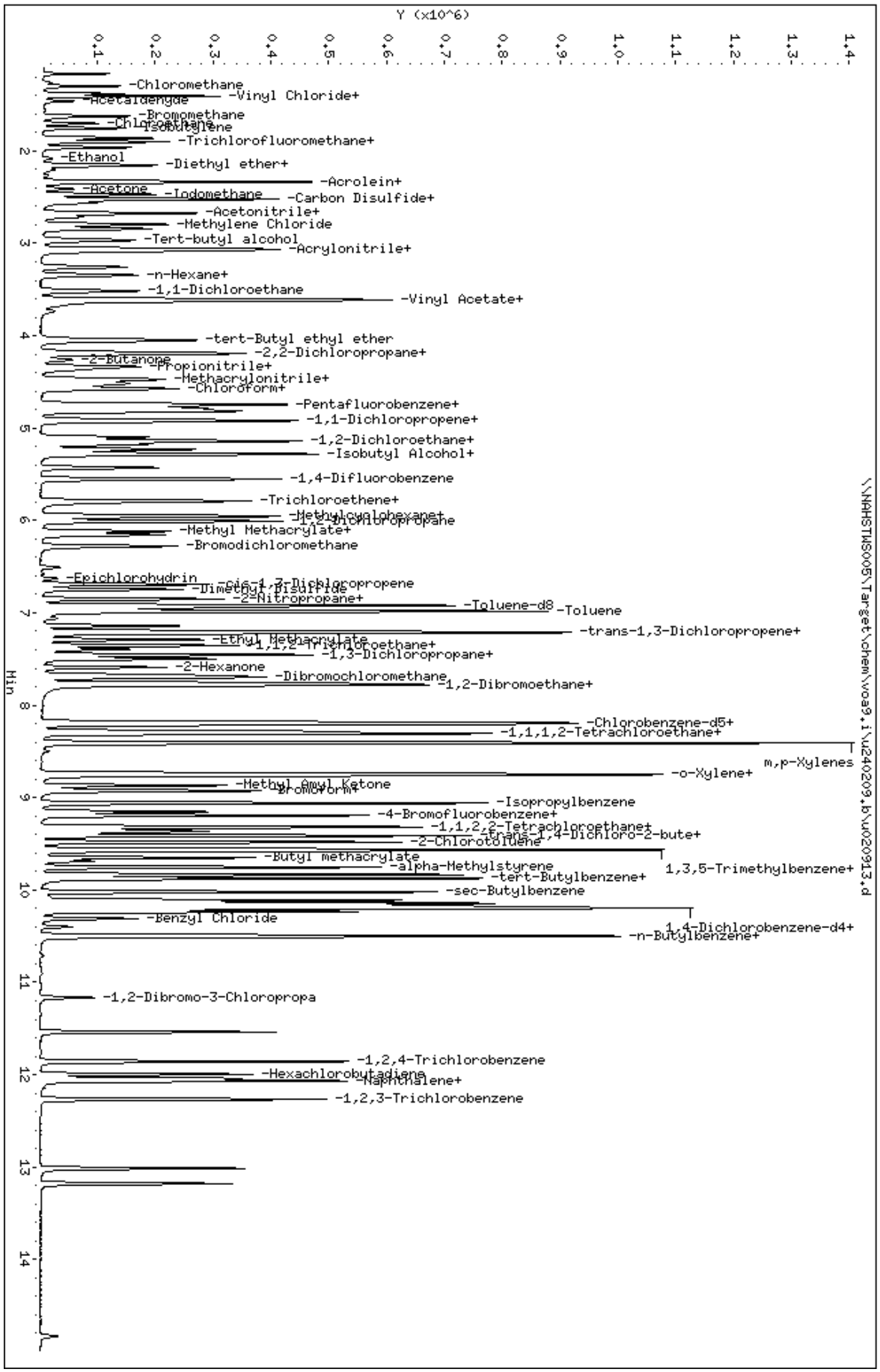
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	29 Bromochloromethane	128	4.470	4.474	(0.928)	66500	49.3585	49.35
$	30 Dibromofluoromethane	113	4.748	4.751	(0.986)	120774	47.3217	47.32
	31 1,1,1-Trichloroethane	97	4.744	4.747	(0.985)	159394	44.7391	44.73
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	134606	47.3333	47.33
	33 1,2-Dichloroethane	62	5.175	5.179	(0.932)	132931	47.2954	47.29
	34 Carbon Tetrachloride	117	4.913	4.916	(0.885)	140987	44.8659	44.86
$	35 1,2-Dichloroethane-d4	65	5.096	5.100	(1.058)	120103	46.9726	46.97
*	36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	345294	50.0000	
	37 Benzene	78	5.138	5.141	(0.925)	401947	47.4597	47.45
	38 Trichloroethene	130	5.790	5.790	(1.043)	127869	47.0376	47.03
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	134639	45.9712	45.97
	42 1,2-Dichloropropane	63	6.007	6.011	(1.082)	96156	47.0987	47.09
	44 Dibromomethane	93	6.120	6.119	(1.102)	67762	46.1044	46.10
	45 4-Methyl-2-Pentanone	43	6.851	6.850	(0.837)	172237	96.0252	96.02
	46 cis-1,3-Dichloropropene	75	6.690	6.693	(1.205)	153516	50.1084	50.10
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	321137	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	435036	49.7080	49.70
	50 Toluene	91	6.978	6.982	(0.853)	455376	45.8285	45.82
	51 trans-1,3-Dichloropropene	75	7.196	7.195	(1.296)	129035	45.5428	45.54
	52 2-Hexanone	43	7.589	7.589	(0.927)	116559	93.5804	93.58
	53 1,1,2-Trichloroethane	83	7.353	7.357	(0.898)	80589	48.4559	48.45
	54 1,3-Dichloropropane	76	7.495	7.499	(0.916)	168064	47.9374	47.93
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	123501	48.7266	48.72
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	107693	47.4342	47.43
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	107411	48.3009	48.30
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	79937	45.7507	45.75
	59 Chlorobenzene	112	8.208	8.207	(1.003)	313979	47.5875	47.58
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.282	(1.012)	117784	46.0498	46.04
	61 Ethylbenzene	106	8.305	8.309	(1.015)	157029	46.4806	46.48
	62 m,p-Xylenes	106	8.406	8.410	(1.027)	400272	96.4154	96.41
	63 o-Xylene	106	8.744	8.747	(1.068)	196386	48.3064	48.30
	64 Styrene	104	8.759	8.762	(1.070)	340239	51.1266	51.12
	66 Bromoform	173	8.916	8.916	(1.089)	89188	48.6567	48.65
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	498421	47.9479	47.94
	68 1,1,2,2-Tetrachloroethane	83	9.325	9.328	(0.917)	129514	48.3439	48.34
$	69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	157903	48.8351	48.83
*	70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	177074	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	126040	44.3068	44.30
	73 n-Propylbenzene	91	9.411	9.411	(0.926)	541098	49.4452	49.44
	74 Bromobenzene	156	9.317	9.317	(0.916)	151860	47.7287	47.72
	75 1,3,5-Trimethylbenzene	105	9.561	9.564	(0.940)	407315	49.6887	49.68
	76 2-Chlorotoluene	91	9.482	9.482	(0.933)	329467	45.3362	45.33
	77 4-Chlorotoluene	91	9.576	9.576	(0.942)	377965	45.8223	45.82
	78 tert-Butylbenzene	119	9.835	9.838	(0.967)	353961	47.1799	47.17
	79 1,2,4-Trimethylbenzene	105	9.876	9.879	(0.971)	401348	49.6389	49.63
	81 sec-Butylbenzene	105	10.022	10.022	(0.986)	458876	47.9936	47.99
	82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	429669	50.0972	50.09
	83 1,3-Dichlorobenzene	146	10.112	10.116	(0.994)	260932	47.3989	47.39
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	272364	48.0078	48.00
	87 n-Butylbenzene	91	10.491	10.490	(1.032)	329753	48.9448	48.94
	88 1,2-Dichlorobenzene	146	10.502	10.505	(1.033)	255954	47.6772	47.67
	89 1,2-Dibromo-3-Chloropropane	155	11.165	11.165	(1.098)	22437	45.5314	45.53

90 1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	177295	50.5843	50.58
91 Hexachlorobutadiene	225	11.998	11.997 (1.180)	75729	47.3662	47.36

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	92 Naphthalene	128	12.065	12.065	(1.187)	384239	47.6703	47.67
	93 1,2,3-Trichlorobenzene	180	12.268	12.267	(1.206)	167750	50.1807	50.18
M	94 1,2-Dichloroethylene (total)	96				227753	86.7769	86.77
M	95 Xylenes (total)	106				596658	145.104	145.10
	135 1,4-Dioxane	88	6.161	6.164	(1.279)	24786	916.094	916.09
	141 Cyclohexane	56	4.785	4.789	(0.994)	126749	46.0475	46.04
	138 Freon TF	101	2.337	2.337	(0.485)	88738	43.5398	43.53
	140 1,3-Butadiene	54	1.404	1.407	(0.292)	85110	44.8517	44.85
	147 Methylcyclohexane	55	5.944	5.947	(1.070)	209686	50.1375	50.13
	146 Methyl Acetate	43	2.712	2.716	(0.563)	67666	45.7749	45.77
	148 Tert-Butyl alcohol	59	2.963	2.971	(0.615)	191804	947.228	947.22
	149 Isopropyl Alcohol	45	2.558	2.569	(0.531)	105651	936.962	936.96

QC Flag Legend

M - Compound response manually integrated.



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Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020913.d
Inj Date : 09-FEB-2024 13:27
InstruID : VOA9.i
LabSampID : ICV

Iodomethane (74-88-4)

Reason Code:

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15-Feb-2024
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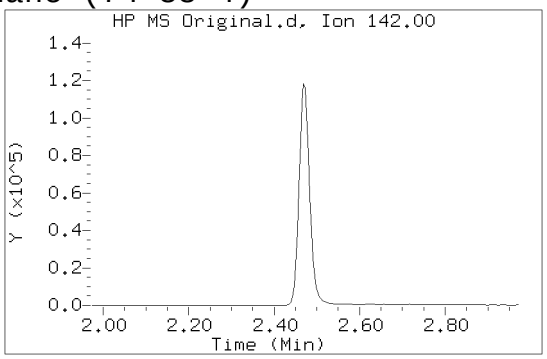

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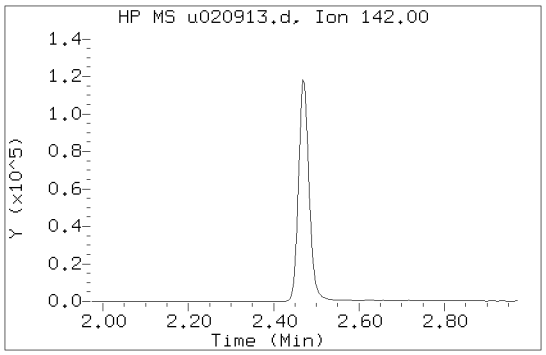

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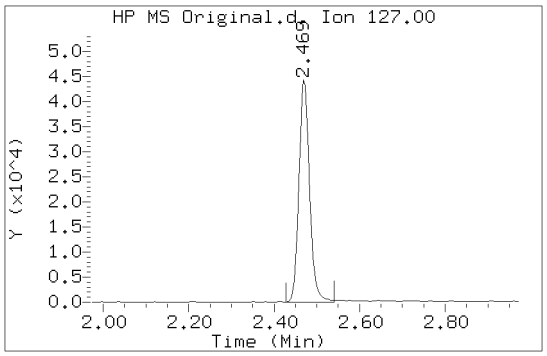

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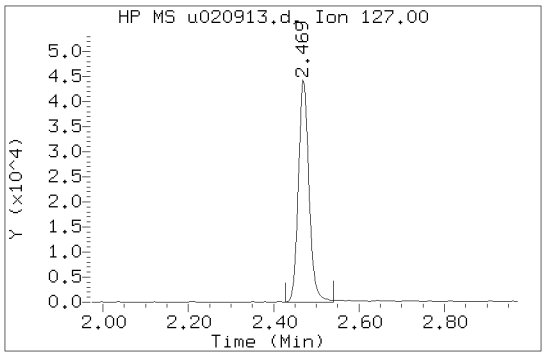

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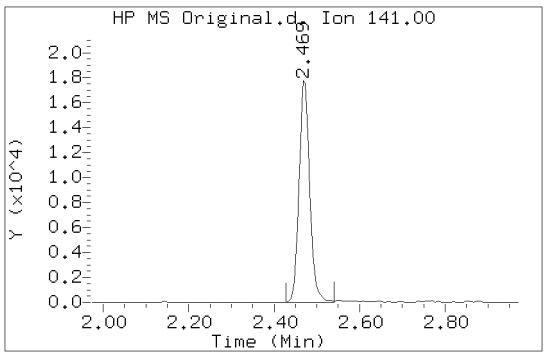

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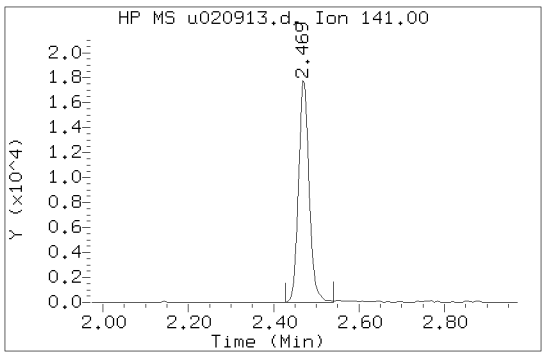

right solutions.
right partner.

RawData

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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\U240214.b\U021429.D Page 1
Report Date: 15-Feb-2024 08:29

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\U240214.b\U021429.D
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Inj Date : 14-FEB-2024 19:21
Operator : FT Inst ID: VOA9.i
Smp Info : BFB
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\U240214.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: 28 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7066

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	69376			0.00- 100.00	91.13
9.194	9.180	(0.000)	50	10854			15.00- 40.00	15.65
9.194	9.180	(0.000)	75	31360			30.00- 60.00	45.20
9.194	9.180	(0.000)	96	4929			5.00- 9.00	7.10
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	76128			50.00- 0.00	109.73
9.194	9.180	(0.000)	175	6722			5.00- 9.00	8.83
9.194	9.180	(0.000)	176	74984			95.00- 101.00	98.50
9.194	9.180	(0.000)	177	4984			5.00- 9.00	6.65

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.65
75	30.00 - 60.00% of mass 95	45.20
96	5.00 - 9.00% of mass 95	7.10
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	109.73
175	5.00 - 9.00% of mass 174	9.69 (8.83)
176	95.00 - 101.00% of mass 174	108.08 (98.50)
177	5.00 - 9.00% of mass 176	7.18 (6.65)

Data File: U021429.D
Spectrum: Scan 2294 (9.19)
Location of Maximum: 174.00
Number of points: 93

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37.10	2345	64.00	188	94.10	8540	140.90	552
38.10	2220	64.80	71	95.10	69376	141.90	141
39.10	1231	68.10	5644	96.10	4929	143.00	516
40.00	260	69.10	6544	97.10	290	144.70	100
41.00	354	70.00	704	98.10	618	145.90	122
42.10	597	71.00	141	103.90	251	146.70	139
43.00	380	72.00	400	105.00	254	148.00	245
44.00	389	73.10	2752	106.00	287	148.90	118
45.00	684	74.10	9583	106.80	164	149.90	96
47.00	744	75.10	31360	113.00	62	153.10	58
48.00	314	76.00	2819	115.00	128	155.00	255
49.10	2152	77.10	467	115.90	299	156.90	148
50.10	10854	78.00	404	116.90	424	160.90	210
51.00	3145	79.00	1567	118.10	224	170.40	55
52.00	149	80.00	470	118.70	209	172.00	258
55.10	1281	81.00	1388	119.00	182	174.00	76128
56.00	837	81.90	304	126.90	126	175.10	6722
57.10	1542	83.00	289	127.90	282	176.00	74984
58.00	220	87.00	3131	129.00	112	177.00	4984
59.20	90	88.00	2732	129.90	316	177.90	160
60.10	747	88.80	73	131.00	141		
61.00	2490	91.00	266	134.90	138		
62.10	2376	92.00	2086	136.80	87		

Data File: \\NAHSTWS005\Target\chem\voa9.i\u240214.b\v021401.d Page 1

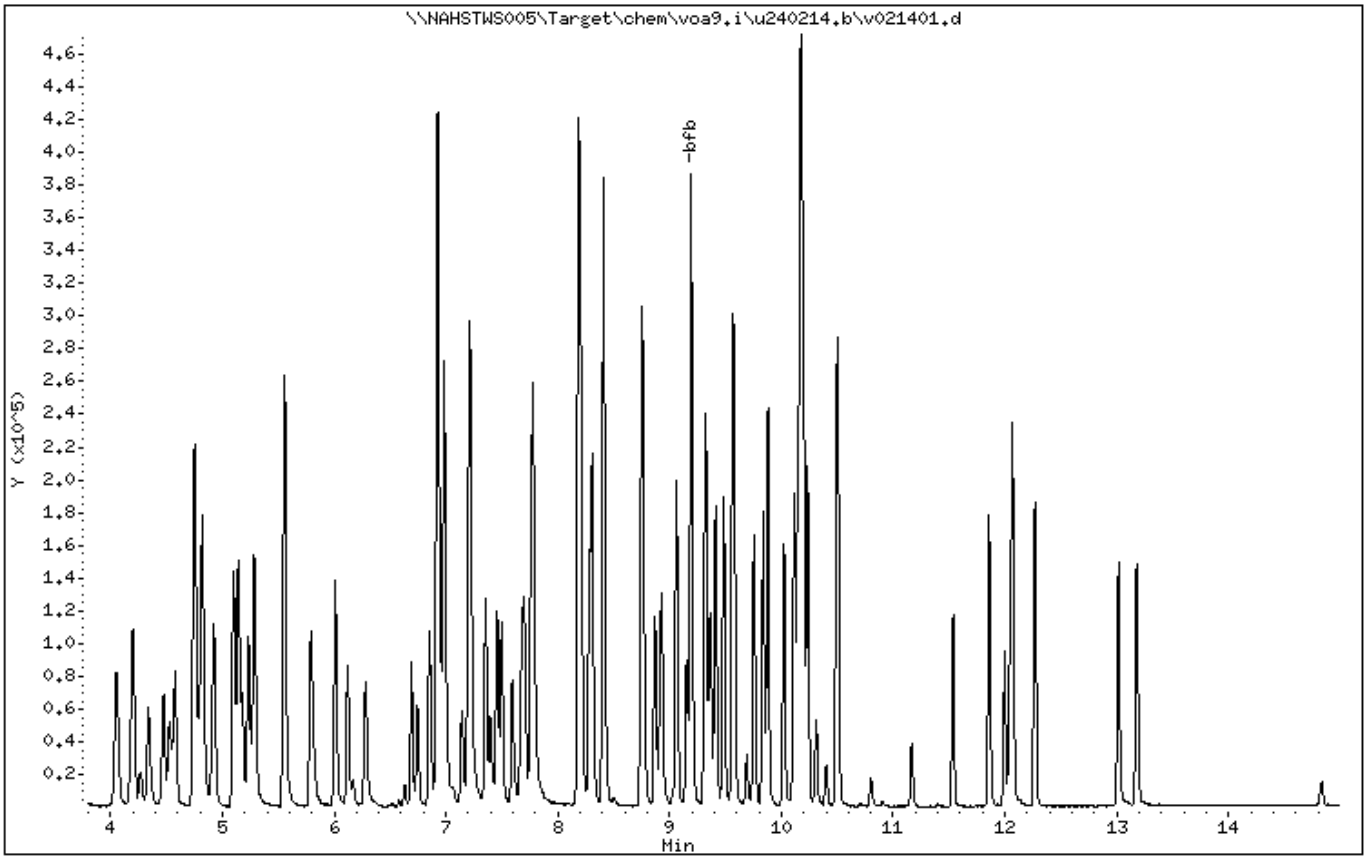
Date : 14-FEB-2024 19:21

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



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Inj Date : 14-FEB-2024 19:21
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021402.D Page 1
Report Date: 22-Feb-2024 16:21

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021402.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-FEB-2024 20:50
Operator : FT Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.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

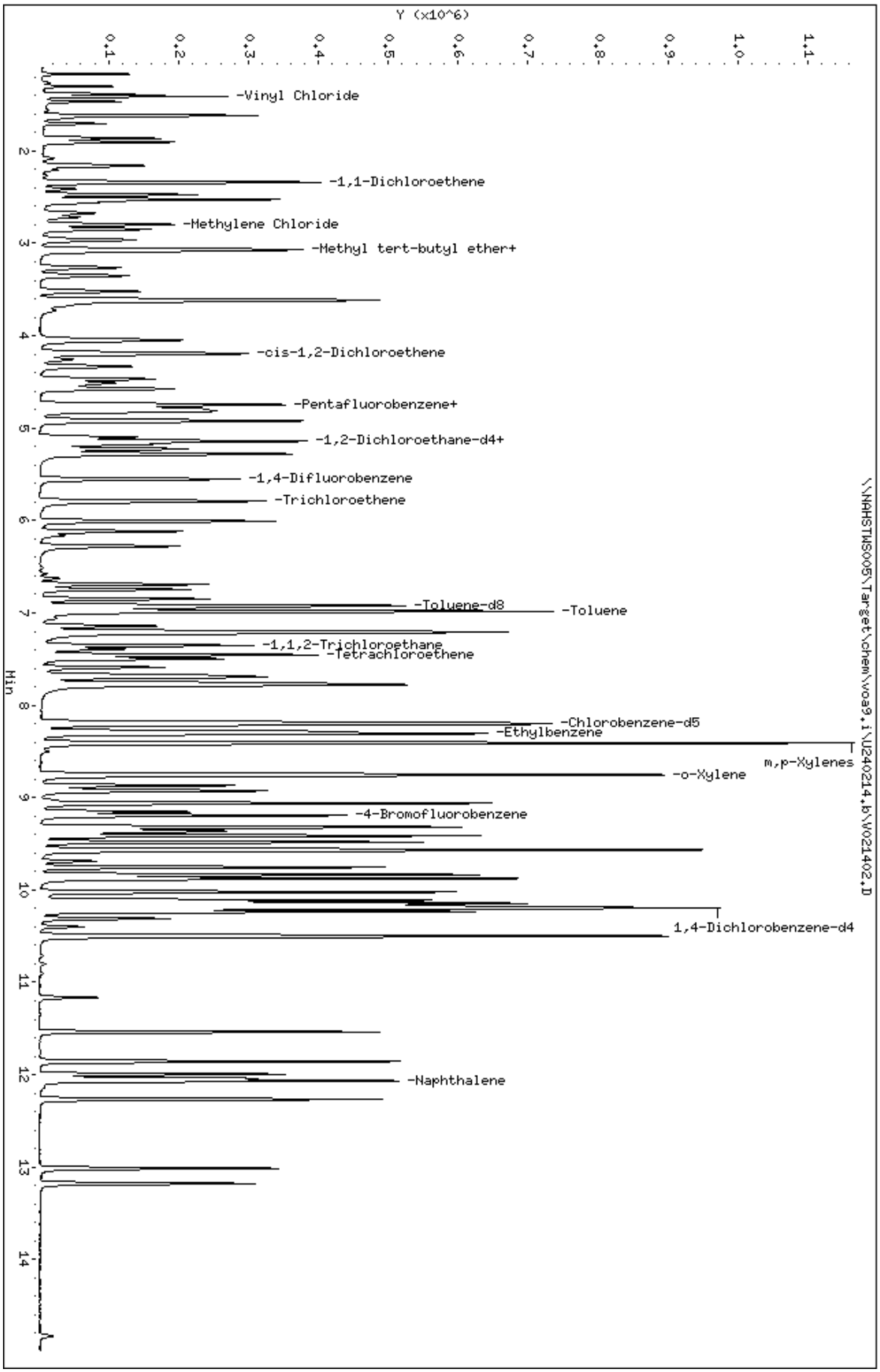
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	185244	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	93135	50.0000	48.69
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	91892	50.0000	47.96
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	255430	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	244108	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	337732	50.0000	50.76
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	127130	50.0000	51.74
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	144982	50.0000	
5 Vinyl Chloride	62	1.381	1.381	(0.287)	81873	50.0000	51.02
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	76904	50.0000	51.02
17 Methylene Chloride	84	2.795	2.795	(0.580)	89753	50.0000	53.16
18 Methyl tert-butyl ether	73	3.079	3.079	(0.639)	212172	50.0000	51.31
20 trans-1,2-Dichloroethene	96	3.064	3.064	(0.636)	91328	50.0000	53.07
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	105433	50.0000	51.65
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	112749	50.0000	54.33
37 Benzene	78	5.141	5.141	(0.926)	348246	50.0000	55.56
38 Trichloroethene	130	5.790	5.790	(1.043)	115663	50.0000	57.47
56 Tetrachloroethene	164	7.458	7.458	(0.911)	96601	50.0000	55.97
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	72612	50.0000	57.47
50 Toluene	91	6.982	6.982	(0.853)	399005	50.0000	52.82

61 Ethylbenzene	106	8.305	8.305 (1.015)	141450	50.0000	55.08
62 m,p-Xylenes	106	8.406	8.406 (1.027)	358430	100.000	113.58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	63 o-Xylene	106	8.747	8.747	(1.069)	174649	50.0000	56.51	
	92 Naphthalene	128	12.065	12.065	(1.187)	391527	50.0000	59.02	
M	95 Xylenes (total)	106				533079	150.000		(a)

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\W021402.D
Date : 14-FEB-2024 20:50
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021402.D
Inj Date : 14-FEB-2024 20:50
InstruID : VOA9.i
LabSampID : CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021403.D Page 1
Report Date: 22-Feb-2024 16:21

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021403.D
Lab Smp Id: VLCSW-240214 Client Smp ID: VLCSW-240214
Inj Date : 14-FEB-2024 21:12
Operator : FT Inst ID: VOA9.i
Smp Info : VLCSW-240214;VLCSW-240214;3;;LCS
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 32 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

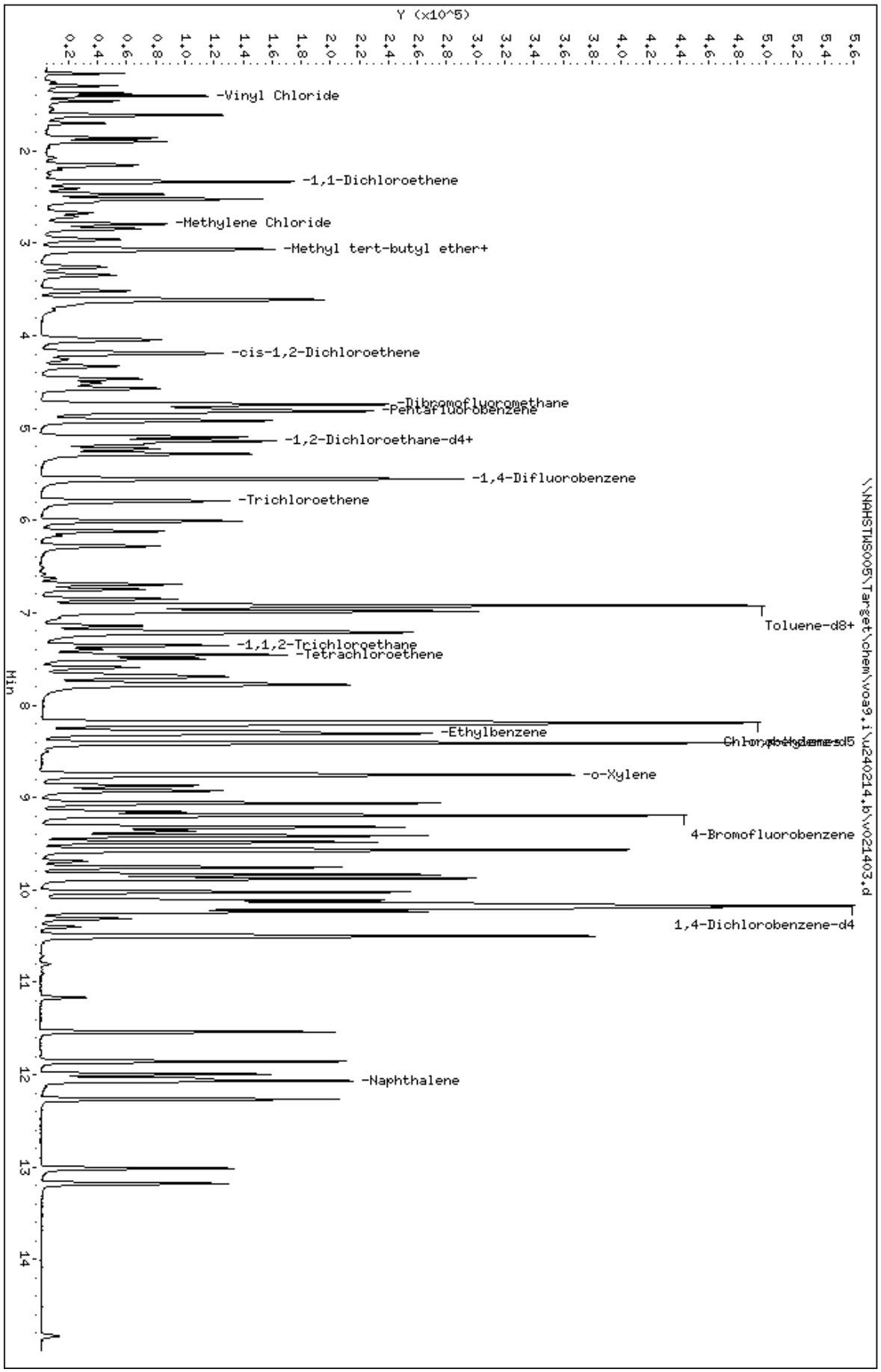
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.819	(1.000)	202744	50.0000	
$ 30 Dibromofluoromethane	113	4.744	4.748	(0.985)	96755	46.2010	46.20
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	94596	45.0673	45.06
* 36 1,4-Difluorobenzene	114	5.550	5.554	(1.000)	276289	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	263283	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	354184	49.3621	49.36
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	129350	48.7948	48.79
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	155052	50.0000	
5 Vinyl Chloride	62	1.374	1.381	(0.285)	36587	20.8702	20.87
11 1,1-Dichloroethene	96	2.334	2.337	(0.485)	34060	20.7365	20.73
17 Methylene Chloride	84	2.791	2.795	(0.580)	39556	20.5799	20.57
18 Methyl tert-butyl ether	73	3.076	3.079	(0.639)	87518	19.4057	19.40
20 trans-1,2-Dichloroethene	96	3.061	3.064	(0.636)	41190	21.8908	21.89
27 cis-1,2-Dichloroethene	96	4.197	4.200	(0.872)	44082	19.7326	19.73
33 1,2-Dichloroethane	62	5.171	5.175	(0.932)	50820	22.2312	22.23
37 Benzene	78	5.138	5.141	(0.926)	154241	22.8278	22.82
38 Trichloroethene	130	5.786	5.790	(1.043)	49220	22.7200	22.72
56 Tetrachloroethene	164	7.458	7.458	(0.911)	43312	23.2711	23.27
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	31117	22.7090	22.70
50 Toluene	91	6.982	6.982	(0.853)	174353	21.4024	21.40

61 Ethylbenzene	106	8.305	8.305 (1.015)	61073	22.0500	22.05
62 m,p-Xylenes	106	8.407	8.406 (1.027)	154876	45.5033	45.50

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021403.D Page 2
Report Date: 22-Feb-2024 16:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	63 o-Xylene	106	8.748	8.747	(1.069)	75787	22.7382	22.73
	92 Naphthalene	128	12.065	12.065	(1.187)	166563	24.2281	24.22
M	95 Xylenes (total)	106				230663	70.1065	70.10



Data File: \\NAHSTMS005\Target\chem\voa9.i\u240214.b\v021403.d
Date : 14-FEB-2024 21:12
Client ID: VLCSW-240214
Sample Info: VLCSW-240214;VLCSW-240214;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240214.b\v021403.d
Inj Date : 14-FEB-2024 21:12
InstruID : VOA9.i
LabSampID : VLCSW-240214

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021404.D Page 1
Report Date: 22-Feb-2024 16:21

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021404.D
Lab Smp Id: VLCSDW-240214 Client Smp ID: VLCSDW-240214
Inj Date : 14-FEB-2024 21:34
Operator : FT Inst ID: VOA9.i
Smp Info : VLCSDW-240214;VLCSDW-240214;3;;LCSD
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 32 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

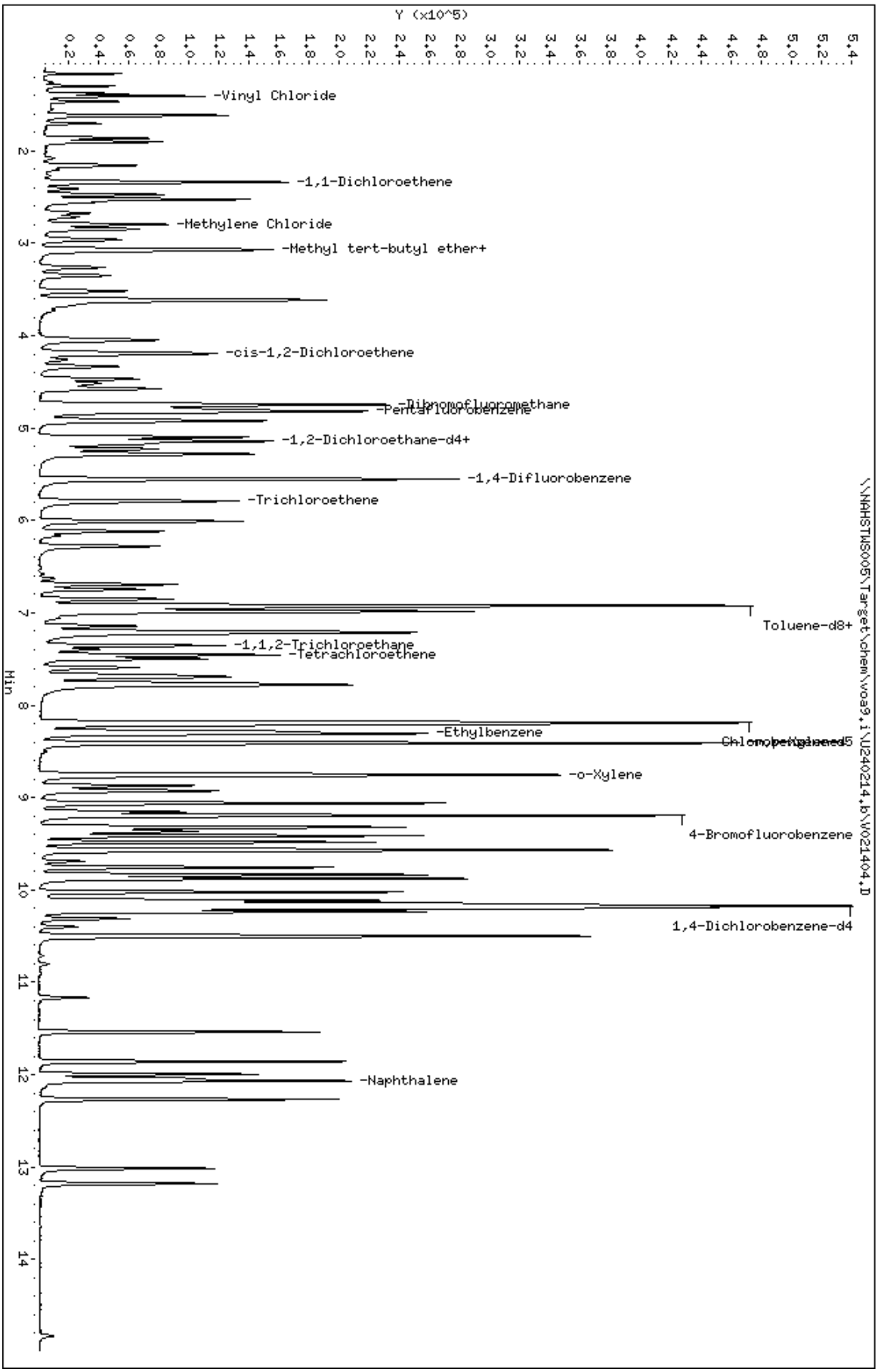
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	191632	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	93180	47.0823	47.08
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	92270	46.5323	46.53
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	265001	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	249804	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	338531	49.7268	49.72
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	126377	50.2542	50.25
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	147865	50.0000	
5 Vinyl Chloride	62	1.378	1.381	(0.286)	33779	20.3872	20.38
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	31574	20.3405	20.34
17 Methylene Chloride	84	2.795	2.795	(0.580)	38884	21.4587	21.45
18 Methyl tert-butyl ether	73	3.080	3.079	(0.639)	86393	20.2623	20.26
20 trans-1,2-Dichloroethene	96	3.061	3.064	(0.635)	37822	21.2674	21.26
27 cis-1,2-Dichloroethene	96	4.197	4.200	(0.871)	42134	19.9542	19.95
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	47025	21.4226	21.42
37 Benzene	78	5.141	5.141	(0.926)	145616	22.4713	22.47
38 Trichloroethene	130	5.790	5.790	(1.043)	48843	23.5002	23.50
56 Tetrachloroethene	164	7.458	7.458	(0.911)	40260	22.7985	22.79
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	29835	22.9505	22.95
50 Toluene	91	6.982	6.982	(0.853)	166564	21.5495	21.54

61 Ethylbenzene	106	8.305	8.305 (1.015)	59307	22.5678	22.56
62 m,p-Xylenes	106	8.410	8.406 (1.027)	148691	46.0433	46.04

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021404.D Page 2
Report Date: 22-Feb-2024 16:21

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	63 o-Xylene	106	8.748	8.747	(1.069)	72370	22.8846	22.88
	92 Naphthalene	128	12.065	12.065	(1.187)	158933	24.2412	24.24
M	95 Xylenes (total)	106				221061	70.0501	70.05



Data File: \\NAHSTWS005\Target\chem\voa9,i\U240214,b\W021404,D
Date : 14-FEB-2024 21:34
Client ID: VLCSDW-240214
Sample Info: VLCSDW-240214;VLCSDW-240214;3;;LCSD
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021404.D
Inj Date : 14-FEB-2024 21:34
InstruID : VOA9.i
LabSampID : VLCSDW-240214

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021406.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021406.D
Lab Smp Id: VBLKW-240214 Client Smp ID: VBLKW-240214
Inj Date : 14-FEB-2024 22:18
Operator : FT Inst ID: VOA9.i
Smp Info : VBLKW-240214;VBLKW-240214;3;;BLANK
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 34 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

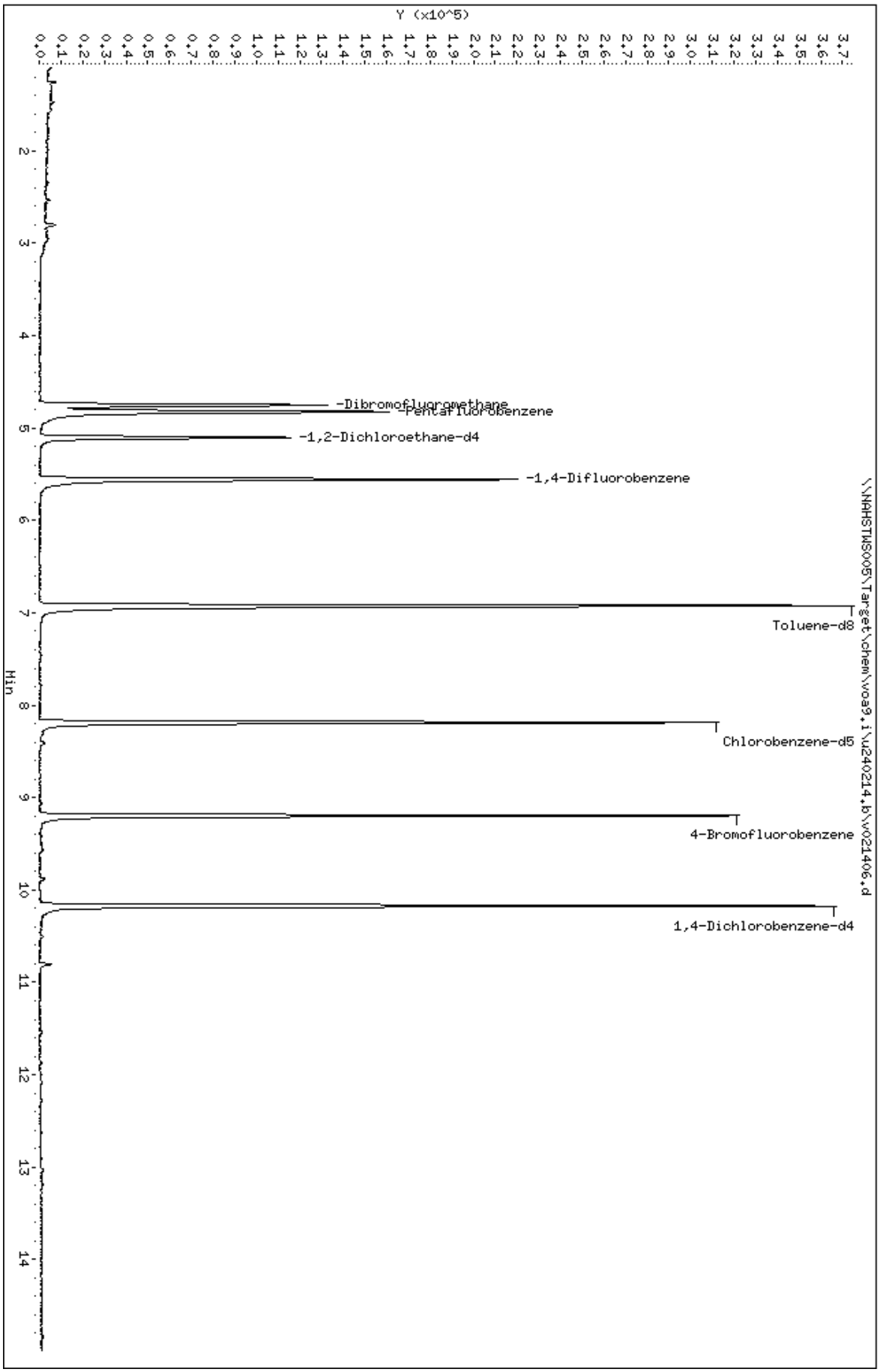
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.823	4.819	(1.000)	158930	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.985)	78196	47.6462	47.64
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	78708	47.8817	47.88
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	221792	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	212110	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	287327	49.7057	49.70
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	101353	47.4497	47.44
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	114119	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9.i\u240214.b\v021406.d
Date : 14-FEB-2024 22:18
Client ID: VBLKW-240214
Sample Info: VBLKW-240214;VBLKW-240214;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18



Data File : \\nahstws005\target\chem\voa9.i\u240214.b\v021406.d
Inj Date : 14-FEB-2024 22:18
InstruID : VOA9.i
LabSampID : VBLKW-240214

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021407.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021407.D
Lab Smp Id: HS24020576-11
Inj Date : 14-FEB-2024 22:40
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-11
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

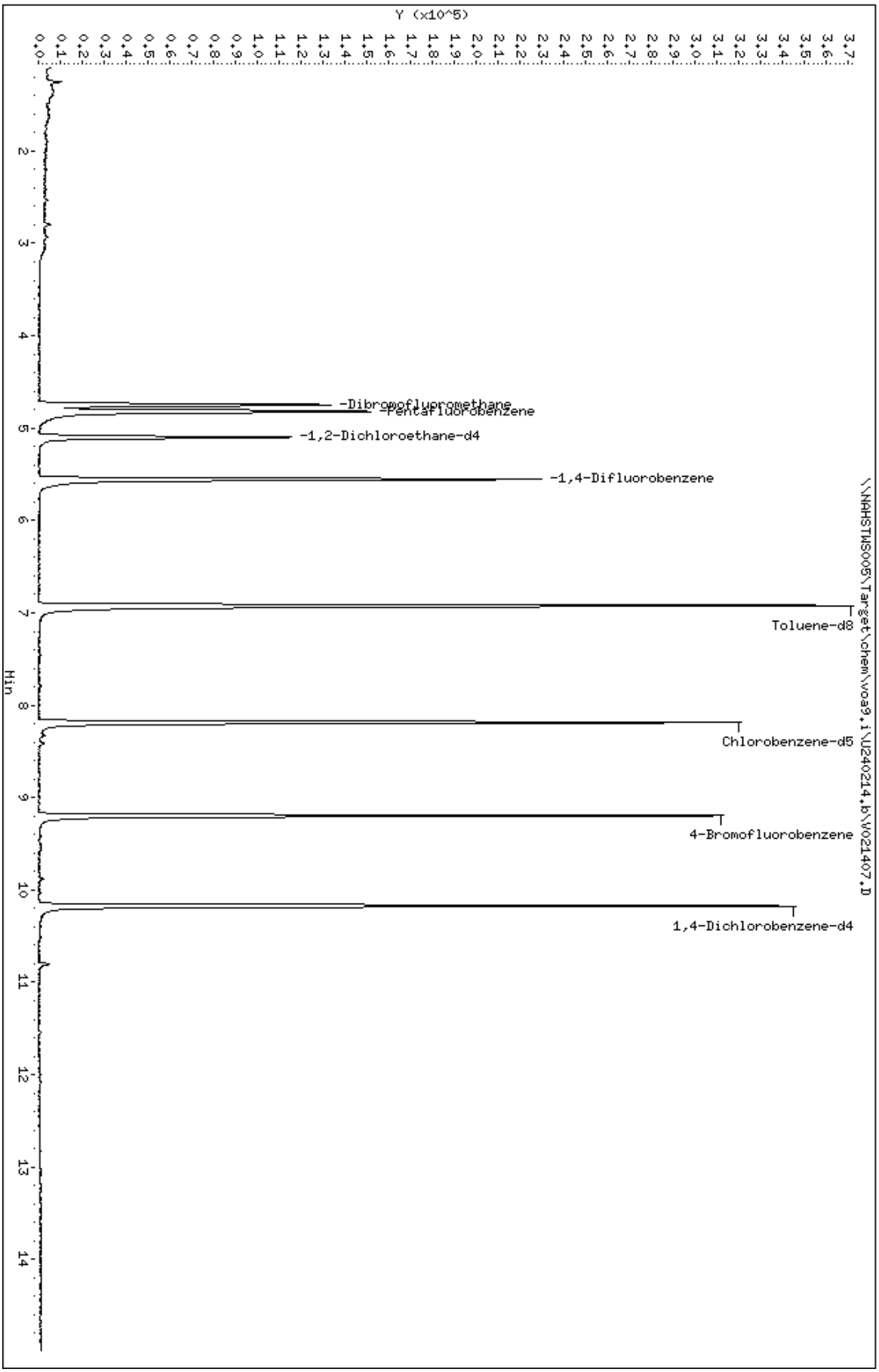
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	149378	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	81797	53.0769	53.07
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	81728	52.9770	52.97
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	231144	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	214098	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	284453	48.7506	48.75
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	98883	45.8538	45.85
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	107691	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9,i\U240214,b\W021407.D
Date : 14-FEB-2024 22:40
Client ID:
Sample Info: HS24020576-11
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021407.D
Inj Date : 14-FEB-2024 22:40
InstruID : VOA9.i
LabSampID : HS24020576-11

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D
Lab Smp Id: HS24020576-03
Inj Date : 15-FEB-2024 03:06
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-03
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 47
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

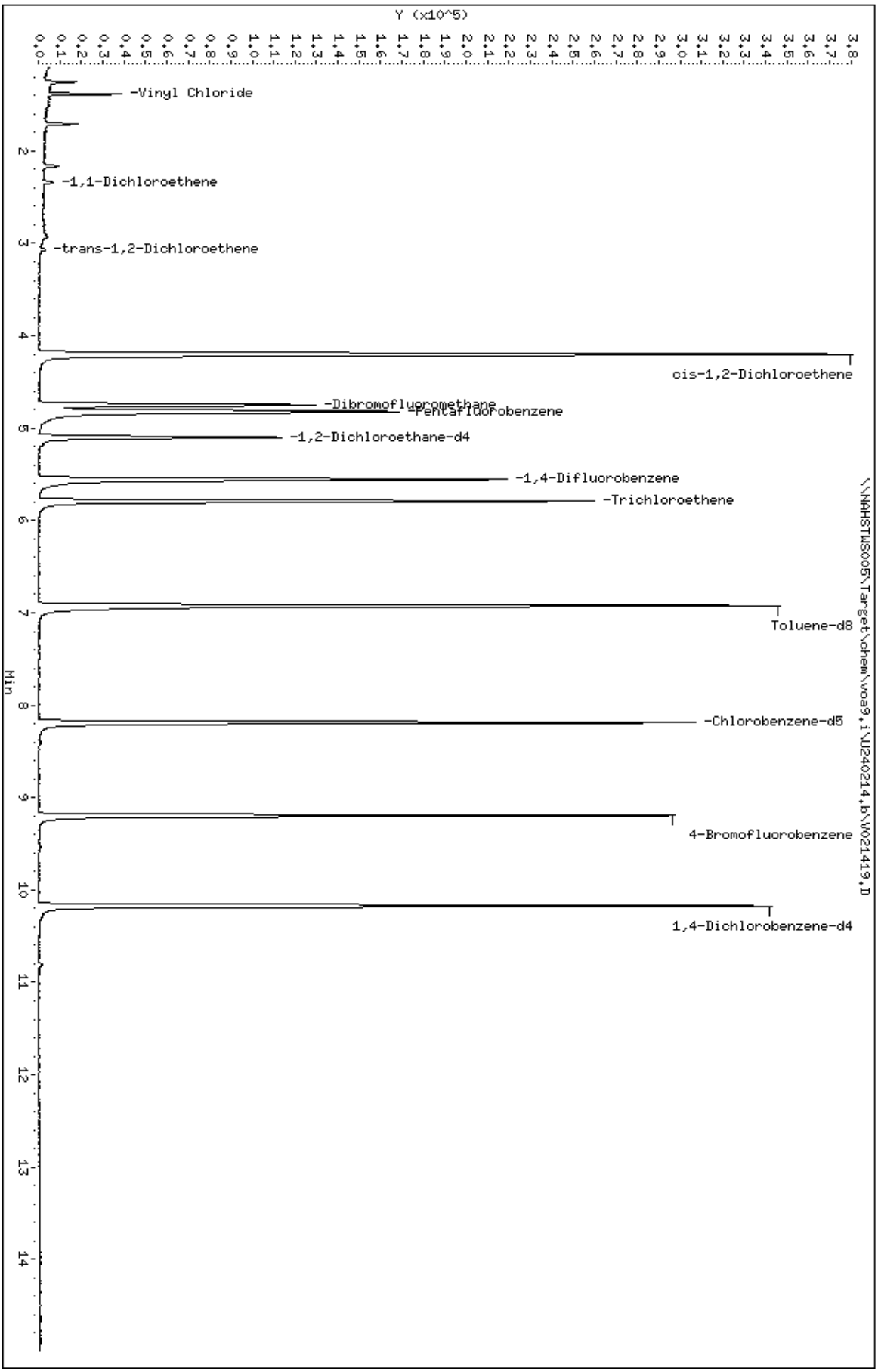
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	167136	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.986)	77664	44.9743	44.97
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	77363	44.7036	44.70
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	224293	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	206413	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	270234	48.0372	48.03
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	93763	45.0937	45.09
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	109396	50.0000	
5 Vinyl Chloride	62	1.381	1.381	(0.287)	22075	15.2921	15.29(H)
11 1,1-Dichloroethene	96	2.341	2.337	(0.486)	1529	1.27232	1.27(a)
20 trans-1,2-Dichloroethene	96	3.068	3.064	(0.637)	1192	0.80255	0.80(a)
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	206027	111.873	111.87
38 Trichloroethene	130	5.790	5.790	(1.042)	101018	57.1690	57.16

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D
Date : 15-FEB-2024 03:06
Client ID:
Sample Info: HS24020576-03
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Page 1

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D

Date : 15-FEB-2024 03:06

Client ID:

Instrument: VOA9.i

Sample Info: HS24020576-03

Purge Volume: 5.0

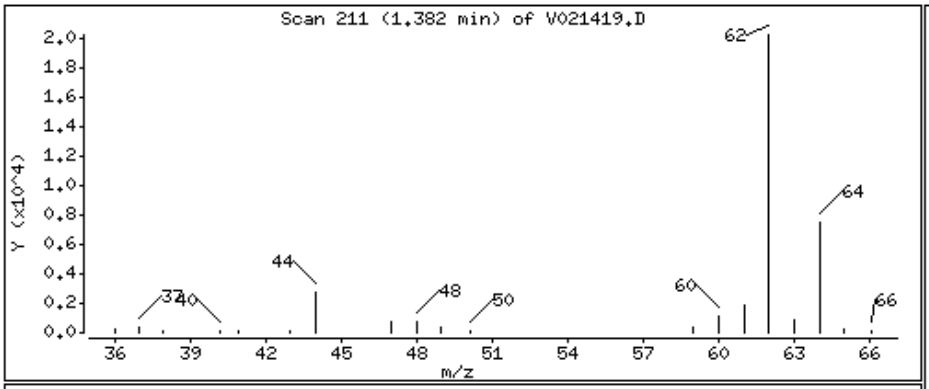
Operator: FT

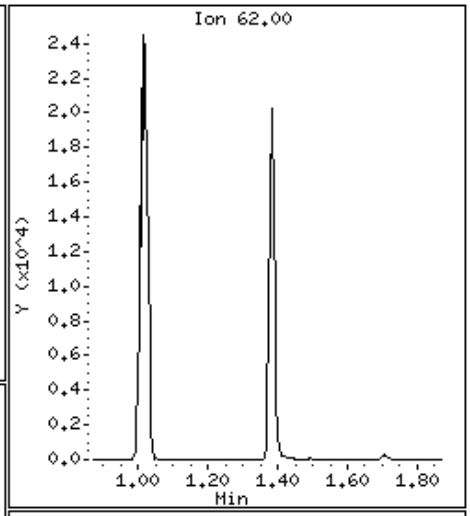
Column phase: DB624

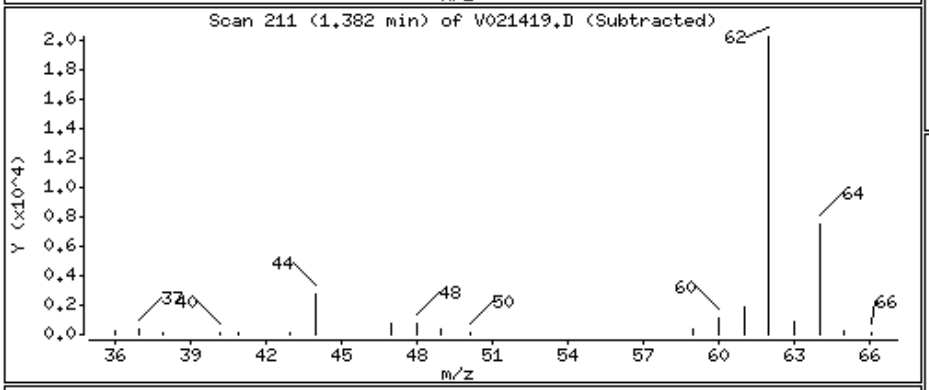
Column diameter: 0.18

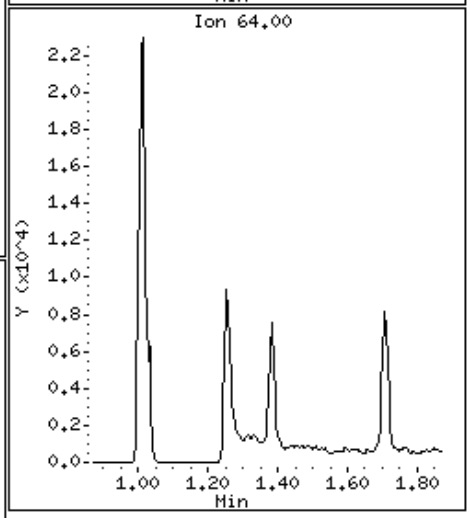
5 Vinyl Chloride

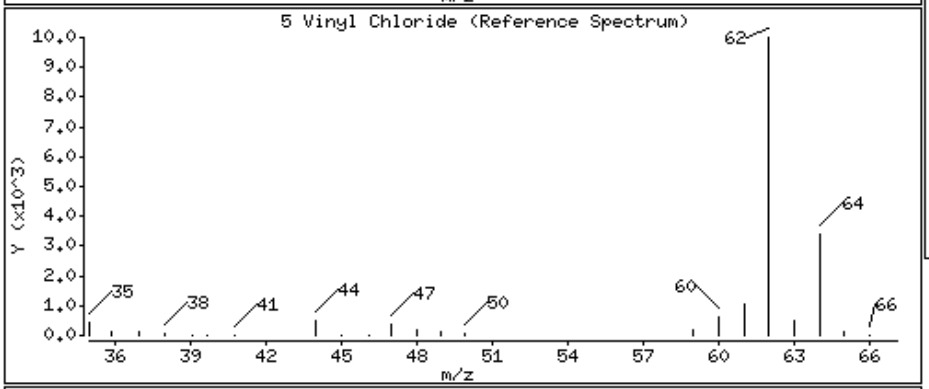
Concentration: 15.29 ug/l

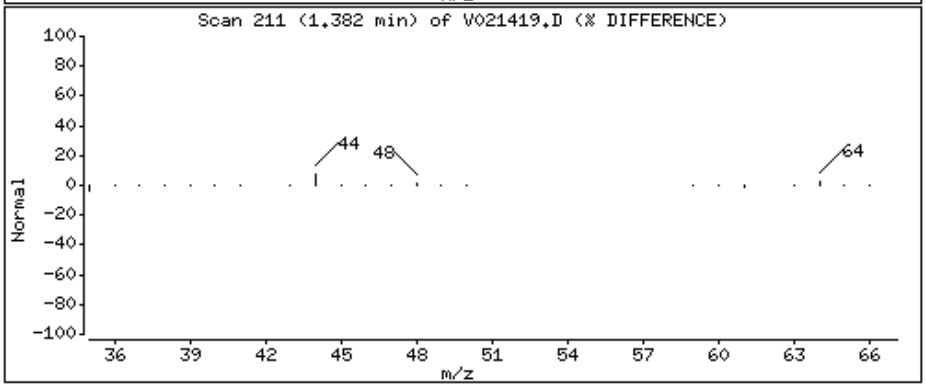












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D Page 3

Date : 15-FEB-2024 03:06

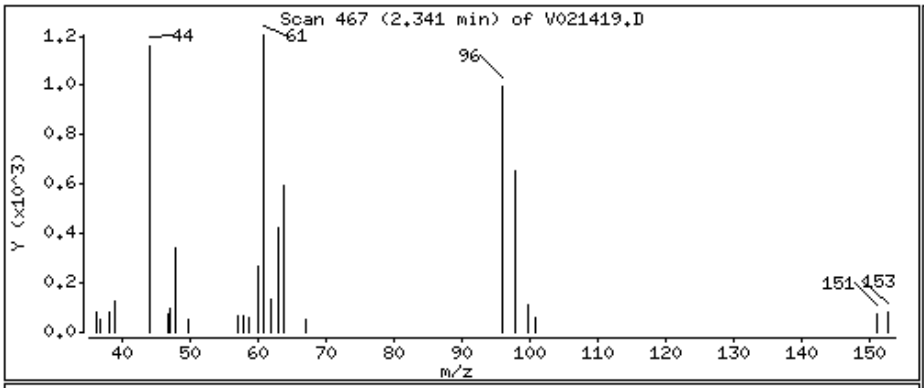
Client ID: Instrument: VOA9.i

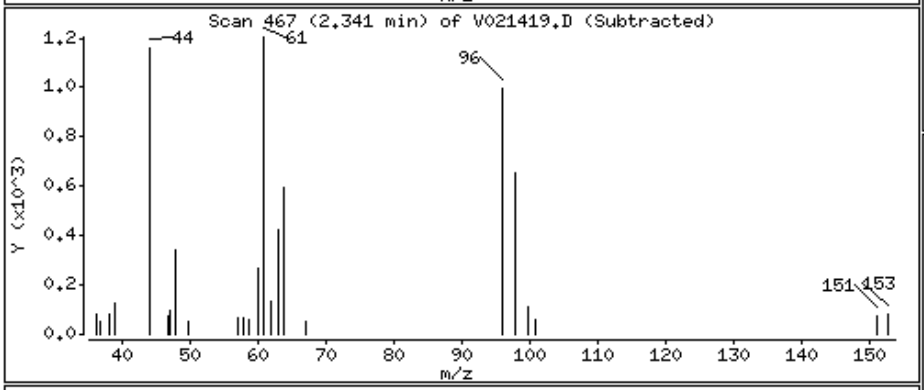
Sample Info: HS24020576-03

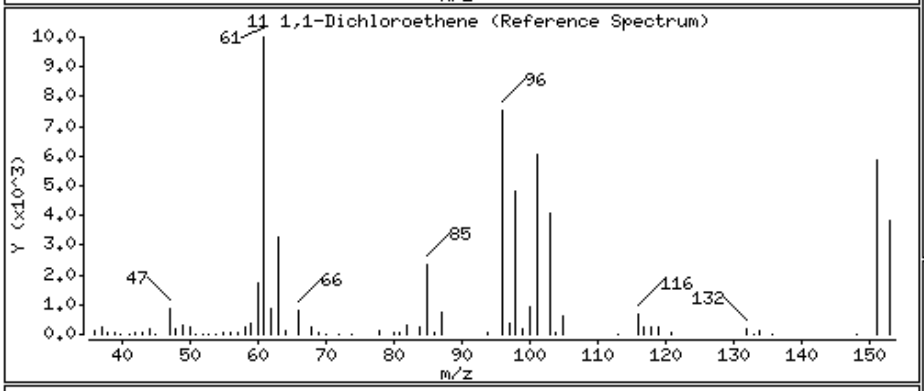
Purge Volume: 5.0 Operator: FT

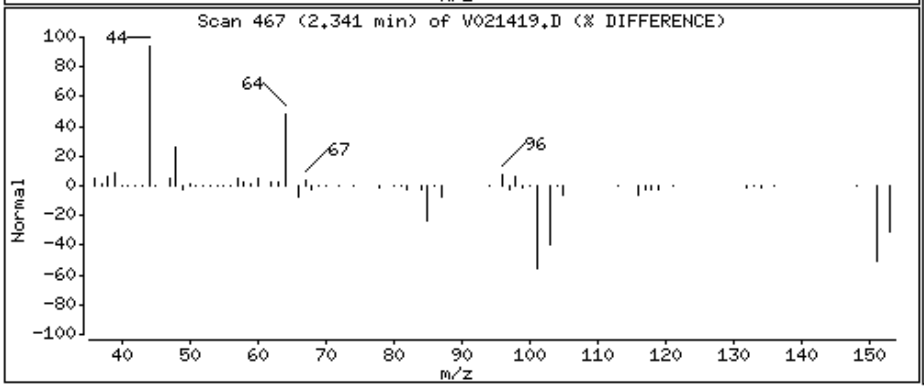
Column phase: DB624 Column diameter: 0.18

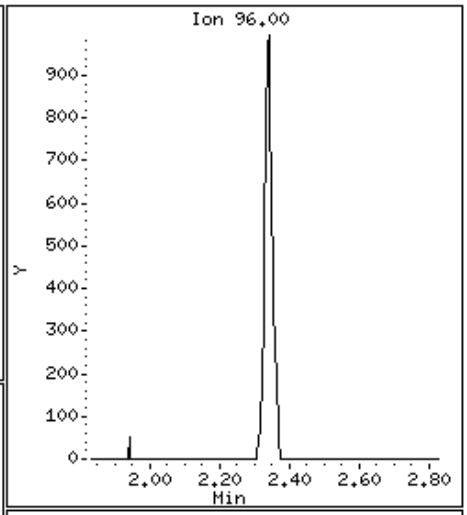
11 1,1-Dichloroethene Concentration: 1.27 ug/l

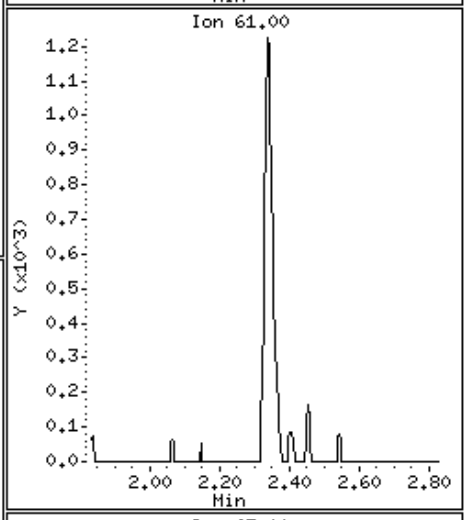


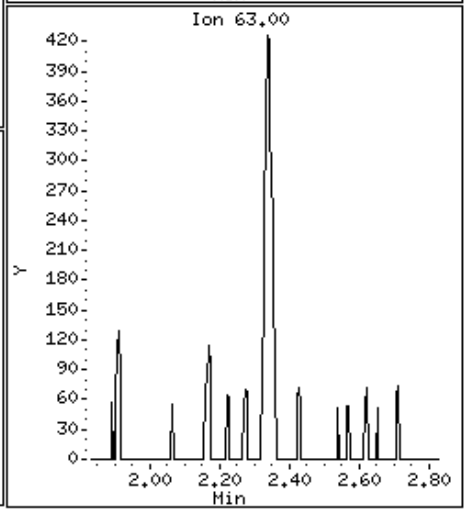












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D

Date : 15-FEB-2024 03:06

Client ID:

Instrument: VOA9.i

Sample Info: HS24020576-03

Purge Volume: 5.0

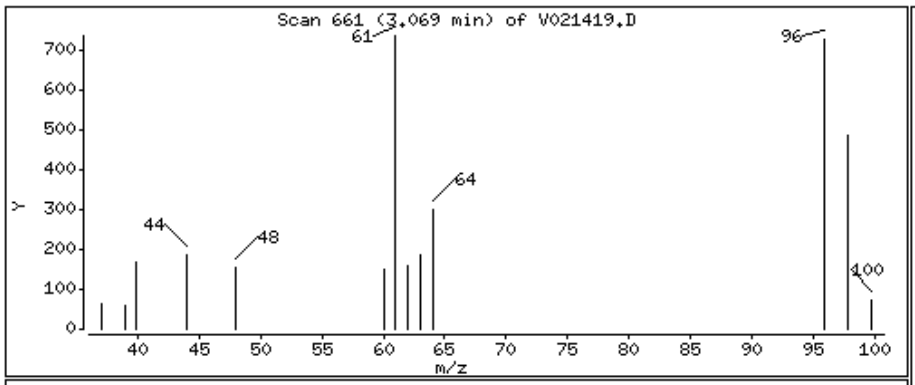
Operator: FT

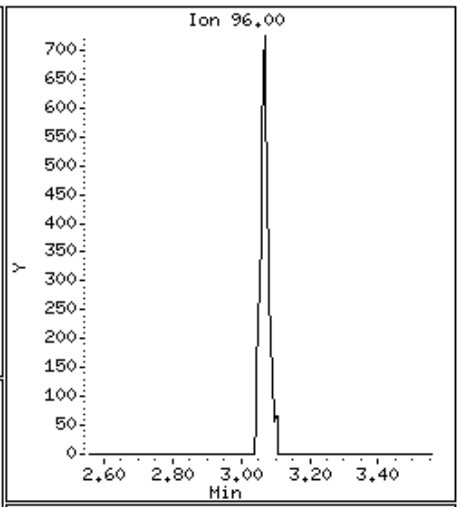
Column phase: DB624

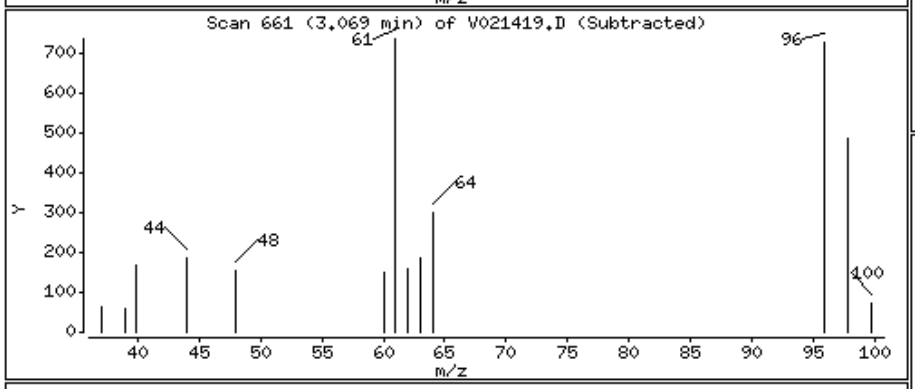
Column diameter: 0.18

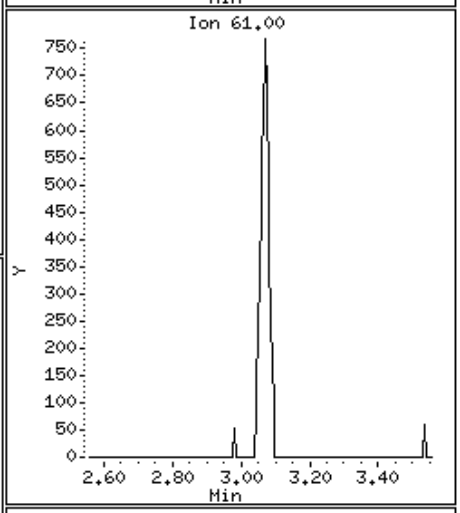
20 trans-1,2-Dichloroethene

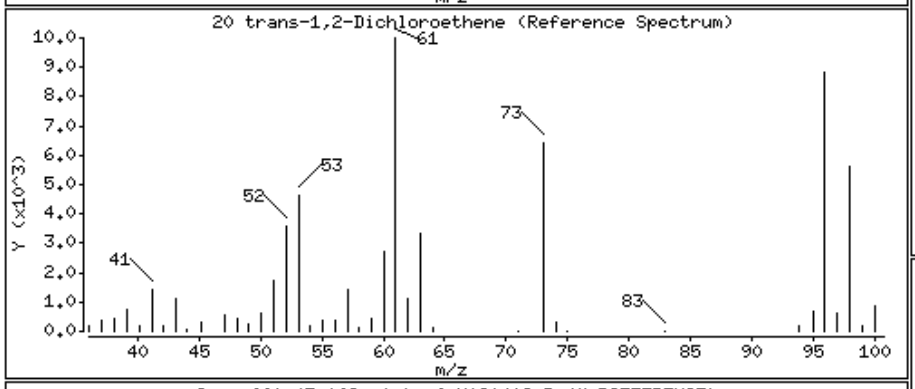
Concentration: 0.80 ug/l

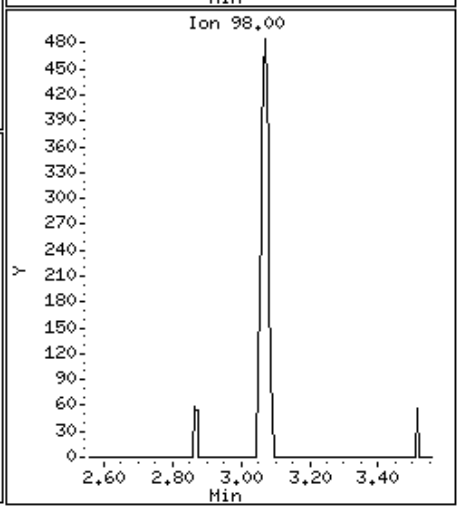


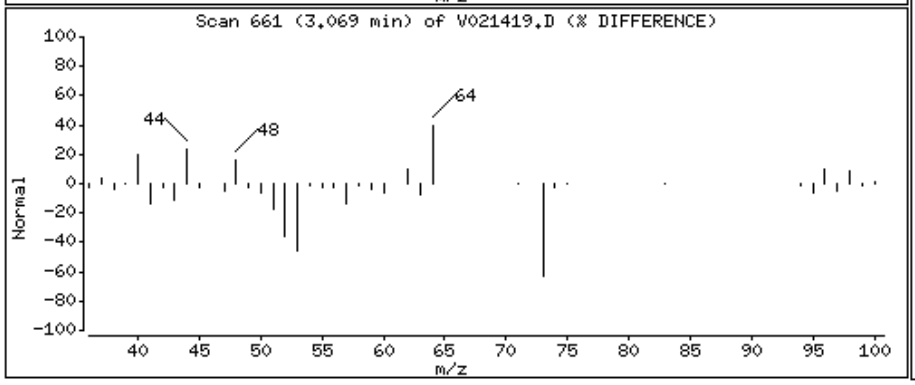












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D Page 5

Date : 15-FEB-2024 03:06

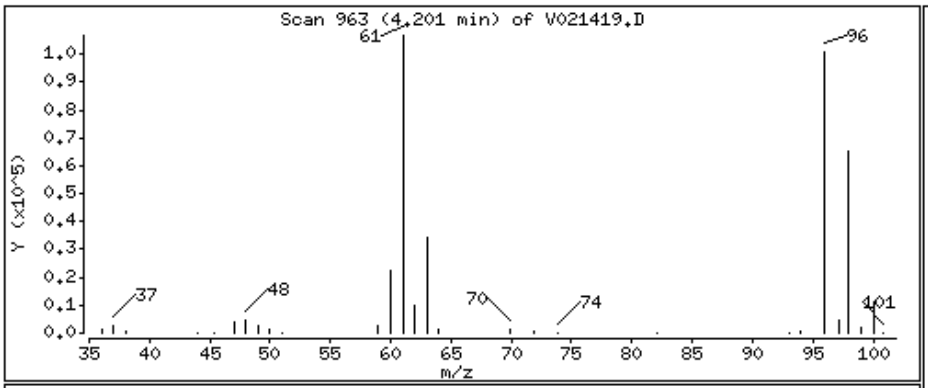
Client ID: Instrument: VOA9.i

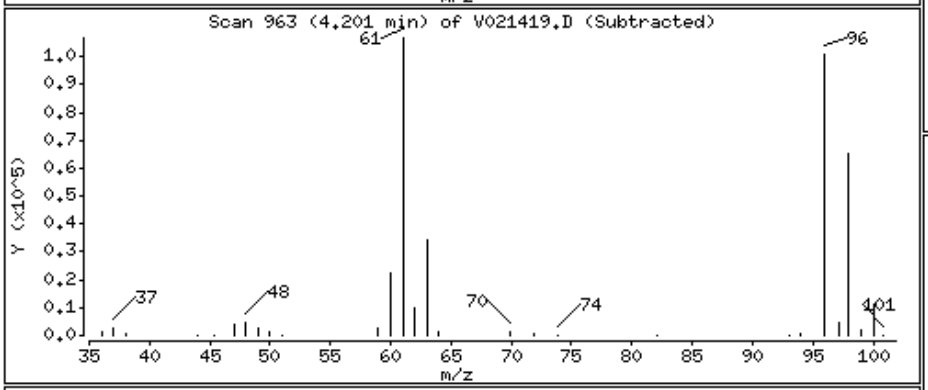
Sample Info: HS24020576-03

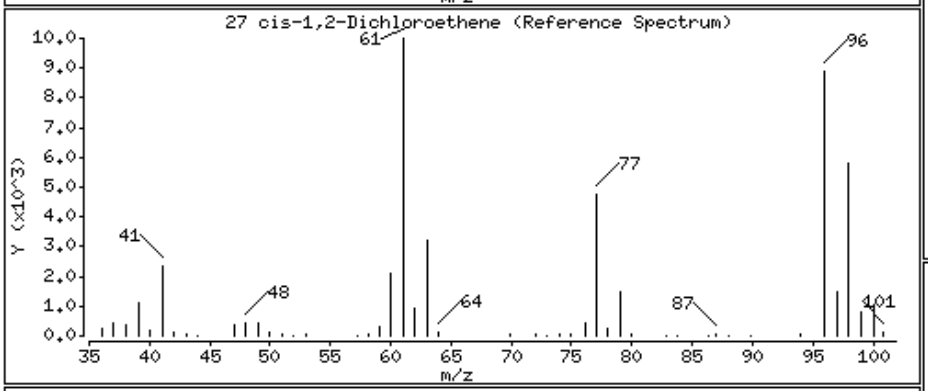
Purge Volume: 5.0 Operator: FT

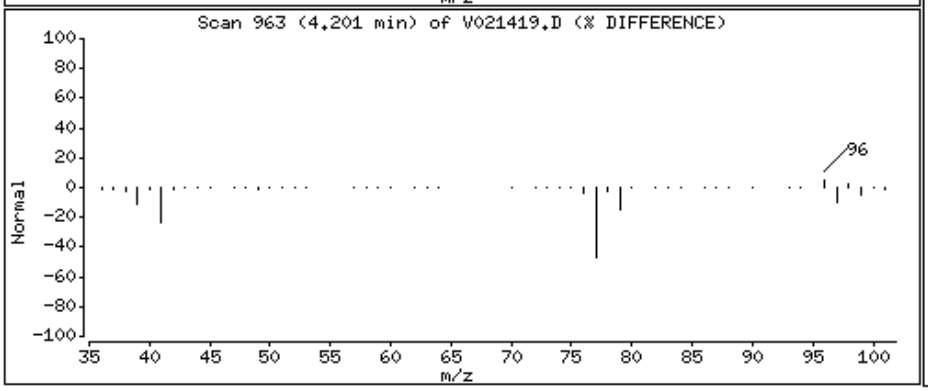
Column phase: DB624 Column diameter: 0.18

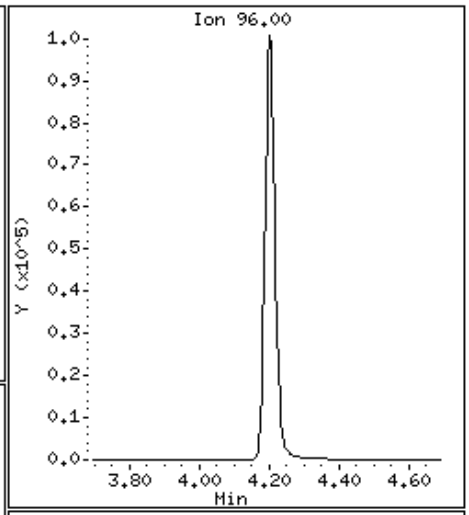
27 cis-1,2-Dichloroethene Concentration: 111.87 ug/l

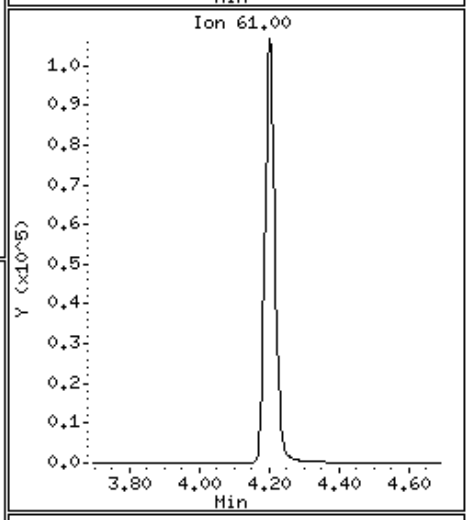


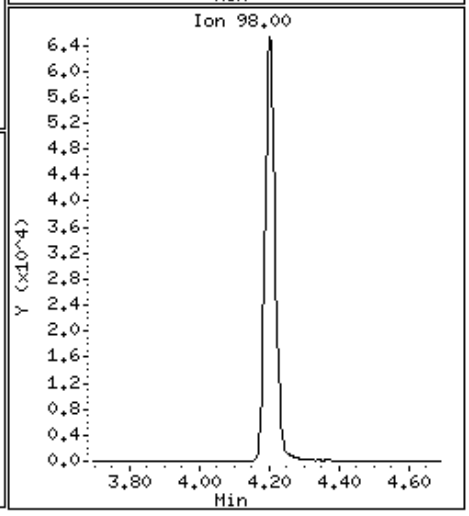












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D Page 6

Date : 15-FEB-2024 03:06

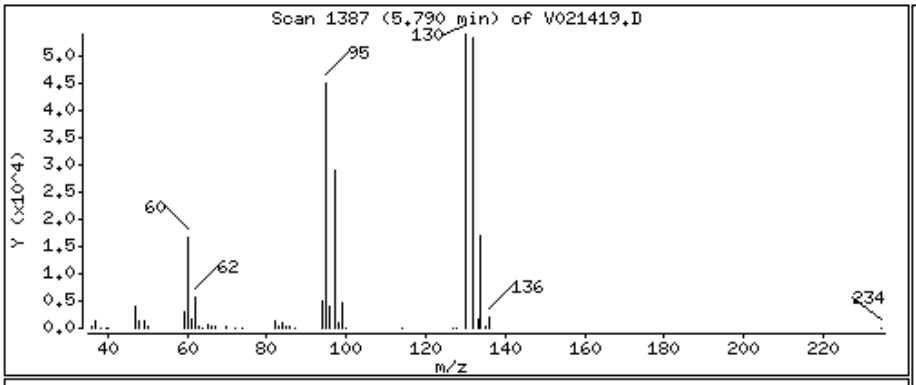
Client ID: Instrument: VOA9.i

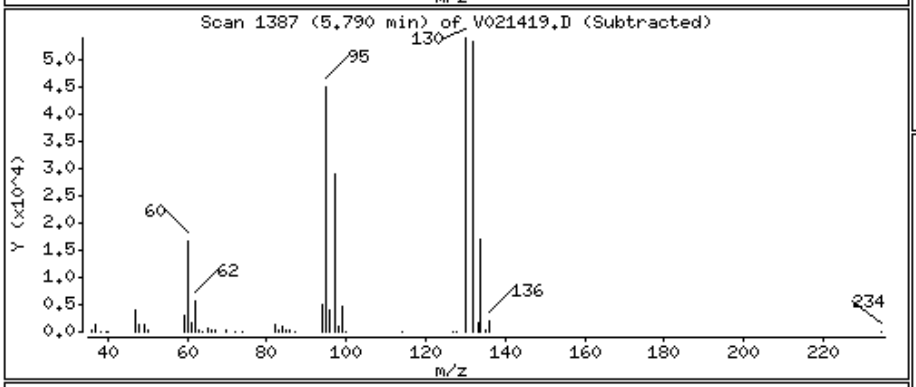
Sample Info: HS24020576-03

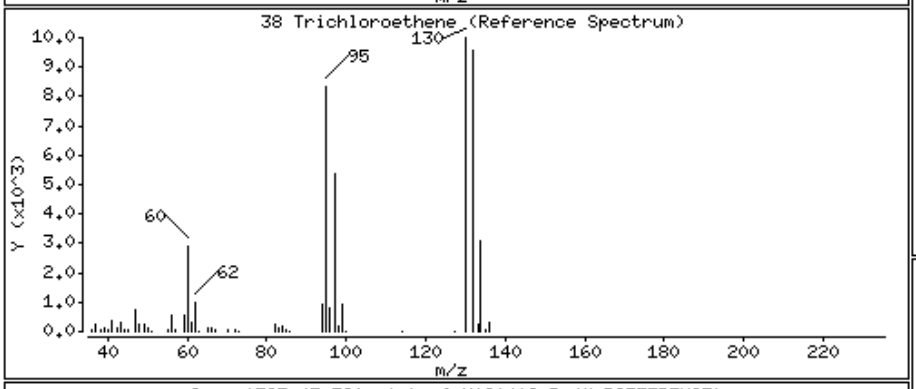
Purge Volume: 5.0 Operator: FT

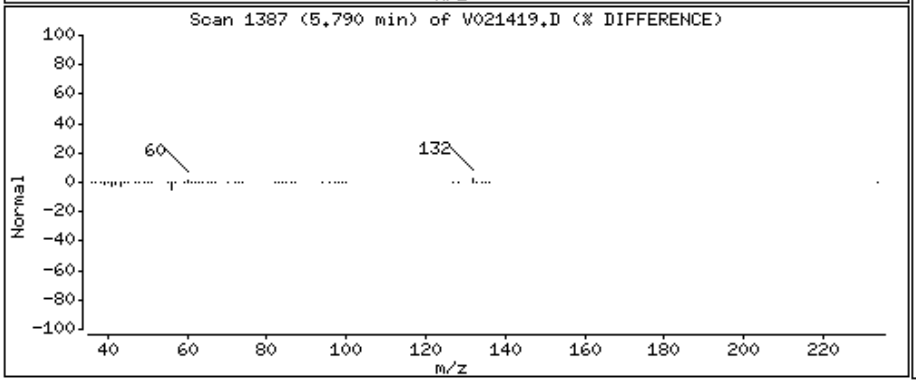
Column phase: DB624 Column diameter: 0.18

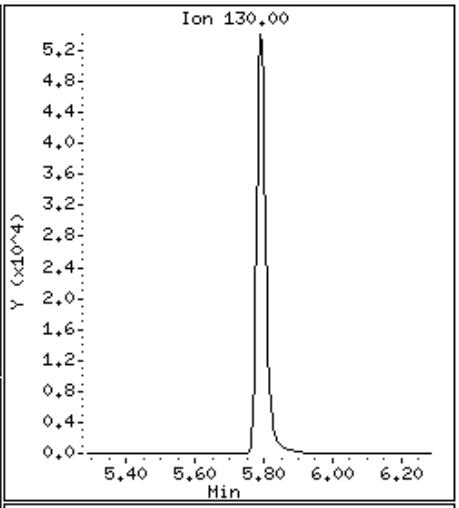
38 Trichloroethene Concentration: 57.16 ug/l

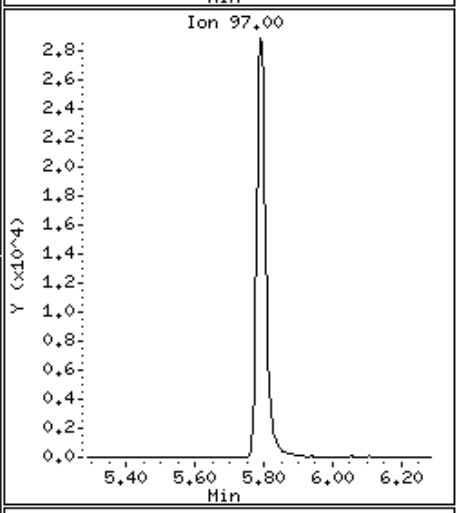


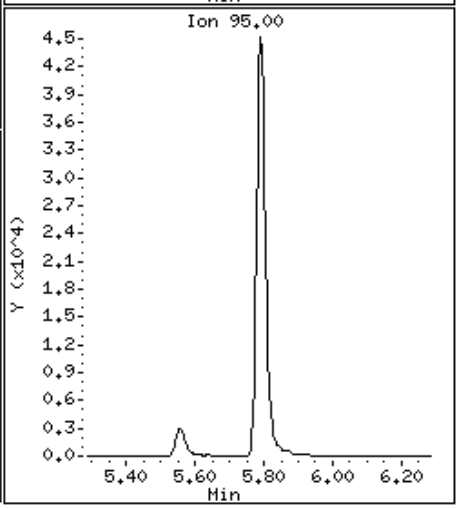












Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021419.D
Inj Date : 15-FEB-2024 03:06
InstruID : VOA9.i
LabSampID : HS24020576-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D
Lab Smp Id: HS24020576-04
Inj Date : 15-FEB-2024 03:28
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-04
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 48
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

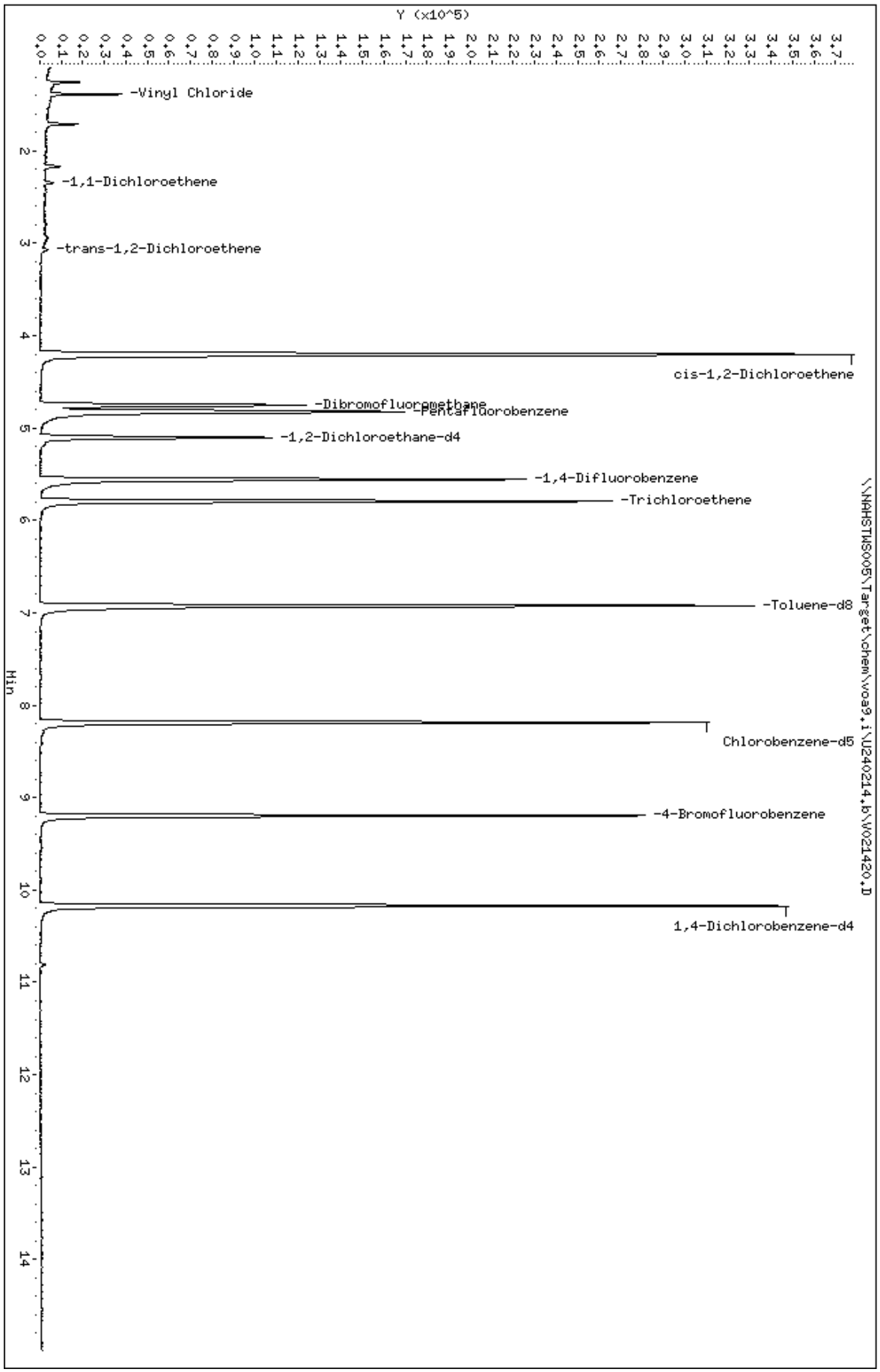
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.823	4.819	(1.000)	162286	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.985)	73724	43.9588	43.95
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	73370	43.6458	43.64
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	222039	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	206236	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	254147	45.2131	45.21
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	87276	41.9903	41.99
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	111710	50.0000	
5 Vinyl Chloride	62	1.385	1.381	(0.287)	20835	14.8663	14.86
11 1,1-Dichloroethene	96	2.345	2.337	(0.486)	1675	1.41605	1.41(a)
20 trans-1,2-Dichloroethene	96	3.076	3.064	(0.638)	1248	0.86260	0.86(a)
27 cis-1,2-Dichloroethene	96	4.204	4.200	(0.872)	209274	117.032	117.03
38 Trichloroethene	130	5.790	5.790	(1.042)	100209	57.2865	57.28

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D
Date : 15-FEB-2024 03:28
Client ID:
Sample Info: HS24020576-04
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Page 1

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D Page 2

Date : 15-FEB-2024 03:28

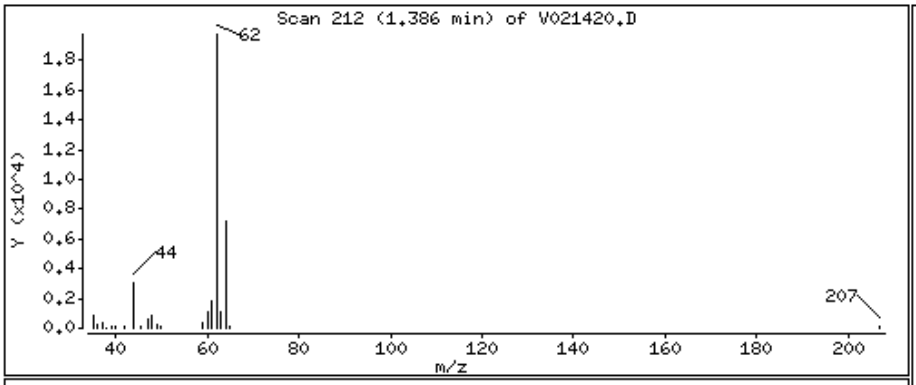
Client ID: Instrument: VOA9.i

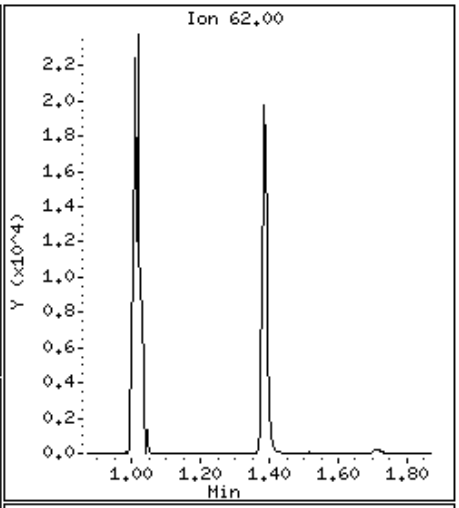
Sample Info: HS24020576-04

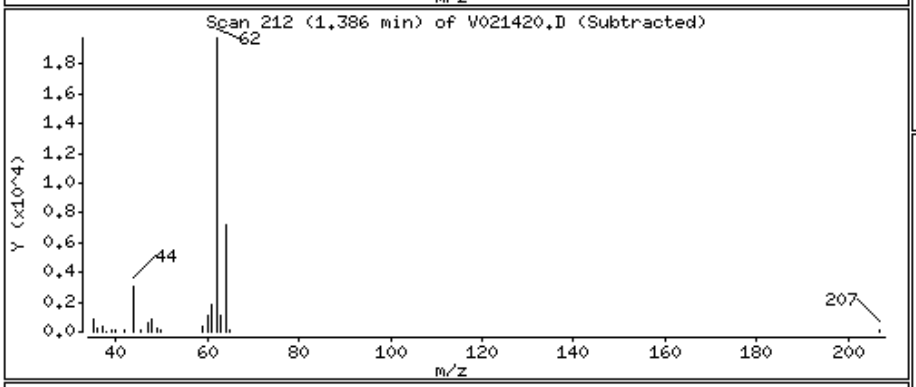
Purge Volume: 5.0 Operator: FT

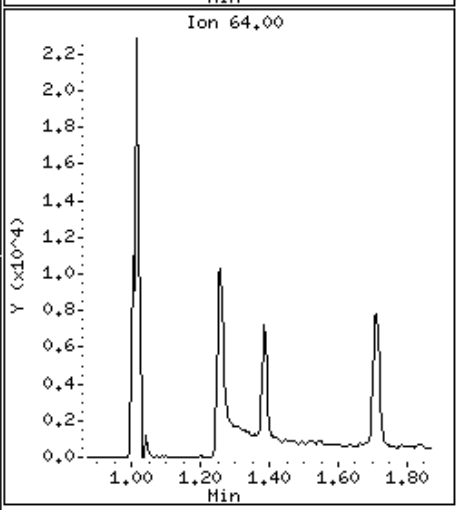
Column phase: DB624 Column diameter: 0.18

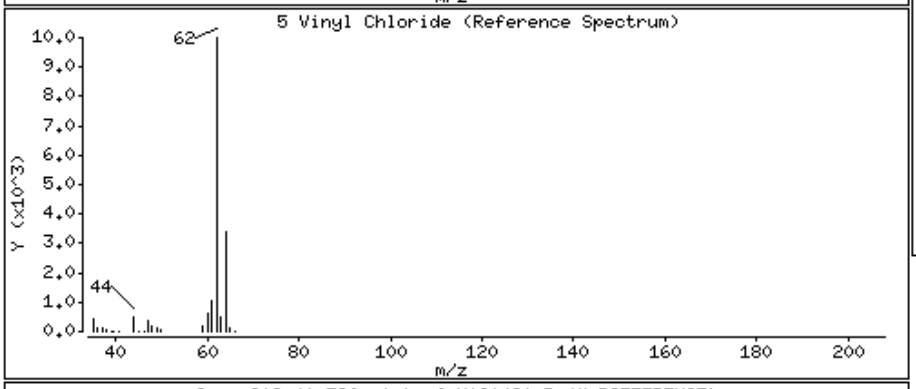
5 Vinyl Chloride Concentration: 14.86 ug/l

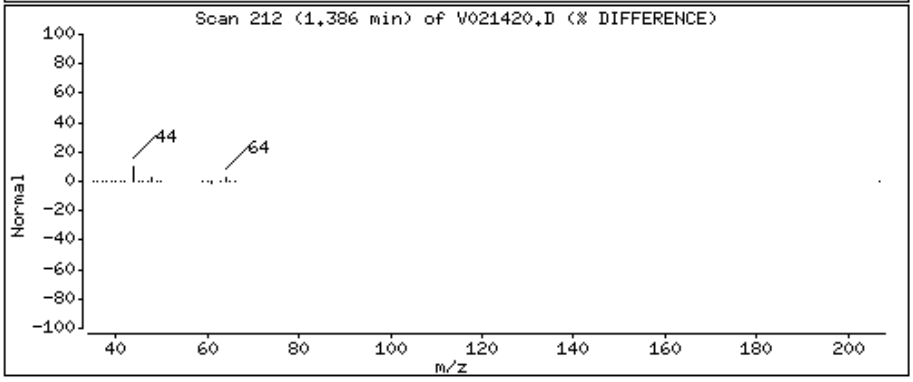












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D Page 3

Date : 15-FEB-2024 03:28

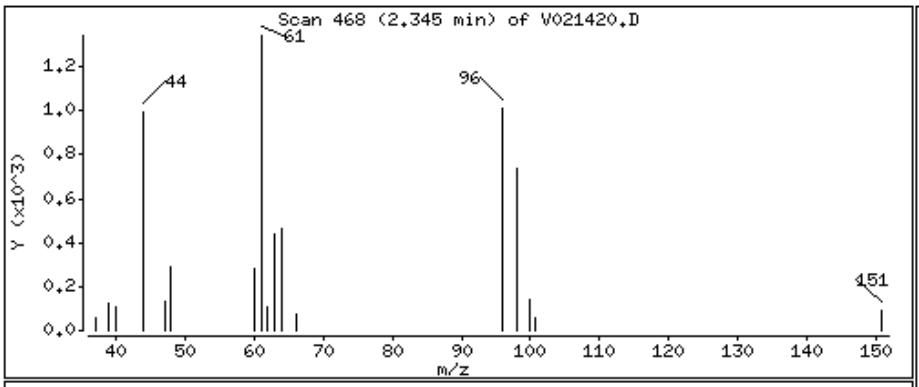
Client ID: Instrument: VOA9.i

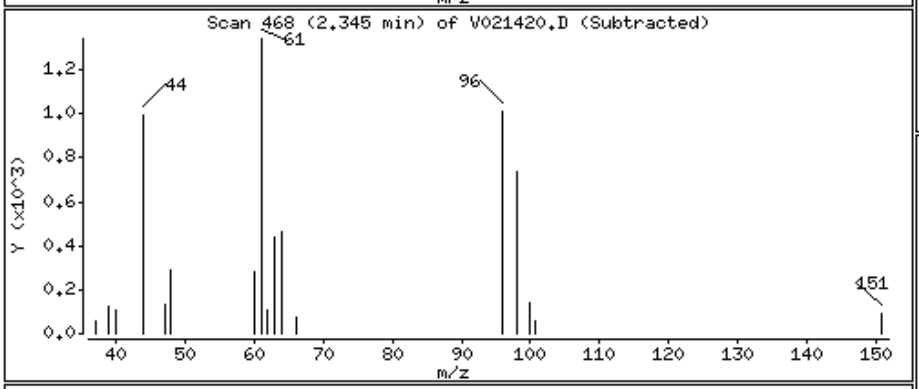
Sample Info: HS24020576-04

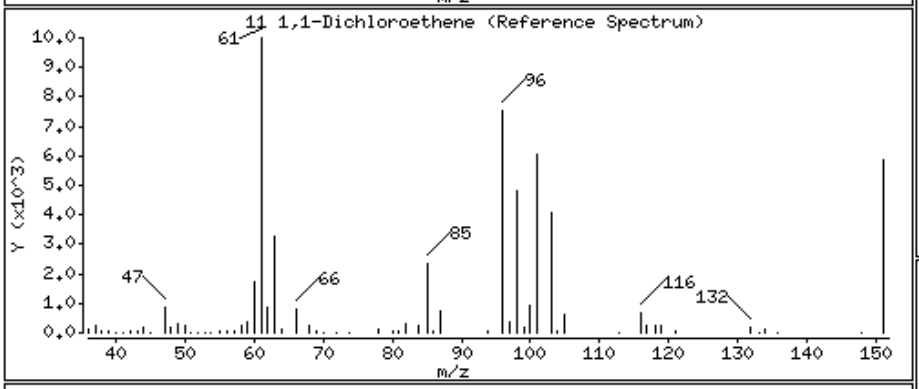
Purge Volume: 5.0 Operator: FT

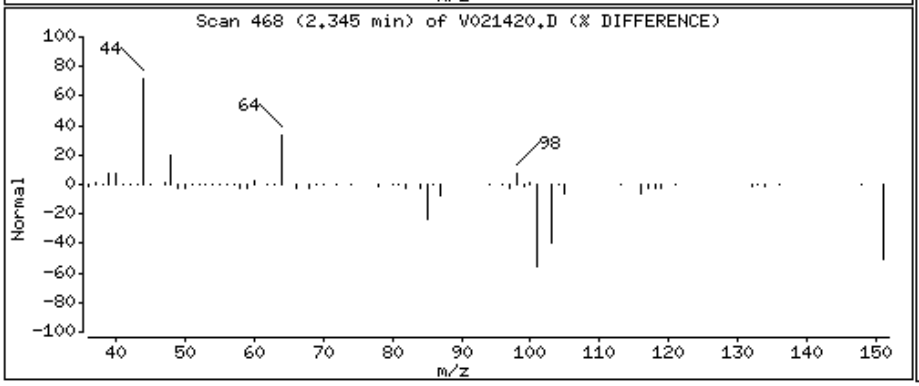
Column phase: DB624 Column diameter: 0.18

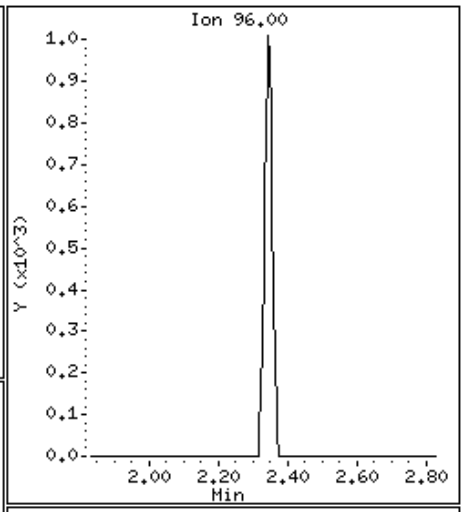
11 1,1-Dichloroethene Concentration: 1.41 ug/l

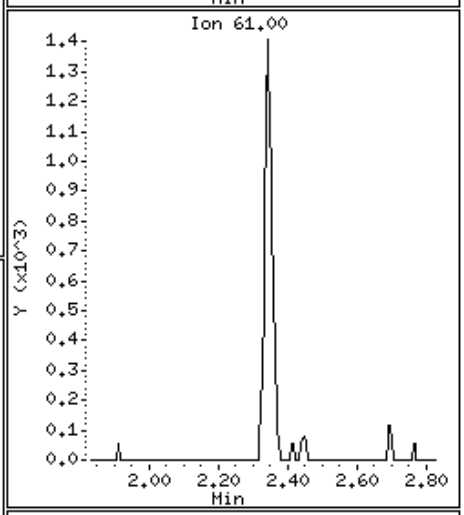


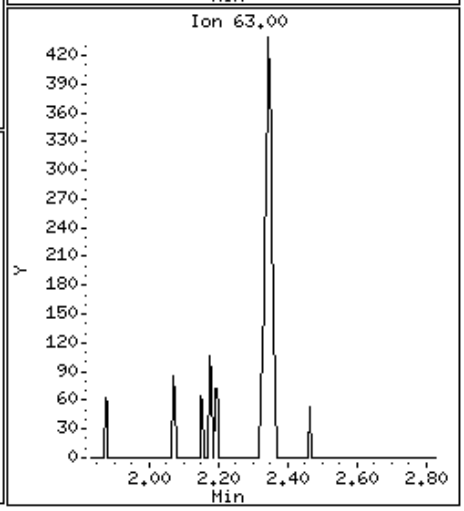












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D Page 4

Date : 15-FEB-2024 03:28

Client ID:

Instrument: VOA9.i

Sample Info: HS24020576-04

Purge Volume: 5.0

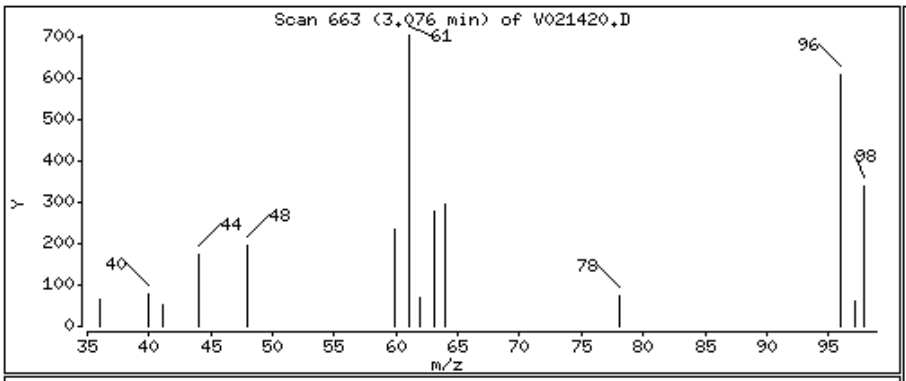
Operator: FT

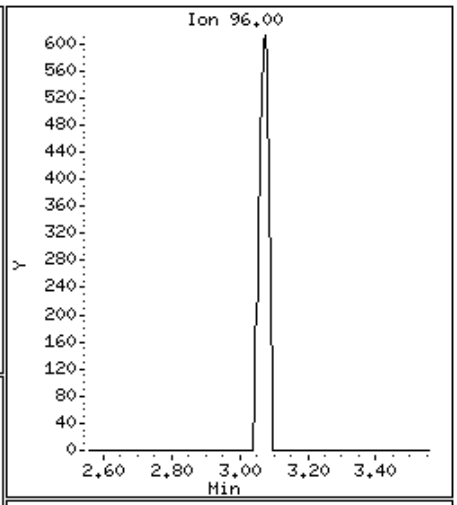
Column phase: DB624

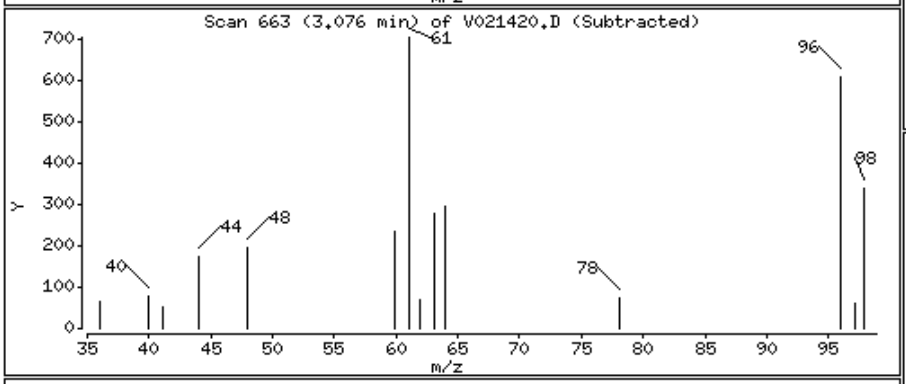
Column diameter: 0.18

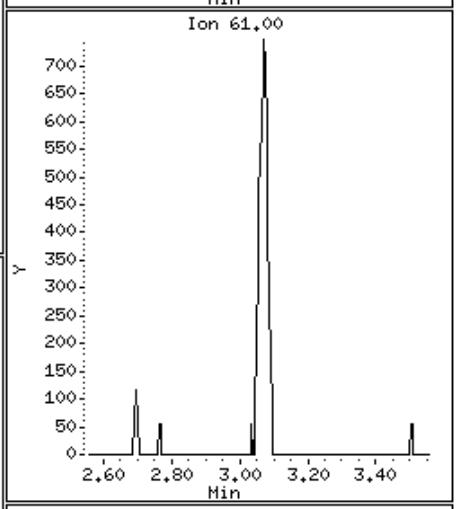
20 trans-1,2-Dichloroethene

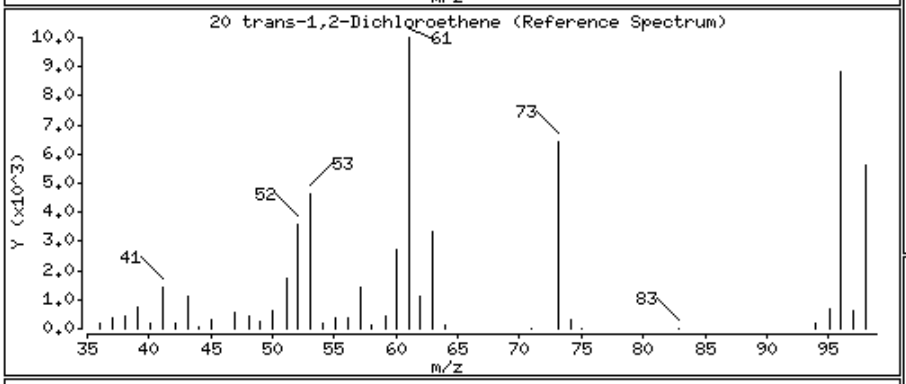
Concentration: 0.86 ug/l

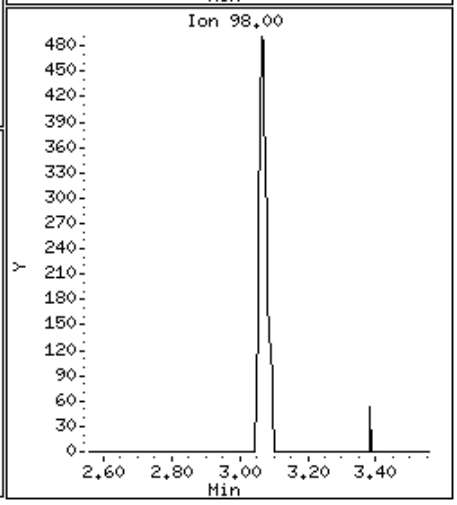


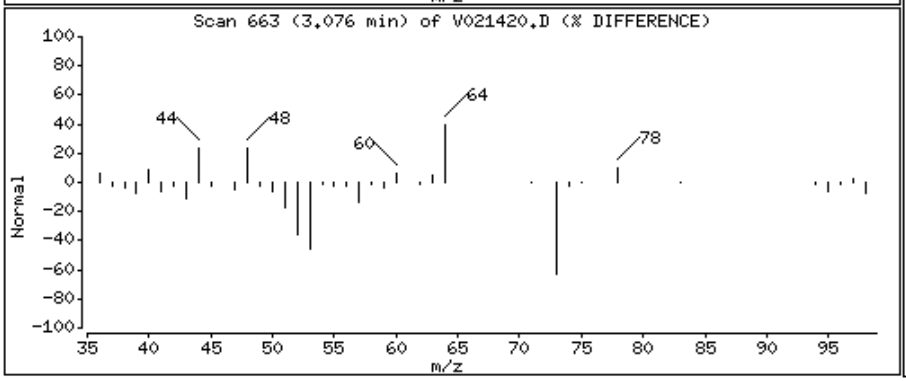












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D Page 5

Date : 15-FEB-2024 03:28

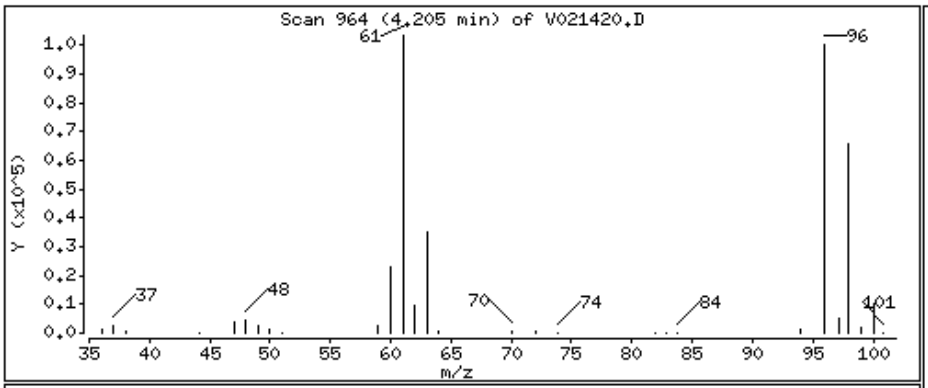
Client ID: Instrument: VOA9.i

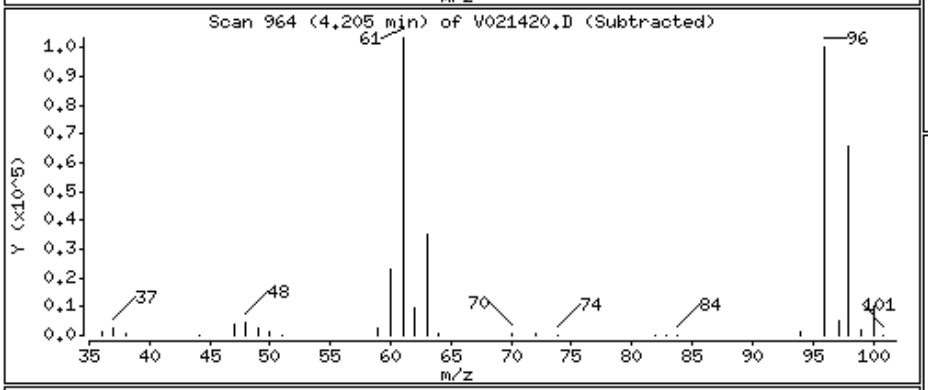
Sample Info: HS24020576-04

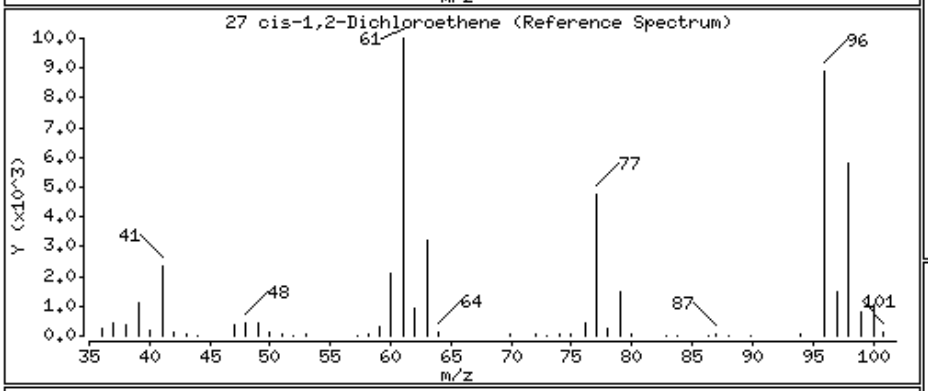
Purge Volume: 5.0 Operator: FT

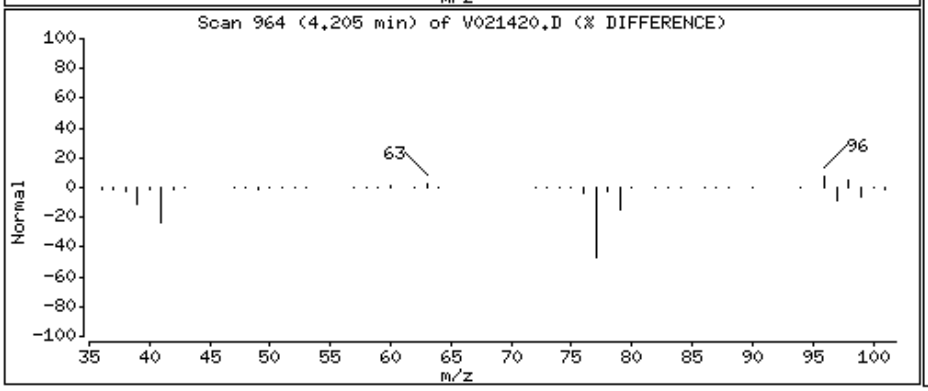
Column phase: DB624 Column diameter: 0.18

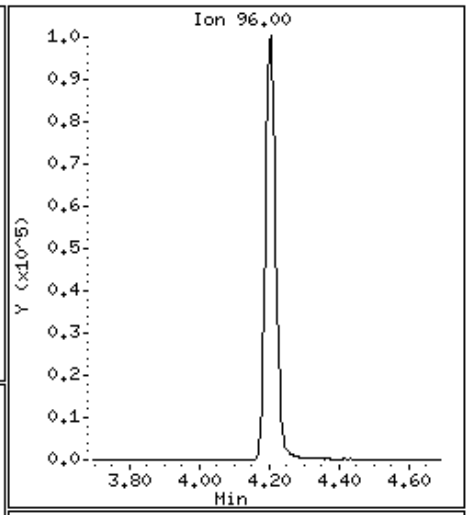
27 cis-1,2-Dichloroethene Concentration: 117.03 ug/l

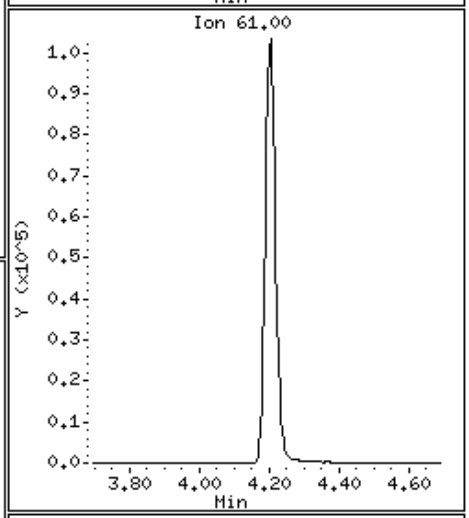


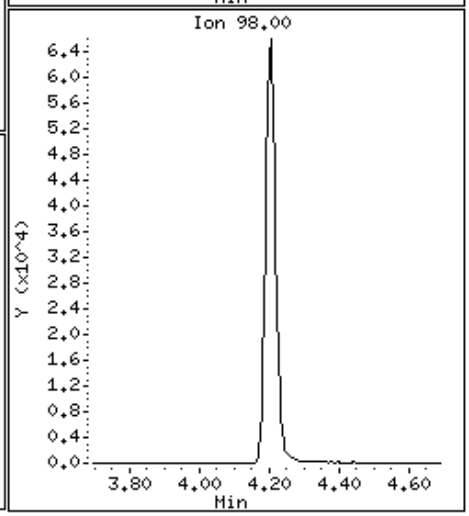












Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D Page 6

Date : 15-FEB-2024 03:28

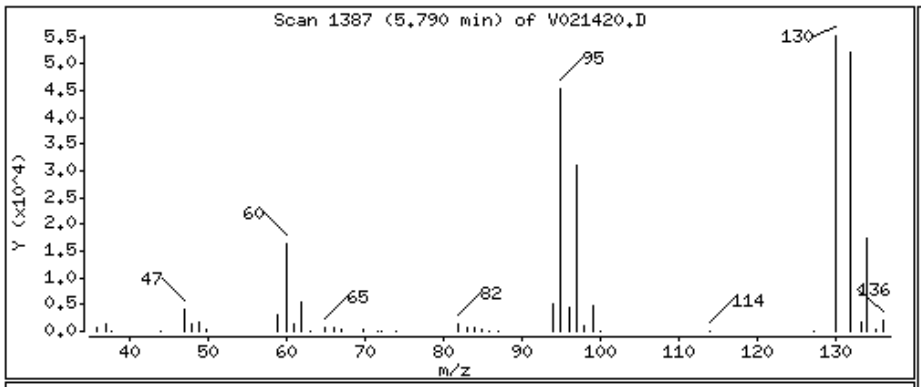
Client ID: Instrument: VOA9.i

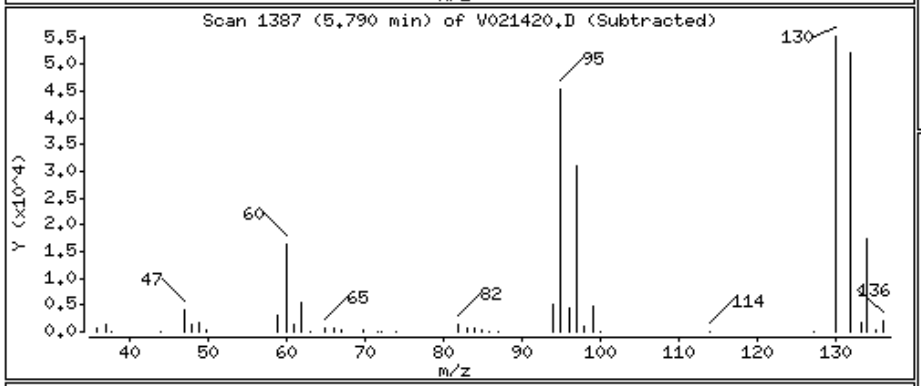
Sample Info: HS24020576-04

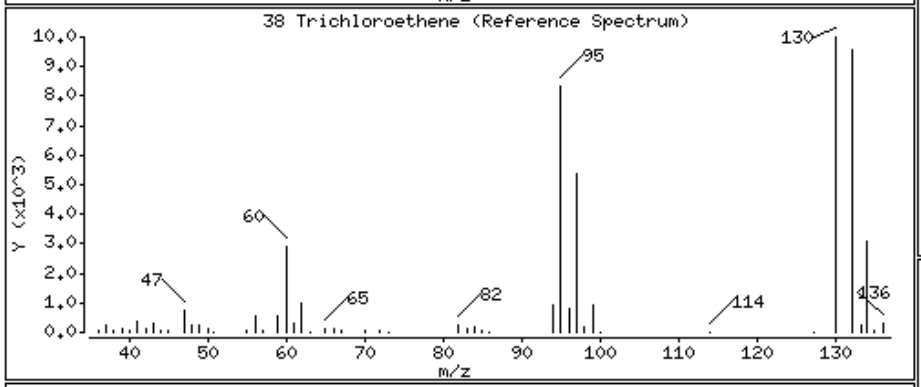
Purge Volume: 5.0 Operator: FT

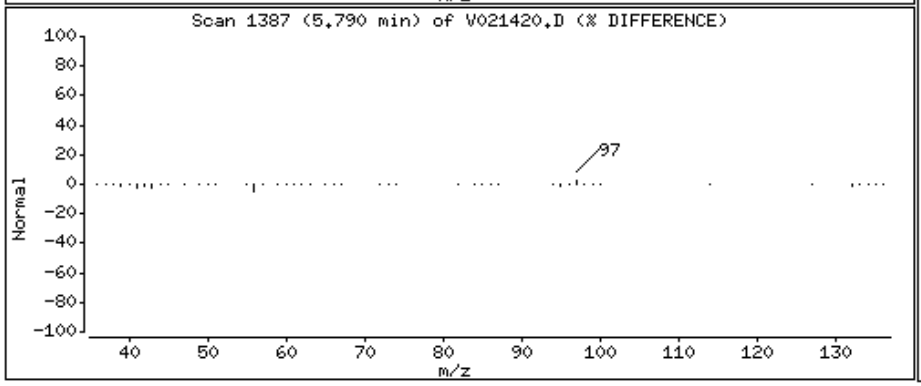
Column phase: DB624 Column diameter: 0.18

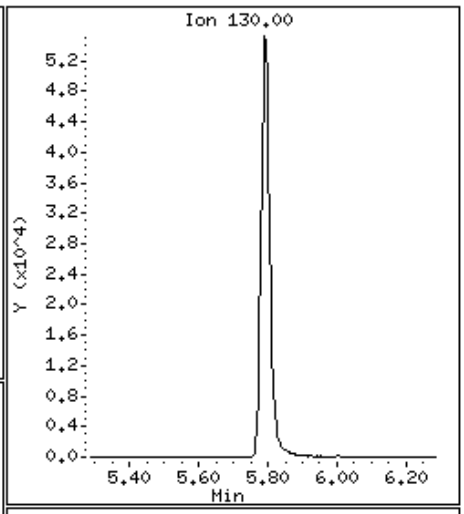
38 Trichloroethene Concentration: 57.28 ug/l

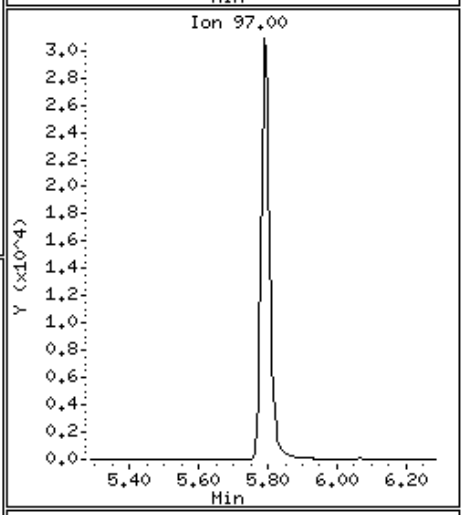


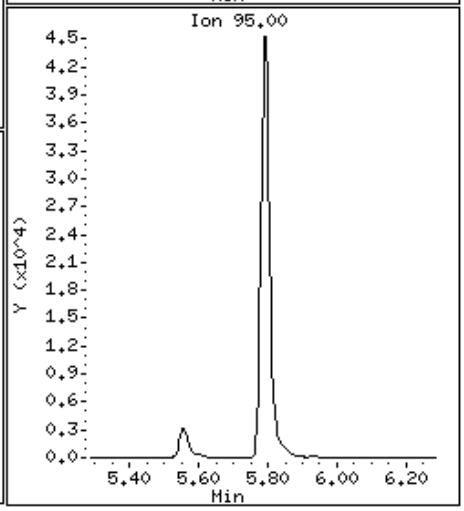












Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021420.D
Inj Date : 15-FEB-2024 03:28
InstruID : VOA9.i
LabSampID : HS24020576-04

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021421.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021421.D
Lab Smp Id: HS24020576-07
Inj Date : 15-FEB-2024 03:50
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-07
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 49
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

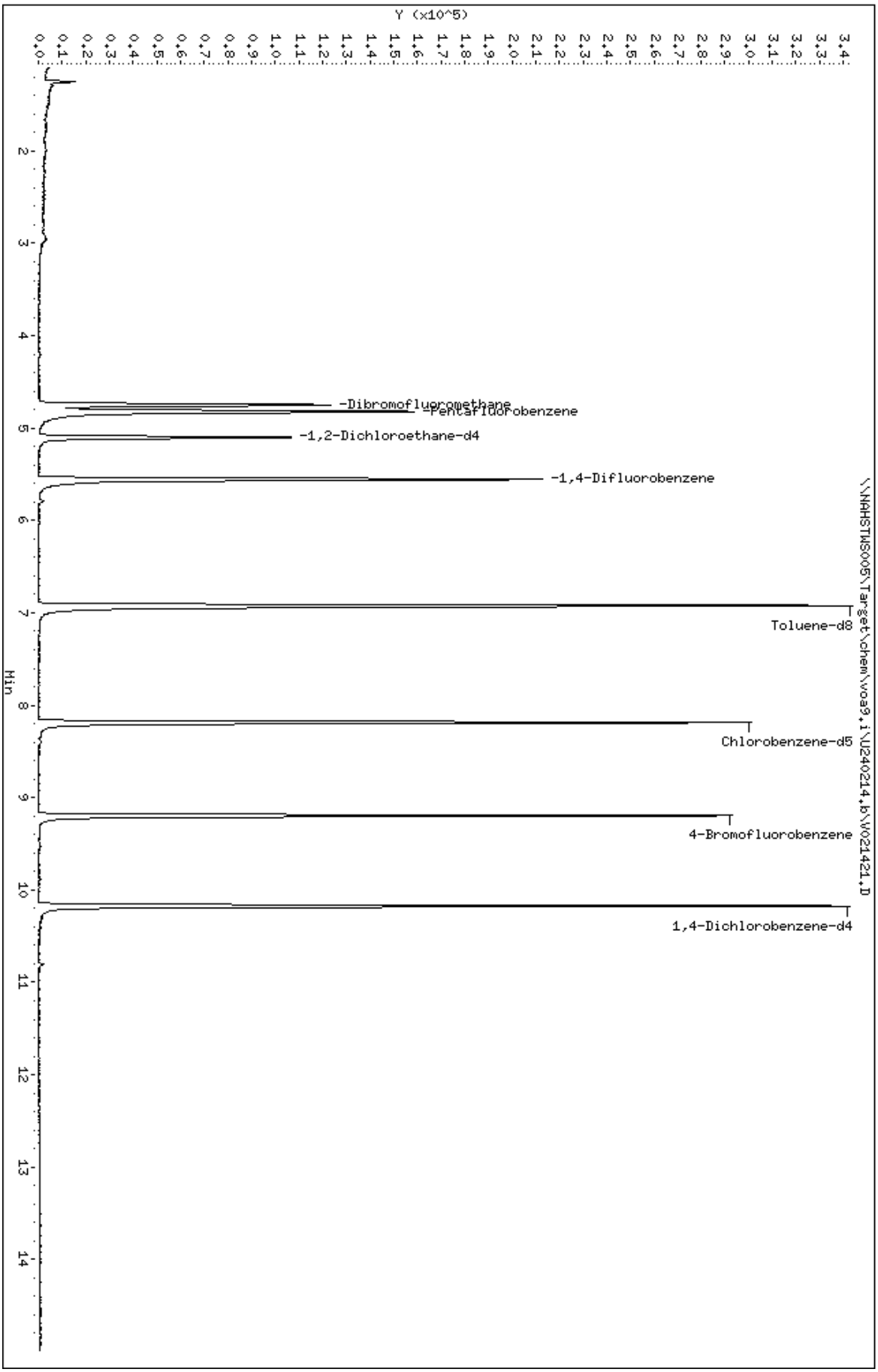
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	158126	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.748	(0.986)	74678	45.7164	45.71
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	74422	45.4672	45.46
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	216170	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	204394	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	266079	47.7655	47.76
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	91629	44.4989	44.49
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	108416	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9,i\U240214,b\V021421.D
Date : 15-FEB-2024 03:50
Client ID:
Sample Info: HS24020576-07
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021421.D
Inj Date : 15-FEB-2024 03:50
InstruID : VOA9.i
LabSampID : HS24020576-07

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021422.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021422.D
Lab Smp Id: HS24020576-08
Inj Date : 15-FEB-2024 04:12
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-08
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 50
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

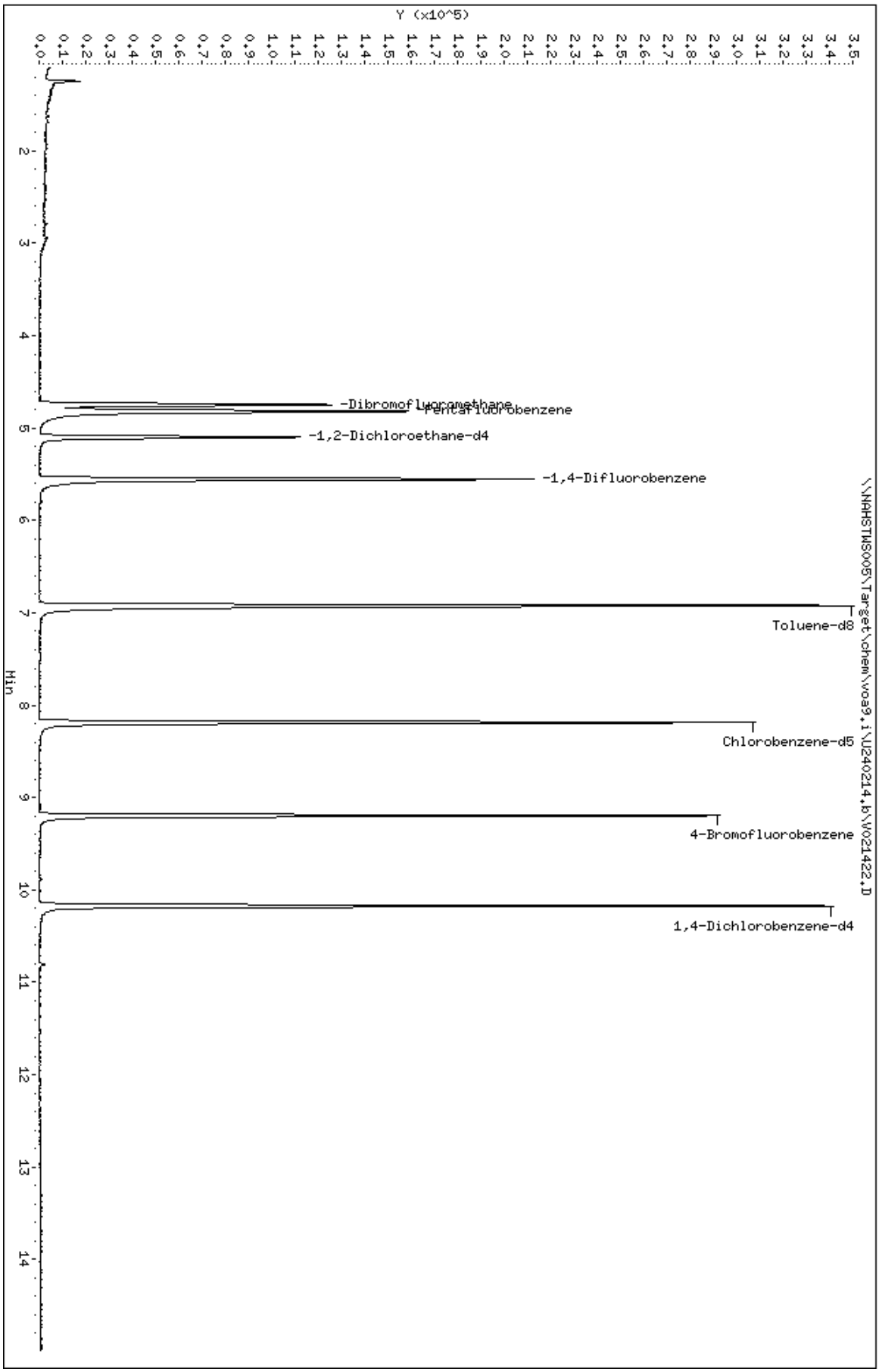
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.815	4.819	(1.000)	156131	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	74957	46.4808	46.48
$ 35 1,2-Dichloroethane-d4	65	5.097	5.096	(1.058)	77448	47.9611	47.96
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	212885	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	200425	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	265911	48.6817	48.68
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	90111	44.6291	44.62
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	108836	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9,i\U240214,b\W021422.D
Date : 15-FEB-2024 04:12
Client ID:
Sample Info: HS24020576-08
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021422.D
Inj Date : 15-FEB-2024 04:12
InstruID : VOA9.i
LabSampID : HS24020576-08

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021423.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021423.D
Lab Smp Id: HS24020576-09
Inj Date : 15-FEB-2024 04:34
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-09
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 51
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

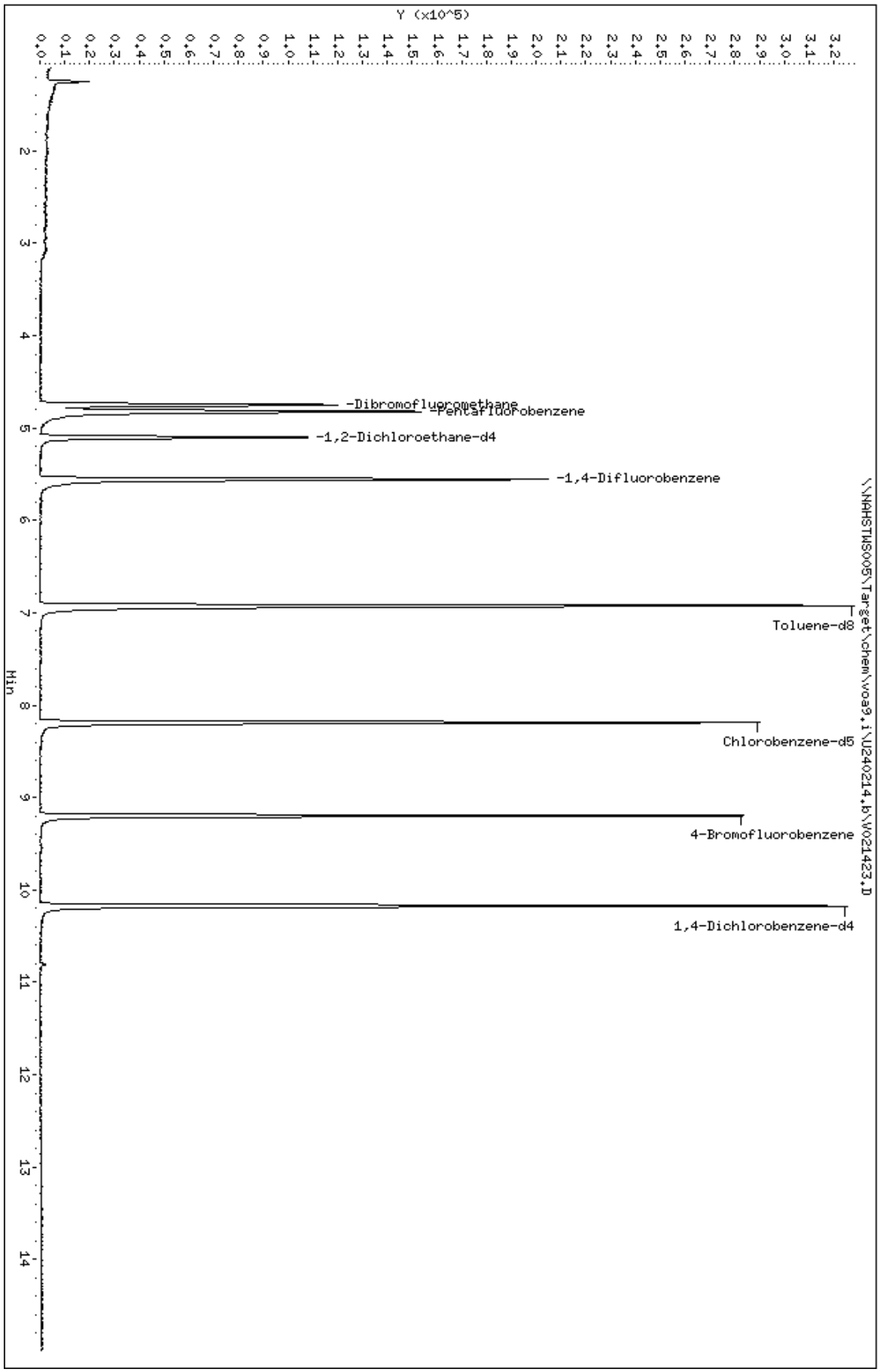
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	148715	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	72732	47.3584	47.35
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	73614	47.8585	47.85
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	204984	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	192046	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	250445	47.8497	47.84
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	86454	44.6865	44.68
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	105106	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9,i\U240214,b\W021423.D
Date : 15-FEB-2024 04:34
Client ID:
Sample Info: HS24020576-09
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021423.D
Inj Date : 15-FEB-2024 04:34
InstruID : VOA9.i
LabSampID : HS24020576-09

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021427.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021427.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 15-FEB-2024 06:03
Operator : FT Inst ID: VOA9.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:22 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.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

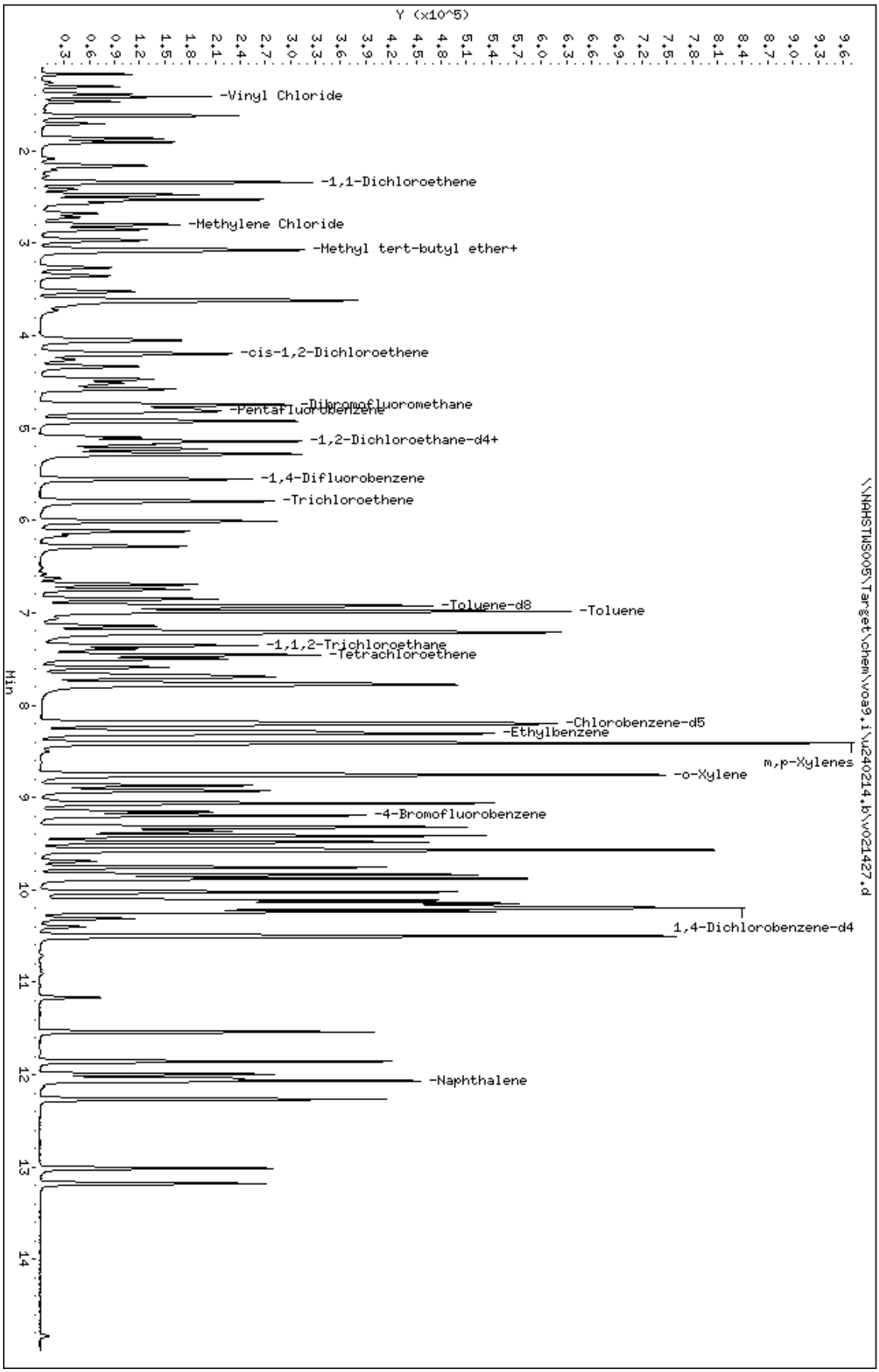
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	160278	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.752	(0.986)	82223	50.0000	49.69
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	80749	50.0000	48.72
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	224482	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	218203	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	293571	50.0000	49.36
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	110471	50.0000	50.29
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	132224	50.0000	
5 Vinyl Chloride	62	1.381	1.381	(0.287)	63843	50.0000	45.98
11 1,1-Dichloroethene	96	2.341	2.341	(0.486)	62953	50.0000	48.27
17 Methylene Chloride	84	2.798	2.798	(0.581)	77853	50.0000	53.29
18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	178447	50.0000	49.88
20 trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	75168	50.0000	50.48
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	85575	50.0000	48.45
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	97550	50.0000	53.47
37 Benzene	78	5.141	5.141	(0.926)	285198	50.0000	51.78
38 Trichloroethene	130	5.790	5.790	(1.043)	97633	50.0000	55.21
56 Tetrachloroethene	164	7.458	7.458	(0.911)	82084	50.0000	53.20
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	61456	50.0000	54.40
50 Toluene	91	6.982	6.982	(0.853)	337686	50.0000	50.01

61 Ethylbenzene	106	8.305	8.305 (1.015)	117179	50.0000	51.04
62 m,p-Xylenes	106	8.410	8.410 (1.027)	299769	100.000	106.26

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	63 o-Xylene	106	8.748	8.748	(1.069)	144573	50.0000	52.33	
	92 Naphthalene	128	12.065	12.065	(1.187)	337638	50.0000	55.87	
M	95 Xylenes (total)	106				444342	150.000		(a)

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\u240214,b\v021427.d
Date : 15-FEB-2024 06:03
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240214.b\v021427.d
Inj Date : 15-FEB-2024 06:03
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

right solutions.
right partner.

RawData

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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\V240215.b\U021501.D Page 1
Report Date: 15-Feb-2024 16:23

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\V240215.b\U021501.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 15-FEB-2024 16:03
Operator : FT Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\V240215.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: NAHSTW7066

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	
0.000	9.180	(0.000)	95	15156			0.00- 100.00	100.00
0.000	9.180	(0.000)	50	3105			15.00- 40.00	20.49
0.000	9.180	(0.000)	75	7379			30.00- 60.00	48.69
0.000	9.180	(0.000)	96	1243			5.00- 9.00	8.20
0.000	9.180	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
0.000	9.180	(0.000)	174	14235			50.00- 0.00	93.92
0.000	9.180	(0.000)	175	1112			5.00- 9.00	7.81
0.000	9.180	(0.000)	176	13638			95.00- 101.00	95.81
0.000	9.180	(0.000)	177	817			5.00- 9.00	5.99

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.49
75	30.00 - 60.00% of mass 95	48.69
96	5.00 - 9.00% of mass 95	8.20
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	93.92
175	5.00 - 9.00% of mass 174	7.34 (7.81)
176	95.00 - 101.00% of mass 174	89.98 (95.81)
177	5.00 - 9.00% of mass 176	5.39 (5.99)

Data File: U021501.D
Spectrum: HP ChemStation MS U021501.D, Scan 2299: 9.209 min.
Location of Maximum: 95.05
Number of points: 123

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.40	132	63.80	171	95.00	15156	139.70	58
36.00	346	65.10	142	96.00	1243	140.80	122
37.00	910	66.20	139	96.80	98	142.10	54
38.00	1007	66.80	213	97.90	118	142.80	312
39.00	742	68.00	1763	100.00	78	145.10	65
40.00	409	69.00	1594	100.90	53	146.30	77
41.20	230	69.90	256	102.90	57	148.70	96
41.90	198	71.40	123	103.90	71	149.70	52
42.40	162	72.20	212	105.10	97	150.20	56
43.00	248	73.00	689	105.90	125	151.90	64
43.90	509	74.00	2523	106.80	72	154.50	56
45.00	293	75.00	7379	110.30	63	154.90	86
45.90	136	76.00	769	110.90	57	156.70	74
46.10	132	76.90	151	113.40	54	158.20	57
47.20	286	77.80	153	115.50	59	158.80	94
48.00	173	78.80	498	116.00	133	161.20	68
49.00	663	79.90	264	116.80	181	162.80	57
50.00	3105	80.90	501	117.80	80	170.10	58
51.00	923	82.00	208	118.90	147	170.60	60
52.00	164	82.80	154	121.10	81	171.90	331
53.20	131	84.00	74	122.40	107	173.90	14235
53.90	86	86.10	154	124.80	61	174.90	1112
54.80	221	86.90	729	125.70	80	175.90	13638
56.00	327	87.90	608	126.80	94	177.00	817
56.90	468	89.20	118	127.80	75	177.90	66
58.10	117	89.90	74	129.00	82	187.30	63
58.90	120	90.80	182	129.90	121	207.30	96
59.90	241	91.20	166	131.10	54	218.10	58
61.00	760	91.90	393	132.00	57	233.40	64
61.90	1010	93.10	673	134.60	89	348.70	59
62.90	675	94.00	1923	138.80	84		

Data File: \\NAHSTWS005\Target\chem\voa9.i\v240215.b\u021501.d Page 1

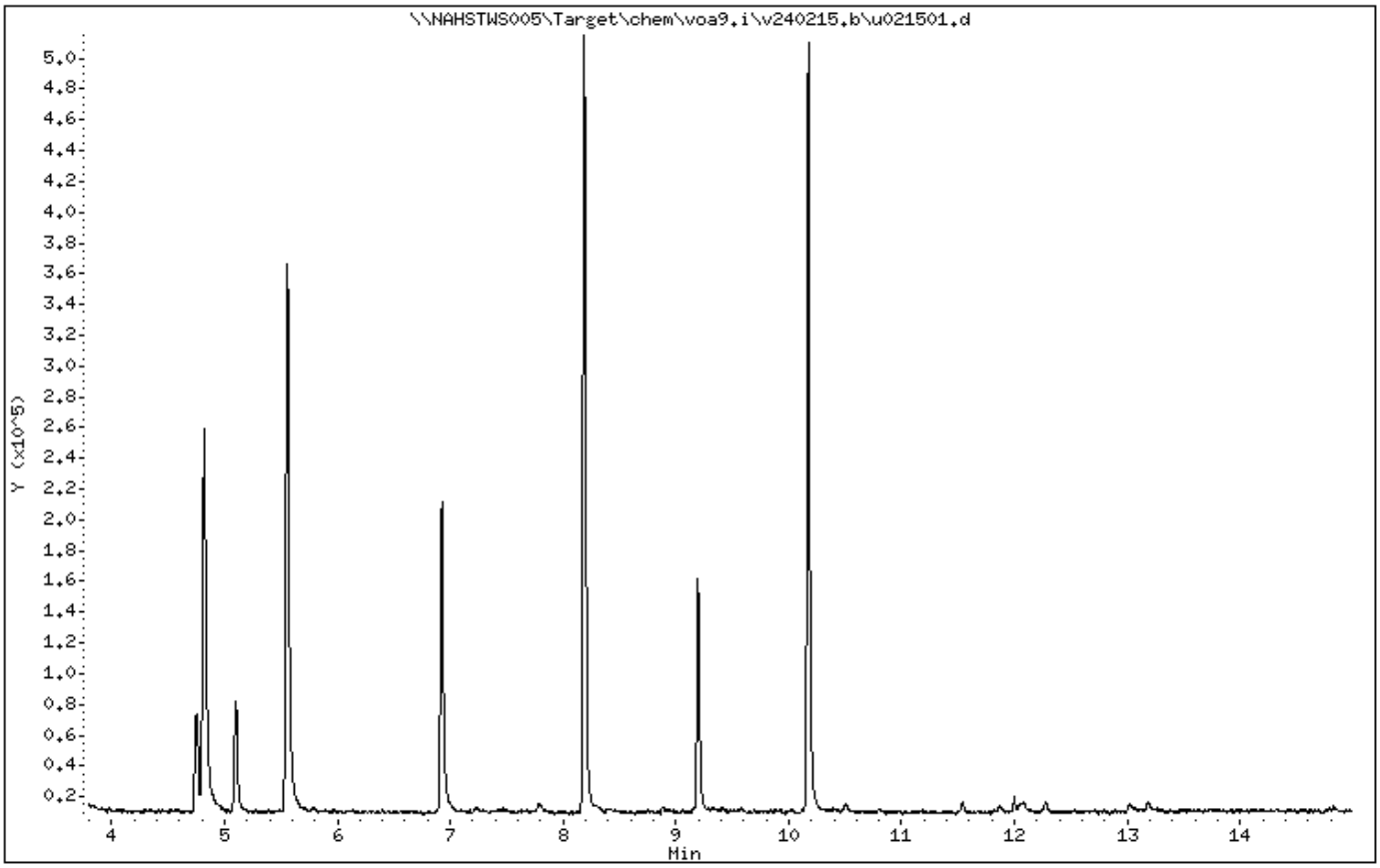
Date : 15-FEB-2024 16:03

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021501.d
Inj Date : 15-FEB-2024 16:03
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D Page 1
Report Date: 22-Feb-2024 16:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D
Lab Smp Id: VSTD00.5 Client Smp ID: VSTD00.5
Inj Date : 15-FEB-2024 16:47
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD00.5;VSTD00.5;1;2;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:14 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 16:25 Cal File: U021502.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

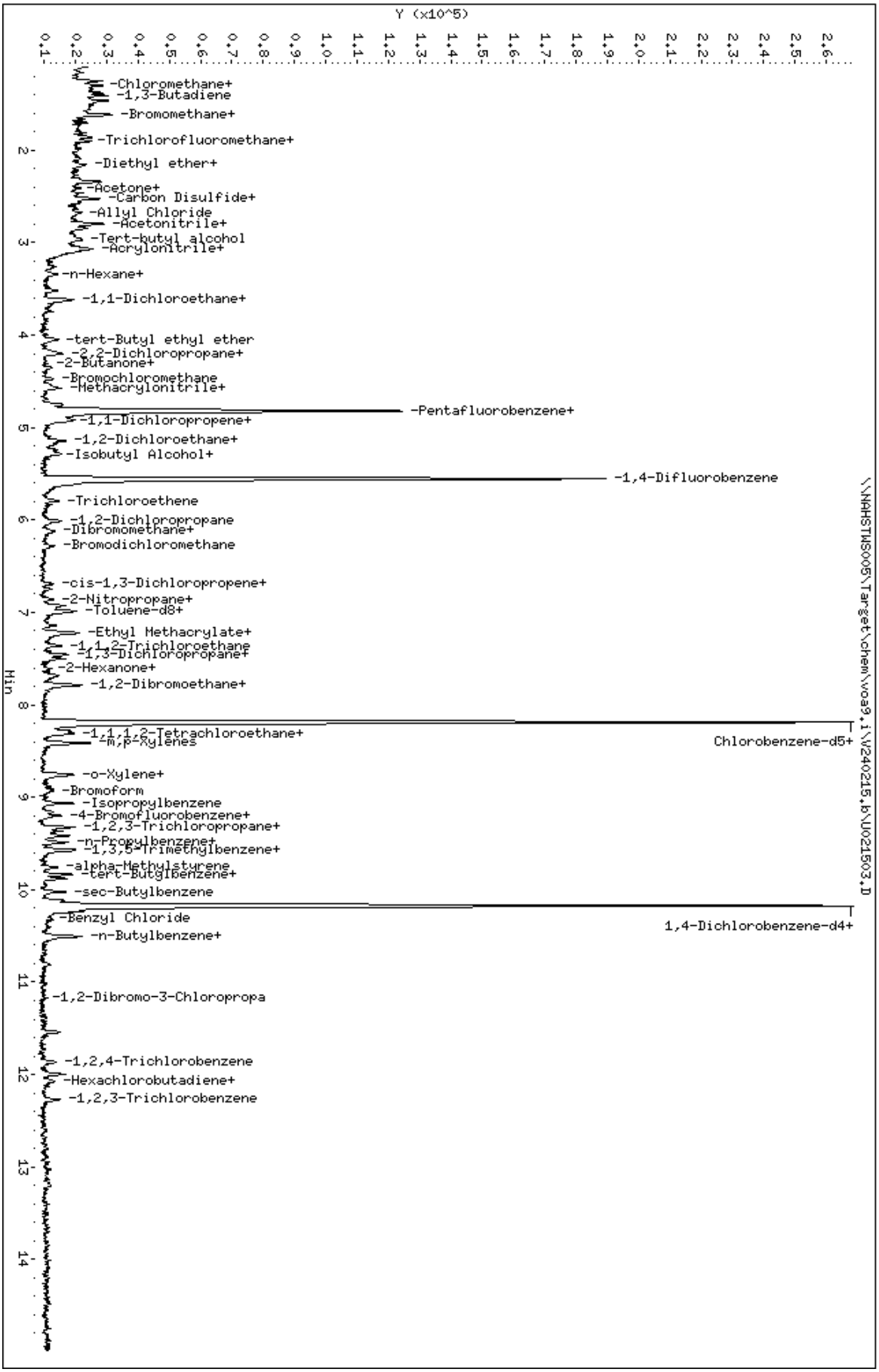
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	96628	50.0000		
$ 30 Dibromofluoromethane	113	4.751	4.751	(0.986)	1818	0.50000		(a)
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	2121	0.50000		(Ta)
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	163437	50.0000		
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	151697	50.0000		
$ 48 Toluene-d8	98	6.929	6.929	(0.847)	5625	0.50000		(Ta)
$ 69 4-Bromofluorobenzene	95	9.201	9.201	(1.124)	2332	0.50000		(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	73198	50.0000		
5 Vinyl Chloride	62	1.378	1.378	(0.286)	2686	0.50000		
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	1843	0.50000		
17 Methylene Chloride	84	2.795	2.795	(0.580)	4152	0.50000	0.82	
18 Methyl tert-butyl ether	73	3.080	3.080	(0.639)	4423	0.50000		
20 trans-1,2-Dichloroethene	96	3.053	3.053	(0.634)	1525	0.50000		
23 Chloroprene	53	2.161	2.161	(0.449)	536	0.50000		(M)
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	2003	0.50000		
33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	2663	0.50000		
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	2477	0.50000	1.29	
37 Benzene	78	5.145	5.145	(0.926)	7043	0.50000		
38 Trichloroethene	130	5.794	5.794	(1.043)	2136	0.50000	0.06	
56 Tetrachloroethene	164	7.458	7.458	(0.911)	1578	0.50000		

53 1,1,2-Trichloroethane	83	7.361	7.361 (0.899)	1287	0.50000
50 Toluene	91	6.986	6.986 (0.853)	6331	0.50000

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	61 Ethylbenzene	106	8.309	8.309	(1.015)	2000	0.50000		
	62 m,p-Xylenes	106	8.414	8.414	(1.028)	5072	1.00000		
	63 o-Xylene	106	8.751	8.751	(1.069)	2363	0.50000	0.04	
	92 Naphthalene	128	12.076	12.076	(1.187)	3519	0.50000	0.55	
	45 4-Methyl-2-Pentanone	43	6.862	6.862	(0.838)	2977	1.00000	0.41	
	13 Acetonitrile	39	2.843	2.843	(0.590)	931	5.00000		
	9 Acrolein	56	2.214	2.214	(0.459)	70	1.00000		(M)
	16 Acrylonitrile	53	3.068	3.068	(0.637)	1469	1.00000		
	25 Methacrylonitrile	41	4.549	4.549	(0.944)	845	0.50000		
	64 Styrene	104	8.770	8.770	(1.071)	3596	0.50000	0.14	
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	1847	0.50000		
	28 Chloroform	83	4.572	4.572	(0.949)	3607	0.50000		
	59 Chlorobenzene	112	8.212	8.212	(1.003)	5026	0.50000		
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	2117	0.50000		(M)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	1364	0.50000		
	66 Bromoform	173	8.920	8.920	(1.090)	1108	0.50000	0.70	(M)
M	95 Xylenes (total)	106				7435	1.50000		
M	94 1,2-Dichloroethylene (total)	96				3528	1.00000		

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\V240215,b\U021503,D
Date : 15-FEB-2024 16:47
Client ID: VSTD00.5
Sample Info: VSTD00,5;VSTD00,5;1;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

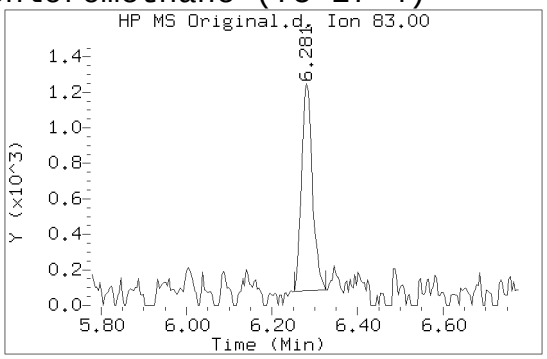
Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D
Inj Date : 15-FEB-2024 16:47
InstruID : VOA9.i
LabSampID : VSTD00.5

Bromodichloromethane (75-27-4)

Reason Code:

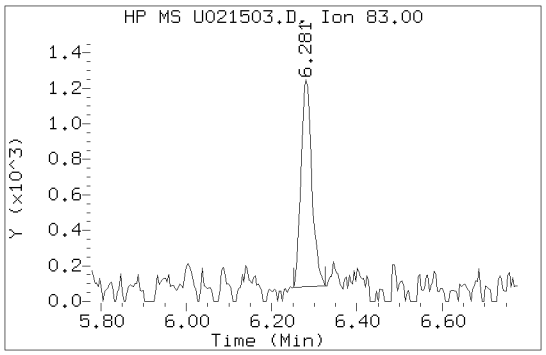
BEFORE

MASS
83
AREA
2117
HEIGHT
1168
22-Feb-2024
15:48
linh
pham



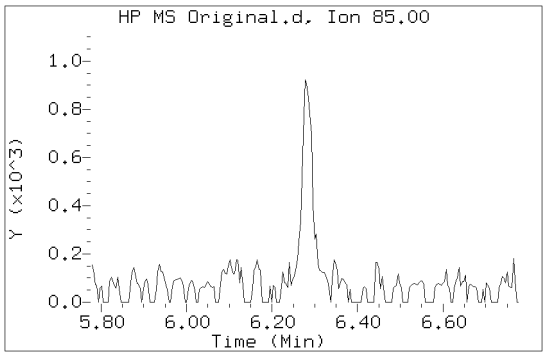
AFTER

MASS
83
AREA
2117
HEIGHT
1168
22-Feb-2024
16:14
linh
pham



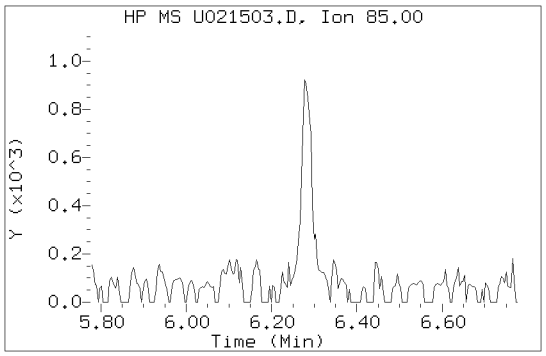
BEFORE

MASS
85
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



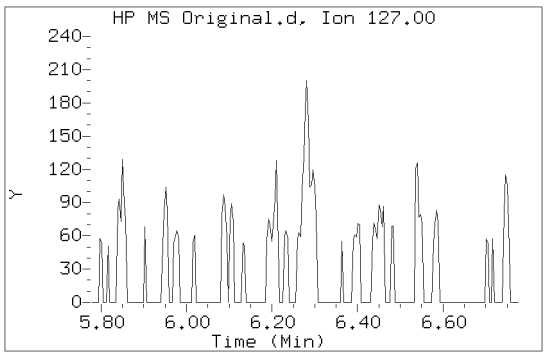
AFTER

MASS
85
AREA
0
HEIGHT
0
22-Feb-2024
16:14
linh
pham



BEFORE

MASS
127
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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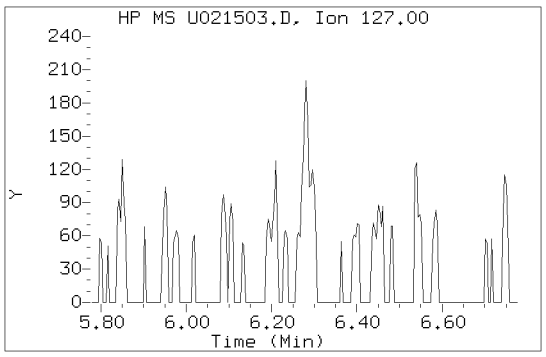
AREA
0
HEIGHT
0
22-Feb-2024
16:14
linh
pham

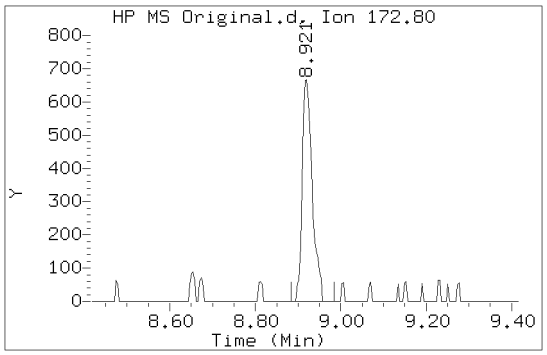


Bromoform (75-25-2)

Reason Code:

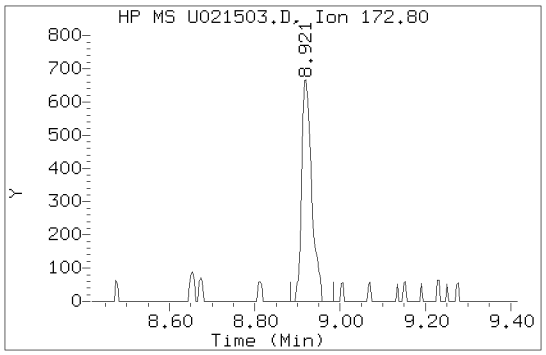
BEFORE

MASS
172.8
AREA
1108
HEIGHT
667
22-Feb-2024
15:48
linh
pham



AFTER

MASS
172.8
AREA
1108
HEIGHT
667
22-Feb-2024
16:14
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D
Inj Date : 15-FEB-2024 16:47
InstruID : VOA9.i
LabSampID : VSTD00.5

Bromoform (75-25-2)

Reason Code:

BEFORE
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175
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HEIGHT
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22-Feb-2024
15:48
linh
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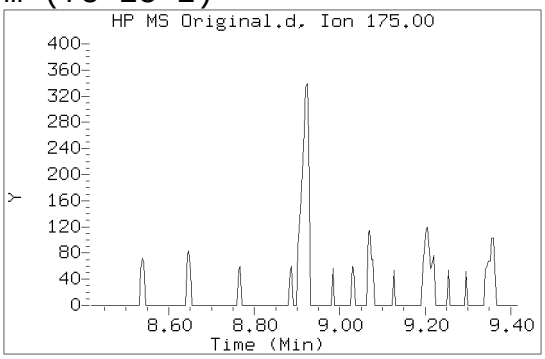

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16:14
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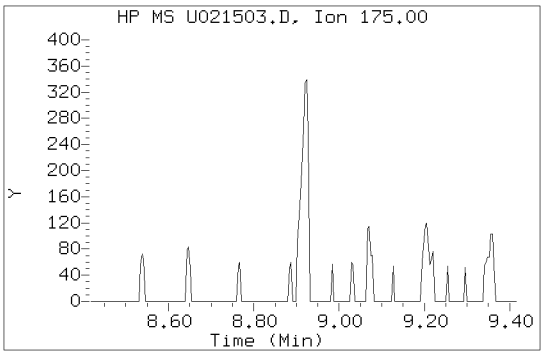

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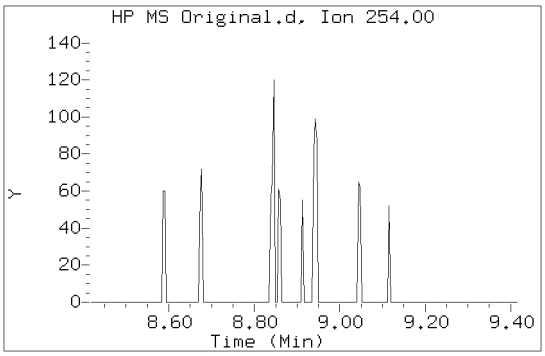

AFTER
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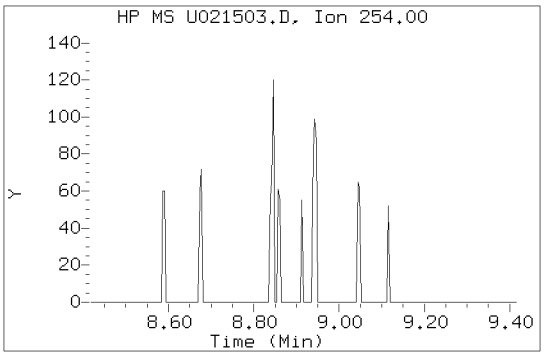

Acrolein (107-02-8)

Reason Code:

BEFORE
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HEIGHT
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15:48
linh
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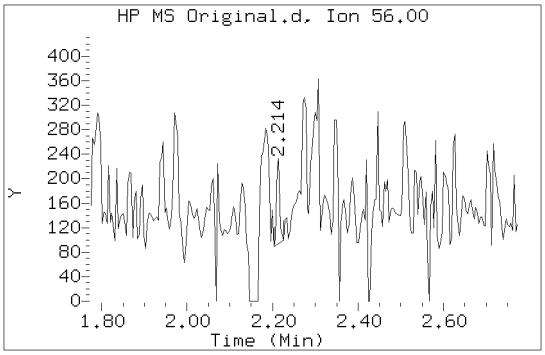

AFTER
MASS
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AREA
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HEIGHT
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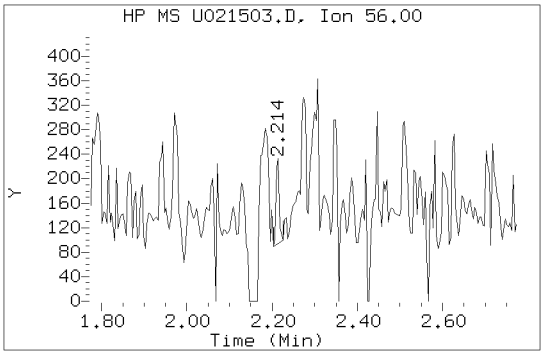
22-Feb-2024
16:14
linh
pham



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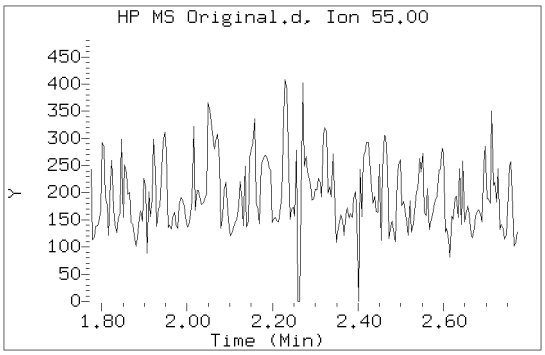

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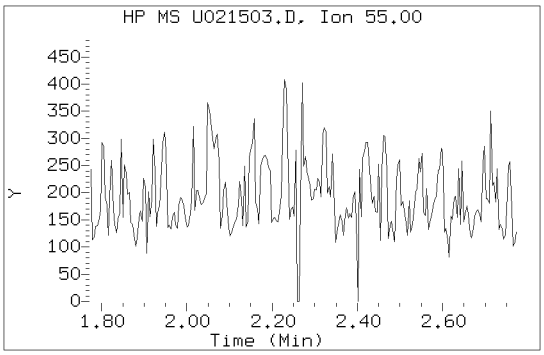
22-Feb-2024
16:14
linh
pham



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Inj Date : 15-FEB-2024 16:47
InstruID : VOA9.i
LabSampID : VSTD00.5

Chloroprene (126-99-8)

Reason Code:

BEFORE

MASS
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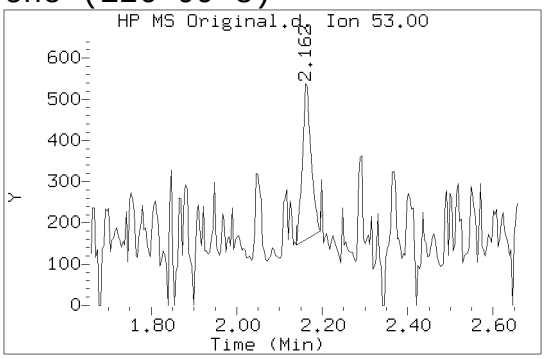
AREA
536
HEIGHT
377
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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HEIGHT
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22-Feb-2024
16:14
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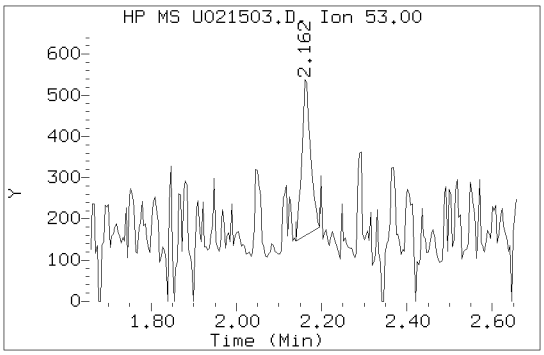
pham



BEFORE

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HEIGHT
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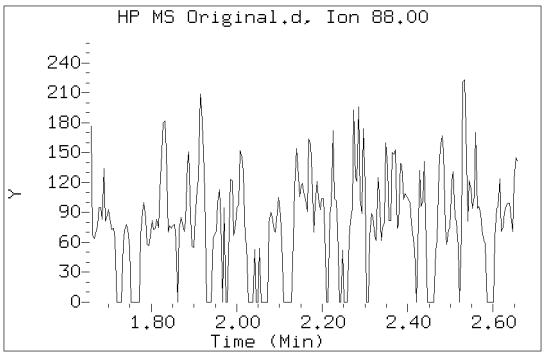
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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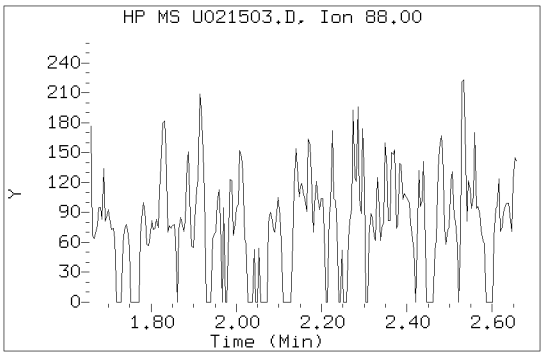
HEIGHT
0
22-Feb-2024
16:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021504.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021504.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 15-FEB-2024 17:09
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD001;VSTD001;1;3;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 16:47 Cal File: U021503.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

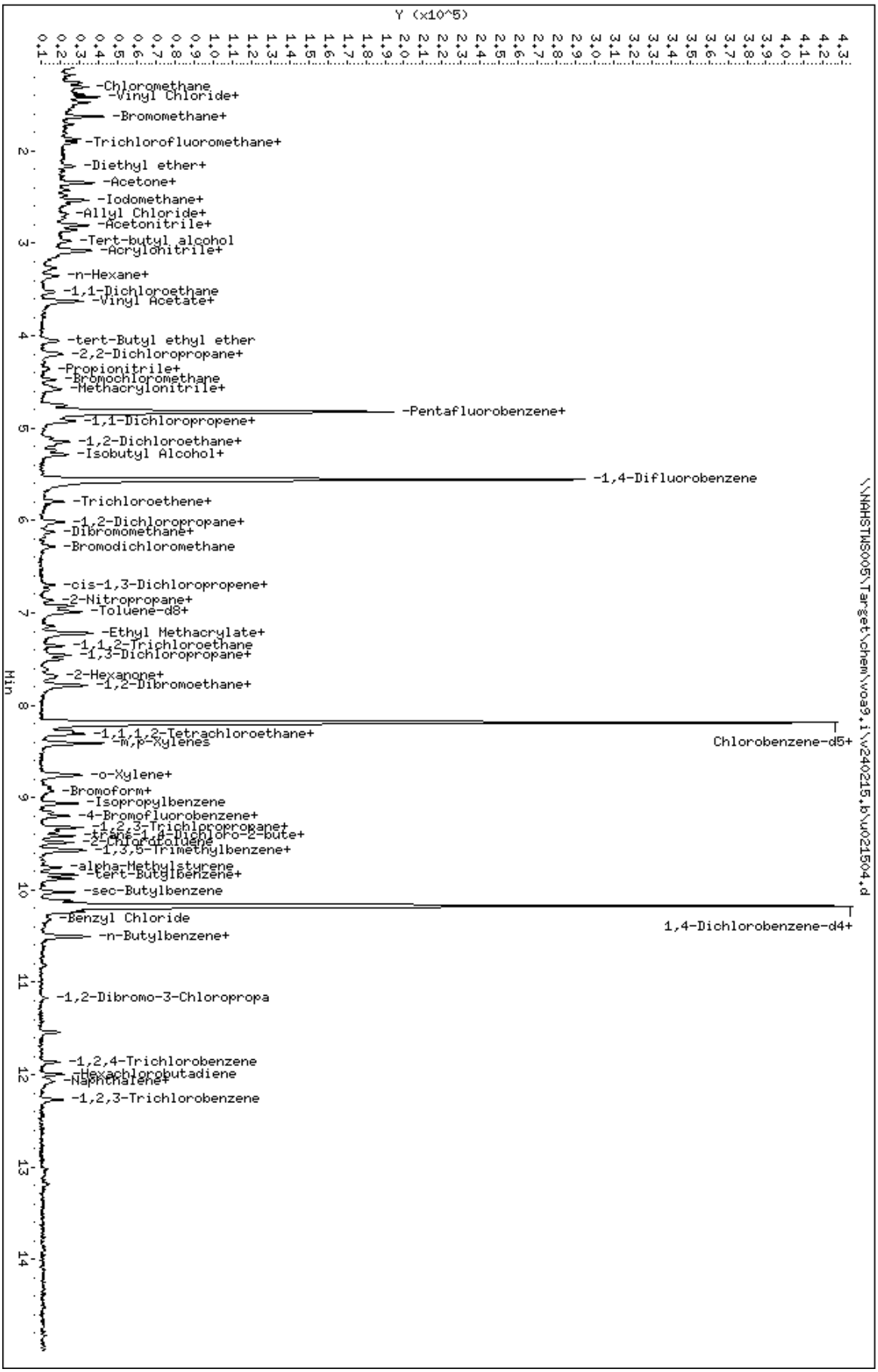
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	149433	50.0000	
$ 30 Dibromofluoromethane	113	4.755	4.755	(0.986)	4050	1.00000	0.26(a)
$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	4585	1.00000	0.06(a)
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	248743	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	240606	50.0000	
$ 48 Toluene-d8	98	6.926	6.926	(0.846)	12807	1.00000	0.53(a)
$ 69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	5364	1.00000	0.60(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	117629	50.0000	
5 Vinyl Chloride	62	1.389	1.389	(0.288)	4995	1.00000	0.31
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	3507	1.00000	0.13
17 Methylene Chloride	84	2.806	2.806	(0.582)	7151	1.00000	1.23
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	8958	1.00000	0.42
20 trans-1,2-Dichloroethene	96	3.072	3.072	(0.637)	4050	1.00000	0.56
23 Chloroprene	53	2.169	2.169	(0.450)	843	1.00000	0.00(M)
27 cis-1,2-Dichloroethene	96	4.212	4.212	(0.873)	3678	1.00000	0.11
33 1,2-Dichloroethane	62	5.182	5.182	(0.933)	5952	1.00000	0.26
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	4229	1.00000	1.48
37 Benzene	78	5.145	5.145	(0.926)	14872	1.00000	0.35
38 Trichloroethene	130	5.797	5.797	(1.043)	4231	1.00000	0.66
56 Tetrachloroethene	164	7.458	7.458	(0.911)	3472	1.00000	0.50

53 1,1,2-Trichloroethane	83	7.357	7.357 (0.899)	3272	1.00000	0.43
50 Toluene	91	6.986	6.986 (0.853)	13786	1.00000	0.33

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.313	8.313	(1.016)	4753	1.00000	0.43
	62 m,p-Xylenes	106	8.414	8.414	(1.028)	10243	2.00000	0.65
	63 o-Xylene	106	8.747	8.747	(1.069)	5255	1.00000	0.57
	92 Naphthalene	128	12.073	12.073	(1.187)	6831	1.00000	0.76
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	5697	2.00000	0.92
	13 Acetonitrile	39	2.851	2.851	(0.591)	2213	10.0000	8.01
	9 Acrolein	56	2.277	2.277	(0.472)	187	2.00000	(M)
	16 Acrylonitrile	53	3.079	3.079	(0.639)	3409	2.00000	1.26
	25 Methacrylonitrile	41	4.553	4.553	(0.944)	2142	1.00000	1.10
	194 Acetaldehyde	44	1.475	1.475	(0.306)	4370	4.00000	(M)
	64 Styrene	104	8.766	8.766	(1.071)	8645	1.00000	0.71
	140 1,3-Butadiene	54	1.415	1.415	(0.293)	4079	1.00000	0.32
	28 Chloroform	83	4.579	4.579	(0.949)	7268	1.00000	0.17
	59 Chlorobenzene	112	8.211	8.211	(1.003)	10769	1.00000	0.26
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	4384	1.00000	0.52(M)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	3319	1.00000	0.67
	66 Bromoform	173	8.920	8.920	(1.090)	1984	1.00000	0.91(T)
M	95 Xylenes (total)	106				15498	3.00000	
M	94 1,2-Dichloroethylene (total)	96				7728	2.00000	

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.



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Date : 15-FEB-2024 17:09
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

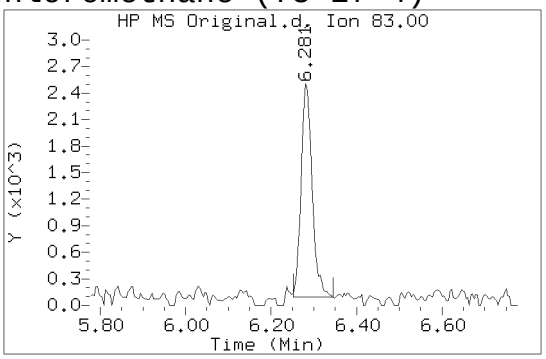
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021504.d
Inj Date : 15-FEB-2024 17:09
InstruID : VOA9.i
LabSampID : VSTD001

Bromodichloromethane (75-27-4)

Reason Code:

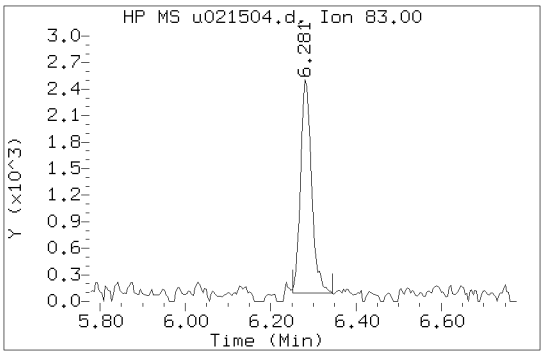
BEFORE

MASS
83
AREA
4384
HEIGHT
2411
22-Feb-2024
15:48
linh
pham



AFTER

MASS
83
AREA
4384
HEIGHT
2411
22-Feb-2024
16:14
linh
pham



BEFORE

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HEIGHT
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22-Feb-2024
15:48
linh
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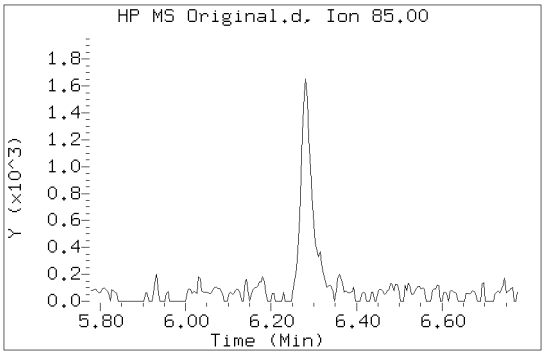

AFTER

MASS
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HEIGHT
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22-Feb-2024
16:14
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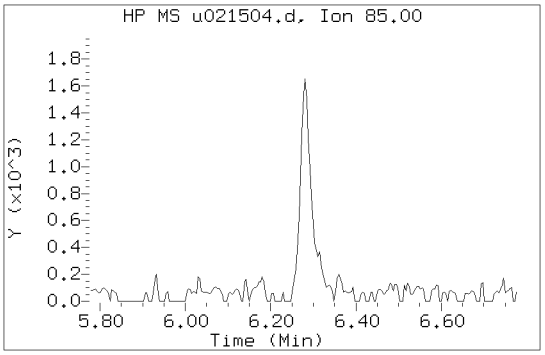

BEFORE

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22-Feb-2024
15:48
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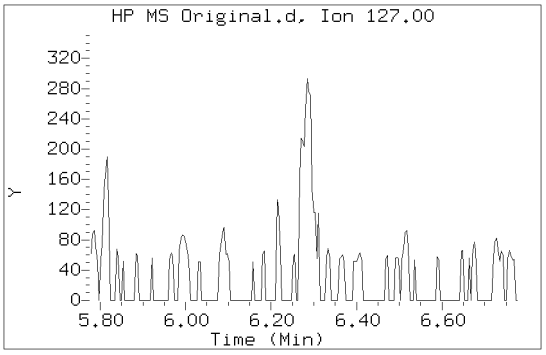

AFTER

MASS
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AREA
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HEIGHT
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22-Feb-2024
16:14
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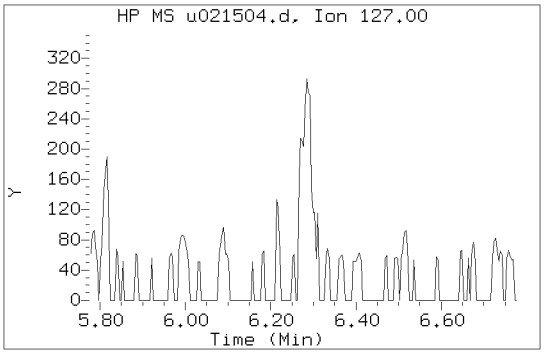
pham

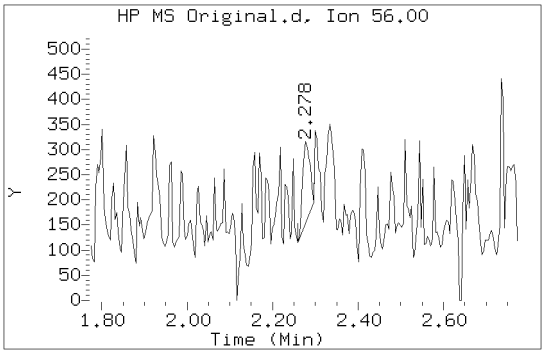


Acrolein (107-02-8)

Reason Code:

BEFORE

MASS
56
AREA
187
HEIGHT
161
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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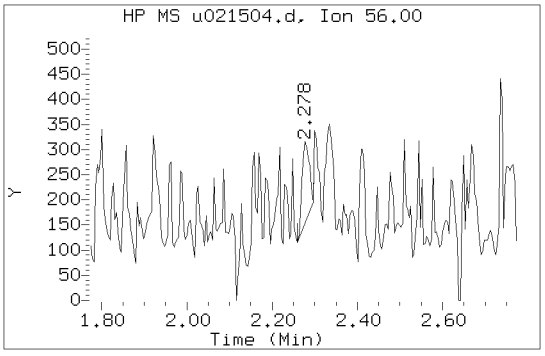
AREA
187
HEIGHT
161
22-Feb-2024
16:14
linh
pham



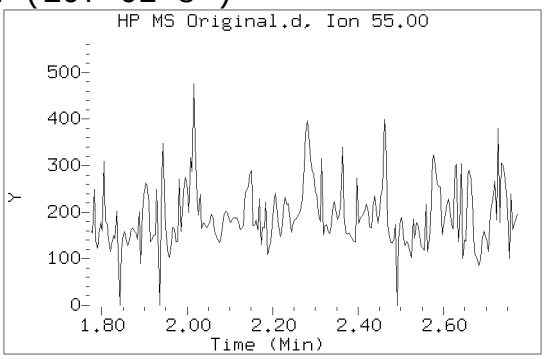
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021504.d
Inj Date : 15-FEB-2024 17:09
InstruID : VOA9.i
LabSampID : VSTD001

Acrolein (107-02-8)

Reason Code:

BEFORE

MASS
55
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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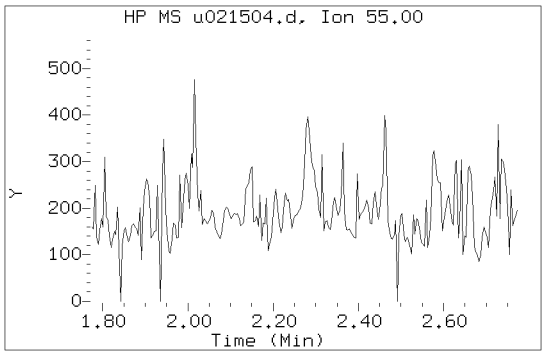
HEIGHT
0
22-Feb-2024
16:14
linh
pham

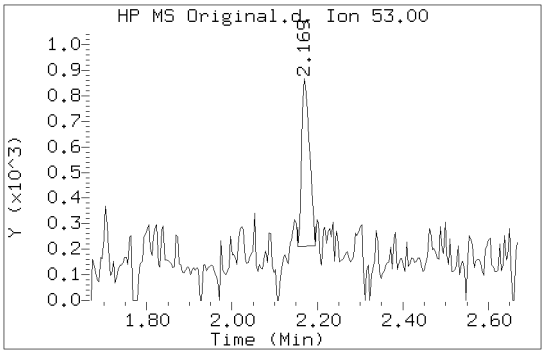


Chloroprene (126-99-8)

Reason Code:

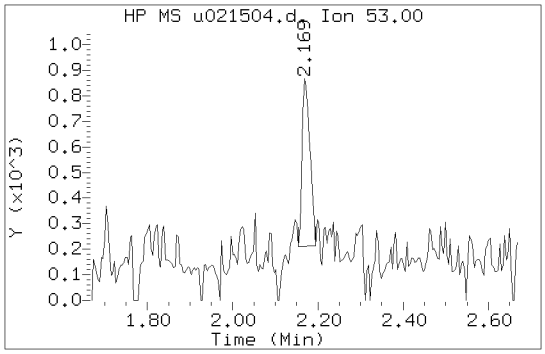
BEFORE

MASS
53
AREA
843
HEIGHT
655
22-Feb-2024
15:48
linh
pham



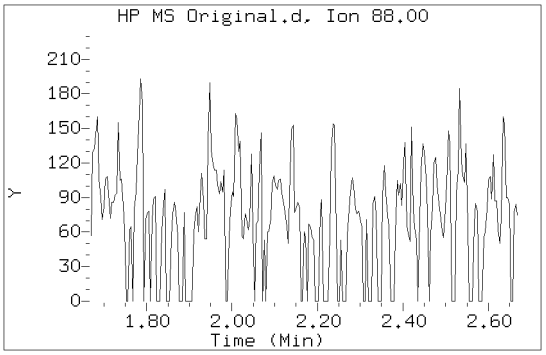
AFTER

MASS
53
AREA
843
HEIGHT
655
22-Feb-2024
16:14
linh
pham



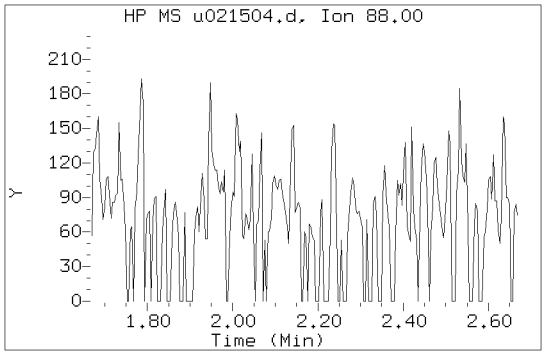
BEFORE

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
16:14
linh
pham

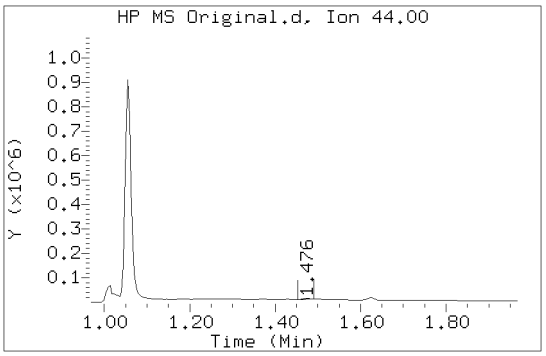


Acetaldehyde (75-07-0)

Reason Code:

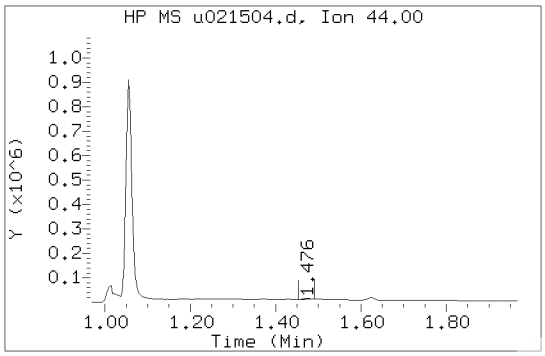
BEFORE

MASS
44
AREA
4370
HEIGHT
4122
22-Feb-2024
15:48
linh
pham



AFTER

MASS
44
AREA
4370
HEIGHT
4122
22-Feb-2024
16:14
linh
pham



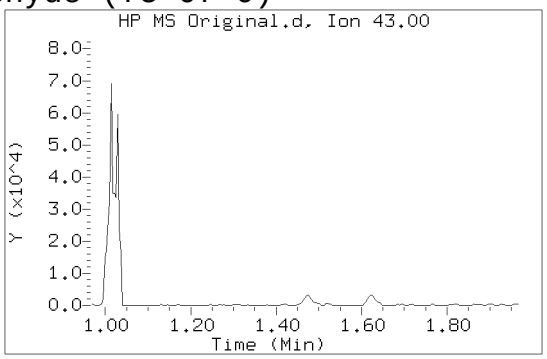
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021504.d
Inj Date : 15-FEB-2024 17:09
InstruID : VOA9.i
LabSampID : VSTD001

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

MASS
43
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

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HEIGHT
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22-Feb-2024
16:14
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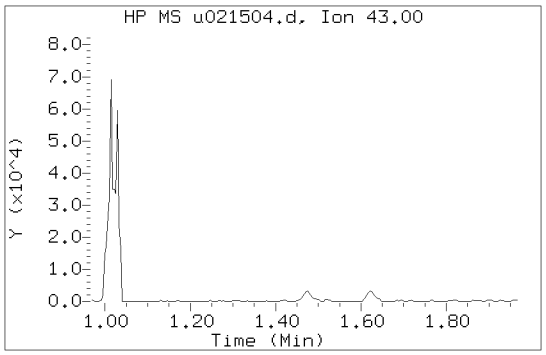

BEFORE

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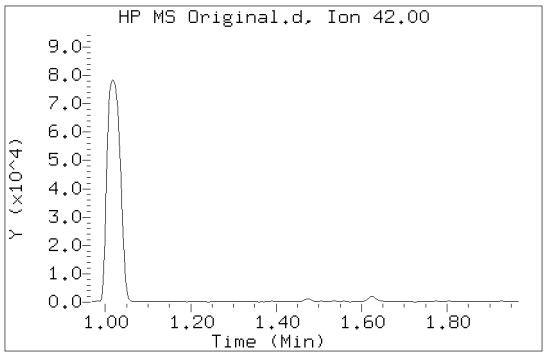

AFTER

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HEIGHT
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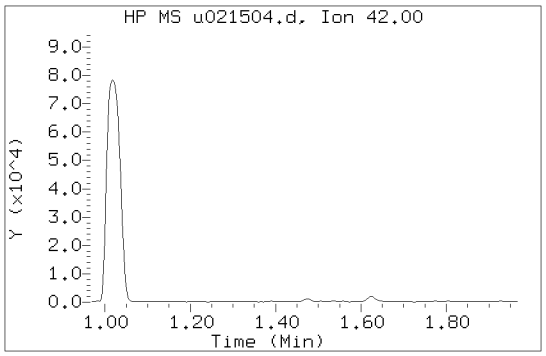


Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 15-FEB-2024 17:32
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD002;VSTD002;1;4;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 17:09 Cal File: U021504.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

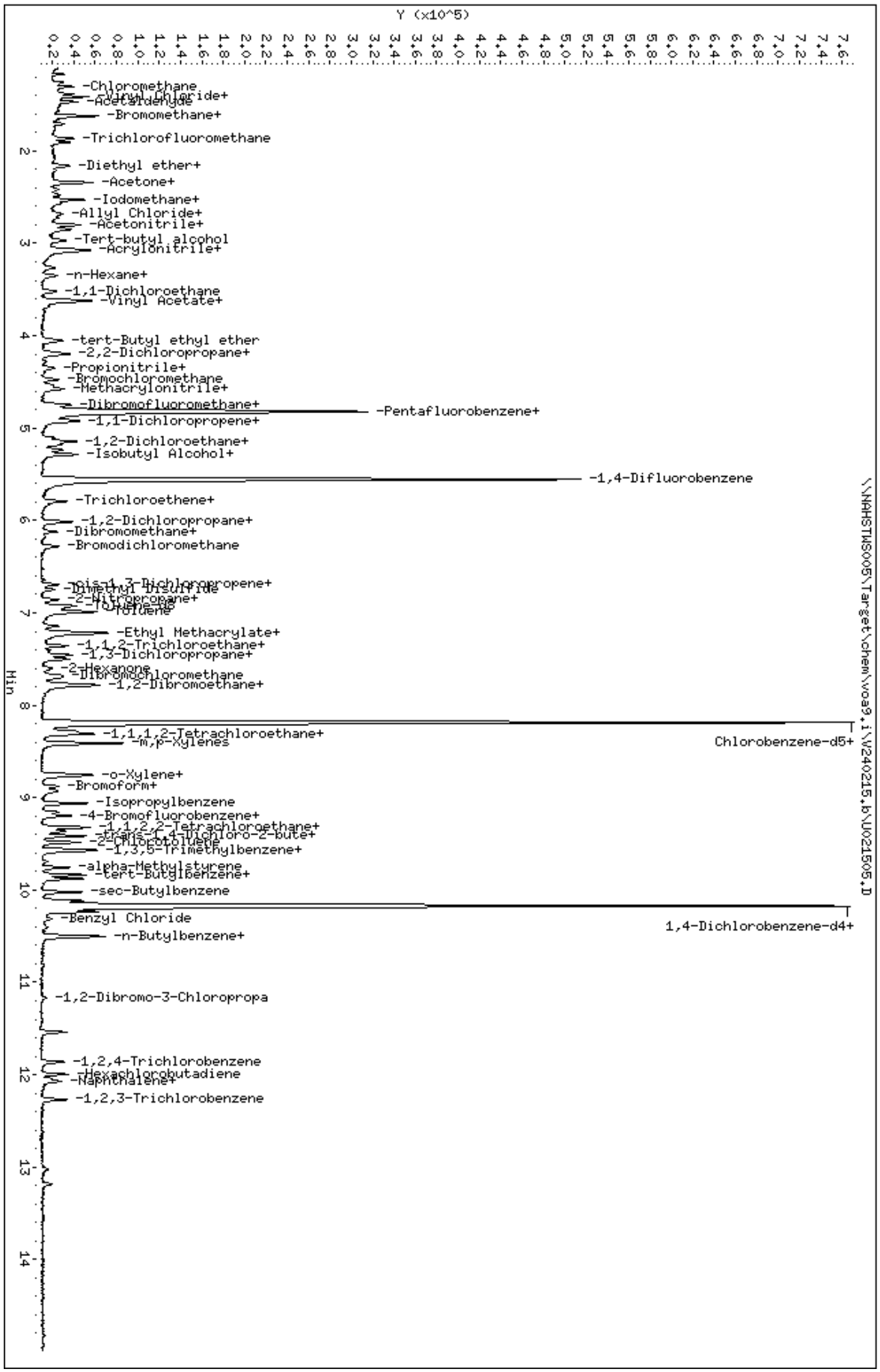
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	249727	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.751	(0.986)	6913	2.00000	0.31(a)
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	8676	2.00000	0.37(a)
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	444142	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	420434	50.0000	
$ 48 Toluene-d8	98	6.926	6.926	(0.846)	22021	2.00000	0.50(a)
$ 69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	9030	2.00000	0.52(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	201087	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	9607	2.00000	0.70
11 1,1-Dichloroethene	96	2.345	2.345	(0.487)	6759	2.00000	0.55
17 Methylene Chloride	84	2.802	2.802	(0.582)	10938	2.00000	0.89
18 Methyl tert-butyl ether	73	3.087	3.087	(0.641)	20219	2.00000	1.25
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.637)	7041	2.00000	0.66
23 Chloroprene	53	2.168	2.168	(0.450)	2626	2.00000	1.35(M)
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	8361	2.00000	0.87
33 1,2-Dichloroethane	62	5.182	5.182	(0.933)	12481	2.00000	0.70
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	9087	2.00000	1.84
37 Benzene	78	5.145	5.145	(0.926)	31823	2.00000	0.79
38 Trichloroethene	130	5.793	5.793	(1.042)	7995	2.00000	0.81
56 Tetrachloroethene	164	7.458	7.458	(0.911)	6199	2.00000	0.56

53 1,1,2-Trichloroethane	83	7.357	7.357 (0.899)	6740	2.00000	0.86
50 Toluene	91	6.986	6.986 (0.853)	29146	2.00000	0.73

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	9353	2.00000	0.69
	62 m,p-Xylenes	106	8.414	8.414	(1.028)	22908	4.00000	1.61
	63 o-Xylene	106	8.751	8.751	(1.069)	11241	2.00000	0.98
	92 Naphthalene	128	12.072	12.072	(1.187)	16149	2.00000	1.22
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	14827	4.00000	2.35
	13 Acetonitrile	39	2.847	2.847	(0.591)	3614	20.0000	7.25
	9 Acrolein	56	2.273	2.273	(0.472)	740	4.00000	3.43(M)
	16 Acrylonitrile	53	3.076	3.076	(0.638)	6963	4.00000	2.45
	25 Methacrylonitrile	41	4.541	4.541	(0.942)	3192	2.00000	0.75
	194 Acetaldehyde	44	1.467	1.467	(0.305)	10033	8.00000	1.16(M)
	64 Styrene	104	8.766	8.766	(1.071)	17274	2.00000	0.95
	140 1,3-Butadiene	54	1.411	1.411	(0.293)	9240	2.00000	1.08
	28 Chloroform	83	4.575	4.575	(0.949)	14505	2.00000	0.66
	59 Chlorobenzene	112	8.211	8.211	(1.003)	22406	2.00000	0.71
	39 Bromodichloromethane	83	6.277	6.277	(1.129)	9982	2.00000	1.07
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	6848	2.00000	1.02
	66 Bromoform	173	8.916	8.916	(1.089)	3819	2.00000	1.08(T)
	182 Epichlorohydrin	57	6.637	6.637	(1.194)	1465	8.00000	4.45
M	95 Xylenes (total)	106				34149	6.00000	
M	94 1,2-Dichloroethylene (total)	96				15402	4.00000	

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.


Y (x10^5)
Min
-Chloromethane
-Vinyl Chloride+
-Acetaldehyde
-Bromomethane+
-Trichlorofluoromethane
-Diethyl ether+
-Acetone+
-Iodomethane+
-Allyl Chloride+
-Acetonitrile+
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Propionitrile+
-Bromochloromethane
-Methacrylonitrile+
-Dibromofluoromethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Dibromomethane+
-Bromodichloromethane
-cis-1,3-Dichloropropene+
-Dimethyl Disulfide
-2-Nitropropane+
-Toluene
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
Chlorobenzene-d5+
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-2-Chlorotoluene
-1,3,5-Trimethylbenzene+
-alpha-Methylstyrene
-tert-Butylbenzene+
-sec-Butylbenzene
-Benzyl Chloride
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene+
-1,2,3-Trichlorobenzene
\\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Date : 15-FEB-2024 17:32
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;;
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9.i
Operator: FT
Column diameter: 0.18
Page 1

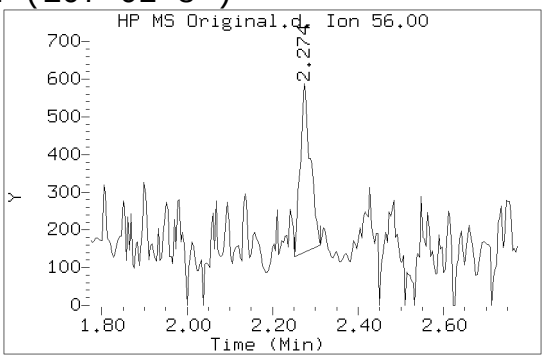
Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Inj Date : 15-FEB-2024 17:32
InstruID : VOA9.i
LabSampID : VSTD002

Acrolein (107-02-8)

Reason Code:

BEFORE

MASS
56
AREA
740
HEIGHT
447
22-Feb-2024
15:48
linh
pham



AFTER

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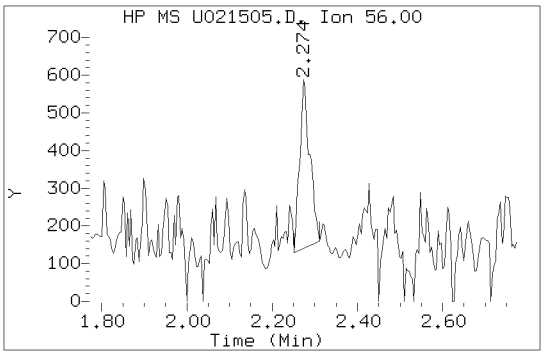

BEFORE

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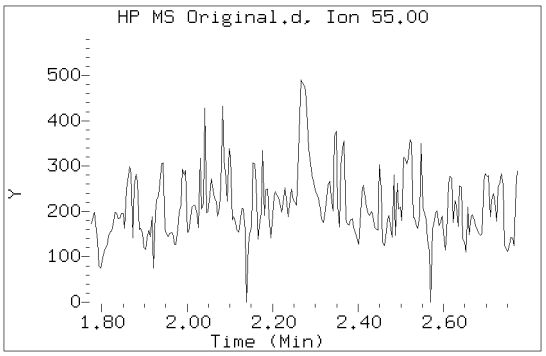

AFTER

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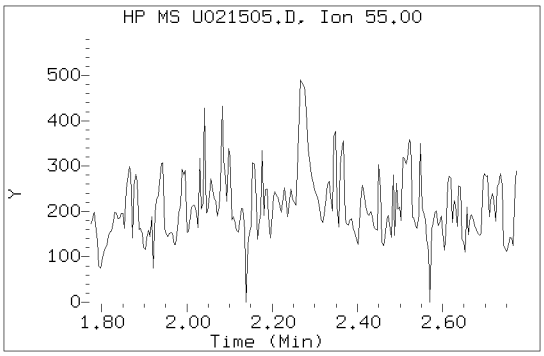

Chloroprene (126-99-8)

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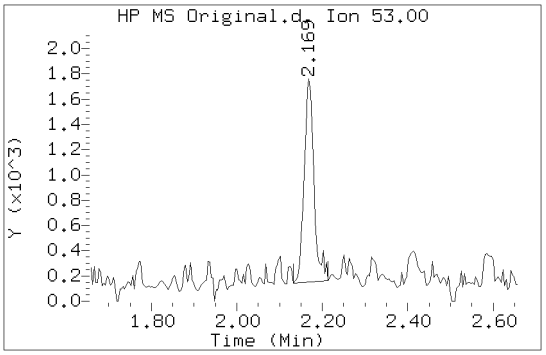

AFTER

MASS
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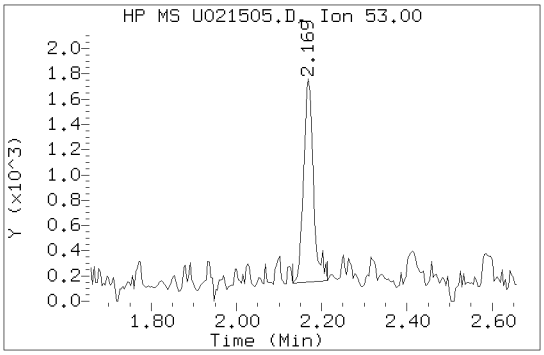

BEFORE

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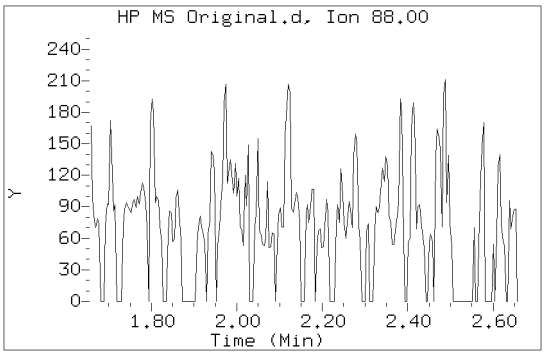

AFTER

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22-Feb-2024
16:14
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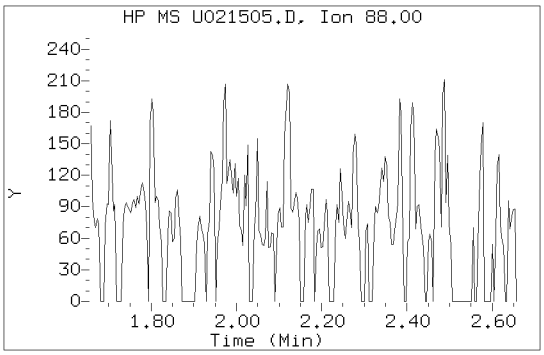

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Inj Date : 15-FEB-2024 17:32
InstruID : VOA9.i
LabSampID : VSTD002

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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22-Feb-2024
15:48
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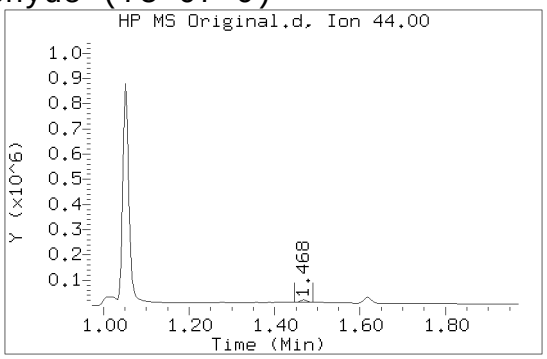

AFTER

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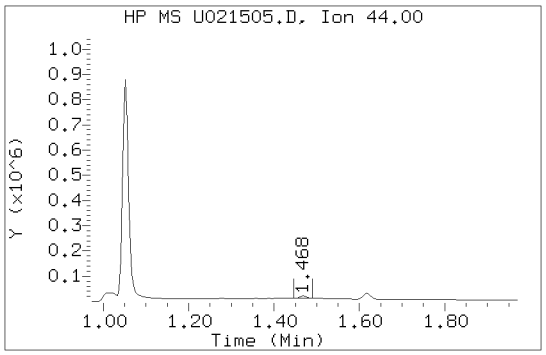

BEFORE

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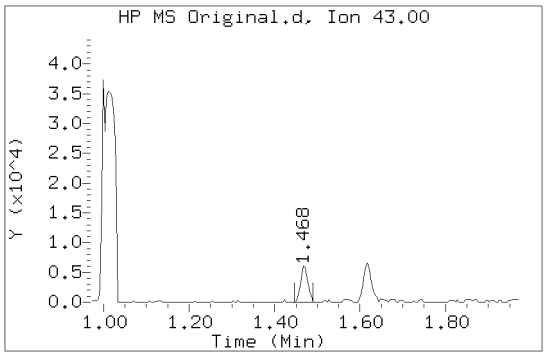

AFTER

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AREA
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16:14
linh
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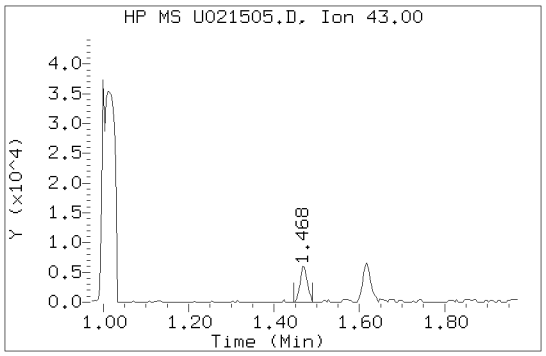

BEFORE

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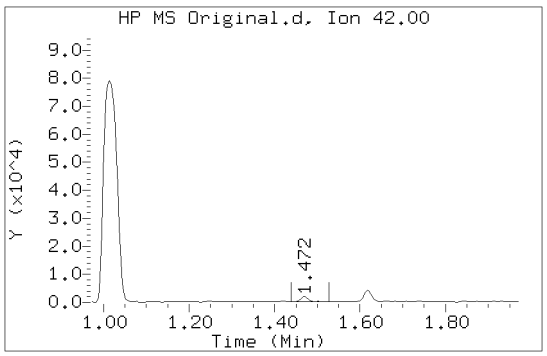

AFTER

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HEIGHT
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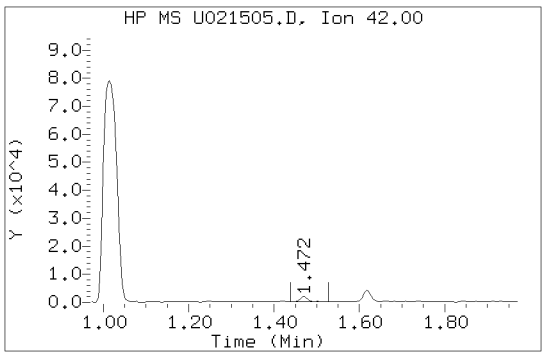

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Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021506.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 15-FEB-2024 17:54
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD005;VSTD005;1;5;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 17:32 Cal File: U021505.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

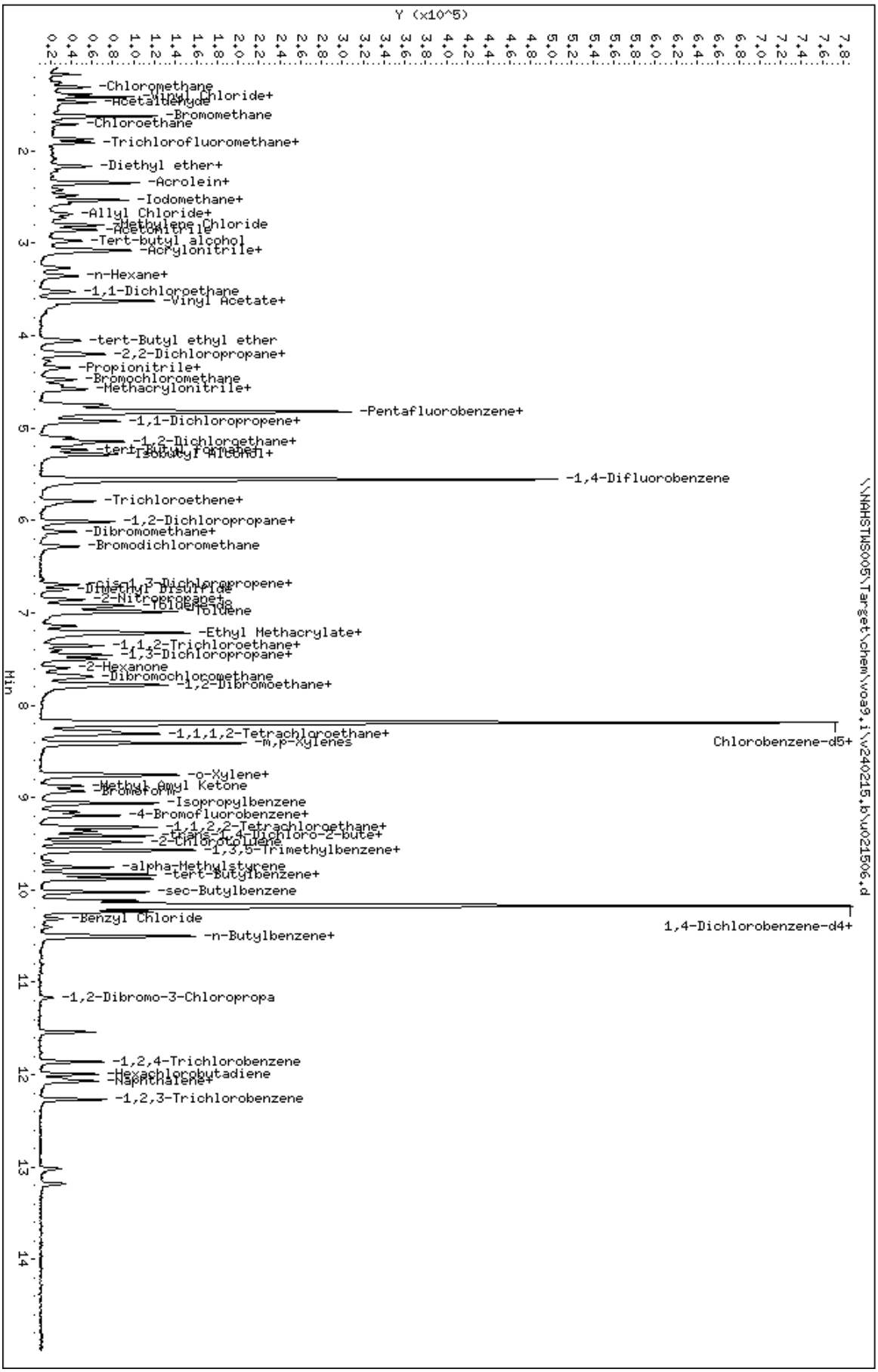
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	239924	50.0000	
$ 30 Dibromofluoromethane	113	4.755	4.755	(0.986)	18053	5.00000	4.74(a)
$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	22461	5.00000	4.81(a)
* 36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	422264	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	402250	50.0000	
$ 48 Toluene-d8	98	6.926	6.926	(0.846)	60442	5.00000	4.26(a)
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	24236	5.00000	4.49(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	198593	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	21964	5.00000	4.77
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	14587	5.00000	4.45
17 Methylene Chloride	84	2.802	2.802	(0.581)	20251	5.00000	4.26
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	39677	5.00000	4.55
20 trans-1,2-Dichloroethene	96	3.072	3.072	(0.637)	17111	5.00000	4.75
23 Chloroprene	53	2.169	2.169	(0.450)	5747	5.00000	5.03(M)
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	18909	5.00000	4.72
33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	28362	5.00000	4.79
34 Carbon Tetrachloride	117	4.920	4.920	(0.885)	20799	5.00000	4.87
37 Benzene	78	5.145	5.145	(0.926)	74151	5.00000	4.64
38 Trichloroethene	130	5.794	5.794	(1.042)	17702	5.00000	4.38
56 Tetrachloroethene	164	7.458	7.458	(0.911)	15149	5.00000	4.74

53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	14362	5.00000	4.32
50 Toluene	91	6.986	6.986 (0.853)	72586	5.00000	4.43

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	23907	5.00000	4.54
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	58327	10.0000	8.89
	63 o-Xylene	106	8.748	8.748	(1.069)	27904	5.00000	4.54
	92 Naphthalene	128	12.069	12.069	(1.186)	42279	5.00000	3.95
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	34940	10.0000	8.68
	13 Acetonitrile	39	2.855	2.855	(0.592)	7819	50.0000	47.87
	9 Acrolein	56	2.274	2.274	(0.471)	1669	10.0000	12.50
	16 Acrylonitrile	53	3.076	3.076	(0.638)	12265	10.0000	7.90
	25 Methacrylonitrile	41	4.538	4.538	(0.941)	6743	5.00000	4.12
	194 Acetaldehyde	44	1.471	1.471	(0.305)	22369	20.0000	17.50(M)
	64 Styrene	104	8.763	8.763	(1.071)	44038	5.00000	4.09
	140 1,3-Butadiene	54	1.415	1.415	(0.294)	19893	5.00000	4.65
	28 Chloroform	83	4.579	4.579	(0.949)	33698	5.00000	4.89
	59 Chlorobenzene	112	8.212	8.212	(1.003)	51478	5.00000	4.62
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	21410	5.00000	4.28
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	16676	5.00000	4.53
	66 Bromoform	173	8.920	8.920	(1.090)	9703	5.00000	4.28
	182 Epichlorohydrin	57	6.637	6.637	(1.194)	3848	20.0000	17.06
M	95 Xylenes (total)	106				86231	15.0000	
M	94 1,2-Dichloroethylene (total)	96				36020	10.0000	

QC Flag Legend

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



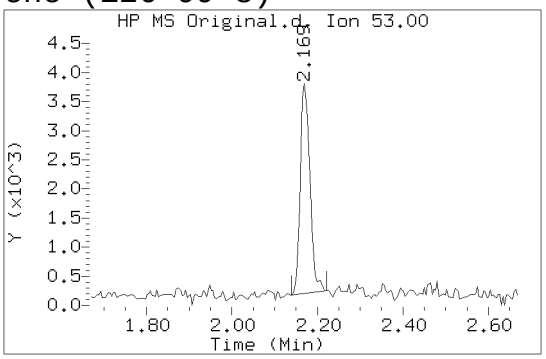
Data File: \\NAHSTWS005\Target\chem\voa9,i\v240215,b\u021506,d
Date : 15-FEB-2024 17:54
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021506.d
Inj Date : 15-FEB-2024 17:54
InstruID : VOA9.i
LabSampID : VSTD005

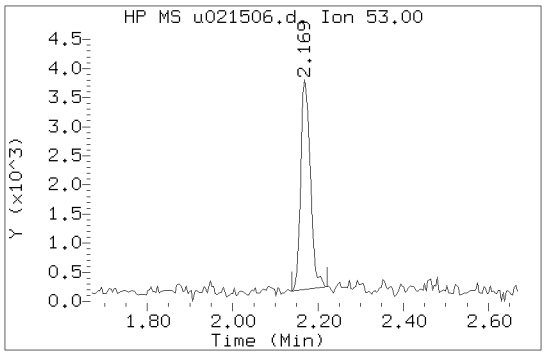
Chloroprene (126-99-8)

BEFORE
MASS
53
AREA
5747
HEIGHT
3602
22-Feb-2024
15:48
linh
pham

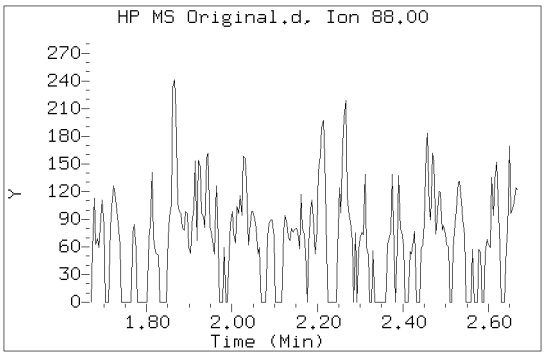


Reason Code:

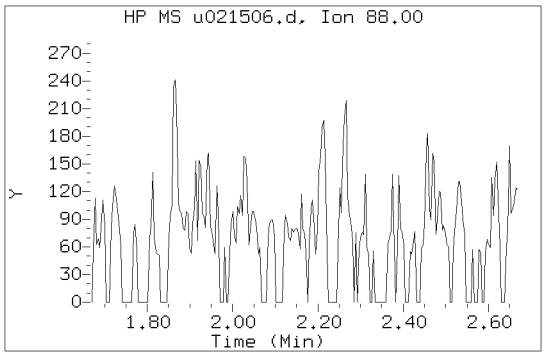
AFTER
MASS
53
AREA
5747
HEIGHT
3602
22-Feb-2024
16:14
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham

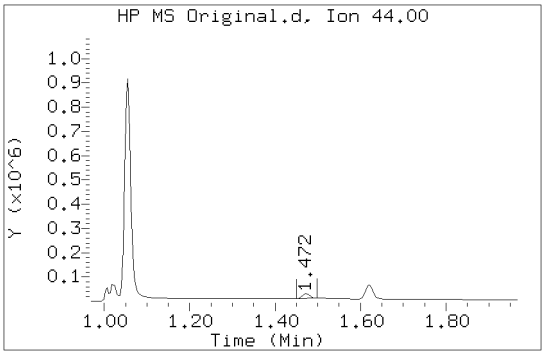


AFTER
MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
16:14
linh
pham



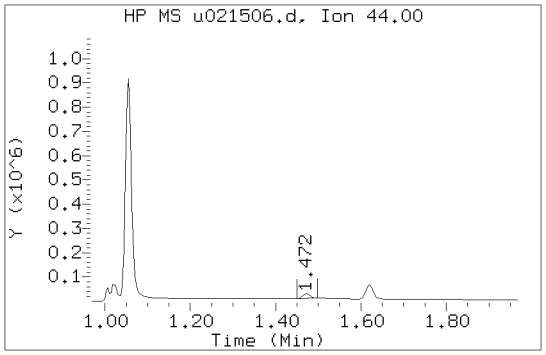
Acetaldehyde (75-07-0)

BEFORE
MASS
44
AREA
22369
HEIGHT
18933
22-Feb-2024
15:48
linh
pham

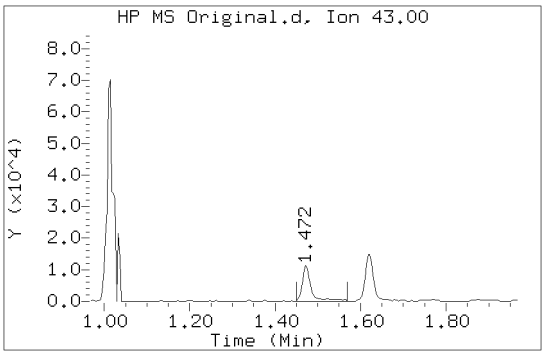


Reason Code:

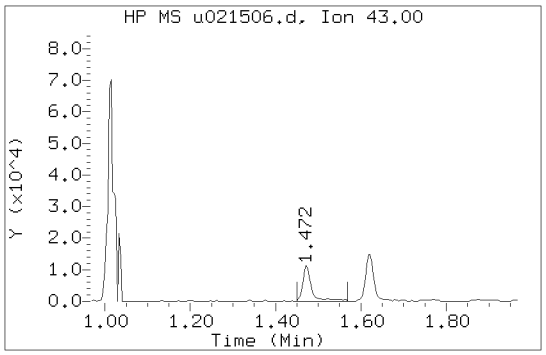
AFTER
MASS
44
AREA
22369
HEIGHT
18933
22-Feb-2024
16:14
linh
pham



BEFORE
MASS
43
AREA
16968
HEIGHT
11405
22-Feb-2024
15:48
linh
pham



AFTER
MASS
43
AREA
16968
HEIGHT
11405
22-Feb-2024
16:14
linh
pham



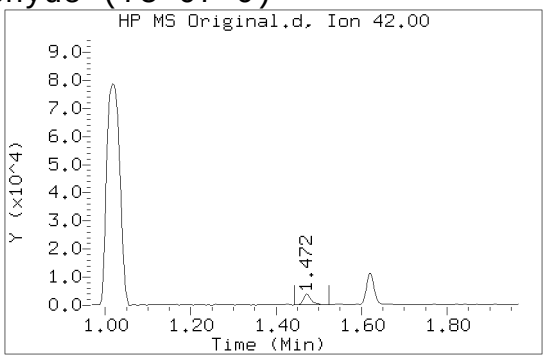
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021506.d
Inj Date : 15-FEB-2024 17:54
InstruID : VOA9.i
LabSampID : VSTD005

Acetaldehyde (75-07-0)

Reason Code:

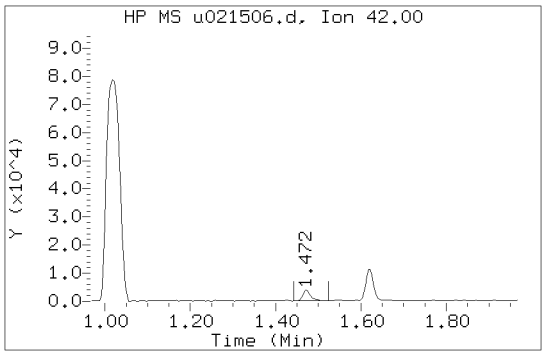
BEFORE

MASS
42
AREA
5262
HEIGHT
4022
22-Feb-2024
15:48
linh
pham



AFTER

MASS
42
AREA
5262
HEIGHT
4022
22-Feb-2024
16:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 15-FEB-2024 18:16
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD020;VSTD020;1;6;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 17:54 Cal File: U021506.D
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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	4.815	4.815	(1.000)	260953	50.0000	
$ 30 Dibromofluoromethane	113	4.744	4.744	(0.985)	75713	20.0000	24.00
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	93658	20.0000	24.10
* 36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	431457	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	413671	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	279697	20.0000	23.76
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	103152	20.0000	23.22
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	216533	50.0000	
5 Vinyl Chloride	62	1.374	1.374	(0.285)	89488	20.0000	23.36
11 1,1-Dichloroethene	96	2.334	2.334	(0.485)	61875	20.0000	24.09
17 Methylene Chloride	84	2.791	2.791	(0.580)	77125	20.0000	21.80
18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	160160	20.0000	21.51
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	70382	20.0000	22.92
23 Chloroprene	53	2.157	2.157	(0.448)	23597	20.0000	22.65(M)
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.872)	78448	20.0000	22.95
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	109373	20.0000	23.60
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	86103	20.0000	20.69
37 Benzene	78	5.138	5.138	(0.926)	302226	20.0000	23.38
38 Trichloroethene	130	5.786	5.786	(1.043)	74057	20.0000	23.08
56 Tetrachloroethene	164	7.458	7.458	(0.911)	59413	20.0000	23.42

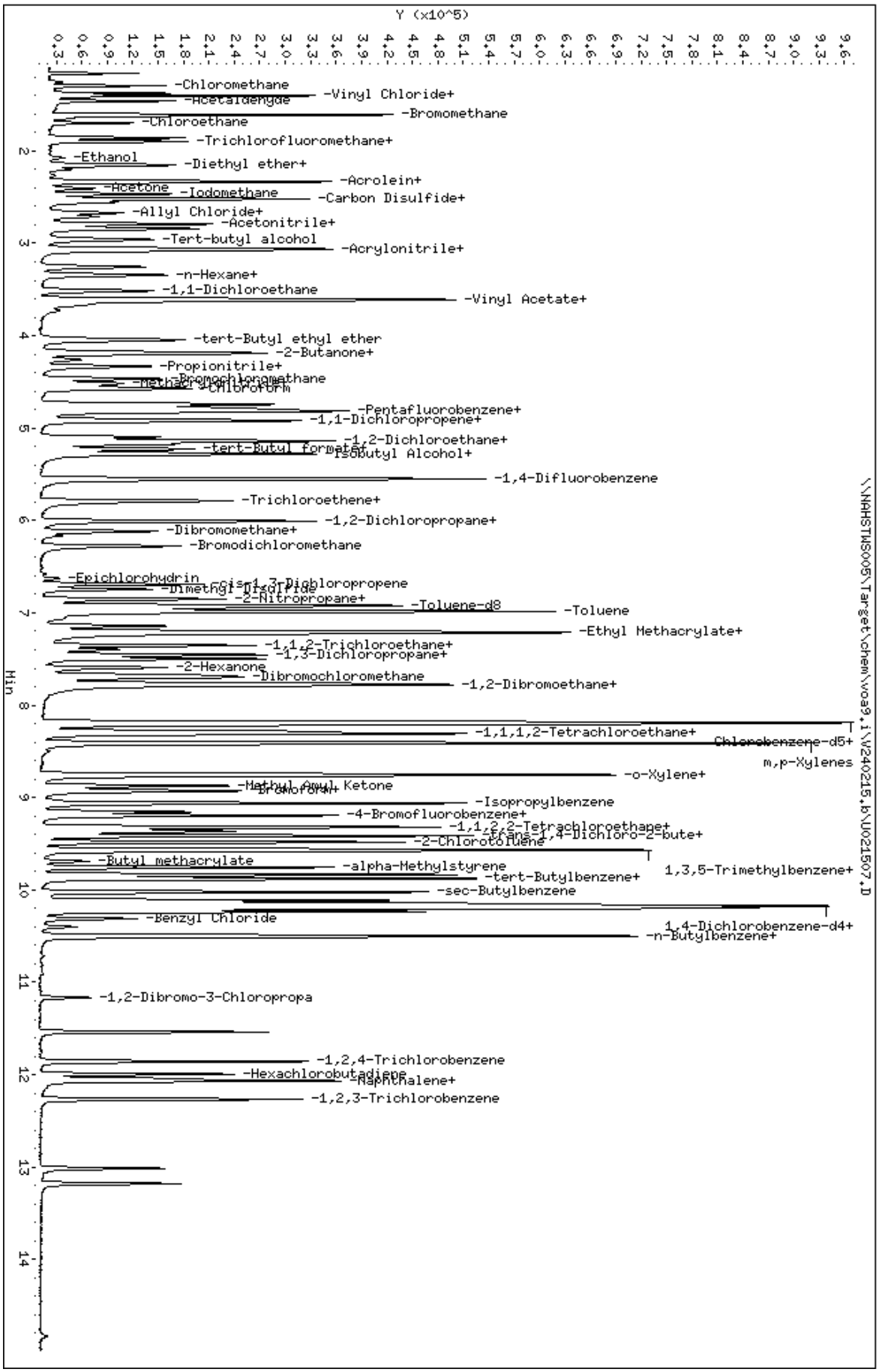
53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	62634	20.0000	24.01
50 Toluene	91	6.982	6.982 (0.853)	321152	20.0000	23.60

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D Page 2
Report Date: 22-Feb-2024 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	103214	20.0000	23.48
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	262023	40.0000	46.79
	63 o-Xylene	106	8.748	8.748	(1.069)	120768	20.0000	22.53
	92 Naphthalene	128	12.065	12.065	(1.187)	241679	20.0000	21.99
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	163146	40.0000	45.17
	13 Acetonitrile	39	2.840	2.840	(0.590)	29219	200.000	220.60
	9 Acrolein	56	2.262	2.262	(0.470)	5380	40.0000	42.72
	16 Acrylonitrile	53	3.061	3.061	(0.636)	55078	40.0000	44.21
	25 Methacrylonitrile	41	4.527	4.527	(0.940)	28858	20.0000	21.65
	194 Acetaldehyde	44	1.456	1.456	(0.303)	91174	80.0000	94.27(M)
	64 Styrene	104	8.763	8.763	(1.071)	219130	20.0000	22.75
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	85358	20.0000	23.01
	28 Chloroform	83	4.572	4.572	(0.949)	133268	20.0000	23.25
	59 Chlorobenzene	112	8.208	8.208	(1.003)	210166	20.0000	23.82
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	95243	20.0000	22.91
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	71845	20.0000	22.36
	66 Bromoform	173	8.916	8.916	(1.089)	44824	20.0000	21.56
	182 Epichlorohydrin	57	6.626	6.626	(1.194)	17509	80.0000	83.06
M	95 Xylenes (total)	106				382791	60.0000	
M	94 1,2-Dichloroethylene (total)	96				148830	40.0000	

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D
Date : 15-FEB-2024 18:16
Client ID: WSTD020
Sample Info: WSTD020;WSTD020;1;6;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

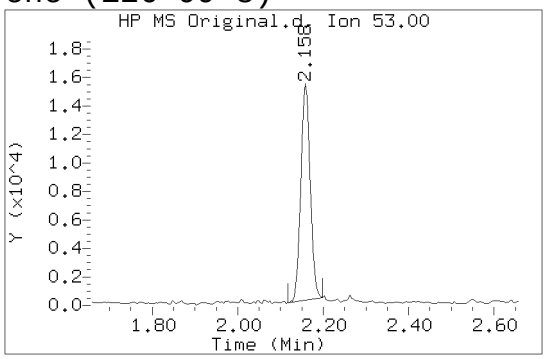
Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D
Inj Date : 15-FEB-2024 18:16
InstruID : VOA9.i
LabSampID : VSTD020

Chloroprene (126-99-8)

Reason Code:

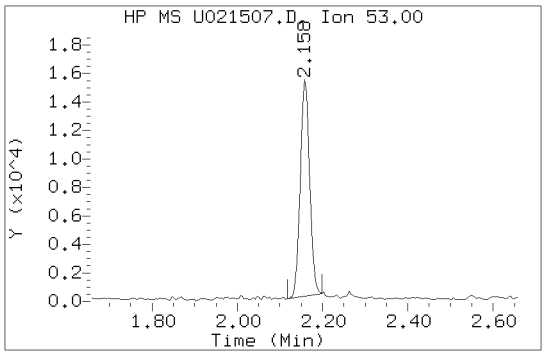
BEFORE

MASS
53
AREA
23597
HEIGHT
15196
22-Feb-2024
15:48
linh
pham



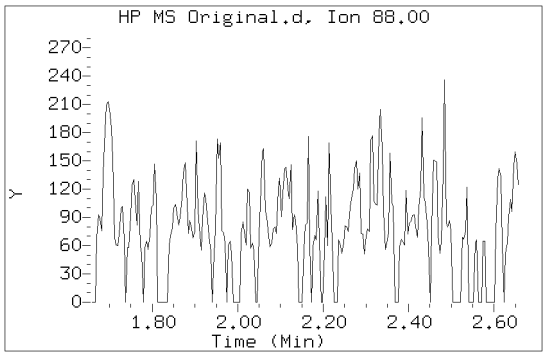
AFTER

MASS
53
AREA
23597
HEIGHT
15196
22-Feb-2024
16:14
linh
pham



BEFORE

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
88
AREA
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HEIGHT
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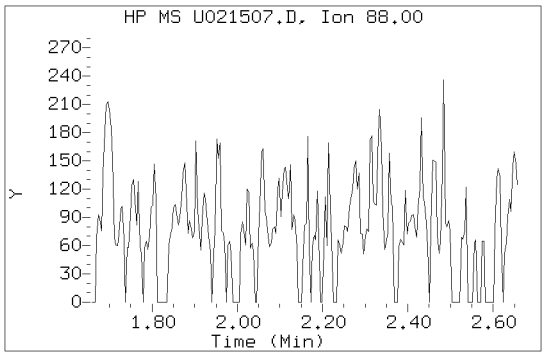
22-Feb-2024
16:14
linh
pham

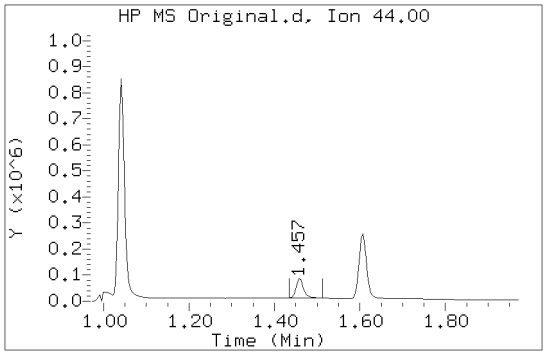


Acetaldehyde (75-07-0)

Reason Code:

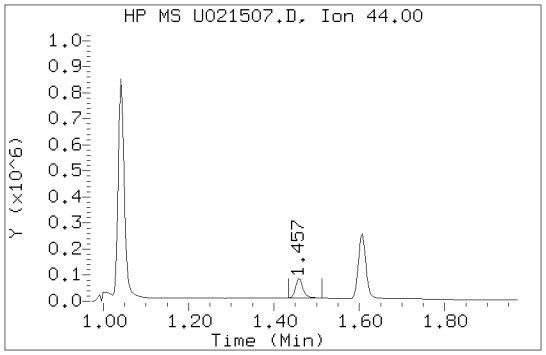
BEFORE

MASS
44
AREA
91174
HEIGHT
73963
22-Feb-2024
15:48
linh
pham



AFTER

MASS
44
AREA
91174
HEIGHT
73963
22-Feb-2024
16:14
linh
pham



BEFORE

MASS
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AREA
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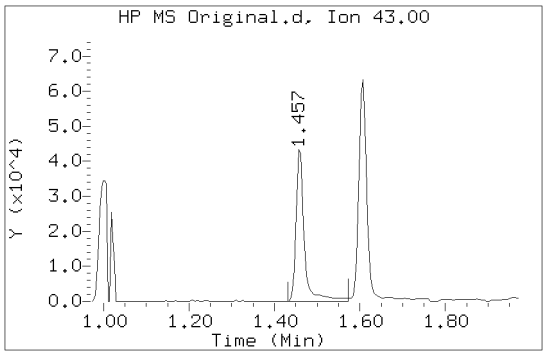
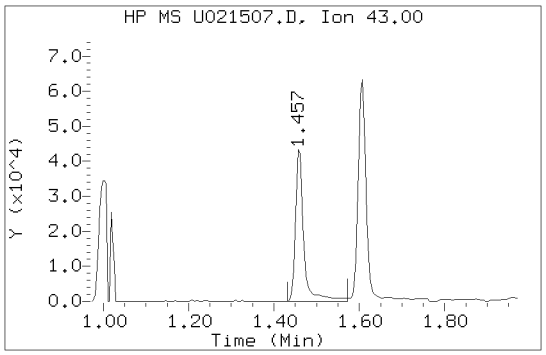
HEIGHT
43336
22-Feb-2024
15:48
linh
pham



AFTER

MASS
43
AREA
60111
HEIGHT
43336
22-Feb-2024
16:14
linh
pham



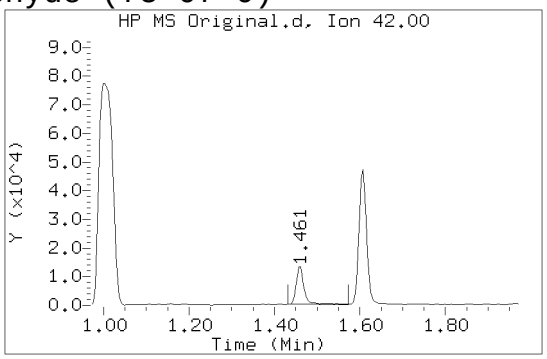
Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D
Inj Date : 15-FEB-2024 18:16
InstruID : VOA9.i
LabSampID : VSTD020

Acetaldehyde (75-07-0)

Reason Code:

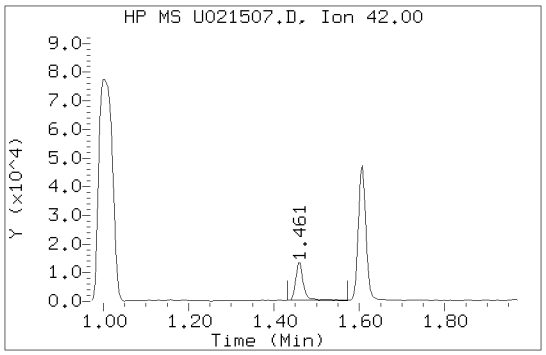
BEFORE

MASS
42
AREA
17933
HEIGHT
13180
22-Feb-2024
15:48
linh
pham



AFTER

MASS
42
AREA
17933
HEIGHT
13180
22-Feb-2024
16:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021508.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021508.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 15-FEB-2024 18:38
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD050;VSTD050;1;7;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 18:16 Cal File: U021507.D
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

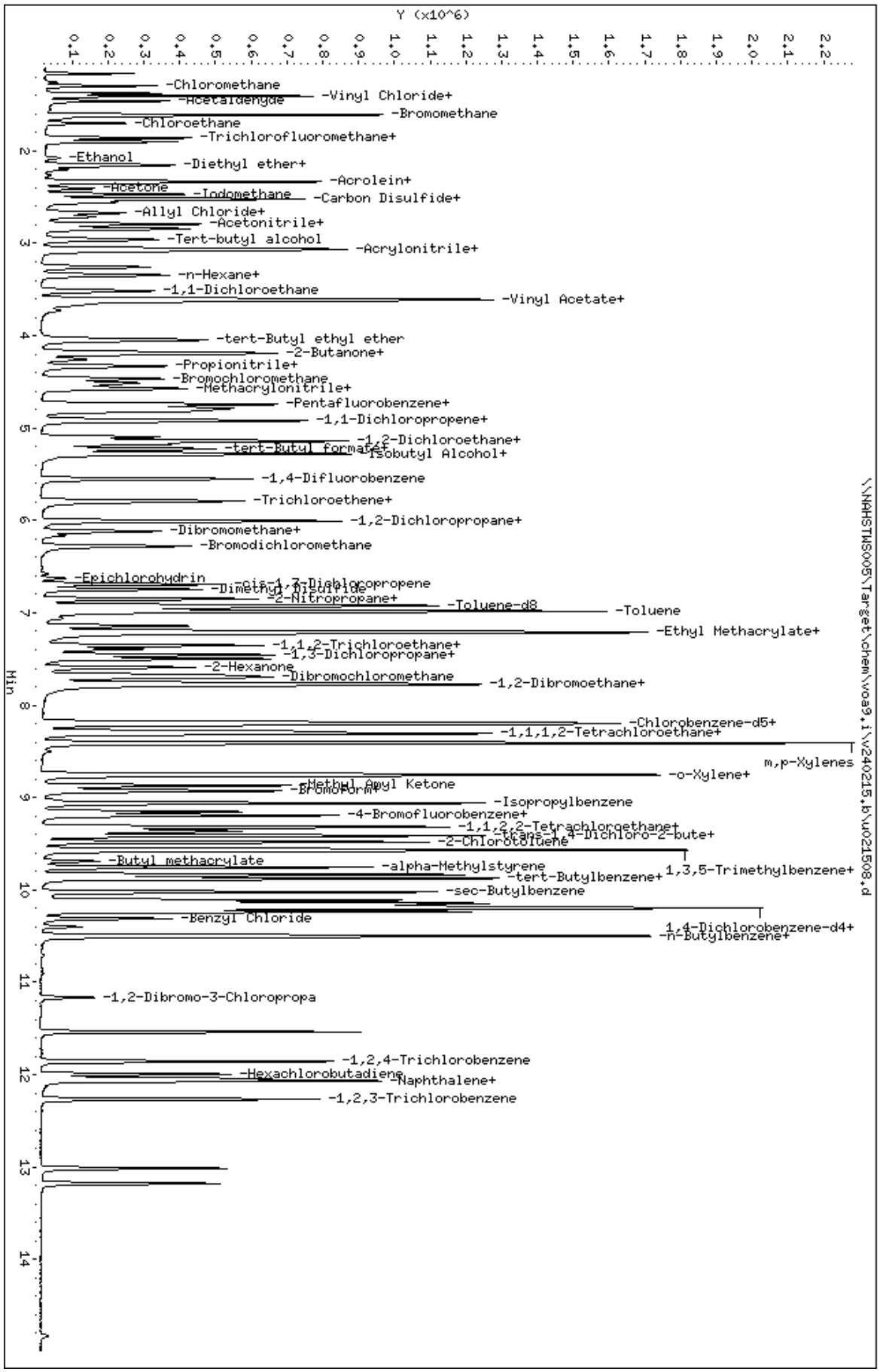
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	276490	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	175024	50.0000	52.28
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	216883	50.0000	52.59
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	464750	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	446311	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	663921	50.0000	51.51
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	250338	50.0000	51.71
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	233322	50.0000	
5 Vinyl Chloride	62	1.374	1.374	(0.285)	207106	50.0000	50.98
11 1,1-Dichloroethene	96	2.334	2.334	(0.485)	141341	50.0000	52.08
17 Methylene Chloride	84	2.791	2.791	(0.580)	174452	50.0000	49.66
18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	423342	50.0000	53.28
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	171444	50.0000	52.39
23 Chloroprene	53	2.161	2.161	(0.449)	56472	50.0000	50.46(M)
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.872)	190476	50.0000	52.25
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	258913	50.0000	51.88
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	209448	50.0000	47.10
37 Benzene	78	5.138	5.138	(0.925)	721041	50.0000	51.36
38 Trichloroethene	130	5.786	5.786	(1.042)	176731	50.0000	50.76
56 Tetrachloroethene	164	7.458	7.458	(0.911)	140382	50.0000	51.18

53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	144965	50.0000	51.29
50 Toluene	91	6.982	6.982 (0.853)	766250	50.0000	51.52

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	247295	50.0000	51.39
	62 m,p-Xylenes	106	8.407	8.407	(1.027)	630783	100.000	102.56
	63 o-Xylene	106	8.748	8.748	(1.069)	302454	50.0000	51.18
	92 Naphthalene	128	12.065	12.065	(1.187)	631757	50.0000	51.21
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	408001	100.000	101.89
	13 Acetonitrile	39	2.844	2.844	(0.591)	73241	500.000	529.28
	9 Acrolein	56	2.266	2.266	(0.471)	13924	100.000	104.06
	16 Acrylonitrile	53	3.061	3.061	(0.636)	142490	100.000	107.45
	25 Methacrylonitrile	41	4.527	4.527	(0.940)	76219	50.0000	53.76
	194 Acetaldehyde	44	1.460	1.460	(0.303)	218362	200.000	217.90(M)
	64 Styrene	104	8.763	8.763	(1.071)	549384	50.0000	51.38
	140 1,3-Butadiene	54	1.404	1.404	(0.292)	204149	50.0000	51.40
	28 Chloroform	83	4.572	4.572	(0.949)	316607	50.0000	52.18
	59 Chlorobenzene	112	8.208	8.208	(1.003)	490604	50.0000	51.37
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	233014	50.0000	51.14
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	181717	50.0000	51.24
	66 Bromoform	173	8.916	8.916	(1.089)	117490	50.0000	50.69
	182 Epichlorohydrin	57	6.626	6.626	(1.193)	49704	200.000	209.77
M	95 Xylenes (total)	106				933237	150.000	
M	94 1,2-Dichloroethylene (total)	96				361920	100.000	

QC Flag Legend

M - Compound response manually integrated.



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Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021508.d
Inj Date : 15-FEB-2024 18:38
InstruID : VOA9.i
LabSampID : VSTD050

Chloroprene (126-99-8)

Reason Code:

BEFORE

MASS
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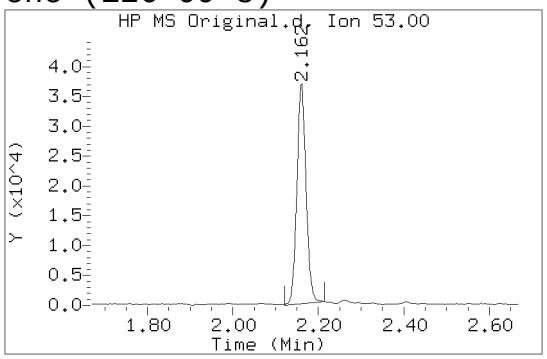
AREA
56472
HEIGHT
36878
22-Feb-2024
15:48
linh
pham



AFTER

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AREA
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HEIGHT
36878
22-Feb-2024
16:14
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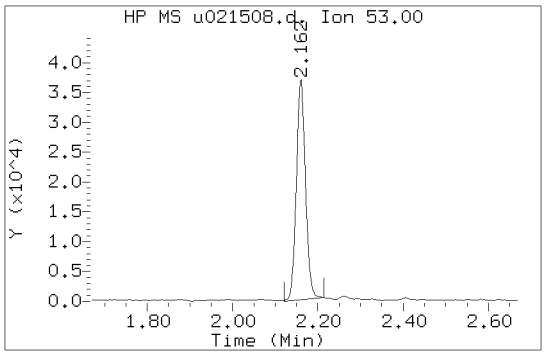

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22-Feb-2024
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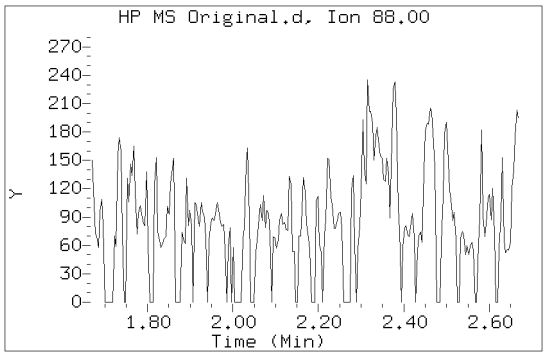

AFTER

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16:14
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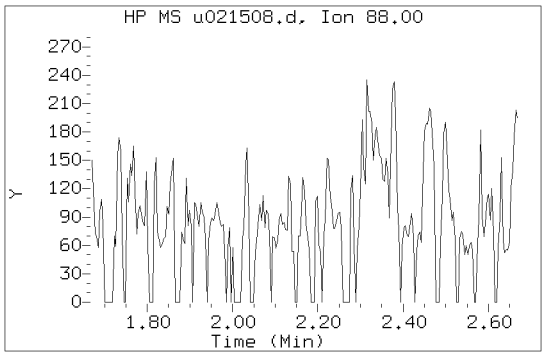

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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AREA
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HEIGHT
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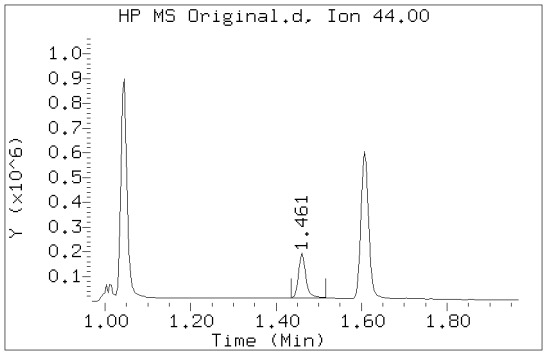
22-Feb-2024
15:48
linh
pham



AFTER

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HEIGHT
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22-Feb-2024
16:14
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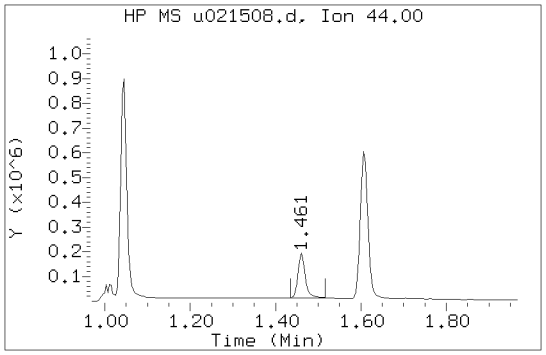
pham



BEFORE

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HEIGHT
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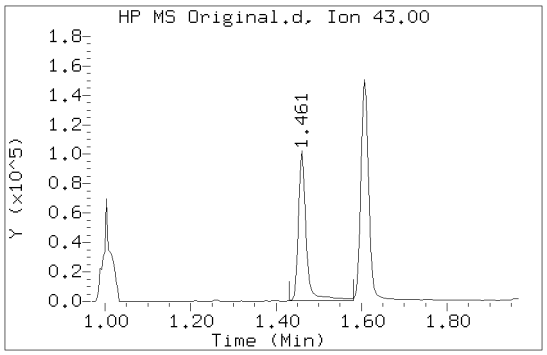
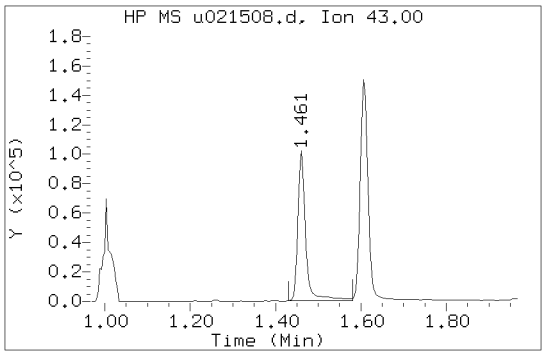
22-Feb-2024
15:48
linh
pham



AFTER

MASS
43
AREA
132896
HEIGHT
101889
22-Feb-2024
16:14
linh
pham



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Inj Date : 15-FEB-2024 18:38
InstruID : VOA9.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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AREA
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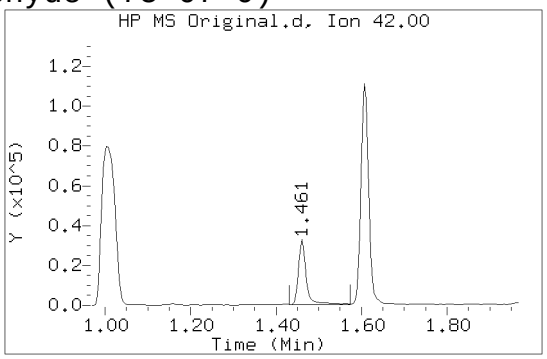
HEIGHT
32644
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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HEIGHT
32644
22-Feb-2024
16:14
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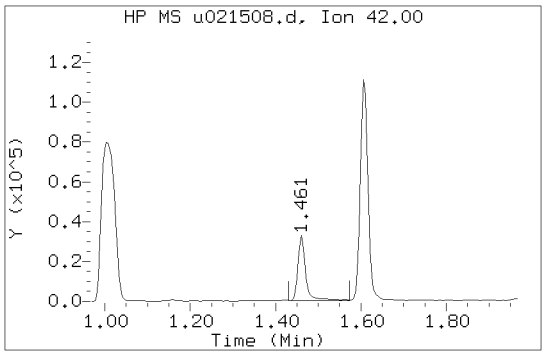
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 15-FEB-2024 19:00
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD100;VSTD100;1;8;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 18:38 Cal File: U021508.D
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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	4.823	4.823	(1.000)	280274	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.751	(0.985)	355456	100.000	96.70
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	435109	100.000	96.37
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	458313	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	443720	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1360843	100.000	97.41
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	510054	100.000	97.47
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	231378	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	441981	100.000	98.04
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	289798	100.000	96.92
17 Methylene Chloride	84	2.802	2.802	(0.581)	346045	100.000	99.80
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	852991	100.000	97.03
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.636)	351188	100.000	97.13
23 Chloroprene	53	2.172	2.172	(0.450)	123345	100.000	98.68
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	391824	100.000	97.23
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	517470	100.000	97.15
34 Carbon Tetrachloride	117	4.920	4.920	(0.886)	442212	100.000	101.19
37 Benzene	78	5.145	5.145	(0.926)	1477867	100.000	97.71
38 Trichloroethene	130	5.790	5.790	(1.043)	370838	100.000	98.35
56 Tetrachloroethene	164	7.458	7.458	(0.911)	290731	100.000	97.82

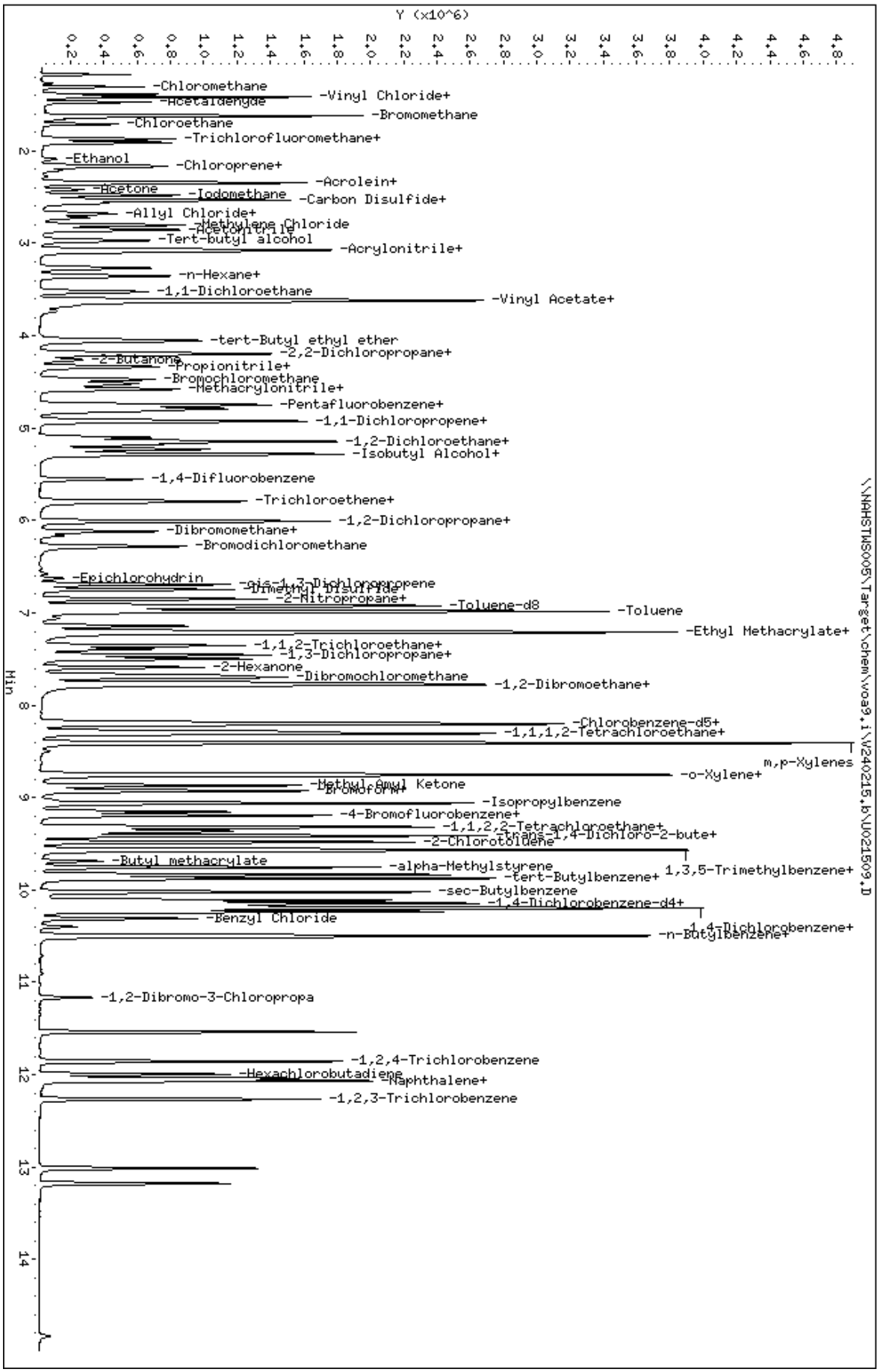
53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	296494	100.000	97.43
50 Toluene	91	6.982	6.982 (0.853)	1569859	100.000	97.46

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D Page 2
Report Date: 22-Feb-2024 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	513090	100.000	97.69
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	1310958	200.000	195.56
	63 o-Xylene	106	8.747	8.747	(1.069)	637581	100.000	98.26
	92 Naphthalene	128	12.065	12.065	(1.187)	1339078	100.000	98.47
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	868111	200.000	196.84
	13 Acetonitrile	39	2.851	2.851	(0.591)	144866	1000.00	968.69
	9 Acrolein	56	2.274	2.274	(0.471)	28448	200.000	195.33
	16 Acrylonitrile	53	3.072	3.072	(0.637)	281335	200.000	192.91
	25 Methacrylonitrile	41	4.526	4.526	(0.939)	150658	100.000	96.59
	194 Acetaldehyde	44	1.471	1.471	(0.305)	400473	400.000	378.59(M)
	64 Styrene	104	8.759	8.759	(1.070)	1149524	100.000	98.02
	140 1,3-Butadiene	54	1.415	1.415	(0.293)	432924	100.000	97.89
	28 Chloroform	83	4.579	4.579	(0.949)	648109	100.000	97.12
	59 Chlorobenzene	112	8.208	8.208	(1.003)	1006357	100.000	97.49
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	486964	100.000	98.16
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	383886	100.000	98.30
	66 Bromoform	173	8.916	8.916	(1.089)	255707	100.000	99.04
	182 Epichlorohydrin	57	6.629	6.629	(1.194)	102824	400.000	392.42
M	95 Xylenes (total)	106				1948539	300.000	
M	94 1,2-Dichloroethylene (total)	96				743012	200.000	

QC Flag Legend

M - Compound response manually integrated.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Min
2 3 4 5 6 7 8 9 10 11 12 13 14
-Chloromethane
-Vinyl Chloride+
-Acetaldehyde
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Ethanol
-Chloroprene+
-Acrolein+
-Acetone
-Iodomethane
-Carbon Disulfide+
-Allyl Chloride+
-Methylene Chloride
-Acetonitrile
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-2-Butanone
-Propionitrile+
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Dibromomethane+
-Bromodichloromethane
-Epichlorohydrin
-cis-1,3-Dichloropropene
-Dimethyl Disulfide
-2-Nitropropane+
-Toluene-d8
-Toluene
-Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
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-o-Xylene+
-Methyl Amyl Ketone
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-2-Chlorotoluene
-Butyl methacrylate
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
-Benzyl Chloride
-1,4-Dichlorobenzene+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene+
-1,2,3-Trichlorobenzene
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Date : 15-FEB-2024 19:00
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;;
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9.i
Operator: FT
Column diameter: 0.18
Page 1

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D
Inj Date : 15-FEB-2024 19:00
InstruID : VOA9.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

MASS
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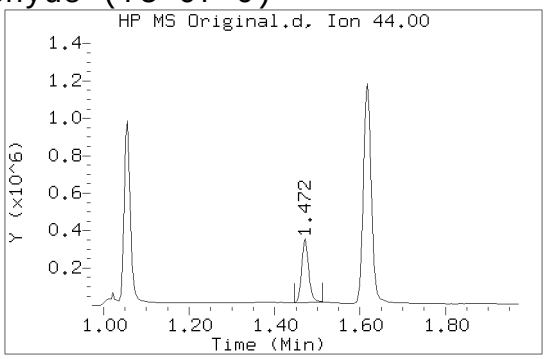
AREA
400473
HEIGHT
341930
22-Feb-2024
15:48
linh
pham



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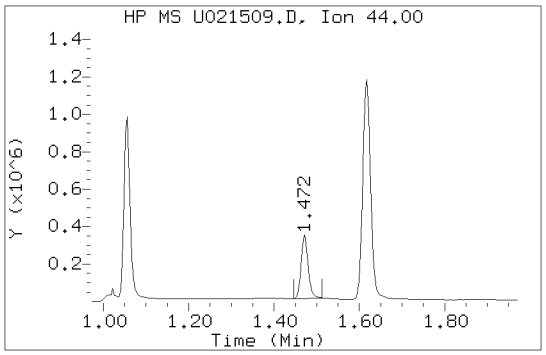

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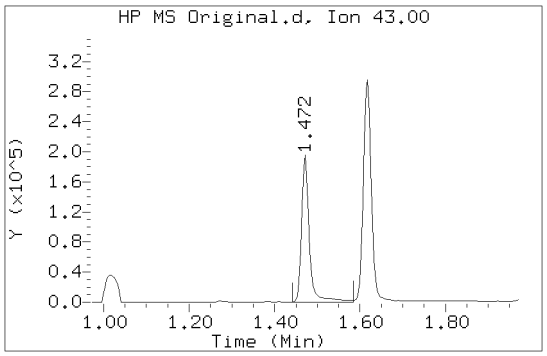

AFTER

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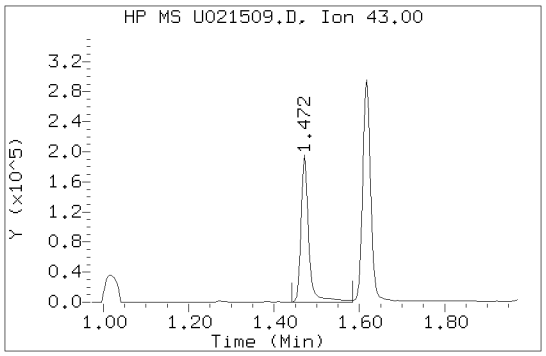

BEFORE

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22-Feb-2024
15:48
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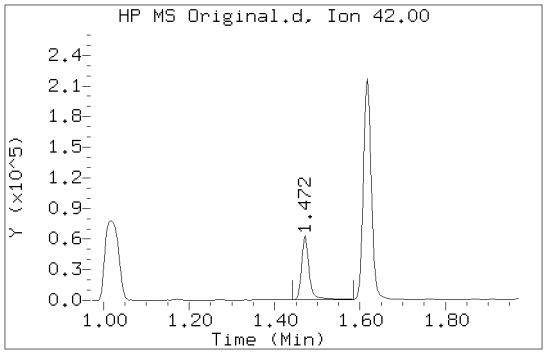

AFTER

MASS
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AREA
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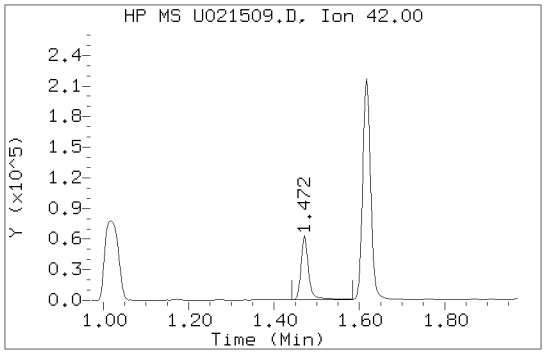
HEIGHT
62947
22-Feb-2024
16:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021510.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021510.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 15-FEB-2024 19:22
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD150;VSTD150;1;09;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:00 Cal File: U021509.D
Als bottle: 10 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

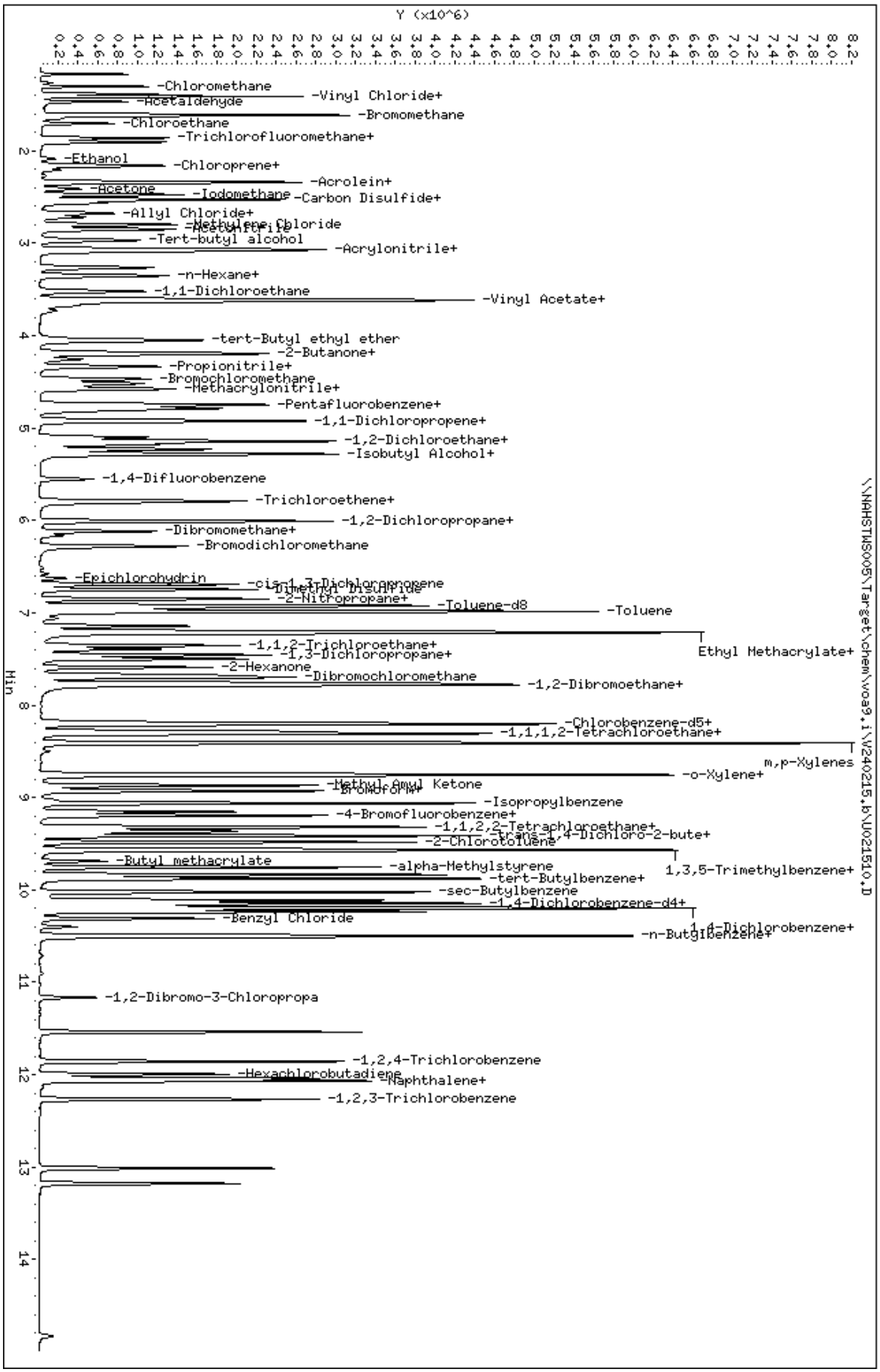
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

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)	241396	50.0000	
$ 30 Dibromofluoromethane	113	4.747	4.747	(0.985)	583421	150.000	150.69
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	711802	150.000	150.76
* 36 1,4-Difluorobenzene	114	5.553	5.553	(1.000)	399863	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	389864	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	2234434	150.000	150.58
$ 69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	832825	150.000	150.56
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	202367	50.0000	
5 Vinyl Chloride	62	1.381	1.381	(0.287)	729037	150.000	150.42
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	485516	150.000	150.62
17 Methylene Chloride	84	2.794	2.794	(0.580)	564342	150.000	191.43
18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	1427264	150.000	150.54
20 trans-1,2-Dichloroethene	96	3.064	3.064	(0.636)	581359	150.000	150.58
23 Chloroprene	53	2.165	2.165	(0.449)	199783	150.000	150.31
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	647036	150.000	150.56
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	845674	150.000	150.62
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	750990	150.000	197.26
37 Benzene	78	5.141	5.141	(0.926)	2438420	150.000	150.50
38 Trichloroethene	130	5.790	5.790	(1.043)	613589	150.000	150.37
56 Tetrachloroethene	164	7.458	7.458	(0.911)	481044	150.000	150.48

53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	481328	150.000	150.60
50 Toluene	91	6.982	6.982 (0.853)	2573676	150.000	150.57

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021510.D Page 2
Report Date: 22-Feb-2024 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	863680	150.000	150.49
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	2169718	300.000	300.99
	63 o-Xylene	106	8.747	8.747	(1.069)	1069987	150.000	150.37
	92 Naphthalene	128	12.065	12.065	(1.187)	2218825	150.000	150.33
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	1452742	300.000	300.69
	13 Acetonitrile	39	2.847	2.847	(0.591)	225497	1500.00	1506.94
	9 Acrolein	56	2.270	2.270	(0.471)	43606	300.000	301.11
	16 Acrylonitrile	53	3.064	3.064	(0.636)	467729	300.000	301.32
	25 Methacrylonitrile	41	4.523	4.523	(0.939)	250288	150.000	150.63
	194 Acetaldehyde	44	1.464	1.464	(0.304)	612666	600.000	604.78
	64 Styrene	104	8.762	8.762	(1.071)	1912397	150.000	150.43
	140 1,3-Butadiene	54	1.407	1.407	(0.292)	717788	150.000	150.44
	28 Chloroform	83	4.575	4.575	(0.949)	1061272	150.000	150.60
	59 Chlorobenzene	112	8.208	8.208	(1.003)	1660036	150.000	150.56
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	819897	150.000	150.39
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	653133	150.000	150.35
	66 Bromoform	173	8.916	8.916	(1.089)	441113	150.000	150.19
	182 Epichlorohydrin	57	6.626	6.626	(1.193)	186074	600.000	601.22
M	95 Xylenes (total)	106				3239705	450.000	
M	94 1,2-Dichloroethylene (total)	96				1228395	300.000	



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Date : 15-FEB-2024 19:22
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;09;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021510.d
Inj Date : 15-FEB-2024 19:22
InstruID : VOA9.i
LabSampID : VSTD150

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 15-FEB-2024 19:44
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD200;VSTD200;1;10;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:22 Cal File: U021510.D
Als bottle: 11 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

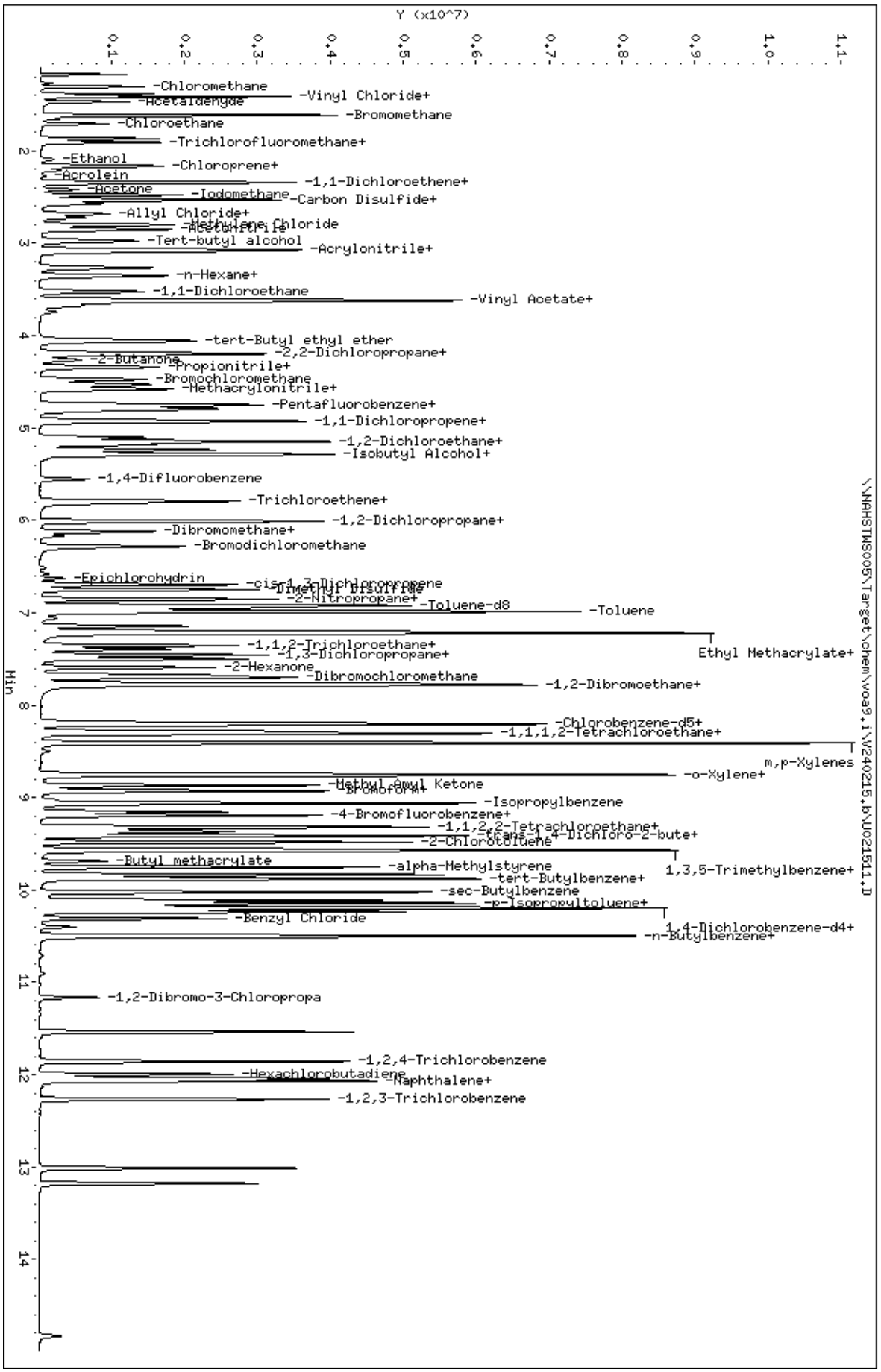
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	298669	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.752	(0.985)	767328	200.000	155.30
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	930805	200.000	155.10
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	502373	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	485709	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	2947183	200.000	155.13
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1111511	200.000	156.12
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	248721	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	957550	200.000	154.43
11 1,1-Dichloroethene	96	2.341	2.341	(0.485)	639342	200.000	154.78
17 Methylene Chloride	84	2.802	2.802	(0.581)	751196	200.000	206.16(A)
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	1838203	200.000	153.29
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.636)	741322	200.000	152.75
23 Chloroprene	53	2.169	2.169	(0.450)	266973	200.000	155.70
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	861510	200.000	155.72
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1124403	200.000	155.12
34 Carbon Tetrachloride	117	4.920	4.920	(0.886)	1010053	200.000	211.19(A)
37 Benzene	78	5.145	5.145	(0.926)	3251597	200.000	154.88
38 Trichloroethene	130	5.790	5.790	(1.043)	840074	200.000	156.20
56 Tetrachloroethene	164	7.458	7.458	(0.911)	651564	200.000	156.59

53 1,1,2-Trichloroethane	83	7.357	7.357 (0.899)	650852	200.000	157.34
50 Toluene	91	6.982	6.982 (0.853)	3423675	200.000	155.79

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	1158229	200.000	155.55
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	2917019	400.000	312.31
	63 o-Xylene	106	8.748	8.748	(1.069)	1437613	200.000	155.44
	92 Naphthalene	128	12.065	12.065	(1.186)	3094275	200.000	158.78
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	2011875	400.000	314.61
	13 Acetonitrile	39	2.851	2.851	(0.591)	295345	2000.00	1560.02
	9 Acrolein	56	2.274	2.274	(0.471)	58496	400.000	316.52
	16 Acrylonitrile	53	3.072	3.072	(0.637)	584095	400.000	302.71
	25 Methacrylonitrile	41	4.530	4.530	(0.939)	334961	200.000	156.20
	194 Acetaldehyde	44	1.468	1.468	(0.304)	843709	800.000	652.41
	64 Styrene	104	8.763	8.763	(1.071)	2567974	200.000	155.81
	140 1,3-Butadiene	54	1.411	1.411	(0.293)	925988	200.000	153.26
	28 Chloroform	83	4.579	4.579	(0.949)	1413501	200.000	156.02
	59 Chlorobenzene	112	8.212	8.212	(1.003)	2217399	200.000	155.90
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	1100615	200.000	154.64
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	877268	200.000	155.02
	66 Bromoform	173	8.916	8.916	(1.089)	611961	200.000	155.72
	182 Epichlorohydrin	57	6.630	6.630	(1.194)	253251	800.000	613.95
M	95 Xylenes (total)	106				4354632	600.000	
M	94 1,2-Dichloroethylene (total)	96				1602832	400.000	

QC Flag Legend

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



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Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTMS005\Target\chem\voa9.i\V240215.b\U021511.D

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D
Inj Date : 15-FEB-2024 19:44
InstruID : VOA9.i
LabSampID : VSTD200

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021513.D Page 1
Report Date: 22-Feb-2024 16:17

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021513.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 15-FEB-2024 20:29
Operator : FT Inst ID: VOA9.i
Smp Info : ICV;ICV;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:17 Linh.Pham Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 13 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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	4.815	4.823	(1.000)	294448	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.752	(0.986)	204525	57.0472	57.04
$ 35 1,2-Dichloroethane-d4	65	5.096	5.100	(1.058)	252447	57.1772	57.17
* 36 1,4-Difluorobenzene	114	5.550	5.554	(1.000)	492917	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	467791	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	780008	57.2817	57.28
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	287017	56.2350	56.23
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	237313	50.0000	
5 Vinyl Chloride	62	1.374	1.385	(0.285)	250123	57.3558	57.35
11 1,1-Dichloroethene	96	2.330	2.341	(0.484)	166624	57.3046	57.30
17 Methylene Chloride	84	2.791	2.802	(0.580)	204049	54.8167	54.81
18 Methyl tert-butyl ether	73	3.076	3.087	(0.639)	436013	51.6472	51.64
20 trans-1,2-Dichloroethene	96	3.057	3.068	(0.635)	202388	57.6713	57.67
23 Chloroprene	53	2.157	2.169	(0.448)	66766	55.6169	55.61(M)
27 cis-1,2-Dichloroethene	96	4.193	4.204	(0.871)	226558	57.9199	57.91
33 1,2-Dichloroethane	62	5.175	5.179	(0.932)	300879	56.5485	56.54
34 Carbon Tetrachloride	117	4.913	4.920	(0.885)	249043	52.8468	52.84
37 Benzene	78	5.138	5.145	(0.926)	861128	57.3795	57.37
38 Trichloroethene	130	5.786	5.790	(1.043)	216592	58.0663	58.06
56 Tetrachloroethene	164	7.458	7.458	(0.911)	166218	57.3819	57.38

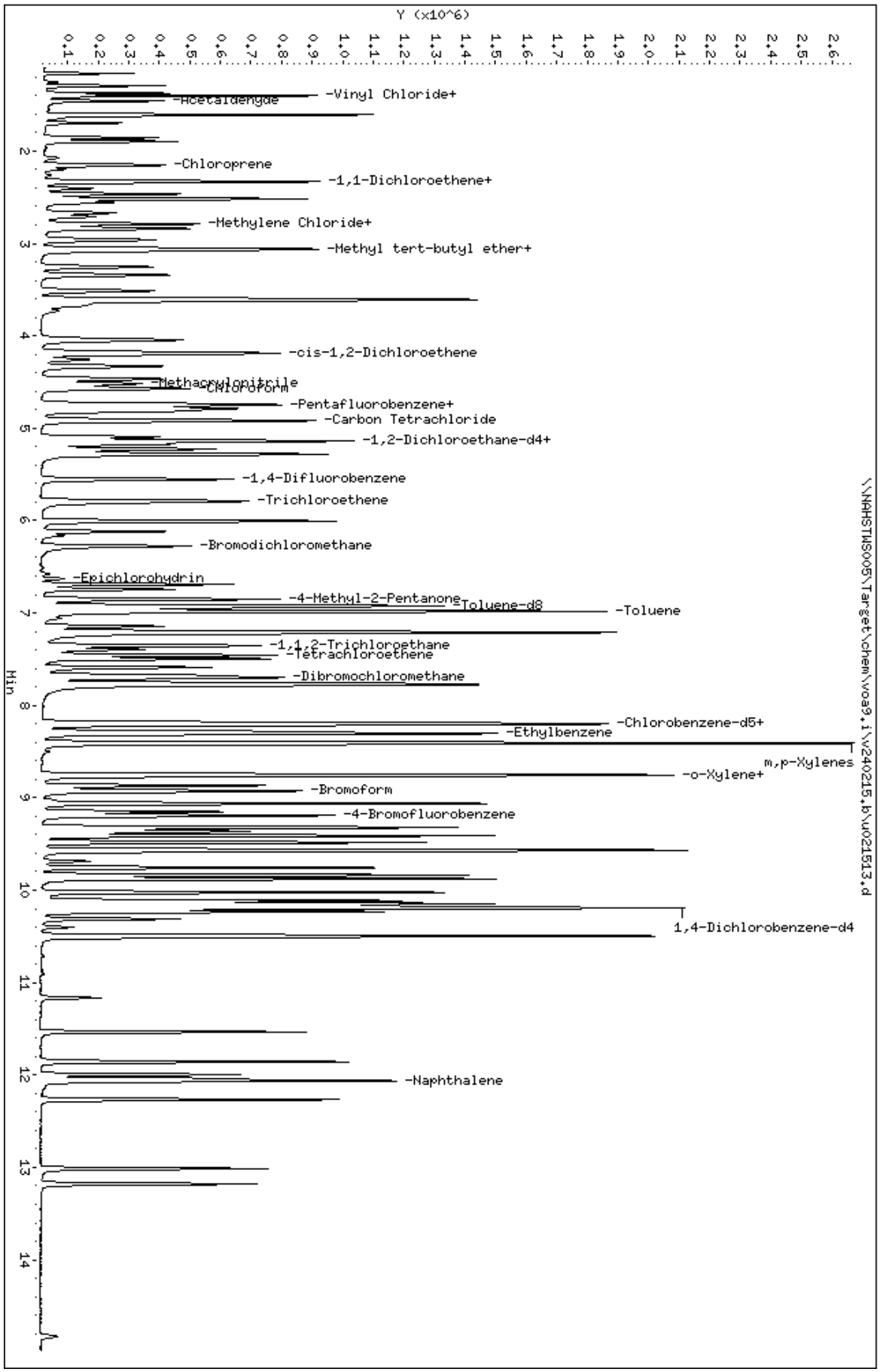
53	1,1,2-Trichloroethane	83	7.353	7.357 (0.898)	173234	58.0166	58.01
50	Toluene	91	6.982	6.982 (0.853)	908504	57.7906	57.79

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021513.D Page 2
Report Date: 22-Feb-2024 16:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	61 Ethylbenzene	106	8.305	8.309	(1.015)	297621	58.4031	58.40
	62 m,p-Xylenes	106	8.406	8.410	(1.027)	748358	115.032	115.03
	63 o-Xylene	106	8.748	8.748	(1.069)	358175	57.2730	57.27
	92 Naphthalene	128	12.065	12.065	(1.187)	762123	59.7804	59.78(M)
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	494757	116.453	116.45(M)
	13 Acetonitrile	39	2.840	2.851	(0.590)	79024	535.947	535.94
	9 Acrolein	56	2.262	2.274	(0.470)	16054	112.169	112.16(M)
	16 Acrylonitrile	53	3.061	3.072	(0.636)	146894	104.225	104.22
	25 Methacrylonitrile	41	4.527	4.530	(0.940)	85037	56.1537	56.15
	194 Acetaldehyde	44	1.456	1.468	(0.303)	229556	215.176	215.17(M)
	64 Styrene	104	8.763	8.763	(1.071)	650978	57.5066	57.50(M)
	140 1,3-Butadiene	54	1.400	1.411	(0.291)	241984	56.7809	56.78(M)
	28 Chloroform	83	4.571	4.579	(0.949)	371383	57.1398	57.13(M)
	59 Chlorobenzene	112	8.208	8.212	(1.003)	577781	57.3026	57.30(M)
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	276273	56.6936	56.69(M)
	55 Dibromochloromethane	129	7.690	7.691	(0.940)	217509	57.8922	57.89(M)
	66 Bromoform	173	8.916	8.916	(1.089)	144196	58.5121	58.51(M)
	182 Epichlorohydrin	57	6.626	6.630	(1.194)	53489	212.558	212.55(M)
M	95 Xylenes (total)	106				1106533	132.639	132.63
M	94 1,2-Dichloroethylene (total)	96				428946	80.0512	80.05

QC Flag Legend

M - Compound response manually integrated.



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Client ID: ICV
Sample Info: ICV;ICV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Chloroform (67-66-3)

Reason Code:

BEFORE

MASS
83
AREA
371383
HEIGHT
188207
22-Feb-2024
15:48
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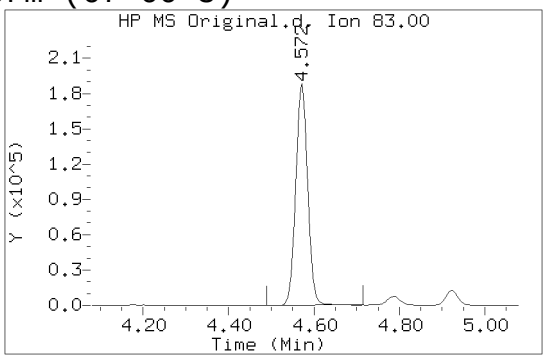
pham



AFTER

MASS
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AREA
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HEIGHT
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22-Feb-2024
16:17
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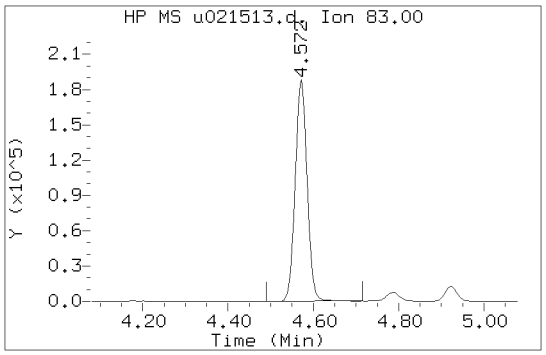
pham



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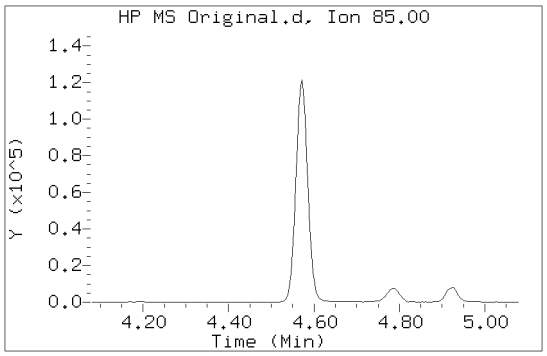

AFTER

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22-Feb-2024
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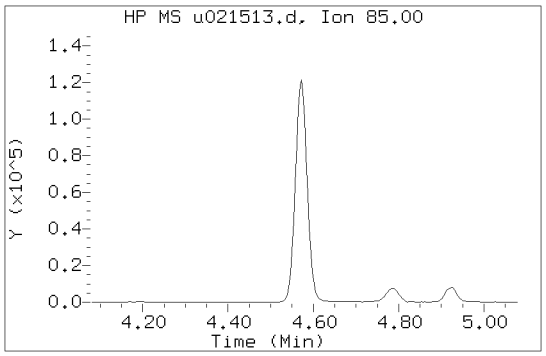
linh
pham



Bromodichloromethane (75-27-4)

Reason Code:

BEFORE

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AREA
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HEIGHT
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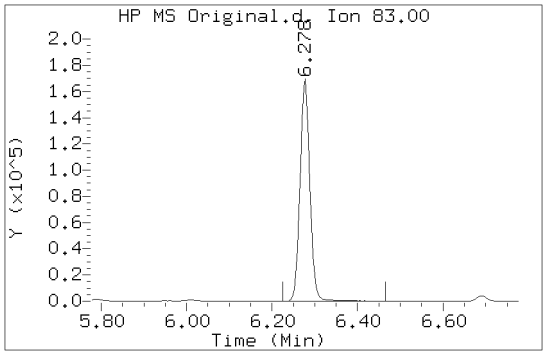
22-Feb-2024
15:48
linh
pham



AFTER

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22-Feb-2024
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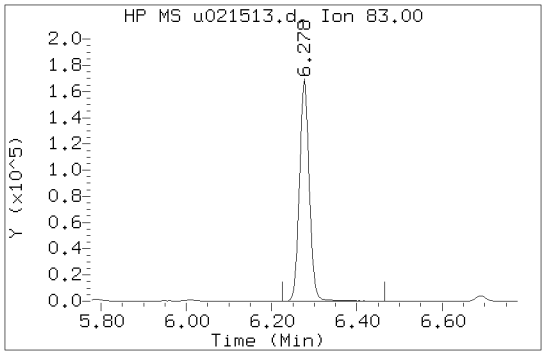

BEFORE

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22-Feb-2024
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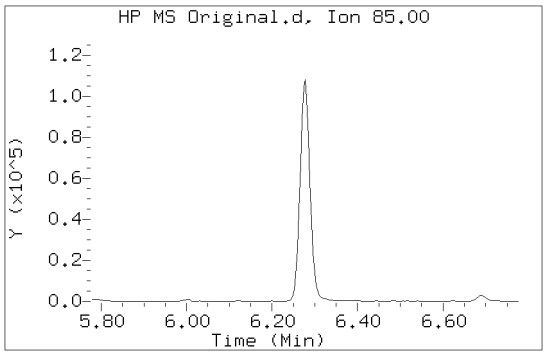
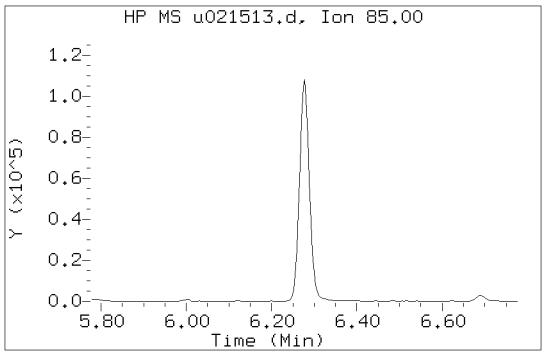
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

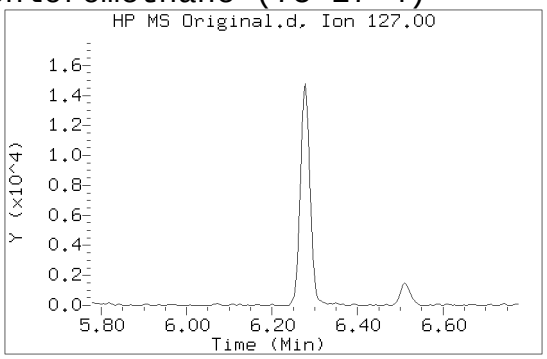


Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Bromodichloromethane (75-27-4)

BEFORE

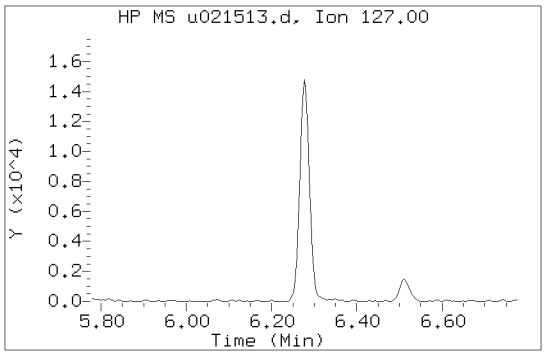
MASS
127
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



Reason Code:

AFTER

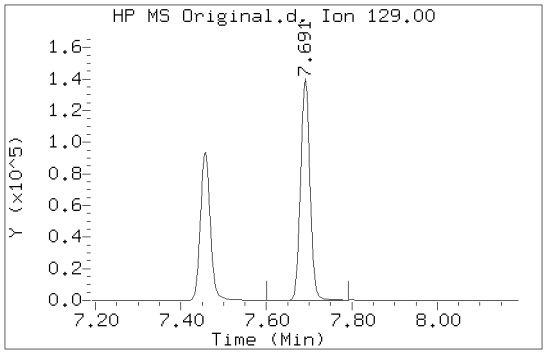
MASS
127
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham



Dibromochloromethane (124-48-1)

BEFORE

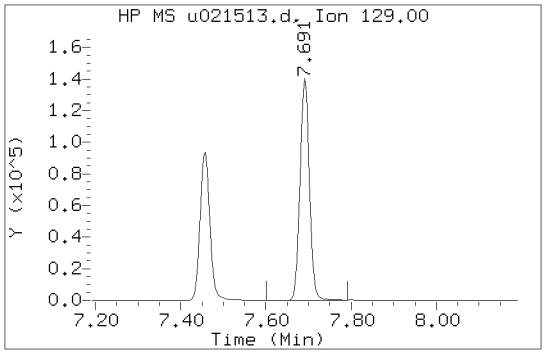
MASS
129
AREA
217509
HEIGHT
140021
22-Feb-2024
15:48
linh
pham



Reason Code:

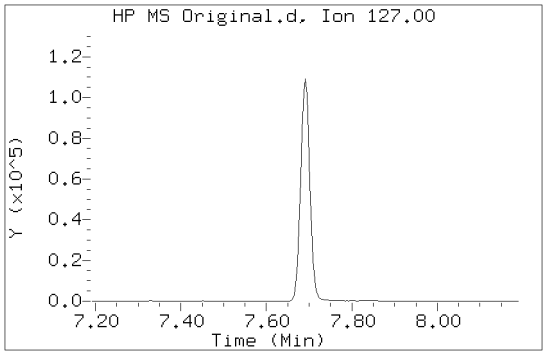
AFTER

MASS
129
AREA
217509
HEIGHT
140021
22-Feb-2024
16:17
linh
pham



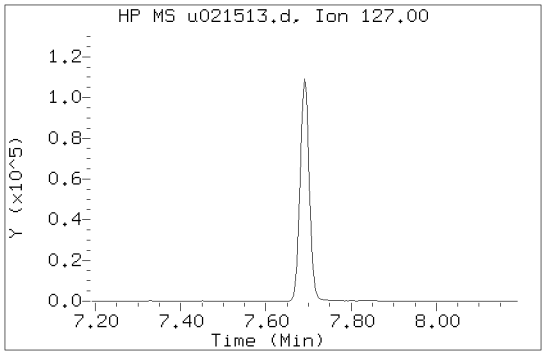
BEFORE

MASS
127
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

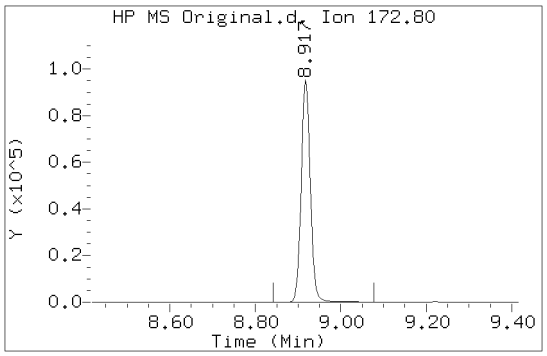
MASS
127
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham



Bromoform (75-25-2)

BEFORE

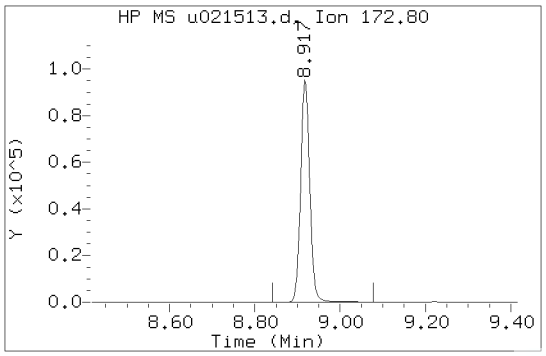
MASS
172.8
AREA
144196
HEIGHT
95310
22-Feb-2024
15:48
linh
pham



Reason Code:

AFTER

MASS
172.8
AREA
144196
HEIGHT
95310
22-Feb-2024
16:17
linh
pham



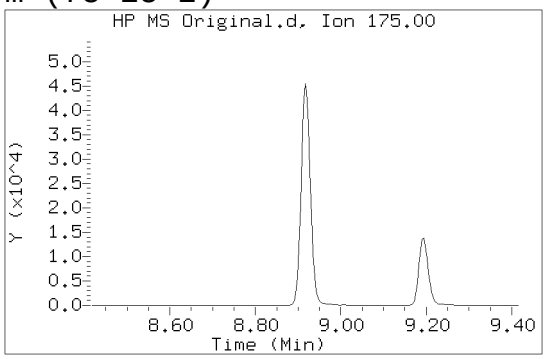
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Bromoform (75-25-2)

Reason Code:

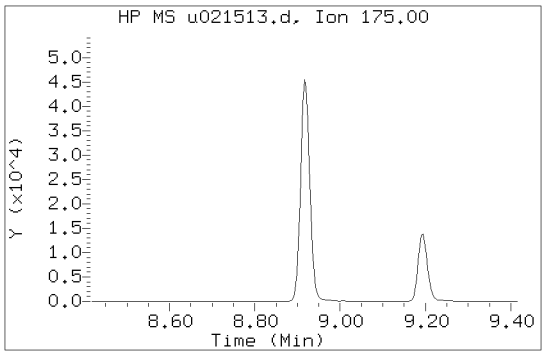
BEFORE

MASS
175
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



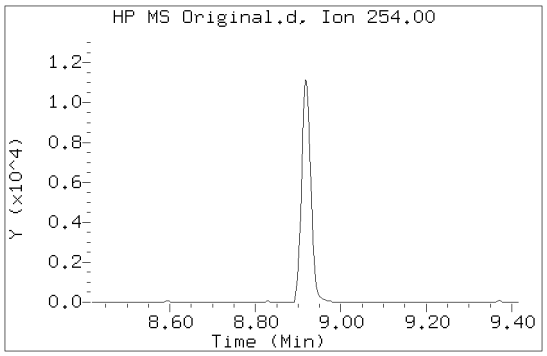
AFTER

MASS
175
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham



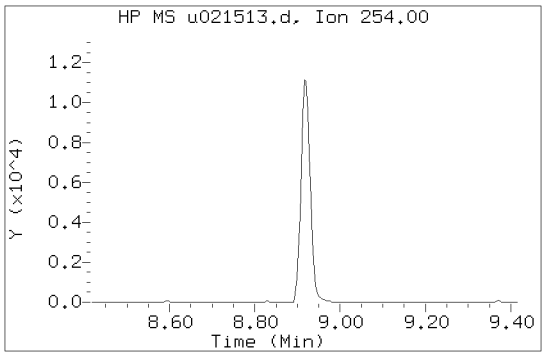
BEFORE

MASS
254
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
254
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

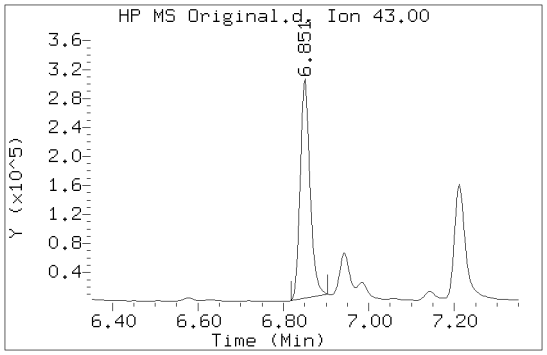


4-Methyl-2-Pentanone (108-10-1)

Reason Code:

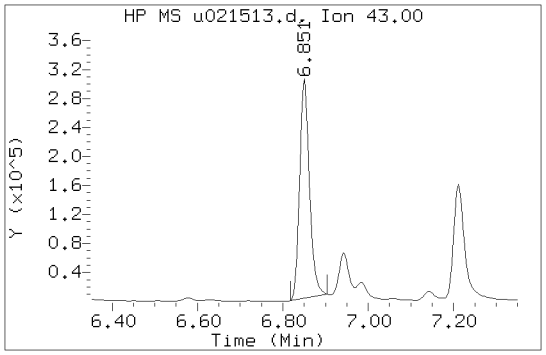
BEFORE

MASS
43
AREA
494757
HEIGHT
302372
22-Feb-2024
15:48
linh
pham



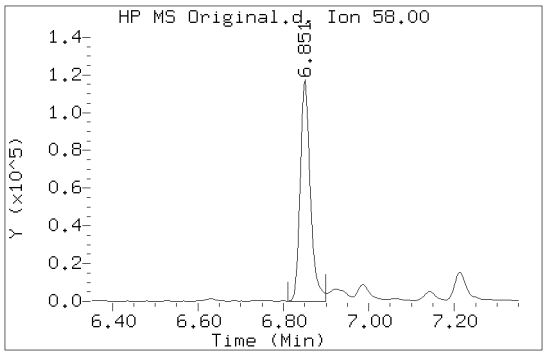
AFTER

MASS
43
AREA
494757
HEIGHT
302372
22-Feb-2024
16:17
linh
pham



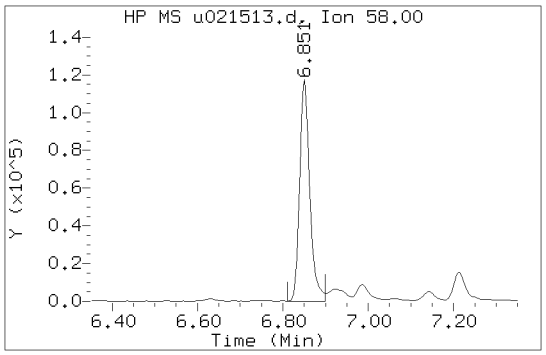
BEFORE

MASS
58
AREA
198631
HEIGHT
117365
22-Feb-2024
15:48
linh
pham



AFTER

MASS
58
AREA
198631
HEIGHT
117365
22-Feb-2024
16:17
linh
pham



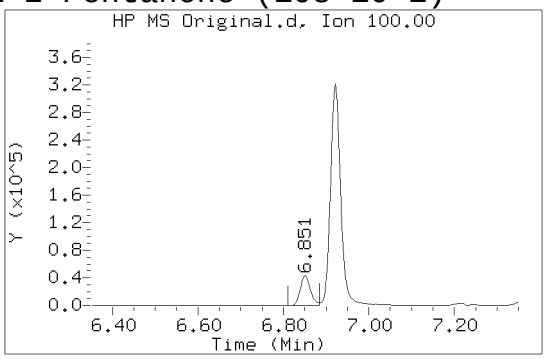
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

4-Methyl-2-Pentanone (108-10-1)

Reason Code:

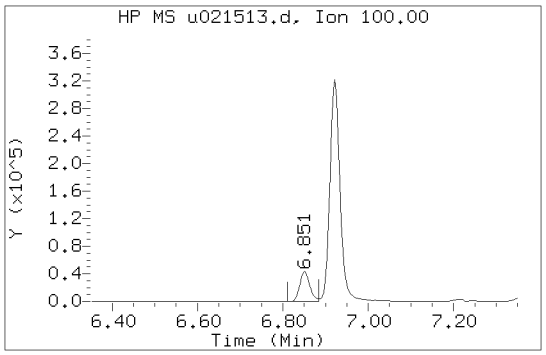
BEFORE

MASS
100
AREA
72642
HEIGHT
43817
22-Feb-2024
15:48
linh
pham



AFTER

MASS
100
AREA
72642
HEIGHT
43817
22-Feb-2024
16:17
linh
pham

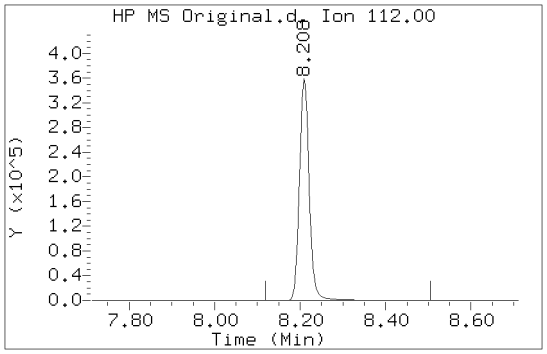


Chlorobenzene (108-90-7)

Reason Code:

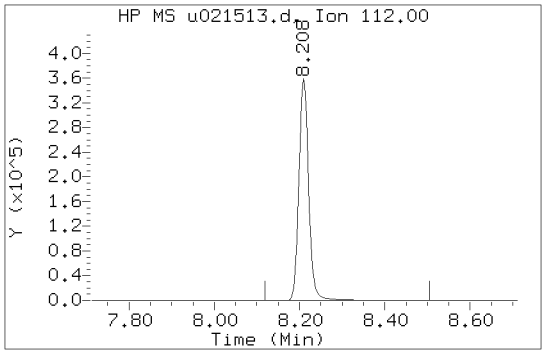
BEFORE

MASS
112
AREA
577781
HEIGHT
359084
22-Feb-2024
15:48
linh
pham



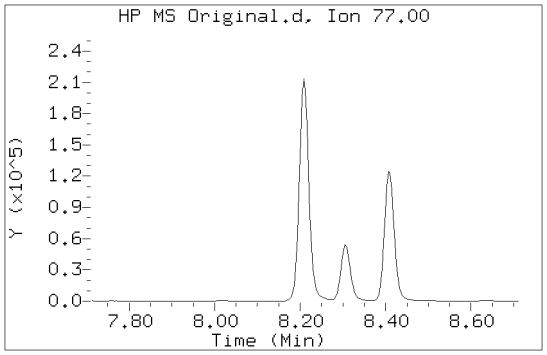
AFTER

MASS
112
AREA
577781
HEIGHT
359084
22-Feb-2024
16:17
linh
pham



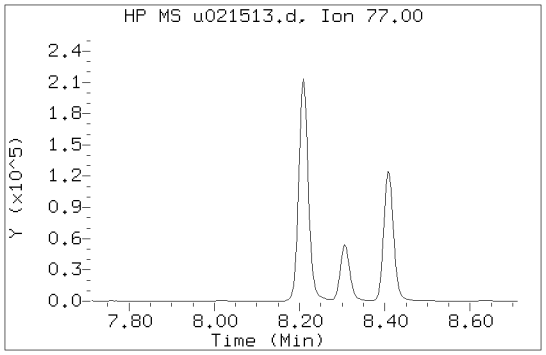
BEFORE

MASS
77
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



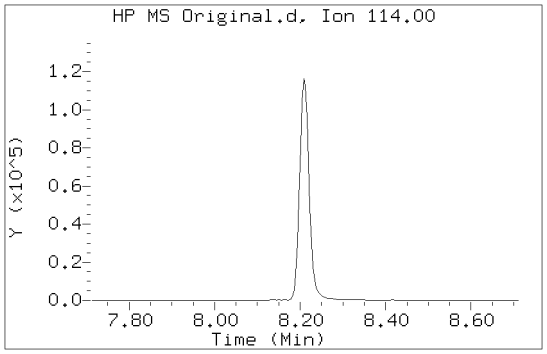
AFTER

MASS
77
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham



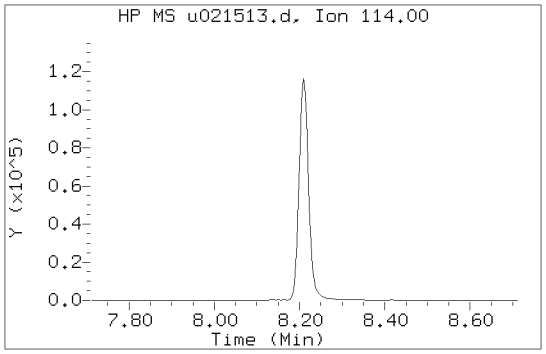
BEFORE

MASS
114
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
114
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

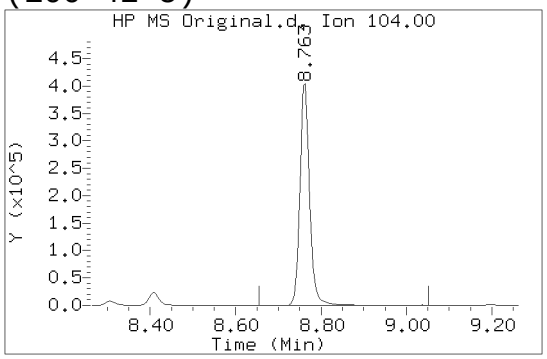


Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

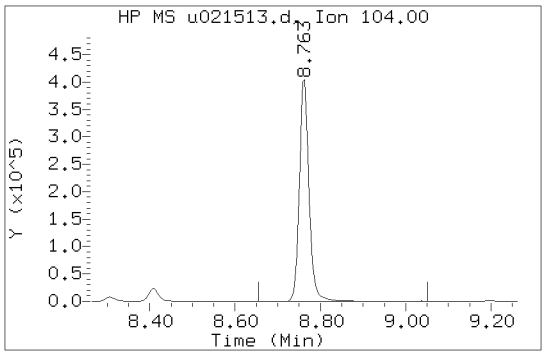
Styrene (100-42-5)

Reason Code:

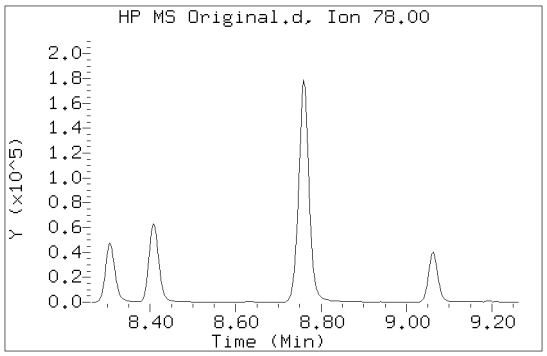
BEFORE
MASS
104
AREA
650978
HEIGHT
404288
22-Feb-2024
15:48
linh
pham



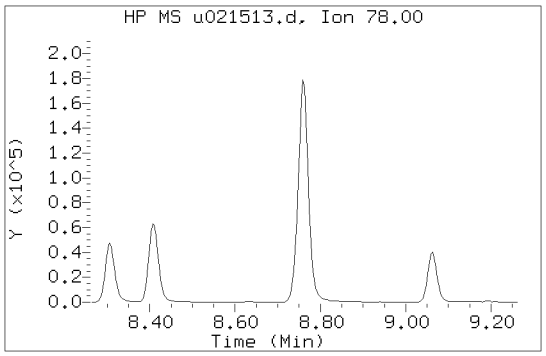
AFTER
MASS
104
AREA
650978
HEIGHT
404288
22-Feb-2024
16:17
linh
pham



BEFORE
MASS
78
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



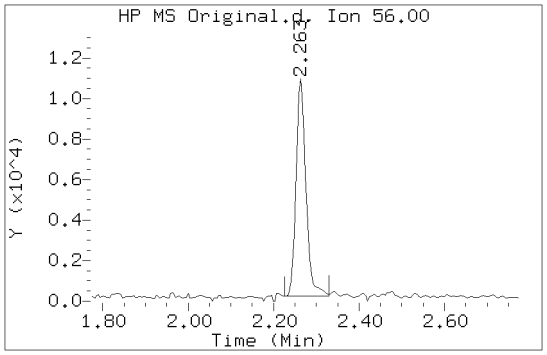
AFTER
MASS
78
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham



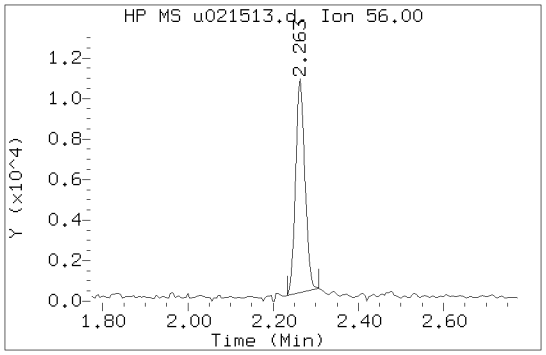
Acrolein (107-02-8)

Reason Code:

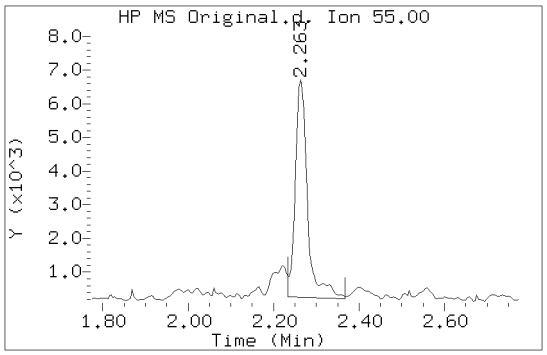
BEFORE
MASS
56
AREA
17276
HEIGHT
10709
22-Feb-2024
15:48
linh
pham



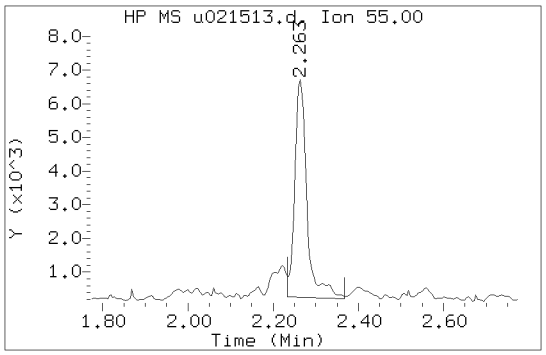
AFTER
MASS
56
AREA
16054
HEIGHT
10534
22-Feb-2024
16:17
linh
pham



BEFORE
MASS
55
AREA
12952
HEIGHT
6454
22-Feb-2024
15:48
linh
pham



AFTER
MASS
55
AREA
12952
HEIGHT
6454
22-Feb-2024
16:17
linh
pham



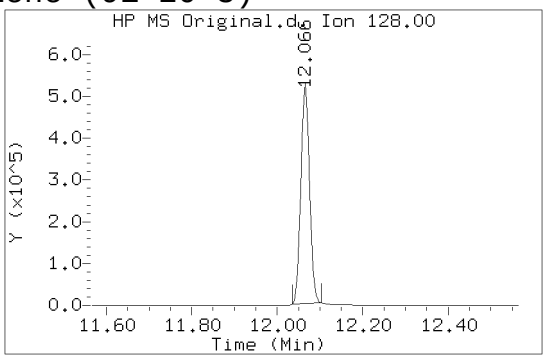
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Naphthalene (91-20-3)

Reason Code:

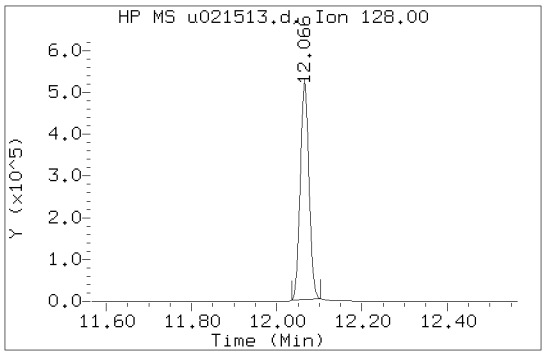
BEFORE

MASS
128
AREA
762123
HEIGHT
525883
22-Feb-2024
15:48
linh
pham



AFTER

MASS
128
AREA
762123
HEIGHT
525883
22-Feb-2024
16:17
linh
pham

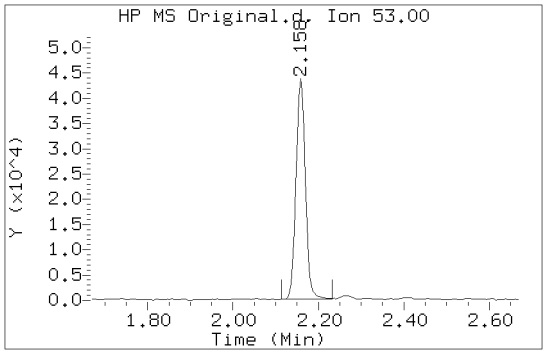


Chloroprene (126-99-8)

Reason Code:

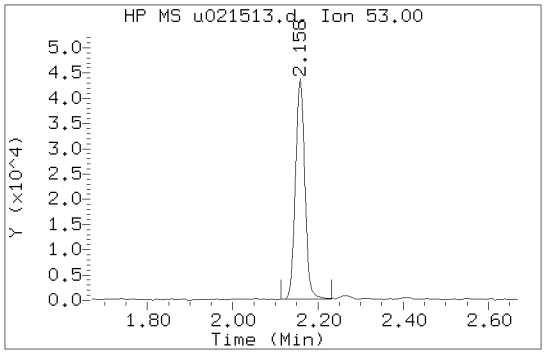
BEFORE

MASS
53
AREA
66766
HEIGHT
43619
22-Feb-2024
15:48
linh
pham



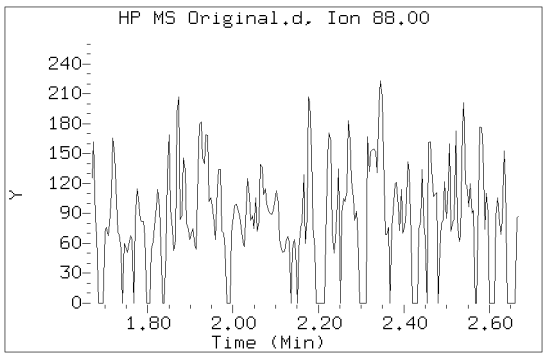
AFTER

MASS
53
AREA
66766
HEIGHT
43619
22-Feb-2024
16:17
linh
pham



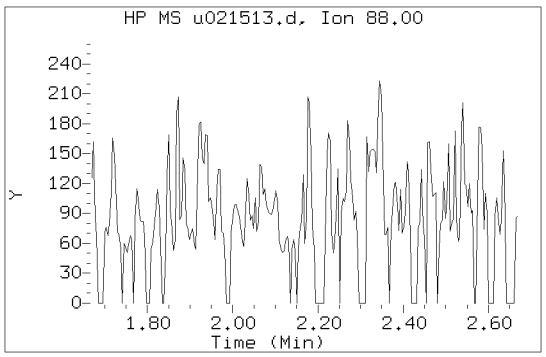
BEFORE

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

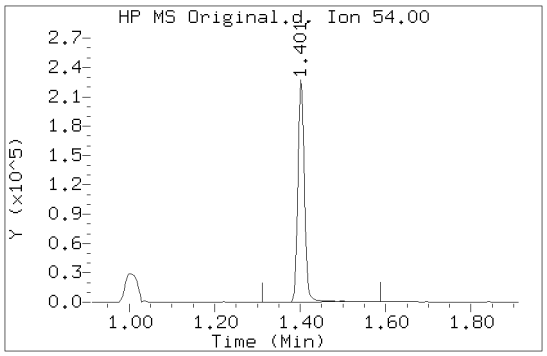


1,3-Butadiene (106-99-0)

Reason Code:

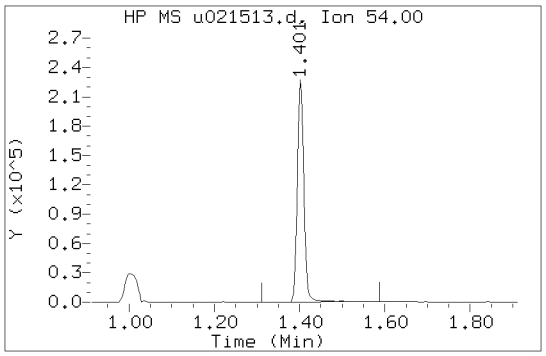
BEFORE

MASS
54
AREA
241984
HEIGHT
227004
22-Feb-2024
15:48
linh
pham



AFTER

MASS
54
AREA
241984
HEIGHT
227004
22-Feb-2024
16:17
linh
pham



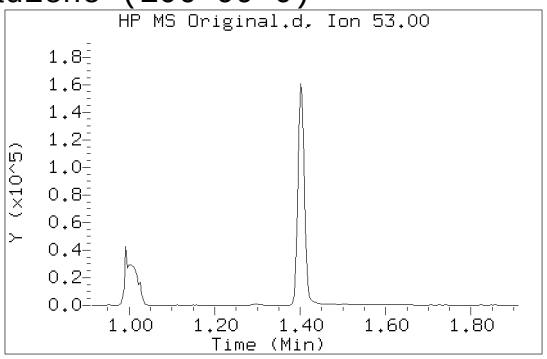
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

1,3-Butadiene (106-99-0)

Reason Code:

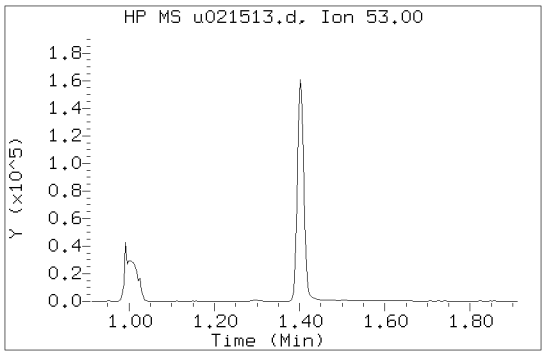
BEFORE

MASS
53
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
53
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

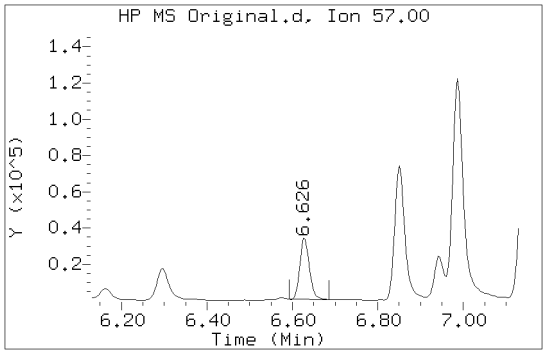


Epichlorohydrin (106-89-8)

Reason Code:

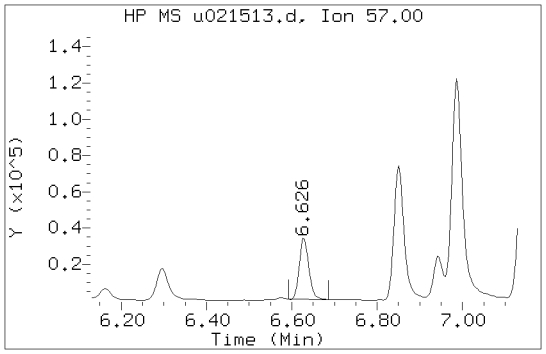
BEFORE

MASS
57
AREA
53489
HEIGHT
33689
22-Feb-2024
15:48
linh
pham



AFTER

MASS
57
AREA
53489
HEIGHT
33689
22-Feb-2024
16:17
linh
pham



BEFORE

MASS
49
AREA
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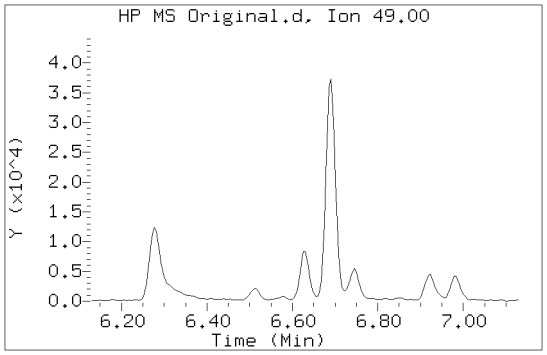
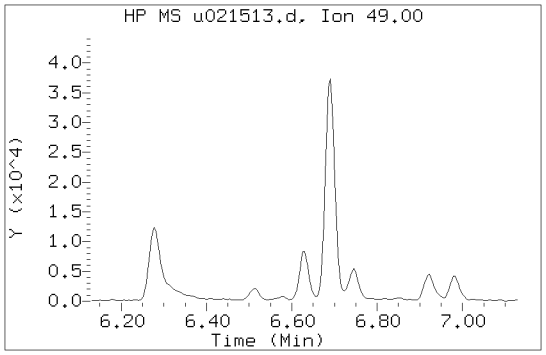
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
49
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

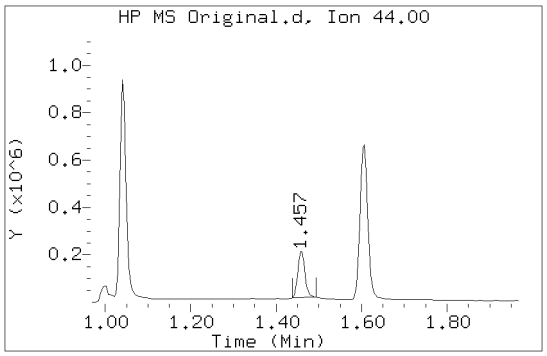


Acetaldehyde (75-07-0)

Reason Code:

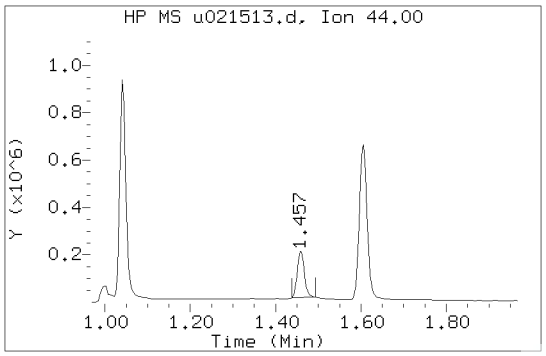
BEFORE

MASS
44
AREA
229556
HEIGHT
195583
22-Feb-2024
15:48
linh
pham



AFTER

MASS
44
AREA
229556
HEIGHT
195583
22-Feb-2024
16:17
linh
pham



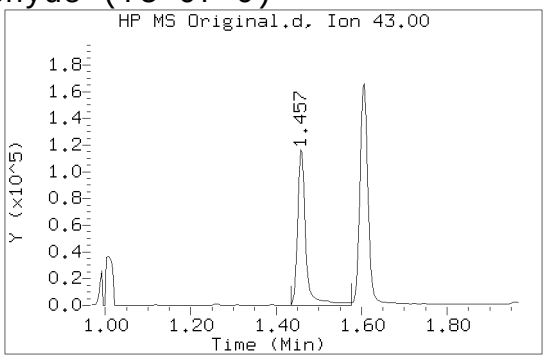
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Acetaldehyde (75-07-0)

Reason Code:

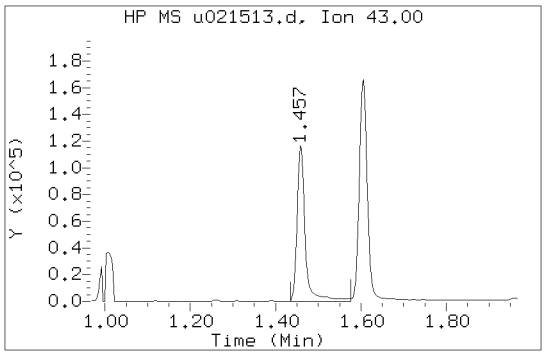
BEFORE

MASS
43
AREA
158720
HEIGHT
116816
22-Feb-2024
15:48
linh
pham



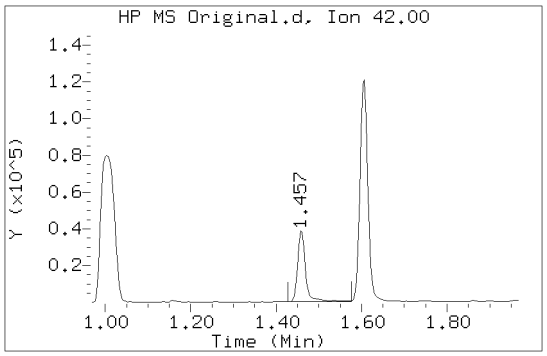
AFTER

MASS
43
AREA
158720
HEIGHT
116816
22-Feb-2024
16:17
linh
pham



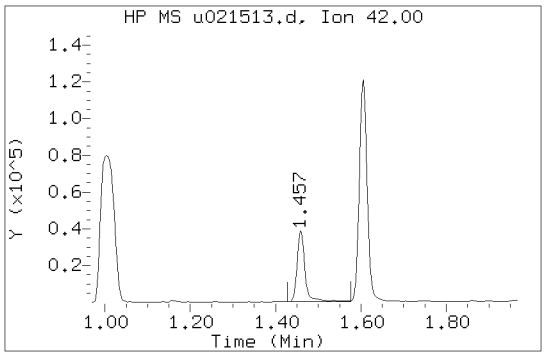
BEFORE

MASS
42
AREA
50481
HEIGHT
38406
22-Feb-2024
15:48
linh
pham



AFTER

MASS
42
AREA
50481
HEIGHT
38406
22-Feb-2024
16:17
linh
pham



right solutions.
right partner.

RawData

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/26/2024

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\V240215.b\V021501.D Page 1
Report Date: 15-Feb-2024 22:00

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\V240215.b\V021501.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 15-FEB-2024 21:13
Operator : FT Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\V240215.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: 14 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7066

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	103968			0.00- 100.00	100.00
9.194	9.180	(0.000)	50	20976			15.00- 40.00	20.18
9.194	9.180	(0.000)	75	52472			30.00- 60.00	50.47
9.194	9.180	(0.000)	96	7891			5.00- 9.00	7.59
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	83088			50.00- 0.00	79.92
9.194	9.180	(0.000)	175	7224			5.00- 9.00	8.69
9.194	9.180	(0.000)	176	78976			95.00- 101.00	95.05
9.194	9.180	(0.000)	177	5423			5.00- 9.00	6.87

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.18
75	30.00 - 60.00% of mass 95	50.47
96	5.00 - 9.00% of mass 95	7.59
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	79.92
175	5.00 - 9.00% of mass 174	6.95 (8.69)
176	95.00 - 101.00% of mass 174	75.96 (95.05)
177	5.00 - 9.00% of mass 176	5.22 (6.87)

Data File: V021501.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 129

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1451	69.00	10806	102.80	140	143.70	54
37.00	5946	70.00	962	103.90	481	144.10	51
38.00	5662	71.00	146	105.00	194	144.90	191
39.00	2340	72.00	641	105.80	428	145.90	150
39.90	471	73.00	4972	107.00	111	147.00	88
41.00	263	74.00	17296	107.80	74	147.90	281
42.00	325	75.00	52472	110.10	122	148.90	90
43.00	269	76.00	4990	111.60	85	149.80	146
44.00	985	77.10	518	113.00	112	151.00	57
45.00	1115	78.00	445	114.70	87	151.80	86
45.70	240	78.90	2984	115.80	449	152.60	138
47.00	1797	79.90	882	116.90	745	153.90	83
47.90	869	80.90	3019	117.90	426	154.90	313
49.00	4892	81.90	673	118.80	514	156.90	167
50.00	20976	82.70	179	120.20	75	158.70	119
51.00	6509	85.00	56	123.80	77	159.10	125
52.00	470	85.80	305	124.30	54	160.70	121
52.90	185	86.90	5349	125.90	76	165.10	66
53.80	119	88.00	4754	126.70	53	166.70	65
54.20	135	89.00	111	127.80	383	170.70	109
55.00	661	89.80	106	128.70	194	172.00	628
55.90	1723	90.80	404	129.10	182	173.90	83088
57.00	2857	92.00	3099	129.80	285	175.00	7224
57.90	182	93.00	4554	130.90	245	175.90	78976
60.00	1136	94.00	13113	131.80	87	176.90	5423
61.00	5157	95.00	103968	134.80	249	177.90	190
62.00	4839	96.00	7891	135.90	128	189.40	70
63.00	3968	97.00	254	136.80	199	192.50	59
64.00	569	98.00	180	138.80	54	238.00	78
65.00	439	98.70	64	140.10	137	271.10	55
65.90	92	99.30	106	140.90	862		
67.00	404	100.00	50	141.80	156		
68.00	11076	101.10	52	142.90	1090		

Data File: \\nahstws005\Target\chem\voa9.i\V240215.b\V021501.D Page 1

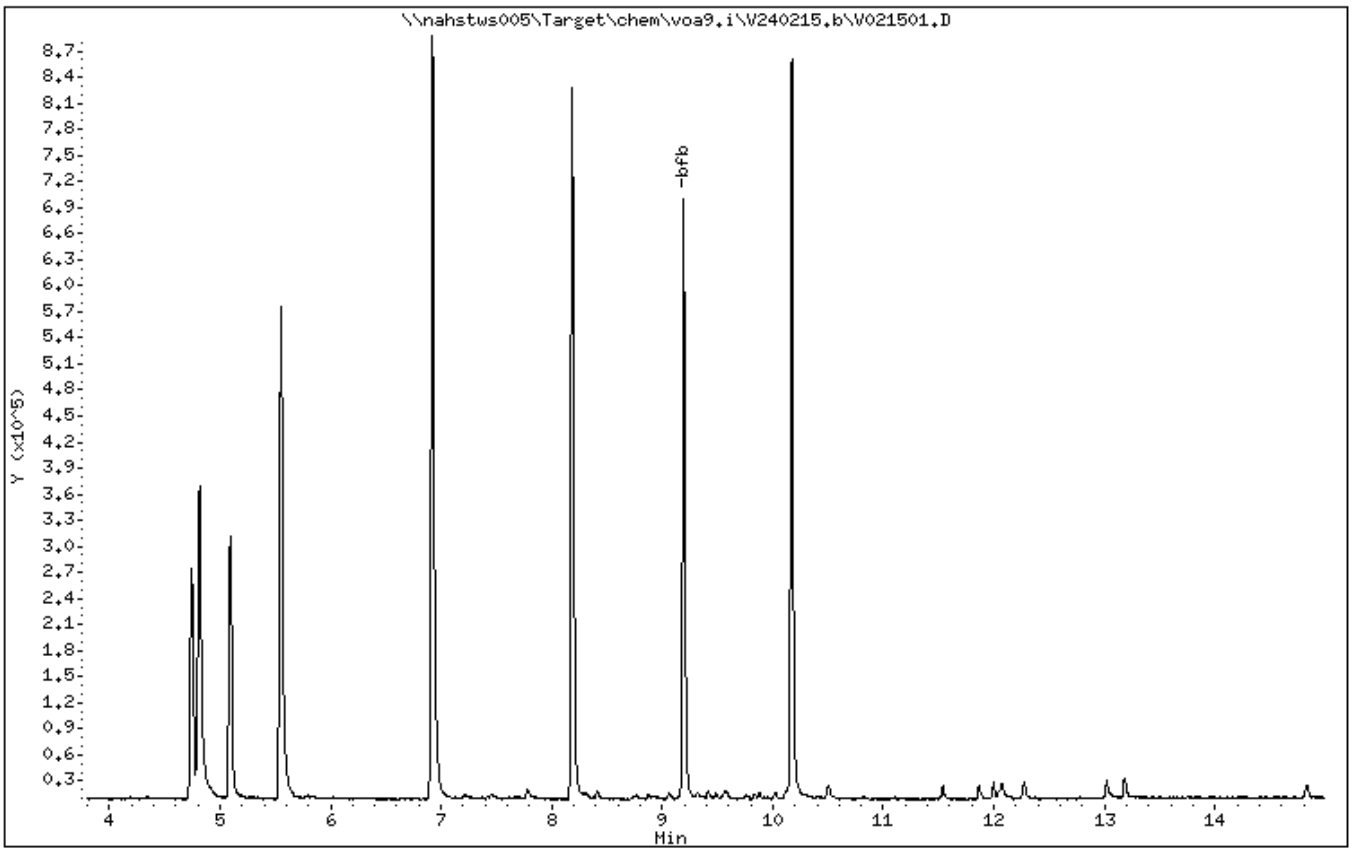
Date : 15-FEB-2024 21:13

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



Data File: \\nahstws005\Target\chem\voa9.i\V240215.b\V021501.D Page 2

Date : 15-FEB-2024 21:13

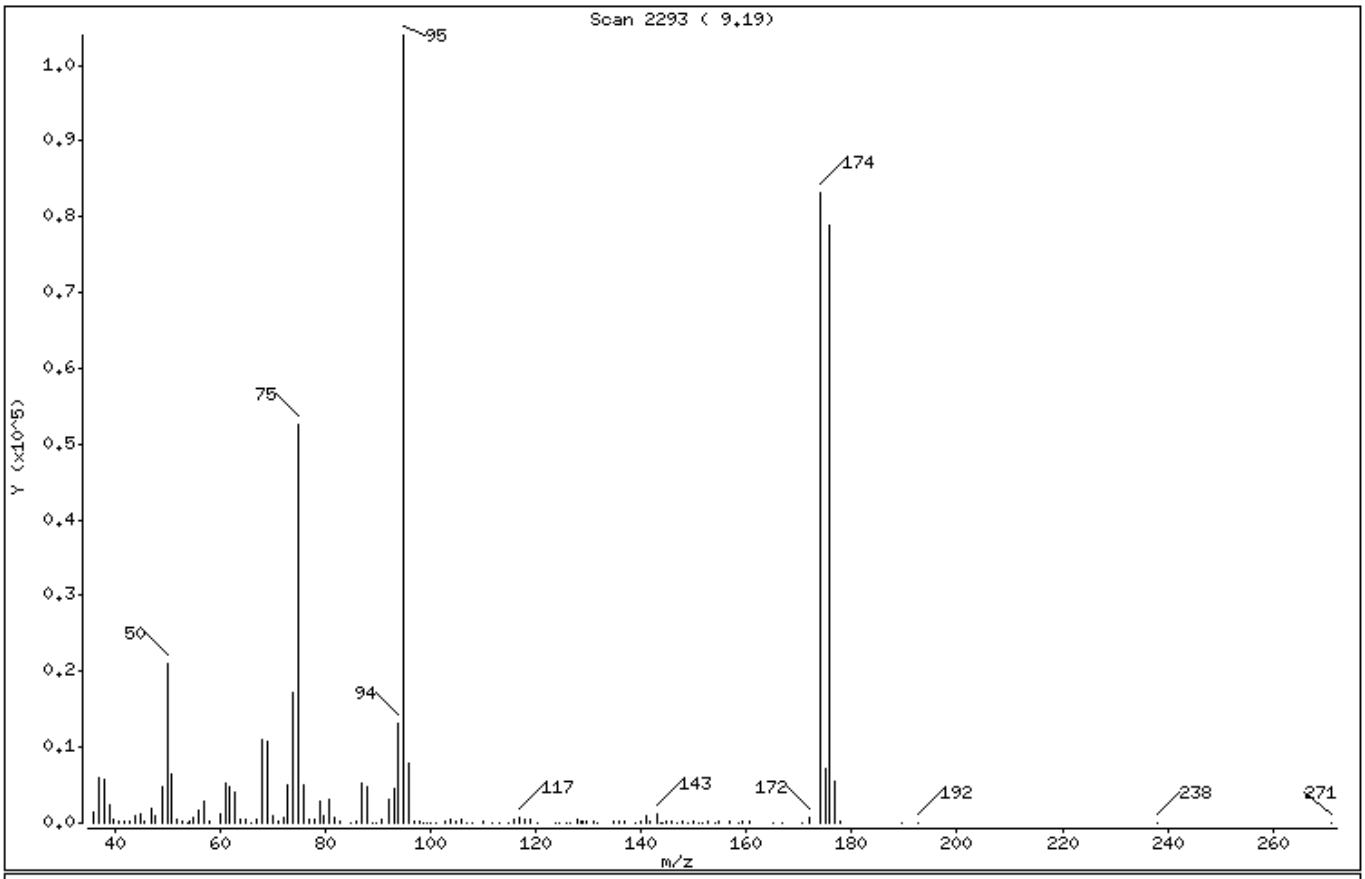
Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

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	20.18
75	30.00 - 60.00% of mass 95	50.47
96	5.00 - 9.00% of mass 95	7.59
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	79.92
175	5.00 - 9.00% of mass 174	6.95 (8.69)
176	95.00 - 101.00% of mass 174	75.96 (95.05)
177	5.00 - 9.00% of mass 176	5.22 (6.87)

Data File: \\nahstws005\Target\chem\voa9.i\V240215.b\V021501.D Page 3

Date : 15-FEB-2024 21:13

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25

Data File: V021501.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 129

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1451	69.00	10806	102.80	140	143.70	54
37.00	5946	70.00	962	103.90	481	144.10	51
38.00	5662	71.00	146	105.00	194	144.90	191
39.00	2340	72.00	641	105.80	428	145.90	150
39.90	471	73.00	4972	107.00	111	147.00	88
41.00	263	74.00	17296	107.80	74	147.90	281
42.00	325	75.00	52472	110.10	122	148.90	90
43.00	269	76.00	4990	111.60	85	149.80	146
44.00	985	77.10	518	113.00	112	151.00	57
45.00	1115	78.00	445	114.70	87	151.80	86
45.70	240	78.90	2984	115.80	449	152.60	138
47.00	1797	79.90	882	116.90	745	153.90	83
47.90	869	80.90	3019	117.90	426	154.90	313
49.00	4892	81.90	673	118.80	514	156.90	167
50.00	20976	82.70	179	120.20	75	158.70	119
51.00	6509	85.00	56	123.80	77	159.10	125
52.00	470	85.80	305	124.30	54	160.70	121
52.90	185	86.90	5349	125.90	76	165.10	66
53.80	119	88.00	4754	126.70	53	166.70	65
54.20	135	89.00	111	127.80	383	170.70	109
55.00	661	89.80	106	128.70	194	172.00	628
55.90	1723	90.80	404	129.10	182	173.90	83088
57.00	2857	92.00	3099	129.80	285	175.00	7224
57.90	182	93.00	4554	130.90	245	175.90	78976
60.00	1136	94.00	13113	131.80	87	176.90	5423
61.00	5157	95.00	103968	134.80	249	177.90	190
62.00	4839	96.00	7891	135.90	128	189.40	70
63.00	3968	97.00	254	136.80	199	192.50	59
64.00	569	98.00	180	138.80	54	238.00	78
65.00	439	98.70	64	140.10	137	271.10	55
65.90	92	99.30	106	140.90	862		
67.00	404	100.00	50	141.80	156		
68.00	11076	101.10	52	142.90	1090		

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021502.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021502.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 15-FEB-2024 21:57
Operator : FT Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.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

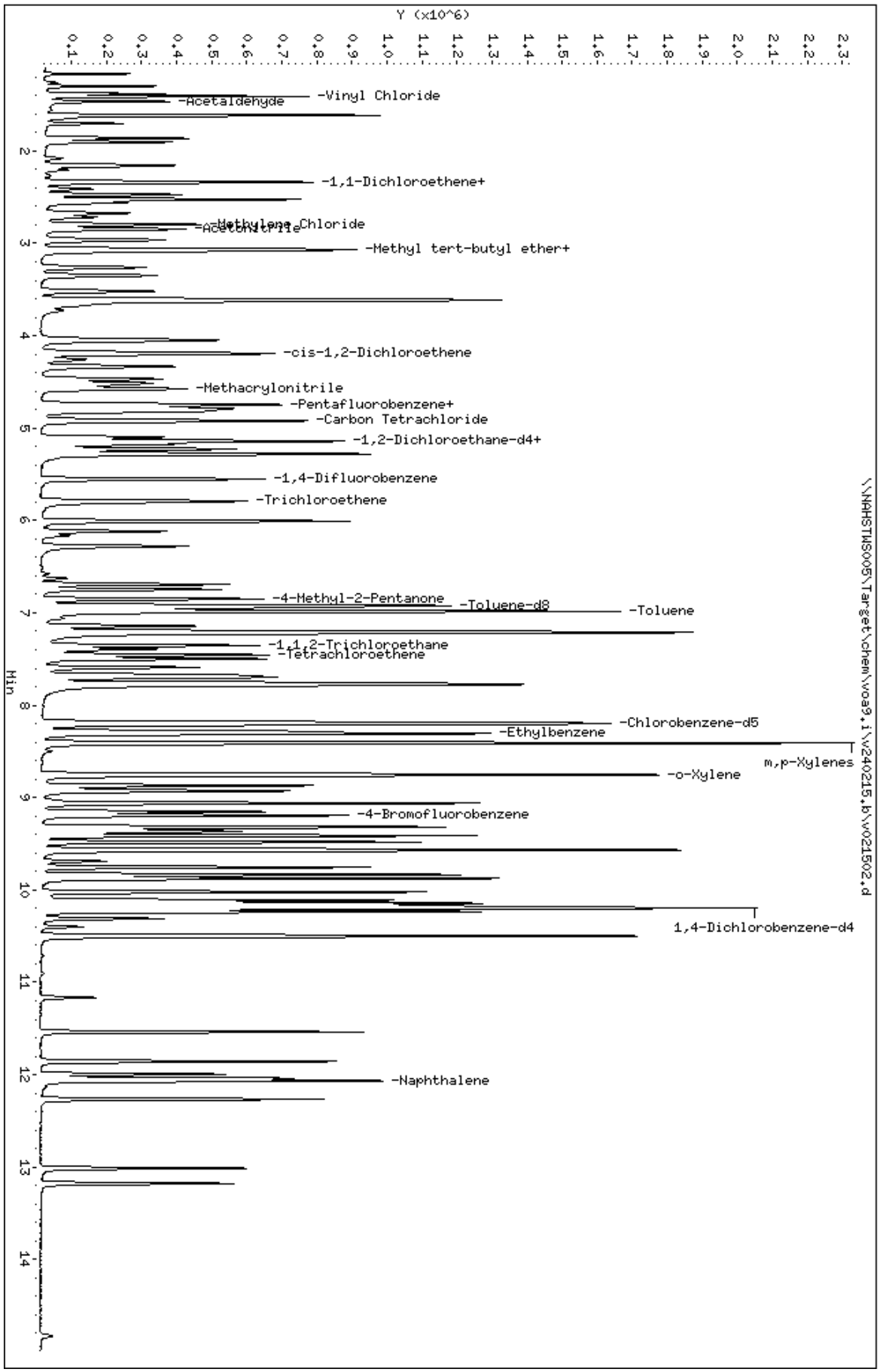
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	306536	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	182482	50.0000	49.32
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	227267	50.0000	49.85
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	505047	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	487567	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	697517	50.0000	49.65
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	261128	50.0000	49.50
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	252873	50.0000	
5 Vinyl Chloride	62	1.378	1.378	(0.286)	210056	50.0000	46.84
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	143082	50.0000	47.76
17 Methylene Chloride	84	2.795	2.795	(0.580)	177497	50.0000	45.35
18 Methyl tert-butyl ether	73	3.080	3.080	(0.639)	472037	50.0000	53.57
20 trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	171839	50.0000	47.62
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.871)	198364	50.0000	49.26
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	262958	50.0000	48.64
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	210903	50.0000	43.62
37 Benzene	78	5.141	5.141	(0.926)	738863	50.0000	48.59
38 Trichloroethene	130	5.790	5.790	(1.043)	183862	50.0000	48.71
56 Tetrachloroethene	164	7.458	7.458	(0.911)	142988	50.0000	47.89
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	149454	50.0000	48.54

50 Toluene	91	6.982	6.982 (0.853)	774360	50.0000	47.87
61 Ethylbenzene	106	8.305	8.305 (1.015)	253123	50.0000	48.34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	641302	100.000	95.87	
	63 o-Xylene	106	8.748	8.748	(1.069)	310721	50.0000	48.33	
	92 Naphthalene	128	12.065	12.065	(1.187)	661548	50.0000	49.62	
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	434265	100.000	99.46	
	13 Acetonitrile	39	2.847	2.847	(0.591)	67583	500.000	442.88	
	9 Acrolein	56	2.270	2.270	(0.471)	14417	100.000	97.50	
	16 Acrylonitrile	53	3.065	3.065	(0.636)	155877	100.000	106.11	
	25 Methacrylonitrile	41	4.523	4.523	(0.939)	83451	50.0000	53.14	
	194 Acetaldehyde	44	1.464	1.464	(0.304)	263861	200.000	236.85	
M	95 Xylenes (total)	106				952023	150.000		(a)
M	94 1,2-Dichloroethylene (total)	96				370203	100.000		(a)

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\v240215,b\v021502,d
Date : 15-FEB-2024 21:57
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\v021502.d
Inj Date : 15-FEB-2024 21:57
InstruID : VOA9.i
LabSampID : CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021503.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021503.D
Lab Smp Id: VLCSW-240215 Client Smp ID: VLCSW-240215
Inj Date : 15-FEB-2024 22:19
Operator : FT Inst ID: VOA9.i
Smp Info : VLCSW-240215;VLCSW-240215;3;;LCS
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

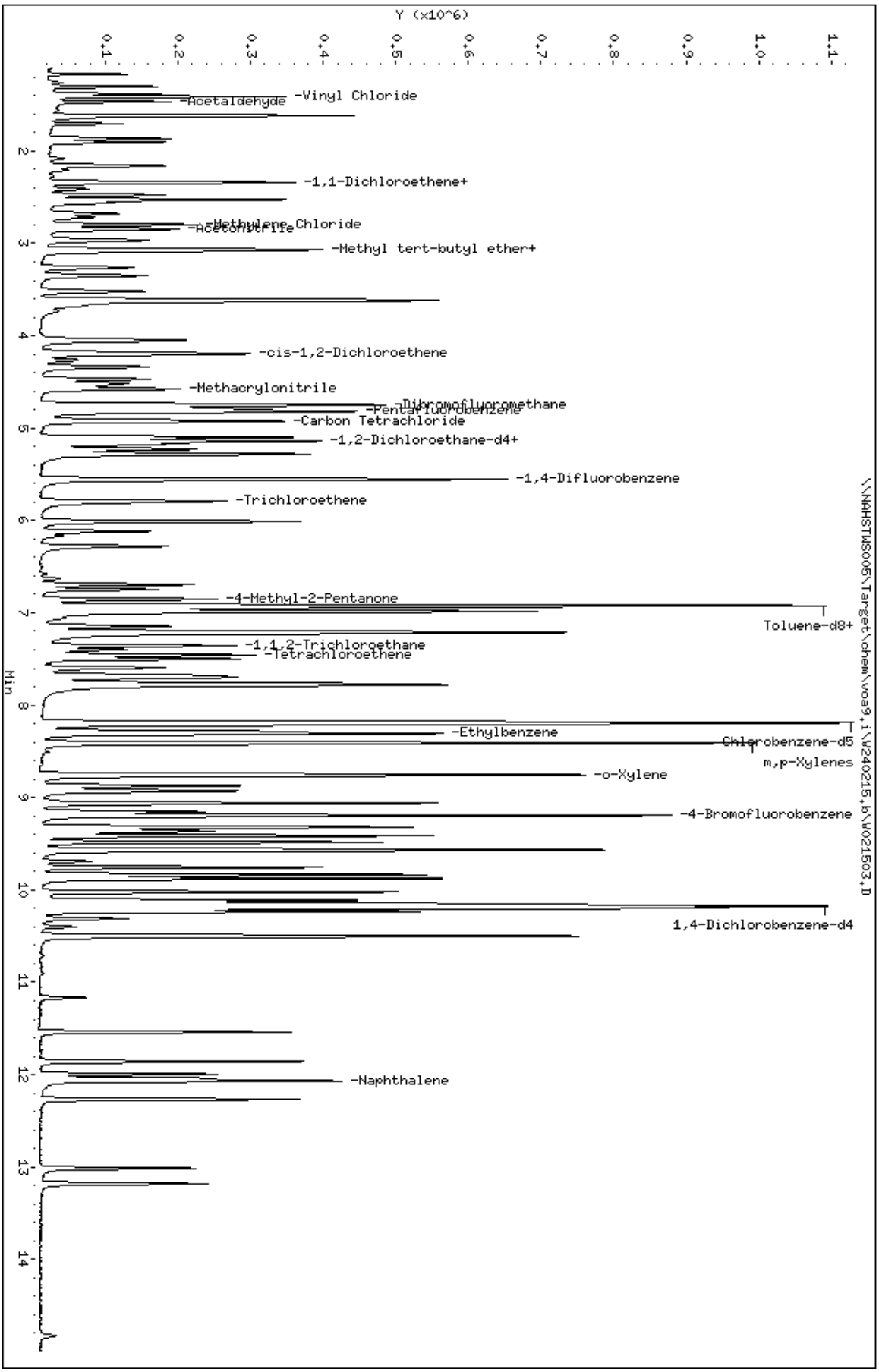
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	314244	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.748	(0.986)	186381	49.1509	49.15
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	229248	49.0909	49.09
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	518050	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	496568	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	713699	49.8748	49.87
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	265315	49.3946	49.39
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	256883	50.0000	
5 Vinyl Chloride	62	1.381	1.378	(0.287)	95494	20.5540	20.55
11 1,1-Dichloroethene	96	2.341	2.337	(0.486)	63440	20.2738	20.27
17 Methylene Chloride	84	2.798	2.795	(0.581)	83957	19.4485	19.44
18 Methyl tert-butyl ether	73	3.083	3.080	(0.640)	192846	21.5160	21.51
20 trans-1,2-Dichloroethene	96	3.065	3.061	(0.636)	78496	21.1535	21.15
27 cis-1,2-Dichloroethene	96	4.200	4.197	(0.872)	90669	21.9872	21.98
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	117628	21.0045	21.00
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	92530	18.4866	18.48
37 Benzene	78	5.141	5.141	(0.926)	332271	21.3311	21.33
38 Trichloroethene	130	5.790	5.790	(1.043)	84784	21.9675	21.96
56 Tetrachloroethene	164	7.458	7.458	(0.911)	65091	21.2721	21.27
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	65184	20.6779	20.67

50 Toluene	91	6.982	6.982 (0.853)	349725	21.3506	21.35
61 Ethylbenzene	106	8.305	8.305 (1.015)	112524	21.2653	21.26

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021503.D Page 2
Report Date: 22-Feb-2024 15:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	62 m,p-Xylenes	106	8.410	8.406	(1.027)	286681	42.5601	42.56
	63 o-Xylene	106	8.748	8.748	(1.069)	137714	21.3843	21.38
	92 Naphthalene	128	12.065	12.065	(1.187)	288764	22.1482	22.14
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	178926	41.2438	41.24
	13 Acetonitrile	39	2.847	2.847	(0.591)	30858	191.252	191.25
	9 Acrolein	56	2.270	2.270	(0.471)	6434	42.4149	42.41
	16 Acrylonitrile	53	3.068	3.065	(0.637)	61967	41.1541	41.15
	25 Methacrylonitrile	41	4.534	4.523	(0.941)	34491	21.4831	21.48
	194 Acetaldehyde	44	1.468	1.464	(0.305)	141337	123.379	123.37
M	95 Xylenes (total)	106				424395	48.4038	48.40
M	94 1,2-Dichloroethylene (total)	96				169165	29.5813	29.58



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Date : 15-FEB-2024 22:19
Client ID: VLCSW-240215
Sample Info: VLCSW-240215;VLCSW-240215;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021503.D
Inj Date : 15-FEB-2024 22:19
InstruID : VOA9.i
LabSampID : VLCSW-240215

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021505.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021505.D
Lab Smp Id: VBLKW-240215 Client Smp ID: VBLKW-240215
Inj Date : 15-FEB-2024 23:03
Operator : FT Inst ID: VOA9.i
Smp Info : VBLKW-240215;VBLKW-240215;3;;BLANK
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 18 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

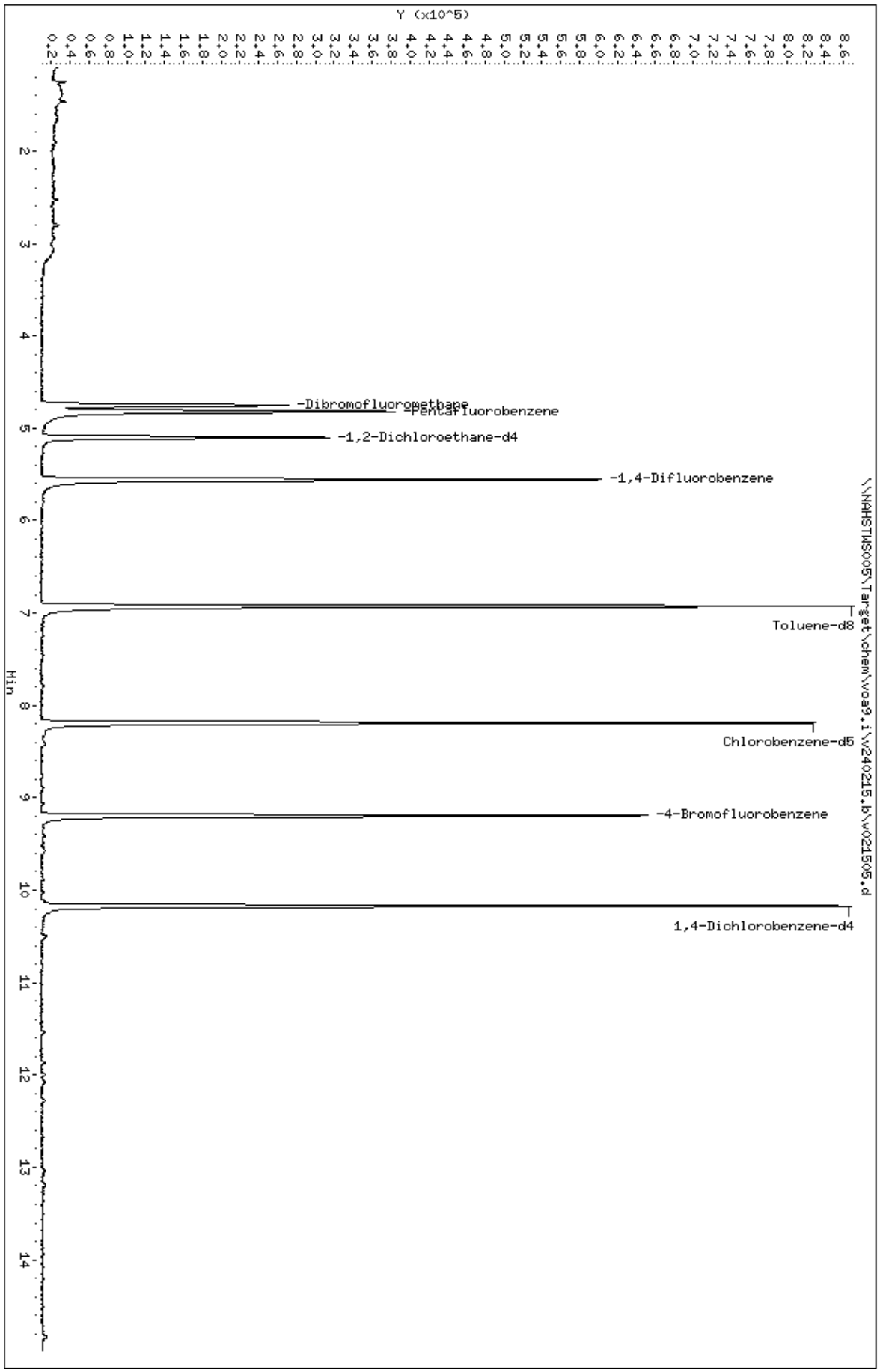
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	306787	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.748	(0.986)	159001	43.1597	43.15
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	204302	44.9675	44.96
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	516066	50.0000	
* 47 Chlorobenzene-d5	117	8.189	8.185	(1.000)	474220	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	605751	44.5952	44.59
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	219409	43.0490	43.04(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	229639	50.0000	

QC Flag Legend

M - Compound response manually integrated.



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Date : 15-FEB-2024 23:03
Client ID: VBLKW-240215
Sample Info: VBLKW-240215;VBLKW-240215;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\v021505.d
Inj Date : 15-FEB-2024 23:03
InstruID : VOA9.i
LabSampID : VBLKW-240215

4-Bromofluorobenzene (460-00-4)

Reason Code:

BEFORE

MASS
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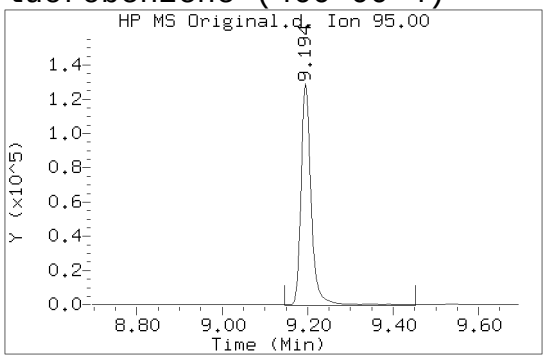
AREA
219409
HEIGHT
129375
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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HEIGHT
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22-Feb-2024
15:51
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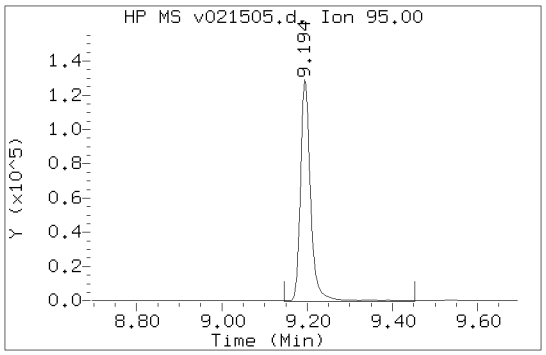
pham



BEFORE

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22-Feb-2024
15:48
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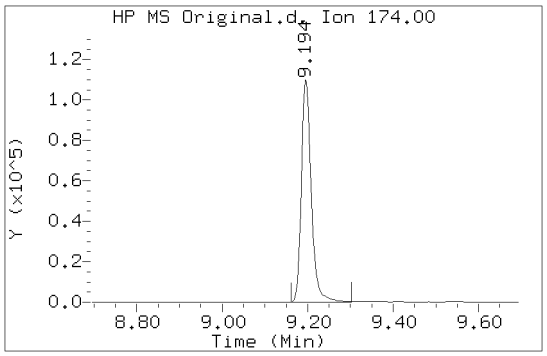
pham



AFTER

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HEIGHT
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22-Feb-2024
15:51
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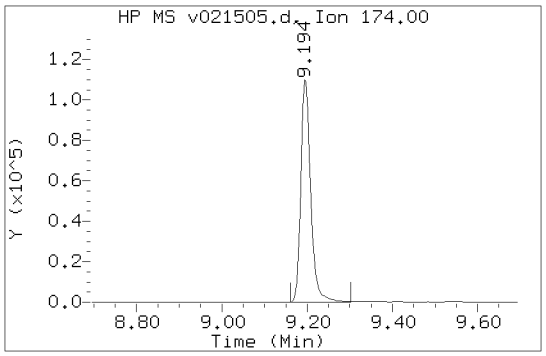

BEFORE

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HEIGHT
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22-Feb-2024
15:48
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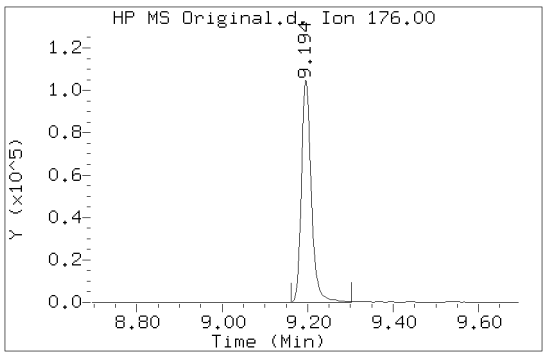
pham



AFTER

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AREA
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HEIGHT
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22-Feb-2024
15:51
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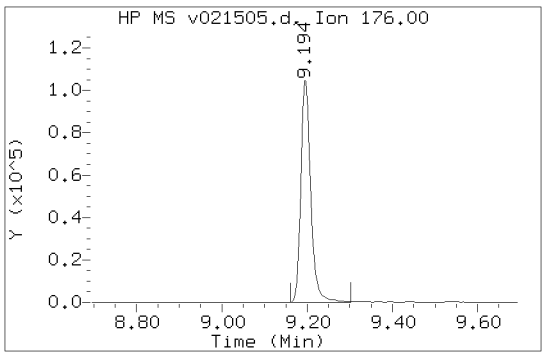
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021509.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021509.D
Lab Smp Id: HS24020577-03MS Client Smp ID: HS24020577-03MS
Inj Date : 16-FEB-2024 00:32
Operator : FT Inst ID: VOA9.i
Smp Info : HS24020577-03MS;HS24020577-03MS;3;;MS
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.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	4.823	4.819	(1.000)	276493	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.985)	171440	51.2728	51.27
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	214617	52.0758	52.07
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	452421	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	432183	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	664952	53.1636	53.16
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	242463	51.7221	51.72
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	227792	50.0000	
5 Vinyl Chloride	62	1.385	1.378	(0.287)	95124	23.4461	23.44
11 1,1-Dichloroethene	96	2.345	2.337	(0.486)	65021	23.8857	23.88
17 Methylene Chloride	84	2.802	2.795	(0.581)	79055	21.0058	21.00
18 Methyl tert-butyl ether	73	3.087	3.080	(0.640)	161249	20.3923	20.39
20 trans-1,2-Dichloroethene	96	3.068	3.061	(0.636)	73514	22.5887	22.58
27 cis-1,2-Dichloroethene	96	4.204	4.197	(0.872)	82381	22.7397	22.73
33 1,2-Dichloroethane	62	5.179	5.175	(0.933)	110807	22.7650	22.76
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	90381	20.7126	20.71
37 Benzene	78	5.145	5.141	(0.926)	316156	23.3268	23.32
38 Trichloroethene	130	5.790	5.790	(1.043)	78519	23.3521	23.35
56 Tetrachloroethene	164	7.458	7.458	(0.911)	61101	23.0400	23.04
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	62174	22.7714	22.77

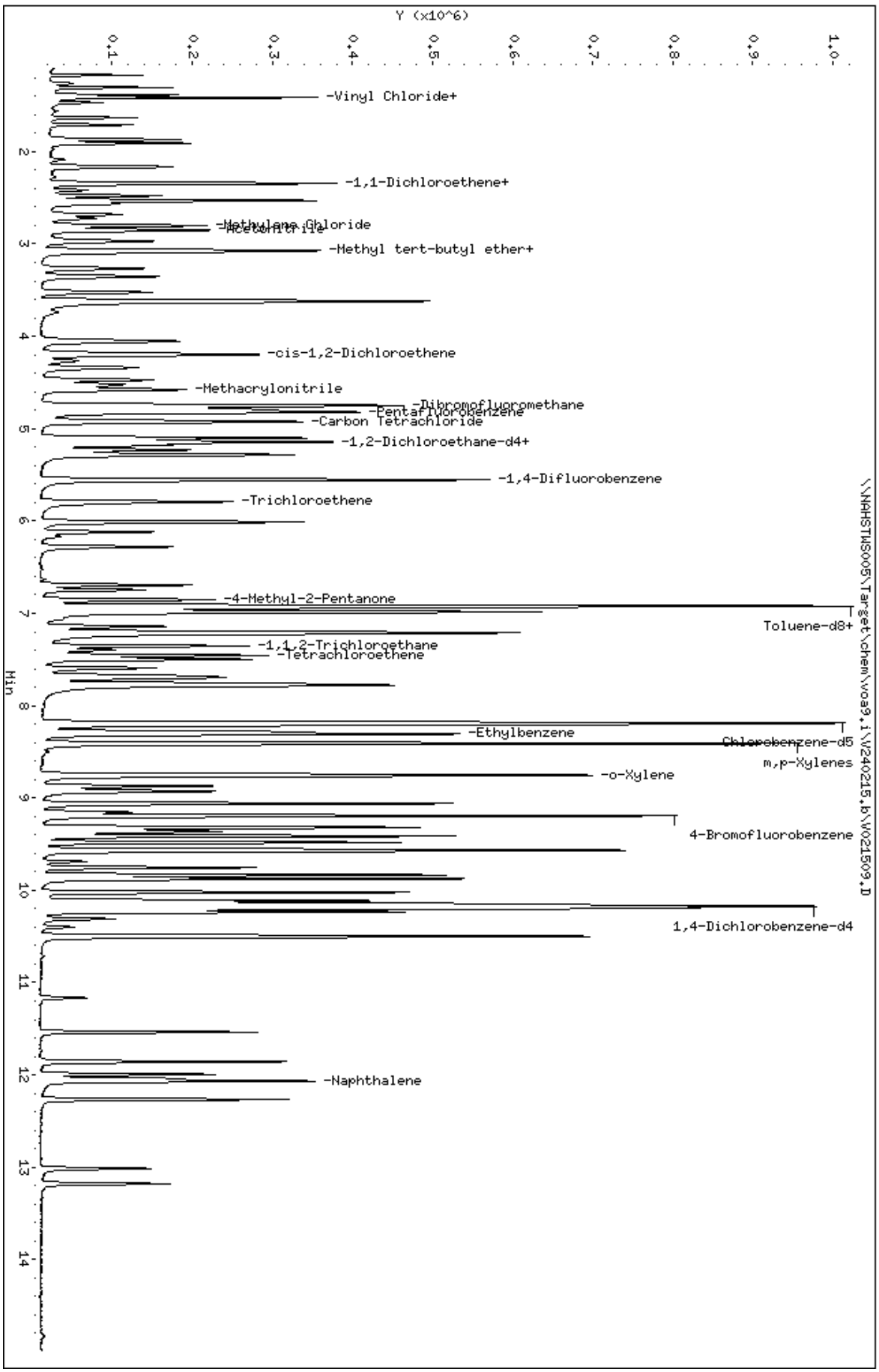
50 Toluene	91	6.982	6.982 (0.853)	332371	23.3800	23.37
61 Ethylbenzene	106	8.309	8.305 (1.015)	104981	22.8479	22.84

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021509.D Page 2
Report Date: 22-Feb-2024 15:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	62 m,p-Xylenes	106	8.410	8.406	(1.027)	268430	45.8692	45.86
	63 o-Xylene	106	8.748	8.748	(1.069)	127922	22.8495	22.84
	92 Naphthalene	128	12.065	12.065	(1.187)	235376	20.3834	20.38
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	166759	44.1948	44.19
	13 Acetonitrile	39	2.851	2.847	(0.591)	34018	244.005	244.00
	9 Acrolein	56	2.274	2.270	(0.471)	5117	38.1399	38.13
	16 Acrylonitrile	53	3.072	3.065	(0.637)	54824	41.3954	41.39
	25 Methacrylonitrile	41	4.534	4.523	(0.940)	29711	21.0070	21.00
	194 Acetaldehyde	44	1.468	1.464	(0.304)	36453	29.3048	29.30(M)
M	95 Xylenes (total)	106				396352	51.7630	51.76
M	94 1,2-Dichloroethylene (total)	96				155895	30.9829	30.98

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9.i\W240215.b\W021509.D
Date : 16-FEB-2024 00:32
Client ID: HS24020577-03MS
Sample Info: HS24020577-03MS;HS24020577-03MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

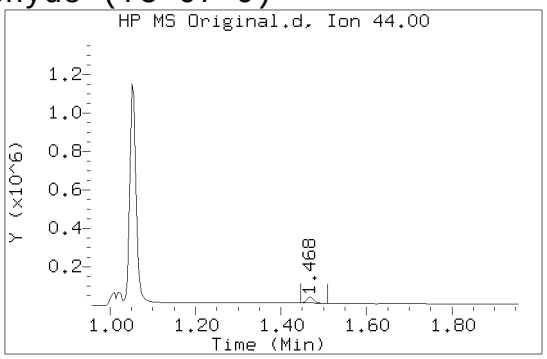
Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021509.D
Inj Date : 16-FEB-2024 00:32
InstruID : VOA9.i
LabSampID : HS24020577-03MS

Acetaldehyde (75-07-0)

Reason Code:

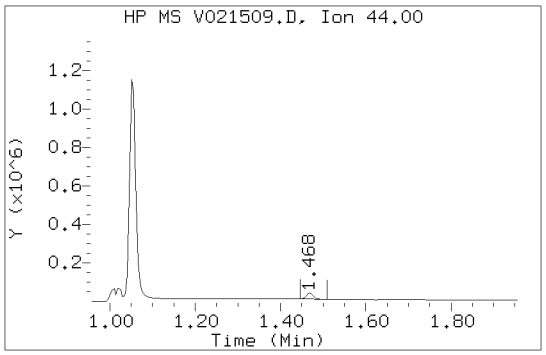
BEFORE

MASS
44
AREA
36453
HEIGHT
31698
22-Feb-2024
15:48
linh
pham



AFTER

MASS
44
AREA
36453
HEIGHT
31698
22-Feb-2024
15:48
linh
pham



BEFORE

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22-Feb-2024
15:48
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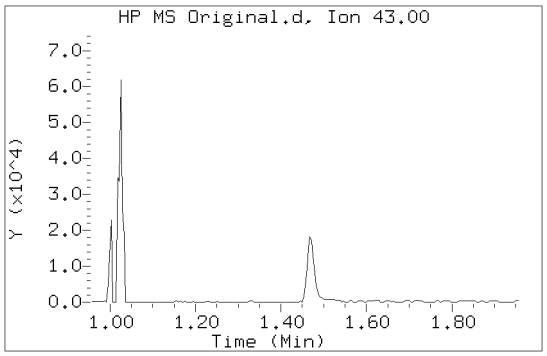
pham



AFTER

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AREA
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HEIGHT
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22-Feb-2024
15:48
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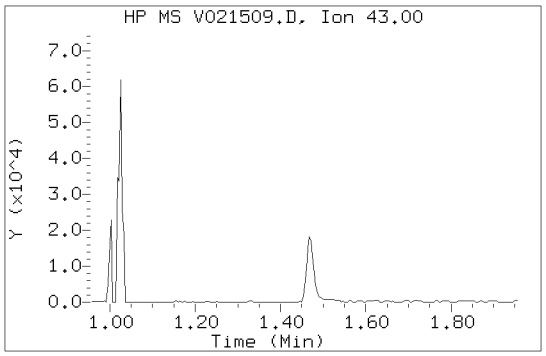

BEFORE

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22-Feb-2024
15:48
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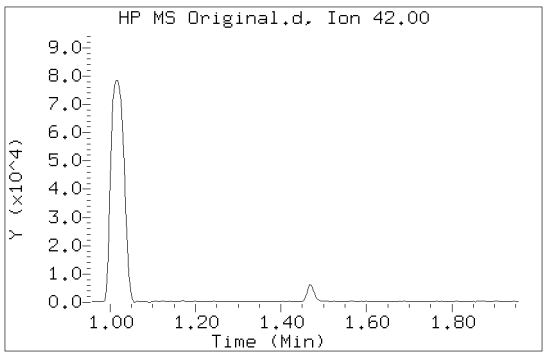

AFTER

MASS
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AREA
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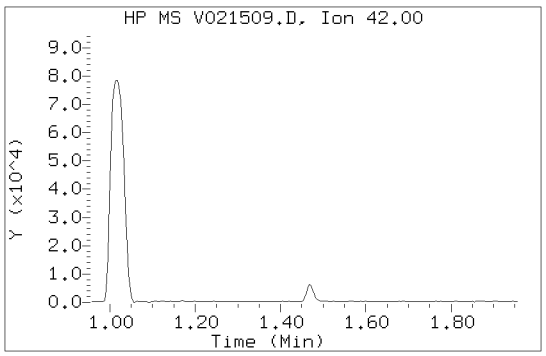
HEIGHT
0
22-Feb-2024
15:48
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021510.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021510.D
Lab Smp Id: HS24020577-03MSD Client Smp ID: HS24020577-03MSD
Inj Date : 16-FEB-2024 00:54
Operator : FT Inst ID: VOA9.i
Smp Info : HS24020577-03MSD;HS24020577-03MSD;3;;MSD
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 22 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.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	4.819	4.819	(1.000)	267758	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	169380	52.2536	52.25
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	211551	52.9557	52.95
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	445359	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	421790	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	650961	53.3164	53.31
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	233517	51.0809	51.08
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	217514	50.0000	
5 Vinyl Chloride	62	1.381	1.378	(0.287)	91811	23.3637	23.36
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	63496	24.0988	24.09
17 Methylene Chloride	84	2.798	2.795	(0.581)	76134	20.8744	20.87
18 Methyl tert-butyl ether	73	3.083	3.080	(0.640)	166450	21.8087	21.80
20 trans-1,2-Dichloroethene	96	3.064	3.061	(0.636)	69366	21.9813	21.98
27 cis-1,2-Dichloroethene	96	4.200	4.197	(0.872)	79713	22.7202	22.72
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	109714	22.9054	22.90
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	86790	20.1976	20.19
37 Benzene	78	5.141	5.141	(0.926)	306993	22.9978	22.99
38 Trichloroethene	130	5.790	5.790	(1.043)	74163	22.3690	22.36
56 Tetrachloroethene	164	7.458	7.458	(0.911)	60088	23.2252	23.22
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	60916	22.8645	22.86

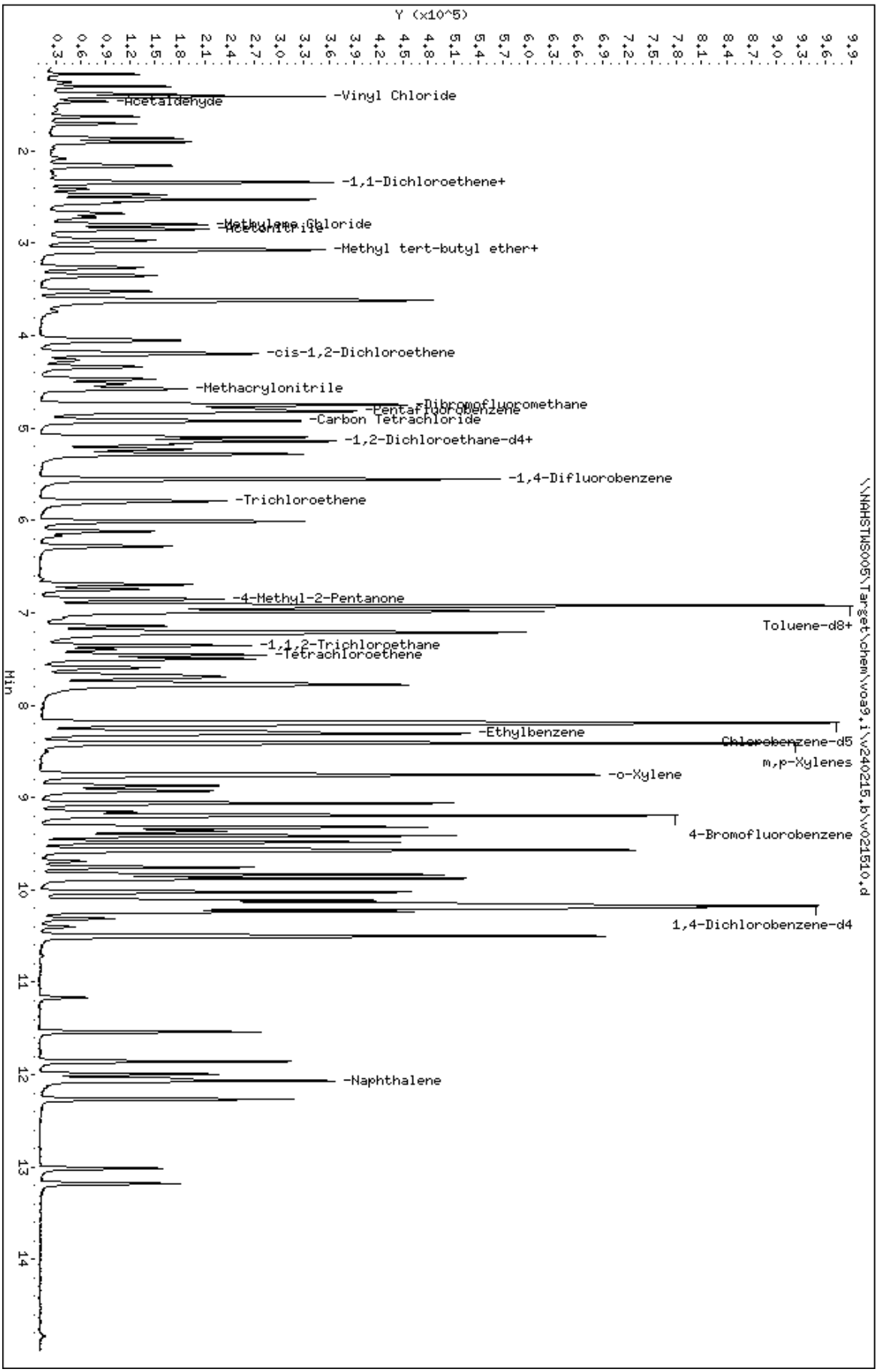
50 Toluene	91	6.982	6.982 (0.853)	327058	23.5783	23.57
61 Ethylbenzene	106	8.309	8.305 (1.015)	103454	23.0767	23.07

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021510.D Page 2
Report Date: 22-Feb-2024 15:49

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	62 m,p-Xylenes	106	8.410	8.406	(1.027)	263892	46.2117	46.21
	63 o-Xylene	106	8.748	8.748	(1.069)	124177	22.7253	22.72
	92 Naphthalene	128	12.065	12.065	(1.187)	238299	21.5945	21.59
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	166219	45.1427	45.14
	13 Acetonitrile	39	2.847	2.847	(0.591)	32205	238.190	238.18
	9 Acrolein	56	2.266	2.270	(0.470)	4900	37.6894	37.68
	16 Acrylonitrile	53	3.068	3.065	(0.637)	54457	42.5233	42.52
	25 Methacrylonitrile	41	4.534	4.523	(0.941)	27781	20.2396	20.23
	194 Acetaldehyde	44	1.464	1.464	(0.304)	39213	33.7479	33.74(M)
M	95 Xylenes (total)	106				388069	51.4848	51.48
M	94 1,2-Dichloroethylene (total)	96				149079	30.5948	30.59

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9,i\v240215,b\v021510,d
Date : 16-FEB-2024 00:54
Client ID: HS24020577-03MSD
Sample Info: HS24020577-03MSD;HS24020577-03MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\v021510.d
Inj Date : 16-FEB-2024 00:54
InstruID : VOA9.i
LabSampID : HS24020577-03MSD

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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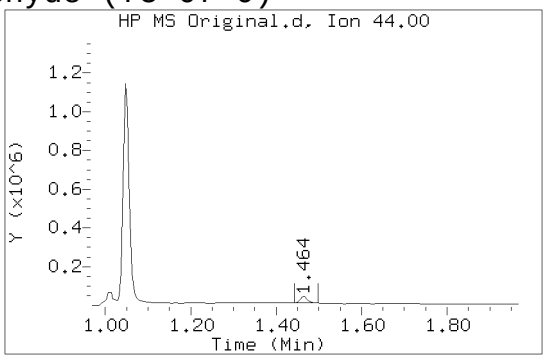
33162
22-Feb-2024
15:48
linh
pham



AFTER

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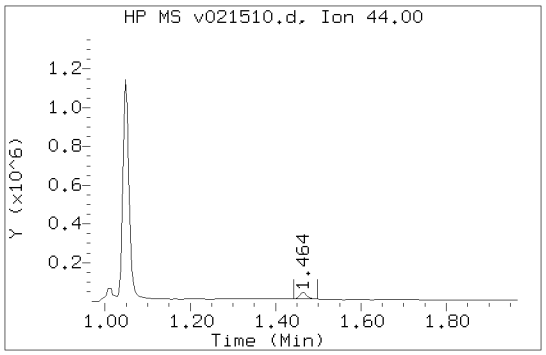

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22-Feb-2024
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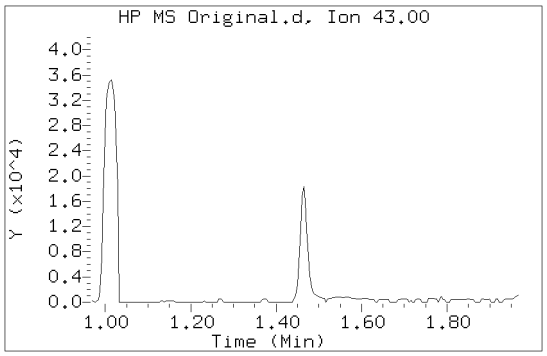

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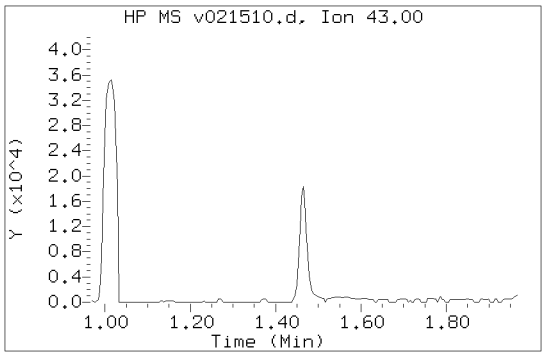

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22-Feb-2024
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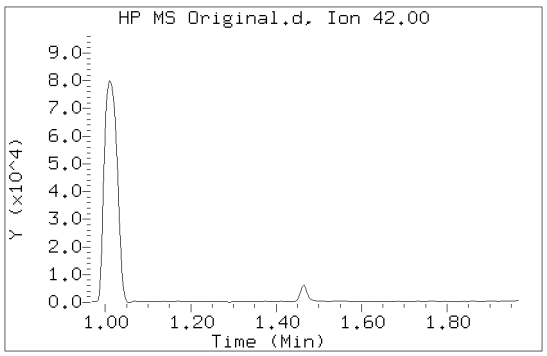

AFTER

MASS
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22-Feb-2024
15:51
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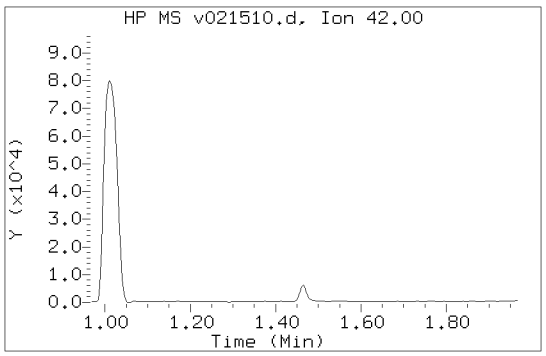


Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021523.D Page 1
Report Date: 22-Feb-2024 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021523.D
Lab Smp Id: HS24020576-01
Inj Date : 16-FEB-2024 05:42
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-01
Misc Info : V9;WATER;0;25;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 35
Dil Factor: 25.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

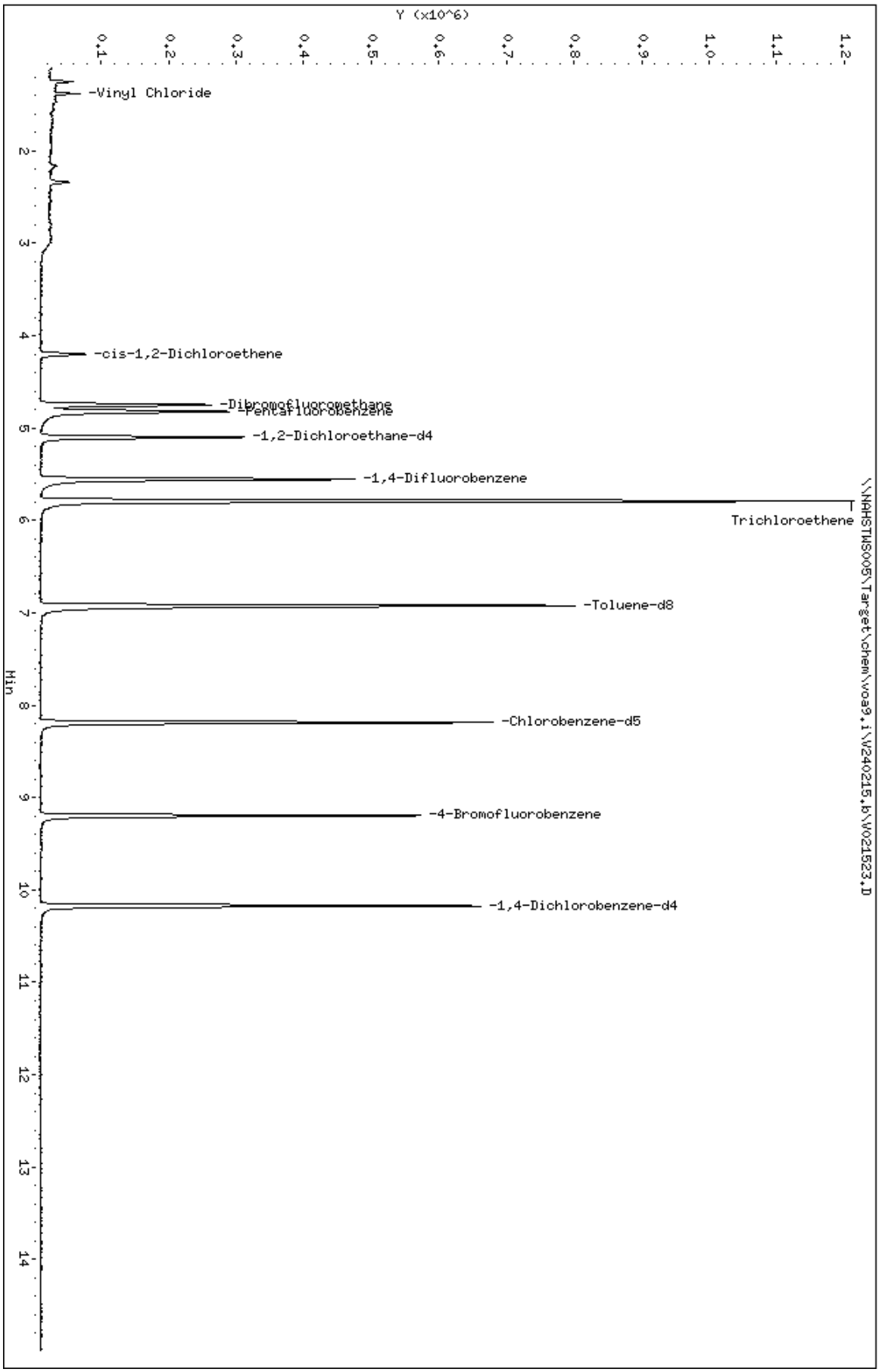
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	224041	50.0000	
$	30 Dibromofluoromethane	113	4.748	4.748	(0.985)	154414	56.6350	56.63
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	197867	58.7771	58.77(M)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	403323	50.0000	
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	376488	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	554352	51.0212	51.02
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	182951	45.1275	45.12
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	168935	50.0000	
	5 Vinyl Chloride	62	1.378	1.378	(0.286)	23322	5.73002	143.25
	27 cis-1,2-Dichloroethene	96	4.201	4.197	(0.872)	32446	10.2647	256.61
	38 Trichloroethene	130	5.790	5.790	(1.043)	391178	112.967	2824.18
M	94 1,2-Dichloroethylene (total)	96				32446	7.95807	198.95(a)

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\V240215,b\V021523.D
Date : 16-FEB-2024 05:42
Client ID:
Sample Info: HS24020576-01
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021523.D Page 2

Date : 16-FEB-2024 05:42

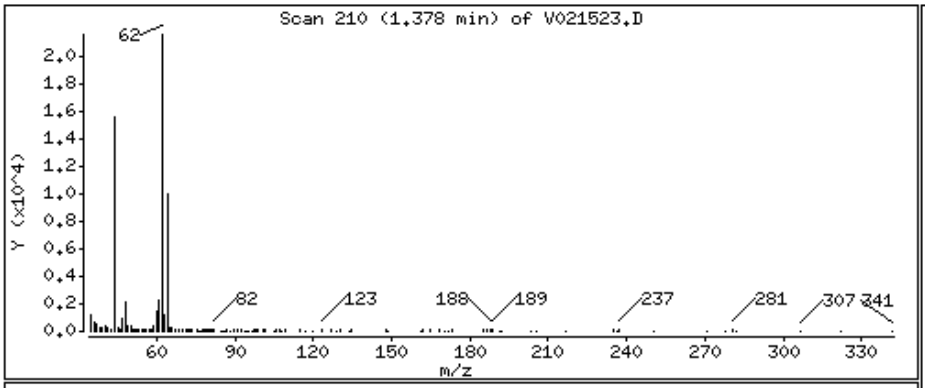
Client ID: Instrument: VOA9.i

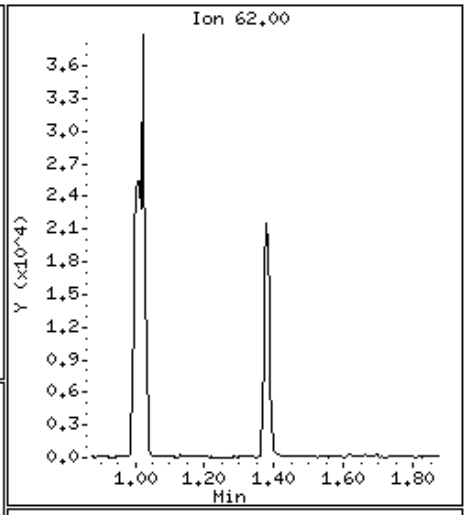
Sample Info: HS24020576-01

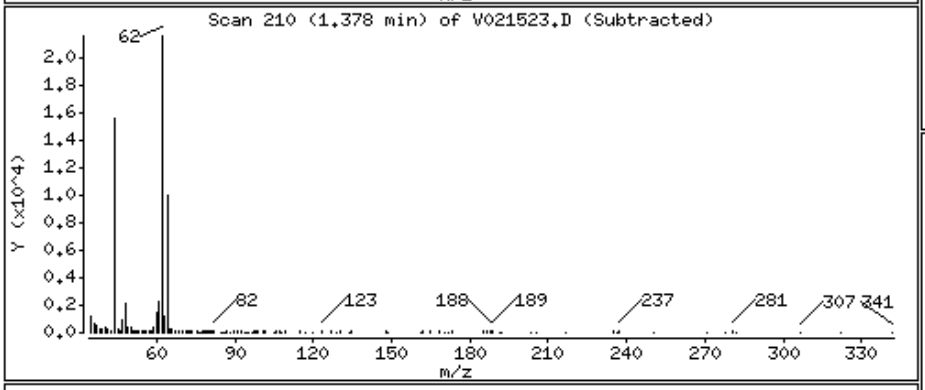
Purge Volume: 5.0 Operator: FT

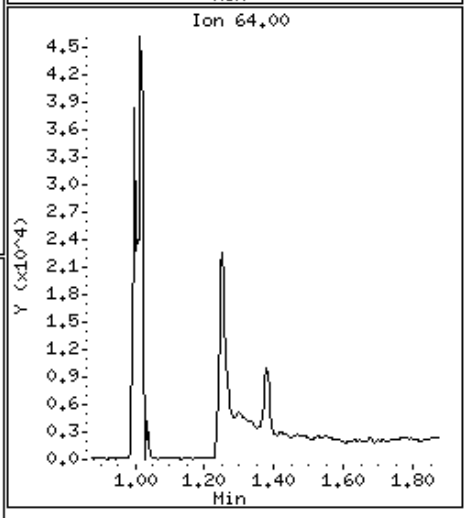
Column phase: DB624 Column diameter: 0.18

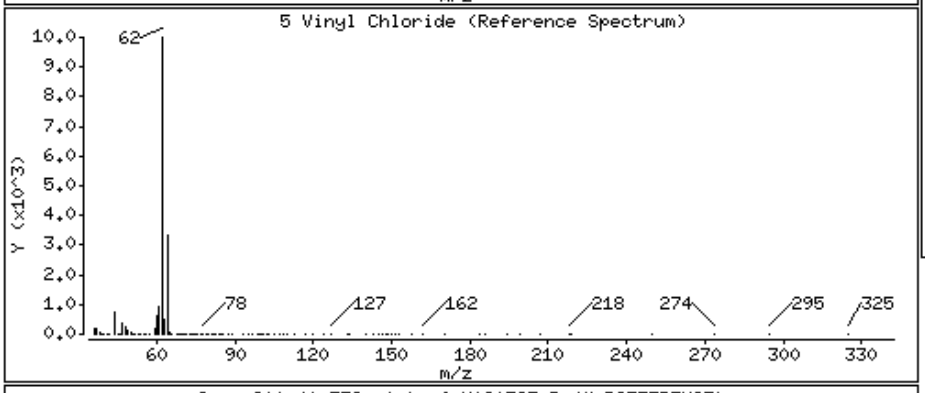
5 Vinyl Chloride Concentration: 143.25 ug/l

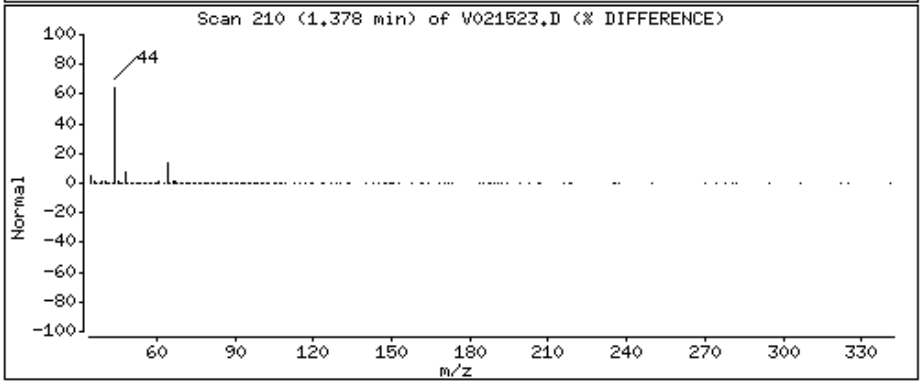












Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021523.D Page 3

Date : 16-FEB-2024 05:42

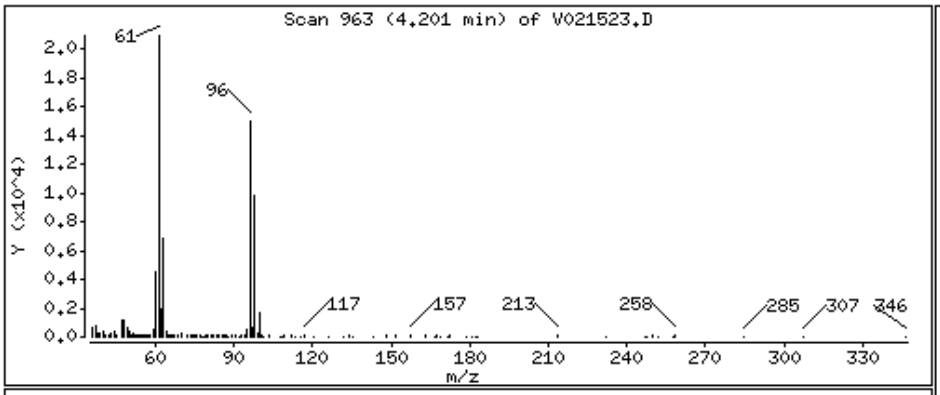
Client ID: Instrument: VOA9.i

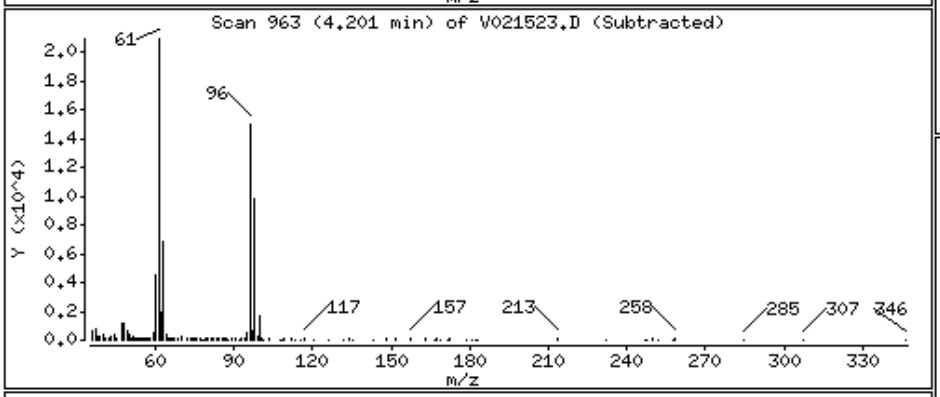
Sample Info: HS24020576-01

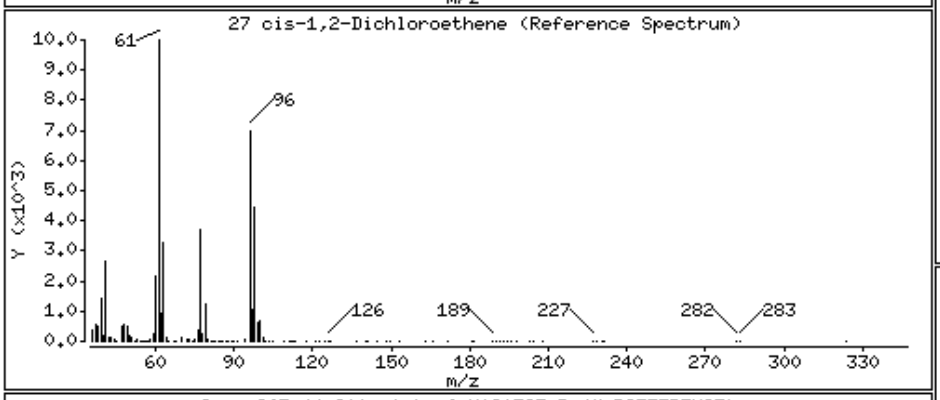
Purge Volume: 5.0 Operator: FT

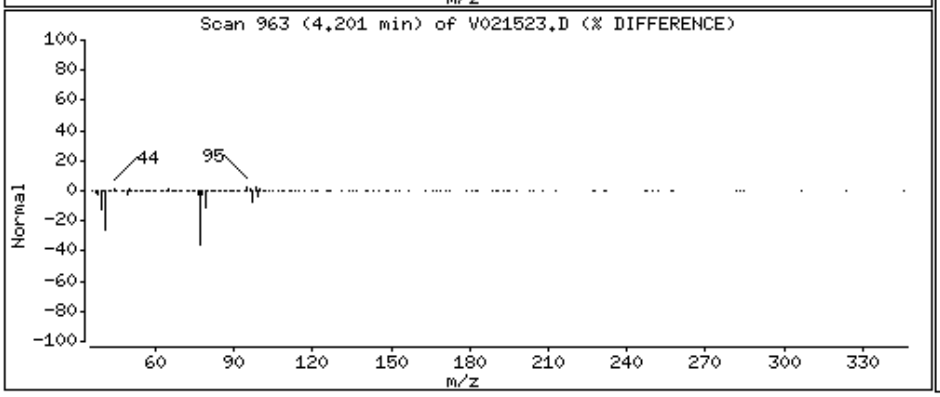
Column phase: DB624 Column diameter: 0.18

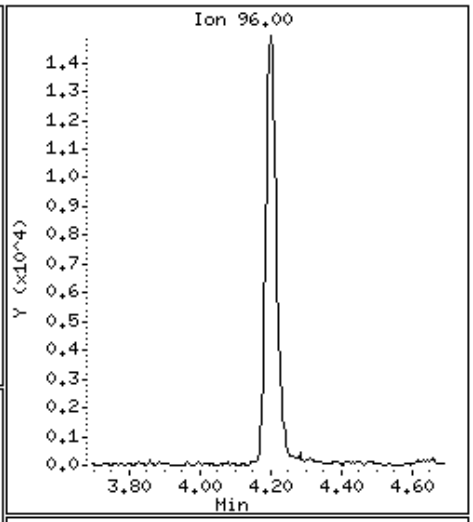
27 cis-1,2-Dichloroethene Concentration: 256.61 ug/l

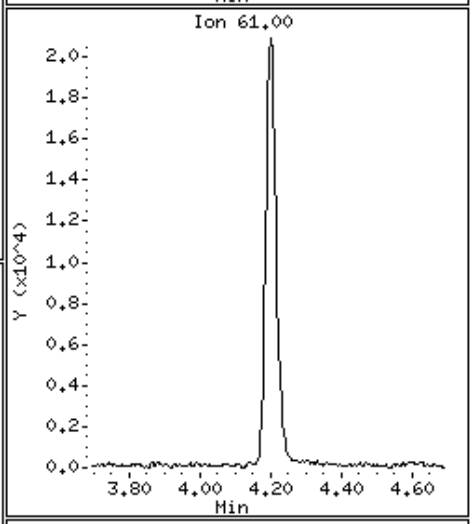


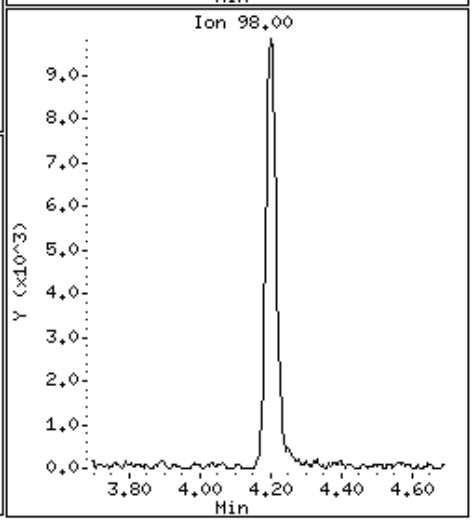












Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021523.D Page 4

Date : 16-FEB-2024 05:42

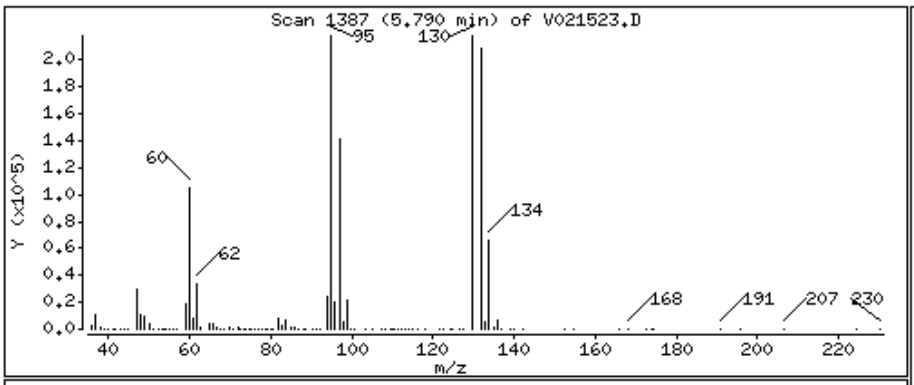
Client ID: Instrument: VOA9.i

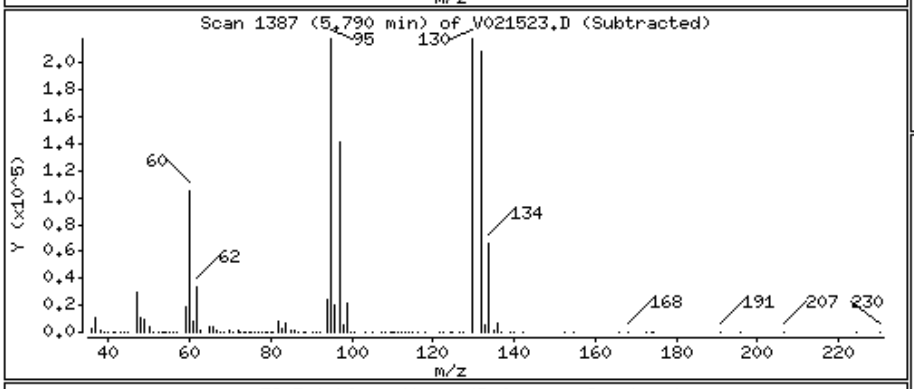
Sample Info: HS24020576-01

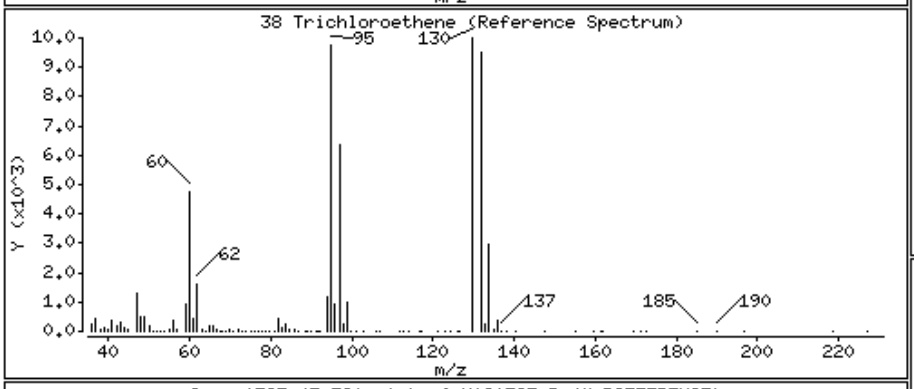
Purge Volume: 5.0 Operator: FT

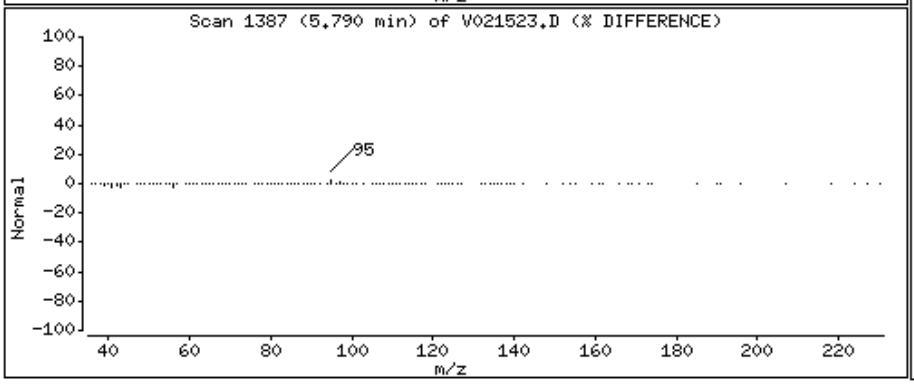
Column phase: DB624 Column diameter: 0.18

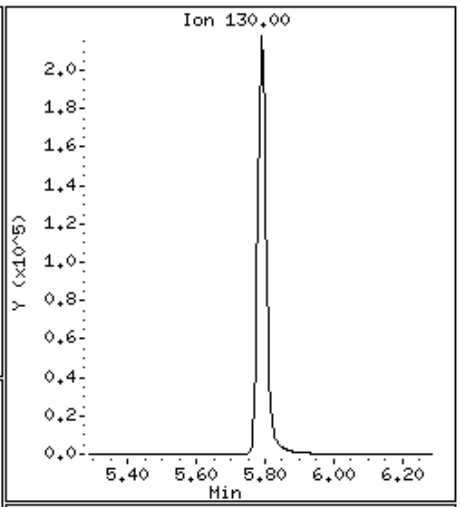
38 Trichloroethene Concentration: 2824.18 ug/l

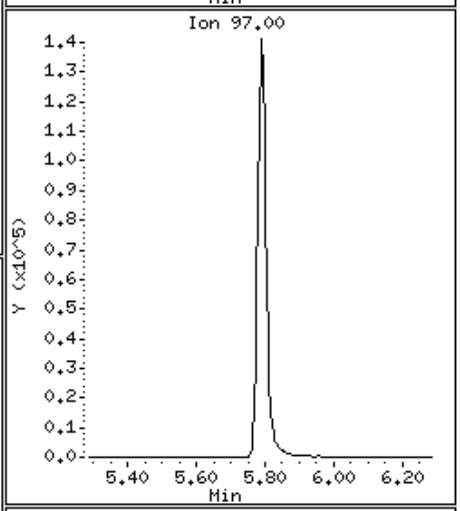


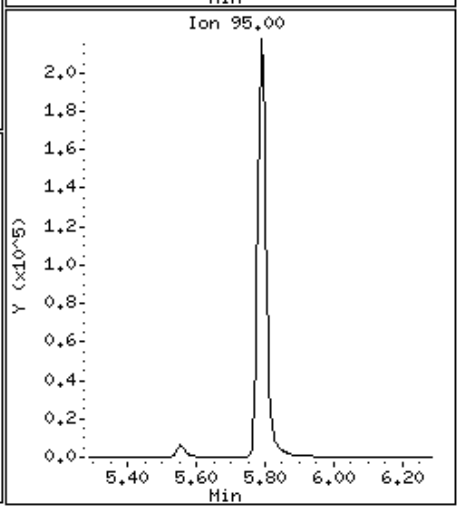












Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021523.D
Inj Date : 16-FEB-2024 05:42
InstruID : VOA9.i
LabSampID : HS24020576-01

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

BEFORE

MASS
65
AREA
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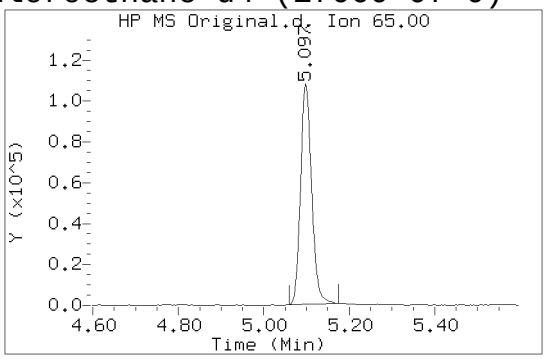
HEIGHT
108036
22-Feb-2024
15:48
linh
pham



AFTER

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22-Feb-2024
15:48
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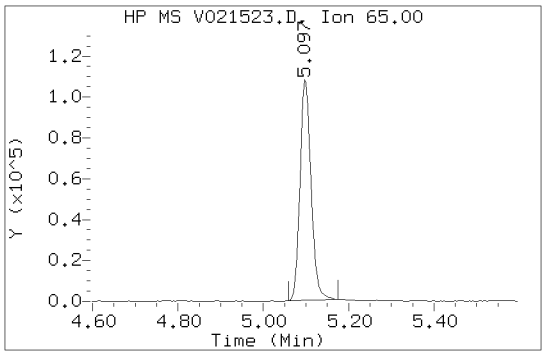

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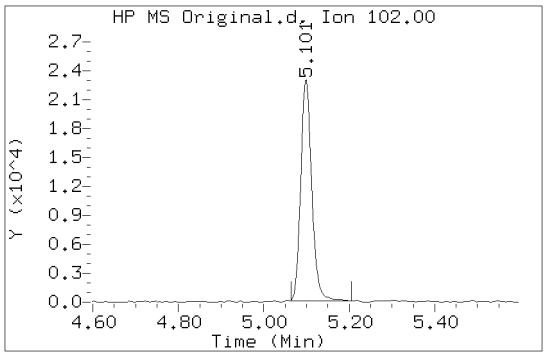

AFTER

MASS
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15:48
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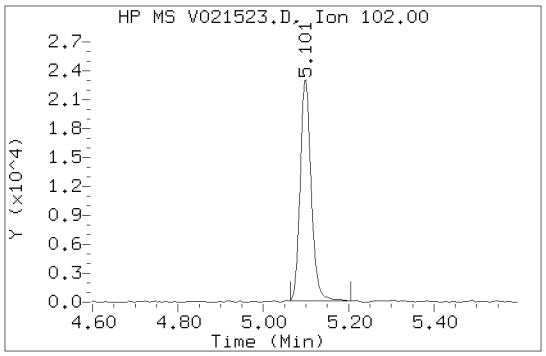


Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021524.D Page 1
Report Date: 22-Feb-2024 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021524.D
Lab Smp Id: HS24020576-02
Inj Date : 16-FEB-2024 06:04
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-02
Misc Info : V9;WATER;0;20;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 36
Dil Factor: 20.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

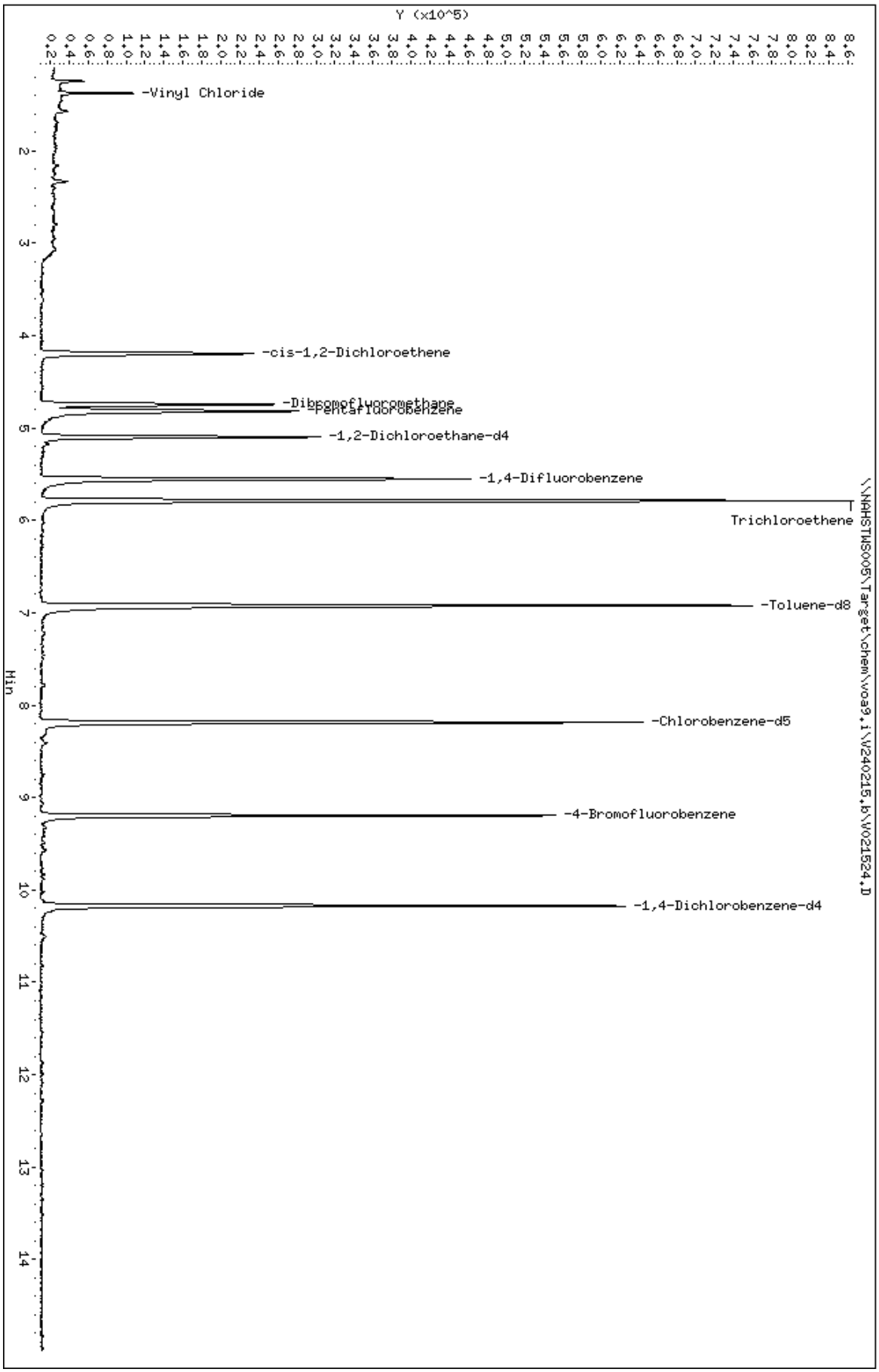
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	20.000	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	4.815	4.819	(1.000)	214719	50.0000	
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	147020	56.2889	56.28
$	35 1,2-Dichloroethane-d4	65	5.093	5.096	(1.058)	190391	58.9947	58.99(M)
*	36 1,4-Difluorobenzene	114	5.550	5.554	(1.000)	385148	50.0000	
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	358544	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	516300	49.9639	49.96
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	171774	44.5170	44.51
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	162108	50.0000	
	5 Vinyl Chloride	62	1.374	1.378	(0.285)	49855	15.3172	306.34
	27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.872)	108652	38.8662	777.32
	38 Trichloroethene	130	5.786	5.790	(1.043)	274592	88.7665	1775.32
M	94 1,2-Dichloroethylene (total)	96				108652	27.8062	556.12

QC Flag Legend

M - Compound response manually integrated.



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Date : 16-FEB-2024 06:04
Client ID:
Sample Info: HS24020576-02
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021524.D Page 2

Date : 16-FEB-2024 06:04

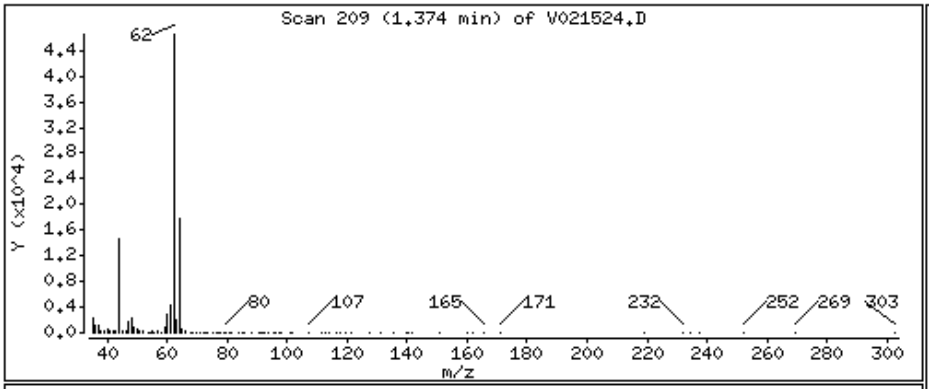
Client ID: Instrument: VOA9.i

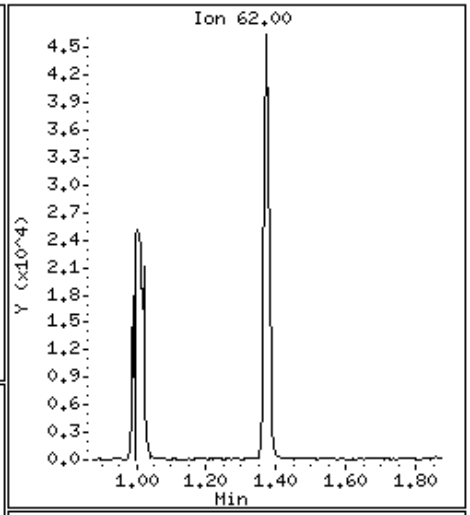
Sample Info: HS24020576-02

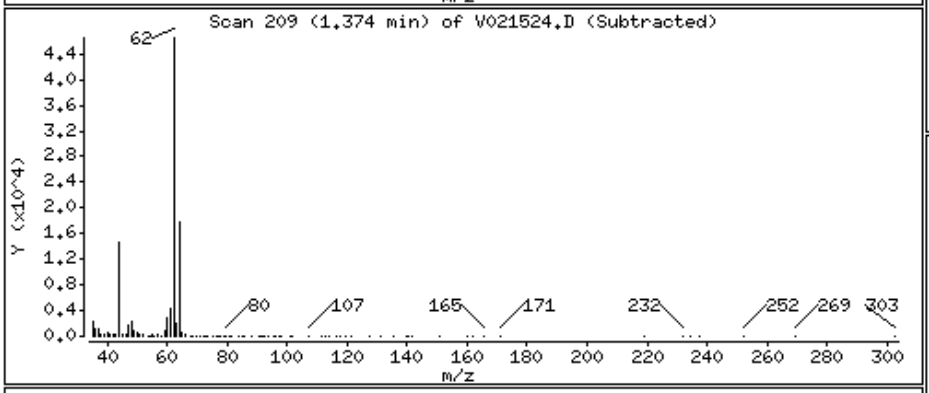
Purge Volume: 5.0 Operator: FT

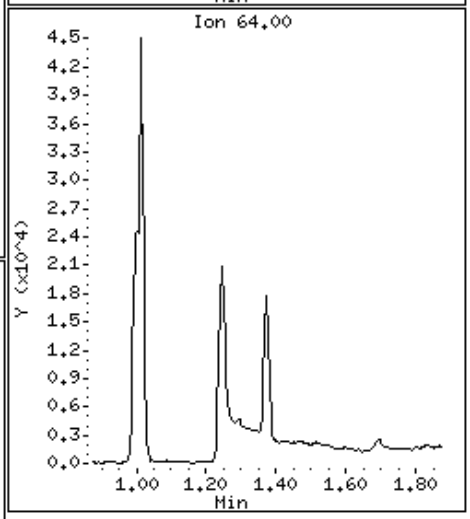
Column phase: DB624 Column diameter: 0.18

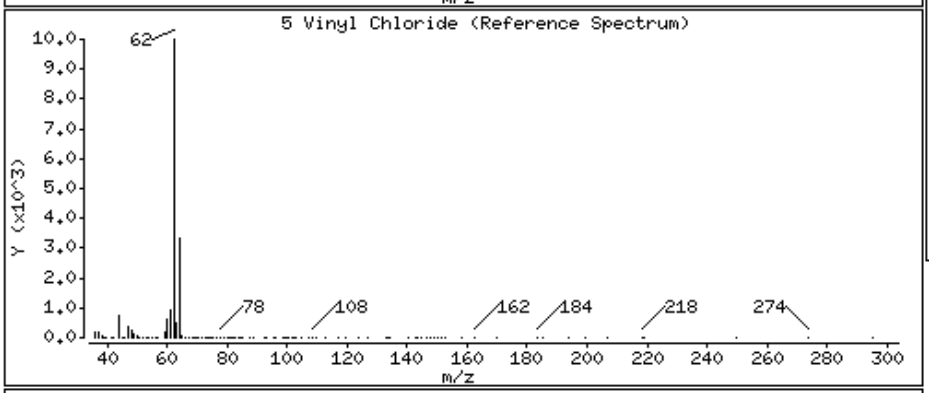
5 Vinyl Chloride Concentration: 306.34 ug/l

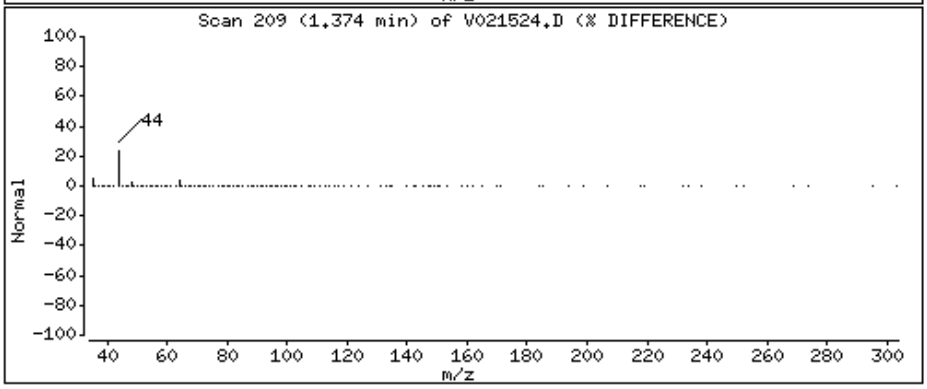












Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021524.D Page 3

Date : 16-FEB-2024 06:04

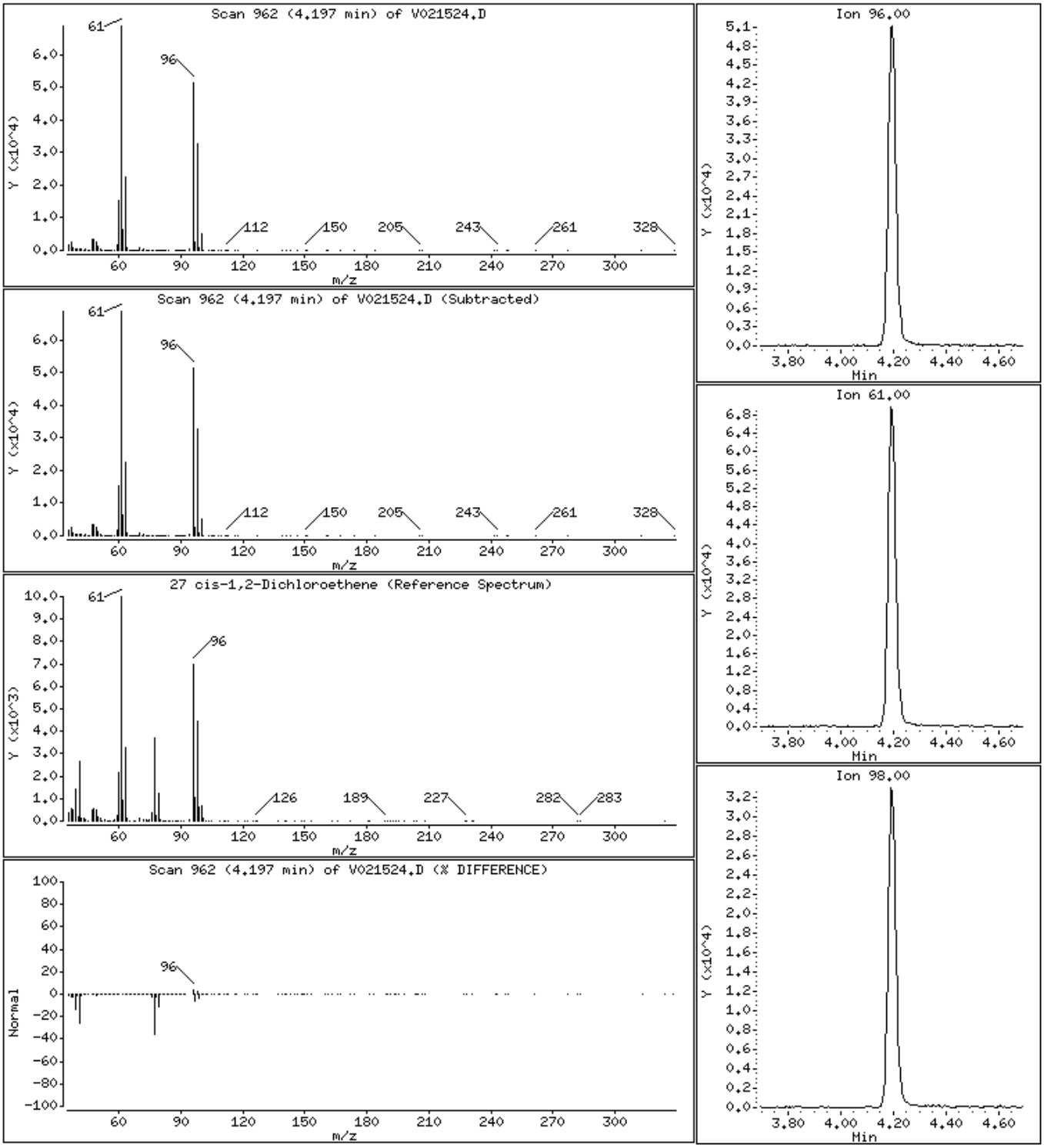
Client ID: Instrument: VOA9.i

Sample Info: HS24020576-02

Purge Volume: 5.0 Operator: FT

Column phase: DB624 Column diameter: 0.18

27 cis-1,2-Dichloroethene Concentration: 777.32 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021524.D Page 4

Date : 16-FEB-2024 06:04

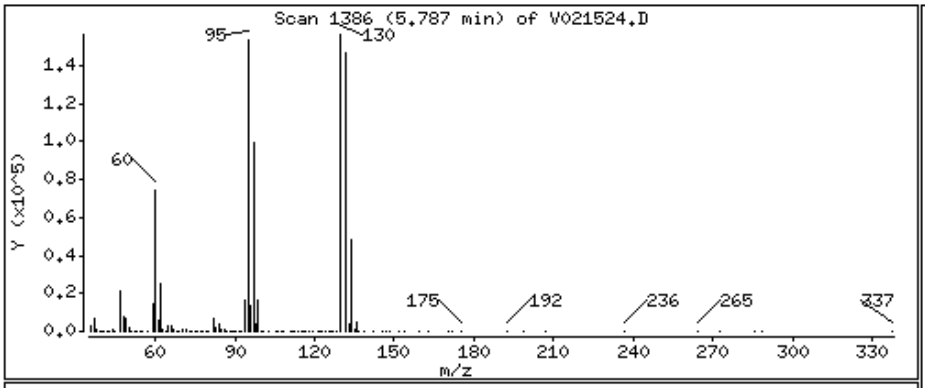
Client ID: Instrument: VOA9.i

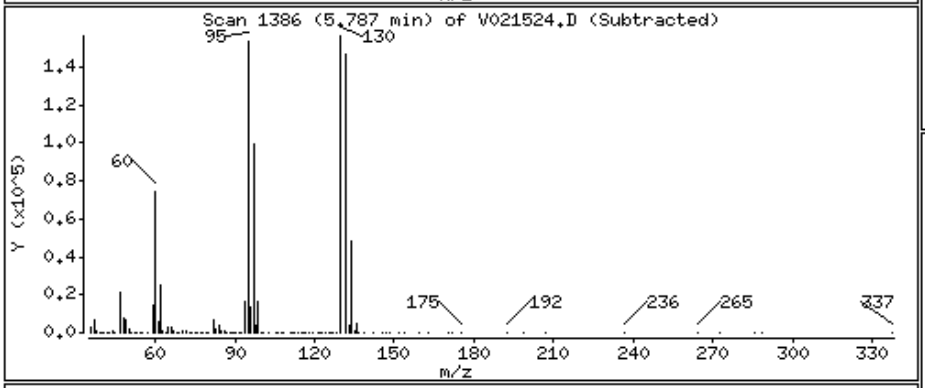
Sample Info: HS24020576-02

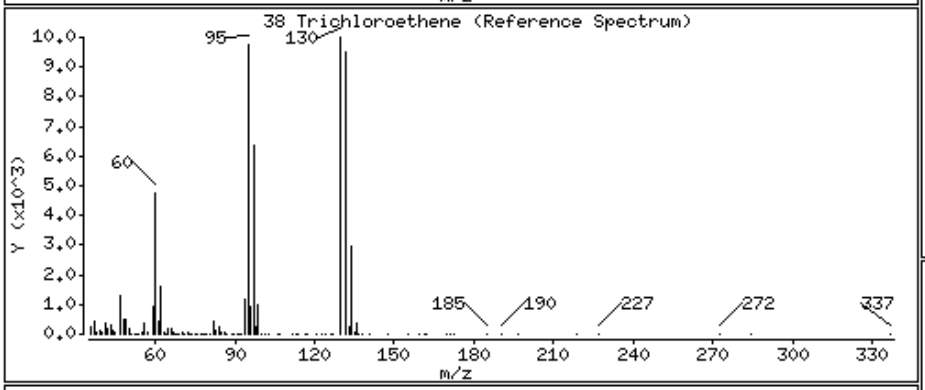
Purge Volume: 5.0 Operator: FT

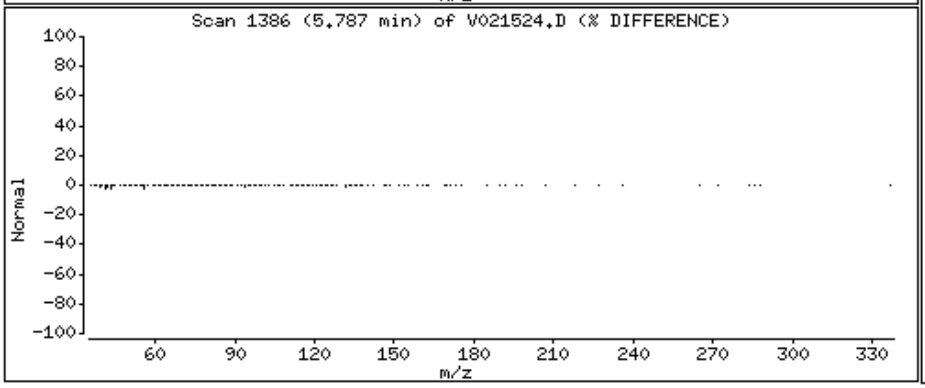
Column phase: DB624 Column diameter: 0.18

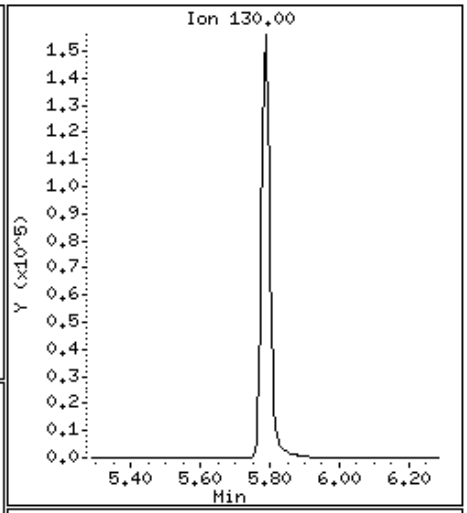
38 Trichloroethene Concentration: 1775.32 ug/l

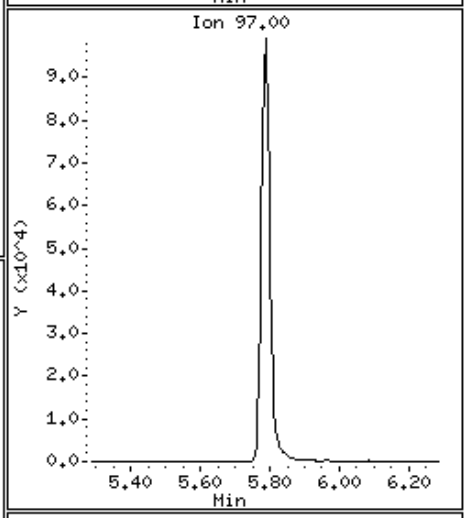


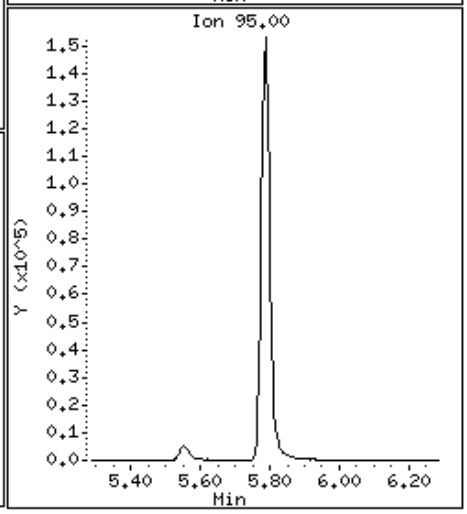












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Inj Date : 16-FEB-2024 06:04
InstruID : VOA9.i
LabSampID : HS24020576-02

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

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22-Feb-2024
15:48
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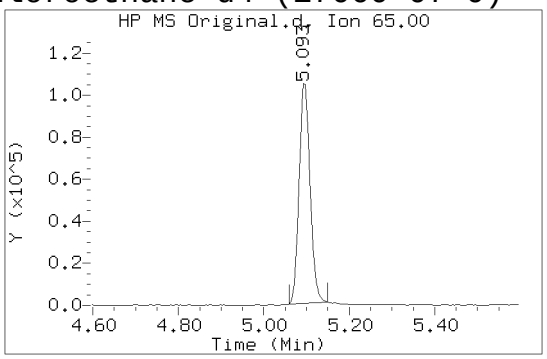

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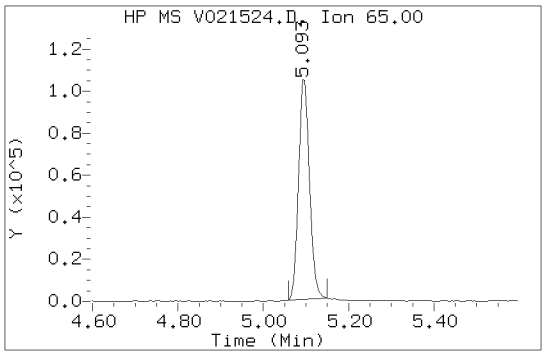

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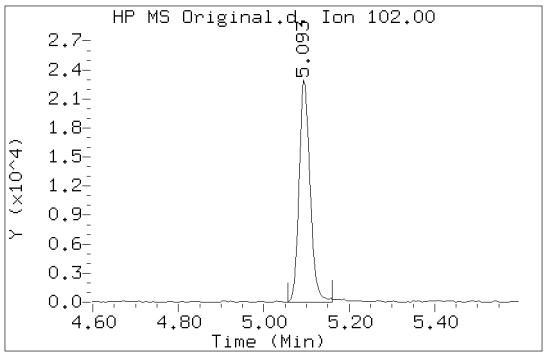

AFTER

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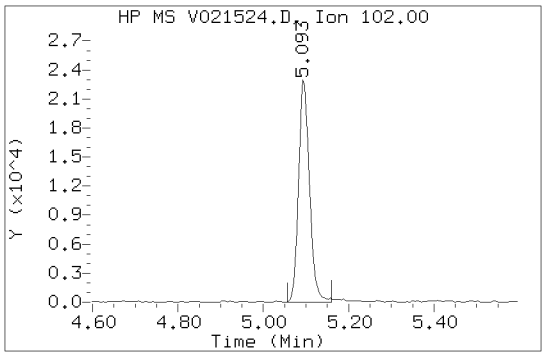


Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021525.D Page 1
Report Date: 22-Feb-2024 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021525.D
Lab Smp Id: HS24020576-05
Inj Date : 16-FEB-2024 06:26
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-05
Misc Info : V9;WATER;0;5;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 37
Dil Factor: 5.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

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

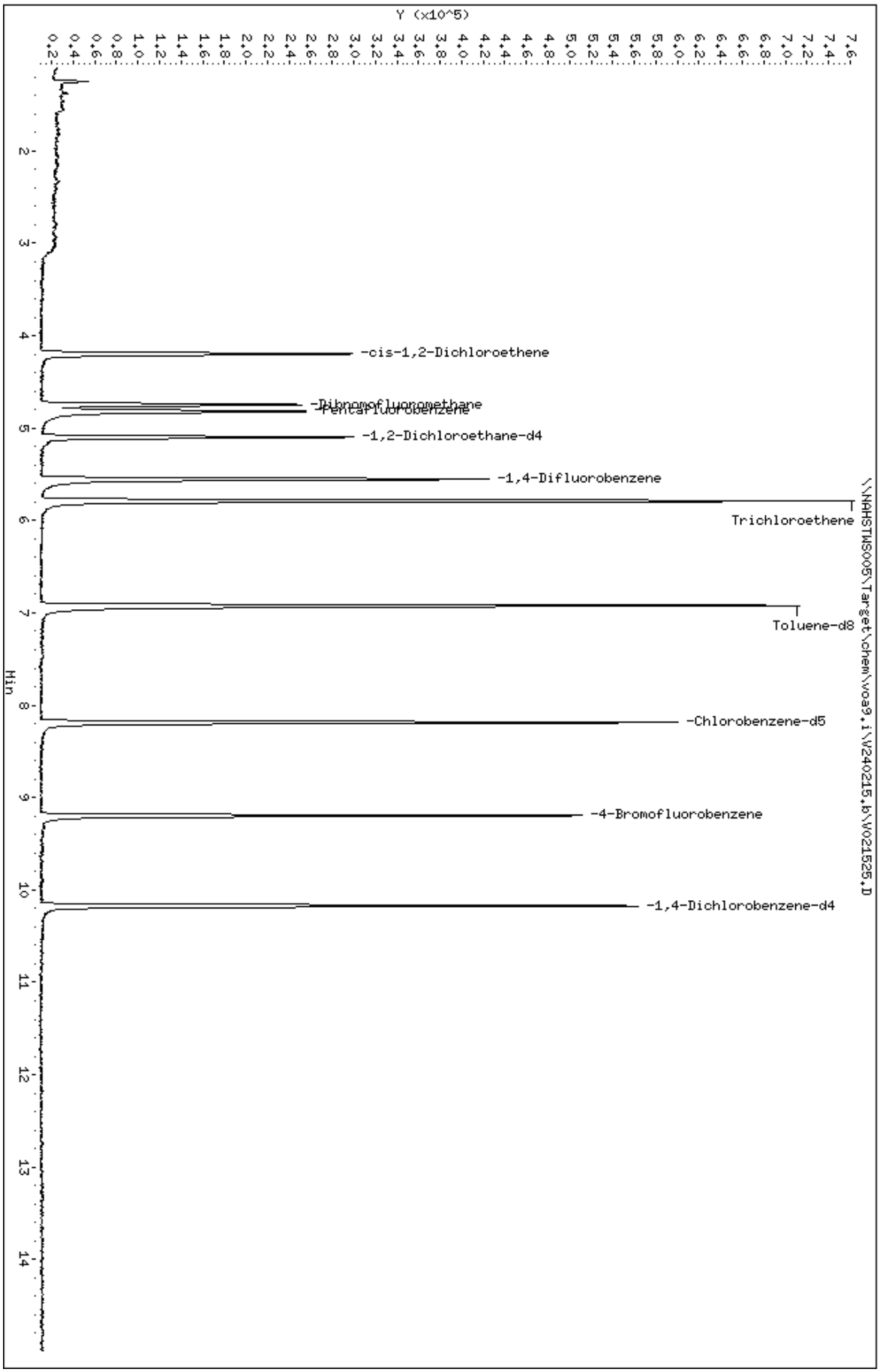
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.819	4.819	(1.000)	202934	50.0000	
$	30 Dibromofluoromethane	113	4.748	4.748	(0.985)	146035	58.9525	58.95
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	176803	58.0386	58.03(M)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	357267	50.0000	
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	332478	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	483748	50.4530	50.45
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	163991	45.7760	45.77
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	147003	50.0000	
	27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.871)	138336	51.7415	258.70
	38 Trichloroethene	130	5.790	5.790	(1.043)	243879	85.6136	428.06
M	94 1,2-Dichloroethylene (total)	96				138336	37.4588	187.29

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021525.D
Date : 16-FEB-2024 06:26
Client ID:
Sample Info: HS24020576-05
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021525.D Page 2

Date : 16-FEB-2024 06:26

Client ID:

Instrument: VOA9.i

Sample Info: HS24020576-05

Purge Volume: 5.0

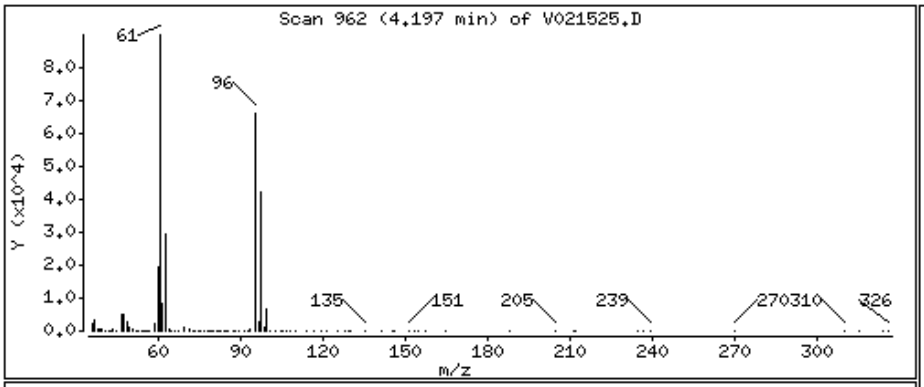
Operator: FT

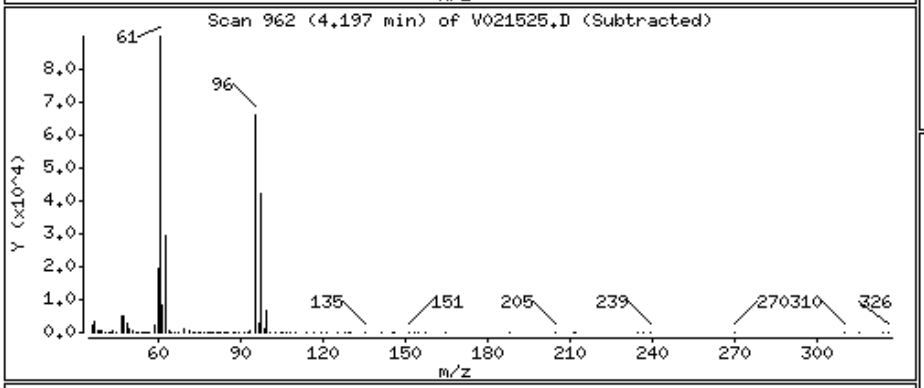
Column phase: DB624

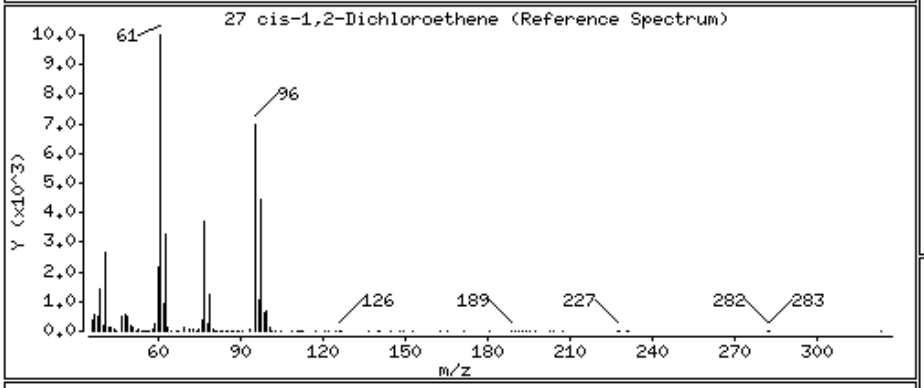
Column diameter: 0.18

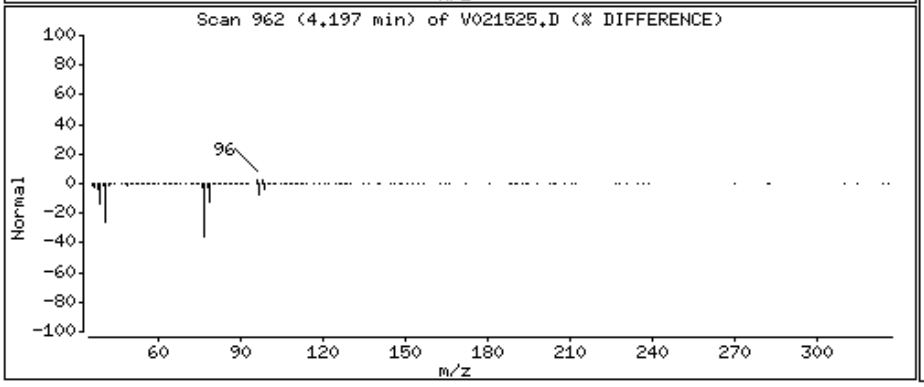
27 cis-1,2-Dichloroethene

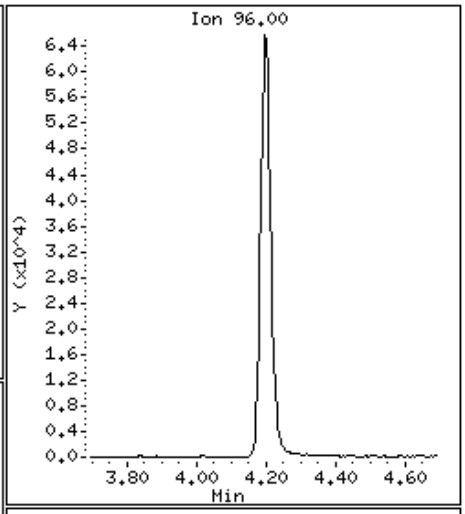
Concentration: 258.70 ug/l

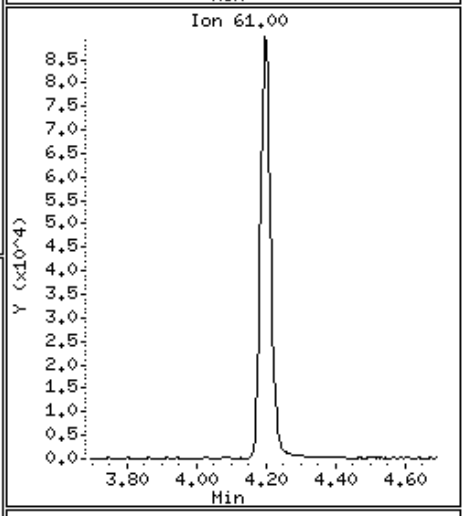


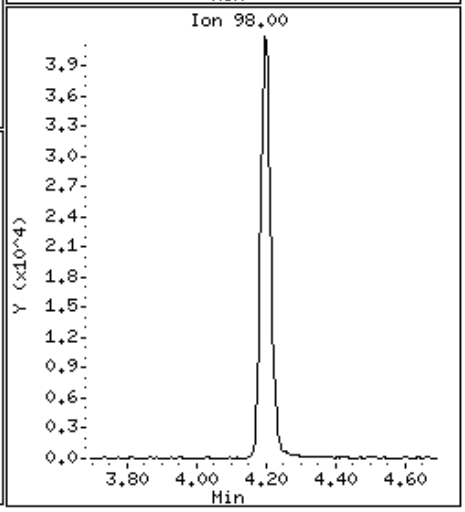












Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021525.D Page 3

Date : 16-FEB-2024 06:26

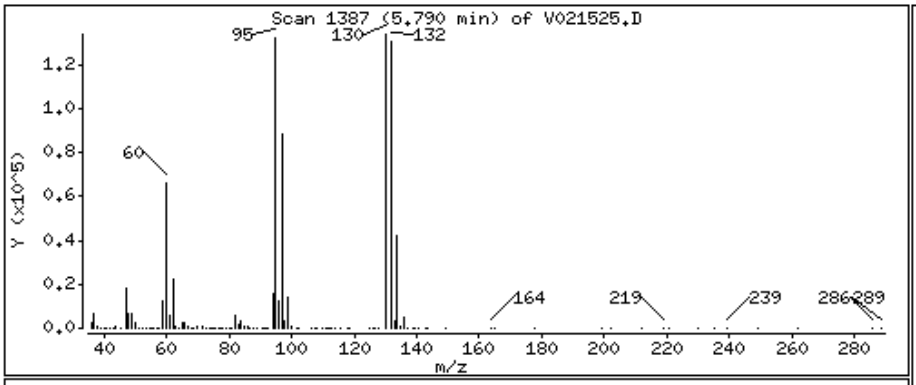
Client ID: Instrument: VOA9.i

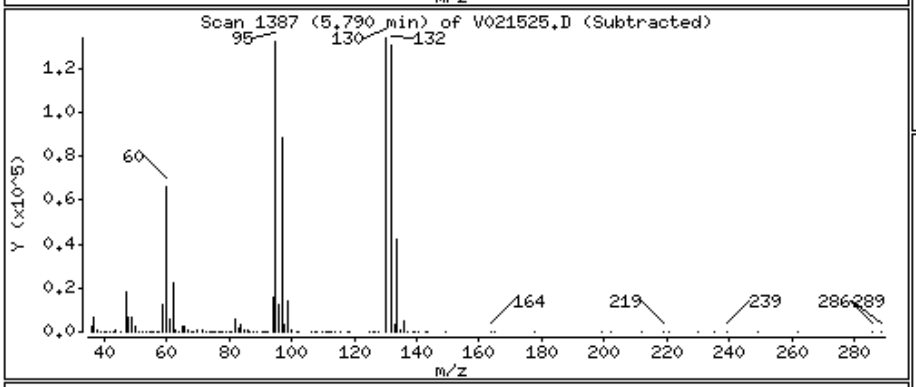
Sample Info: HS24020576-05

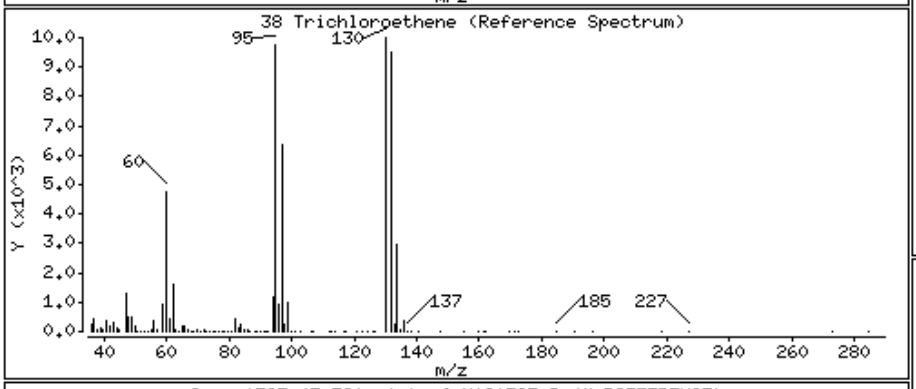
Purge Volume: 5.0 Operator: FT

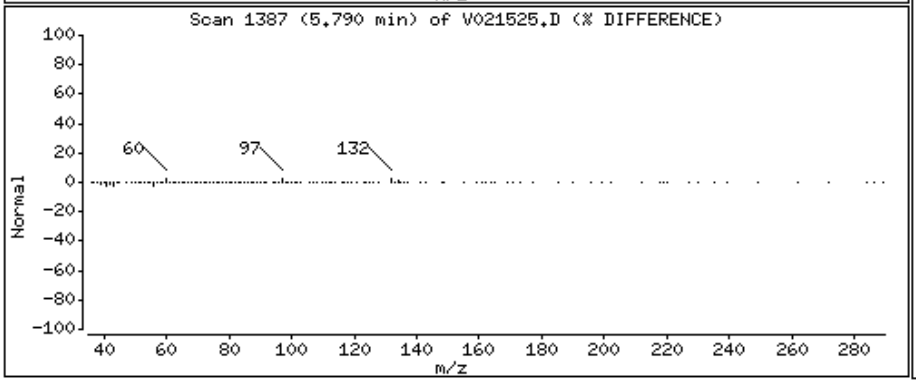
Column phase: DB624 Column diameter: 0.18

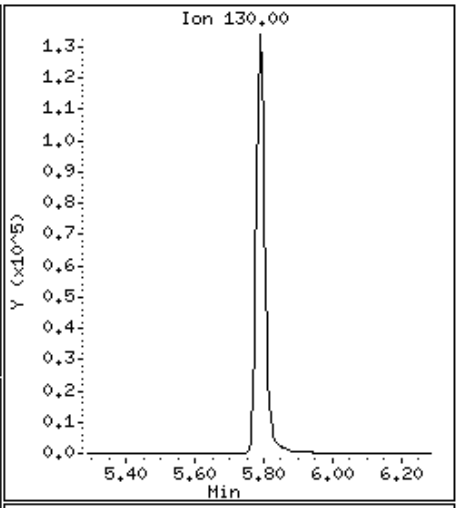
38 Trichloroethene Concentration: 428.06 ug/l

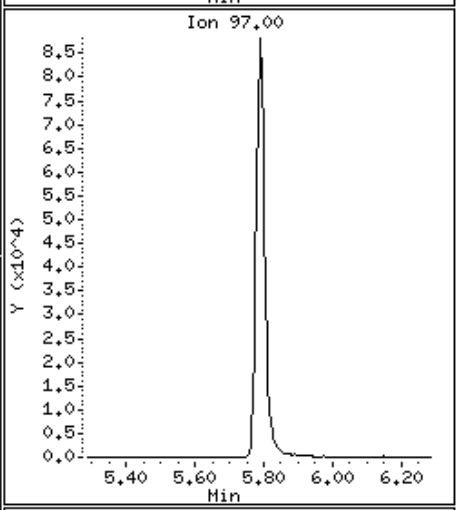


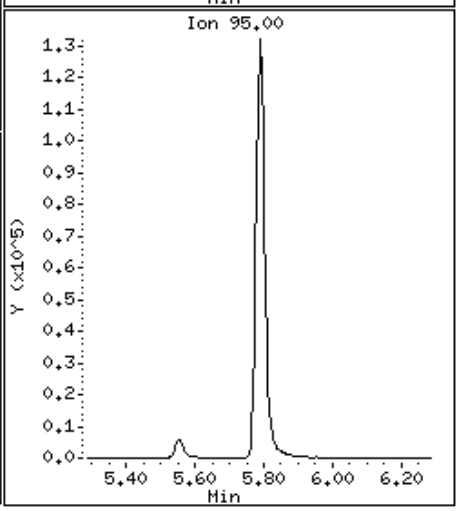












Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021525.D
Inj Date : 16-FEB-2024 06:26
InstruID : VOA9.i
LabSampID : HS24020576-05

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

BEFORE

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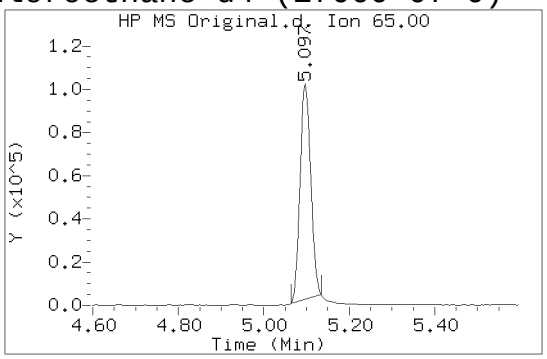
HEIGHT
99778
22-Feb-2024
15:48
linh
pham



AFTER

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15:48
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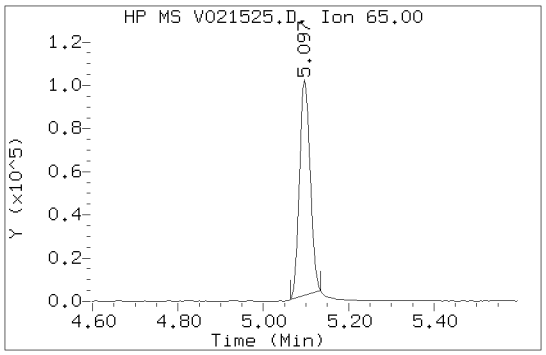

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22-Feb-2024
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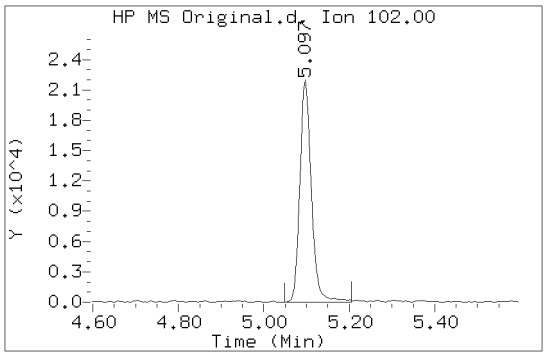

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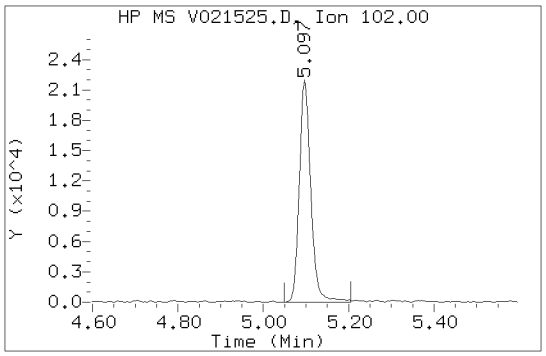


Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021526.D Page 1
Report Date: 22-Feb-2024 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021526.D
Lab Smp Id: HS24020576-06
Inj Date : 16-FEB-2024 06:48
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-06
Misc Info : V9;WATER;0;5;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 38
Dil Factor: 5.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

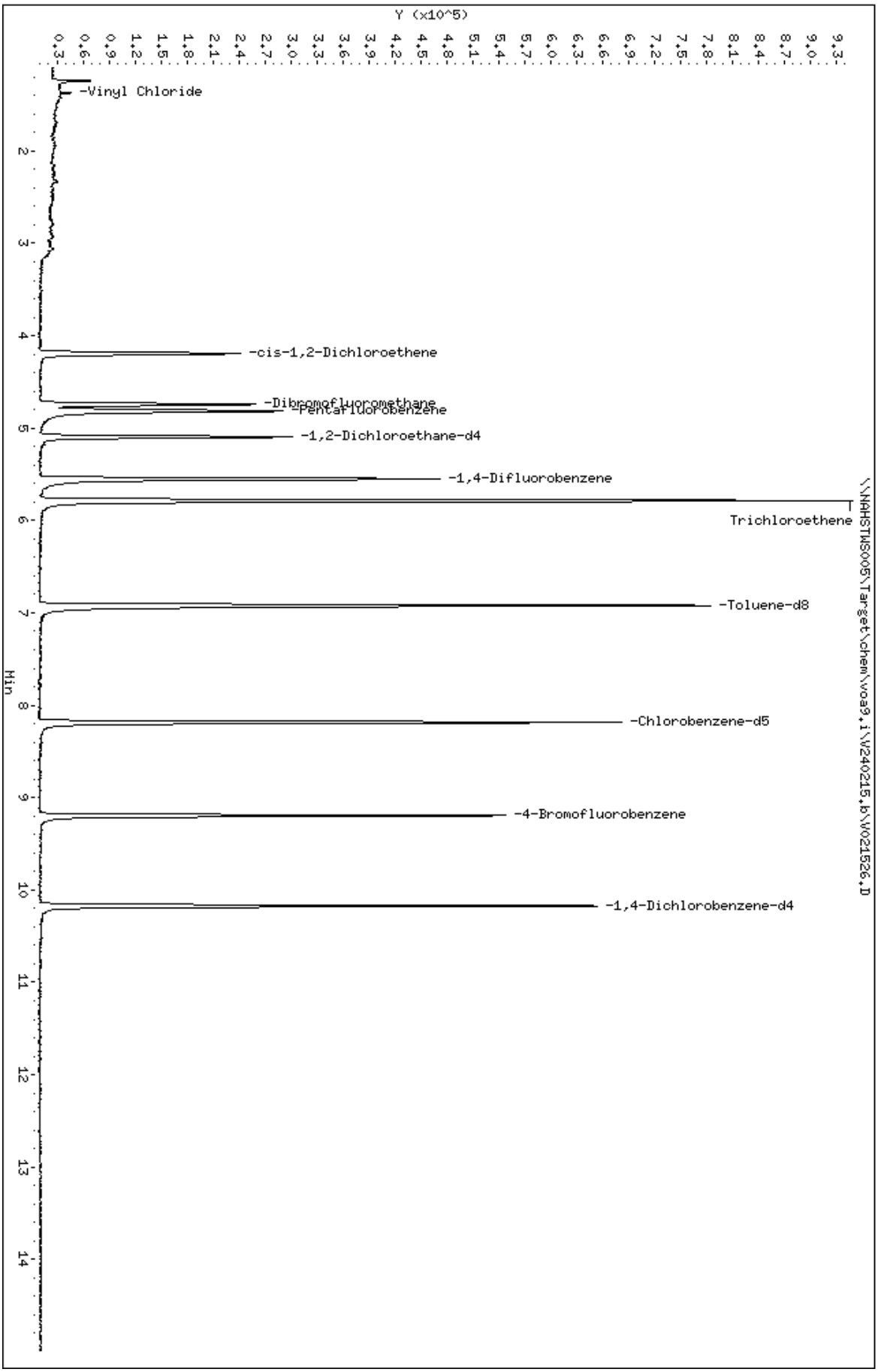
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.815	4.819	(1.000)	229135	50.0000	
$	30 Dibromofluoromethane	113	4.744	4.748	(0.985)	149441	53.7800	53.78
$	35 1,2-Dichloroethane-d4	65	5.093	5.096	(1.058)	196786	57.2682	57.26
*	36 1,4-Difluorobenzene	114	5.550	5.554	(1.000)	400563	50.0000	
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	378179	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	541089	49.6627	49.66
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	176431	43.3944	43.39
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	171237	50.0000	
	5 Vinyl Chloride	62	1.370	1.378	(0.285)	8023	0.43612	2.18(aH)
	27 cis-1,2-Dichloroethene	96	4.193	4.197	(0.871)	112451	37.7160	188.58
	38 Trichloroethene	130	5.786	5.790	(1.043)	306862	94.1386	470.69
M	94 1,2-Dichloroethylene (total)	96				112451	26.9678	134.83

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa9,i\V240215,b\V021526,D
Date : 16-FEB-2024 06:48
Client ID:
Sample Info: HS24020576-06
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021526.D Page 2

Date : 16-FEB-2024 06:48

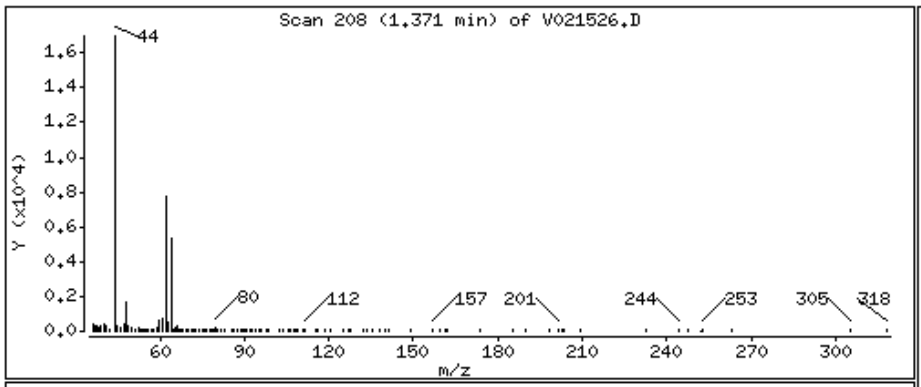
Client ID: Instrument: VOA9.i

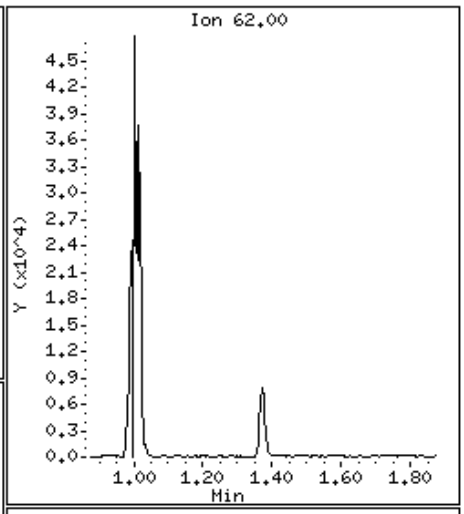
Sample Info: HS24020576-06

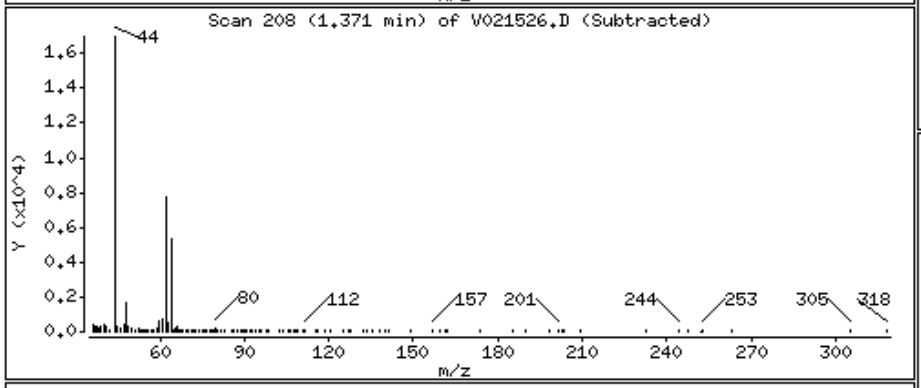
Purge Volume: 5.0 Operator: FT

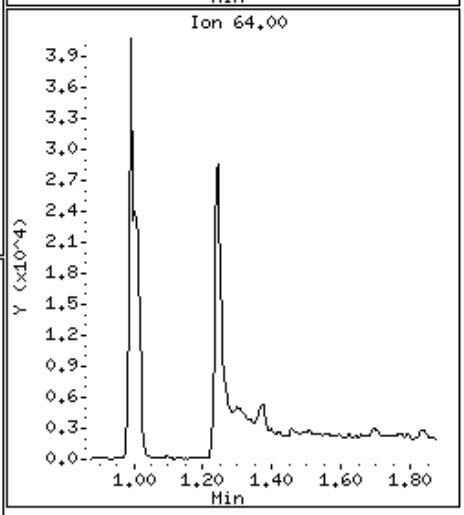
Column phase: DB624 Column diameter: 0.18

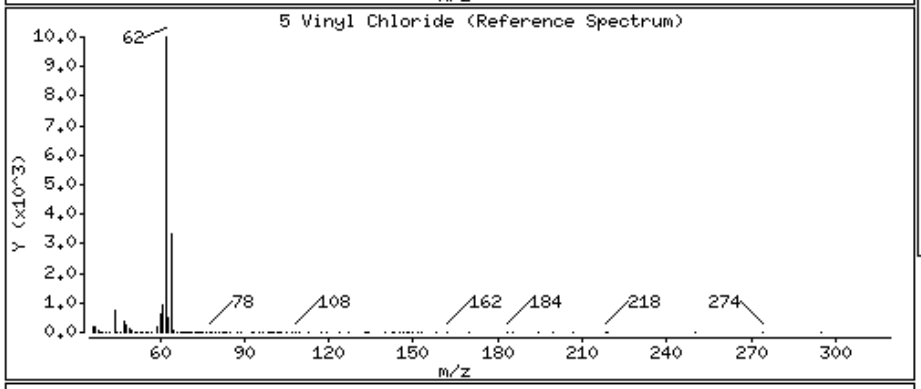
5 Vinyl Chloride Concentration: 2.18 ug/l

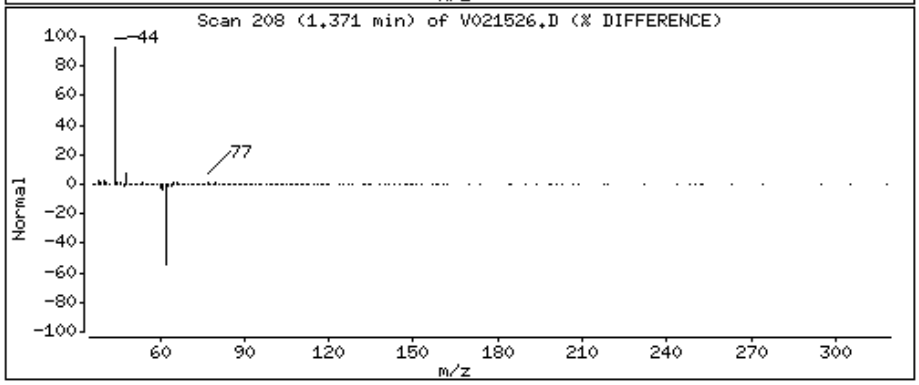












Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021526.D Page 3

Date : 16-FEB-2024 06:48

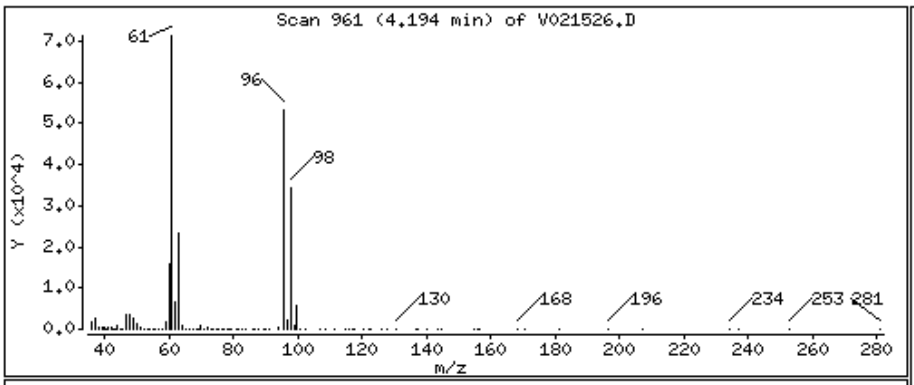
Client ID: Instrument: VOA9.i

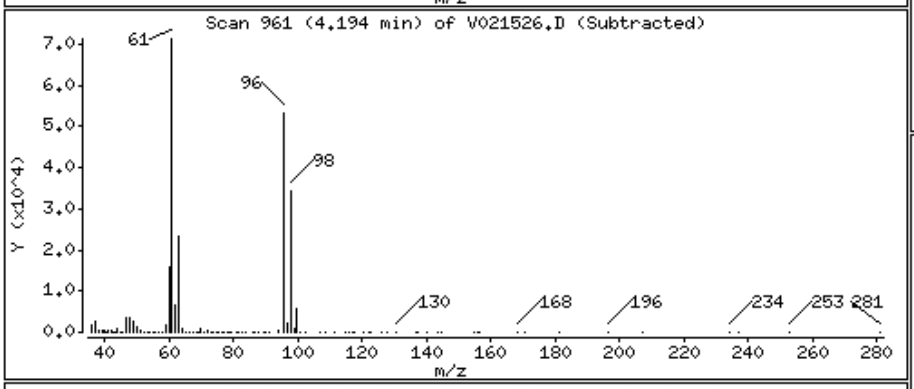
Sample Info: HS24020576-06

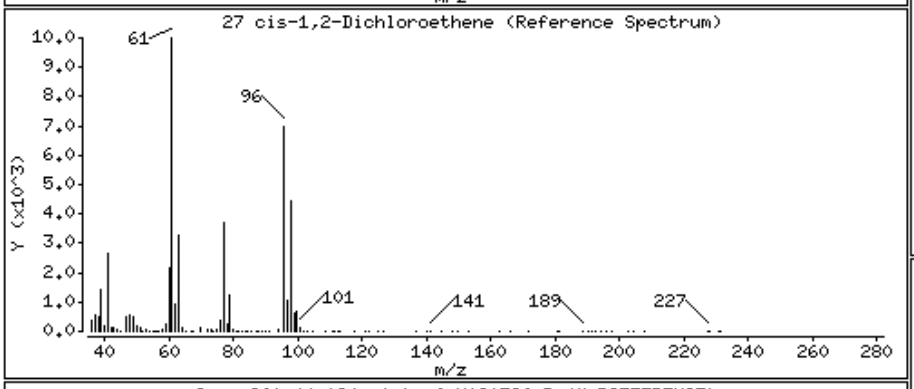
Purge Volume: 5.0 Operator: FT

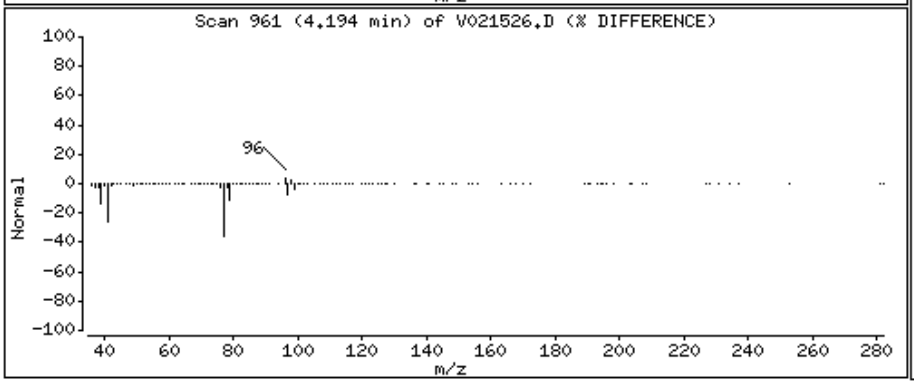
Column phase: DB624 Column diameter: 0.18

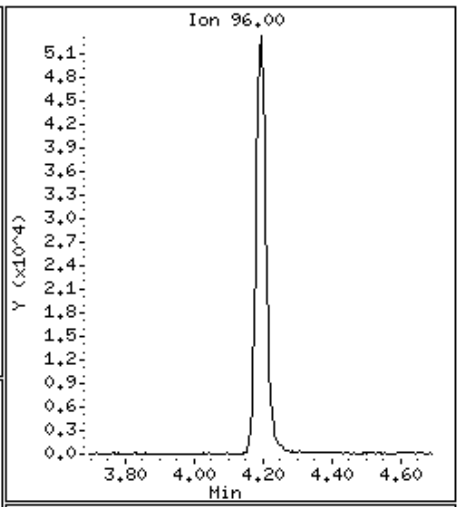
27 cis-1,2-Dichloroethene Concentration: 188.58 ug/l

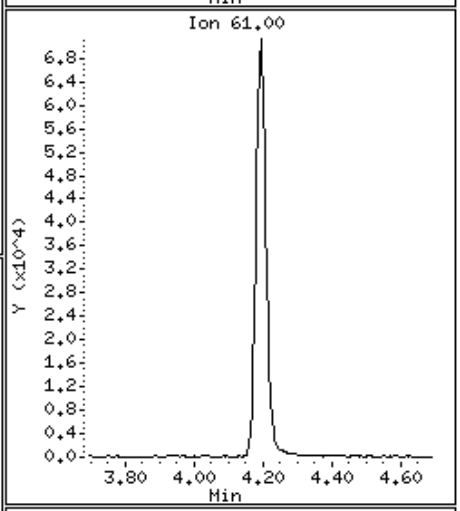


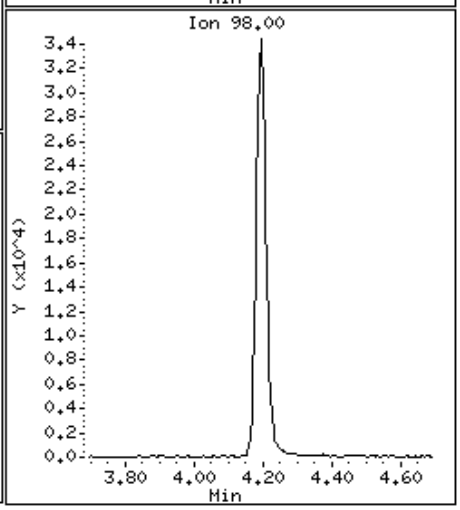












Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021526.D Page 4

Date : 16-FEB-2024 06:48

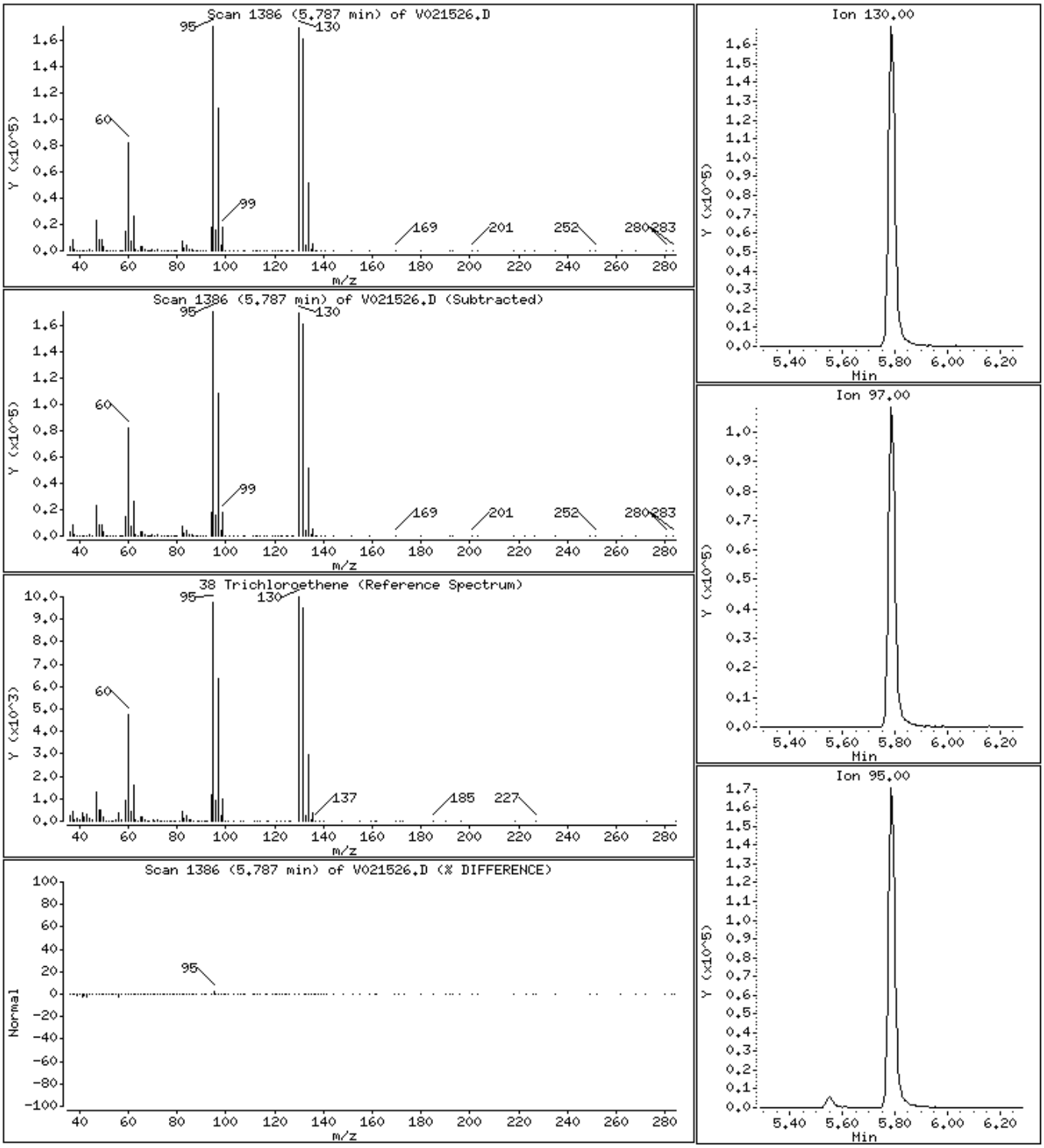
Client ID: Instrument: VOA9.i

Sample Info: HS24020576-06

Purge Volume: 5.0 Operator: FT

Column phase: DB624 Column diameter: 0.18

38 Trichloroethene Concentration: 470.69 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021526.D
Inj Date : 16-FEB-2024 06:48
InstruID : VOA9.i
LabSampID : HS24020576-06

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021527.D Page 1
Report Date: 22-Feb-2024 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021527.D
Lab Smp Id: HS24020576-10
Inj Date : 16-FEB-2024 07:10
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020576-10
Misc Info : V9;WATER;0;10;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 39
Dil Factor: 10.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

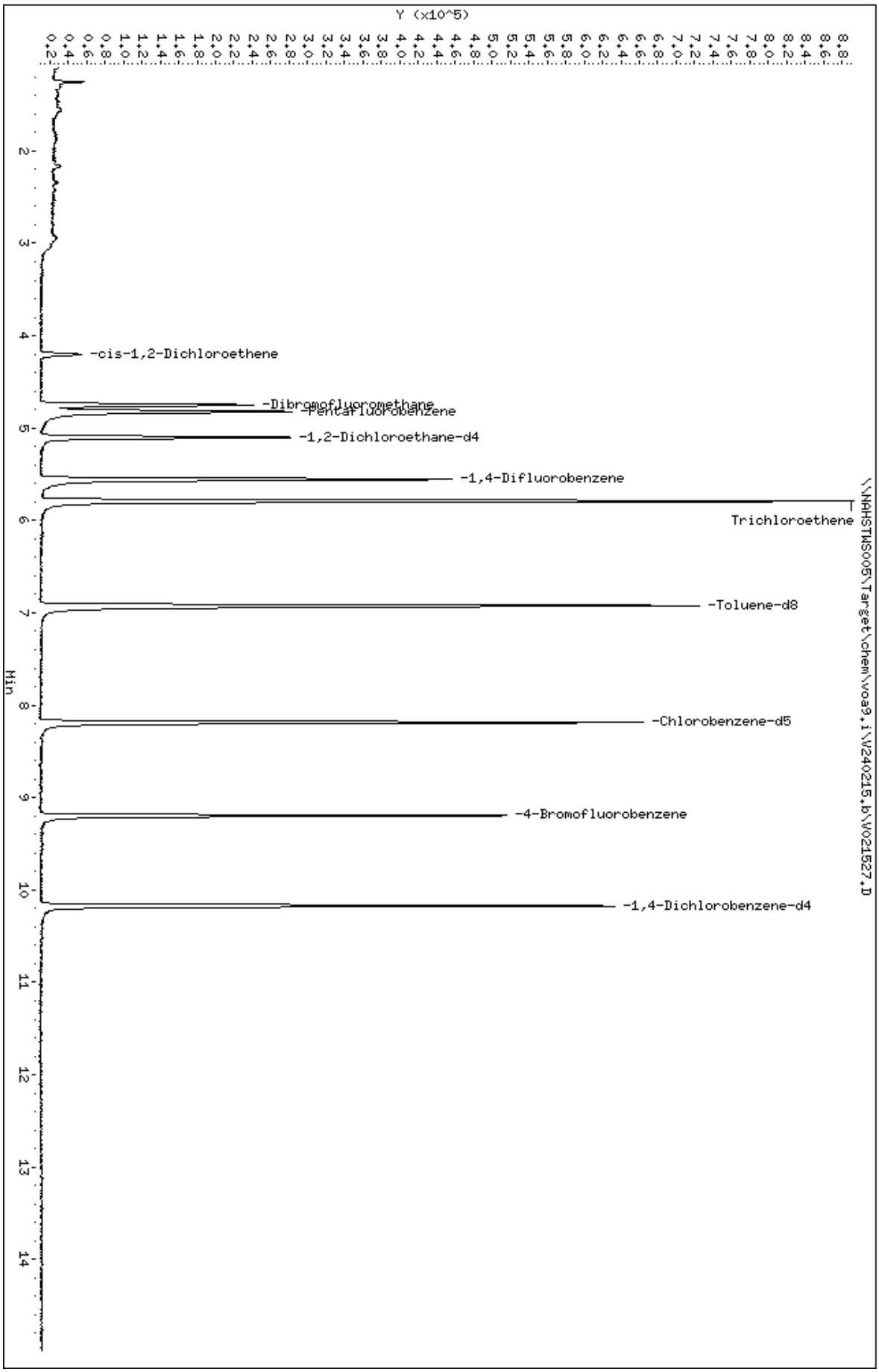
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	222752	50.0000	
$	30 Dibromofluoromethane	113	4.751	4.748	(0.986)	141286	52.3855	52.38
$	35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	185989	55.7801	55.78
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	391300	50.0000	
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	367177	50.0000	
$	48 Toluene-d8	98	6.926	6.922	(0.846)	504919	47.8366	47.83
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	168176	42.6317	42.63(M)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	165654	50.0000	
	27 cis-1,2-Dichloroethene	96	4.204	4.197	(0.872)	22395	6.56106	65.61(H)
	38 Trichloroethene	130	5.790	5.790	(1.043)	288085	91.1436	911.43
M	94 1,2-Dichloroethylene (total)	96				22395	5.52463	55.24(a)

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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Date : 16-FEB-2024 07:10
Client ID:
Sample Info: HS24020576-10
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021527.D Page 2

Date : 16-FEB-2024 07:10

Client ID:

Instrument: VOA9.i

Sample Info: HS24020576-10

Purge Volume: 5.0

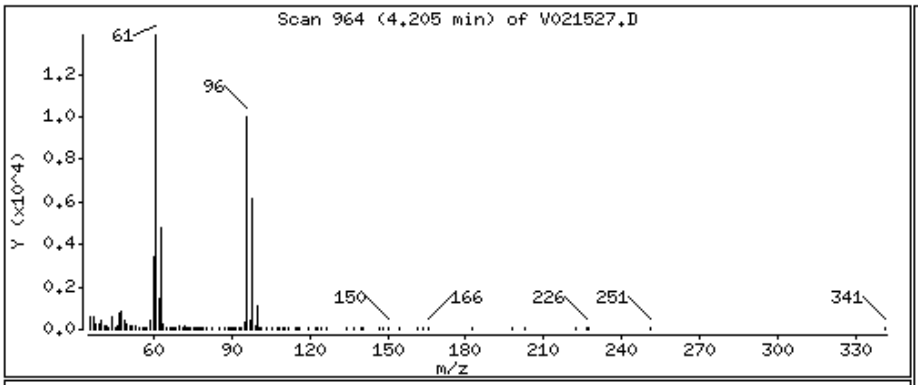
Operator: FT

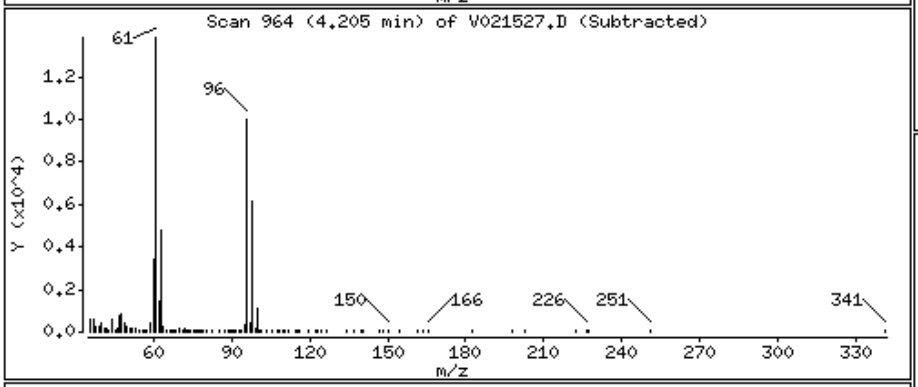
Column phase: DB624

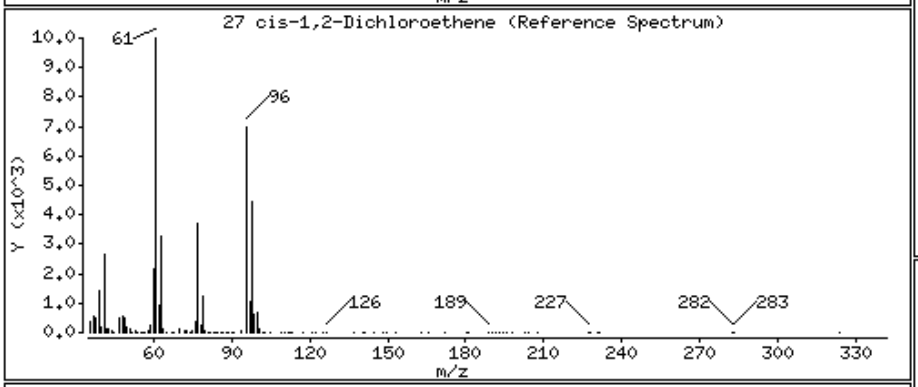
Column diameter: 0.18

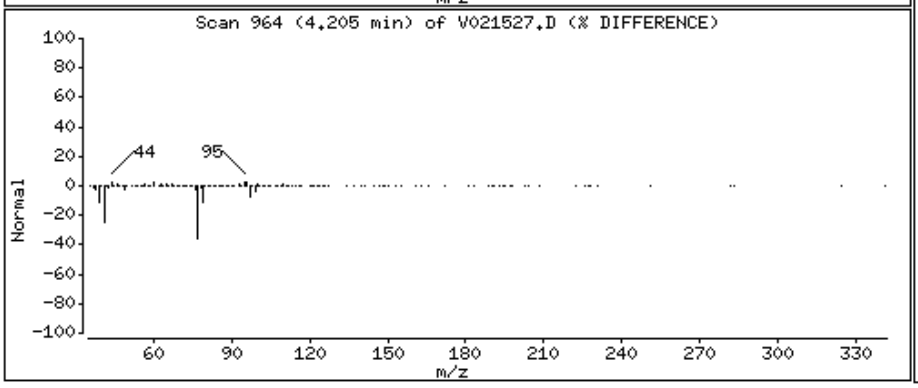
27 cis-1,2-Dichloroethene

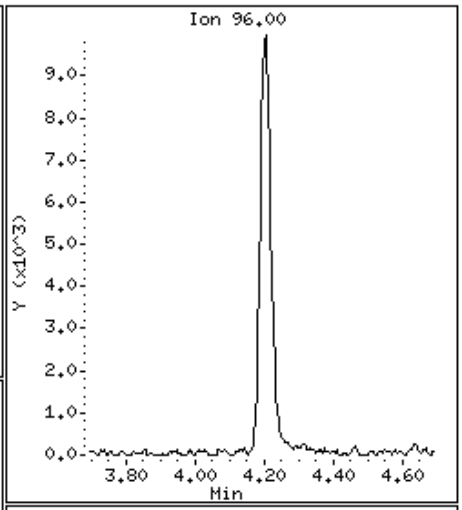
Concentration: 65.61 ug/l

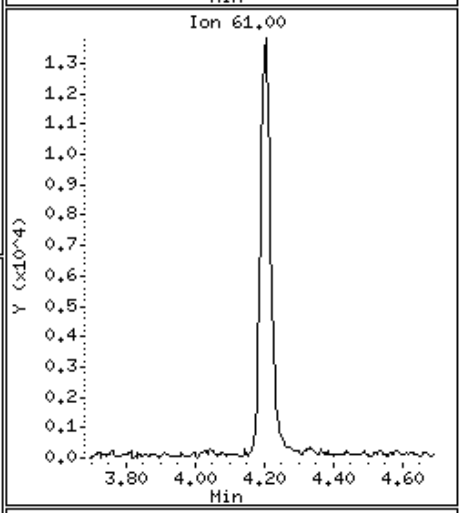


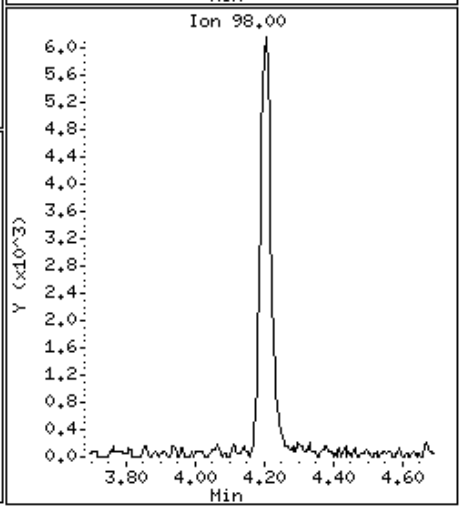












Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021527.D Page 3

Date : 16-FEB-2024 07:10

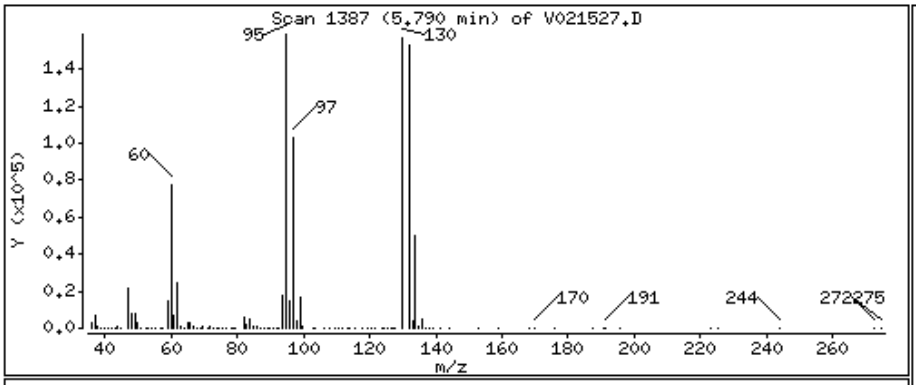
Client ID: Instrument: VOA9.i

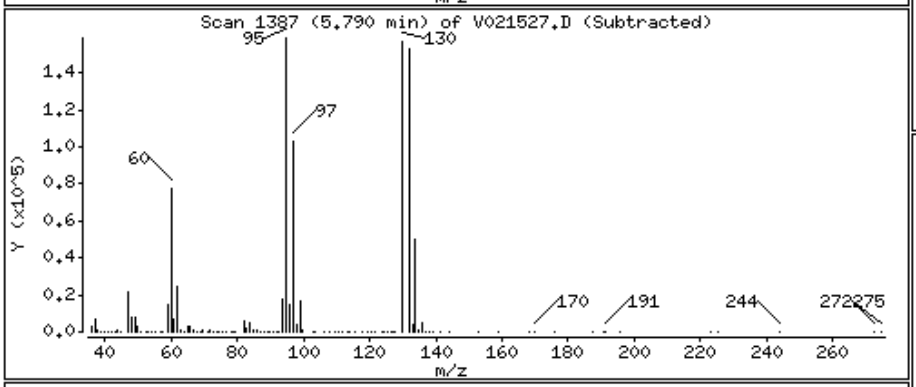
Sample Info: HS24020576-10

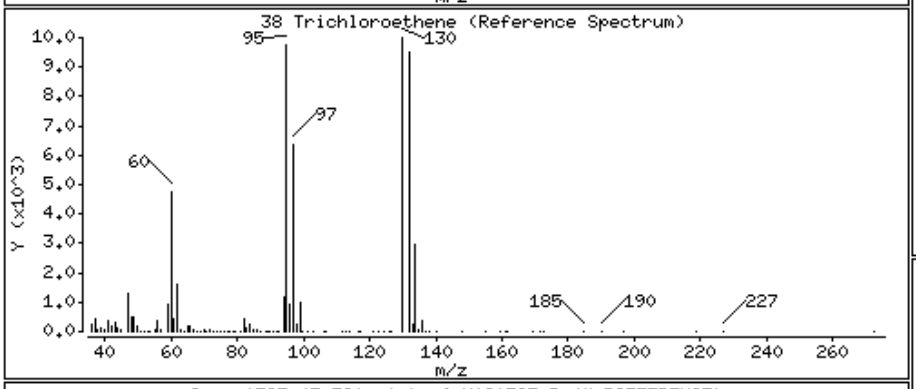
Purge Volume: 5.0 Operator: FT

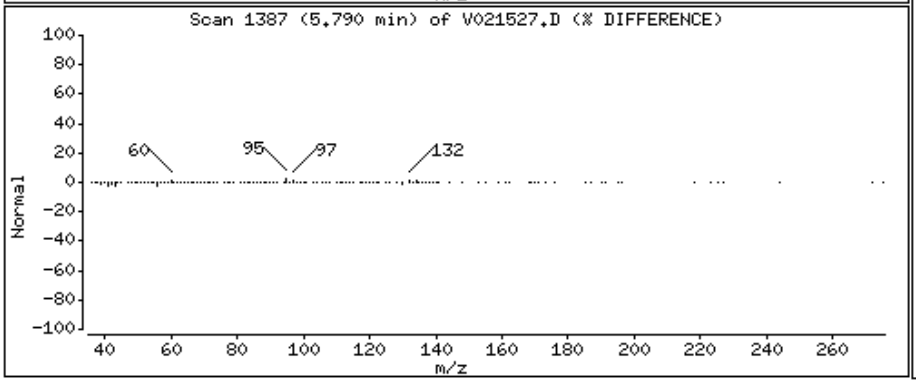
Column phase: DB624 Column diameter: 0.18

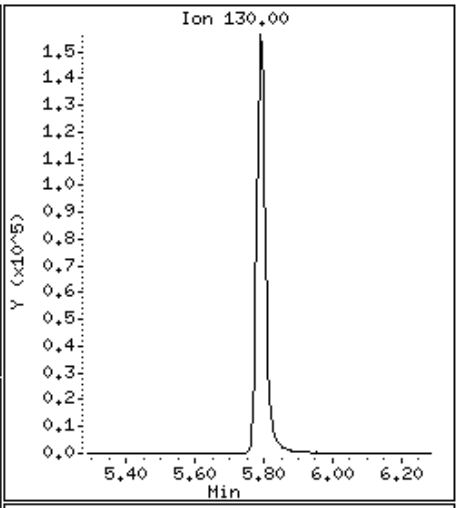
38 Trichloroethene Concentration: 911.43 ug/l

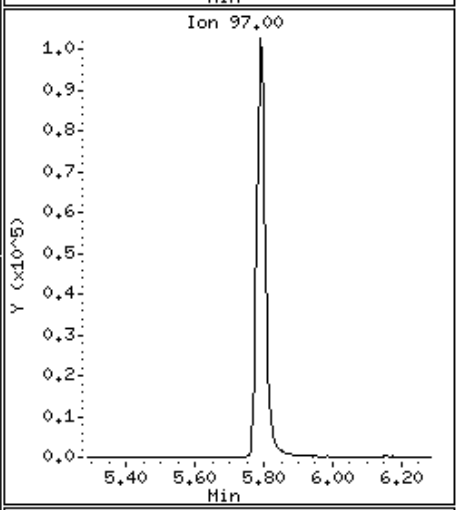


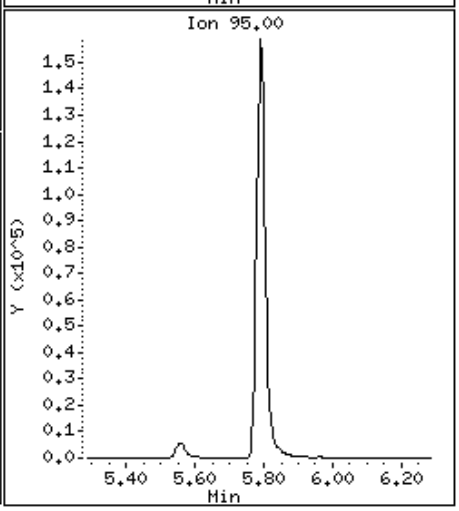












Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021527.D
Inj Date : 16-FEB-2024 07:10
InstruID : VOA9.i
LabSampID : HS24020576-10

4-Bromofluorobenzene (460-00-4)

Reason Code:

BEFORE

MASS
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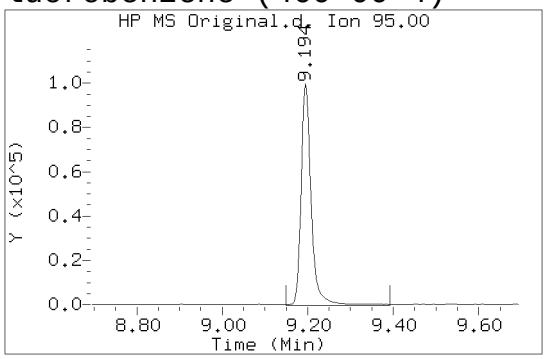
AREA
168176
HEIGHT
99971
22-Feb-2024
15:48
linh
pham



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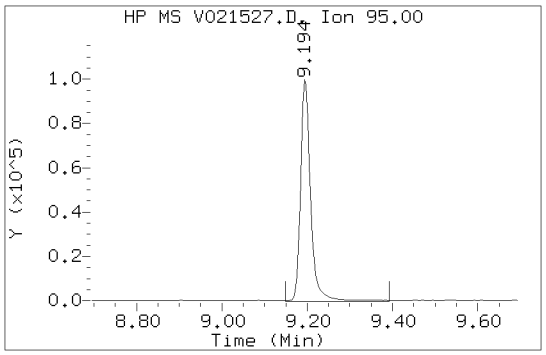

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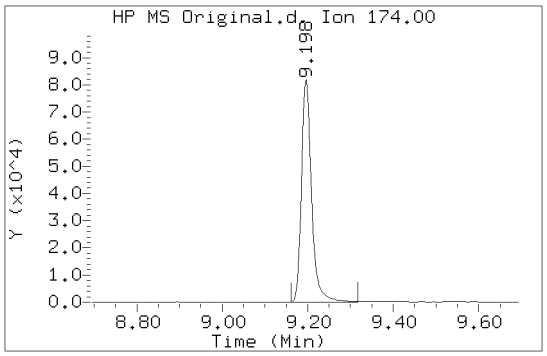

AFTER

MASS
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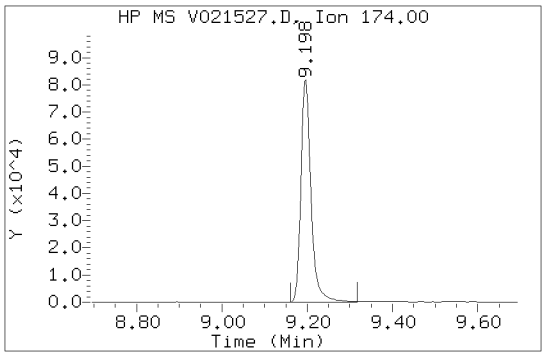
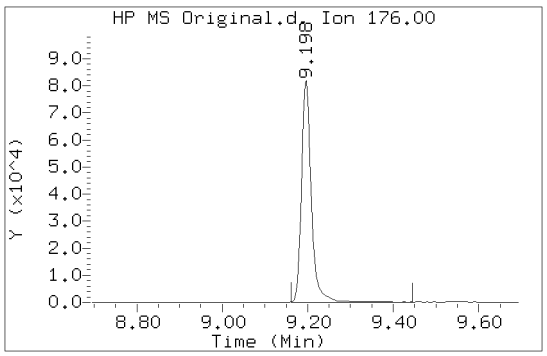
AREA
136712
HEIGHT
81743
22-Feb-2024
15:48
linh
pham



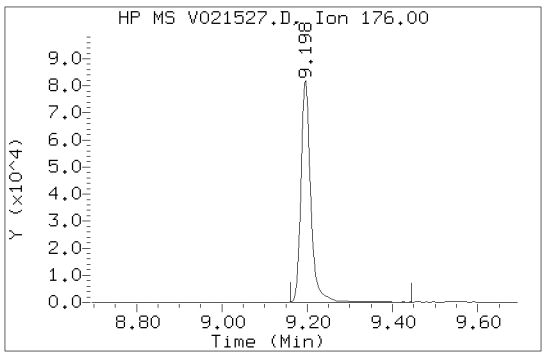
BEFORE

MASS
176
AREA
132840
HEIGHT
81834
22-Feb-2024
15:48
linh
pham



AFTER

MASS
176
AREA
132840
HEIGHT
81834
22-Feb-2024
15:48
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021528.D Page 1
Report Date: 22-Feb-2024 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021528.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 16-FEB-2024 07:33
Operator : FT Inst ID: VOA9.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:50 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.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	4.823	4.823	(1.000)	248469	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.752	(0.985)	163092	50.0000	54.10
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	209592	50.0000	56.31
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	424568	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	423295	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	616186	50.0000	50.47
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	232059	50.0000	50.61
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	222936	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	202817	50.0000	55.27
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	141540	50.0000	57.65
17 Methylene Chloride	84	2.802	2.802	(0.581)	178173	50.0000	56.81
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	386129	50.0000	54.03
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.636)	158046	50.0000	53.66
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	183374	50.0000	55.72
33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	257359	50.0000	56.18
34 Carbon Tetrachloride	117	4.920	4.920	(0.885)	200941	50.0000	49.48
37 Benzene	78	5.145	5.145	(0.926)	704909	50.0000	54.73
38 Trichloroethene	130	5.794	5.794	(1.042)	167889	50.0000	52.65
56 Tetrachloroethene	164	7.458	7.458	(0.911)	129636	50.0000	49.90
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	143621	50.0000	53.45

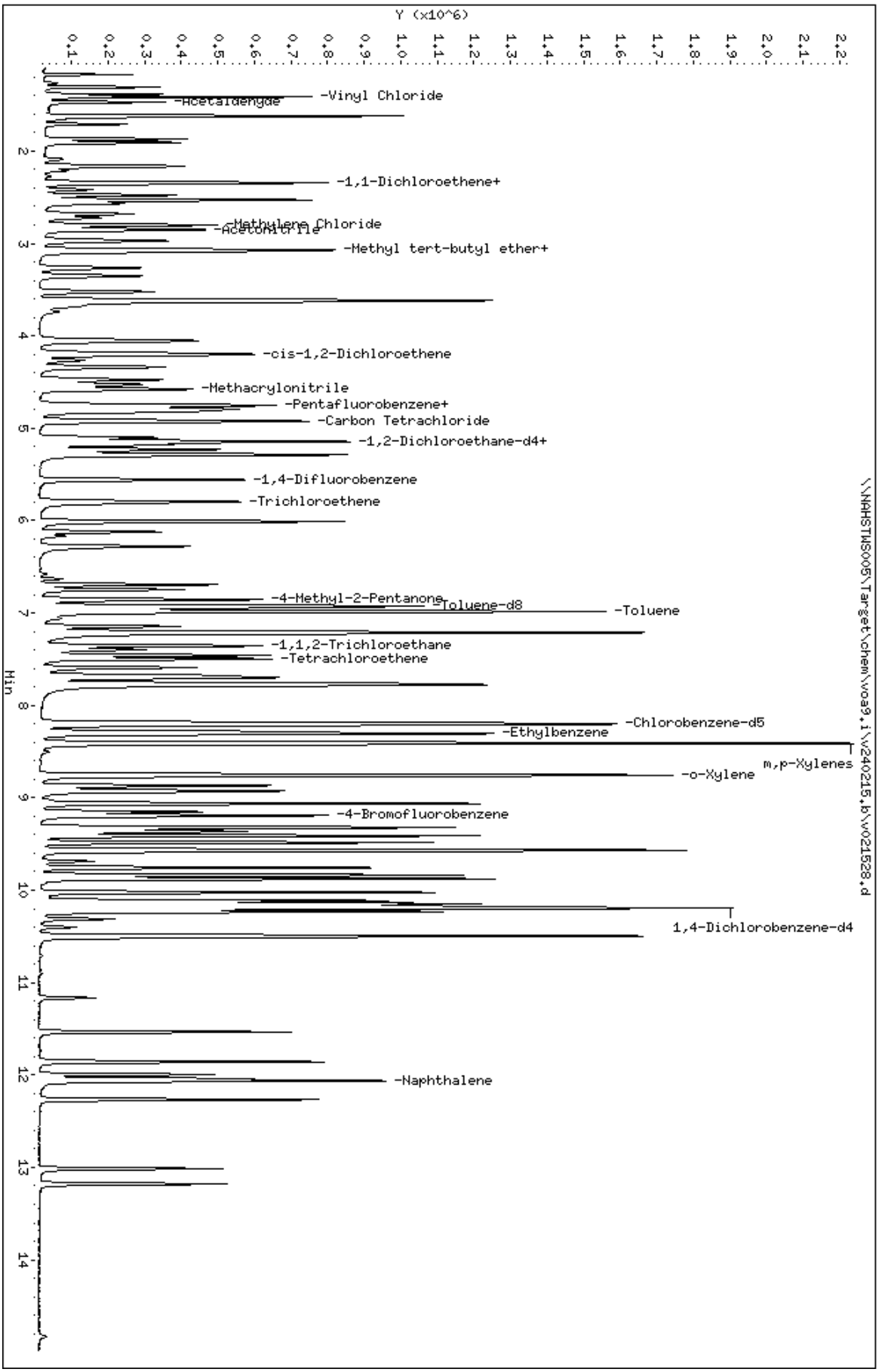
50 Toluene	91	6.982	6.982 (0.853)	745309	50.0000	52.76
61 Ethylbenzene	106	8.309	8.309 (1.015)	237263	50.0000	51.94

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021528.D Page 2
Report Date: 22-Feb-2024 15:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	604288	100.000	103.53	
	63 o-Xylene	106	8.748	8.748	(1.069)	289092	50.0000	51.55	
	92 Naphthalene	128	12.065	12.065	(1.187)	618452	50.0000	52.36	
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	419938	100.000	109.85	
	13 Acetonitrile	39	2.851	2.851	(0.591)	80366	500.000	639.06	
	9 Acrolein	56	2.274	2.274	(0.471)	16691	100.000	136.06	
	16 Acrylonitrile	53	3.072	3.072	(0.637)	135037	100.000	112.90	
	25 Methacrylonitrile	41	4.530	4.530	(0.939)	81181	50.0000	62.89	
	194 Acetaldehyde	44	1.471	1.471	(0.305)	243969	200.000	268.54	
M	95 Xylenes (total)	106				893380	150.000		(a)
M	94 1,2-Dichloroethylene (total)	96				341420	100.000		(a)

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\v240215,b\v021528.d
Date : 16-FEB-2024 07:33
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Page 1

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\v021528.d
Inj Date : 16-FEB-2024 07:33
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

HS24020576-GCSEMI-RSK-175

ALS WO# HS24020576

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right partner.

Form 1

Organic Analysis Data Sheet

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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 Site 16

Workorder HS24020576

Dissolved Gasses by Dissolved Gases by RSK-175

BatchQC

	Collected	Received	Matrix	Basis
HS24020341-08DUP	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.00033	0.00100	0.00100	1	02/16/24 12:39	FID-4_458796	020.D
Ethene	mg/L	0.00129	R	0.00035	0.00100	0.00100	1	02/16/24 12:39	FID-4_458796	020.D
Methane	mg/L	0.00856		0.00019	0.000500	0.000500	1	02/16/24 12:39	FID-4_458796	020.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020576	

Dissolved Gasses by Dissolved Gases by RSK-175

16RW09_240206	Collected	Received	Matrix	Basis
HS24020576-01	02/06/24 07:10	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00927		0.00014	0.00100	0.00100	1	02/14/24 09:24	FID-4_458796	005.D
Ethene	mg/L	0.0351		0.00023	0.00100	0.00100	1	02/14/24 09:24	FID-4_458796	005.D
Methane	mg/L	0.849		0.00535	0.0250	0.0250	50	02/14/24 10:47	FID-4_458796	008.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020576	

Dissolved Gasses by Dissolved Gases by RSK-175

16RW10_240206	Collected	Received	Matrix	Basis
HS24020576-02	02/06/24 07:55	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.0160		0.00014	0.00100	0.00100	1	02/14/24 10:09	FID-4_458796	006.D
Ethene	mg/L	0.0246		0.00023	0.00100	0.00100	1	02/14/24 10:09	FID-4_458796	006.D
Methane	mg/L	2.10		0.0107	0.0500	0.0500	100	02/14/24 10:58	FID-4_458796	009.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020576	

Dissolved Gasses by Dissolved Gases by RSK-175

16WW40_240206	Collected	Received	Matrix	Basis
HS24020576-05	02/06/24 09:25	02/07/24 09:20	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00669		0.00014	0.00100	0.00100	1	02/14/24 10:31	FID-4_458796	007.D
Ethene	mg/L	0.00417		0.00023	0.00100	0.00100	1	02/14/24 10:31	FID-4_458796	007.D
Methane	mg/L	0.575		0.00214	0.0100	0.0100	20	02/14/24 11:07	FID-4_458796	010.D

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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 Site 16

Workorder HS24020576

SAMPLENUM HS24020773-05MS

Dissolved Gasses by Dissolved Gases by RSK-175

BatchQC (HS24020773-05)				HS24020773-05MS				HS24020773-05MSD						
Spike Matrix Aqueous	Result Units mg/L			Run Date 02/14/24				Run Date 02/14/24						
Instrument ID FID4				Run Time 13:02				Run Time 13:47						
				Data File 013.D				Data File 014.D						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Ethane	75-125	1	0	0.043889	0.0180	243		0.031422	0.0180	174		20	33.1	
Ethene	75-125	1	0	0.068505	0.0168	408		0.066844	0.0168	398		20	2.45	
Methane	75-125	1	7.470	7.71996	0.0096	2590		7.74446	0.0096	2840		20	0.317	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

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Form 3B

Laboratory Control Sample Recovery

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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 Site 16

Workorder HS24020576

Dissolved Gasses by Dissolved Gases by RSK-175

SAMPLENUM LCS-240214

FID-4_458796			LCS-240214			LCSD-240214					
Spike Matrix Aqueous	Result Units mg/L		Run Date 02/14/24 Run Time 08:39			Run Date 02/14/24 Run Time 08:49					
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
Ethane	75-125	0.01804	0.0198	110		0.0222	123		30	11.1	
Ethene	75-125	0.0168	0.0174	104		0.0169	101		30	2.73	
Methane	75-125	0.009647	0.00934	97		0.00939	97		30	0.46	

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Form 4

Method Blank Summary

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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 Site 16

Workorder HS24020576

Dissolved Gasses by Dissolved Gases by RSK-175

METHOD BLANK	Matrix	Analysis Date	Analysis Batch	Inst ID
MBLK-240214	Aqueous	02/14/24 08:18	R458796	FID4

Client Sample ID	Lab Sample ID	Type	Analysis Date	Analysis Batch	Inst ID	FileID
LCS-240214	LCS-240214	LCS	02/14/24 08:39	R458796	FID4	003.D
LCSD-240214	LCSD-240214	LCSD	02/14/24 08:49	R458796	FID4	004.D
16RW09_240206	HS24020576-01	SAMP	02/14/24 09:24	R458796	FID4	005.D
16RW10_240206	HS24020576-02	SAMP	02/14/24 10:09	R458796	FID4	006.D
16WW40_240206	HS24020576-05	SAMP	02/14/24 10:31	R458796	FID4	007.D
16RW09_240206	HS24020576-01	SAMP	02/14/24 10:47	R458796	FID4	008.D
16RW10_240206	HS24020576-02	SAMP	02/14/24 10:58	R458796	FID4	009.D
16WW40_240206	HS24020576-05	SAMP	02/14/24 11:07	R458796	FID4	010.D
BatchQC	HS24020773-05MS	MS	02/14/24 13:02	R458796	FID4	013.D
BatchQC	HS24020773-05MSD	MSD	02/14/24 13:47	R458796	FID4	014.D
BatchQC	HS24020341-08DUP	DUP	02/16/24 12:39	R458796	FID4	020.D

right solutions.
right partner.

Form 6

Initial Calibration Data

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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

Report Date : 27-Dec-2023 11:57 Page 1

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2017 09:06
End Cal Date : 24-JAN-2017 11:13
Quant Method : ESTD
Origin : Included
Target Version : 4.14
Integrator : Falcon
Method file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Last Edit : 04-Oct-2023 12:23 donna.broussard1

Calibration File Names:
Level 1: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
Level 2: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D
Level 3: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Level 4: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Level 5: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
Level 6: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D
Level 7: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D

Compound	10.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	250.0000 Level 5	500.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	1000.0000 Level 7										
1 Methane	969	978	1020	881	961	931					
	1082						AVRG		974		6.55041
2 Ethene	536	567	565	516	665	426					
	829						AVRG		586		21.93197
3 Ethane	602	670	659	597	809	818					
	999						AVRG		736		19.88517
4 Propane	500	1279	2602	4785	18294	38286					
	96509						QUAD	0.97987	0.00153	-4.583e-00	0.99914

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2017 09:06
End Cal Date : 24-JAN-2017 11:13
Quant Method : ESTD
Origin : Included
Target Version : 4.14
Integrator : Falcon
Method file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Last Edit : 04-Oct-2023 12:23 donna.broussard1

Compound	10.0000 Level 1	25.0000 Level 2	50.0000 Level 3	100.0000 Level 4	250.0000 Level 5	500.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	1000.0000 Level 7											
5 N-Butane	438	936	2034	3864	18446	42817						
	114164						QUAD	2.46870	0.00183	-5.537e-00	0.99808	
6 Pentane	115	3945	2080	950	501	412						
	488						AVRG		1213		112	<-
7 Hexane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 24-JAN-2017 09:06
End Cal Date : 24-JAN-2017 11:13
Quant Method : ESTD
Origin : Included
Target Version : 4.14
Integrator : Falcon
Method file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Last Edit : 04-Oct-2023 12:23 donna.broussard1

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

right solutions.
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Form 6I

Initial Calibration Verification (ICV)

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID 008.D

Dissolved Gasses by Dissolved Gases by RSK-175

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type GC DATA
File ID 008.D

Fraction GASES
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 24-JAN-2017 1205

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
Methane	9.65	9.60	99.5	75-125	
Ethene	16.8	19.1	114	75-125	
Ethane	18.0	19.7	109	75-125	
Propane	26.5	27.2	103	75-125	
N-Butane	35.0	36.0	103	75-125	

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right partner.

Form 7

Continuing Calibration Verification (CCV)

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID 001.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 001.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 14-FEB-2024 0720
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	953	953	0.010	2.26	20.0	Averaged	
Ethene	586	627	627	0.010	-7.081	20.0	Averaged	
Ethane	719	810	810	0.010	-12.573	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID 011.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 011.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 14-FEB-2024 1205
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	954	954	0.010	2.17	20.0	Averaged	
Ethene	586	562	562	0.010	4.08	20.0	Averaged	
Ethane	719	837	837	0.010	-16.302	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID 022.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 022.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 14-FEB-2024 1726
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	1011	1011	0.010	-3.671	20.0	Averaged	
Ethene	586	566	566	0.010	3.40	20.0	Averaged	
Ethane	719	790	790	0.010	-9.793	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID 001.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 001.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 16-FEB-2024 0838
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	816	816	0.010	16.3	20.0	Averaged	
Ethene	586	475	475	0.010	18.9	20.0	Averaged	
Ethane	719	692	692	0.010	3.80	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID 011.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 011.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 16-FEB-2024 1103
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	858	858	0.010	12.0	20.0	Averaged	
Ethene	586	480	480	0.010	18.1	20.0	Averaged	
Ethane	719	673	673	0.010	6.47	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID 022.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 022.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 16-FEB-2024 1300
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	854	854	0.010	12.5	20.0	Averaged	
Ethene	586	477	477	0.010	18.5	20.0	Averaged	
Ethane	719	697	697	0.010	3.16	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020576

RunID 026.D

Dissolved Gasses by Dissolved Gases by RSK-175

Instrument ID FID-4.i
Lab File ID 026.D
Analysis Type WATER
Lab Sample ID RSK-CCV

Injection Date 16-FEB-2024 1400
ICAL Date(s) 24-JAN-2017, 24-JAN-2017
ICAL Times 09:06, 11:13
Quant Type ESTD

Compound	RRF / Conc	RF250	CCV RRF250	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
Methane	975	858	858	0.010	12.0	20.0	Averaged	
Ethene	586	475	475	0.010	18.9	20.0	Averaged	
Ethane	719	696	696	0.010	3.32	20.0	Averaged	

right solutions.
right partner.

Analysis Run Log

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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 Site 16

Workorder HS24020576

Dissolved Gasses by Dissolved Gases by RSK-175

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 Site 16

Workorder HS24020576

Dissolved Gasses by Dissolved Gases by RSK-175

RUNID FID-4-458796

Run ID FID-4_458796 Start Date 02/14/24 EndDate 02/16/24

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
07:20	RSK-CCV	CCV	RSK-CCV	001.D	02/14/24	1
08:18	MBLK-240214	MBLK	MBLK-240214	002.D	02/14/24	1
08:39	LCS-240214	LCS	LCS-240214	003.D	02/14/24	1
08:49	LCSD-240214	LCSD	LCSD-240214	004.D	02/14/24	1
09:24	HS24020576-01	SAMP	16RW09_240206	005.D	02/14/24	1
10:09	HS24020576-02	SAMP	16RW10_240206	006.D	02/14/24	1
10:31	HS24020576-05	SAMP	16WW40_240206	007.D	02/14/24	1
10:47	HS24020576-01	SAMP	16RW09_240206	008.D	02/14/24	50
10:58	HS24020576-02	SAMP	16RW10_240206	009.D	02/14/24	100
11:07	HS24020576-05	SAMP	16WW40_240206	010.D	02/14/24	20
12:05	RSK-CCV	CCV	RSK-CCV	011.D	02/14/24	1
12:50	HS24020773-05	SAMP	ZZZZZZZZZZ	012.D	02/14/24	1
13:02	HS24020773-05MS	MS	ZZZZZZMS	013.D	02/14/24	1
13:47	HS24020773-05MSD	MSD	ZZZZZZMSD	014.D	02/14/24	1
14:04	HS24020773-02	SAMP	ZZZZZZZZZZ	015.D	02/14/24	1
15:33	HS24020773-03	SAMP	ZZZZZZZZZZ	016.D	02/14/24	1
15:45	HS24020773-04	SAMP	ZZZZZZZZZZ	017.D	02/14/24	1
16:16	HS24020773-06	SAMP	ZZZZZZZZZZ	018.D	02/14/24	1
16:34	HS24020293-01	SAMP	ZZZZZZZZZZ	019.D	02/14/24	1
16:42	HS24020293-02	SAMP	ZZZZZZZZZZ	020.D	02/14/24	1
17:11	HS24020293-03	SAMP	ZZZZZZZZZZ	021.D	02/14/24	1
17:26	RSK-CCV	CCV	RSK-CCV	022.D	02/14/24	1
08:38	RSK-CCV	CCV	RSK-CCV	001.D	02/16/24	1
10:35	HS24020293-04	SAMP	ZZZZZZZZZZ	008.D	02/16/24	1
10:55	HS24020341-06	SAMP	ZZZZZZZZZZ	010.D	02/16/24	1
11:03	RSK-CCV	CCV	RSK-CCV	011.D	02/16/24	1
11:18	HS24020341-07	SAMP	ZZZZZZZZZZ	012.D	02/16/24	1
11:28	HS24020341-08	SAMP	ZZZZZZZZZZ	013.D	02/16/24	1
11:37	HS24020341-09	SAMP	ZZZZZZZZZZ	014.D	02/16/24	1
11:47	HS24020773-02	SAMP	ZZZZZZZZZZ	015.D	02/16/24	500
11:56	HS24020773-03	SAMP	ZZZZZZZZZZ	016.D	02/16/24	200
12:12	HS24020773-04	SAMP	ZZZZZZZZZZ	017.D	02/16/24	20
12:21	HS24020773-05	SAMP	ZZZZZZZZZZ	018.D	02/16/24	500
12:30	HS24020773-06	SAMP	ZZZZZZZZZZ	019.D	02/16/24	500
12:39	HS24020341-08DUP	DUP	ZZZZZZDUP	020.D	02/16/24	1
12:48	HS24020571-02	SAMP	ZZZZZZZZZZ	021.D	02/16/24	1
13:00	RSK-CCV	CCV	RSK-CCV	022.D	02/16/24	1
13:17	HS24020571-04	SAMP	ZZZZZZZZZZ	023.D	02/16/24	1

Form 13 - Analysis Run Log

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020576	

Dissolved Gasses by Dissolved Gases by RSK-175

RUNID
FID-4-458796

13:29	HS24020811-03	SAMP	ZZZZZZZZZZ	024.D	02/16/24	1
13:37	HS24020811-03	SAMP	ZZZZZZZZZZ	025.D	02/16/24	2
14:00	RSK-CCV	CCV	RSK-CCV	026.D	02/16/24	1

right solutions.
right partner.

RawData

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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\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

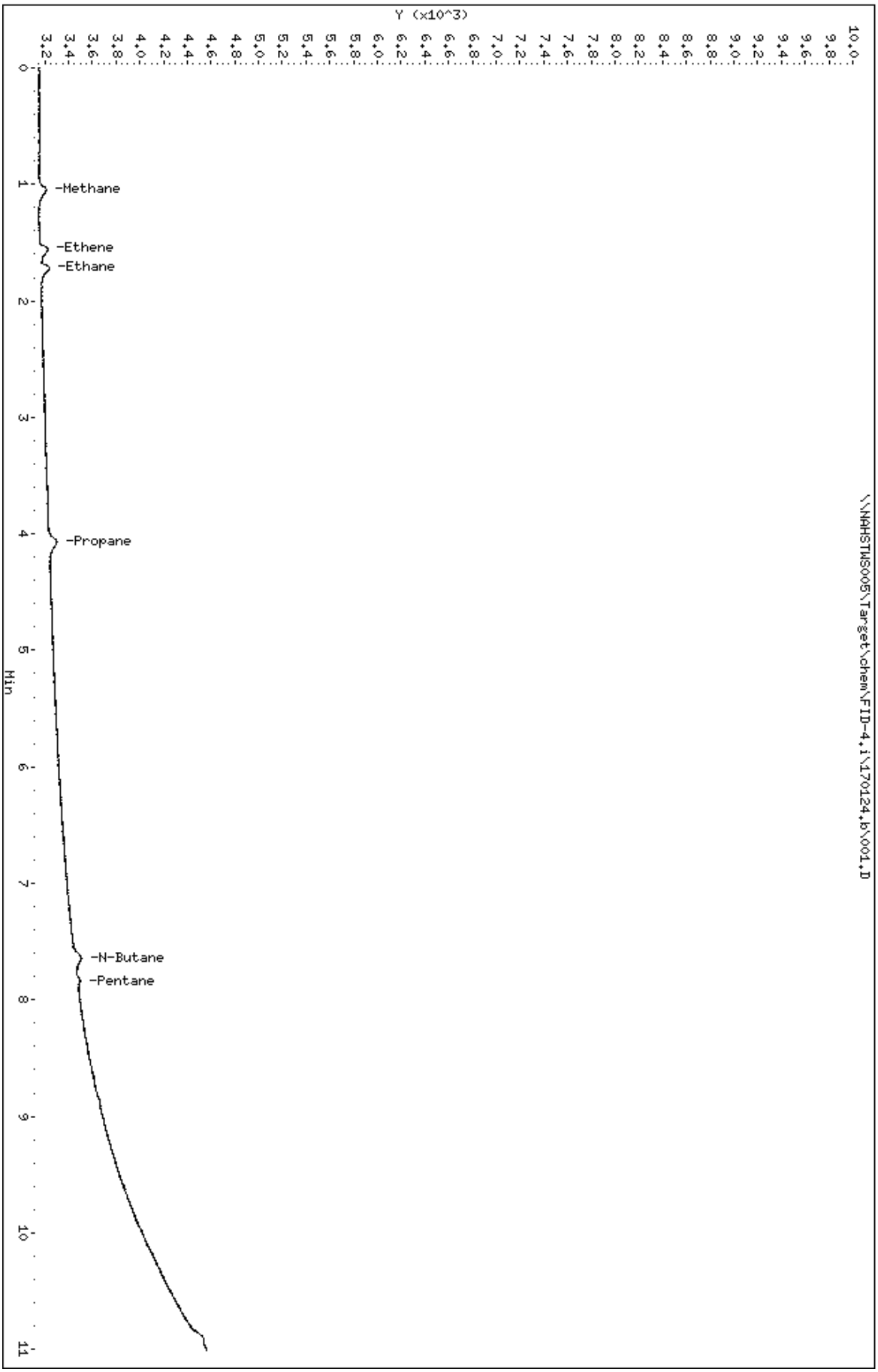
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.043	1.043	0.000	374	0.38600	0.383(a)
2 Ethene	1.553	1.553	0.000	361	0.67400	0.615(a)
3 Ethane	1.716	1.716	0.000	435	0.72200	0.590(a)
4 Propane	4.073	4.073	0.000	500	1.05900	1.743
5 N-Butane	7.640	7.640	0.000	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
Sample Info: ICAL1;ICAL1;;;
Column phase: Rtx-PLOT

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



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

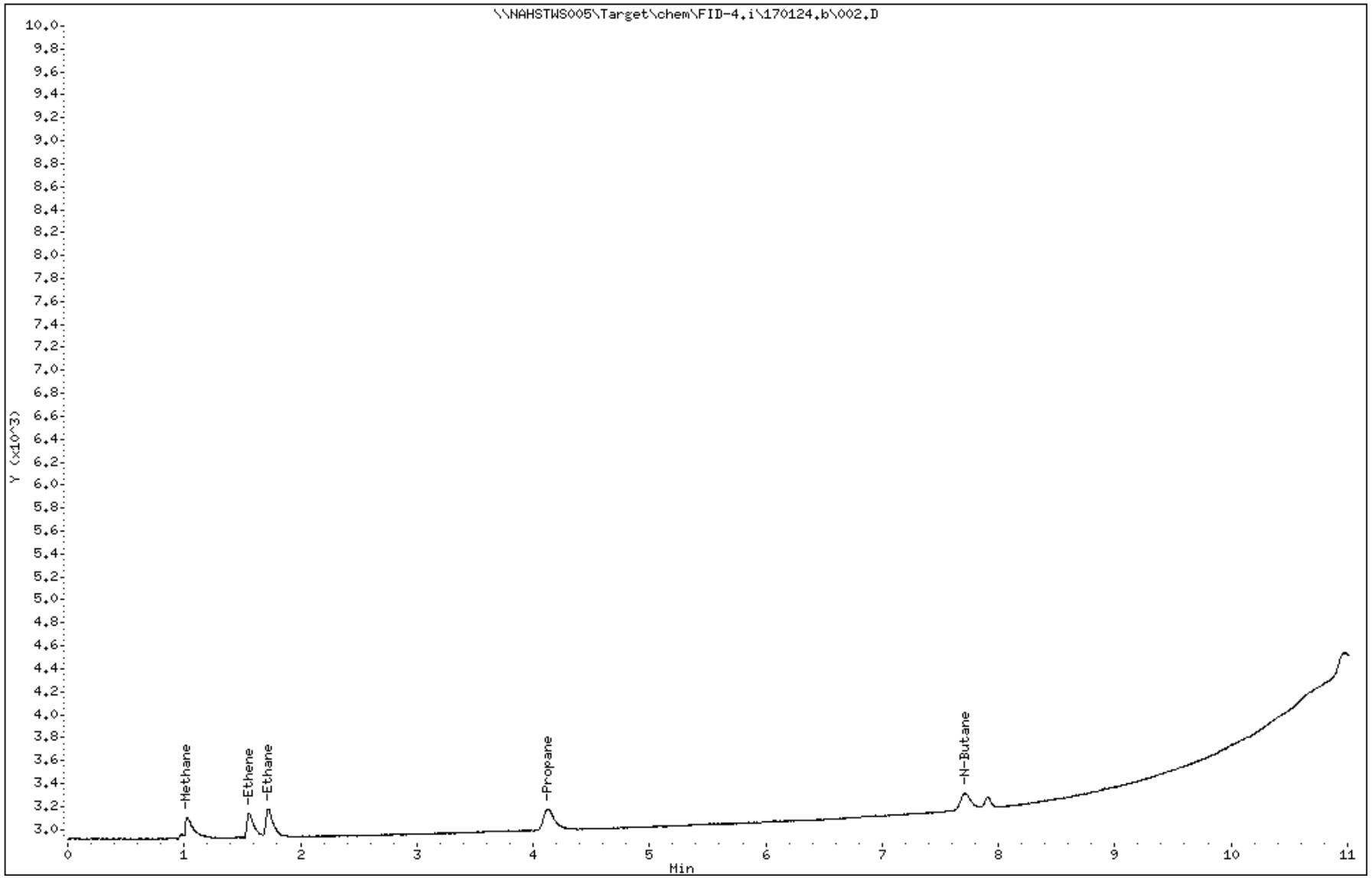
Instrument: FID-4.i

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

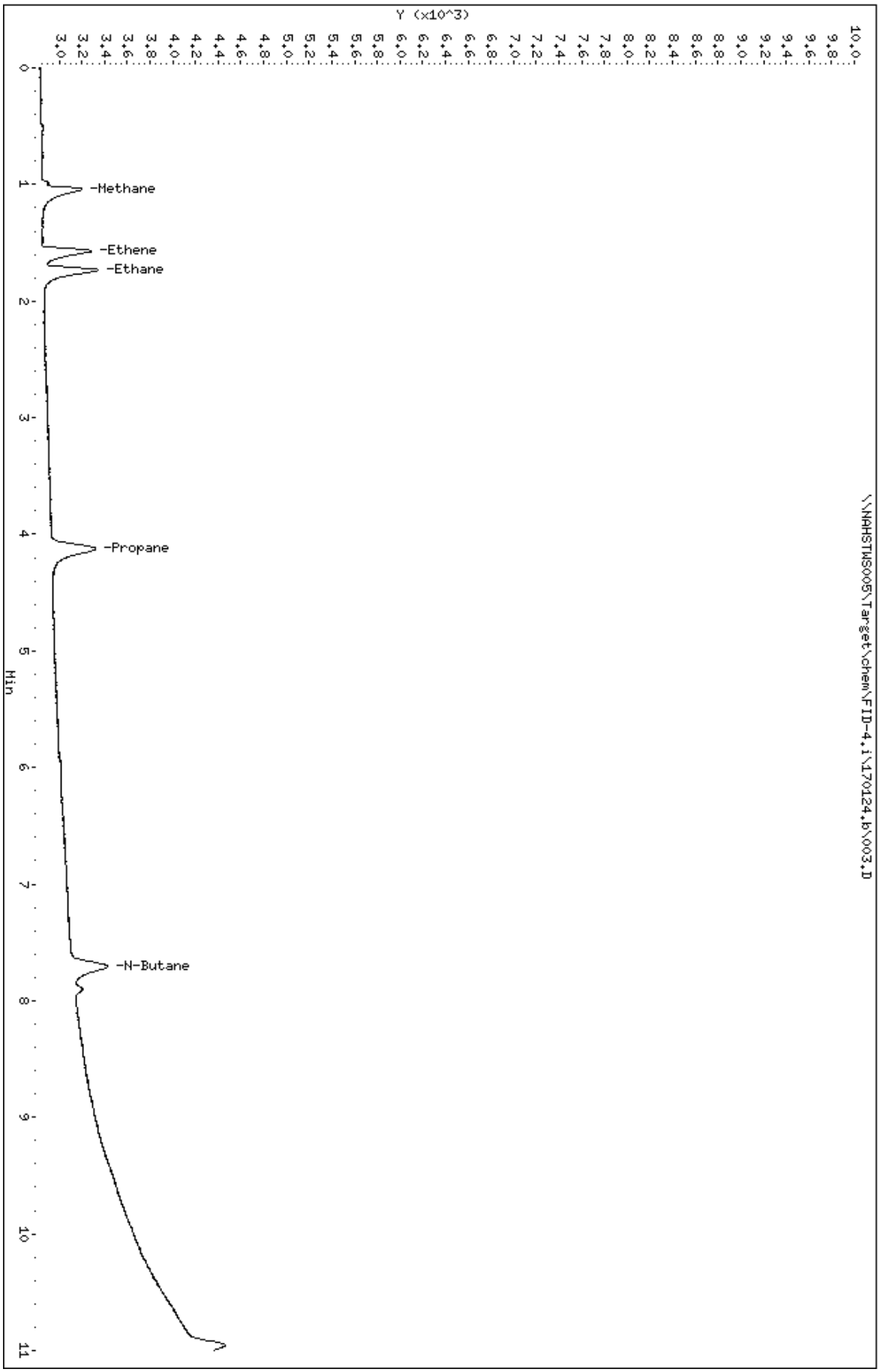
Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Lab Smp Id: ICAL3 Client Smp ID: ICAL3
Inj Date : 24-JAN-2017 09:59
Operator : MA Inst ID: FID-4.i
Smp Info : ICAL3;ICAL3;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 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)	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

Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Date : 24-JAN-2017 09:59
Client ID: ICAL3
Sample Info: ICAL3;ICAL3;;;
Column phase: Rtx-PLOT

Instrument: FID-4.i
Operator: HA
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

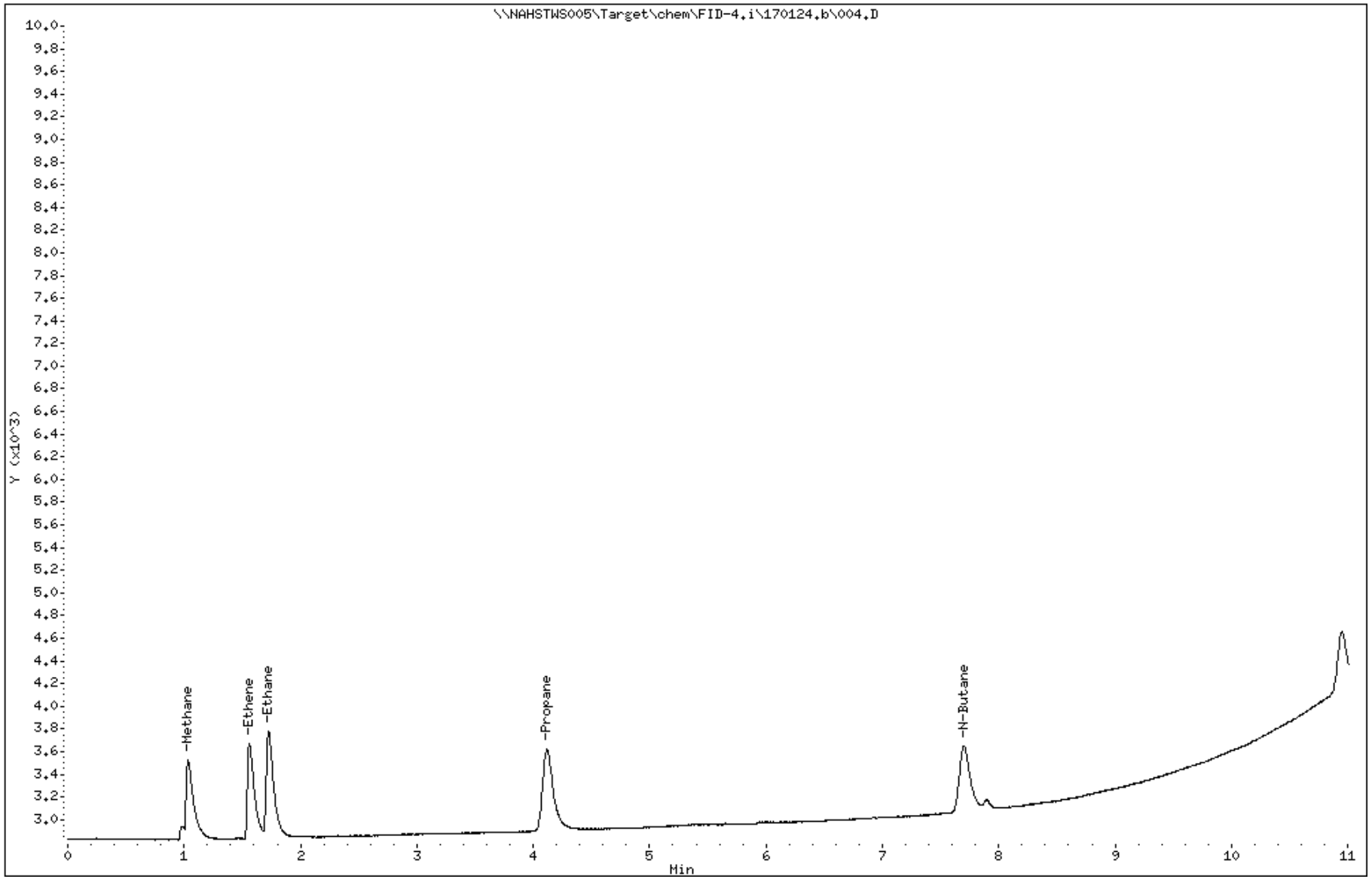
Instrument: FID-4.i

Sample Info: ICAL4;ICAL4;;;

Operator: MA

Column phase: Rtx-PLOT

Column diameter: 0.53



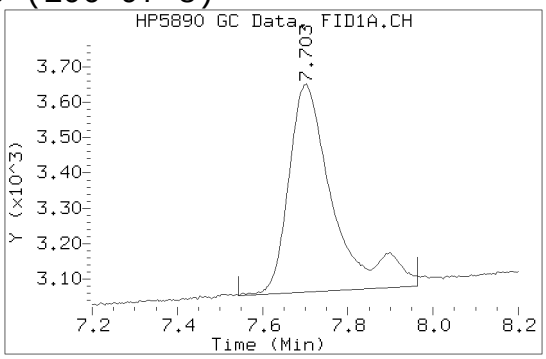
Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Inj Date : 24-JAN-2017 10:15
InstruID : FID-4.i
LabSampID : ICAL4

N-Butane (106-97-8)

Reason Code:

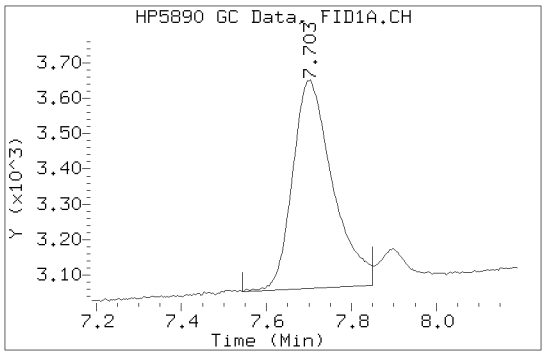
BEFORE

MASS
100
AREA
4292
HEIGHT
591
28-Sep-2022
10:02
linh
pham



AFTER

MASS
100
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

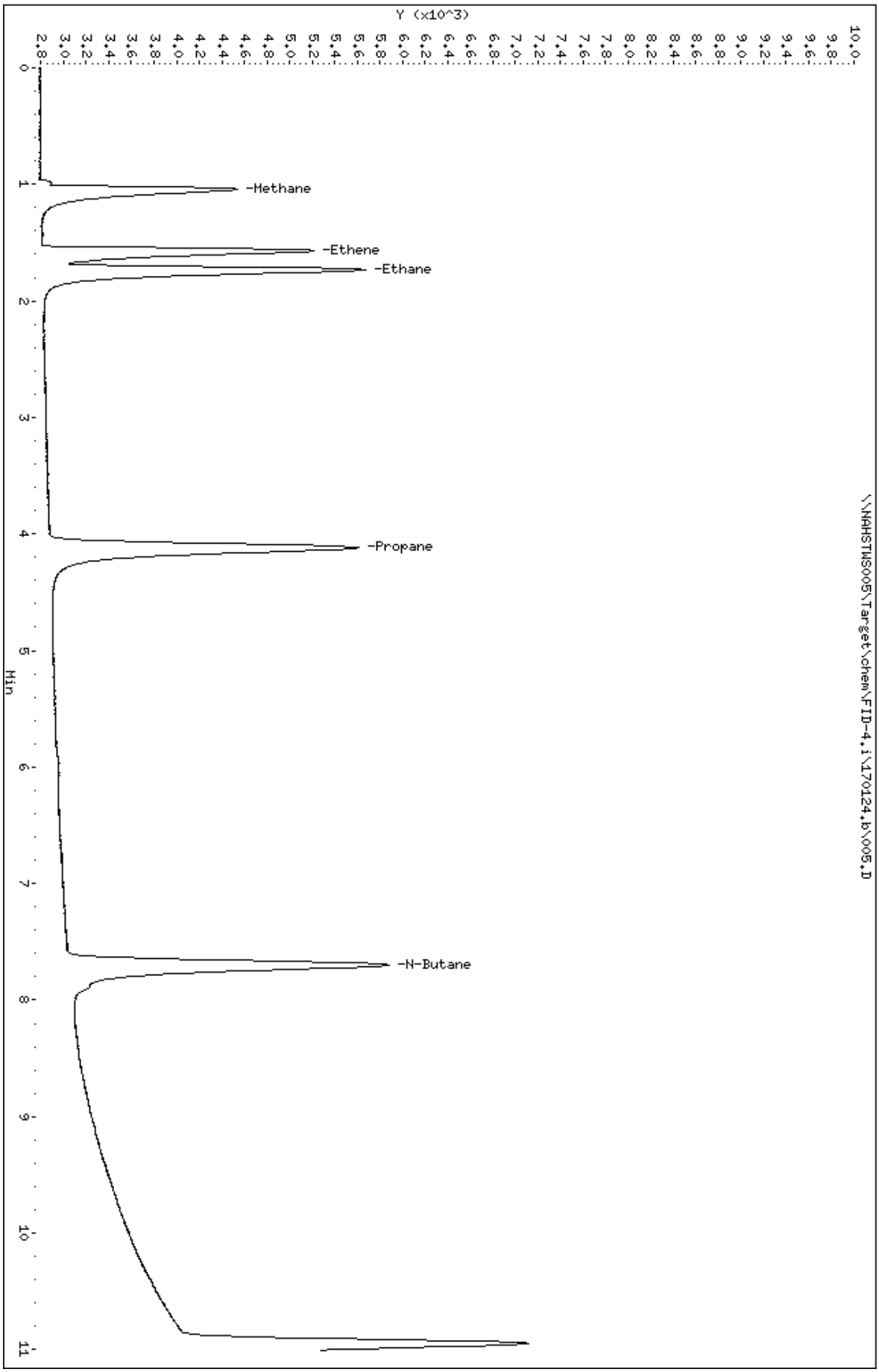
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1 Methane	1.043	1.043	0.000	9268	9.64700	9.511
2 Ethene	1.570	1.570	0.000	11210	16.8500	19.121
3 Ethane	1.733	1.733	0.000	14588	18.0430	19.811
4 Propane	4.120	4.120	0.000	18294	26.4630	27.415
5 N-Butane	7.700	7.700	0.000	18446	34.9550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



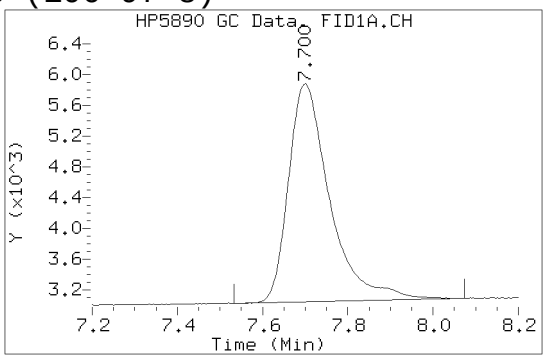
Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
Inj Date : 24-JAN-2017 10:39
InstruID : FID-4.i
LabSampID : ICAL5

N-Butane (106-97-8)

Reason Code:

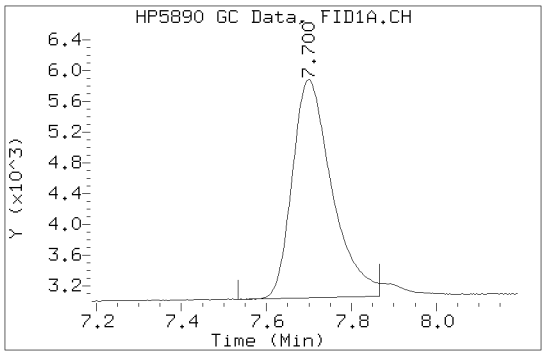
BEFORE

MASS
100
AREA
19142
HEIGHT
2839
28-Sep-2022
10:02
linh
pham



AFTER

MASS
100
AREA
18446
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

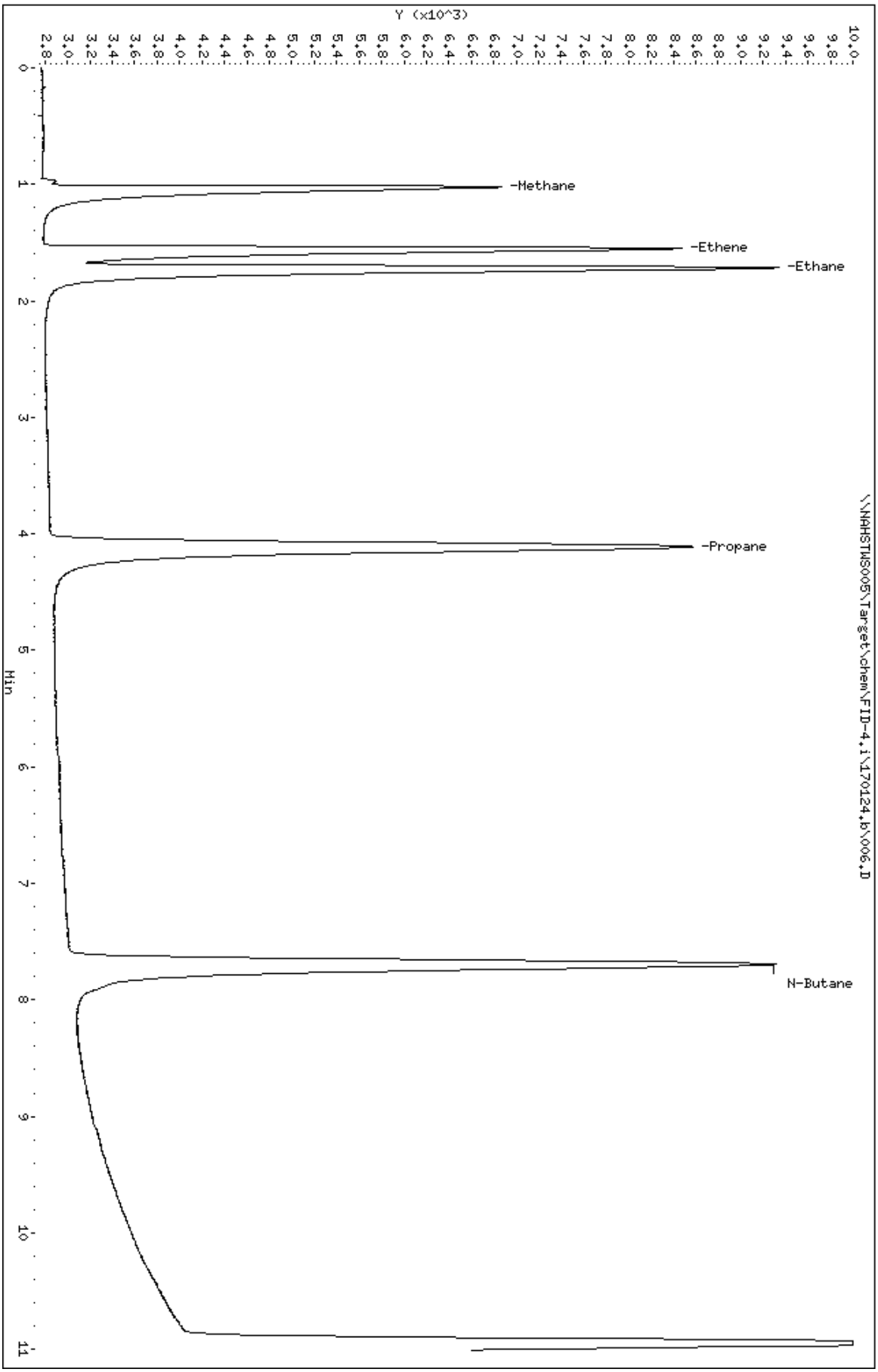
ALS Laboratory Group

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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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
\\NAHSTWS005\Target\chem\FID-4,i\170124,b\006.D
Min

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

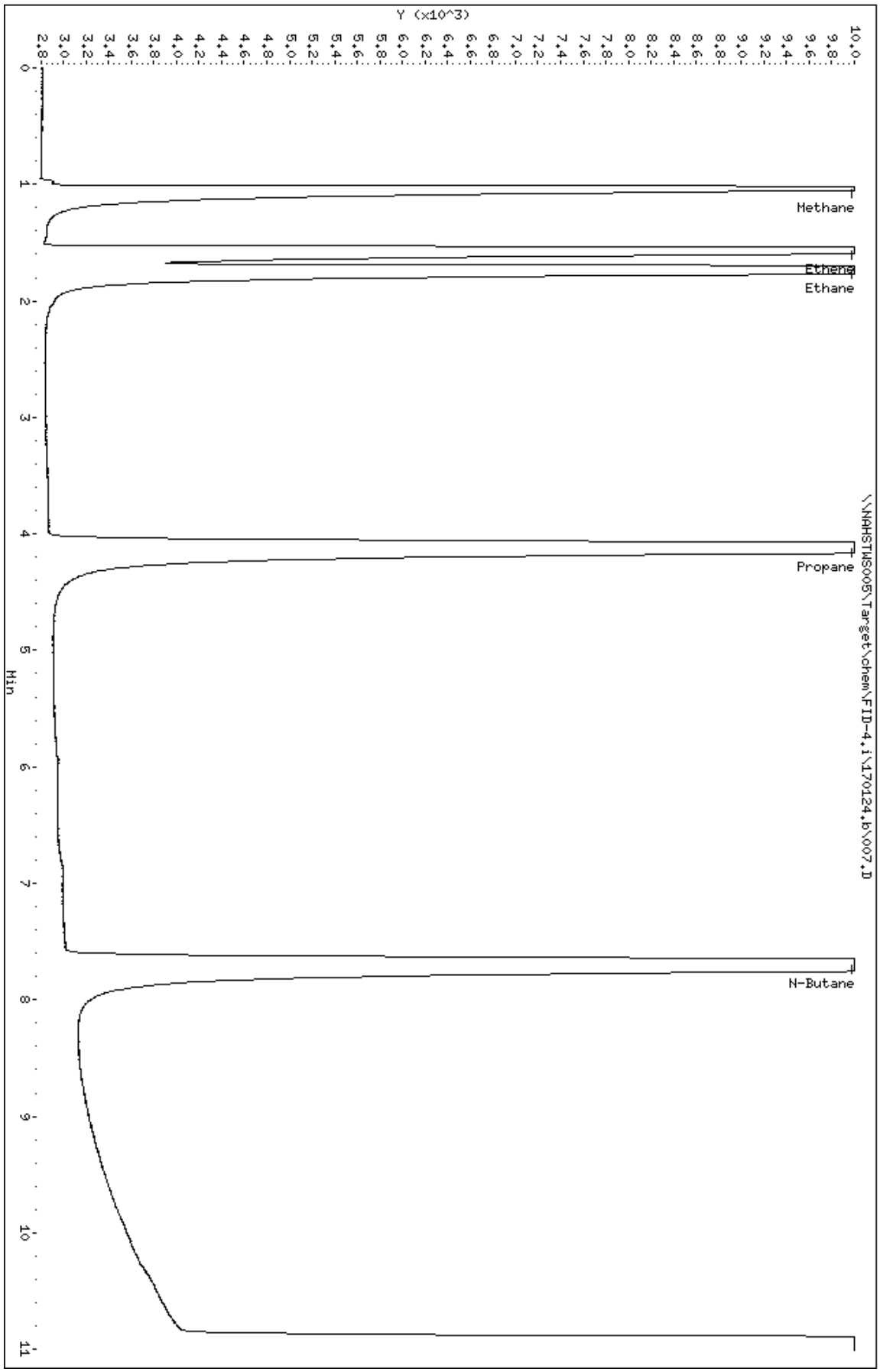
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 Methane	1.030	1.030	0.000	41736	38.5880	42.833(A)
2 Ethene	1.556	1.556	0.000	55865	67.4000	95.291(A)
3 Ethane	1.723	1.723	0.000	72124	72.1720	97.951(A)
4 Propane	4.113	4.113	0.000	96509	105.852	105.844
5 N-Butane	7.690	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



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

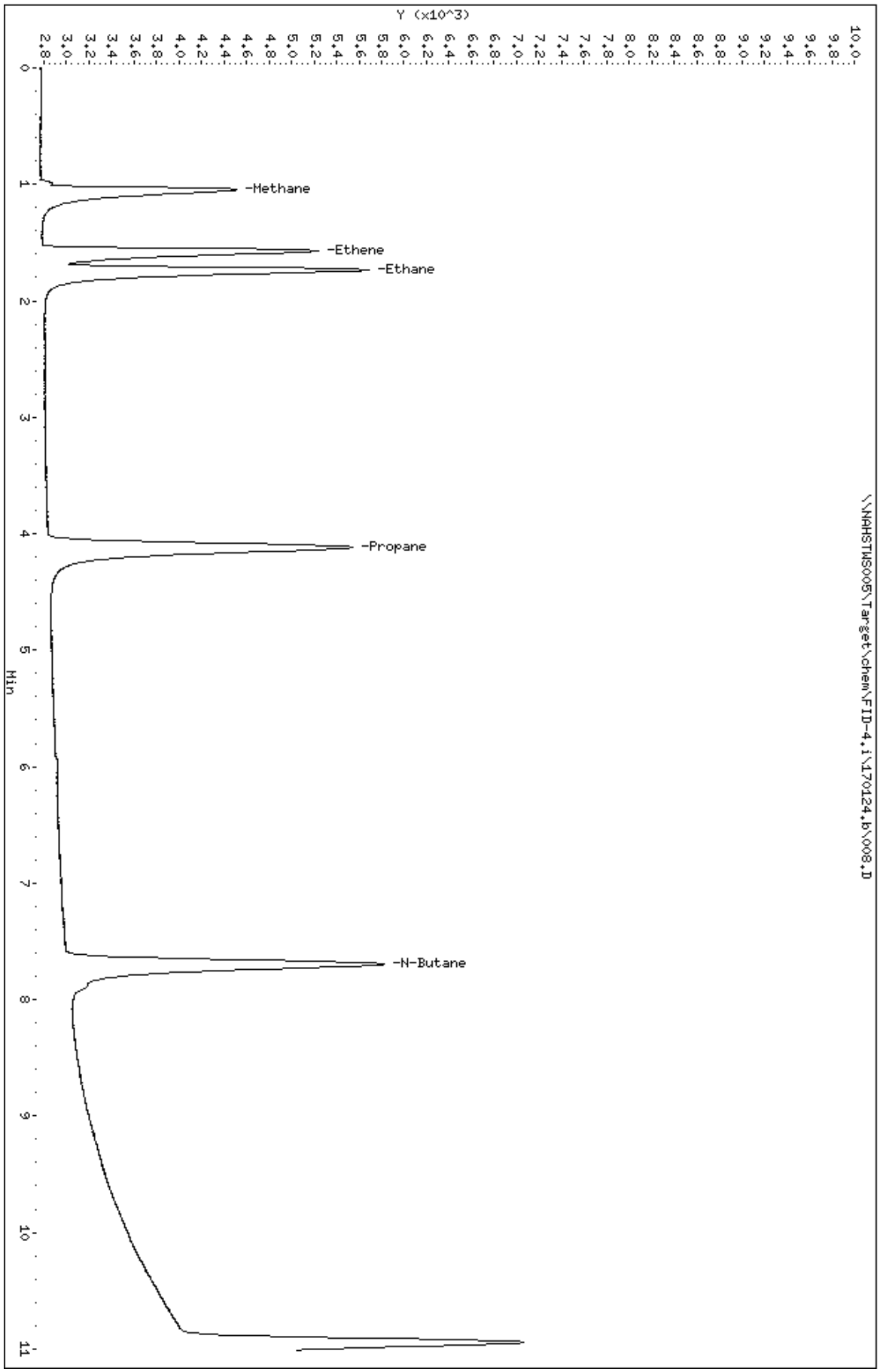
Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-JAN-2017 12:05
Operator : MA Inst ID: FID-4.i
Smp Info : ICV;ICV;;;
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
Meth Date : 28-Sep-2022 10:00 FID-4.i 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

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(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
Sample Info: ICV;ICV;;;
Column phase: Rtx-PLOT

Instrument: FID-4,i
Operator: MA
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.

RawData

Dissolved Gasses by Dissolved Gases by RSK-175

Workorder

HS24020576

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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\240214.b\001.D Page 1
Report Date: 14-Feb-2024 08:18

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 14-FEB-2024 07:20
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\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 08:17 elona.hasa 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: NAHSTW7025

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	9193	9.64700	9.428
2 Ethene	0.630	0.630	0.000	10569	16.8500	18.043(M)
3 Ethane	0.693	0.693	0.000	14614	18.0430	20.311(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\001.D

Date : 14-FEB-2024 07:20

Client ID: RSK-CCV

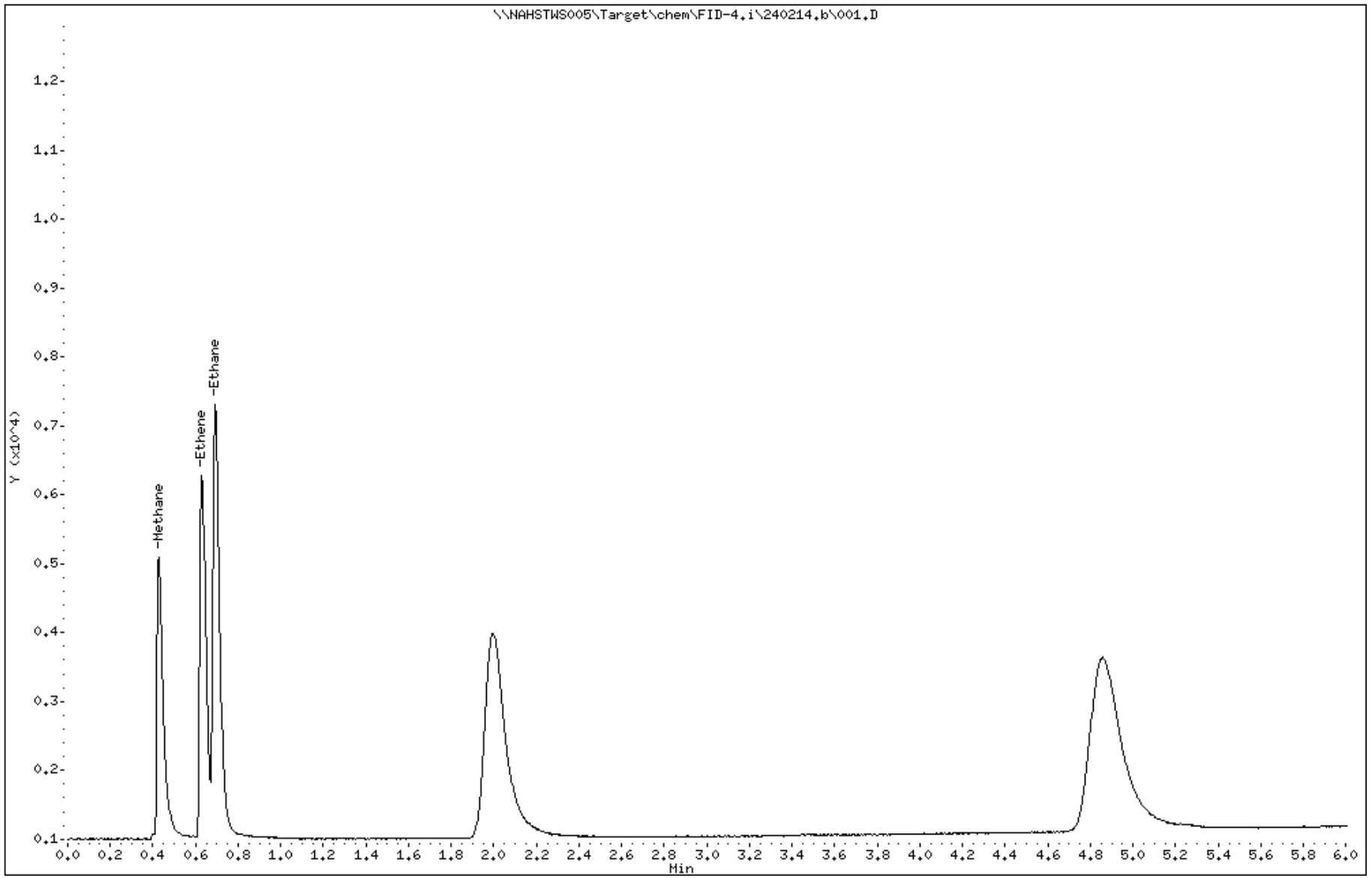
Instrument: FID-4.i

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

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



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Inj Date : 14-FEB-2024 07:20
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

BEFORE

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HEIGHT
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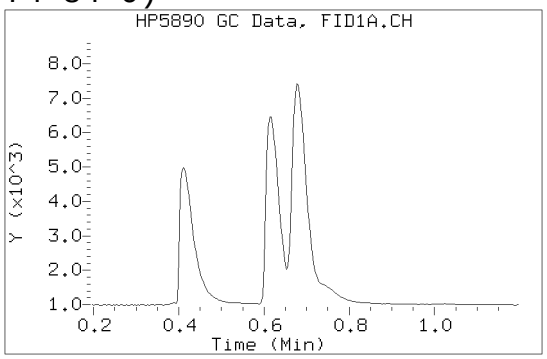
13-Feb-2024
09:47
ALSHS
Server



AFTER

MASS
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AREA
14614
HEIGHT
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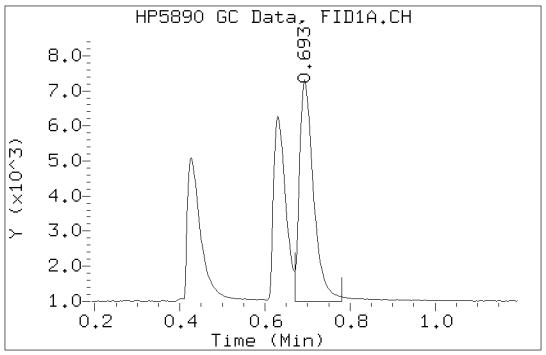
14-Feb-2024
08:18
ALSHS
Server

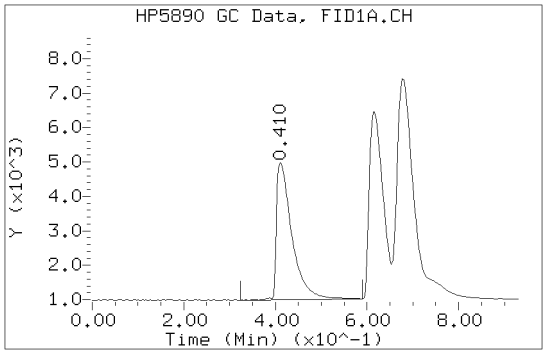


Ethene (74-85-1)

Reason Code:

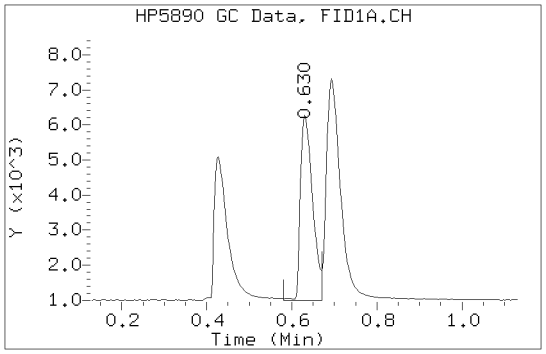
BEFORE

MASS
100
AREA
0
HEIGHT
0
13-Feb-2024
09:47
ALSHS
Server



AFTER

MASS
100
AREA
10569
HEIGHT
5280
14-Feb-2024
08:18
ALSHS
Server



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\002.D Page 1
Report Date: 14-Feb-2024 08:56

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\002.D
Lab Smp Id: MBLK-240214 Client Smp ID: MBLK-240214
Inj Date : 14-FEB-2024 08:18
Operator : PL Inst ID: FID-4.i
Smp Info : MBLK-240214;MBLK-240214;3;;BLANK
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 08:17 elona.hasa 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: NAHSTW7025

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\240214.b\002.D

Date : 14-FEB-2024 08:18

Client ID: MBLK-240214

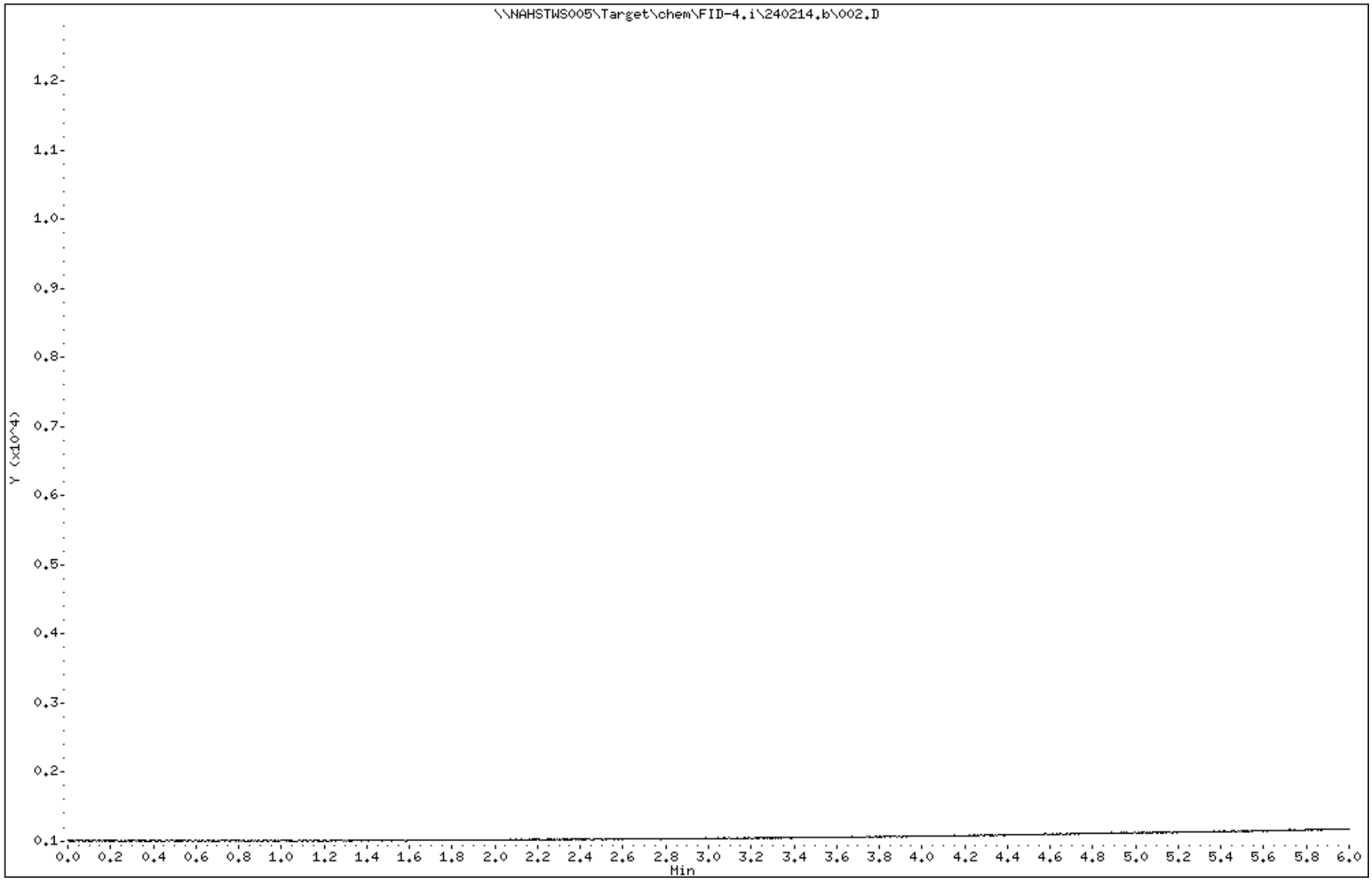
Instrument: FID-4.i

Sample Info: MBLK-240214;MBLK-240214;3;;BLANK

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\002.D
Inj Date : 14-FEB-2024 08:18
InstruID : FID-4.i
LabSampID : MBLK-240214

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\003.D Page 1
Report Date: 14-Feb-2024 13:52

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\003.D
Lab Smp Id: LCS-240214 Client Smp ID: LCS-240214
Inj Date : 14-FEB-2024 08:39
Operator : PL Inst ID: FID-4.i
Smp Info : LCS-240214;LCS-240214;3;;LCS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 12:48 elona.hasa 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: NAHSTW7025

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	0.433	0.003	9111	9.34469	9.344(M)
2 Ethene	0.643	0.636	0.007	10199	17.4116	17.411
3 Ethane	0.706	0.700	0.006	14268	19.8307	19.830

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\003.D

Date : 14-FEB-2024 08:39

Client ID: LCS-240214

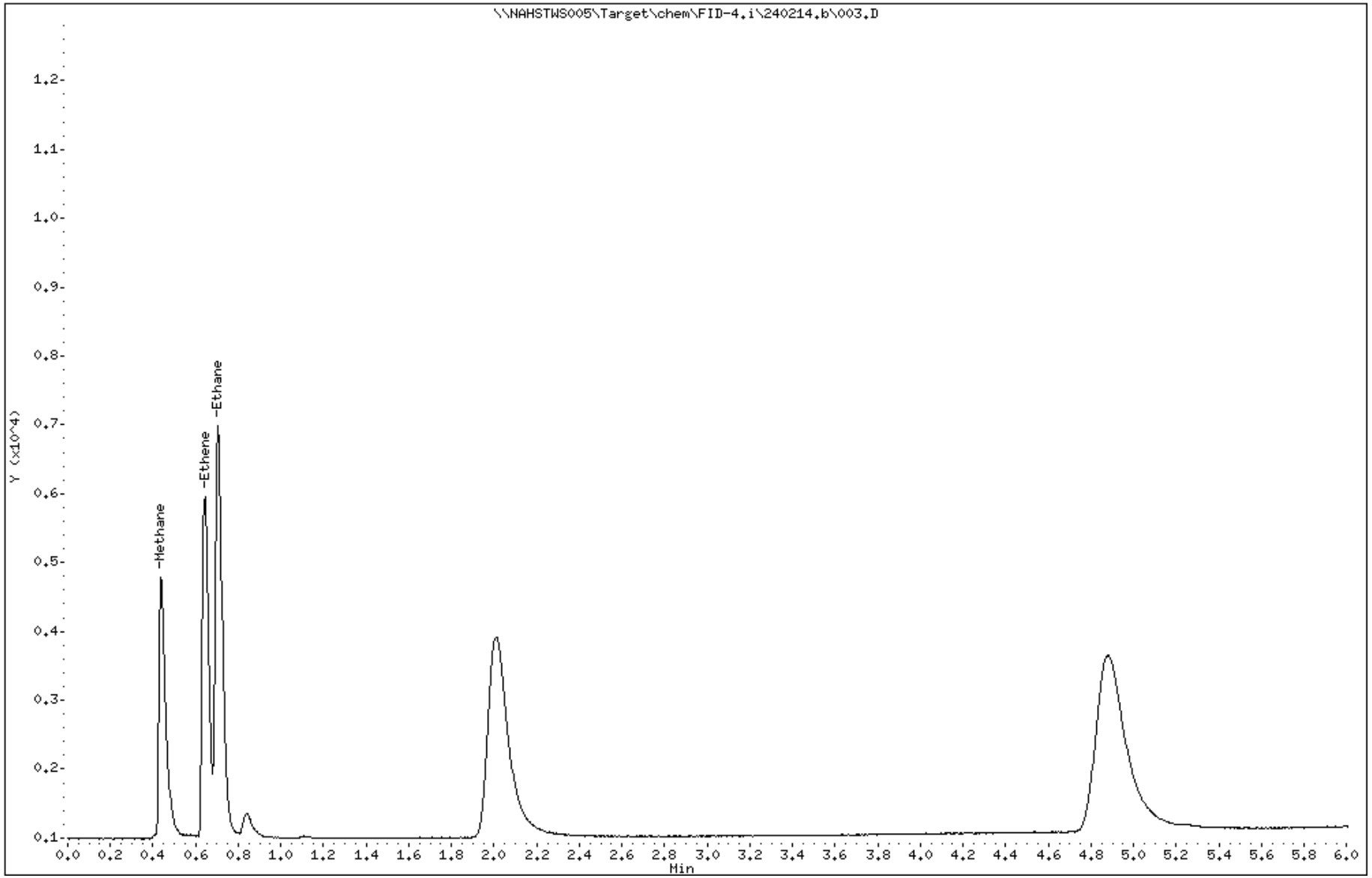
Instrument: FID-4.i

Sample Info: LCS-240214;LCS-240214;3;;LCS

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



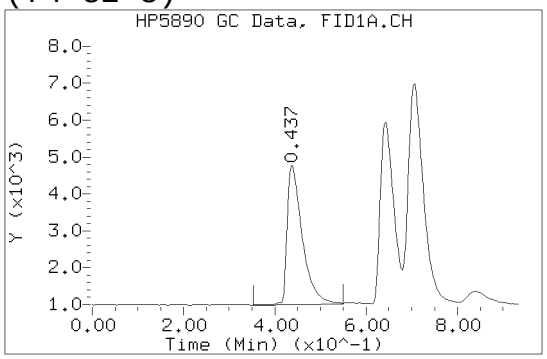
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\003.D
Inj Date : 14-FEB-2024 08:39
InstruID : FID-4.i
LabSampID : LCS-240214

Methane (74-82-8)

Reason Code:

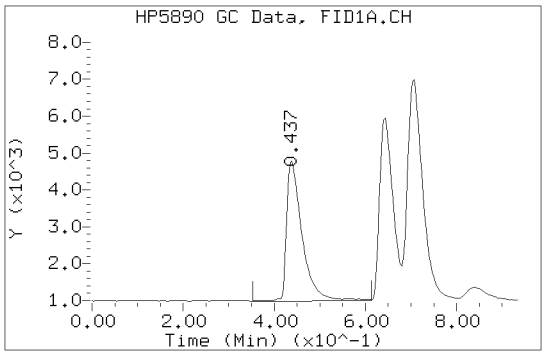
BEFORE

MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
08:47
ALSHS
Server



AFTER

MASS
100
AREA
9111
HEIGHT
3802
14-Feb-2024
13:52
ALSHS
Server



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\004.D
Lab Smp Id: LCSD-240214 Client Smp ID: LCSD-240214
Inj Date : 14-FEB-2024 08:49
Operator : PL Inst ID: FID-4.i
Smp Info : LCSD-240214;LCSD-240214;3;;LCSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 08:17 elona.hasa 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: NAHSTW7025

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	0.426	0.010	9153	9.38777	9.387
2 Ethene	0.643	0.630	0.013	9924	16.9421	16.942
3 Ethane	0.706	0.693	0.013	15947	22.1643	22.164

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\004.D

Date : 14-FEB-2024 08:49

Client ID: LCSD-240214

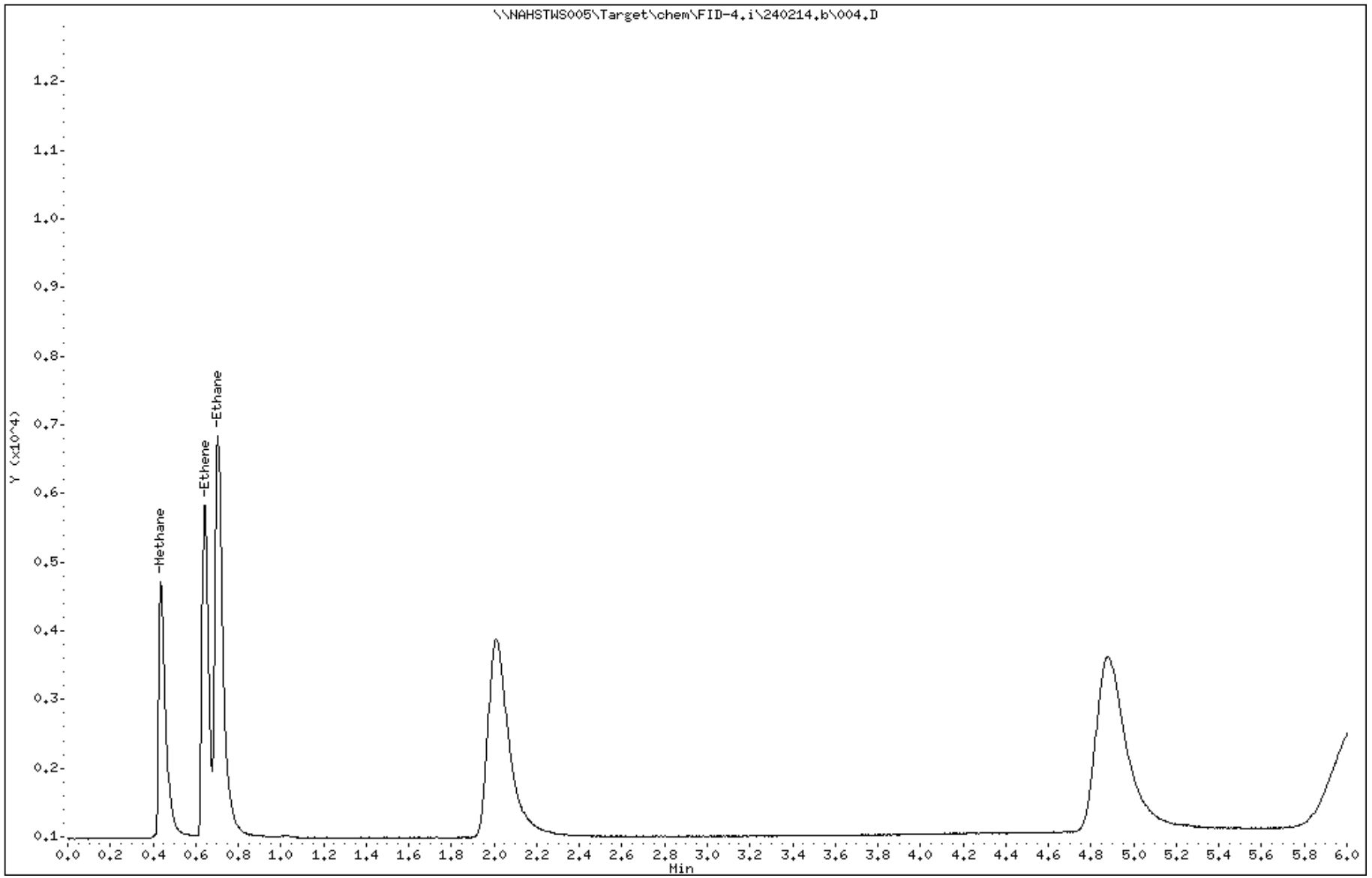
Instrument: FID-4.i

Sample Info: LCSD-240214;LCSD-240214;3;;LCSD

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\004.D
Inj Date : 14-FEB-2024 08:49
InstruID : FID-4.i
LabSampID : LCSD-240214

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\005.D Page 1
Report Date: 14-Feb-2024 13:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\005.D
Lab Smp Id: HS24020576-01 Client Smp ID: HS24020576-01
Inj Date : 14-FEB-2024 09:24
Operator : JA Inst ID: FID-4.i
Smp Info : HS24020576-01;HS24020576-01
Misc Info :
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 12:48 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	874341	896.767	896.767(A)
2 Ethene	0.633	0.636	-0.003	20553	35.0877	35.087(M)
3 Ethane	0.683	0.700	-0.017	6672	9.27324	9.273(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\005.D

Date : 14-FEB-2024 09:24

Client ID: HS24020576-01

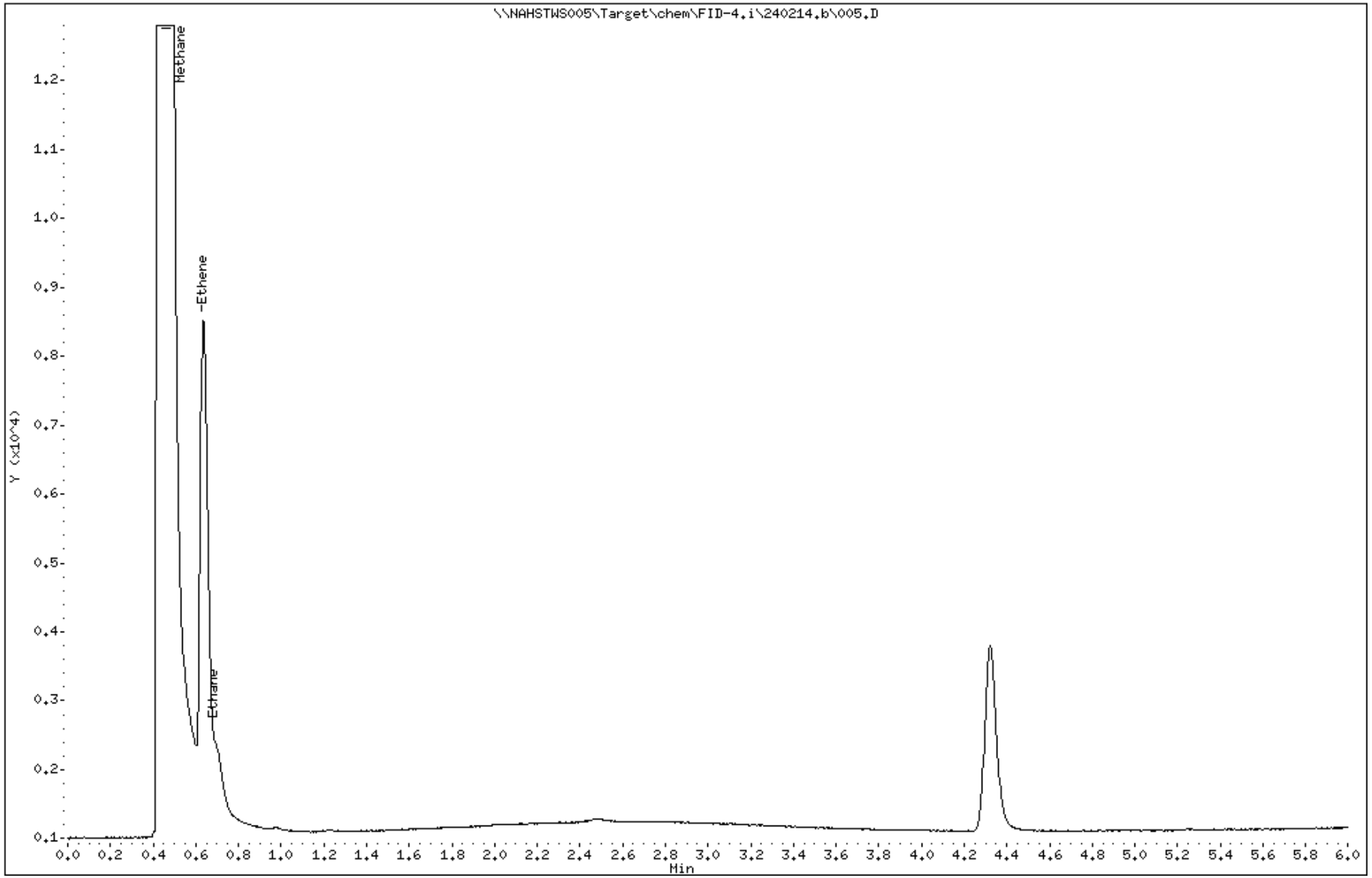
Instrument: FID-4.i

Sample Info: HS24020576-01;HS24020576-01

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53



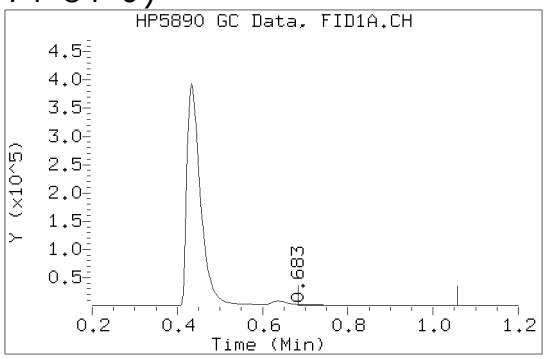
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\005.D
Inj Date : 14-FEB-2024 09:24
InstruID : FID-4.i
LabSampID : HS24020576-01

Ethane (74-84-0)

Reason Code:

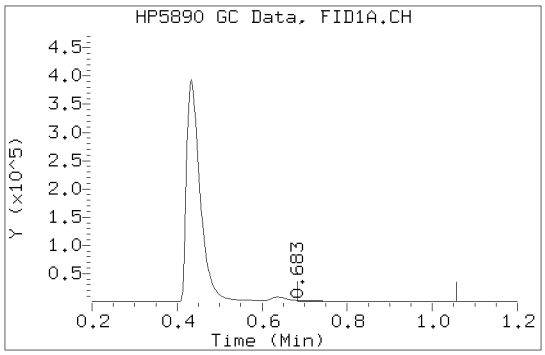
BEFORE

MASS
44
AREA
6672
HEIGHT
1467
14-Feb-2024
13:53
elona
hasani



AFTER

MASS
44
AREA
6672
HEIGHT
1467
14-Feb-2024
13:53
elona
hasani

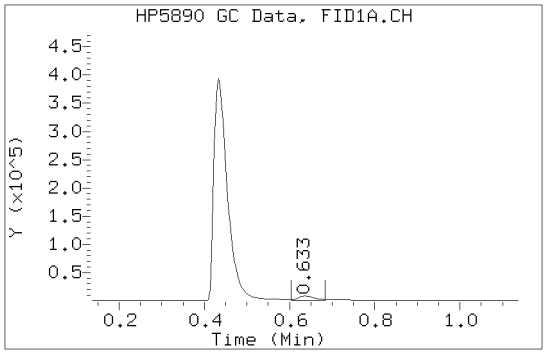


Ethene (74-85-1)

Reason Code:

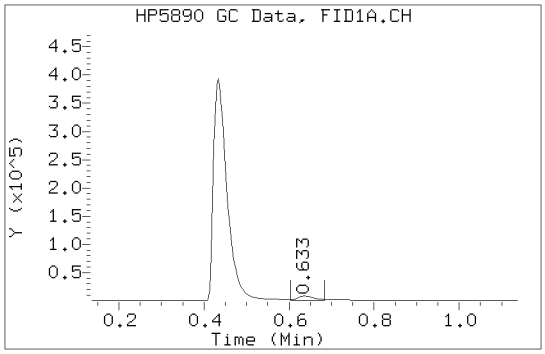
BEFORE

MASS
100
AREA
20553
HEIGHT
7467
14-Feb-2024
13:53
elona
hasani



AFTER

MASS
100
AREA
20553
HEIGHT
7467
14-Feb-2024
13:53
elona
hasani



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\006.D Page 1
Report Date: 14-Feb-2024 14:08

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\006.D
Lab Smp Id: HS24020576-02 Client Smp ID: HS24020576-02
Inj Date : 14-FEB-2024 10:09
Operator : JA Inst ID: FID-4.i
Smp Info : HS24020576-02;HS24020576-02
Misc Info :
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 12:48 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	1986415	2037.36	2037.364(A)
2 Ethene	0.633	0.636	-0.003	14393	24.5715	24.571(M)
3 Ethane	0.680	0.700	-0.020	11526	16.0197	16.019(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\006.D

Date : 14-FEB-2024 10:09

Client ID: HS24020576-02

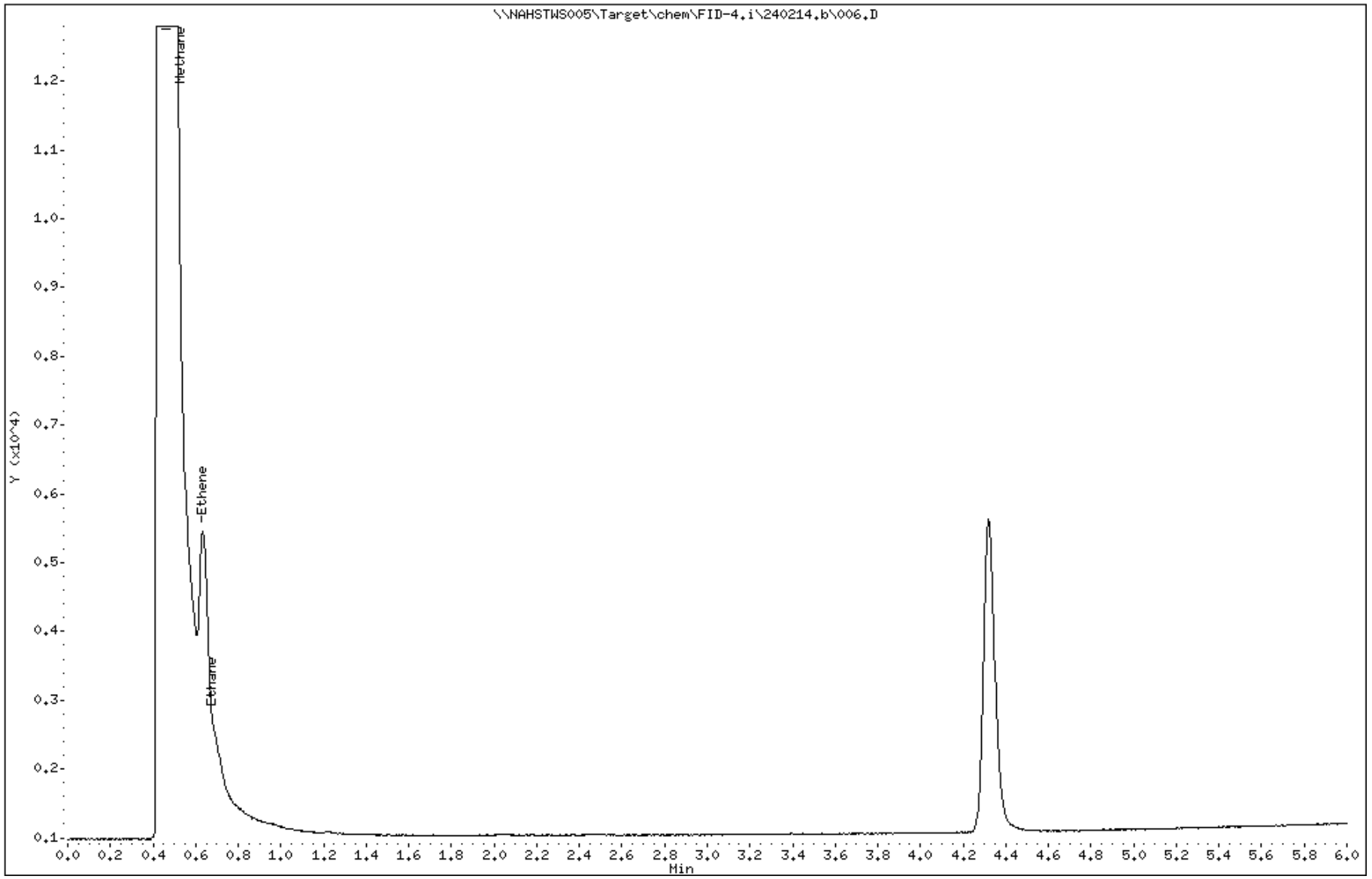
Instrument: FID-4.i

Sample Info: HS24020576-02;HS24020576-02

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53



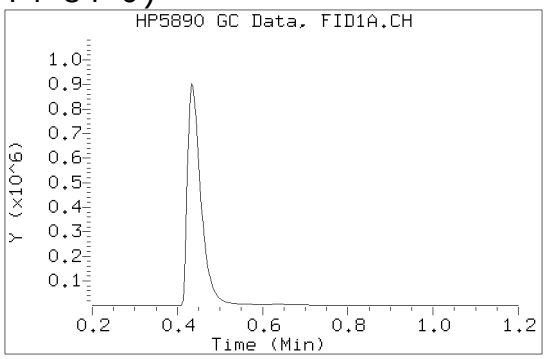
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\006.D
Inj Date : 14-FEB-2024 10:09
InstruID : FID-4.i
LabSampID : HS24020576-02

Ethane (74-84-0)

Reason Code:

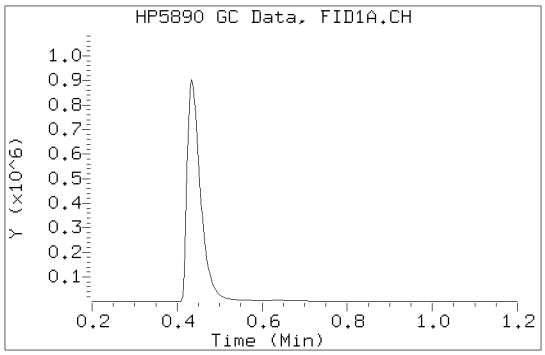
BEFORE

MASS
44
AREA
0
HEIGHT
0
14-Feb-2024
10:45
elona
hasani



AFTER

MASS
44
AREA
11526
HEIGHT
1688
14-Feb-2024
14:08
elona
hasani

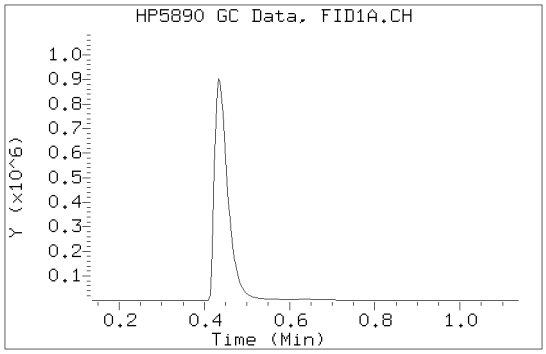


Ethene (74-85-1)

Reason Code:

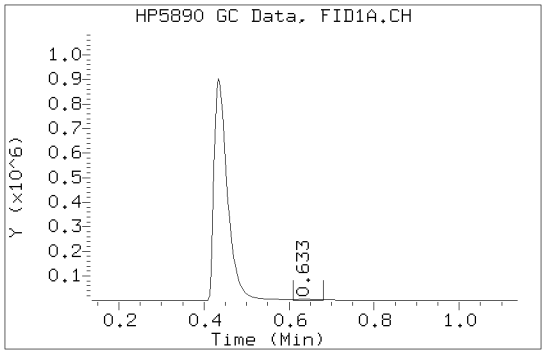
BEFORE

MASS
100
AREA
25278
HEIGHT
4461
14-Feb-2024
10:45
elona
hasani



AFTER

MASS
100
AREA
14393
HEIGHT
4460
14-Feb-2024
14:08
elona
hasani



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\007.D
Lab Smp Id: HS24020576-05 Client Smp ID: HS24020576-05
Inj Date : 14-FEB-2024 10:31
Operator : JA Inst ID: FID-4.i
Smp Info : HS24020576-05;HS24020576-05
Misc Info :
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 12:48 elona.hasa 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: NAHSTW7025

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	0.433	0.003	560718	575.100	575.099(AM)
2 Ethene	0.616	0.636	-0.020	2440	4.16553	4.165(M)
3 Ethane	0.730	0.700	0.030	4811	6.68668	6.686

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\007.D

Date : 14-FEB-2024 10:31

Client ID: HS24020576-05

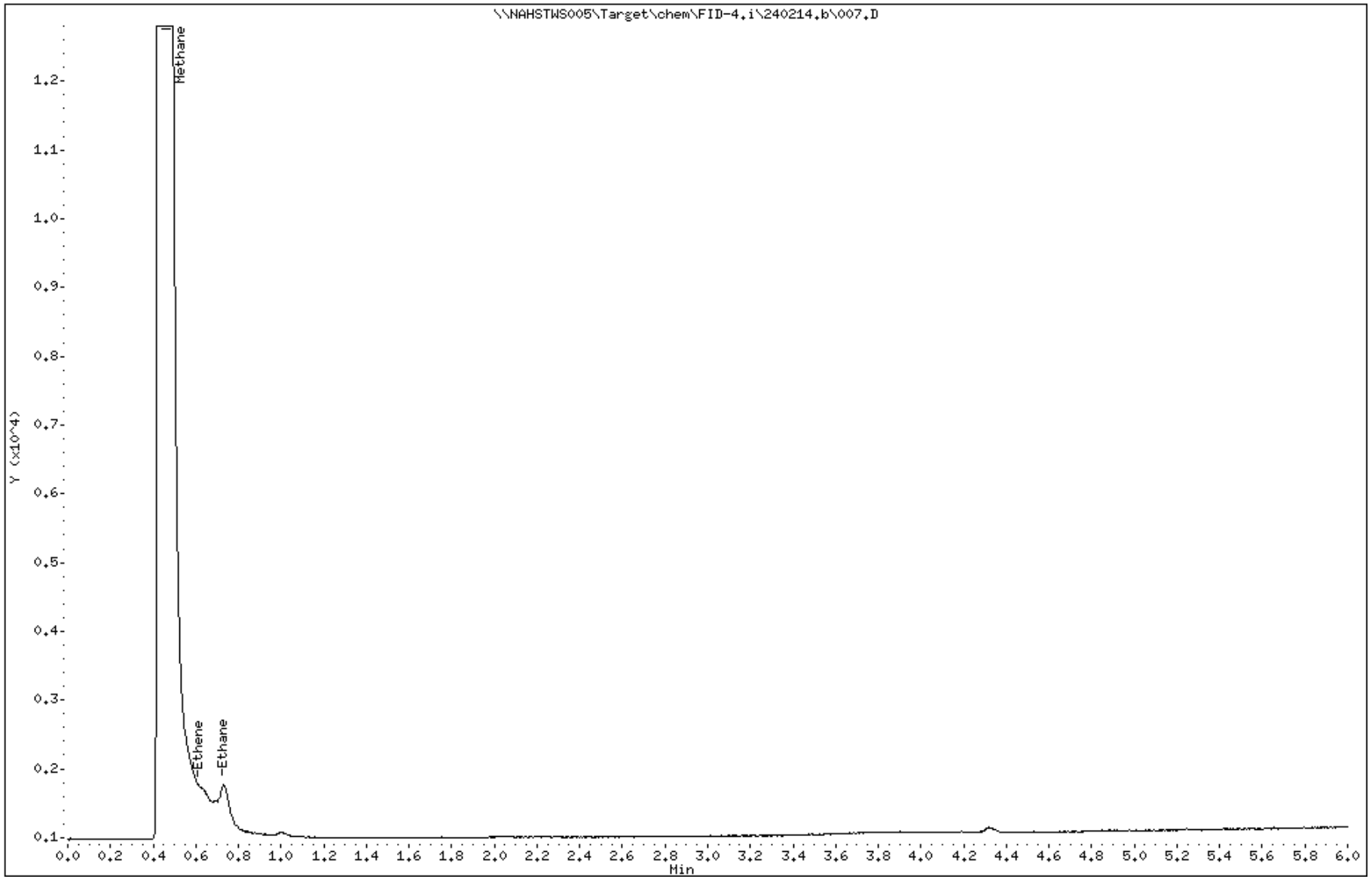
Instrument: FID-4.i

Sample Info: HS24020576-05;HS24020576-05

Operator: JA

Column phase: Rtx-PLOT

Column diameter: 0.53

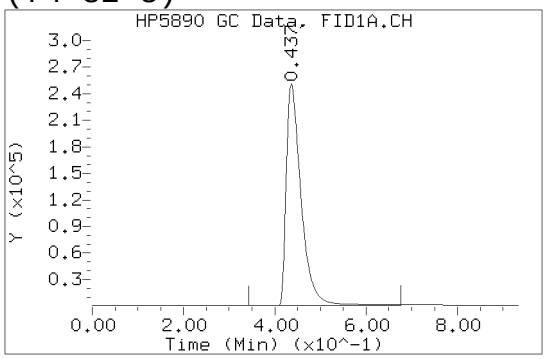


Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\007.D
Inj Date : 14-FEB-2024 10:31
InstruID : FID-4.i
LabSampID : HS24020576-05

Methane (74-82-8)

BEFORE

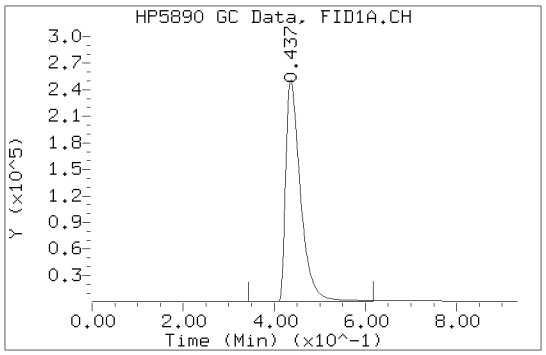
MASS
100
AREA
563628
HEIGHT
250349
14-Feb-2024
10:45
elona
hasani



Reason Code:

AFTER

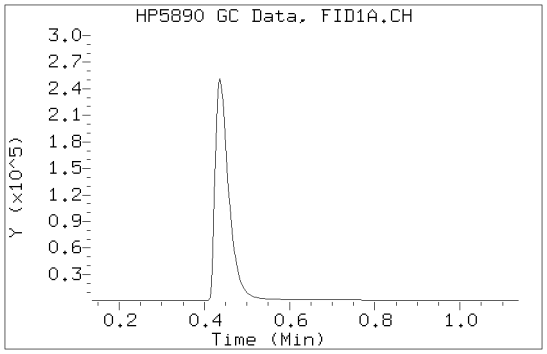
MASS
100
AREA
560718
HEIGHT
250302
14-Feb-2024
14:09
elona
hasani



Ethene (74-85-1)

BEFORE

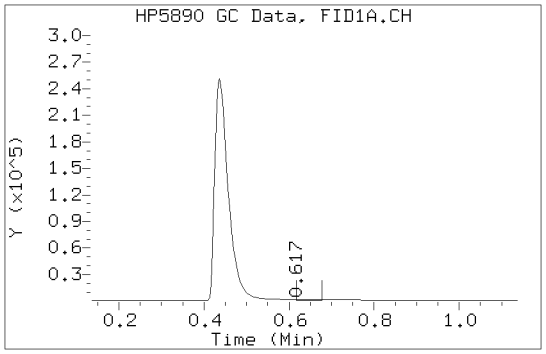
MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
10:45
elona
hasani



Reason Code:

AFTER

MASS
100
AREA
2440
HEIGHT
750
14-Feb-2024
14:09
elona
hasani



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\008.D Page 1
Report Date: 14-Feb-2024 13:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\008.D
Lab Smp Id: HS24020576-01 Client Smp ID: HS24020576-01
Inj Date : 14-FEB-2024 10:47
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020576-01;HS24020576-01
Misc Info : ;1;0;50
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 12:48 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 8
Dil Factor: 50.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.426	0.433	-0.007	16547	16.9714	848.570
2 Ethene	0.633	0.636	-0.003	376	0.64190	32.095(M)
3 Ethane	0.673	0.700	-0.027	1068	1.48439	74.219(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\008.D

Page 1

Date : 14-FEB-2024 10:47

Client ID: HS24020576-01

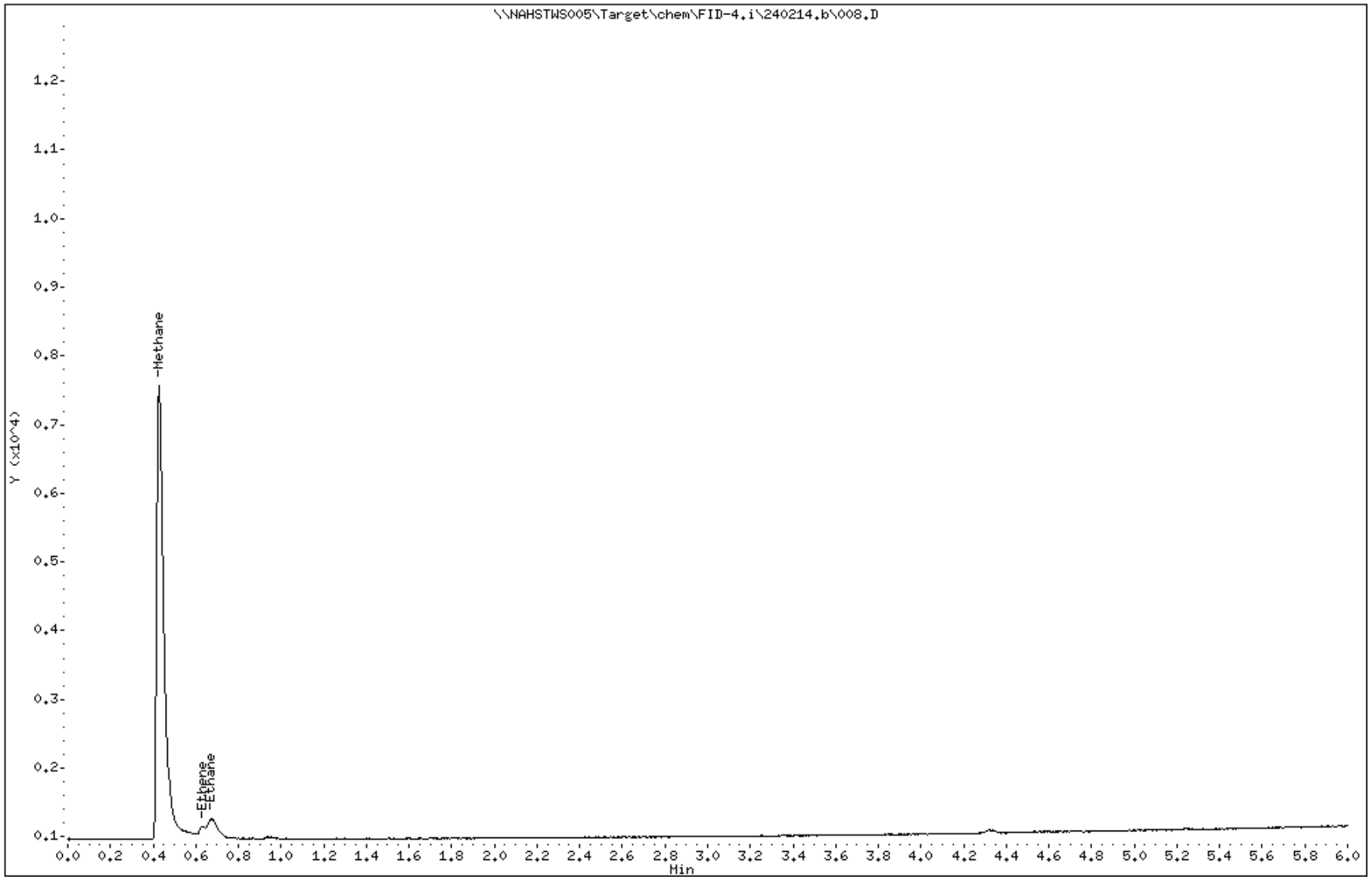
Instrument: FID-4.i

Sample Info: HS24020576-01;HS24020576-01

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



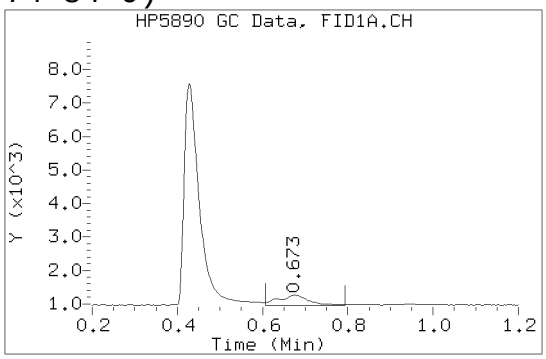
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\008.D
Inj Date : 14-FEB-2024 10:47
InstruID : FID-4.i
LabSampID : HS24020576-01

Ethane (74-84-0)

Reason Code:

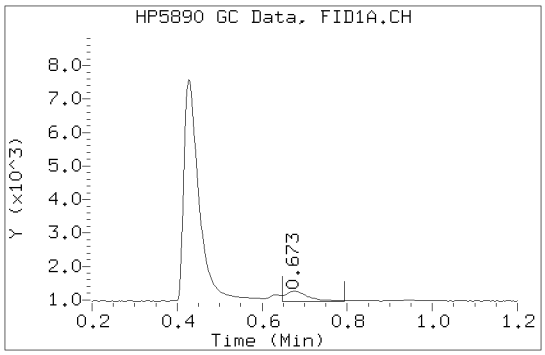
BEFORE

MASS
44
AREA
1404
HEIGHT
296
14-Feb-2024
11:26
ALSHS
Server



AFTER

MASS
44
AREA
1068
HEIGHT
295
14-Feb-2024
13:53
ALSHS
Server

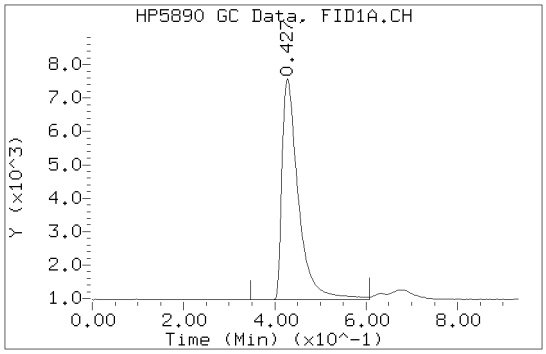


Ethene (74-85-1)

Reason Code:

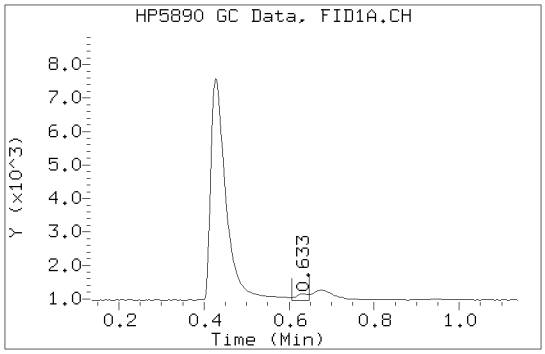
BEFORE

MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
11:26
ALSHS
Server



AFTER

MASS
100
AREA
376
HEIGHT
188
14-Feb-2024
13:53
ALSHS
Server



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\009.D Page 1
Report Date: 14-Feb-2024 13:53

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\009.D
Lab Smp Id: HS24020576-02 Client Smp ID: HS24020576-02
Inj Date : 14-FEB-2024 10:58
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020576-02;HS24020576-02
Misc Info : ;1;0;100
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 12:48 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 9
Dil Factor: 100.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.433	0.010	20456	20.9807	2098.067(M)
2 Ethene	0.630	0.636	-0.006	717	1.22405	122.404(M)
3 Ethane	0.683	0.700	-0.017	656	0.91176	91.175(aM)

QC Flag Legend

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

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\009.D

Date : 14-FEB-2024 10:58

Client ID: HS24020576-02

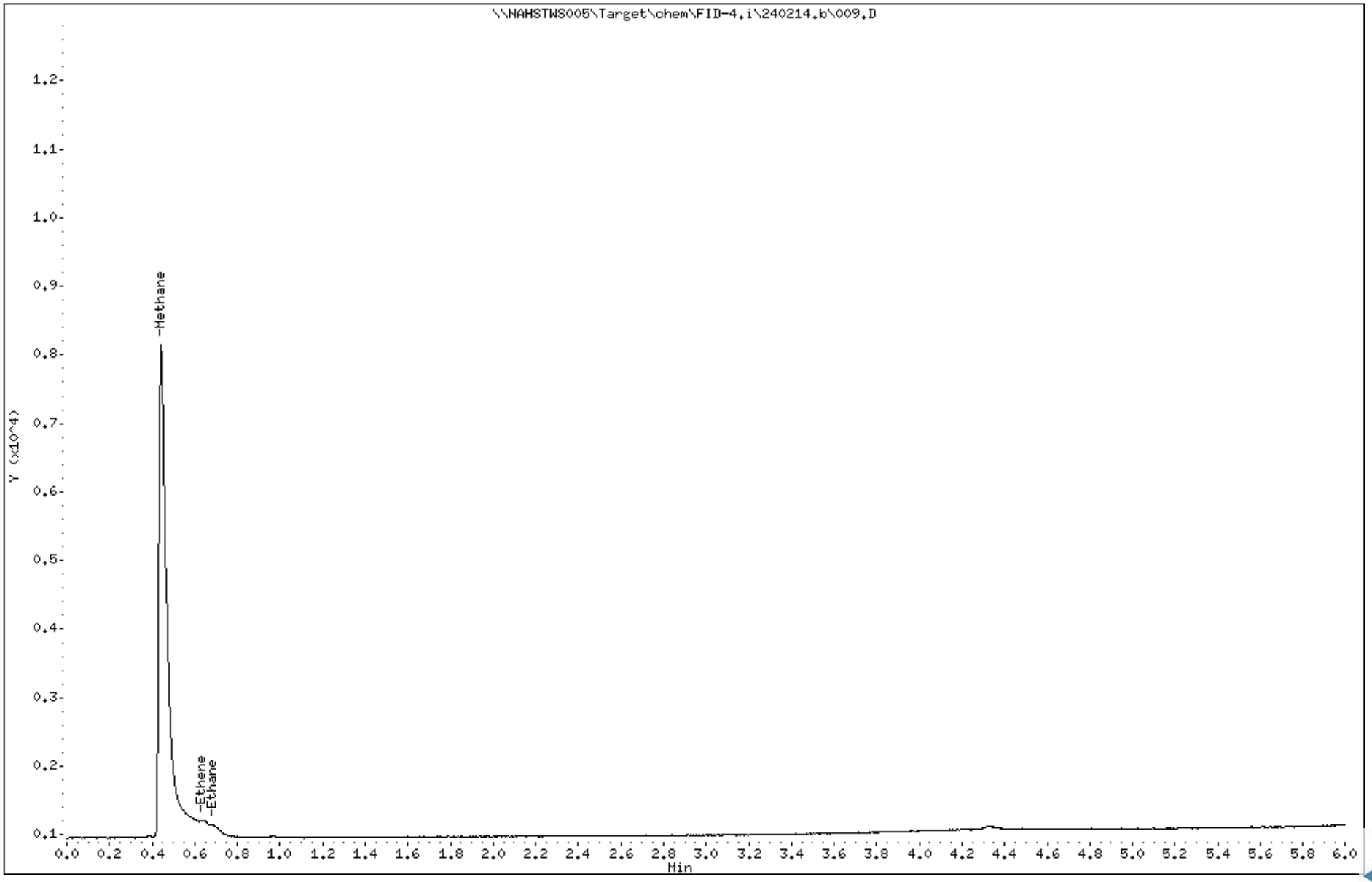
Instrument: FID-4.i

Sample Info: HS24020576-02;HS24020576-02

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



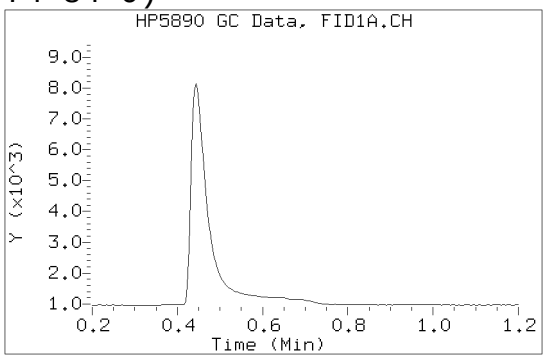
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\009.D
Inj Date : 14-FEB-2024 10:58
InstruID : FID-4.i
LabSampID : HS24020576-02

Ethane (74-84-0)

Reason Code:

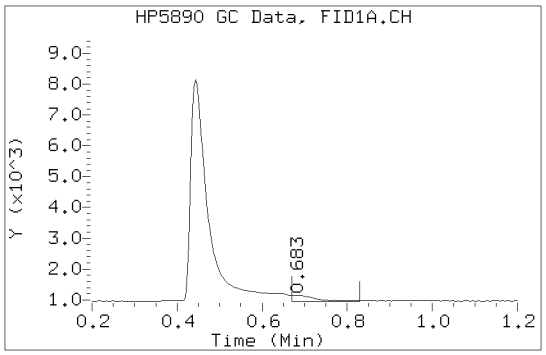
BEFORE

MASS
44
AREA
0
HEIGHT
0
14-Feb-2024
11:26
ALSHS
Server



AFTER

MASS
44
AREA
656
HEIGHT
183
14-Feb-2024
13:53
ALSHS
Server

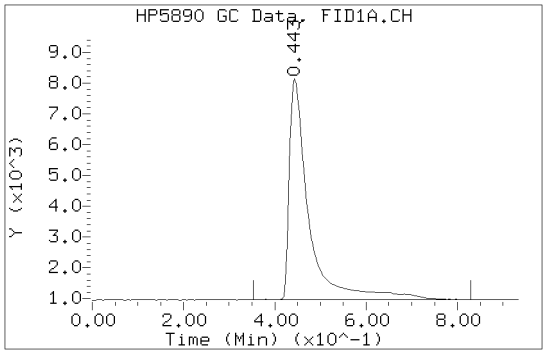


Methane (74-82-8)

Reason Code:

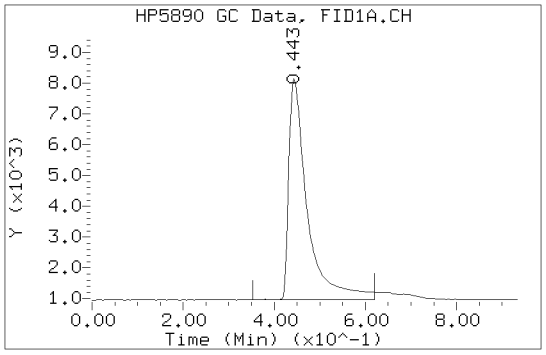
BEFORE

MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
11:26
ALSHS
Server



AFTER

MASS
100
AREA
20456
HEIGHT
7183
14-Feb-2024
13:53
ALSHS
Server

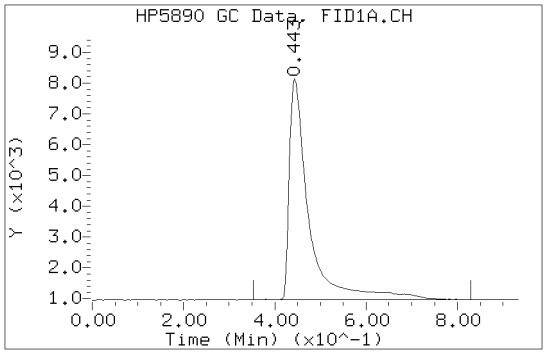


Ethene (74-85-1)

Reason Code:

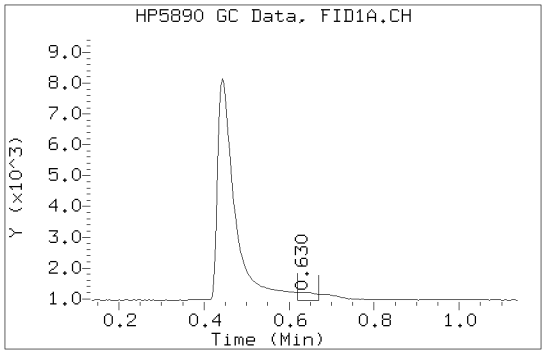
BEFORE

MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
11:26
ALSHS
Server



AFTER

MASS
100
AREA
717
HEIGHT
244
14-Feb-2024
13:53
ALSHS
Server



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\010.D Page 1
Report Date: 27-Feb-2024 11:17

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\010.D
Lab Smp Id: HS24020576-05 Client Smp ID: HS24020576-05
Inj Date : 14-FEB-2024 11:07
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020576-05;HS24020576-05
Misc Info : ;1;0;20
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 27-Feb-2024 11:17 Linh.Pham Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 10
Dil Factor: 20.00000
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	0.443	0.436	0.007	28052	28.7715	575.430
3 Ethane	0.700	0.703	-0.003	875	1.21614	24.322

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\010.D

Date : 14-FEB-2024 11:07

Client ID: HS24020576-05

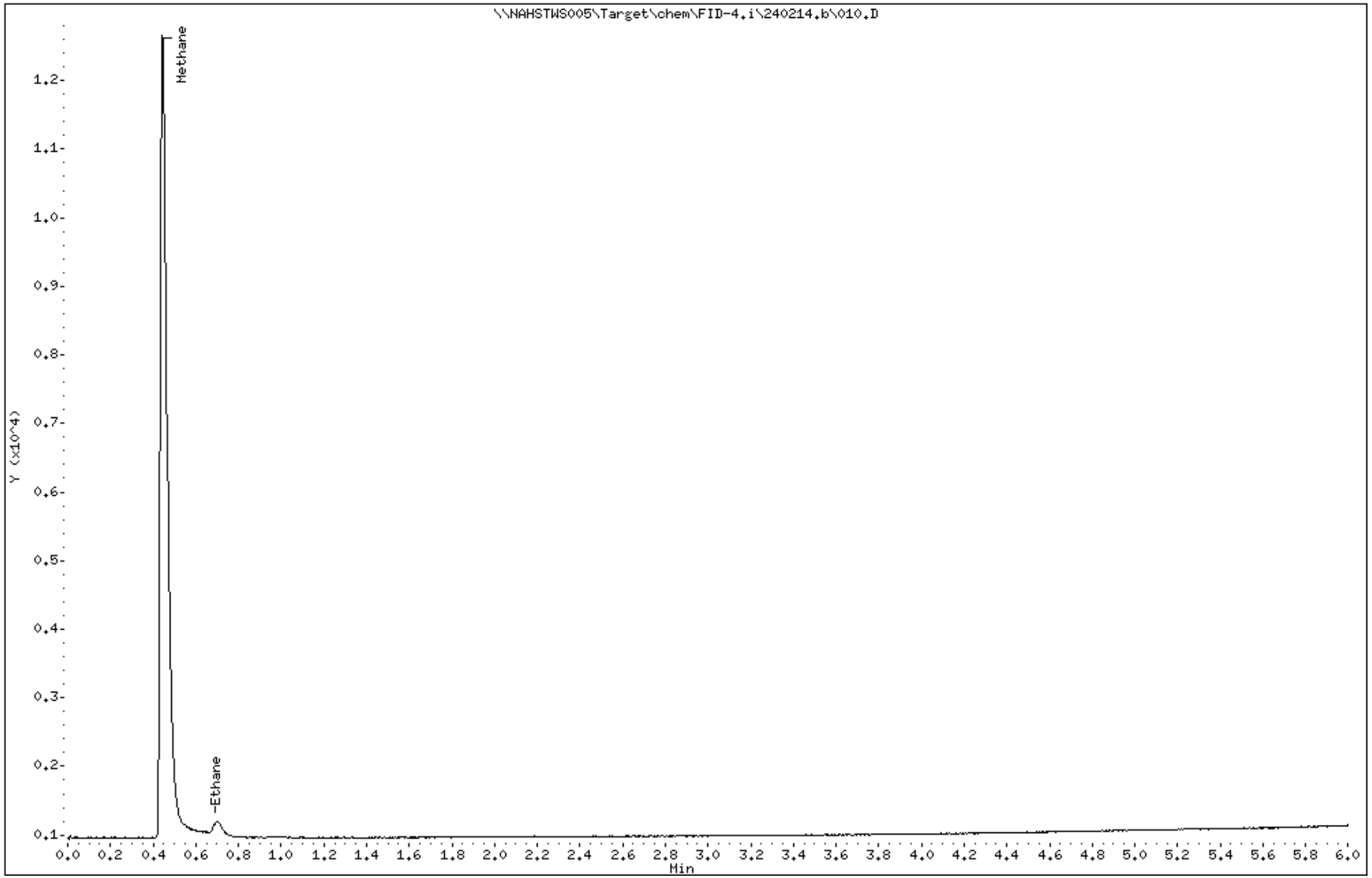
Instrument: FID-4.i

Sample Info: HS24020576-05;HS24020576-05

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\010.D
Inj Date : 14-FEB-2024 11:07
InstruID : FID-4.i
LabSampID : HS24020576-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\011.D Page 1
Report Date: 27-Feb-2024 11:17

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 14-FEB-2024 12:05
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\240214.b\RSKNI3.m
Meth Date : 27-Feb-2024 11:17 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.433	0.433	0.000	9202	9.64700	9.438
2 Ethene	0.636	0.636	0.000	9467	16.8500	16.161
3 Ethane	0.700	0.700	0.000	15098	18.0430	20.984(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\011.D

Date : 14-FEB-2024 12:05

Client ID: RSK-CCV

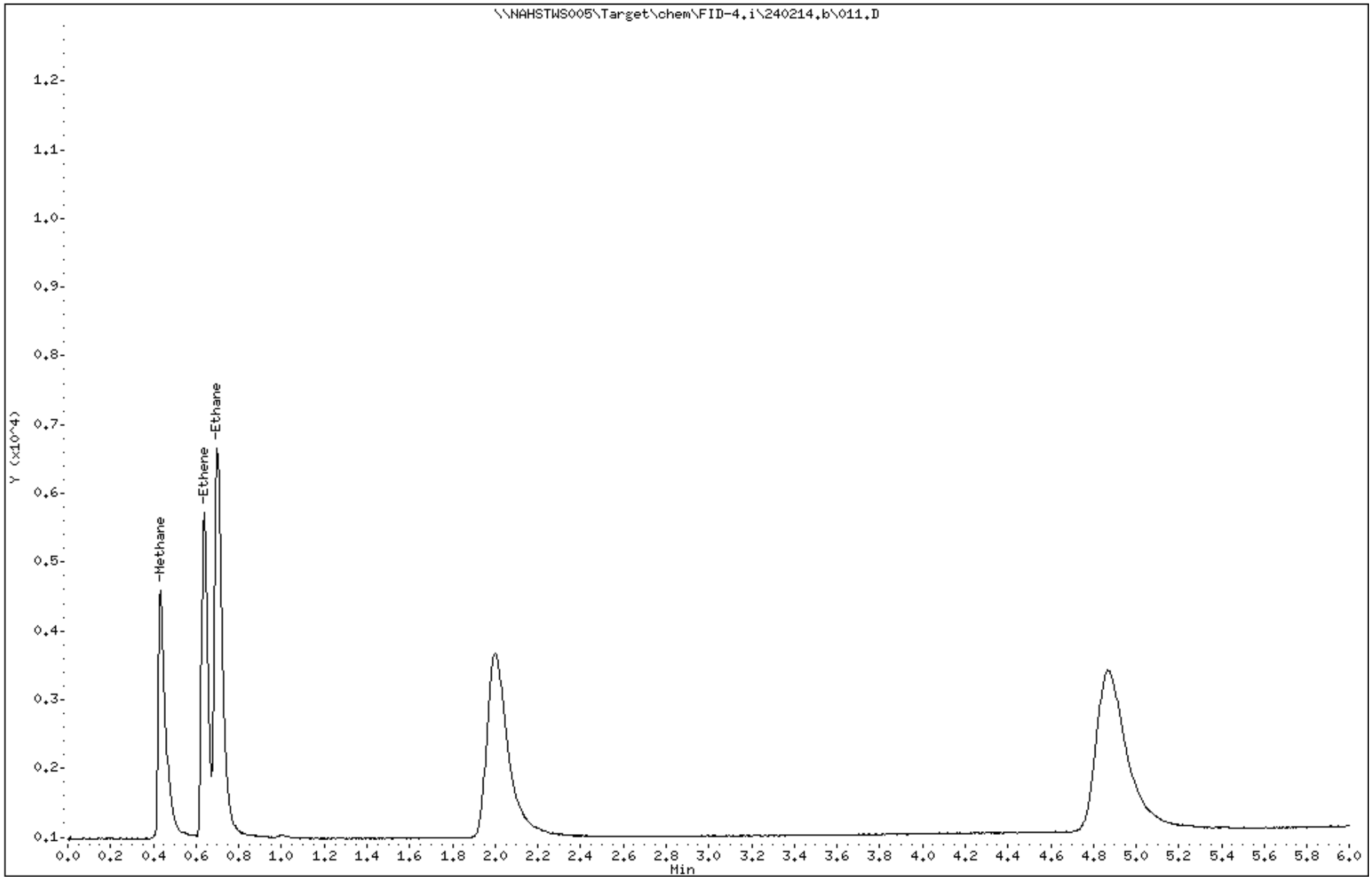
Instrument: FID-4.i

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

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



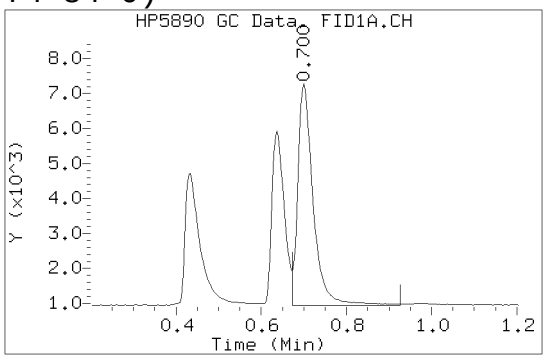
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\011.D
Inj Date : 14-FEB-2024 12:05
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

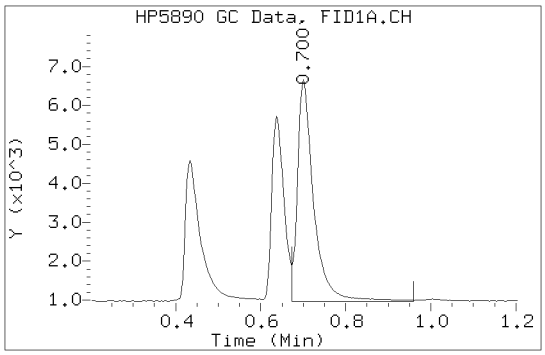
BEFORE

MASS
44
AREA
15809
HEIGHT
6328
14-Feb-2024
11:26
ALSHS
Server



AFTER

MASS
44
AREA
15098
HEIGHT
5685
27-Feb-2024
11:17
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\013.D Page 1
Report Date: 16-Feb-2024 08:46

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\013.D
Lab Smp Id: HS24020773-05MS Client Smp ID: HS24020773-05MS
Inj Date : 14-FEB-2024 13:02
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020773-05MS;HS24020773-05MS
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 17:40 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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

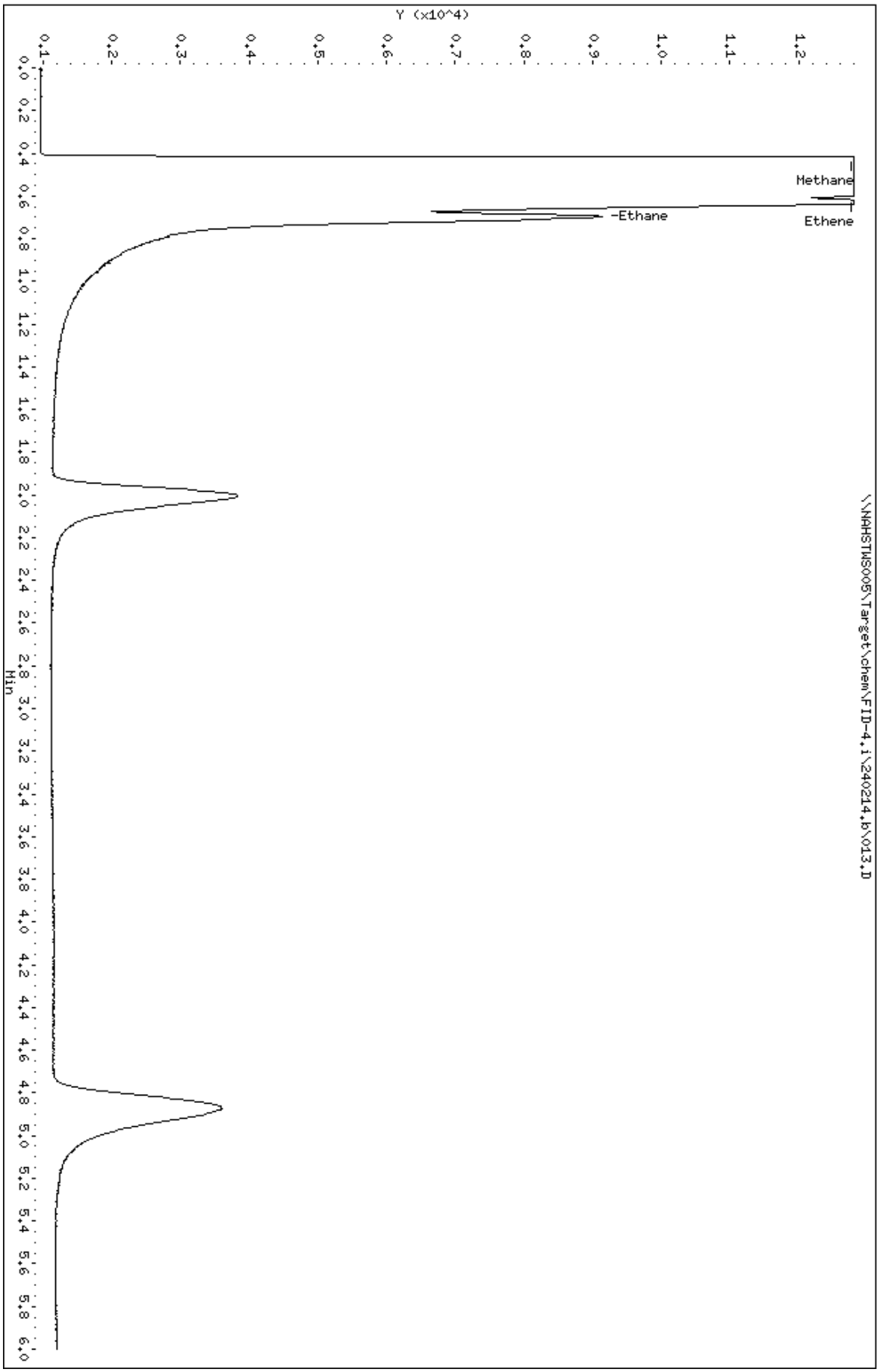
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 Methane	0.436	0.436	0.000	7526900	7719.96	7719.958(ARM)
2 Ethene	0.626	0.640	-0.014	40128	68.5058	68.505(ARM)
3 Ethane	0.696	0.703	-0.007	31578	43.8894	43.889(RM)

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\240214.b\013.D
Date : 14-FEB-2024 13:02
Client ID: HS24020773-05HS
Sample Info: HS24020773-05HS;HS24020773-05HS
Column phase: Rtx-PLOT

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

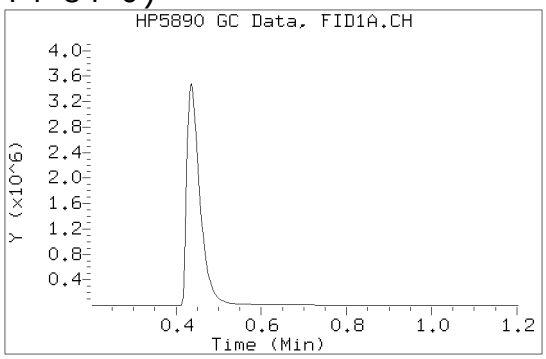


Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\013.D
Inj Date : 14-FEB-2024 13:02
InstruID : FID-4.i
LabSampID : HS24020773-05MS

Ethane (74-84-0)

BEFORE

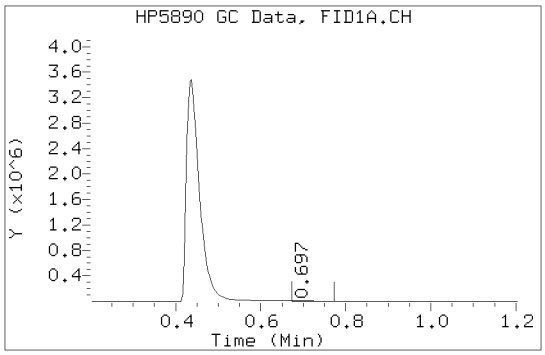
MASS
44
AREA
54016
HEIGHT
8124
14-Feb-2024
13:10
ALSHS
Server



Reason Code:

AFTER

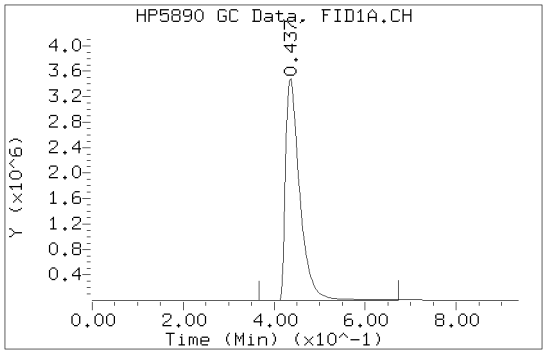
MASS
44
AREA
31578
HEIGHT
8234
16-Feb-2024
08:46
ALSHS
Server



Methane (74-82-8)

BEFORE

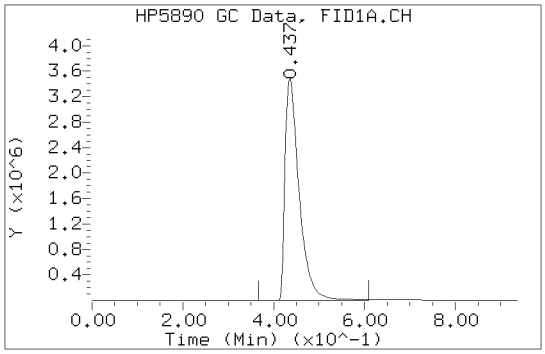
MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
13:10
ALSHS
Server



Reason Code:

AFTER

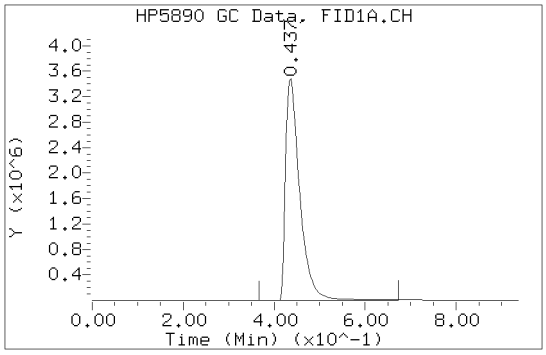
MASS
100
AREA
7526900
HEIGHT
3481370
16-Feb-2024
08:46
ALSHS
Server



Ethene (74-85-1)

BEFORE

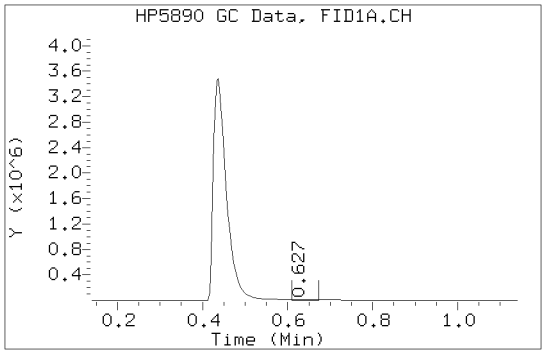
MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
13:10
ALSHS
Server



Reason Code:

AFTER

MASS
100
AREA
40128
HEIGHT
12917
16-Feb-2024
08:46
ALSHS
Server



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\014.D Page 1
Report Date: 16-Feb-2024 08:46

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\014.D
Lab Smp Id: HS24020773-05MSD Client Smp ID: HS24020773-05MSD
Inj Date : 14-FEB-2024 13:47
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020773-05MSD;HS24020773-05MSD
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 17:40 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.436	-0.006	7550787	7744.46	7744.457(ARM)
2 Ethene	0.626	0.640	-0.014	39155	66.8447	66.844(RM)
3 Ethane	0.693	0.703	-0.010	22608	31.4223	31.422(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\240214.b\014.D

Date : 14-FEB-2024 13:47

Client ID: HS24020773-05MSD

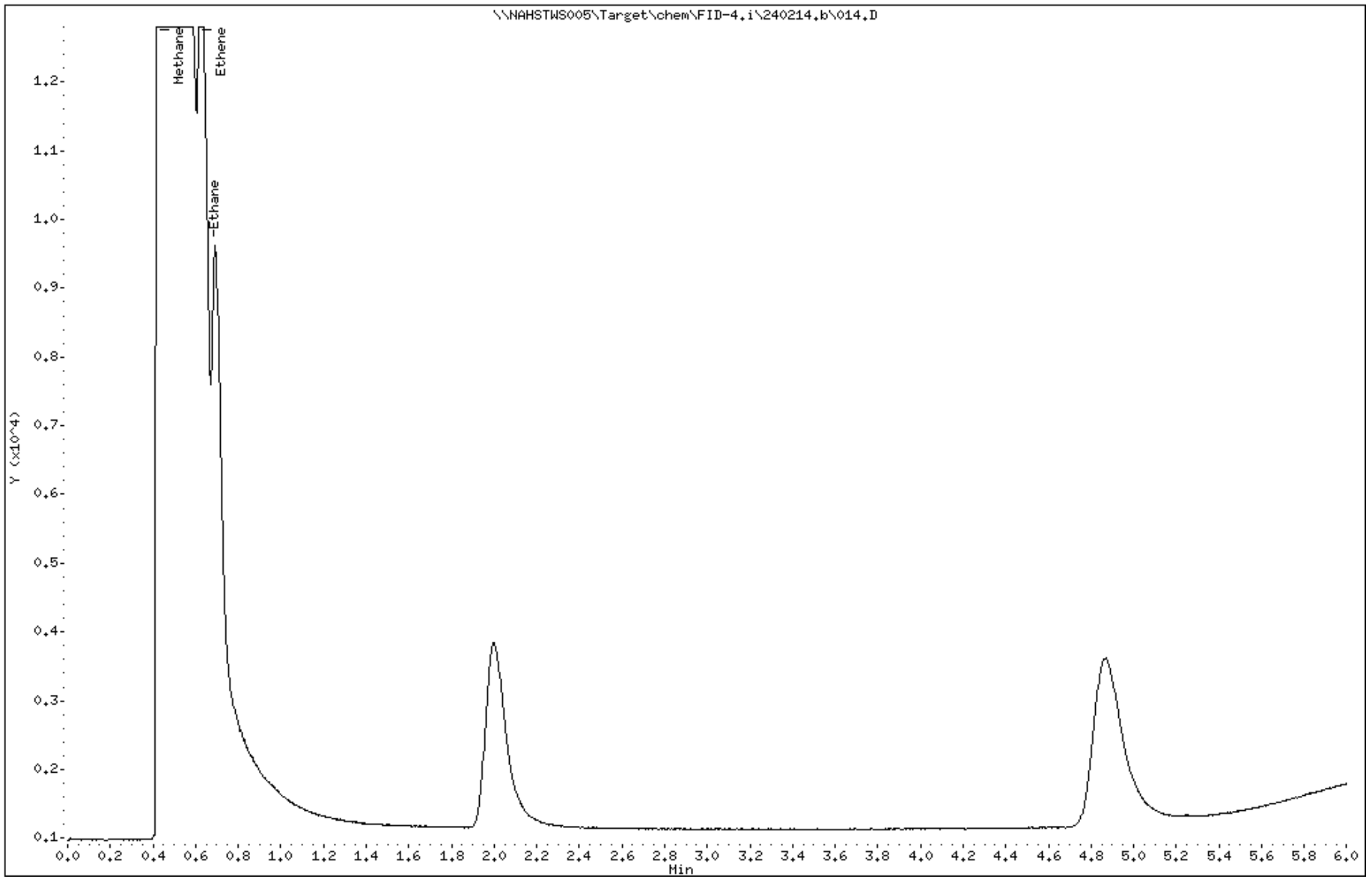
Instrument: FID-4.i

Sample Info: HS24020773-05MSD;HS24020773-05MSD

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



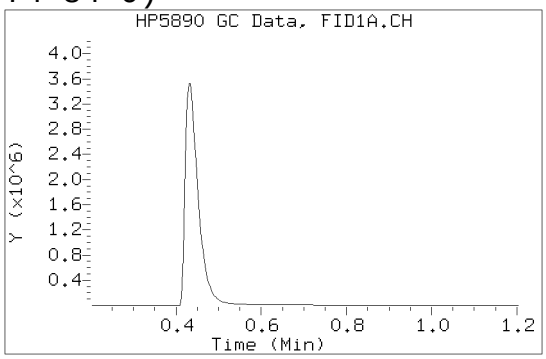
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\014.D
Inj Date : 14-FEB-2024 13:47
InstruID : FID-4.i
LabSampID : HS24020773-05MSD

Ethane (74-84-0)

Reason Code:

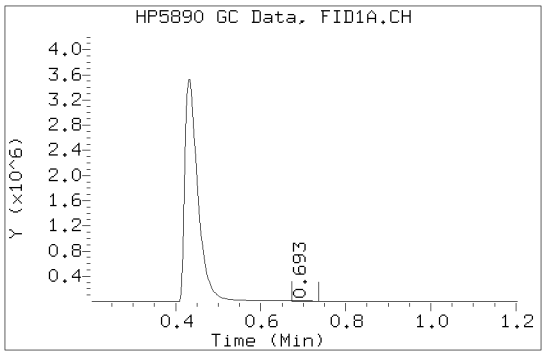
BEFORE

MASS
44
AREA
0
HEIGHT
0
14-Feb-2024
13:54
ALSHS
Server



AFTER

MASS
44
AREA
22608
HEIGHT
7724
16-Feb-2024
08:46
ALSHS
Server

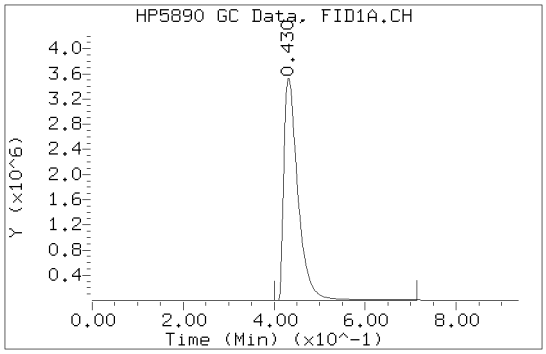


Methane (74-82-8)

Reason Code:

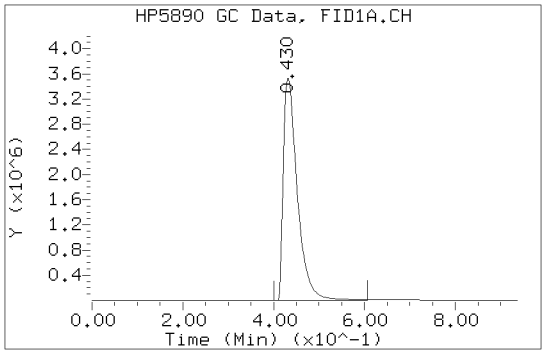
BEFORE

MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
13:54
ALSHS
Server



AFTER

MASS
100
AREA
7550787
HEIGHT
3521299
16-Feb-2024
08:46
ALSHS
Server

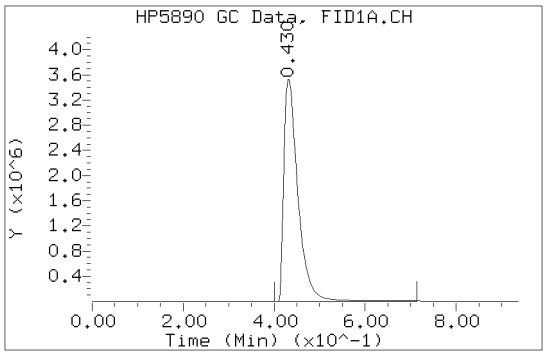


Ethene (74-85-1)

Reason Code:

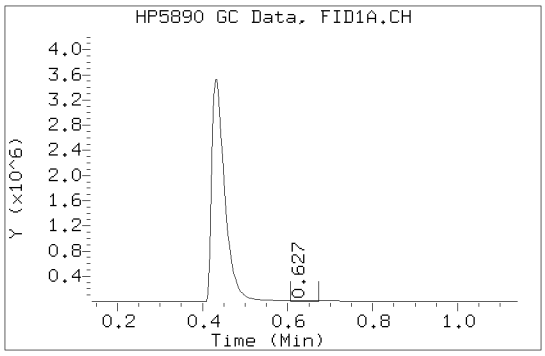
BEFORE

MASS
100
AREA
0
HEIGHT
0
14-Feb-2024
13:54
ALSHS
Server



AFTER

MASS
100
AREA
39155
HEIGHT
11534
16-Feb-2024
08:46
ALSHS
Server



ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 14-FEB-2024 17:26
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\RSKNI3.m
Meth Date : 14-Feb-2024 17:40 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.436	0.436	0.000	9751	9.64700	10.001
2 Ethene	0.640	0.640	0.000	9534	16.8500	16.276
3 Ethane	0.703	0.703	0.000	14253	18.0430	19.809

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240214.b\022.D

Date : 14-FEB-2024 17:26

Client ID: RSK-CCV

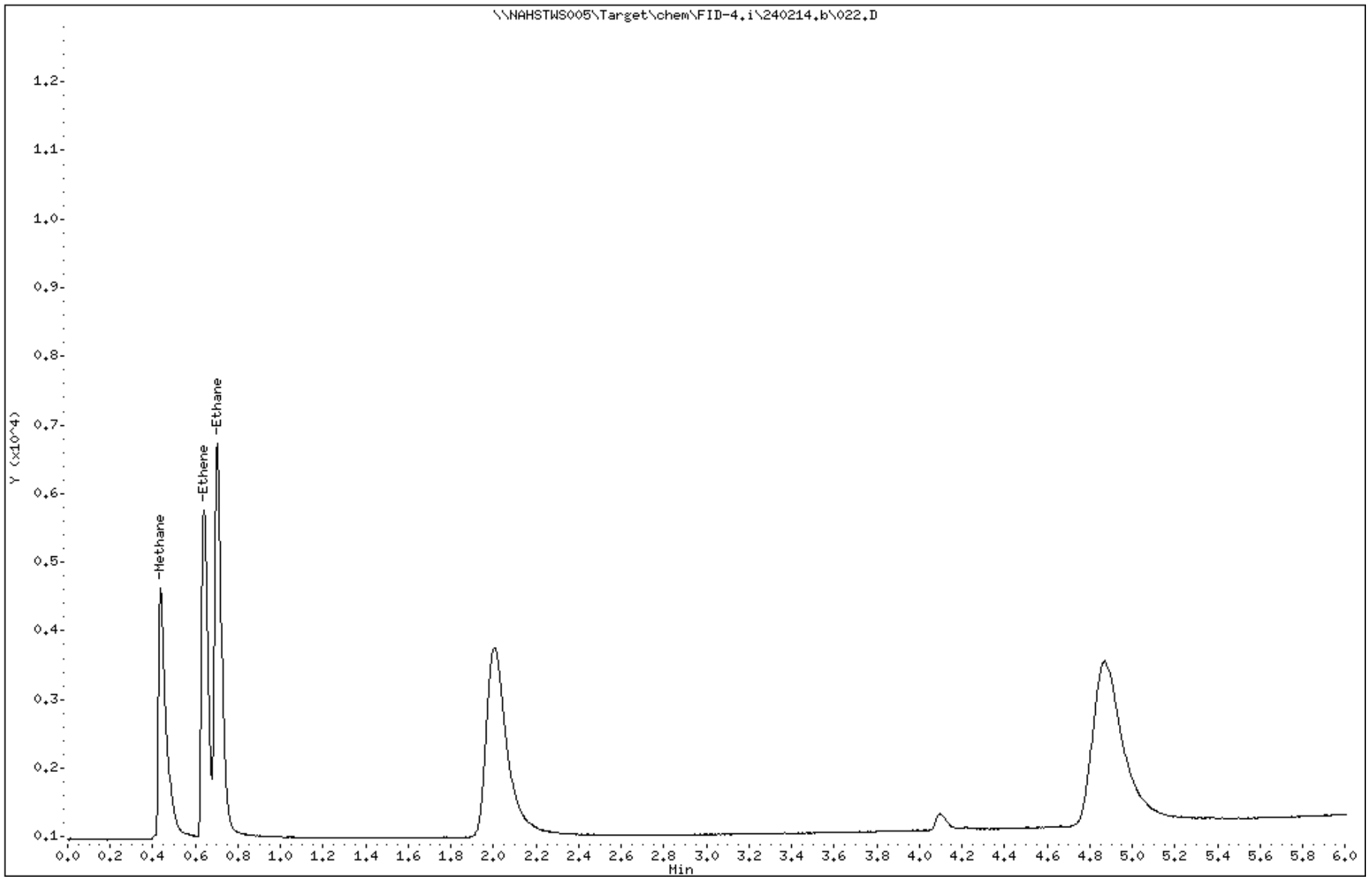
Instrument: FID-4.i

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

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



Data File : \\NAHSTWS005\Target\chem\FID-4.i\240214.b\022.D
Inj Date : 14-FEB-2024 17:26
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240216.b\001.D Page 1
Report Date: 16-Feb-2024 09:08

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240216.b\001.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 16-FEB-2024 08:38
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\240216.b\RSKNI3.m
Meth Date : 16-Feb-2024 09:03 elona.hasa 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: NAHSTW7025

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	0.436	0.436	0.000	7868	9.64700	8.069
2 Ethene	0.640	0.640	0.000	8006	16.8500	13.667
3 Ethane	0.703	0.703	0.000	12488	18.0430	17.356

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240216.b\001.D

Date : 16-FEB-2024 08:38

Client ID: RSK-CCV

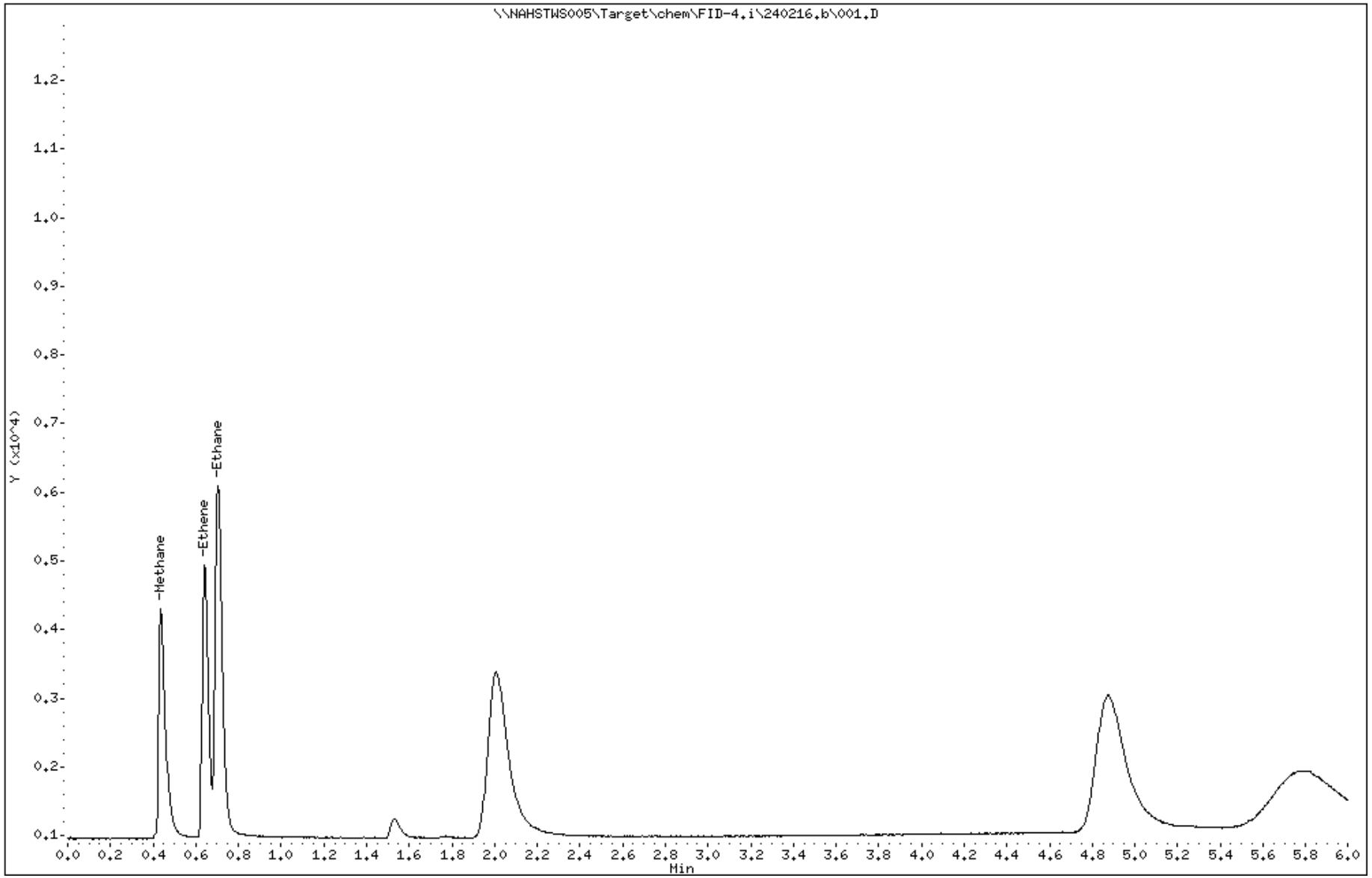
Instrument: FID-4.i

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\240216.b\001.D
Inj Date : 16-FEB-2024 08:38
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240216.b\011.D Page 1
Report Date: 22-Feb-2024 15:05

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240216.b\011.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 16-FEB-2024 11:03
Operator : PL Inst ID: FID-4.i
Smp Info : RSK-CCV;RSK-CCV;2;4
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240216.b\RSKNI3.m
Meth Date : 22-Feb-2024 15:05 FID-4.i Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)
1 Methane	0.433	0.433	0.000	8281	9.64700	8.493
2 Ethene	0.643	0.643	0.000	8087	16.8500	13.805
3 Ethane	0.706	0.706	0.000	12142	18.0430	16.875(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\fid-4.i\240216.b\011.d

Date : 16-FEB-2024 11:03

Client ID: RSK-CCV

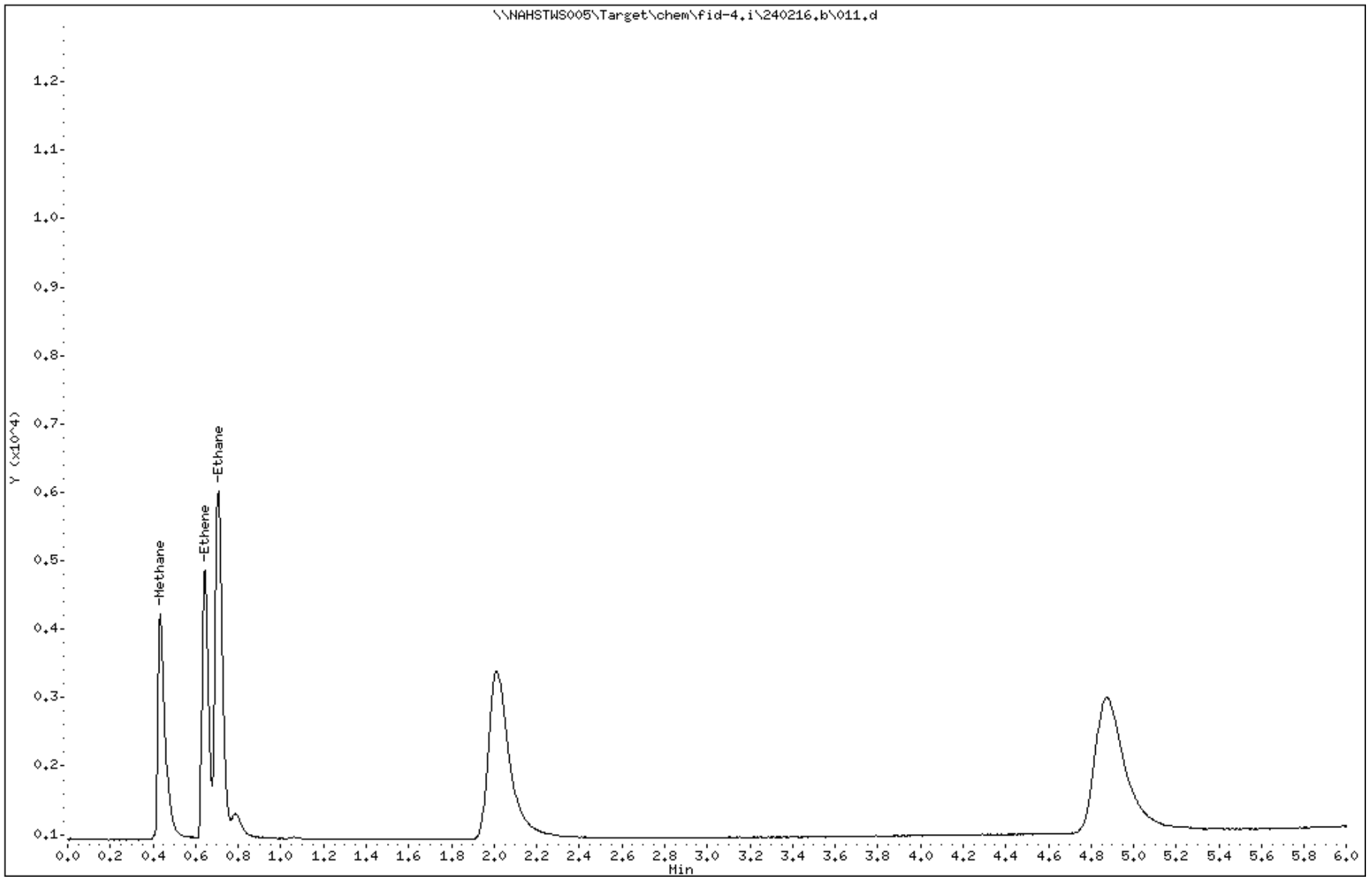
Instrument: FID-4.i

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

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



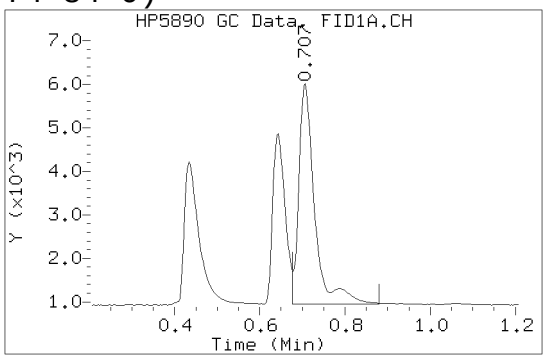
Data File : \\nahstws005\target\chem\fid-4.i\240216.b\011.d
Inj Date : 16-FEB-2024 11:03
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

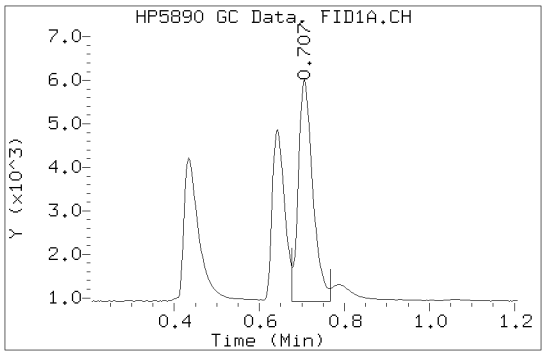
BEFORE

MASS
44
AREA
13094
HEIGHT
5070
16-Feb-2024
11:10
ALSHS
Server



AFTER

MASS
44
AREA
12142
HEIGHT
5092
22-Feb-2024
15:05
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240216.b\020.D Page 1
Report Date: 16-Feb-2024 15:23

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240216.b\020.D
Lab Smp Id: HS24020341-08DUP Client Smp ID: HS24020341-08DUP
Inj Date : 16-FEB-2024 12:39
Operator : PL Inst ID: FID-4.i
Smp Info : HS24020341-08DUP;HS24020341-08DUP
Misc Info : ;1;0;1
Comment :
Method : \\NAHSTWS005\Target\chem\FID-4.i\240216.b\RSKNI3.m
Meth Date : 16-Feb-2024 14:15 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.433	0.003	8346	8.56007	8.560(M)
2 Ethene	0.676	0.643	0.033	755	1.28892	1.288

QC Flag Legend

M - Compound response manually integrated.

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240216.b\020.D

Date : 16-FEB-2024 12:39

Client ID: HS24020341-08DUP

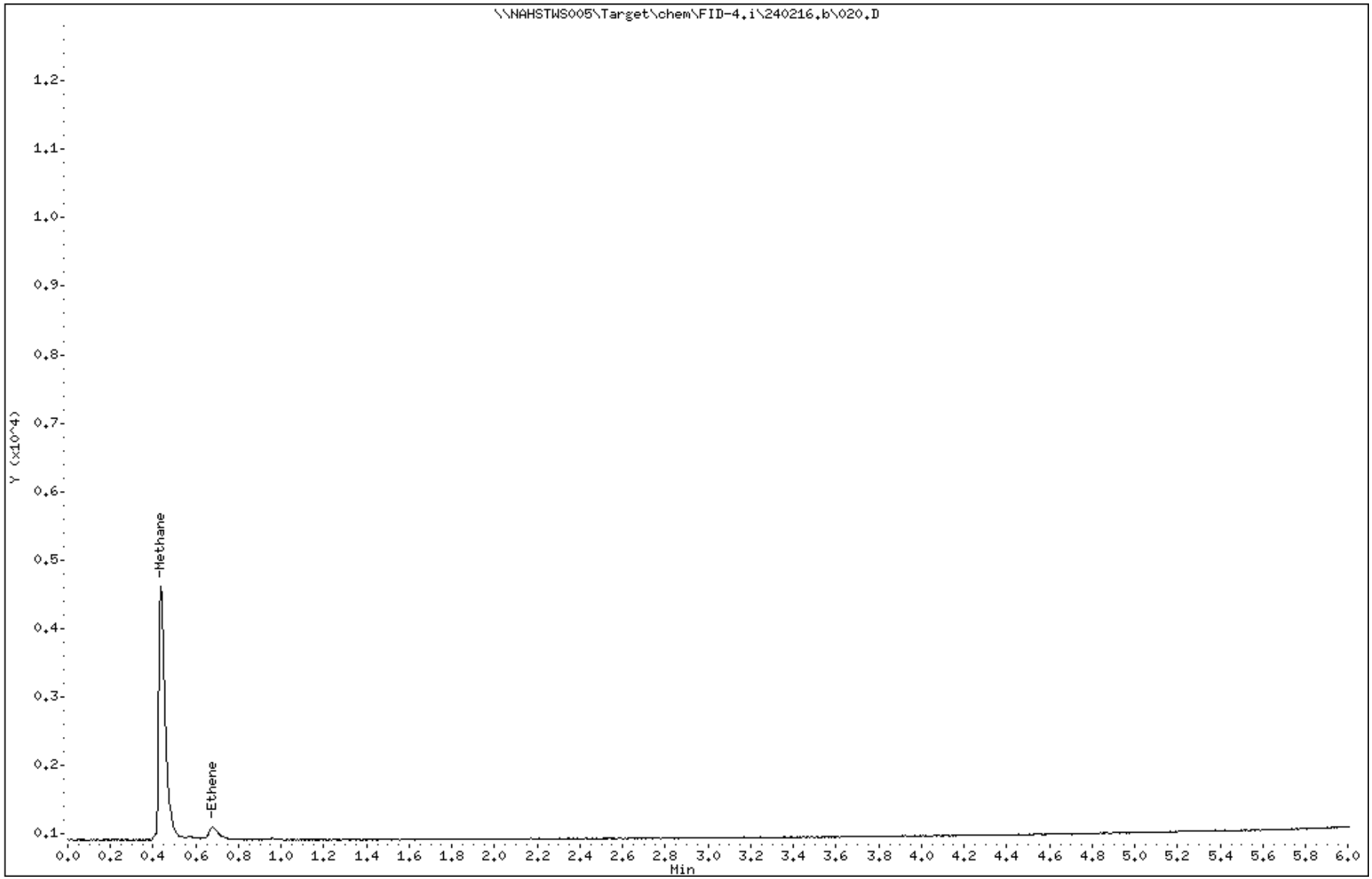
Instrument: FID-4.i

Sample Info: HS24020341-08DUP;HS24020341-08DUP

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



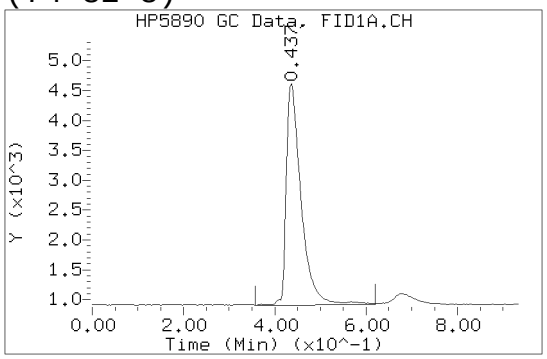
Data File : \\NAHSTWS005\Target\chem\FID-4.i\240216.b\020.D
Inj Date : 16-FEB-2024 12:39
InstruID : FID-4.i
LabSampID : HS24020341-08DUP

Methane (74-82-8)

Reason Code:

BEFORE

MASS
100
AREA
0
HEIGHT
0
16-Feb-2024
12:48
ALSHS
Server



AFTER

MASS
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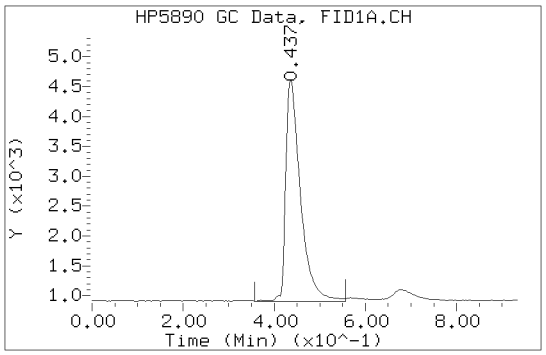
AREA
8346
HEIGHT
3707
16-Feb-2024
15:23
ALSHS
Server



Data File: \\nahstws005\Target\chem\FID-4.i\240216.b\022.D Page 1
Report Date: 16-Feb-2024 13:16

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\240216.b\022.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 16-FEB-2024 13:00
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\240216.b\RSKNI3.m
Meth Date : 16-Feb-2024 13:14 samy.mata Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: 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	8234	9.64700	8.445
2 Ethene	0.633	0.633	0.000	8042	16.8500	13.729(M)
3 Ethane	0.696	0.696	0.000	12571	18.0430	17.472(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\nahstws005\Target\chem\FID-4.i\240216.b\022.D

Date : 16-FEB-2024 13:00

Client ID: RSK-CCV

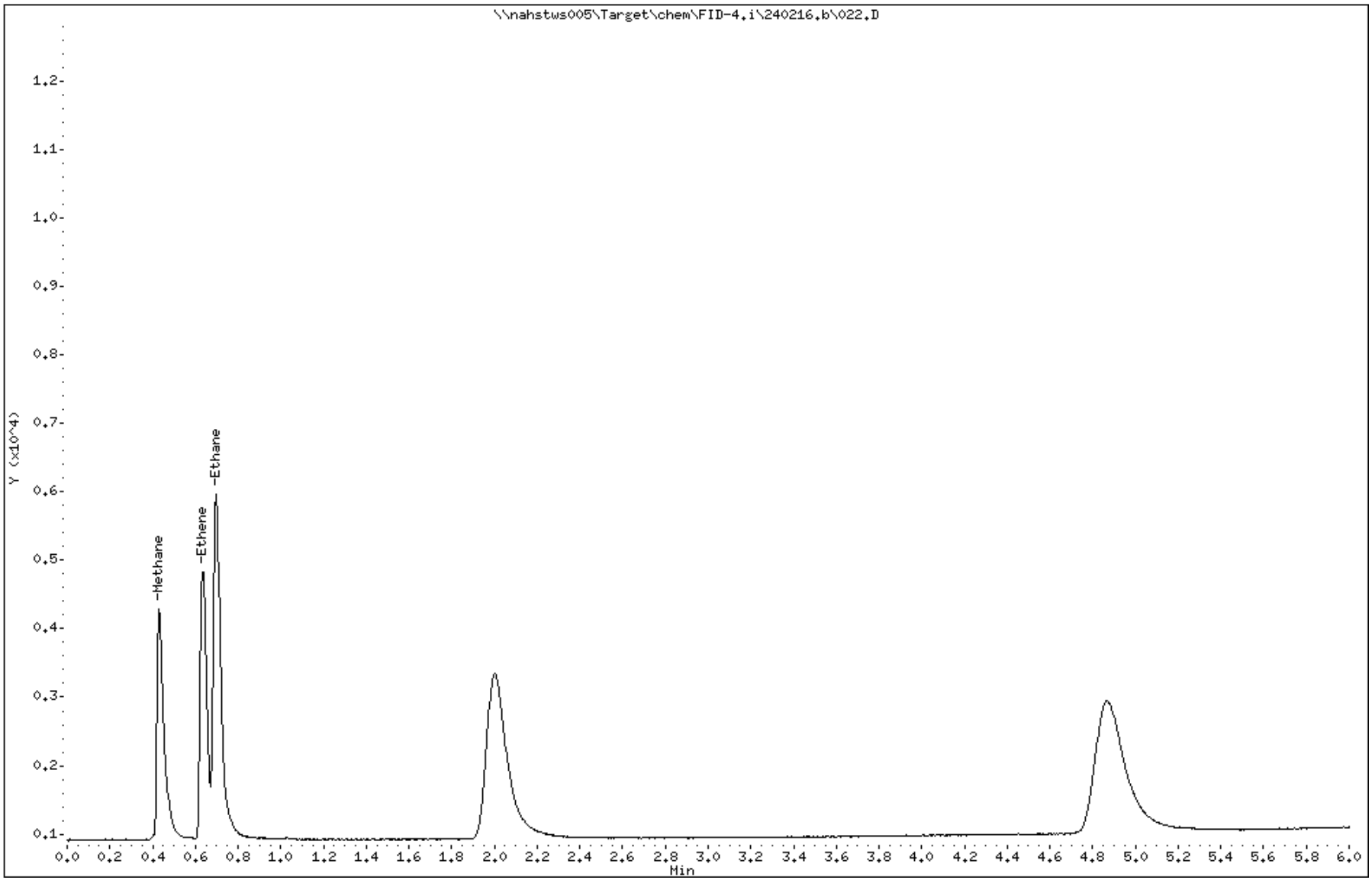
Instrument: FID-4.i

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

Operator: PL

Column phase: Rtx-PLOT

Column diameter: 0.53



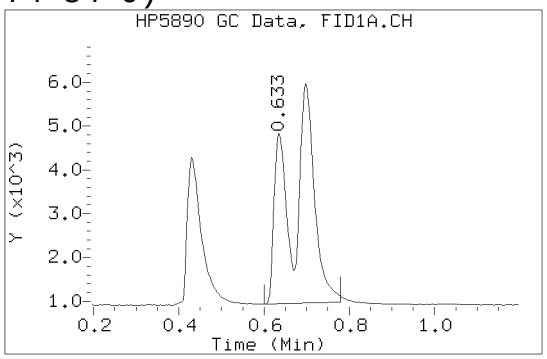
Data File : \\nahstws005\Target\chem\FID-4.i\240216.b\022.D
Inj Date : 16-FEB-2024 13:00
InstruID : FID-4.i
LabSampID : RSK-CCV

Ethane (74-84-0)

Reason Code:

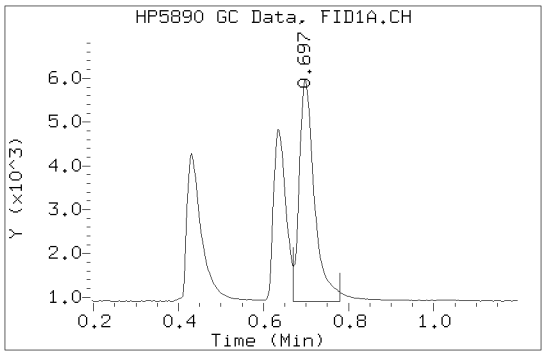
BEFORE

MASS
44
AREA
19961
HEIGHT
3881
16-Feb-2024
13:07
ALSHS
Server



AFTER

MASS
44
AREA
12571
HEIGHT
5053
16-Feb-2024
13:16
ALSHS
Ser

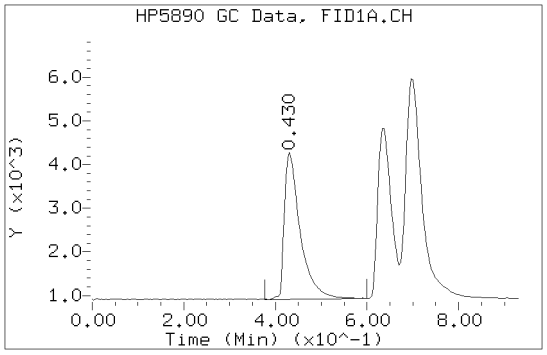


Ethene (74-85-1)

Reason Code:

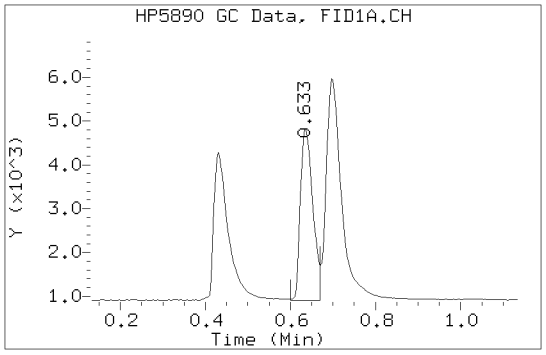
BEFORE

MASS
100
AREA
0
HEIGHT
0
16-Feb-2024
13:07
ALSHS
Server



AFTER

MASS
100
AREA
8042
HEIGHT
3912
16-Feb-2024
13:16
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\FID-4.i\240216.b\026.D Page 1
Report Date: 16-Feb-2024 14:16

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\240216.b\026.D
Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
Inj Date : 16-FEB-2024 14:00
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\240216.b\RSKNI3.m
Meth Date : 16-Feb-2024 14:15 elona.hasa Quant Type: ESTD
Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: RSK175.sub
Target Version: 4.14
Processing Host: NAHSTW7025

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	0.436	0.436	0.000	8278	9.64700	8.490
2 Ethene	0.640	0.640	0.000	8006	16.8500	13.667
3 Ethane	0.703	0.703	0.000	12551	18.0430	17.444

Data File: \\NAHSTWS005\Target\chem\FID-4.i\240216.b\026.D

Page 1

Date : 16-FEB-2024 14:00

Client ID: RSK-CCV

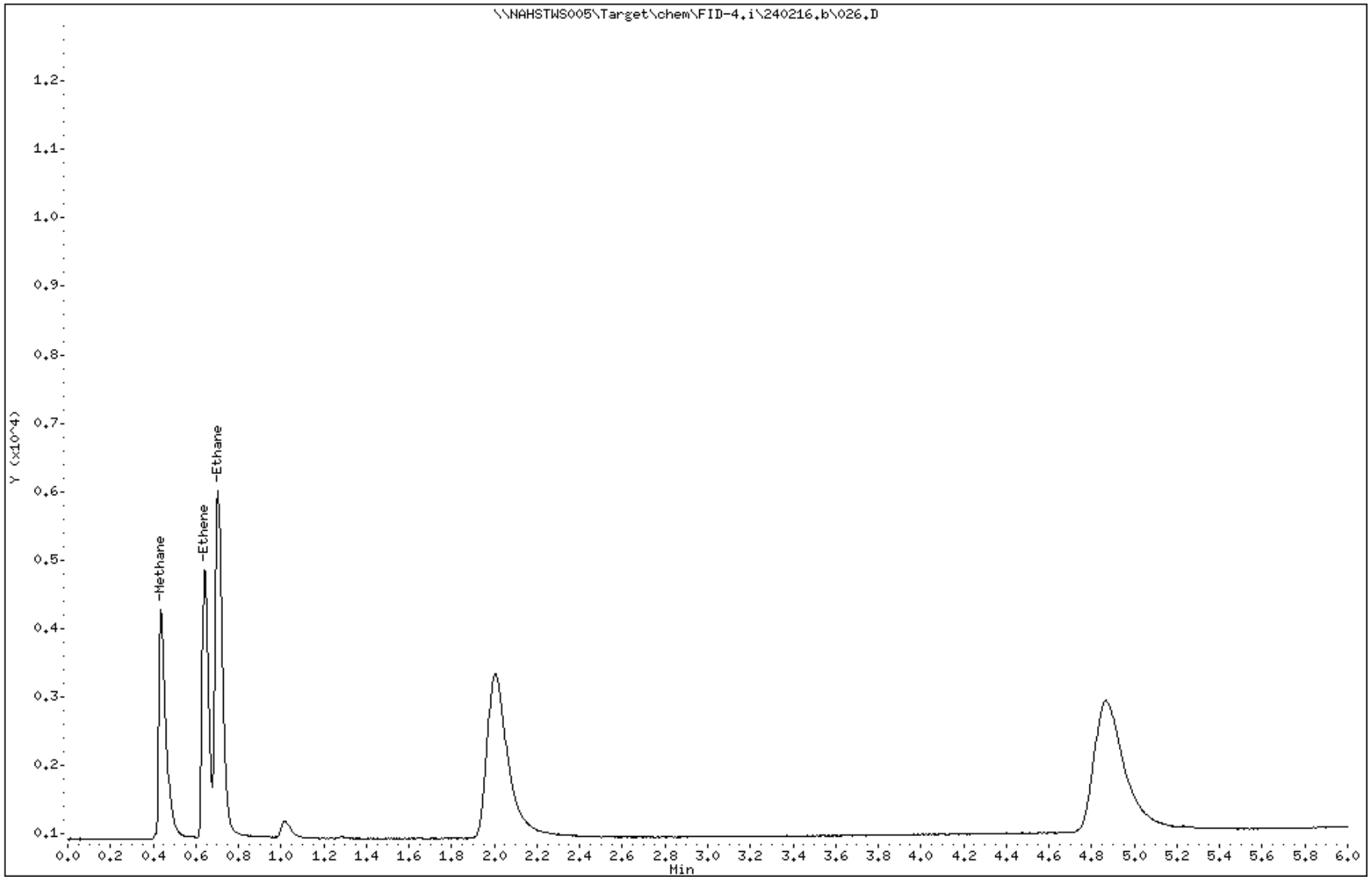
Instrument: FID-4.i

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\240216.b\026.D
Inj Date : 16-FEB-2024 14:00
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS

HS24020576 Wetchem TOC_W 5310B

ALS WO# HS24020576

01330217

	Analysis	Sample Nam	Sample ID	Origin	Result	Status	Date / Time	Vial
1	NPOC	CAL	3100607917	01.03.2024.		Completed	1/3/2024 12:51:	1, 2, 3, 4, 5,
2	NPOC	ICV	3100607901	01.03.2024.	NPOC:9.85	Completed	1/3/2024 1:06:0	8
3	NPOC	ICB		01.03.2024.	NPOC:0.02	Completed	1/3/2024 1:18:2	9

TOC-Control L Report

2024_01_03_001.tlx

Instr.Information

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

Cal. Curve

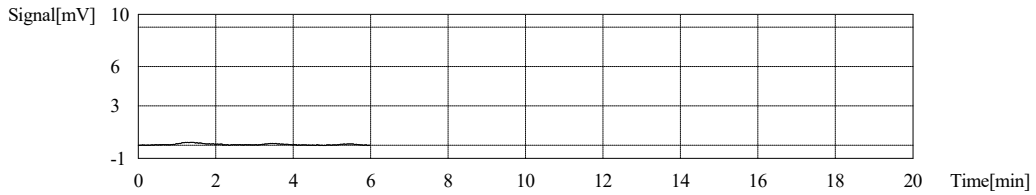
Sample Name:	CAL
Sample ID:	3100607917
Cal. Curve:	01.03.2024.2024_01_03_11_09_20.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.6144	50uL	1.000	*******		1/3/2024 11:17:40 AM
2	0.2411	50uL	1.000	*******		1/3/2024 11:19:49 AM
3	0.1701	50uL	1.000	*******		1/3/2024 11:21:56 AM

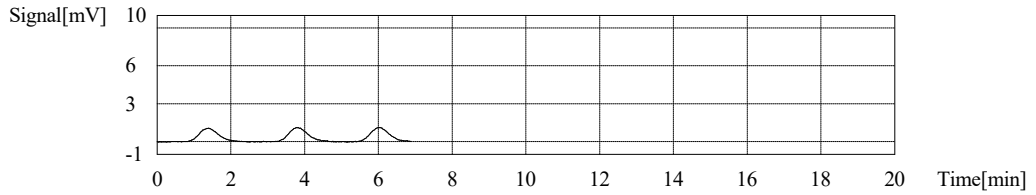
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	0.3419



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.920	50uL	1.000	*******		1/3/2024 11:30:37 AM
2	3.717	50uL	1.000	*******		1/3/2024 11:33:01 AM
3	3.946	50uL	1.000	*******		1/3/2024 11:35:32 AM

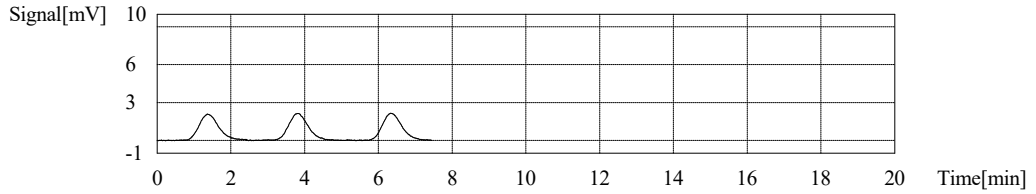
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	3.861



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.396	50uL	1.000	*******		1/3/2024 11:44:12 AM
2	7.846	50uL	1.000	*******		1/3/2024 11:47:00 AM
3	8.019	50uL	1.000	*******		1/3/2024 11:49:42 AM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	7.754



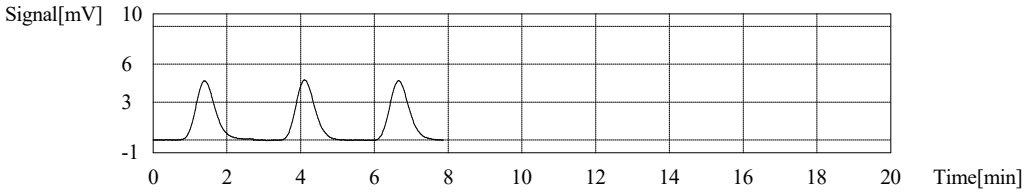
TOC-Control L Report

2024_01_03_001.tlx

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.93	50uL	1.000	*******		1/3/2024 11:58:40 AM
2	17.38	50uL	1.000	*******		1/3/2024 12:01:28 PM
3	17.53	50uL	1.000	*******		1/3/2024 12:04:17 PM

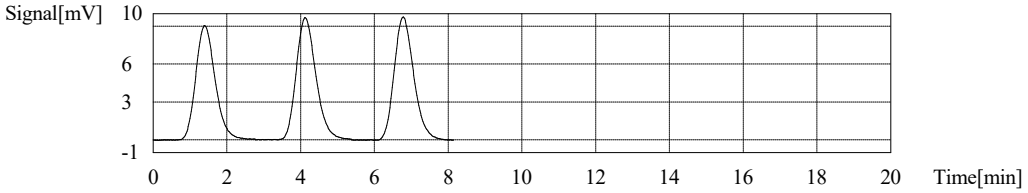
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 17.28



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	33.38	50uL	1.000	*******		1/3/2024 12:13:18 PM
2	36.15	50uL	1.000	*******		1/3/2024 12:16:09 PM
3	36.41	50uL	1.000	*******		1/3/2024 12:19:09 PM

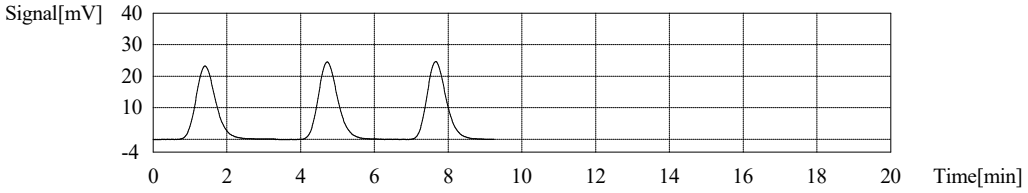
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 35.31



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	87.77	50uL	1.000	*******		1/3/2024 12:28:43 PM
2	91.20	50uL	1.000	*******		1/3/2024 12:31:56 PM
3	90.77	50uL	1.000	*******		1/3/2024 12:35:10 PM

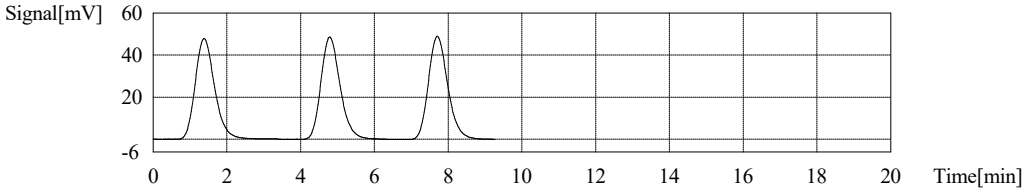
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 89.91



Conc: 50.00mg/L

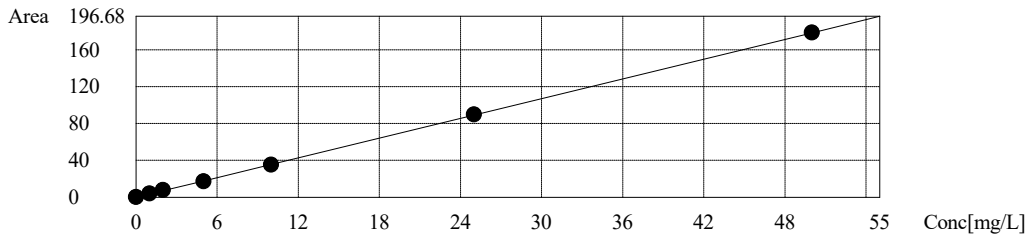
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	177.2	50uL	1.000	*******		1/3/2024 12:44:48 PM
2	177.8	50uL	1.000	*******		1/3/2024 12:47:59 PM
3	181.4	50uL	1.000	*******		1/3/2024 12:51:11 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 178.8



TOC-Control L Report

Slope:	3.575
Intercept	0.000
r^2	0.9999
r	1.0000
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name:	ICV
Sample ID:	3100607901
Origin:	01.03.2024.cal
Status	Completed
Chk. Result	

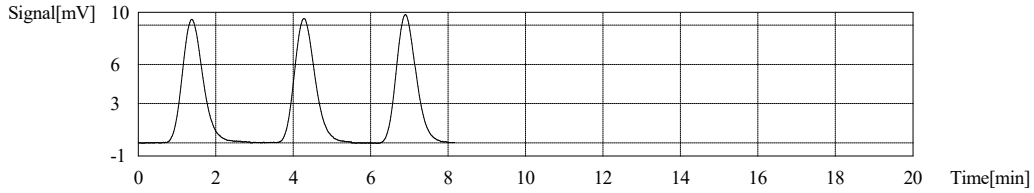
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.858mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.20	9.847mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:00:20 PM
2	34.96	9.780mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:03:11 PM
3	35.56	9.947mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:06:04 PM

Mean Area	35.24
Mean Conc.	9.858mg/L



Sample

Sample Name:	ICB
Sample ID:	
Origin:	01.03.2024.cal
Status	Completed
Chk. Result	

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02773mg/L

1. Det

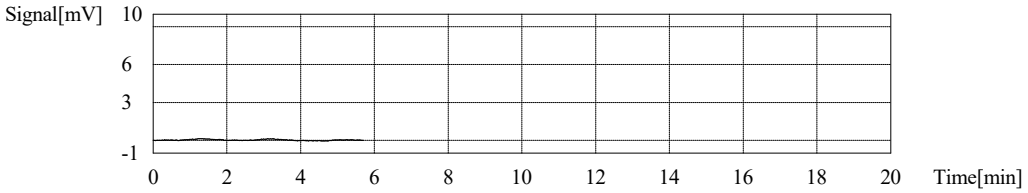
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.000mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:14:13 PM
2	0.1391	0.03891mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:16:21 PM
3	0.1583	0.04428mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	1/3/2024 1:18:28 PM

TOC-Control L Report

2024_01_03_001.tlx

Mean Area	0.09913
Mean Conc.	0.02773mg/L



C:\TOC-L\Data\2024_02_14_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:25.1	
2	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.23	
3	Unknown	NPOC	MBLK-02142024		01.03.2024.	1.000	NPOC:0.15	
4	Unknown	NPOC	LCS-02142024		01.03.2024.	1.000	NPOC:9.59	
5	Unknown	NPOC	LCSD-02142024		01.03.2024.	1.000	NPOC:9.55	
6	Unknown	NPOC	HS24020146-10	TOC_W 5310B	01.03.2024.	1.000	NPOC:0.56	
7	Unknown	NPOC	HS24020246-01		01.03.2024.	1.000	NPOC:4.19	
8	Unknown	NPOC	HS24020246-02		01.03.2024.	1.000	NPOC:35.6	
9	Unknown	NPOC	HS24020246-04		01.03.2024.	1.000	NPOC:15.8	
10	Unknown	NPOC	HS24020246-07		01.03.2024.	1.000	NPOC:16.4	
11	Unknown	NPOC	HS24020284-01		01.03.2024.	1.000	NPOC:1.25	
12	Unknown	NPOC	HS24020284-01MS		01.03.2024.	1.000	NPOC:10.1	
13	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.5	
14	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.18	
15	Unknown	NPOC	HS24020284-02		01.03.2024.	1.000	NPOC:0.79	
16	Unknown	NPOC	HS24020310-02		01.03.2024.	1.000	NPOC:0.74	
17	Unknown	NPOC	HS24020310-03		01.03.2024.	1.000	NPOC:2.70	
18	Unknown	NPOC	HS24020310-04		01.03.2024.	1.000	NPOC:0.64	
19	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:23.9	
20	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.17	
21	Unknown	NPOC	MBLK-02142024		01.03.2024.	1.000	NPOC:0.14	
22	Unknown	NPOC	LCS-02142024		01.03.2024.	1.000	NPOC:9.50	
23	Unknown	NPOC	LCSD-02142024		01.03.2024.	1.000	NPOC:9.71	
24	Unknown	NPOC	HS24020310-10	TOC_W 5310B	01.03.2024.	1.000	NPOC:0.19	
25	Unknown	NPOC	HS24020310-17		01.03.2024.	1.000	NPOC:5.42	
26	Unknown	NPOC	HS24020310-19		01.03.2024.	1.000	NPOC:0.43	
27	Unknown	NPOC	HS24020310-53		01.03.2024.	1.000	NPOC:2.18	
28	Unknown	NPOC	HS24020310-54		01.03.2024.	1.000	NPOC:0.26	
29	Unknown	NPOC	HS24020310-56		01.03.2024.	1.000	NPOC:0.36	
30	Unknown	NPOC	HS24020323-01		01.03.2024.	1.000	NPOC:8.69	
31	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.1	
32	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.19	
33	Unknown	NPOC	HS24020323-01MS		01.03.2024.	1.000	NPOC:18.2	
34	Unknown	NPOC	HS24020371-01		01.03.2024.	1.000	NPOC:4.99	
35	Unknown	NPOC	HS24011750-01		01.03.2024.	1.000	NPOC:0.79	
36	Unknown	NPOC	HS24011750-02		01.03.2024.	1.000	NPOC:2.41	
37	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.3	
38	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.14	
39	Unknown	NPOC	MBLK-02142024		01.03.2024.	1.000	NPOC:0.14	
40	Unknown	NPOC	LCS-02142024		01.03.2024.	1.000	NPOC:9.69	
41	Unknown	NPOC	LCSD-02142024		01.03.2024.	1.000	NPOC:9.68	
42	Unknown	NPOC	HS24011750-03	TOC_W 5310B	01.03.2024.	1.000	NPOC:0.66	
43	Unknown	NPOC	HS24011750-03MS		01.03.2024.	1.000	NPOC:9.91	
44	Unknown	NPOC	HS24020148-01		01.03.2024.	1.000	NPOC:7.19	
45	Unknown	NPOC	HS24020148-02		01.03.2024.	1.000	NPOC:3.49	
46	Unknown	NPOC	HS24020148-03DF10		01.03.2024.	1.000	NPOC:107.	
47	Unknown	NPOC	HS24020148-04		01.03.2024.	1.000	NPOC:12.2	
48	Unknown	NPOC	HS24020148-05		01.03.2024.	1.000	NPOC:13.7	
49	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.9	
50	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.23	
51	Unknown	NPOC	HS24020306-01		01.03.2024.	1.000	NPOC:0.99	
52	Unknown	NPOC	HS24020306-02		01.03.2024.	1.000	NPOC:1.55	
53	Unknown	NPOC	HS24020314-01		01.03.2024.	1.000	NPOC:0.58	

C:\TOC-L\Data\2024_02_14_001.tlx

	Status	Date / Time	Vial
1	Completed	2/14/2024 2:	1
2	Completed	2/14/2024 2:	2
3	Completed	2/14/2024 2:	3
4	Completed	2/14/2024 2:	4
5	Completed	2/14/2024 2:	5
6	Completed	2/14/2024 3:	6
7	Completed	2/14/2024 3:	7
8	Completed	2/14/2024 3:	8
9	Completed	2/14/2024 3:	9
10	Completed	2/14/2024 4:	10
11	Completed	2/14/2024 4:	11
12	Completed	2/14/2024 4:	12
13	Completed	2/14/2024 4:	1
14	Completed	2/14/2024 5:	2
15	Completed	2/14/2024 5:	13
16	Completed	2/14/2024 5:	14
17	Completed	2/14/2024 5:	15
18	Completed	2/14/2024 5:	16
19	Completed	2/14/2024 6:	1
20	Completed	2/14/2024 6:	2
21	Completed	2/14/2024 6:	3
22	Completed	2/14/2024 6:	4
23	Completed	2/14/2024 7:	5
24	Completed	2/14/2024 7:	17
25	Completed	2/14/2024 7:	18
26	Completed	2/14/2024 7:	19
27	Completed	2/14/2024 7:	20
28	Completed	2/14/2024 8:	21
29	Completed	2/14/2024 8:	22
30	Completed	2/14/2024 8:	23
31	Completed	2/14/2024 8:	1
32	Completed	2/14/2024 9:	2
33	Completed	2/14/2024 9:	24
34	Completed	2/14/2024 9:	25
35	Completed	2/14/2024 9:	26
36	Completed	2/14/2024 9:	27
37	Completed	2/14/2024 1	50
38	Completed	2/14/2024 1	51
39	Completed	2/14/2024 1	3
40	Completed	2/14/2024 1	4
41	Completed	2/14/2024 1	5
42	Completed	2/14/2024 1	28
43	Completed	2/14/2024 1	29
44	Completed	2/14/2024 1	30
45	Completed	2/14/2024 1	31
46	Completed	2/15/2024 1	32
47	Completed	2/15/2024 1	33
48	Completed	2/15/2024 1	34
49	Completed	2/15/2024 1	50
50	Completed	2/15/2024 1:	51
51	Completed	2/15/2024 1:	35
52	Completed	2/15/2024 1:	36
53	Completed	2/15/2024 1:	37

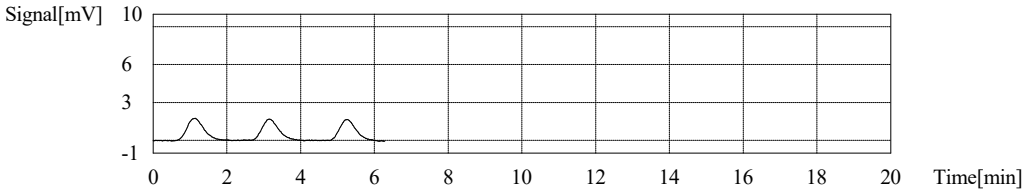
C:\TOC-L\Data\2024_02_14_001.tlx

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
54	Unknown	NPOC	HS24020314-02		01.03.2024.	1.000	NPOC:1.51	
55	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:24.0	
56	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.20	
57	Unknown	NPOC	MBLK-02142024		01.03.2024.	1.000	NPOC:0.15	
58	Unknown	NPOC	LCS-02142024		01.03.2024.	1.000	NPOC:9.90	
59	Unknown	NPOC	LCSD-02142024		01.03.2024.	1.000	NPOC:9.82	
60	Unknown	NPOC	HS24020314-03	TOC_W 5310B	01.03.2024.	1.000	NPOC:1.26	
61	Unknown	NPOC	HS24020314-03MS		01.03.2024.	1.000	NPOC:10.4	
62	Unknown	NPOC	HS24020575-01		01.03.2024.	1.000	NPOC:1.14	
63	Unknown	NPOC	HS24020575-02		01.03.2024.	1.000	NPOC:1.02	
64	Unknown	NPOC	HS24020575-03		01.03.2024.	1.000	NPOC:1.05	
65	Unknown	NPOC	HS24020575-04		01.03.2024.	1.000	NPOC:1.34	
66	Unknown	NPOC	HS24020576-01		01.03.2024.	1.000	NPOC:1.84	
67	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:23.4	
68	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.15	
69	Unknown	NPOC	HS24020576-05		01.03.2024.	1.000	NPOC:4.80	
70	Unknown	NPOC	HS24020576-10		01.03.2024.	1.000	NPOC:1.75	
71	Unknown	NPOC	HS24020169-01		01.03.2024.	1.000	NPOC:0.79	
72	Unknown	NPOC	HS24020169-02		01.03.2024.	1.000	NPOC:0.45	
73	Unknown	NPOC	CCV	3100607917	01.03.2024.	1.000	NPOC:25.0	
74	Unknown	NPOC	CCB		01.03.2024.	1.000	NPOC:0.21	

	Status	Date / Time	Vial
54	Completed	2/15/2024 2:	38
55	Completed	2/15/2024 2:	50
56	Completed	2/15/2024 2:	51
57	Completed	2/15/2024 2:	3
58	Completed	2/15/2024 2:	4
59	Completed	2/15/2024 3:	5
60	Completed	2/15/2024 3:	39
61	Completed	2/15/2024 3:	40
62	Completed	2/15/2024 3:	41
63	Completed	2/15/2024 4:	42
64	Completed	2/15/2024 4:	43
65	Completed	2/15/2024 4:	44
66	Completed	2/15/2024 4:	45
67	Completed	2/15/2024 4:	50
68	Completed	2/15/2024 5:	51
69	Completed	2/15/2024 5:	46
70	Completed	2/15/2024 5:	47
71	Completed	2/15/2024 5:	48
72	Completed	2/15/2024 6:	49
73	Completed	2/15/2024 6:	52
74	Completed	2/15/2024 6:	53

TOC-Control L Report

Mean Area 5.398
Mean Conc. 1.510mg/L



Sample

Sample Name: CCV
Sample ID: 3100607917
Origin: 01.03.2024.cal
Status Completed
Chk. Result

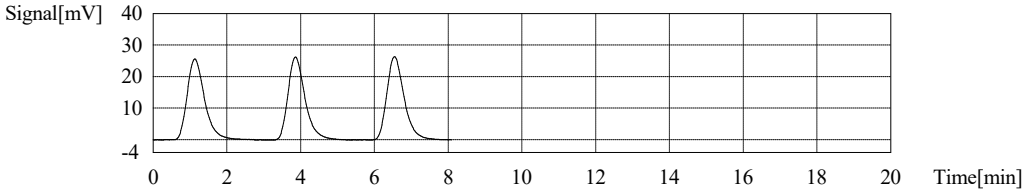
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.04mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	85.01	23.78mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:10:26 AM
2	85.86	24.02mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:13:21 AM
3	86.92	24.31mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:16:15 AM

Mean Area 85.93
Mean Conc. 24.04mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2083mg/L

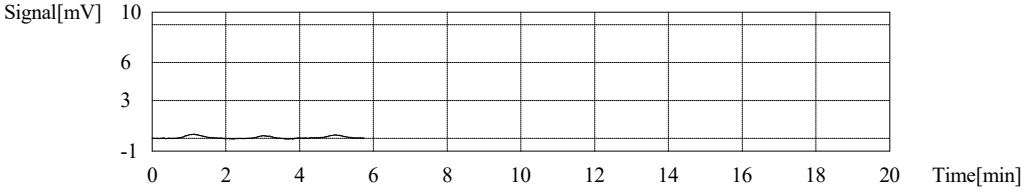
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.094	0.3060mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:24:29 AM
2	0.6068	0.1697mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:26:36 AM
3	0.5330	0.1491mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:28:43 AM

TOC-Control L Report

Mean Area 0.7446
Mean Conc. 0.2083mg/L



Sample

Sample Name: MBLK-02142024
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

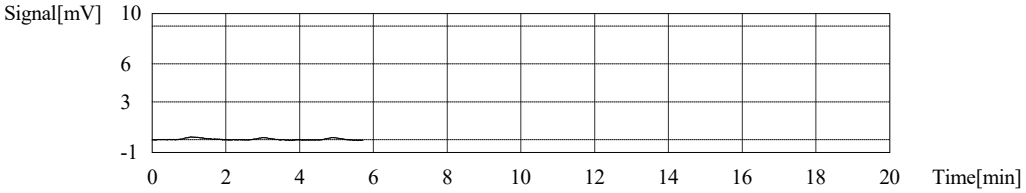
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1533mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5721	0.1600mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:37:07 AM
2	0.5507	0.1540mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:39:15 AM
3	0.5214	0.1459mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:41:22 AM

Mean Area 0.5481
Mean Conc. 0.1533mg/L



Sample

Sample Name: LCS-02142024
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.902mg/L

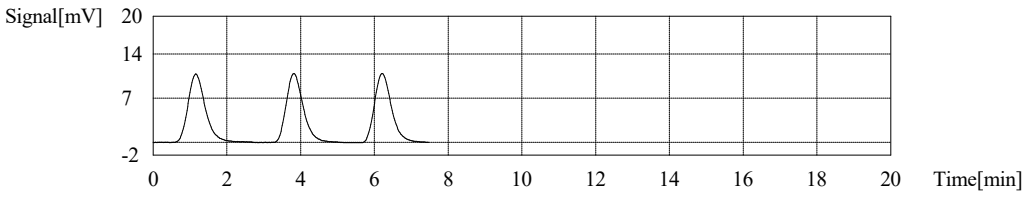
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.55	9.945mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:50:18 AM
2	35.28	9.869mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:52:57 AM
3	35.36	9.891mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 2:55:35 AM

TOC-Control L Report

Mean Area 35.40
Mean Conc. 9.902mg/L



Sample

Sample Name: LCSD-02142024
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

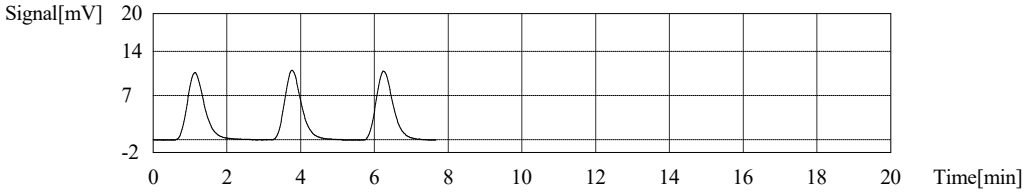
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.827mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.88	9.757mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:04:29 AM
2	35.02	9.796mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:07:13 AM
3	35.49	9.928mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:09:59 AM

Mean Area 35.13
Mean Conc. 9.827mg/L



Sample

Sample Name: HS24020314-03
Sample ID: TOC_W 5310B
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.268mg/L

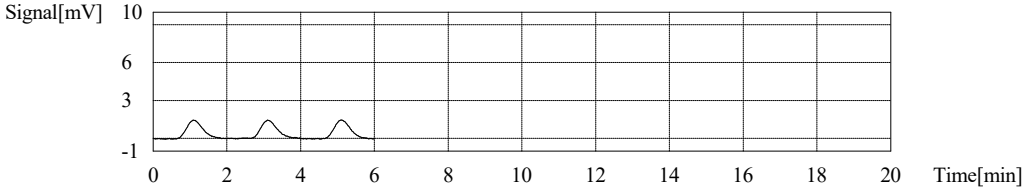
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.563	1.276mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:18:22 AM
2	4.405	1.232mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:20:33 AM
3	4.626	1.294mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:22:47 AM

TOC-Control L Report

Mean Area 4.531
Mean Conc. 1.268mg/L



Sample

Sample Name: HS24020314-03MS
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

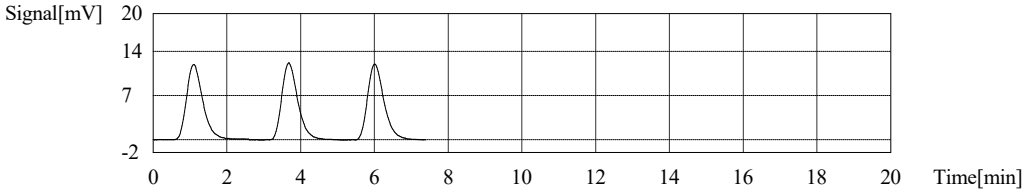
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.81	10.30mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:31:39 AM
2	36.89	10.32mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:34:13 AM
3	37.85	10.59mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:36:54 AM

Mean Area 37.18
Mean Conc. 10.40mg/L



Sample

Sample Name: HS24020575-01
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.141mg/L

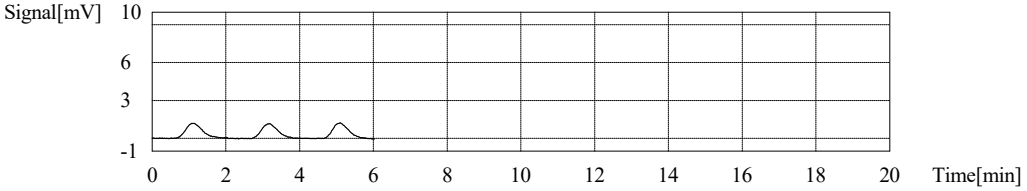
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.350	1.217mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:45:13 AM
2	4.001	1.119mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:47:33 AM
3	3.881	1.086mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 3:49:51 AM

TOC-Control L Report

Mean Area 3.758
Mean Conc. 1.051mg/L



Sample

Sample Name: HS24020575-04
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

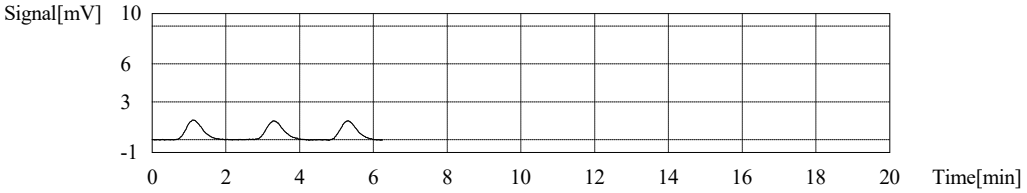
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.349mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.938	1.381mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:24:26 AM
2	4.786	1.339mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:26:40 AM
3	4.748	1.328mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:28:57 AM

Mean Area 4.824
Mean Conc. 1.349mg/L



Sample

Sample Name: HS24020576-01
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.845mg/L

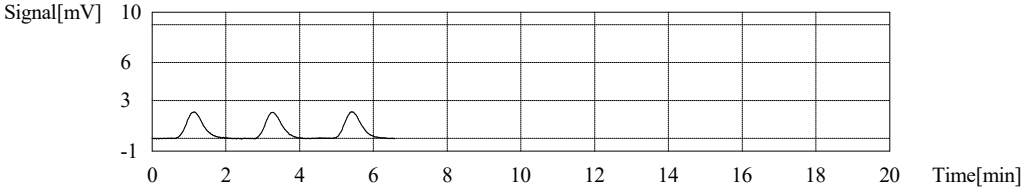
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.630	1.855mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:37:22 AM
2	6.420	1.796mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:39:45 AM
3	6.735	1.884mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:42:14 AM

TOC-Control L Report

Mean Area 6.595
Mean Conc. 1.845mg/L



Sample

Sample Name: CCV
Sample ID: 3100607917
Origin: 01.03.2024.cal
Status Completed
Chk. Result

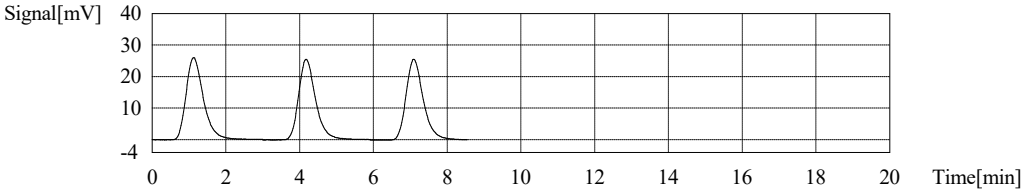
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.09	24.08mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:51:35 AM
2	82.30	23.02mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:54:45 AM
3	83.47	23.35mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 4:57:38 AM

Mean Area 83.95
Mean Conc. 23.48mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1555mg/L

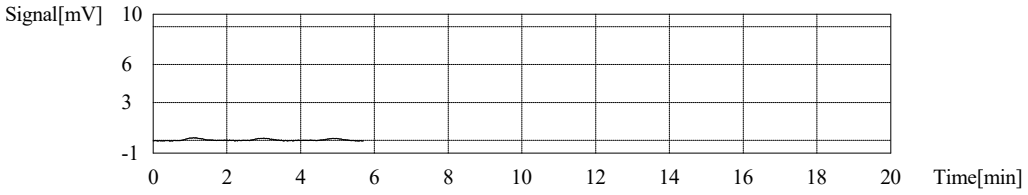
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6158	0.1723mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:05:50 AM
2	0.5165	0.1445mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:07:57 AM
3	0.5357	0.1499mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:10:05 AM

TOC-Control L Report

Mean Area 0.5560
Mean Conc. 0.1555mg/L



Sample

Sample Name: HS24020576-05
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

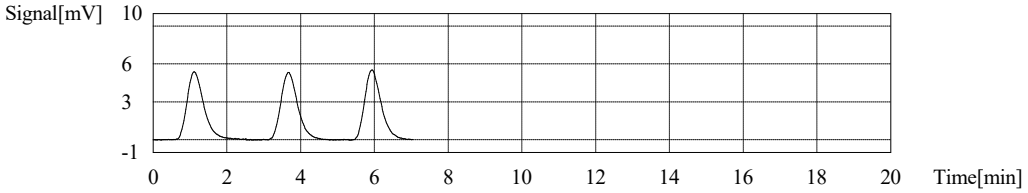
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.804mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.06	4.772mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:19:02 AM
2	17.12	4.789mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:21:36 AM
3	17.34	4.851mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:24:02 AM

Mean Area 17.17
Mean Conc. 4.804mg/L



Sample

Sample Name: HS24020576-10
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.758mg/L

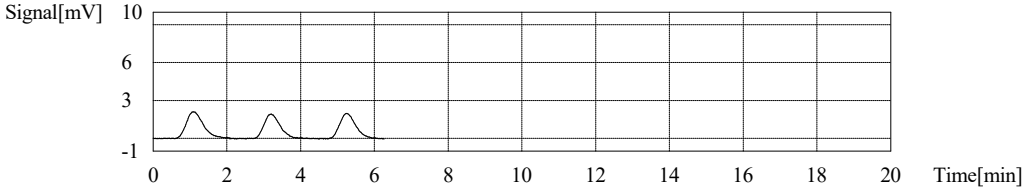
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.684	1.870mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:32:24 AM
2	5.951	1.665mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:34:40 AM
3	6.217	1.739mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:37:00 AM

TOC-Control L Report

Mean Area 6.284
Mean Conc. 1.758mg/L



Sample

Sample Name: HS24020169-01
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

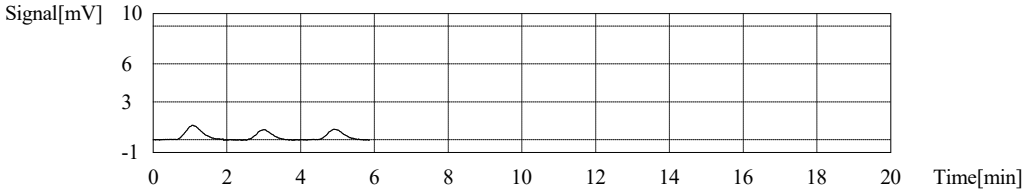
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7971mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.374	0.9438mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:45:12 AM
2	2.540	0.7105mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:47:21 AM
3	2.635	0.7371mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:49:36 AM

Mean Area 2.850
Mean Conc. 0.7971mg/L



Sample

Sample Name: HS24020169-02
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4590mg/L

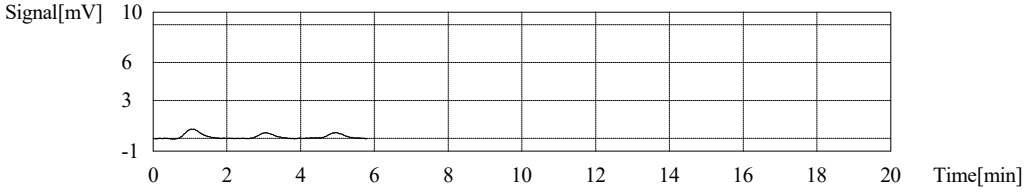
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.377	0.6649mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 5:57:53 AM
2	1.393	0.3897mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 6:00:00 AM
3	1.153	0.3225mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 6:02:07 AM

TOC-Control L Report

Mean Area 1.641
Mean Conc. 0.4590mg/L



Sample

Sample Name: CCV
Sample ID: 3100607917
Origin: 01.03.2024.cal
Status Completed
Chk. Result

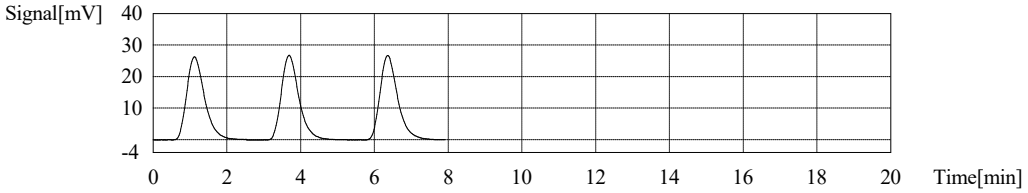
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.05mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.19	24.95mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 6:10:57 AM
2	89.63	25.07mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 6:13:54 AM
3	89.86	25.14mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 6:16:49 AM

Mean Area 89.56
Mean Conc. 25.05mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 01.03.2024.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2189mg/L

1. Det

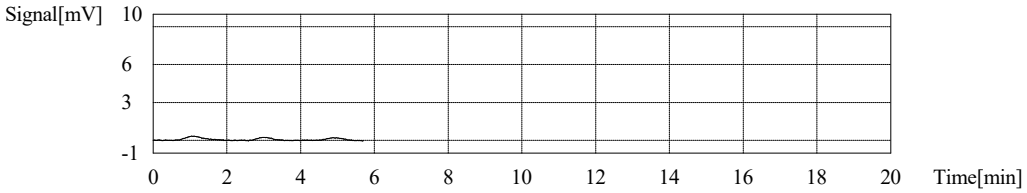
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9689	0.2710mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 6:25:01 AM
2	0.7550	0.2112mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 6:27:07 AM
3	0.6241	0.1746mg/L	50uL	1.000		01.03.2024.2024_01_03_11_09_20.cal	2/15/2024 6:29:14 AM

TOC-Control L Report

2024_02_14_001.tlx

Mean Area	0.7827
Mean Conc.	0.2189mg/L



HS24020576 E2400136 Perch Level IV Report

ALS WO# HS24020576

February 26, 2024 Service Request No:E2400136

James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099

Laboratory Results for: HS24020576

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory February 10, 2024
For your reference, these analyses have been assigned our service request number **E2400136.**

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

HKelany

Hussam Kelany
Project Manager

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

Certificate of Analysis

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

Client:	ALS Environmental - US	**Service Request No.:**	E2400136
Project:	HS24020576	**Date Received:**	02/10/24
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

Ten samples were received for analysis at ALS Environmental in Houston on 02/10/24.

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:

EQ2400093: 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.

Client: ALS Environmental - US **Service Request:**E2400136
Project: HS24020576

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2400136-001	16RW09-240206	2/6/2024	0710
E2400136-002	16RW10-240206	2/6/2024	0755
E2400136-003	16RW12-240206	2/6/2024	0840
E2400136-004	16RW12-240206-FD	2/6/2024	0840
E2400136-005	16WW40-240206	2/6/2024	0925
E2400136-006	16WW12-240206	2/6/2024	1015
E2400136-007	16WW34-240206	2/6/2024	1100
E2400136-008	16WW33-240206	2/6/2024	1140
E2400136-009	16WW25-240206	2/6/2024	1230
E2400136-010	16WW26-240206	2/6/2024	1310

Service Request Summary

Folder #: **E2400136**
Client Name: ALS Environmental - US
Project Name: HS24020576
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/10/24
Internal Due Date: 2/19/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: EQUIS APTIM
LONGHORN EFWEDD

10 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	Semivoa GCMS ClO4 DOD/6850
E2400136-001	16RW09-240206	Water	02/06/24 0710	**IV***
E2400136-002	16RW10-240206	Water	02/06/24 0755	**IV***
E2400136-003	16RW12-240206	Water	02/06/24 0840	**IV***
E2400136-004	16RW12-240206-FD	Water	02/06/24 0840	**IV***
E2400136-005	16WW40-240206	Water	02/06/24 0925	**IV***
E2400136-006	16WW12-240206	Water	02/06/24 1015	**IV***
E2400136-007	16WW34-240206	Water	02/06/24 1100	**IV***
E2400136-008	16WW33-240206	Water	02/06/24 1140	**IV***
E2400136-009	16WW25-240206	Water	02/06/24 1230	**IV***
E2400136-010	16WW26-240206	Water	02/06/24 1310	**IV***

Service Request Summary

Folder #: **E2400136**
Client Name: ALS Environmental - US
Project Name: HS24020576
Project Number:

Report To: James Guin
ALS Environmental - US
10450 Stancliff Rd #210
Houston, TX 77099
USA
Phone Number: 281-530-5656
Cell Number:
Fax Number:
E-mail: james.guin@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/10/24
Internal Due Date: 2/19/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: EQUIS APTIM
LONGHORN EFWEDD

10 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10B
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
Arizona Department of Health Services	AZ0793_2024	5/27/2024
Arkansas Department of Environmental Quality	88-00356	3/27/2024
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
Louisiana Department of Health and Hospitals	LA028-2024	12/31/2024
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343-2023	6/30/2024
Michigan Depratment of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2645386	12/31/2024
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2023-140	8/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
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	TX026932023-14	7/31/2024
Washington Department of Ecology	C819-23	11/14/2024

Chain of Custody

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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Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 24710

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@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:	HS24020576
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24020576-01**	**16RW09-240206**	**Groundwater**	**06 Feb 2024 07:10**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
2.	**HS24020576-02**	**16RW10-240206**	**Groundwater**	**06 Feb 2024 07:55**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
3.	**HS24020576-03**	**16RW12-240206**	**Groundwater**	**06 Feb 2024 08:40**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
4.	**HS24020576-04**	**16RW12-240206-FD**	**Groundwater**	**06 Feb 2024 08:40**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
5.	**HS24020576-05**	**16WW40-240206**	**Groundwater**	**06 Feb 2024 09:25**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
6.	**HS24020576-06**	**16WW12-240206**	**Groundwater**	**06 Feb 2024 10:15**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
7.	**HS24020576-07**	**16WW34-240206**	**Groundwater**	**06 Feb 2024 11:00**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
8.	**HS24020576-08**	**16WW33-240206**	**Groundwater**	**06 Feb 2024 11:40**

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 24710

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
9.	HS24020576-09	16WW25-240206	Groundwater	06 Feb 2024 12:30
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024
10.	HS24020576-10	16WW26-240206	Groundwater	06 Feb 2024 13:10
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			14 Feb 2024

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: 2/10 1246

Received By: JC Date/Time: _____

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

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Sample Receipt Checklist

Work Order ID: HS24020576 **Date/Time received:** 07 Feb 2024 09:20

Client name: Bhate Environmental Associates, Inc. **Received by:** Jacob Coronado

Completed/By: 10 Feb 2024 12:46 (Date/Time) Paresh M. Giga (eSignature) **Reviewed/By:** _____ (Date/Time) _____ (eSignature)

Matrices: GW/Water **Carrier name:** FedEx Priority Overnight

Shipping container/cooler in good condition?	☑ Yes	☐ No	☐ Not Present
Custody seals intact on shipping container/cooler?	☑ Yes	☐ No	☐ Not Present
Custody seals intact on Sample bottles?	☐ Yes	☐ No	☑ Not Present
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐ Yes	☐ No	☑ Not Present
Chain of custody present?	☑ Yes	☐ No	1 Page(s)
Chain of custody signed when relinquished and received?	☑ Yes	☐ No	COC ID(s): none
Samplers name present on COC?	☑ Yes	☐ No	
Chain of custody agrees with sample labels?	☑ Yes	☐ No	
Samples in proper container/bottle?	☑ Yes	☐ No	
Sample containers intact?	☑ Yes	☐ No	
Sufficient sample volume for indicated test?	☑ Yes	☐ No	
All samples received within holding time?	☑ Yes	☐ No	
Container/Temp Blank temperature in compliance?	☑ Yes	☐ No	

Temperature(s)/Thermometer(s): 3.8C/3.7C U/C IR31

Cooler Information: 1 Cooler(s), Blue

Date/Time sample(s) sent to storage: 2/10/24 13:15

Water - VOA vials have zero headspace?	☑ Yes	☐ No	☐ No VOA vials submitted
Water - pH acceptable upon receipt?	☐ Yes	☐ No	☑ Not Applicable
pH adjusted?	☐ Yes	☐ No	☑ Not Applicable

pH adjusted by: _____

Login notes: _____

Client contacted: _____ **Date contacted:** _____ **Person contacted:** _____

Contacted by: _____ **Regarding:** _____

Comments: _____

Corrective action: _____

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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

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10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
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Preparation Information Benchsheet

Prep Run#: 434181 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/19/24 09:00

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2400131-001	2402071322X PL-7-630	.01	6850/ClO4 DOD			Water	10mL	
2	E2400132-001	16WW23-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2400132-002	16WW23-240207-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2400132-003	16WW24-240207	.02	6850/ClO4 DOD			Ground Water	10mL	
5	E2400132-004	16WW24-240207-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2400132-005	16WW27-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2400132-006	16WW43-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2400136-001	16RW09-240206	.01	6850/ClO4 DOD			Water	10mL	
9	E2400136-002	16RW10-240206	.01	6850/ClO4 DOD			Water	10mL	
10	E2400136-003	16RW12-240206	.01	6850/ClO4 DOD			Water	10mL	
11	E2400136-004	16RW12-240206-FD	.01	6850/ClO4 DOD			Water	10mL	
12	E2400136-005	16WW40-240206	.01	6850/ClO4 DOD			Water	10mL	
13	E2400136-006	16WW12-240206	.01	6850/ClO4 DOD			Water	10mL	
14	E2400136-007	16WW34-240206	.01	6850/ClO4 DOD			Water	10mL	
15	E2400136-008	16WW33-240206	.01	6850/ClO4 DOD			Water	10mL	
16	E2400136-009	16WW25-240206	.01	6850/ClO4 DOD			Water	10mL	
17	E2400136-010	16WW26-240206	.01	6850/ClO4 DOD			Water	10mL	
18	E2400160-001	LGAC INF 021224	.05	6850/ClO4 DOD			Water	10mL	
19	EQ2400093-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2400093-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2400093-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2400093-04	ICS		6850/ClO4 DOD			Liquid	10mL	
23	EQ2400093-05	16WW24-240207 MS	.02	6850/ClO4 DOD			Liquid	10mL	
24	EQ2400093-06	16WW24-240207 DMS	.02	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock 2 Inventory ID 233555 Logbook Ref: Perchlorate INT. Stock2 Expires On: 08/05/2024

EQ2400093-02	10.00µL	EQ2400093-03	10.00µL	EQ2400093-04	10.00µL	EQ2400093-05	10.00µL	EQ2400093-06	10.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 233561 Logbook Ref: Perchlorate Internal Standard Expires On: 08/05/2024

E2400131-001	100.00µL	E2400132-001	100.00µL	E2400132-002	100.00µL	E2400132-003	100.00µL	E2400132-004	100.00µL	E2400132-005	100.00µL
E2400132-006	100.00µL	E2400136-001	100.00µL	E2400136-002	100.00µL	E2400136-003	100.00µL	E2400136-004	100.00µL	E2400136-005	100.00µL
E2400136-006	100.00µL	E2400136-007	100.00µL	E2400136-008	100.00µL	E2400136-009	100.00µL	E2400136-010	100.00µL	E2400160-001	100.00µL
EQ2400093-01	100.00µL	EQ2400093-02	100.00µL	EQ2400093-03	100.00µL	EQ2400093-04	100.00µL	EQ2400093-05	100.00µL	EQ2400093-06	100.00µL

Preparation Information Benchsheet

Prep Run#: 434181 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/19/24 09:00

Name:	Perchlorate Anion Spiking Soln. 25,000 ppm	Inventory ID	233595	Logbook Ref:	Expires On:	08/04/2024

EQ2400093-04 20.00µL

Preparation Materials

6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979) 6850 Luer-Lok Syringes Luer Lok Syringes (231696)
6850 20mM amonium acetate in H2O (233412)

Preparation Steps

Step: Preparation
Started: 2/19/24 09:00
Finished: 2/19/24 10:30
By: JOSEL.JUAREZ
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined
Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0710
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16RW09-240206	**Units:**	µg/L
Lab Code:	E2400136-001	**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	**0.0629**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:09	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0755
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16RW10-240206	**Units:**	µg/L
Lab Code:	E2400136-002	**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	**7.57**		0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:15	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0840
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16RW12-240206	**Units:**	µg/L
Lab Code:	E2400136-003	**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	**0.0282**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:20	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0840
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16RW12-240206-FD	**Units:**	µg/L
Lab Code:	E2400136-004	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:26	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 0925
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW40-240206	**Units:**	µg/L
Lab Code:	E2400136-005	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	1.00	0.500	0.250	10	2/19/24	2/21/24 11:30	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1015
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW12-240206	**Units:**	µg/L
Lab Code:	E2400136-006	**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	**12.2**		1.00	0.500	0.250	10	2/19/24	2/21/24 10:32	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1100
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW34-240206	**Units:**	µg/L
Lab Code:	E2400136-007	**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	**0.147**		0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:43	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1140
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW33-240206	**Units:**	µg/L
Lab Code:	E2400136-008	**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	2/19/24	2/19/24 15:00	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1230
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW25-240206	**Units:**	µg/L
Lab Code:	E2400136-009	**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	1.00	0.500	0.250	10	2/19/24	2/22/24 10:44	434181	833241	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	2/ 6/24 1310
Sample Matrix:	Water	**Date Received:**	2/10/24
Sample Name:	16WW26-240206	**Units:**	µg/L
Lab Code:	E2400136-010	**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	2/19/24	2/19/24 15:11	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2400093-01	**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	2/19/24	2/19/24 12:45	434181	833219	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020576
Sample Matrix: Water

Service Request: E2400136
Date Analyzed: 2/19/24

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: 434181

	Lab Control Sample EQ2400093-02			Duplicate Lab Control Sample EQ2400093-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0877	0.100	88	0.0854	0.100	85	84 - 119	3	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:**	E2400136
Project:	HS24020576	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400093-02	**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	**0.0877**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 12:51	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400093-03	**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	**0.0854**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 12:56	434181	833219	

Initial Calibration

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832255

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: JLJ

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240213-001	IB	Perchlorate6850c.lcm	1x		2/13/2024 9:34
2	20240213-002	Perchlorate ICAL 1	Perchlorate6850c.lcm	1x	233572	2/13/2024 9:40
3	20240213-003	Perchlorate ICAL 2	Perchlorate6850c.lcm	1x	233571	2/13/2024 9:45
4	20240213-004	Perchlorate ICAL 3	Perchlorate6850c.lcm	1x	233570	2/13/2024 9:51
5	20240213-005	Perchlorate ICAL 4	Perchlorate6850c.lcm	1x	233569	2/13/2024 9:56
6	20240213-006	Perchlorate ICAL 5	Perchlorate6850c.lcm	1x	233568	2/13/2024 10:02
7	20240213-007	Perchlorate ICAL 6	Perchlorate6850c.lcm	1x	233567	2/13/2024 10:08
8	20240213-008	Perchlorate ICAL 7	Perchlorate6850c.lcm	1x	233566	2/13/2024 10:13
9	20240213-009	Perchlorate ICAL 8	Perchlorate6850c.lcm	1x	233564	2/13/2024 10:19
10	20240213-010	Perchlorate ICAL 9	Perchlorate6850c.lcm	1x	233563	2/13/2024 10:24
11	20240213-011	Perchlorate ICAL 10	Perchlorate6850c.lcm	1x	233562	2/13/2024 10:30
12	20240213-012	PerchlorateICV	Perchlorate6850c.lcm	1x	230380	2/13/2024 10:35
13	20240213-013	IB	Perchlorate6850c.lcm	1x		2/13/2024 10:41
14	20240213-014	LODV	Perchlorate6850c.lcm	1x		2/13/2024 10:49
15	20240213-015	ICS	Perchlorate6850c.lcm	1x		2/13/2024 10:55
16	20240213-016	E2400101-001	Perchlorate6850c.lcm	1x		2/13/2024 11:18
17	20240213-017	E2400101-002	Perchlorate6850c.lcm	1x		2/13/2024 11:23
18	20240213-018	E2400101-003	Perchlorate6850c.lcm	1x		2/13/2024 11:29
19	20240213-019	E2400101-004	Perchlorate6850c.lcm	1x		2/13/2024 11:34
20	20240213-020	E2400101-005	Perchlorate6850c.lcm	1x		2/13/2024 11:40
21	20240213-021	E2400101-006	Perchlorate6850c.lcm	1x		2/13/2024 11:45
22	20240213-022	E2400101-007	Perchlorate6850c.lcm	1x		2/13/2024 11:51
23	20240213-023	E2400101-008	Perchlorate6850c.lcm	1x		2/13/2024 11:56
24	20240213-024	E2400101-009	Perchlorate6850c.lcm	1x		2/13/2024 12:02
25	20240213-025	E2400101-010	Perchlorate6850c.lcm	1x	DNU-IR-RI	2/13/2024 12:07
26	20240213-026	CCV	Perchlorate6850c.lcm	1x		2/13/2024 12:13
27	20240213-027	IB	Perchlorate6850c.lcm	1x		2/13/2024 12:18
28	20240213-028	E2400101-011	Perchlorate6850c.lcm	1x		2/13/2024 12:24
29	20240213-029	E2400101-012	Perchlorate6850c.lcm	1x		2/13/2024 12:29
30	20240213-030	E2400101-013	Perchlorate6850c.lcm	1x		2/13/2024 12:35
31	20240213-031	E2400112-001	Perchlorate6850c.lcm	1x		2/13/2024 12:40
32	20240213-032	IB	Perchlorate6850c.lcm	1x		2/13/2024 13:03
33	20240213-033	E2400112-002	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:09
34	20240213-034	E2400112-003	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:16
35	20240213-035	E2400112-004	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:22
36	20240213-036	E2400112-005	Perchlorate6850c.lcm	1x		2/13/2024 13:27
37	20240213-037	E2400112-006	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:33
38	20240213-038	E2400112-007x5	Perchlorate6850c.lcm	5x		2/13/2024 13:38
39	20240213-039	CCV	Perchlorate6850c.lcm	1x		2/13/2024 13:44
40	20240213-040	IB	Perchlorate6850c.lcm	1x		2/13/2024 13:49
41	20240213-041	E2400112-008	Perchlorate6850c.lcm	1x		2/13/2024 13:55

832255

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: JLJ

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
42	20240213-042	E2400101-010	Perchlorate6850c.lcm	1x		2/13/2024 14:00
43	20240213-043	E2400081-01 MB	Perchlorate6850c.lcm	1x		2/13/2024 14:06
44	20240213-044	E2400081-02 LCS	Perchlorate6850c.lcm	1x		2/13/2024 14:11
45	20240213-045	E2400081-03 DLCS	Perchlorate6850c.lcm	1x		2/13/2024 14:17
46	20240213-046	E2400081-06 ICS	Perchlorate6850c.lcm	1x		2/13/2024 14:22
47	20240213-047	E2400081-04 MS	Perchlorate6850c.lcm	1x		2/13/2024 14:28
48	20240213-048	E2400081-05 DMS	Perchlorate6850c.lcm	1x		2/13/2024 14:33
49	20240213-049	E2400112-004	Perchlorate6850c.lcm	1x		2/13/2024 14:39
50	20240213-050	CCV	Perchlorate6850c.lcm	1x		2/13/2024 14:45
51	20240213-051	IB	Perchlorate6850c.lcm	1x		2/13/2024 14:51
52	20240213-052	E2400112-006	Perchlorate6850c.lcm	1x		2/13/2024 14:58
53	20240213-053	E2400112-002X10	Perchlorate6850c.lcm	10x		2/13/2024 15:22
54	20240213-054	E2400112-003X10	Perchlorate6850c.lcm	10x		2/13/2024 15:27
55	20240213-055	CCV	Perchlorate6850c.lcm	1x		2/13/2024 15:33
56	20240213-056	IB	Perchlorate6850c.lcm	1x		2/13/2024 15:38

Initial Calibration - Detailed Report

Calibration ID: EC2400004 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2400004-01	Perchlorate ICAL 1	20240213-002	02/13/2024 09:40
02	EC2400004-02	Perchlorate ICAL 2	20240213-003	02/13/2024 09:45
03	EC2400004-03	Perchlorate ICAL 3	20240213-004	02/13/2024 09:51
04	EC2400004-04	Perchlorate ICAL 4	20240213-005	02/13/2024 09:56
05	EC2400004-05	Perchlorate ICAL 5	20240213-006	02/13/2024 10:02
06	EC2400004-06	Perchlorate ICAL 6	20240213-007	02/13/2024 10:08
07	EC2400004-07	Perchlorate ICAL 7	20240213-008	02/13/2024 10:13
08	EC2400004-08	Perchlorate ICAL 8	20240213-009	02/13/2024 10:19
09	EC2400004-09	Perchlorate ICAL 9	20240213-010	02/13/2024 10:24
10	EC2400004-10	Perchlorate ICAL 10	20240213-011	02/13/2024 10:30

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

Perchlorate **Average RF** **RSD = 1.405** **Average RF = 0.1578**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1593	02	0.5000	0.1567	03	0.7000	0.1554	04	1.0000	0.1575
05	2.0000	0.1534	06	5.0000	0.1574	07	10.0000	0.1595	08	20.0000	0.16
09	30.0000	0.1586	10	50.0000	0.1604						

Analyte

Perchlorate RSE = 1.41

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.101	0.9	02	0.5000	0.496	-0.7	03	0.7000	0.689	-1.5
04	1.0000	0.998	-0.2	05	2.0000	1.94	-2.8	06	5.0000	4.99	-0.2
07	10.0000	10.1	1.1	08	20.0000	20.3	1.4	09	30.0000	30.1	0.5
10	50.0000	50.8	1.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2400004	**Instrument ID:**	E-LCMS-01
Datafile ID:	20240213-012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2400004-11	T	Average RF	10	9.980	ng/mL	-0.2	<= 15

Insight Report

Printed at 2/13/2024 3:53:21 PM

Method File: I:\LCMS01\DATA\20240213\ICAL 20240213.lcm
Project File: I:\LCMS01\DATA\20240213\20240213.damlp

IB

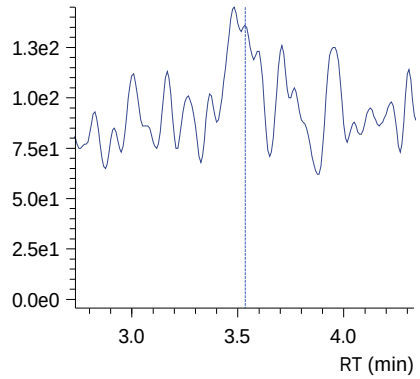
Sample ID: IB
Date Acquired: 2/13/2024 9:34:46 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	487658	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.529	487658	487658	1.0000	ng/mL	----	----	

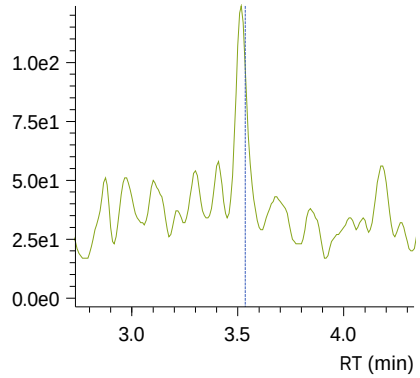
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.45e2



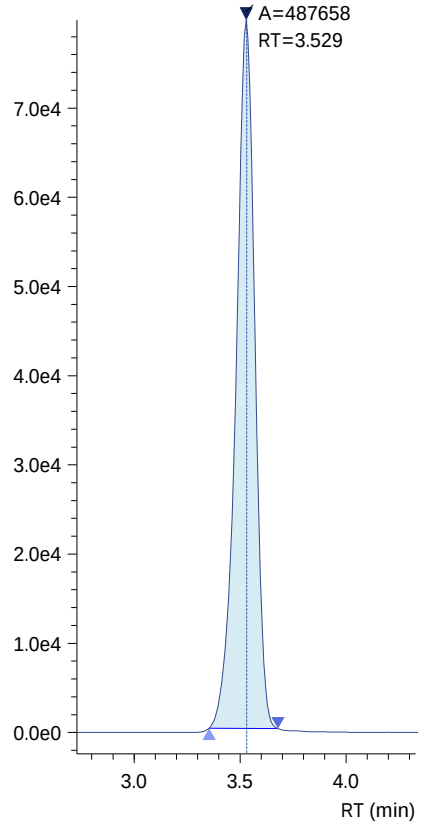
R1 101.00>85.00 (-) 1.24e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.99e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

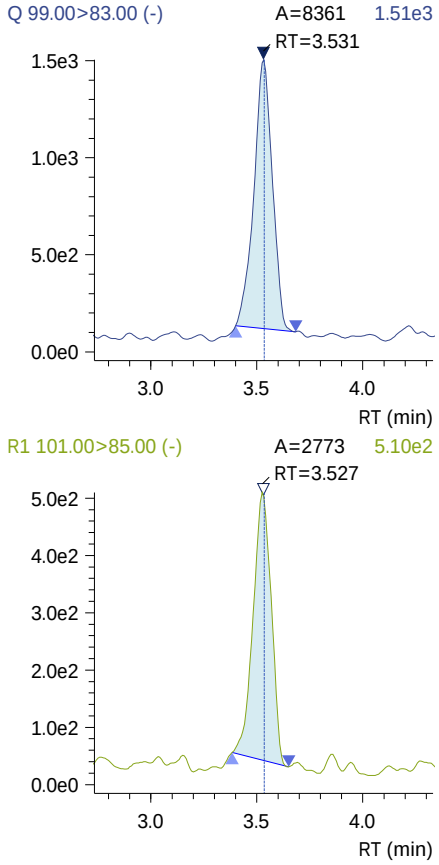
Perchlorate ICAL 1

Sample ID: Perchlorate ICAL 1
Date Acquired: 2/13/2024 9:40:17 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	8361	524837	0.1009	ng/mL	101.00 >85.00	33.17	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.529	524837	524837	1.0000	ng/mL	----	----	

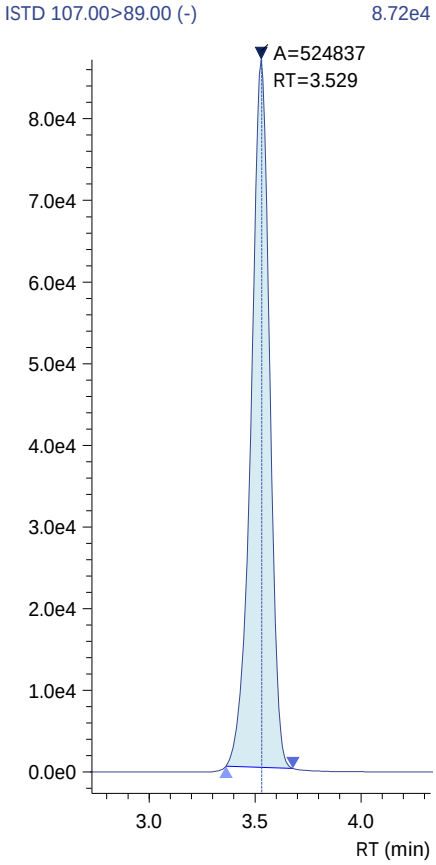
Perchlorate

Conc 0.1009
R#1 33.17 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 2

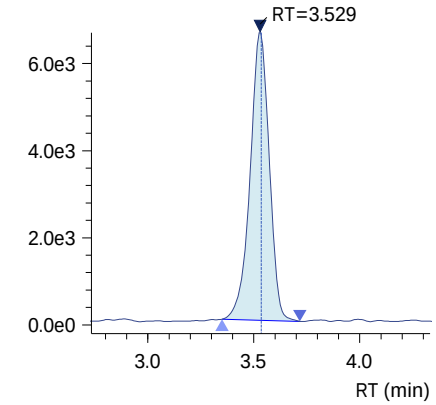
Sample ID: Perchlorate ICAL 2
Date Acquired: 2/13/2024 9:45:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	41323	527565	0.4963	ng/mL	101.00 >85.00	33.63	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	527565	527565	1.0000	ng/mL	----	----	

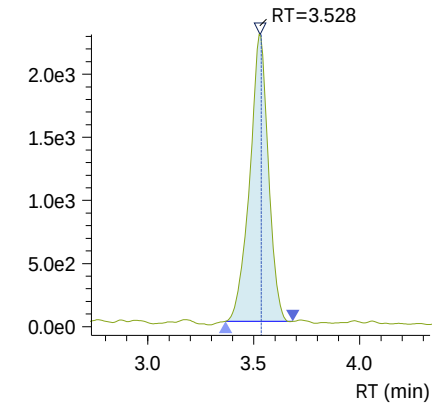
Perchlorate

Conc 0.4963
R#1 33.63 (34.10)

Q 99.00>83.00 (-) A=41323 6.71e3



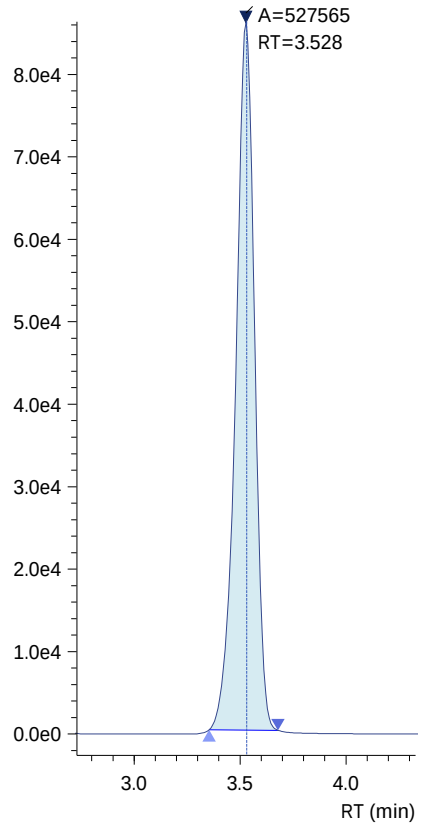
R1 101.00>85.00 (-) A=13897 2.32e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.64e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 3

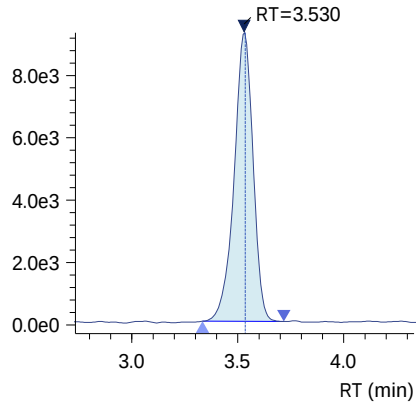
Sample ID: Perchlorate ICAL 3
Date Acquired: 2/13/2024 9:51:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	57419	527846	0.6893	ng/mL	101.00 >85.00	34.81	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	527846	527846	1.0000	ng/mL	----	----	

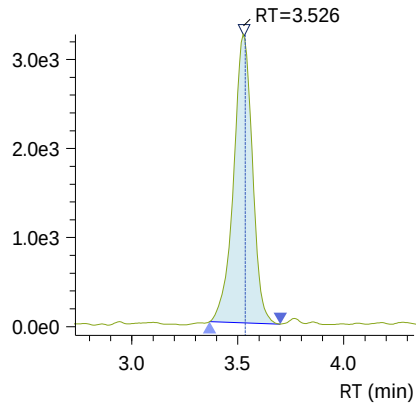
Perchlorate

Conc 0.6893
R#1 34.81 (34.10)

Q 99.00>83.00 (-) A=57419 9.37e3



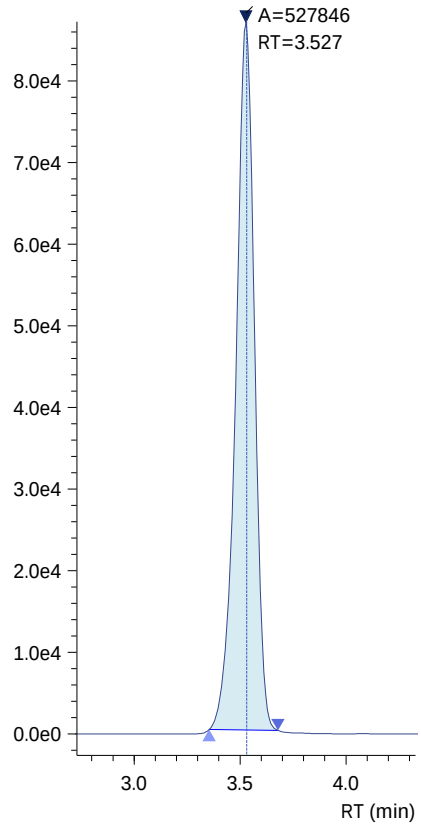
R1 101.00>85.00 (-) A=19986 3.28e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.73e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

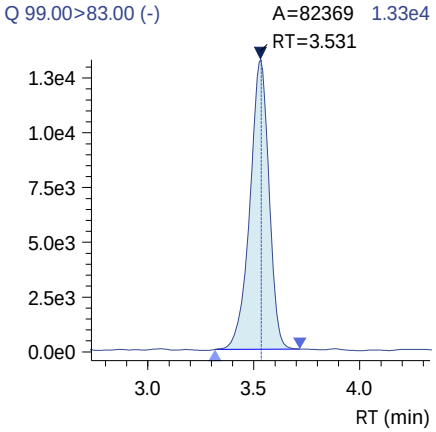
Perchlorate ICAL 4

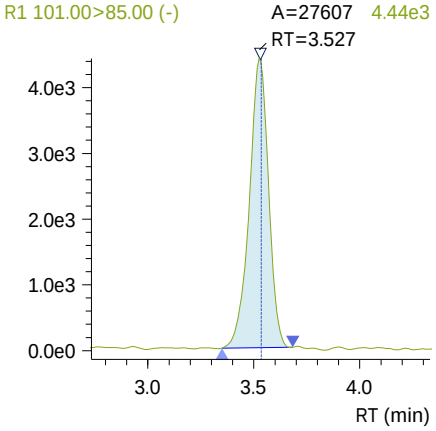
Sample ID: Perchlorate ICAL 4
Date Acquired: 2/13/2024 9:56:57 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-005.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	82369	523106	0.9977	ng/mL	101.00 >85.00	33.52	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	523106	523106	1.0000	ng/mL	----	----	

Perchlorate

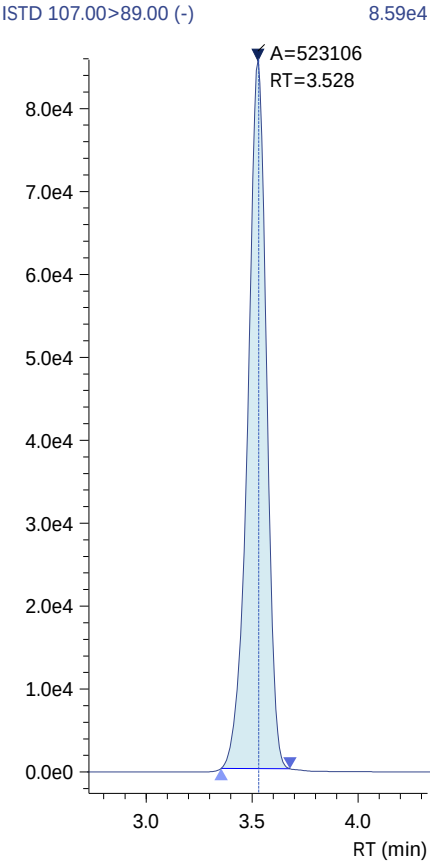
Conc 0.9977
R#1 33.52 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 5

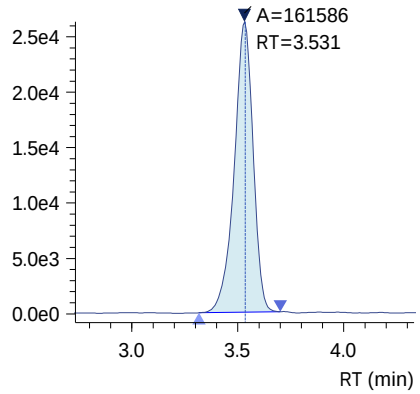
Sample ID: Perchlorate ICAL 5
Date Acquired: 2/13/2024 10:02:32 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-006.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	161586	526634	1.9441	ng/mL	101.00 >85.00	34.10	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.529	526634	526634	1.0000	ng/mL	----	----	

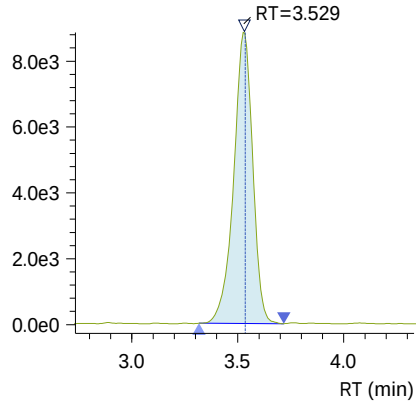
Perchlorate

Conc 1.9441
R#1 34.10 (34.10)

Q 99.00>83.00 (-) 2.64e4



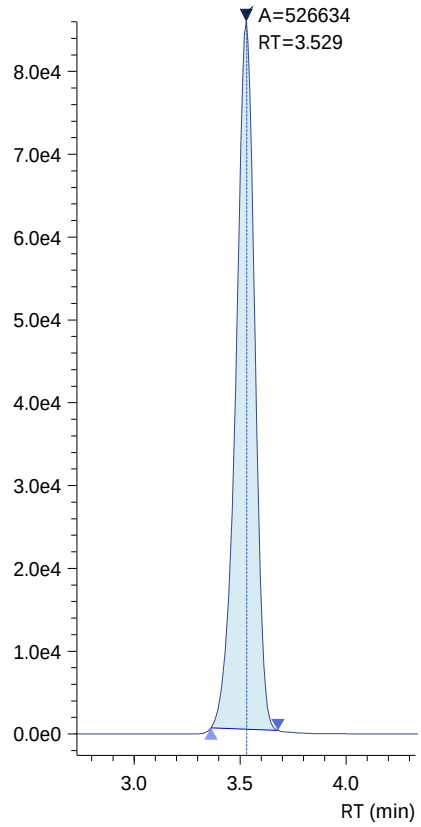
R1 101.00>85.00 (-) A=55098 8.87e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.60e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 6

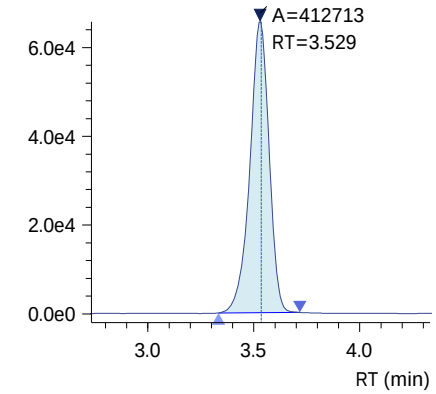
Sample ID: Perchlorate ICAL 6
Date Acquired: 2/13/2024 10:08:05 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-007.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	412713	524318	4.9876	ng/mL	101.00 >85.00	33.17	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	524318	524318	1.0000	ng/mL	----	----	

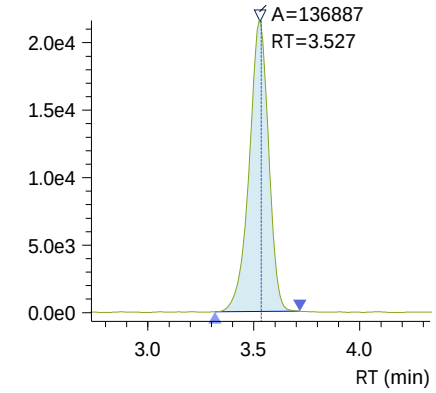
Perchlorate

Conc 4.9876
R#1 33.17 (34.10)

Q 99.00>83.00 (-) 6.58e4



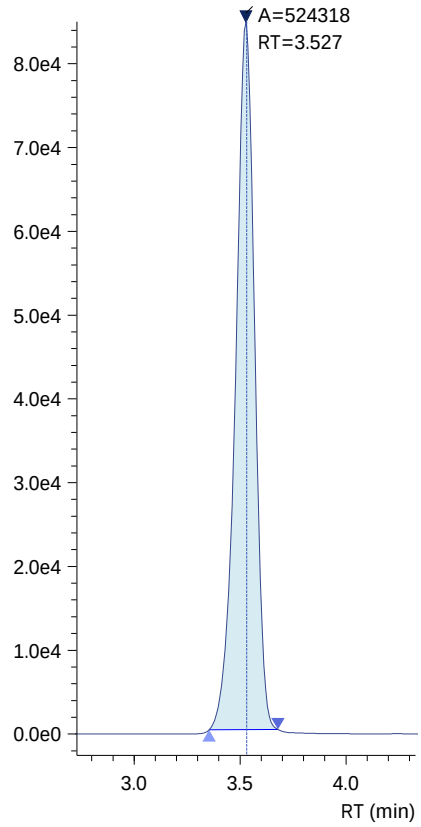
R1 101.00>85.00 (-) 2.16e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.50e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 7

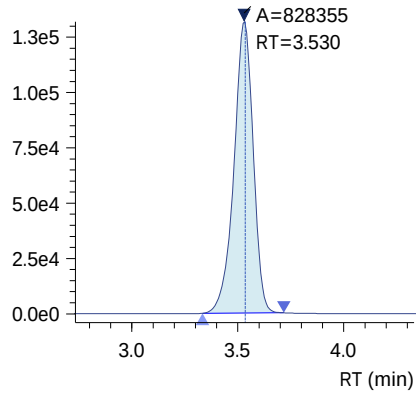
Sample ID: Perchlorate ICAL 7
Date Acquired: 2/13/2024 10:13:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-008.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	828355	519280	10.1076	ng/mL	101.00 >85.00	33.46	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	519280	519280	1.0000	ng/mL	----	----	

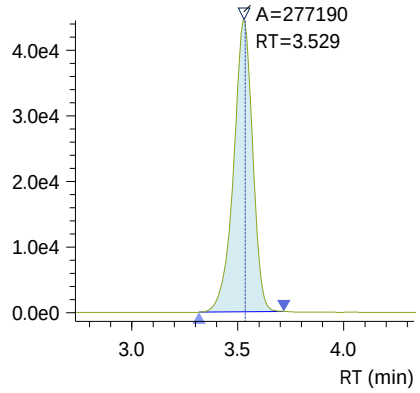
Perchlorate

Conc 10.1076
R#1 33.46 (34.10)

Q 99.00>83.00 (-) 1.32e5



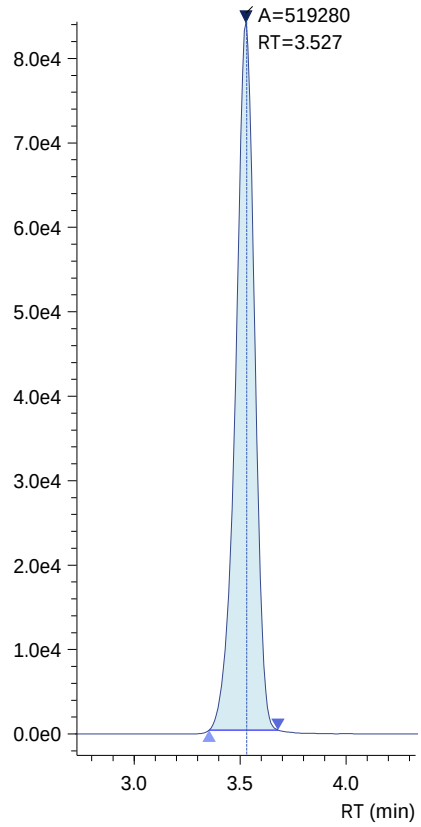
R1 101.00>85.00 (-) 4.45e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.44e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 8

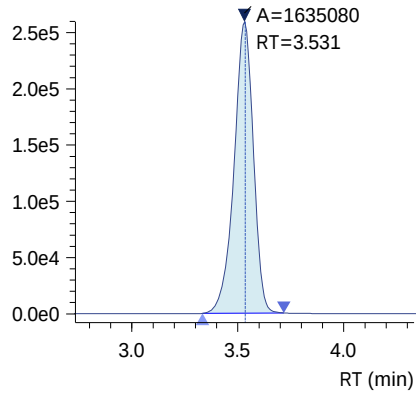
Sample ID: Perchlorate ICAL 8
Date Acquired: 2/13/2024 10:19:12 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-009.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	16350 80	510855	20.2 804	ng/mL	101.00 >85.00	32.92	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	510855	510855	1.0000	ng/mL	----	----	

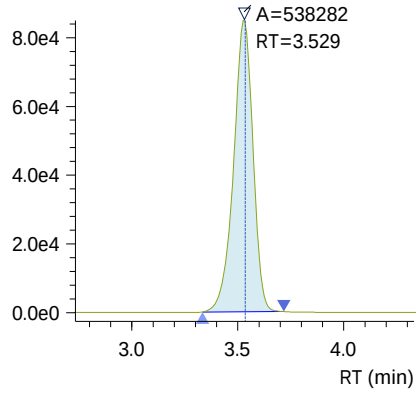
Perchlorate

Conc 20.2804
R#1 32.92 (34.10)

Q 99.00>83.00 (-) 2.60e5



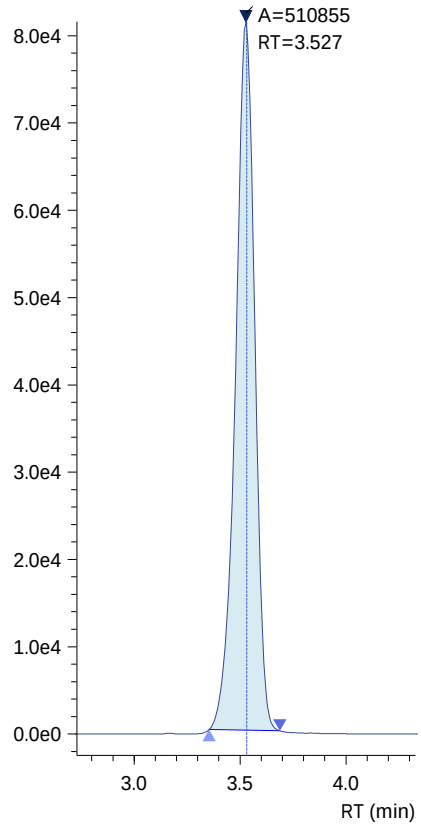
R1 101.00>85.00 (-) 8.50e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.16e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 9

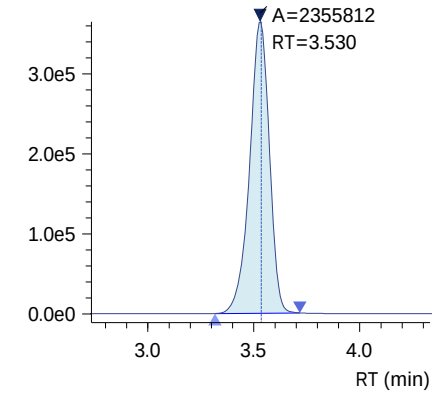
Sample ID: Perchlorate ICAL 9
Date Acquired: 2/13/2024 10:24:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-010.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	23558	495209	30.1	ng/mL	101.00	33.20	26.31
			12		430		>85.00		-43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	495209	495209	1.0000	ng/mL	----	----	

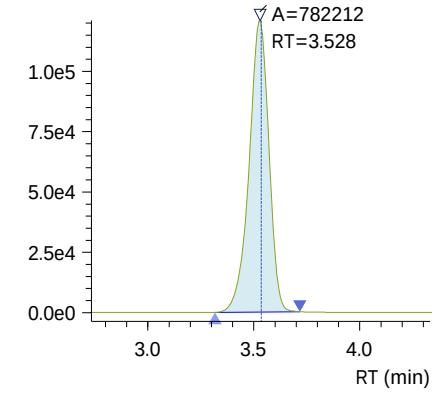
Perchlorate

Conc 30.1430
R#1 33.20 (34.10)

Q 99.00>83.00 (-) 3.65e5



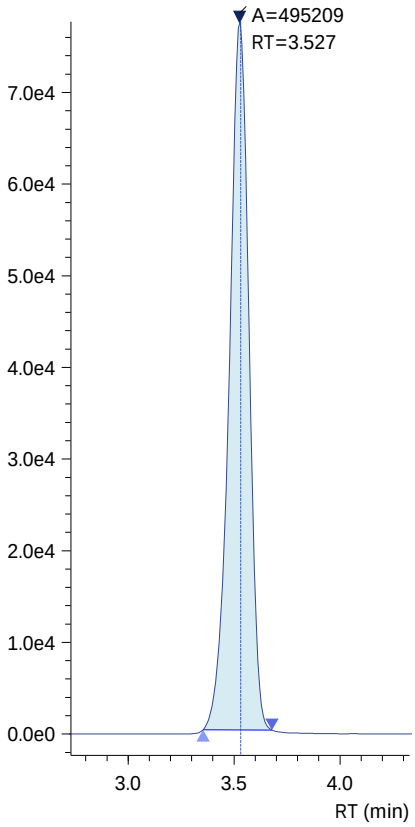
R1 101.00>85.00 (-) 1.21e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.77e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 10

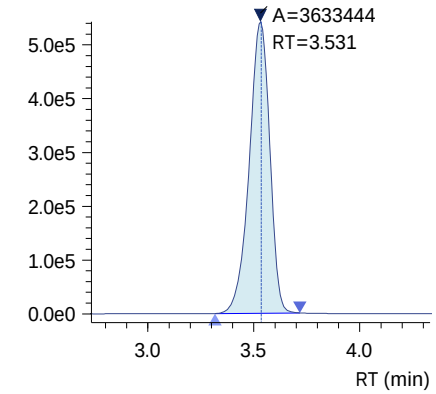
Sample ID: Perchlorate ICAL 10
Date Acquired: 2/13/2024 10:30:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-011.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	36334	452979	50.8	ng/mL	101.00	33.19	26.31
			44		246		>85.00		-43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	452979	452979	1.0000	ng/mL	----	----	

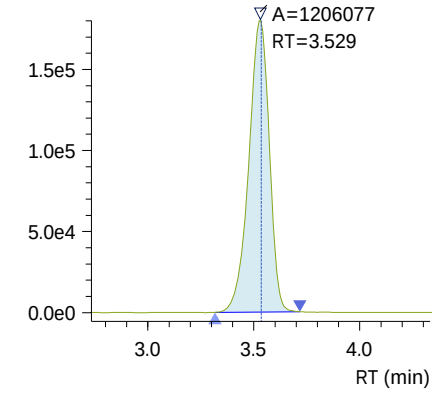
Perchlorate

Conc 50.8246
R#1 33.19 (34.10)

Q 99.00>83.00 (-) 5.43e5



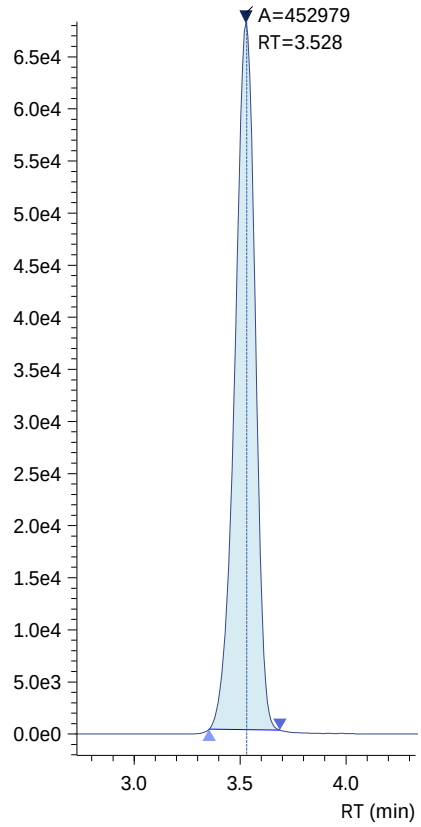
R1 101.00>85.00 (-) 1.80e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.84e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

PerchlorateICV

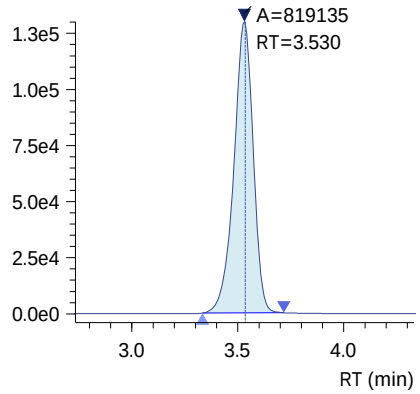
Sample ID: PerchlorateICV
Date Acquired: 2/13/2024 10:35:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-012.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	819135	520077	9.9798	ng/mL	101.00 >85.00	33.19	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	520077	520077	1.0000	ng/mL	----	----	

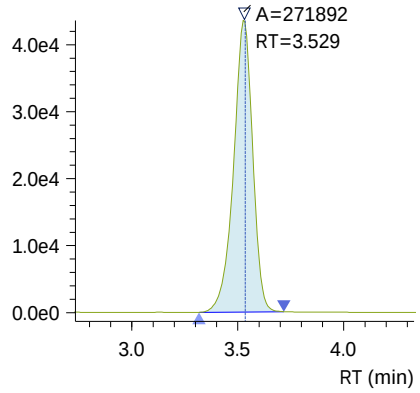
Perchlorate

Conc 9.9798
R#1 33.19 (34.10)

Q 99.00>83.00 (-) 1.30e5



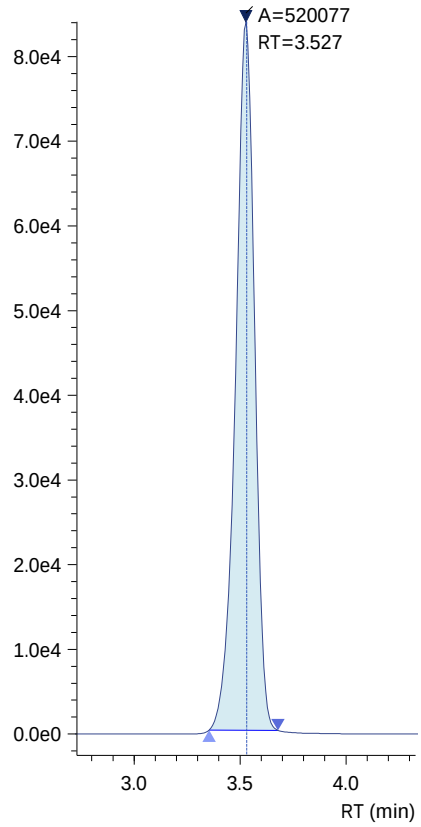
R1 101.00>85.00 (-) 4.36e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.41e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

IB

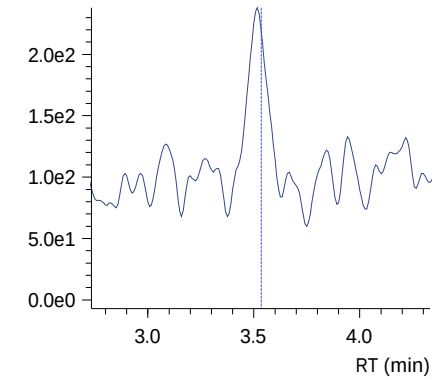
Sample ID: IB
Date Acquired: 2/13/2024 10:41:21 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-013.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	494605	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	494605	494605	1.0000	ng/mL	----	----	

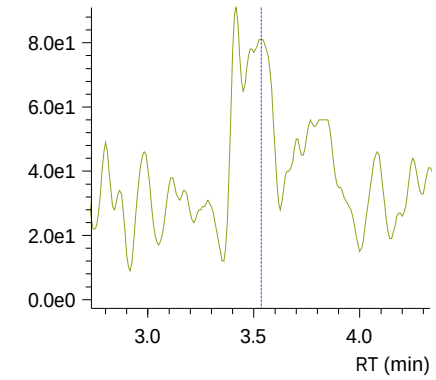
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 2.38e2



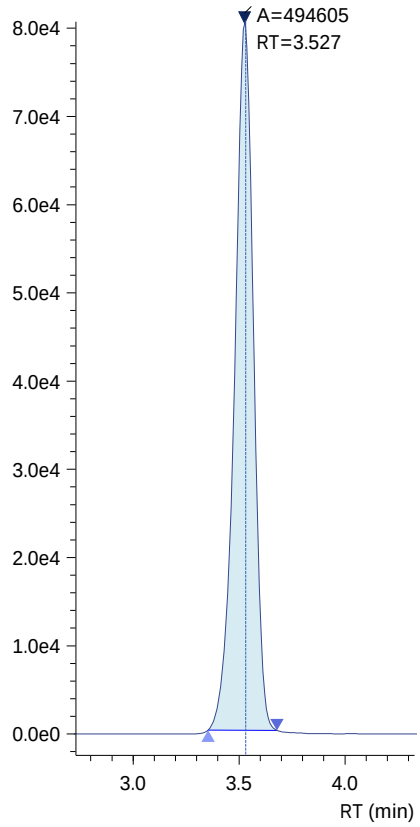
R1 101.00>85.00 (-) 9.10e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.07e4



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

833061

Injection Log

LCMS01 -Shimadzu 8050

1st Review: JLJ
2nd Review: SP

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240219-001	IB	Perchlorate6850c.lcm	1x		2/19/2024 12:17
2	20240219-002	LODV	Perchlorate6850c.lcm	1x		2/19/2024 12:23
3	20240219-003	ICS	Perchlorate6850c.lcm	1x		2/19/2024 12:28
4	20240219-004	CCV	Perchlorate6850c.lcm	1x		2/19/2024 12:34
5	20240219-005	IB	Perchlorate6850c.lcm	1x		2/19/2024 12:39
6	20240219-006	EQ2400093-01 MB	Perchlorate6850c.lcm	1x		2/19/2024 12:45
7	20240219-007	EQ2400093-02 LCS	Perchlorate6850c.lcm	1x		2/19/2024 12:51
8	20240219-008	EQ2400093-03 DLCS	Perchlorate6850c.lcm	1x		2/19/2024 12:56
9	20240219-009	EQ2400093-04 ICS	Perchlorate6850c.lcm	1x		2/19/2024 13:02
10	20240219-010	EQ2400093-05 MS	Perchlorate6850c.lcm	1x		2/19/2024 13:07
11	20240219-011	EQ2400093-06 DMS	Perchlorate6850c.lcm	1x		2/19/2024 13:13
12	20240219-012	E2400131-001	Perchlorate6850c.lcm	1x		2/19/2024 13:18
13	20240219-013	E2400132-001	Perchlorate6850c.lcm	1x	DNU-ISs	2/19/2024 13:24
14	20240219-014	E2400132-002	Perchlorate6850c.lcm	1x	DNU-ISs	2/19/2024 13:29
15	20240219-015	E2400132-003	Perchlorate6850c.lcm	1x		2/19/2024 13:35
16	20240219-016	CCV	Perchlorate6850c.lcm	1x		2/19/2024 13:40
17	20240219-017	IB	Perchlorate6850c.lcm	1x		2/19/2024 13:47
18	20240219-018	E2400132-004	Perchlorate6850c.lcm	1x		2/19/2024 13:53
19	20240219-019	E2400132-005	Perchlorate6850c.lcm	1x	DNU-ISs	2/19/2024 13:58
20	20240219-020	E2400132-006	Perchlorate6850c.lcm	1x		2/19/2024 14:04
21	20240219-021	E2400136-001	Perchlorate6850c.lcm	1x		2/19/2024 14:09
22	20240219-022	E2400136-002	Perchlorate6850c.lcm	1x		2/19/2024 14:15

833078

Injection Log

LCMS01 -Shimadzu 8050

1st Review: JLJ
2nd Review: SP

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240221-001	IB	Perchlorate6850c.lcm	1x		2/21/2024 10:05
2	20240221-002	LODV	Perchlorate6850c.lcm	1x		2/21/2024 10:10
3	20240221-003	ICS	Perchlorate6850c.lcm	1x		2/21/2024 10:16
4	20240221-004	CCV	Perchlorate6850c.lcm	1x		2/21/2024 10:21
5	20240221-005	IB	Perchlorate6850c.lcm	1x		2/21/2024 10:27
6	20240221-006	E2400136-006 X10	Perchlorate6850c.lcm	10		2/21/2024 10:32
7	20240221-007	E2400115-005	Perchlorate6850c.lcm	1x		2/21/2024 10:38
8	20240221-008	E2400115-005MS	Perchlorate6850c.lcm	1x		2/21/2024 10:43
9	20240221-009	E2400115-005MSD	Perchlorate6850c.lcm	1x		2/21/2024 11:05
10	20240221-010	E2400132-001X10	Perchlorate6850c.lcm	10		2/21/2024 11:10
11	20240221-011	E2400132-002X10	Perchlorate6850c.lcm	10		2/21/2024 11:19
12	20240221-012	E2400132-005X10	Perchlorate6850c.lcm	10		2/21/2024 11:25
13	20240221-013	E2400136-005X10	Perchlorate6850c.lcm	10		2/21/2024 11:30
14	20240221-014	CCV	Perchlorate6850c.lcm	1		2/21/2024 11:56
15	20240221-015	IB	Perchlorate6850c.lcm	1		2/21/2024 12:02

833091

Injection Log

LCMS01 -Shimadzu 8050

1st Review: JLJ
2nd Review: SP

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240222-001	IB	Perchlorate6850c.lcm	1x		2/22/2024 9:51
2	20240222-002	LODV	Perchlorate6850c.lcm	1x		2/22/2024 9:57
3	20240222-003	ICS	Perchlorate6850c.lcm	1x		2/22/2024 10:02
4	20240222-004	CCV	Perchlorate6850c.lcm	1x		2/22/2024 10:08
5	20240222-005	IB	Perchlorate6850c.lcm	1x		2/22/2024 10:13
6	20240222-006	LODV	Perchlorate6850c.lcm	1X		2/22/2024 10:24
7	20240222-007	E2400136-009 X10	Perchlorate6850c.lcm	10X		2/22/2024 10:44
8	20240222-008	CCV	Perchlorate6850c.lcm	1x		2/22/2024 10:58
9	20240222-009	IB	Perchlorate6850c.lcm	1x		2/22/2024 11:03

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/19/24 12:34

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

File ID:	I:\LCMS01\DATA\20240219\20240219-004	**Lab Code:**	EQ2400101-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833219
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400101-01	418,552	3.52
Method Blank	EQ2400093-01	431,364	3.52
Lab Control Sample	EQ2400093-02	431,611	3.52
Duplicate Lab Control Sample	EQ2400093-03	427,832	3.52

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:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/19/24 13:40

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

File ID:	I:\LCMS01\DATA\20240219\20240219-016	**Lab Code:**	EQ2400101-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833219
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400101-02	401,595	3.53
16RW09-240206	E2400136-001	420,734	3.53
16RW10-240206	E2400136-002	400,989	3.53
16RW12-240206	E2400136-003	400,023	3.53
16RW12-240206-FD	E2400136-004	388,902	3.53
16WW34-240206	E2400136-007	367,952	3.53

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:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/19/24 14:48

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20240219\20240219-028	**Lab Code:**	EQ2400101-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833219
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400101-03	356,248	3.53
16WW33-240206	E2400136-008	373,872	3.53
16WW26-240206	E2400136-010	353,978	3.53

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:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/19/24 15:49

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20240219\20240219-039	**Lab Code:**	EQ2400101-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833219
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400101-04	295,131	3.53

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:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/21/24 10:21

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

File ID:	I:\LCMS01\DATA\20240221\20240221-004	**Lab Code:**	EQ2400102-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833240
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400102-01	394,473	3.55
16WW12-240206	E2400136-006	343,292	3.55
16WW40-240206	E2400136-005	461,228	3.55

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:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/21/24 11:56

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

File ID:	I:\LCMS01\DATA\20240221\20240221-014	**Lab Code:**	EQ2400102-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833240
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400102-02	421,246	3.55

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:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/22/24 10:08

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

File ID:	I:\LCMS01\DATA\20240222\20240222-004	**Lab Code:**	EQ2400103-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833241
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>		
	Upper Limit ==>		
	Lower Limit ==>		
Associated Analyses			
Continuing Calibration Verification	EQ2400103-01	383,381	3.55
16WW25-240206	E2400136-009	456,615	3.55

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:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/22/24 10:58

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

File ID:	I:\LCMS01\DATA\20240222\20240222-008	**Lab Code:**	EQ2400103-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833241
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>		
	Upper Limit ==>		
	Lower Limit ==>		
Associated Analyses			
Continuing Calibration Verification	EQ2400103-02	404,872	3.55

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:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/19/24

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

Analytical Method:	6850	**Calibration Date:**	2/13/24
File ID:	I:\LCMS01\DATA\20240219\20240219-004	**Calibration ID:**	EC2400004
		Analysis Lot:	833219
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1578	0.1597	1.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/19/24

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

Analytical Method:	6850	**Calibration Date:**	2/13/24
File ID:	I:\LCMS01\DATA\20240219\20240219-016	**Calibration ID:**	EC2400004
		Analysis Lot:	833219
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1578	0.1613	2.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/19/24

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

Analytical Method:	6850	**Calibration Date:**	2/13/24
File ID:	I:\LCMS01\DATA\20240219\20240219-028	**Calibration ID:**	EC2400004
		Analysis Lot:	833219
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.3	0.1578	0.1620	2.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400136
Project:	HS24020576	**Date Analyzed:**	2/19/24

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

Analytical Method:	6850	**Calibration Date:**	2/13/24
File ID:	I:\LCMS01\DATA\20240219\20240219-039	**Calibration ID:**	EC2400004
		Analysis Lot:	833219
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1578	0.1611	2.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020576

Service Request: E2400136
Date Analyzed: 2/21/24

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\20240221\20240221-004

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 833240
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.84	0.1578	0.1553	-1.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020576

Service Request: E2400136
Date Analyzed: 2/21/24

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\20240221\20240221-014

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 833240
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.0	0.1578	0.1578	0.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020576

Service Request: E2400136
Date Analyzed: 2/22/24

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\20240222\20240222-004

Calibration Date:
Calibration ID:
Analysis Lot: 833241
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.48	NA	NA	NA	-5.2	± 15 %	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020576

Service Request: E2400136
Date Analyzed: 2/22/24

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\20240222\20240222-008

Calibration Date:
Calibration ID:
Analysis Lot: 833241
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.80	NA	NA	NA	-2.0	± 15 %	

Insight Report

Printed at 2/22/2024 2:52:21 PM

Method File: I:\LCMS01\DATA\20240219\20240219.lcm
Project File: I:\LCMS01\DATA\20240219\20240219.damlp

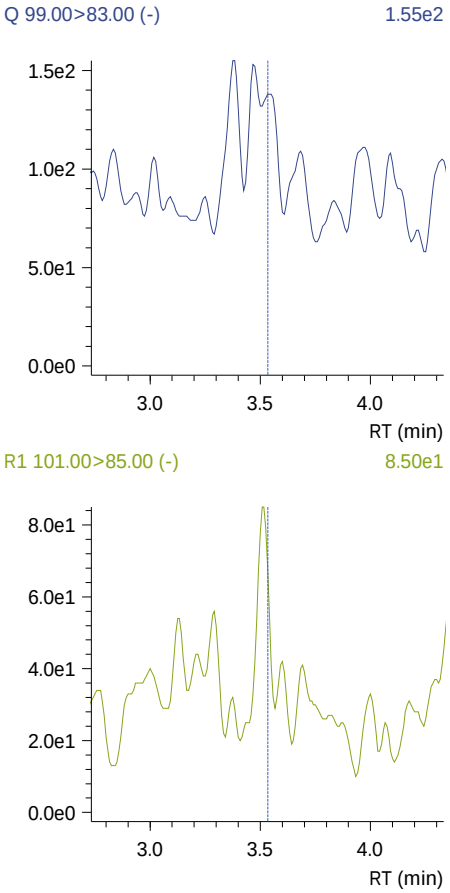
IB

Sample ID: IB
Date Acquired: 2/19/2024 12:17:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-001.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	ND(W/B)	----	----	407195	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.522	407195	407195	1.0000	ng/mL	----	----	

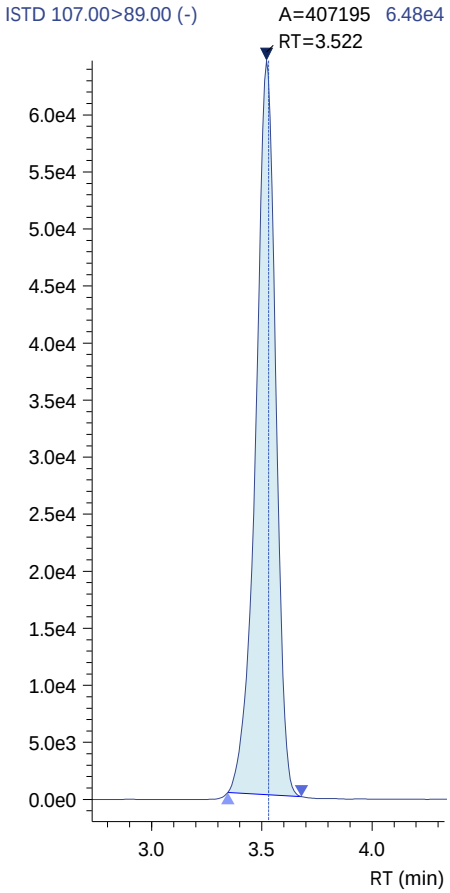
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

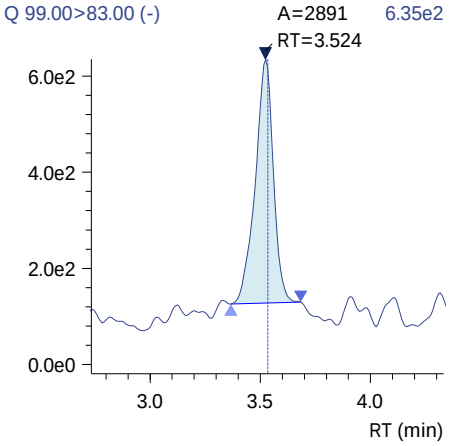
LODV

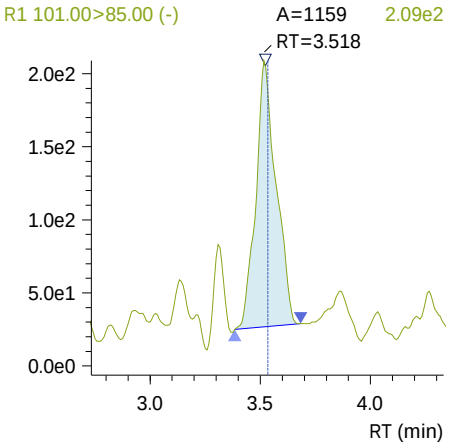
Sample ID: LODV
Date Acquired: 2/19/2024 12:23:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-002.lcd
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.524	2891	426390	0.0430	ng/mL	101.00 >85.00	40.07	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.520	4263 90	426390	1.0000	ng/mL	----	----	

Perchlorate

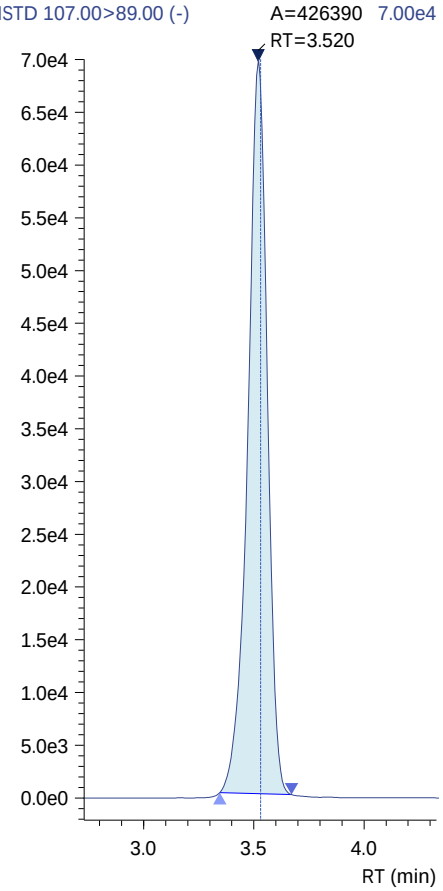
Conc 0.0430
R#1 40.07 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

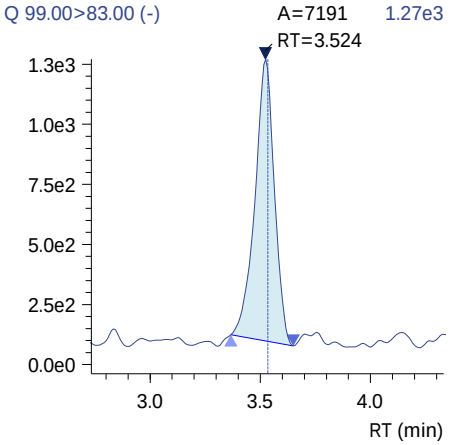
ICS

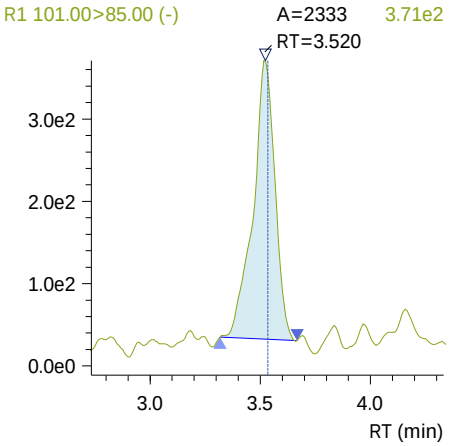
Sample ID: ICS
Date Acquired: 2/19/2024 12:28:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-003.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.524	7191	448720	0.1015	ng/mL	101.00 >85.00	32.44	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.522	4487 20	448720	1.0000	ng/mL	----	----	

Perchlorate

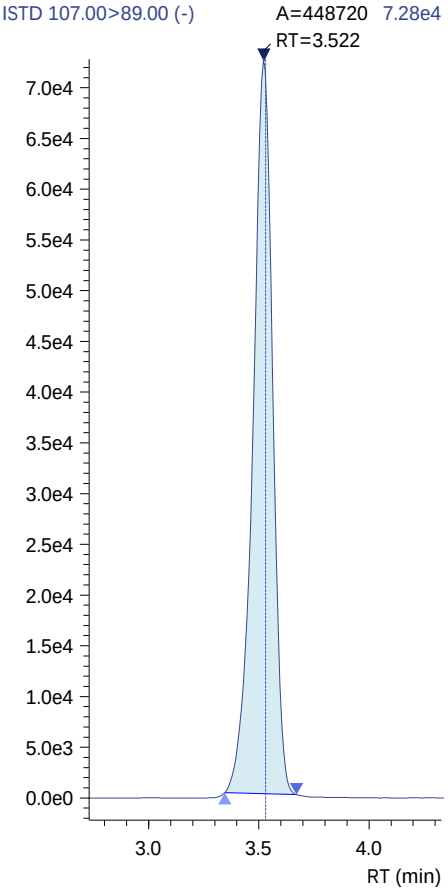
Conc 0.1015
R#1 32.44 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

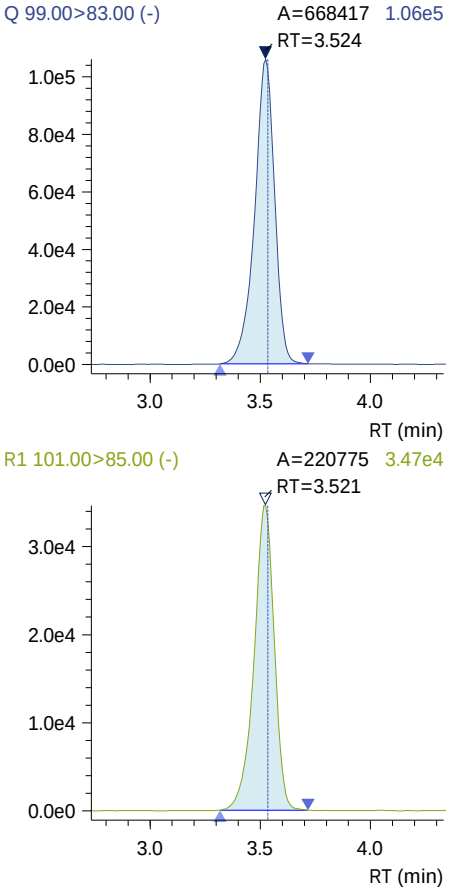
CCV

Sample ID: CCV
Date Acquired: 2/19/2024 12:34:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-004.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.524	668417	418552	10.1189	ng/mL	101.00 >85.00	33.03	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.520	418552	418552	1.0000	ng/mL	----	----	

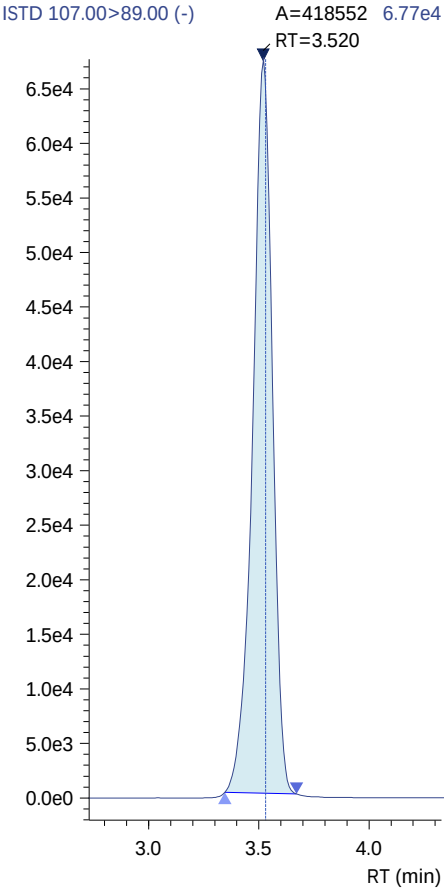
Perchlorate

Conc 10.1189
R#1 33.03 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

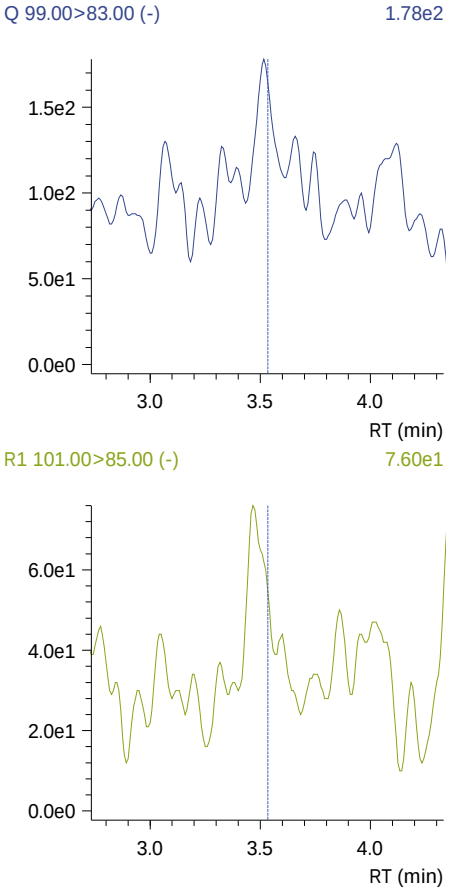
IB

Sample ID: IB
Date Acquired: 2/19/2024 12:39:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-005.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	ND(W/B)	----	----	407511	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.519	407511	407511	1.0000	ng/mL	----	----	

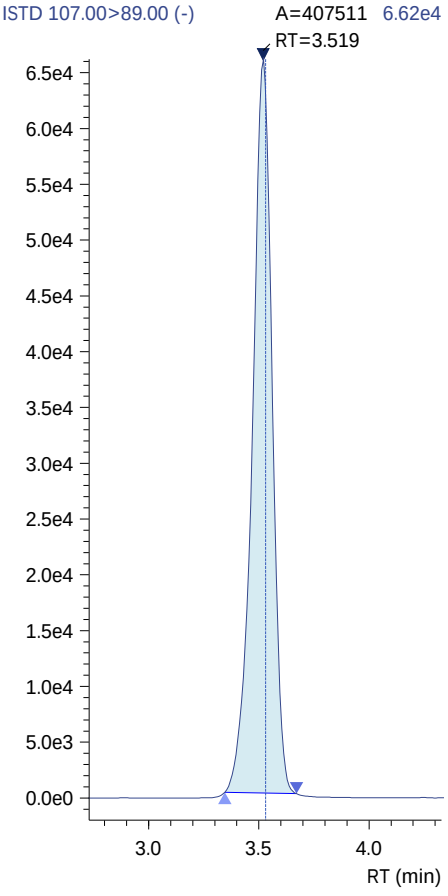
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

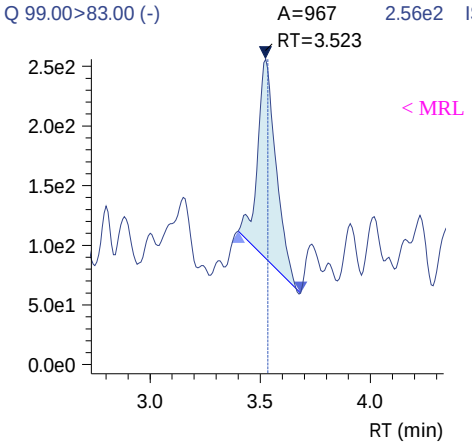
EQ2400093-01 MB

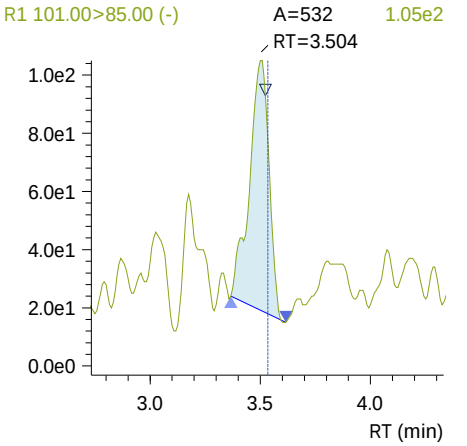
Sample ID: EQ2400093-01
Date Acquired: 2/19/2024 12:45:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-006.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.523	967	431364	0.0142	ng/mL	101.00 >85.00	54.99	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.519	4313 64	431364	1.0000	ng/mL	----	----	

Perchlorate

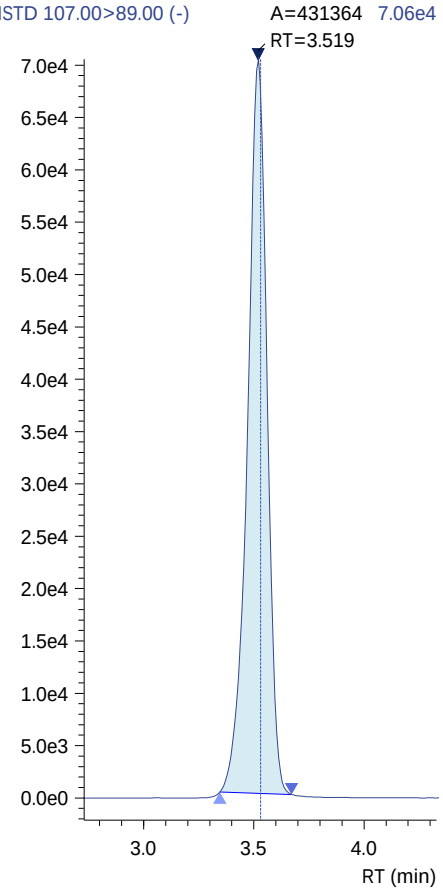
Conc 0.0142
R#1 54.99 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

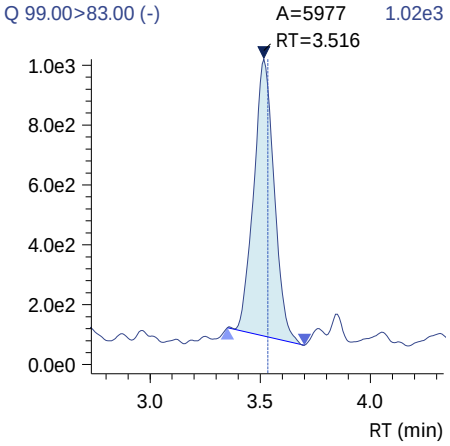
EQ2400093-02 LCS

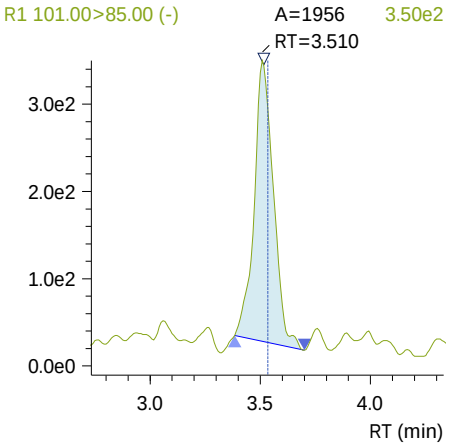
Sample ID: EQ2400093-02
Date Acquired: 2/19/2024 12:51:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-007.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.516	5977	431611	0.0877	ng/mL	101.00 >85.00	32.73	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.519	4316 11	431611	1.0000	ng/mL	----	----	

Perchlorate

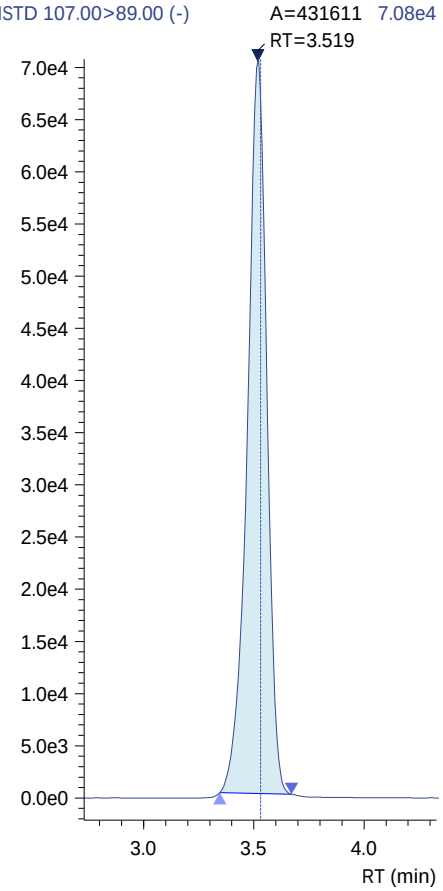
Conc 0.0877
R#1 32.73 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:54:30 PM

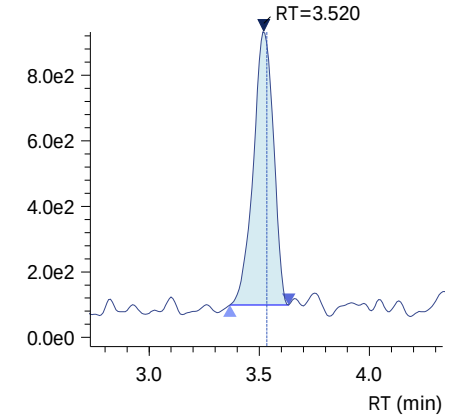
EQ2400093-03 DLCS

Sample ID: EQ2400093-03
Date Acquired: 2/19/2024 12:56:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-008.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 3

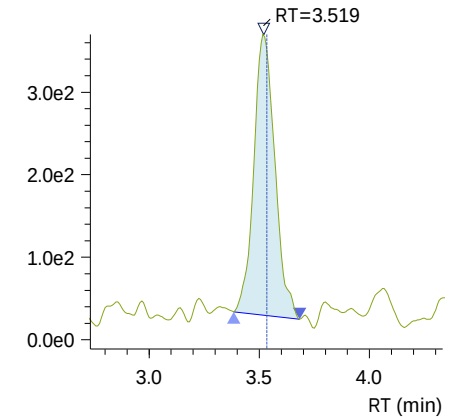
Perchlorate

Conc 0.0789
R#1 42.56 (34.10)

Q 99.00>83.00 (-) A=5329 9.32e2



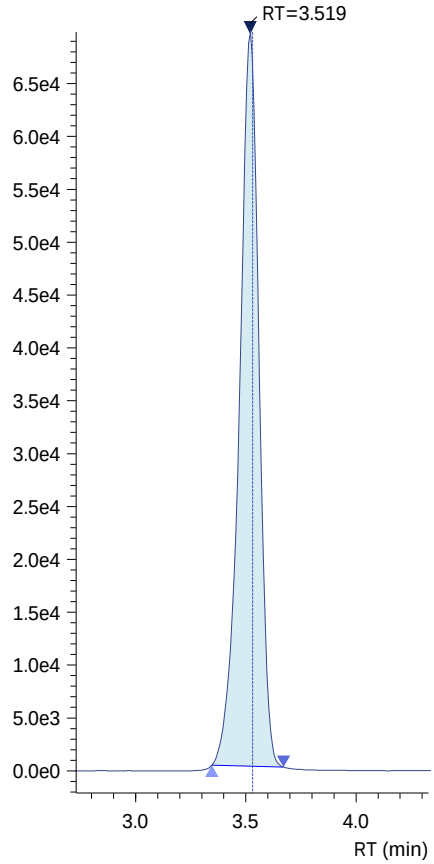
R1 101.00>85.00 (-) A=2268 3.70e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=427832 6.99e4



Insight Report

Printed at 2/26/2024 9:26:39 AM

Method File: I:\LCMS01\DATA\20240219\20240219.lcm
Project File: I:\LCMS01\DATA\20240219\20240219.damlp

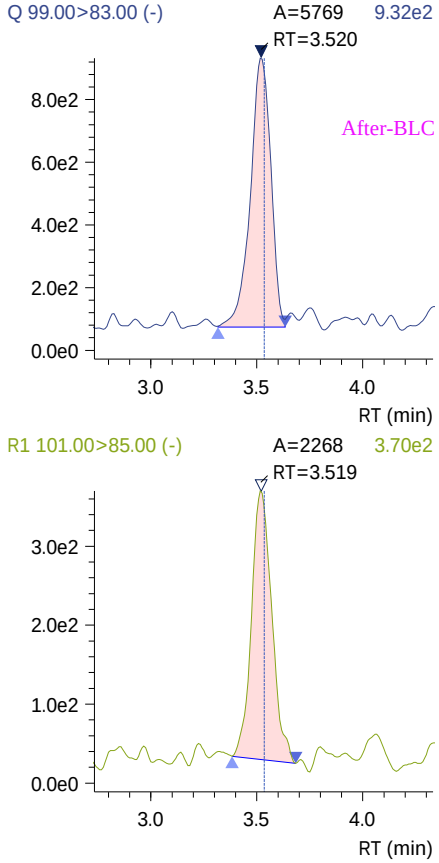
EQ2400093-03 DLCS

Sample ID: EQ2400093-03
Date Acquired: 2/19/2024 12:56:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-008.lcd
Vial: 3 | 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	M	3.520	5769	427832	0.0854	ng/mL	101.00 >85.00	39.31	23.32 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.519	4278 32	427832	1.0000	ng/mL	----	----	

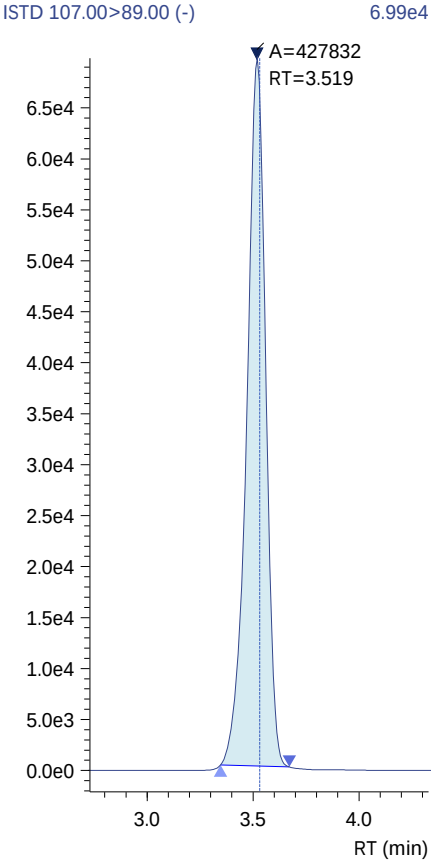
Perchlorate

Conc 0.0854
R#1 39.31 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

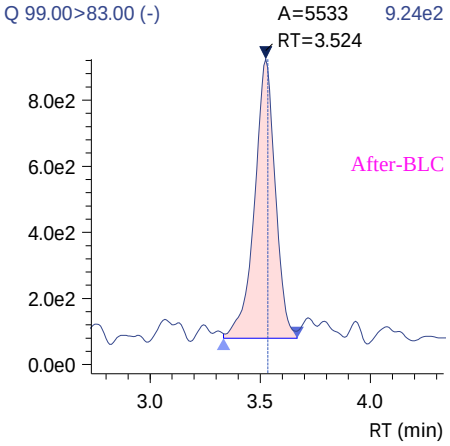
EQ2400093-04 ICS

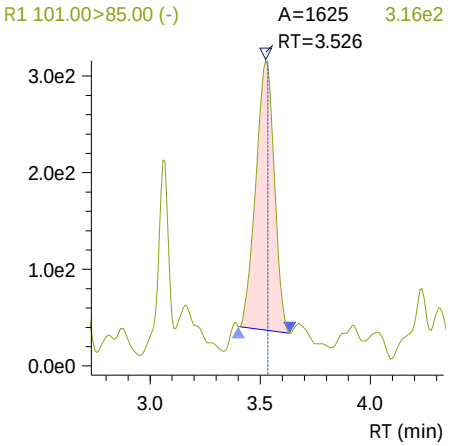
Sample ID: EQ2400093-04
Date Acquired: 2/19/2024 1:02:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-009.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.524	5533	437325	0.0802	ng/mL	101.00 >85.00	29.38	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.522	4373 25	437325	1.0000	ng/mL	----	----	

Perchlorate

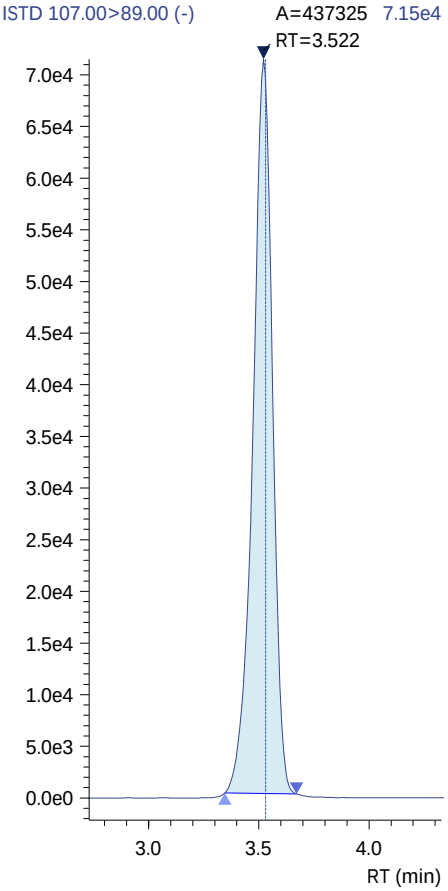
Conc 0.0802
R#1 29.38 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

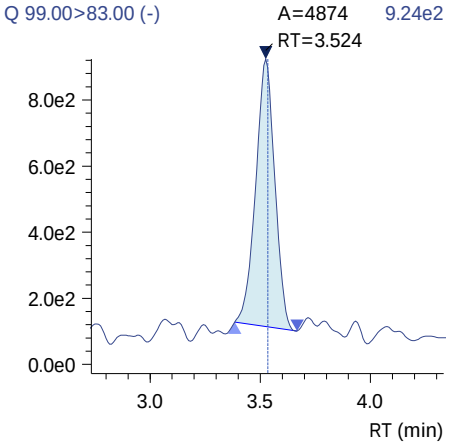
Printed at 2/22/2024 2:54:30 PM

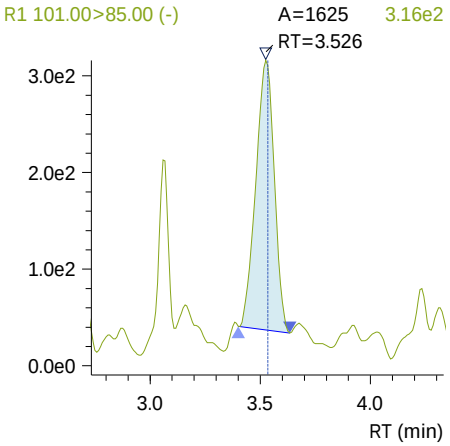
EQ2400093-04 ICS

Sample ID: EQ2400093-04
Date Acquired: 2/19/2024 1:02:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-009.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

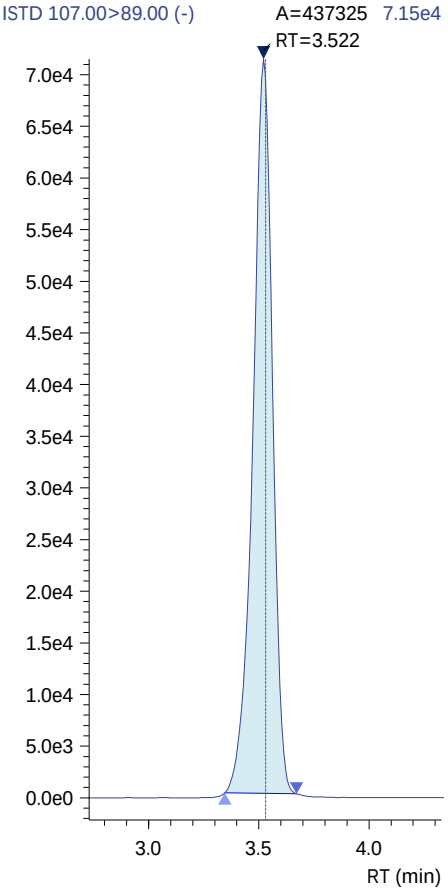
Conc 0.0706
R#1 33.34 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

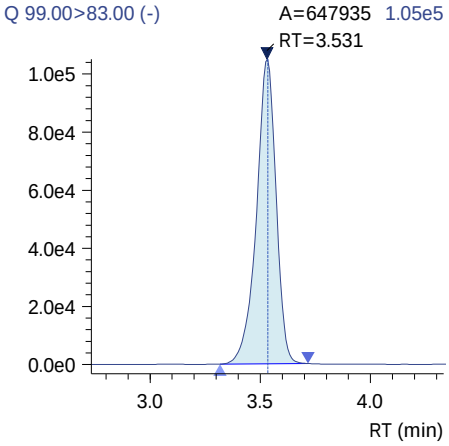
CCV

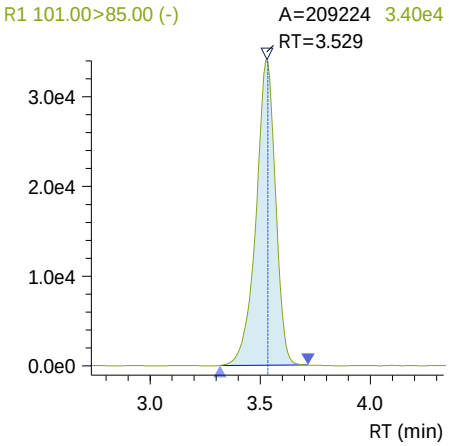
Sample ID: CCV
Date Acquired: 2/19/2024 1:40:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-016.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	647935	401595	10.2230	ng/mL	101.00 >85.00	32.29	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.528	401595	401595	1.0000	ng/mL	----	----	

Perchlorate

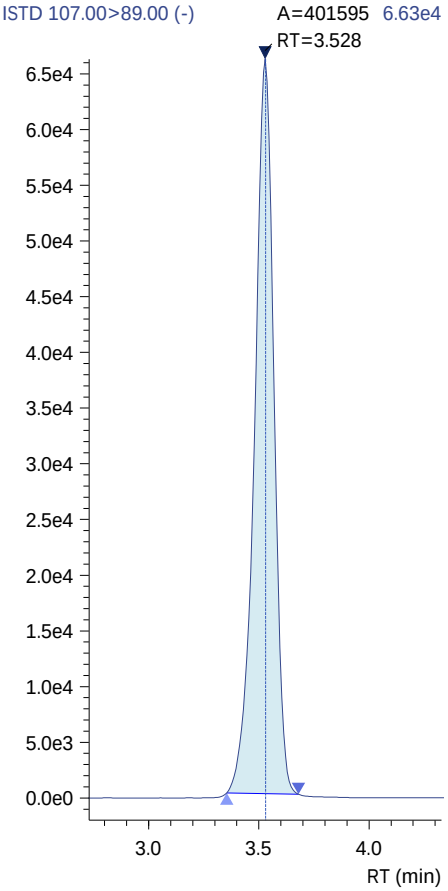
Conc 10.2230
R#1 32.29 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

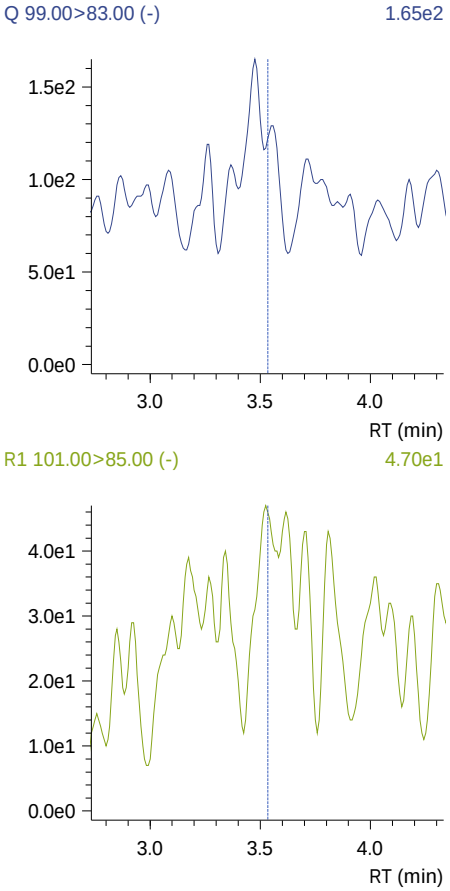
IB

Sample ID: IB
Date Acquired: 2/19/2024 1:47:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-017.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	ND(W/B)	----	----	392287	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.528	392287	392287	1.0000	ng/mL	----	----	

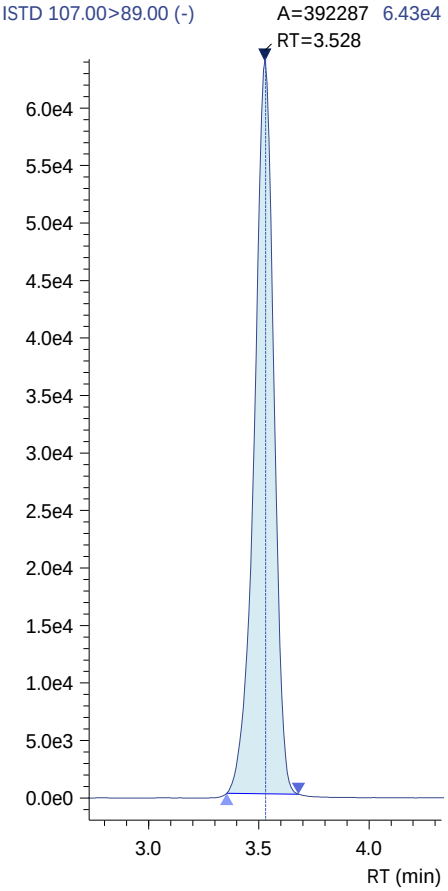
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

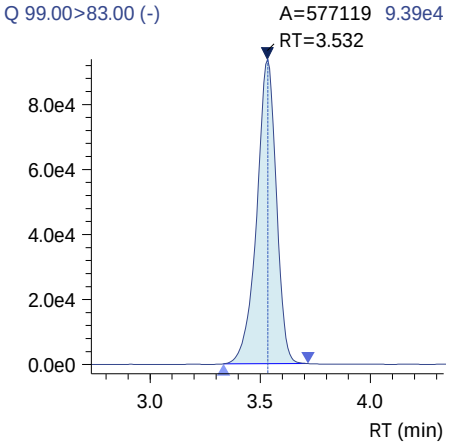
CCV

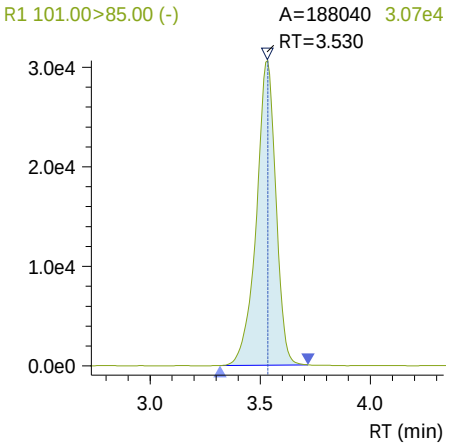
Sample ID: CCV
Date Acquired: 2/19/2024 2:48:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-028.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.532	577119	356248	10.2647	ng/mL	101.00 >85.00	32.58	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.529	356248	356248	1.0000	ng/mL	----	----	

Perchlorate

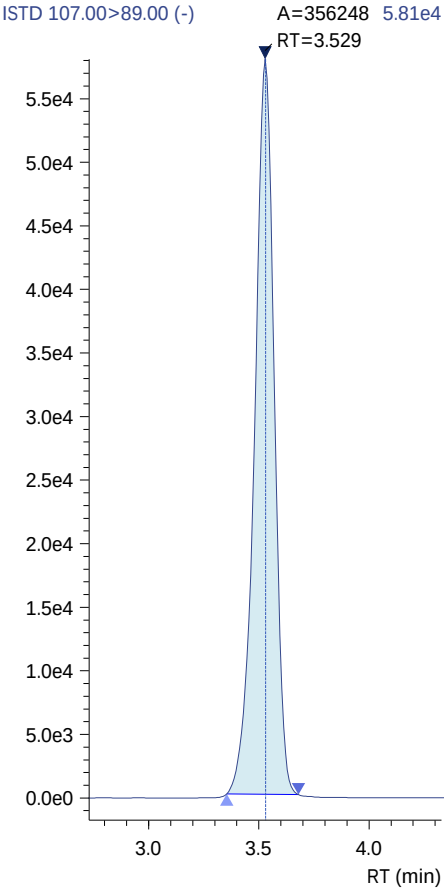
Conc 10.2647
R#1 32.58 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

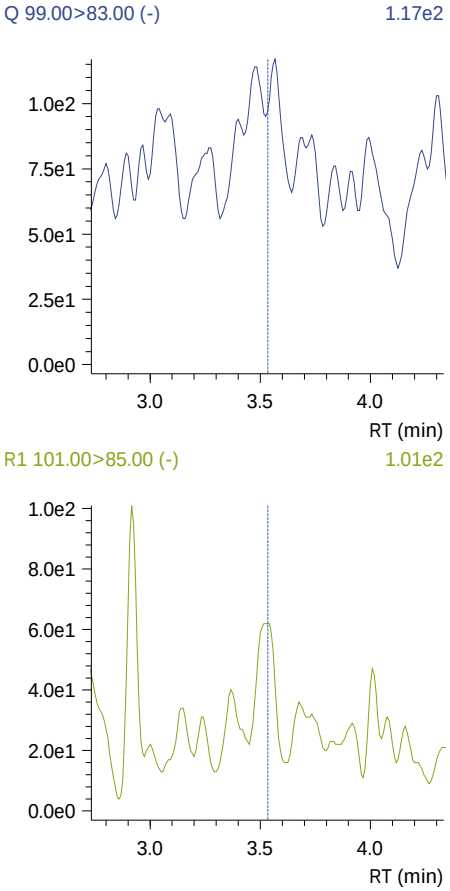
IB

Sample ID: IB
Date Acquired: 2/19/2024 2:54:07 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-029.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	ND(W/B)	----	----	342253	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.529	342253	342253	1.0000	ng/mL	----	----	

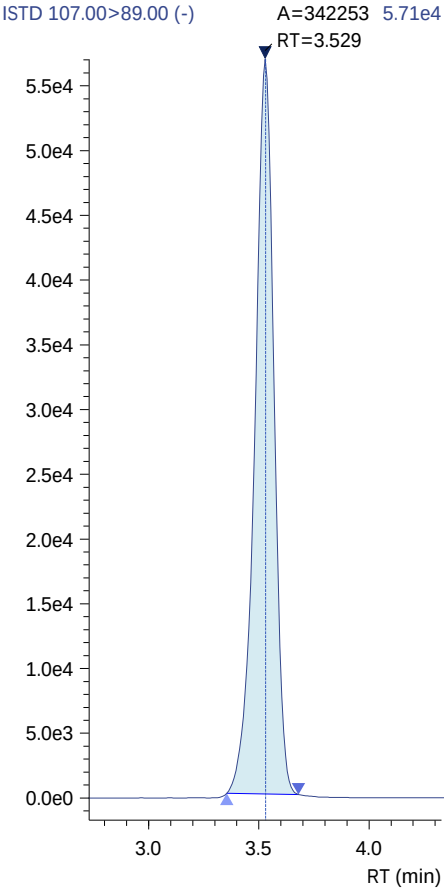
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

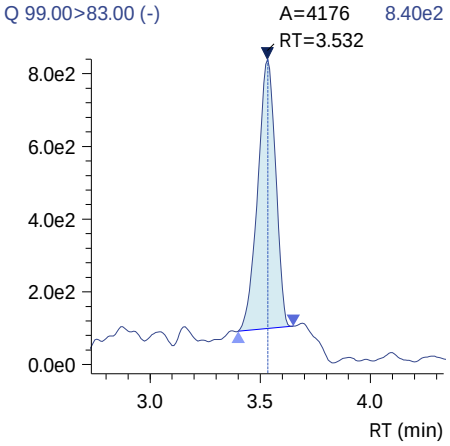
E2400136-001

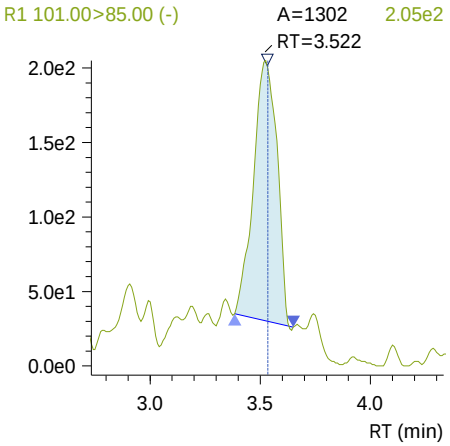
Sample ID: E2400136-001
Date Acquired: 2/19/2024 2:09:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-021.lcd
Vial: 14 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.532	4176	420734	0.0629	ng/mL	101.00 >85.00	31.18	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.533	4207 34	420734	1.0000	ng/mL	----	----	

Perchlorate

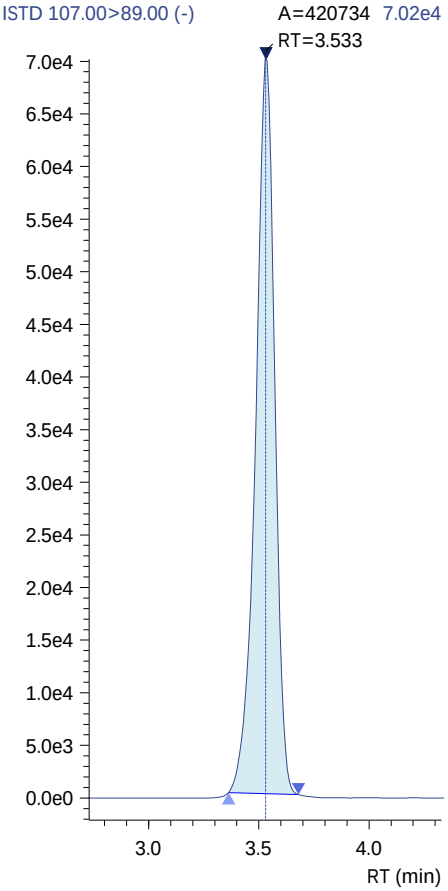
Conc 0.0629
R#1 31.18 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

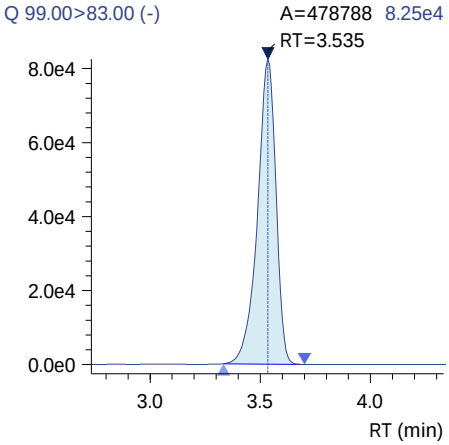
E2400136-002

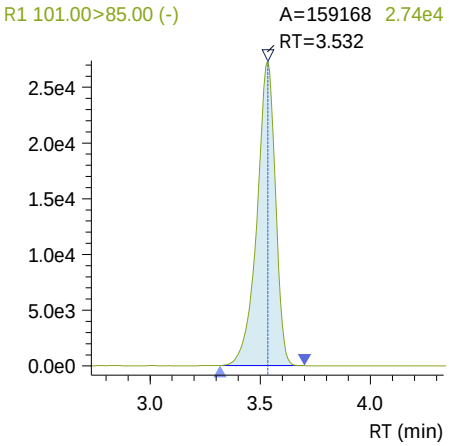
Sample ID: E2400136-002
Date Acquired: 2/19/2024 2:15:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-022.lcd
Vial: 15 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.535	478788	400989	7.5656	ng/mL	101.00 >85.00	33.24	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.532	400989	400989	1.0000	ng/mL	----	----	

Perchlorate

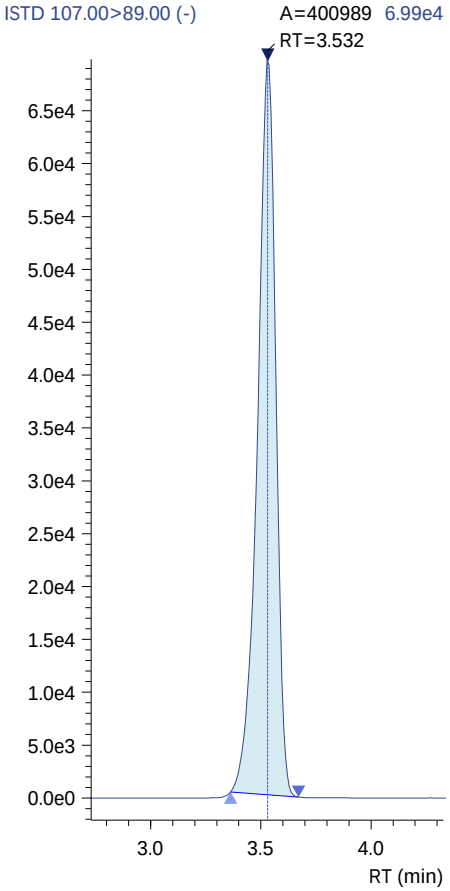
Conc 7.5656
R#1 33.24 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

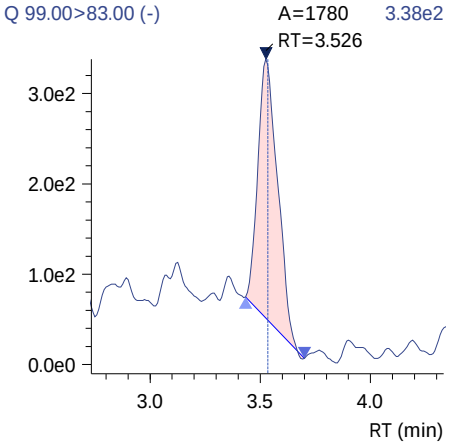
E2400136-003

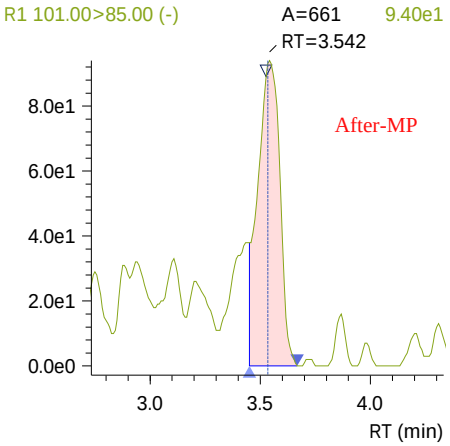
Sample ID: E2400136-003
Date Acquired: 2/19/2024 2:20:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-023.lcd
Vial: 16 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI	3.526	1780	400023	0.0282	ng/mL	101.00 >85.00	37.14	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.532	4000 23	400023	1.0000	ng/mL	----	----	

Perchlorate

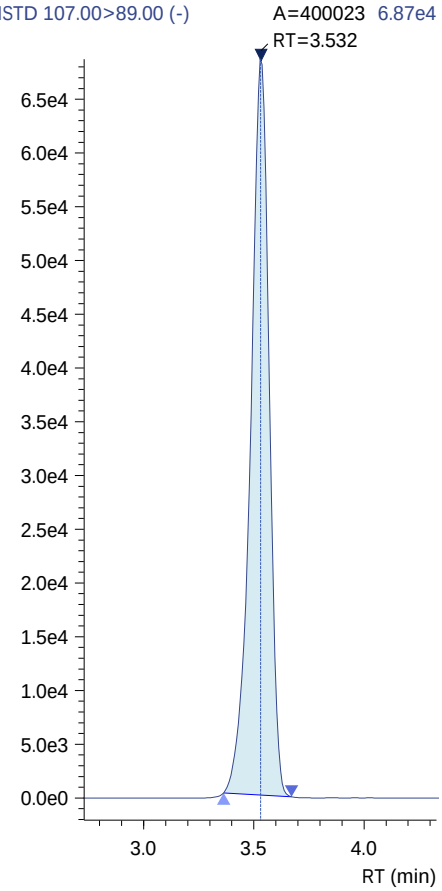
Conc 0.0282
R#1 37.14 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

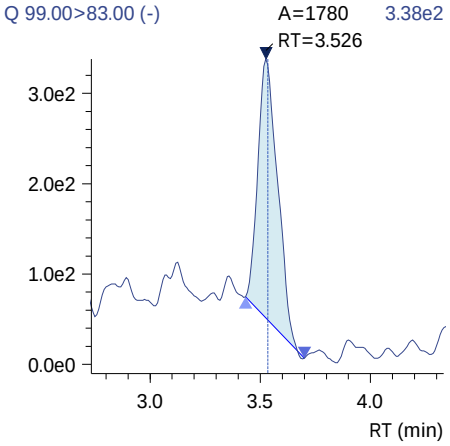
Printed at 2/22/2024 2:54:30 PM

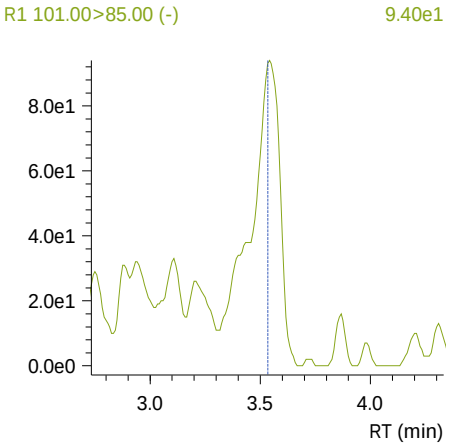
E2400136-003

Sample ID: E2400136-003
Date Acquired: 2/19/2024 2:20:56 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-023.lcd
Vial: 16 | Inj. Volume: 10.0000uL | Tray: 3

Perchlorate

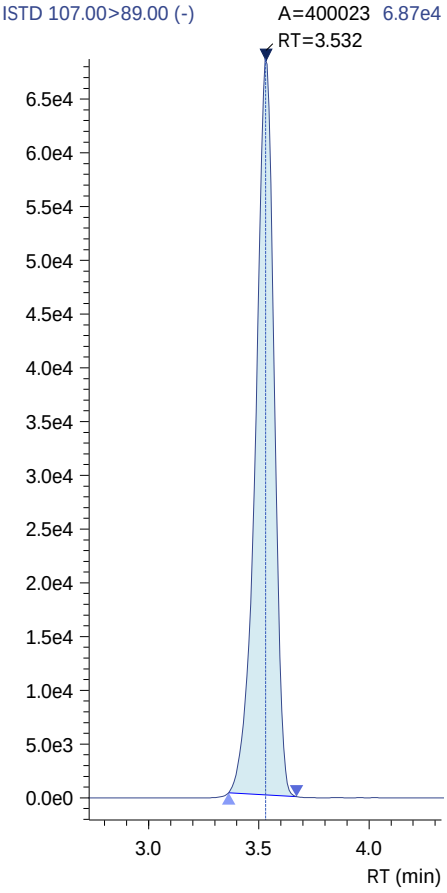
Conc 0.0282
R#1 0.00 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

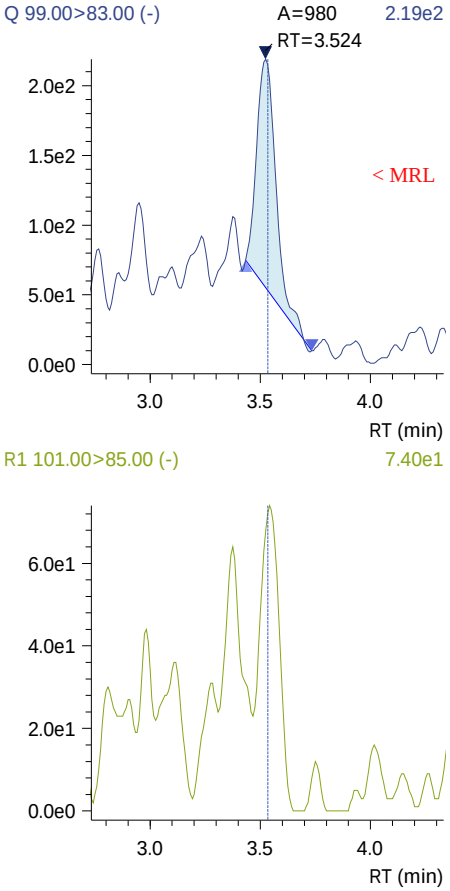
E2400136-004

Sample ID: E2400136-004
Date Acquired: 2/19/2024 2:26:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-024.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	Auto	3.524	980	388902	0.0160	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.533	388902	388902	1.0000	ng/mL	----	----	

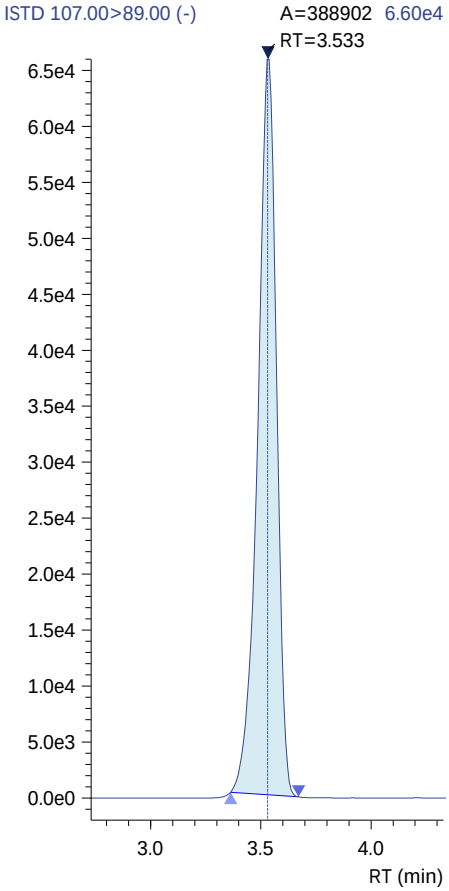
Perchlorate

Conc 0.0160
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

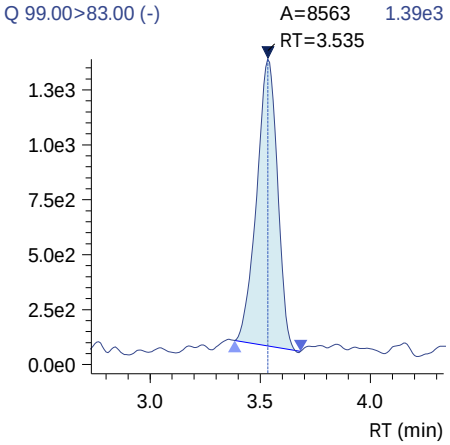
E2400136-007

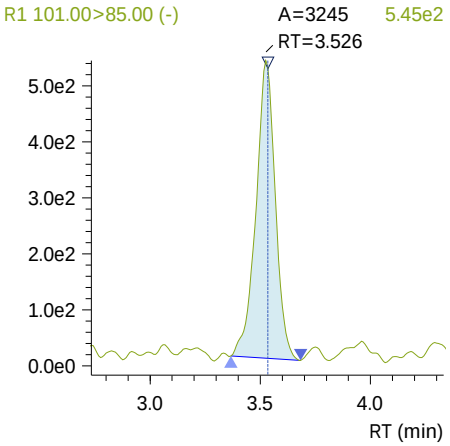
Sample ID: E2400136-007
Date Acquired: 2/19/2024 2:43:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-027.lcd
Vial: 20 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.535	8563	367952	0.1474	ng/mL	101.00 >85.00	37.90	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.530	3679 52	367952	1.0000	ng/mL	----	----	

Perchlorate

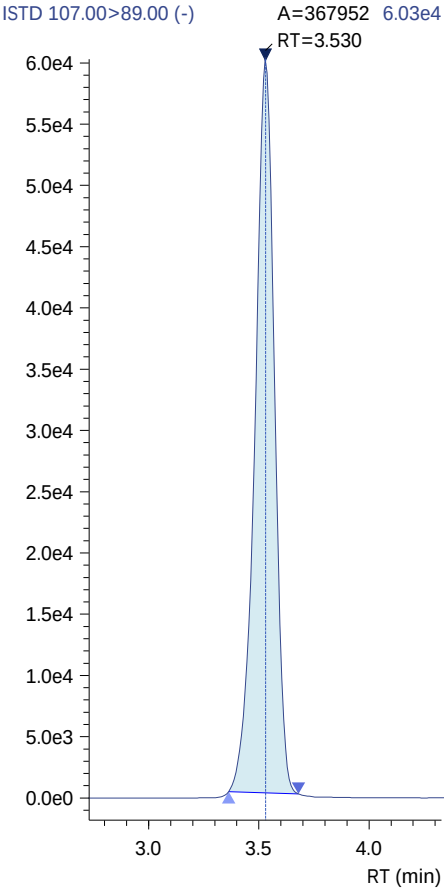
Conc 0.1474
R#1 37.90 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

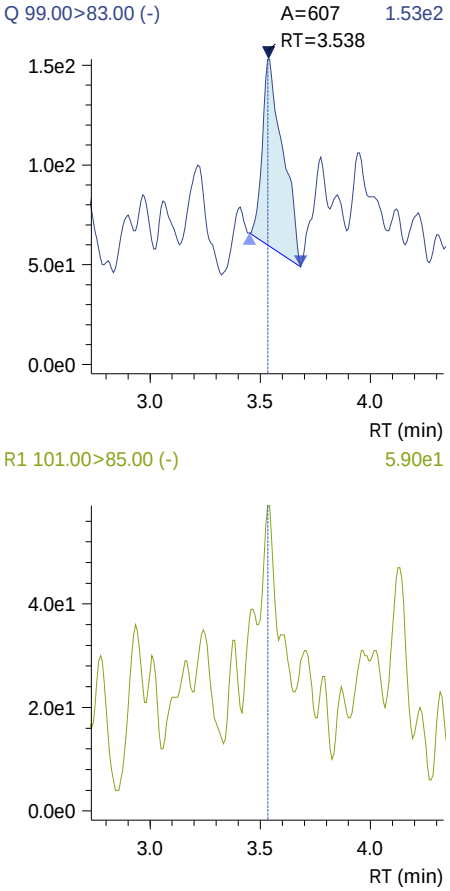
E2400136-008

Sample ID: E2400136-008
Date Acquired: 2/19/2024 3:00:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-030.lcd
Vial: 21 | 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	3.538	607	373872	0.0103	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.532	3738 72	373872	1.0000	ng/mL	----	----	

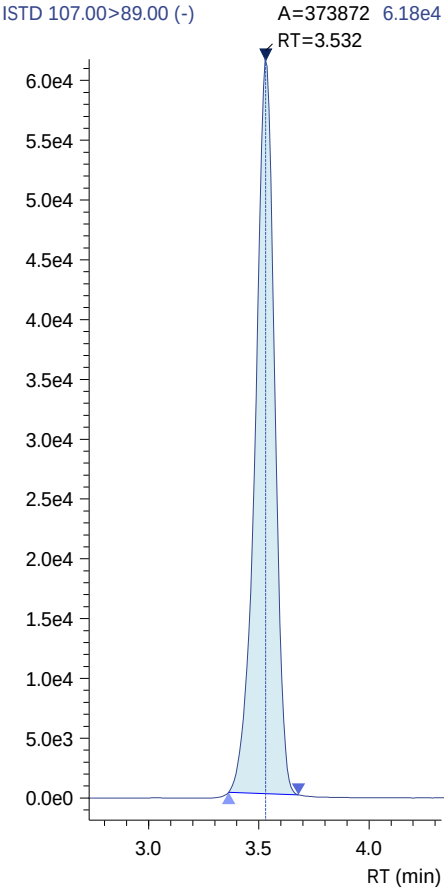
Perchlorate

Conc 0.0103
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

E2400136-010

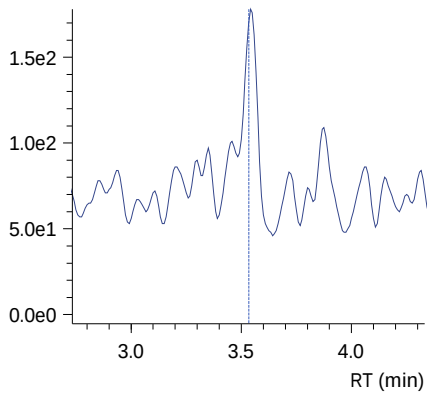
Sample ID: E2400136-010
Date Acquired: 2/19/2024 3:11:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-032.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	353978	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.530	353978	353978	1.0000	ng/mL	----	----	

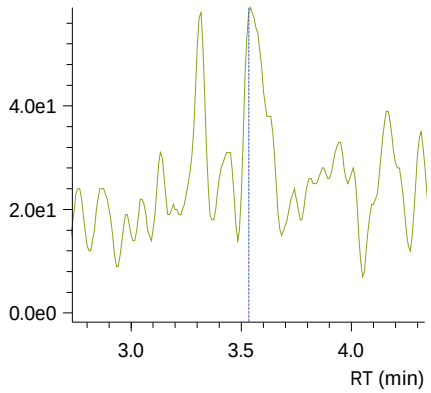
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.78e2



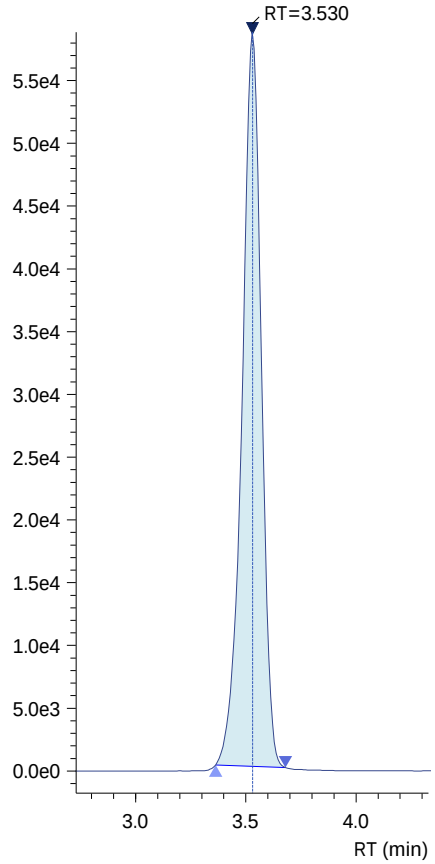
R1 101.00>85.00 (-) 5.90e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=353978 5.89e4
RT=3.530



Insight Report

Printed at 2/22/2024 2:52:21 PM

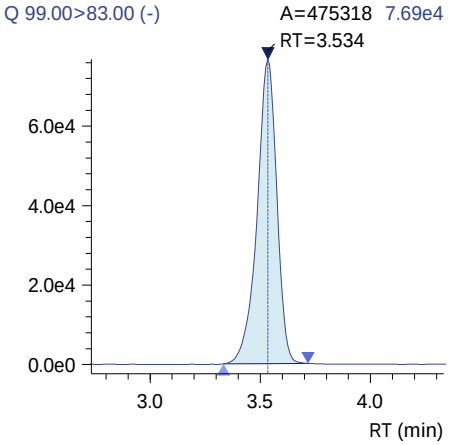
CCV

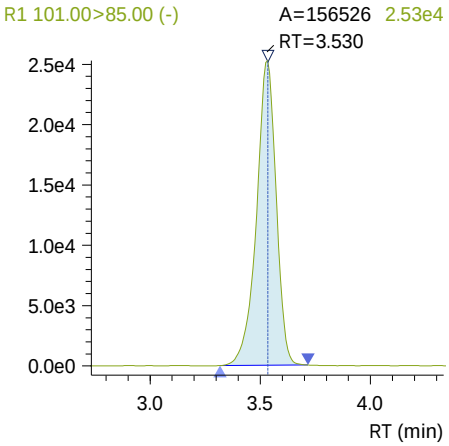
Sample ID: CCV
Date Acquired: 2/19/2024 3:49:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-039.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.534	475318	295131	10.2048	ng/mL	101.00 >85.00	32.93	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.531	295131	295131	1.0000	ng/mL	----	----	

Perchlorate

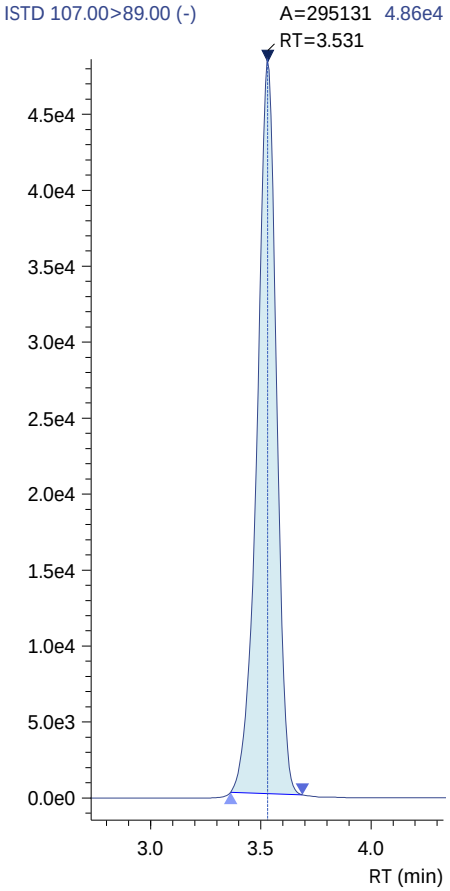
Conc 10.2048
R#1 32.93 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

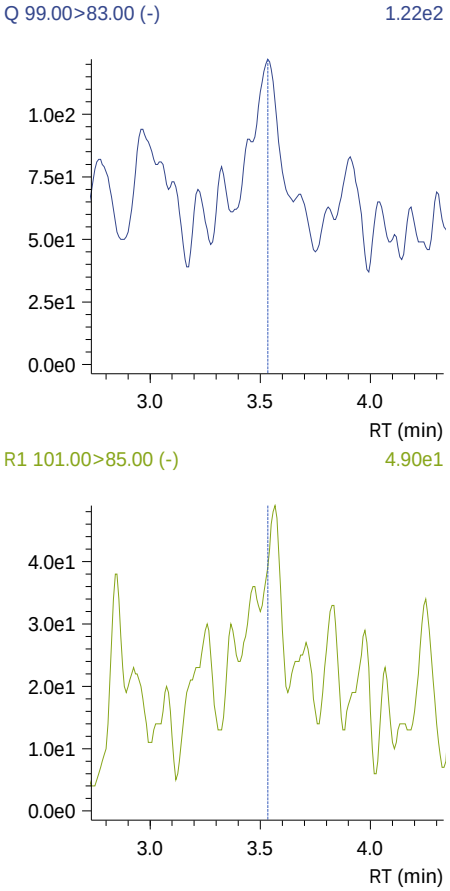
IB

Sample ID: IB
Date Acquired: 2/19/2024 3:55:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-040.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	ND(W/B)	----	----	284491	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.530	284491	284491	1.0000	ng/mL	----	----	

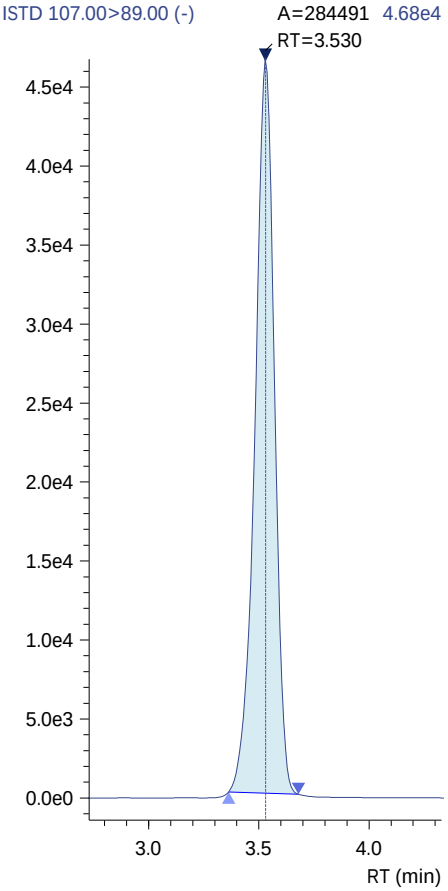
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/23/2024 3:54:43 PM

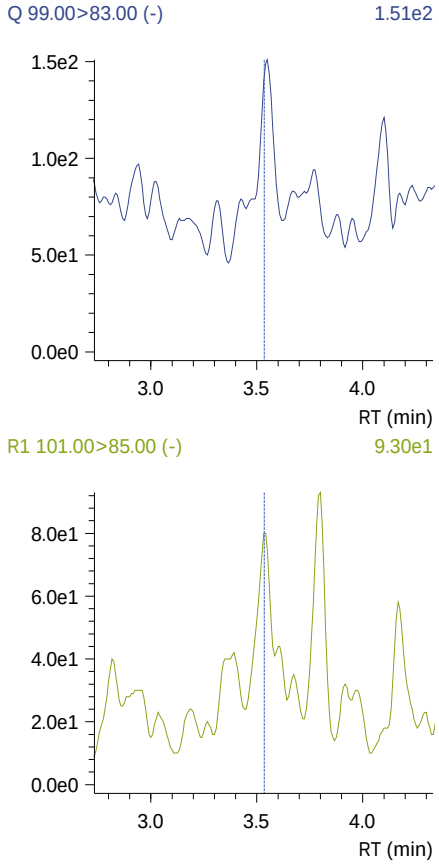
IB

Sample ID: IB
Date Acquired: 2/21/2024 12:02:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-015.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	ND(W/B)	----	----	397785	----	ng/mL	101.00 >85.00	0.00	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.545	397785	397785	1.0000	ng/mL	----	----	

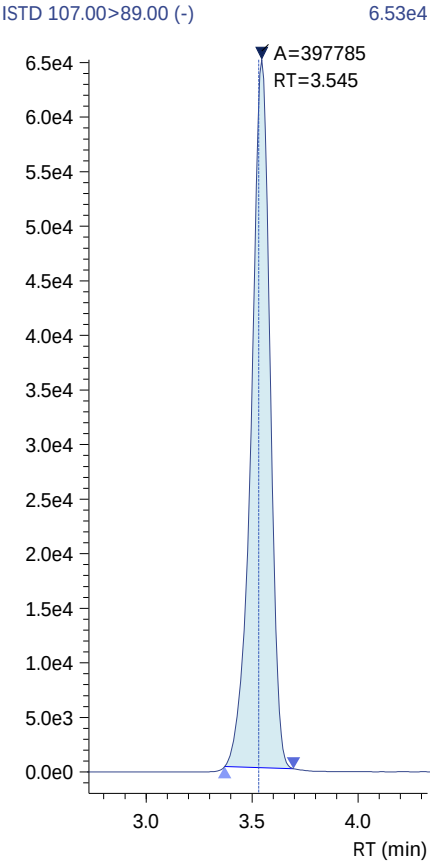
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/23/2024 3:54:43 PM

Method File: I:\LCMS01\DATA\20240221\20240221.lcm
Project File: I:\LCMS01\DATA\20240221\20240221.damlp

IB

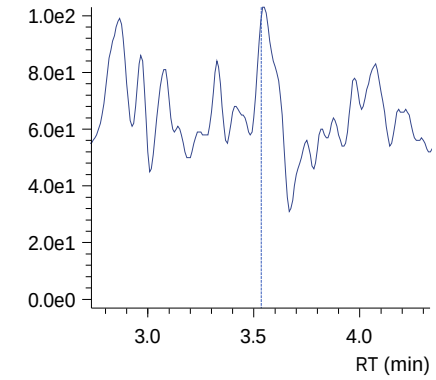
Sample ID: IB
Date Acquired: 2/21/2024 10:05:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	376889	----	ng/mL	101.00 >85.00	0.00	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.555	376889	376889	1.0000	ng/mL	----	----	

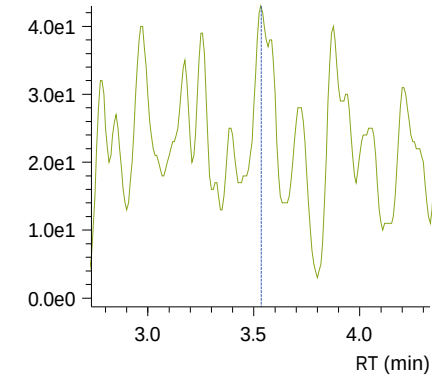
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.03e2



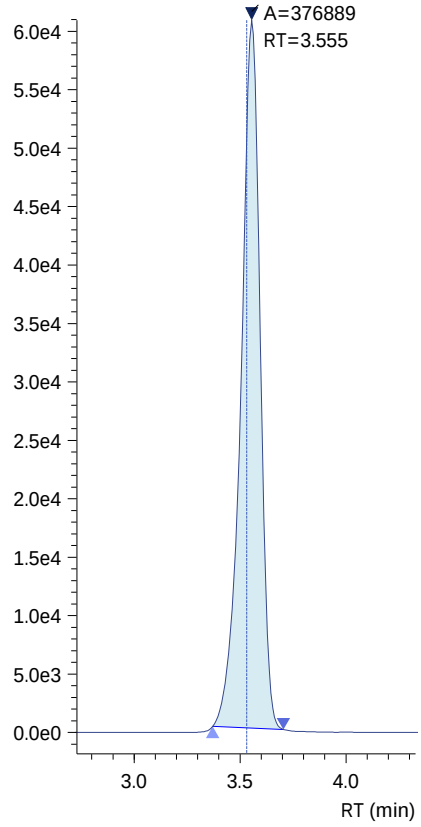
R1 101.00>85.00 (-) 4.30e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.10e4



Insight Report

Printed at 2/23/2024 3:54:43 PM

LODV

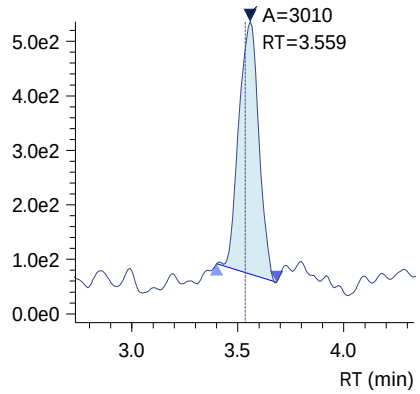
Sample ID: LODV
Date Acquired: 2/21/2024 10:10:47 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-002.lcd
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.559	3010	388392	0.0491	ng/mL	101.00 >85.00	29.44	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.552	3883 92	388392	1.0000	ng/mL	----	----	

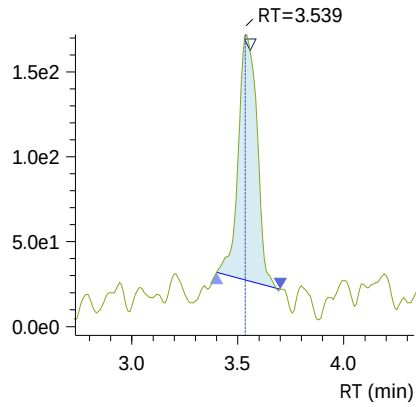
Perchlorate

Conc 0.0491
R#1 29.44 (34.10)

Q 99.00>83.00 (-) 5.36e2



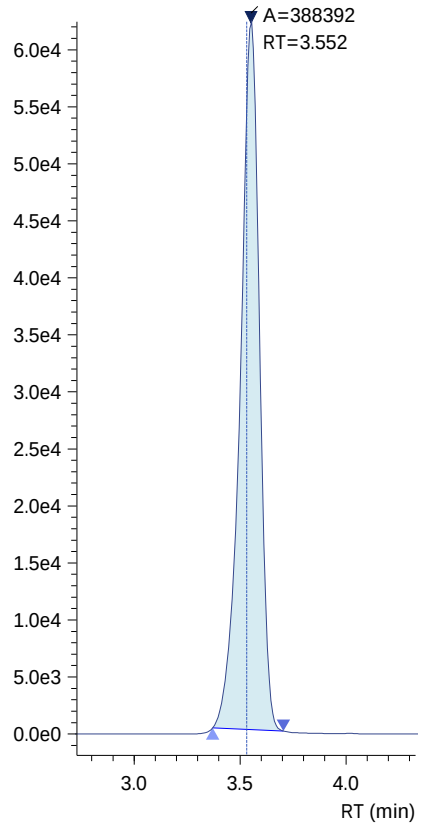
R1 101.00>85.00 (-) A=886 1.72e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.25e4



Insight Report

Printed at 2/23/2024 3:54:43 PM

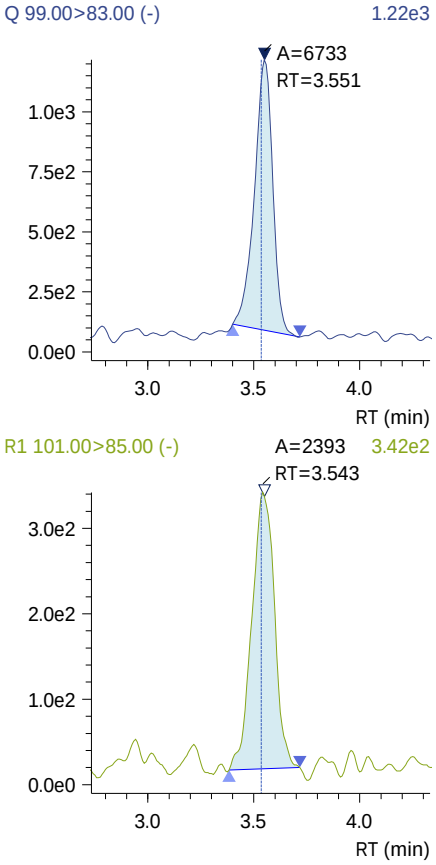
ICS

Sample ID: ICS
Date Acquired: 2/21/2024 10:16:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-003.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	Auto	3.551	6733	448239	0.0952	ng/mL	101.00 >85.00	35.54	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.549	448239	448239	1.0000	ng/mL	----	----	

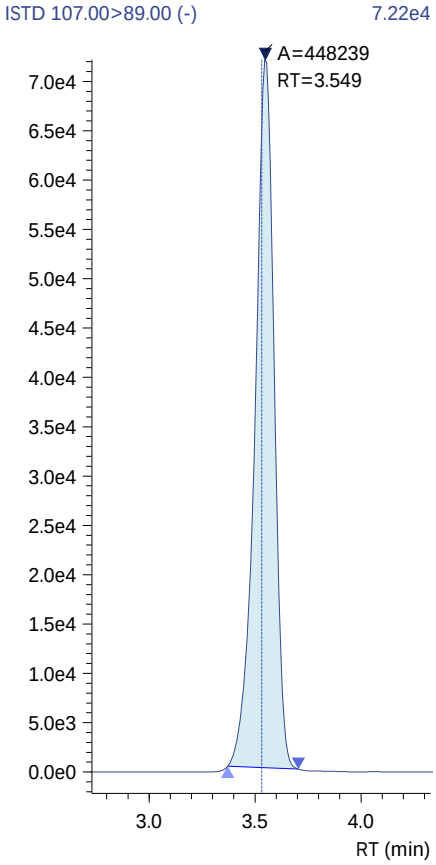
Perchlorate

Conc 0.0952
R#1 35.54 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/23/2024 3:54:43 PM

CCV

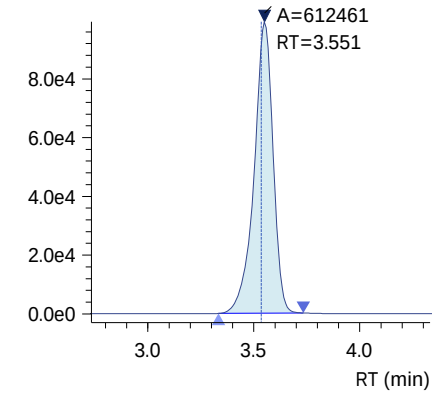
Sample ID: CCV
Date Acquired: 2/21/2024 10:21:48 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-004.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.551	6124 61	394473	9.8377	ng/mL	101.00 >85.00	33.45	23.26 -42.46
Sodium Perchlorate-18O4 _IS	Auto	3.548	3944 73	394473	1.0000	ng/mL	----	----	

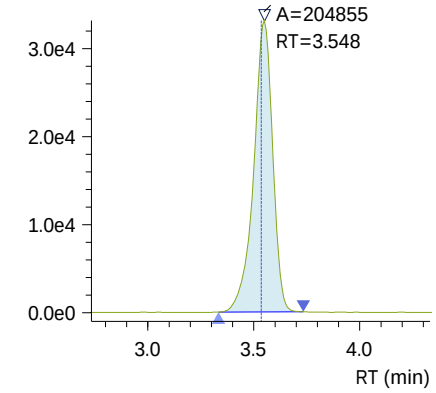
Perchlorate

Conc 9.8377
R#1 33.45 (34.10)

Q 99.00>83.00 (-) 9.95e4



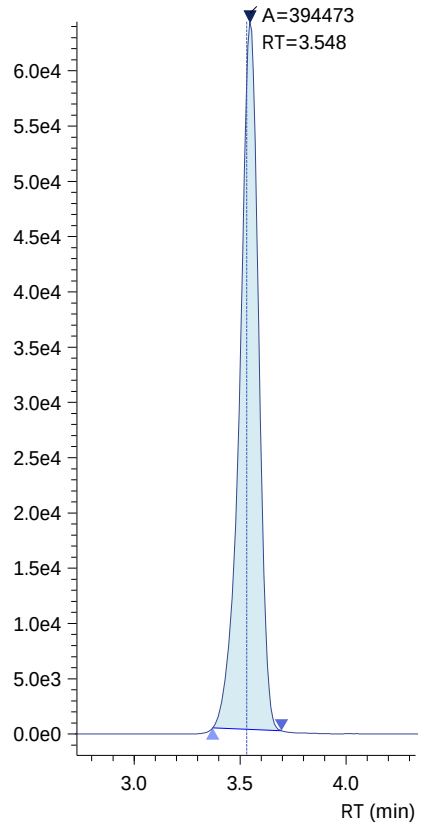
R1 101.00>85.00 (-) 3.32e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.44e4



Insight Report

Printed at 2/23/2024 3:54:43 PM

IB

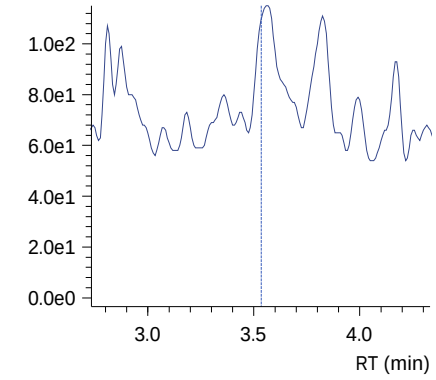
Sample ID: IB
Date Acquired: 2/21/2024 10:27:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-005.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	378874	----	ng/mL	101.00 >85.00	0.00	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.549	378874	378874	1.0000	ng/mL	----	----	

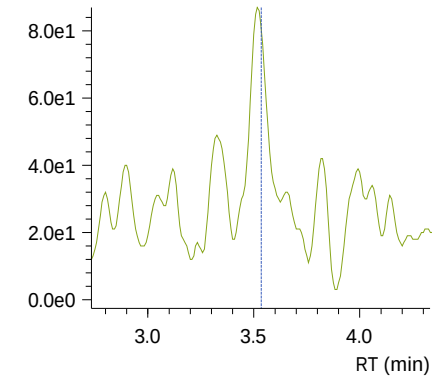
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.15e2



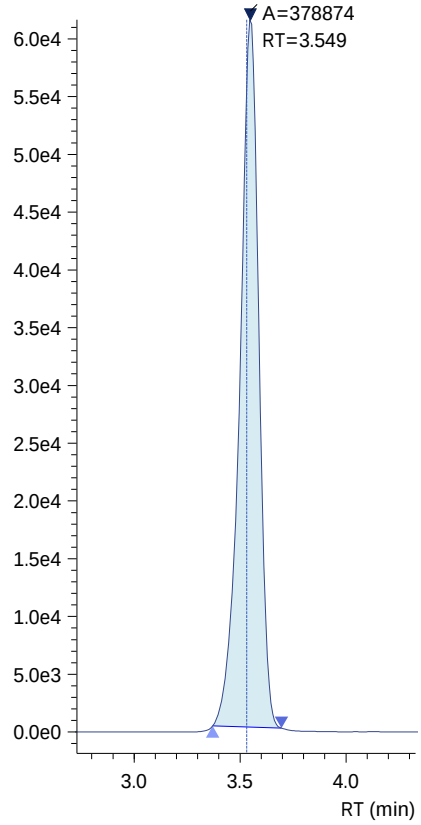
R1 101.00>85.00 (-) 8.70e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.17e4



Insight Report

Printed at 2/23/2024 3:54:43 PM

CCV

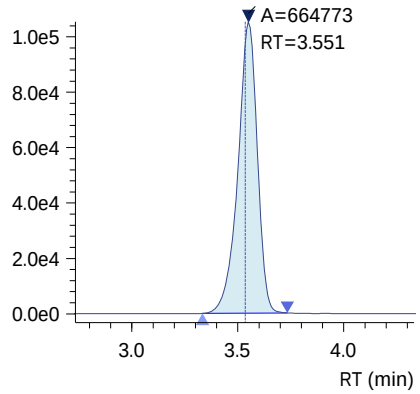
Sample ID: CCV
Date Acquired: 2/21/2024 11:56:49 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-014.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.551	664773	421246	9.9994	ng/mL	101.00 >85.00	33.01	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.547	421246	421246	1.0000	ng/mL	----	----	

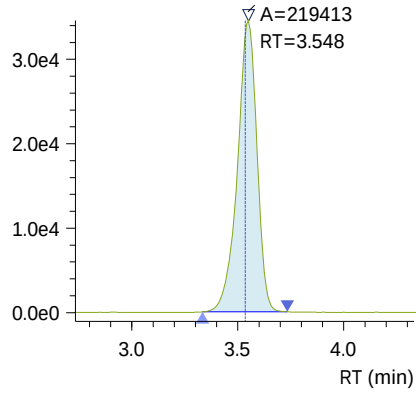
Perchlorate

Conc 9.9994
R#1 33.01 (34.10)

Q 99.00>83.00 (-) 1.05e5



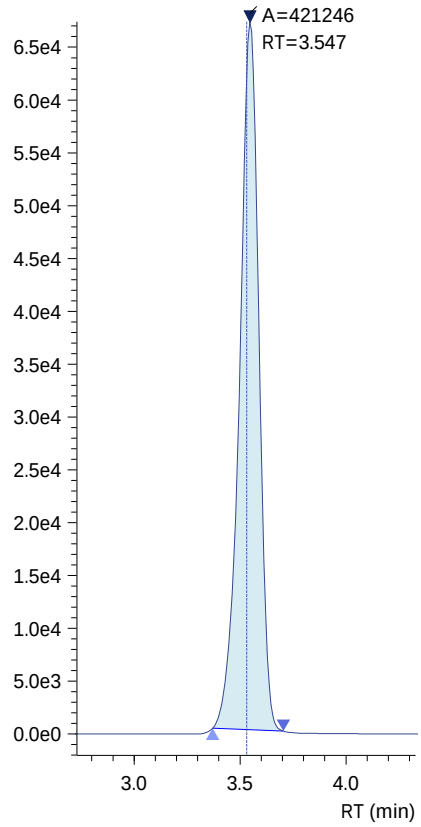
R1 101.00>85.00 (-) 3.46e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.74e4



Insight Report

Printed at 2/23/2024 3:54:43 PM

E2400136-005X10

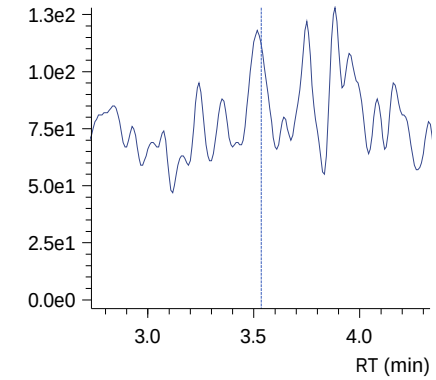
Sample ID: E2400136-005
Date Acquired: 2/21/2024 11:30:35 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-013.lcd
Vial: 36 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	461228	----	ng/mL	101.00 >85.00	0.00	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.545	461228	461228	1.0000	ng/mL	----	----	

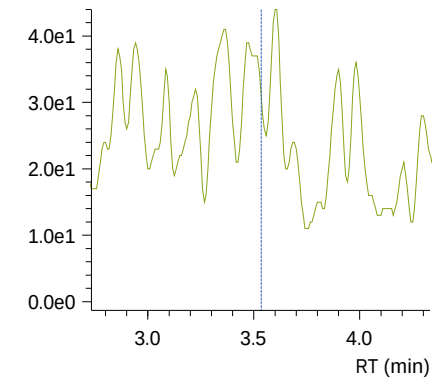
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.28e2



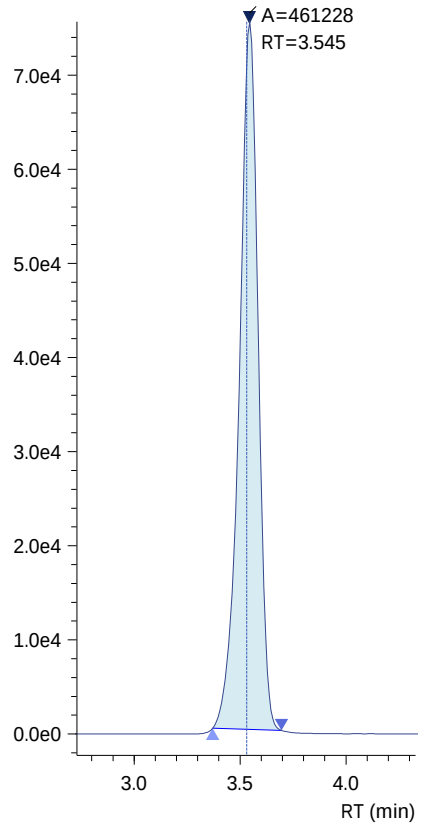
R1 101.00>85.00 (-) 4.40e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.57e4



Insight Report

Printed at 2/23/2024 3:54:43 PM

E2400136-006 X10

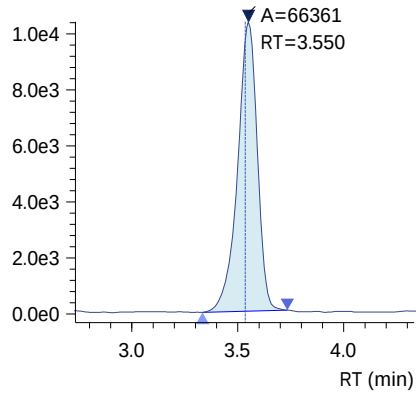
Sample ID: E2400136-006
Date Acquired: 2/21/2024 10:32:48 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-006.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.550	66361	343292	1.2248	ng/mL	101.00 >85.00	33.99	23.26 -42.46
Sodium Perchlorate-18O4 _IS	Auto	3.548	3432 92	343292	1.0000	ng/mL	----	----	

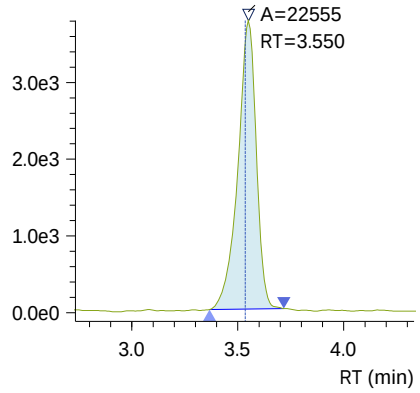
Perchlorate

Conc 1.2248
R#1 33.99 (34.10)

Q 99.00>83.00 (-) 1.04e4



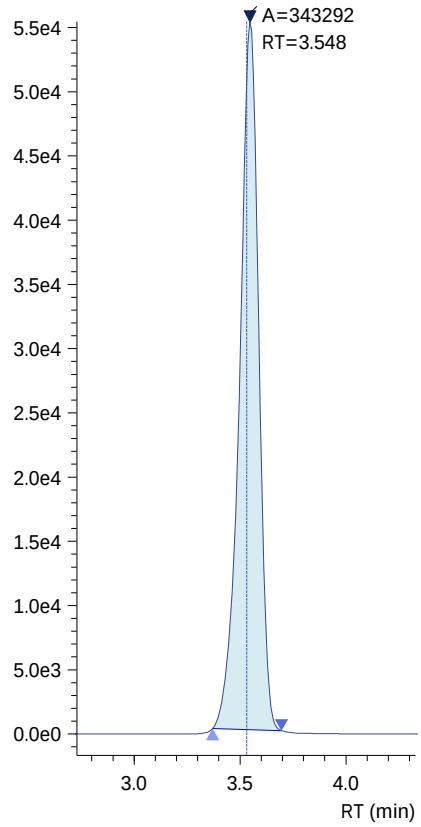
R1 101.00>85.00 (-) 3.81e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.55e4



Insight Report

Printed at 2/23/2024 3:58:47 PM

IB

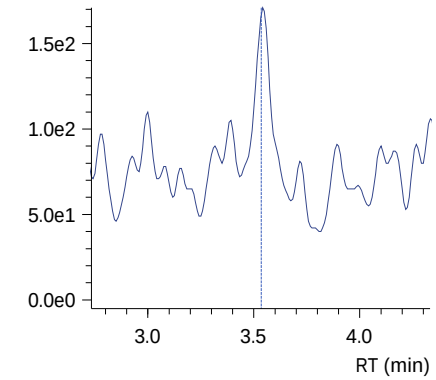
Sample ID: IB
Date Acquired: 2/22/2024 11:03:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240222\20240222-009.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	389579	----	ng/mL	101.00 >85.00	0.00	23.28 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.547	389579	389579	1.0000	ng/mL	----	----	

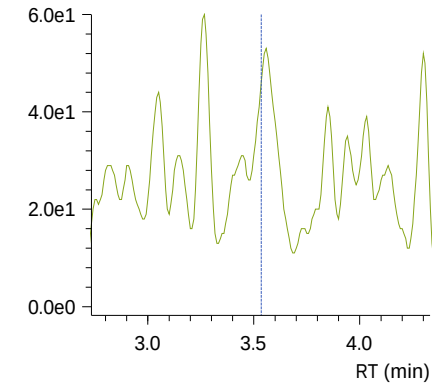
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.71e2



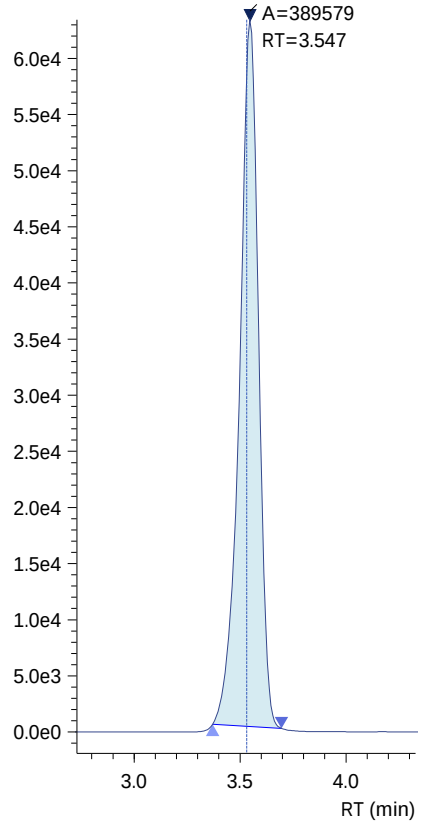
R1 101.00>85.00 (-) 6.00e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.34e4



Insight Report

Printed at 2/23/2024 3:58:47 PM

Method File: I:\LCMS01\DATA\20240222\20240222.lcm
Project File: I:\LCMS01\DATA\20240222\20240222.damlp

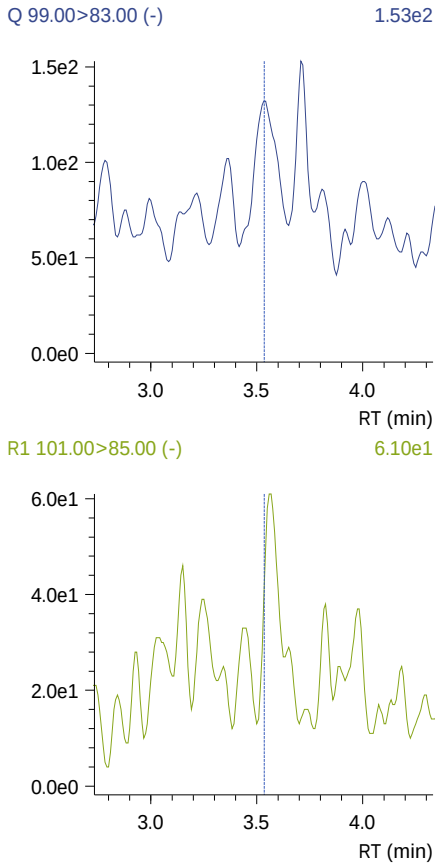
IB

Sample ID: IB
Date Acquired: 2/22/2024 9:51:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240222\20240222-001.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	ND(W/B)	----	----	387893	----	ng/mL	101.00 >85.00	0.00	23.28 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.560	387893	387893	1.0000	ng/mL	----	----	

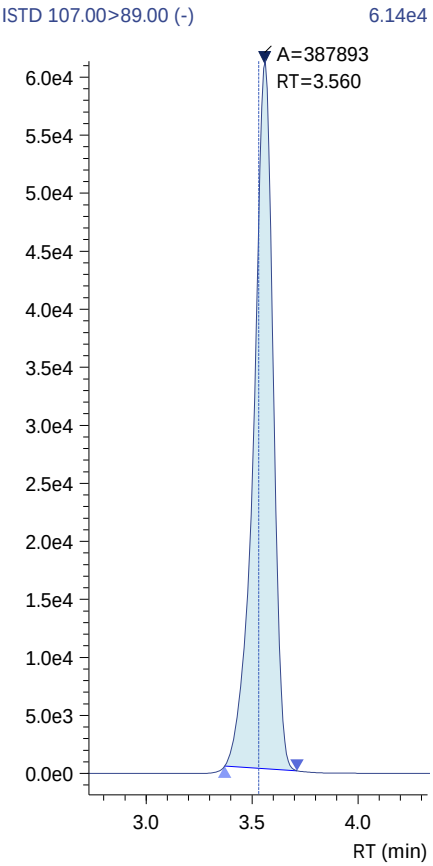
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/23/2024 3:58:47 PM

ICS

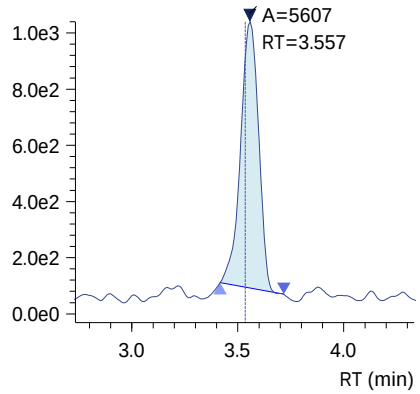
Sample ID: ICS
Date Acquired: 2/22/2024 10:02:53 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240222\20240222-003.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.557	5607	422029	0.0842	ng/mL	101.00 >85.00	39.53	23.28 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.555	422029	422029	1.0000	ng/mL	----	----	

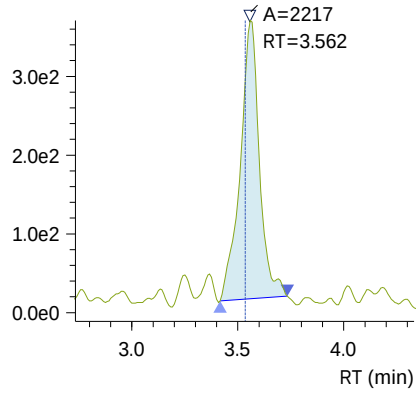
Perchlorate

Conc 0.0842
R#1 39.53 (34.10)

Q 99.00>83.00 (-) 1.04e3



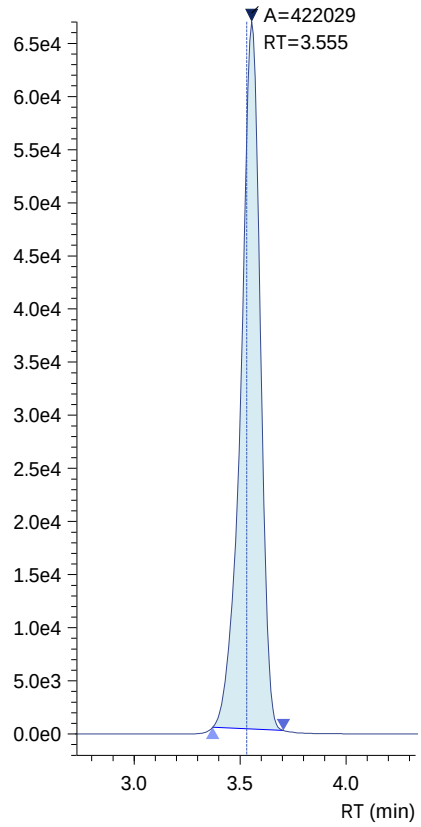
R1 101.00>85.00 (-) 3.71e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.70e4



Insight Report

Printed at 2/23/2024 3:58:47 PM

CCV

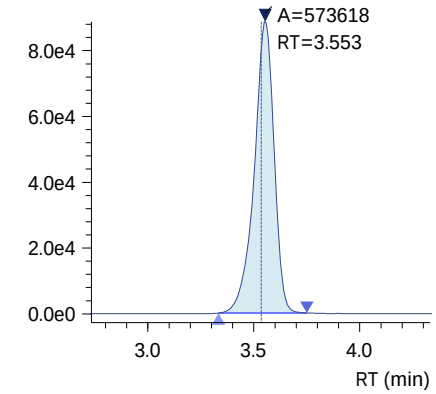
Sample ID: CCV
Date Acquired: 2/22/2024 10:08:24 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240222\20240222-004.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.553	573618	383381	9.4804	ng/mL	101.00 >85.00	33.55	23.28 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.550	383381	383381	1.0000	ng/mL	----	----	

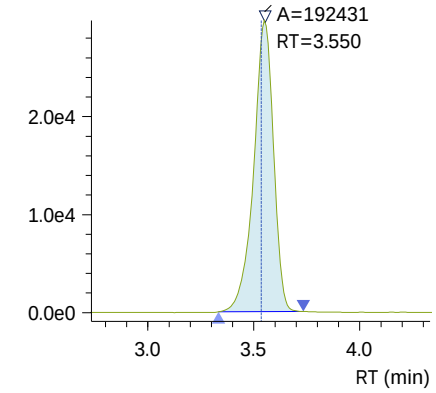
Perchlorate

Conc 9.4804
R#1 33.55 (34.10)

Q 99.00>83.00 (-) 8.88e4



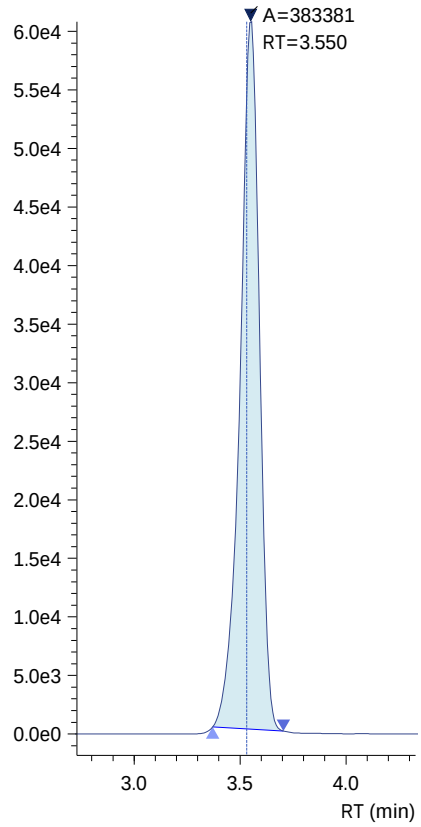
R1 101.00>85.00 (-) 2.98e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.08e4



Insight Report

Printed at 2/23/2024 3:58:47 PM

IB

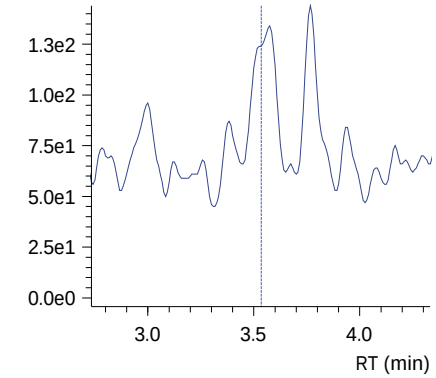
Sample ID: IB
Date Acquired: 2/22/2024 10:13:55 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240222\20240222-005.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	368573	----	ng/mL	101.00 >85.00	0.00	23.28 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.550	368573	368573	1.0000	ng/mL	----	----	

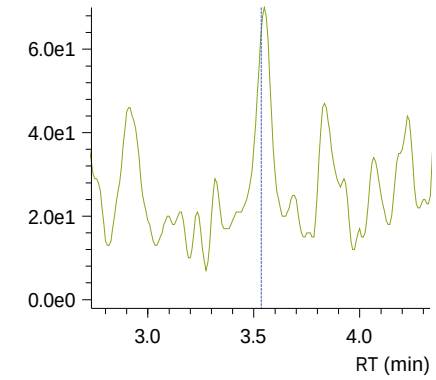
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.44e2



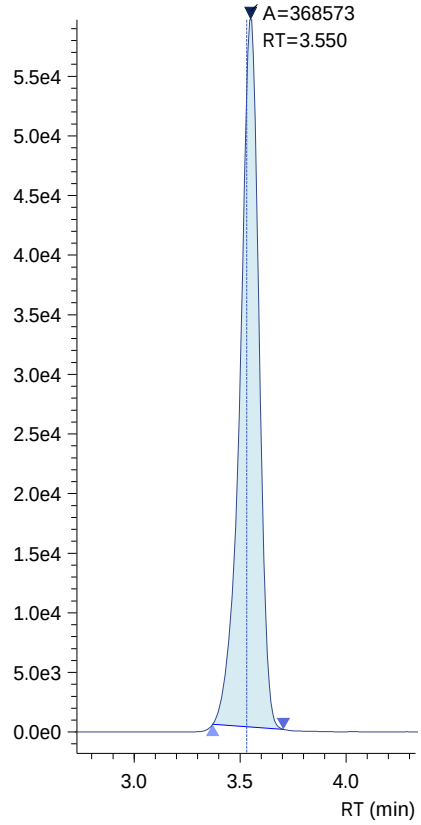
R1 101.00>85.00 (-) 7.00e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.97e4



Insight Report

Printed at 2/23/2024 3:58:47 PM

LODV

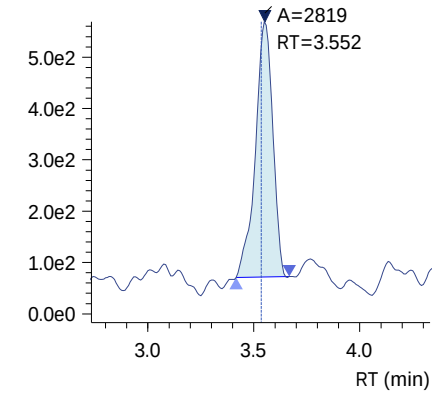
Sample ID: LODV
Date Acquired: 2/22/2024 10:24:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240222\20240222-006.lcd
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.552	2819	393599	0.0454	ng/mL	101.00 >85.00	36.96	23.28 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.550	393599	393599	1.0000	ng/mL	----	----	

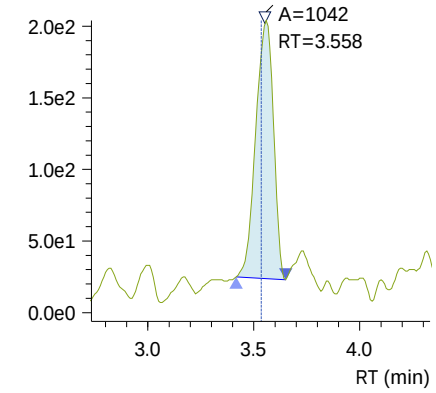
Perchlorate

Conc 0.0454
R#1 36.96 (34.10)

Q 99.00>83.00 (-) 5.69e2



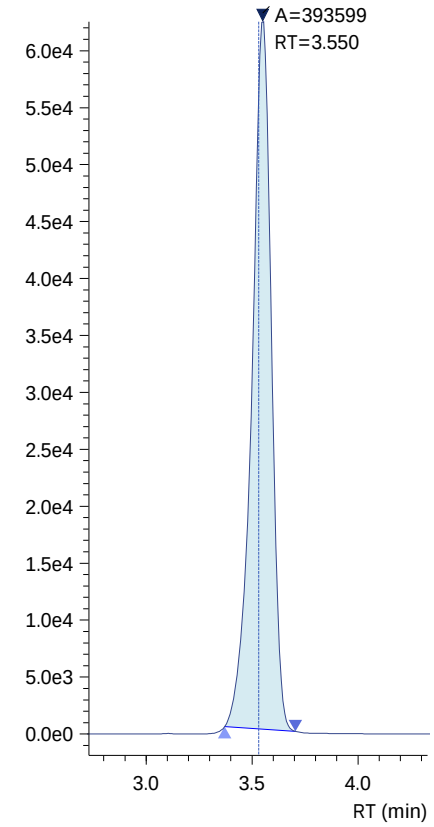
R1 101.00>85.00 (-) 2.04e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.25e4



Insight Report

Printed at 2/23/2024 3:58:47 PM

E2400136-009 X10

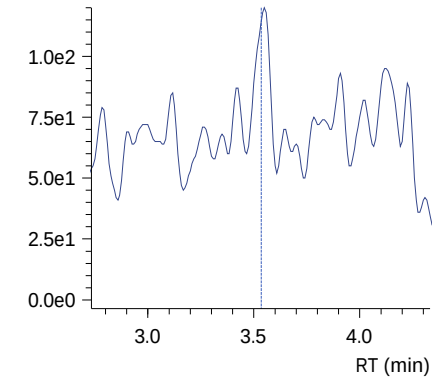
Sample ID: E2400136-009
Date Acquired: 2/22/2024 10:44:34 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240222\20240222-007.lcd
Vial: 37 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	456615	----	ng/mL	101.00 >85.00	0.00	23.28 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.553	456615	456615	1.0000	ng/mL	----	----	

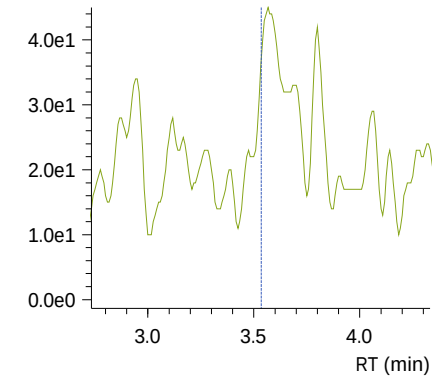
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.20e2



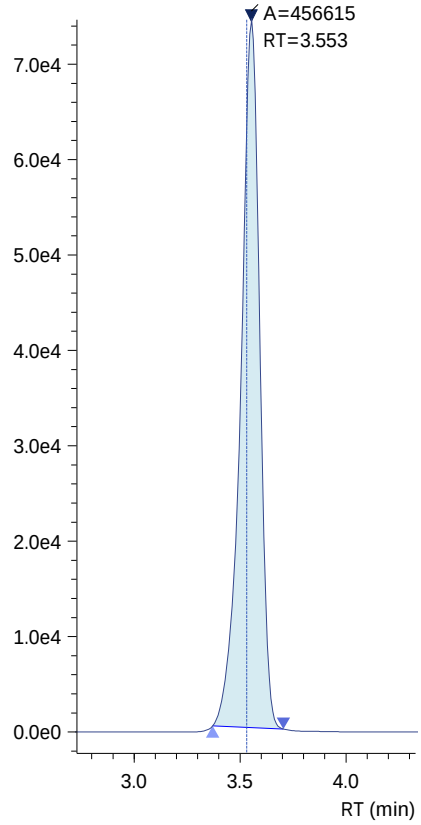
R1 101.00>85.00 (-) 4.50e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.47e4



Insight Report

Printed at 2/23/2024 3:58:47 PM

CCV

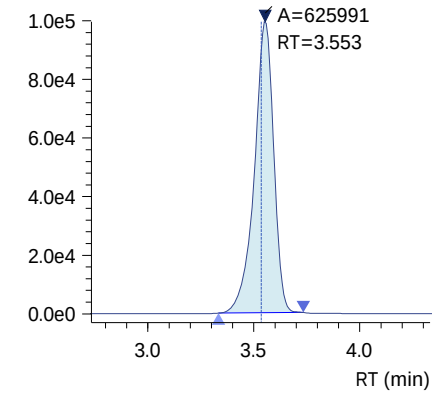
Sample ID: CCV
Date Acquired: 2/22/2024 10:58:20 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240222\20240222-008.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.553	625991	404872	9.7968	ng/mL	101.00	32.97	23.28
							>85.00		-42.46
Sodium Perchlorate-18O4_IS	Auto	3.550	404872	404872	1.0000	ng/mL	----	----	

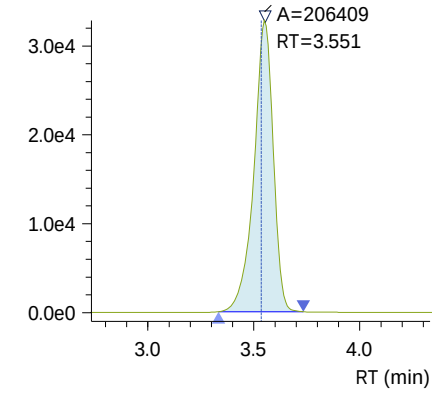
Perchlorate

Conc 9.7968
R#1 32.97 (34.10)

Q 99.00>83.00 (-) 9.97e4



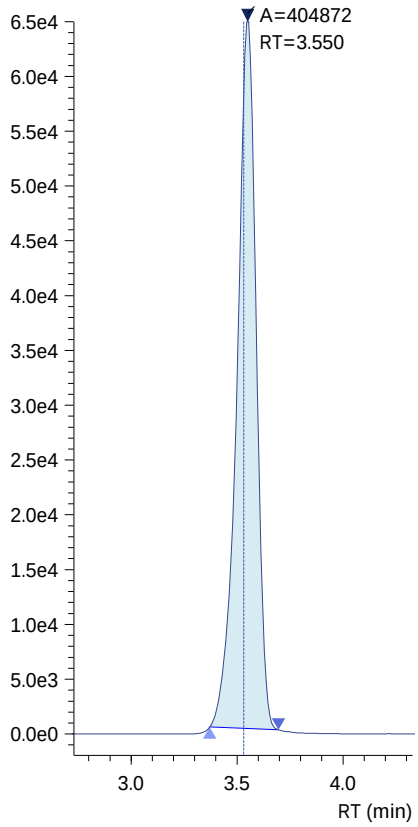
R1 101.00>85.00 (-) 3.29e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.50e4



HS24020577 LHAAP Site 16 Cover Page

ALS WO# HS24020577

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ALS Group USA, Corp
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Houston, TX 77099
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WorkOrder: HS24020577

LHAAP Site 16

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

27-Feb-2024

HS24020577 LHAAP Site 16 Final

ALS WO# HS24020577

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

February 26, 2024

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS24020577**

Laboratory Results for: **LHAAP Site 16**

Dear Marcia Olive,

ALS Environmental received 7 sample(s) on Feb 08, 2024 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: DAYNA.FISHER
James Guin

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Work Order: HS24020577

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24020577-01	16WW23-240207	Groundwater		07-Feb-2024 07:50	08-Feb-2024 09:30	☐
HS24020577-02	16WW23-240207-FD	Groundwater		07-Feb-2024 07:50	08-Feb-2024 09:30	☐
HS24020577-03	16WW24-240207	Groundwater		07-Feb-2024 08:35	08-Feb-2024 09:30	☐
HS24020577-04	16WW24-240207-FD	Groundwater		07-Feb-2024 08:35	08-Feb-2024 09:30	☐
HS24020577-05	16WW27-240207	Groundwater		07-Feb-2024 09:25	08-Feb-2024 09:30	☐
HS24020577-06	16WW43-240207	Groundwater		07-Feb-2024 10:05	08-Feb-2024 09:30	☐
HS24020577-07	Trip Blank-240207	Water	CG-111123-487	07-Feb-2024 00:00	08-Feb-2024 09:30	☐

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: LHAAP Site 16
Work Order: HS24020577

Work Order Comments

- The analysis for Perchlorate was subcontracted to our ALS Houston TX, High Resolution Lab. Final report attached.

GCMS Volatiles by Method SW8260

Batch ID: R458837,R458988

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

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW23-240207
Collection Date: 07-Feb-2024 07:50

ANALYTICAL REPORT
WorkOrder:HS24020577
Lab ID:HS24020577-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 04:56
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:56
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:56
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:56
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 04:56
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:56
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 04:56
Surr: 1,2-Dichloroethane-d4	*92.6*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 04:56*
Surr: 4-Bromofluorobenzene	*88.4*			**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 04:56*
Surr: Dibromofluoromethane	*91.4*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 04:56*
Surr: Toluene-d8	*94.9*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 04:56*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

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

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW23-240207-FD
Collection Date: 07-Feb-2024 07:50

ANALYTICAL REPORT
WorkOrder:HS24020577
Lab ID:HS24020577-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 05:19
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:19
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:19
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:19
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 05:19
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:19
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:19
Surr: 1,2-Dichloroethane-d4	*90.3*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 05:19*
Surr: 4-Bromofluorobenzene	*87.0*			**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 05:19*
Surr: Dibromofluoromethane	*87.8*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 05:19*
Surr: Toluene-d8	*91.8*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 05:19*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

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

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW24-240207
Collection Date: 07-Feb-2024 08:35

ANALYTICAL REPORT
WorkOrder:HS24020577
Lab ID:HS24020577-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	16-Feb-2024 00:10
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 00:10
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 00:10
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 00:10
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	16-Feb-2024 00:10
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 00:10
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 00:10
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*1*	*16-Feb-2024 00:10*
Surr: 4-Bromofluorobenzene	*91.8*			**0**	*85-114*	*%REC*	*1*	*16-Feb-2024 00:10*
Surr: Dibromofluoromethane	*102*			**0**	*80-119*	*%REC*	*1*	*16-Feb-2024 00:10*
Surr: Toluene-d8	*102*			**0**	*89-112*	*%REC*	*1*	*16-Feb-2024 00:10*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

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

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW24-240207-FD
Collection Date: 07-Feb-2024 08:35

ANALYTICAL REPORT
WorkOrder:HS24020577
Lab ID:HS24020577-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 05:41
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:41
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:41
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:41
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 05:41
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:41
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 05:41
Surr: 1,2-Dichloroethane-d4	*92.6*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 05:41*
Surr: 4-Bromofluorobenzene	*86.7*			**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 05:41*
Surr: Dibromofluoromethane	*91.3*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 05:41*
Surr: Toluene-d8	*93.2*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 05:41*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

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

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW27-240207
Collection Date: 07-Feb-2024 09:25

ANALYTICAL REPORT
WorkOrder:HS24020577
Lab ID:HS24020577-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	16-Feb-2024 04:13
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:13
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:13
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:13
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	16-Feb-2024 04:13
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:13
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:13
Surr: 1,2-Dichloroethane-d4	*111*			**0**	*81-118*	*%REC*	*1*	*16-Feb-2024 04:13*
Surr: 4-Bromofluorobenzene	*88.8*			**0**	*85-114*	*%REC*	*1*	*16-Feb-2024 04:13*
Surr: Dibromofluoromethane	*103*			**0**	*80-119*	*%REC*	*1*	*16-Feb-2024 04:13*
Surr: Toluene-d8	*98.3*			**0**	*89-112*	*%REC*	*1*	*16-Feb-2024 04:13*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

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

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: 16WW43-240207
Collection Date: 07-Feb-2024 10:05

ANALYTICAL REPORT
WorkOrder:HS24020577
Lab ID:HS24020577-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	16-Feb-2024 04:36
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:36
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:36
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:36
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	16-Feb-2024 04:36
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:36
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	16-Feb-2024 04:36
Surr: 1,2-Dichloroethane-d4	*111*			**0**	*81-118*	*%REC*	*1*	*16-Feb-2024 04:36*
Surr: 4-Bromofluorobenzene	*88.7*			**0**	*85-114*	*%REC*	*1*	*16-Feb-2024 04:36*
Surr: Dibromofluoromethane	*104*			**0**	*80-119*	*%REC*	*1*	*16-Feb-2024 04:36*
Surr: Toluene-d8	*99.2*			**0**	*89-112*	*%REC*	*1*	*16-Feb-2024 04:36*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	26-Feb-2024 14:03

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

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Sample ID: Trip Blank-240207
Collection Date: 07-Feb-2024 00:00

ANALYTICAL REPORT
WorkOrder:HS24020577
Lab ID:HS24020577-07
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: TS
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	15-Feb-2024 23:48
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 23:48
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 23:48
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 23:48
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	15-Feb-2024 23:48
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 23:48
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	15-Feb-2024 23:48
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*1*	*15-Feb-2024 23:48*
Surr: 4-Bromofluorobenzene	*91.0*			**0**	*85-114*	*%REC*	*1*	*15-Feb-2024 23:48*
Surr: Dibromofluoromethane	*101*			**0**	*80-119*	*%REC*	*1*	*15-Feb-2024 23:48*
Surr: Toluene-d8	*99.4*			**0**	*89-112*	*%REC*	*1*	*15-Feb-2024 23:48*

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

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020577

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R458837 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS24020577-01	16WW23-240207	07 Feb 2024 07:50			15 Feb 2024 04:56	1
HS24020577-02	16WW23-240207-FD	07 Feb 2024 07:50			15 Feb 2024 05:19	1
HS24020577-04	16WW24-240207-FD	07 Feb 2024 08:35			15 Feb 2024 05:41	1
Batch ID: R458988 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS24020577-07	Trip Blank-240207	07 Feb 2024 00:00			15 Feb 2024 23:48	1
Batch ID: R458988 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS24020577-03	16WW24-240207	07 Feb 2024 08:35			16 Feb 2024 00:10	1
HS24020577-05	16WW27-240207	07 Feb 2024 09:25			16 Feb 2024 04:13	1
HS24020577-06	16WW43-240207	07 Feb 2024 10:05			16 Feb 2024 04:36	1
Batch ID: R459828 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Groundwater	
HS24020577-01	16WW23-240207	07 Feb 2024 07:50			26 Feb 2024 14:03	1
HS24020577-02	16WW23-240207-FD	07 Feb 2024 07:50			26 Feb 2024 14:03	1
HS24020577-03	16WW24-240207	07 Feb 2024 08:35			26 Feb 2024 14:03	1
HS24020577-04	16WW24-240207-FD	07 Feb 2024 08:35			26 Feb 2024 14:03	1
HS24020577-05	16WW27-240207	07 Feb 2024 09:25			26 Feb 2024 14:03	1
HS24020577-06	16WW43-240207	07 Feb 2024 10:05			26 Feb 2024 14:03	1

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020577

QC BATCH REPORT

Batch ID: R458837 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-240214** Units: **ug/L** Analysis Date: **14-Feb-2024 22:18**
Client ID: Run ID: **VOA9_458837** SeqNo: **7831761** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	1.0	1.0								U
1,2-Dichloroethane	1.0	1.0								U
cis-1,2-Dichloroethene	1.0	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	1.0	1.0								U
Vinyl chloride	1.0	1.0								U
Surr: 1,2-Dichloroethane-d4	*47.88*	*35*	*50*	*0*	*95.8*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.45*	*35*	*50*	*0*	*94.9*	*85 - 114*				
Surr: Dibromofluoromethane	*47.65*	*35*	*50*	*0*	*95.3*	*80 - 119*				
Surr: Toluene-d8	*49.71*	*35*	*50*	*0*	*99.4*	*89 - 112*				

LCS Sample ID: **VLCSW-240214** Units: **ug/L** Analysis Date: **14-Feb-2024 21:12**
Client ID: Run ID: **VOA9_458837** SeqNo: **7831759** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	22.71	1.0	20	0	114	80 - 119				
1,1-Dichloroethene	20.74	1.0	20	0	104	71 - 131				
1,2-Dichloroethane	22.23	1.0	20	0	111	73 - 128				
cis-1,2-Dichloroethene	19.73	1.0	20	0	98.7	78 - 123				
Methylene chloride	20.58	2.0	20	0	103	74 - 124				
Trichloroethene	22.72	1.0	20	0	114	79 - 123				
Vinyl chloride	20.87	1.0	20	0	104	58 - 137				
Surr: 1,2-Dichloroethane-d4	*45.07*	*35*	*50*	*0*	*90.1*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.79*	*35*	*50*	*0*	*97.6*	*85 - 114*				
Surr: Dibromofluoromethane	*46.2*	*35*	*50*	*0*	*92.4*	*80 - 119*				
Surr: Toluene-d8	*49.36*	*35*	*50*	*0*	*98.7*	*89 - 112*				

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020577

QC BATCH REPORT

Batch ID: R458837 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCSD Sample ID: **VLCSDW-240214** Units: **ug/L** Analysis Date: **14-Feb-2024 21:34**
Client ID: Run ID: **VOA9_458837** SeqNo: **7831760** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,2-Trichloroethane	22.95	1.0	20	0	115	80 - 119	22.71	1.06	20	
1,1-Dichloroethene	20.34	1.0	20	0	102	71 - 131	20.74	1.93	20	
1,2-Dichloroethane	21.42	1.0	20	0	107	73 - 128	22.23	3.7	20	
cis-1,2-Dichloroethene	19.95	1.0	20	0	99.8	78 - 123	19.73	1.12	20	
Methylene chloride	21.46	2.0	20	0	107	74 - 124	20.58	4.18	20	
Trichloroethene	23.5	1.0	20	0	118	79 - 123	22.72	3.38	20	
Vinyl chloride	20.39	1.0	20	0	102	58 - 137	20.87	2.34	20	
Surr: 1,2-Dichloroethane-d4	*46.53*	*35*	*50*	*0*	*93.1*	*81 - 118*	*45.07*	*3.2*	*20*	
Surr: 4-Bromofluorobenzene	*50.25*	*35*	*50*	*0*	*101*	*85 - 114*	*48.79*	*2.95*	*20*	
Surr: Dibromofluoromethane	*47.08*	*35*	*50*	*0*	*94.2*	*80 - 119*	*46.2*	*1.89*	*20*	
Surr: Toluene-d8	*49.73*	*35*	*50*	*0*	*99.5*	*89 - 112*	*49.36*	*0.736*	*20*	

The following samples were analyzed in this batch: HS24020577-01 HS24020577-02 HS24020577-04

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020577

QC BATCH REPORT

Batch ID: R458988 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-240215** Units: **ug/L** Analysis Date: **15-Feb-2024 23:03**
Client ID: Run ID: **VOA9_458988** SeqNo: **7834912** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethene	1.0	1.0								U
1,2-Dichloroethane	1.0	1.0								U
cis-1,2-Dichloroethene	1.0	1.0								U
Methylene chloride	1.0	2.0								U
Trichloroethene	1.0	1.0								U
Vinyl chloride	1.0	1.0								U
Surr: 1,2-Dichloroethane-d4	*44.97*	*35*	*50*	*0*	*89.9*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*43.05*	*35*	*50*	*0*	*86.1*	*85 - 114*				
Surr: Dibromofluoromethane	*43.16*	*35*	*50*	*0*	*86.3*	*80 - 119*				
Surr: Toluene-d8	*44.6*	*35*	*50*	*0*	*89.2*	*89 - 112*				

LCS Sample ID: **VLCSW-240215** Units: **ug/L** Analysis Date: **15-Feb-2024 22:19**
Client ID: Run ID: **VOA9_458988** SeqNo: **7834911** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	20.68	1.0	20	0	103	80 - 119				
1,1-Dichloroethene	20.27	1.0	20	0	101	71 - 131				
1,2-Dichloroethane	21	1.0	20	0	105	73 - 128				
cis-1,2-Dichloroethene	21.99	1.0	20	0	110	78 - 123				
Methylene chloride	19.45	2.0	20	0	97.2	74 - 124				
Trichloroethene	21.97	1.0	20	0	110	79 - 123				
Vinyl chloride	20.55	1.0	20	0	103	58 - 137				
Surr: 1,2-Dichloroethane-d4	*49.09*	*35*	*50*	*0*	*98.2*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.39*	*35*	*50*	*0*	*98.8*	*85 - 114*				
Surr: Dibromofluoromethane	*49.15*	*35*	*50*	*0*	*98.3*	*80 - 119*				
Surr: Toluene-d8	*49.87*	*35*	*50*	*0*	*99.7*	*89 - 112*				

ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: HS24020577

QC BATCH REPORT

Batch ID: R458988 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS24020577-03MS** Units: **ug/L** Analysis Date: **16-Feb-2024 00:32**
Client ID: **16WW24-240207** Run ID: **VOA9_458988** SeqNo: **7834916** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	22.77	1.0	20	0	114	80 - 119				
1,1-Dichloroethene	23.89	1.0	20	0	119	71 - 131				
1,2-Dichloroethane	22.76	1.0	20	0	114	73 - 128				
cis-1,2-Dichloroethene	22.74	1.0	20	0	114	78 - 123				
Methylene chloride	21.01	2.0	20	0	105	74 - 124				
Trichloroethene	23.35	1.0	20	0	117	79 - 123				
Vinyl chloride	23.45	1.0	20	0	117	58 - 137				
Surr: 1,2-Dichloroethane-d4	*52.08*	*35*	*50*	*0*	*104*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.72*	*35*	*50*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*51.27*	*35*	*50*	*0*	*103*	*80 - 119*				
Surr: Toluene-d8	*53.16*	*35*	*50*	*0*	*106*	*89 - 112*				

MSD Sample ID: **HS24020577-03MSD** Units: **ug/L** Analysis Date: **16-Feb-2024 00:54**
Client ID: **16WW24-240207** Run ID: **VOA9_458988** SeqNo: **7834917** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,2-Trichloroethane	22.86	1.0	20	0	114	80 - 119	22.77	0.408	20	
1,1-Dichloroethene	24.1	1.0	20	0	120	71 - 131	23.89	0.888	20	
1,2-Dichloroethane	22.91	1.0	20	0	115	73 - 128	22.76	0.615	20	
cis-1,2-Dichloroethene	22.72	1.0	20	0	114	78 - 123	22.74	0.0858	20	
Methylene chloride	20.87	2.0	20	0	104	74 - 124	21.01	0.627	20	
Trichloroethene	22.37	1.0	20	0	112	79 - 123	23.35	4.3	20	
Vinyl chloride	23.36	1.0	20	0	117	58 - 137	23.45	0.352	20	
Surr: 1,2-Dichloroethane-d4	*52.96*	*35*	*50*	*0*	*106*	*81 - 118*	*52.08*	*1.68*	*20*	
Surr: 4-Bromofluorobenzene	*51.08*	*35*	*50*	*0*	*102*	*85 - 114*	*51.72*	*1.25*	*20*	
Surr: Dibromofluoromethane	*52.25*	*35*	*50*	*0*	*105*	*80 - 119*	*51.27*	*1.89*	*20*	
Surr: Toluene-d8	*53.32*	*35*	*50*	*0*	*107*	*89 - 112*	*53.16*	*0.287*	*20*	

The following samples were analyzed in this batch: HS24020577-03 HS24020577-05 HS24020577-06 HS24020577-07

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ALS Houston, US Date: 26-Feb-24

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
WorkOrder: **HS24020577**

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

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CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L22-90-R2	31-Mar-2024
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
North Dakota	R-193 2023-2024	30-Apr-2024
Oklahoma	2023-140	31-Aug-2024
Texas	T104704231-23-32	30-Apr-2024
Utah	TX026932023-14	31-Jul-2024

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ALS Houston, US Date: 26-Feb-24

Sample Receipt Checklist

Work Order ID: HS24020577 **Date/Time Received:** 08-Feb-2024 09:30

Client Name: Bhate Environmental **Received by:** Jacob Coronado

Completed By:	/S/ Paresh M. Giga	10-Feb-2024 13:15	**Reviewed by:**	/S/ luis.aguilar	12-Feb-2024 09:49
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **GW/Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	2.2C/2.1C U/C	IR31
Cooler(s)/Kit(s):	Blue	
Date/Time sample(s) sent to storage:	2/10/24 13:35	

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

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

bhate

Page: _____ of _____

Project/Phase

No: JVPCIBH.0001

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205

Chain of Custody and Analytical Request

COC Number(1):

LIMS Number: _____

Facility/Base I.D.: LHAAP / **BILL to PCI**

Project/Site Name: LHAAP / Site 16

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	Dissolved Gases	TOC	Carbon Dioxide	Anions	Perchlorate					Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
16mw23-240207	07 FEB 2024	0750	-	N		WG	4	X					X								
16mw23-240207-FD	07 FEB 2024	0750	-	FD		WG	4	X					X								
16mw24-240207	07 FEB 2024	0835	-	N		WG	4	X					X								
16mw24-240207-FD	07 FEB 2024	0835		FD		WG	4	X					X								
16mw24-240207-MS	07 FEB 2024	0835		MS		WG	4	X					X								
16mw24-240207-MSD	07 FEB 2024	0835	-	SD		WG	4	X					X								
16mw27-240207	07 FEB 2024	0925	-	N		WG	4	X					X								
16mw43-240207	07 FEB 2024	1005	-	N		WG	4	X					X								
Trip Blank-240207	07 FEB 2024		-	TB		W	2	X													
			-																		
			-																		

Sample Analysis Requested (5) | Quality Assurance Samples (6)

HS24020577

Bhate Environmental Associates, Inc.
LHAAP Site 16

COMMENTS: STANDARD TAT

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. Scott Beesinger	2/7/24	1430	1. [illegible]	2/8/24	0930
2.			2.		
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped _____ No.:

Method of Shipment: _____

Fed Ex _____ Airbill _____ Number: 686268005962

Analytical Lab: ALS 10450 Stanhill Rd, Suite 210, Houston, TX 77099, (281) 530-5656

ATTN: Dane Wanless 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

2, 2c
Lg - BLUE
BR #31
CLP-2.1

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

CUSTODY SEAL

Date: 2/7/24 Time: 1930
Name: [illegible]
Company: [illegible]

Seal Broken By: [illegible]
Date: 02/08/24

LGBrue

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February 26, 2024 Service Request No:E2400132

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

Laboratory Results for: HS24020577

Enclosed are the results of the sample(s) submitted to our laboratory February 10, 2024
For your reference, these analyses have been assigned our service request number **E2400132.**

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

H Kelany

Hussam Kelany
Project Manager

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

Certificate of Analysis

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

Client:	ALS Environmental - US	**Service Request No.:**	E2400132
Project:	HS24020577	**Date Received:**	02/10/24
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

Six samples were received for analysis at ALS Environmental in Houston on 02/10/24.

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:

EQ2400093: 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.

Client: ALS Environmental - US **Service Request:**E2400132
Project: HS24020577

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2400132-001	16WW23-240207	2/7/2024	0750
E2400132-002	16WW23-240207-FD	2/7/2024	0750
E2400132-003	16WW24-240207	2/7/2024	0835
E2400132-004	16WW24-240207-FD	2/7/2024	0835
E2400132-005	16WW27-240207	2/7/2024	0925
E2400132-006	16WW43-240207	2/7/2024	1005

Service Request Summary

Folder #: **E2400132**
Client Name: ALS Environmental - US
Project Name: HS24020577
Project Number:

Report To:

ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA

Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: alsusa_accountspayable@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/10/24
Internal Due Date: 2/19/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: No EDD Specified

8 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	Semivoa GCMS ClO4 DOD/6850
E2400132-001	16WW23-240207	Ground Water	02/07/24 0750	**IV**
E2400132-002	16WW23-240207-FD	Ground Water	02/07/24 0750	**IV**
E2400132-003	16WW24-240207	Ground Water	02/07/24 0835	**IV**
E2400132-004	16WW24-240207-FD	Ground Water	02/07/24 0835	**IV**
E2400132-005	16WW27-240207	Ground Water	02/07/24 0925	**IV**
E2400132-006	16WW43-240207	Ground Water	02/07/24 1005	**IV**

Service Request Summary

Folder #: **E2400132**
Client Name: ALS Environmental - US
Project Name: HS24020577
Project Number:

Report To:

ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA

Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: alsusa_accountspayable@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/10/24
Internal Due Date: 2/19/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: No EDD Specified

8 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10B
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

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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
Louisiana Department of Health and Hospitals	LA028-2024	12/31/2024
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343-2023	6/30/2024
Michigan Depratment of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2645386	12/31/2024
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2023-140	8/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
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	TX026932023-14	7/31/2024
Washington Department of Ecology	C819-23	11/14/2024

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: Dept of Defense **COC ID:** 24711

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@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:	HS24020577
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	HS24020577-01	16WW23-240207	Groundwater	07 Feb 2024 07:50
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
2.	HS24020577-02	16WW23-240207-FD	Groundwater	07 Feb 2024 07:50
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
3.	HS24020577-03	16WW24-240207	Groundwater	07 Feb 2024 08:35
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
4.	HS24020577-04	16WW24-240207-FD	Groundwater	07 Feb 2024 08:35
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
5.	HS24020577-05	16WW27-240207	Groundwater	07 Feb 2024 09:25
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
6.	HS24020577-06	16WW43-240207	Groundwater	07 Feb 2024 10:05
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.
HS24020577-03 = ms/msd

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 24711

QC Level: DOD IV (DoD Data Package)

Relinquished By: JC

Date/Time: 2/10 13:15

Received By:

Date/Time:

Cooler ID(s):

Temperature(s):

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Houston, TX 77099
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Sample Receipt Checklist

Work Order ID: HS24020577 **Date/Time received:** 08 Feb 2024 09:30

Client name: Bhate Environmental Associates, Inc. **Received by:** Jacob Coronado

Completed/By: 10 Feb 2024 13:15 (Date/Time) Paresh M. Giga (eSignature) **Reviewed/By:** _____ (Date/Time) _____ (eSignature)

Matrices: GW/Water **Carrier name:** FedEx Priority Overnight

Shipping container/cooler in good condition?	☑ Yes	☐ No	☐ Not Present	
Custody seals intact on shipping container/cooler?	☑ Yes	☐ No	☐ Not Present	
Custody seals intact on Sample bottles?	☐ Yes	☐ No	☑ Not Present	
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐ Yes	☐ No	☑ Not Present	
Chain of custody present?	☑ Yes	☐ No	1 Page(s)	
Chain of custody signed when relinquished and received?	☑ Yes	☐ No	COC ID(s): none	
Samplers name present on COC?	☑ Yes	☐ No		
Chain of custody agrees with sample labels?	☑ Yes	☐ No		
Samples in proper container/bottle?	☑ Yes	☐ No		
Sample containers intact?	☑ Yes	☐ No		
Sufficient sample volume for indicated test?	☑ Yes	☐ No		
All samples received within holding time?	☑ Yes	☐ No		
Container/Temp Blank temperature in compliance?	☑ Yes	☐ No		

Temperature(s)/Thermometer(s): 2.2C/2.1C U/C IR31

Cooler Information: 1 Cooler(s), Blue

Date/Time sample(s) sent to storage: 2/10/24 13:35

Water - VOA vials have zero headspace?	☑ Yes	☐ No	☐ No VOA vials submitted
Water - pH acceptable upon receipt?	☐ Yes	☐ No	☑ Not Applicable
pH adjusted?	☐ Yes	☐ No	☑ Not Applicable

pH adjusted by: _____

Login notes: _____

Client contacted: _____ **Date contacted:** _____ **Person contacted:** _____

Contacted by: _____ **Regarding:** _____

Comments: _____

Corrective action: _____

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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#: 434181 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/19/24 09:00

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2400131-001	2402071322X PL-7-630	.01	6850/ClO4 DOD			Water	10mL	
2	E2400132-001	16WW23-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2400132-002	16WW23-240207-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2400132-003	16WW24-240207	.02	6850/ClO4 DOD			Ground Water	10mL	
5	E2400132-004	16WW24-240207-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2400132-005	16WW27-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2400132-006	16WW43-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2400136-001	16RW09-240206	.01	6850/ClO4 DOD			Water	10mL	
9	E2400136-002	16RW10-240206	.01	6850/ClO4 DOD			Water	10mL	
10	E2400136-003	16RW12-240206	.01	6850/ClO4 DOD			Water	10mL	
11	E2400136-004	16RW12-240206-FD	.01	6850/ClO4 DOD			Water	10mL	
12	E2400136-005	16WW40-240206	.01	6850/ClO4 DOD			Water	10mL	
13	E2400136-006	16WW12-240206	.01	6850/ClO4 DOD			Water	10mL	
14	E2400136-007	16WW34-240206	.01	6850/ClO4 DOD			Water	10mL	
15	E2400136-008	16WW33-240206	.01	6850/ClO4 DOD			Water	10mL	
16	E2400136-009	16WW25-240206	.01	6850/ClO4 DOD			Water	10mL	
17	E2400136-010	16WW26-240206	.01	6850/ClO4 DOD			Water	10mL	
18	E2400160-001	LGAC INF 021224	.05	6850/ClO4 DOD			Water	10mL	
19	EQ2400093-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2400093-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2400093-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2400093-04	ICS		6850/ClO4 DOD			Liquid	10mL	
23	EQ2400093-05	16WW24-240207 MS	.02	6850/ClO4 DOD			Liquid	10mL	
24	EQ2400093-06	16WW24-240207 DMS	.02	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock 2 Inventory ID 233555 Logbook Ref: Perchlorate INT. Stock2 Expires On: 08/05/2024

EQ2400093-02	10.00µL	EQ2400093-03	10.00µL	EQ2400093-04	10.00µL	EQ2400093-05	10.00µL	EQ2400093-06	10.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 233561 Logbook Ref: Perchlorate Internal Standard Expires On: 08/05/2024

E2400131-001	100.00µL	E2400132-001	100.00µL	E2400132-002	100.00µL	E2400132-003	100.00µL	E2400132-004	100.00µL	E2400132-005	100.00µL
E2400132-006	100.00µL	E2400136-001	100.00µL	E2400136-002	100.00µL	E2400136-003	100.00µL	E2400136-004	100.00µL	E2400136-005	100.00µL
E2400136-006	100.00µL	E2400136-007	100.00µL	E2400136-008	100.00µL	E2400136-009	100.00µL	E2400136-010	100.00µL	E2400160-001	100.00µL
EQ2400093-01	100.00µL	EQ2400093-02	100.00µL	EQ2400093-03	100.00µL	EQ2400093-04	100.00µL	EQ2400093-05	100.00µL	EQ2400093-06	100.00µL

Preparation Information Benchsheet

Prep Run#: 434181 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/19/24 09:00

Name:	Perchlorate Anion Spiking Soln. 25,000 ppm	Inventory ID	233595	Logbook Ref:	Expires On:	08/04/2024

EQ2400093-04 20.00µL

Preparation Materials

6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979) 6850 Luer-Lok Syringes Luer Lok Syringes (231696)
6850 20mM amonium acetate in H2O (233412)

Preparation Steps

Step: Preparation
Started: 2/19/24 09:00
Finished: 2/19/24 10:30
By: JOSEL.JUAREZ
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined
Received By: _____ Date: _____ Yes No

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Analytical Results

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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:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0750
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW23-240207	**Units:**	µg/L
Lab Code:	E2400132-001	**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	ND	U	1.00	0.500	0.250	10	2/19/24	2/21/24 11:10	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0750
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW23-240207-FD	**Units:**	µg/L
Lab Code:	E2400132-002	**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	ND	U	1.00	0.500	0.250	10	2/19/24	2/21/24 11:19	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0835
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW24-240207	**Units:**	µg/L
Lab Code:	E2400132-003	**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	ND	U	0.100	0.0500	0.0250	1	2/19/24	2/19/24 13:35	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0835
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW24-240207-FD	**Units:**	µg/L
Lab Code:	E2400132-004	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	2/19/24	2/19/24 13:53	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0925
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW27-240207	**Units:**	µg/L
Lab Code:	E2400132-005	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	1.00	0.500	0.250	10	2/19/24	2/21/24 11:25	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 1005
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW43-240207	**Units:**	µg/L
Lab Code:	E2400132-006	**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	**0.102**		0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:04	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2400093-01	**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	2/19/24	2/19/24 12:45	434181	833219	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Analyzed:**	2/19/24
Sample Matrix:	Ground Water		

Lab Control Sample Summary

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

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	434181

	Lab Control Sample EQ2400093-02			Duplicate Lab Control Sample EQ2400093-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0877	0.100	88	0.0854	0.100	85	84 - 119	3	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.

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Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400093-02	**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	**0.0877**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 12:51	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400093-03	**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	**0.0854**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 12:56	434181	833219	

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/7/24
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
		Date Analyzed:	2/19/24

Matrix Spike Summary

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

Sample Name:	16WW24-240207	**Units:**	µg/L
Lab Code:	E2400132-003	**Basis:**	NA

Analytical Method: 6850
Prep Method: Method

		16WW24-240207MS				16WW24-240207DMS					
		Matrix Spike				**Duplicate Matrix Spike**					
		EQ2400093-05				EQ2400093-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	ND	0.0810	0.100	81	*	0.0846	0.100	85	84 - 119	4	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.

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0835
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW24-240207	**Units:**	µg/L
Lab Code:	EQ2400093-05	**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	**0.0810**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 13:07	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0835
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW24-240207	**Units:**	µg/L
Lab Code:	EQ2400093-06	**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	**0.0846**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 13:13	434181	833219	

HS24020577-MSVOA-SW8260

ALS WO# HS24020577

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Form 1

Organic Analysis Data Sheet

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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.	Workorder	
Project	LHAAP Site 16	HS24020577	

Volatiles by EPA Volatiles Organics by Method 8260C

16WW23-240207	Collected	Received	Matrix	Basis
HS24020577-01	02/07/24 07:50	02/08/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 04:56	VOA9_458837	V021424.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:56	VOA9_458837	V021424.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:56	VOA9_458837	V021424.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:56	VOA9_458837	V021424.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 04:56	VOA9_458837	V021424.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:56	VOA9_458837	V021424.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 04:56	VOA9_458837	V021424.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020577	

Volatiles by EPA Volatiles Organics by Method 8260C

16WW23-240207-FD	Collected	Received	Matrix	Basis
HS24020577-02	02/07/24 07:50	02/08/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 05:19	VOA9_458837	V021425.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:19	VOA9_458837	V021425.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:19	VOA9_458837	V021425.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:19	VOA9_458837	V021425.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 05:19	VOA9_458837	V021425.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:19	VOA9_458837	V021425.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:19	VOA9_458837	V021425.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020577	

Volatiles by EPA Volatiles Organics by Method 8260C

16WW24-240207	Collected	Received	Matrix	Basis
HS24020577-03	02/07/24 08:35	02/08/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/16/24 00:10	VOA9_458988	V021508.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 00:10	VOA9_458988	V021508.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 00:10	VOA9_458988	V021508.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 00:10	VOA9_458988	V021508.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/16/24 00:10	VOA9_458988	V021508.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 00:10	VOA9_458988	V021508.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 00:10	VOA9_458988	V021508.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020577

Volatiles by EPA Volatiles Organics by Method 8260C

16WW24-240207-FD	Collected	Received	Matrix	Basis
HS24020577-04	02/07/24 08:35	02/08/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 05:41	VOA9_458837	V021426.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:41	VOA9_458837	V021426.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:41	VOA9_458837	V021426.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:41	VOA9_458837	V021426.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 05:41	VOA9_458837	V021426.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:41	VOA9_458837	V021426.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 05:41	VOA9_458837	V021426.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020577	

Volatiles by EPA Volatiles Organics by Method 8260C

16WW27-240207	Collected	Received	Matrix	Basis
HS24020577-05	02/07/24 09:25	02/08/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/16/24 04:13	VOA9_458988	V021519.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:13	VOA9_458988	V021519.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:13	VOA9_458988	V021519.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:13	VOA9_458988	V021519.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/16/24 04:13	VOA9_458988	V021519.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:13	VOA9_458988	V021519.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:13	VOA9_458988	V021519.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020577	

Volatiles by EPA Volatiles Organics by Method 8260C

16WW43-240207	Collected	Received	Matrix	Basis
HS24020577-06	02/07/24 10:05	02/08/24 09:30	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/16/24 04:36	VOA9_458988	V021520.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:36	VOA9_458988	V021520.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:36	VOA9_458988	V021520.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:36	VOA9_458988	V021520.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/16/24 04:36	VOA9_458988	V021520.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:36	VOA9_458988	V021520.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/16/24 04:36	VOA9_458988	V021520.D

Form 1 - Organic Analysis Data Sheet

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP Site 16	HS24020577	

Volatiles by EPA Volatiles Organics by Method 8260C

Trip Blank-240207

	Collected	Received	Matrix	Basis
HS24020577-07	02/07/24 00:00	02/08/24 09:30	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	02/15/24 23:48	VOA9_458988	V021507.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 23:48	VOA9_458988	V021507.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 23:48	VOA9_458988	V021507.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 23:48	VOA9_458988	V021507.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	02/15/24 23:48	VOA9_458988	V021507.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 23:48	VOA9_458988	V021507.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	02/15/24 23:48	VOA9_458988	V021507.D

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Form 2

System Monitoring Compound Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

ALS Environmental–Houston Laboratory
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Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020577

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458837

CCV

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	CCV V021402.D	Aqueous	02/14/24 20:50	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021402.D	47.96	50	95.9		80-120
4-Bromofluorobenzene	V021402.D	51.74	50	103		80-120
Dibromofluoromethane	V021402.D	48.7	50	97.4		80-120
Toluene-d8	V021402.D	50.77	50	102		80-120

16WW23-240207

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-01	Groundwater	02/15/24 04:56	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021424.D	46	50	92.6		81-118
4-Bromofluorobenzene	V021424.D	44	50	88.4		85-114
Dibromofluoromethane	V021424.D	46	50	91.4		80-119
Toluene-d8	V021424.D	47	50	94.9		89-112

16WW23-240207-FD

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-02	Groundwater	02/15/24 05:19	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021425.D	45	50	90.3		81-118
4-Bromofluorobenzene	V021425.D	44	50	87.0		85-114
Dibromofluoromethane	V021425.D	44	50	87.8		80-119
Toluene-d8	V021425.D	46	50	91.8		89-112

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Workorder: HS24020577

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID: VOA9-458837

16WW24-240207-FD

Lab Sample ID	Matrix	Analysis Date	Conc Units	Dilution
HS24020577-04	Groundwater	02/15/24 05:41	%REC	1

Instrument ID: VOA9

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021426.D	46	50	92.6		81-118
4-Bromofluorobenzene	V021426.D	43	50	86.7		85-114
Dibromofluoromethane	V021426.D	46	50	91.3		80-119
Toluene-d8	V021426.D	47	50	93.2		89-112

VBLKW-240214

Lab Sample ID	Matrix	Analysis Date	Conc Units	Dilution
VBLKW-240214	Aqueous	02/14/24 22:18	%REC	1

Instrument ID: VOA9

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021406.D	47.88	50	95.8		81-118
4-Bromofluorobenzene	V021406.D	47.45	50	94.9		85-114
Dibromofluoromethane	V021406.D	47.65	50	95.3		80-119
Toluene-d8	V021406.D	49.71	50	99.4		89-112

VLCSDW-240214

Lab Sample ID	Matrix	Analysis Date	Conc Units	Dilution
VLCSDW-240214	Aqueous	02/14/24 21:34	%REC	1

Instrument ID: VOA9

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021404.D	46.53	50	93.1		81-118
4-Bromofluorobenzene	V021404.D	50.25	50	101		85-114
Dibromofluoromethane	V021404.D	47.08	50	94.2		80-119
Toluene-d8	V021404.D	49.73	50	99.5		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020577

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458837

VLCSW-240214

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	VLCSW-240214	Aqueous	02/14/24 21:12	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021403.D	45.07	50	90.1		81-118
4-Bromofluorobenzene	V021403.D	48.79	50	97.6		85-114
Dibromofluoromethane	V021403.D	46.2	50	92.4		80-119
Toluene-d8	V021403.D	49.36	50	98.7		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020577

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458988

CCV

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	CCV V021502.D	Aqueous	02/15/24 21:57	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021502.D	49.85	50	99.7		80-120
4-Bromofluorobenzene	V021502.D	49.51	50	99.0		80-120
Dibromofluoromethane	V021502.D	49.32	50	98.6		80-120
Toluene-d8	V021502.D	49.66	50	99.3		80-120

16WW24-240207

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-03	Groundwater	02/16/24 00:10	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021508.D	53	50	106		81-118
4-Bromofluorobenzene	V021508.D	46	50	91.8		85-114
Dibromofluoromethane	V021508.D	51	50	102		80-119
Toluene-d8	V021508.D	51	50	102		89-112

16WW24-240207

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-03MS	Aqueous	02/16/24 00:32	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021509.D	52.08	50	104		81-118
4-Bromofluorobenzene	V021509.D	51.72	50	103		85-114
Dibromofluoromethane	V021509.D	51.27	50	103		80-119
Toluene-d8	V021509.D	53.16	50	106		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020577**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458988

16WW24-240207

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-03MSD	Aqueous	02/16/24 00:54	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021510.D	52.96	50	106		81-118
4-Bromofluorobenzene	V021510.D	51.08	50	102		85-114
Dibromofluoromethane	V021510.D	52.25	50	105		80-119
Toluene-d8	V021510.D	53.32	50	107		89-112

16WW27-240207

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-05	Groundwater	02/16/24 04:13	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021519.D	56	50	111		81-118
4-Bromofluorobenzene	V021519.D	44	50	88.8		85-114
Dibromofluoromethane	V021519.D	51	50	103		80-119
Toluene-d8	V021519.D	49	50	98.3		89-112

16WW43-240207

		Matrix	Analysis Date	Conc Units	Dilution
Lab Sample ID	HS24020577-06	Groundwater	02/16/24 04:36	%REC	1
Instrument ID	VOA9				

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021520.D	55	50	111		81-118
4-Bromofluorobenzene	V021520.D	44	50	88.7		85-114
Dibromofluoromethane	V021520.D	52	50	104		80-119
Toluene-d8	V021520.D	50	50	99.2		89-112

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Workorder: HS24020577

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID: VOA9-458988

Trip Blank-240207

Lab Sample ID	Matrix	Analysis Date	Conc Units	Dilution
HS24020577-07	Water	02/15/24 23:48	%REC	1

Instrument ID: VOA9

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021507.D	52	50	104		81-118
4-Bromofluorobenzene	V021507.D	46	50	91.0		85-114
Dibromofluoromethane	V021507.D	50	50	101		80-119
Toluene-d8	V021507.D	50	50	99.4		89-112

VBLKW-240215

Lab Sample ID	Matrix	Analysis Date	Conc Units	Dilution
VBLKW-240215	Aqueous	02/15/24 23:03	%REC	1

Instrument ID: VOA9

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021505.D	44.97	50	89.9		81-118
4-Bromofluorobenzene	V021505.D	43.05	50	86.1		85-114
Dibromofluoromethane	V021505.D	43.16	50	86.3		80-119
Toluene-d8	V021505.D	44.6	50	89.2		89-112

VLCSW-240215

Lab Sample ID	Matrix	Analysis Date	Conc Units	Dilution
VLCSW-240215	Aqueous	02/15/24 22:19	%REC	1

Instrument ID: VOA9

Surrogate	FileID	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	V021503.D	49.09	50	98.2		81-118
4-Bromofluorobenzene	V021503.D	49.39	50	98.8		85-114
Dibromofluoromethane	V021503.D	49.15	50	98.3		80-119
Toluene-d8	V021503.D	49.87	50	99.7		89-112

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Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

ALS Environmental–Houston Laboratory
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www.alsglobal.com

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020577

SAMPLENUM HS24020577-03MS

Volatiles by EPA Volatiles Organics by Method 8260C

16WW24-240207 (HS24020577-03)				HS24020577-03MS				HS24020577-03MSD						
Spike Matrix Aqueous		Result Units ug/L		Run Date 02/16/24				Run Date 02/16/24						
Instrument ID VOA9				Run Time 00:32				Run Time 00:54						
				Data File V021509.D				Data File V021510.D						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,2-Trichloroethane	80-119	1	0	22.7714	20	114		22.8645	20	114		20	0.408	
1,1-Dichloroethene	71-131	1	0	23.8857	20	119		24.0987	20	120		20	0.888	
1,2-Dichloroethane	73-128	1	0	22.7650	20	114		22.9054	20	115		20	0.615	
cis-1,2-Dichloroethene	78-123	1	0	22.7397	20	114		22.7202	20	114		20	0.0858	
Methylene chloride	74-124	1	0	21.0058	20	105		20.8744	20	104		20	0.627	
Trichloroethene	79-123	1	0	23.3521	20	117		22.3690	20	112		20	4.3	
Vinyl chloride	58-137	1	0	23.4461	20	117		23.3637	20	117		20	0.352	

Q - %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits %R - %Recovery DF - Dilution Factor Amt - Amount (weight or volume)

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Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020577

SAMPLENUM VLCSW-240214

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_458837			VLCSW-240214			VLCSDW-240214					
Spike Matrix Aqueous	Result Units ug/L		Run Date 02/14/24 Run Time 21:12			Run Date 02/14/24 Run Time 21:34					
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
1,1,2-Trichloroethane	80-119	20	22.71	114		22.95	115		20	1.06	
1,1-Dichloroethene	71-131	20	20.74	104		20.34	102		20	1.93	
1,2-Dichloroethane	73-128	20	22.23	111		21.42	107		20	3.7	
cis-1,2-Dichloroethene	78-123	20	19.73	99		19.95	100		20	1.12	
Methylene chloride	74-124	20	20.58	103		21.46	107		20	4.18	
Trichloroethene	79-123	20	22.72	114		23.5	118		20	3.38	
Vinyl chloride	58-137	20	20.87	104		20.39	102		20	2.34	

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder HS24020577

SAMPLENUM VLCSW-240215

Volatiles by EPA Volatiles Organics by Method 8260C

VOA9_458988			VLCSW-240215				
Spike Matrix Aqueous	Result Units ug/L		Run Date 02/15/24 Run Time 22:19				
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q		
1,1,2-Trichloroethane	80-119	20	20.68	103			
1,1-Dichloroethene	71-131	20	20.27	101			
1,2-Dichloroethane	73-128	20	21	105			
cis-1,2-Dichloroethene	78-123	20	21.99	110			
Methylene chloride	74-124	20	19.45	97.2			
Trichloroethene	79-123	20	21.97	110			
Vinyl chloride	58-137	20	20.55	103			

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Form 4

Method Blank Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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 Site 16
Workorder: HS24020577

Volatiles by EPA Volatiles Organics by Method 8260C

METHOD BLANK	Matrix	Analysis Date	Analysis Batch	Inst ID
VBLKW-240214	Aqueous	02/14/24 22:18	R458837	VOA9

Client Sample ID	Lab Sample ID	Type	Analysis Date	Analysis Batch	Inst ID	FileID
VLCSW-240214	VLCSW-240214	LCS	02/14/24 21:12	R458837	VOA9	V021403.D
VLCSDW-240214	VLCSDW-240214	LCSD	02/14/24 21:34	R458837	VOA9	V021404.D
16WW23-240207	HS24020577-01	SAMP	02/15/24 04:56	R458837	VOA9	V021424.D
16WW23-240207-FD	HS24020577-02	SAMP	02/15/24 05:19	R458837	VOA9	V021425.D
16WW24-240207-FD	HS24020577-04	SAMP	02/15/24 05:41	R458837	VOA9	V021426.D

Form 4 - Method Blank Summary

Client: Bhate Environmental Associates, Inc.
Project: LHAAP Site 16
Workorder: HS24020577

Volatiles by EPA Volatiles Organics by Method 8260C

METHOD BLANK	Matrix	Analysis Date	Analysis Batch	Inst ID
VBLKW-240215	Aqueous	02/15/24 23:03	R458988	VOA9

Client Sample ID	Lab Sample ID	Type	Analysis Date	Analysis Batch	Inst ID	FileID
VLCSW-240215	VLCSW-240215	LCS	02/15/24 22:19	R458988	VOA9	V021503.D
Trip Blank-240207	HS24020577-07	SAMP	02/15/24 23:48	R458988	VOA9	V021507.D
16WW24-240207	HS24020577-03	SAMP	02/16/24 00:10	R458988	VOA9	V021508.D
16WW24-240207	HS24020577-03MS	MS	02/16/24 00:32	R458988	VOA9	V021509.D
16WW24-240207	HS24020577-03MSD	MSD	02/16/24 00:54	R458988	VOA9	V021510.D
16WW27-240207	HS24020577-05	SAMP	02/16/24 04:13	R458988	VOA9	V021519.D
16WW43-240207	HS24020577-06	SAMP	02/16/24 04:36	R458988	VOA9	V021520.D

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Form 5

Instrument Performance Check

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9

Lab File ID: U020901 DFTPP Injection Date: 02/09/24

Instrument ID: VOA9 DFTPP Injection Time: 0740

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	45.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	100.1
175	5.0 - 9.0% of mass 174	8.7 (8.7)1
176	95.0 - 101.0% of mass 174	97.5 (97.4)1
177	5.0 - 9.0% of mass 176	6.6 (6.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD00.25	VSTD00.25	U020902	02/09/24	0922
02	VSTD00.5	VSTD00.5	U020903	02/09/24	0944
03	VSTD001	VSTD001	U020904	02/09/24	1006
04	VSTD002	VSTD002	U020905	02/09/24	1029
05	VSTD005	VSTD005	U020906	02/09/24	1051
06	VSTD020	VSTD020	U020907	02/09/24	1113
07	VSTD050	VSTD050	U020908	02/09/24	1135
08	VSTD100	VSTD100	U020909	02/09/24	1158
09	VSTD150	VSTD150	U020910	02/09/24	1220
10	VSTD200	VSTD200	U020911	02/09/24	1242
11	ICV	ICV	U020913	02/09/24	1327
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020577**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458837

Tune File V021401.D 02/14/24 2/14/2024

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	15.6 (15.6)
75	30.0 - 60.0% of mass 95	45.2 (45.2)
95	Base peak, 100% RA	100 (91.1)
96	5.0 - 9.0% of mass 95	7.1 (7.1)
173	Less than 2.0% of mass 174	0 (0) 1
174	greater than 50.0% of mass 95	109.7 (110) 1
175	5.0 - 9.0% of mass 174	9.7 (8.83) 1
176	> 95% but < 101% of mass 174	108.1 (98.5) 1
177	5.0 - 9.0% of mass 176	7.2 (6.65) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	2/14/2024	V021402	CCV
2	VLCSW-	LCS	2/14/2024	V021403	VLCSW-240214
3	VLCSDW-	LCSD	2/14/2024	V021404	VLCSDW-240214
4	VBLKW-	MBLK	2/14/2024	V021406	VBLKW-240214
5	HS24020577-	SAMP	2/15/2024	V021424	16WW23-240207
6	HS24020577-	SAMP	2/15/2024	V021425	16WW23-240207-FD
7	HS24020577-	SAMP	2/15/2024	V021426	16WW24-240207-FD
8	CCV-END	CCV_EN	2/15/2024	V021427	CCV-END

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9

Lab File ID: U021501 DFTPP Injection Date: 02/15/24

Instrument ID: VOA9 DFTPP Injection Time: 1603

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.5
75	30.0 - 60.0% of mass 95	48.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	93.9
175	5.0 - 9.0% of mass 174	7.3 (7.8)1
176	95.0 - 101.0% of mass 174	90.0 (95.8)1
177	5.0 - 9.0% of mass 176	5.4 (6.0)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD00.25	VSTD00.25	U021502	02/15/24	1625
02	VSTD00.5	VSTD00.5	U021503	02/15/24	1647
03	VSTD001	VSTD001	U021504	02/15/24	1709
04	VSTD002	VSTD002	U021505	02/15/24	1732
05	VSTD005	VSTD005	U021506	02/15/24	1754
06	VSTD020	VSTD020	U021507	02/15/24	1816
07	VSTD050	VSTD050	U021508	02/15/24	1838
08	VSTD100	VSTD100	U021509	02/15/24	1900
09	VSTD150	VSTD150	U021510	02/15/24	1922
10	VSTD200	VSTD200	U021511	02/15/24	1944
11	ICV	ICV	U021513	02/15/24	2029
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP Site 16

Workorder **HS24020577**

Volatiles by EPA Volatiles Organics by Method 8260C

RUNID VOA9-458988

Tune File V021501.D 02/15/24 2/15/2024

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	20.2 (20.2)
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	7.6 (7.59)
173	Less than 2.0% of mass 174	0 (0) 1
174	greater than 50.0% of mass 95	79.9 (79.9) 1
175	5.0 - 9.0% of mass 174	6.9 (8.69) 1
176	> 95% but < 101% of mass 174	76 (95.1) 1
177	5.0 - 9.0% of mass 176	5.2 (6.87) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	2/15/2024	V021502	CCV
2	VLCSW-	LCS	2/15/2024	V021503	VLCSW-240215
3	VBLKW-	MBLK	2/15/2024	V021505	VBLKW-240215
4	HS24020577-	SAMP	2/15/2024	V021507	Trip Blank-240207
5	HS24020577-	SAMP	2/16/2024	V021508	16WW24-240207
6	HS24020577-	MS	2/16/2024	V021509	HS24020577-03MS
7	HS24020577-	MSD	2/16/2024	V021510	HS24020577-03MSD
8	HS24020577-	SAMP	2/16/2024	V021519	16WW27-240207
9	HS24020577-	SAMP	2/16/2024	V021520	16WW43-240207
10	CCV-END	CCV_EN	2/16/2024	V021528	CCV-END

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Form 6

Initial Calibration Data

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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

Report Date : 15-Feb-2024 12:24 Page 1

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Calibration File Names:
Level 1: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020902.D
Level 2: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020903.D
Level 3: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020904.D
Level 4: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D
Level 5: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D
Level 6: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D
Level 7: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020908.D
Level 8: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020909.D
Level 9: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020910.D
Level 10: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D

Compound	0.2500000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
2 Dichlorodifluoromethane	+++++	907	1508	2577	6902	27310					
	69589	142137	224828	297253			LINR	0.00255	0.32866		0.99854
3 Chloromethane	+++++	1281	2409	3934	8108	33475					
	80606	165791	256738	364440			LINR	0.00907	0.39182		0.99923
4 Propionitrile	+++++	0.06367	0.06892	0.04886	0.04684	0.05053					
	0.05123	0.05041	0.05210	0.05070			AVRG		0.05370		13.81094

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Vinyl Chloride	+++++	1370	1927	3412	7991	37094					
	92433	190664	290301	396253			LINR	0.00129	0.43367		0.99967
6 Bromomethane	+++++	1565	2599	3483	6995	23818					
	58408	122501	199120	274596			LINR	0.01225	0.29723		0.99796
7 Chloroethane	+++++	835	1401	2571	6630	25799					
	66462	129608	202297	273442			LINR	-0.00583	0.29935		0.99924
8 Trichlorofluoromethane	+++++	1847	2869	5784	13984	59528					
	150246	304288	458326	621502			LINR	-0.00811	0.68183		0.99959
9 Acrolein	+++++	+++++	279	413	908	3533					
	8060	16273	23107	33950			LINR	-0.04997	0.01803		0.99913
10 Acetone	+++++	1848	2336	3695	6278	24798					
	56771	111939	166382	219721			LINR	-0.10621	0.12074		0.99863
11 1,1-Dichloroethene	+++++	1102	1781	3506	7671	34207					
	88113	176082	274360	372803			LINR	0.00303	0.40805		0.99938

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
12 Isobutyl Alcohol	+++++	0.06470	0.05527	0.04297	0.04261	0.04516					
	0.04593	0.04643	0.04967	0.04888			AVRG		0.04907		14.30443
13 Acetonitrile	+++++	0.04397	0.05008	0.03892	0.04459	0.03918					
	0.03946	0.03953	0.04022	0.03812			AVRG		0.04156		9.40537
14 Allyl Chloride	+++++	2623	3615	7042	16899	69739					
	175939	361060	547492	733286			LINR	-0.00813	0.80804		0.99928
15 Iodomethane	+++++	1327	2369	5358	16927	95233					
	266005	543854	+++++	+++++			LINR	0.03639	0.61682		0.99959
16 Acrylonitrile	+++++	738	1158	2213	5479	22101					
	54913	115719	171648	235255			LINR	-0.00964	0.12868		0.99979
17 Methylene Chloride	+++++	2539	3682	5315	10413	41234					
	99973	199305	302564	405366			LINR	-0.02769	0.44414		0.99929
18 Methyl tert-butyl ether	+++++	3059	4946	9274	23203	94025					
	236782	489347	747890	1023738			LINR	0.00217	1.11846		0.99967

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
19 Carbon Disulfide	+++++	1.55194	1.40676	1.06487	1.04257	1.09505					
	1.11745	1.10607	1.17408	1.14413			AVRG		1.18921		14.53602
20 trans-1,2-Dichloroethene	+++++	1223	2406	4308	8449	40157					
	98160	204716	310253	425570			LINR	0.00071	0.46479		0.99974
21 Vinyl Acetate	+++++	1.26588	1.18715	0.86129	0.85524	0.88643					
	0.94049	0.91488	0.98986	0.95177			AVRG		0.98367		14.80312
22 1,1-Dichloroethane	+++++	1948	3356	6310	14081	62090					
	156179	312101	492499	662807			LINR	0.00216	0.72727		0.99905
23 Chloroprene	+++++	379	752	1068	2540	10723					
	26781	54641	90341	123052			LINR	0.02339	0.13424		0.99783
24 2-Butanone	+++++	0.18677	0.17098	0.13755	0.12203	0.14259					
	0.14925	0.14929	0.15421	0.15106			AVRG		0.15152		12.31014
25 Methacrylonitrile	+++++	0.45129	0.42992	0.40786	0.34609	0.32310					
	0.33646	0.34310	0.35028	0.34072			AVRG		0.36987		12.64528

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
26 2,2-Dichloropropane	+++++	0.78806	0.66854	0.54601	0.48656	0.55051					
	0.55774	0.56094	0.60957	0.58314			AVRG		0.59456		14.77281
27 cis-1,2-Dichloroethene	+++++	0.64621	0.72515	0.51180	0.48270	0.51076					
	0.52483	0.50493	0.53462	0.51741			AVRG		0.55093		14.55155
28 Chloroform	+++++	2075	4001	6621	16177	68933					
	176056	352850	545173	735037			LINR	-0.00294	0.80695		0.99934
29 Bromochloromethane	+++++	750	1379	2531	5510	24362					
	62198	119737	181633	241921			LINR	-0.02154	0.26676		0.99886
31 1,1,1-Trichloroethane	+++++	0.89313	0.87988	0.58165	0.62962	0.66913					
	0.69189	0.69179	0.74070	0.70946			AVRG		0.72081		14.51334
32 1,1-Dichloropropene	+++++	1840	2580	4621	10861	49955					
	126795	255824	398596	540113			LINR	0.00281	0.41302		0.99918
33 1,2-Dichloroethane	+++++	1585	2847	5396	11071	51739					
	130130	254319	388749	523717			LINR	-0.01401	0.40105		0.99918

ALS Laboratory Group

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2024 09:22
End Cal Date : 09-FEB-2024 12:42
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
34 Carbon Tetrachloride	+++++	0.53508	0.51552	0.42977	0.39176	0.43372						
	0.44112	0.42974	0.46351	0.45507			AVRG		0.45503		9.84915	
37 Benzene	+++++	4782	8539	14779	33049	149249						
	375334	760852	1187546	1608657			LINR	0.00259	1.22973		0.99915	
38 Trichloroethene	+++++	1597	2818	4366	10696	47513						
	120027	245643	379920	517591			LINR	0.00354	0.39513		0.99936	
39 Bromodichloromethane	+++++	0.55611	0.44317	0.37489	0.34469	0.41718						
	0.42192	0.40224	0.43198	0.42470			AVRG		0.42410		13.72635	
40 Methyl Methacrylate	+++++	0.35673	0.35067	0.24017	0.27283	0.26983						
	0.29093	0.30696	0.31992	0.30477			AVRG		0.30142		12.60358	
41 2-Chloroethylvinyl ether	+++++	+++++	+++++	0.00122	0.00073	0.00245						
	0.00215	0.00387	0.00488	0.00519			AVRG		0.00293		59.75125	<-
42 1,2-Dichloropropane	+++++	1218	2163	4042	7727	35658						
	92135	182962	286290	385455			LINR	-0.00139	0.29520		0.99899	

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Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10							
43 2-Nitropropane	+++++	0.87947	0.83430	0.60067	0.61496	0.69726					
	0.71892	0.73685	0.78194	0.77233			AVRG		0.73741		12.54093
44 Dibromomethane	+++++	0.22779	0.26752	0.20569	0.18111	0.21244					
	0.21604	0.19467	0.20807	0.20209			AVRG		0.21283		11.44942
45 4-Methyl-2-Pentanone	+++++	0.35251	0.31190	0.23583	0.22440	0.27001					
	0.27429	0.27092	0.28471	0.28885			AVRG		0.27927		13.65206
46 cis-1,3-Dichloropropene	+++++	0.48540	0.43647	0.37826	0.33341	0.42127					
	0.46391	0.46492	0.50976	0.49931			AVRG		0.44363		13.10883
49 Ethyl Methacrylate	+++++	0.38603	0.34638	0.33442	0.34418	0.37844					
	0.39596	0.39428	0.42928	0.41964			AVRG		0.38096		8.79464
50 Toluene	+++++	2.07291	1.70797	1.43284	1.32102	1.51629					
	1.49853	1.41153	1.48634	1.47635			AVRG		1.54709		14.39741
51 trans-1,3-Dichloropropene	+++++	818	1606	3131	7589	44026					
	121449	258370	407217	554885			LINR	0.03366	0.42601		0.99894

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 2-Hexanone	+++++	1322	2163	3749	8227	40547					
	105869	227893	357378	493142			LINR	0.05064	0.19932		0.99925
53 1,1,2-Trichloroethane	+++++	950	1420	3115	6711	29813					
	75785	151138	234464	318353			LINR	-0.00424	0.25782		0.99960
54 1,3-Dichloropropane	+++++	1884	3251	5927	13330	61623					
	161117	321486	492698	671252			LINR	-0.00352	0.54386		0.99970
55 Dibromochloromethane	+++++	0.47483	0.40133	0.31181	0.30759	0.39087					
	0.42419	0.40022	0.41806	0.42272			AVRG		0.39462		13.63740
56 Tetrachloroethene	+++++	1157	2061	3789	9440	40498					
	101511	206130	322517	435734			LINR	0.00008	0.35352		0.99956
57 1,2-Dibromoethane	+++++	0.36697	0.36508	0.33135	0.31136	0.35439					
	0.35724	0.33690	0.34857	0.34426			AVRG		0.34624		5.11266
58 1-Chlorohexane	+++++	2590	2981	4112	8072	30758					
	74982	155922	243289	328757			LINR	-0.00956	0.25039		0.99904

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
59 Chlorobenzene	+++++	3697	6126	12192	26047	116535						
	299817	601383	936714	1257280			LINR	-0.00419	1.02278		0.99957	
60 1,1,1,2-Tetrachloroethane	+++++	0.46078	0.46080	0.37671	0.33550	0.38200						
	0.39651	0.37742	0.39819	0.39619			AVRG		0.39823		10.09482	
61 Ethylbenzene	+++++	0.60047	0.61729	0.46115	0.45927	0.51461						
	0.53382	0.50052	0.52578	0.52112			AVRG		0.52600		10.28236	
62 m,p-Xylenes	+++++	0.78705	0.69337	0.55417	0.53900	0.64725						
	0.65948	0.62809	0.65717	0.65184			AVRG		0.64638		11.30021	
63 o-Xylene	+++++	0.71081	0.65897	0.59808	0.51558	0.64999						
	0.66016	0.61584	0.64952	0.63782			AVRG		0.63297		8.53538	
64 Styrene	+++++	1.04472	0.97304	0.84988	0.83998	1.09440						
	1.14368	1.08845	1.15098	1.14011			AVRG		1.03614		11.76692	
65 cis-1,4-Dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-

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66 Bromoform	+++++	0.33267	0.28998	0.24851	0.20614	0.27089					
	0.29892	0.28941	0.31424	0.31777			AVRG		0.28539		13.67563
67 Isopropylbenzene	+++++	1.81462	1.83126	1.43359	1.35449	1.60942					
	1.65347	1.57728	1.66119	1.63096			AVRG		1.61848		9.58695
68 1,1,2,2-Tetrachloroethane	+++++	1437	2264	4391	10355	47752					
	123522	242003	375701	518878			LINR	-0.00379	0.75351		0.99960
71 1,2,3-Trichloropropane	+++++	0.86255	1.05835	0.79368	0.67556	0.71745					
	0.77873	0.75686	0.80362	0.78248			AVRG		0.80326		13.60449
72 trans-1,4-Dichloro-2-butene	+++++	0.06653	0.09138	0.07880	0.06446	0.07062					
	0.08003	0.08227	0.08630	0.09135			AVRG		0.07908		12.70659
73 n-Propylbenzene	+++++	3.82034	3.25727	2.46525	2.60719	3.06370					
	3.13984	3.04056	3.21217	3.20423			AVRG		3.09006		12.62935
74 Bromobenzene	+++++	1584	2658	4619	11779	56951					
	143938	288234	453792	612518			LINR	-0.00106	0.89742		0.99928

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75 1,3,5-Trimethylbenzene	+++++	2.63514	2.31176	1.93345	1.95433	2.31544					
	2.43034	2.36165	2.48668	2.40318			AVRG		2.31466		10.02655
76 2-Chlorotoluene	+++++	2.68341	2.37426	1.89143	1.76345	1.95376					
	1.97812	1.91132	1.99450	1.91793			AVRG		2.05202		14.07935
77 4-Chlorotoluene	+++++	2.96423	2.67671	2.12775	1.93511	2.27990					
	2.27281	2.18021	2.30305	2.22224			AVRG		2.32911		13.23200
78 tert-Butylbenzene	+++++	2.54341	2.35496	1.83122	1.80050	2.08978					
	2.13026	2.08065	2.16949	2.06558			AVRG		2.11843		10.91744
79 1,2,4-Trimethylbenzene	+++++	2.49030	2.36671	1.94325	1.93309	2.28698					
	2.39238	2.31976	2.44952	2.36538			AVRG		2.28304		8.97251
80 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
81 sec-Butylbenzene	+++++	3.18791	2.98628	2.23663	2.29988	2.60319					
	2.73185	2.69178	2.82999	2.73044			AVRG		2.69977		11.13594

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82 p-Isopropyltoluene	+++++	2.82825	2.44767	1.87743	1.94855	2.39290						
	2.55446	2.53126	2.66366	2.55189			AVRG		2.42178		12.99221	
83 1,3-Dichlorobenzene	+++++	2757	4590	8846	20783	97541						
	246607	502145	787039	1055922			LINR	-0.00195	1.55125		0.99923	
84 1,4-Dichlorobenzene	+++++	3199	5524	10205	21781	102103						
	253657	523178	801340	1084669			LINR	-0.00805	1.58864		0.99958	
85 bis(2-Chloro-isopropyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
86 Benzyl Chloride	+++++	1114	1659	2971	7297	33746						
	106029	266227	459017	673728			QUAD	0.03930	2.47859	-0.31374	0.99860	
87 n-Butylbenzene	+++++	2.00512	1.96904	1.60242	1.58943	1.82880						
	1.99989	1.98942	2.11502	2.02230			AVRG		1.90238		9.92174	
88 1,2-Dichlorobenzene	+++++	2762	4790	9072	20035	95888						
	243811	488949	762567	1028628			LINR	-0.00530	1.50750		0.99936	

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89 1,2-Dibromo-3-Chloropropane	+++++	72.00000	191	613	1238	7047					
	20432	44556	71535	102920			LINR	0.05747	0.14852		0.99792
90 1,2,4-Trichlorobenzene	+++++	1.01221	1.09694	0.77635	0.80425	0.98893					
	1.03804	1.04446	1.08766	1.05830			AVRG		0.98968		11.93156
91 Hexachlorobutadiene	+++++	860	1570	2247	5773	27240					
	71490	147841	225725	309875			LINR	0.00202	0.45241		0.99980
92 Naphthalene	+++++	2654	4198	8602	21969	130928					
	351457	739697	1165768	1594607			LINR	0.02490	2.33701		0.99940
93 1,2,3-Trichlorobenzene	+++++	0.91405	1.10659	0.80226	0.81400	0.94892					
	0.98962	0.93844	1.01084	0.97068			AVRG		0.94393		10.02496
130 Ethyl Acetate	+++++	1001	2103	4030	6852	29757					
	77144	153125	235617	323855			LINR	-0.00358	0.35252		0.99963
131 Methyl Acrylate	+++++	0.37459	0.44066	0.47963	0.41396	0.38464					
	0.39253	0.40642	0.42694	0.41993			AVRG		0.41548		7.67471

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132 n-Butanol	+++++	465	707	1236	3384	15663					
	45058	99387	162932	224072			LINR	1.10001	0.01228		0.99752
133 Ethyl Acrylate	+++++	0.85005	0.88597	0.70796	0.85040	0.82984					
	0.88090	0.90863	0.95265	0.93744			AVRG		0.86709		8.33873
134 Cyclohexanone	+++++	0.04083	0.03060	0.02338	0.02943	0.03036					
	0.03173	0.03134	0.03244	0.03093			AVRG		0.03123		14.32777
135 1,4-Dioxane	72.00000	308	478	742	1680	9244					
	22915	48044	74347	100798			LINR	0.19282	0.00553		0.99940
136 n-Hexane	+++++	1133	1770	2842	7699	33189					
	86336	180035	280489	381403			LINR	0.01362	0.41820		0.99931
137 n-Pentane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
138 Freon TF	+++++	1206	1903	3605	8106	34996					
	88837	178255	280437	374690			LINR	0.00015	0.41241		0.99893

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146 Methyl Acetate	+++++	726	2321	3096	5663	25789						
	64996	131072	197033	272795			LINR	-0.00812	0.29644		0.99987	
147 Methylcyclohexane	+++++	0.61840	0.59616	0.49358	0.56972	0.60363						
	0.62501	0.62387	0.66326	0.65680			AVRG		0.60560		8.40954	
149 Isopropyl alcohol	+++++	1338	2389	5220	8964	35913						
	95411	202950	308676	415230			LINR	0.04153	0.02286		0.99924	
152 Amyl alcohol	+++++	563	804	1113	2584	15715						
	46354	101657	167568	233541			LINR	1.22785	0.00944		0.99723	<-
150 Allyl alcohol	+++++	1133	1770	2842	7699	33189						
	86336	180035	280489	381403			LINR	0.27243	0.02091		0.99931	
151 4-Methyl-2-pentanol	+++++	3817	5668	11002	31481	153731						
	399304	884233	1459098	2014969			LINR	1.06560	0.07686		0.99698	
148 Tert-butyl alcohol	+++++	2997	3825	7150	16928	69193						
	173854	360713	547562	748988			LINR	-0.02055	0.04092		0.99971	

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139 Diethyl ether	+++++	732	1393	2342	6168	24074					
	62060	125748	185997	252083			LINR	-0.01472	0.27684		0.99951
140 1,3-Butadiene	+++++	1034	1880	2918	6867	32002					
	83934	167421	256882	353164			LINR	0.00342	0.38539		0.99967
141 Cyclohexane	+++++	2861	4524	6449	12221	47234					
	116003	240373	370929	509886			LINR	-0.00527	0.55372		0.99951
142 Tetrahydrofuran	+++++	561	572	990	2954	9512					
	25951	53751	81271	113004			LINR	0.00725	0.06139		0.99973
143 1-Chlorobutane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
144 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
145 alpha-Methylstyrene	+++++	996	2213	4011	10802	59463					
	161960	346480	550685	744171			LINR	0.02750	1.09588		0.99906

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153 Tetraethyl lead	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
154 2,3-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
155 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
156 Diisopropyl ether	+++++	1.31920	1.33709	1.11450	1.13464	1.09639						
	1.12681	1.09696	1.15524	1.11586			AVRG		1.16630		8.02921	
157 n-Heptane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
158 Dichlorofluoromethane	+++++	0.86949	0.89991	0.78116	0.71363	0.67533						
	0.67165	0.66017	0.69135	0.65281			AVRG		0.73505		12.69866	
159 Propylene oxide	+++++	+++++	81.00000	572	1008	3888						
	7793	16012	23413	32675			LINR	-0.08543	0.01758		0.99953	<-

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Start Cal Date : 09-FEB-2024 09:22
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Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Last Edit : 15-Feb-2024 11:14 VOA9.i

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
160 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
161 3-Methyl-1-butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
162 Butyl acrylate	+++++	1055	1464	3846	9254	44204						
	132648	316240	540481	753691			QUAD	0.03407	2.02198	-0.17264	0.99857	
163 Butyl methacrylate	+++++	0.53346	0.54491	0.54108	0.56094	0.44384						
	0.46304	0.49934	0.57927	0.56984			AVRG		0.52619		9.02613	
164 Dicyclopentadiene	+++++	2.96020	2.87260	2.57046	2.64654	2.50743						
	2.63278	2.57601	2.71567	2.57512			AVRG		2.67298		5.66424	
165 4-Vinyl-1-cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
166 1,2,3-Trimethylbenzene	+++++	1.74925	1.77105	1.64671	1.60948	1.71451						
	1.73903	1.65508	1.76098	1.67589			AVRG		1.70244		3.38099	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
167 Ethanol	+++++	367	603	929	1465	6987					
	17697	35912	56305	74560			LINR	-0.12210	0.00411		0.99868
168 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
170 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000
172 tert-Butyl formate	+++++	1692	2140	4458	11099	42450					
	115450	251341	401953	570864			LINR	0.08877	0.30849		0.99791
173 3,3-Dimethyl-1-butanol	+++++	2924	3895	7767	16416	78105					
	188703	411223	659546	911976			LINR	0.56488	0.03675		0.99849
174 tert-Amyl methyl ether	+++++	1.25458	1.30864	1.32083	1.06053	1.09656					
	1.16550	1.14517	1.22605	1.20760			AVRG		1.19838		7.48934
175 tert-Butyl ethyl ether	+++++	1.23147	1.19949	1.00949	1.11075	1.05326					
	1.12038	1.10880	1.18732	1.14883			AVRG		1.12998		6.26472

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
176 tert-Amyl alcohol	+++++	1680	1782	3734	10755	43101						
	115450	251341	401953	570864			LINR	0.91403	0.03086		0.99798	
177 Dimethyl ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
178 Ethylene oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
179 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
180 1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
181 2-Furfural	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
182 Epichlorohydrin	+++++	24.00000	217	553	1420	6430						
	18021	39784	67174	92467			LINR	0.25882	0.01768		0.99600	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
183 2-Methylpropane(1)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
184 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
185 Isoprene	+++++	0.13239	0.12715	0.12236	0.09375	0.10267	AVRG		0.10863		13.42256	
	0.10487	0.09981	0.09810	0.09658								
186 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
187 n-Amyl acetate	+++++	1619	2428	4630	9522	41714	QUAD	0.01142	2.50185	-0.26505	0.99897	
	112669	257180	439239	616175								
188 Isopropyl acetate	+++++	0.90773	0.78344	0.60553	0.58623	0.66077	AVRG		0.69012		14.39698	
	0.65179	0.63910	0.69161	0.68489								

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
189 n-Butyl acetate	+++++	1760	2500	3378	8826	35752						
	83180	165842	259125	352075			LINR	-0.01572	0.28376		0.99940	
190 Propanal	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
191 n-Buteraldehyde	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
192 Isobuteraldehyde	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
193 2-Ethyl-1-hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
194 Acetaldehyde	+++++	173	736	947	3492	14266						
	31551	81064	107895	144165			QUAD	0.13204	20.35987	7.58271	0.99687	
195 Methyl Amyl Ketone	+++++	0.47070	0.49292	0.41973	0.43621	0.48060						
	0.52283	0.55871	0.61457	0.63200			AVRG		0.51425		14.50094	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
196 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
197 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
198 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
199 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
200 Dimethyl Disulfide	+++++	537	1377	2597	6785	35657						
	114686	288382	501140	717349			QUAD	0.04803	2.24932	-0.24661	0.99818	
201 1-Butene(1)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
202 Isobutylene	+++++	475	951	1684	4184	14885					
	36833	77662	118906	160570			LINR	-0.00307	0.17611		0.99937
203 2-Ethylhexyl Acrylate	+++++	268	864	1755	5622	29386					
	93637	226006	369480	503204			LINR	0.07187	0.74411		0.99707
M 94 1,2-Dichloroethylene (total)	+++++	0.64437	0.71180	0.51353	0.45566	0.48810					
	0.49015	0.48198	0.50374	0.48967			AVRG		0.53100		16.29360
M 95 Xylenes (total)	+++++	0.70440	0.61935	0.51055	0.48763	0.60877					
	0.61342	0.58266	0.62586	0.60618			AVRG		0.59542		10.78305
$ 30 Dibromofluoromethane	+++++	1601	2659	4395	12182	46132					
	111088	225353	339618	471863			LINR	-0.00876	0.51162		0.99988
$ 35 1,2-Dichloroethane-d4	+++++	1632	2589	4833	11550	46575					
	114391	226192	338611	468937			LINR	-0.01505	0.50914		0.99986
$ 48 Toluene-d8	+++++	5559	9135	14699	39372	159212					
	391087	794101	1215187	1698429			LINR	-0.00110	1.36113		0.99943

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 69 4-Bromofluorobenzene	+++++	2317	3587	5431	13924	59177					
	144170	295803	452247	620366			LINR	-0.00574	0.50049		0.99976

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Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

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INITIAL CALIBRATION DATA

Start Cal Date : 15-FEB-2024 16:25
End Cal Date : 15-FEB-2024 19:44
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
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Calibration File Names:
Level 1: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021502.D
Level 2: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D
Level 3: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021504.D
Level 4: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Level 5: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021506.D
Level 6: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D
Level 7: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021508.D
Level 8: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D
Level 9: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021510.D
Level 10: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D

Compound	0.2500000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
2 Dichlorodifluoromethane	+++++	1.61858	1.12258	0.61888	0.62557	0.56807						
	0.49173	0.51540	0.64993	0.53167			AVRG		0.74916		50.35413	<-
3 Chloromethane	+++++	2.84597	1.67801	1.03633	0.98373	0.85980						
	0.73862	0.72198	0.98802	0.77621			AVRG		1.18096		58.27978	<-
4 Propionitrile	+++++	0.28822	0.18152	0.11494	0.10335	0.09839						
	0.09559	0.09426	0.12111	0.09580			AVRG		0.13257		48.64639	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
5 Vinyl Chloride	+++++	2686	4995	9607	21964	89488						
	207106	441981	729037	+++++			QUAD	-0.04560	1.55780	-0.18096	0.99914	
6 Bromomethane	+++++	1.80589	1.22496	0.68925	0.55743	0.41926						
	0.36615	0.38797	0.47970	0.39160			AVRG		0.70247		70.28693	<-
7 Chloroethane	+++++	1.89697	1.51071	0.86524	0.68755	0.60774						
	0.53054	0.52372	0.65280	0.50415			AVRG		0.86438		57.60059	<-
8 Trichlorofluoromethane	+++++	3.33651	2.11934	1.24336	1.15978	1.05137						
	0.89484	0.92208	1.16571	0.93162			AVRG		1.42496		56.70696	<-
9 Acrolein	+++++	70.00000	187	740	1669	5380						
	13924	28448	43606	+++++			QUAD	-0.06738	46.13002	-68.74463	0.99924	
10 Acetone	+++++	1.69464	1.15336	0.42056	0.32602	0.28207						
	0.27480	0.24121	0.30246	0.23167			AVRG		0.54742		94.62568	<-
11 1,1-Dichloroethene	+++++	1843	3507	6759	14587	61875						
	141341	289798	485516	+++++			QUAD	-0.05222	2.35008	-0.41085	0.99841	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
12 Isobutyl Alcohol	+++++	0.17065	0.11549	0.08353	0.08371	0.08476						
	0.08197	0.08442	0.10862	0.08947			AVRG		0.10029		28.96965	<-
13 Acetonitrile	+++++	931	2213	3614	7819	29219						
	73241	144866	225497	+++++			QUAD	-0.51030	45.48124	-13.56455	0.99883	
14 Allyl Chloride	+++++	3.62214	1.80415	1.18489	0.97106	0.88937						
	0.83348	0.78859	1.00188	0.79187			AVRG		1.32083		69.59013	<-
15 Iodomethane	+++++	0.77617	0.57066	0.37596	0.52233	0.66338						
	0.67269	0.72859	+++++	+++++			AVRG		0.61568		22.21458	<-
16 Acrylonitrile	+++++	1469	3409	6963	12265	55078						
	142490	281335	467729	+++++			QUAD	-0.08290	4.75766	-0.82813	0.99846	
17 Methylene Chloride	+++++	4152	7151	10938	20251	77125						
	174452	346045	+++++	+++++			LINR	-0.05485	0.60198		0.99936	
18 Methyl tert-butyl ether	+++++	4423	8958	20219	39677	160160						
	423342	852991	1427264	+++++			QUAD	-0.03883	0.79328	-0.04693	0.99892	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
19 Carbon Disulfide	+++++	5.75144	3.37944	1.97160	1.88178	1.76681						
	1.56474	1.58589	2.04759	1.64875			AVRG		2.39978		57.23704	<-
20 trans-1,2-Dichloroethene	+++++	1525	4050	7041	17111	70382						
	171444	351188	581359	+++++			QUAD	-0.04076	1.92509	-0.27308	0.99882	
21 Vinyl Acetate	+++++	4.16960	2.90264	2.16612	1.96931	1.98896						
	1.92551	1.96002	2.48760	2.02459			AVRG		2.39937		30.77023	<-
22 1,1-Dichloroethane	+++++	3.28166	2.46766	1.49213	1.39857	1.29623						
	1.15979	1.17852	1.49424	1.21434			AVRG		1.66479		43.62069	<-
23 Chloroprene	+++++	536	843	2626	5747	23597						
	56472	123345	199783	+++++			QUAD	-0.03112	5.56090	-2.28473	0.99951	
24 2-Butanone	+++++	0.47709	0.58320	0.28016	0.29782	0.30927						
	0.30563	0.30013	0.39079	0.31788			AVRG		0.36244		28.53218	<-
25 Methacrylonitrile	+++++	845	2142	3192	6743	28858						
	76219	150658	250288	+++++			QUAD	-0.04147	4.45191	-1.45279	0.99856	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
26 2,2-Dichloropropane	+++++	2.67314	1.68437	0.82520	0.86090	0.83556						
	0.77602	0.82690	1.09317	0.88740			AVRG		1.16252		54.47593	<-
27 cis-1,2-Dichloroethene	+++++	2003	3678	8361	18909	78448						
	190476	391824	647036	+++++			QUAD	-0.04014	1.72650	-0.21939	0.99889	
28 Chloroform	+++++	3607	7268	14505	33698	133268						
	316607	648109	1061272	+++++			QUAD	-0.04696	1.04285	-0.07894	0.99876	
29 Bromochloromethane	+++++	1.37745	0.80170	0.42206	0.41767	0.38225						
	0.34070	0.34243	0.43222	0.33905			AVRG		0.53950		64.01861	<-
31 1,1,1-Trichloroethane	+++++	2.41027	1.73221	1.08549	1.08318	0.99615						
	0.90335	0.93942	1.21546	0.99018			AVRG		1.26175		39.45069	<-
32 1,1-Dichloropropene	+++++	1.38218	1.04646	0.63640	0.53485	0.56853						
	0.50701	0.53208	0.68346	0.54779			AVRG		0.71542		41.95561	<-
33 1,2-Dichloroethane	+++++	2663	5952	12481	28362	109373						
	258913	517470	845674	+++++			QUAD	-0.04530	2.12225	-0.31982	0.99871	

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34 Carbon Tetrachloride	+++++	2477	4229	9087	20799	86103						
	209448	442212	+++++	+++++			LINR	-0.00605	0.47531		0.99866	
37 Benzene	+++++	7043	14872	31823	74151	302226						
	721041	1477867	2438420	+++++			QUAD	-0.03763	0.75016	-0.04106	0.99903	
38 Trichloroethene	+++++	2136	4231	7995	17702	74057						
	176731	370838	613589	+++++			QUAD	-0.03806	3.02843	-0.68017	0.99931	
39 Bromodichloromethane	+++++	2117	4384	9982	21410	95243						
	233014	486964	819897	+++++			QUAD	-0.02993	2.30020	-0.39928	0.99931	
40 Methyl Methacrylate	+++++	+++++	0.96498	0.69936	0.64383	0.58384						
	0.52185	0.52642	0.65323	0.53446			AVRG		0.64100		22.87297	<-
41 2-Chloroethylvinyl ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
42 1,2-Dichloropropane	+++++	1.12826	0.76163	0.49376	0.47141	0.48456						
	0.42698	0.44239	0.56124	0.44675			AVRG		0.57966		39.63955	<-

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43 2-Nitropropane	+++++	2.54688	1.90621	1.48432	1.45629	1.56298						
	1.47564	1.54868	2.00603	1.68403			AVRG		1.74123		20.66958	<-
44 Dibromomethane	+++++	0.84742	0.46433	0.29557	0.29051	0.28676						
	0.24914	0.25865	0.32430	0.26032			AVRG		0.36411		52.86674	<-
45 4-Methyl-2-Pentanone	+++++	2977	5697	14827	34940	163146						
	408001	868111	1452742	+++++			QUAD	-0.04027	2.48412	-0.23063	0.99947	
46 cis-1,3-Dichloropropene	+++++	1.30387	0.80686	0.48200	0.48709	0.57395						
	0.56534	0.63093	0.83253	0.67411			AVRG		0.70630		36.29071	<-
49 Ethyl Methacrylate	+++++	0.98448	0.78052	0.47119	0.50859	0.49413						
	0.44962	0.46970	0.61689	0.51090			AVRG		0.58734		30.86719	<-
50 Toluene	+++++	6331	13786	29146	72586	321152						
	766250	1569859	2573676	+++++			QUAD	-0.03184	0.67426	-0.03230	0.99886	
51 trans-1,3-Dichloropropene	+++++	0.71648	0.64484	0.35664	0.36671	0.49316						
	0.48888	0.53421	0.70047	0.56904			AVRG		0.54116		24.20034	<-

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52 2-Hexanone	+++++	0.67734	0.44762	0.28051	0.29933	0.34208						
	0.32630	0.34174	0.43311	0.36106			AVRG		0.38990		31.07899	<-
53 1,1,2-Trichloroethane	+++++	1287	3272	6740	14362	62634						
	144965	296494	481328	+++++			QUAD	-0.03975	3.57000	-0.88944	0.99873	
54 1,3-Dichloropropane	+++++	1.86556	1.36135	0.82546	0.78334	0.81002						
	0.70606	0.71378	0.89695	0.72087			AVRG		0.96482		40.78884	<-
55 Dibromochloromethane	+++++	1364	3319	6848	16676	71845						
	181717	383886	653133	+++++			QUAD	-0.02543	2.82707	-0.60702	0.99947	
56 Tetrachloroethene	+++++	1578	3472	6199	15149	59413						
	140382	290731	481044	+++++			QUAD	-0.04322	3.70619	-0.99837	0.99904	
57 1,2-Dibromoethane	+++++	1.05605	0.73481	0.42545	0.40773	0.41321						
	0.36884	0.37542	0.48416	0.39188			AVRG		0.51751		44.68703	<-
58 1-Chlorohexane	+++++	1.51740	1.26375	0.59452	0.47558	0.41123						
	0.34769	0.37094	0.47108	0.37956			AVRG		0.64797		66.69130	<-

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59 Chlorobenzene	+++++	5026	10769	22406	51478	210166						
	490604	1006357	1660036	+++++			QUAD	-0.04215	1.06207	-0.08101	0.99881	
60 1,1,1,2-Tetrachloroethane	+++++	1.07187	0.71174	0.39638	0.39117	0.40914						
	0.38728	0.39962	0.51450	0.41470			AVRG		0.52182		44.36126	<-
61 Ethylbenzene	+++++	2000	4753	9353	23907	103214						
	247295	513090	863680	+++++			QUAD	-0.03248	2.09391	-0.32526	0.99898	
62 m,p-Xylenes	+++++	5072	10243	22908	58327	262023						
	630783	1310958	2169718	+++++			QUAD	-0.05604	1.62699	-0.09617	0.99905	
63 o-Xylene	+++++	2363	5255	11241	27904	120768						
	302454	637581	1069987	+++++			QUAD	-0.02546	1.69338	-0.21435	0.99943	
64 Styrene	+++++	3596	8645	17274	44038	219130						
	549384	1149524	1912397	+++++			QUAD	-0.01899	0.92841	-0.06344	0.99928	
65 cis-1,4-Dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-

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66 Bromoform	+++++	1108	1984	3819	9703	44824						
	117490	255707	441113	+++++			QUAD	-0.01709	4.29441	-1.43566	0.99976	
67 Isopropylbenzene	+++++	3.93482	2.46191	1.61304	1.74287	1.90141						
	1.75367	1.85041	2.32116	1.87961			AVRG		2.16210		33.29883	<-
68 1,1,2,2-Tetrachloroethane	+++++	4.23645	2.51511	1.41755	1.22869	1.19228						
	1.05642	1.07829	1.35927	1.12184			AVRG		1.68954		62.45559	<-
71 1,2,3-Trichloropropane	+++++	1.84568	1.98548	1.00466	1.10825	1.13266						
	1.02751	1.09777	1.43154	1.21244			AVRG		1.31622		27.62131	<-
72 trans-1,4-Dichloro-2-butene	+++++	+++++	0.13570	0.09520	0.09099	0.10887						
	0.11034	0.11844	0.17643	0.15027			AVRG		0.12328		23.62455	<-
73 n-Propylbenzene	+++++	8.45925	5.56920	3.99106	4.09123	4.33329						
	3.97050	4.04730	5.11409	4.17524			AVRG		4.86124		30.04528	<-
74 Bromobenzene	+++++	2.92494	1.66115	1.01200	1.02310	0.98266						
	0.89001	0.93083	1.18355	0.96751			AVRG		1.28620		51.11623	<-

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75 1,3,5-Trimethylbenzene	+++++	6.43460	3.92803	2.51259	2.81400	3.06375						
	2.80231	2.97268	3.75505	3.06686			AVRG		3.48332		34.33903	<-
76 2-Chlorotoluene	+++++	5.22145	4.24555	2.53510	2.63559	2.71335						
	2.40784	2.45086	3.13457	2.56310			AVRG		3.10082		31.61246	<-
77 4-Chlorotoluene	+++++	5.62720	4.20177	2.79804	2.95313	3.17745						
	2.79053	2.92756	3.66228	2.97458			AVRG		3.45695		27.11702	<-
78 tert-Butylbenzene	+++++	5.43457	3.39585	2.20377	2.40210	2.51846						
	2.27582	2.42740	3.07075	2.53129			AVRG		2.91778		34.95843	<-
79 1,2,4-Trimethylbenzene	+++++	5.92093	3.78733	2.48412	2.81269	3.05480						
	2.80860	2.98357	3.70654	3.04070			AVRG		3.39992		30.41425	<-
80 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
81 sec-Butylbenzene	+++++	7.25293	4.49166	2.92175	3.24795	3.41650						
	3.14884	3.37611	4.27005	3.52454			AVRG		3.96115		33.74168	<-

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82 p-Isopropyltoluene	+++++	4.73237	3.79923	2.55710	2.84255	3.05896						
	2.82826	3.04504	3.84699	3.16393			AVRG		3.31938		20.54893	<-
83 1,3-Dichlorobenzene	+++++	4.80204	2.89087	1.91671	1.88350	1.80684						
	1.61081	1.68695	2.13546	1.77113			AVRG		2.27826		44.77936	<-
84 1,4-Dichlorobenzene	+++++	5.00150	3.14548	2.14832	2.02137	1.89913						
	1.69302	1.77174	2.21102	1.81860			AVRG		2.41224		44.08706	<-
85 bis(2-Chloro-isopropyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
86 Benzyl Chloride	+++++	0.74293	0.50248	0.31759	0.33357	0.45461						
	0.53650	0.68305	0.96370	0.83310			AVRG		0.59639		37.45756	<-
87 n-Butylbenzene	+++++	5.09167	3.18289	2.47753	2.51479	2.74653						
	2.53817	2.76132	3.51778	2.90331			AVRG		3.08155		26.83117	<-
88 1,2-Dichlorobenzene	+++++	4.68046	3.36864	1.93560	1.86437	1.83277						
	1.62878	1.68416	2.10077	1.75021			AVRG		2.31619		44.55231	<-

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89 1,2-Dibromo-3-Chloropropane	+++++	0.36340	0.19425	0.12606	0.12553	0.13070						
	0.12572	0.13730	0.18607	0.16465			AVRG		0.17263		44.25732	<-
90 1,2,4-Trichlorobenzene	+++++	2.51373	1.57869	0.96227	1.02113	1.07914						
	1.03837	1.14974	1.44895	1.23538			AVRG		1.33638		36.43743	<-
91 Hexachlorobutadiene	+++++	1.45496	0.87648	0.56891	0.52076	0.46959						
	0.42302	0.44956	0.58017	0.48720			AVRG		0.64785		51.13914	<-
92 Naphthalene	+++++	3519	6831	16149	42279	241679						
	631757	1339078	2218825	+++++			QUAD	-0.00894	0.41652	-0.01290	0.99956	
93 1,2,3-Trichlorobenzene	+++++	2.88806	1.60462	0.87537	1.01449	1.07597						
	0.99958	1.06322	1.35929	1.15156			AVRG		1.33691		46.45968	<-
130 Ethyl Acetate	+++++	+++++	+++++	0.70477	0.75837	0.70915						
	0.62779	0.61927	0.78559	0.65202			AVRG		0.69385		9.22975	<-
131 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	0.22038	0.17858			AVRG		0.19948		14.81569	<-

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132 n-Butanol	+++++	+++++	0.01991	0.01726	0.01519	0.01565						
	0.01740	0.01896	0.02566	0.02173			AVRG		0.01897		18.25297	<-
133 Ethyl Acrylate	+++++	+++++	+++++	+++++	+++++	0.01078						
	0.00912	0.00852	0.00983	0.00811			AVRG		0.00927		11.45708	<-
134 Cyclohexanone	+++++	0.08511	0.06535	0.04847	0.04306	0.04475						
	0.04942	0.04871	0.06307	0.04975			AVRG		0.05530		24.48606	<-
135 1,4-Dioxane	0.01542	0.03037	0.01379	0.00953	0.00910	0.00731						
	0.00780	0.00798	0.01051	0.00885			AVRG		0.01207		57.60813	<-
136 n-Hexane	+++++	1.51612	1.11555	0.72689	0.75374	0.73296						
	0.64682	0.69832	0.90193	0.73201			AVRG		0.86937		32.27620	<-
137 n-Pentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
138 Freon TF	+++++	1.99425	1.30594	0.75603	0.67796	0.58861						
	0.51376	0.52109	0.66872	0.53958			AVRG		0.84066		59.08335	<-

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146 Methyl Acetate	+++++	+++++	1.75530	0.82860	0.65950	0.62649						
	0.55963	0.54322	0.67667	0.55776			AVRG		0.77590		52.38011	<-
147 Methylcyclohexane	+++++	+++++	0.02874	0.04920	0.02110	0.02809						
	0.03574	0.03935	0.05306	0.04582			AVRG		0.03764		29.93814	<-
149 Isopropyl alcohol	+++++	0.15420	0.08648	0.05818	0.04738	0.04347						
	0.04128	0.03994	0.05205	0.04249			AVRG		0.06283		59.18245	<-
152 Amyl alcohol	+++++	+++++	0.02124	0.01412	0.01071	0.01244						
	0.01296	0.01480	0.01986	0.01690			AVRG		0.01538		23.93711	<-
150 Allyl alcohol	+++++	0.07581	0.05578	0.03634	0.03769	0.03665						
	0.03234	0.03492	0.04510	0.03660			AVRG		0.04347		32.27620	<-
151 4-Methyl-2-pentanol	+++++	0.23397	0.15794	0.10244	0.10132	0.11135						
	0.11086	0.12297	0.16595	0.13610			AVRG		0.13810		31.01402	<-
148 Tert-butyl alcohol	+++++	0.23549	0.15408	0.08677	0.07150	0.06430						
	0.06147	0.06162	0.07804	0.06410			AVRG		0.09749		60.91998	<-

ALS Laboratory Group

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Last Edit : 22-Feb-2024 16:17 Linh.Pham

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
139 Diethyl ether	+++++	1.50370	0.74649	0.55411	0.52062	0.45320						
	0.44642	0.43645	0.54544	0.42059			AVRG		0.62523		55.05427	<-
140 1,3-Butadiene	+++++	1847	4079	9240	19893	85358						
	204149	432924	717788	+++++			QUAD	-0.03655	1.57988	-0.18688	0.99919	
141 Cyclohexane	+++++	3.94296	2.44424	1.38731	1.11419	0.99824						
	0.87754	0.92445	1.19847	0.97457			AVRG		1.54022		66.30743	<-
142 Tetrahydrofuran	+++++	+++++	0.18052	0.20688	0.12225	0.11717						
	0.11671	0.11502	0.14532	0.11647			AVRG		0.14004		25.17244	<-
143 1-Chlorobutane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
144 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
145 alpha-Methylstyrene	+++++	2.33886	1.44097	0.96289	1.01212	1.15784						
	1.11022	1.20390	1.53676	1.26814			AVRG		1.33686		31.35827	<-

ALS Laboratory Group

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
153 Tetraethyl lead	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
154 2,3-Dichlorobutane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
155 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
156 Diisopropyl ether	+++++	4.64565	3.77594	2.25226	2.11388	2.16469						
	2.18296	2.10724	2.71205	2.09279			AVRG		2.67194		34.38875	<-
157 n-Heptane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
158 Dichlorofluoromethane	+++++	3.33133	2.29032	+++++	1.28457	1.18103						
	1.12464	1.09192	1.34098	1.03233			AVRG		1.58464		51.27097	<-
159 Propylene oxide	+++++	+++++	0.18353	0.11463	0.05969	0.06250						
	0.05341	0.04869	0.06157	0.05148			AVRG		0.07944		59.18795	<-

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Method file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Last Edit : 22-Feb-2024 16:17 Linh.Pham

Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
160 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
161 3-Methyl-1-butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
162 Butyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	0.00321	0.00406	0.00589	0.00439			AVRG		0.00439		25.55138	<-
163 Butyl methacrylate	+++++	+++++	+++++	+++++	+++++	0.10730						
	0.10960	0.12140	0.17211	0.13674			AVRG		0.12943		20.52210	<-
164 Dicyclopentadiene	+++++	10.71068	6.83590	4.81918	4.08106	3.99973						
	3.88112	3.86634	4.96338	3.92188			AVRG		5.23103		43.31970	<-
165 4-Vinyl-1-cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
166 1,2,3-Trimethylbenzene	+++++	6.00426	4.09210	2.97247	2.69722	2.69287						
	2.65328	2.66513	3.34636	2.64256			AVRG		3.30736		33.86334	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
167 Ethanol	+++++	0.04191	0.01840	0.01157	0.00937	0.00836						
	0.00770	0.00767	0.00950	0.00803			AVRG		0.01361		81.79716	<-
168 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
170 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
172 tert-Butyl formate	+++++	1.38883	+++++	+++++	0.40086	0.37528						
	0.39543	0.42777	0.58769	0.51781			AVRG		0.58481		62.01622	<-
173 3,3-Dimethyl-1-butanol	+++++	0.11441	+++++	0.05058	0.04887	0.04776						
	0.04732	0.04973	0.06619	0.05564			AVRG		0.06006		37.99661	<-
174 tert-Amyl methyl ether	+++++	3.66457	2.40476	1.66111	1.49831	1.58384						
	1.63869	1.64155	2.17932	1.71682			AVRG		1.99877		34.68804	<-
175 tert-Butyl ethyl ether	+++++	4.49249	2.56436	1.87565	1.61097	1.60208						
	1.68034	1.70714	2.25466	1.78241			AVRG		2.17445		42.65538	<-

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Compound	0.2500000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	50.0000 Level 7	100.0000 Level 8	150.0000 Level 9	200.0000 Level 10								
176 tert-Amyl alcohol	+++++	0.15787	0.07890	0.05457	0.04081	0.03753						
	0.03954	0.04278	0.05877	0.05178			AVRG		0.06251		60.83190	<-
177 Dimethyl ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
178 Ethylene oxide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
179 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
180 1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
181 2-Furfural	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
182 Epichlorohydrin	+++++	+++++	+++++	1465	3848	17509						
	49704	102824	186074	+++++			QUAD	-0.05517	43.85832	-38.46575	0.99934	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
183 2-Methylpropane(1)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
184 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
185 Isoprene	+++++	+++++	0.43565	0.18710	0.27509	0.23384	AVRG		0.23060		39.50457	<-
	0.18165	0.16042	0.20522	0.16581								
186 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
187 n-Amyl acetate	+++++	+++++	+++++	+++++	+++++	0.74901	AVRG		0.81120		15.11143	<-
	0.69029	0.76613	1.00762	0.84293								
188 Isopropyl acetate	+++++	1.51006	1.58296	1.01690	0.97773	1.03640	AVRG		1.19189		20.35811	<-
	+++++	1.03347	1.31570	1.06193								

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
189 n-Butyl acetate	+++++	+++++	1.30441	0.75392	0.73487	0.60359						
	0.49156	0.47807	0.60041	0.49306			AVRG		0.68249		40.00159	<-
190 Propanal	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
191 n-Buteraldehyde	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
192 Isobuteraldehyde	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	
193 2-Ethyl-1-hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
194 Acetaldehyde	+++++	+++++	4370	10033	22369	91174						
	218362	400473	612666	+++++			QUAD	-0.22635	6.23399	-0.54333	0.99658	<-
195 Methyl Amyl Ketone	+++++	+++++	0.97213	0.72699	0.71679	0.88185						
	0.97313	1.04612	1.38669	1.12100			AVRG		0.97809		22.28803	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
196 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
197 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
198 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
199 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
200 Dimethyl Disulfide	+++++ 0.46258	1.06594 0.59099	0.47713 0.85604	0.33941 0.69558	0.33725	0.35757	AVRG		0.57583		44.11810	<-
201 1-Butene(1)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	
(2)	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
202 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++	+++++	+++++			AVRG		0.000e+000		0.000e+000	<-
203 2-Ethylhexyl Acrylate	+++++	+++++	0.76087	0.50724	0.55279	0.76193						
	0.96918	1.11909	1.54111	1.28947			AVRG		0.93771		38.60570	<-
M 94 1,2-Dichloroethylene (total)	+++++	1.82556	1.29289	0.77094	0.75065	0.71292						
	0.65449	0.66276	0.84812	0.67082			AVRG		0.90990		43.54429	<-
M 95 Xylenes (total)	+++++	1.51638	1.03842	0.64073	0.68070	0.73934						
	0.66935	0.70859	0.90023	0.72234			AVRG		0.84623		33.30857	<-
$ 30 Dibromofluoromethane	+++++	1818	4050	6913	18053	75713						
	175024	355456	583421	+++++			QUAD	-0.04567	1.88676	-0.25688	0.99831	
$ 35 1,2-Dichloroethane-d4	+++++	2121	4585	8676	22461	93658						
	216883	435109	711802	+++++			QUAD	-0.04544	1.52981	-0.16680	0.99808	
$ 48 Toluene-d8	+++++	5625	12807	22021	60442	279697						
	663921	1360843	2234434	+++++			QUAD	-0.03048	0.77696	-0.04295	0.99878	

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Compound	0.2500000 Level 1 / 50.0000 Level 7	0.5000000 Level 2 / 100.0000 Level 8	1.0000 Level 3 / 150.0000 Level 9	2.0000 Level 4 / 200.0000 Level 10	5.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
$ 69 4-Bromofluorobenzene	+++++	2332	5364	9030	24236	103152					
	250338	510054	832825	+++++			QUAD	-0.03399	2.07499	-0.30399	0.99895

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Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

right solutions.
right partner.

Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID U020913.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U020913.D

Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 09-FEB-2024 1327

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.0	46.0	92.1	80-120	
1,1,1-Trichloroethane	50.0	44.7	89.5	80-120	
1,1,2,2-Tetrachloroethane	50.0	48.3	96.7	80-120	
Freon TF	50.0	43.5	87.1	80-120	
Methyl Acetate	50.0	45.8	91.6	80-120	
Cyclohexane	50.0	46.0	92.1	80-120	
Methylcyclohexane	50.0	50.1	100	80-120	
Carbon Disulfide	100	86.8	86.9	80-120	
2-Hexanone	100	93.6	93.6	80-120	
1,1,2-Trichloroethane	50.0	48.4	96.9	80-120	
1,1-Dichloroethane	50.0	46.5	93.0	80-120	
1,1-Dichloroethene	50.0	45.4	90.9	80-120	
1,1-Dichloropropene	50.0	47.3	94.7	80-120	
1,2,3-Trichlorobenzene	50.0	50.2	100	80-120	
1,2,3-Trichloropropane	50.0	44.3	88.6	80-120	
1,2,4-Trichlorobenzene	50.0	50.6	101	80-120	
1,2,4-Trimethylbenzene	50.0	49.6	99.3	80-120	
1,2-Dibromo-3-Chloropropane	50.0	45.5	91.1	80-120	
1,2-Dibromoethane	50.0	48.3	96.6	80-120	
Acrolein	100	90.0	90.0	80-120	
Acrylonitrile	100	94.3	94.3	80-120	
1,2-Dichlorobenzene	50.0	47.7	95.4	80-120	
1,2-Dichloroethane	50.0	47.3	94.6	80-120	
1,2-Dichloropropane	50.0	47.1	94.2	80-120	
1,3,5-Trimethylbenzene	50.0	49.7	99.4	80-120	
1,3-Dichlorobenzene	50.0	47.4	94.8	80-120	
1,3-Dichloropropane	50.0	47.9	95.9	80-120	
1,4-Dichlorobenzene	50.0	48.0	96.0	80-120	
1-Chlorohexane	50.0	45.8	91.5	80-120	
2,2-Dichloropropane	50.0	42.7	85.3	80-120	
2-Butanone	100	91.1	91.1	80-120	
2-Chloroethylvinyl ether	100	0.000		80-120	*
2-Chlorotoluene	50.0	45.3	90.7	80-120	
4-Chlorotoluene	50.0	45.8	91.6	80-120	

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID U020913.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix	LIQUID	**Fraction**	VOA
Lab Smp Id	ICV	**Client Smp ID**	ICV
Data Type	MS DATA	**SampleType**	METHSPIKE
File ID	U020913.D	**Inj Date**	09-FEB-2024 1327

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.0	50.1	100	80-120	
4-Methyl-2-Pentanone	100	96.0	96.0	80-120	
Acetone	100	91.9	91.9	80-120	
Acetonitrile	500	444	88.9	80-120	
Allyl Chloride	50.0	48.0	96.1	80-120	
Benzene	50.0	47.4	94.9	80-120	
Bromobenzene	50.0	47.7	95.5	80-120	
Bromochloromethane	50.0	49.4	98.7	80-120	
Bromodichloromethane	50.0	46.0	91.9	80-120	
Bromoform	50.0	48.6	97.3	80-120	
Bromomethane	50.0	53.4	107	80-120	
Carbon Tetrachloride	50.0	44.9	89.7	80-120	
Chlorobenzene	50.0	47.6	95.2	80-120	
Chloroethane	50.0	45.4	90.9	80-120	
Chloroform	50.0	46.3	92.7	80-120	
Chloromethane	50.0	50.8	102	80-120	
Chloroprene	50.0	44.8	89.6	80-120	
cis-1,2-Dichloroethene	50.0	44.5	89.0	80-120	
cis-1,3-Dichloropropene	50.0	50.1	100	80-120	
Dibromochloromethane	50.0	48.7	97.4	80-120	
Dibromomethane	50.0	46.1	92.2	80-120	
Dichlorodifluoromethane	50.0	42.4	84.8	80-120	
Ethylbenzene	50.0	46.5	93.0	80-120	
Ethyl Methacrylate	50.0	52.5	105	80-120	
Iodomethane	100	80.9	80.9	80-120	
Isobutyl Alcohol	1000	879	87.9	70-130	
Propionitrile	500	462	92.5	70-130	
Hexachlorobutadiene	50.0	47.4	94.7	80-120	
Isopropylbenzene	50.0	47.9	95.9	80-120	
m,p-Xylenes	100	96.4	96.4	80-120	
Methyl tert-butyl ether	50.0	46.4	92.7	80-120	
Methylene Chloride	50.0	46.5	93.0	80-120	
Methacrylonitrile	50.0	44.5	89.0	80-120	
Methyl Methacrylate	50.0	47.5	95.1	80-120	

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID U020913.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U020913.D

Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 09-FEB-2024 1327

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.0	48.9	97.9	80-120	
n-Propylbenzene	50.0	49.4	98.9	80-120	
Naphthalene	50.0	47.7	95.3	80-120	
o-Xylene	50.0	48.3	96.6	80-120	
sec-Butylbenzene	50.0	48.0	96.0	80-120	
Styrene	50.0	51.1	102	80-120	
tert-Butylbenzene	50.0	47.2	94.4	80-120	
Tetrachloroethene	50.0	47.4	94.9	80-120	
Toluene	50.0	45.8	91.7	80-120	
trans-1,2-Dichloroethene	50.0	46.4	92.8	80-120	
trans-1,3-Dichloropropene	50.0	45.5	91.1	80-120	
trans-1,4-Dichloro-2-butene	50.0	46.0	92.0	80-120	
Trichloroethene	50.0	47.0	94.1	80-120	
Trichlorofluoromethane	50.0	44.5	88.9	80-120	
Vinyl Acetate	100	90.9	90.9	80-120	
Vinyl Chloride	50.0	45.4	90.8	80-120	
1,2-Dichloroethylene (total)	100	86.8	86.8	80-120	
Xylenes (total)	150	145	96.7	80-120	
1,4-Dioxane	1000	916	91.6	80-120	
Dibromofluoromethane	50.0	47.3	94.6	71-125	
1,2-Dichloroethane-d4	50.0	47.0	94.0	70-125	
Toluene-d8	50.0	49.7	99.4	75-125	
4-Bromofluorobenzene	50.0	48.8	97.7	72-125	

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID U021513.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix	LIQUID	**Fraction**	VOA
Lab Smp Id	ICV	**Client Smp ID**	ICV
Data Type	MS DATA	**SampleType**	METHSPIKE
File ID	U021513.D	**Inj Date**	15-FEB-2024 2029

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.0	0.000		80-120	*
1,1,1-Trichloroethane	50.0	0.000		80-120	*
1,1,2,2-Tetrachloroethane	50.0	0.000		80-120	*
Freon TF	50.0	0.000		80-120	*
Methyl Acetate	50.0	0.000		80-120	*
Cyclohexane	50.0	0.000		80-120	*
Methylcyclohexane	50.0	0.000		80-120	*
1,3-Butadiene	50.0	56.8	114	80-120	
Epichlorohydrin	200	213	106	80-120	
Acetaldehyde	200	215	108	80-120	
Carbon Disulfide	100	0.000		80-120	*
2-Hexanone	100	0.000		80-120	*
1,1,2-Trichloroethane	50.0	58.0	116	80-120	
1,1-Dichloroethane	50.0	0.000		80-120	*
1,1-Dichloroethene	50.0	57.3	115	80-120	
1,1-Dichloropropene	50.0	0.000		80-120	*
1,2,3-Trichlorobenzene	50.0	0.000		80-120	*
1,2,3-Trichloropropane	50.0	0.000		80-120	*
1,2,4-Trichlorobenzene	50.0	0.000		80-120	*
1,2,4-Trimethylbenzene	50.0	0.000		80-120	*
1,2-Dibromo-3-Chloropropane	50.0	0.000		80-120	*
1,2-Dibromoethane	50.0	0.000		80-120	*
Acrolein	100	112	112	80-120	
Acrylonitrile	100	104	104	80-120	
1,2-Dichlorobenzene	50.0	0.000		80-120	*
1,2-Dichloroethane	50.0	56.5	113	80-120	
1,2-Dichloropropane	50.0	0.000		80-120	*
1,3,5-Trimethylbenzene	50.0	0.000		80-120	*
1,3-Dichlorobenzene	50.0	0.000		80-120	*
1,3-Dichloropropane	50.0	0.000		80-120	*
1,4-Dichlorobenzene	50.0	0.000		80-120	*
1-Chlorohexane	50.0	0.000		80-120	*
2,2-Dichloropropane	50.0	0.000		80-120	*
2-Butanone	100	0.000		80-120	*

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID U021513.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix LIQUID
Lab Smp Id ICV
Data Type MS DATA
File ID U021513.D

Fraction VOA
Client Smp ID ICV
SampleType METHSPIKE
Inj Date 15-FEB-2024 2029

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
2-Chloroethylvinyl ether	100	0.000		80-120	*
2-Chlorotoluene	50.0	0.000		80-120	*
4-Chlorotoluene	50.0	0.000		80-120	*
p-Isopropyltoluene	50.0	0.000		80-120	*
4-Methyl-2-Pentanone	100	116	116	80-120	
Acetone	100	0.000		80-120	*
Acetonitrile	500	536	107	80-120	
Allyl Chloride	50.0	0.000		80-120	*
Benzene	50.0	57.4	115	80-120	
Bromobenzene	50.0	0.000		80-120	*
Bromochloromethane	50.0	0.000		80-120	*
Bromodichloromethane	50.0	56.7	113	80-120	
Bromoform	50.0	58.5	117	80-120	
Bromomethane	50.0	0.000		80-120	*
Carbon Tetrachloride	50.0	52.8	106	80-120	
Chlorobenzene	50.0	57.3	115	80-120	
Chloroethane	50.0	0.000		80-120	*
Chloroform	50.0	57.1	114	80-120	
Chloromethane	50.0	0.000		80-120	*
Chloroprene	50.0	55.6	111	80-120	
cis-1,2-Dichloroethene	50.0	57.9	116	80-120	
cis-1,3-Dichloropropene	50.0	0.000		80-120	*
Dibromochloromethane	50.0	57.9	116	80-120	
Dibromomethane	50.0	0.000		80-120	*
Dichlorodifluoromethane	50.0	0.000		80-120	*
Ethylbenzene	50.0	58.4	117	80-120	
Ethyl Methacrylate	50.0	0.000		80-120	*
Iodomethane	100	0.000		80-120	*
Isobutyl Alcohol	1000	0.000		70-130	*
Propionitrile	500	0.000		70-130	*
Hexachlorobutadiene	50.0	0.000		80-120	*
Isopropylbenzene	50.0	0.000		80-120	*
m,p-Xylenes	100	115	115	80-120	
Methyl tert-butyl ether	50.0	51.6	103	80-120	

Form 6I Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID U021513.D

Volatiles by EPA Volatiles Organics by Method 8260C

Sample Matrix	LIQUID	**Fraction**	VOA
Lab Smp Id	ICV	**Client Smp ID**	ICV
Data Type	MS DATA	**SampleType**	METHSPIKE
File ID	U021513.D	**Inj Date**	15-FEB-2024 2029

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
Methylene Chloride	50.0	54.8	110	80-120	
Methacrylonitrile	50.0	56.2	112	80-120	
Methyl Methacrylate	50.0	0.000		80-120	*
n-Butylbenzene	50.0	0.000		80-120	*
n-Propylbenzene	50.0	0.000		80-120	*
Naphthalene	50.0	59.8	120	80-120	
o-Xylene	50.0	57.3	115	80-120	
sec-Butylbenzene	50.0	0.000		80-120	*
Styrene	50.0	57.5	115	80-120	
tert-Butylbenzene	50.0	0.000		80-120	*
Tetrachloroethene	50.0	57.4	115	80-120	
Toluene	50.0	57.8	116	80-120	
trans-1,2-Dichloroethene	50.0	57.7	115	80-120	
trans-1,3-Dichloropropene	50.0	0.000		80-120	*
trans-1,4-Dichloro-2-butene	50.0	0.000		80-120	*
Trichloroethene	50.0	58.1	116	80-120	
Trichlorofluoromethane	50.0	0.000		80-120	*
Vinyl Acetate	100	0.000		80-120	*
Vinyl Chloride	50.0	57.4	115	80-120	
1,2-Dichloroethylene (total)	100	80.0	80.0	80-120	
Xylenes (total)	150	133	88.4	80-120	
1,4-Dioxane	1000	0.000		80-120	*
Dibromofluoromethane	50.0	57.0	114	71-125	
1,2-Dichloroethane-d4	50.0	57.2	114	70-125	
Toluene-d8	50.0	57.3	115	75-125	
4-Bromofluorobenzene	50.0	56.2	112	72-125	

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Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID V021402.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021402.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 14-FEB-2024 2050
ICAL Date(s) 09-FEB-2024, 09-FEB-2024
ICAL Times 09:22, 12:42
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
30 Dibromofluoromethane	50.0	48.7	0.503	0.100	2.61	20.0	Linear	
35 1,2-Dichloroethane-d4	50.0	48.0	0.496	0.100	4.08	20.0	Linear	
48 Toluene-d8	50.0	50.8	1.38	0.100	-1.536	20.0	Linear	
69 4-Bromofluorobenzene	50.0	51.7	0.521	0.100	-3.483	20.0	Linear	
Vinyl Chloride	50.0	51.0	0.442	0.100	-2.042	20.0	Linear	
1,1-Dichloroethene	50.0	51.0	0.415	0.100	-2.043	20.0	Linear	
Methylene Chloride	50.0	53.2	0.485	0.100	-6.322	20.0	Linear	
Methyl tert-butyl ether	50.0	51.3	1.15	0.100	-2.622	20.0	Linear	
trans-1,2-Dichloroethene	50.0	53.1	0.493	0.100	-6.144	20.0	Linear	
cis-1,2-Dichloroethene	0.551	0.569	0.569	0.100	-3.308	20.0	Averaged	
1,2-Dichloroethane	50.0	54.3	0.441	0.100	-8.661	20.0	Linear	
Benzene	50.0	55.6	1.36	0.500	-11.126	20.0	Linear	
Trichloroethene	50.0	57.5	0.453	0.200	-14.954	20.0	Linear	
Tetrachloroethene	50.0	56.0	0.396	0.200	-11.948	20.0	Linear	
1,1,2-Trichloroethane	50.0	57.5	0.297	0.100	-14.951	20.0	Linear	
Toluene	1.55	1.63	1.63	0.400	-5.653	20.0	Averaged	
Ethylbenzene	0.526	0.579	0.579	0.100	-10.162	20.0	Averaged	
m,p-Xylenes	0.646	0.734	0.734	0.100	-13.581	20.0	Averaged	
o-Xylene	0.633	0.715	0.715	0.300	-13.031	20.0	Averaged	
Naphthalene	50.0	59.0	2.70	0.200	-18.044	20.0	Linear	
95 Xylenes (total)	0.595	0.696	0.696	0.100	-16.835	20.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID V021427.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021427.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 15-FEB-2024 0603
ICAL Date(s) 09-FEB-2024, 09-FEB-2024
ICAL Times 09:22, 12:42
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
30 Dibromofluoromethane	50.0	49.7	0.513	0.100	0.605	50.0	Linear	
35 1,2-Dichloroethane-d4	50.0	48.7	0.504	0.100	2.55	50.0	Linear	
48 Toluene-d8	50.0	49.4	1.35	0.100	1.27	50.0	Linear	
69 4-Bromofluorobenzene	50.0	50.3	0.506	0.100	-0.583	50.0	Linear	
Vinyl Chloride	50.0	46.0	0.398	0.100	8.02	50.0	Linear	
1,1-Dichloroethene	50.0	48.3	0.393	0.100	3.44	50.0	Linear	
Methylene Chloride	50.0	53.3	0.486	0.100	-6.598	50.0	Linear	
Methyl tert-butyl ether	50.0	49.9	1.11	0.100	0.239	50.0	Linear	
trans-1,2-Dichloroethene	50.0	50.5	0.469	0.100	-0.974	50.0	Linear	
cis-1,2-Dichloroethene	0.551	0.534	0.534	0.100	3.09	50.0	Averaged	
1,2-Dichloroethane	50.0	53.5	0.435	0.100	-6.952	50.0	Linear	
Benzene	50.0	51.8	1.27	0.500	-3.572	50.0	Linear	
Trichloroethene	50.0	55.2	0.435	0.200	-10.426	50.0	Linear	
Tetrachloroethene	50.0	53.2	0.376	0.200	-6.419	50.0	Linear	
1,1,2-Trichloroethane	50.0	54.4	0.282	0.100	-8.818	50.0	Linear	
Toluene	1.55	1.55	1.55	0.400	-0.032	50.0	Averaged	
Ethylbenzene	0.526	0.537	0.537	0.100	-2.094	50.0	Averaged	
m,p-Xylenes	0.646	0.687	0.687	0.100	-6.269	50.0	Averaged	
o-Xylene	0.633	0.663	0.663	0.300	-4.674	50.0	Averaged	
Naphthalene	50.0	55.9	2.55	0.200	-11.754	50.0	Linear	
95 Xylenes (total)	0.595	0.660	0.660	0.100	-10.812	50.0	Averaged	

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID V021502.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021502.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 15-FEB-2024 2157
ICAL Date(s) 15-FEB-2024, 15-FEB-2024
ICAL Times 16:25, 19:44
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
30 Dibromofluoromethane	50.0	49.3	0.595	0.100	1.35	20.0	Quadratic	
35 1,2-Dichloroethane-d4	50.0	49.9	0.741	0.100	0.292	20.0	Quadratic	
48 Toluene-d8	50.0	49.7	1.43	0.100	0.686	20.0	Quadratic	
69 4-Bromofluorobenzene	50.0	49.5	0.536	0.100	0.988	20.0	Quadratic	
Vinyl Chloride	50.0	46.8	0.685	0.100	6.31	20.0	Quadratic	
1,1-Dichloroethene	50.0	47.8	0.467	0.100	4.48	20.0	Quadratic	
Methylene Chloride	50.0	45.4	0.579	0.100	9.30	20.0	Linear	
Methyl tert-butyl ether	50.0	53.6	1.54	0.100	-7.147	20.0	Quadratic	
trans-1,2-Dichloroethene	50.0	47.6	0.561	0.100	4.74	20.0	Quadratic	
Chloroprene	++++	++++	1.603e+65	0.100	++++	20.0	Quadratic	*
cis-1,2-Dichloroethene	50.0	49.3	0.647	0.100	1.48	20.0	Quadratic	
1,2-Dichloroethane	50.0	48.6	0.521	0.100	2.70	20.0	Quadratic	
Carbon Tetrachloride	50.0	43.6	0.418	0.100	12.7	20.0	Linear	
Benzene	50.0	48.6	1.46	0.500	2.81	20.0	Quadratic	
Trichloroethene	50.0	48.7	0.364	0.200	2.57	20.0	Quadratic	
Tetrachloroethene	50.0	47.9	0.293	0.200	4.22	20.0	Quadratic	
1,1,2-Trichloroethane	50.0	48.5	0.307	0.100	2.90	20.0	Quadratic	
Toluene	50.0	47.9	1.59	0.400	4.25	20.0	Quadratic	
Ethylbenzene	50.0	48.3	0.519	0.100	3.31	20.0	Quadratic	
m,p-Xylenes	100	95.9	0.658	0.100	4.12	20.0	Quadratic	
o-Xylene	50.0	48.3	0.637	0.300	3.33	20.0	Quadratic	
Naphthalene	50.0	49.6	2.62	0.200	0.759	20.0	Quadratic	
4-Methyl-2-Pentanone	100	99.0	0.445	0.100	0.534	20.0	Quadratic	
Acetonitrile	500	443	0.022	0.005	11.4	20.0	Quadratic	
Acrolein	100	97.5	0.024	0.010	2.49	20.0	Quadratic	
Acrylonitrile	100	106	0.254	0.050	-6.114	20.0	Quadratic	
Methacrylonitrile	50.0	53.1	0.272	0.100	-6.284	20.0	Quadratic	
Acetaldehyde	200	237	0.215	0.001	-18.430	20.0	Quadratic	
Styrene	++++	++++	1.603e+65	0.300	++++	20.0	Quadratic	*
1,3-Butadiene	++++	++++	1.603e+65	0.100	++++	20.0	Quadratic	*
Chloroform	++++	++++	1.603e+65	0.200	++++	20.0	Quadratic	*
Chlorobenzene	++++	++++	1.603e+65	0.500	++++	20.0	Quadratic	*
Bromodichloromethane	++++	++++	1.603e+65	0.200	++++	20.0	Quadratic	*
Dibromochloromethane	++++	++++	1.603e+65	0.100	++++	20.0	Quadratic	*

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID V021502.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021502.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date 15-FEB-2024 2157
ICAL Date(s) 15-FEB-2024, 15-FEB-2024
ICAL Times 16:25, 19:44
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Bromoform	++++	++++	1.603e+65	0.100	++++	20.0	Quadratic	*
Epichlorohydrin	++++	++++	1.603e+65	0.001	++++	20.0	Quadratic	*
95 Xylenes (total)	0.846	0.628	0.628	0.100	25.7	20.0	Averaged	*
94 1,2-Dichloroethylene (total	0.910	0.604	0.604	0.200	33.6	20.0	Averaged	*

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID V021528.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021528.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 16-FEB-2024 0733
ICAL Date(s) 15-FEB-2024, 15-FEB-2024
ICAL Times 16:25, 19:44
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
30 Dibromofluoromethane	50.0	54.1	0.656	0.100	-8.210	50.0	Quadratic	
35 1,2-Dichloroethane-d4	50.0	56.3	0.844	0.100	-12.632	50.0	Quadratic	
48 Toluene-d8	50.0	50.5	1.46	0.100	-0.952	50.0	Quadratic	
69 4-Bromofluorobenzene	50.0	50.6	0.548	0.100	-1.220	50.0	Quadratic	
Vinyl Chloride	50.0	55.3	0.816	0.100	-10.541	50.0	Quadratic	
1,1-Dichloroethene	50.0	57.7	0.570	0.100	-15.318	50.0	Quadratic	
Methylene Chloride	50.0	56.8	0.717	0.100	-13.636	50.0	Linear	
Methyl tert-butyl ether	50.0	54.0	1.55	0.100	-8.062	50.0	Quadratic	
trans-1,2-Dichloroethene	50.0	53.7	0.636	0.100	-7.326	50.0	Quadratic	
Chloroprene	++++	++++	1.603e+65	0.100	++++	50.0	Quadratic	*
cis-1,2-Dichloroethene	50.0	55.7	0.738	0.100	-11.455	50.0	Quadratic	
1,2-Dichloroethane	50.0	56.2	0.606	0.100	-12.363	50.0	Quadratic	
Carbon Tetrachloride	50.0	49.5	0.473	0.100	1.03	50.0	Linear	
Benzene	50.0	54.7	1.66	0.500	-9.468	50.0	Quadratic	
Trichloroethene	50.0	52.7	0.395	0.200	-5.312	50.0	Quadratic	
Tetrachloroethene	50.0	49.9	0.306	0.200	0.182	50.0	Quadratic	
1,1,2-Trichloroethane	50.0	53.5	0.339	0.100	-6.914	50.0	Quadratic	
Toluene	50.0	52.8	1.76	0.400	-5.521	50.0	Quadratic	
Ethylbenzene	50.0	51.9	0.561	0.100	-3.900	50.0	Quadratic	
m,p-Xylenes	100	104	0.714	0.100	-3.531	50.0	Quadratic	
o-Xylene	50.0	51.6	0.683	0.300	-3.107	50.0	Quadratic	
Naphthalene	50.0	52.4	2.77	0.200	-4.723	50.0	Quadratic	
4-Methyl-2-Pentanone	100	110	0.496	0.100	-9.858	50.0	Quadratic	
Acetonitrile	500	639	0.032	0.005	-27.813	50.0	Quadratic	
Acrolein	100	136	0.034	0.010	-36.061	50.0	Quadratic	
Acrylonitrile	100	113	0.272	0.050	-12.909	50.0	Quadratic	
Methacrylonitrile	50.0	62.9	0.327	0.100	-25.799	50.0	Quadratic	
Acetaldehyde	200	269	0.245	0.001	-34.273	50.0	Quadratic	
Styrene	50.0	++++	1.25	0.300	++++	50.0	Quadratic	*
1,3-Butadiene	50.0	++++	0.807	0.100	++++	50.0	Quadratic	*
Chloroform	50.0	++++	1.26	0.200	++++	50.0	Quadratic	*
Chlorobenzene	50.0	++++	1.12	0.500	++++	50.0	Quadratic	*
Bromodichloromethane	50.0	++++	0.541	0.200	++++	50.0	Quadratic	*
Dibromochloromethane	50.0	++++	0.412	0.100	++++	50.0	Quadratic	*

Form 7 Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP Site 16

Workorder HS24020577

RunID V021528.D

Volatiles by EPA Volatiles Organics by Method 8260C

Instrument ID VOA9.i
Lab File ID V021528.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date 16-FEB-2024 0733
ICAL Date(s) 15-FEB-2024, 15-FEB-2024
ICAL Times 16:25, 19:44
Quant Type ISTD

Compound	RRF / RRF / Conc	RF50 / RF50	CCV RRF50	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Bromoform	50.0	++++	0.262	0.100	++++	50.0	Quadratic	*
Epichlorohydrin	200	++++	0.026	0.001	++++	50.0	Quadratic	*
95 Xylenes (total)	0.846	0.701	0.701	0.100	17.1	50.0	Averaged	
94 1,2-Dichloroethylene (total	0.910	0.687	0.687	0.200	24.5	50.0	Averaged	

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Form 8

Internal Standard Area and RT Summary

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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 Site 16

Workorder HS24020577

EPA SW8260

VOA9_458837		Pentafluorobenzene				1,4 Difluorobenzene				Chlorobenzene d5				1,4-Dichlorobenzene d4			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12-HOUR STD (CCV)	V021402.D	185244	#	4.82	#	255430	#	5.55	#	244108	#	8.19	#	144982	#	10.17	#
HS24020577-01	V021424.D	150069		4.82		207072		5.55		192202		8.19		104031		10.17	
HS24020577-02	V021425.D	153847		4.82		212631		5.56		194235		8.19		108022		10.17	
HS24020577-04	V021426.D	145306		4.82		204235		5.55		189083		8.19		103604		10.17	
VBLKW-240214	V021406.D	158930		4.82		221792		5.56		212110		8.19		114119		10.17	
VLCSDW-240214	V021404.D	191632		4.82		265001		5.55		249804		8.19		147865		10.17	
VLCSW-240214	V021403.D	202744		4.82		276289		5.55		263283		8.19		155052		10.17	

AREA UPPER LIMIT = +100% of STD IS Area
AREA LOWER LIMIT = - 50% of STD IS Area
RT - Retention IS - Internal StandardTime

RT UPPER LIMIT = + 0.50 of STD IS RT
RT LOWER LIMIT = - 0.50 of 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 Site 16

Workorder **HS24020577**

EPA SW8260

VOA9_458988		Pentafluorobenzene				1,4 Difluorobenzene				Chlorobenzene d5				1,4-Dichlorobenzene d4			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12-HOUR STD (CCV)	V021502.D	306536	#	4.82	#	505047	#	5.55	#	487567	#	8.19	#	252873	#	10.17	#
HS24020577-03	V021508.D	281488		4.82		473910		5.55		436764		8.19		205260		10.17	
HS24020577-03MS	V021509.D	276493		4.82		452421		5.55		432183		8.19		227792		10.17	
HS24020577-03MSD	V021510.D	267758		4.82		445359		5.55		421790		8.19		217514		10.17	
HS24020577-05	V021519.D	254709		4.82		442945		5.55		415048		8.19		193582		10.17	
HS24020577-06	V021520.D	243190		4.82		423941		5.56		395054		8.19		181695		10.17	
HS24020577-07	V021507.D	279356		4.82		469753		5.56		440564		8.19		203252		10.17	
VBLKW-240215	V021505.D	306787		4.82		516066		5.55		474220		8.19		229639		10.17	
VLCSW-240215	V021503.D	314244		4.82		518050		5.55		496568		8.19		256883		10.17	

AREA UPPER LIMIT = +100% of STD IS Area
AREA LOWER LIMIT = - 50% of STD IS Area
RT - Retention IS - Internal StandardTime

RT UPPER LIMIT = + 0.50 of STD IS RT
RT LOWER LIMIT = - 0.50 of STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

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Analysis Run Log

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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

MSVOA09 -Logbook

Batch: 58855 **Analyst:** Tianna Smith

Date: 02-09-2024 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	02-09-2024 07:40 am	1.00	0.00 mL	0.00 mL	U020901.D	Liquid	Y	NA
2	VSTD00.25	ICAL1	02-09-2024 09:22 am	1.00	5.00 mL	0.00 mL	U020902.D	Liquid	Y	NA
3	VSTD00.5	ICAL2	02-09-2024 09:44 am	1.00	5.00 mL	0.00 mL	U020903.D	Liquid	Y	NA
4	VSTD001	ICAL3	02-09-2024 10:06 am	1.00	5.00 mL	0.00 mL	U020904.D	Liquid	Y	NA
5	VSTD002	ICAL4	02-09-2024 10:29 am	1.00	5.00 mL	0.00 mL	U020905.D	Liquid	Y	NA
6	VSTD005	ICAL5	02-09-2024 10:51 am	1.00	5.00 mL	0.00 mL	U020906.D	Liquid	Y	NA
7	VSTD020	ICAL6	02-09-2024 11:13 am	1.00	5.00 mL	0.00 mL	U020907.D	Liquid	Y	NA
8	VSTD050	ICAL7	02-09-2024 11:35 am	1.00	5.00 mL	0.00 mL	U020908.D	Liquid	Y	NA
9	VSTD100	ICAL8	02-09-2024 11:58 am	1.00	5.00 mL	0.00 mL	U020909.D	Liquid	Y	NA
10	VSTD150	ICAL9	02-09-2024 12:20 pm	1.00	5.00 mL	0.00 mL	U020910.D	Liquid	Y	NA
11	VSTD200	ICAL	02-09-2024 12:42 pm	1.00	5.00 mL	0.00 mL	U020911.D	Liquid	Y	NA
12	BLK	SAMP	02-09-2024 01:05 pm	1.00	5.00 mL	0.00 mL	U020912.D	Liquid	Y	NA
13	ICV	ICV	02-09-2024 01:27 pm	1.00	5.00 mL	0.00 mL	U020913.D	Liquid	Y	NA
14	BFB	TUNE	02-09-2024 01:49 pm	1.00	0.00 mL	0.00 mL	V020901.D	Liquid	Y	NA
15	CCV	CCV	02-09-2024 02:11 pm	1.00	5.00 mL	0.00 mL	V020902.D	Liquid	Y	NA
16	CCV	CCV	02-09-2024 02:34 pm	1.00	5.00 mL	0.00 mL	V020903.D	Liquid	Y	NA
17	VLCSW-240209	LCS	02-09-2024 02:56 pm	1.00	5.00 mL	0.00 mL	V020904.D	Liquid	Y	NA
18	VLCSDW-240209	LCSD	02-09-2024 03:18 pm	1.00	5.00 mL	0.00 mL	V020905.D	Liquid	Y	NA
19	BLK	SAMP	02-09-2024 03:46 pm	1.00	5.00 mL	0.00 mL	V020906.D	Liquid	Y	NA
20	VBLKW-240209	MBLK	02-09-2024 04:08 pm	1.00	5.00 mL	0.00 mL	V020907.D	Liquid	Y	NA
21	HS24020406-01	SAMP	02-09-2024 04:31 pm	1.00	5.00 mL	0.00 mL	V020908.D	Liquid	Y	NA
22	HS24020435-01	SAMP	02-09-2024 04:53 pm	1.00	5.00 mL	0.00 mL	V020909.D	Liquid	Y	NA
23	HS24020413-08	SAMP	02-09-2024 05:16 pm	1.00	5.00 mL	0.00 mL	V020910.D	Liquid	Y	NA
24	HS24020386-01	SAMP	02-09-2024 05:38 pm	1.00	5.00 mL	0.00 mL	V020911.D	Liquid	Y	NA
25	HS24020507-01	SAMP	02-09-2024 06:00 pm	1.00	5.00 mL	0.00 mL	V020912.D	Liquid	Y	NA
26	HS24020310-37	SAMP	02-09-2024 06:23 pm	1.00	5.00 mL	0.00 mL	V020913.D	Liquid	Y	NA
27	HS24020310-38	SAMP	02-09-2024 06:45 pm	1.00	5.00 mL	0.00 mL	V020914.D	Liquid	Y	NA
28	HS24020414-01	SAMP	02-09-2024 07:08 pm	1.00	5.00 mL	0.00 mL	V020915.D	Liquid	Y	NA
29	HS24020414-02	SAMP	02-09-2024 07:30 pm	1.00	5.00 mL	0.00 mL	V020916.D	Liquid	Y	NA
30	HS24020414-03	SAMP	02-09-2024 07:53 pm	1.00	5.00 mL	0.00 mL	V020917.D	Liquid	Y	NA
31	HS24020414-04	SAMP	02-09-2024 08:15 pm	1.00	5.00 mL	0.00 mL	V020918.D	Liquid	Y	NA
32	HS24020414-05	SAMP	02-09-2024 08:37 pm	1.00	5.00 mL	0.00 mL	V020919.D	Liquid	Y	NA
33	HS24020414-06	SAMP	02-09-2024 09:00 pm	1.00	5.00 mL	0.00 mL	V020920.D	Liquid	Y	NA
34	HS24020414-07	SAMP	02-09-2024 09:22 pm	1.00	5.00 mL	0.00 mL	V020921.D	Liquid	Y	NA
35	HS24020398-01	SAMP	02-09-2024 09:45 pm	1.00	5.00 mL	0.00 mL	V020922.D	Liquid	Y	NA
36	HS24020381-02	SAMP	02-09-2024 10:07 pm	1.00	5.00 mL	0.00 mL	V020923.D	Liquid	Y	NA
37	HS24020459-01	SAMP	02-09-2024 10:29 pm	1.00	5.00 mL	0.00 mL	V020924.D	Liquid	Y	NA
38	HS24020459-02	SAMP	02-09-2024 10:52 pm	1.00	5.00 mL	0.00 mL	V020925.D	Liquid	Y	NA
39	HS24020466-01	SAMP	02-09-2024 11:14 pm	1.00	5.00 mL	0.00 mL	V020926.D	Liquid	Y	NA
40	HS24020501-01	SAMP	02-09-2024 11:37 pm	1.00	5.00 mL	0.00 mL	V020927.D	Liquid	Y	NA
41	BLK	SAMP	02-09-2024 11:59 pm	1.00	5.00 mL	0.00 mL	V020928.D	Liquid	Y	NA

MSVOA09 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	BLK	SAMP	02-10-2024 12:21 am	1.00	5.00 mL	0.00 mL	V020929.D	Liquid	Y	NA

MSVOA09 -Logbook

Batch: 58879 **Analyst:** Tianna Smith

Date: 02-14-2024 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	02-14-2024 08:51 am	1.00	0.00 mL	0.00 mL	U021401.D	Liquid	Y	NA
2	CCV	CCV	02-14-2024 09:13 am	1.00	5.00 mL	0.00 mL	U021402.D	Liquid	Y	NA
3	VLCSW-240214	LCS	02-14-2024 09:35 am	1.00	5.00 mL	0.00 mL	U021403.D	Liquid	Y	NA
4	BLK	SAMP	02-14-2024 09:58 am	1.00	5.00 mL	0.00 mL	U021404.D	Liquid	Y	NA
5	VBLKW-240214	MBLK	02-14-2024 10:20 am	1.00	5.00 mL	0.00 mL	U021405.D	Liquid	Y	NA
6	HS24020411-01	SAMP	02-14-2024 10:51 am	1.00	5.00 mL	0.00 mL	U021406.D	Liquid	Y	NA
7	HS24020411-03	SAMP	02-14-2024 11:13 am	1.00	5.00 mL	0.00 mL	U021407.D	Liquid	Y	NA
8	HS24020411-04	SAMP	02-14-2024 11:36 am	1.00	5.00 mL	0.00 mL	U021408.D	Liquid	Y	NA
9	HS24020411-05	SAMP	02-14-2024 11:58 am	1.00	5.00 mL	0.00 mL	U021409.D	Liquid	Y	NA
10	HS24020411-06	SAMP	02-14-2024 12:20 pm	1.00	5.00 mL	0.00 mL	U021410.D	Liquid	Y	NA
11	HS24020411-06MS	MS	02-14-2024 12:42 pm	1.00	5.00 mL	0.00 mL	U021411.D	Liquid	Y	NA
12	HS24020411-06MSD	MSD	02-14-2024 01:04 pm	1.00	5.00 mL	0.00 mL	U021412.D	Liquid	Y	NA
13	HS24020411-02	SAMP	02-14-2024 01:26 pm	1.00	5.00 mL	0.00 mL	U021413.D	Liquid	Y	NA
14	HS24020411-07	SAMP	02-14-2024 01:49 pm	1.00	5.00 mL	0.00 mL	U021414.D	Liquid	Y	NA
15	HS24020411-08	SAMP	02-14-2024 02:11 pm	1.00	5.00 mL	0.00 mL	U021415.D	Liquid	Y	NA
16	HS24020411-09	SAMP	02-14-2024 02:33 pm	1.00	5.00 mL	0.00 mL	U021416.D	Liquid	Y	NA
17	HS24020411-10	SAMP	02-14-2024 02:55 pm	1.00	5.00 mL	0.00 mL	U021417.D	Liquid	Y	NA
18	HS24020411-11	SAMP	02-14-2024 03:17 pm	1.00	5.00 mL	0.00 mL	U021418.D	Liquid	Y	NA
19	HS24020411-12	SAMP	02-14-2024 03:39 pm	1.00	5.00 mL	0.00 mL	U021419.D	Liquid	Y	NA
20	HS24020411-13	SAMP	02-14-2024 04:02 pm	1.00	5.00 mL	0.00 mL	U021420.D	Liquid	Y	NA
21	HS24020411-14	SAMP	02-14-2024 04:24 pm	1.00	5.00 mL	0.00 mL	U021421.D	Liquid	Y	NA
22	HS24020269-02	SAMP	02-14-2024 04:46 pm	1.00	5.00 mL	0.00 mL	U021422.D	Liquid	Y	NA
23	HS24020269-05	SAMP	02-14-2024 05:08 pm	1.00	5.00 mL	0.00 mL	U021423.D	Liquid	Y	NA
24	HS24020269-06	SAMP	02-14-2024 05:30 pm	1.00	5.00 mL	0.00 mL	U021424.D	Liquid	Y	NA
25	HS24020269-07	SAMP	02-14-2024 05:52 pm	1.00	5.00 mL	0.00 mL	U021425.D	Liquid	Y	NA
26	HS24020269-08	SAMP	02-14-2024 06:14 pm	1.00	5.00 mL	0.00 mL	U021426.D	Liquid	Y	NA
27	HS24020269-10	SAMP	02-14-2024 06:37 pm	1.00	5.00 mL	0.00 mL	U021427.D	Liquid	Y	NA
28	CCV-END	CCV	02-14-2024 06:59 pm	1.00	5.00 mL	0.00 mL	U021428.D	Liquid	Y	NA
29	BFB	TUNE	02-14-2024 07:21 pm	1.00	0.00 mL	0.00 mL	V021401.D	Liquid	Y	NA
30	CCV	CCV	02-14-2024 08:50 pm	1.00	5.00 mL	0.00 mL	V021402.D	Liquid	Y	NA
31	VLCSW-240214	LCS	02-14-2024 09:12 pm	1.00	5.00 mL	0.00 mL	V021403.D	Liquid	Y	NA
32	VLCSDW-240214	LCSD	02-14-2024 09:34 pm	1.00	5.00 mL	0.00 mL	V021404.D	Liquid	Y	NA
33	BLK	SAMP	02-14-2024 09:56 pm	1.00	5.00 mL	0.00 mL	V021405.D	Liquid	Y	NA
34	VBLKW-240214	MBLK	02-14-2024 10:18 pm	1.00	5.00 mL	0.00 mL	V021406.D	Liquid	Y	NA
35	HS24020576-11	SAMP	02-14-2024 10:40 pm	1.00	5.00 mL	0.00 mL	V021407.D	Liquid	Y	NA
36	HS24020577-07	SAMP	02-14-2024 11:02 pm	1.00	5.00 mL	0.00 mL	V021408.D	Liquid	Y	NA
37	HS24020271-02	SAMP	02-14-2024 11:24 pm	1.00	5.00 mL	0.00 mL	V021409.D	Liquid	Y	NA
38	HS24020271-03	SAMP	02-14-2024 11:46 pm	1.00	5.00 mL	0.00 mL	V021410.D	Liquid	Y	NA
39	HS24020269-11	SAMP	02-15-2024 12:08 am	1.00	5.00 mL	0.00 mL	V021411.D	Liquid	Y	NA
40	HS24020269-12	SAMP	02-15-2024 12:31 am	1.00	5.00 mL	0.00 mL	V021412.D	Liquid	Y	NA
41	HS24020269-13	SAMP	02-15-2024 12:53 am	1.00	5.00 mL	0.00 mL	V021413.D	Liquid	Y	NA

MSVOA09 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	HS24020260-01	SAMP	02-15-2024 01:15 am	1.00	5.00 mL	0.00 mL	V021414.D	Liquid	Y	NA
43	HS24020260-02	SAMP	02-15-2024 01:37 am	1.00	5.00 mL	0.00 mL	V021415.D	Liquid	Y	NA
44	HS24020260-03	SAMP	02-15-2024 01:59 am	1.00	5.00 mL	0.00 mL	V021416.D	Liquid	Y	NA
45	HS24020260-04	SAMP	02-15-2024 02:22 am	1.00	5.00 mL	0.00 mL	V021417.D	Liquid	Y	NA
46	HS24020260-06	SAMP	02-15-2024 02:44 am	1.00	5.00 mL	0.00 mL	V021418.D	Liquid	Y	NA
47	HS24020576-03	SAMP	02-15-2024 03:06 am	1.00	5.00 mL	0.00 mL	V021419.D	Liquid	Y	NA
48	HS24020576-04	SAMP	02-15-2024 03:28 am	1.00	5.00 mL	0.00 mL	V021420.D	Liquid	Y	NA
49	HS24020576-07	SAMP	02-15-2024 03:50 am	1.00	5.00 mL	0.00 mL	V021421.D	Liquid	Y	NA
50	HS24020576-08	SAMP	02-15-2024 04:12 am	1.00	5.00 mL	0.00 mL	V021422.D	Liquid	Y	NA
51	HS24020576-09	SAMP	02-15-2024 04:34 am	1.00	5.00 mL	0.00 mL	V021423.D	Liquid	Y	NA
52	HS24020577-01	SAMP	02-15-2024 04:56 am	1.00	5.00 mL	0.00 mL	V021424.D	Liquid	Y	NA
53	HS24020577-02	SAMP	02-15-2024 05:19 am	1.00	5.00 mL	0.00 mL	V021425.D	Liquid	Y	NA
54	HS24020577-04	SAMP	02-15-2024 05:41 am	1.00	5.00 mL	0.00 mL	V021426.D	Liquid	Y	NA
55	CCV-END	CCV	02-15-2024 06:03 am	1.00	5.00 mL	0.00 mL	V021427.D	Liquid	Y	NA
56	BLK	TUNE	02-15-2024 06:25 am	1.00	0.00 mL	0.00 mL	V021428.D	Liquid	Y	NA

MSVOA09 -Logbook

Batch: 59008 **Analyst:** Tianna Smith

Date: 02-15-2024 **Reviewer:**

Method: 8260 **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	BFB	TUNE	02-15-2024 04:03 pm	1.00	0.00 mL	0.00 mL	U021501.D	Liquid	Y	NA
2	VSTD00.25	ICAL1	02-15-2024 04:25 pm	1.00	5.00 mL	0.00 mL	U021502.D	Liquid	Y	NA
3	VSTD00.5	ICAL2	02-15-2024 04:47 pm	1.00	5.00 mL	0.00 mL	U021503.D	Liquid	Y	NA
4	VSTD001	ICAL3	02-15-2024 05:09 pm	1.00	5.00 mL	0.00 mL	U021504.D	Liquid	Y	NA
5	VSTD002	ICAL4	02-15-2024 05:32 pm	1.00	5.00 mL	0.00 mL	U021505.D	Liquid	Y	NA
6	VSTD005	ICAL5	02-15-2024 05:54 pm	1.00	5.00 mL	0.00 mL	U021506.D	Liquid	Y	NA
7	VSTD020	ICAL6	02-15-2024 06:16 pm	1.00	5.00 mL	0.00 mL	U021507.D	Liquid	Y	NA
8	VSTD050	ICAL7	02-15-2024 06:38 pm	1.00	5.00 mL	0.00 mL	U021508.D	Liquid	Y	NA
9	VSTD100	ICAL8	02-15-2024 07:00 pm	1.00	5.00 mL	0.00 mL	U021509.D	Liquid	Y	NA
10	VSTD150	ICAL9	02-15-2024 07:22 pm	1.00	5.00 mL	0.00 mL	U021510.D	Liquid	Y	NA
11	VSTD200	ICAL	02-15-2024 07:44 pm	1.00	5.00 mL	0.00 mL	U021511.D	Liquid	Y	NA
12	BLK	SAMP	02-15-2024 08:06 pm	1.00	5.00 mL	0.00 mL	U021512.D	Liquid	Y	NA
13	ICV	CCV	02-15-2024 08:29 pm	1.00	5.00 mL	0.00 mL	U021513.D	Liquid	Y	NA
14	BFB	TUNE	02-15-2024 09:13 pm	1.00	0.00 mL	0.00 mL	V021501.D	Liquid	Y	NA
15	CCV	CCV	02-15-2024 09:57 pm	1.00	5.00 mL	0.00 mL	V021502.D	Liquid	Y	NA
16	VLCSW-240215	LCS	02-15-2024 10:19 pm	1.00	5.00 mL	0.00 mL	V021503.D	Liquid	Y	NA
17	BLK	SAMP	02-15-2024 10:41 pm	1.00	5.00 mL	0.00 mL	V021504.D	Liquid	Y	NA
18	VBLKW-240215	MBLK	02-15-2024 11:03 pm	1.00	5.00 mL	0.00 mL	V021505.D	Liquid	Y	NA
19	HS24020801-01	SAMP	02-15-2024 11:26 pm	1.00	5.00 mL	0.00 mL	V021506.D	Liquid	Y	NA
20	HS24020577-07	SAMP	02-15-2024 11:48 pm	1.00	5.00 mL	0.00 mL	V021507.D	Liquid	Y	NA
21	HS24020577-03	SAMP	02-16-2024 12:10 am	1.00	5.00 mL	0.00 mL	V021508.D	Liquid	Y	NA
22	HS24020577-03MS	MS	02-16-2024 12:32 am	1.00	5.00 mL	0.00 mL	V021509.D	Liquid	Y	NA
23	HS24020577-03MSD	MSD	02-16-2024 12:54 am	1.00	5.00 mL	0.00 mL	V021510.D	Liquid	Y	NA
24	HS24020667-01	SAMP	02-16-2024 01:16 am	100.0(	5.00 mL	0.00 mL	V021511.D	Liquid	Y	NA
25	HS24020667-01	SAMP	02-16-2024 01:38 am	5000.0	5.00 mL	0.00 mL	V021512.D	Liquid	Y	NA
26	HS24020269-08	SAMP	02-16-2024 02:00 am	1.00	5.00 mL	0.00 mL	V021513.D	Liquid	Y	NA
27	HS24020269-10	SAMP	02-16-2024 02:23 am	1.00	5.00 mL	0.00 mL	V021514.D	Liquid	Y	NA
28	HS24020269-13	SAMP	02-16-2024 02:45 am	1.00	5.00 mL	0.00 mL	V021515.D	Liquid	Y	NA
29	HS24020271-02	SAMP	02-16-2024 03:07 am	1.00	5.00 mL	0.00 mL	V021516.D	Liquid	Y	NA
30	HS24020269-06	SAMP	02-16-2024 03:29 am	50.00	5.00 mL	0.00 mL	V021517.D	Liquid	Y	NA
31	HS24020269-07	SAMP	02-16-2024 03:51 am	50.00	5.00 mL	0.00 mL	V021518.D	Liquid	Y	NA
32	HS24020577-05	SAMP	02-16-2024 04:13 am	1.00	5.00 mL	0.00 mL	V021519.D	Liquid	Y	NA
33	HS24020577-06	SAMP	02-16-2024 04:36 am	1.00	5.00 mL	0.00 mL	V021520.D	Liquid	Y	NA
34	HS24020801-02	SAMP	02-16-2024 04:58 am	1.00	5.00 mL	0.00 mL	V021521.D	Liquid	Y	NA
35	HS24020801-03	SAMP	02-16-2024 05:20 am	1.00	5.00 mL	0.00 mL	V021522.D	Liquid	Y	NA
36	HS24020576-01	SAMP	02-16-2024 05:42 am	25.00	5.00 mL	0.00 mL	V021523.D	Liquid	Y	NA
37	HS24020576-02	SAMP	02-16-2024 06:04 am	20.00	5.00 mL	0.00 mL	V021524.D	Liquid	Y	NA
38	HS24020576-05	SAMP	02-16-2024 06:26 am	5.00	5.00 mL	0.00 mL	V021525.D	Liquid	Y	NA
39	HS24020576-06	SAMP	02-16-2024 06:48 am	5.00	5.00 mL	0.00 mL	V021526.D	Liquid	Y	NA
40	HS24020576-10	SAMP	02-16-2024 07:10 am	10.00	5.00 mL	0.00 mL	V021527.D	Liquid	Y	NA
41	CCV-END	CCV	02-16-2024 07:33 am	1.00	5.00 mL	0.00 mL	V021528.D	Liquid	Y	NA

MSVOA09 -Logbook

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
42	BLK	SAMP	02-16-2024 07:55 am	1.00	5.00 mL	0.00 mL	V021529.D	Liquid	Y	NA
43	BLK	SAMP	02-16-2024 08:17 am	1.00	5.00 mL	0.00 mL	V021530.D	Liquid	Y	NA

right solutions.
right partner.

RawData

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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\U240208.b\V020827.D Page 1
Report Date: 09-Feb-2024 10:48

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\U240208.b\V020827.D
Lab Smp Id: BLK
Inj Date : 09-FEB-2024 07:40
Operator : FT Inst ID: VOA9.i
Smp Info : BLK
Misc Info : V9;WATER;0;1;
Comment :
Method : \\nahstws005\Target\chem\voa9.i\U240208.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: 55 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7066

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	66104			0.00- 100.00	99.89
9.194	9.180	(0.000)	50	10452			15.00- 40.00	15.81
9.194	9.180	(0.000)	75	29904			30.00- 60.00	45.24
9.194	9.180	(0.000)	96	4979			5.00- 9.00	7.53
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	66176			50.00- 0.00	100.11
9.194	9.180	(0.000)	175	5783			5.00- 9.00	8.74
9.194	9.180	(0.000)	176	64432			95.00- 101.00	97.36
9.194	9.180	(0.000)	177	4331			5.00- 9.00	6.72

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.81
75	30.00 - 60.00% of mass 95	45.24
96	5.00 - 9.00% of mass 95	7.53
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	100.11
175	5.00 - 9.00% of mass 174	8.75 (8.74)
176	95.00 - 101.00% of mass 174	97.47 (97.36)
177	5.00 - 9.00% of mass 176	6.55 (6.72)

Data File: V020827.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 174.00
Number of points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	592	64.00	295	93.00	2773	140.90	648
37.10	2629	65.20	208	94.10	8318	141.80	63
38.10	2120	66.30	53	95.10	66104	142.90	721
39.10	881	68.10	5531	96.10	4979	144.20	64
40.00	118	69.00	6148	97.00	142	144.80	148
43.20	71	70.00	460	103.90	251	146.00	128
44.00	334	72.10	313	104.90	107	147.90	194
45.00	639	73.10	2774	105.90	241	153.10	113
47.10	577	74.10	10000	106.90	102	153.90	106
48.00	487	75.10	29904	115.10	94	154.90	246
49.00	2159	76.10	2841	115.90	325	156.80	91
50.10	10452	77.00	323	116.90	362	159.00	79
51.10	3397	77.90	537	118.00	203	172.00	521
51.90	116	78.90	1315	118.90	329	174.00	66176
55.10	207	79.90	535	124.90	89	175.00	5783
56.00	836	80.90	1464	127.90	254	176.00	64432
57.00	1421	82.00	345	128.80	83	177.00	4331
57.80	61	86.10	148	130.10	226	177.90	143
60.00	519	87.00	2632	130.90	75		
61.00	2432	88.00	2494	134.90	149		
62.10	2540	91.00	218	136.90	111		
63.00	2063	92.10	1630	140.20	109		

Data File: \\NAHSTWS005\Target\chem\voa9.i\u240209.b\u020901.d Page 1

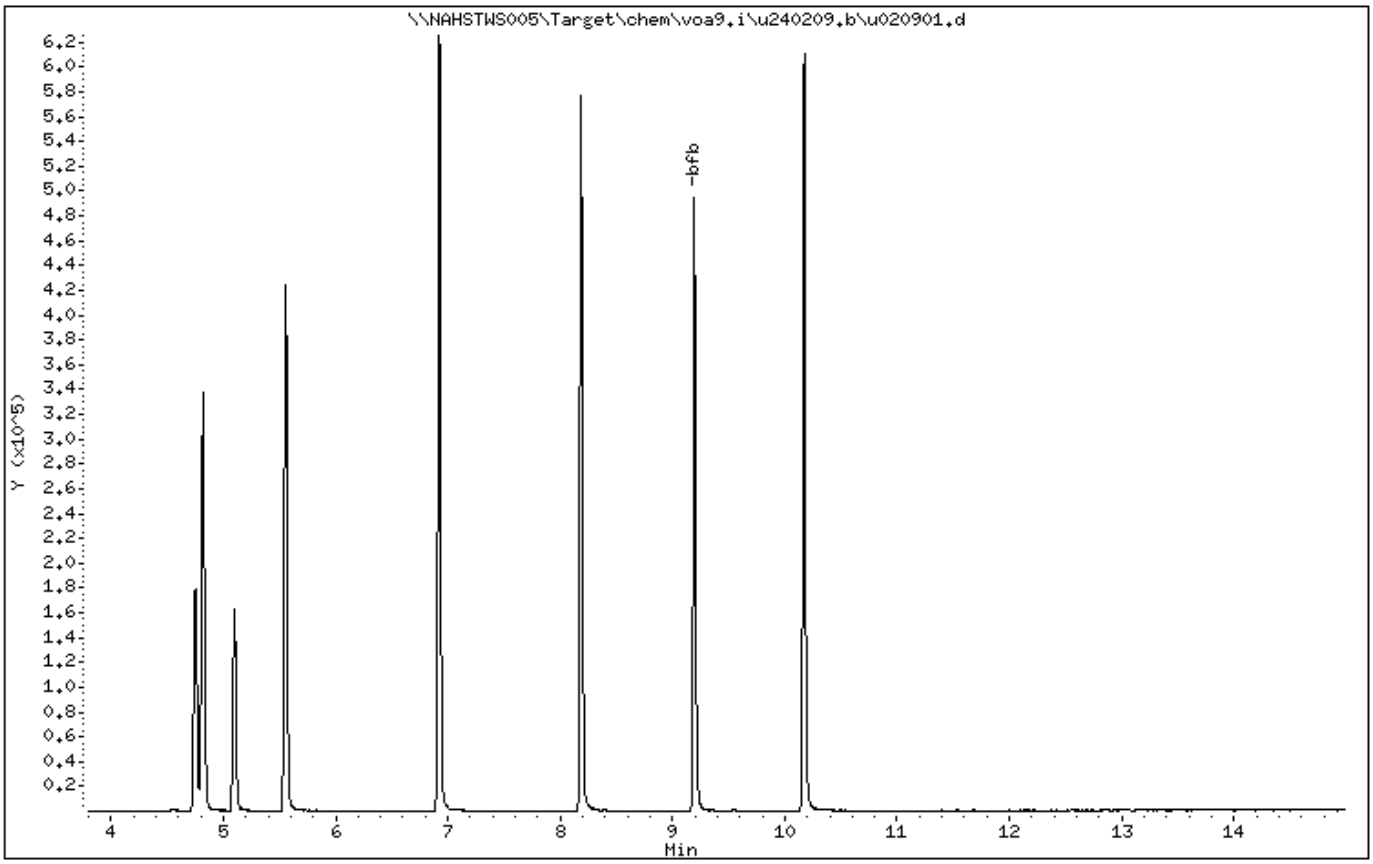
Date : 09-FEB-2024 07:40

Client ID: Instrument: VOA9.i

Sample Info: BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020901.d
Inj Date : 09-FEB-2024 07:40
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020902.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020902.D
Lab Smp Id: VSTD00.25 Client Smp ID: VSTD00.25
Inj Date : 09-FEB-2024 09:22
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD00.25;VSTD00.25;1;1;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	101697	50.0000	
	2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	616	0.25000	1.04
	3 Chloromethane	50	1.299	1.299	(0.270)	883	0.25000	1.56
	5 Vinyl Chloride	62	1.378	1.378	(0.286)	645	0.25000	0.79
	6 Bromomethane	94	1.621	1.621	(0.337)	1137	0.25000	2.49
	8 Trichlorofluoromethane	101	1.895	1.895	(0.394)	1272	0.25000	0.51
	15 Iodomethane	142	2.469	2.469	(0.513)	770	0.50000	2.43(T)
	17 Methylene Chloride	84	2.791	2.791	(0.580)	1956	0.25000	0.78
	18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	1558	0.25000	0.79
	20 trans-1,2-Dichloroethene	96	3.061	3.061	(0.636)	801	0.25000	0.88
	28 Chloroform	83	4.575	4.575	(0.950)	1696	0.25000	0.88
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	1429	0.25000	0.93
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	1119	0.25000	0.76
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	938	0.25000	0.93
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1202	0.25000	0.35
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	1031	0.25000	0.79
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	1646	0.25000	0.83(T)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	142579	50.0000	
	37 Benzene	78	5.145	5.145	(0.926)	2825	0.25000	0.93
	42 1,2-Dichloropropane	63	6.015	6.015	(1.083)	625	0.25000	0.67

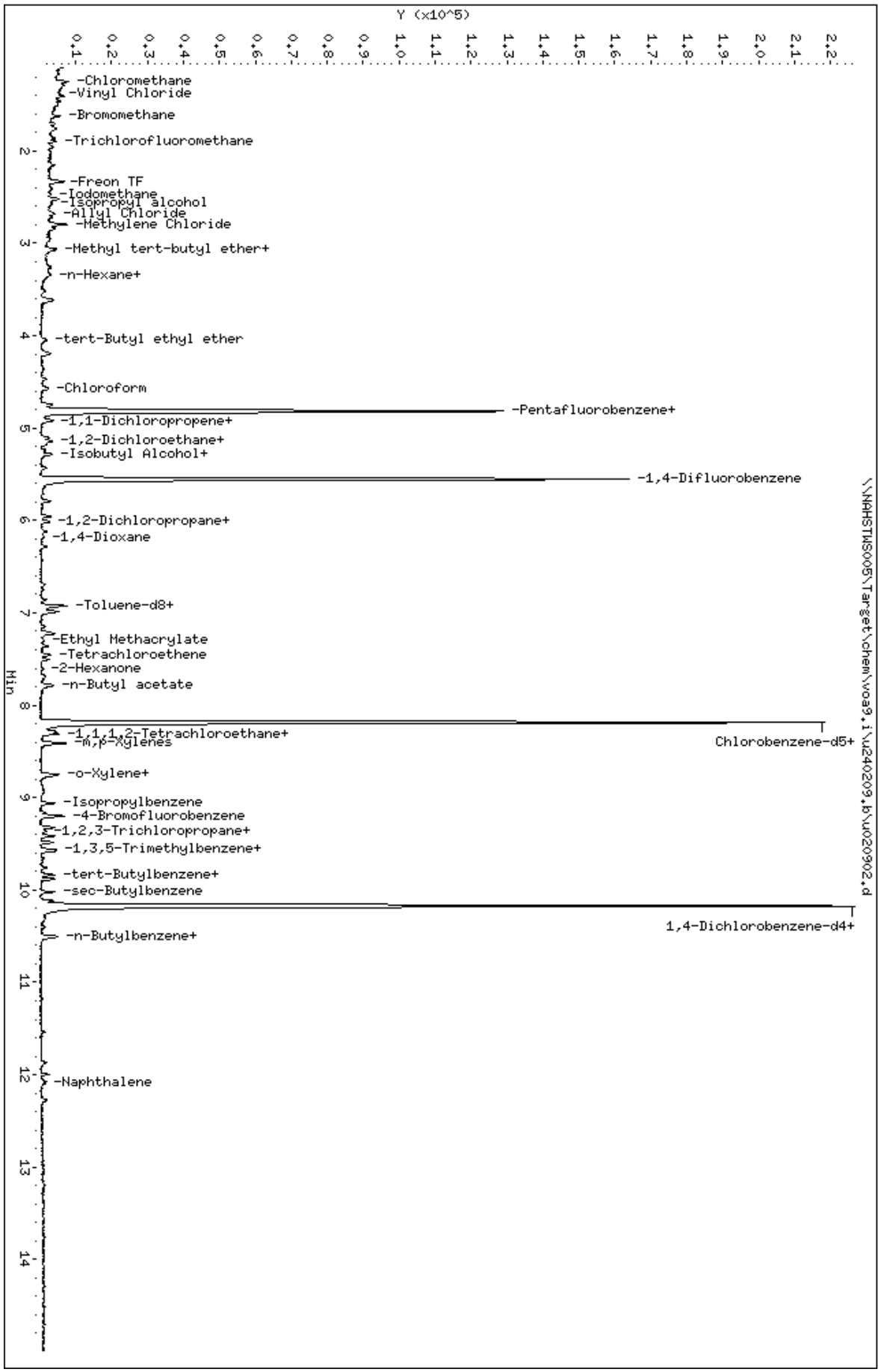
*	47 Chlorobenzene-d5	117	8.185	8.185 (1.000)	133611	50.0000	
$	48 Toluene-d8	98	6.926	6.926 (0.846)	4938	0.25000	1.30(T)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020902.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	50 Toluene	91	6.986	6.986	(0.853)	2857	0.25000	0.69
	52 2-Hexanone	43	7.601	7.601	(0.929)	791	0.50000	4.01(T)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	760	0.25000	0.80
	58 1-Chlorohexane	55	8.185	8.185	(1.474)	1579	0.25000	1.73
	59 Chlorobenzene	112	8.212	8.212	(1.003)	2606	0.25000	0.74
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	726	0.25000	0.68
	61 Ethylbenzene	106	8.313	8.313	(1.016)	848	0.25000	0.60
	62 m,p-Xylenes	106	8.414	8.414	(1.028)	2473	0.50000	1.43
	63 o-Xylene	106	8.748	8.748	(1.069)	1072	0.25000	0.63
	64 Styrene	104	8.770	8.770	(1.071)	1283	0.25000	0.46
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	2667	0.25000	0.61
$	69 4-Bromofluorobenzene	95	9.201	9.201	(1.124)	2106	0.25000	1.28
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	69423	50.0000	
	71 1,2,3-Trichloropropane	75	9.370	9.370	(0.921)	877	0.25000	0.78
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	3456	0.25000	0.80
	74 Bromobenzene	156	9.321	9.321	(0.916)	1071	0.25000	0.80
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	1975	0.25000	0.61
	76 2-Chlorotoluene	91	9.490	9.490	(0.933)	2021	0.25000	0.70
	77 4-Chlorotoluene	91	9.584	9.584	(0.942)	1989	0.25000	0.61
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	2020	0.25000	0.68
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	2079	0.25000	0.65
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	2465	0.25000	0.65
	82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	1784	0.25000	0.53
	83 1,3-Dichlorobenzene	146	10.120	10.120	(0.995)	1816	0.25000	0.74
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1920	0.25000	0.46
	87 n-Butylbenzene	91	10.498	10.498	(1.032)	1523	0.25000	0.57
	88 1,2-Dichlorobenzene	146	10.510	10.510	(1.033)	1823	0.25000	0.60
	92 Naphthalene	128	12.080	12.080	(1.188)	2012	0.25000	1.86
M	94 1,2-Dichloroethylene (total)	96				801	0.50000	
M	95 Xylenes (total)	106				3545	0.75000	
	135 1,4-Dioxane	88	6.180	6.180	(1.283)	72	5.00000	16.03(M)
	141 Cyclohexane	56	4.812	4.812	(0.999)	2235	0.25000	1.72
	138 Freon TF	101	2.341	2.341	(0.486)	749	0.25000	0.90
	147 Methylcyclohexane	55	5.955	5.955	(1.072)	903	0.25000	0.52
	149 Isopropyl Alcohol	45	2.570	2.570	(0.534)	1052	5.00000	24.69(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\u240209.b\u020902.d
Date : 09-FEB-2024 09:22
Client ID: VSTD00.25
Sample Info: VSTD00.25;VSTD00.25;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020902.d
Inj Date : 09-FEB-2024 09:22
InstruID : VOA9.i
LabSampID : VSTD00.25

1,4-Dioxane ()

Reason Code:

BEFORE

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09-Feb-2024
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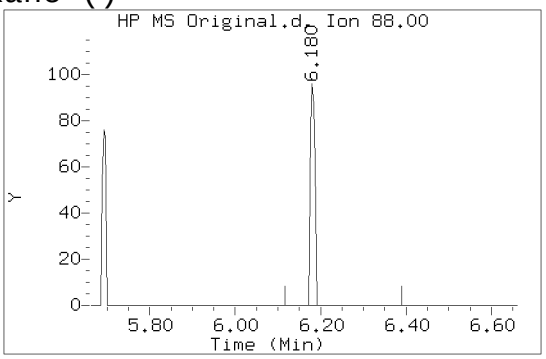

AFTER

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09-Feb-2024
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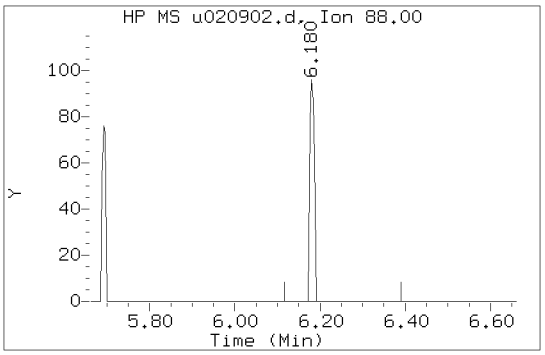

BEFORE

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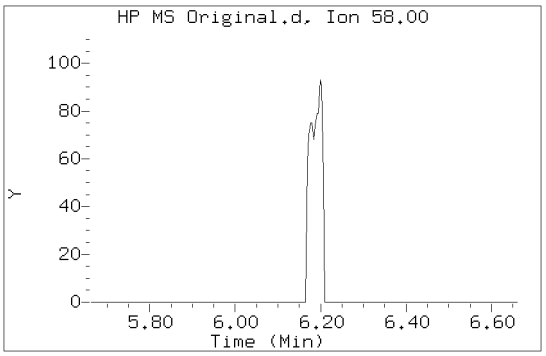

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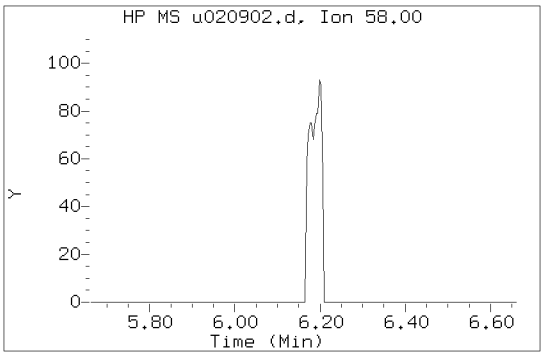

n-Butyl acetate (123-86-4)

Reason Code:

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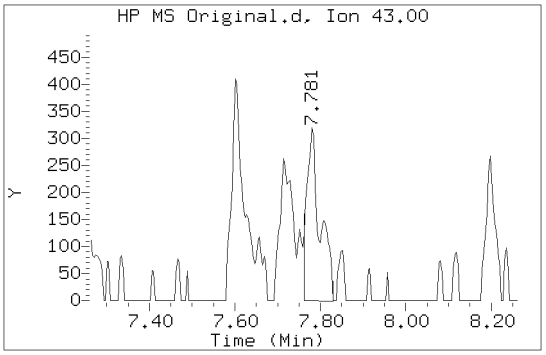
tastan



AFTER

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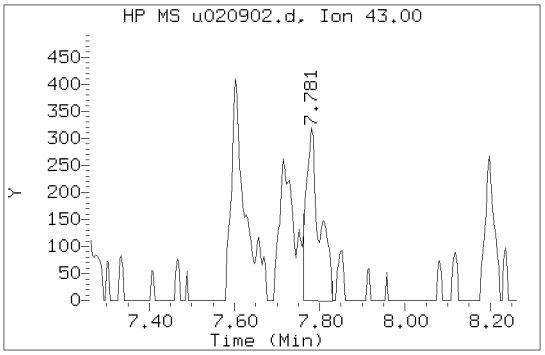

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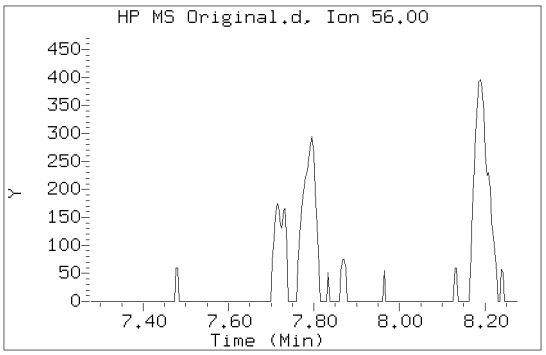

AFTER

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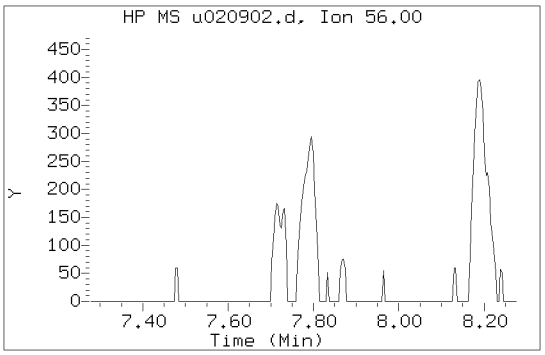

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020902.d
Inj Date : 09-FEB-2024 09:22
InstruID : VOA9.i
LabSampID : VSTD00.25

n-Butyl acetate (123-86-4)

Reason Code:

BEFORE

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09-Feb-2024
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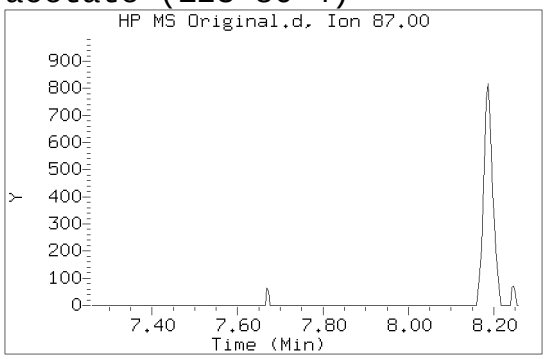
tastan



AFTER

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HEIGHT
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09-Feb-2024
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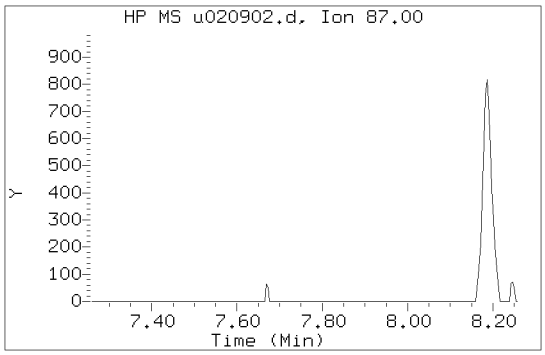


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020903.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020903.D
Lab Smp Id: VSTD00.5 Client Smp ID: VSTD00.5
Inj Date : 09-FEB-2024 09:44
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD00.5;VSTD00.5;1;2;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 09:22 Cal File: U020902.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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)	190342	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	907	0.50000	0.85
3	Chloromethane	50	1.303	1.303	(0.270)	1281	0.50000	1.31
5	Vinyl Chloride	62	1.381	1.381	(0.287)	1370	0.50000	0.89
6	Bromomethane	94	1.625	1.625	(0.337)	1565	0.50000	1.99
7	Chloroethane	64	1.708	1.708	(0.354)	835	0.50000	0.44(M)
8	Trichlorofluoromethane	101	1.903	1.903	(0.395)	1847	0.50000	0.30
9	Acrolein	56	2.274	2.274	(0.472)	385	1.00000	3.11(M)
10	Acetone	43	2.412	2.412	(0.501)	1848	1.00000	(M)
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	1102	0.50000	0.86(M)
15	Iodomethane	142	2.469	2.469	(0.512)	1327	1.00000	2.38(T)
16	Acrylonitrile	53	3.068	3.068	(0.637)	738	1.00000	1.02
17	Methylene Chloride	84	2.795	2.795	(0.580)	2539	0.50000	0.11
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	3059	0.50000	0.82
19	Carbon Disulfide	76	2.525	2.525	(0.524)	5908	1.00000	1.30
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	1223	0.50000	0.72
21	Vinyl Acetate	43	3.616	3.616	(0.750)	4819	1.00000	1.28(M)
22	1,1-Dichloroethane	63	3.514	3.514	(0.729)	1948	0.50000	0.81(M)
24	2-Butanone	43	4.302	4.302	(0.893)	711	1.00000	1.23(M)
26	2,2-Dichloropropane	77	4.186	4.186	(0.869)	1500	0.50000	0.66(M)

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.871)	1230	0.50000	0.58
28 Chloroform	83	4.579	4.579 (0.950)	2075	0.50000	0.52

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020903.D Page 2
Report Date: 15-Feb-2024 11:14

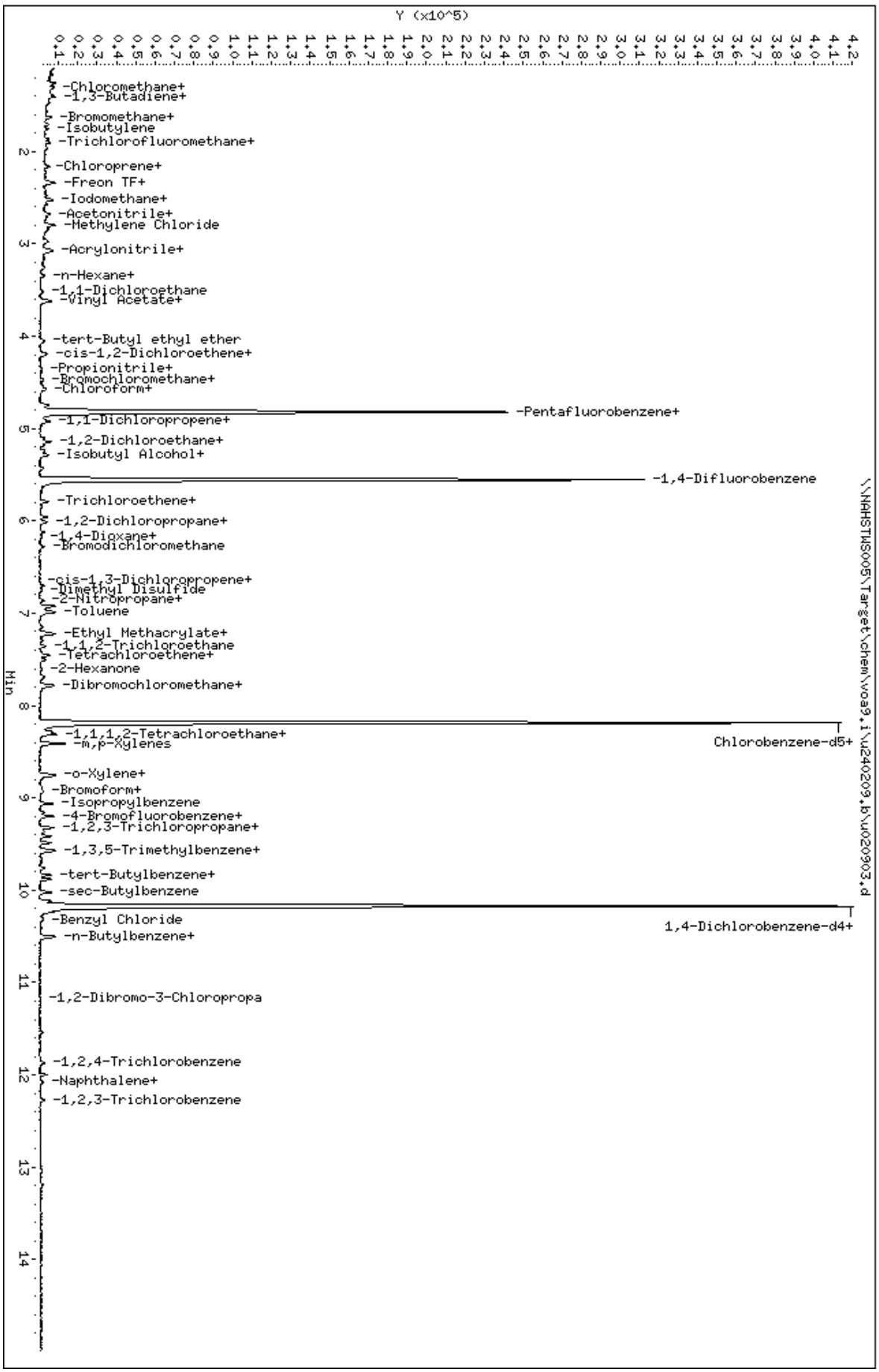
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	750	0.50000	
$	30 Dibromofluoromethane	113	4.759	4.759	(0.988)	1601	0.50000	0.38
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	1700	0.50000	0.61
	32 1,1-Dichloropropene	75	4.931	4.931	(0.888)	1840	0.50000	0.99
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1585	0.50000	0.05
	34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	1400	0.50000	0.58
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	1632	0.50000	0.08(T)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	261641	50.0000	
	37 Benzene	78	5.145	5.145	(0.926)	4782	0.50000	0.87
	38 Trichloroethene	130	5.790	5.790	(1.043)	1597	0.50000	0.94
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	1455	0.50000	0.65(M)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	1218	0.50000	0.71
	44 Dibromomethane	93	6.124	6.124	(1.103)	596	0.50000	0.53(M)
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	1706	1.00000	1.26(M)
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	1270	0.50000	0.54(M)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	241979	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	5559	0.50000	0.78
	50 Toluene	91	6.986	6.986	(0.853)	5016	0.50000	0.66
	51 trans-1,3-Dichloropropene	75	7.203	7.203	(1.297)	818	0.50000	2.05(M)
	52 2-Hexanone	43	7.601	7.601	(0.929)	1322	1.00000	3.90(T)
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	950	0.50000	0.54
	54 1,3-Dichloropropane	76	7.503	7.503	(0.917)	1884	0.50000	0.53(M)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	1149	0.50000	0.60
	56 Tetrachloroethene	164	7.462	7.462	(0.912)	1157	0.50000	0.68
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	888	0.50000	0.52
	58 1-Chlorohexane	55	8.189	8.189	(1.474)	2590	0.50000	1.49
	59 Chlorobenzene	112	8.212	8.212	(1.003)	3697	0.50000	0.53
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	1115	0.50000	0.57
	61 Ethylbenzene	106	8.313	8.313	(1.016)	1453	0.50000	0.57
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	3809	1.00000	1.21
	63 o-Xylene	106	8.751	8.751	(1.069)	1720	0.50000	0.56
	64 Styrene	104	8.766	8.766	(1.071)	2528	0.50000	0.50
	66 Bromoform	173	8.924	8.924	(1.090)	805	0.50000	0.58(M)
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	4391	0.50000	0.56
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1437	0.50000	0.57(M)
$	69 4-Bromofluorobenzene	95	9.198	9.198	(1.124)	2317	0.50000	0.66
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	124282	50.0000	
	71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1072	0.50000	0.53
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	4748	0.50000	0.61
	74 Bromobenzene	156	9.321	9.321	(0.916)	1584	0.50000	0.65
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	3275	0.50000	0.56
	76 2-Chlorotoluene	91	9.486	9.486	(0.933)	3335	0.50000	0.65
	77 4-Chlorotoluene	91	9.584	9.584	(0.942)	3684	0.50000	0.63
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	3161	0.50000	0.60
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	3095	0.50000	0.54
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	3962	0.50000	0.59
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	3515	0.50000	0.58
	83 1,3-Dichlorobenzene	146	10.120	10.120	(0.995)	2757	0.50000	0.61
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	3199	0.50000	0.40
	87 n-Butylbenzene	91	10.495	10.495	(1.032)	2492	0.50000	0.52
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2762	0.50000	0.47
	89 1,2-Dibromo-3-Chloropropane	155	11.177	11.177	(1.099)	72	0.50000	3.06(M)

90 1,2,4-Trichlorobenzene	180	11.867	11.867 (1.167)	1258	0.50000	0.51(M)
91 Hexachlorobutadiene	225	12.002	12.002 (1.180)	860	0.50000	0.86(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	92 Naphthalene	128	12.073	12.073	(1.187)	2654	0.50000	1.70
	93 1,2,3-Trichlorobenzene	180	12.275	12.275	(1.207)	1136	0.50000	0.48(M)
M	94 1,2-Dichloroethylene (total)	96				2453	1.00000	
M	95 Xylenes (total)	106				5529	1.50000	
	135 1,4-Dioxane	88	6.172	6.172	(1.281)	308	10.0000	24.26(M)
	141 Cyclohexane	56	4.815	4.815	(0.999)	2861	0.50000	1.09
	138 Freon TF	101	2.341	2.341	(0.486)	1206	0.50000	0.77
	140 1,3-Butadiene	54	1.404	1.404	(0.291)	1034	0.50000	0.87
	147 Methylcyclohexane	55	5.959	5.959	(1.073)	1618	0.50000	0.51
	146 Methyl Acetate	43	2.716	2.716	(0.564)	726	0.50000	0.23(M)
	148 Tert-Butyl alcohol	59	2.978	2.978	(0.618)	2997	10.0000	18.21(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.



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Client ID: WSTD00.5
Sample Info: WSTD00.5;WSTD00.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: WOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Chloroethane (75-00-3)

Reason Code:

BEFORE

MASS
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AREA
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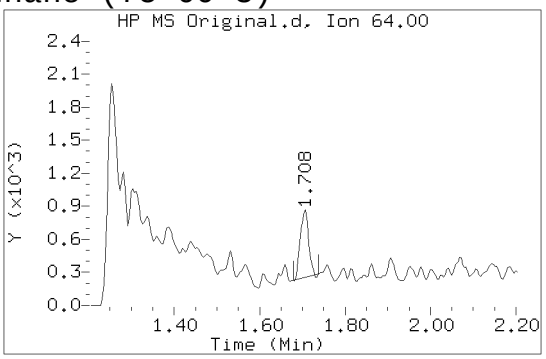
HEIGHT
607
09-Feb-2024
11:53
firat
tastan



AFTER

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HEIGHT
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09-Feb-2024
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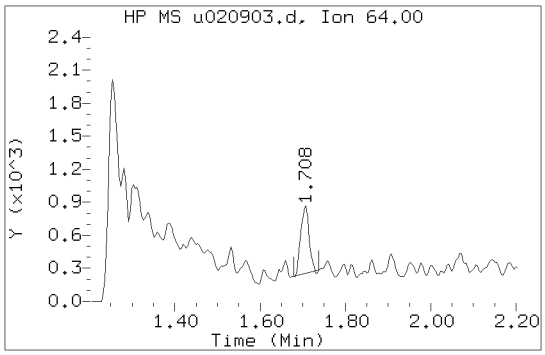

BEFORE

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09-Feb-2024
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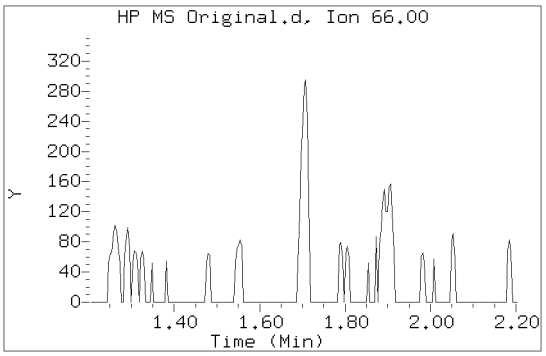

AFTER

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HEIGHT
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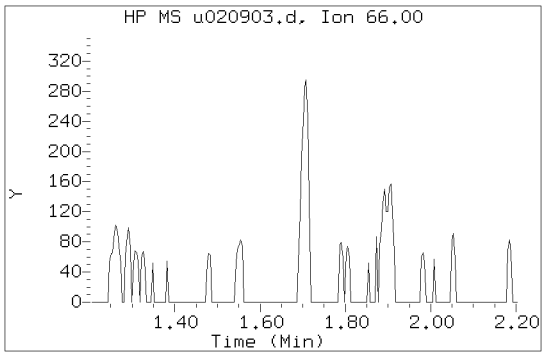

Acetone (67-64-1)

Reason Code:

BEFORE

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09-Feb-2024
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firat
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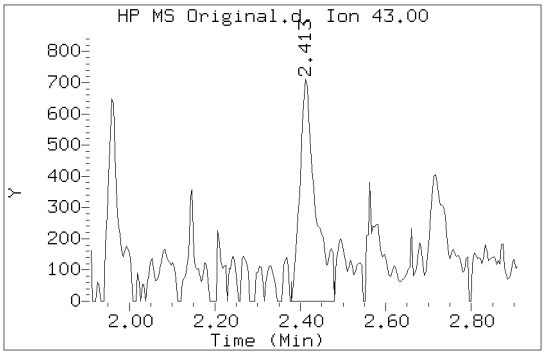

AFTER

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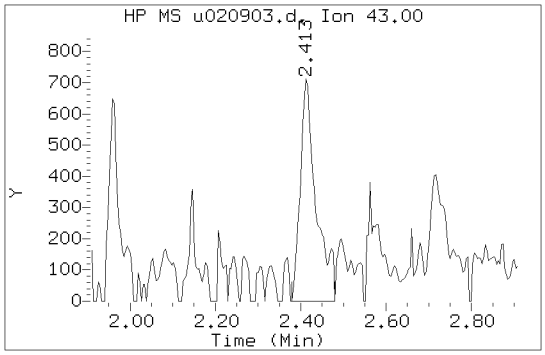

BEFORE

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09-Feb-2024
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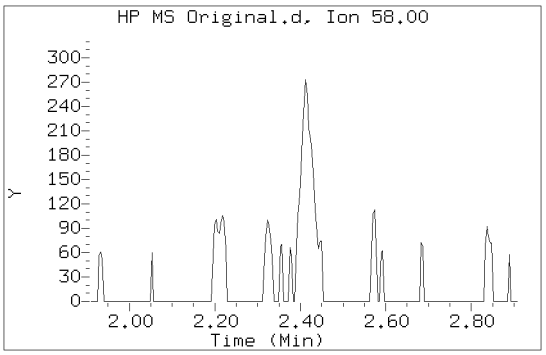

AFTER

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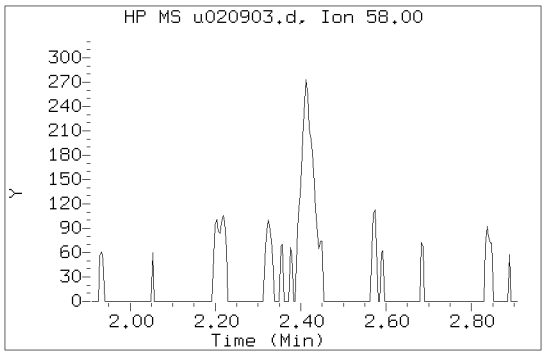
09-Feb-2024
11:53
firat
tastan

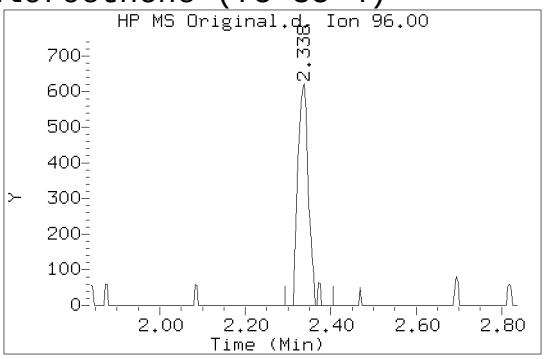


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

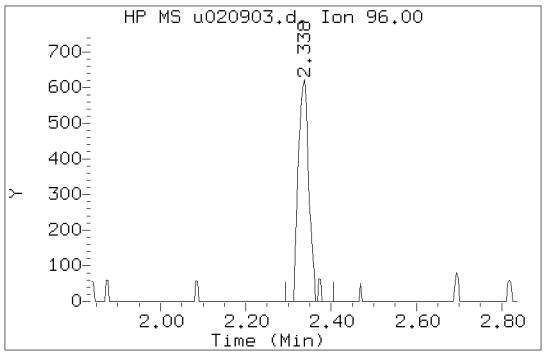
1,1-Dichloroethene (75-35-4)

Reason Code:

BEFORE
MASS
96
AREA
1102
HEIGHT
622
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
96
AREA
1102
HEIGHT
622
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
61
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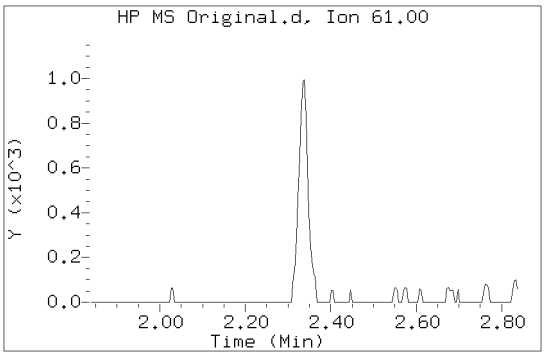
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
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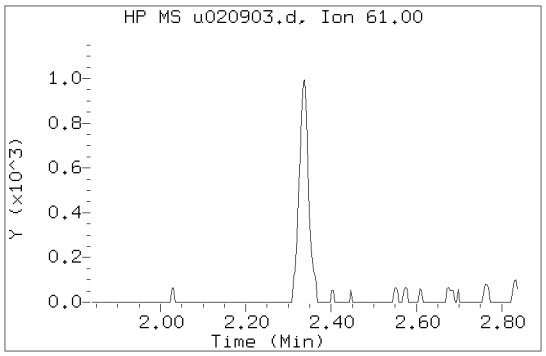
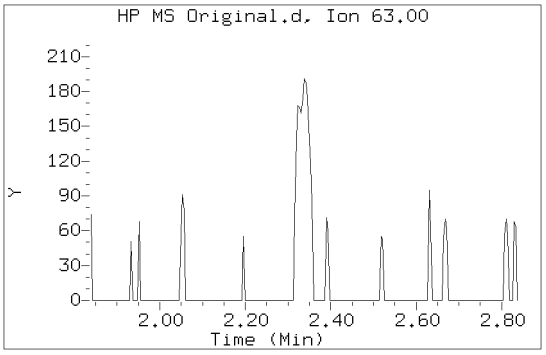
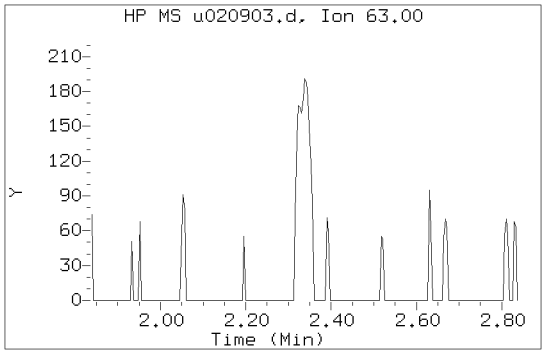


BEFORE
MASS
63
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



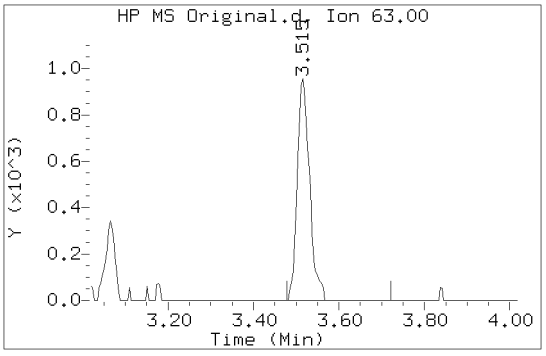
AFTER
MASS
63
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



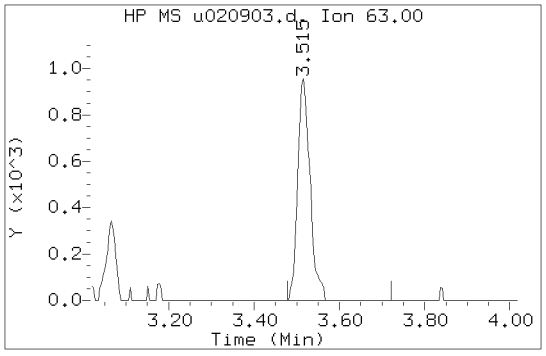
1,1-Dichloroethane (75-34-3)

Reason Code:

BEFORE
MASS
63
AREA
1948
HEIGHT
956
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
63
AREA
1948
HEIGHT
956
09-Feb-2024
11:53
firat
tastan



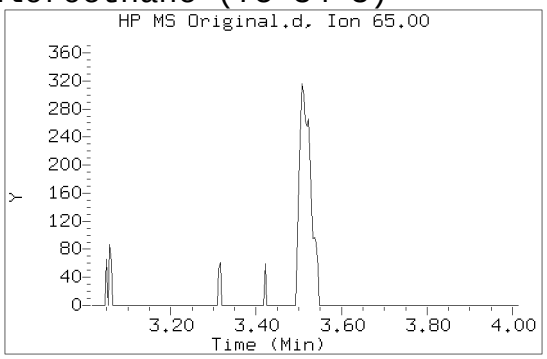
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,1-Dichloroethane (75-34-3)

Reason Code:

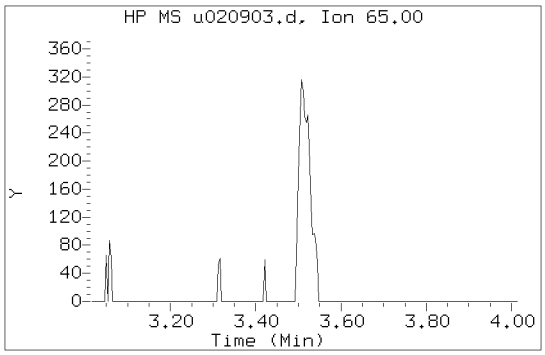
BEFORE

MASS
65
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



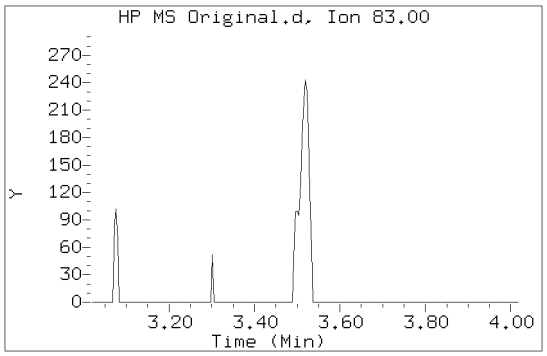
AFTER

MASS
65
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



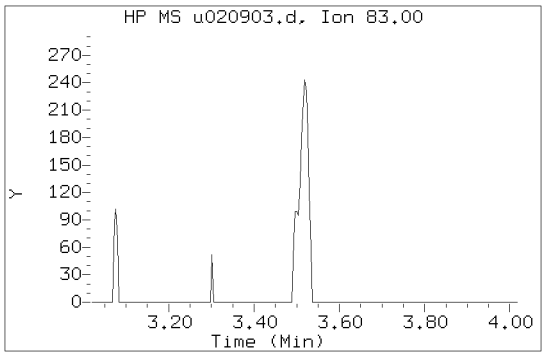
BEFORE

MASS
83
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
83
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

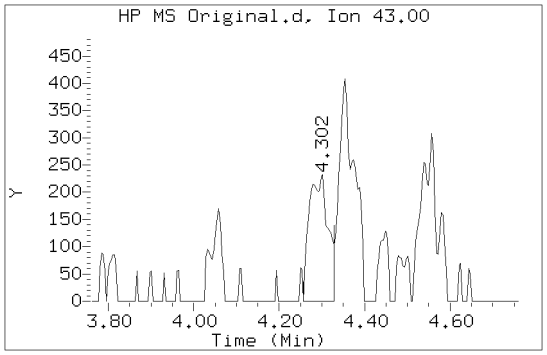


2-Butanone (78-93-3)

Reason Code:

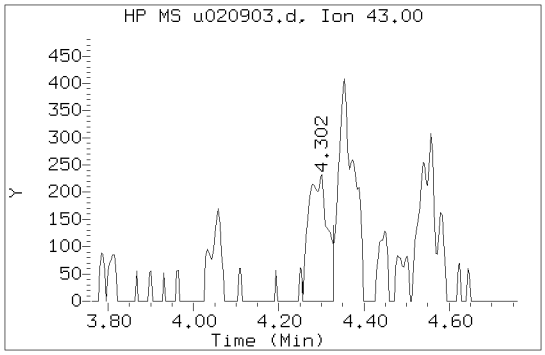
BEFORE

MASS
43
AREA
711
HEIGHT
233
09-Feb-2024
11:53
firat
tastan



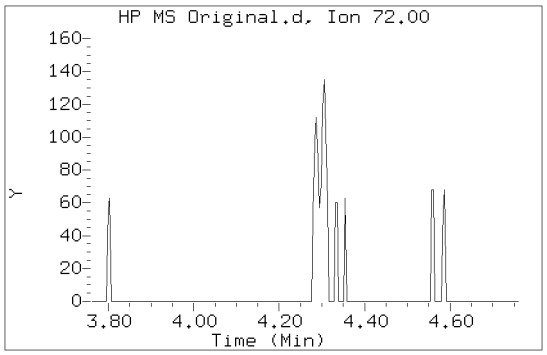
AFTER

MASS
43
AREA
711
HEIGHT
233
09-Feb-2024
11:53
firat
tastan



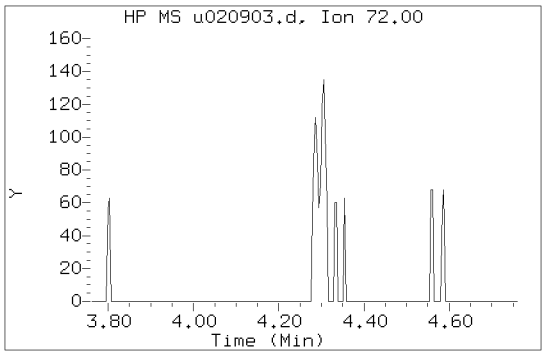
BEFORE

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



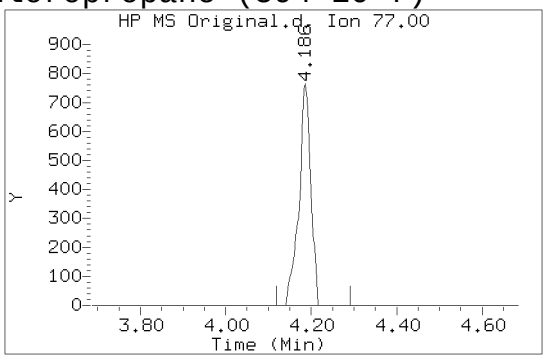
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

2,2-Dichloropropane (594-20-7)

Reason Code:

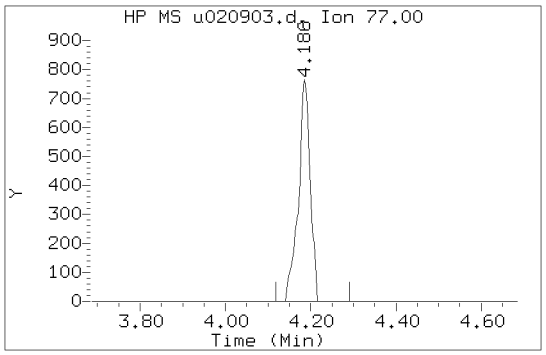
BEFORE

MASS
77
AREA
1500
HEIGHT
765
09-Feb-2024
11:53
firat
tastan



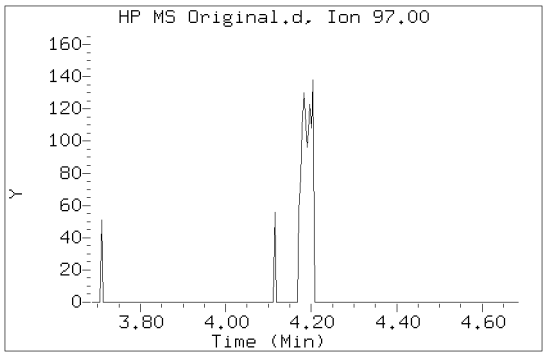
AFTER

MASS
77
AREA
1500
HEIGHT
765
09-Feb-2024
11:53
firat
tastan



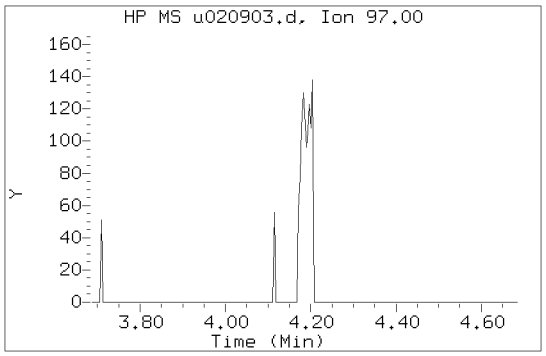
BEFORE

MASS
97
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
97
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

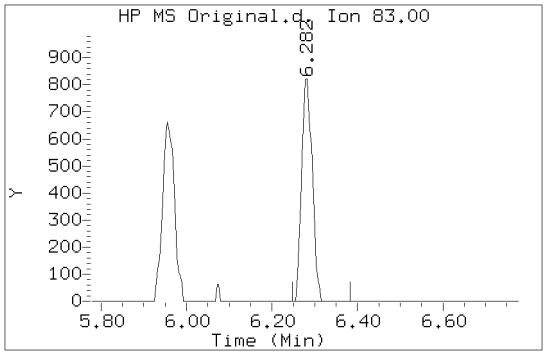


Bromodichloromethane (75-27-4)

Reason Code:

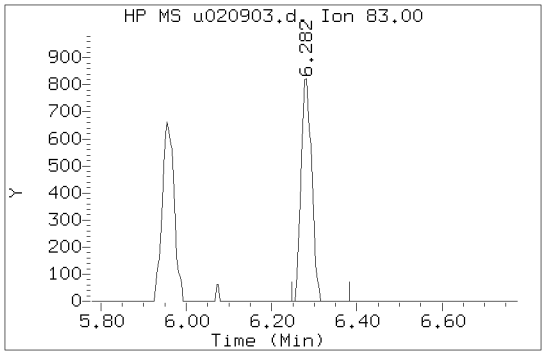
BEFORE

MASS
83
AREA
1455
HEIGHT
822
09-Feb-2024
11:53
firat
tastan



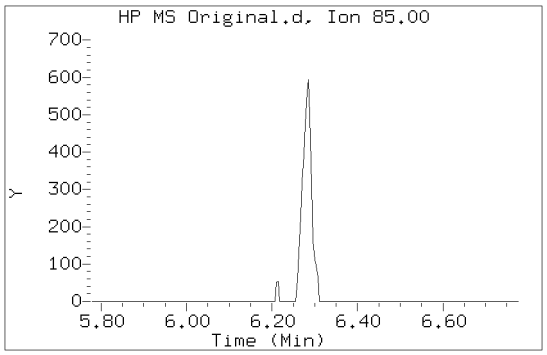
AFTER

MASS
83
AREA
1455
HEIGHT
822
09-Feb-2024
11:53
firat
tastan



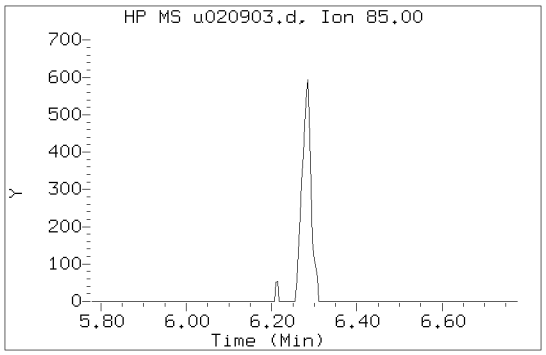
BEFORE

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



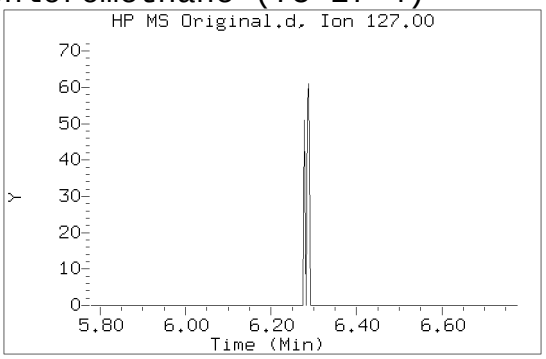
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Bromodichloromethane (75-27-4)

Reason Code:

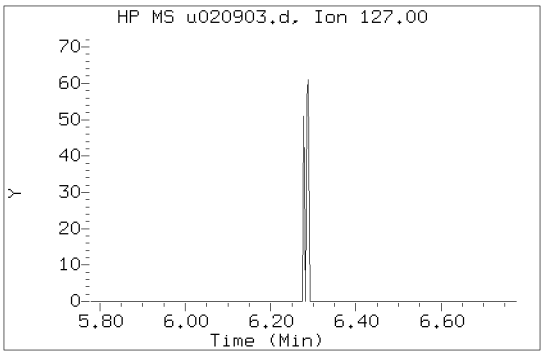
BEFORE

MASS
127
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
127
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

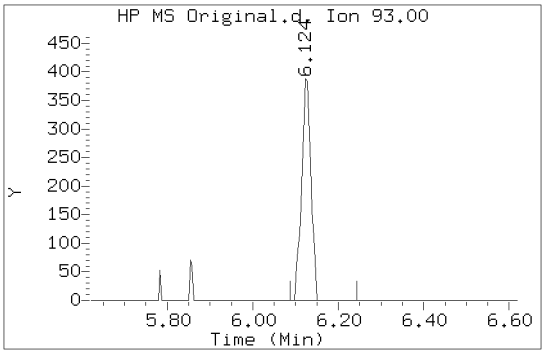


Dibromomethane (74-95-3)

Reason Code:

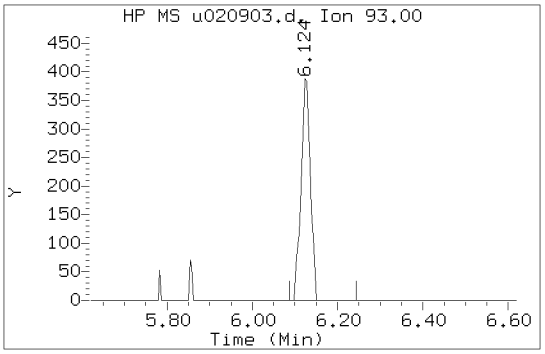
BEFORE

MASS
93
AREA
596
HEIGHT
388
09-Feb-2024
11:53
firat
tastan



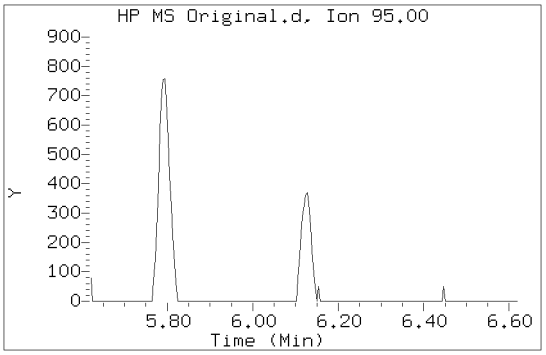
AFTER

MASS
93
AREA
596
HEIGHT
388
09-Feb-2024
11:53
firat
tastan



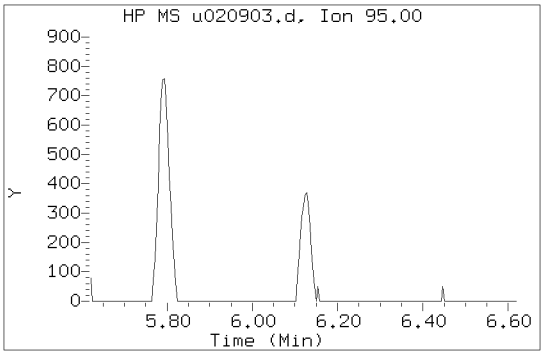
BEFORE

MASS
95
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



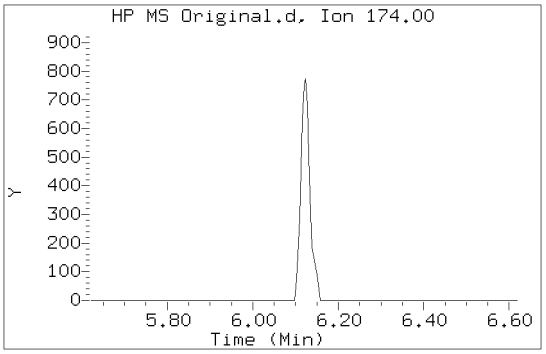
AFTER

MASS
95
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



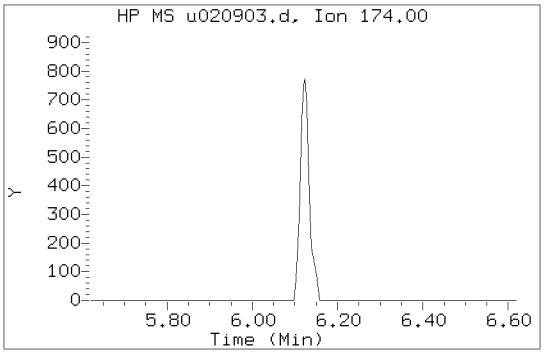
BEFORE

MASS
174
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
174
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

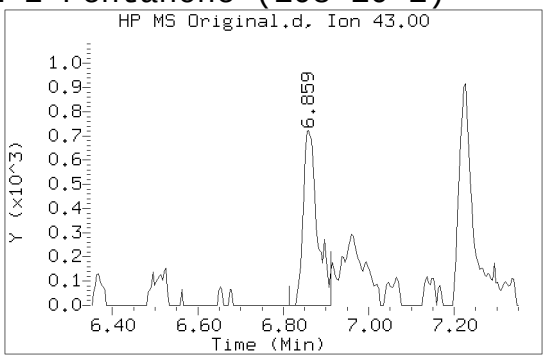


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

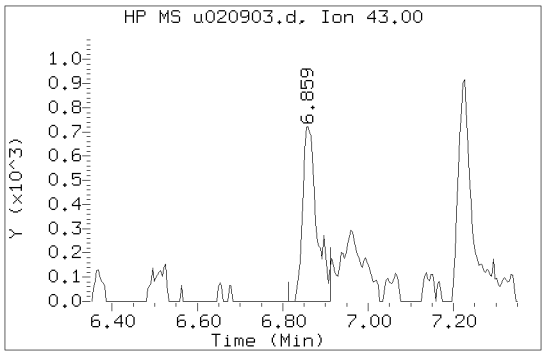
4-Methyl-2-Pentanone (108-10-1)

Reason Code:

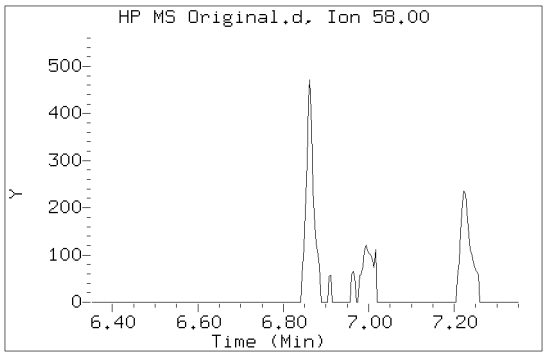
BEFORE
MASS
43
AREA
1706
HEIGHT
723
09-Feb-2024
11:53
firat
tastan



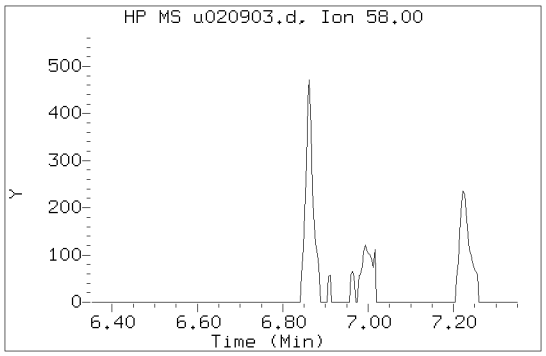
AFTER
MASS
43
AREA
1706
HEIGHT
723
09-Feb-2024
11:53
firat
tastan



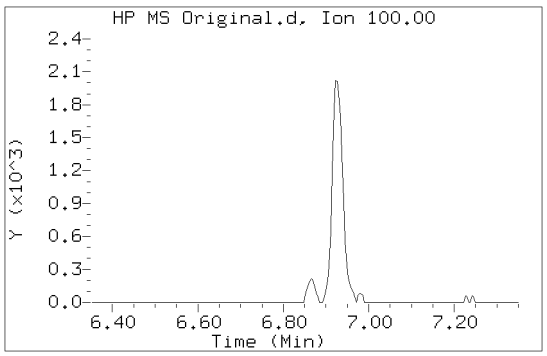
BEFORE
MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



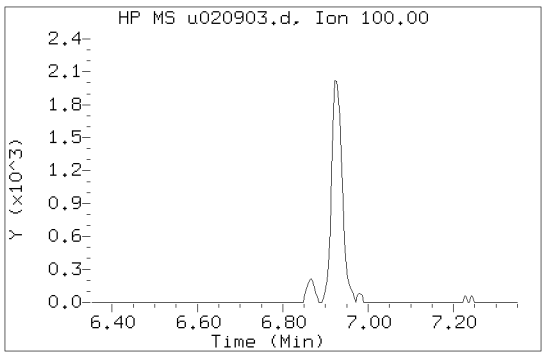
AFTER
MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
100
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



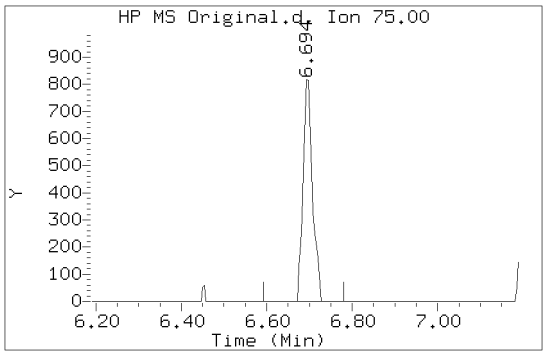
AFTER
MASS
100
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



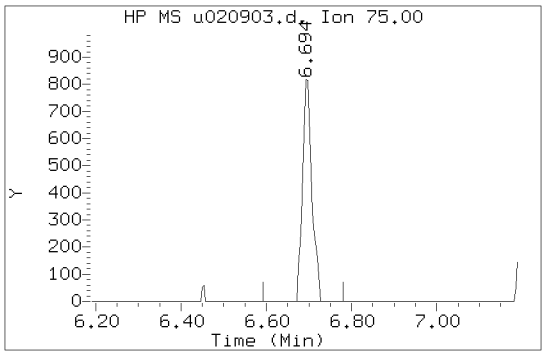
cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

BEFORE
MASS
75
AREA
1270
HEIGHT
817
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
75
AREA
1270
HEIGHT
817
09-Feb-2024
11:53
firat
tastan

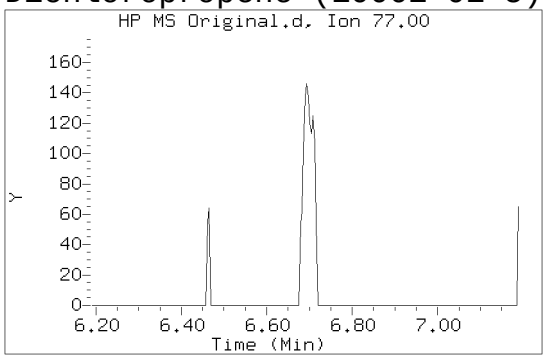


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

BEFORE
MASS
77
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
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77
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HEIGHT
0
09-Feb-2024
11:53
firat
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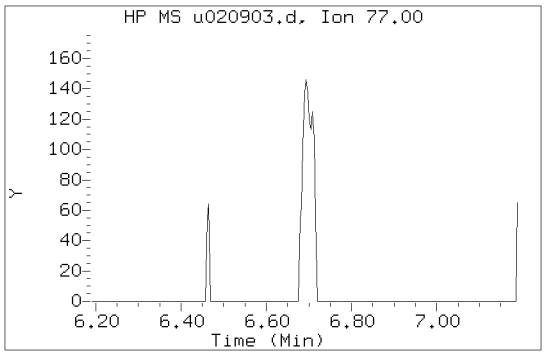

BEFORE
MASS
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HEIGHT
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09-Feb-2024
11:53
firat
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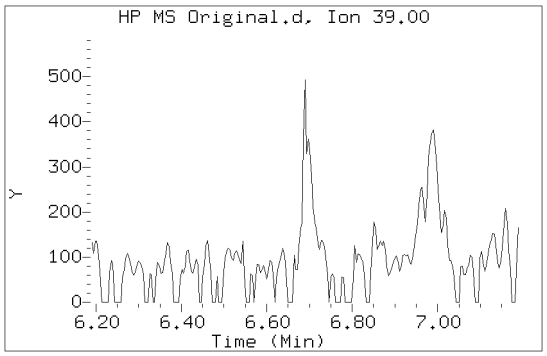

AFTER
MASS
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HEIGHT
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09-Feb-2024
11:53
firat
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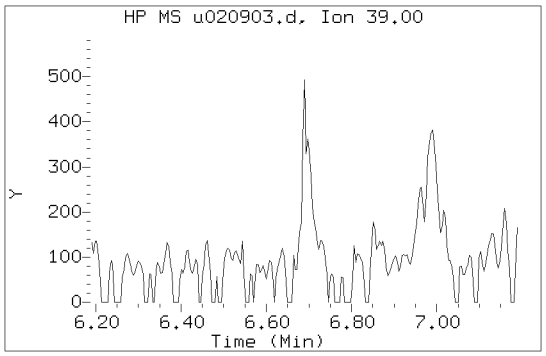
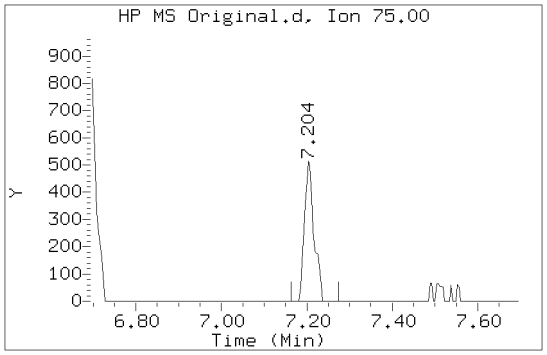


trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE
MASS
75
AREA
818
HEIGHT
515
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
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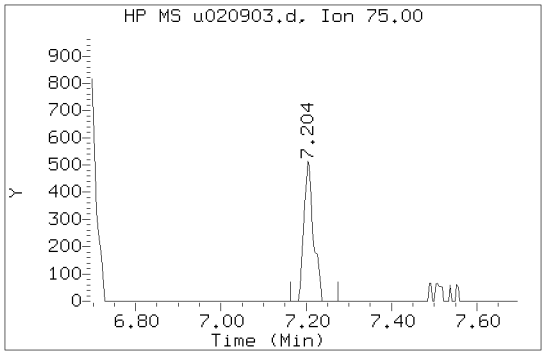
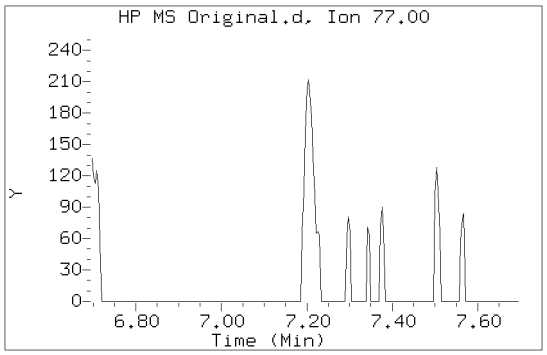
AREA
818
HEIGHT
515
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
77
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
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AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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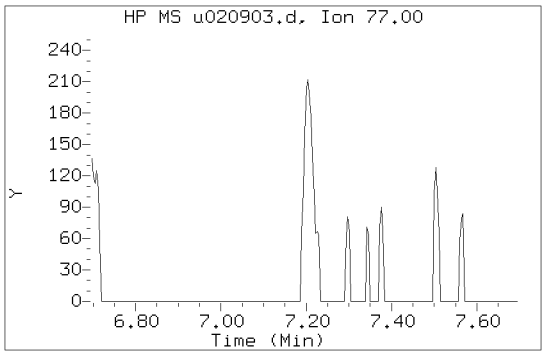

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE

MASS
39
AREA
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HEIGHT
0
09-Feb-2024
11:53
firat
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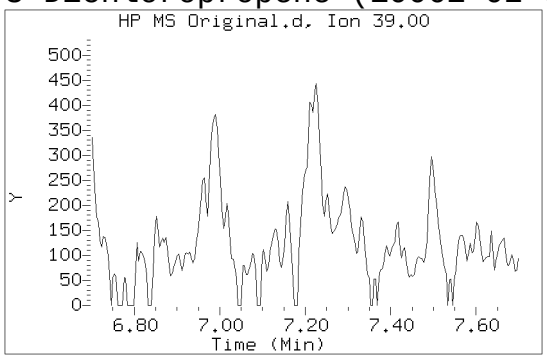

AFTER

MASS
39
AREA
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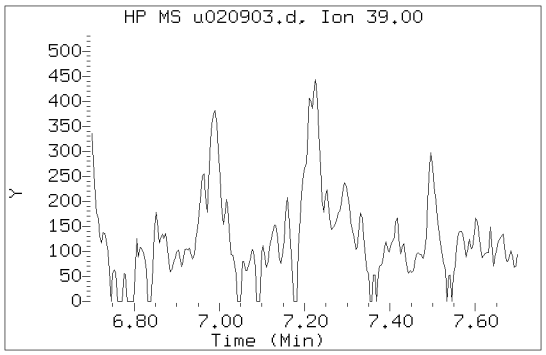
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

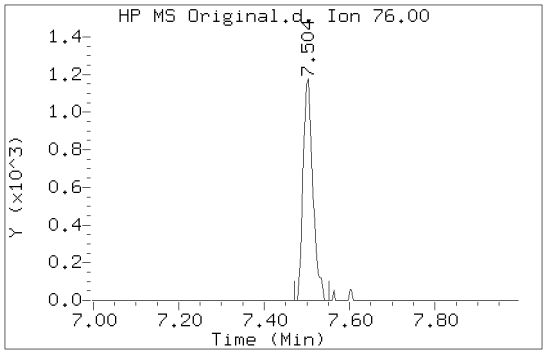


1,3-Dichloropropane (142-28-9)

Reason Code:

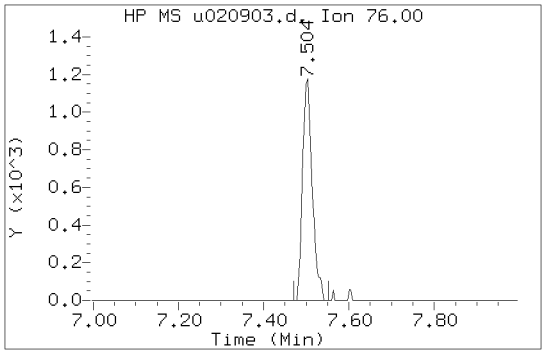
BEFORE

MASS
76
AREA
1884
HEIGHT
1178
09-Feb-2024
11:53
firat
tastan



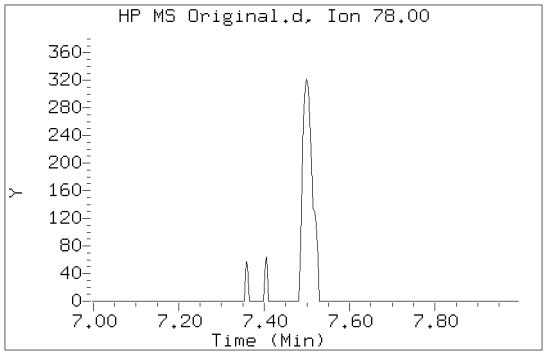
AFTER

MASS
76
AREA
1884
HEIGHT
1178
09-Feb-2024
11:53
firat
tastan



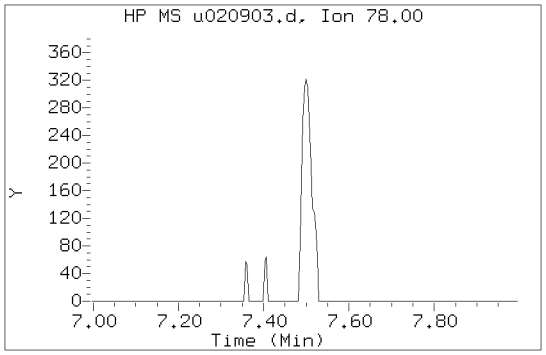
BEFORE

MASS
78
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
78
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Vinyl Acetate (108-05-4)

Reason Code:

BEFORE

MASS
43
AREA
4819
HEIGHT
1802
09-Feb-2024
11:53
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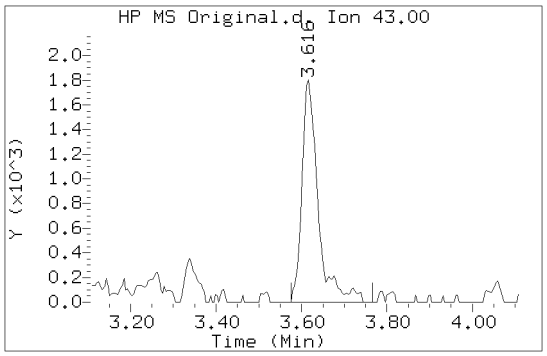
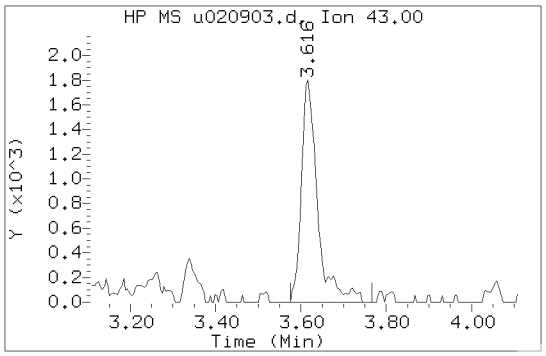


AFTER

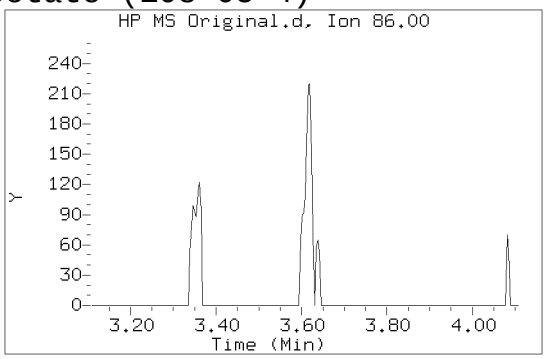
MASS
43
AREA
4819
HEIGHT
1802
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

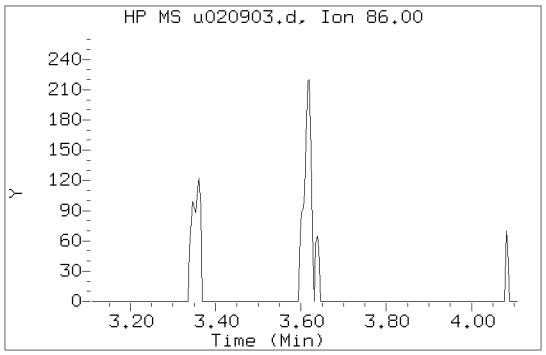
Vinyl Acetate (108-05-4)

BEFORE
MASS
86
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



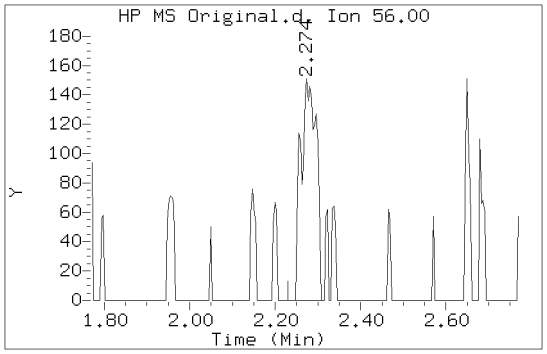
Reason Code:

AFTER
MASS
86
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Acrolein (107-02-8)

BEFORE
MASS
56
AREA
385
HEIGHT
151
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER
MASS
56
AREA
385
HEIGHT
151
09-Feb-2024
11:53
firat
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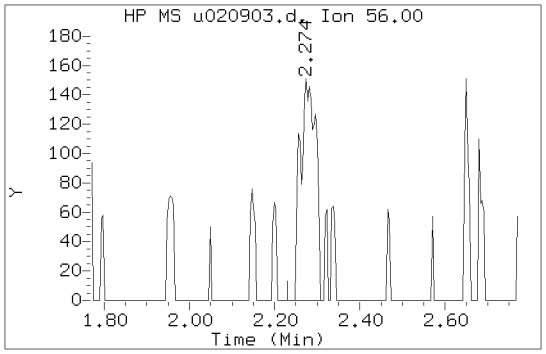
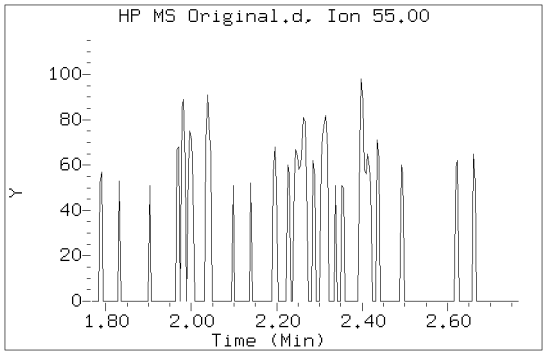
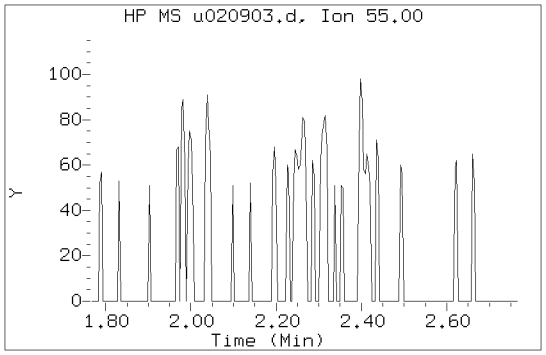


BEFORE
MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

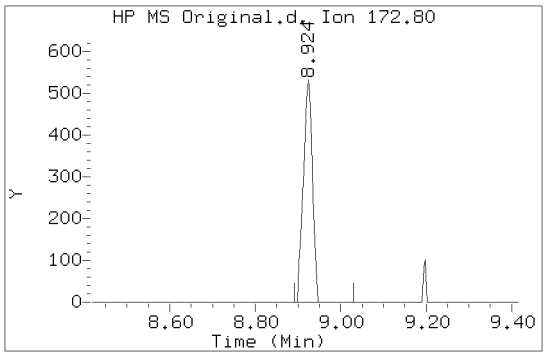


AFTER
MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



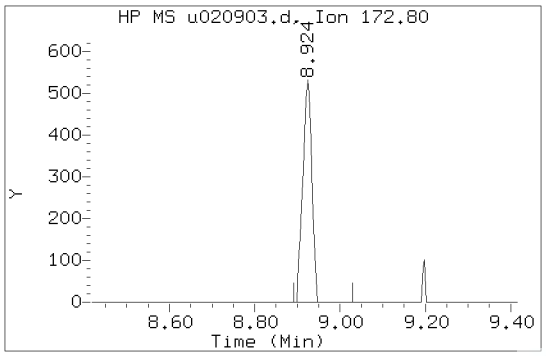
Bromoform (75-25-2)

BEFORE
MASS
172.8
AREA
805
HEIGHT
532
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER
MASS
172.8
AREA
805
HEIGHT
532
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Bromoform (75-25-2)

Reason Code:

BEFORE

MASS
175
AREA
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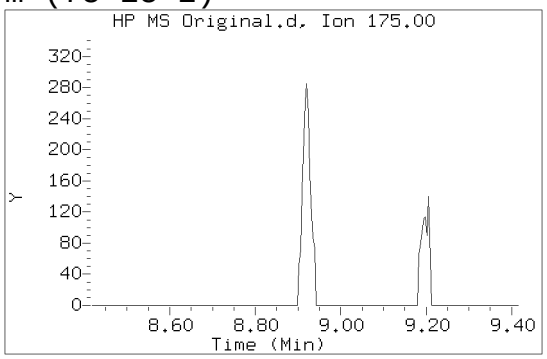
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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HEIGHT
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09-Feb-2024
11:53
firat
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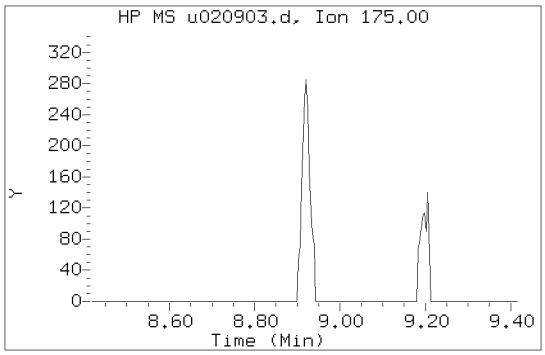

BEFORE

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09-Feb-2024
11:53
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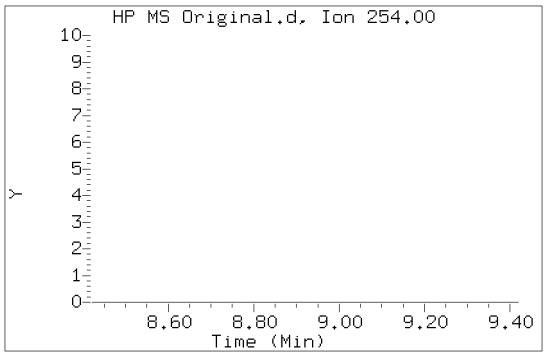

AFTER

MASS
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09-Feb-2024
11:53
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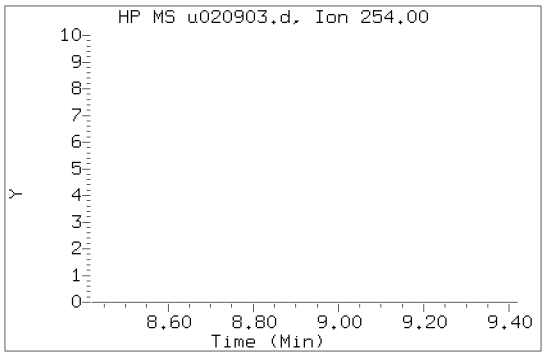
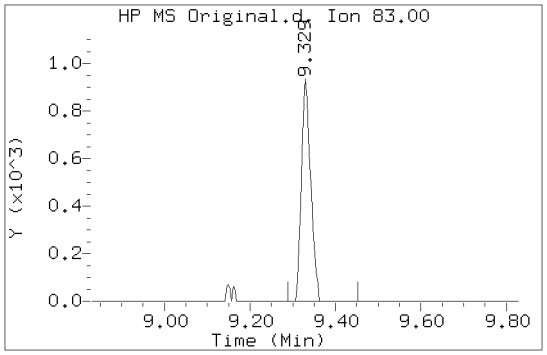


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

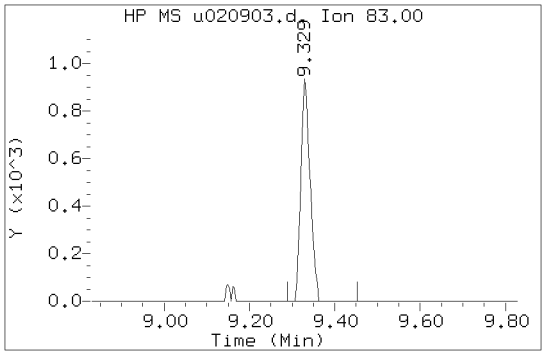
BEFORE

MASS
83
AREA
1437
HEIGHT
935
09-Feb-2024
11:53
firat
tastan



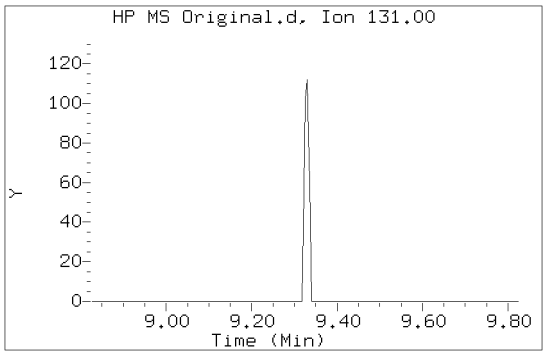
AFTER

MASS
83
AREA
1437
HEIGHT
935
09-Feb-2024
11:53
firat
tastan



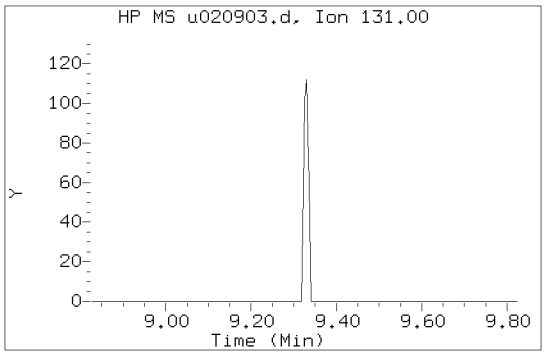
BEFORE

MASS
131
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
131
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



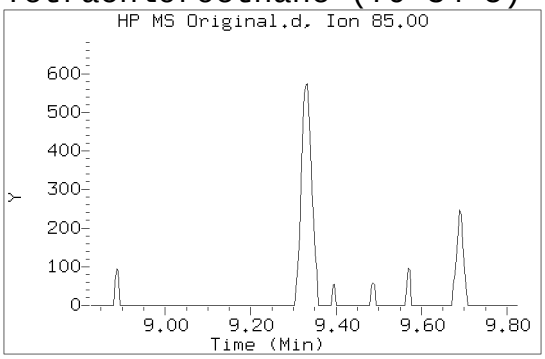
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

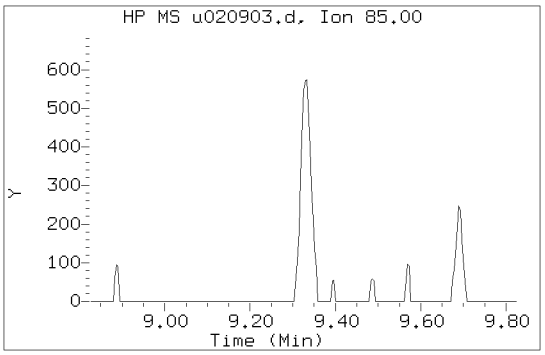
BEFORE

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

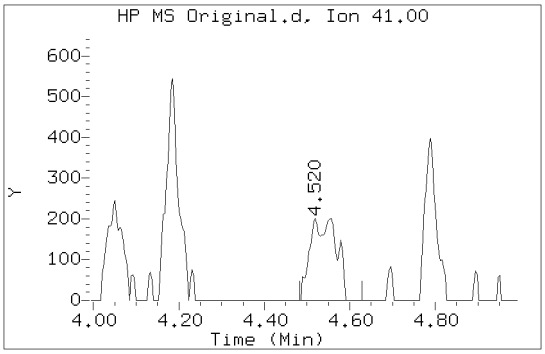


Methacrylonitrile (126-98-7)

Reason Code:

BEFORE

MASS
41
AREA
859
HEIGHT
202
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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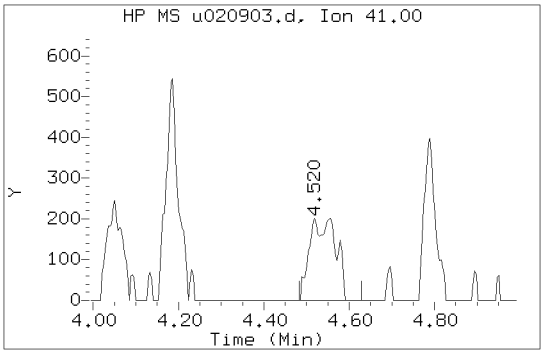
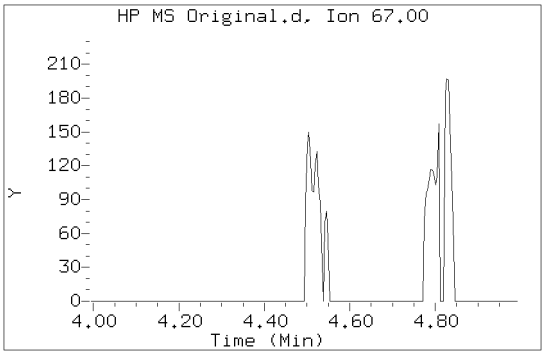
AREA
859
HEIGHT
202
09-Feb-2024
11:53
firat
tastan



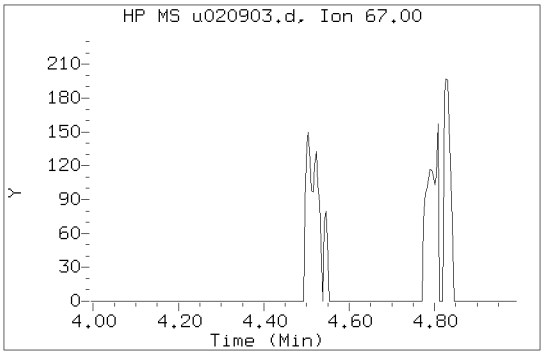
BEFORE

MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
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AREA
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HEIGHT
0
09-Feb-2024
11:53
firat
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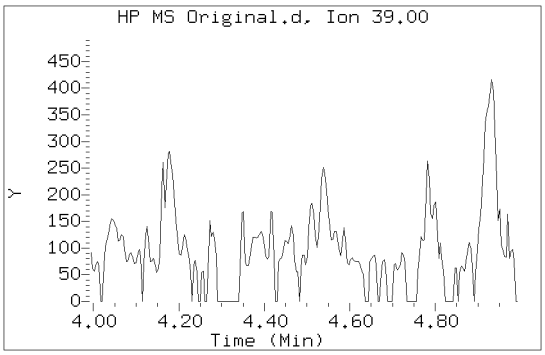

AFTER

MASS
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AREA
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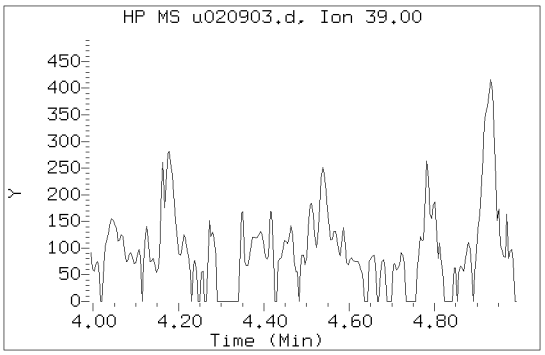
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



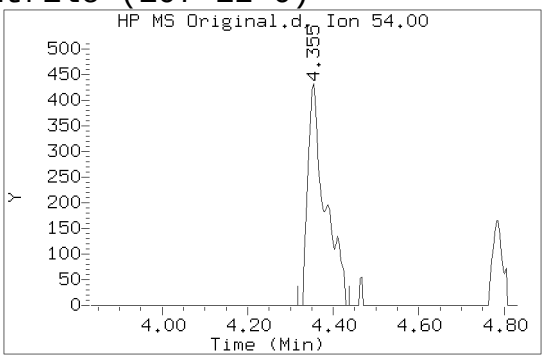
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Propionitrile (107-12-0)

Reason Code:

BEFORE

MASS
54
AREA
1212
HEIGHT
432
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
54
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1212
HEIGHT
432
09-Feb-2024
11:53
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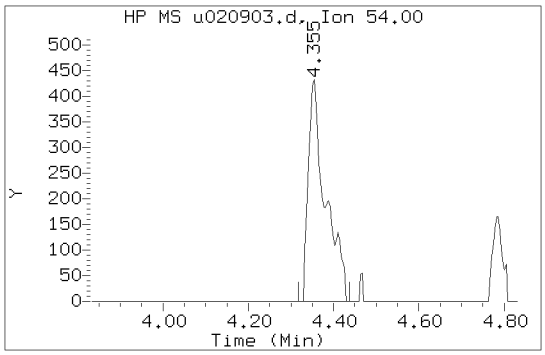
tastan



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09-Feb-2024
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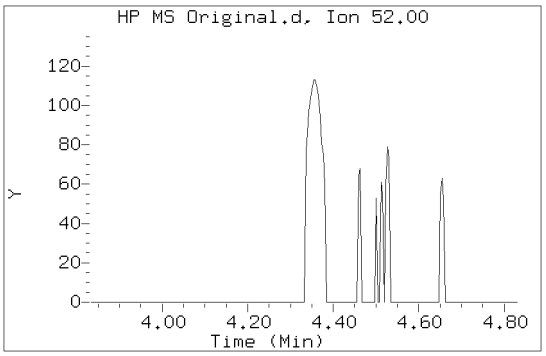

AFTER

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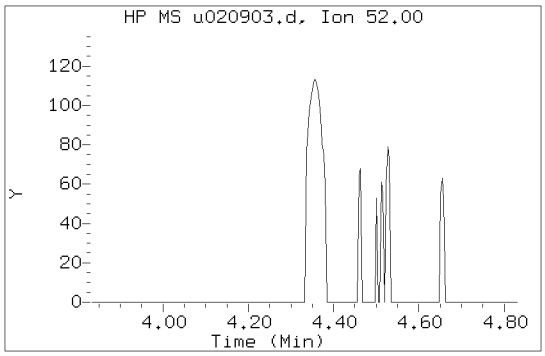

BEFORE

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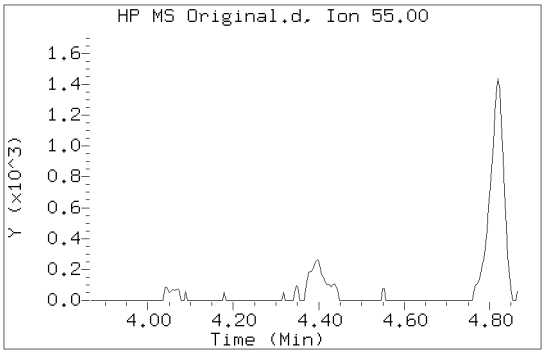

AFTER

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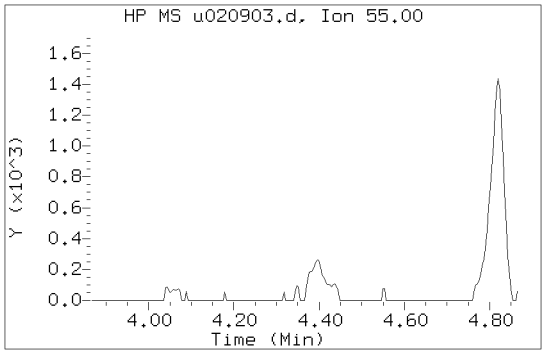

Methyl Methacrylate (80-62-6)

Reason Code:

BEFORE

MASS
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679
HEIGHT
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09-Feb-2024
11:53
firat
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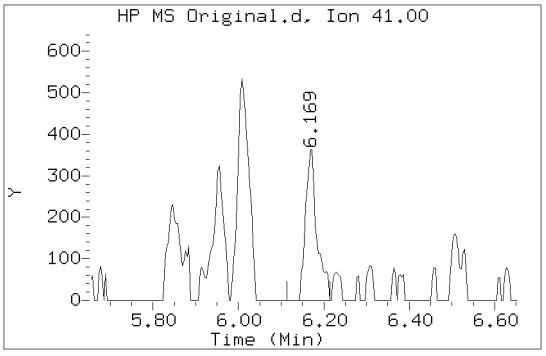

AFTER

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363
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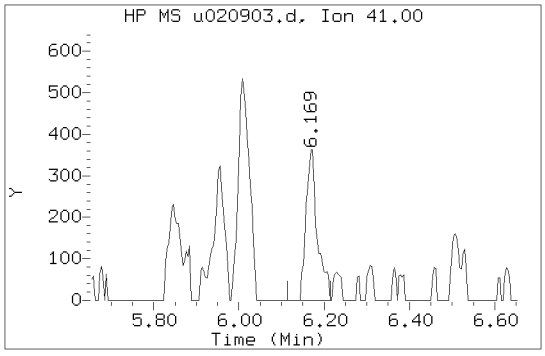

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Methyl Methacrylate (80-62-6)

Reason Code:

BEFORE
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69
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HEIGHT
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09-Feb-2024
11:53
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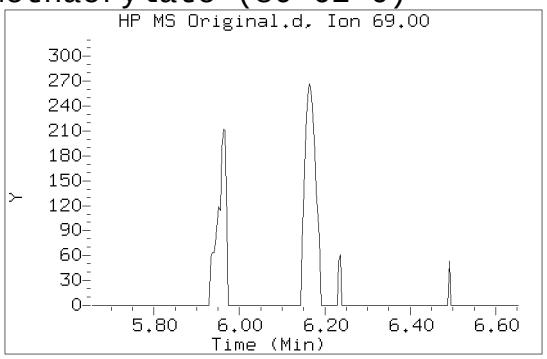
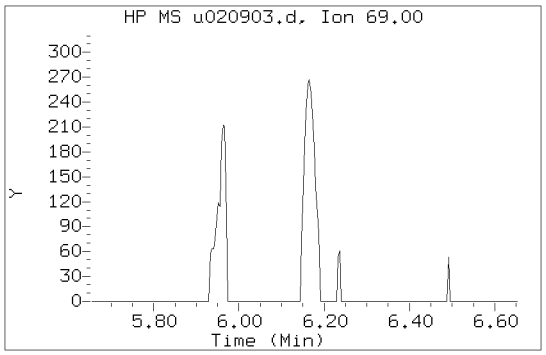


AFTER
MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



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09-Feb-2024
11:53
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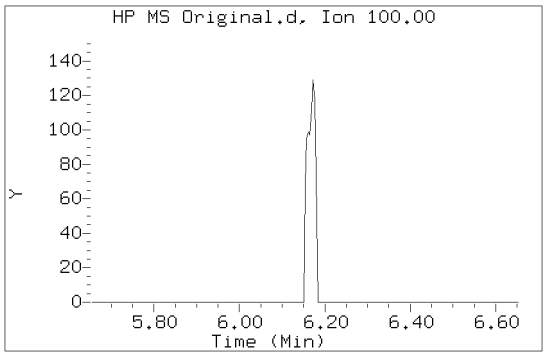

AFTER
MASS
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HEIGHT
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09-Feb-2024
11:53
firat
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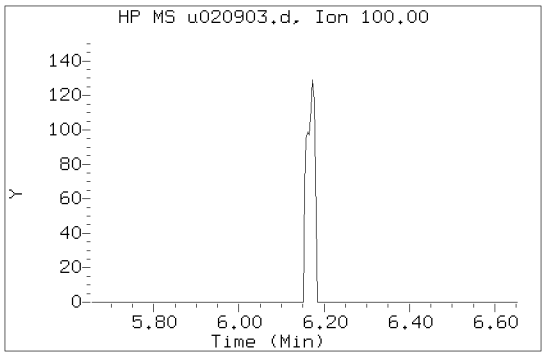
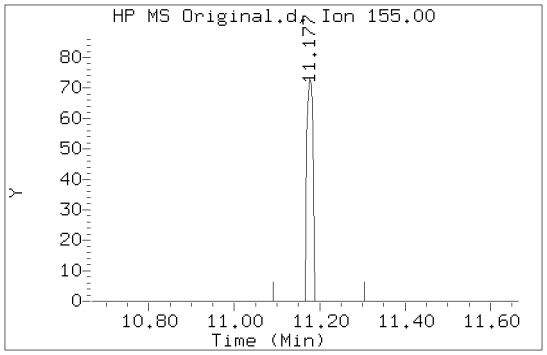


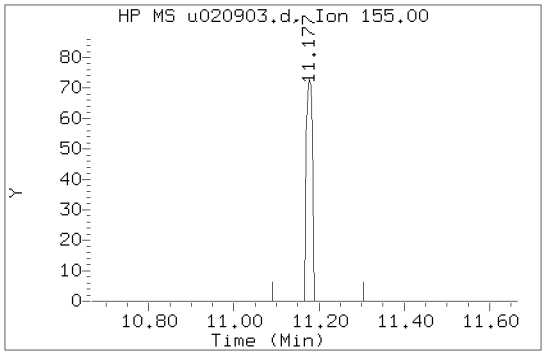
1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

BEFORE
MASS
155
AREA
72
HEIGHT
73
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
155
AREA
72
HEIGHT
73
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
157
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
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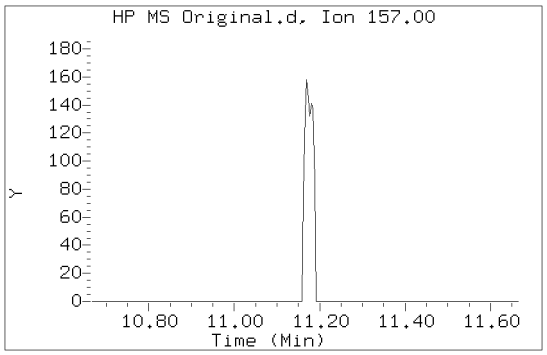

AFTER
MASS
157
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
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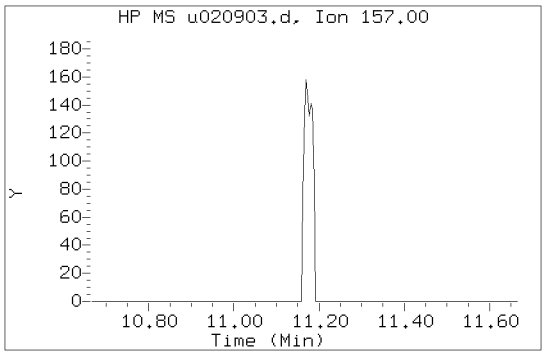

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

BEFORE

MASS
75
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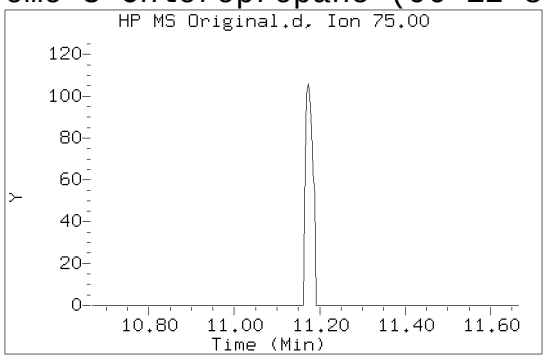
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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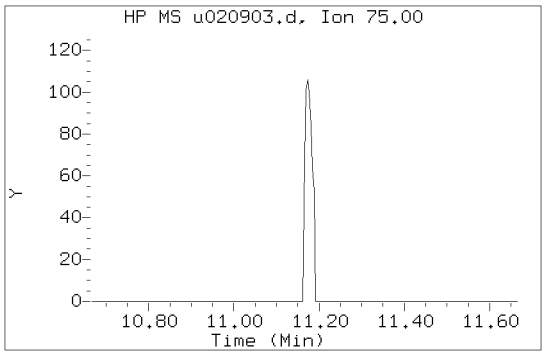
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

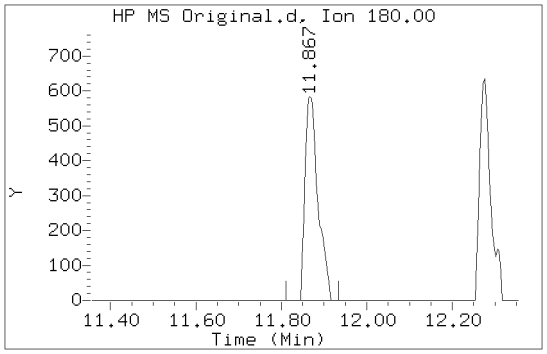


1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

BEFORE

MASS
180
AREA
1258
HEIGHT
583
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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HEIGHT
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09-Feb-2024
11:53
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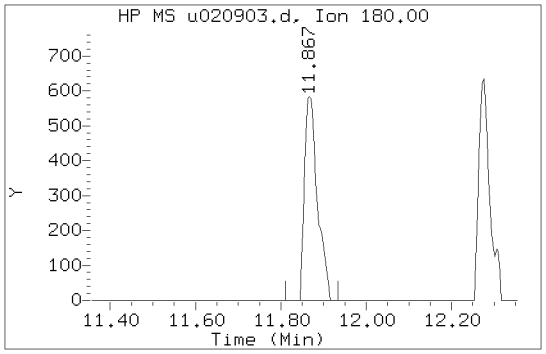

BEFORE

MASS
182
AREA
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HEIGHT
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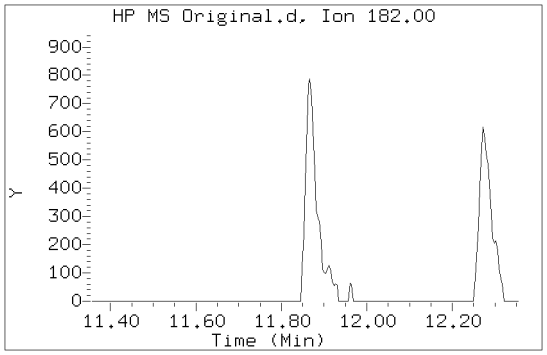
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
182
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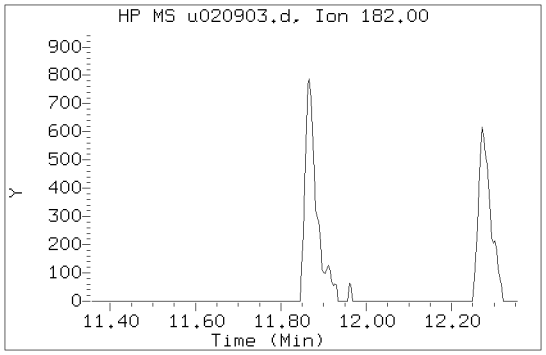
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE

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HEIGHT
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09-Feb-2024
11:53
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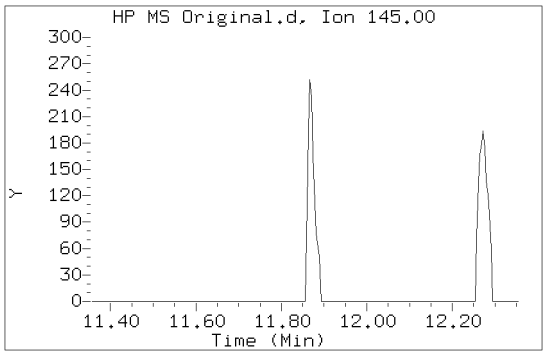

AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:53
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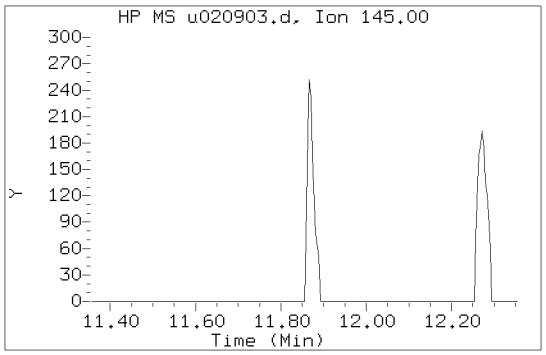

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Hexachlorobutadiene (87-68-3)

Reason Code:

BEFORE

MASS
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AREA
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HEIGHT
526
09-Feb-2024
11:53
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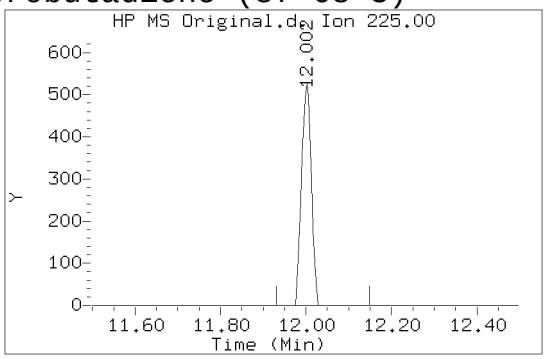

AFTER

MASS
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HEIGHT
526
09-Feb-2024
11:53
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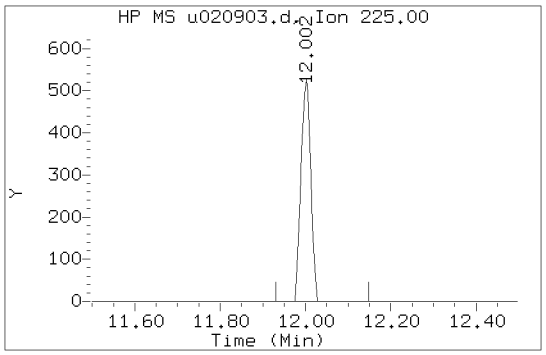

BEFORE

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09-Feb-2024
11:53
firat
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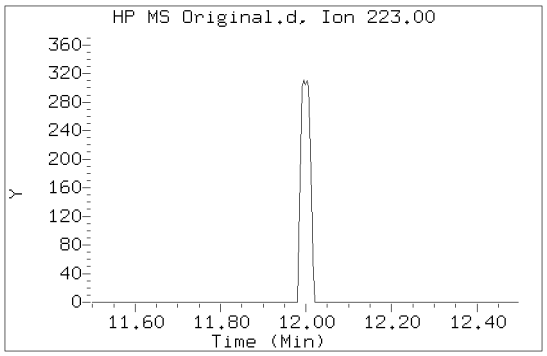

AFTER

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09-Feb-2024
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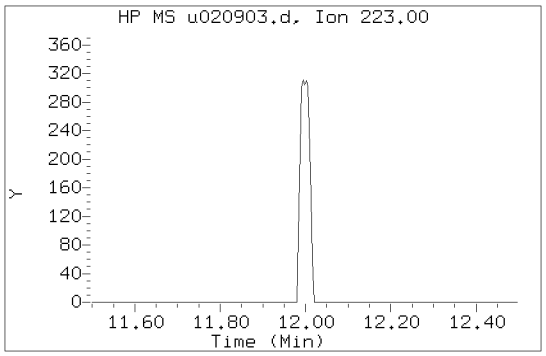

BEFORE

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09-Feb-2024
11:53
firat
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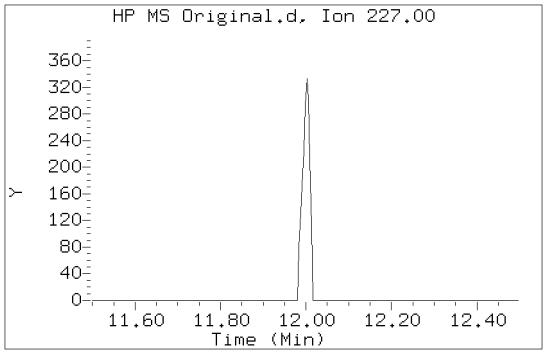

AFTER

MASS
227
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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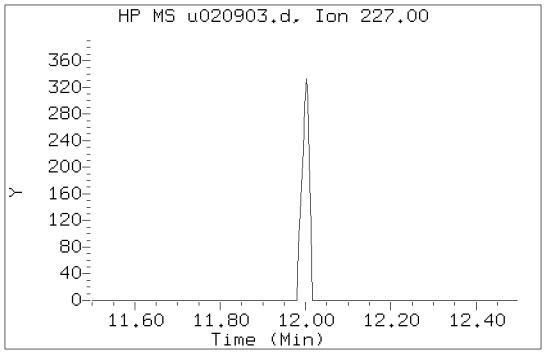

1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE

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AREA
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HEIGHT
635
09-Feb-2024
11:53
firat
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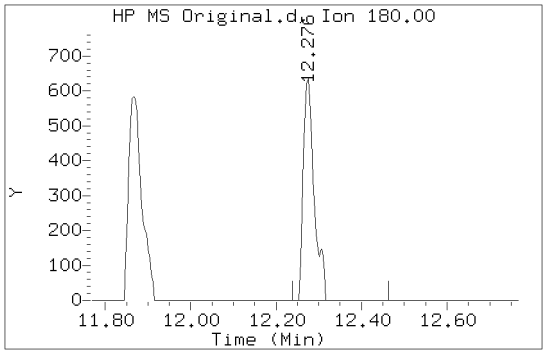

AFTER

MASS
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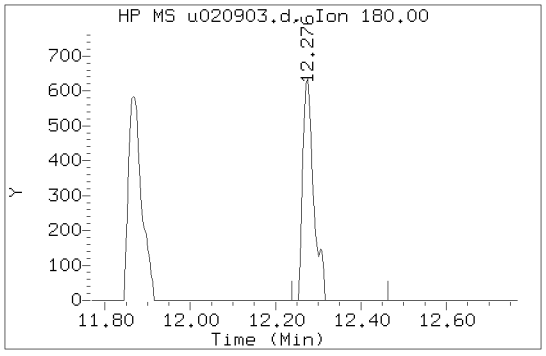
AREA
1136
HEIGHT
635
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
182
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
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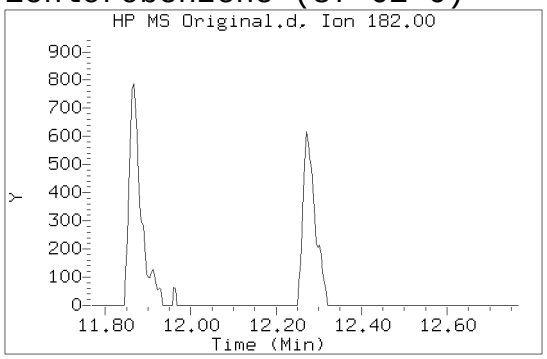

AFTER
MASS
182
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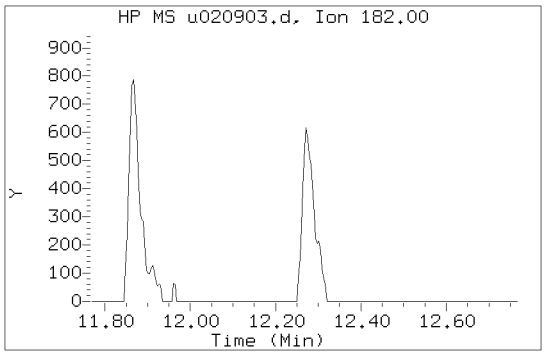
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
145
AREA
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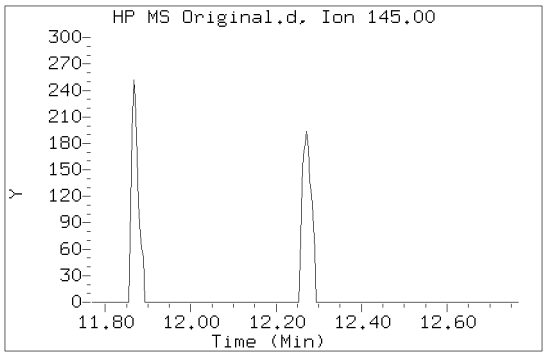
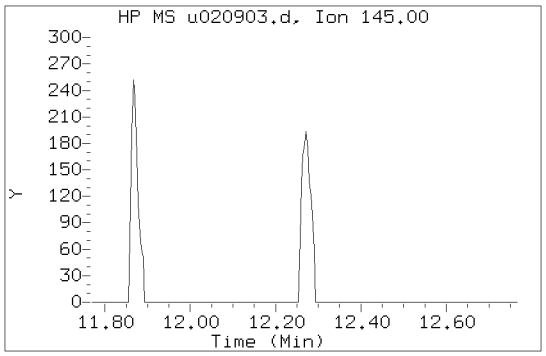
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



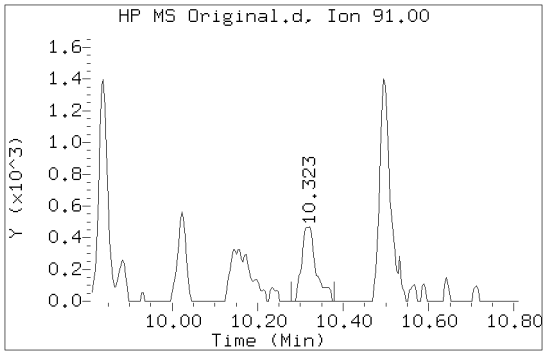
AFTER
MASS
145
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



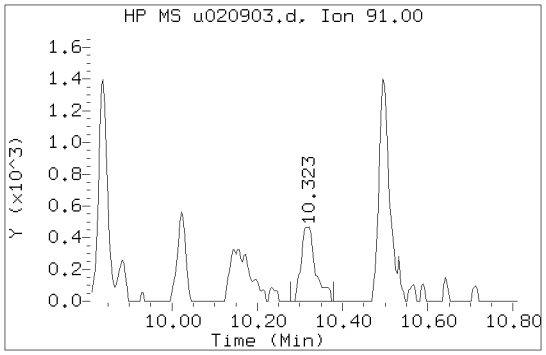
Benzyl Chloride (100-44-7)

Reason Code:

BEFORE
MASS
91
AREA
1114
HEIGHT
469
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
91
AREA
1114
HEIGHT
469
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
126
AREA
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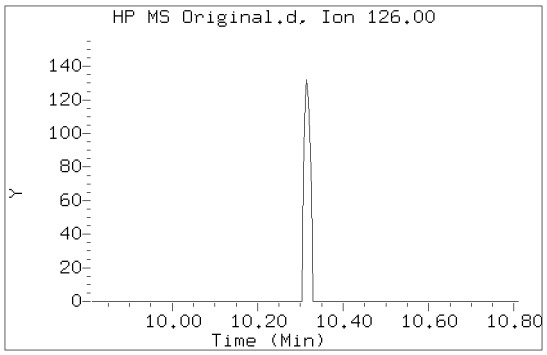
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
126
AREA
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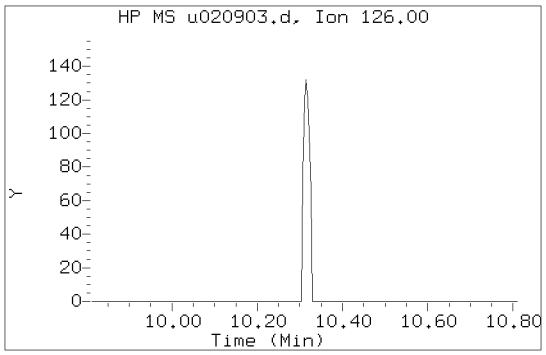
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



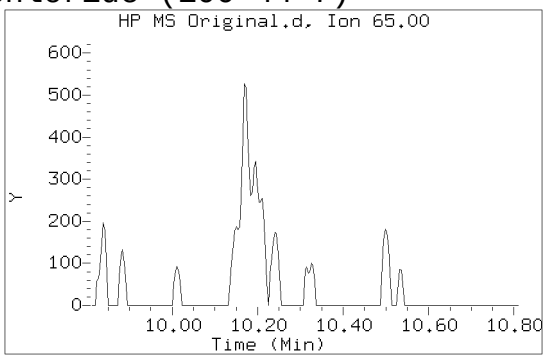
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Benzyl Chloride (100-44-7)

Reason Code:

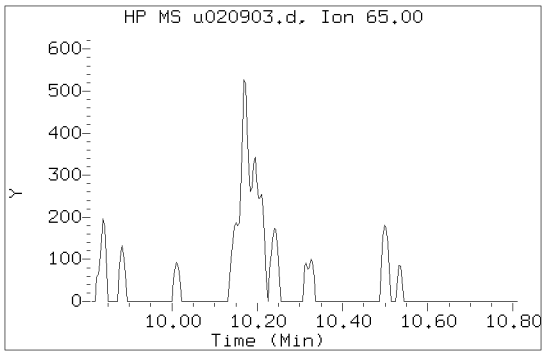
BEFORE

MASS
65
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
65
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

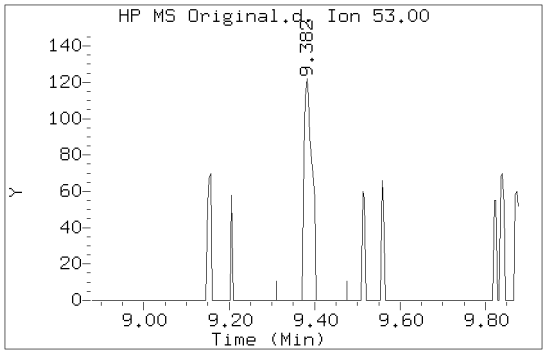


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

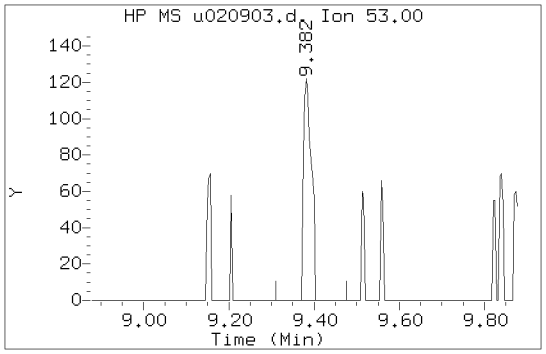
BEFORE

MASS
53
AREA
161
HEIGHT
122
09-Feb-2024
11:53
firat
tastan



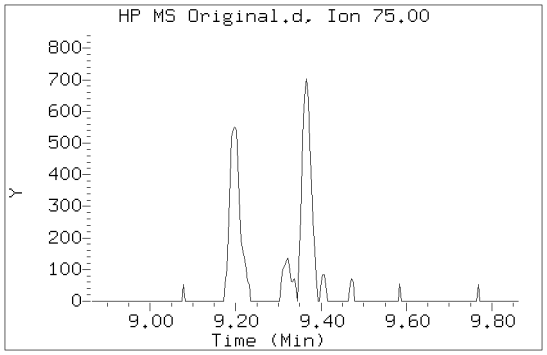
AFTER

MASS
53
AREA
161
HEIGHT
122
09-Feb-2024
11:53
firat
tastan



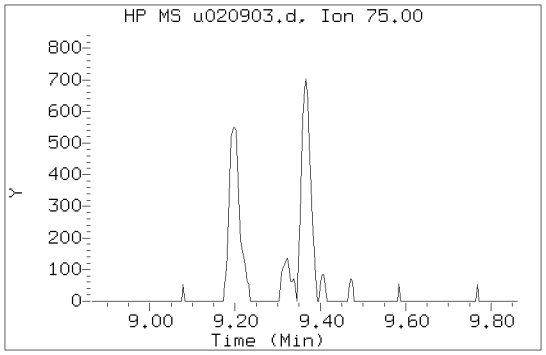
BEFORE

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

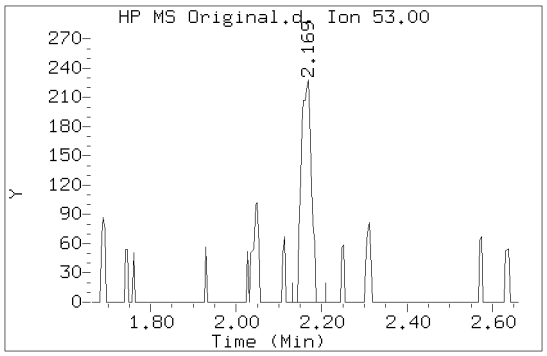


Chloroprene (126-99-8)

Reason Code:

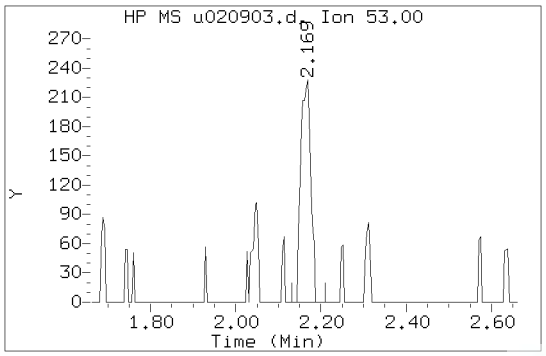
BEFORE

MASS
53
AREA
379
HEIGHT
228
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
53
AREA
379
HEIGHT
228
09-Feb-2024
11:53
firat
tastan



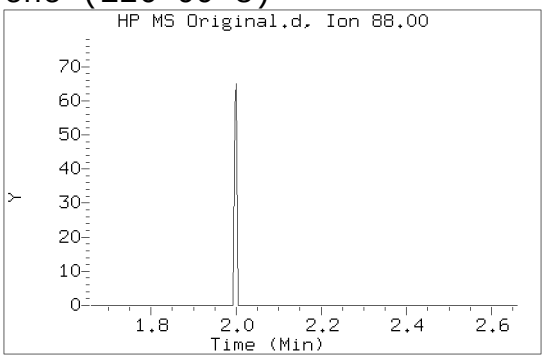
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Chloroprene (126-99-8)

Reason Code:

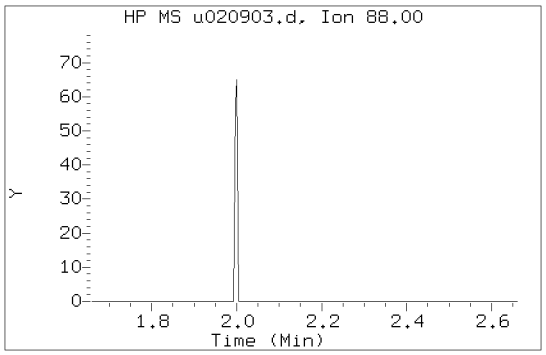
BEFORE

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

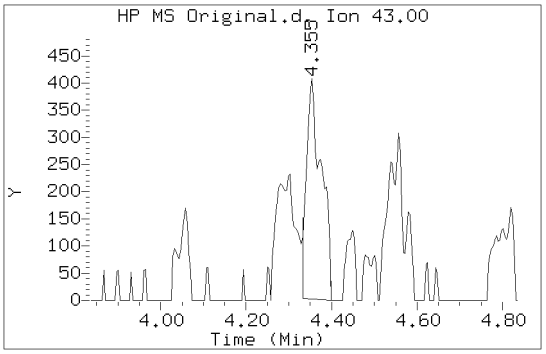


Ethyl Acetate (141-78-6)

Reason Code:

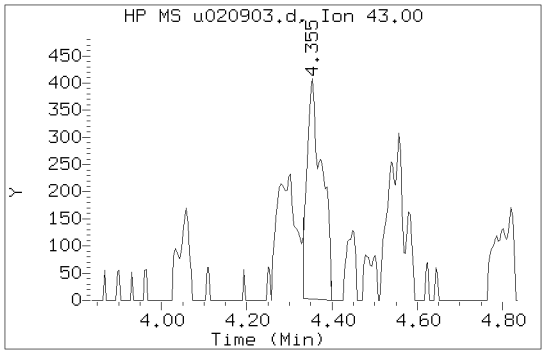
BEFORE

MASS
43
AREA
1001
HEIGHT
405
09-Feb-2024
11:53
firat
tastan



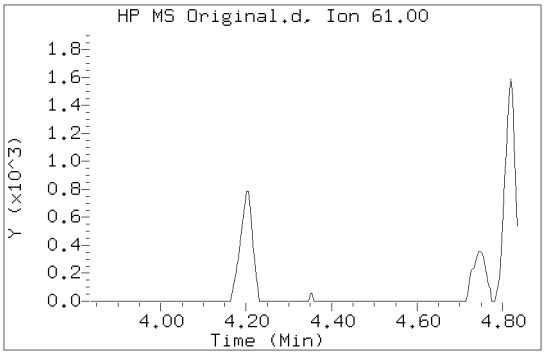
AFTER

MASS
43
AREA
1001
HEIGHT
405
09-Feb-2024
11:53
firat
tastan



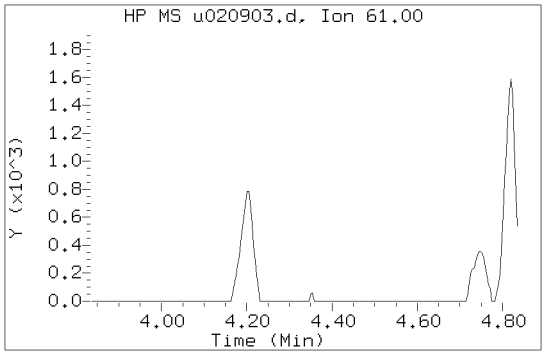
BEFORE

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



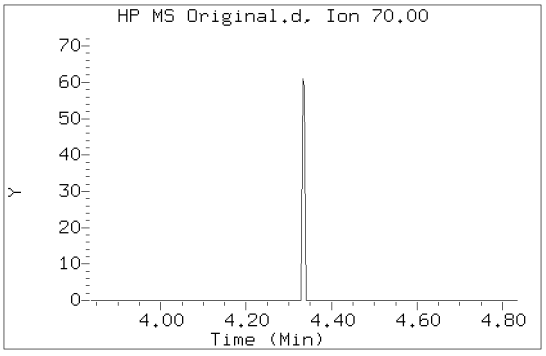
AFTER

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



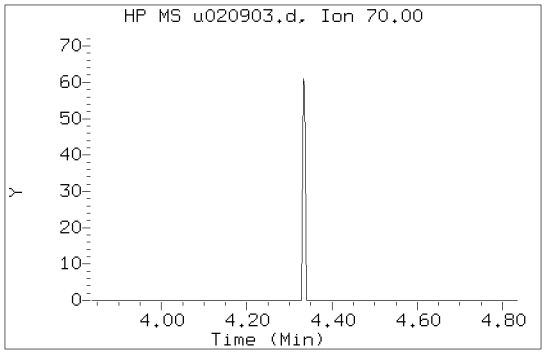
BEFORE

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

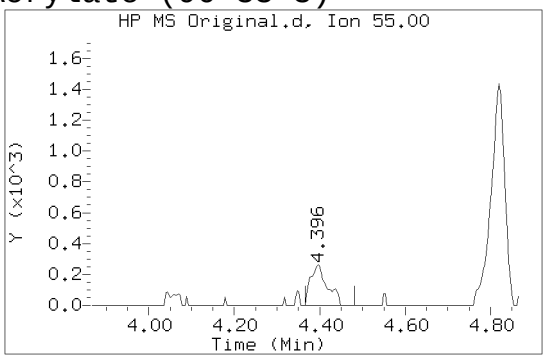
MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

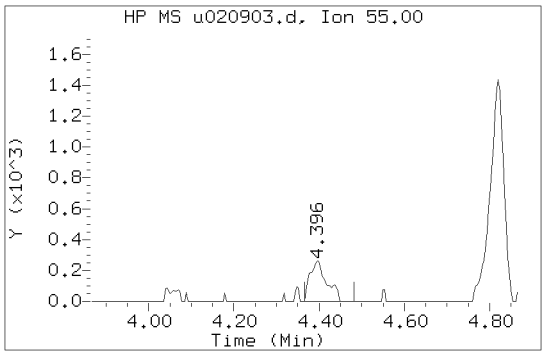
Methyl Acrylate (96-33-3)

BEFORE
MASS
55
AREA
713
HEIGHT
263
09-Feb-2024
11:53
firat
tastan

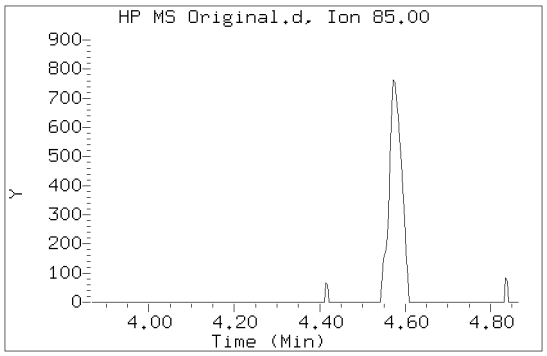


Reason Code:

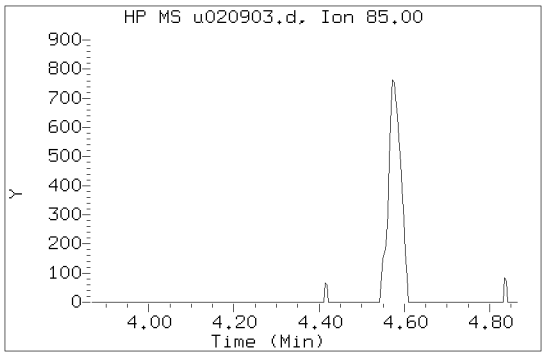
AFTER
MASS
55
AREA
713
HEIGHT
263
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

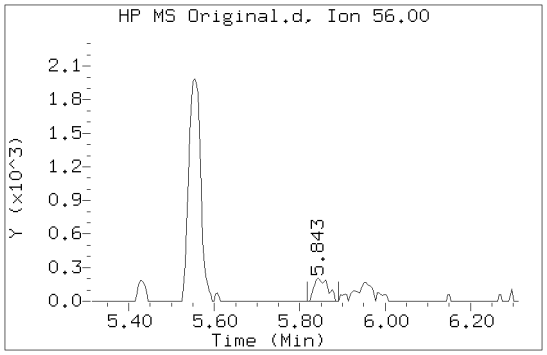


AFTER
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



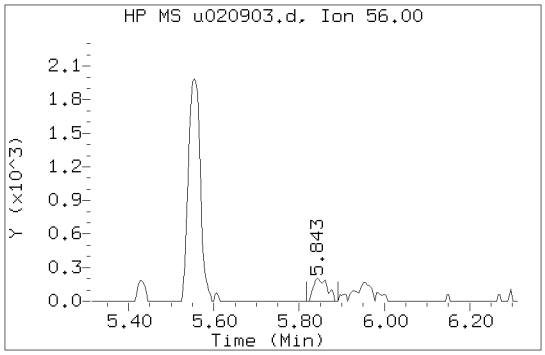
n-Butanol (71-36-3)

BEFORE
MASS
56
AREA
465
HEIGHT
205
09-Feb-2024
11:53
firat
tastan

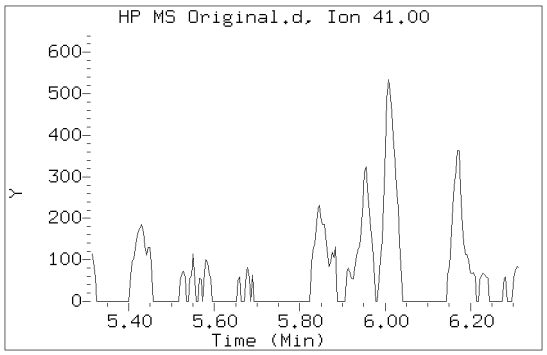


Reason Code:

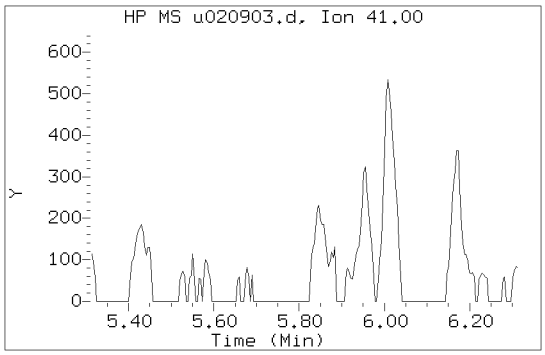
AFTER
MASS
56
AREA
465
HEIGHT
205
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



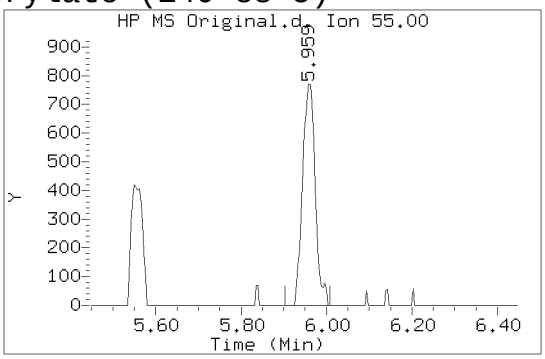
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Ethyl Acrylate (140-88-5)

Reason Code:

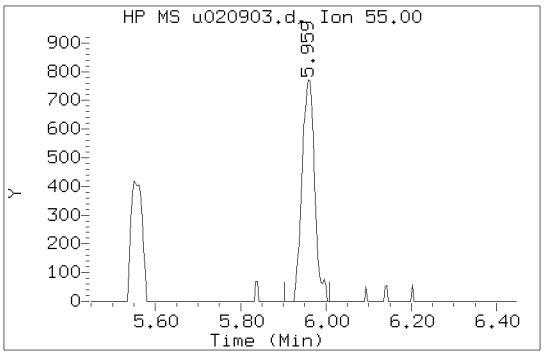
BEFORE

MASS
55
AREA
1618
HEIGHT
772
09-Feb-2024
11:53
firat
tastan



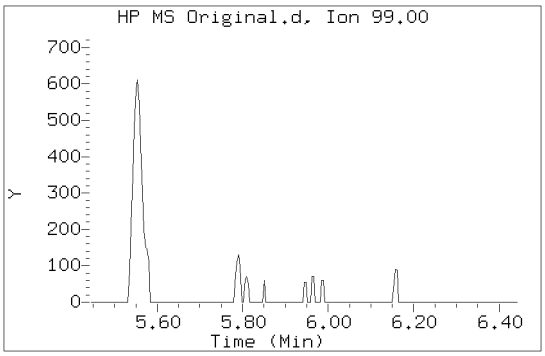
AFTER

MASS
55
AREA
1618
HEIGHT
772
09-Feb-2024
11:53
firat
tastan



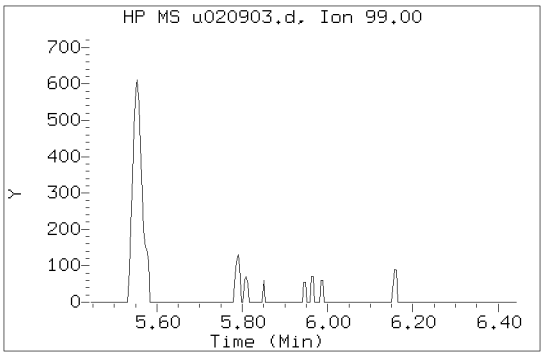
BEFORE

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

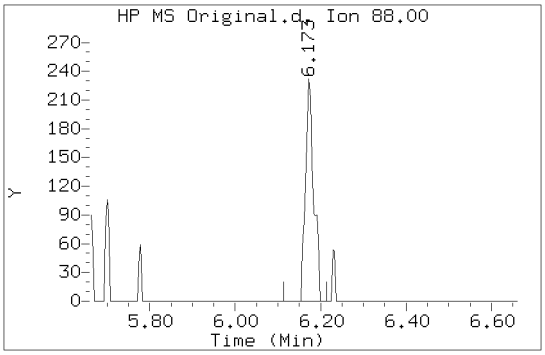


1,4-Dioxane ()

Reason Code:

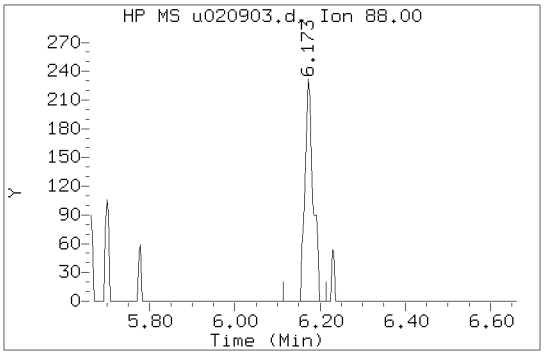
BEFORE

MASS
88
AREA
308
HEIGHT
232
09-Feb-2024
11:53
firat
tastan



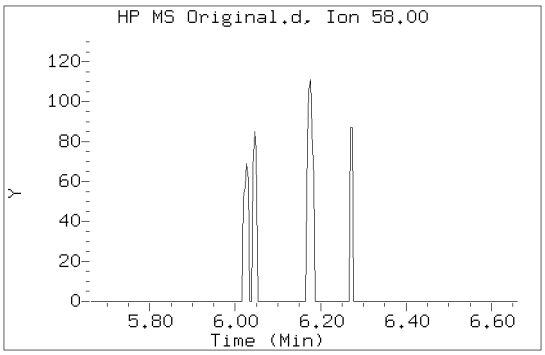
AFTER

MASS
88
AREA
308
HEIGHT
232
09-Feb-2024
11:53
firat
tastan



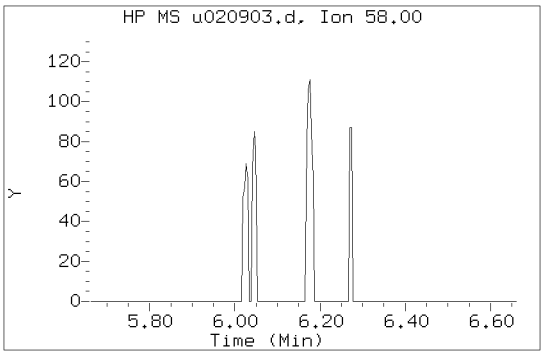
BEFORE

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

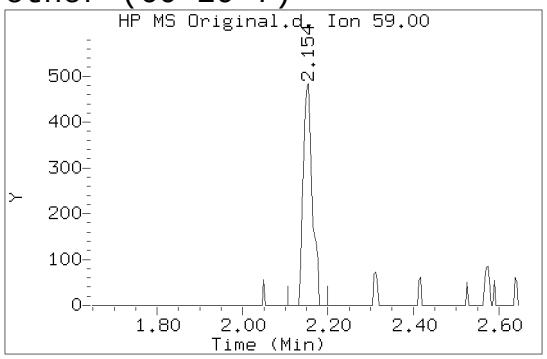


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

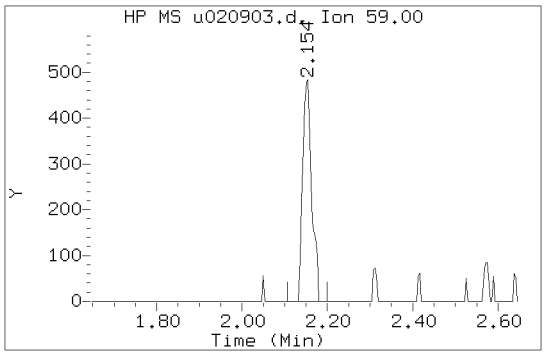
Diethyl ether (60-29-7)

Reason Code:

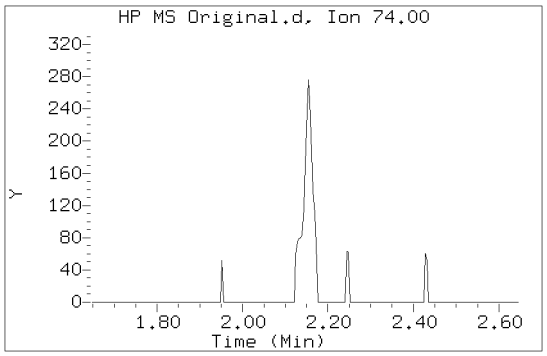
BEFORE
MASS
59
AREA
732
HEIGHT
484
09-Feb-2024
11:53
firat
tastan



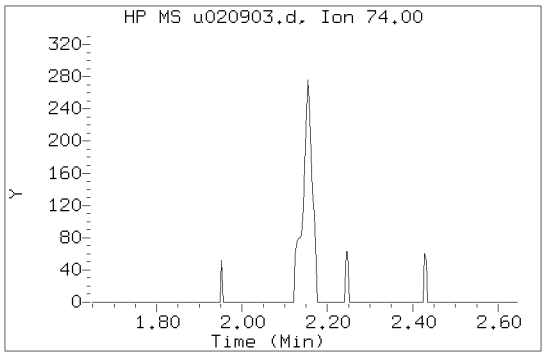
AFTER
MASS
59
AREA
732
HEIGHT
484
09-Feb-2024
11:53
firat
tastan



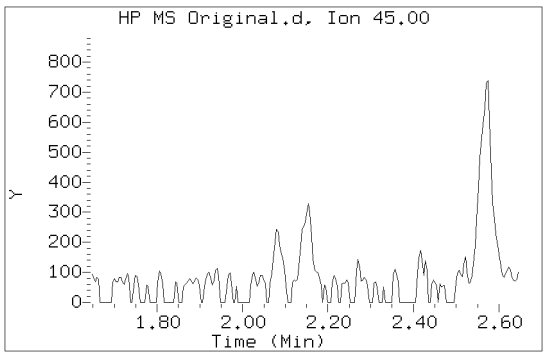
BEFORE
MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



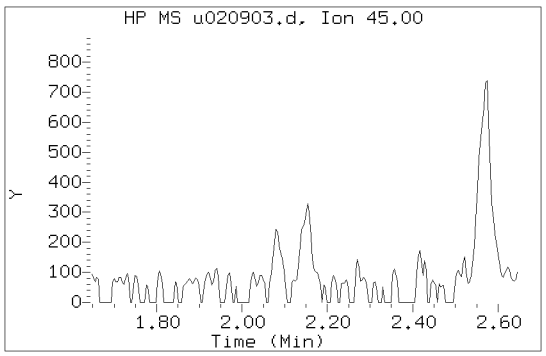
AFTER
MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
45
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



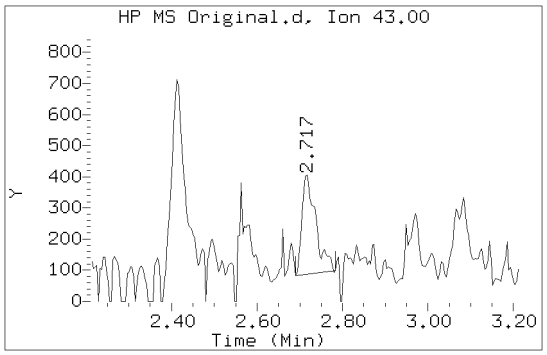
AFTER
MASS
45
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



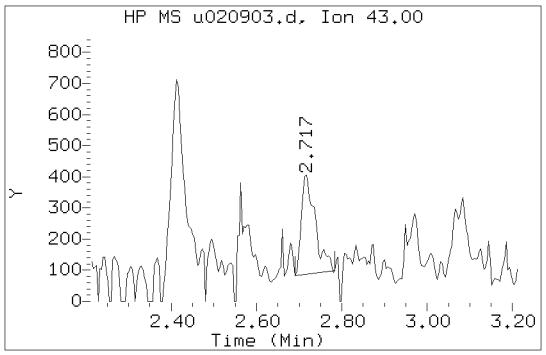
Methyl acetate (79-20-9)

Reason Code:

BEFORE
MASS
43
AREA
726
HEIGHT
318
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
43
AREA
726
HEIGHT
318
09-Feb-2024
11:53
firat
tastan



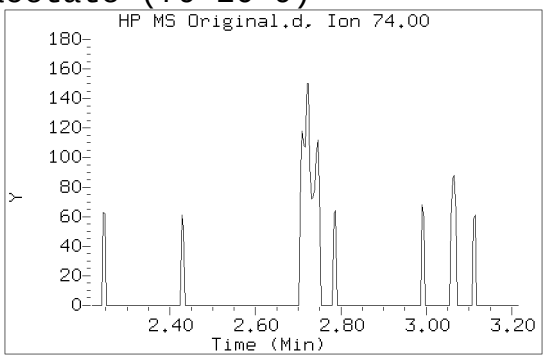
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Methyl acetate (79-20-9)

Reason Code:

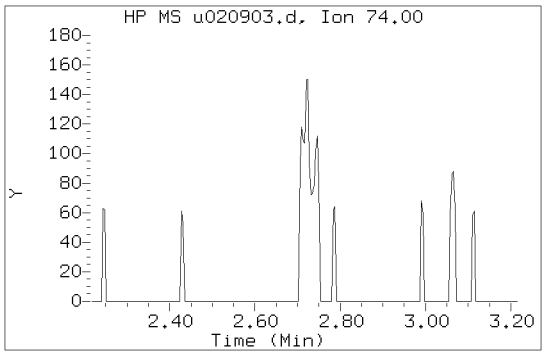
BEFORE

MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

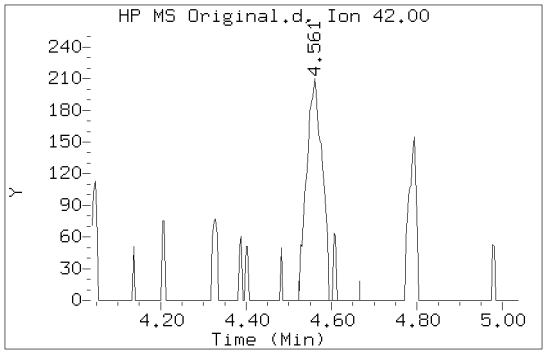


Tetrahydrofuran (109-99-9)

Reason Code:

BEFORE

MASS
42
AREA
561
HEIGHT
210
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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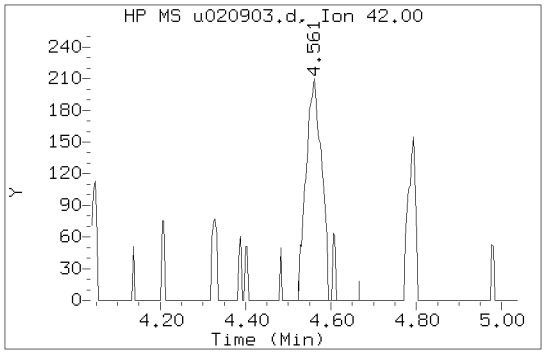
561
HEIGHT
210
09-Feb-2024
11:53
firat
tastan



BEFORE

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HEIGHT
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09-Feb-2024
11:53
firat
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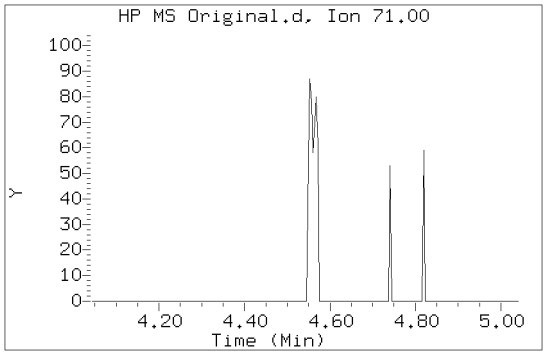

AFTER

MASS
71
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0
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0
09-Feb-2024
11:53
firat
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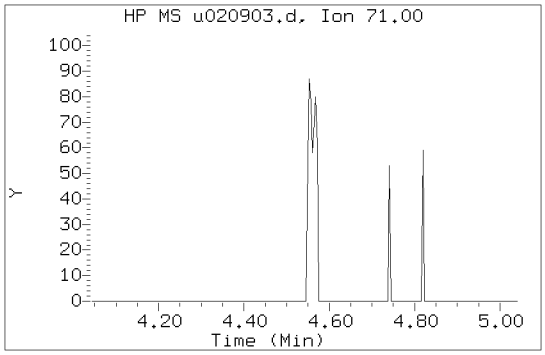

Amyl alcohol (71-41-0)

Reason Code:

BEFORE

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563
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09-Feb-2024
11:53
firat
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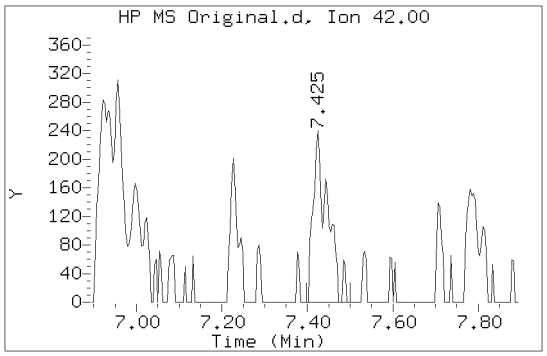

AFTER

MASS
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563
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09-Feb-2024
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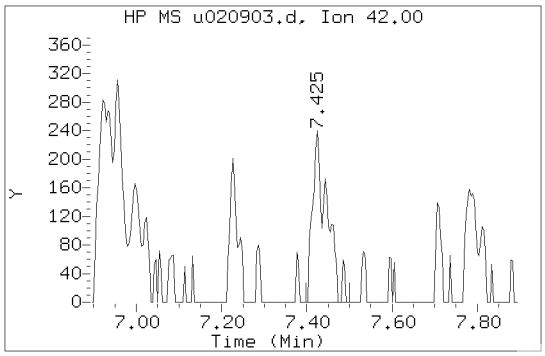

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Amyl alcohol (71-41-0)

BEFORE
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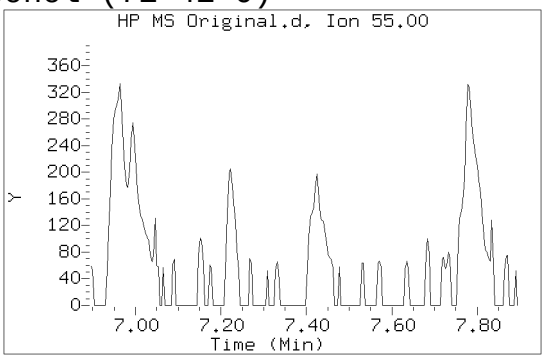
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER
MASS
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AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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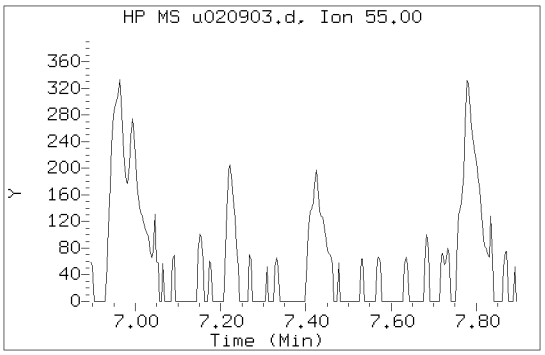

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09-Feb-2024
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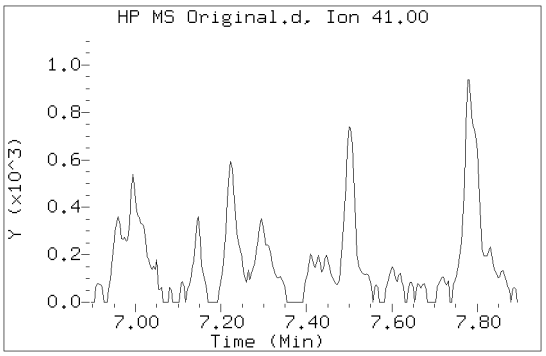

AFTER
MASS
41
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HEIGHT
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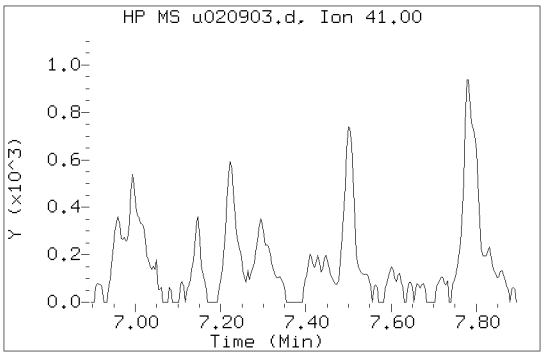
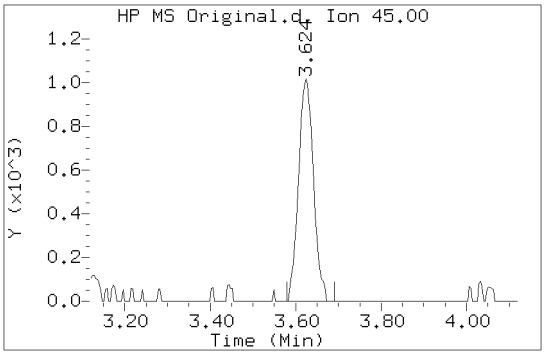
09-Feb-2024
11:53
firat
tastan



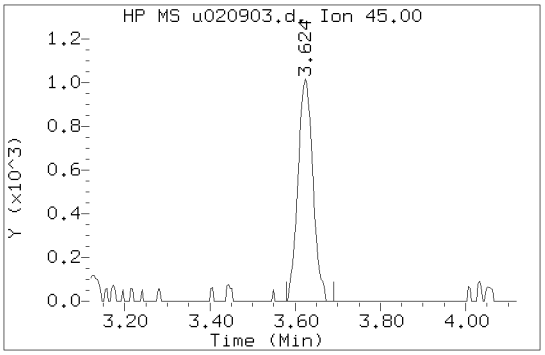
Diisopropyl ether (108-20-3)

BEFORE
MASS
45
AREA
2511
HEIGHT
1016
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER
MASS
45
AREA
2511
HEIGHT
1016
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
59
AREA
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HEIGHT
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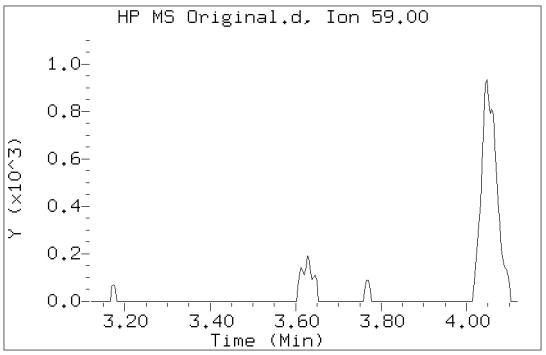
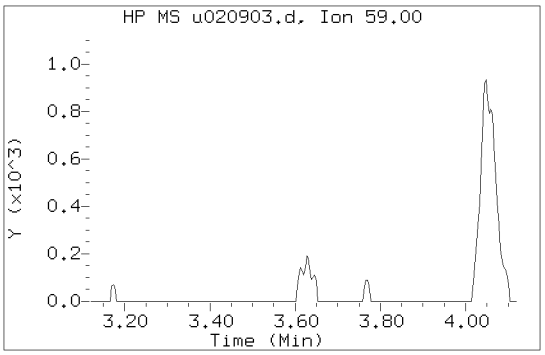
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
59
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



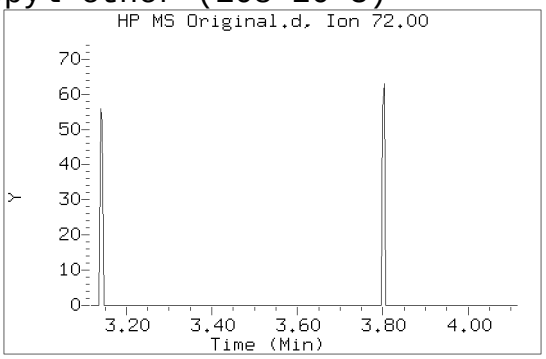
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Diisopropyl ether (108-20-3)

Reason Code:

BEFORE

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
72
AREA
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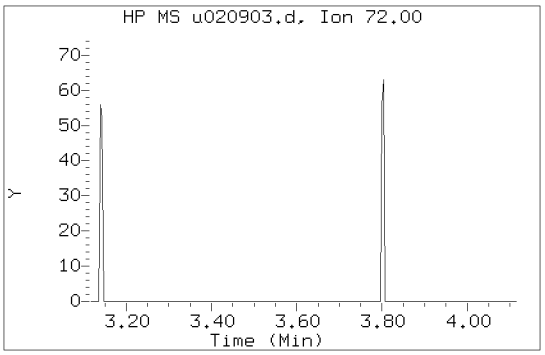
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

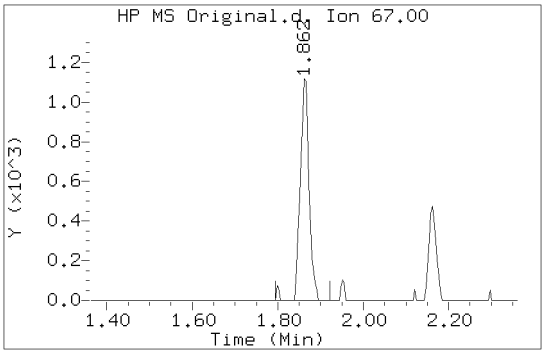


Dichlorofluoromethane (75-43-4)

Reason Code:

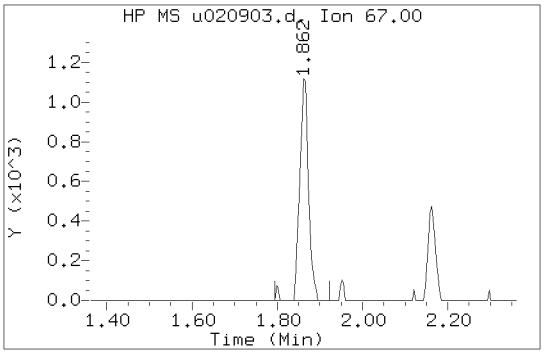
BEFORE

MASS
67
AREA
1655
HEIGHT
1118
09-Feb-2024
11:53
firat
tastan



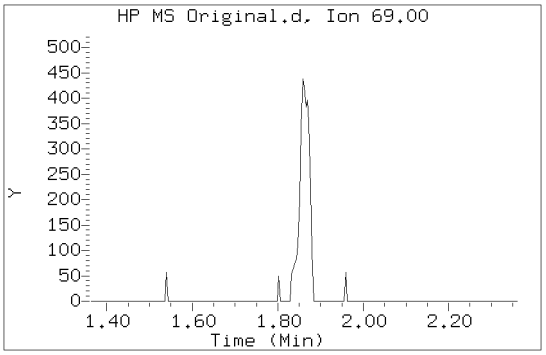
AFTER

MASS
67
AREA
1655
HEIGHT
1118
09-Feb-2024
11:53
firat
tastan



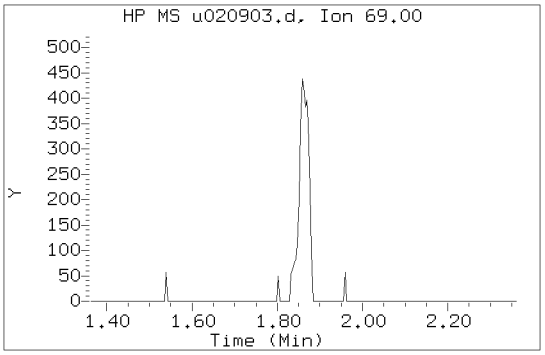
BEFORE

MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
37
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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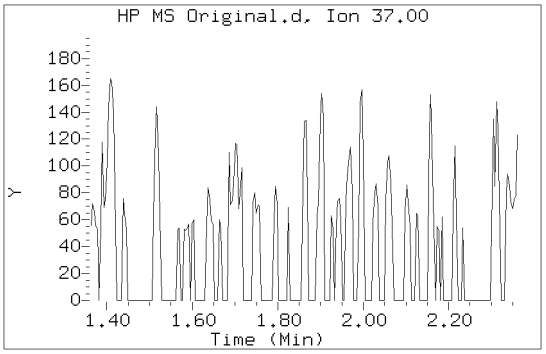
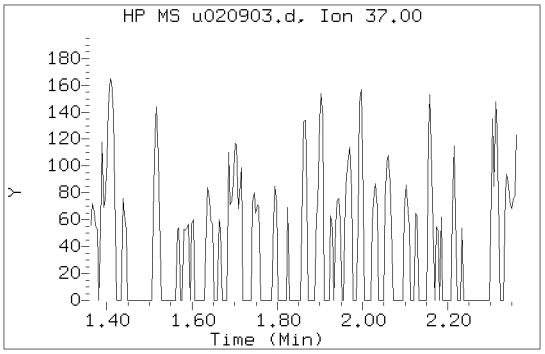


AFTER

MASS
37
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



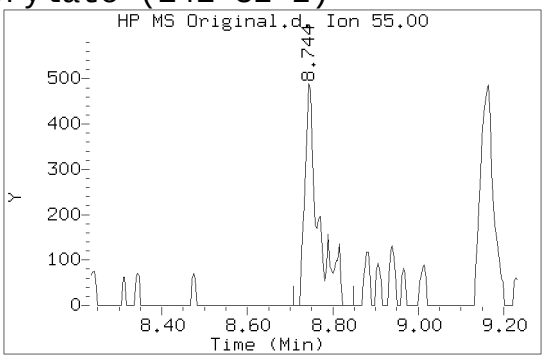
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Butyl acrylate (141-32-2)

Reason Code:

BEFORE

MASS
55
AREA
1055
HEIGHT
489
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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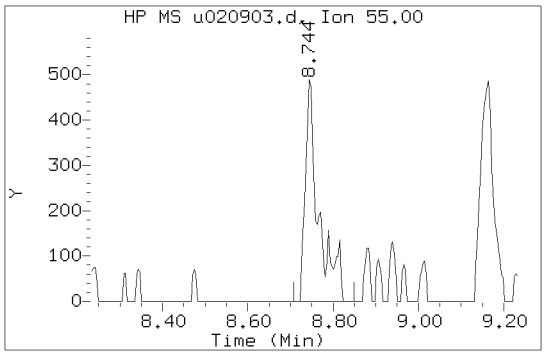
AREA
1055
HEIGHT
489
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
56
AREA
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HEIGHT
0
09-Feb-2024
11:53
firat
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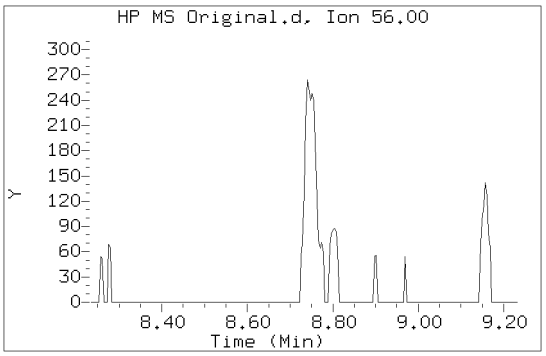

AFTER

MASS
56
AREA
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HEIGHT
0
09-Feb-2024
11:53
firat
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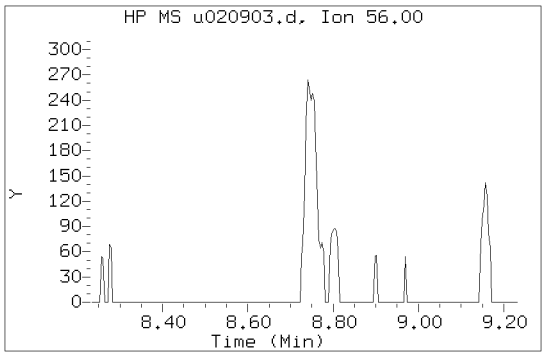

BEFORE

MASS
73
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
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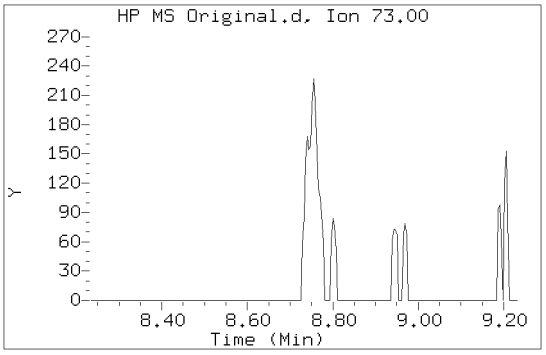

AFTER

MASS
73
AREA
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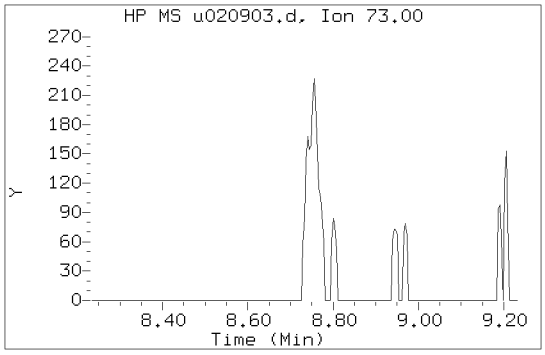
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Butyl methacrylate (97-88-1)

Reason Code:

BEFORE

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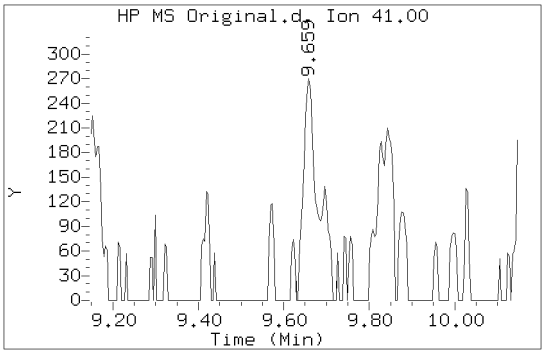
AREA
663
HEIGHT
270
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
663
HEIGHT
270
09-Feb-2024
11:53
firat
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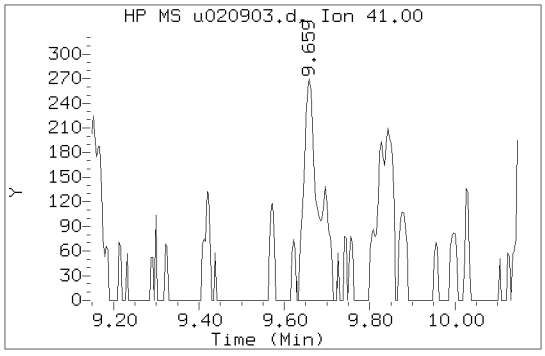
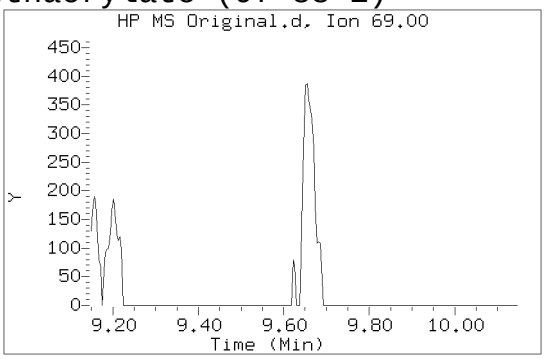


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

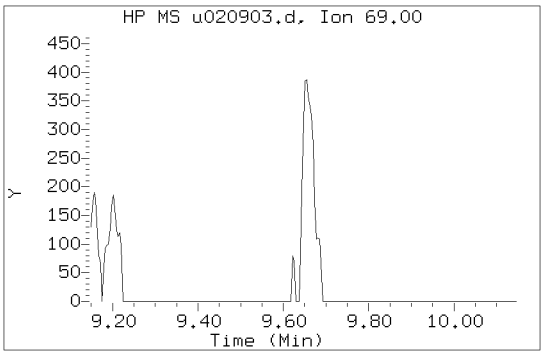
Butyl methacrylate (97-88-1)

Reason Code:

BEFORE
MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
87
AREA
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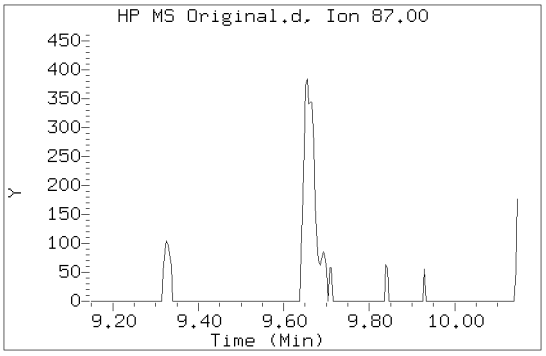
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
87
AREA
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HEIGHT
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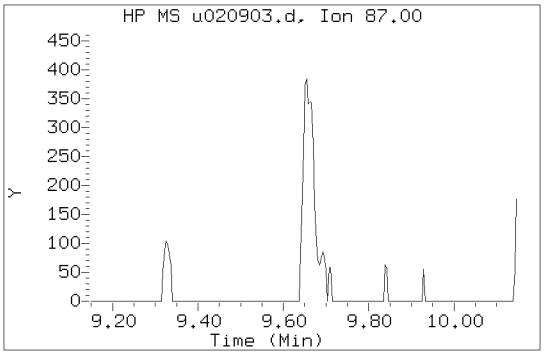
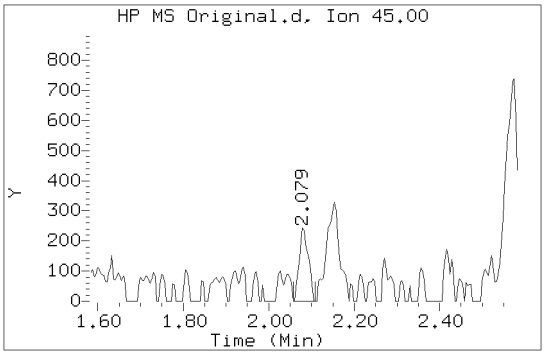
09-Feb-2024
11:53
firat
tastan



Ethanol (64-17-5)

Reason Code:

BEFORE
MASS
45
AREA
367
HEIGHT
243
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
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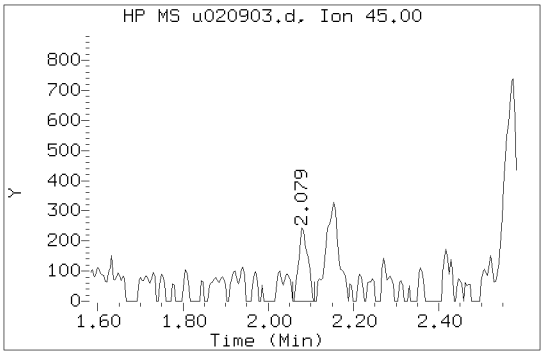
AREA
367
HEIGHT
243
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
46
AREA
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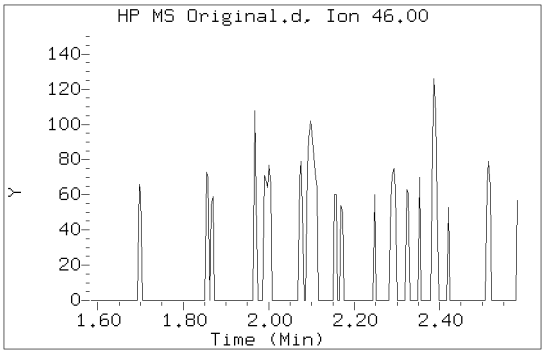
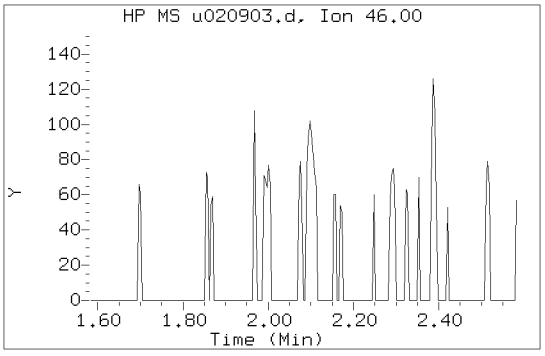
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
46
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



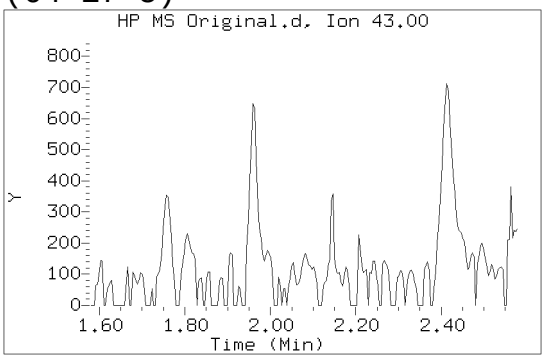
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Ethanol (64-17-5)

Reason Code:

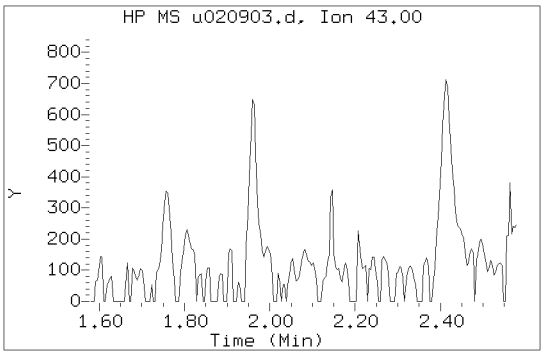
BEFORE

MASS
43
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
43
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

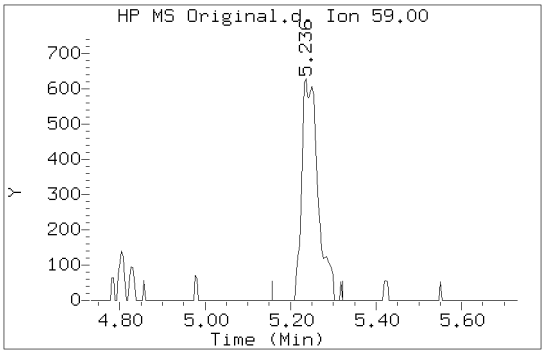


tert-Butyl formate (762-75-4)

Reason Code:

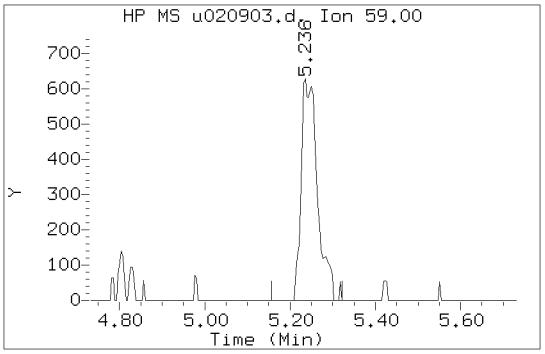
BEFORE

MASS
59
AREA
1692
HEIGHT
629
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
59
AREA
1692
HEIGHT
629
09-Feb-2024
11:53
firat
tastan



BEFORE

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09-Feb-2024
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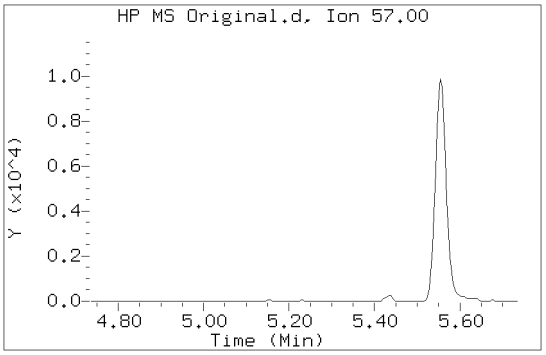

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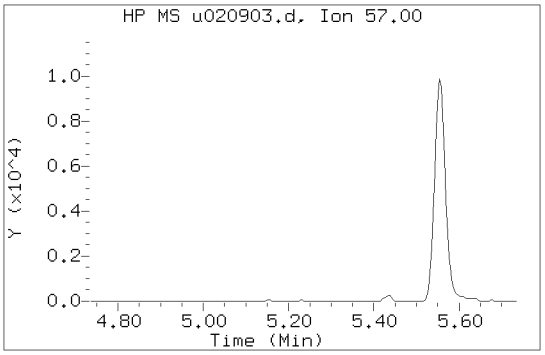

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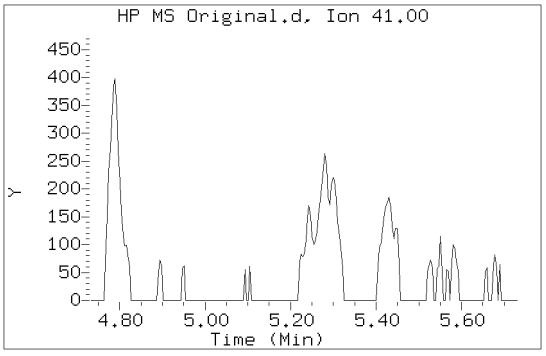

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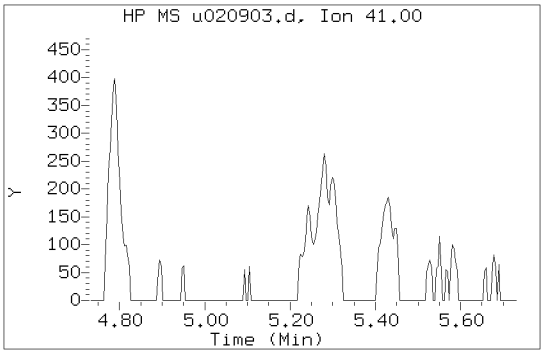

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

3,3-Dimethyl-1-butanol (624-95-3)

Reason Code:

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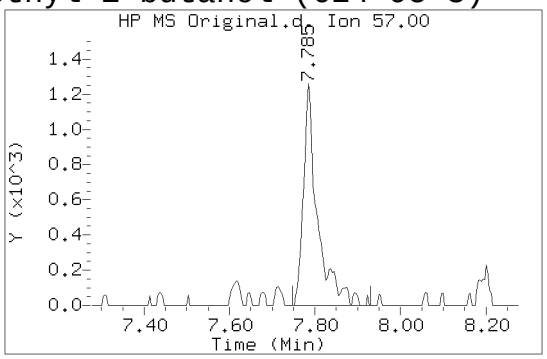

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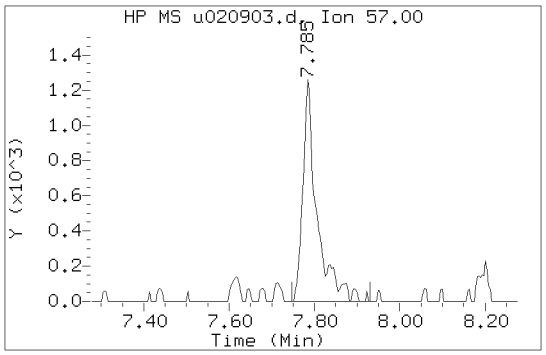

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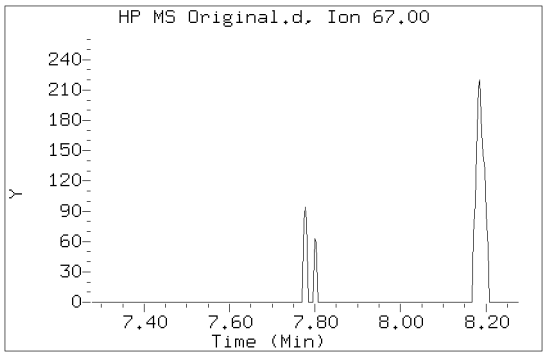

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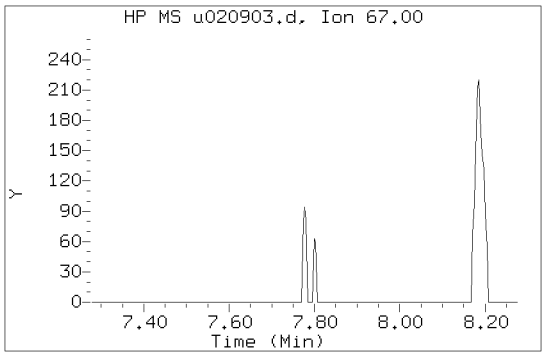

BEFORE

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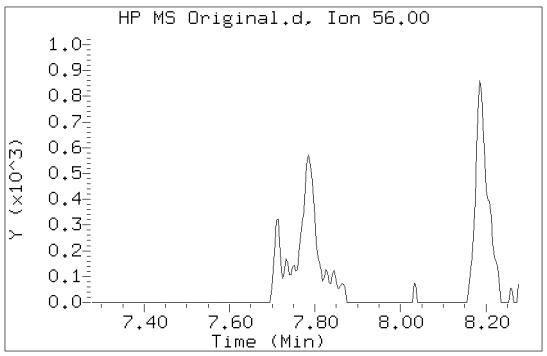

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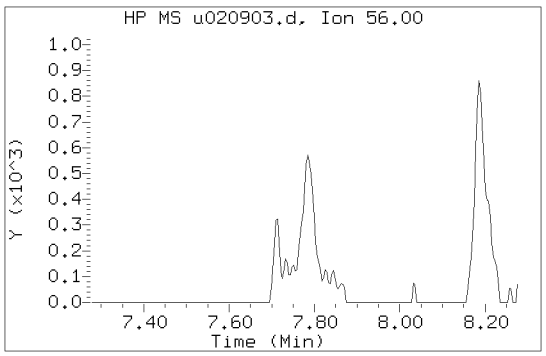

Epichlorohydrin (106-89-8)

Reason Code:

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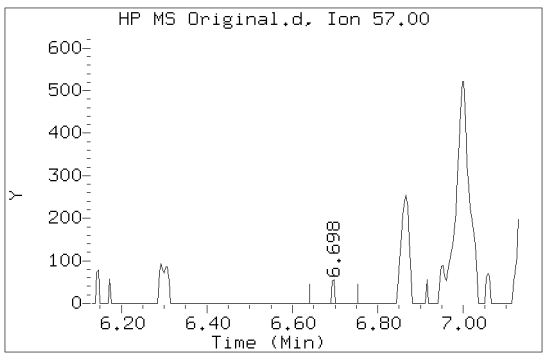

AFTER

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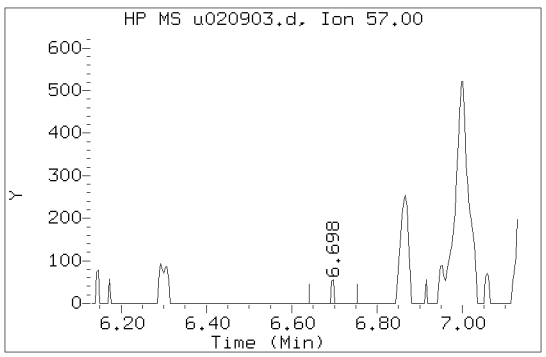

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Epichlorohydrin (106-89-8)

Reason Code:

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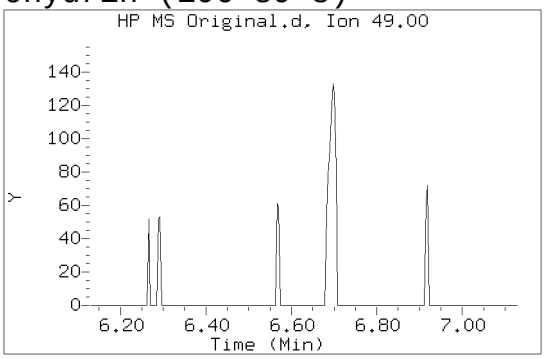

AFTER

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09-Feb-2024
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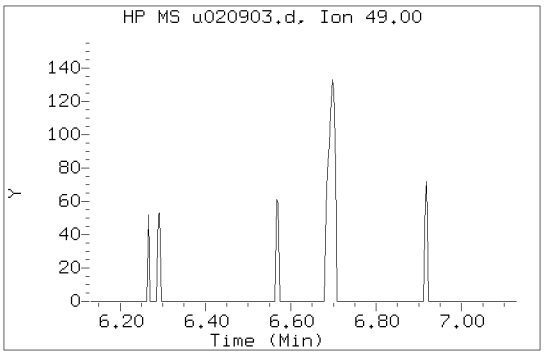

Isoprene (78-79-5)

Reason Code:

BEFORE

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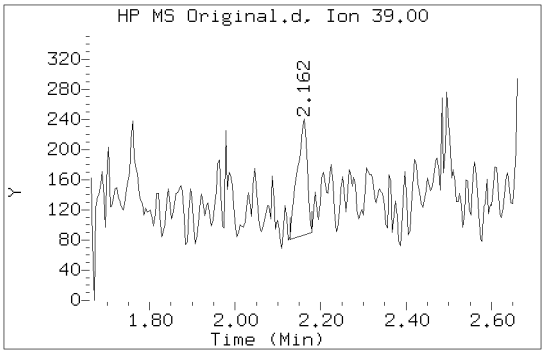

AFTER

MASS
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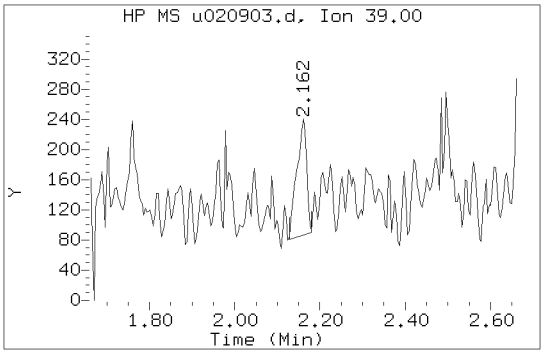

BEFORE

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09-Feb-2024
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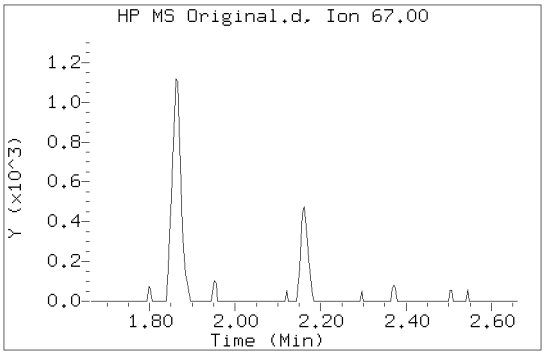

AFTER

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11:53
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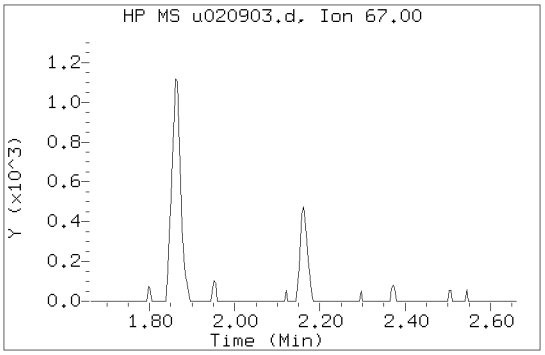

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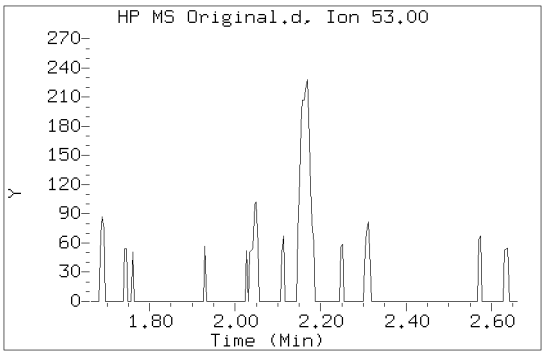

AFTER

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09-Feb-2024
11:53
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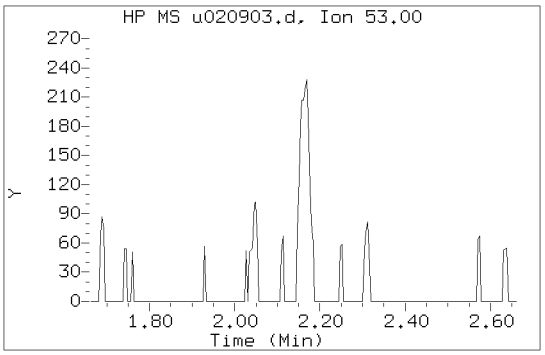

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

n-Amyl acetate (628-63-7)

Reason Code:

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09-Feb-2024
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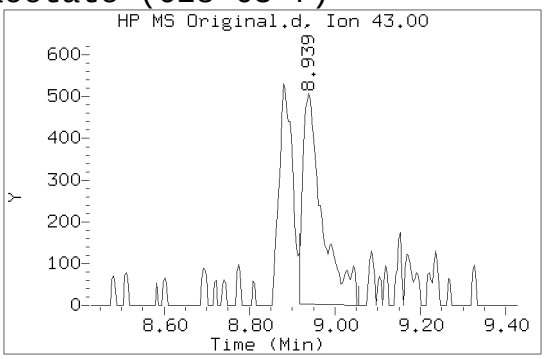

AFTER
MASS
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09-Feb-2024
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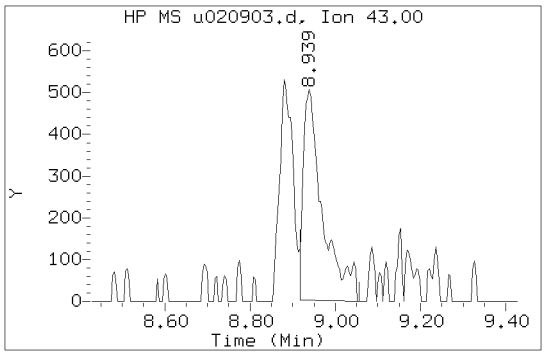

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09-Feb-2024
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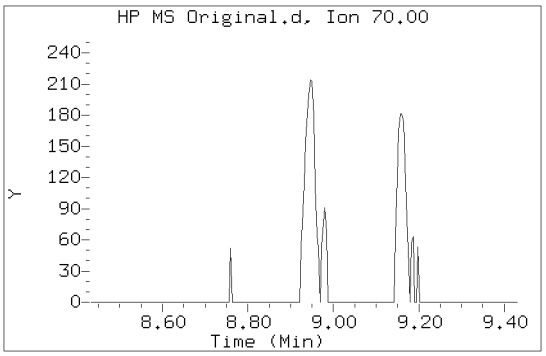

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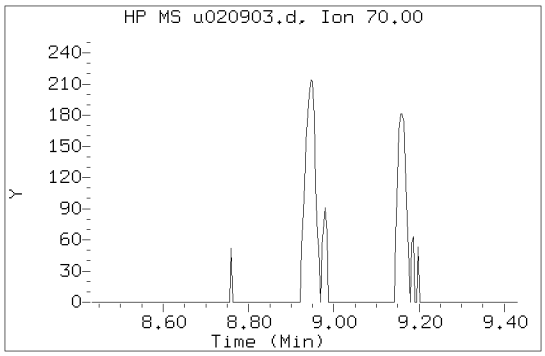

BEFORE
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09-Feb-2024
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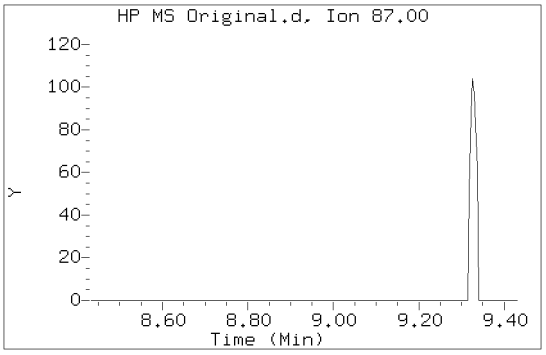

AFTER
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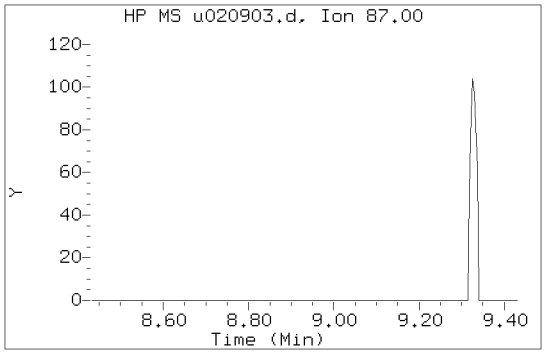

Isopropyl acetate (108-21-4)

Reason Code:

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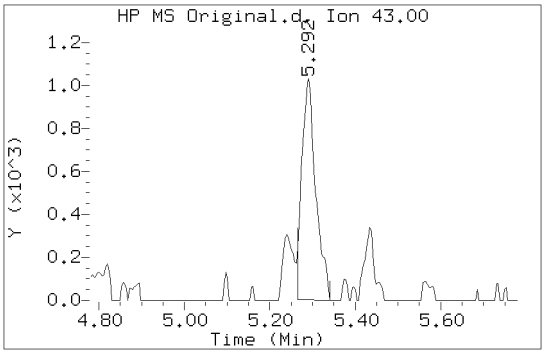

AFTER
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1029
09-Feb-2024
11:53
firat
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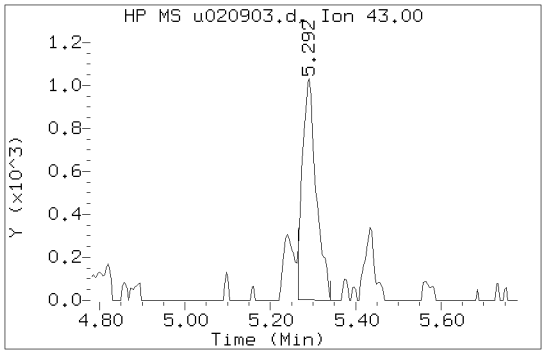

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Isopropyl acetate (108-21-4)

Reason Code:

BEFORE

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HEIGHT
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09-Feb-2024
11:53
firat
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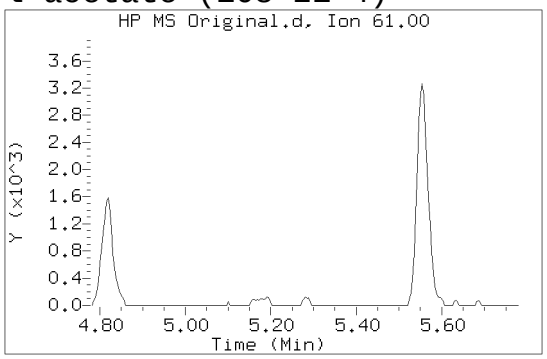

AFTER

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09-Feb-2024
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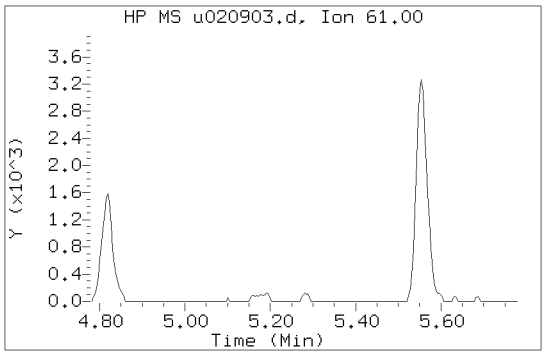

n-Butyl acetate (123-86-4)

Reason Code:

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09-Feb-2024
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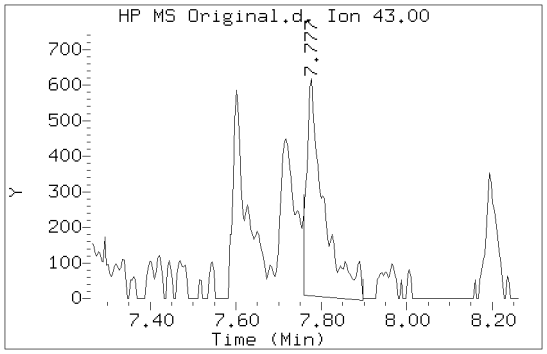

AFTER

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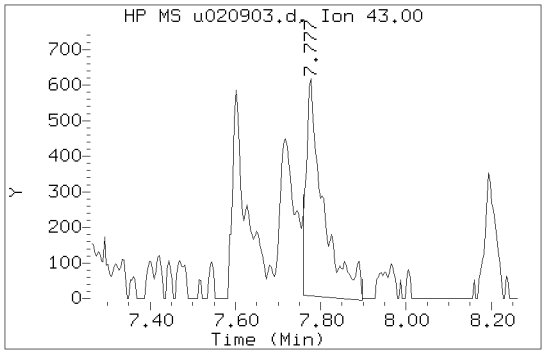

BEFORE

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09-Feb-2024
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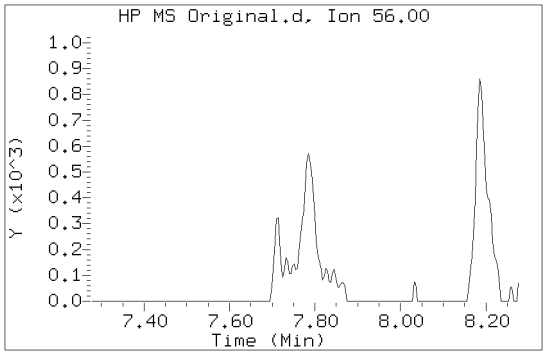

AFTER

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firat
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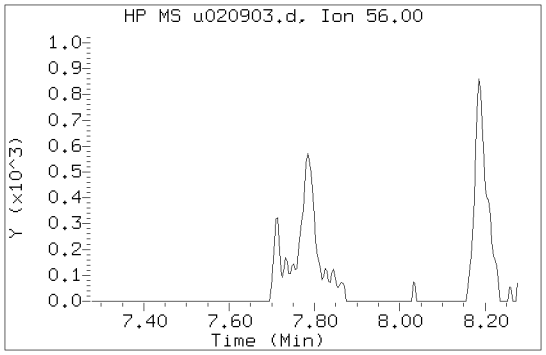

BEFORE

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09-Feb-2024
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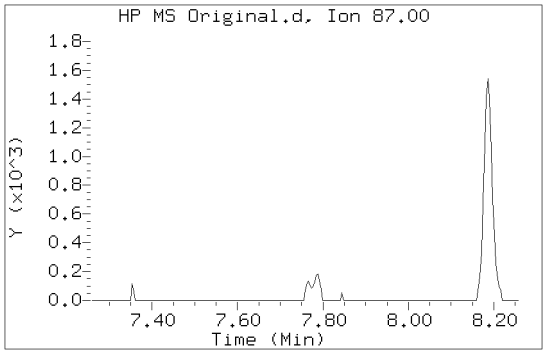

AFTER

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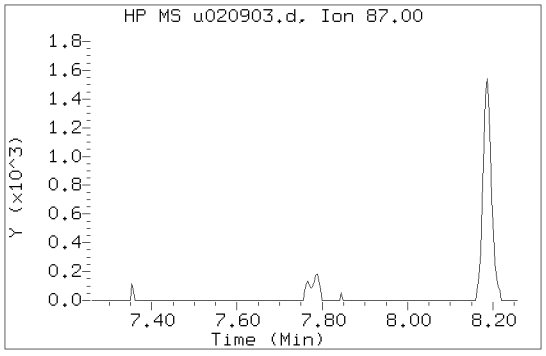

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Acetaldehyde (75-07-0)

Reason Code:

BEFORE
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44
AREA
173
HEIGHT
198
09-Feb-2024
11:53
firat
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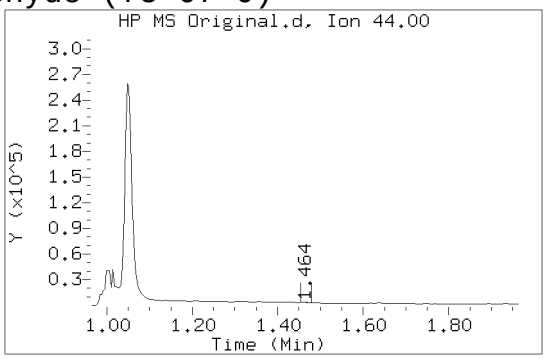

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198
09-Feb-2024
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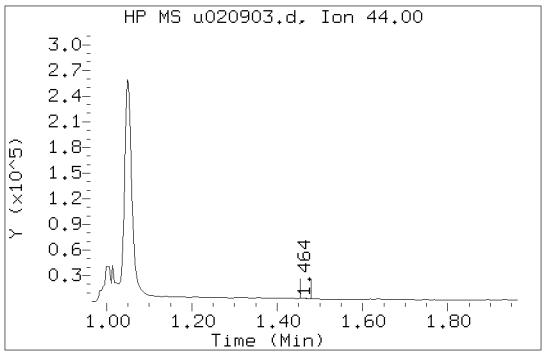

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09-Feb-2024
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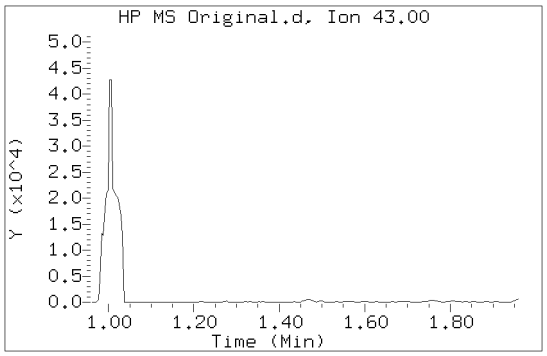

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09-Feb-2024
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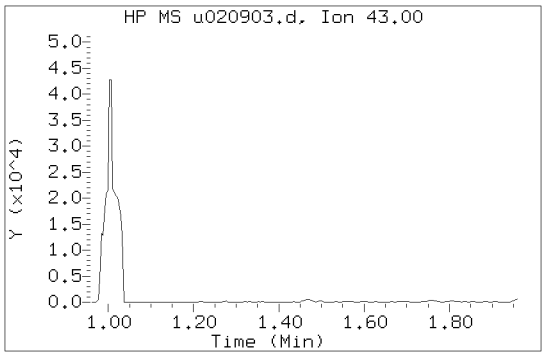

BEFORE
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09-Feb-2024
11:53
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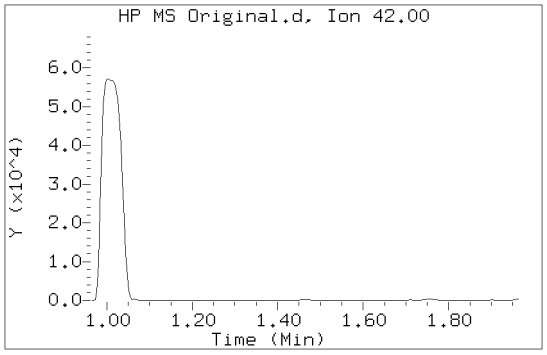

AFTER
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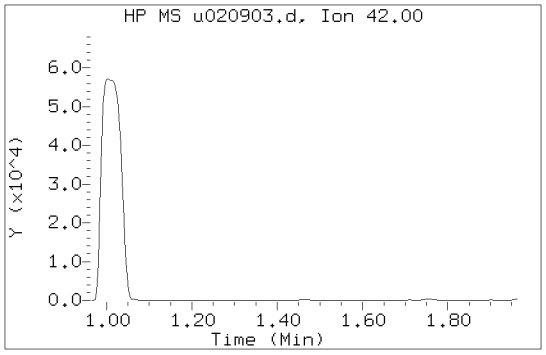

Methyl Amyl Ketone (110-43-0)

Reason Code:

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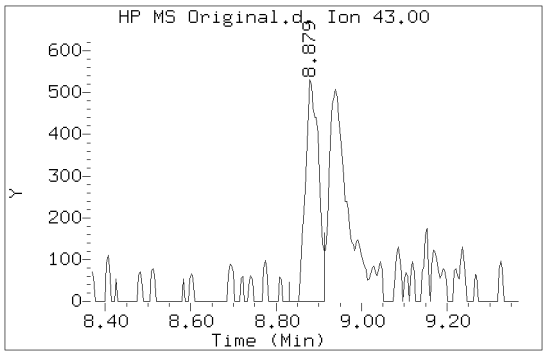

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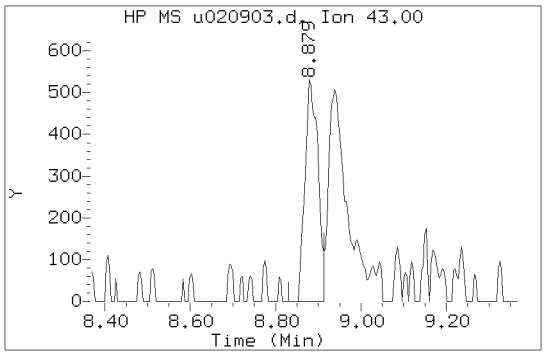

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Methyl Amyl Ketone (110-43-0)

Reason Code:

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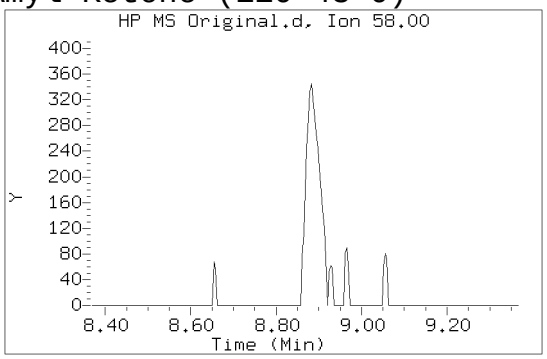

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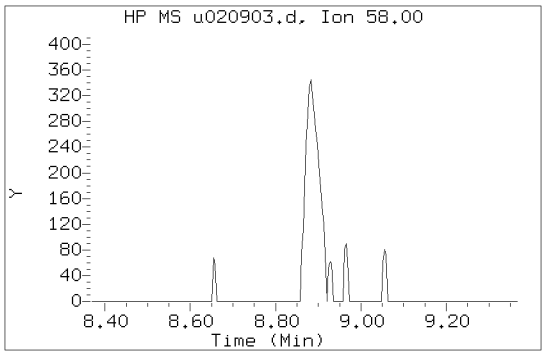

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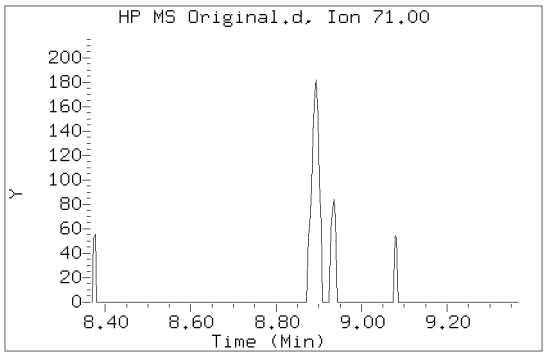

AFTER

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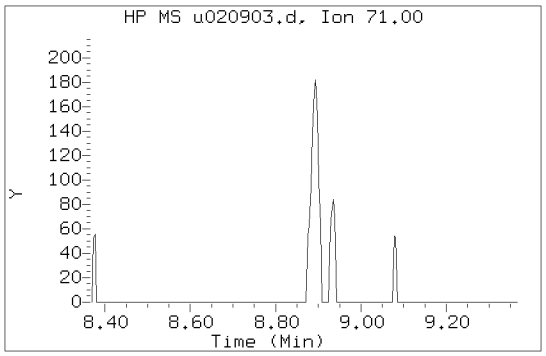

Dimethyl Disulfide (624-92-0)

Reason Code:

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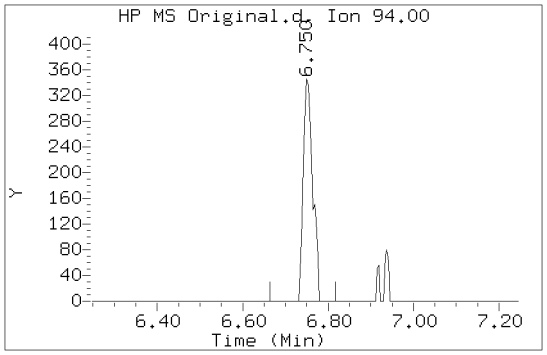

AFTER

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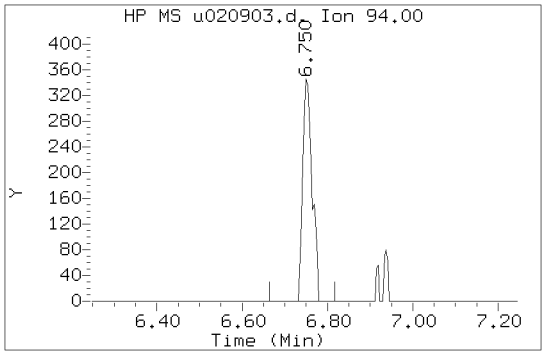

BEFORE

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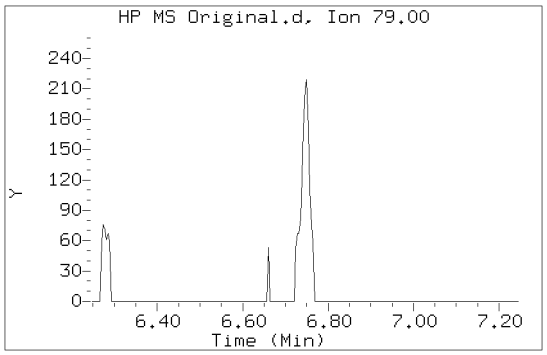

AFTER

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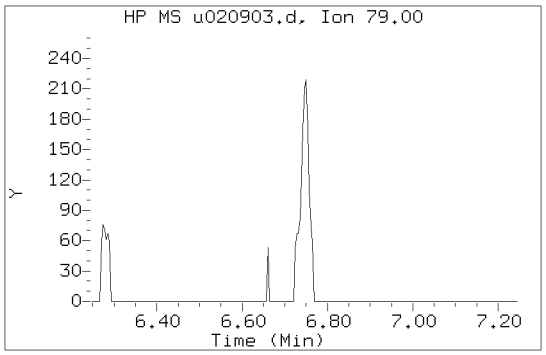

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Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

Dimethyl Disulfide (624-92-0)

Reason Code:

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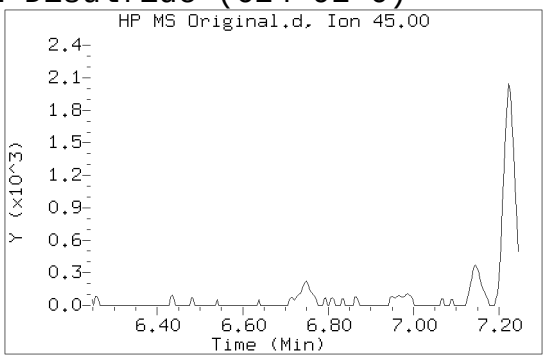

AFTER

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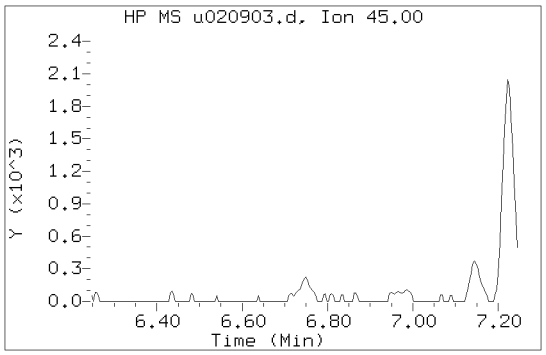

Isobutylene (115-11-7)

Reason Code:

BEFORE

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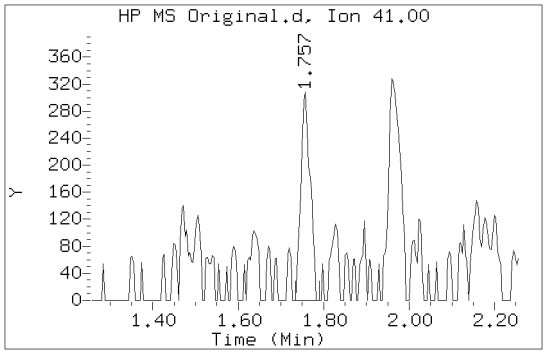

AFTER

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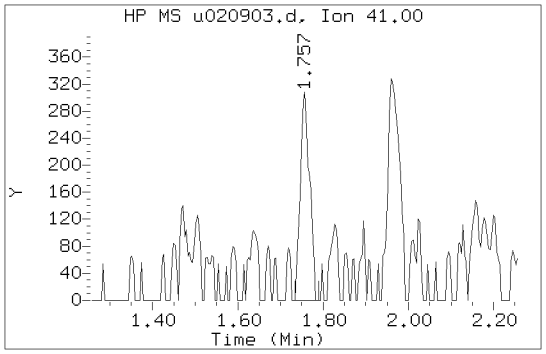

BEFORE

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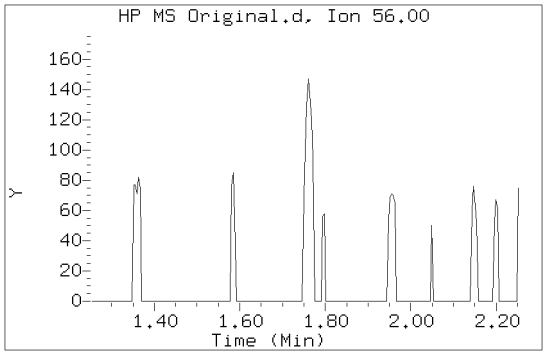

AFTER

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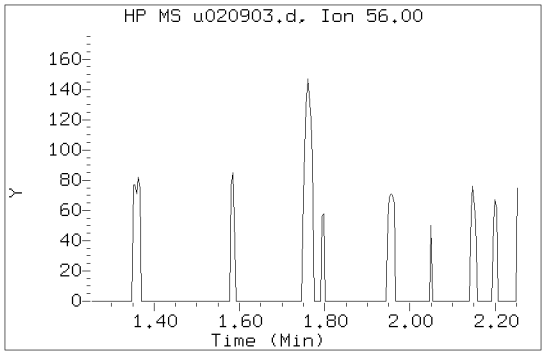

BEFORE

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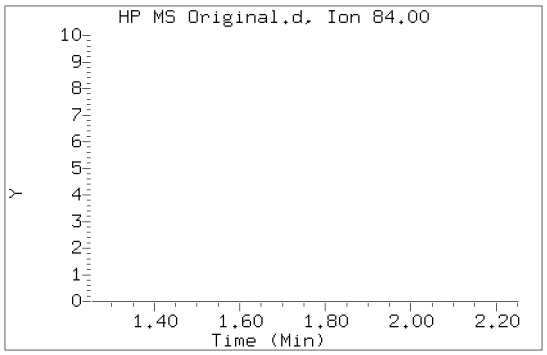

AFTER

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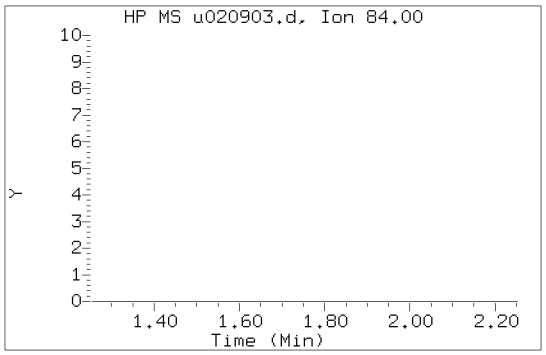

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020903.d
Inj Date : 09-FEB-2024 09:44
InstruID : VOA9.i
LabSampID : VSTD00.5

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

BEFORE

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11:53
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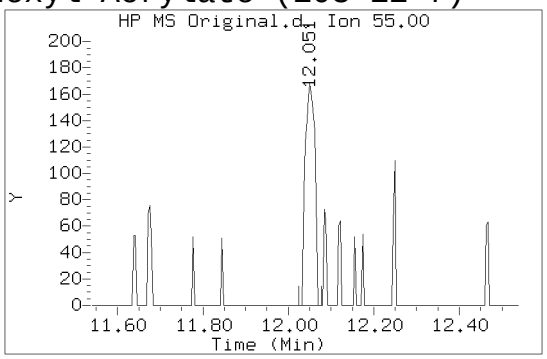

AFTER

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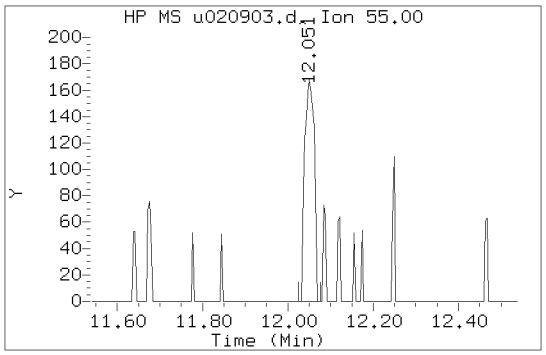

BEFORE

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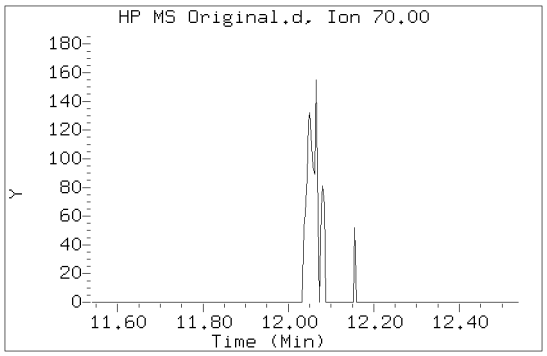

AFTER

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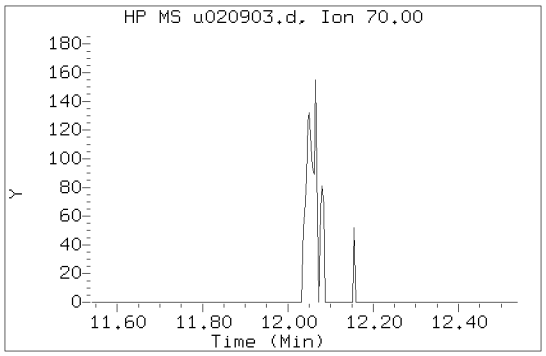


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020904.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020904.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 09-FEB-2024 10:06
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 09:44 Cal File: U020903.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	172240	50.0000	
2	Dichlorodifluoromethane	85	1.160	1.160	(0.241)	1508	1.00000	1.45
3	Chloromethane	50	1.299	1.299	(0.270)	2409	1.00000	2.23
5	Vinyl Chloride	62	1.374	1.374	(0.285)	1927	1.00000	1.35
6	Bromomethane	94	1.621	1.621	(0.337)	2599	1.00000	3.15
7	Chloroethane	64	1.696	1.696	(0.352)	1401	1.00000	1.06
8	Trichlorofluoromethane	101	1.891	1.891	(0.393)	2869	1.00000	0.81
9	Acrolein	56	2.258	2.258	(0.469)	279	2.00000	1.99(M)
10	Acetone	43	2.408	2.408	(0.500)	2336	2.00000	0.30
11	1,1-Dichloroethene	96	2.333	2.333	(0.485)	1781	1.00000	1.41
15	Iodomethane	142	2.465	2.465	(0.512)	2369	2.00000	2.93(T)
16	Acrylonitrile	53	3.061	3.061	(0.636)	1158	2.00000	2.13
17	Methylene Chloride	84	2.791	2.791	(0.580)	3682	1.00000	1.02
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	4946	1.00000	1.39
19	Carbon Disulfide	76	2.517	2.517	(0.523)	9692	2.00000	2.36
20	trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	2406	1.00000	1.53
21	Vinyl Acetate	43	3.612	3.612	(0.750)	8179	2.00000	2.41(M)
22	1,1-Dichloroethane	63	3.511	3.511	(0.729)	3356	1.00000	1.44(T)
24	2-Butanone	43	4.268	4.268	(0.886)	1178	2.00000	2.25(M)
26	2,2-Dichloropropane	77	4.189	4.189	(0.870)	2303	1.00000	1.12

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	2498	1.00000	1.31
28 Chloroform	83	4.568	4.568 (0.949)	4001	1.00000	1.29

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020904.D Page 2
Report Date: 15-Feb-2024 11:14

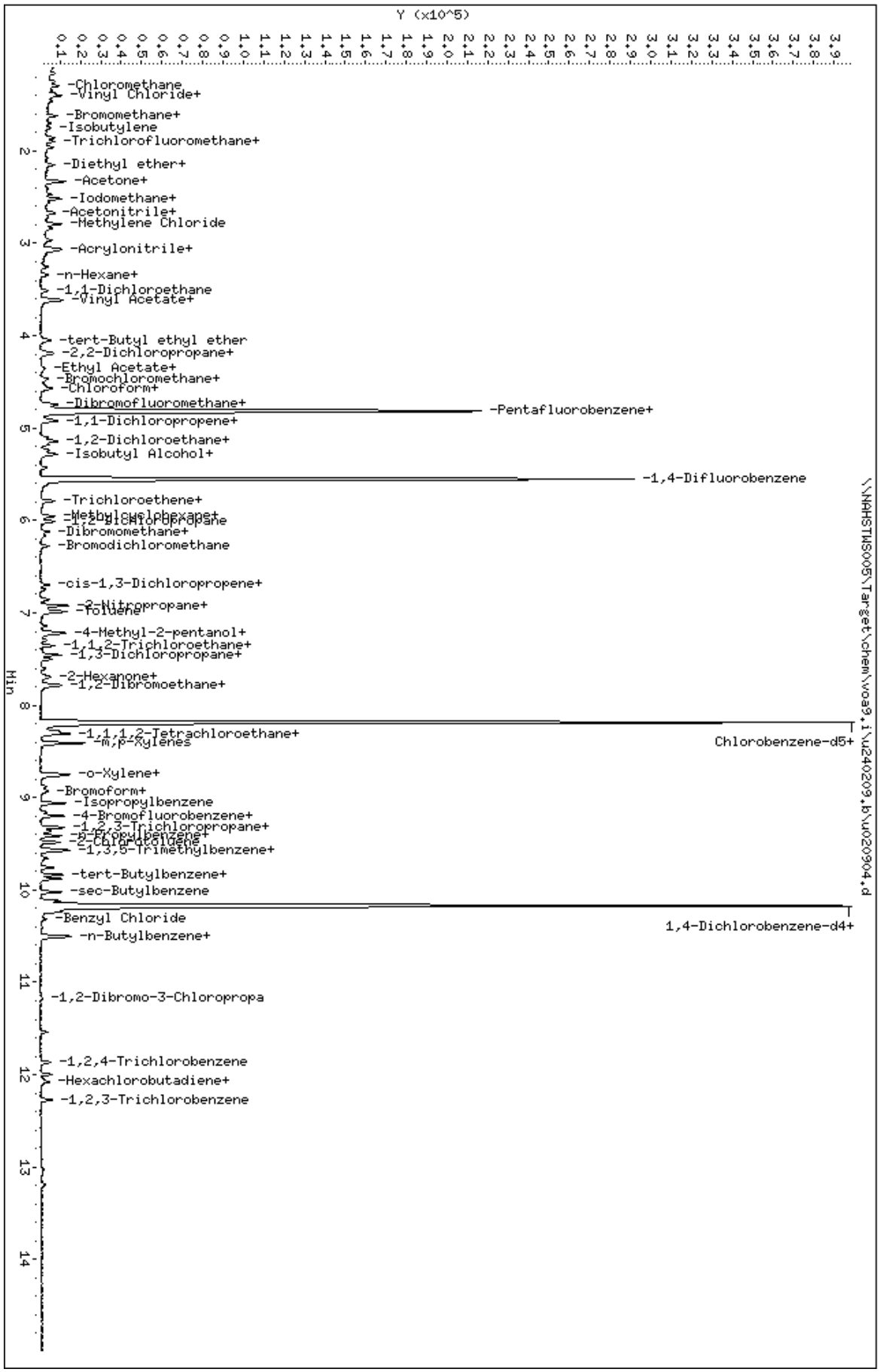
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
29	Bromochloromethane	128	4.466	4.466	(0.928)	1379	1.00000	0.42
$ 30	Dibromofluoromethane	113	4.748	4.748	(0.986)	2659	1.00000	1.07
31	1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	3031	1.00000	1.22
32	1,1-Dichloropropene	75	4.924	4.924	(0.887)	2580	1.00000	1.37
33	1,2-Dichloroethane	62	5.179	5.179	(0.933)	2847	1.00000	0.69
34	Carbon Tetrachloride	117	4.909	4.909	(0.884)	2615	1.00000	1.13
$ 35	1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	2589	1.00000	0.72
* 36	1,4-Difluorobenzene	114	5.554	5.554	(1.000)	253625	50.0000	
37	Benzene	78	5.141	5.141	(0.926)	8539	1.00000	1.49
38	Trichloroethene	130	5.790	5.790	(1.043)	2818	1.00000	1.58
39	Bromodichloromethane	83	6.277	6.277	(1.130)	2248	1.00000	1.04(M)
42	1,2-Dichloropropane	63	6.007	6.007	(1.082)	2163	1.00000	1.37
44	Dibromomethane	93	6.123	6.123	(1.103)	1357	1.00000	1.25
45	4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	2874	2.00000	2.23
46	cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	2214	1.00000	0.98
* 47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	230361	50.0000	
$ 48	Toluene-d8	98	6.922	6.922	(0.846)	9135	1.00000	1.40
50	Toluene	91	6.982	6.982	(0.853)	7869	1.00000	1.10
51	trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	1606	1.00000	2.42(M)
52	2-Hexanone	43	7.600	7.600	(0.929)	2163	2.00000	4.88
53	1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	1420	1.00000	0.98
54	1,3-Dichloropropane	76	7.503	7.503	(0.917)	3251	1.00000	1.12
55	Dibromochloromethane	129	7.690	7.690	(0.940)	1849	1.00000	1.01
56	Tetrachloroethene	164	7.458	7.458	(0.911)	2061	1.00000	1.26
57	1,2-Dibromoethane	107	7.788	7.788	(0.951)	1682	1.00000	1.05
58	1-Chlorohexane	55	8.189	8.189	(1.474)	2981	1.00000	1.86
59	Chlorobenzene	112	8.208	8.208	(1.003)	6126	1.00000	1.09
60	1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	2123	1.00000	1.15
61	Ethylbenzene	106	8.309	8.309	(1.015)	2844	1.00000	1.17
62	m,p-Xylenes	106	8.410	8.410	(1.027)	6389	2.00000	2.14
63	o-Xylene	106	8.747	8.747	(1.069)	3036	1.00000	1.04
64	Styrene	104	8.766	8.766	(1.071)	4483	1.00000	0.93
66	Bromoform	173	8.920	8.920	(1.090)	1336	1.00000	1.01(T)
67	Isopropylbenzene	105	9.062	9.062	(1.107)	8437	1.00000	1.13
68	1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	2264	1.00000	1.07(M)
$ 69	4-Bromofluorobenzene	95	9.197	9.197	(1.124)	3587	1.00000	1.26
* 70	1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	119195	50.0000	
71	1,2,3-Trichloropropane	75	9.359	9.359	(0.920)	2523	1.00000	1.31
73	n-Propylbenzene	91	9.415	9.415	(0.926)	7765	1.00000	1.05
74	Bromobenzene	156	9.321	9.321	(0.916)	2658	1.00000	1.18
75	1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	5511	1.00000	0.99
76	2-Chlorotoluene	91	9.486	9.486	(0.933)	5660	1.00000	1.15
77	4-Chlorotoluene	91	9.576	9.576	(0.941)	6381	1.00000	1.14
78	tert-Butylbenzene	119	9.838	9.838	(0.967)	5614	1.00000	1.11
79	1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	5642	1.00000	1.03
81	sec-Butylbenzene	105	10.022	10.022	(0.985)	7119	1.00000	1.10
82	p-Isopropyltoluene	119	10.146	10.146	(0.997)	5835	1.00000	1.01
83	1,3-Dichlorobenzene	146	10.119	10.119	(0.995)	4590	1.00000	1.14
84	1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	5524	1.00000	1.05
87	n-Butylbenzene	91	10.494	10.494	(1.032)	4694	1.00000	1.03
88	1,2-Dichlorobenzene	146	10.509	10.509	(1.033)	4790	1.00000	1.06
89	1,2-Dibromo-3-Chloropropane	155	11.173	11.173	(1.098)	191	1.00000	3.41(M)

90 1,2,4-Trichlorobenzene	180	11.866	11.866 (1.167)	2615	1.00000	1.10
91 Hexachlorobutadiene	225	12.001	12.001 (1.180)	1570	1.00000	1.55

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	92 Naphthalene	128	12.076	12.076	(1.187)	4198	1.00000	1.99
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	2638	1.00000	1.17
M	94 1,2-Dichloroethylene (total)	96				4904	2.00000	
M	95 Xylenes (total)	106				9425	3.00000	
	135 1,4-Dioxane	88	6.176	6.176	(1.283)	478	20.0000	34.72(M)
	141 Cyclohexane	56	4.808	4.808	(0.998)	4524	1.00000	2.10
	138 Freon TF	101	2.333	2.333	(0.485)	1903	1.00000	1.34
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	1880	1.00000	1.58
	147 Methylcyclohexane	55	5.955	5.955	(1.072)	3024	1.00000	0.98
	146 Methyl Acetate	43	2.708	2.708	(0.563)	2321	1.00000	1.86(M)
	148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	3825	20.0000	26.10(a)
	149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	2389	20.0000	32.40(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.


Y (x10^5)
Min
-Chloromethane
-Vinyl Chloride+
-Bromomethane+
-Isobutylene
-Trichlorofluoromethane+
-Diethyl ether+
-Acetone+
-Iodomethane+
-Acetonitrile+
-Methylene Chloride
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Ethyl Acetate+
-Bromochloromethane+
-Chloroform+
-Dibromofluoromethane+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-Methylcyclohexane+
-1,2-Dichloropropane
-Dibromomethane+
-Bromodichloromethane
-cis-1,3-Dichloropropene+
-2-Nitropropane+
-Toluene
-4-Methyl-2-pentanol+
-1,1,2-Trichloroethane+
-1,3-Dichloropropane+
-2-Hexanone+
-1,2-Dibromoethane+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
Chlorobenzene-d5+
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,2,3-Trichloropropane+
-n-Propylbenzene+
-2-Chlorotoluene
-1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-Benzyl Chloride
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene+
-1,2,3-Trichlorobenzene
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Data File: \\NAHSTWS005\Target\chem\voa9,i\u240209,b\u020904,d
Date : 09-FEB-2024 10:06
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9,i
Operator: FT
Column diameter: 0.18
Page 1

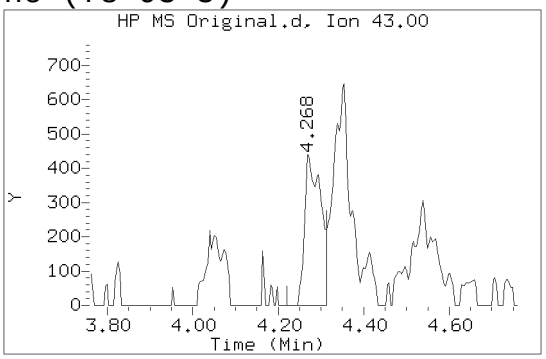
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

2-Butanone (78-93-3)

Reason Code:

BEFORE

MASS
43
AREA
1178
HEIGHT
439
09-Feb-2024
11:46
firat
tastan



AFTER

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AREA
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HEIGHT
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09-Feb-2024
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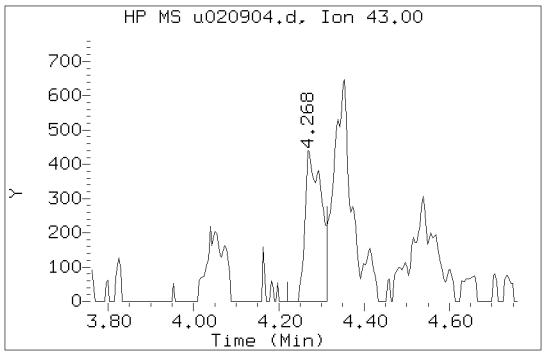

BEFORE

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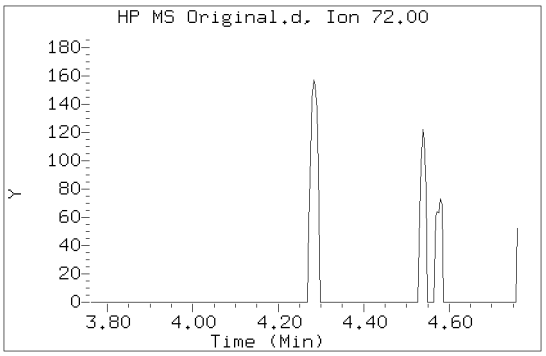

AFTER

MASS
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09-Feb-2024
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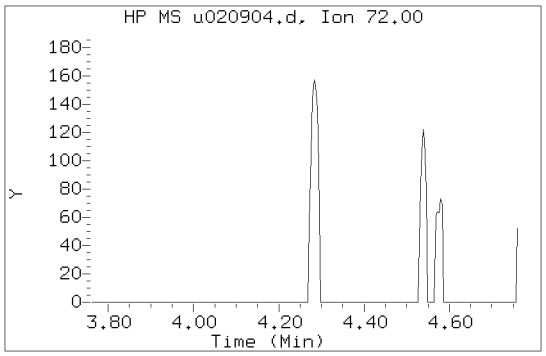

Bromodichloromethane (75-27-4)

Reason Code:

BEFORE

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AREA
2248
HEIGHT
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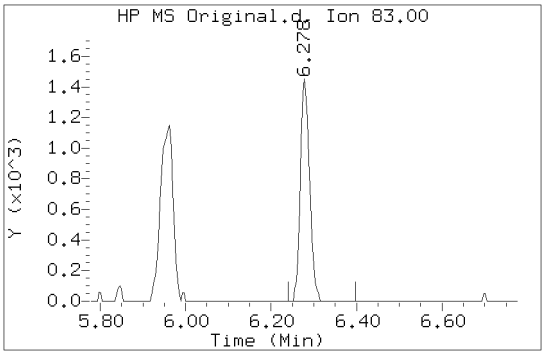
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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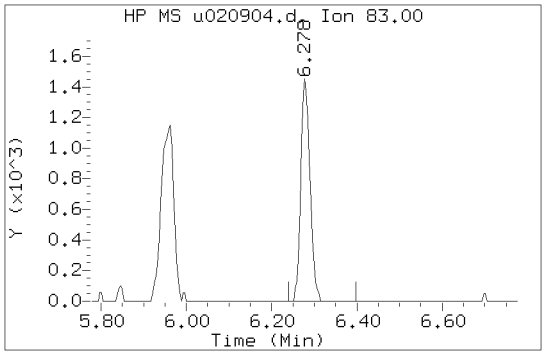
AREA
2248
HEIGHT
1452
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
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AREA
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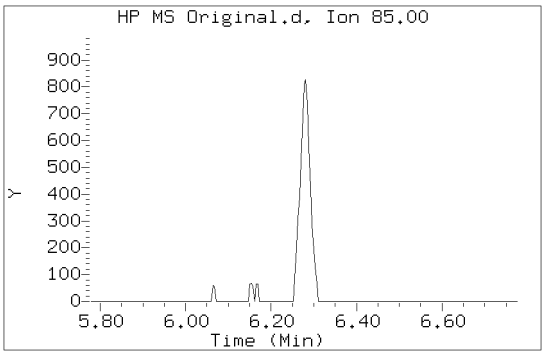
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:46
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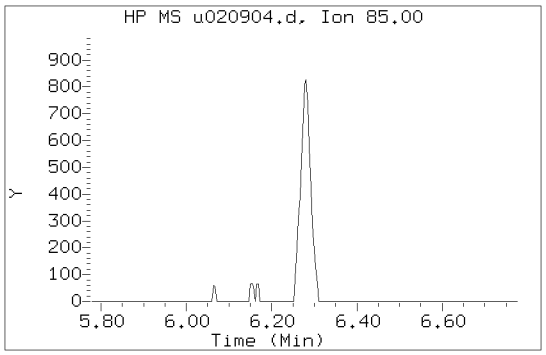
tastan



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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Bromodichloromethane (75-27-4)

Reason Code:

BEFORE

MASS
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AREA
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HEIGHT
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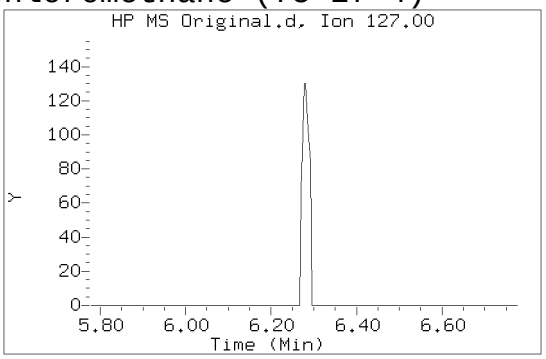
09-Feb-2024
11:46
firat
tastan



AFTER

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HEIGHT
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09-Feb-2024
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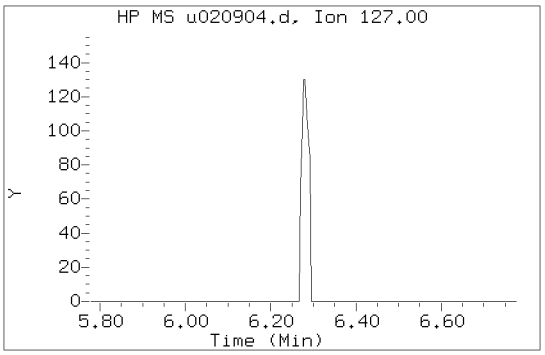
firat
tastan



trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE

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AREA
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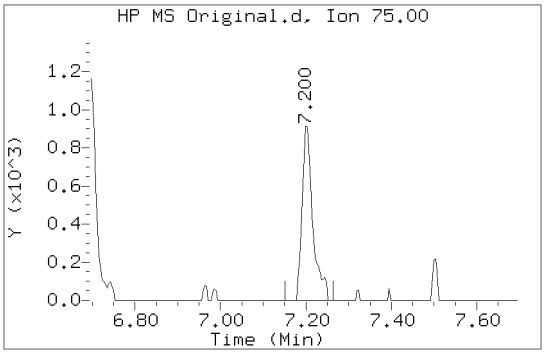
HEIGHT
914
09-Feb-2024
11:46
firat
tastan



AFTER

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AREA
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HEIGHT
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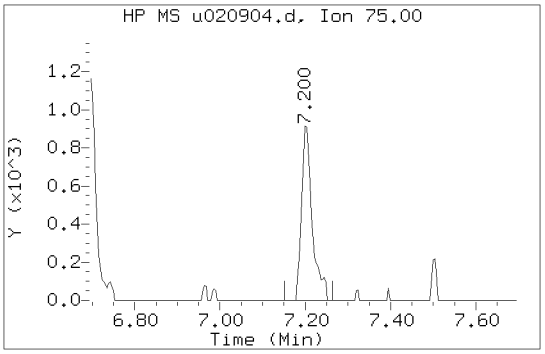
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
77
AREA
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HEIGHT
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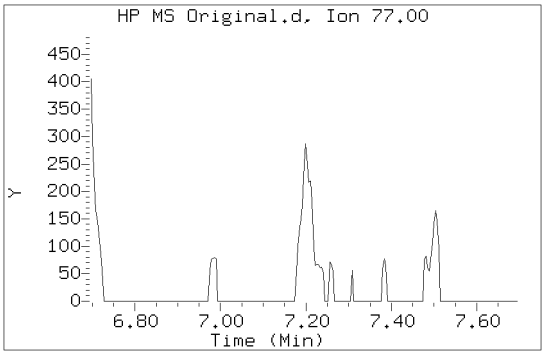
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
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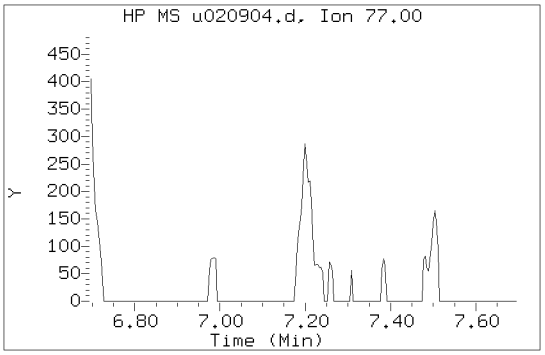
09-Feb-2024
11:46
firat
tastan



BEFORE

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09-Feb-2024
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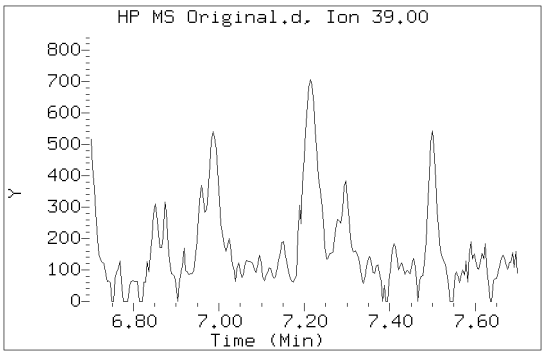

AFTER

MASS
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AREA
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HEIGHT
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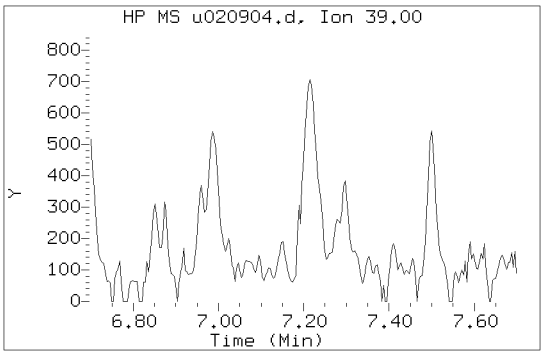
09-Feb-2024
11:46
firat
tastan



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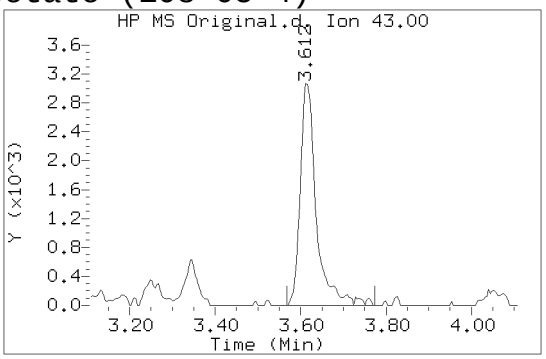
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Vinyl Acetate (108-05-4)

Reason Code:

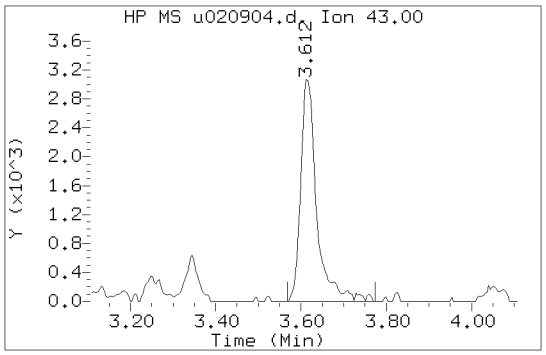
BEFORE

MASS
43
AREA
8179
HEIGHT
3066
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
43
AREA
8179
HEIGHT
3066
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
86
AREA
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HEIGHT
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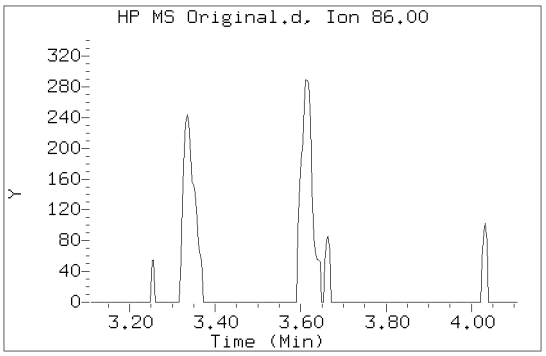
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
86
AREA
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HEIGHT
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09-Feb-2024
11:46
firat
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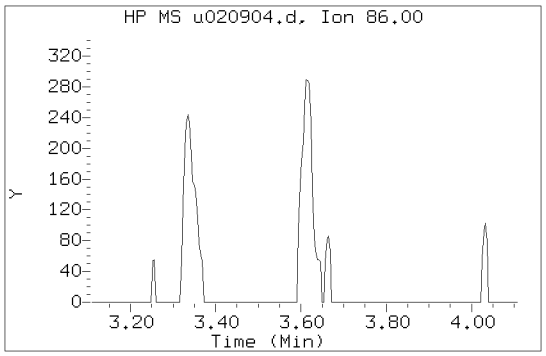
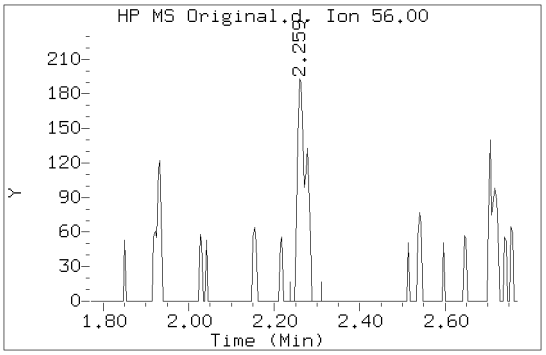


Acrolein (107-02-8)

Reason Code:

BEFORE

MASS
56
AREA
279
HEIGHT
193
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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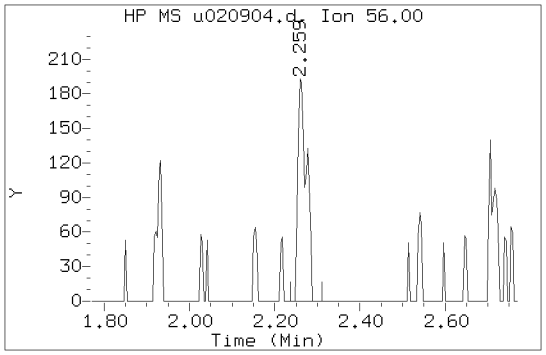
AREA
279
HEIGHT
193
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
55
AREA
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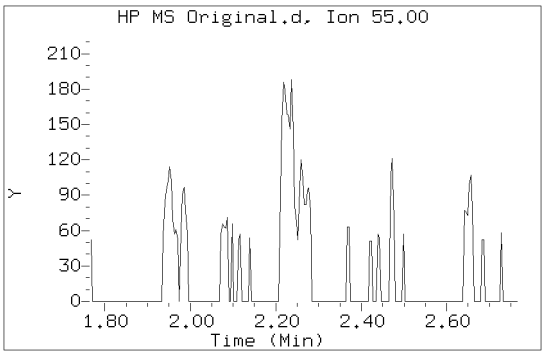
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
55
AREA
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HEIGHT
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09-Feb-2024
11:46
firat
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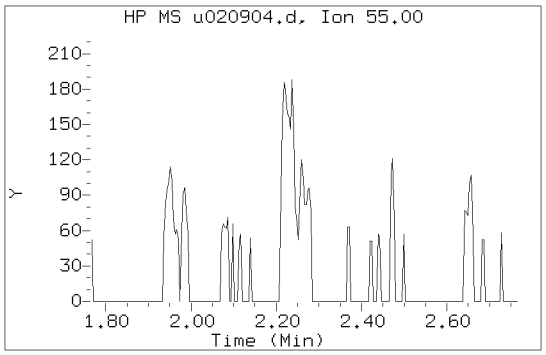

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

BEFORE
MASS
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AREA
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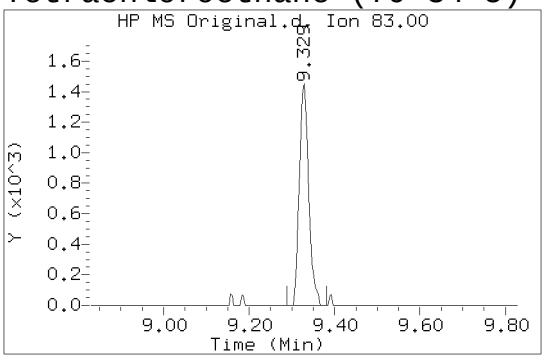
HEIGHT
1452
09-Feb-2024
11:46
firat
tastan



AFTER
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AREA
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HEIGHT
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09-Feb-2024
11:46
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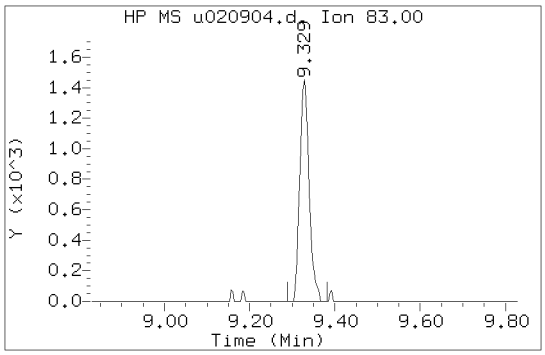

BEFORE
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HEIGHT
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09-Feb-2024
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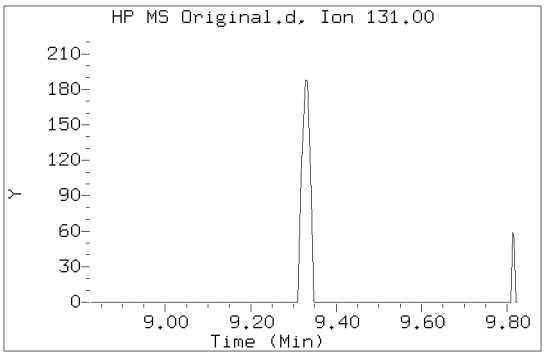

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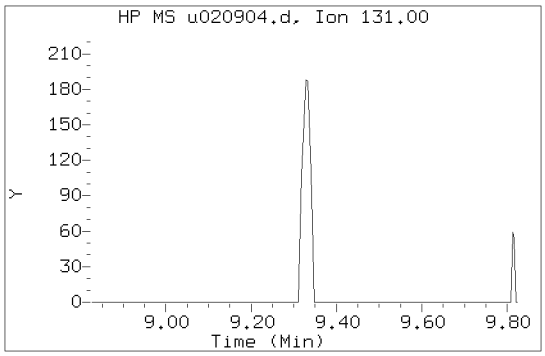

BEFORE
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AREA
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HEIGHT
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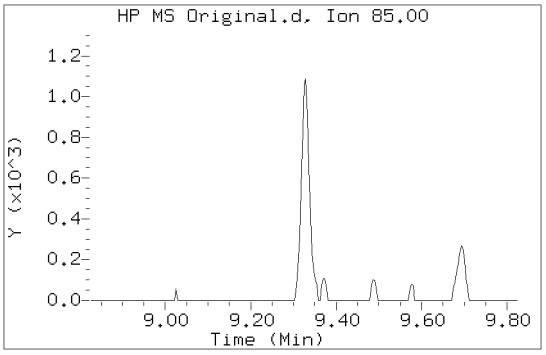
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
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AREA
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HEIGHT
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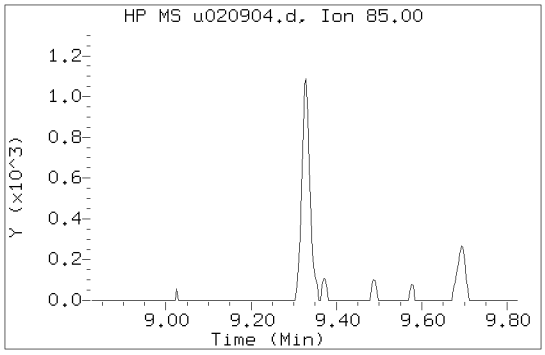
09-Feb-2024
11:46
firat
tastan



Methacrylonitrile (126-98-7)

Reason Code:

BEFORE
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41
AREA
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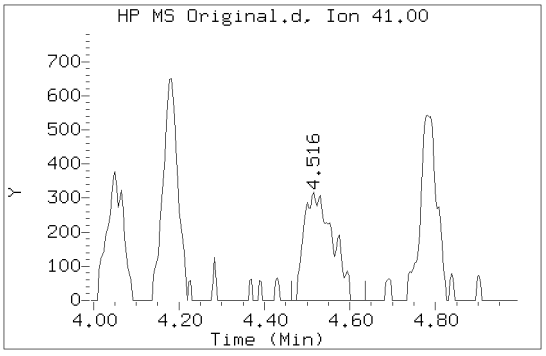
HEIGHT
317
09-Feb-2024
11:46
firat
tastan



AFTER
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AREA
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HEIGHT
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09-Feb-2024
11:46
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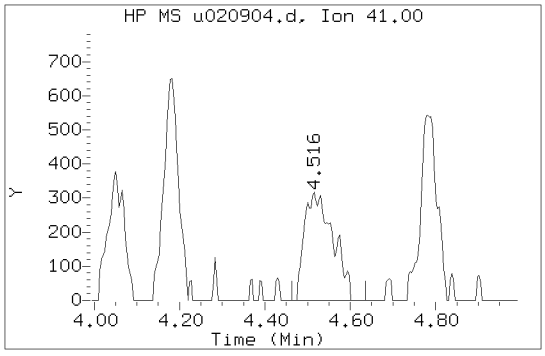

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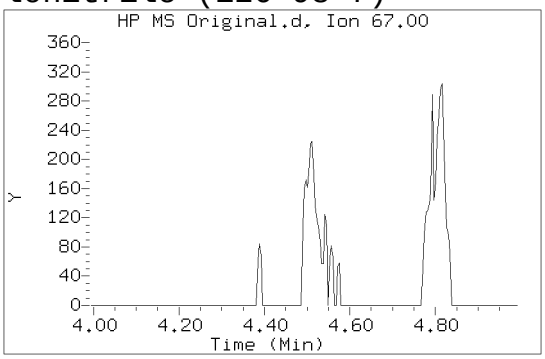
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Methacrylonitrile (126-98-7)

Reason Code:

BEFORE
MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
67
AREA
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HEIGHT
0
09-Feb-2024
11:46
firat
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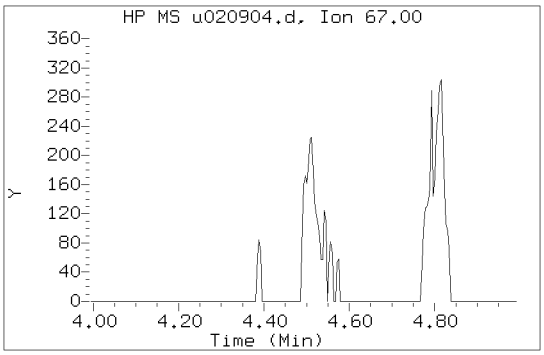

BEFORE
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09-Feb-2024
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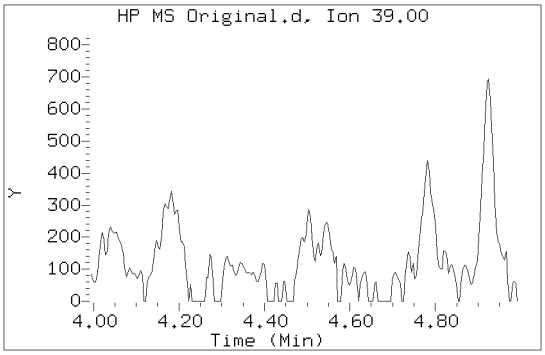

AFTER
MASS
39
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HEIGHT
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09-Feb-2024
11:46
firat
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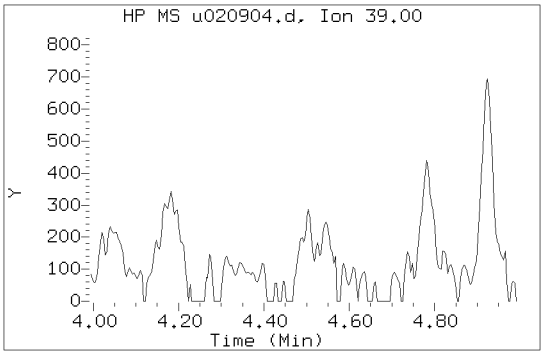
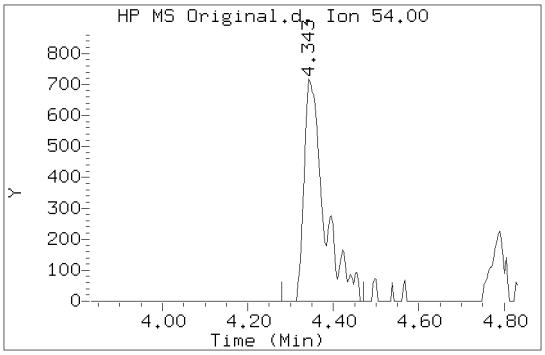


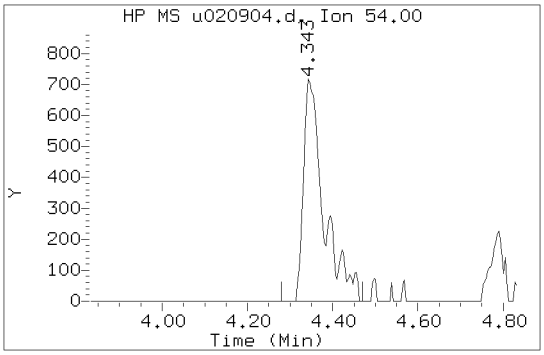
Propionitrile (107-12-0)

Reason Code:

BEFORE
MASS
54
AREA
2374
HEIGHT
718
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
54
AREA
2374
HEIGHT
718
09-Feb-2024
11:46
firat
tastan



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52
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09-Feb-2024
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firat
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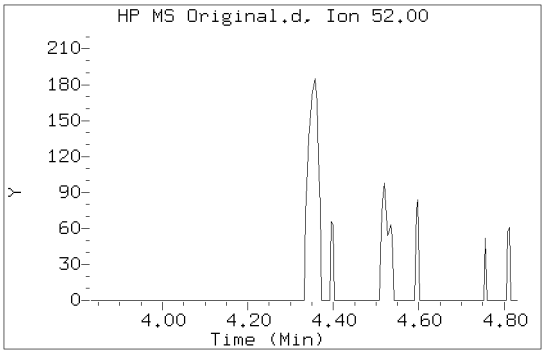

AFTER
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52
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HEIGHT
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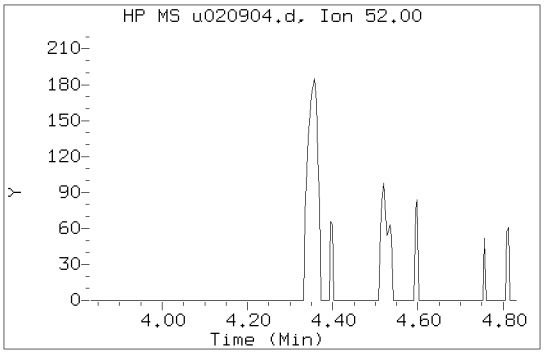
09-Feb-2024
11:46
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Propionitrile (107-12-0)

Reason Code:

BEFORE

MASS
55
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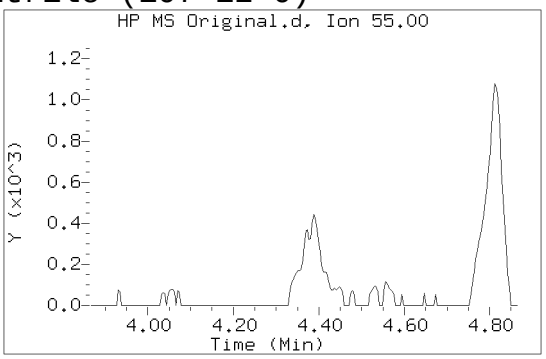
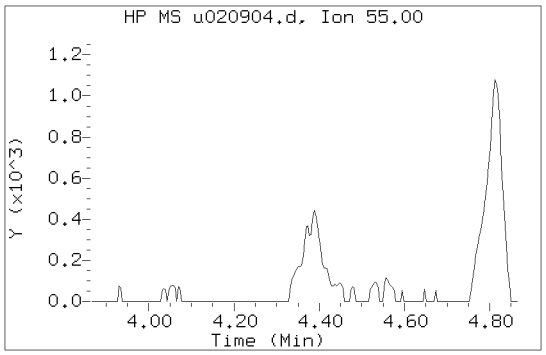
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



Methyl Methacrylate (80-62-6)

Reason Code:

BEFORE

MASS
41
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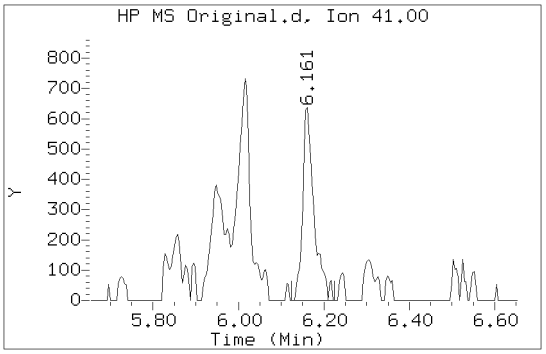
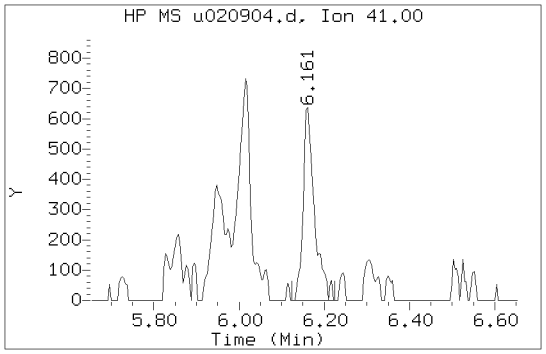
HEIGHT
638
09-Feb-2024
11:46
firat
tastan



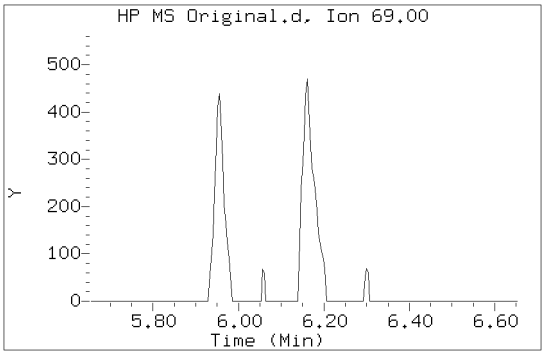
AFTER

MASS
41
AREA
1208
HEIGHT
638
09-Feb-2024
11:46
firat
tastan



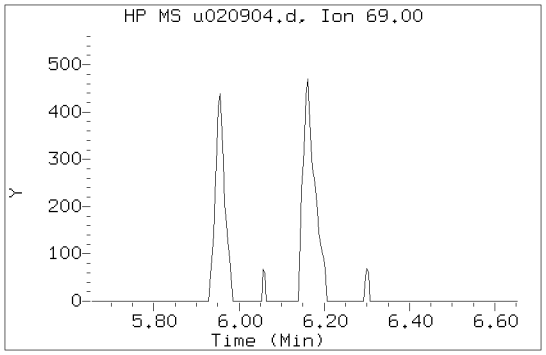
BEFORE

MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
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AREA
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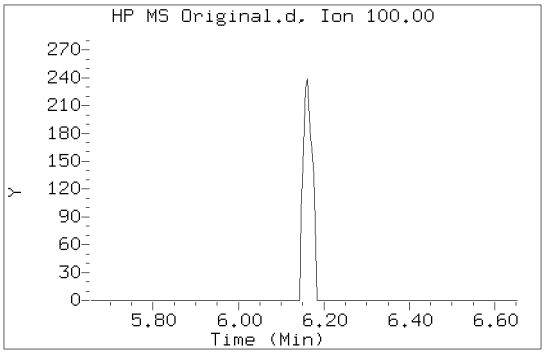
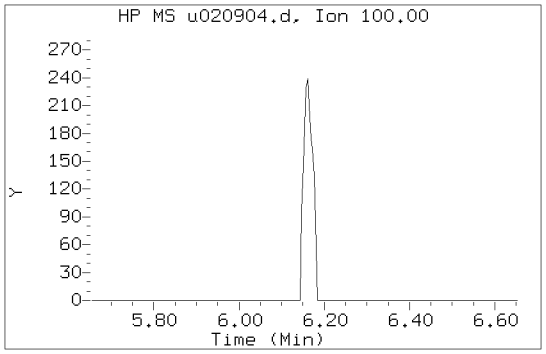
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
100
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



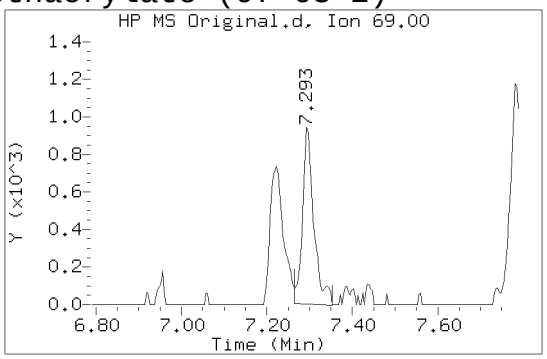
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Ethyl Methacrylate (97-63-2)

Reason Code:

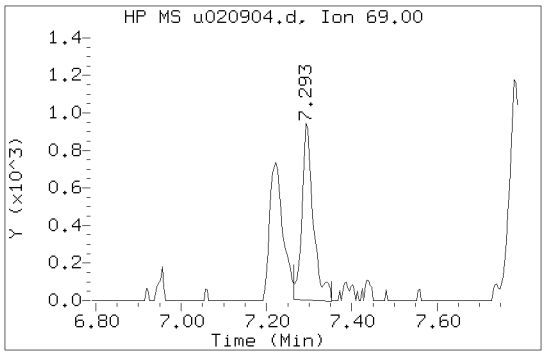
BEFORE

MASS
69
AREA
1757
HEIGHT
943
09-Feb-2024
11:46
firat
tastan



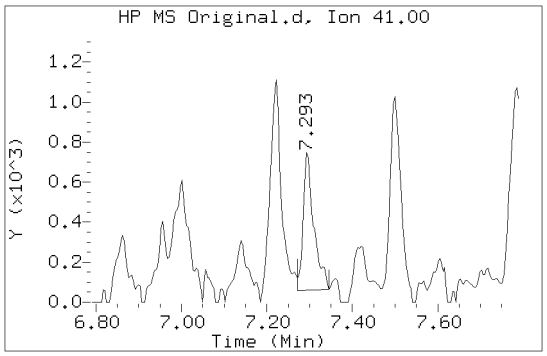
AFTER

MASS
69
AREA
1757
HEIGHT
943
09-Feb-2024
11:46
firat
tastan



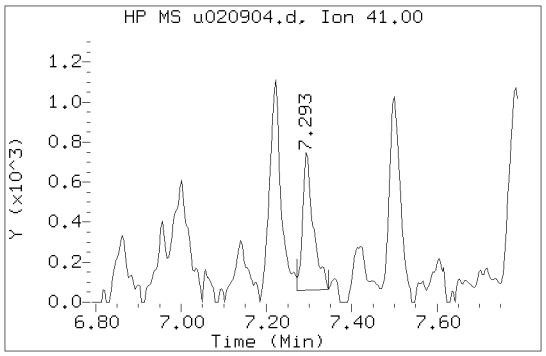
BEFORE

MASS
41
AREA
1204
HEIGHT
691
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
41
AREA
1204
HEIGHT
691
09-Feb-2024
11:46
firat
tastan

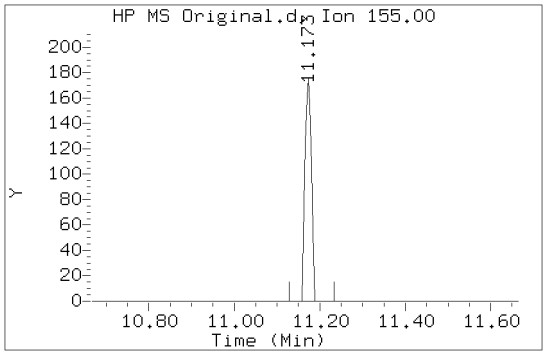


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

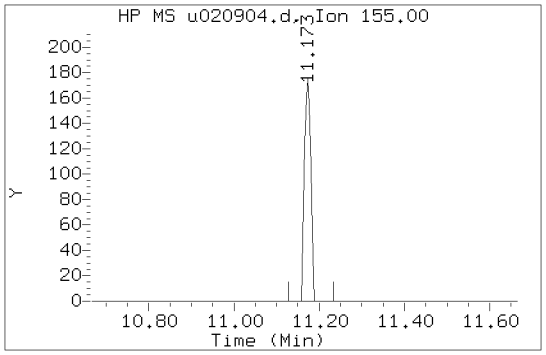
BEFORE

MASS
155
AREA
191
HEIGHT
175
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
155
AREA
191
HEIGHT
175
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
157
AREA
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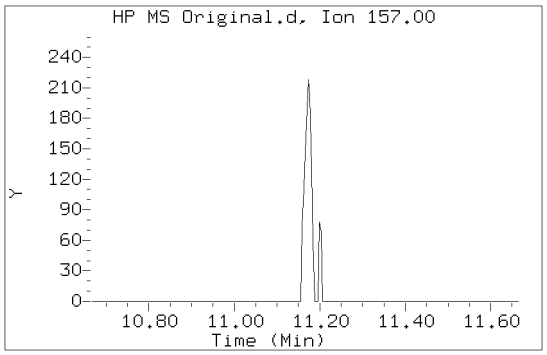
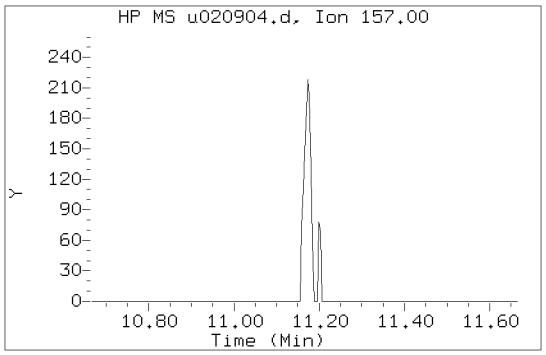
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
157
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



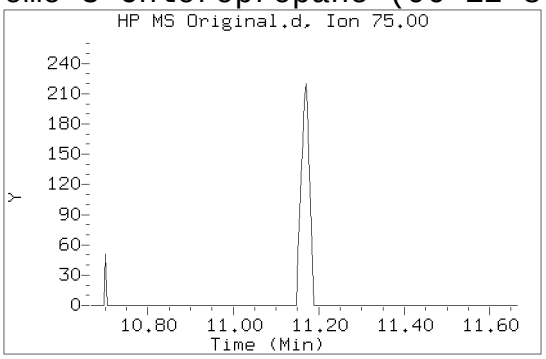
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

BEFORE

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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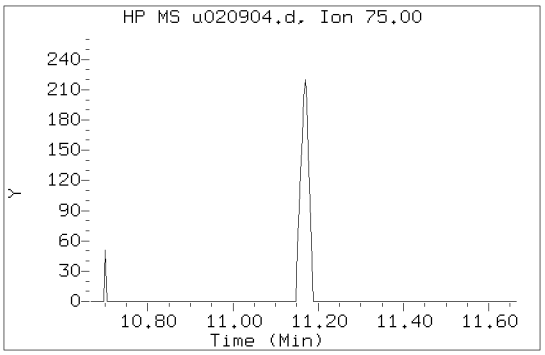
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

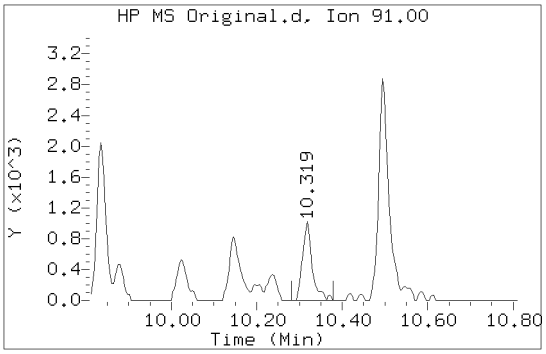


Benzyl Chloride (100-44-7)

Reason Code:

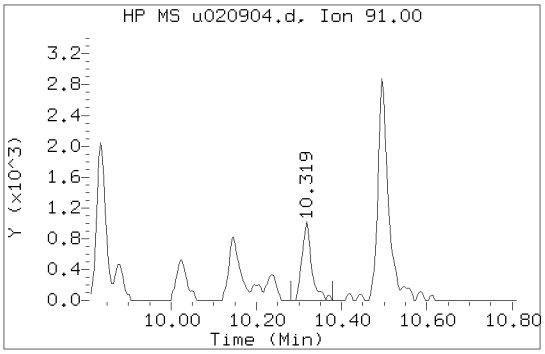
BEFORE

MASS
91
AREA
1659
HEIGHT
1025
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
91
AREA
1659
HEIGHT
1025
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
126
AREA
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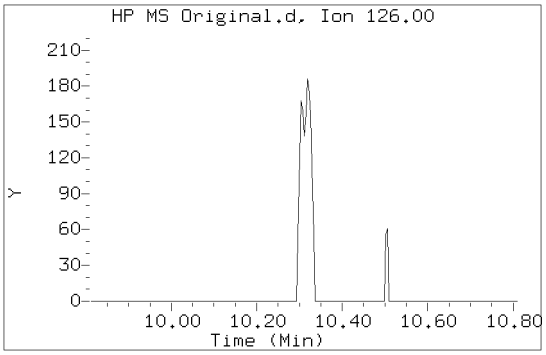
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
126
AREA
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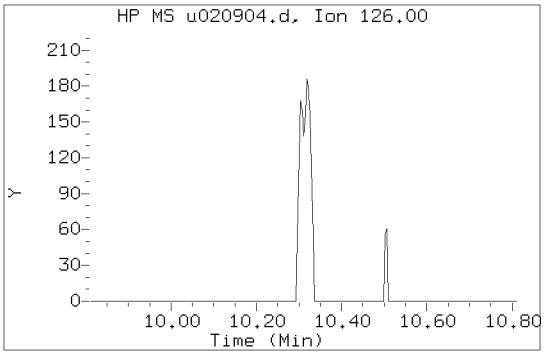
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
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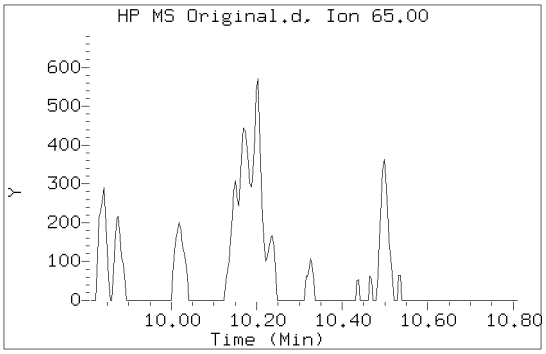
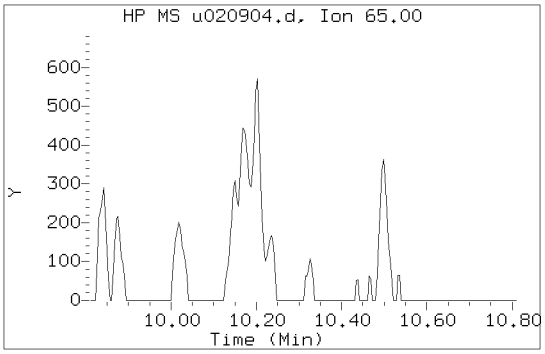
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
65
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



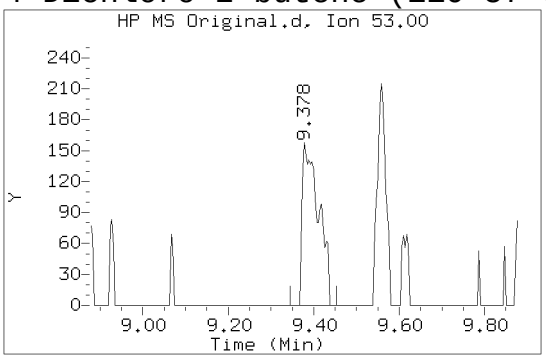
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

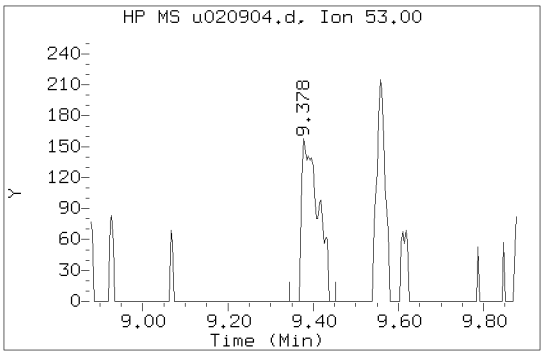
BEFORE

MASS
53
AREA
421
HEIGHT
158
09-Feb-2024
11:46
firat
tastan



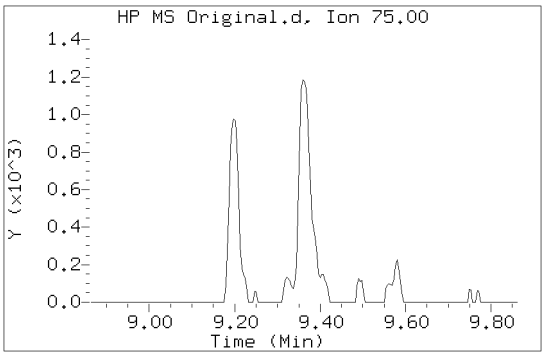
AFTER

MASS
53
AREA
421
HEIGHT
158
09-Feb-2024
11:46
firat
tastan



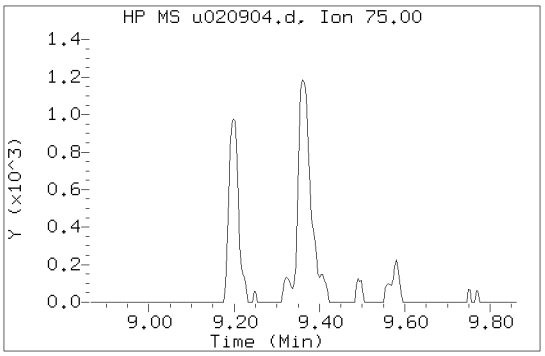
BEFORE

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

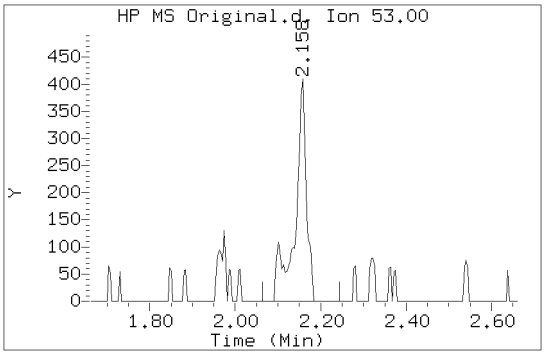


Chloroprene (126-99-8)

Reason Code:

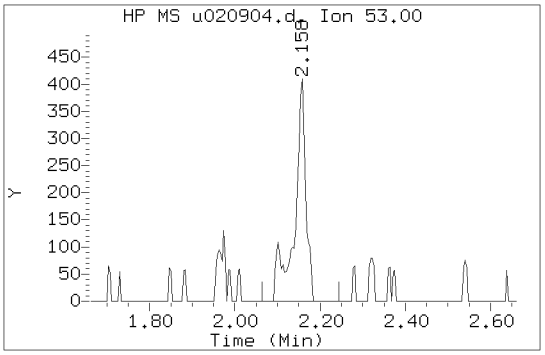
BEFORE

MASS
53
AREA
752
HEIGHT
410
09-Feb-2024
11:46
firat
tastan



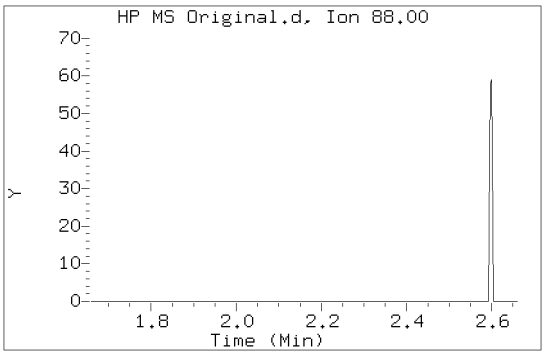
AFTER

MASS
53
AREA
752
HEIGHT
410
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
88
AREA
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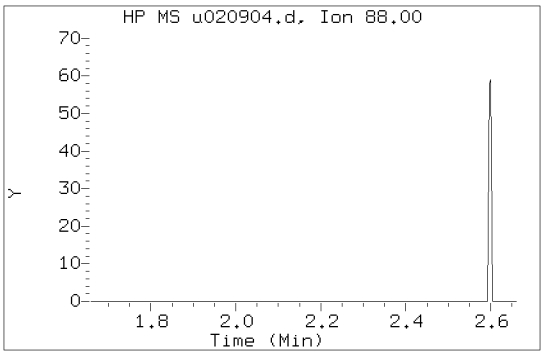
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



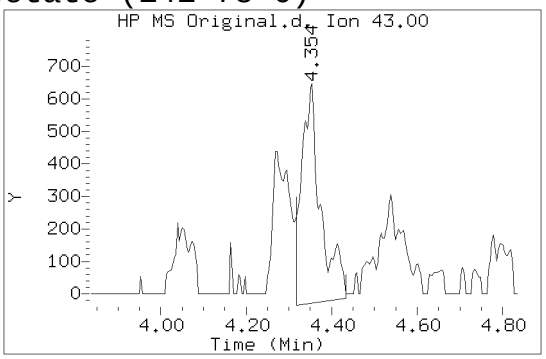
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Ethyl Acetate (141-78-6)

Reason Code:

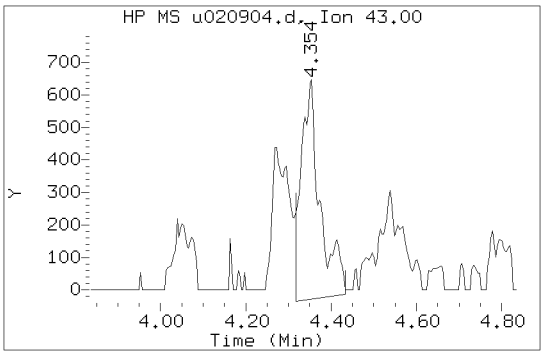
BEFORE

MASS
43
AREA
2103
HEIGHT
675
09-Feb-2024
11:46
firat
tastan



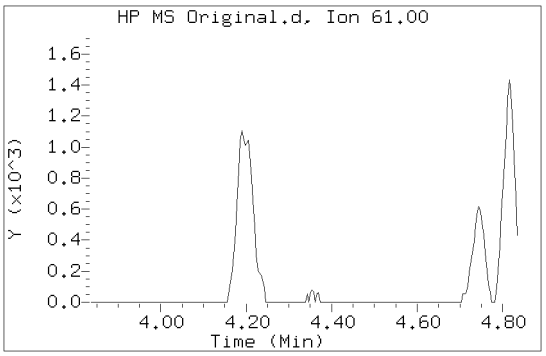
AFTER

MASS
43
AREA
2103
HEIGHT
675
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
61
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HEIGHT
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09-Feb-2024
11:46
firat
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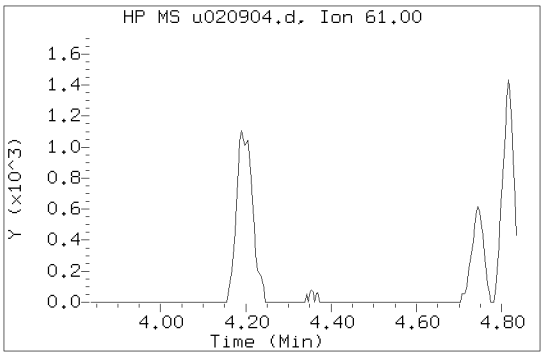
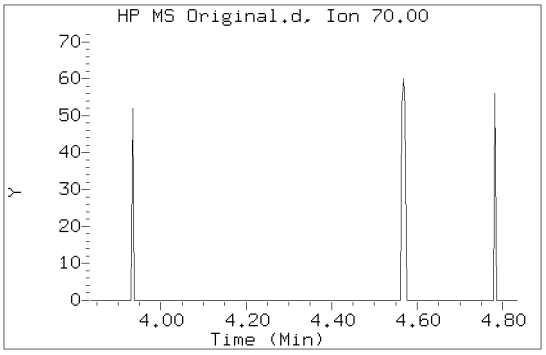


BEFORE

MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
70
AREA
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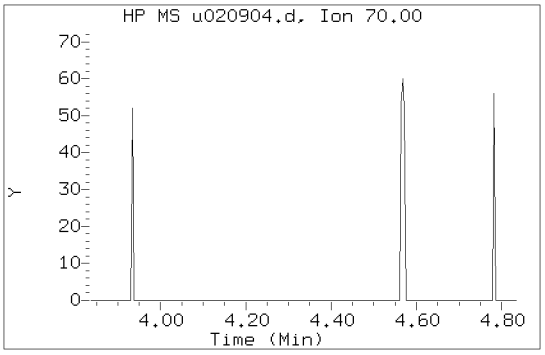
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

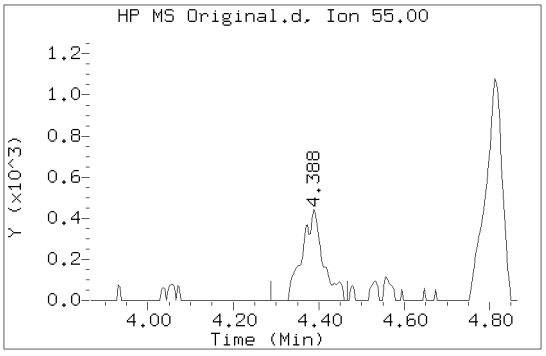


Methyl Acrylate (96-33-3)

Reason Code:

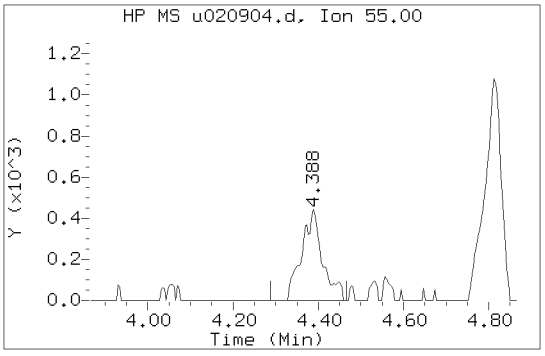
BEFORE

MASS
55
AREA
1518
HEIGHT
442
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
55
AREA
1518
HEIGHT
442
09-Feb-2024
11:46
firat
tastan

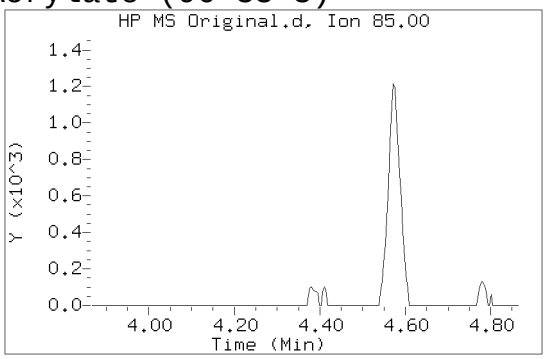


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Methyl Acrylate (96-33-3)

BEFORE

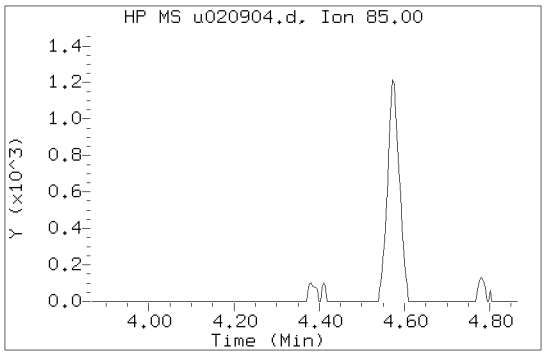
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

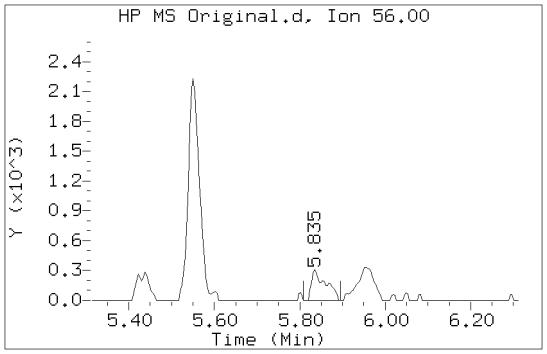
Reason Code:



n-Butanol (71-36-3)

BEFORE

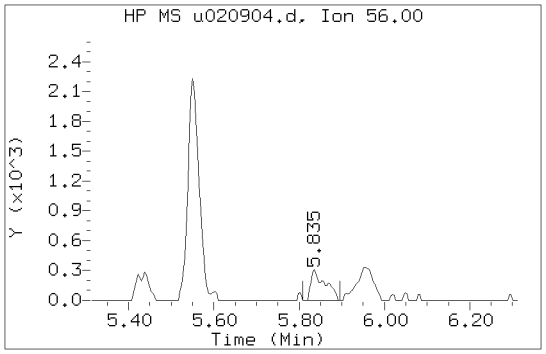
MASS
56
AREA
707
HEIGHT
307
09-Feb-2024
11:46
firat
tastan



AFTER

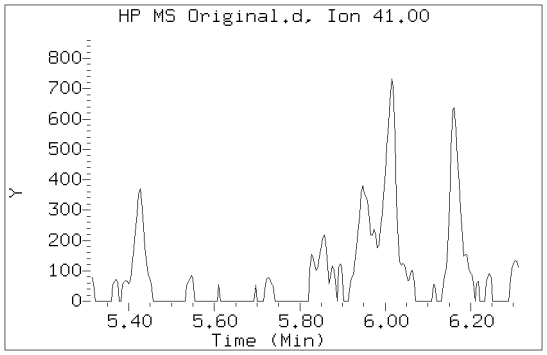
MASS
56
AREA
707
HEIGHT
307
09-Feb-2024
11:46
firat
tastan

Reason Code:



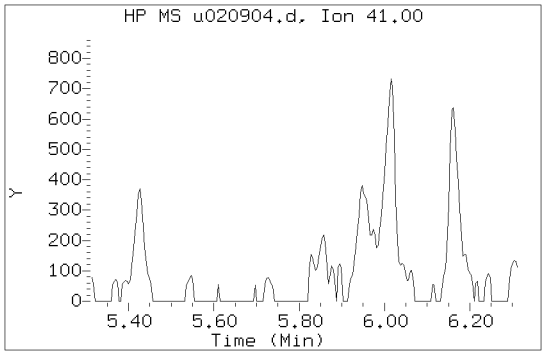
BEFORE

MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

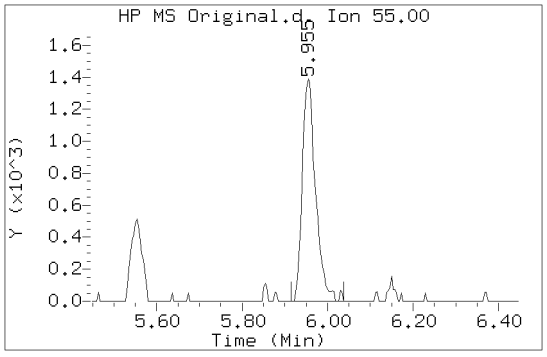
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



Ethyl Acrylate (140-88-5)

BEFORE

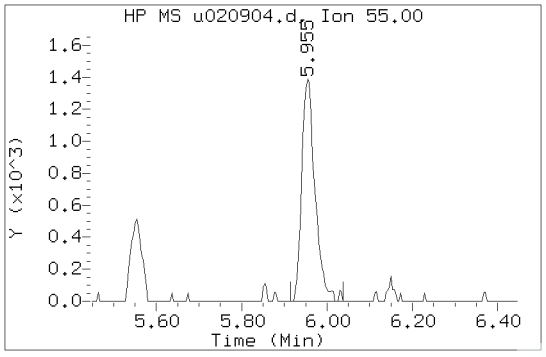
MASS
55
AREA
3052
HEIGHT
1390
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
55
AREA
3052
HEIGHT
1390
09-Feb-2024
11:46
firat
tastan

Reason Code:



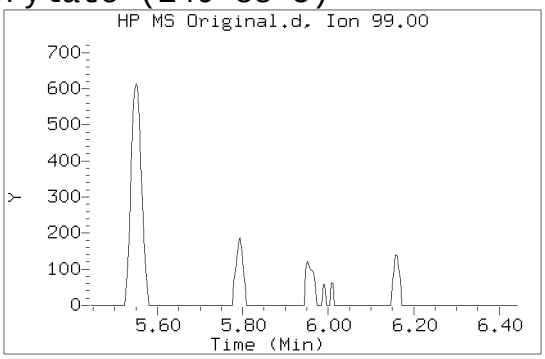
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Ethyl Acrylate (140-88-5)

Reason Code:

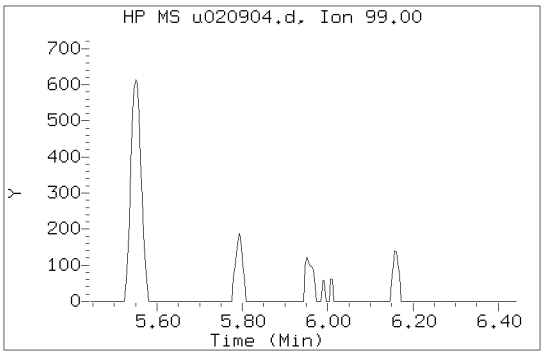
BEFORE

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

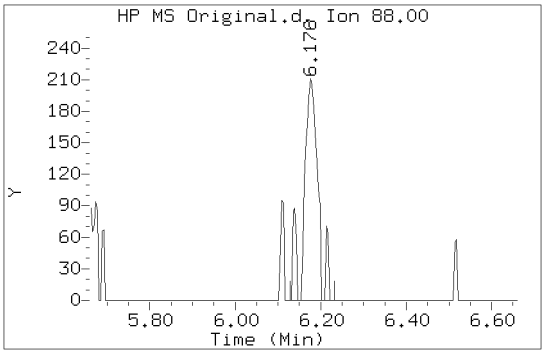


1,4-Dioxane ()

Reason Code:

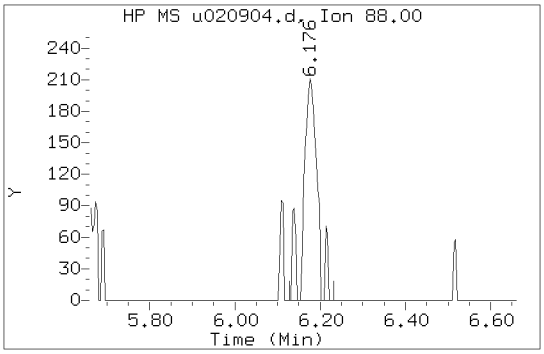
BEFORE

MASS
88
AREA
478
HEIGHT
211
09-Feb-2024
11:46
firat
tastan



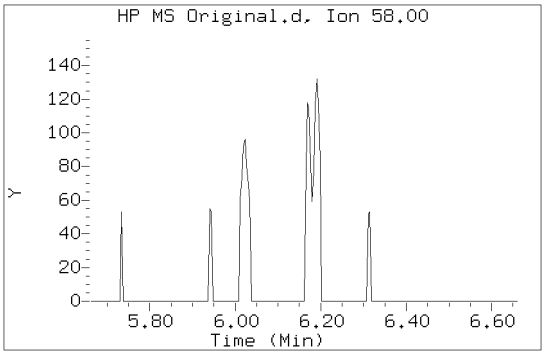
AFTER

MASS
88
AREA
478
HEIGHT
211
09-Feb-2024
11:46
firat
tastan



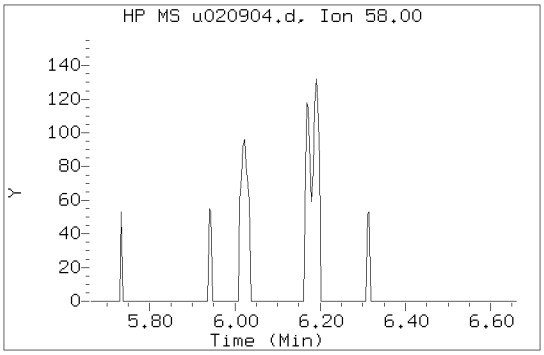
BEFORE

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

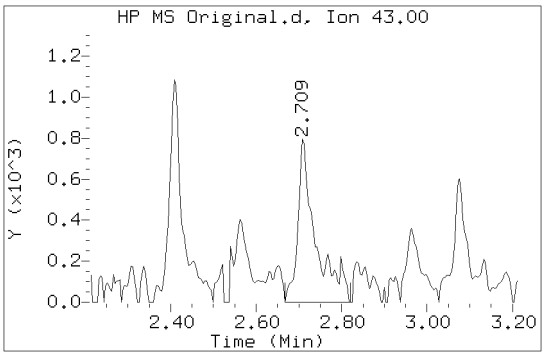


Methyl acetate (79-20-9)

Reason Code:

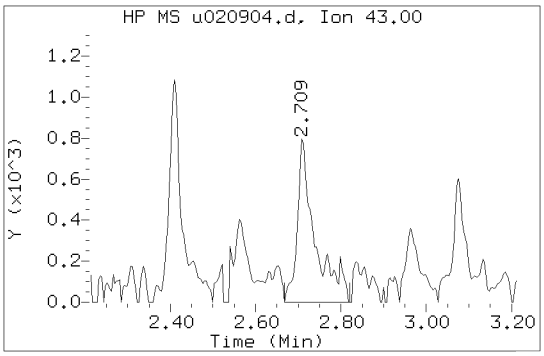
BEFORE

MASS
43
AREA
2321
HEIGHT
795
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
43
AREA
2321
HEIGHT
795
09-Feb-2024
11:46
firat
tastan



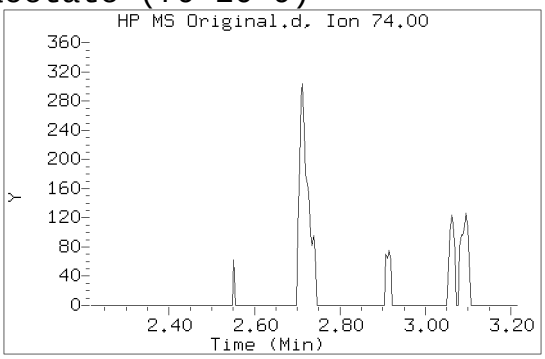
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Methyl acetate (79-20-9)

Reason Code:

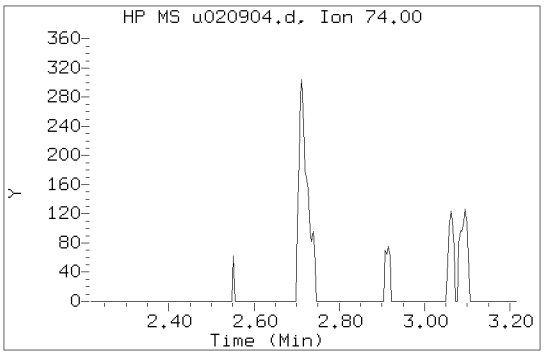
BEFORE

MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
74
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

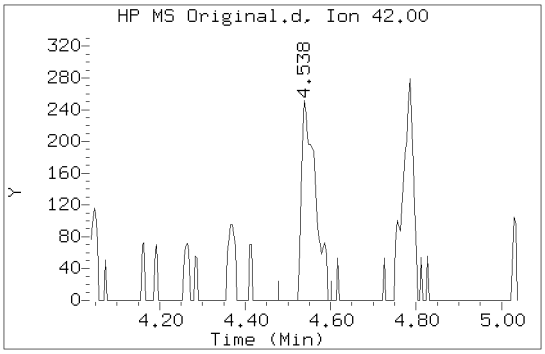


Tetrahydrofuran (109-99-9)

Reason Code:

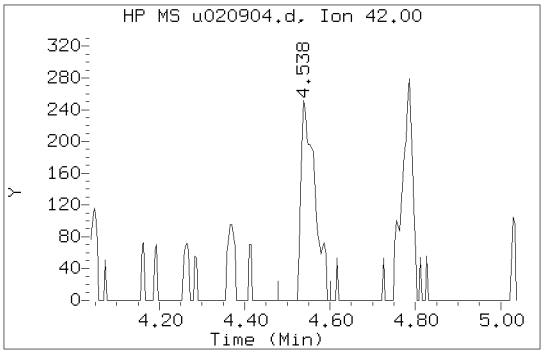
BEFORE

MASS
42
AREA
572
HEIGHT
252
09-Feb-2024
11:46
firat
tastan



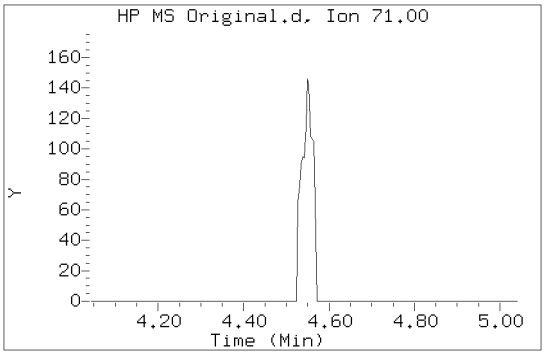
AFTER

MASS
42
AREA
572
HEIGHT
252
09-Feb-2024
11:46
firat
tastan



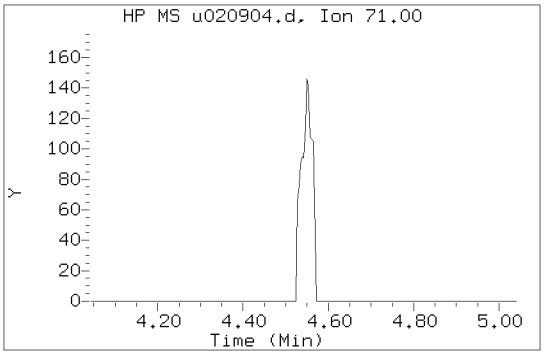
BEFORE

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

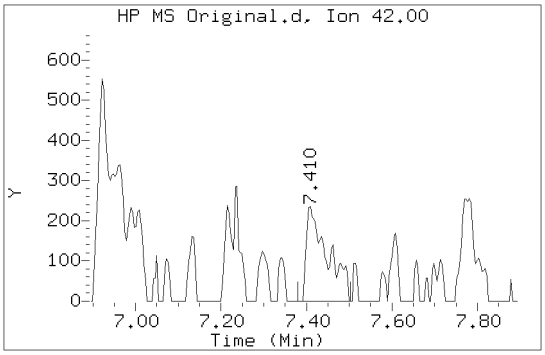


Amyl alcohol (71-41-0)

Reason Code:

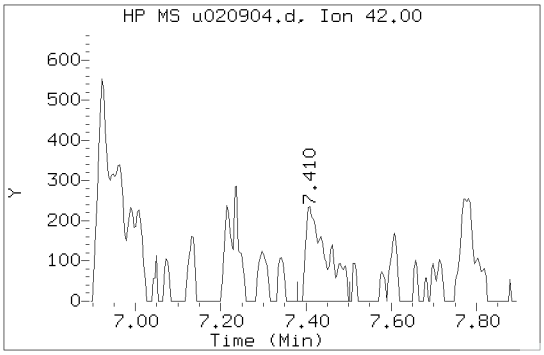
BEFORE

MASS
42
AREA
804
HEIGHT
235
09-Feb-2024
11:46
firat
tastan



AFTER

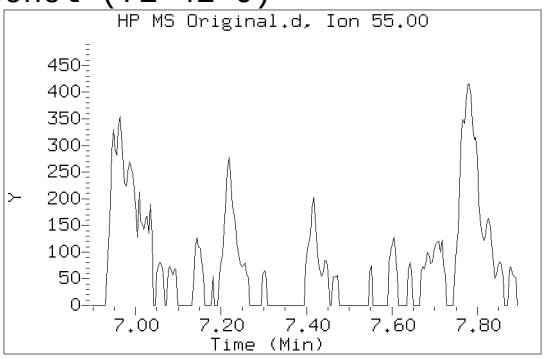
MASS
42
AREA
804
HEIGHT
235
09-Feb-2024
11:46
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

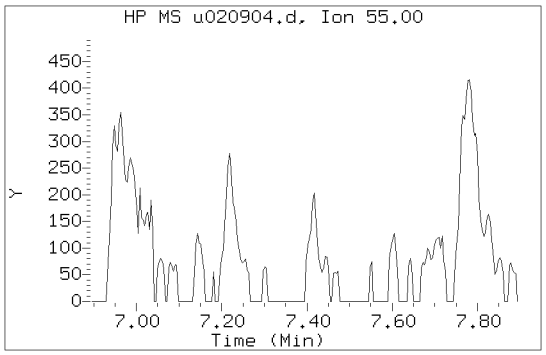
Amyl alcohol (71-41-0)

BEFORE
MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

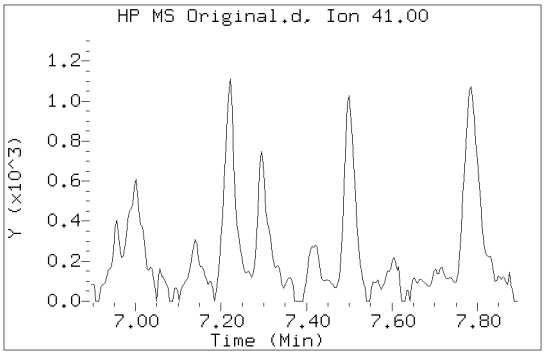


Reason Code:

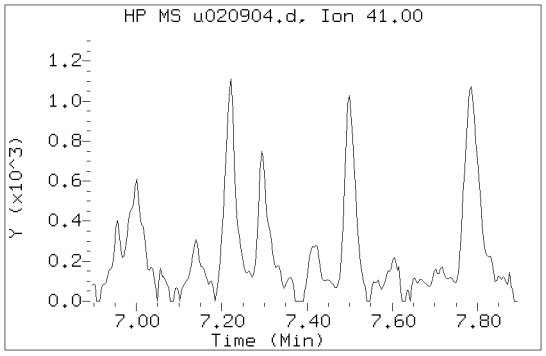
AFTER
MASS
55
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



BEFORE
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

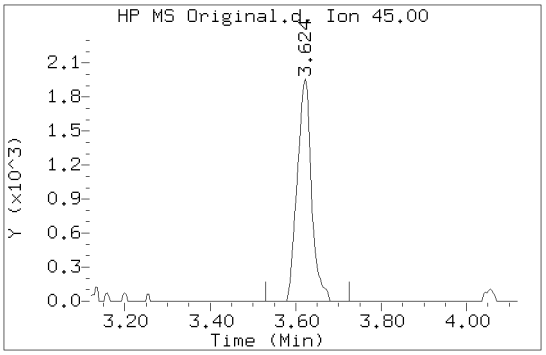


AFTER
MASS
41
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



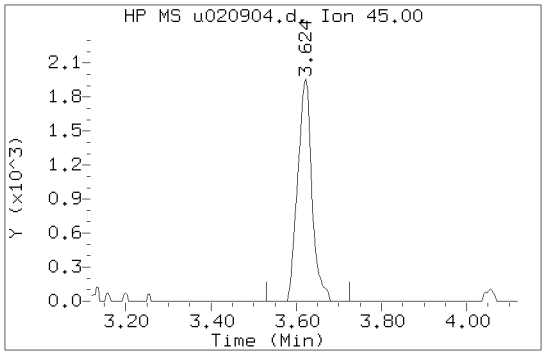
Diisopropyl ether (108-20-3)

BEFORE
MASS
45
AREA
4606
HEIGHT
1960
09-Feb-2024
11:46
firat
tastan

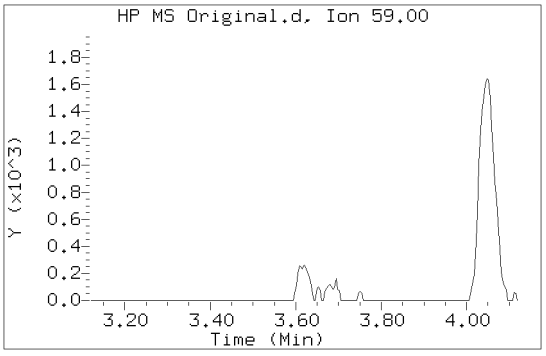


Reason Code:

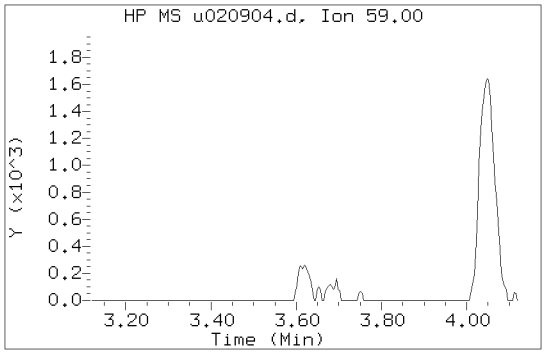
AFTER
MASS
45
AREA
4606
HEIGHT
1960
09-Feb-2024
11:46
firat
tastan



BEFORE
MASS
59
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
59
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



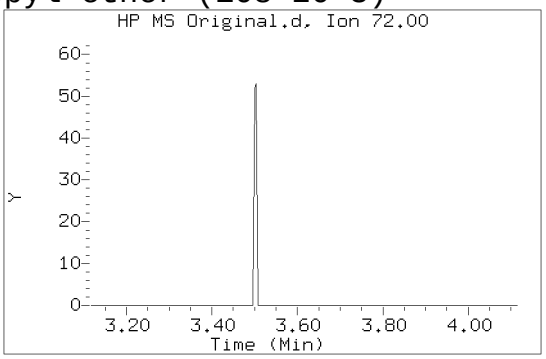
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Diisopropyl ether (108-20-3)

Reason Code:

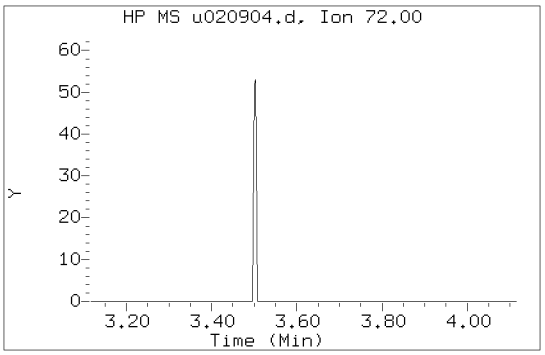
BEFORE

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
72
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan

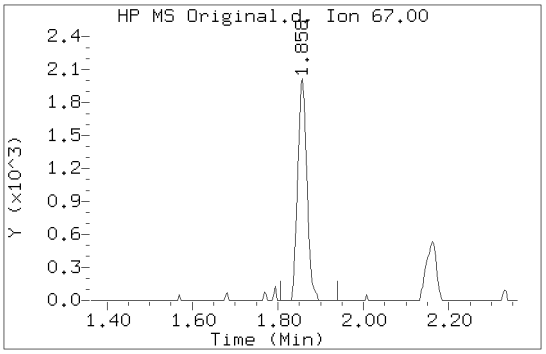


Dichlorofluoromethane (75-43-4)

Reason Code:

BEFORE

MASS
67
AREA
3100
HEIGHT
2017
09-Feb-2024
11:46
firat
tastan



AFTER

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2017
09-Feb-2024
11:46
firat
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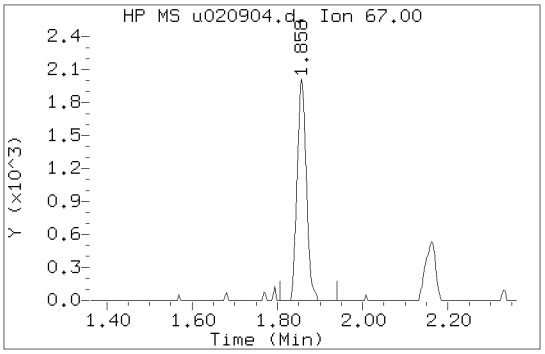

BEFORE

MASS
69
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HEIGHT
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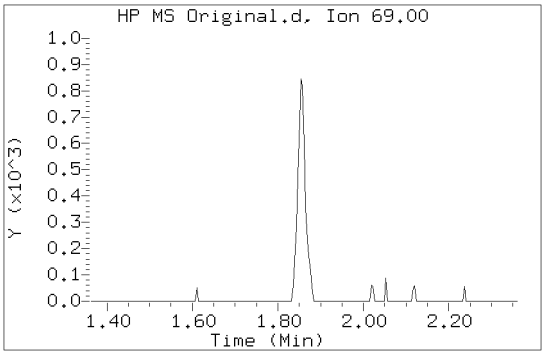
09-Feb-2024
11:46
firat
tastan



AFTER

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09-Feb-2024
11:46
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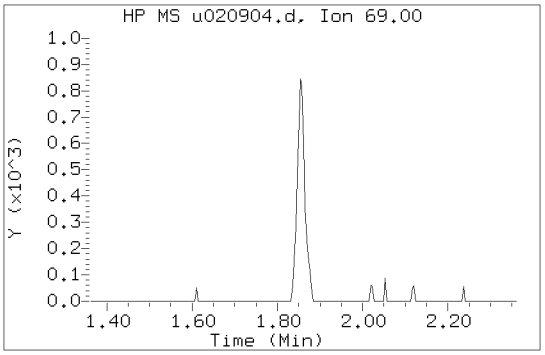

BEFORE

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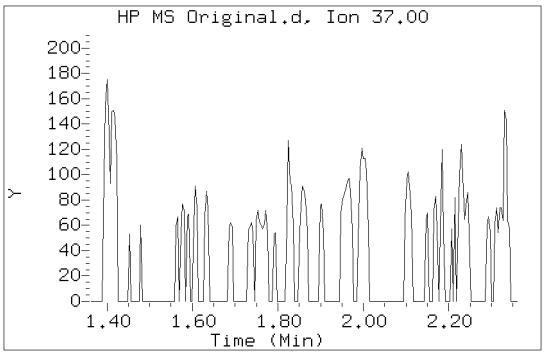

AFTER

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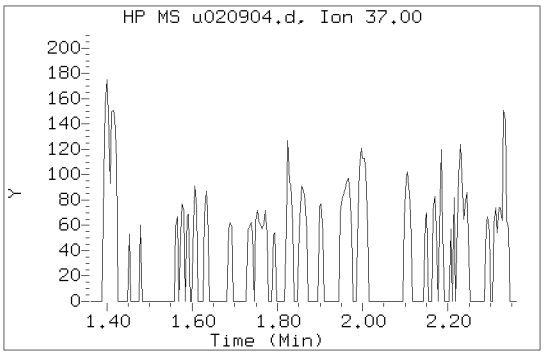

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Propylene oxide ()

Reason Code:

BEFORE
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81
HEIGHT
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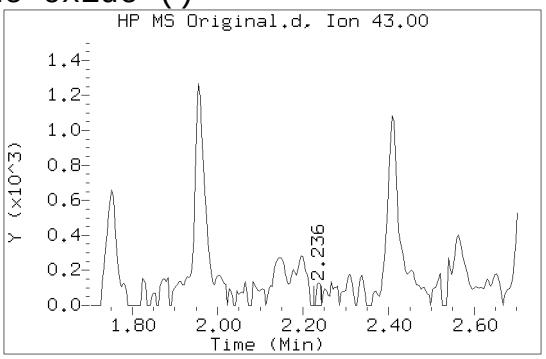
09-Feb-2024
11:46
firat
tastan



AFTER
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11:46
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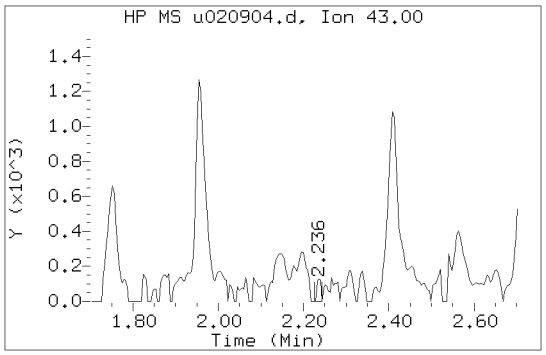

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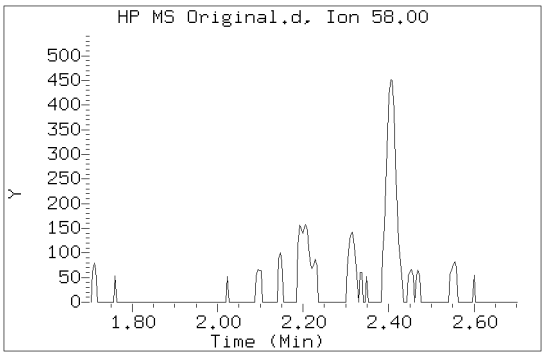

AFTER
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09-Feb-2024
11:46
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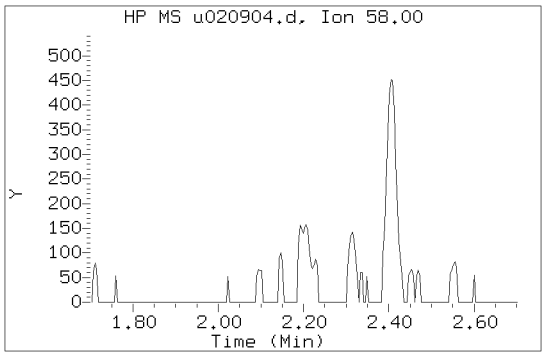

Ethanol (64-17-5)

Reason Code:

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MASS
45
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603
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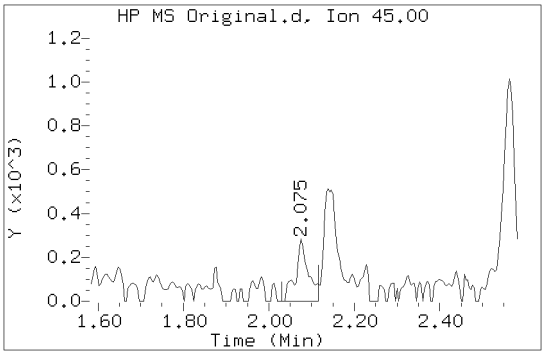
285
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
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AREA
603
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285
09-Feb-2024
11:46
firat
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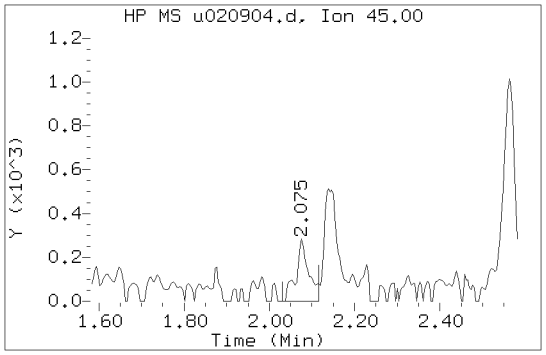

BEFORE
MASS
46
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
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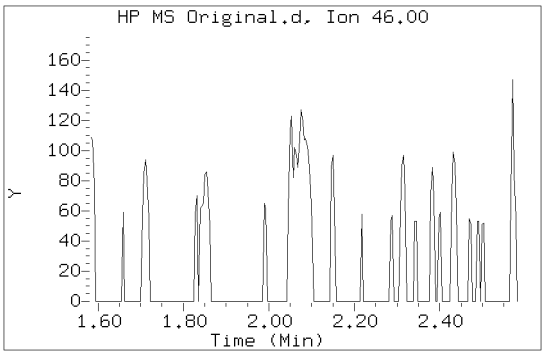

AFTER
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46
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HEIGHT
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09-Feb-2024
11:46
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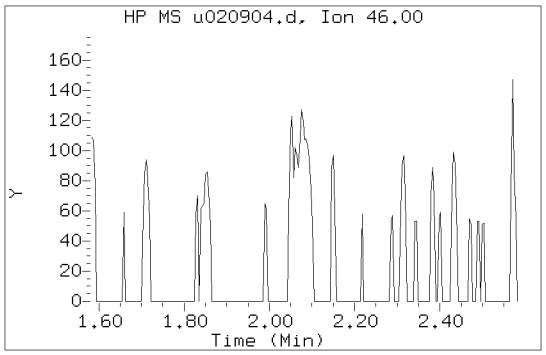


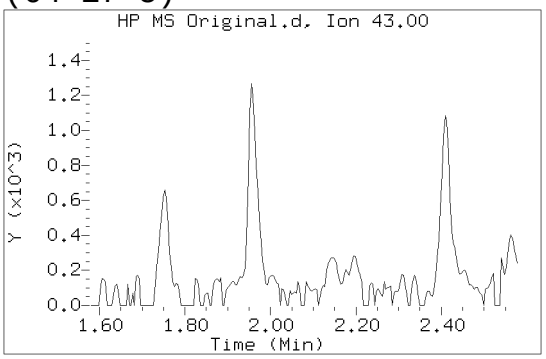
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Ethanol (64-17-5)

Reason Code:

BEFORE

MASS
43
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
43
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09-Feb-2024
11:46
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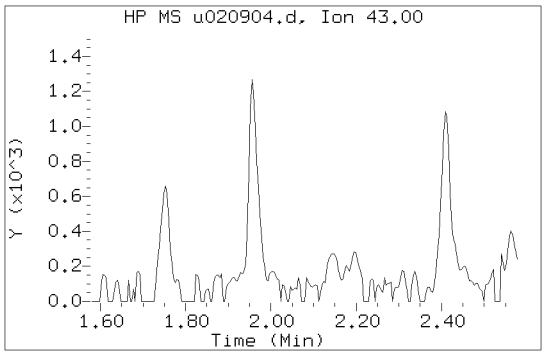

tert-Butyl formate (762-75-4)

Reason Code:

BEFORE

MASS
59
AREA
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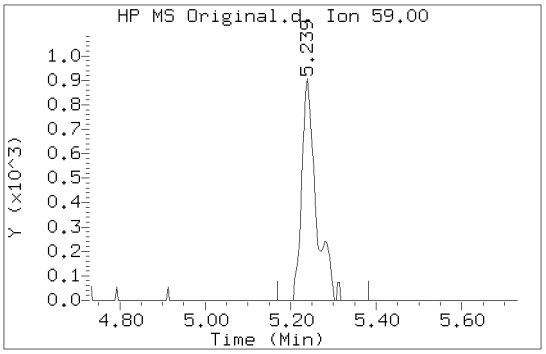
HEIGHT
907
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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AREA
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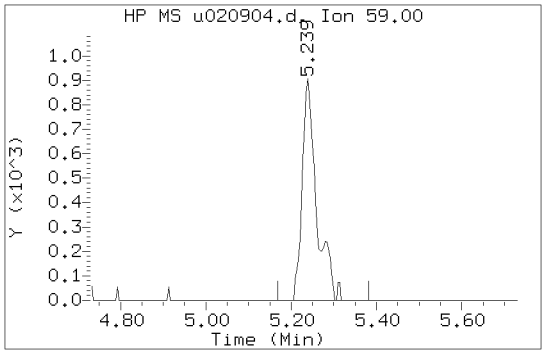
907
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
57
AREA
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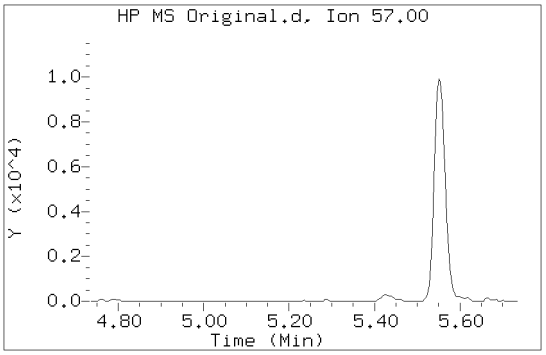
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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HEIGHT
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09-Feb-2024
11:46
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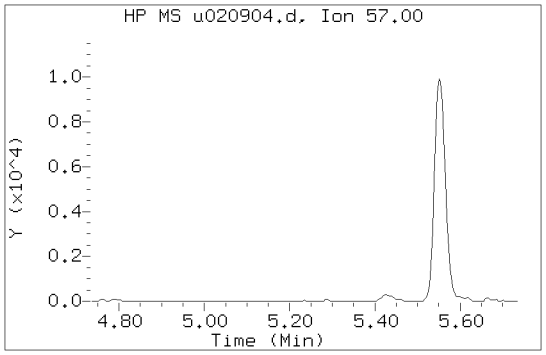

BEFORE

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09-Feb-2024
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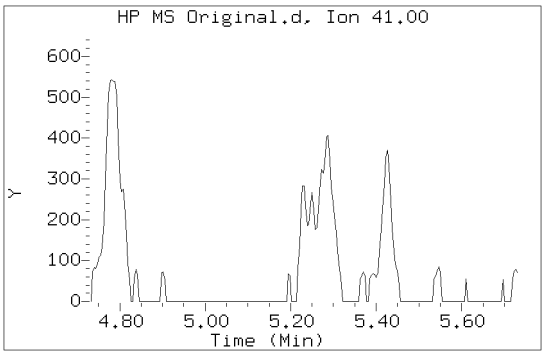

AFTER

MASS
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09-Feb-2024
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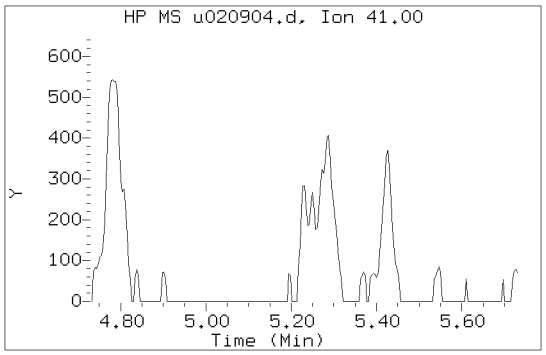

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

3,3-Dimethyl-1-butanol (624-95-3)

Reason Code:

BEFORE

MASS
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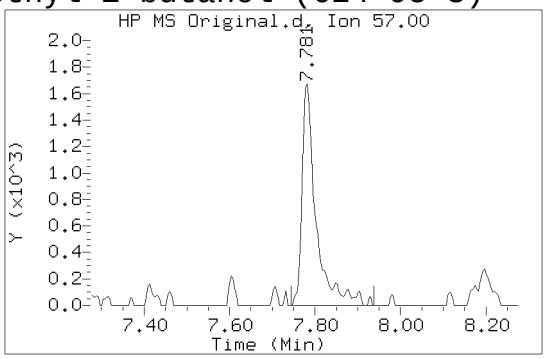
HEIGHT
1675
09-Feb-2024
11:46
firat
tastan



AFTER

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09-Feb-2024
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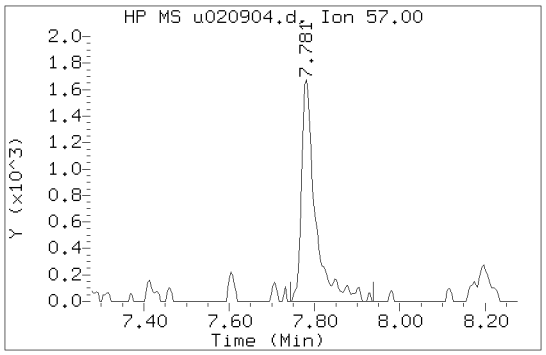

BEFORE

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09-Feb-2024
11:46
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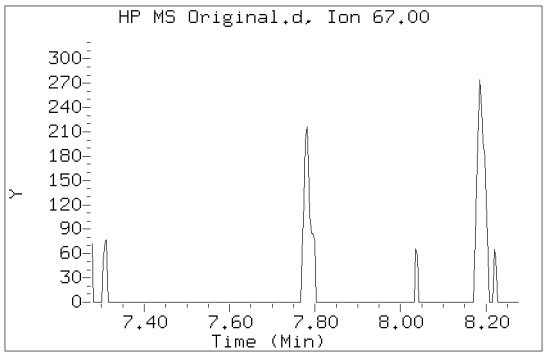

AFTER

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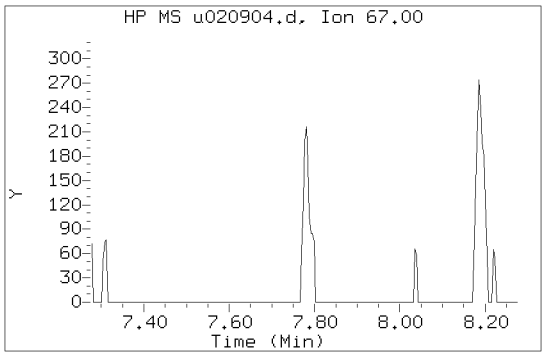

BEFORE

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HEIGHT
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09-Feb-2024
11:46
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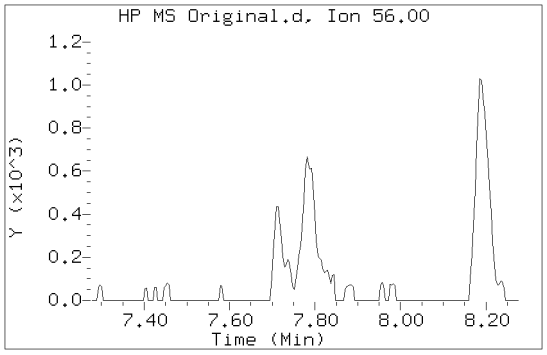

AFTER

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HEIGHT
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09-Feb-2024
11:46
firat
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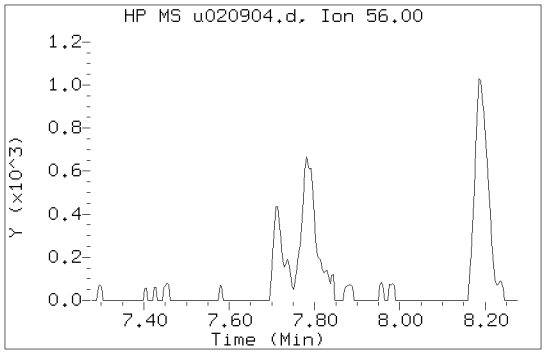

Epichlorohydrin (106-89-8)

Reason Code:

BEFORE

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:46
firat
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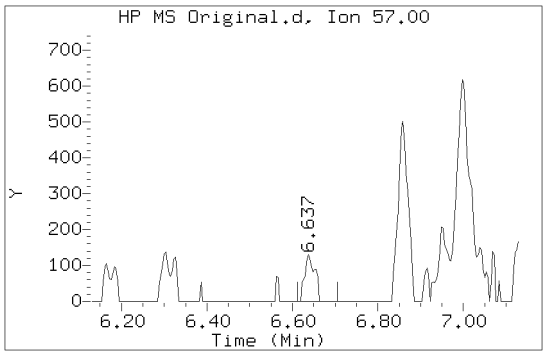

AFTER

MASS
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AREA
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HEIGHT
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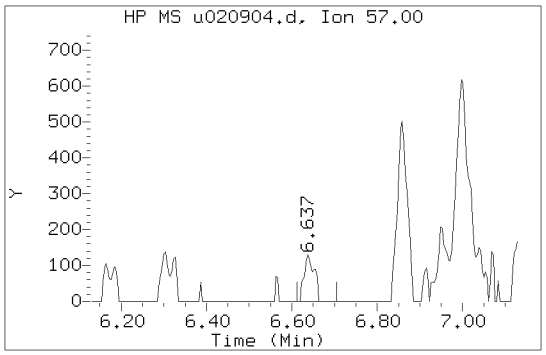
09-Feb-2024
11:46
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Epichlorohydrin (106-89-8)

Reason Code:

BEFORE

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49
AREA
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HEIGHT
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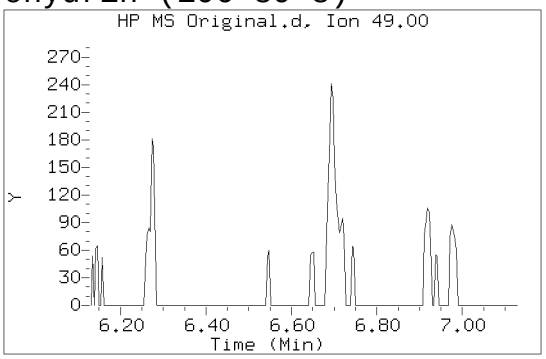
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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09-Feb-2024
11:46
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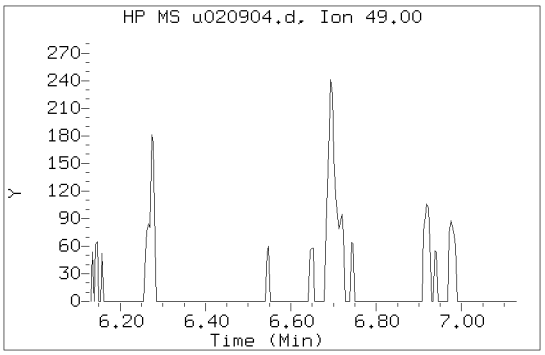

Isoprene (78-79-5)

Reason Code:

BEFORE

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AREA
438
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223
09-Feb-2024
11:46
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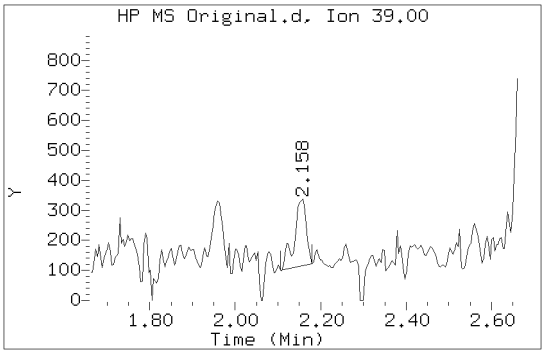

AFTER

MASS
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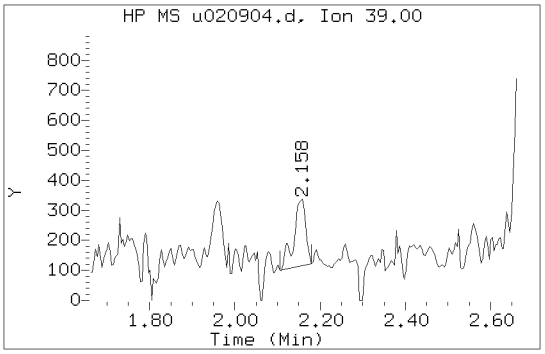
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
67
AREA
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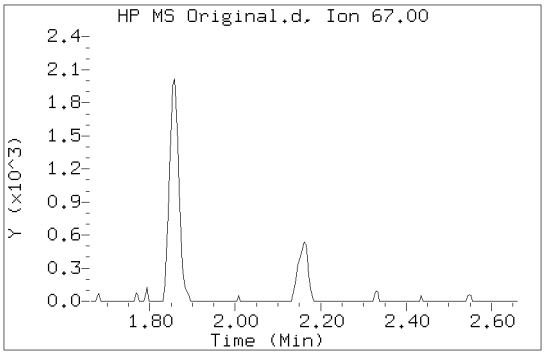
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:46
firat
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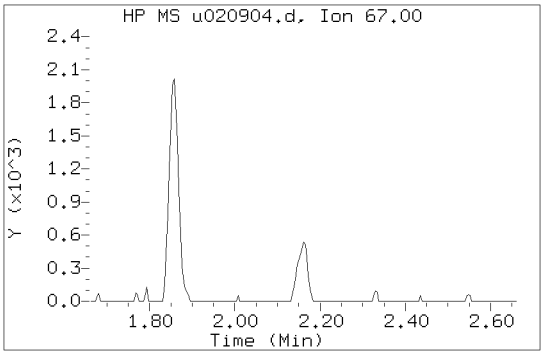

BEFORE

MASS
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AREA
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HEIGHT
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09-Feb-2024
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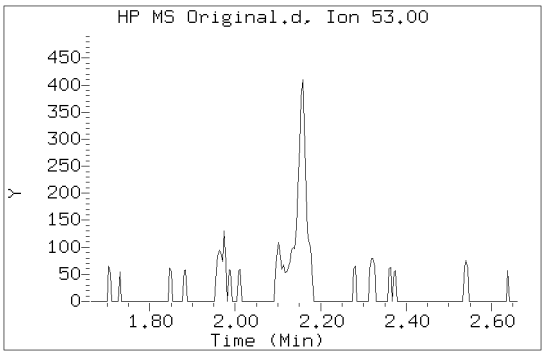

AFTER

MASS
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AREA
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HEIGHT
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11:46
firat
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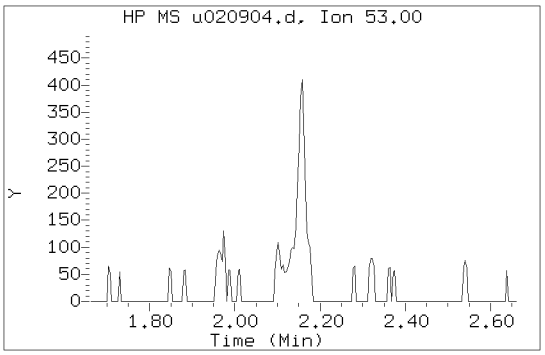


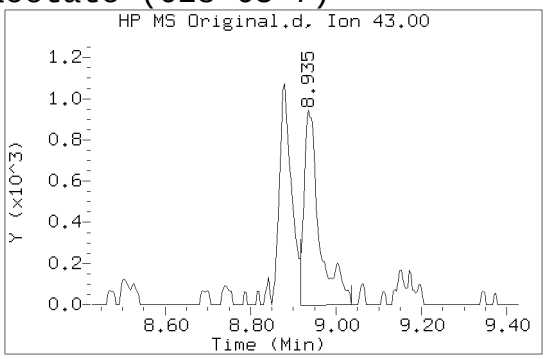
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

n-Amyl acetate (628-63-7)

Reason Code:

BEFORE

MASS
43
AREA
2428
HEIGHT
947
09-Feb-2024
11:46
firat
tastan



AFTER

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947
09-Feb-2024
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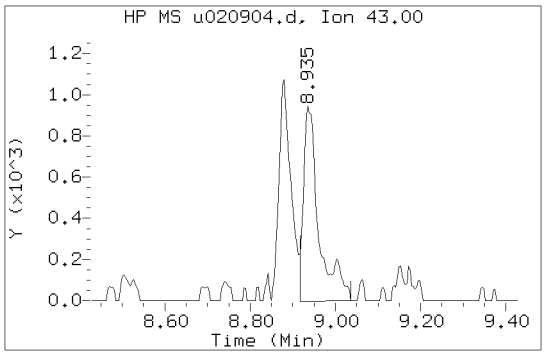

BEFORE

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09-Feb-2024
11:46
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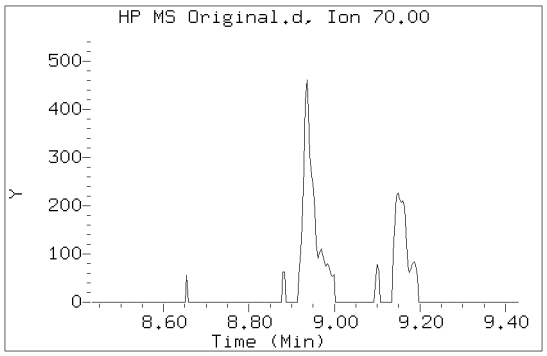

AFTER

MASS
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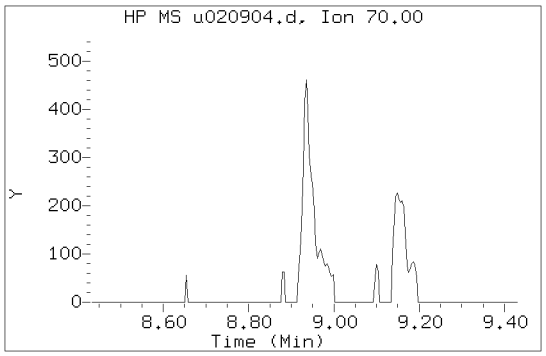
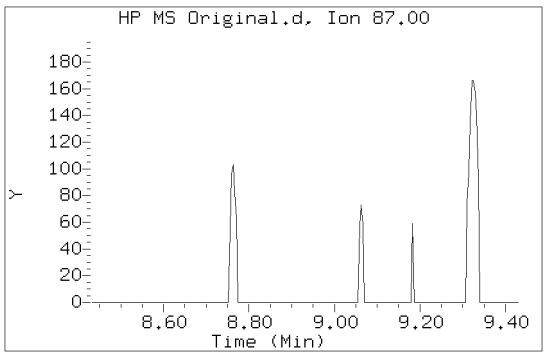
09-Feb-2024
11:46
firat
tastan



BEFORE

MASS
87
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER

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HEIGHT
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09-Feb-2024
11:46
firat
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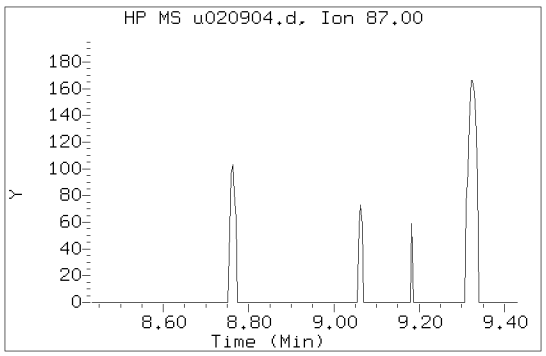

Isopropyl acetate (108-21-4)

Reason Code:

BEFORE

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43
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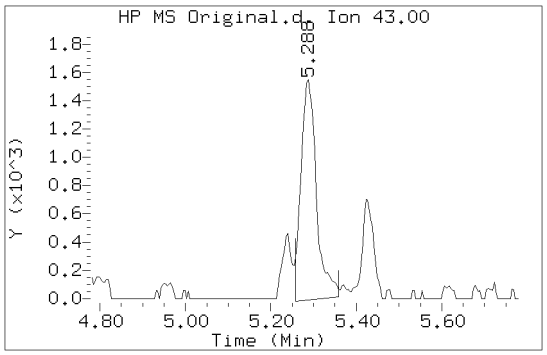
09-Feb-2024
11:46
firat
tastan



AFTER

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HEIGHT
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09-Feb-2024
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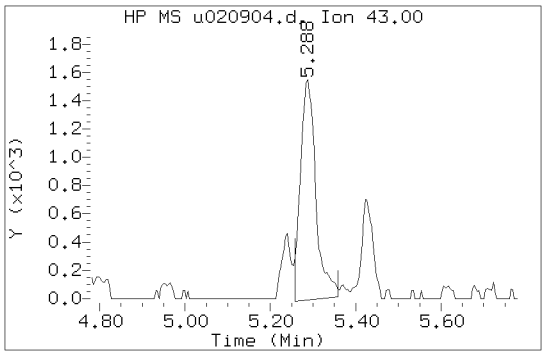
tastan



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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Isopropyl acetate (108-21-4)

Reason Code:

BEFORE

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09-Feb-2024
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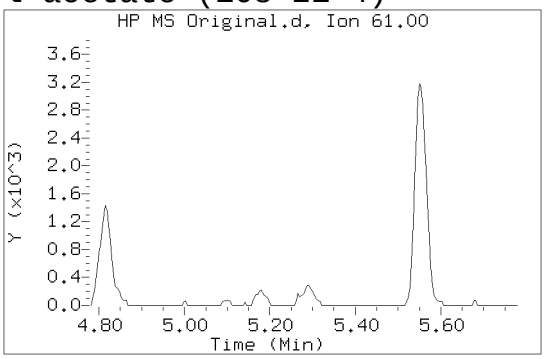

AFTER

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AREA
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09-Feb-2024
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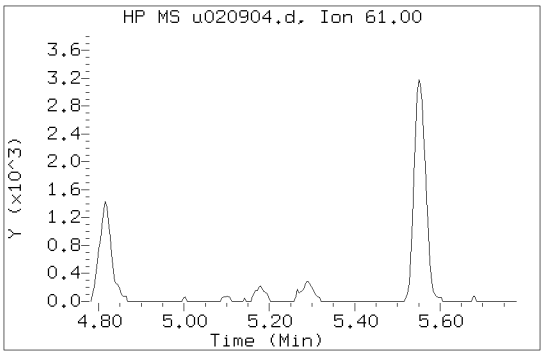

n-Butyl acetate (123-86-4)

Reason Code:

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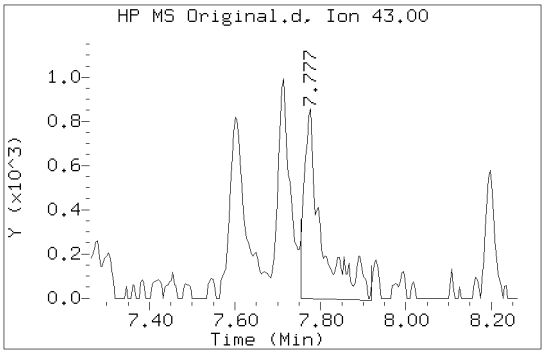

AFTER

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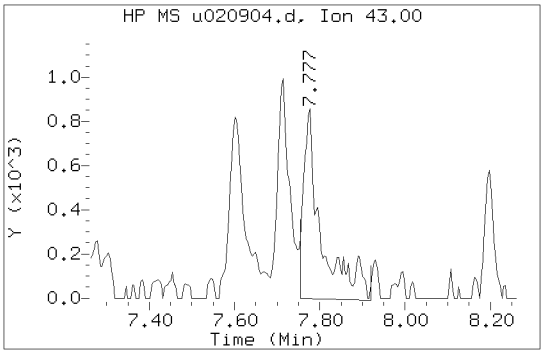

BEFORE

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09-Feb-2024
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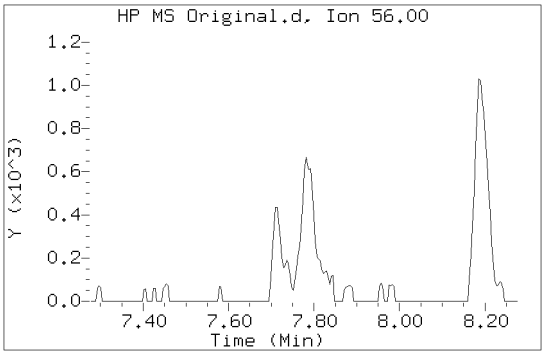

AFTER

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HEIGHT
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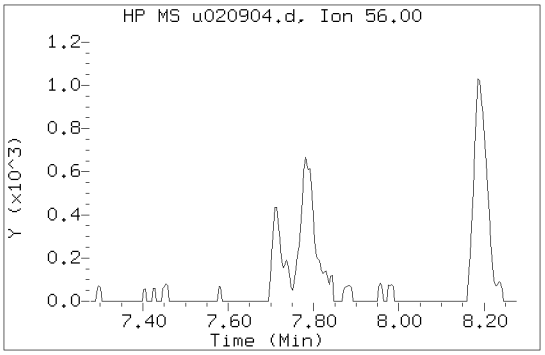

BEFORE

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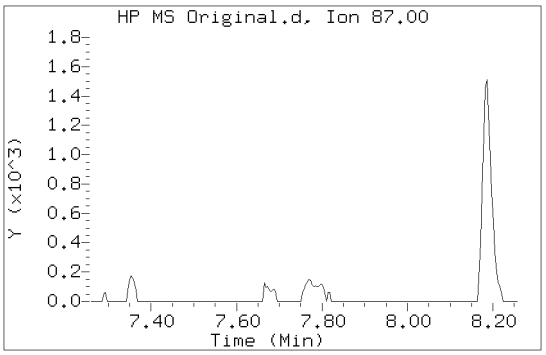

AFTER

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HEIGHT
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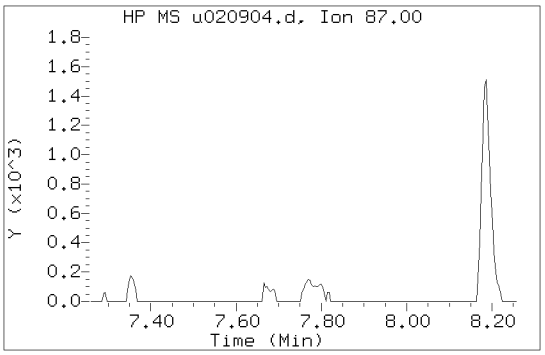
09-Feb-2024
11:46
firat
tastan



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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Acetaldehyde (75-07-0)

Reason Code:

BEFORE
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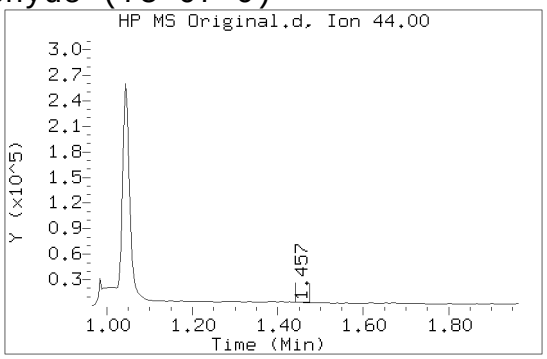
44
AREA
736
HEIGHT
714
09-Feb-2024
11:46
firat
tastan



AFTER
MASS
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AREA
736
HEIGHT
714
09-Feb-2024
11:46
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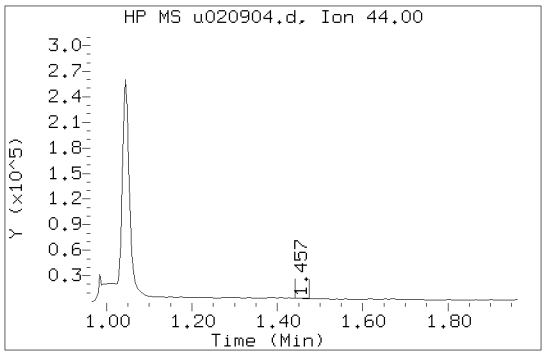

BEFORE
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HEIGHT
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09-Feb-2024
11:46
firat
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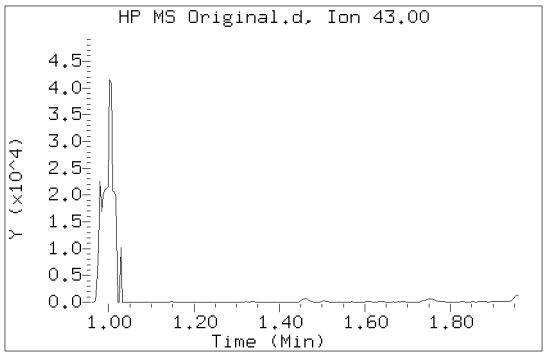

AFTER
MASS
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AREA
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HEIGHT
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09-Feb-2024
11:46
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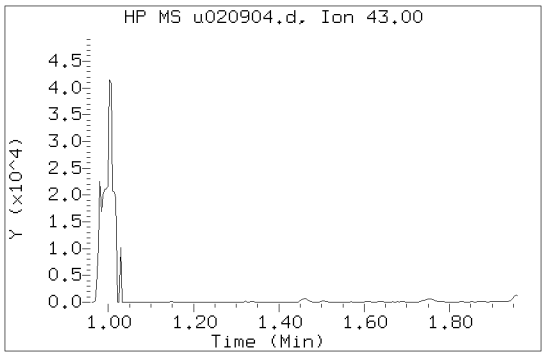

BEFORE
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HEIGHT
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09-Feb-2024
11:46
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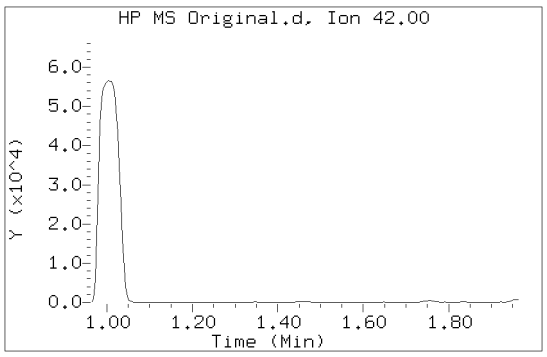

AFTER
MASS
42
AREA
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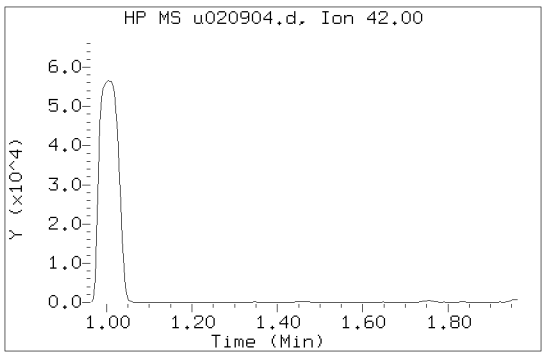
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



Methyl Amyl Ketone (110-43-0)

Reason Code:

BEFORE
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AREA
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HEIGHT
1073
09-Feb-2024
11:46
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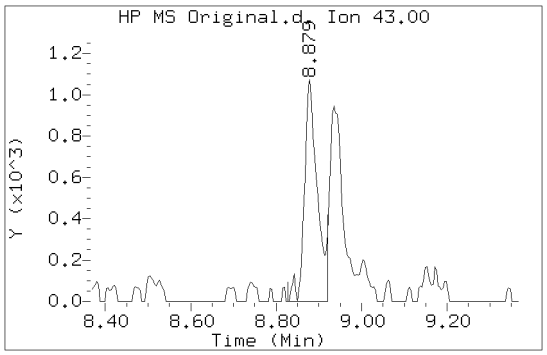

AFTER
MASS
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AREA
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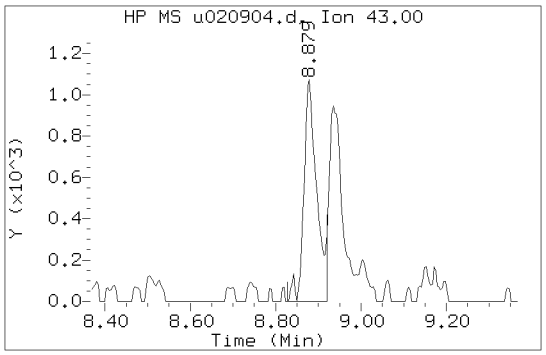
HEIGHT
1073
09-Feb-2024
11:46
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020904.d
Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Methyl Amyl Ketone (110-43-0)

BEFORE
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HEIGHT
0
09-Feb-2024
11:46
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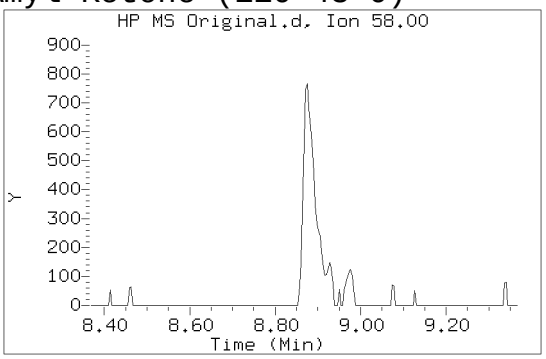

Reason Code:

AFTER
MASS
58
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HEIGHT
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09-Feb-2024
11:46
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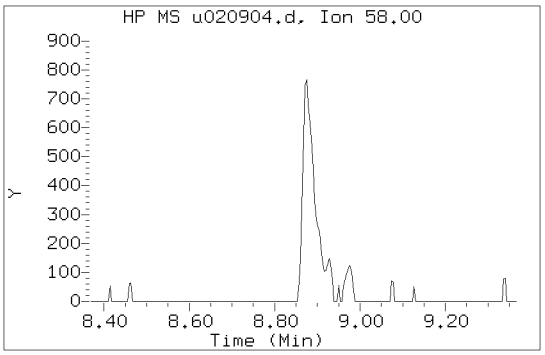

BEFORE
MASS
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09-Feb-2024
11:46
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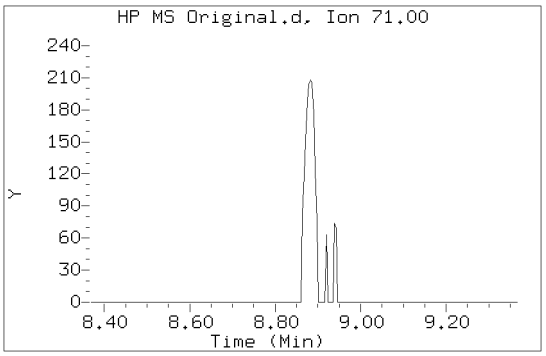

AFTER
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AREA
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HEIGHT
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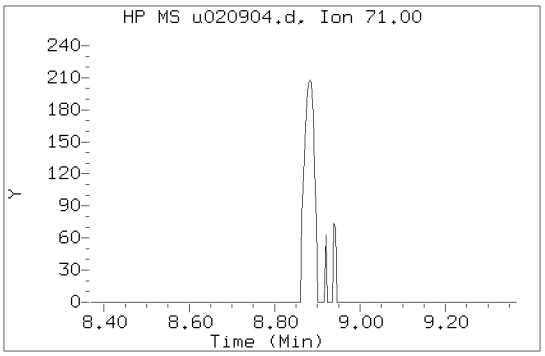
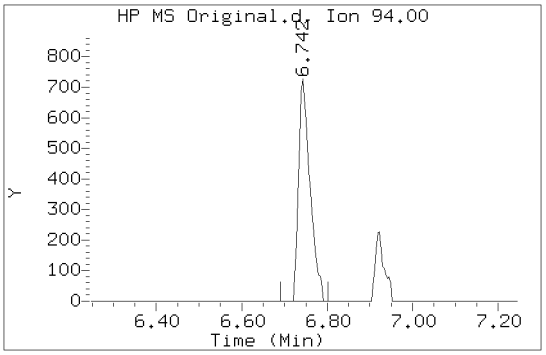


Dimethyl Disulfide (624-92-0)

BEFORE
MASS
94
AREA
1377
HEIGHT
727
09-Feb-2024
11:46
firat
tastan



Reason Code:

AFTER
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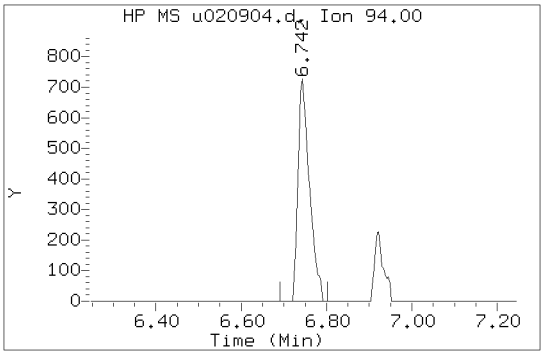
HEIGHT
727
09-Feb-2024
11:46
firat
tastan



BEFORE
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09-Feb-2024
11:46
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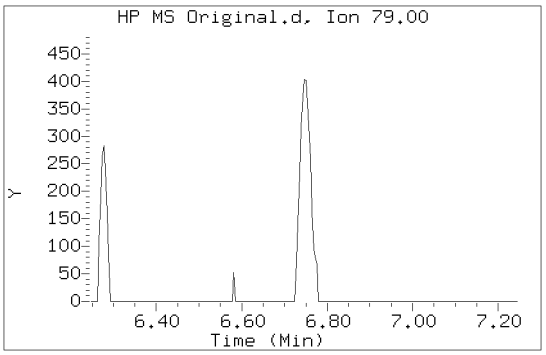

AFTER
MASS
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HEIGHT
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09-Feb-2024
11:46
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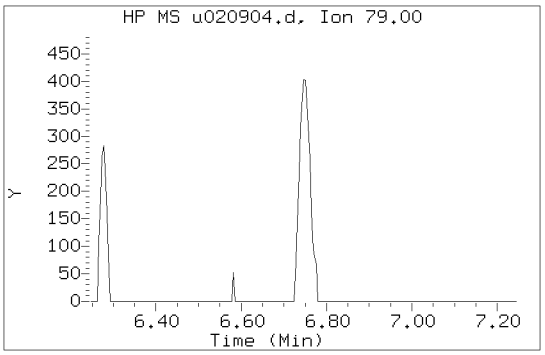

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Inj Date : 09-FEB-2024 10:06
InstruID : VOA9.i
LabSampID : VSTD001

Dimethyl Disulfide (624-92-0)

Reason Code:

BEFORE
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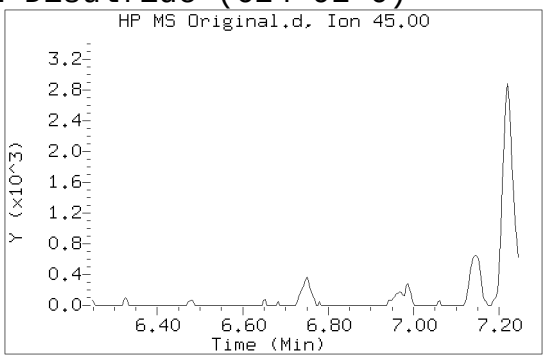
AREA
0
HEIGHT
0
09-Feb-2024
11:46
firat
tastan



AFTER
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HEIGHT
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09-Feb-2024
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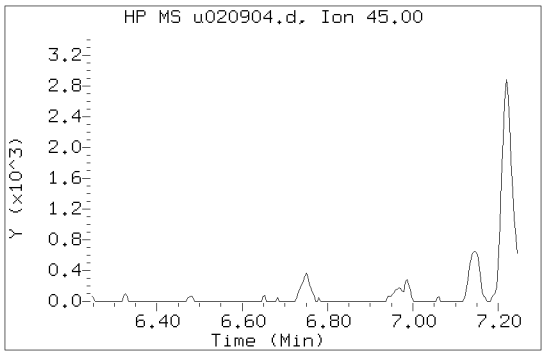

Isobutylene (115-11-7)

Reason Code:

BEFORE
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41
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598
09-Feb-2024
11:46
firat
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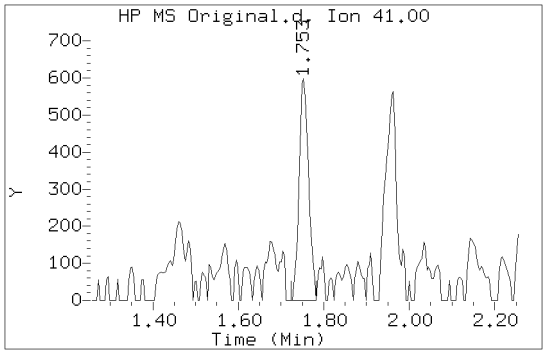

AFTER
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09-Feb-2024
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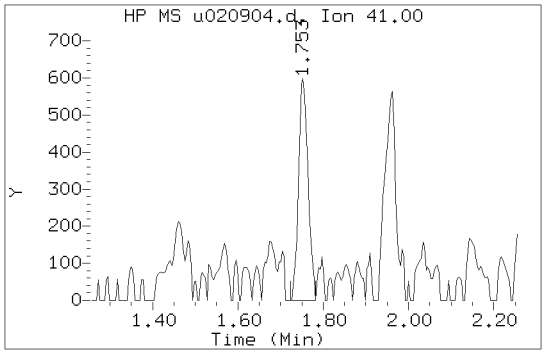

BEFORE
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09-Feb-2024
11:46
firat
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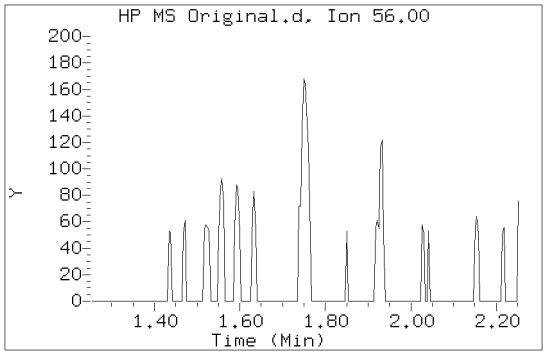

AFTER
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09-Feb-2024
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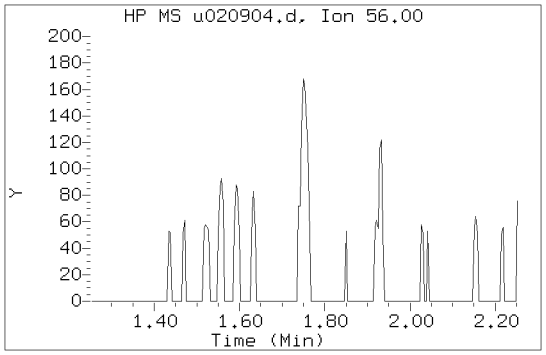

BEFORE
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09-Feb-2024
11:46
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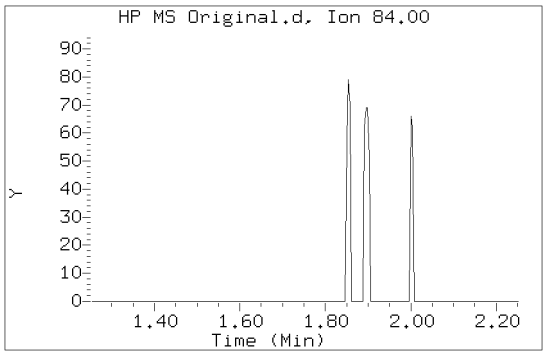

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09-Feb-2024
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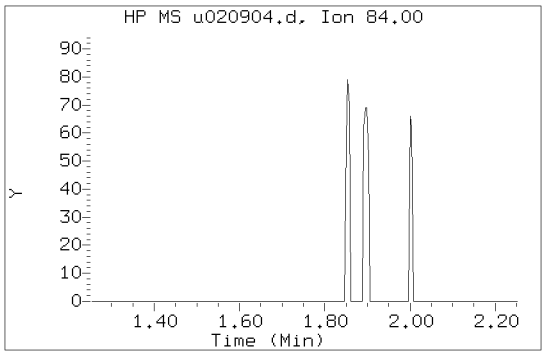


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 09-FEB-2024 10:29
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 10:06 Cal File: U020904.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	209017	50.0000	
2	Dichlorodifluoromethane	85	1.164	1.164	(0.242)	2577	2.00000	2.00
3	Chloromethane	50	1.303	1.303	(0.271)	3934	2.00000	2.85
5	Vinyl Chloride	62	1.378	1.378	(0.286)	3412	2.00000	1.94
6	Bromomethane	94	1.625	1.625	(0.338)	3483	2.00000	3.41
7	Chloroethane	64	1.700	1.700	(0.353)	2571	2.00000	1.76
8	Trichlorofluoromethane	101	1.895	1.895	(0.394)	5784	2.00000	1.62
9	Acrolein	56	2.270	2.270	(0.471)	413	4.00000	2.98(M)
10	Acetone	43	2.412	2.412	(0.501)	3695	4.00000	2.01
11	1,1-Dichloroethene	96	2.334	2.334	(0.485)	3506	2.00000	2.20
15	Iodomethane	142	2.469	2.469	(0.513)	5358	4.00000	3.89
16	Acrylonitrile	53	3.065	3.065	(0.636)	2213	4.00000	3.63
17	Methylene Chloride	84	2.799	2.799	(0.581)	5315	2.00000	1.47
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	9274	2.00000	2.09
19	Carbon Disulfide	76	2.521	2.521	(0.524)	17806	4.00000	3.58
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.636)	4308	2.00000	2.25
21	Vinyl Acetate	43	3.612	3.612	(0.750)	14402	4.00000	3.50
22	1,1-Dichloroethane	63	3.515	3.515	(0.730)	6310	2.00000	2.18
24	2-Butanone	43	4.279	4.279	(0.889)	2300	4.00000	3.63
26	2,2-Dichloropropane	77	4.182	4.182	(0.868)	4565	2.00000	1.83

27 cis-1,2-Dichloroethene	96	4.201	4.201 (0.872)	4279	2.00000	1.85
28 Chloroform	83	4.575	4.575 (0.950)	6621	2.00000	1.81

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.929)	2531	2.00000	1.19
$	30 Dibromofluoromethane	113	4.752	4.752	(0.987)	4395	2.00000	1.61
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	4863	2.00000	1.61
	32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	4621	2.00000	2.02
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	5396	2.00000	1.56
	34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	5098	2.00000	1.88
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	4833	2.00000	1.51
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	296557	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	14779	2.00000	2.15
	38 Trichloroethene	130	5.790	5.790	(1.043)	4366	2.00000	2.04
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	4447	2.00000	1.76(M)
	41 2-Chloroethylvinyl ether	63	6.566	6.566	(1.182)	29	4.00000	1.67(MH)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.083)	4042	2.00000	2.23
	44 Dibromomethane	93	6.116	6.116	(1.101)	2440	2.00000	1.93
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	5022	4.00000	3.37
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	4487	2.00000	1.70
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	266184	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	14699	2.00000	1.97
	50 Toluene	91	6.982	6.982	(0.853)	15256	2.00000	1.85
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	3131	2.00000	2.92
	52 2-Hexanone	43	7.597	7.597	(0.928)	3749	4.00000	6.06
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	3115	2.00000	2.05
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	5927	2.00000	1.87
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	3320	2.00000	1.58
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	3789	2.00000	2.01
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	3528	2.00000	1.91
	58 1-Chlorohexane	55	8.193	8.193	(1.475)	4112	2.00000	2.29
	59 Chlorobenzene	112	8.212	8.212	(1.003)	12192	2.00000	2.02
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	4011	2.00000	1.89
	61 Ethylbenzene	106	8.305	8.305	(1.015)	4910	2.00000	1.75
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	11801	4.00000	3.42
	63 o-Xylene	106	8.748	8.748	(1.069)	6368	2.00000	1.88
	64 Styrene	104	8.766	8.766	(1.071)	9049	2.00000	1.64
	66 Bromoform	173	8.920	8.920	(1.090)	2646	2.00000	1.74(T)
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	15264	2.00000	1.77
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	4391	2.00000	1.85(M)
$	69 4-Bromofluorobenzene	95	9.198	9.198	(1.124)	5431	2.00000	1.75
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	142815	50.0000	
	71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	4534	2.00000	1.97
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	14083	2.00000	1.59
	74 Bromobenzene	156	9.318	9.318	(0.916)	4619	2.00000	1.74
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	11045	2.00000	1.67
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	10805	2.00000	1.84
	77 4-Chlorotoluene	91	9.580	9.580	(0.942)	12155	2.00000	1.82
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	10461	2.00000	1.72
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	11101	2.00000	1.70
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	12777	2.00000	1.65
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	10725	2.00000	1.55
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	8846	2.00000	1.89
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	10205	2.00000	1.84
	87 n-Butylbenzene	91	10.495	10.495	(1.032)	9154	2.00000	1.68
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	9072	2.00000	1.84

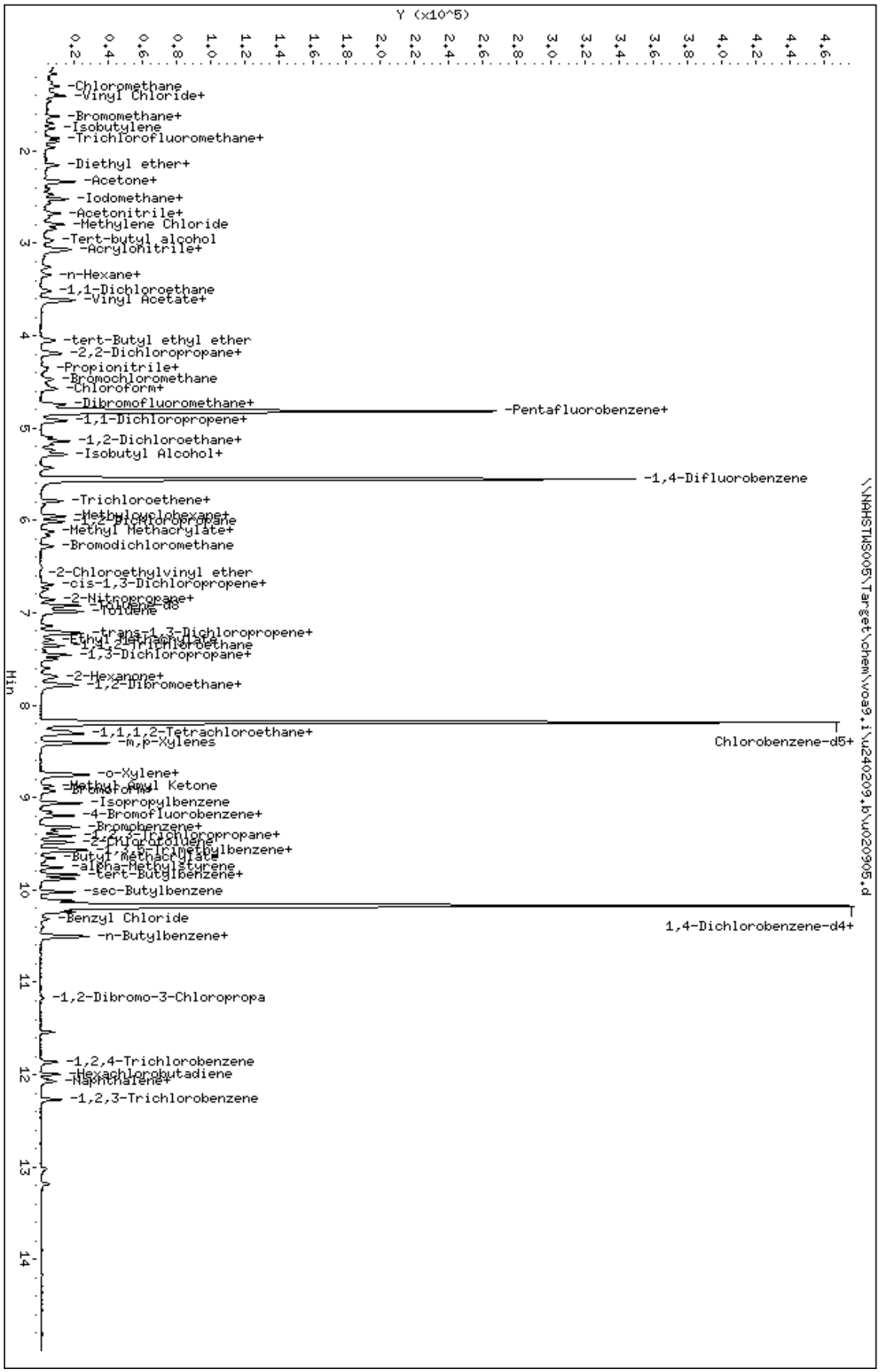
89	1,2-Dibromo-3-Chloropropane	155	11.173	11.173 (1.098)	613	2.00000	4.31(M)
90	1,2,4-Trichlorobenzene	180	11.863	11.863 (1.166)	4435	2.00000	1.56

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020905.D Page 3
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	2247	2.00000	1.83
	92 Naphthalene	128	12.073	12.073	(1.187)	8602	2.00000	2.53
	93 1,2,3-Trichlorobenzene	180	12.275	12.275	(1.207)	4583	2.00000	1.69
M	94 1,2-Dichloroethylene (total)	96				8587	4.00000	
M	95 Xylenes (total)	106				18169	6.00000	
	135 1,4-Dioxane	88	6.172	6.172	(1.282)	742	40.0000	41.72(M)
	141 Cyclohexane	56	4.785	4.785	(0.994)	6449	2.00000	2.52
	138 Freon TF	101	2.334	2.334	(0.485)	3605	2.00000	2.09
	140 1,3-Butadiene	54	1.404	1.404	(0.292)	2918	2.00000	1.98
	147 Methylcyclohexane	55	5.951	5.951	(1.072)	5855	2.00000	1.63
	146 Methyl Acetate	43	2.716	2.716	(0.564)	3096	2.00000	2.09
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	7150	40.0000	40.76(a)
	149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	5220	40.0000	56.69(TM)

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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Purge Volume: 5.0
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Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

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Inj Date : 09-FEB-2024 10:29
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LabSampID : VSTD002

Bromodichloromethane (75-27-4)

Reason Code:

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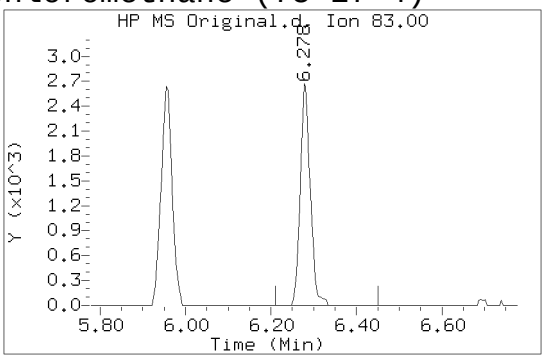

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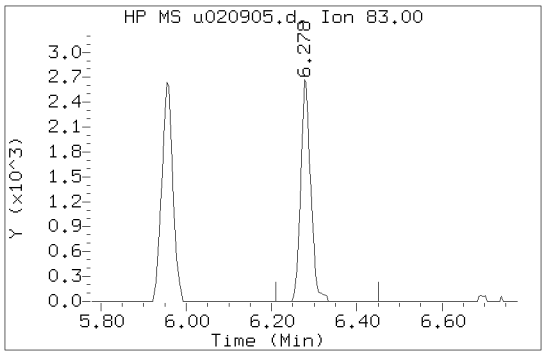

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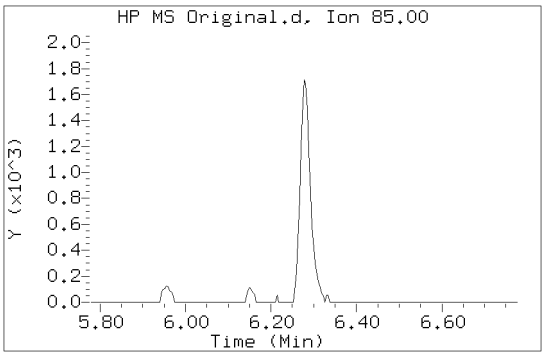

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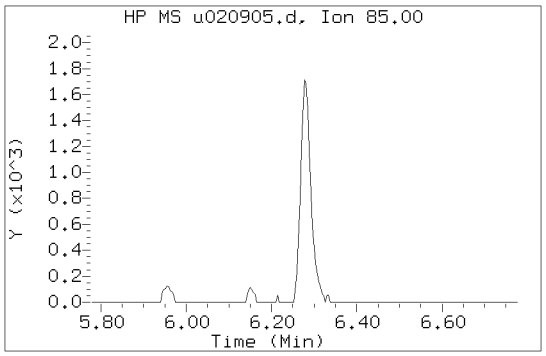

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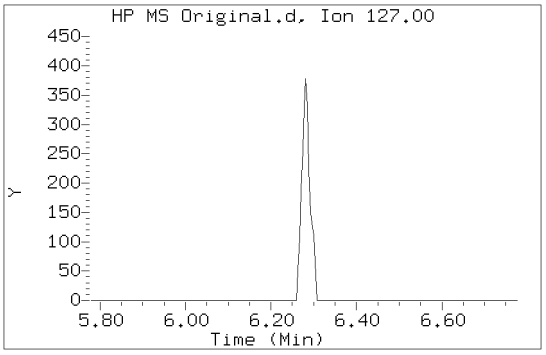

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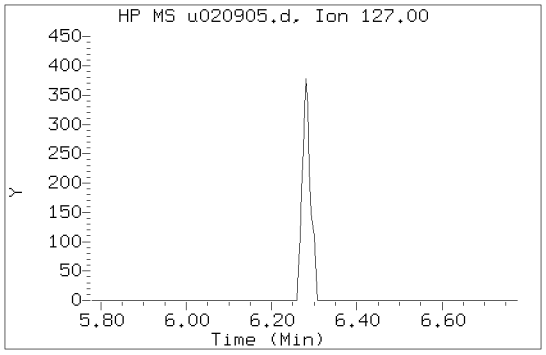

Acrolein (107-02-8)

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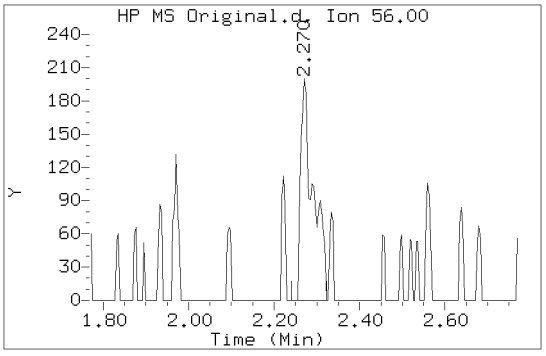

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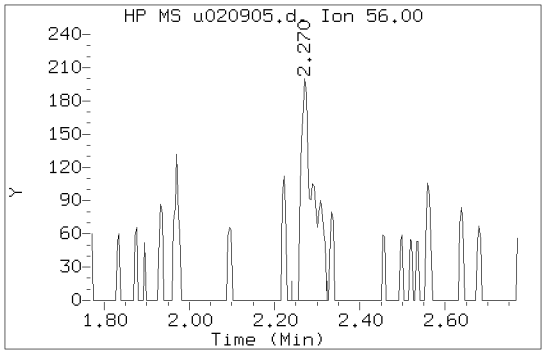

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InstruID : VOA9.i
LabSampID : VSTD002

Acrolein (107-02-8)

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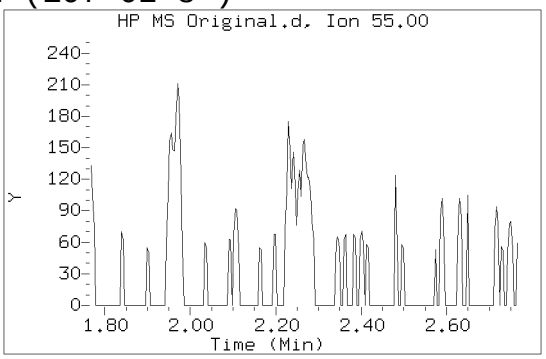

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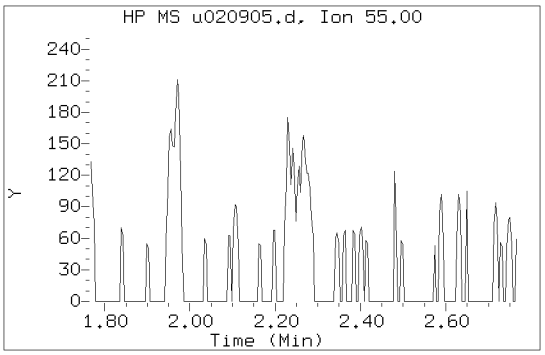

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

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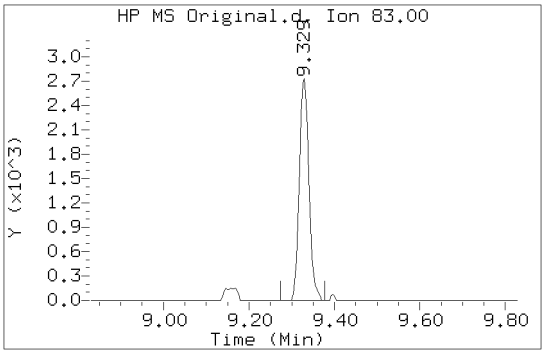

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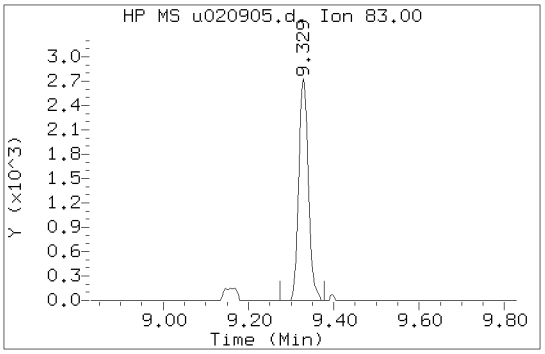

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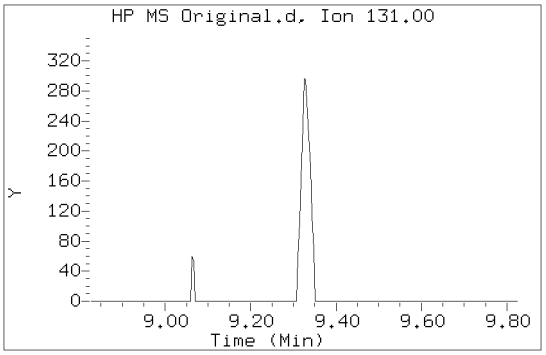

AFTER

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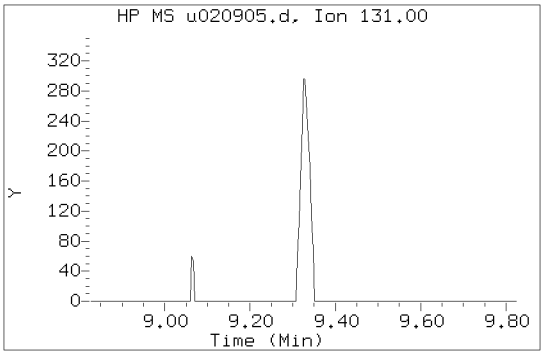

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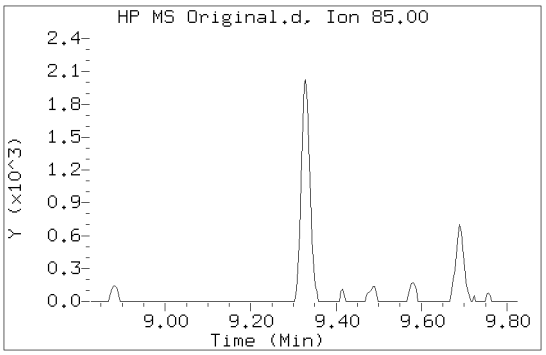

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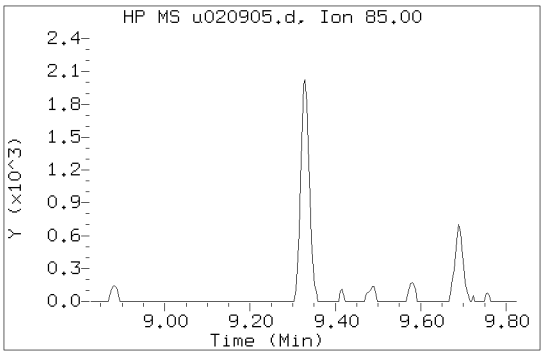

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Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Methacrylonitrile (126-98-7)

Reason Code:

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09-Feb-2024
11:53
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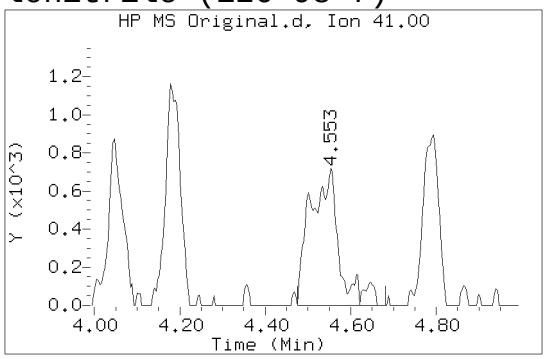

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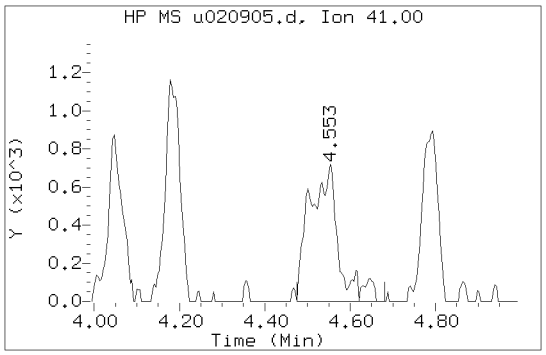

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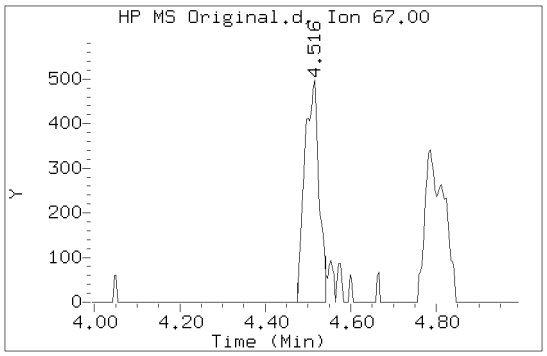

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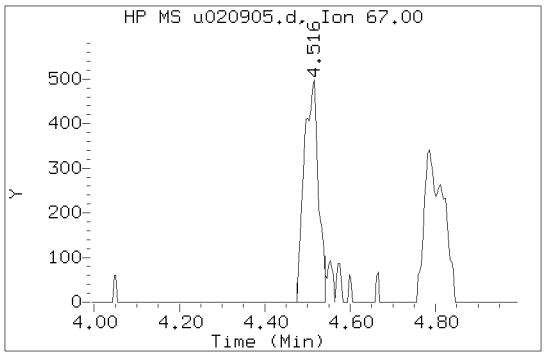

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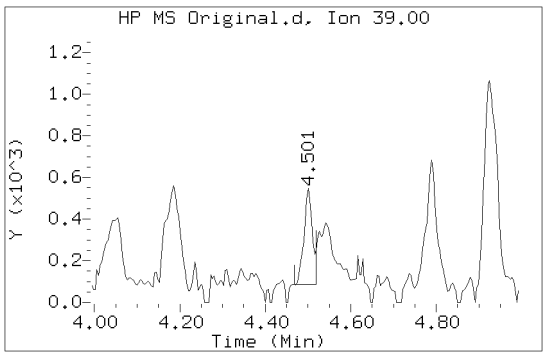

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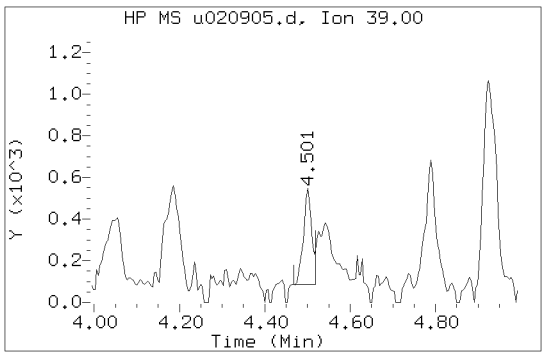

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

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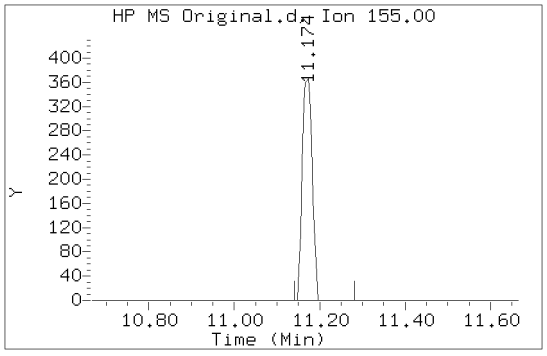

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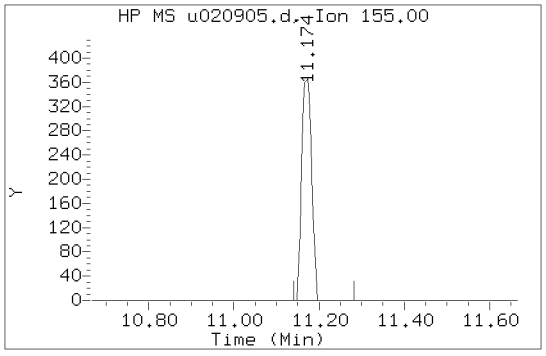
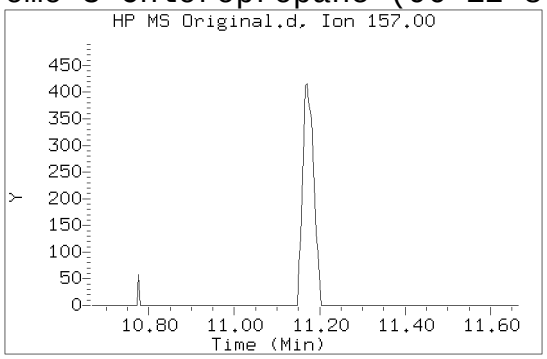


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

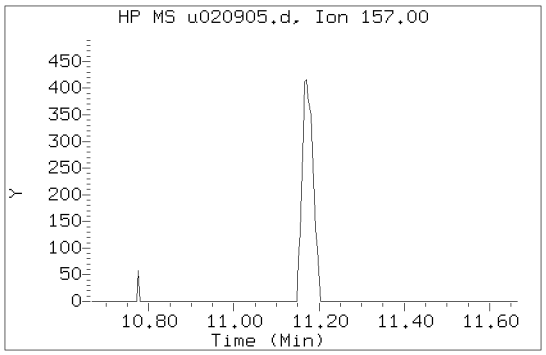
1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

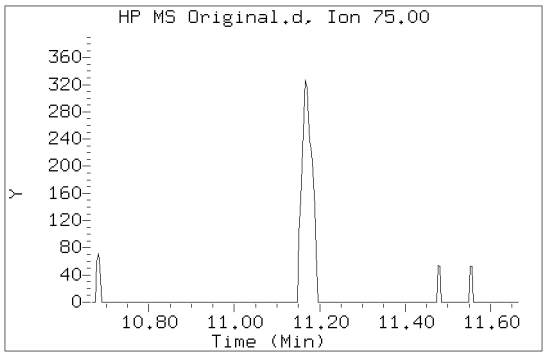
BEFORE
MASS
157
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



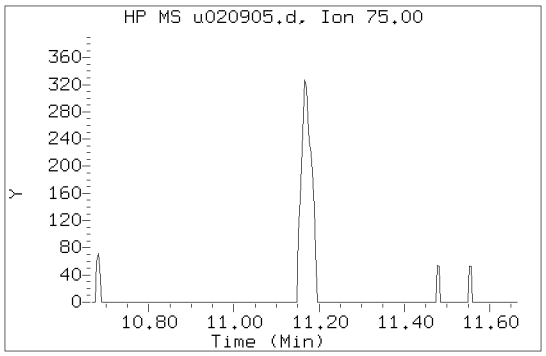
AFTER
MASS
157
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



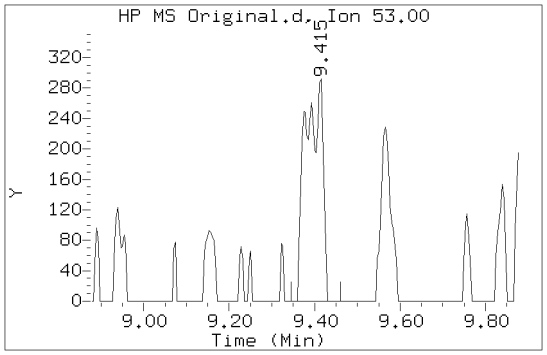
AFTER
MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



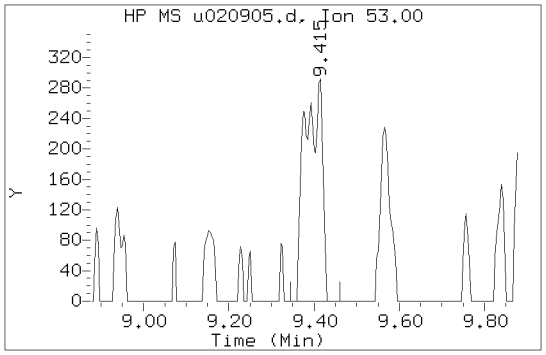
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

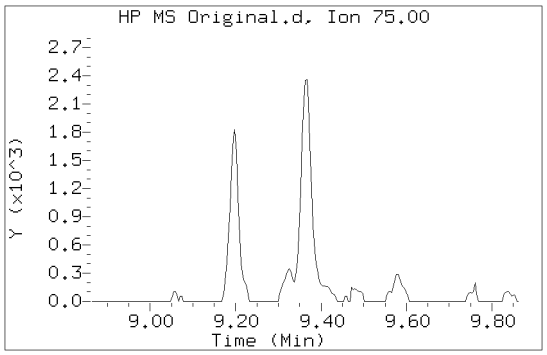
BEFORE
MASS
53
AREA
839
HEIGHT
292
09-Feb-2024
11:53
firat
tastan



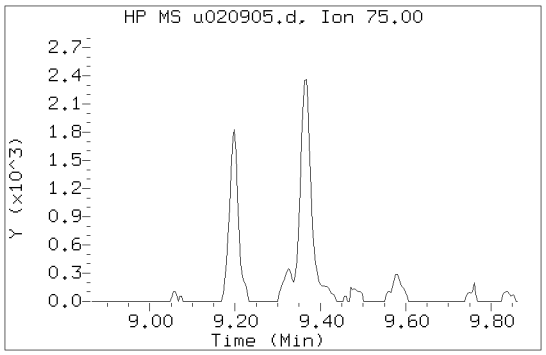
AFTER
MASS
53
AREA
839
HEIGHT
292
09-Feb-2024
11:53
firat
tastan



BEFORE
MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
MASS
75
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



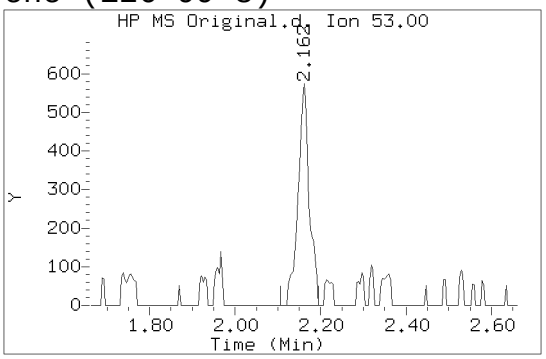
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Chloroprene (126-99-8)

Reason Code:

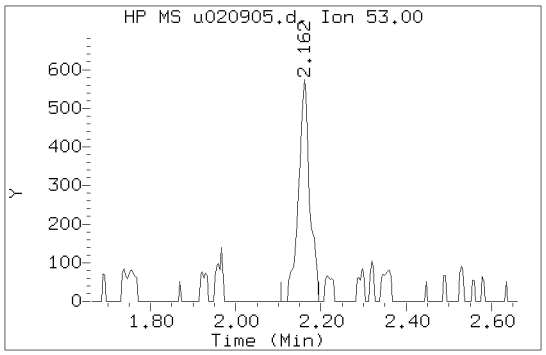
BEFORE

MASS
53
AREA
1068
HEIGHT
574
09-Feb-2024
11:53
firat
tastan



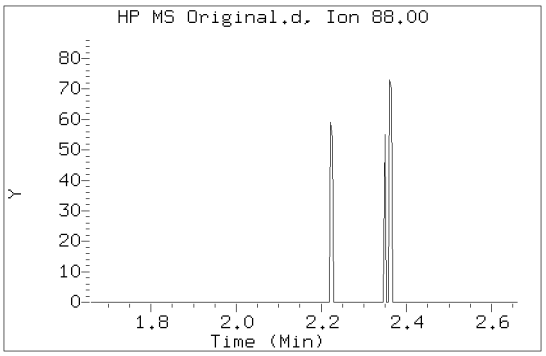
AFTER

MASS
53
AREA
1068
HEIGHT
574
09-Feb-2024
11:53
firat
tastan



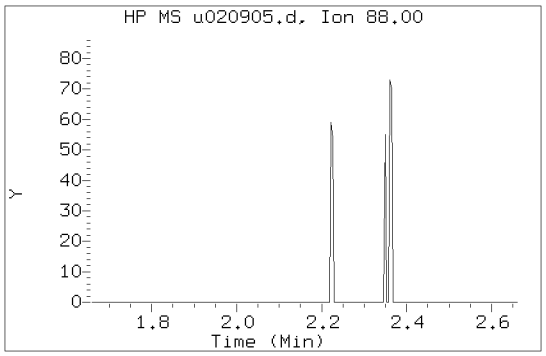
BEFORE

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
88
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

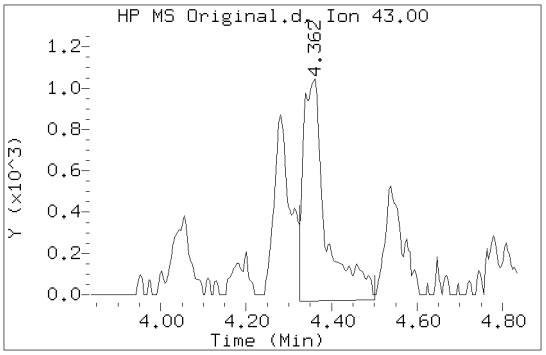


Ethyl Acetate (141-78-6)

Reason Code:

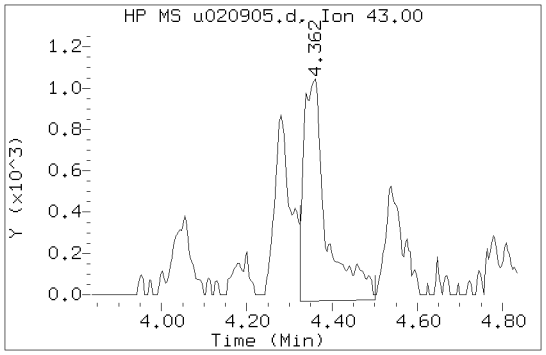
BEFORE

MASS
43
AREA
4030
HEIGHT
1074
09-Feb-2024
11:53
firat
tastan



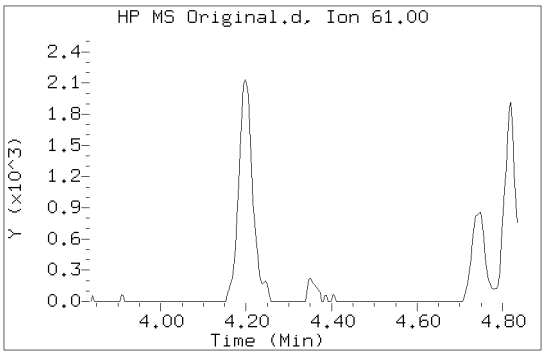
AFTER

MASS
43
AREA
4030
HEIGHT
1074
09-Feb-2024
11:53
firat
tastan



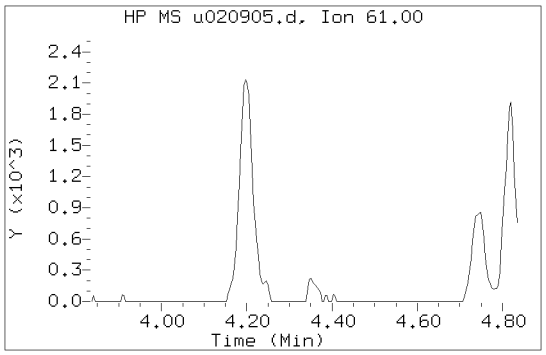
BEFORE

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
61
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

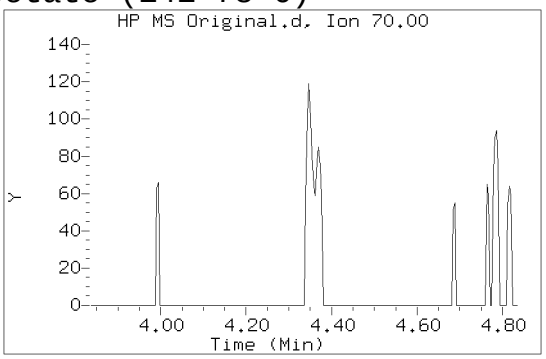


Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Ethyl Acetate (141-78-6)

BEFORE

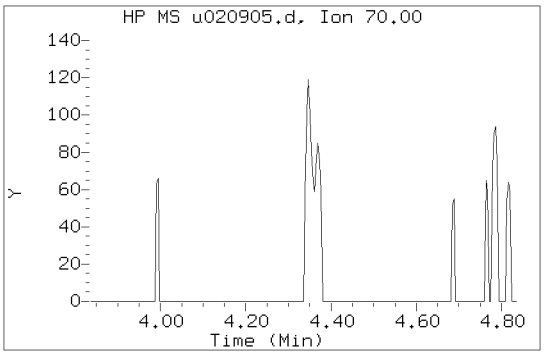
MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER

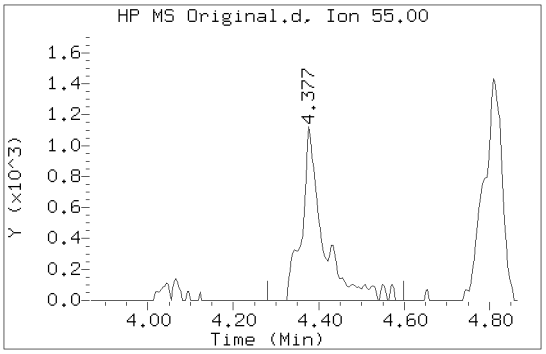
MASS
70
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Methyl Acrylate (96-33-3)

BEFORE

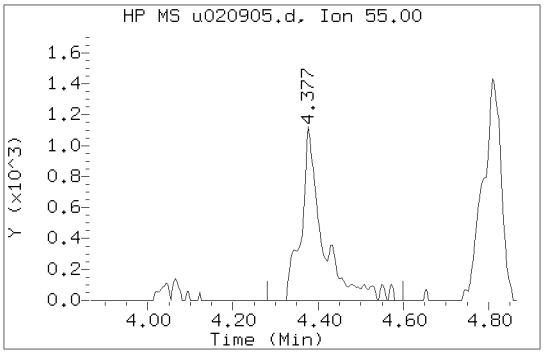
MASS
55
AREA
4010
HEIGHT
1124
09-Feb-2024
11:53
firat
tastan



Reason Code:

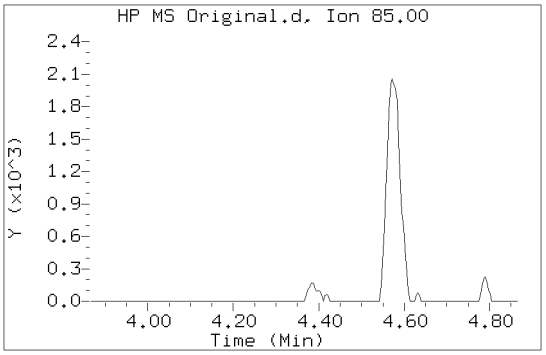
AFTER

MASS
55
AREA
4010
HEIGHT
1124
09-Feb-2024
11:53
firat
tastan



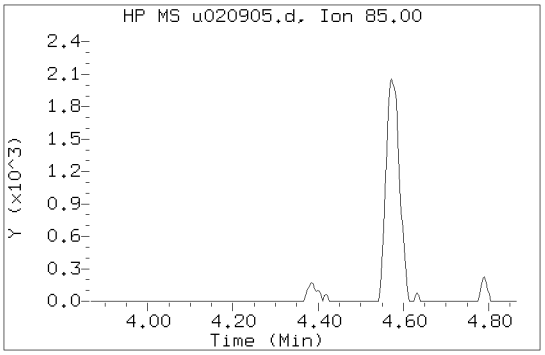
BEFORE

MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

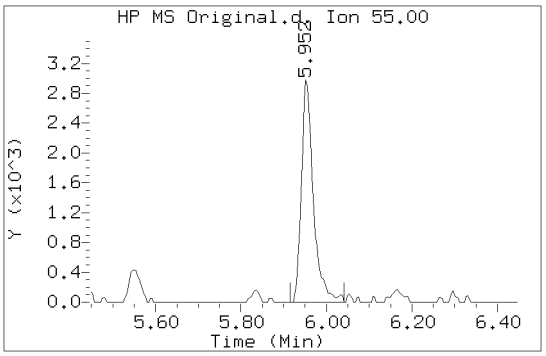
MASS
85
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Ethyl Acrylate (140-88-5)

BEFORE

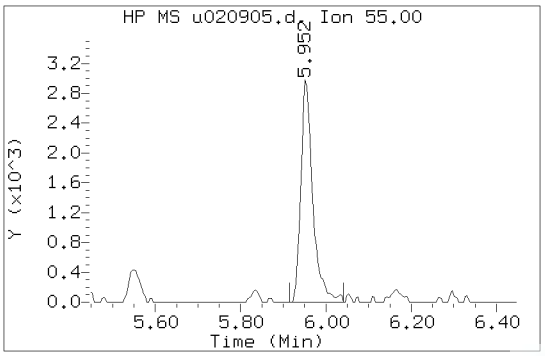
MASS
55
AREA
5919
HEIGHT
2979
09-Feb-2024
11:53
firat
tastan



Reason Code:

AFTER

MASS
55
AREA
5919
HEIGHT
2979
09-Feb-2024
11:53
firat
tastan



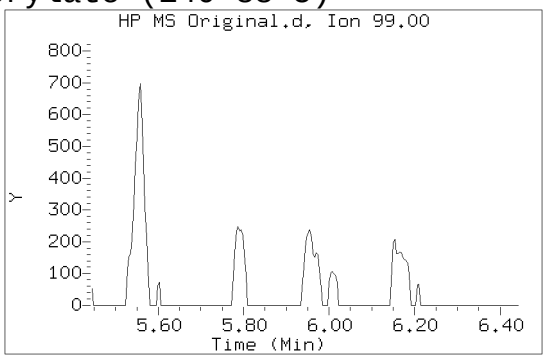
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Ethyl Acrylate (140-88-5)

Reason Code:

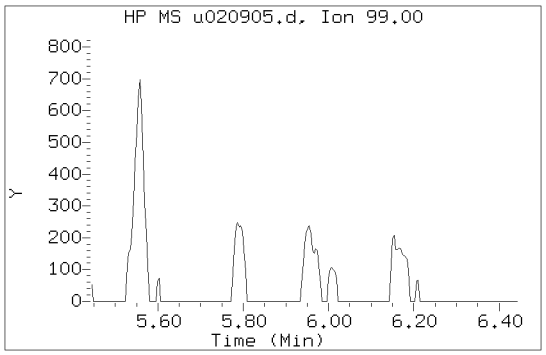
BEFORE

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
99
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

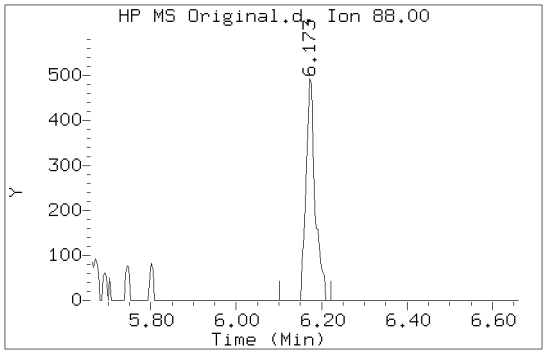


1,4-Dioxane ()

Reason Code:

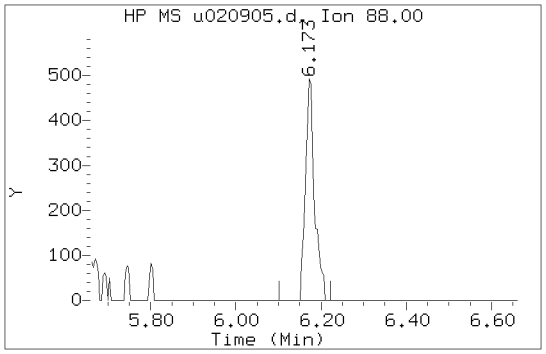
BEFORE

MASS
88
AREA
742
HEIGHT
493
09-Feb-2024
11:53
firat
tastan



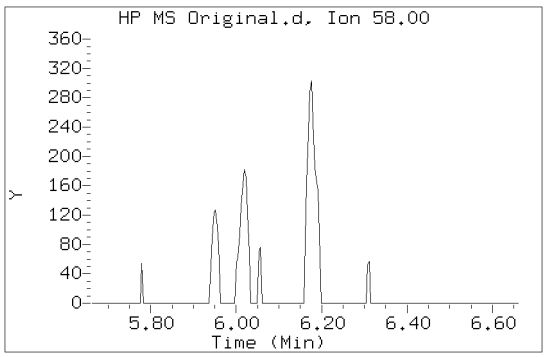
AFTER

MASS
88
AREA
742
HEIGHT
493
09-Feb-2024
11:53
firat
tastan



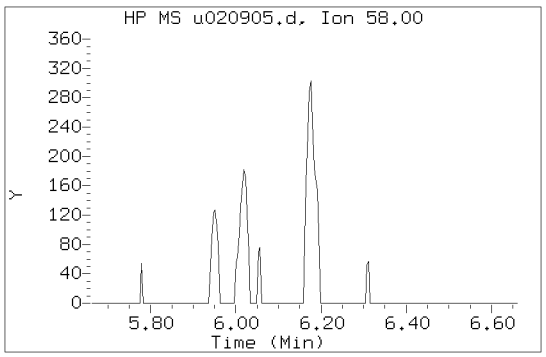
BEFORE

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
58
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

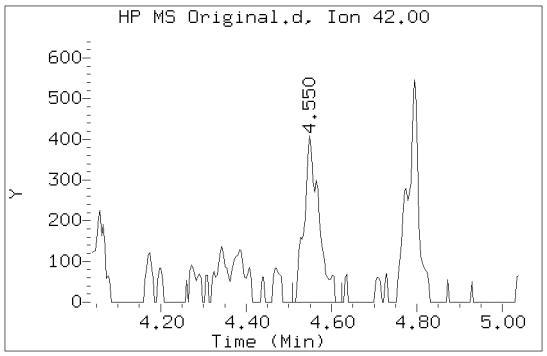


Tetrahydrofuran (109-99-9)

Reason Code:

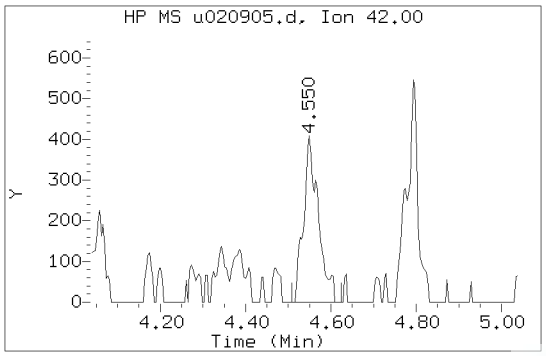
BEFORE

MASS
42
AREA
990
HEIGHT
409
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
42
AREA
990
HEIGHT
409
09-Feb-2024
11:53
firat
tastan



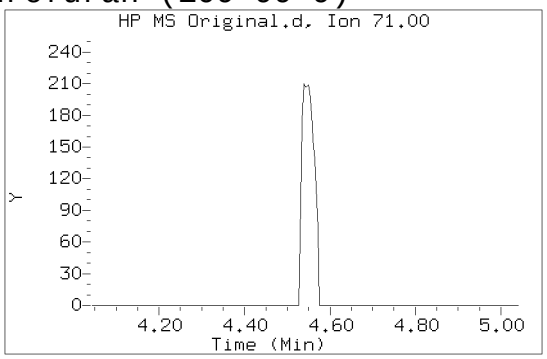
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Tetrahydrofuran (109-99-9)

Reason Code:

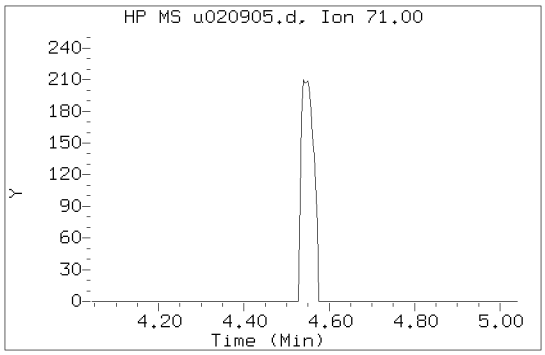
BEFORE

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
71
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan

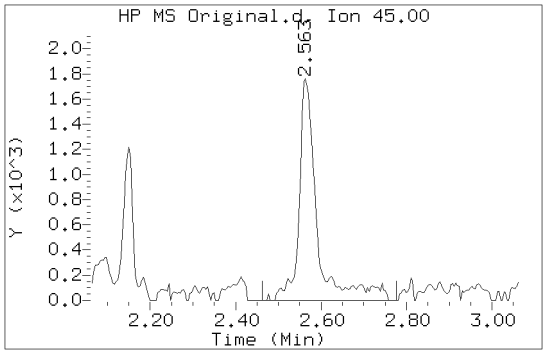


Isopropyl alcohol (67-63-0)

Reason Code:

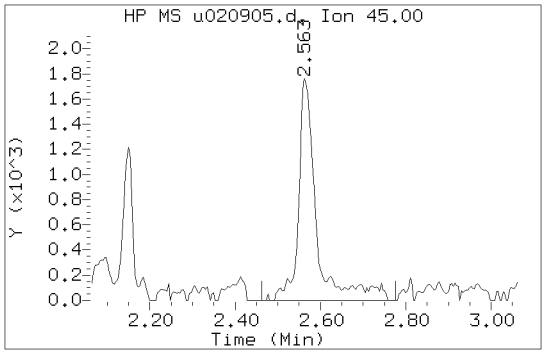
BEFORE

MASS
45
AREA
5220
HEIGHT
1762
09-Feb-2024
11:53
firat
tastan



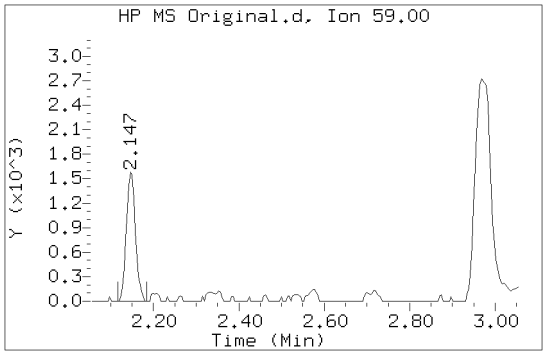
AFTER

MASS
45
AREA
5220
HEIGHT
1762
09-Feb-2024
11:53
firat
tastan



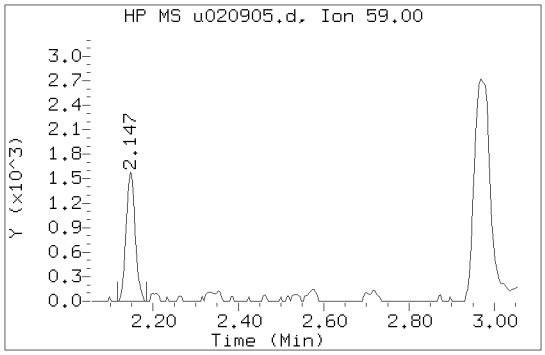
BEFORE

MASS
59
AREA
2342
HEIGHT
1583
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
59
AREA
2342
HEIGHT
1583
09-Feb-2024
11:53
firat
tastan

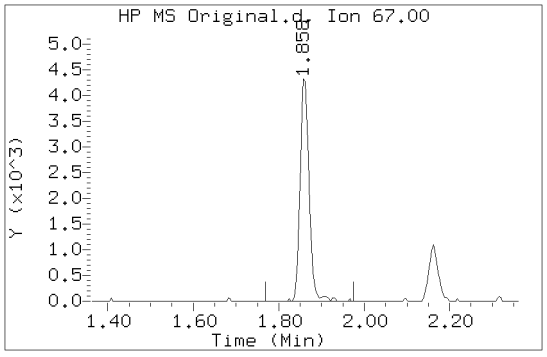


Dichlorofluoromethane (75-43-4)

Reason Code:

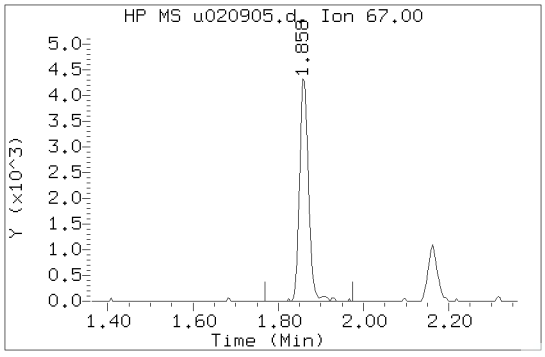
BEFORE

MASS
67
AREA
6531
HEIGHT
4321
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
67
AREA
6531
HEIGHT
4321
09-Feb-2024
11:53
firat
tastan



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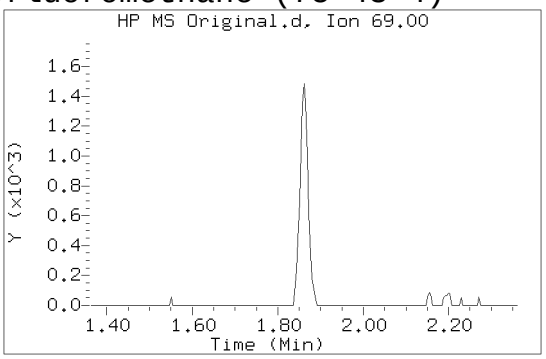
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Dichlorofluoromethane (75-43-4)

Reason Code:

BEFORE
MASS
69
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER
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69
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HEIGHT
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09-Feb-2024
11:53
firat
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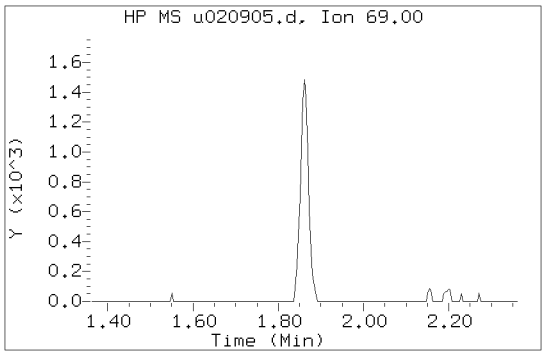

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09-Feb-2024
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firat
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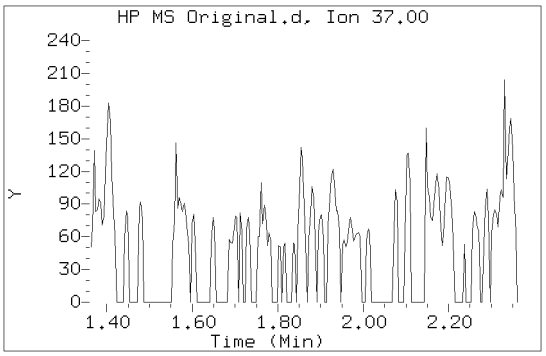

AFTER
MASS
37
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HEIGHT
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09-Feb-2024
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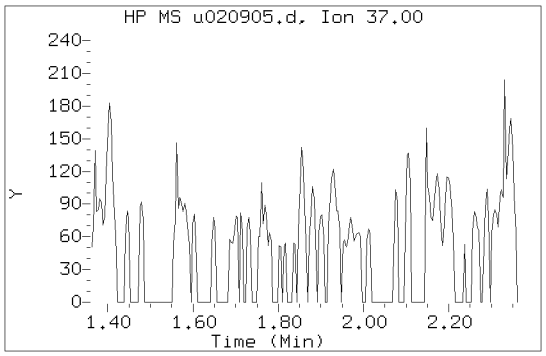

Propylene oxide ()

Reason Code:

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572
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264
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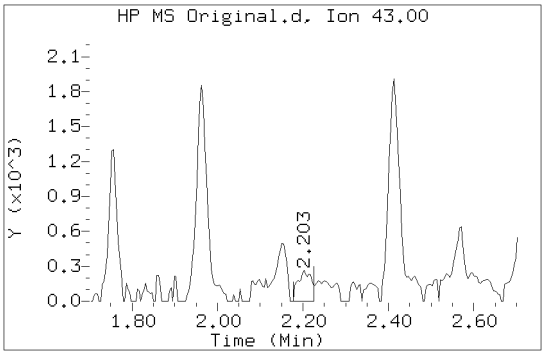

AFTER
MASS
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572
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264
09-Feb-2024
11:53
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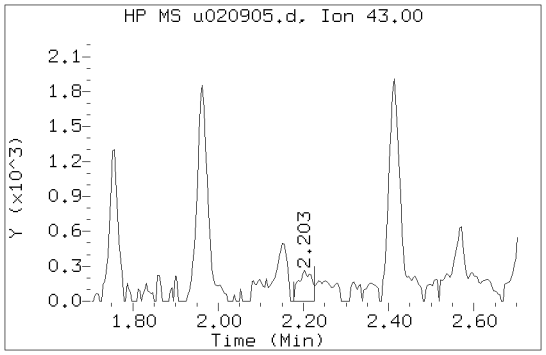

BEFORE
MASS
58
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HEIGHT
423
09-Feb-2024
11:53
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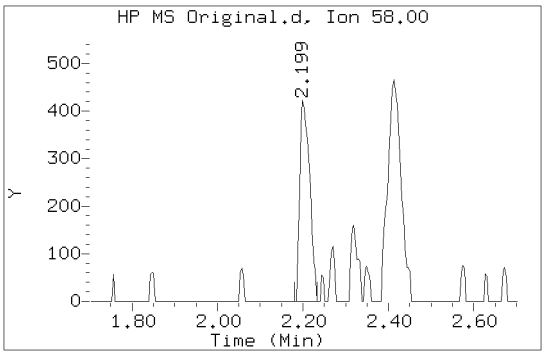

AFTER
MASS
58
AREA
694
HEIGHT
423
09-Feb-2024
11:53
firat
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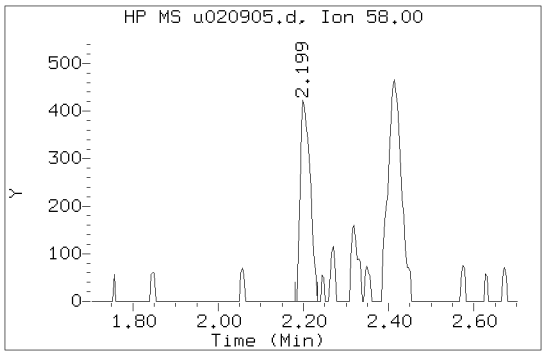

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Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Ethanol (64-17-5)

Reason Code:

BEFORE

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929
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343
09-Feb-2024
11:53
firat
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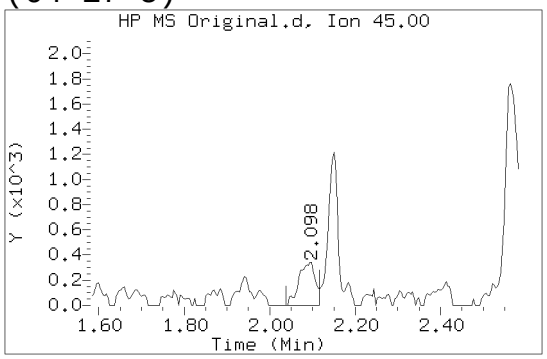

AFTER

MASS
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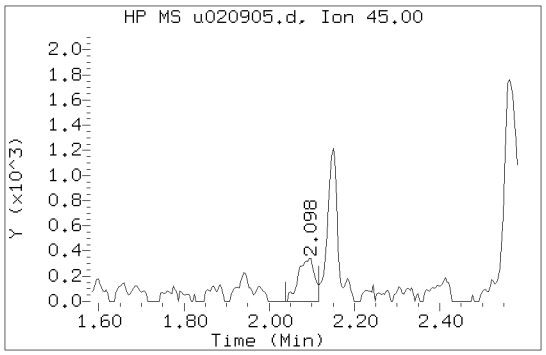
AREA
929
HEIGHT
343
09-Feb-2024
11:53
firat
tastan



BEFORE

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09-Feb-2024
11:53
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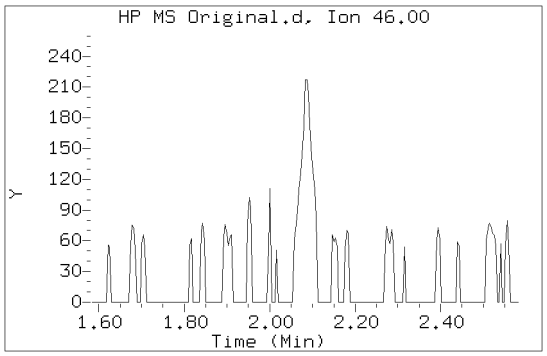

AFTER

MASS
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HEIGHT
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09-Feb-2024
11:53
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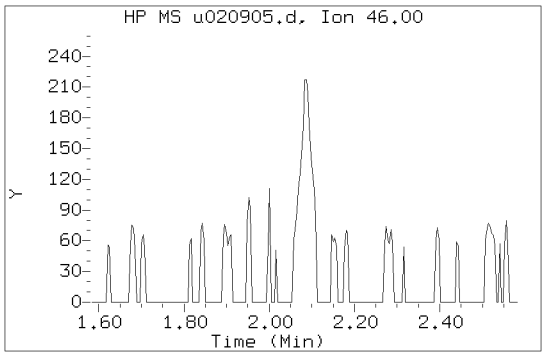

BEFORE

MASS
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HEIGHT
0
09-Feb-2024
11:53
firat
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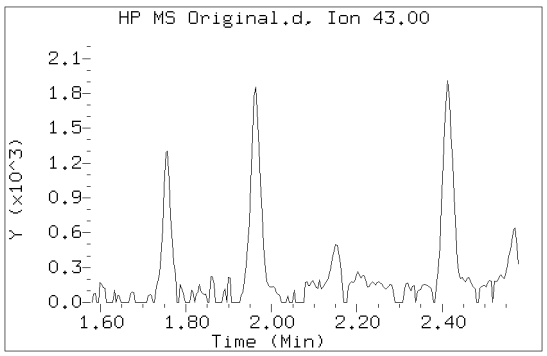

AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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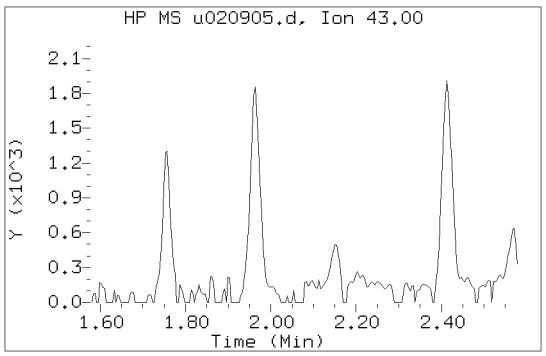

tert-Butyl formate (762-75-4)

Reason Code:

BEFORE

MASS
59
AREA
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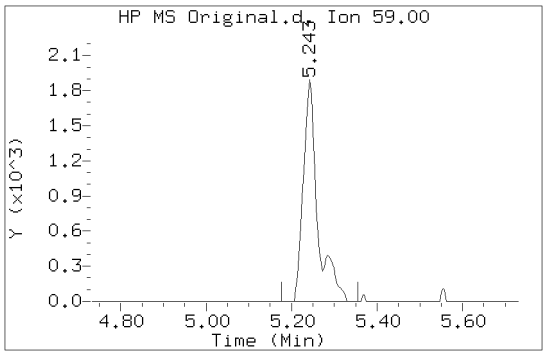
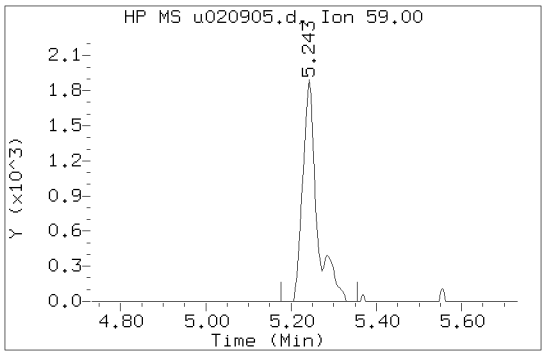
1893
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
59
AREA
4458
HEIGHT
1893
09-Feb-2024
11:53
firat
tastan



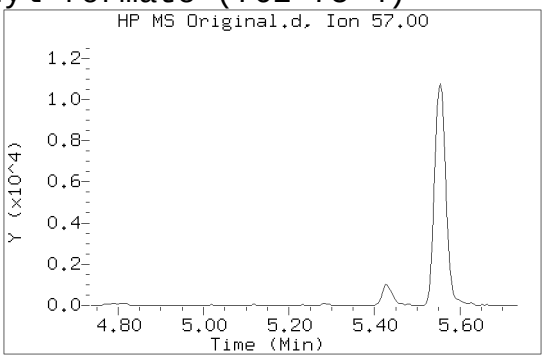
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

tert-Butyl formate (762-75-4)

Reason Code:

BEFORE

MASS
57
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
57
AREA
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HEIGHT
0
09-Feb-2024
11:53
firat
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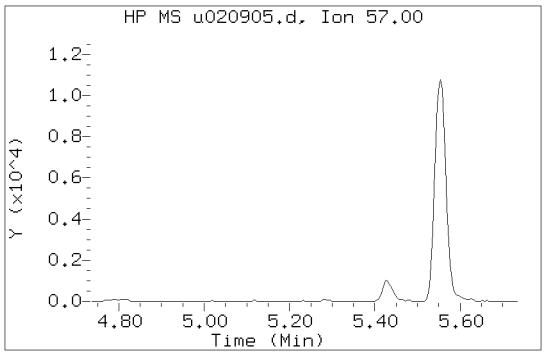

BEFORE

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41
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HEIGHT
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09-Feb-2024
11:53
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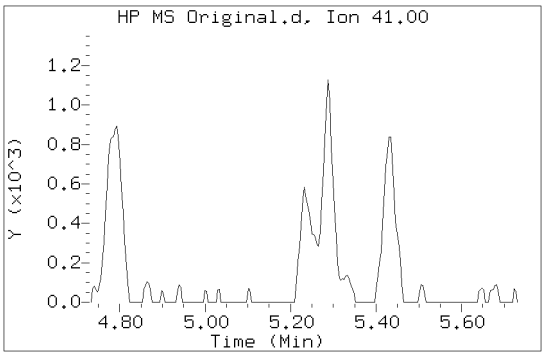

AFTER

MASS
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HEIGHT
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09-Feb-2024
11:53
firat
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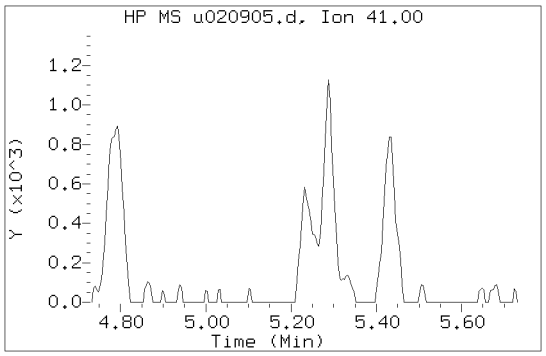

3,3-Dimethyl-1-butanol (624-95-3)

Reason Code:

BEFORE

MASS
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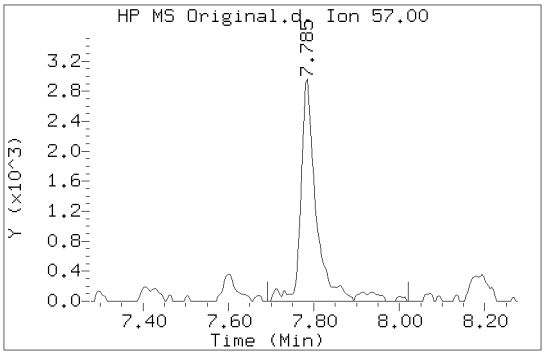
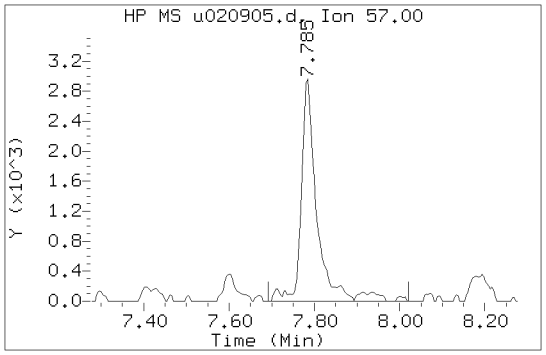
AREA
7767
HEIGHT
2963
09-Feb-2024
11:53
firat
tastan



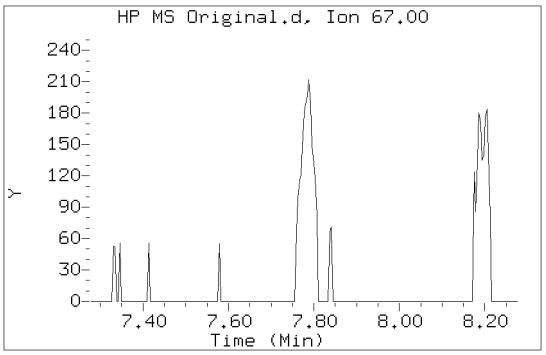
AFTER

MASS
57
AREA
7767
HEIGHT
2963
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
67
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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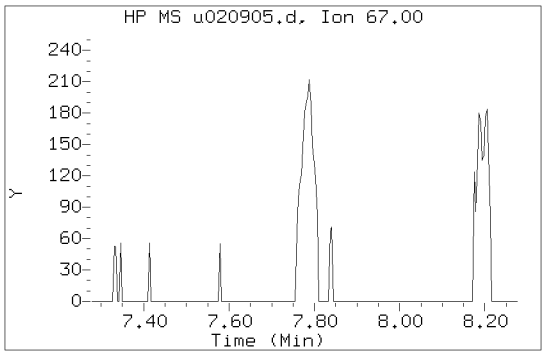
AREA
0
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

3,3-Dimethyl-1-butanol (624-95-3)

Reason Code:

BEFORE

MASS
56
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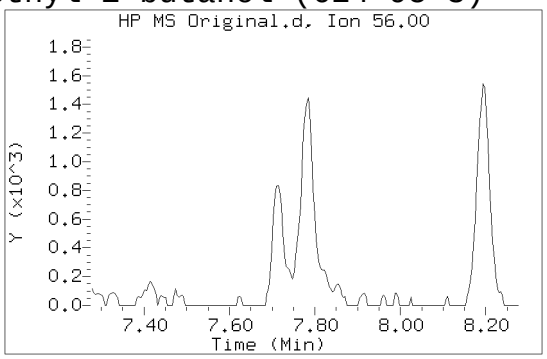
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

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HEIGHT
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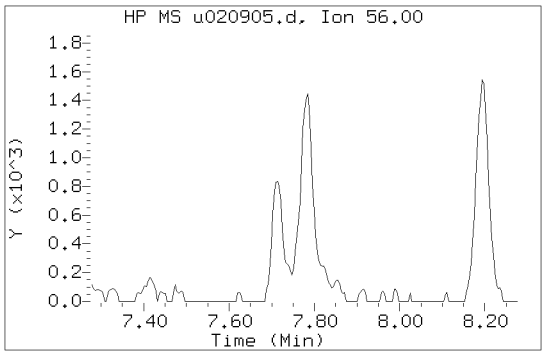

tert-Amyl methyl ether (974-05-08)

Reason Code:

BEFORE

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09-Feb-2024
11:53
firat
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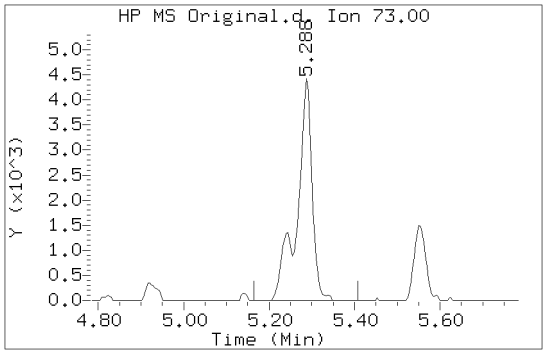

AFTER

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09-Feb-2024
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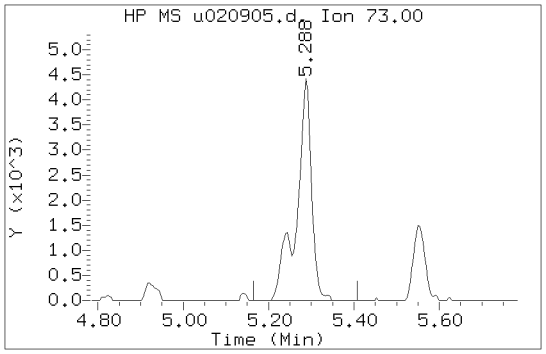

BEFORE

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87
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2602
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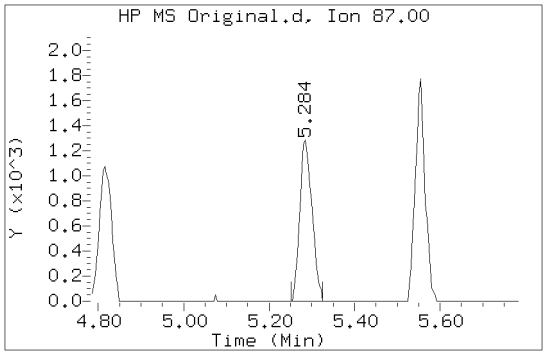
1288
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
87
AREA
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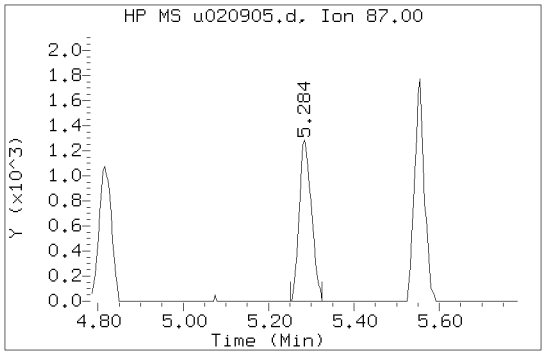
HEIGHT
1288
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
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1545
09-Feb-2024
11:53
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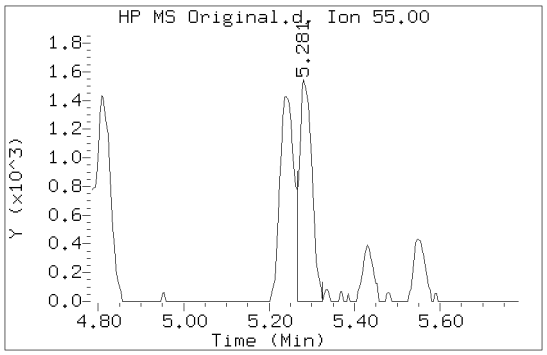
tastan



AFTER

MASS
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3222
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09-Feb-2024
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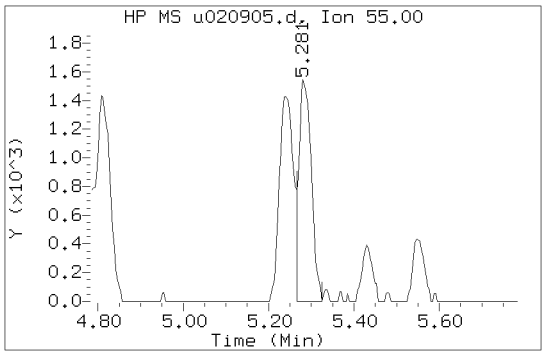


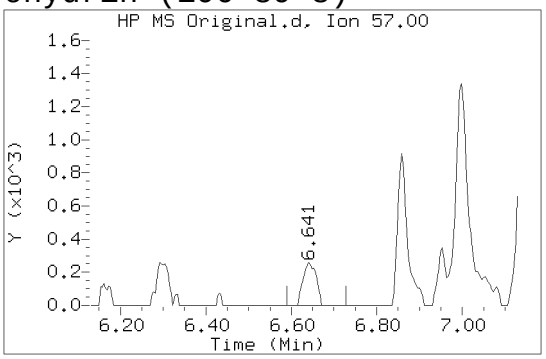
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Epichlorohydrin (106-89-8)

Reason Code:

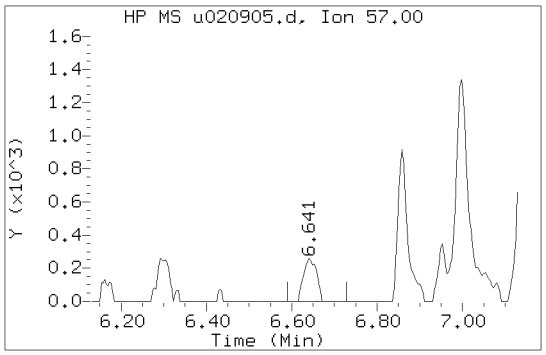
BEFORE

MASS
57
AREA
553
HEIGHT
260
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
57
AREA
553
HEIGHT
260
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
49
AREA
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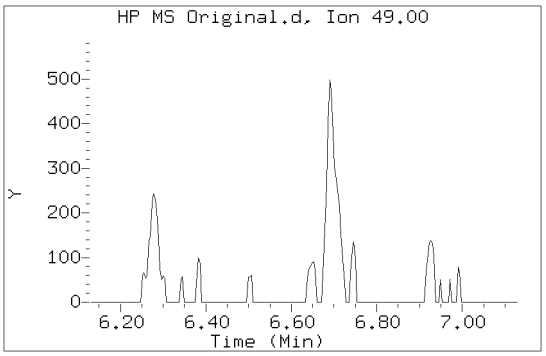
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
49
AREA
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HEIGHT
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09-Feb-2024
11:53
firat
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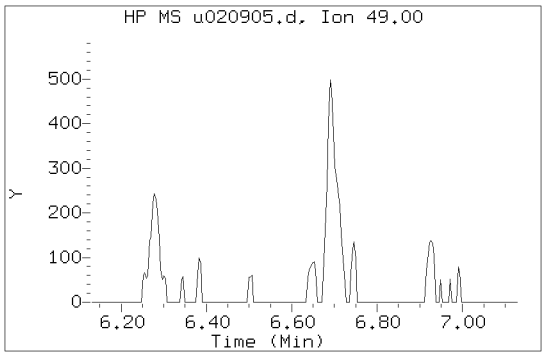
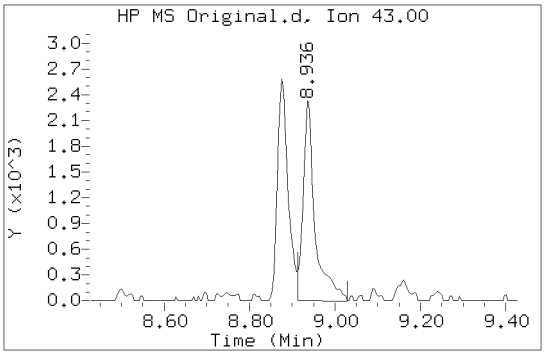


n-Amyl acetate (628-63-7)

Reason Code:

BEFORE

MASS
43
AREA
4630
HEIGHT
2329
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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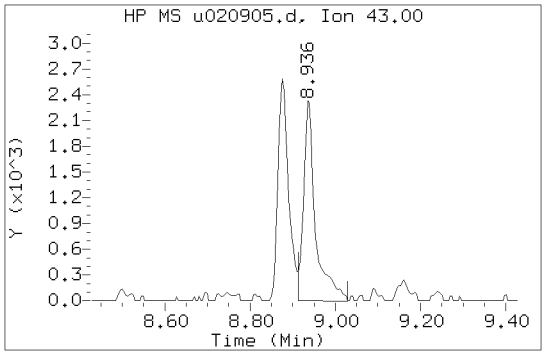
AREA
4630
HEIGHT
2329
09-Feb-2024
11:53
firat
tastan



BEFORE

MASS
70
AREA
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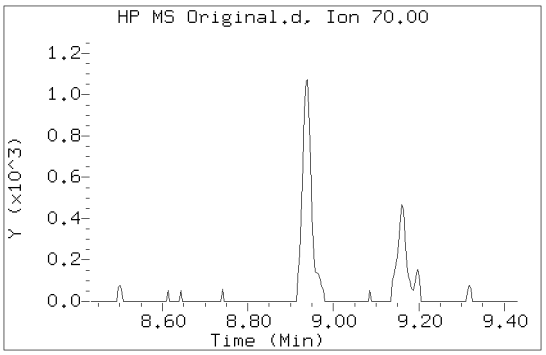
HEIGHT
0
09-Feb-2024
11:53
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
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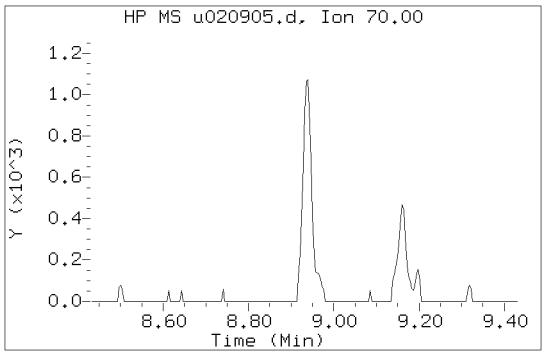

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020905.d
Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

n-Amyl acetate (628-63-7)

Reason Code:

BEFORE

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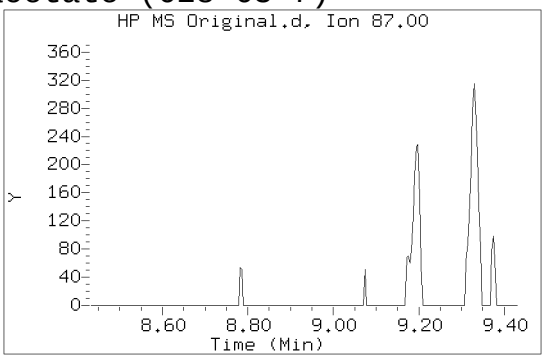

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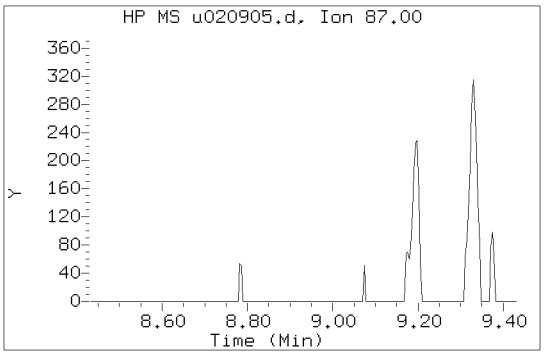

Acetaldehyde (75-07-0)

Reason Code:

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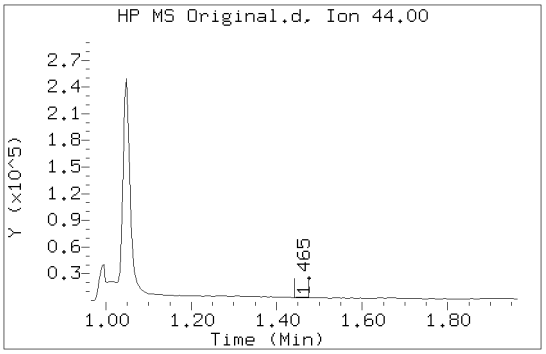

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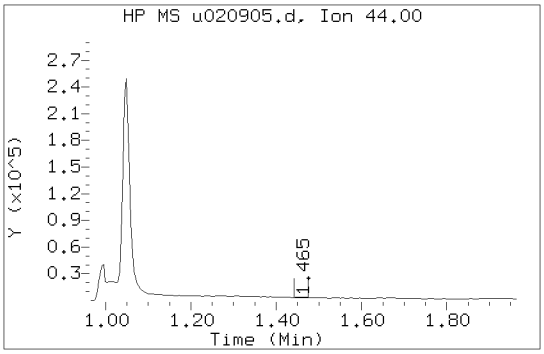

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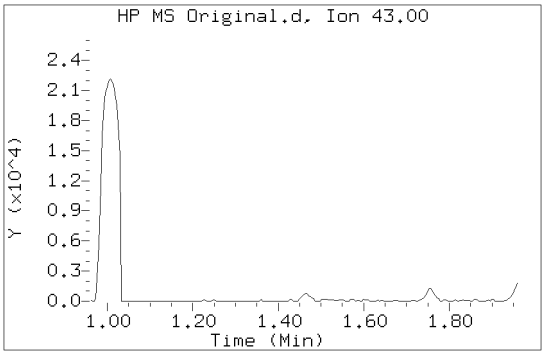

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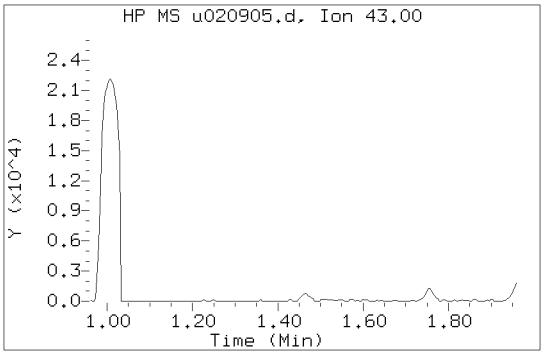

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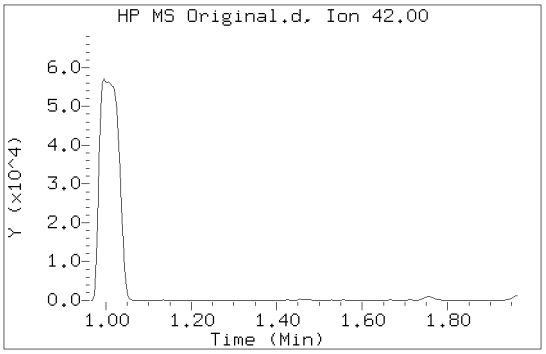

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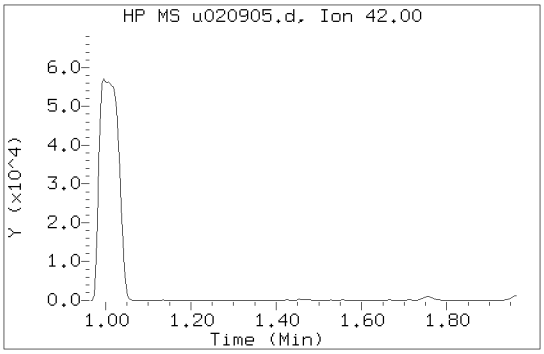

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Inj Date : 09-FEB-2024 10:29
InstruID : VOA9.i
LabSampID : VSTD002

Isobutylene (115-11-7)

Reason Code:

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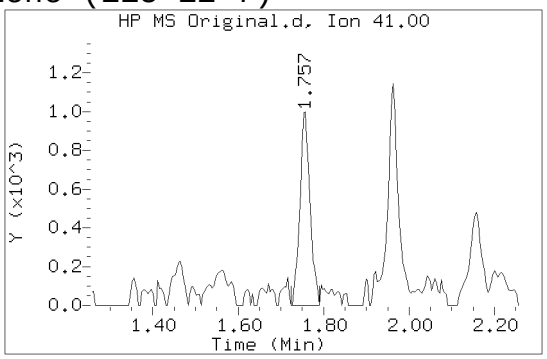

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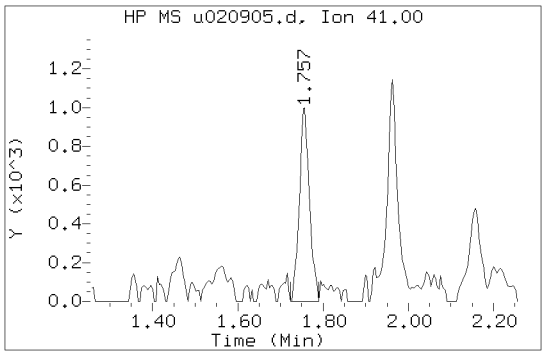

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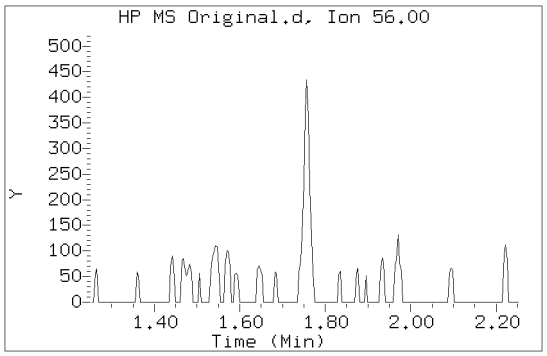

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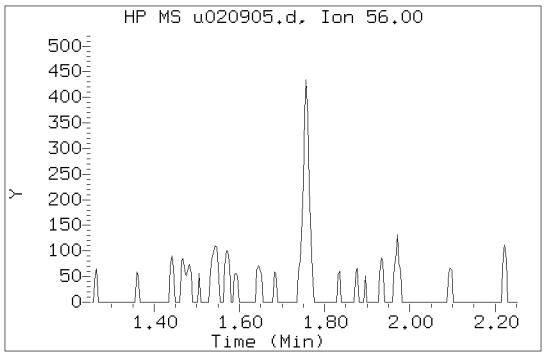

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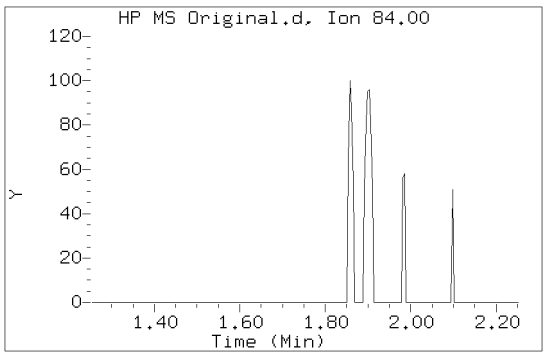

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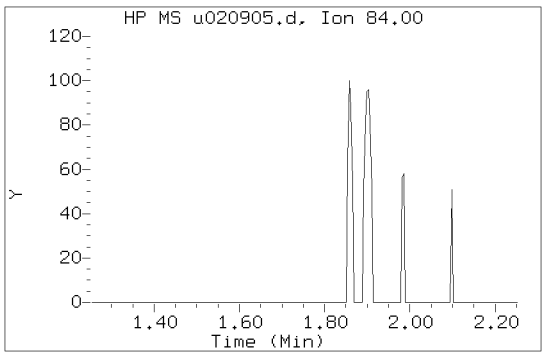


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 09-FEB-2024 10:51
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 10:29 Cal File: U020905.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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)	197119	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	6902	5.00000	5.45
3	Chloromethane	50	1.303	1.303	(0.270)	8108	5.00000	5.70
5	Vinyl Chloride	62	1.381	1.381	(0.287)	7991	5.00000	4.73
6	Bromomethane	94	1.625	1.625	(0.337)	6995	5.00000	6.58
7	Chloroethane	64	1.704	1.704	(0.354)	6630	5.00000	5.32
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	13984	5.00000	4.79
9	Acrolein	56	2.270	2.270	(0.471)	908	10.0000	10.27
10	Acetone	43	2.412	2.412	(0.501)	6278	10.0000	7.87
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	7671	5.00000	4.91
15	Iodomethane	142	2.472	2.472	(0.513)	16927	10.0000	8.78
16	Acrylonitrile	53	3.072	3.072	(0.638)	5479	10.0000	10.31
17	Methylene Chloride	84	2.798	2.798	(0.581)	10413	5.00000	4.56
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	23203	5.00000	5.37
19	Carbon Disulfide	76	2.525	2.525	(0.524)	41102	10.0000	8.76
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	8449	5.00000	4.64
21	Vinyl Acetate	43	3.616	3.616	(0.750)	33717	10.0000	8.69
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	14081	5.00000	5.01
24	2-Butanone	43	4.275	4.275	(0.887)	4811	10.0000	8.05
26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	9591	5.00000	4.09

27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	9515	5.00000	4.38
28 Chloroform	83	4.575	4.575 (0.949)	16177	5.00000	4.93

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	5510	5.00000	4.16
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	12182	5.00000	5.60
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	12411	5.00000	4.36
	32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	10861	5.00000	4.60
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	11071	5.00000	3.99
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	11527	5.00000	4.30
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	11550	5.00000	5.00
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	294234	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	33049	5.00000	4.69
	38 Trichloroethene	130	5.794	5.794	(1.043)	10696	5.00000	4.77
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	10142	5.00000	4.06
	41 2-Chloroethylvinyl ether	63	6.648	6.648	(1.083)	43	10.0000	2.49(MH)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	7727	5.00000	4.37
	44 Dibromomethane	93	6.120	6.120	(1.102)	5329	5.00000	4.25
	45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	12122	10.0000	8.03
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	9810	5.00000	3.75
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	270102	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	39372	5.00000	5.29
	50 Toluene	91	6.982	6.982	(0.853)	35681	5.00000	4.26
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	7589	5.00000	4.71
	52 2-Hexanone	43	7.597	7.597	(0.928)	8227	10.0000	10.17
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	6711	5.00000	4.60
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	13330	5.00000	4.36
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	8308	5.00000	3.89
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	9440	5.00000	4.94
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	8410	5.00000	4.49
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	8072	5.00000	5.00
	59 Chlorobenzene	112	8.211	8.211	(1.003)	26047	5.00000	4.50
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	9062	5.00000	4.21
	61 Ethylbenzene	106	8.309	8.309	(1.015)	12405	5.00000	4.36
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	29117	10.0000	8.33
	63 o-Xylene	106	8.748	8.748	(1.069)	13926	5.00000	4.07
	64 Styrene	104	8.763	8.763	(1.071)	22688	5.00000	4.05
	66 Bromoform	173	8.916	8.916	(1.089)	5568	5.00000	3.61
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	36585	5.00000	4.18
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	10355	5.00000	4.59
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	13924	5.00000	4.86
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	143599	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	9701	5.00000	4.20
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	37439	5.00000	4.21
	74 Bromobenzene	156	9.317	9.317	(0.916)	11779	5.00000	4.51
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	28064	5.00000	4.22
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	25323	5.00000	4.29
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	27788	5.00000	4.15
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	25855	5.00000	4.24
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	27759	5.00000	4.23
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	33026	5.00000	4.25
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	27981	5.00000	4.02
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	20783	5.00000	4.56
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	21781	5.00000	4.37
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	22824	5.00000	4.17
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	20035	5.00000	4.36

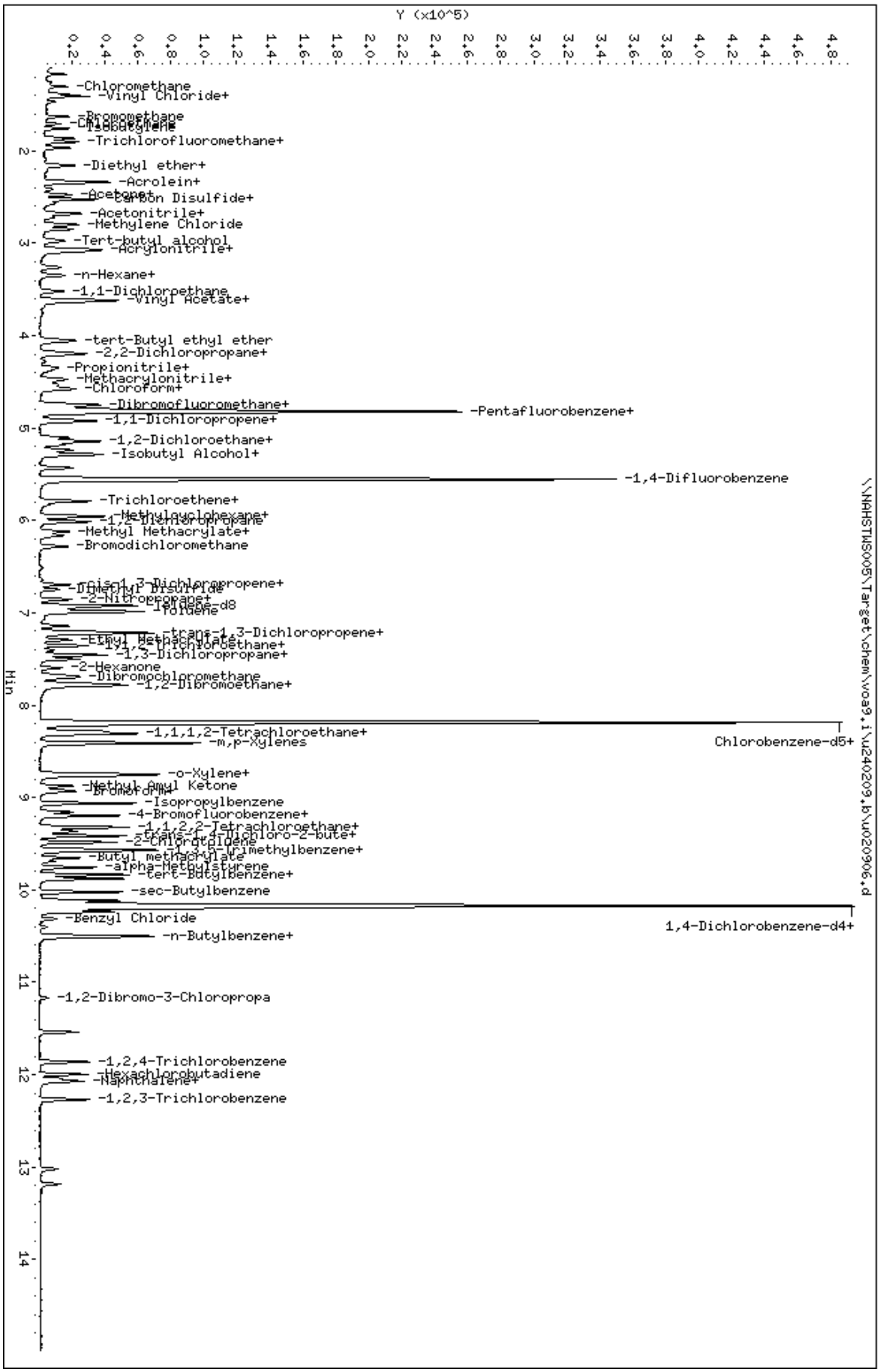
89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	1238	5.00000	5.77
90	1,2,4-Trichlorobenzene	180	11.863	11.863 (1.166)	11549	5.00000	4.06

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020906.D Page 3
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	5773	5.00000	4.54
	92 Naphthalene	128	12.069	12.069	(1.186)	21969	5.00000	4.51
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	11689	5.00000	4.31
M	94 1,2-Dichloroethylene (total)	96				17964	10.0000	
M	95 Xylenes (total)	106				43043	15.0000	
	135 1,4-Dioxane	88	6.168	6.168	(1.280)	1680	100.000	86.67
	141 Cyclohexane	56	4.789	4.789	(0.994)	12221	5.00000	5.33
	138 Freon TF	101	2.341	2.341	(0.486)	8106	5.00000	4.99
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	6867	5.00000	4.69
	147 Methylcyclohexane	55	5.951	5.951	(1.072)	16763	5.00000	4.70
	146 Methyl Acetate	43	2.720	2.720	(0.564)	5663	5.00000	4.43
	148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	16928	100.000	103.89
	149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	8964	100.000	101.52(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



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Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

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Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

Chloroprene (126-99-8)

Reason Code:

BEFORE

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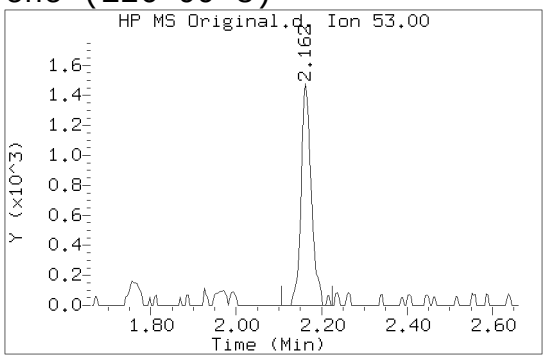
09-Feb-2024
11:54
firat
tastan



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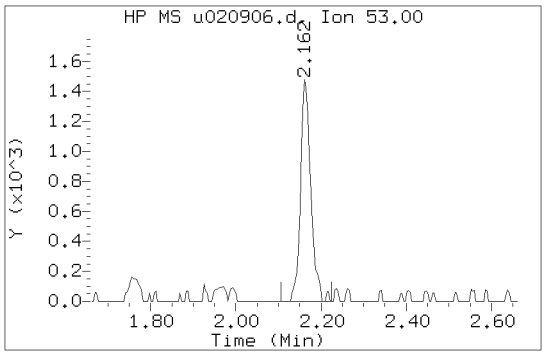

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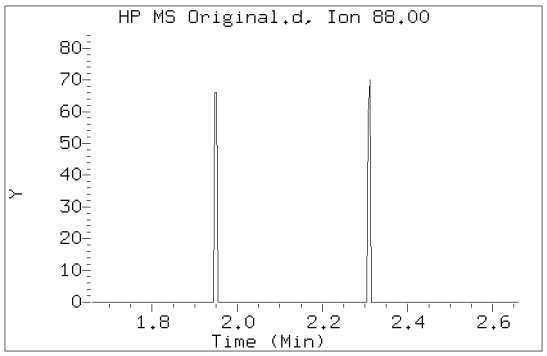

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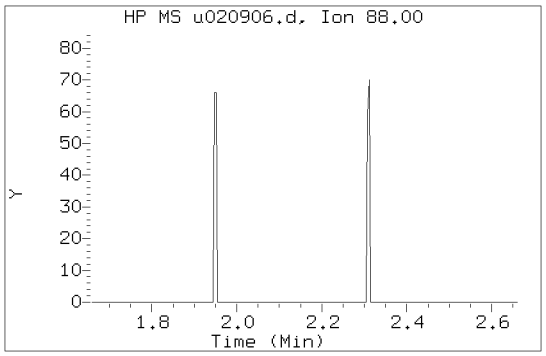

Methyl Acrylate (96-33-3)

Reason Code:

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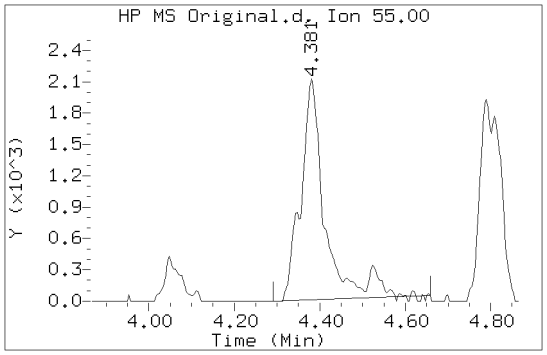

AFTER

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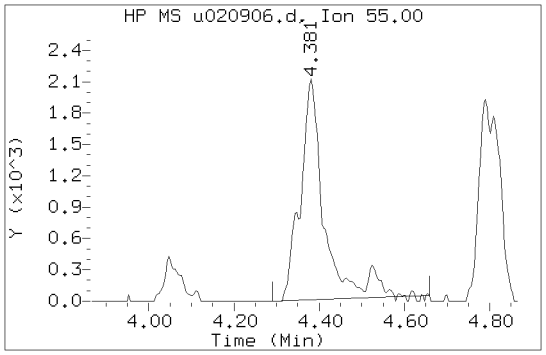
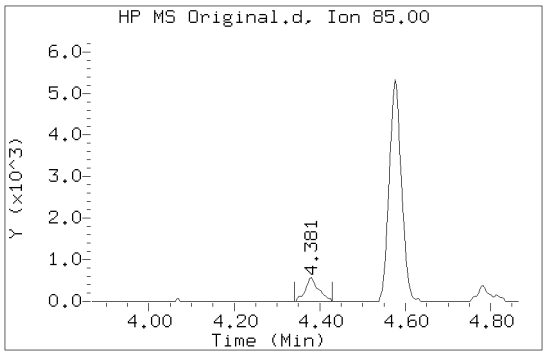


BEFORE

MASS
85
AREA
1241
HEIGHT
577
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
85
AREA
1241
HEIGHT
577
09-Feb-2024
11:54
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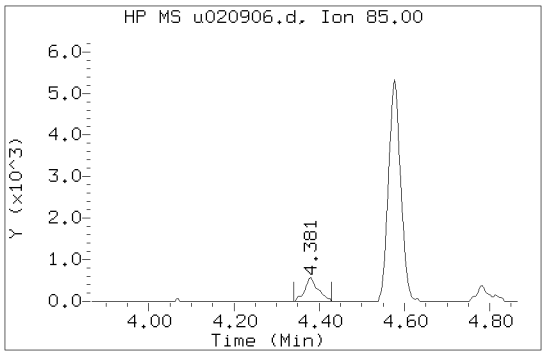

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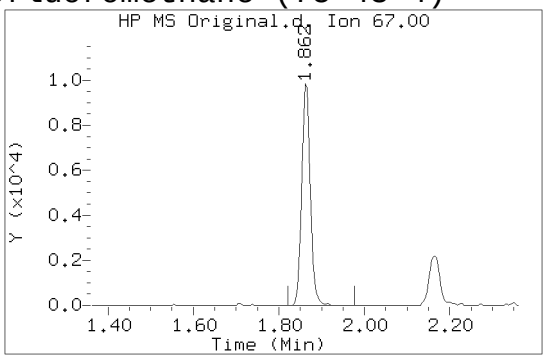
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

Dichlorofluoromethane (75-43-4)

Reason Code:

BEFORE
MASS
67
AREA
14067
HEIGHT
9847
09-Feb-2024
11:54
firat
tastan



AFTER
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14067
HEIGHT
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09-Feb-2024
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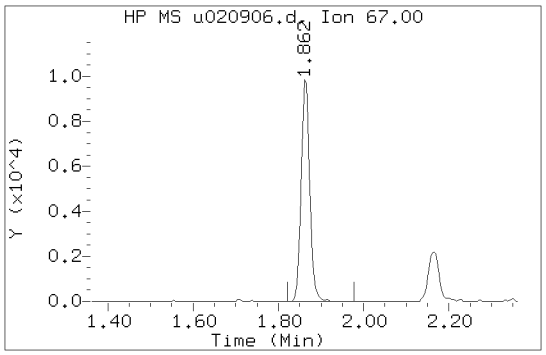

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69
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09-Feb-2024
11:54
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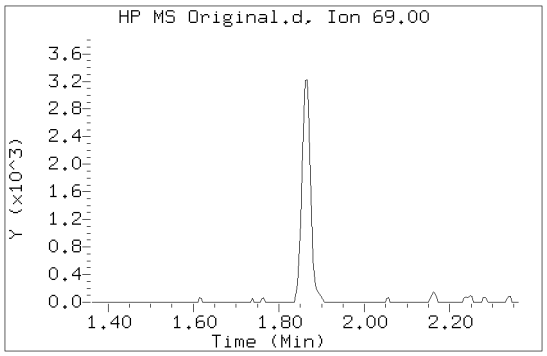

AFTER
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AREA
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HEIGHT
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09-Feb-2024
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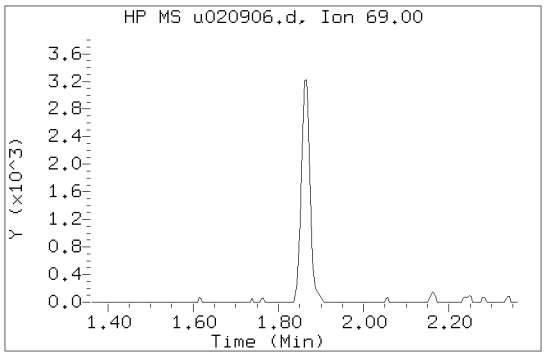

BEFORE
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09-Feb-2024
11:54
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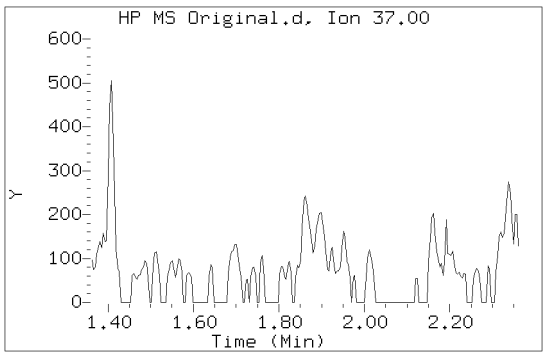

AFTER
MASS
37
AREA
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HEIGHT
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09-Feb-2024
11:54
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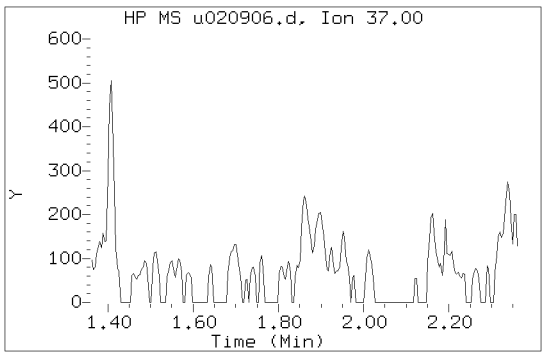

tert-Butyl formate (762-75-4)

Reason Code:

BEFORE
MASS
59
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HEIGHT
4562
09-Feb-2024
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firat
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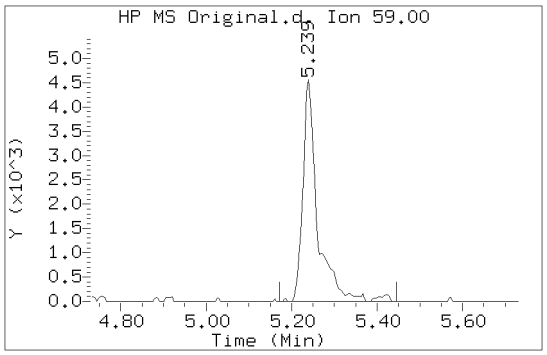

AFTER
MASS
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AREA
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HEIGHT
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09-Feb-2024
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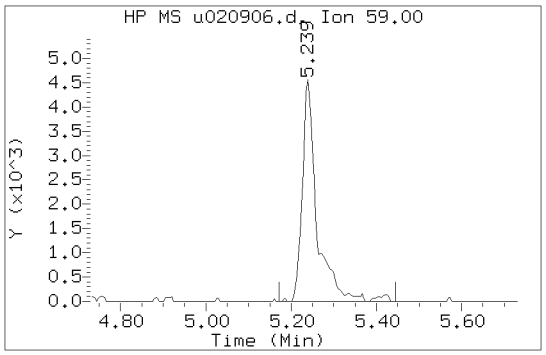
tastan



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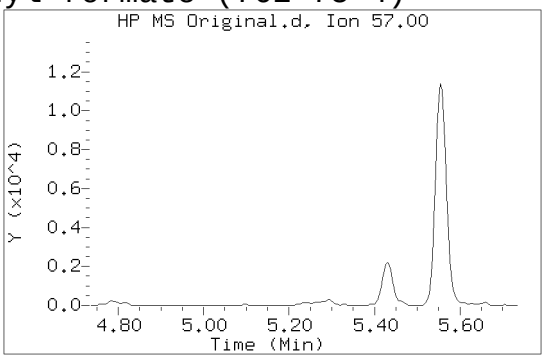
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

tert-Butyl formate (762-75-4)

Reason Code:

BEFORE

MASS
57
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
57
AREA
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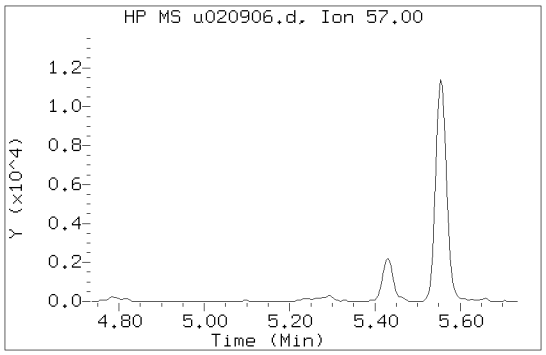
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



BEFORE

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HEIGHT
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09-Feb-2024
11:54
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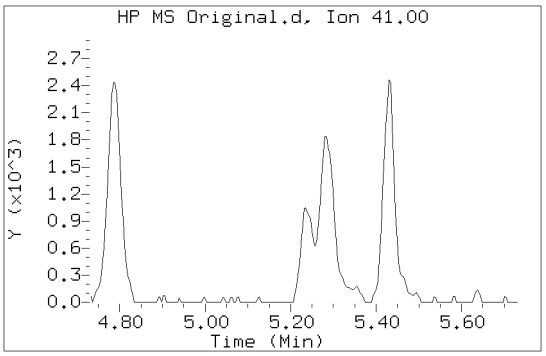

AFTER

MASS
41
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HEIGHT
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09-Feb-2024
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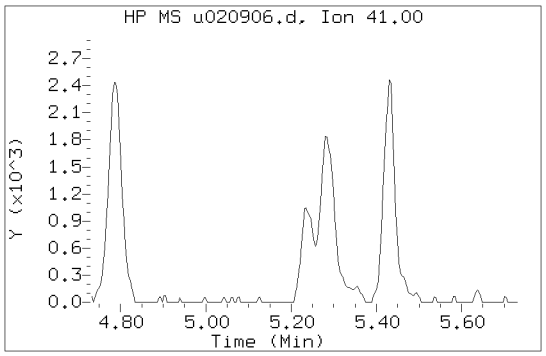

Epichlorohydrin (106-89-8)

Reason Code:

BEFORE

MASS
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AREA
1420
HEIGHT
773
09-Feb-2024
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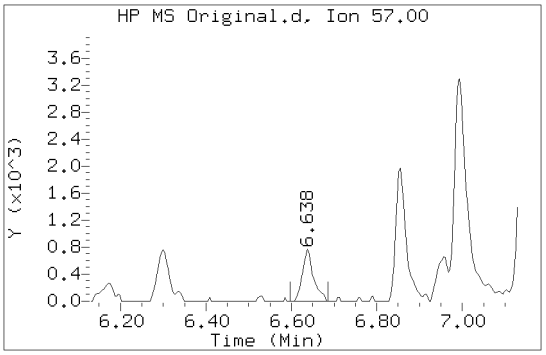
firat
tastan



AFTER

MASS
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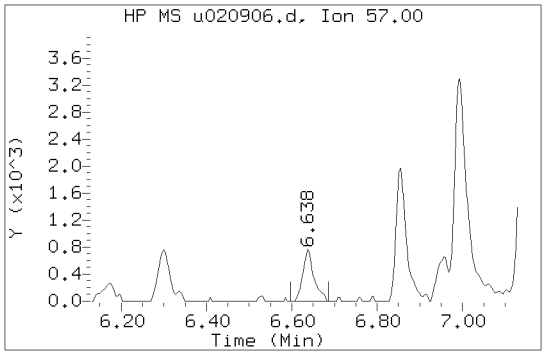
AREA
1420
HEIGHT
773
09-Feb-2024
11:54
firat
tastan



BEFORE

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49
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HEIGHT
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09-Feb-2024
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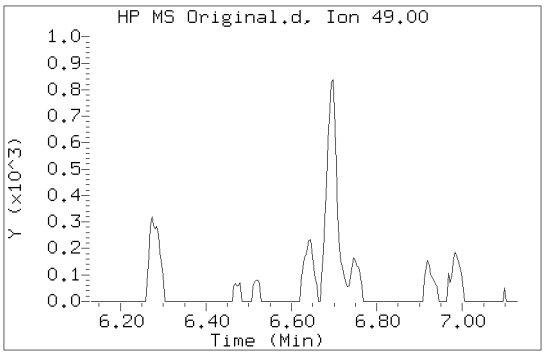

AFTER

MASS
49
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HEIGHT
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09-Feb-2024
11:54
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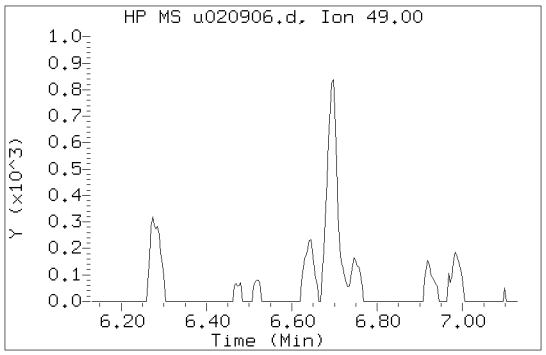
tastan



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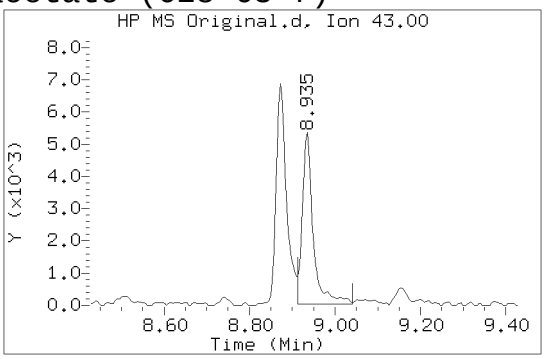
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

n-Amyl acetate (628-63-7)

Reason Code:

BEFORE
MASS
43
AREA
9522
HEIGHT
5327
09-Feb-2024
11:54
firat
tastan



AFTER
MASS
43
AREA
9522
HEIGHT
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09-Feb-2024
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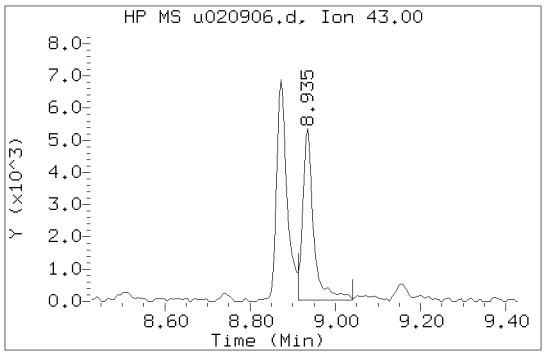

BEFORE
MASS
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AREA
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HEIGHT
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09-Feb-2024
11:54
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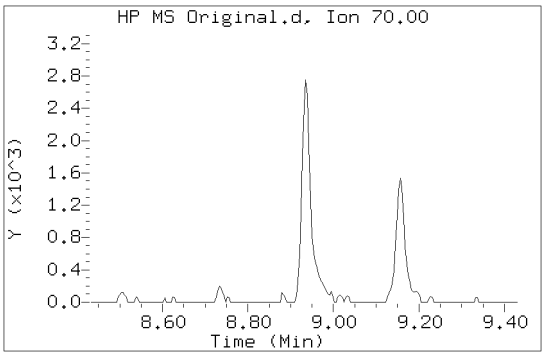

AFTER
MASS
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AREA
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HEIGHT
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09-Feb-2024
11:54
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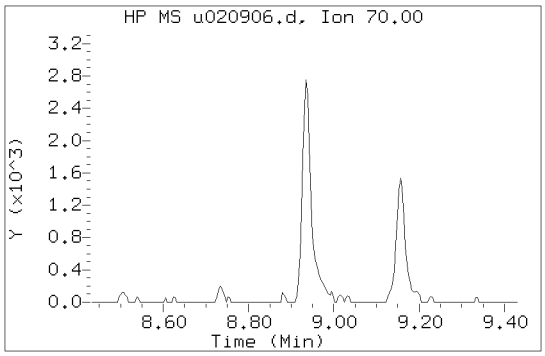

BEFORE
MASS
87
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
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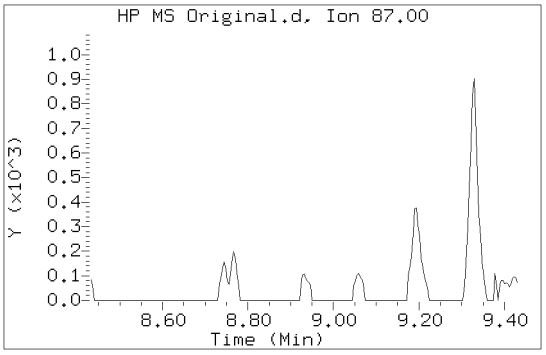

AFTER
MASS
87
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
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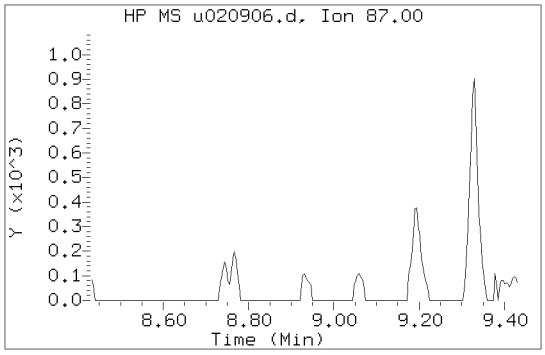

Acetaldehyde (75-07-0)

Reason Code:

BEFORE
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AREA
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HEIGHT
2970
09-Feb-2024
11:54
firat
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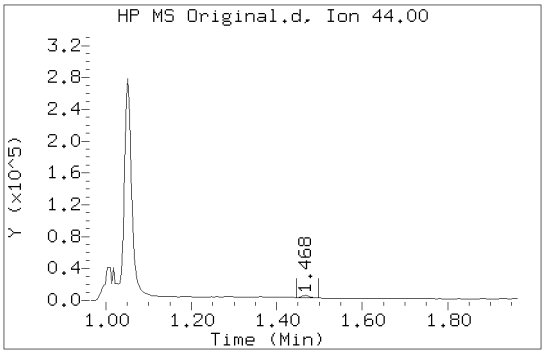

AFTER
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09-Feb-2024
11:54
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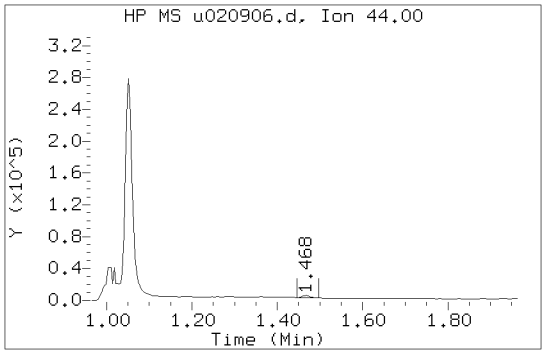

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Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

MASS
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HEIGHT
0
09-Feb-2024
11:54
firat
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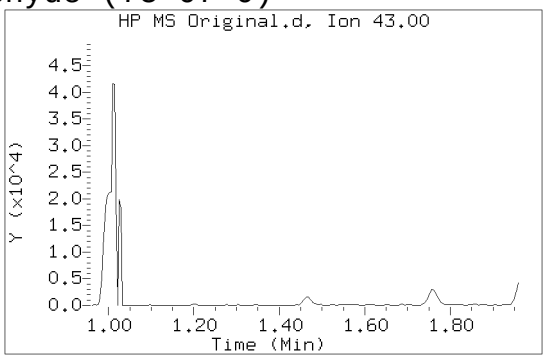

AFTER

MASS
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AREA
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HEIGHT
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09-Feb-2024
11:54
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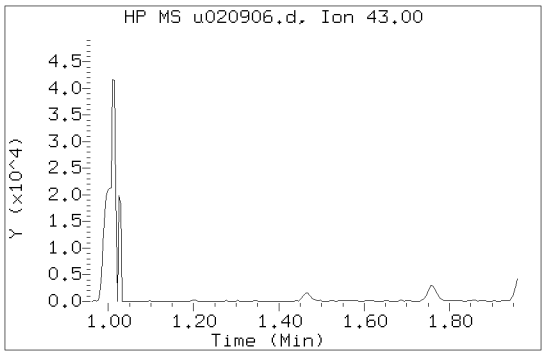

BEFORE

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09-Feb-2024
11:54
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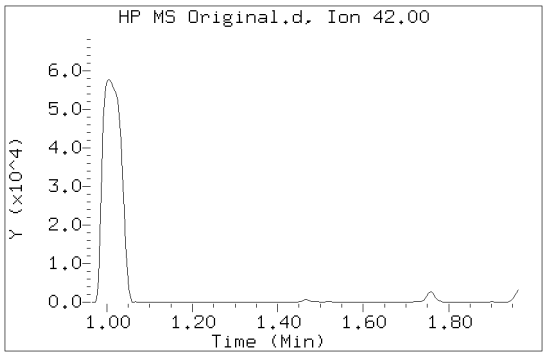

AFTER

MASS
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HEIGHT
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09-Feb-2024
11:54
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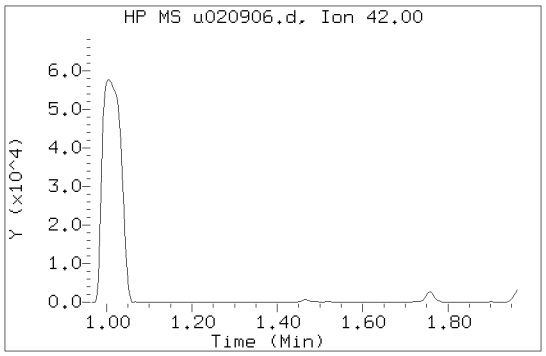

Isobutylene (115-11-7)

Reason Code:

BEFORE

MASS
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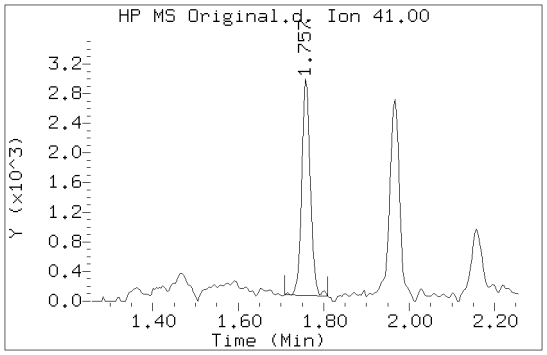
AREA
4184
HEIGHT
2923
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
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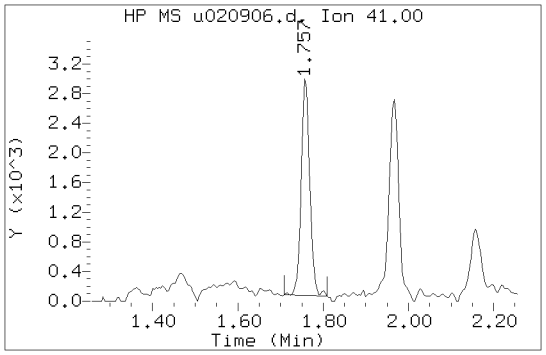
AREA
4184
HEIGHT
2923
09-Feb-2024
11:54
firat
tastan



BEFORE

MASS
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HEIGHT
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09-Feb-2024
11:54
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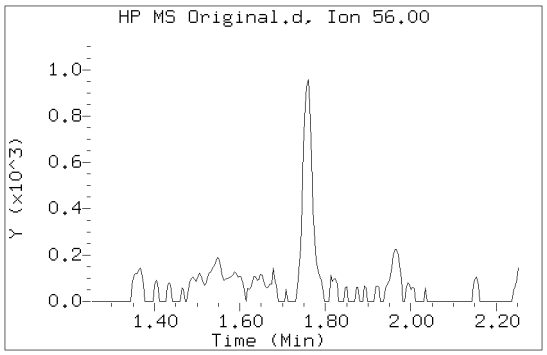

AFTER

MASS
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AREA
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HEIGHT
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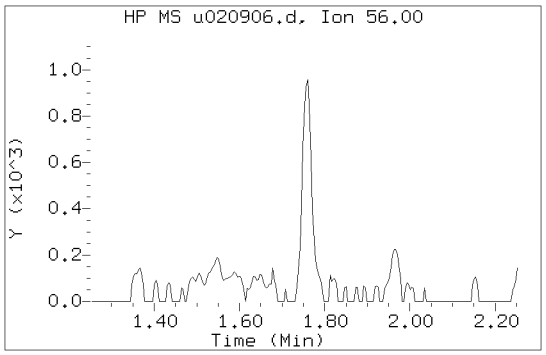


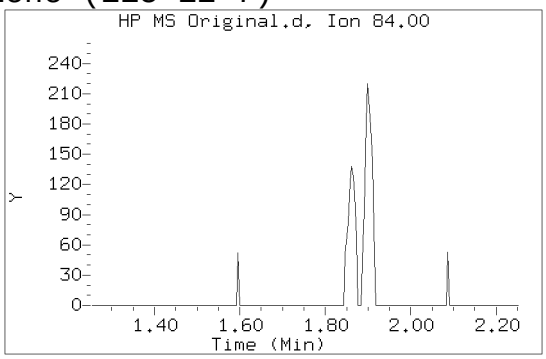
Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020906.d
Inj Date : 09-FEB-2024 10:51
InstruID : VOA9.i
LabSampID : VSTD005

Isobutylene (115-11-7)

Reason Code:

BEFORE

MASS
84
AREA
0
HEIGHT
0
09-Feb-2024
11:54
firat
tastan



AFTER

MASS
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AREA
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HEIGHT
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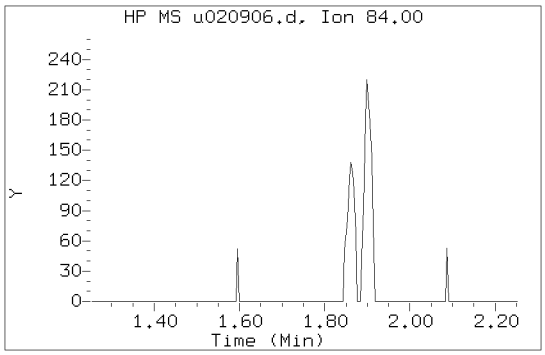
09-Feb-2024
11:54
firat
tastan



Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 09-FEB-2024 11:13
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 10:51 Cal File: U020906.D
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	215695	50.0000	
2	Dichlorodifluoromethane	85	1.164	1.164	(0.242)	27310	20.0000	19.38
3	Chloromethane	50	1.299	1.299	(0.270)	33475	20.0000	20.25
5	Vinyl Chloride	62	1.378	1.378	(0.286)	37094	20.0000	19.89
6	Bromomethane	94	1.621	1.621	(0.337)	23818	20.0000	19.18
7	Chloroethane	64	1.700	1.700	(0.353)	25799	20.0000	19.68
8	Trichlorofluoromethane	101	1.895	1.895	(0.394)	59528	20.0000	19.83
9	Acrolein	56	2.262	2.262	(0.470)	3533	40.0000	42.92
10	Acetone	43	2.409	2.409	(0.500)	24798	40.0000	42.29
11	1,1-Dichloroethene	96	2.334	2.334	(0.485)	34207	20.0000	19.58
15	Iodomethane	142	2.469	2.469	(0.513)	95233	40.0000	37.60
16	Acrylonitrile	53	3.065	3.065	(0.636)	22101	40.0000	39.33
17	Methylene Chloride	84	2.791	2.791	(0.580)	41234	20.0000	20.13
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	94025	20.0000	19.59
19	Carbon Disulfide	76	2.521	2.521	(0.524)	188957	40.0000	36.83
20	trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	40157	20.0000	20.06
21	Vinyl Acetate	43	3.608	3.608	(0.749)	152958	40.0000	36.04
22	1,1-Dichloroethane	63	3.514	3.514	(0.730)	62090	20.0000	19.89
24	2-Butanone	43	4.264	4.264	(0.886)	24604	40.0000	37.64
26	2,2-Dichloropropane	77	4.182	4.182	(0.868)	47497	20.0000	18.51

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	44067	20.0000	18.54
28 Chloroform	83	4.572	4.572 (0.949)	68933	20.0000	19.65

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.467	4.467	(0.928)	24362	20.0000	20.09
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	46132	20.0000	20.46
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	57731	20.0000	18.56
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	49955	20.0000	20.53
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	51739	20.0000	21.05
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	51444	20.0000	19.06
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	46575	20.0000	20.45
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	296529	50.0000	
	37 Benzene	78	5.138	5.138	(0.925)	149249	20.0000	20.59
	38 Trichloroethene	130	5.790	5.790	(1.043)	47513	20.0000	20.45
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	49482	20.0000	19.67
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	581	40.0000	33.47(M)
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	35658	20.0000	20.29
	44 Dibromomethane	93	6.120	6.120	(1.102)	25198	20.0000	19.96
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	60158	40.0000	38.67
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	49967	20.0000	18.99
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	278504	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	159212	20.0000	20.94
	50 Toluene	91	6.978	6.978	(0.853)	168917	20.0000	19.60
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	44026	20.0000	19.10
	52 2-Hexanone	43	7.589	7.589	(0.927)	40547	40.0000	39.05
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	29813	20.0000	20.54
	54 1,3-Dichloropropane	76	7.496	7.496	(0.916)	61623	20.0000	20.16
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	43543	20.0000	19.80
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	40498	20.0000	20.57
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	39480	20.0000	20.47
	58 1-Chlorohexane	55	8.197	8.197	(1.476)	30758	20.0000	20.23
	59 Chlorobenzene	112	8.208	8.208	(1.003)	116535	20.0000	20.24
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	42555	20.0000	19.18
	61 Ethylbenzene	106	8.305	8.305	(1.015)	57328	20.0000	19.56
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	144210	40.0000	40.05
	63 o-Xylene	106	8.748	8.748	(1.069)	72410	20.0000	20.53
	64 Styrene	104	8.759	8.759	(1.070)	121918	20.0000	21.12
	66 Bromoform	173	8.916	8.916	(1.089)	30178	20.0000	18.98
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	179292	20.0000	19.88
	68 1,1,2,2-Tetrachloroethane	83	9.325	9.325	(0.917)	47752	20.0000	20.26
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	59177	20.0000	20.94
*	70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	154882	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	44448	20.0000	17.86
	73 n-Propylbenzene	91	9.411	9.411	(0.926)	189805	20.0000	19.82
	74 Bromobenzene	156	9.317	9.317	(0.916)	56951	20.0000	20.43
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	143448	20.0000	20.00
	76 2-Chlorotoluene	91	9.482	9.482	(0.933)	121041	20.0000	19.04
	77 4-Chlorotoluene	91	9.576	9.576	(0.942)	141246	20.0000	19.57
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	129468	20.0000	19.72
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.972)	141685	20.0000	20.03
	81 sec-Butylbenzene	105	10.022	10.022	(0.986)	161275	20.0000	19.28
	82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	148247	20.0000	19.76
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	97541	20.0000	20.20
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	102103	20.0000	20.34
	87 n-Butylbenzene	91	10.491	10.491	(1.032)	113299	20.0000	19.22
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	95888	20.0000	20.26

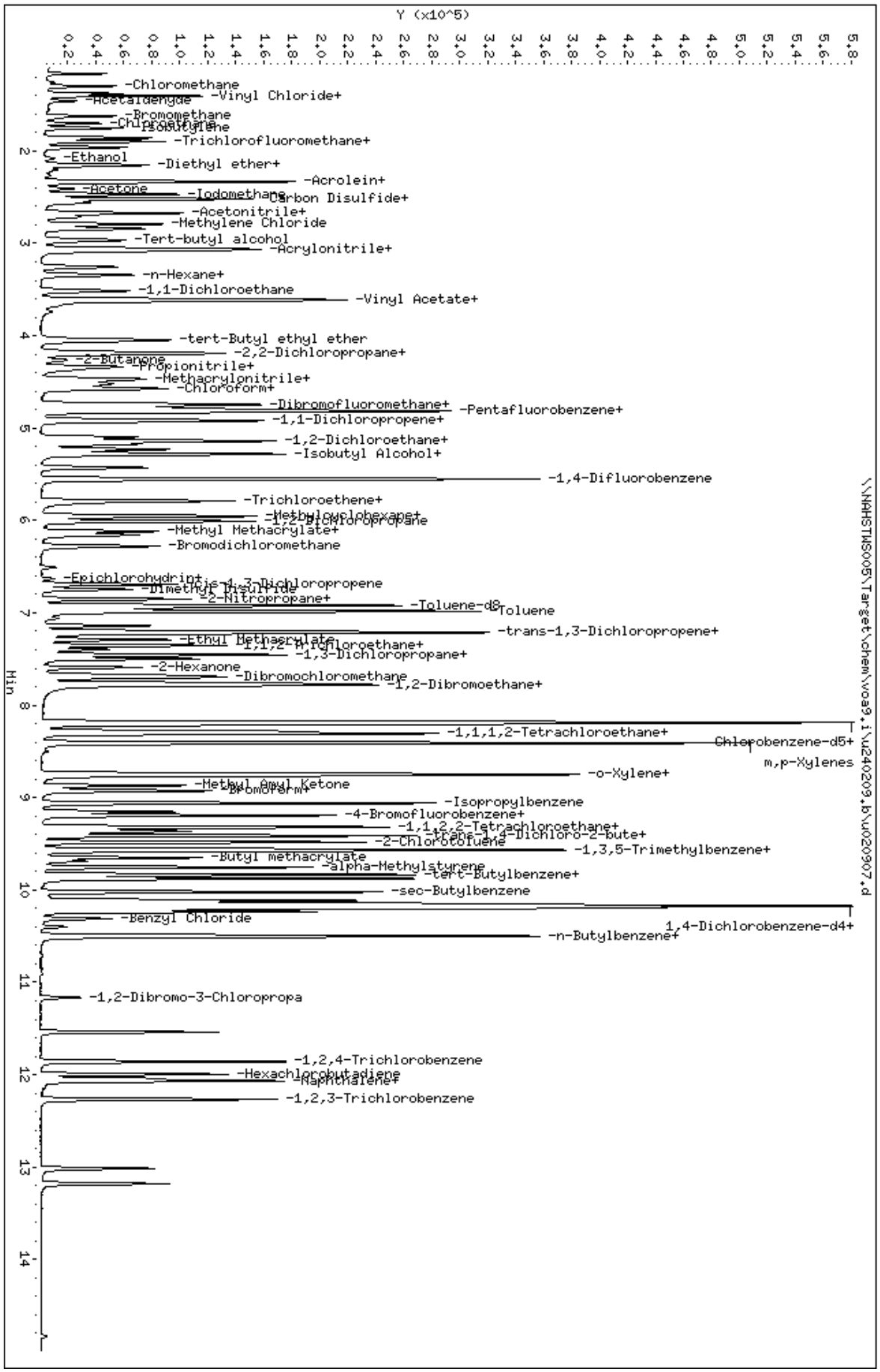
89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	7047	20.0000	18.19
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	61267	20.0000	19.98

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020907.D Page 3
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	27240	20.0000	19.53
	92 Naphthalene	128	12.065	12.065	(1.187)	130928	20.0000	19.33
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	58788	20.0000	20.10
M	94 1,2-Dichloroethylene (total)	96				84224	40.0000	
M	95 Xylenes (total)	106				216620	60.0000	
	135 1,4-Dioxane	88	6.165	6.165	(1.280)	9244	400.000	396.98
	141 Cyclohexane	56	4.785	4.785	(0.994)	47234	20.0000	19.51
	138 Freon TF	101	2.334	2.334	(0.485)	34996	20.0000	19.67
	140 1,3-Butadiene	54	1.404	1.404	(0.292)	32002	20.0000	19.42
	147 Methylcyclohexane	55	5.947	5.947	(1.071)	71597	20.0000	19.93
	146 Methyl Acetate	43	2.712	2.712	(0.563)	25789	20.0000	19.75
	148 Tert-Butyl alcohol	59	2.963	2.963	(0.615)	69193	400.000	390.91
	149 Isopropyl Alcohol	45	2.559	2.559	(0.531)	35913	400.000	366.18(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.



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Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

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Inj Date : 09-FEB-2024 11:13
InstruID : VOA9.i
LabSampID : VSTD020

Chloroprene (126-99-8)

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09-Feb-2024
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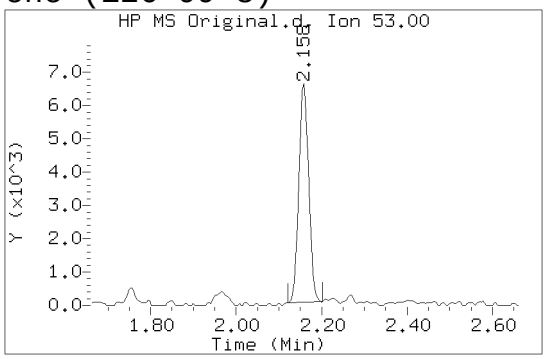

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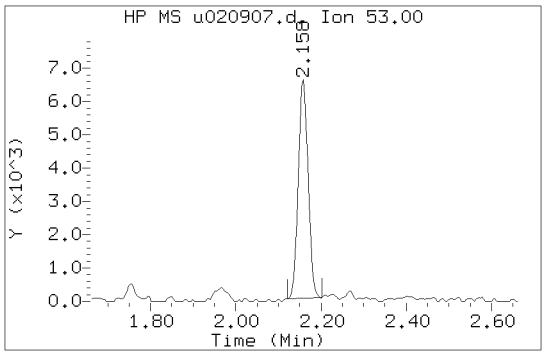

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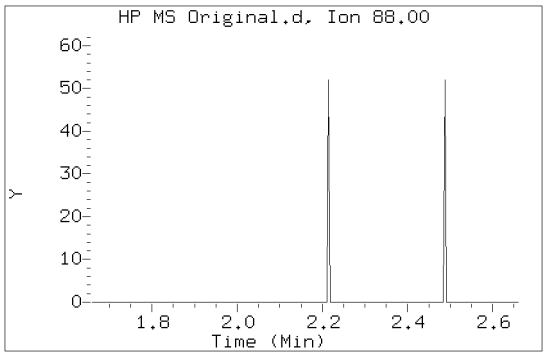

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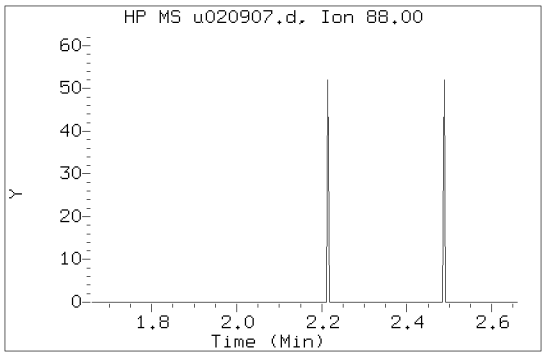

Acetaldehyde (75-07-0)

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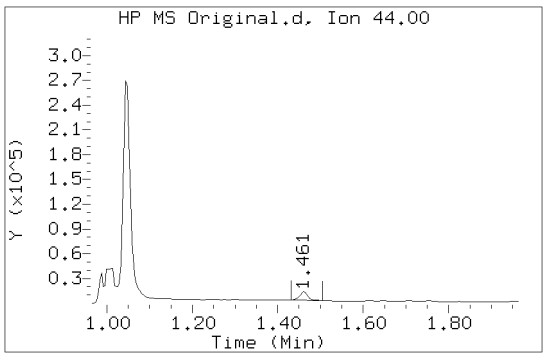

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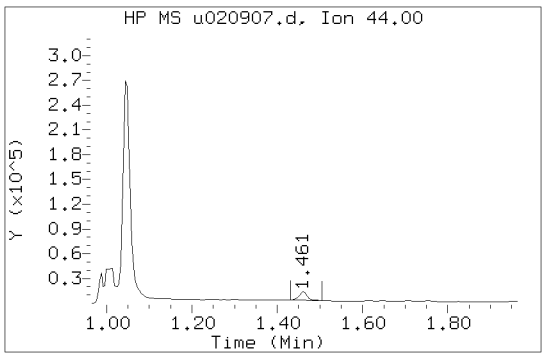

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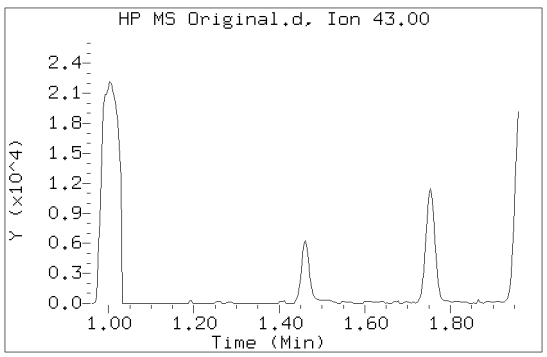

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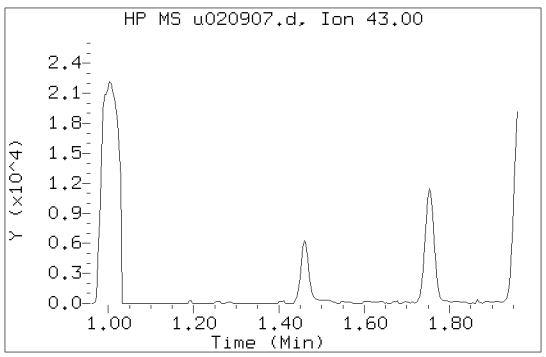

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Inj Date : 09-FEB-2024 11:13
InstruID : VOA9.i
LabSampID : VSTD020

Acetaldehyde (75-07-0)

Reason Code:

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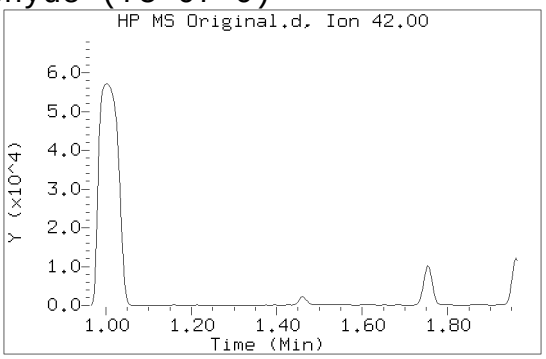

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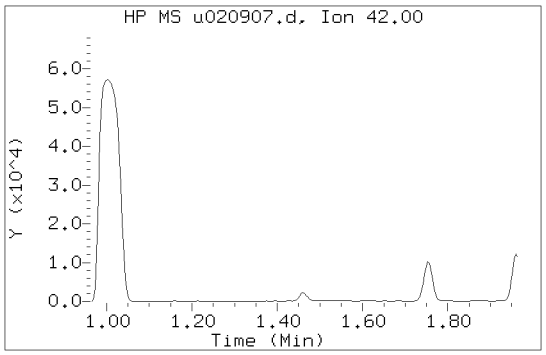

Isobutylene (115-11-7)

Reason Code:

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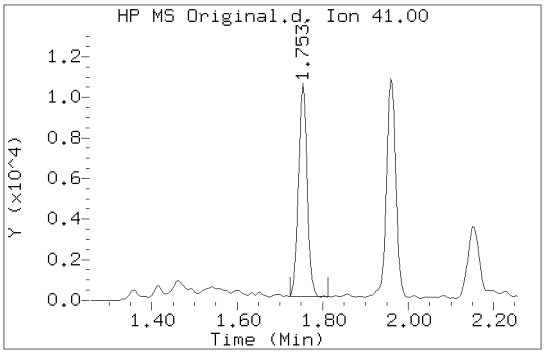

AFTER

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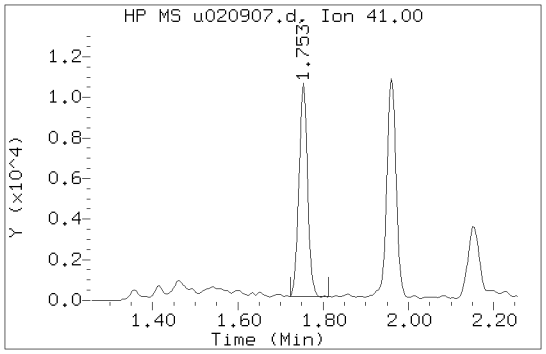

BEFORE

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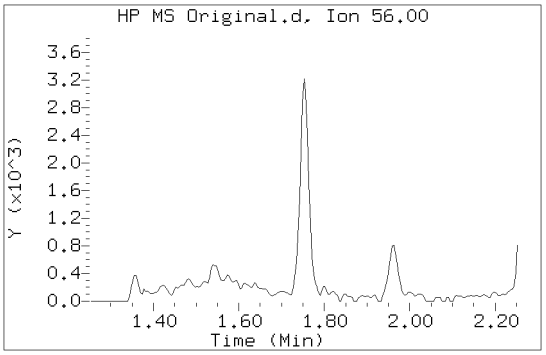

AFTER

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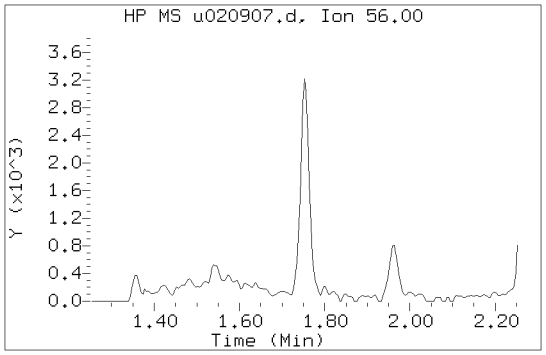

BEFORE

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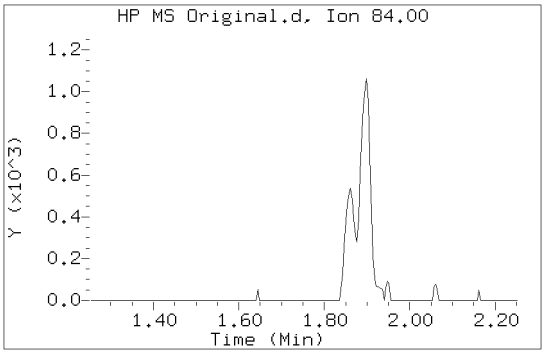

AFTER

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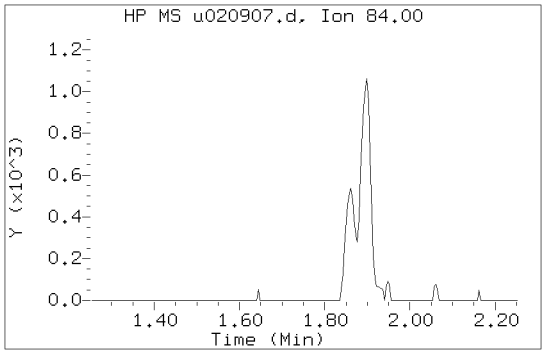

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020908.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020908.D
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Inj Date : 09-FEB-2024 11:35
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : V9;WATER;0;1;
Comment   :
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Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 11:13 Cal File: U020907.D
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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)	215511	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	69589	50.0000	49.25
3	Chloromethane	50	1.303	1.303	(0.270)	80606	50.0000	48.18
5	Vinyl Chloride	62	1.381	1.381	(0.287)	92433	50.0000	49.51
6	Bromomethane	94	1.625	1.625	(0.337)	58408	50.0000	46.20
7	Chloroethane	64	1.704	1.704	(0.354)	66462	50.0000	51.21
8	Trichlorofluoromethane	101	1.899	1.899	(0.394)	150246	50.0000	50.71
9	Acrolein	56	2.266	2.266	(0.470)	8060	100.000	101.21
10	Acetone	43	2.412	2.412	(0.501)	56771	100.000	103.77
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	88113	50.0000	50.25
15	Iodomethane	142	2.472	2.472	(0.513)	266005	100.000	101.87
16	Acrylonitrile	53	3.068	3.068	(0.637)	54913	100.000	98.52
17	Methylene Chloride	84	2.795	2.795	(0.580)	99973	50.0000	50.83
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	236782	50.0000	49.22
19	Carbon Disulfide	76	2.525	2.525	(0.524)	481645	100.000	93.96
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	98160	50.0000	49.03
21	Vinyl Acetate	43	3.608	3.608	(0.749)	405373	100.000	95.61
22	1,1-Dichloroethane	63	3.514	3.514	(0.729)	156179	50.0000	49.93
24	2-Butanone	43	4.260	4.260	(0.884)	64328	100.000	98.49
26	2,2-Dichloropropane	77	4.186	4.186	(0.869)	120199	50.0000	46.90

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.871)	113107	50.0000	47.63
28 Chloroform	83	4.575	4.575 (0.949)	176056	50.0000	50.47

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020908.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
29	Bromochloromethane	128	4.470	4.470	(0.928)	62198	50.0000	53.01
$ 30	Dibromofluoromethane	113	4.748	4.748	(0.985)	111088	50.0000	49.93
31	1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	149110	50.0000	47.99
32	1,1-Dichloropropene	75	4.924	4.924	(0.887)	126795	50.0000	50.67
33	1,2-Dichloroethane	62	5.175	5.175	(0.932)	130130	50.0000	52.71
34	Carbon Tetrachloride	117	4.913	4.913	(0.885)	133989	50.0000	48.47
$ 35	1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	114391	50.0000	51.37
* 36	1,4-Difluorobenzene	114	5.554	5.554	(1.000)	303747	50.0000	
37	Benzene	78	5.141	5.141	(0.926)	375334	50.0000	50.37
38	Trichloroethene	130	5.790	5.790	(1.043)	120027	50.0000	50.18
39	Bromodichloromethane	83	6.277	6.277	(1.130)	128157	50.0000	49.74
41	2-Chloroethylvinyl ether	63	6.581	6.581	(1.185)	1308	100.000	73.57(M)
42	1,2-Dichloropropane	63	6.007	6.007	(1.082)	92135	50.0000	51.30
44	Dibromomethane	93	6.120	6.120	(1.102)	65623	50.0000	50.75
45	4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	154936	100.000	98.21
46	cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	140911	50.0000	52.28
* 47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	282435	50.0000	
$ 48	Toluene-d8	98	6.922	6.922	(0.846)	391087	50.0000	50.81
50	Toluene	91	6.982	6.982	(0.853)	423236	50.0000	48.43
51	trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	121449	50.0000	48.61
52	2-Hexanone	43	7.589	7.589	(0.927)	105869	100.000	96.56
53	1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	75785	50.0000	51.82
54	1,3-Dichloropropane	76	7.499	7.499	(0.916)	161117	50.0000	52.26
55	Dibromochloromethane	129	7.691	7.691	(0.940)	119806	50.0000	53.74
56	Tetrachloroethene	164	7.458	7.458	(0.911)	101511	50.0000	50.83
57	1,2-Dibromoethane	107	7.784	7.784	(0.951)	100897	50.0000	51.58
58	1-Chlorohexane	55	8.197	8.197	(1.476)	74982	50.0000	48.81
59	Chlorobenzene	112	8.208	8.208	(1.003)	299817	50.0000	51.68
60	1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	111988	50.0000	49.78
61	Ethylbenzene	106	8.305	8.305	(1.015)	150769	50.0000	50.74
62	m,p-Xylenes	106	8.407	8.407	(1.027)	372519	100.000	102.02
63	o-Xylene	106	8.748	8.748	(1.069)	186453	50.0000	52.14
64	Styrene	104	8.759	8.759	(1.070)	323014	50.0000	55.18
66	Bromoform	173	8.916	8.916	(1.089)	84425	50.0000	52.36
67	Isopropylbenzene	105	9.063	9.063	(1.107)	466998	50.0000	51.08
68	1,1,2,2-Tetrachloroethane	83	9.325	9.325	(0.917)	123522	50.0000	51.84
$ 69	4-Bromofluorobenzene	95	9.190	9.190	(1.123)	144170	50.0000	50.70
* 70	1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	157506	50.0000	
71	1,2,3-Trichloropropane	75	9.359	9.359	(0.920)	122655	50.0000	48.47
73	n-Propylbenzene	91	9.411	9.411	(0.926)	494543	50.0000	50.80
74	Bromobenzene	156	9.317	9.317	(0.916)	143938	50.0000	50.86
75	1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	382793	50.0000	52.49
76	2-Chlorotoluene	91	9.482	9.482	(0.933)	311566	50.0000	48.19
77	4-Chlorotoluene	91	9.576	9.576	(0.942)	357981	50.0000	48.79
78	tert-Butylbenzene	119	9.835	9.835	(0.967)	335529	50.0000	50.27
79	1,2,4-Trimethylbenzene	105	9.876	9.876	(0.971)	376814	50.0000	52.39
81	sec-Butylbenzene	105	10.022	10.022	(0.986)	430282	50.0000	50.59
82	p-Isopropyltoluene	119	10.146	10.146	(0.998)	402342	50.0000	52.73
83	1,3-Dichlorobenzene	146	10.112	10.112	(0.994)	246607	50.0000	50.36
84	1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	253657	50.0000	50.28
87	n-Butylbenzene	91	10.491	10.491	(1.032)	314995	50.0000	52.56
88	1,2-Dichlorobenzene	146	10.502	10.502	(1.033)	243811	50.0000	51.07

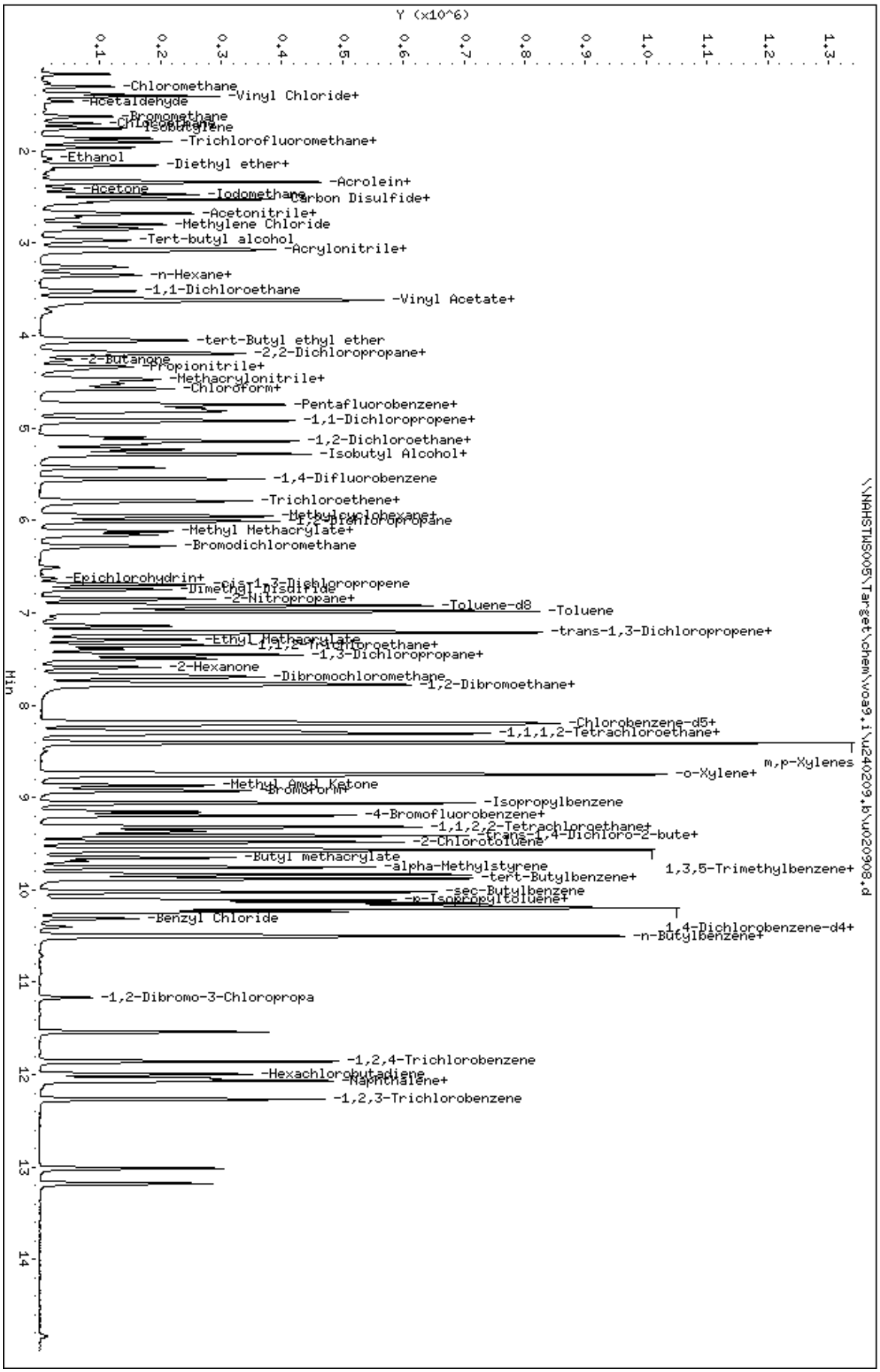
89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	20432	50.0000	46.54
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	163497	50.0000	52.44

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020908.D Page 3
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	71490	50.0000	50.26
	92 Naphthalene	128	12.065	12.065	(1.187)	351457	50.0000	48.98
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	155871	50.0000	52.42
M	94 1,2-Dichloroethylene (total)	96				211267	100.000	
M	95 Xylenes (total)	106				558972	150.000	
	135 1,4-Dioxane	88	6.161	6.161	(1.278)	22915	1000.00	970.64
	141 Cyclohexane	56	4.789	4.789	(0.994)	116003	50.0000	48.34
	138 Freon TF	101	2.337	2.337	(0.485)	88837	50.0000	49.98
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	83934	50.0000	50.70
	147 Methylcyclohexane	55	5.947	5.947	(1.071)	189844	50.0000	51.60
	146 Methyl Acetate	43	2.716	2.716	(0.564)	64996	50.0000	50.46
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	173854	1000.00	984.61
	149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	95411	1000.00	970.24

QC Flag Legend

M - Compound response manually integrated.



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Date : 09-FEB-2024 11:35
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020908.d
Inj Date : 09-FEB-2024 11:35
InstruID : VOA9.i
LabSampID : VSTD050

Chloroprene (126-99-8)

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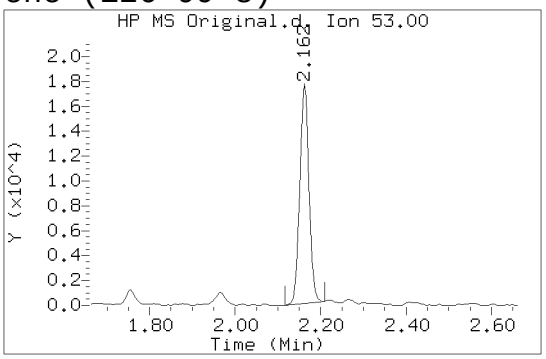
09-Feb-2024
11:56
firat
tastan



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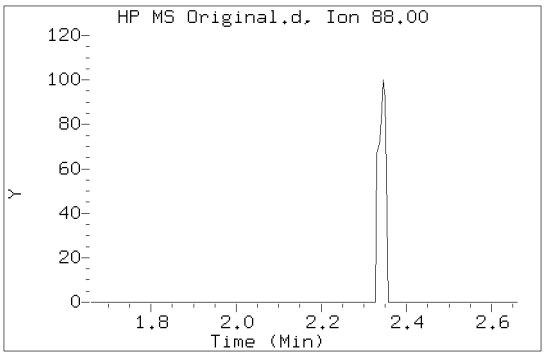

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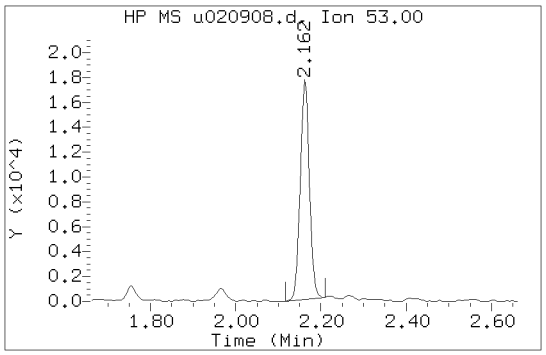

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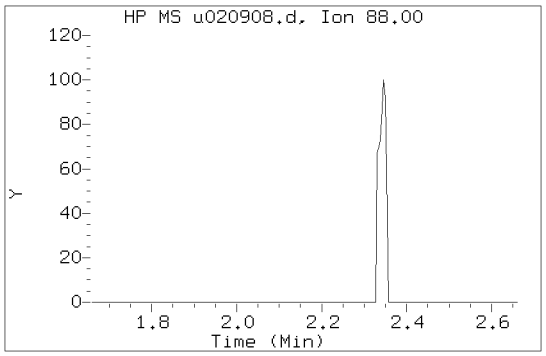

Acetaldehyde (75-07-0)

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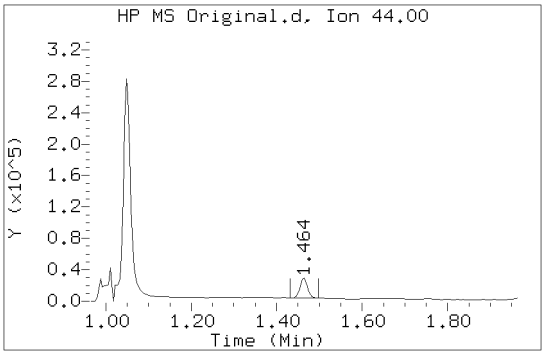

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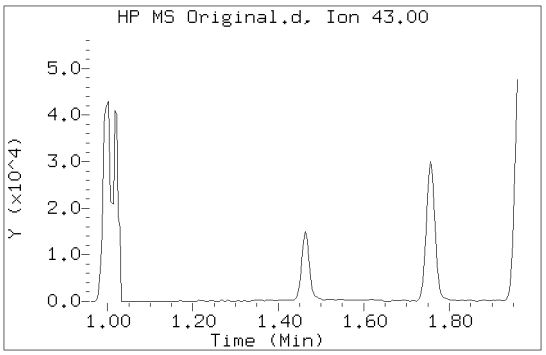

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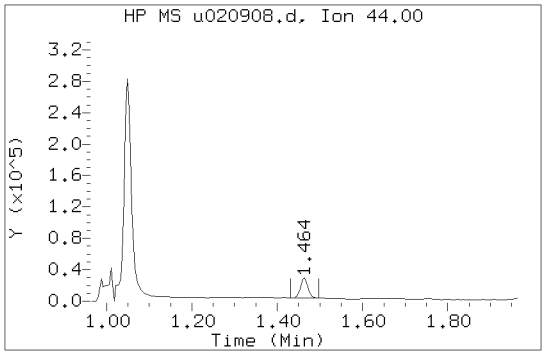

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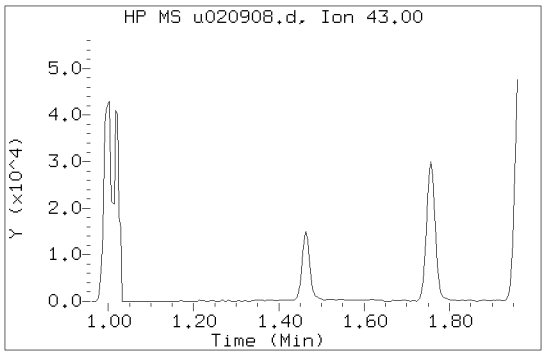

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Inj Date : 09-FEB-2024 11:35
InstruID : VOA9.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

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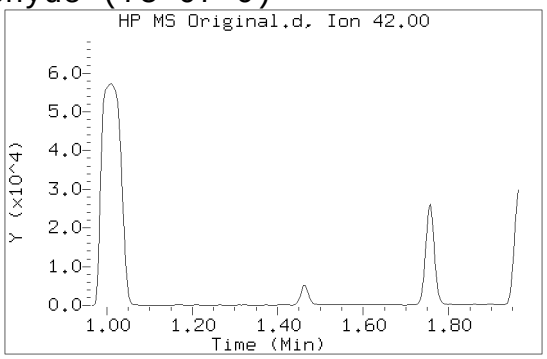

AFTER

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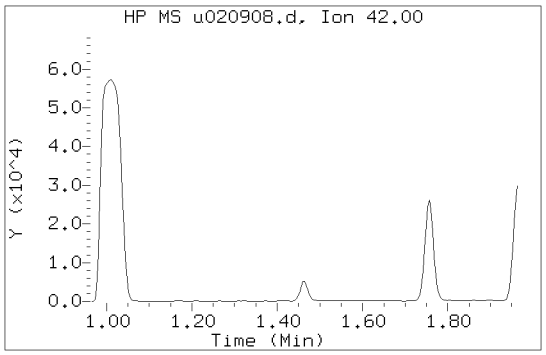

Isobutylene (115-11-7)

Reason Code:

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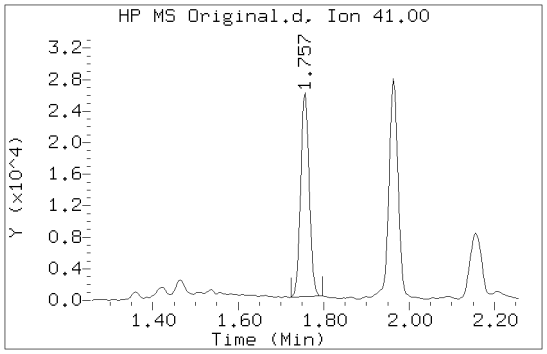

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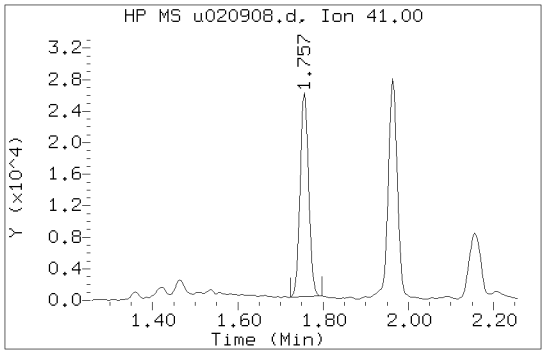

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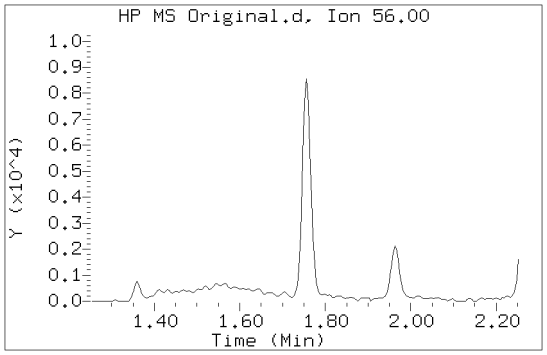

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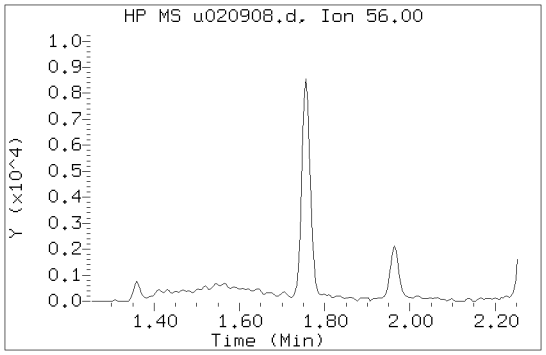

BEFORE

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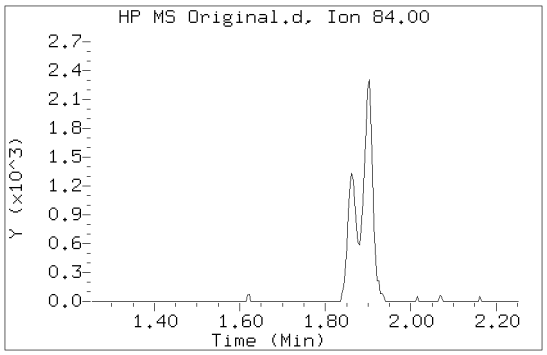

AFTER

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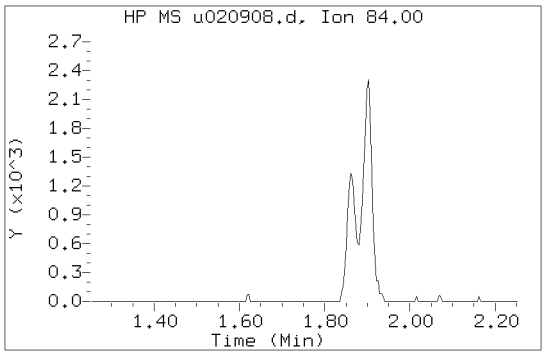

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020909.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020909.D
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Inj Date : 09-FEB-2024 11:58
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 11:35 Cal File: U020908.D
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.815	(1.000)	222991	50.0000	
2	Dichlorodifluoromethane	85	1.160	1.160	(0.241)	142137	100.000	97.09
3	Chloromethane	50	1.295	1.295	(0.269)	165791	100.000	95.32
5	Vinyl Chloride	62	1.374	1.374	(0.285)	190664	100.000	98.64
6	Bromomethane	94	1.618	1.618	(0.336)	122501	100.000	93.02
7	Chloroethane	64	1.696	1.696	(0.352)	129608	100.000	96.78
8	Trichlorofluoromethane	101	1.895	1.895	(0.394)	304288	100.000	99.66
9	Acrolein	56	2.262	2.262	(0.470)	16273	200.000	199.87
10	Acetone	43	2.405	2.405	(0.499)	111939	200.000	202.56(A)
11	1,1-Dichloroethene	96	2.330	2.330	(0.484)	176082	100.000	96.90
15	Iodomethane	142	2.465	2.465	(0.512)	543854	200.000	199.51
16	Acrylonitrile	53	3.061	3.061	(0.636)	115719	200.000	201.15
17	Methylene Chloride	84	2.791	2.791	(0.580)	199305	100.000	99.23
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	489347	100.000	98.21
19	Carbon Disulfide	76	2.517	2.517	(0.523)	986579	200.000	186.01
20	trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	204716	100.000	98.79
21	Vinyl Acetate	43	3.604	3.604	(0.749)	816037	200.000	186.01
22	1,1-Dichloroethane	63	3.511	3.511	(0.729)	312101	100.000	96.33
24	2-Butanone	43	4.257	4.257	(0.884)	133157	200.000	197.04
26	2,2-Dichloropropane	77	4.182	4.182	(0.868)	250168	100.000	94.34

27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	225189	100.000	91.64
28 Chloroform	83	4.572	4.572 (0.949)	352850	100.000	97.89

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020909.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.467	4.467	(0.928)	119737	100.000	99.56
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	225353	100.000	98.32
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	308526	100.000	95.97
	32 1,1-Dichloropropene	75	4.920	4.920	(0.887)	255824	100.000	95.49
	33 1,2-Dichloroethane	62	5.171	5.171	(0.932)	254319	100.000	96.92
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	279136	100.000	94.44
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	226192	100.000	98.86
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	324772	50.0000	
	37 Benzene	78	5.138	5.138	(0.926)	760852	100.000	95.38
	38 Trichloroethene	130	5.786	5.786	(1.043)	245643	100.000	95.88
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	261272	100.000	94.84
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.185)	5023	200.000	264.25
	42 1,2-Dichloropropane	63	6.007	6.007	(1.082)	182962	100.000	95.35
	44 Dibromomethane	93	6.116	6.116	(1.102)	126446	100.000	91.46
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	328621	200.000	194.01
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	301987	100.000	104.79
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	303250	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	794101	100.000	96.13
	50 Toluene	91	6.978	6.978	(0.853)	856091	100.000	91.23
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	258370	100.000	95.05
	52 2-Hexanone	43	7.589	7.589	(0.927)	227893	200.000	191.04
	53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	151138	100.000	96.44
	54 1,3-Dichloropropane	76	7.496	7.496	(0.916)	321486	100.000	97.28
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	242732	100.000	101.41
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	206130	100.000	96.14
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	204332	100.000	97.30
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	155922	100.000	95.39
	59 Chlorobenzene	112	8.208	8.208	(1.003)	601383	100.000	96.73
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	228908	100.000	94.77
	61 Ethylbenzene	106	8.305	8.305	(1.015)	303567	100.000	95.15
	62 m,p-Xylenes	106	8.407	8.407	(1.027)	761879	200.000	194.34
	63 o-Xylene	106	8.748	8.748	(1.069)	373505	100.000	97.29
	64 Styrene	104	8.759	8.759	(1.070)	660147	100.000	105.04
	66 Bromoform	173	8.916	8.916	(1.089)	175528	100.000	101.40
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	956619	100.000	97.45
	68 1,1,2,2-Tetrachloroethane	83	9.325	9.325	(0.917)	242003	100.000	96.77
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	295803	100.000	97.16
*	70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	165613	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	250693	100.000	94.22
	73 n-Propylbenzene	91	9.411	9.411	(0.926)	1007111	100.000	98.39
	74 Bromobenzene	156	9.317	9.317	(0.916)	288234	100.000	96.91
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	782239	100.000	102.02
	76 2-Chlorotoluene	91	9.482	9.482	(0.933)	633078	100.000	93.14
	77 4-Chlorotoluene	91	9.576	9.576	(0.942)	722143	100.000	93.60
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	689164	100.000	98.21
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.972)	768364	100.000	101.60
	81 sec-Butylbenzene	105	10.022	10.022	(0.986)	891589	100.000	99.70
	82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	838420	100.000	104.52
	83 1,3-Dichlorobenzene	146	10.112	10.112	(0.994)	502145	100.000	97.63
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	523178	100.000	99.02
	87 n-Butylbenzene	91	10.491	10.491	(1.032)	658949	100.000	104.57
	88 1,2-Dichlorobenzene	146	10.502	10.502	(1.033)	488949	100.000	97.65

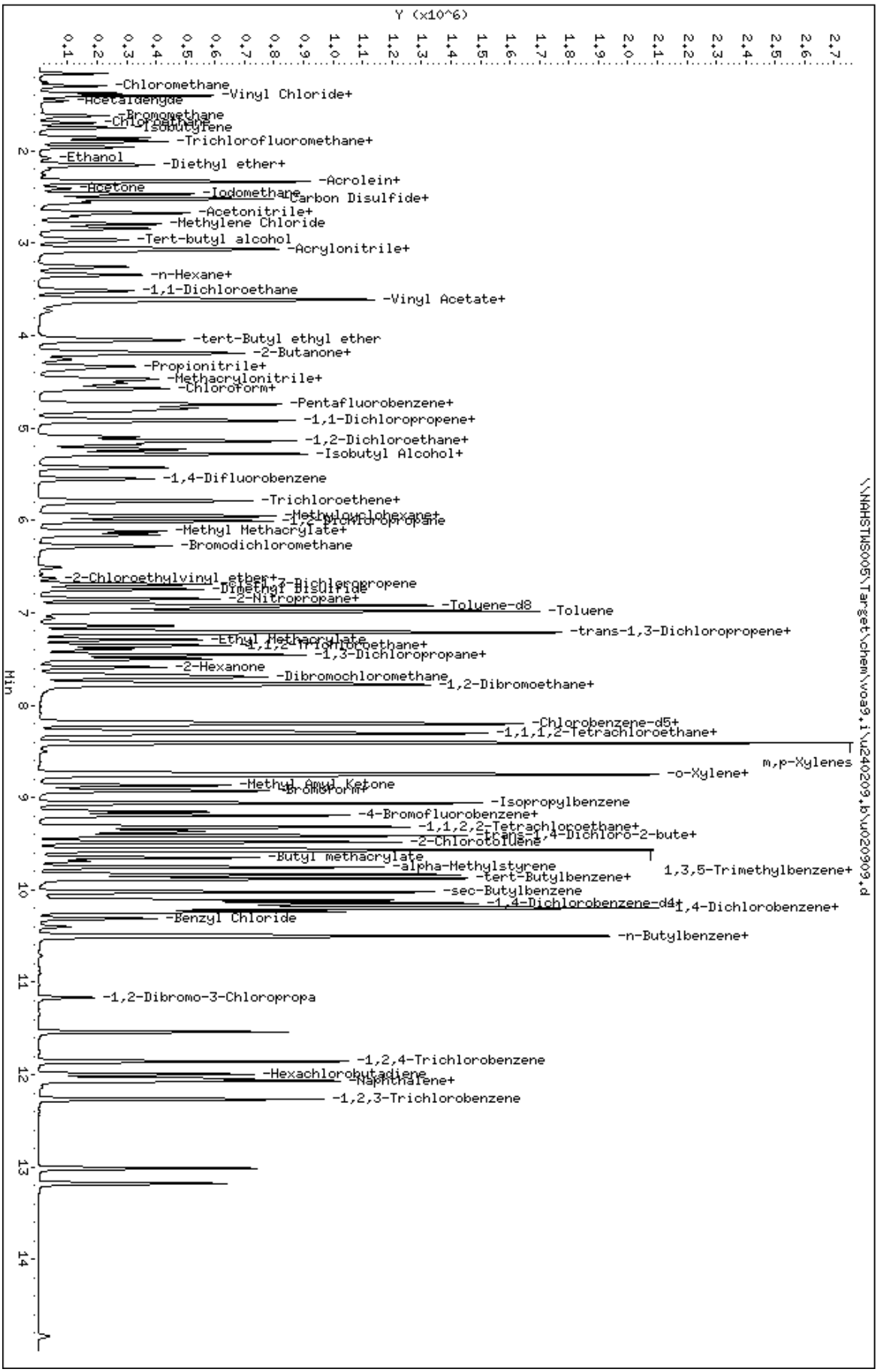
89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	44556	100.000	93.44
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	345953	100.000	105.53

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020909.D Page 3
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	147841	100.000	98.75
	92 Naphthalene	128	12.065	12.065	(1.187)	739697	100.000	96.80
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	310835	100.000	99.41
M	94 1,2-Dichloroethylene (total)	96				429905	200.000	
M	95 Xylenes (total)	106				1135384	300.000	
	135 1,4-Dioxane	88	6.161	6.161	(1.279)	48044	2000.00	1956.91
	141 Cyclohexane	56	4.785	4.785	(0.994)	240373	100.000	97.07
	138 Freon TF	101	2.334	2.334	(0.485)	178255	100.000	96.92
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	167421	100.000	97.57
	147 Methylcyclohexane	55	5.944	5.944	(1.071)	405233	100.000	103.01(A)
	146 Methyl Acetate	43	2.709	2.709	(0.563)	131072	100.000	98.73
	148 Tert-Butyl alcohol	59	2.963	2.963	(0.615)	360713	2000.00	1975.38
	149 Isopropyl Alcohol	45	2.559	2.559	(0.531)	202950	2000.00	1992.39

QC Flag Legend

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


Y (x10^6)
Min
-Chloromethane
-Vinyl Chloride+
-Acetaldehyde
-Bromomethane
-Chloroethane
-Isobutylene
-Trichlorofluoromethane+
-Ethanol
-Diethyl ether+
-Acrolein+
-Acetone
-Iodomethane
-Carbon Disulfide+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2-Butanone+
-Propionitrile+
-Methacrylonitrile+
-Chloroform+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-Methylcyclohexane+
-1,2-Dichloropropane
-Methyl Methacrylate+
-Bromodichloromethane
-2-Chloroethylvinyl ether+
-cis-1,3-Dichloropropene
-Dimethyl Disulfide
-2-Nitropropane+
-Toluene-d8
-Toluene
-trans-1,3-Dichloropropene+
-Ethyl Methacrylate
-1,1,2-Trichloroethane+
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Methyl Amyl Ketone
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-2-Chlorotoluene
-Butyl methacrylate
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
1,4-Dichlorobenzene+
-Benzyl Chloride
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene+
-1,2,3-Trichlorobenzene
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Instrument: VOA9,i
Operator: FT
Column diameter: 0.18
Page 1

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020909.d
Inj Date : 09-FEB-2024 11:58
InstruID : VOA9.i
LabSampID : VSTD100

Chloroprene (126-99-8)

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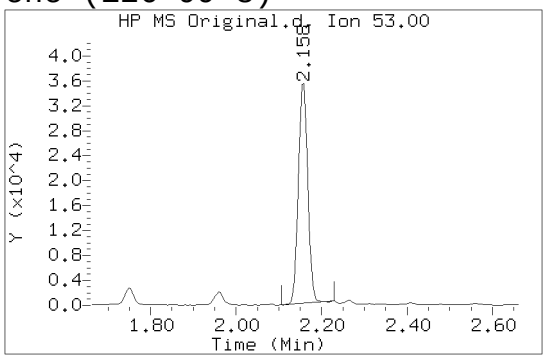
09-Feb-2024
12:30
firat
tastan



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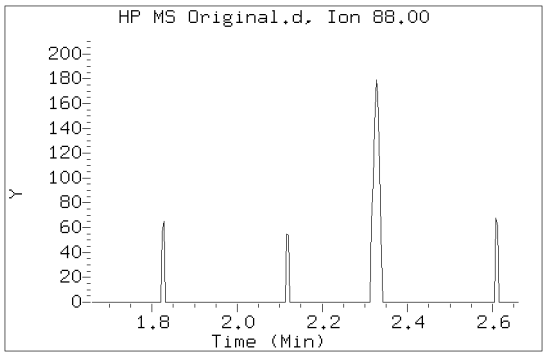

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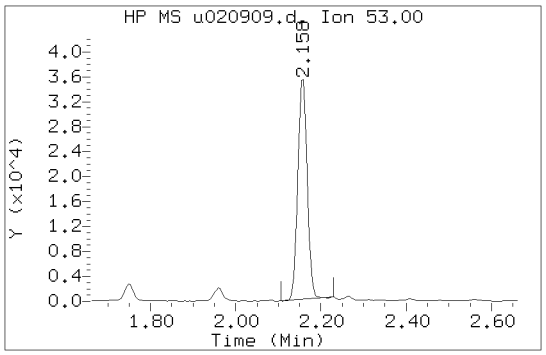

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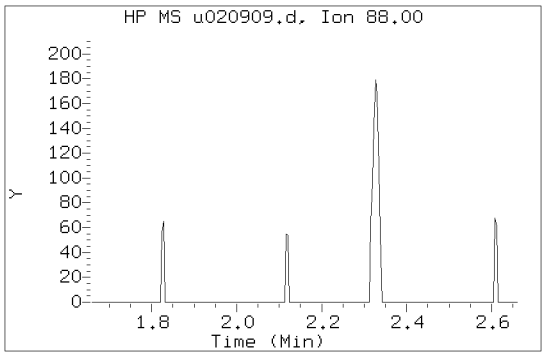

Isobutylene (115-11-7)

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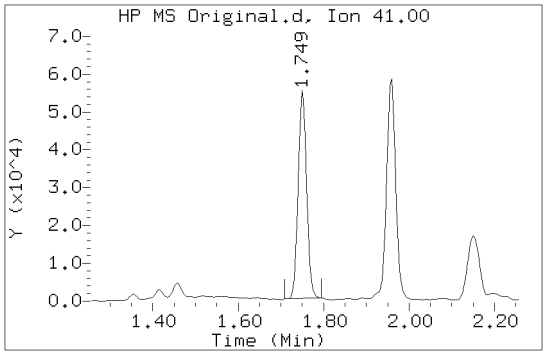

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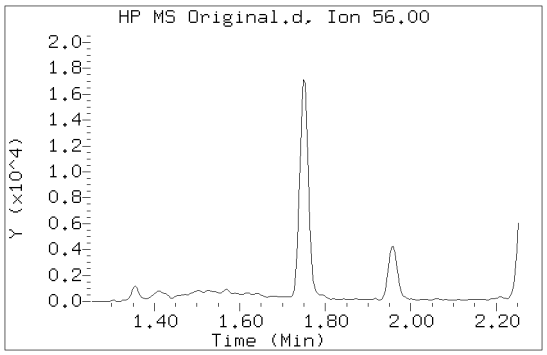

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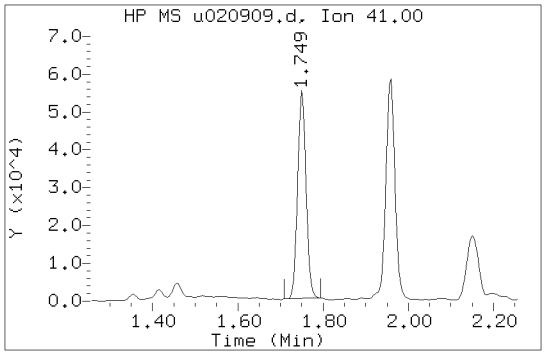

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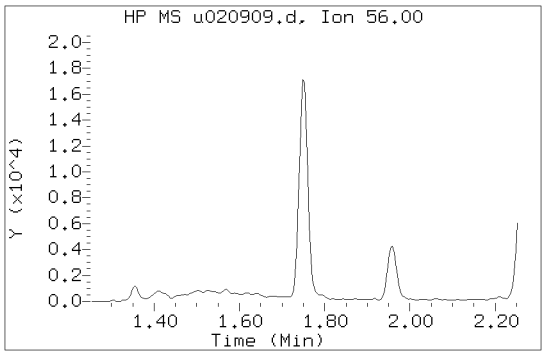

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InstruID : VOA9.i
LabSampID : VSTD100

Isobutylene (115-11-7)

Reason Code:

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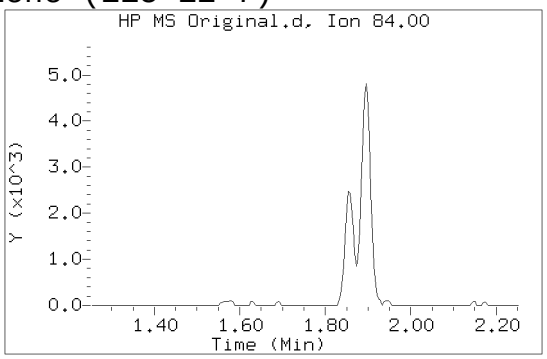

AFTER

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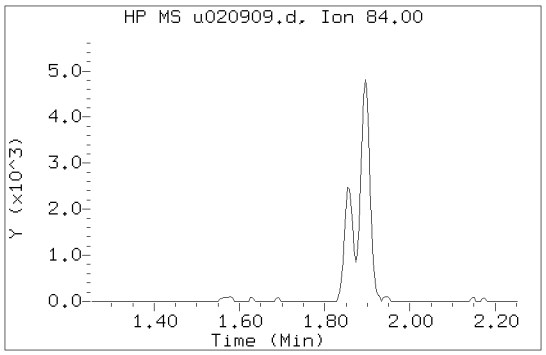

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020910.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020910.D
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Inj Date : 09-FEB-2024 12:20
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 11:58 Cal File: U020909.D
Als bottle: 10 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.823	4.823	(1.000)	218706	50.0000	
2	Dichlorodifluoromethane	85	1.172	1.172	(0.243)	224828	150.000	156.52
3	Chloromethane	50	1.307	1.307	(0.271)	256738	150.000	150.25
5	Vinyl Chloride	62	1.385	1.385	(0.287)	290301	150.000	153.10
6	Bromomethane	94	1.625	1.625	(0.337)	199120	150.000	153.76
7	Chloroethane	64	1.708	1.708	(0.354)	202297	150.000	154.20
8	Trichlorofluoromethane	101	1.906	1.906	(0.395)	458326	150.000	153.27
9	Acrolein	56	2.274	2.274	(0.472)	23107	300.000	290.48
10	Acetone	43	2.416	2.416	(0.501)	166382	300.000	309.72(A)
11	1,1-Dichloroethene	96	2.341	2.341	(0.485)	274360	150.000	153.86
15	Iodomethane	142	2.476	2.476	(0.513)	836922	300.000	312.01
16	Acrylonitrile	53	3.072	3.072	(0.637)	171648	300.000	304.47
17	Methylene Chloride	84	2.802	2.802	(0.581)	302564	150.000	154.35
18	Methyl tert-butyl ether	73	3.087	3.087	(0.640)	747890	150.000	152.97
19	Carbon Disulfide	76	2.529	2.529	(0.524)	1540667	300.000	296.18
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.635)	310253	150.000	152.64
21	Vinyl Acetate	43	3.612	3.612	(0.749)	1298924	300.000	301.88
22	1,1-Dichloroethane	63	3.522	3.522	(0.730)	492499	150.000	154.92
24	2-Butanone	43	4.264	4.264	(0.884)	202359	300.000	305.31
26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	399948	150.000	153.78

27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	350772	150.000	145.55
28 Chloroform	83	4.579	4.579 (0.949)	545173	150.000	154.30

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020910.D Page 2
Report Date: 15-Feb-2024 11:14

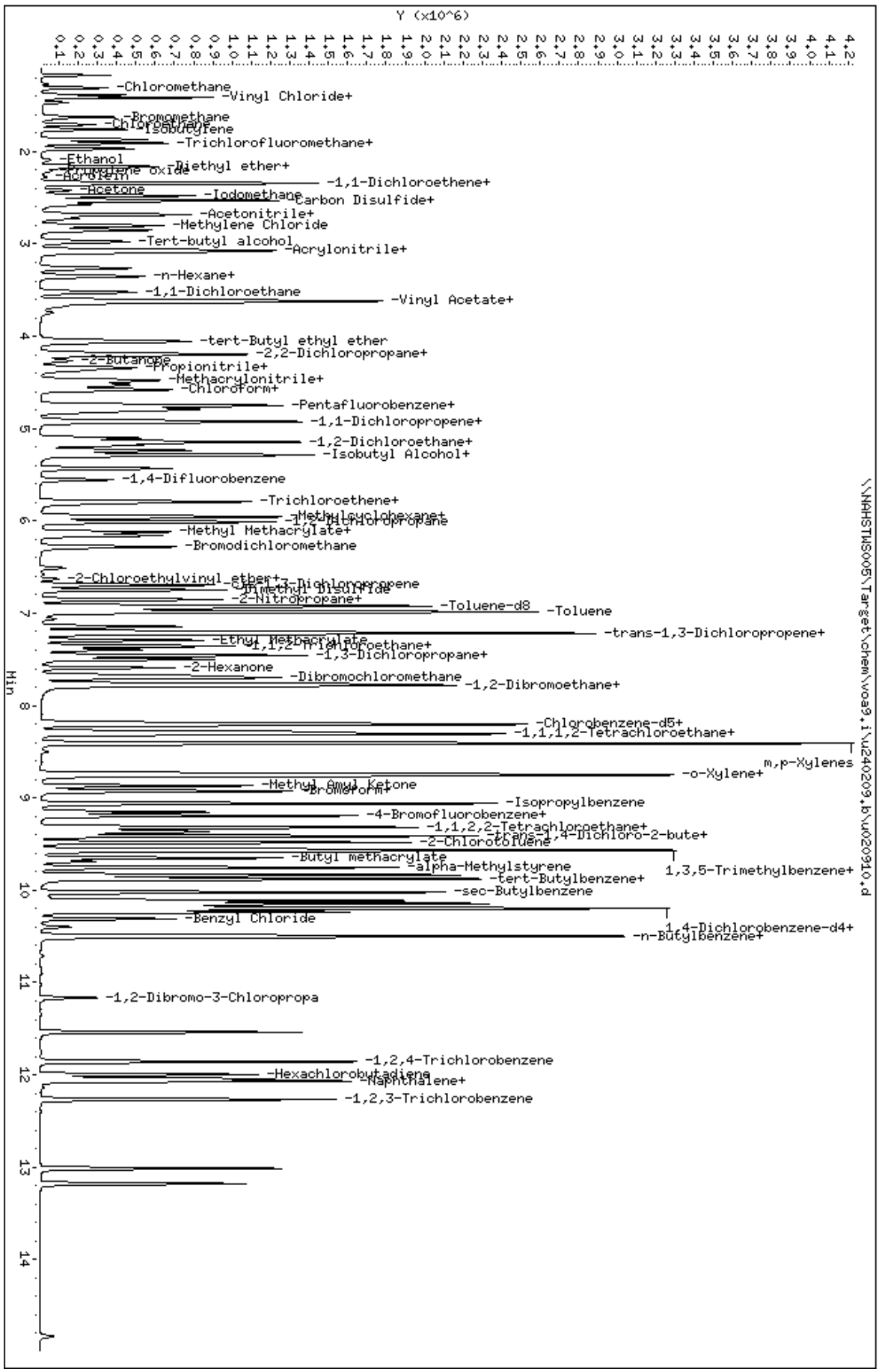
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	181633	150.000	154.58
$	30 Dibromofluoromethane	113	4.752	4.752	(0.985)	339618	150.000	151.32
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.984)	485989	150.000	154.14
	32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	398596	150.000	153.75
	33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	388749	150.000	153.58
	34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	436813	150.000	152.79
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	338611	150.000	151.29
*	36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	314131	50.0000	
	37 Benzene	78	5.145	5.145	(0.926)	1187546	150.000	153.83
	38 Trichloroethene	130	5.790	5.790	(1.042)	379920	150.000	153.21
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	407099	150.000	152.78
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.183)	9190	300.000	499.85(A)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	286290	150.000	154.29
	44 Dibromomethane	93	6.120	6.120	(1.101)	196084	150.000	146.64
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	513045	300.000	305.84
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	480393	150.000	172.35
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	300329	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	1215187	150.000	148.57
	50 Toluene	91	6.982	6.982	(0.853)	1339174	150.000	144.11
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.295)	407217	150.000	153.82
	52 2-Hexanone	43	7.589	7.589	(0.927)	357378	300.000	301.03
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	234464	150.000	151.19
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	492698	150.000	150.64
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	376669	150.000	158.90
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	322517	150.000	151.88
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	314056	150.000	151.01
	58 1-Chlorohexane	55	8.197	8.197	(1.475)	243289	150.000	154.17
	59 Chlorobenzene	112	8.208	8.208	(1.003)	936714	150.000	152.26
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	358760	150.000	149.98
	61 Ethylbenzene	106	8.305	8.305	(1.015)	473719	150.000	149.93
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	1184202	300.000	305.00
	63 o-Xylene	106	8.748	8.748	(1.069)	585211	150.000	153.92
	64 Styrene	104	8.763	8.763	(1.071)	1037018	150.000	166.62
	66 Bromoform	173	8.916	8.916	(1.089)	283123	150.000	165.15
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	1496713	150.000	153.95
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	375701	150.000	151.87
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	452247	150.000	150.15
*	70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	163945	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	395249	150.000	150.06
	73 n-Propylbenzene	91	9.411	9.411	(0.926)	1579857	150.000	155.92
	74 Bromobenzene	156	9.318	9.318	(0.916)	453792	150.000	154.16
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	1223036	150.000	161.14
	76 2-Chlorotoluene	91	9.482	9.482	(0.933)	980965	150.000	145.79
	77 4-Chlorotoluene	91	9.576	9.576	(0.942)	1132721	150.000	148.32
	78 tert-Butylbenzene	119	9.835	9.835	(0.967)	1067033	150.000	153.61
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.972)	1204758	150.000	160.93
	81 sec-Butylbenzene	105	10.022	10.022	(0.986)	1391890	150.000	157.23
	82 p-Isopropyltoluene	119	10.146	10.146	(0.998)	1310079	150.000	164.98
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.995)	787039	150.000	154.63
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	801340	150.000	153.43
	87 n-Butylbenzene	91	10.491	10.491	(1.032)	1040243	150.000	166.76
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	762567	150.000	154.00

89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	71535	150.000	149.76
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	534948	150.000	164.84

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.180)	225725	150.000	152.26
	92 Naphthalene	128	12.065	12.065	(1.187)	1165768	150.000	153.37
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	497166	150.000	160.63
M	94 1,2-Dichloroethylene (total)	96				661025	300.000	
M	95 Xylenes (total)	106				1769413	450.000	
	135 1,4-Dioxane	88	6.165	6.165	(1.278)	74347	3000.00	3082.03
	141 Cyclohexane	56	4.789	4.789	(0.993)	370929	150.000	152.88(A)
	138 Freon TF	101	2.345	2.345	(0.486)	280437	150.000	155.46
	140 1,3-Butadiene	54	1.415	1.415	(0.294)	256882	150.000	152.55
	147 Methylcyclohexane	55	5.947	5.947	(1.070)	625053	150.000	164.28(A)
	146 Methyl Acetate	43	2.724	2.724	(0.565)	197033	150.000	151.54
	148 Tert-Butyl alcohol	59	2.975	2.975	(0.617)	547562	3000.00	3057.95
	149 Isopropyl Alcohol	45	2.574	2.574	(0.534)	308676	3000.00	3088.55

QC Flag Legend

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



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Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020910.d
Inj Date : 09-FEB-2024 12:20
InstruID : VOA9.i
LabSampID : VSTD150

Chloroprene (126-99-8)

Reason Code:

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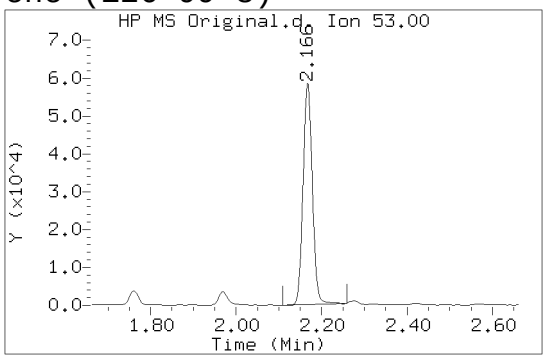
90341
HEIGHT
58294
09-Feb-2024
13:01
firat
tastan



AFTER
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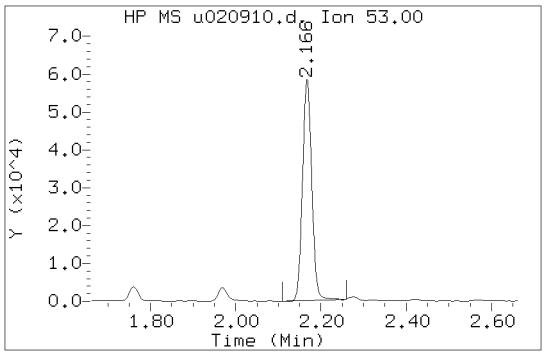

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09-Feb-2024
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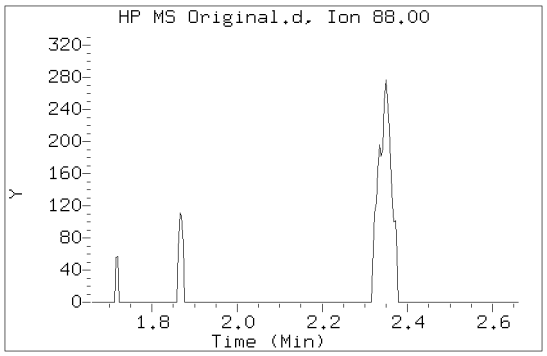

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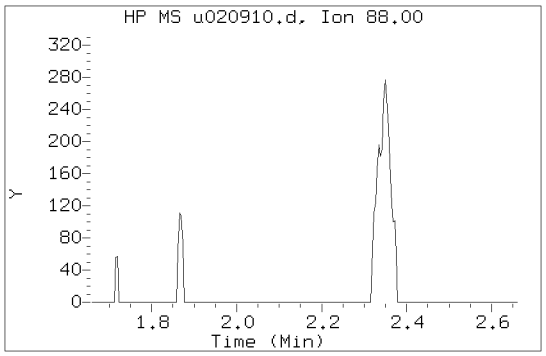

Isobutylene (115-11-7)

Reason Code:

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09-Feb-2024
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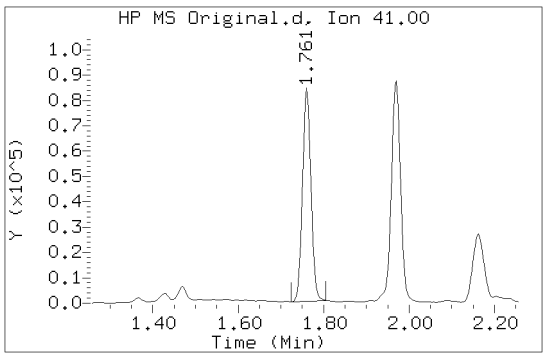

AFTER
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09-Feb-2024
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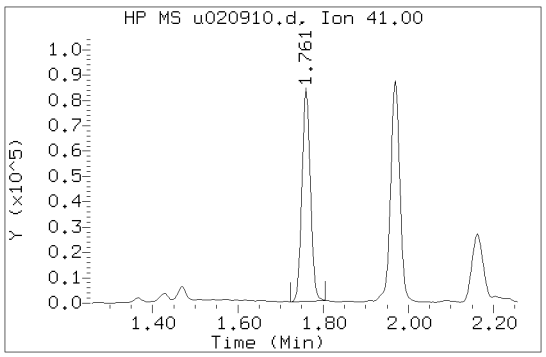

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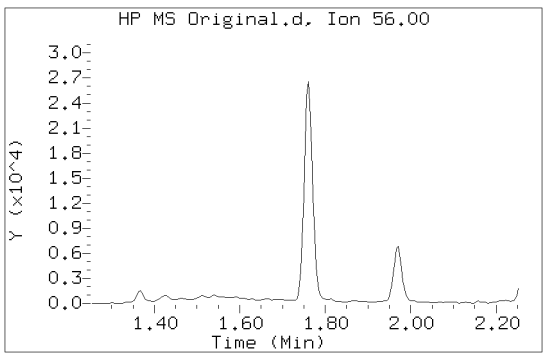

AFTER
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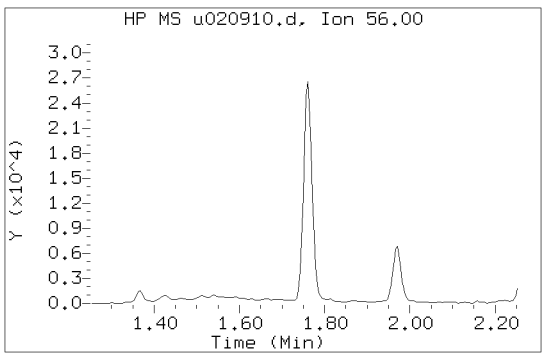

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Inj Date : 09-FEB-2024 12:20
InstruID : VOA9.i
LabSampID : VSTD150

Isobutylene (115-11-7)

Reason Code:

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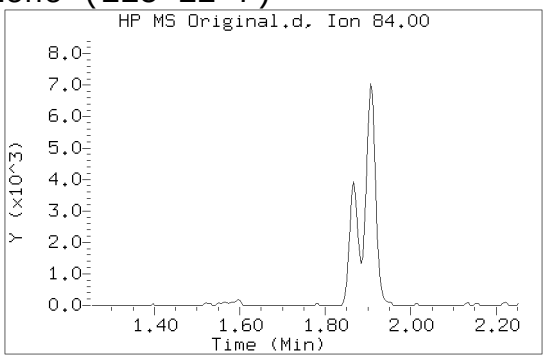

AFTER

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09-Feb-2024
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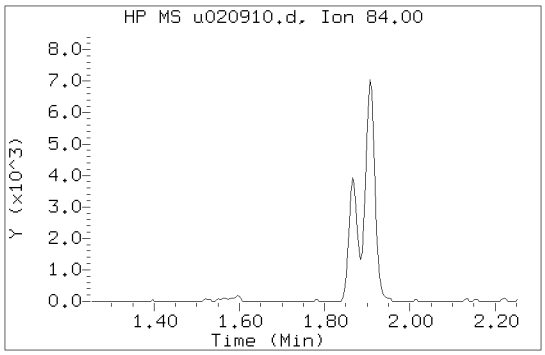


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 09-FEB-2024 12:42
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:20 Cal File: U020910.D
Als bottle: 11 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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)	230325	50.0000	
2	Dichlorodifluoromethane	85	1.167	1.167	(0.242)	297253	200.000	196.46
3	Chloromethane	50	1.302	1.302	(0.270)	364440	200.000	202.36(A)
5	Vinyl Chloride	62	1.381	1.381	(0.287)	396253	200.000	198.41
6	Bromomethane	94	1.617	1.617	(0.336)	274596	200.000	201.16(A)
7	Chloroethane	64	1.700	1.700	(0.353)	273442	200.000	198.00
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	621502	200.000	197.47
9	Acrolein	56	2.270	2.270	(0.471)	33950	400.000	406.25(A)
10	Acetone	43	2.412	2.412	(0.501)	219721	400.000	389.73(A)
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	372803	200.000	198.48
15	Iodomethane	142	2.472	2.472	(0.513)	1096640	400.000	387.77
16	Acrylonitrile	53	3.068	3.068	(0.637)	235255	400.000	396.39
17	Methylene Chloride	84	2.798	2.798	(0.581)	405366	200.000	196.74
18	Methyl tert-butyl ether	73	3.083	3.083	(0.640)	1023738	200.000	198.80
19	Carbon Disulfide	76	2.524	2.524	(0.524)	2108182	400.000	384.83
20	trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	425570	200.000	198.80
21	Vinyl Acetate	43	3.608	3.608	(0.749)	1753724	400.000	387.02
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	662807	200.000	197.95
24	2-Butanone	43	4.260	4.260	(0.884)	278335	400.000	398.76
26	2,2-Dichloropropane	77	4.185	4.185	(0.869)	537243	200.000	196.15

27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	476692	200.000	187.83
28 Chloroform	83	4.575	4.575 (0.949)	735037	200.000	197.59

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020911.D Page 2
Report Date: 15-Feb-2024 11:14

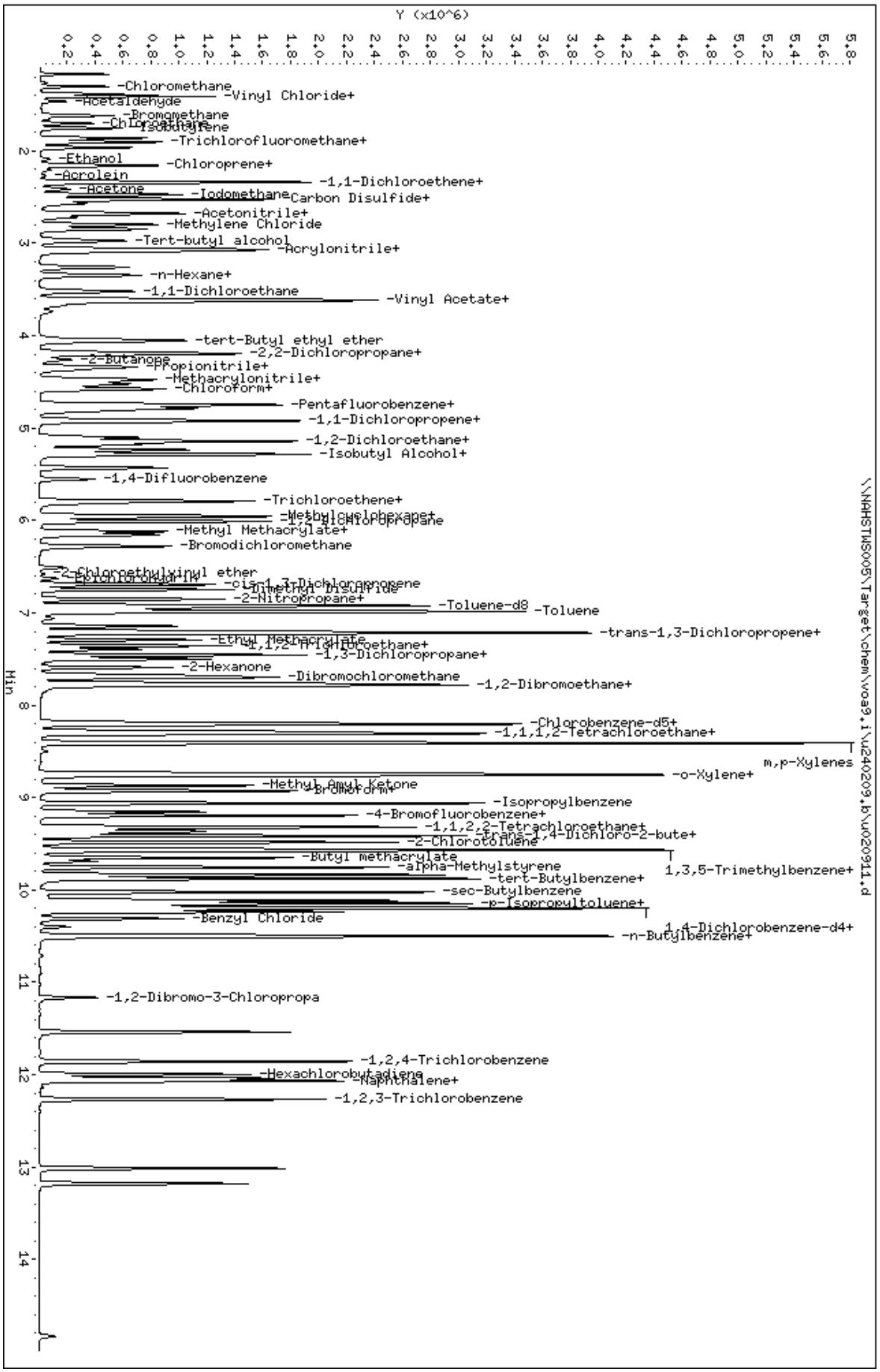
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	241921	200.000	195.79
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	471863	200.000	199.77
	31 1,1,1-Trichloroethane	97	4.747	4.747	(0.985)	653629	200.000	196.85
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	540113	200.000	199.03
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	523717	200.000	197.91
	34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	598406	200.000	200.01(A)
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	468937	200.000	199.18
*	36 1,4-Difluorobenzene	114	5.553	5.553	(1.000)	328741	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	1608657	200.000	199.09
	38 Trichloroethene	130	5.790	5.790	(1.043)	517591	200.000	199.41
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	558464	200.000	200.28(A)
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	13641	400.000	708.97(A)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	385455	200.000	198.53
	44 Dibromomethane	93	6.119	6.119	(1.102)	265739	200.000	189.90
	45 4-Methyl-2-Pentanone	43	6.850	6.850	(0.837)	711544	400.000	413.72(A)
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	656574	200.000	225.10(A)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	307921	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	1698429	200.000	202.56(A)
	50 Toluene	91	6.982	6.982	(0.853)	1818396	200.000	190.85
	51 trans-1,3-Dichloropropene	75	7.195	7.195	(1.296)	554885	200.000	199.78
	52 2-Hexanone	43	7.589	7.589	(0.927)	493142	400.000	404.27(A)
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	318353	200.000	200.29(A)
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	671252	200.000	200.23(A)
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	520656	200.000	214.23(A)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	435734	200.000	200.14(A)
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	424019	200.000	198.85
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	328757	200.000	199.22
	59 Chlorobenzene	112	8.207	8.207	(1.003)	1257280	200.000	199.40
	60 1,1,1,2-Tetrachloroethane	131	8.282	8.282	(1.012)	487985	200.000	198.97
	61 Ethylbenzene	106	8.309	8.309	(1.015)	641854	200.000	198.14
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	1605717	400.000	403.37(A)
	63 o-Xylene	106	8.747	8.747	(1.069)	785587	200.000	201.52(A)
	64 Styrene	104	8.762	8.762	(1.071)	1404250	200.000	220.06(A)
	66 Bromoform	173	8.916	8.916	(1.089)	391387	200.000	222.68(A)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	2008831	200.000	201.54(A)
	68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	518878	200.000	199.64
$	69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	620366	200.000	200.98(A)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	172299	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	539282	200.000	194.82
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	2208340	200.000	207.38(A)
	74 Bromobenzene	156	9.317	9.317	(0.916)	612518	200.000	198.01
	75 1,3,5-Trimethylbenzene	105	9.564	9.564	(0.940)	1656263	200.000	207.64(A)
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	1321830	200.000	186.93
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1531559	200.000	190.82
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1423591	200.000	195.01
	79 1,2,4-Trimethylbenzene	105	9.879	9.879	(0.971)	1630213	200.000	207.21(A)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1881810	200.000	202.27(A)
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	1758751	200.000	210.74(A)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	1055922	200.000	197.43
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1084669	200.000	197.73
	87 n-Butylbenzene	91	10.490	10.490	(1.031)	1393758	200.000	212.60(A)
	88 1,2-Dichlorobenzene	146	10.505	10.505	(1.033)	1028628	200.000	197.74

89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165 (1.098)	102920	200.000	203.97(A)
90	1,2,4-Trichlorobenzene	180	11.855	11.855 (1.165)	729375	200.000	213.86(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.997	11.997	(1.179)	309875	200.000	198.86
	92 Naphthalene	128	12.065	12.065	(1.186)	1594607	200.000	199.25
	93 1,2,3-Trichlorobenzene	180	12.267	12.267	(1.206)	668989	200.000	205.66(A)
M	94 1,2-Dichloroethylene (total)	96				902262	400.000	
M	95 Xylenes (total)	106				2391304	600.000	
	135 1,4-Dioxane	88	6.164	6.164	(1.279)	100798	4000.00	3964.99
	141 Cyclohexane	56	4.789	4.789	(0.994)	509886	200.000	199.63(A)
	138 Freon TF	101	2.337	2.337	(0.485)	374690	200.000	197.23
	140 1,3-Butadiene	54	1.407	1.407	(0.292)	353164	200.000	199.10
	147 Methylcyclohexane	55	5.947	5.947	(1.071)	863668	200.000	216.90(A)
	146 Methyl Acetate	43	2.716	2.716	(0.564)	272795	200.000	199.36
	148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	748988	4000.00	3972.14
	149 Isopropyl Alcohol	45	2.569	2.569	(0.533)	415230	4000.00	3944.54

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.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Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9.i
Operator: FT
Column diameter: 0.18
\\NAHSTMS005\Target\chem\voa9.i\u240209.b\u020911.d
Y (x10^6)
Min
-Chloromethane
-Vinyl Chloride+
-Acetaldehyde
-Bromomethane
-Chloroethane
-Isobutylene
-Trichlorofluoromethane+
-Ethanol
-Chloroprene+
-Acrolein
-1,1-Dichloroethene+
-Acetone
-Iodomethane
Carbon Disulfide+
-Acetonitrile+
-Methylene Chloride
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-2-Butanone
-Propionitrile+
-Methacrylonitrile+
-Chloroform+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-Methylcyclohexane+
-1,2-Dichloropropane
-Methyl Methacrylate+
-Bromodichloromethane
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Dimethyl Disulfide
-2-Nitropropane+
-Toluene-d8
-Toluene
-trans-1,3-Dichloropropene+
-Ethyl Methacrylate
-1,1,2-Trichloroethane+
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Methyl Amyl Ketone
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-2-Chlorotoluene
-Butyl methacrylate
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene+
-Benzyl Chloride
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene+
-1,2,3-Trichlorobenzene

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020911.d
Inj Date : 09-FEB-2024 12:42
InstruID : VOA9.i
LabSampID : VSTD200

Isobutylene (115-11-7)

Reason Code:

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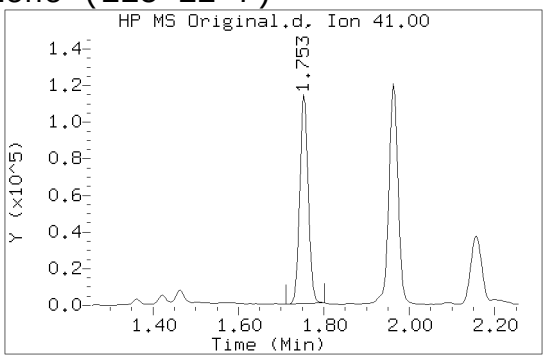

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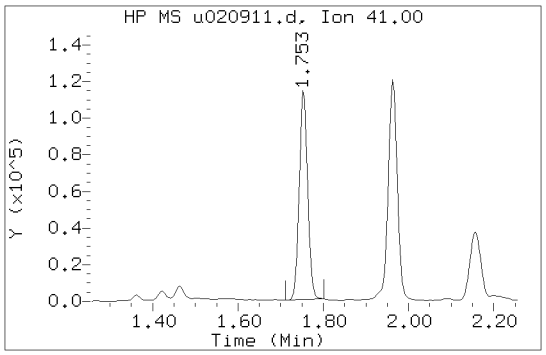

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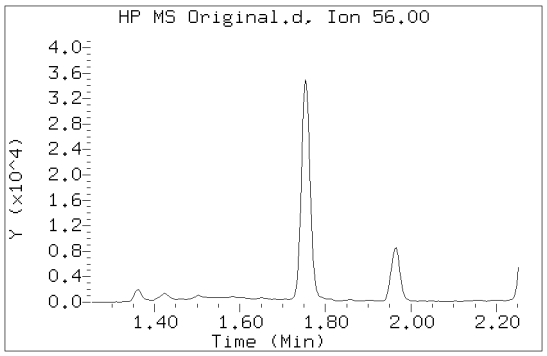

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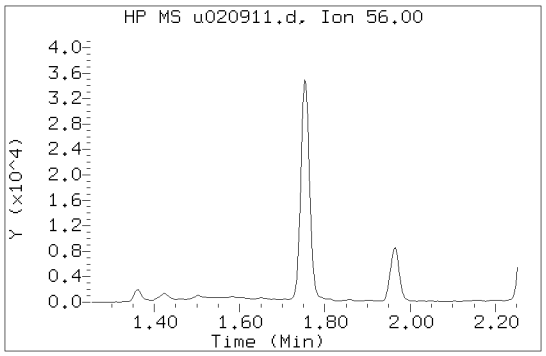

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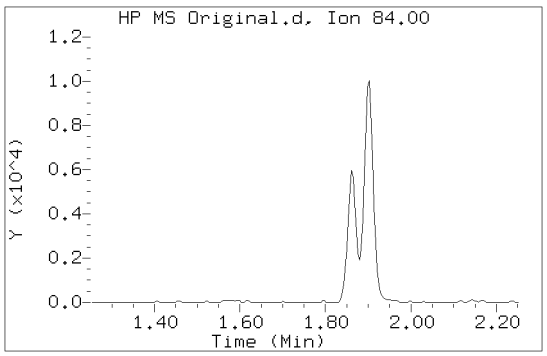

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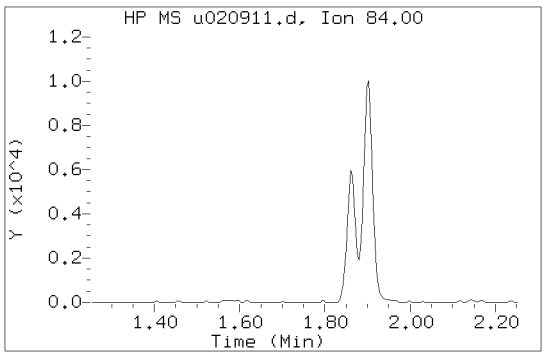


Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020913.D Page 1
Report Date: 15-Feb-2024 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020913.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 09-FEB-2024 13:27
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD050;VSTD050;2;;ICV
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240209.b\8260C.m
Meth Date : 15-Feb-2024 11:14 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 13 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9.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	4.815	4.819	(1.000)	247136	50.0000	
2	Dichlorodifluoromethane	85	1.164	1.167	(0.242)	68711	42.4252	42.42
3	Chloromethane	50	1.299	1.302	(0.270)	97477	50.7861	50.78
5	Vinyl Chloride	62	1.378	1.381	(0.286)	97135	45.3797	45.37
6	Bromomethane	94	1.621	1.617	(0.337)	77533	53.3880	53.38
7	Chloroethane	64	1.700	1.700	(0.353)	67671	45.4441	45.44
8	Trichlorofluoromethane	101	1.899	1.902	(0.394)	151220	44.4657	44.46
9	Acrolein	56	2.266	2.270	(0.471)	8248	90.0515	90.05
10	Acetone	43	2.409	2.412	(0.500)	58015	91.9008	91.90
11	1,1-Dichloroethene	96	2.334	2.337	(0.485)	91319	45.4288	45.42
15	Iodomethane	142	2.468	2.472	(0.513)	241206	80.9356	80.93(M)
16	Acrylonitrile	53	3.065	3.068	(0.636)	60264	94.2694	94.26
17	Methylene Chloride	84	2.795	2.798	(0.580)	105106	46.4945	46.49
18	Methyl tert-butyl ether	73	3.080	3.083	(0.640)	255656	46.3538	46.35
19	Carbon Disulfide	76	2.521	2.524	(0.524)	510531	86.8553	86.85
20	trans-1,2-Dichloroethene	96	3.057	3.061	(0.635)	106504	46.3956	46.39
21	Vinyl Acetate	43	3.604	3.608	(0.749)	441763	90.8607	90.86
22	1,1-Dichloroethane	63	3.514	3.518	(0.730)	166714	46.4860	46.48
24	2-Butanone	43	4.260	4.260	(0.885)	68210	91.0754	91.07
26	2,2-Dichloropropane	77	4.185	4.185	(0.869)	125393	42.6688	42.66

27 cis-1,2-Dichloroethene	96	4.197	4.200 (0.872)	121249	44.5259	44.52
28 Chloroform	83	4.572	4.575 (0.949)	185412	46.3396	46.33

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020913.D Page 2
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
29	Bromochloromethane	128	4.470	4.474	(0.928)	66500	49.3585	49.35
$ 30	Dibromofluoromethane	113	4.748	4.751	(0.986)	120774	47.3217	47.32
31	1,1,1-Trichloroethane	97	4.744	4.747	(0.985)	159394	44.7391	44.73
32	1,1-Dichloropropene	75	4.924	4.924	(0.887)	134606	47.3333	47.33
33	1,2-Dichloroethane	62	5.175	5.179	(0.932)	132931	47.2954	47.29
34	Carbon Tetrachloride	117	4.913	4.916	(0.885)	140987	44.8659	44.86
$ 35	1,2-Dichloroethane-d4	65	5.096	5.100	(1.058)	120103	46.9726	46.97
* 36	1,4-Difluorobenzene	114	5.554	5.553	(1.000)	345294	50.0000	
37	Benzene	78	5.138	5.141	(0.925)	401947	47.4597	47.45
38	Trichloroethene	130	5.790	5.790	(1.043)	127869	47.0376	47.03
39	Bromodichloromethane	83	6.277	6.277	(1.130)	134639	45.9712	45.97
42	1,2-Dichloropropane	63	6.007	6.011	(1.082)	96156	47.0987	47.09
44	Dibromomethane	93	6.120	6.119	(1.102)	67762	46.1044	46.10
45	4-Methyl-2-Pentanone	43	6.851	6.850	(0.837)	172237	96.0252	96.02
46	cis-1,3-Dichloropropene	75	6.690	6.693	(1.205)	153516	50.1084	50.10
* 47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	321137	50.0000	
$ 48	Toluene-d8	98	6.922	6.922	(0.846)	435036	49.7080	49.70
50	Toluene	91	6.978	6.982	(0.853)	455376	45.8285	45.82
51	trans-1,3-Dichloropropene	75	7.196	7.195	(1.296)	129035	45.5428	45.54
52	2-Hexanone	43	7.589	7.589	(0.927)	116559	93.5804	93.58
53	1,1,2-Trichloroethane	83	7.353	7.357	(0.898)	80589	48.4559	48.45
54	1,3-Dichloropropane	76	7.495	7.499	(0.916)	168064	47.9374	47.93
55	Dibromochloromethane	129	7.690	7.690	(0.940)	123501	48.7266	48.72
56	Tetrachloroethene	164	7.458	7.458	(0.911)	107693	47.4342	47.43
57	1,2-Dibromoethane	107	7.784	7.784	(0.951)	107411	48.3009	48.30
58	1-Chlorohexane	55	8.196	8.196	(1.476)	79937	45.7507	45.75
59	Chlorobenzene	112	8.208	8.207	(1.003)	313979	47.5875	47.58
60	1,1,1,2-Tetrachloroethane	131	8.283	8.282	(1.012)	117784	46.0498	46.04
61	Ethylbenzene	106	8.305	8.309	(1.015)	157029	46.4806	46.48
62	m,p-Xylenes	106	8.406	8.410	(1.027)	400272	96.4154	96.41
63	o-Xylene	106	8.744	8.747	(1.068)	196386	48.3064	48.30
64	Styrene	104	8.759	8.762	(1.070)	340239	51.1266	51.12
66	Bromoform	173	8.916	8.916	(1.089)	89188	48.6567	48.65
67	Isopropylbenzene	105	9.062	9.062	(1.107)	498421	47.9479	47.94
68	1,1,2,2-Tetrachloroethane	83	9.325	9.328	(0.917)	129514	48.3439	48.34
$ 69	4-Bromofluorobenzene	95	9.194	9.193	(1.123)	157903	48.8351	48.83
* 70	1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	177074	50.0000	
71	1,2,3-Trichloropropane	75	9.362	9.362	(0.921)	126040	44.3068	44.30
73	n-Propylbenzene	91	9.411	9.411	(0.926)	541098	49.4452	49.44
74	Bromobenzene	156	9.317	9.317	(0.916)	151860	47.7287	47.72
75	1,3,5-Trimethylbenzene	105	9.561	9.564	(0.940)	407315	49.6887	49.68
76	2-Chlorotoluene	91	9.482	9.482	(0.933)	329467	45.3362	45.33
77	4-Chlorotoluene	91	9.576	9.576	(0.942)	377965	45.8223	45.82
78	tert-Butylbenzene	119	9.835	9.838	(0.967)	353961	47.1799	47.17
79	1,2,4-Trimethylbenzene	105	9.876	9.879	(0.971)	401348	49.6389	49.63
81	sec-Butylbenzene	105	10.022	10.022	(0.986)	458876	47.9936	47.99
82	p-Isopropyltoluene	119	10.146	10.146	(0.998)	429669	50.0972	50.09
83	1,3-Dichlorobenzene	146	10.112	10.116	(0.994)	260932	47.3989	47.39
84	1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	272364	48.0078	48.00
87	n-Butylbenzene	91	10.491	10.490	(1.032)	329753	48.9448	48.94
88	1,2-Dichlorobenzene	146	10.502	10.505	(1.033)	255954	47.6772	47.67
89	1,2-Dibromo-3-Chloropropane	155	11.165	11.165	(1.098)	22437	45.5314	45.53

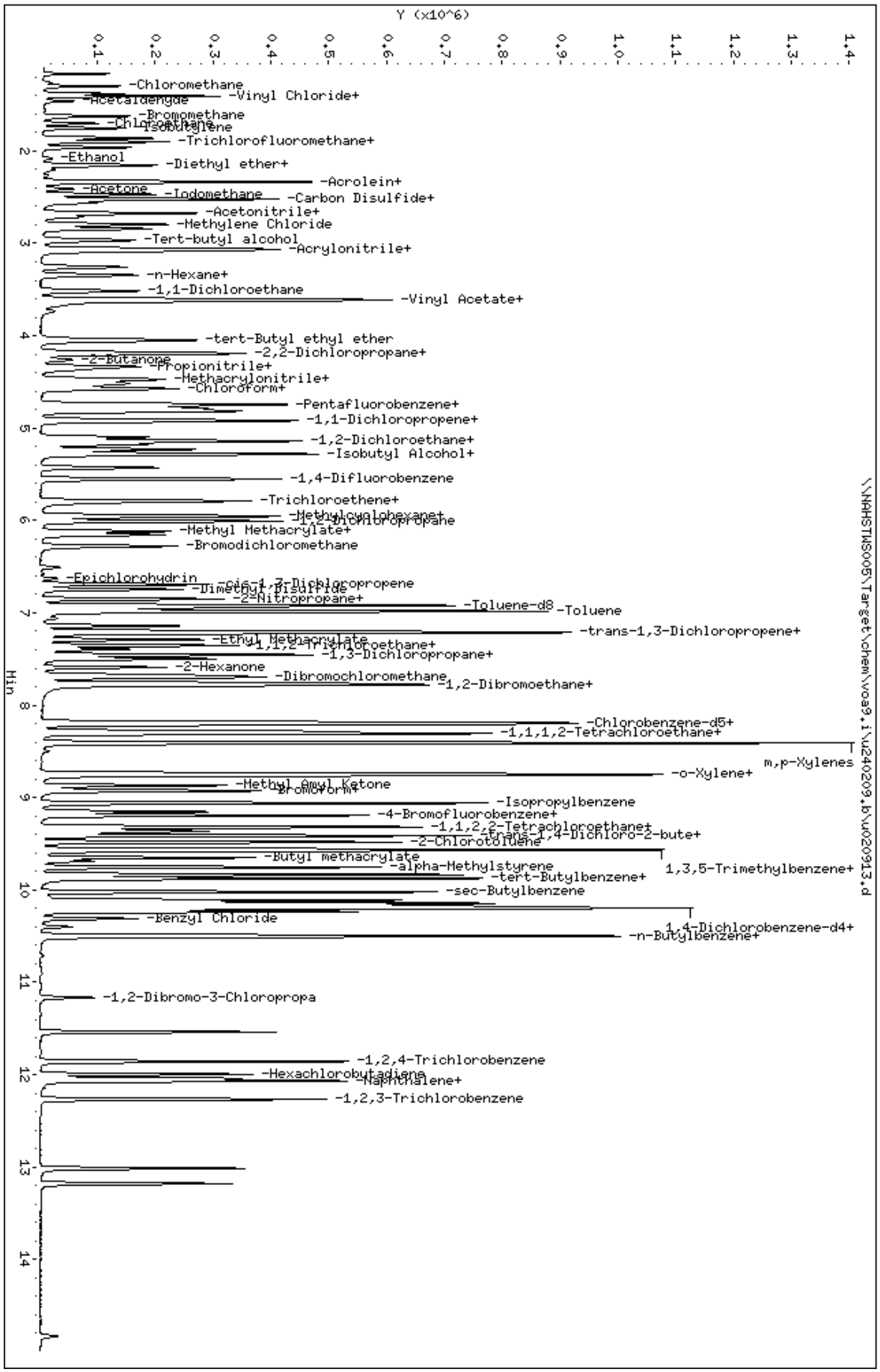
90 1,2,4-Trichlorobenzene	180	11.855	11.855 (1.166)	177295	50.5843	50.58
91 Hexachlorobutadiene	225	11.998	11.997 (1.180)	75729	47.3662	47.36

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240209.b\U020913.D Page 3
Report Date: 15-Feb-2024 11:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	92 Naphthalene	128	12.065	12.065	(1.187)	384239	47.6703	47.67
	93 1,2,3-Trichlorobenzene	180	12.268	12.267	(1.206)	167750	50.1807	50.18
M	94 1,2-Dichloroethylene (total)	96				227753	86.7769	86.77
M	95 Xylenes (total)	106				596658	145.104	145.10
	135 1,4-Dioxane	88	6.161	6.164	(1.279)	24786	916.094	916.09
	141 Cyclohexane	56	4.785	4.789	(0.994)	126749	46.0475	46.04
	138 Freon TF	101	2.337	2.337	(0.485)	88738	43.5398	43.53
	140 1,3-Butadiene	54	1.404	1.407	(0.292)	85110	44.8517	44.85
	147 Methylcyclohexane	55	5.944	5.947	(1.070)	209686	50.1375	50.13
	146 Methyl Acetate	43	2.712	2.716	(0.563)	67666	45.7749	45.77
	148 Tert-Butyl alcohol	59	2.963	2.971	(0.615)	191804	947.228	947.22
	149 Isopropyl Alcohol	45	2.558	2.569	(0.531)	105651	936.962	936.96

QC Flag Legend

M - Compound response manually integrated.



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Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240209.b\u020913.d
Inj Date : 09-FEB-2024 13:27
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LabSampID : ICV

Iodomethane (74-88-4)

Reason Code:

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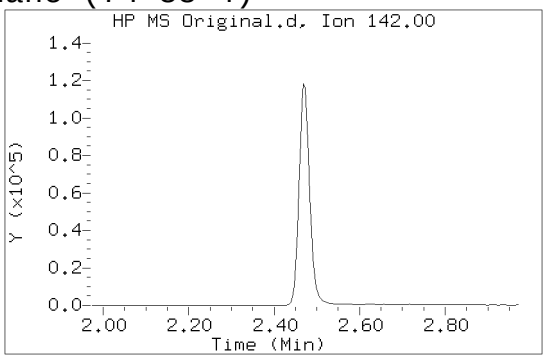

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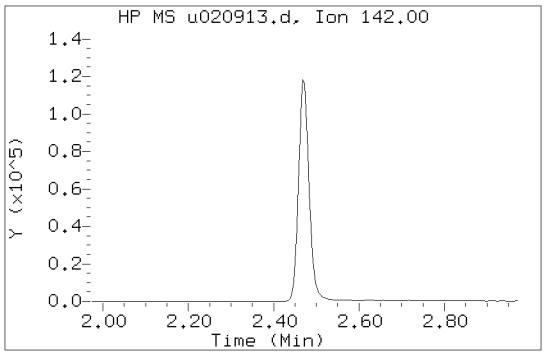

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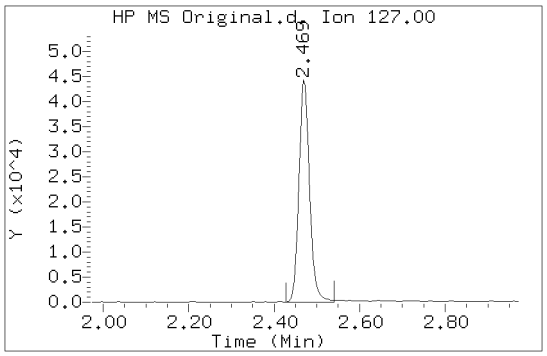

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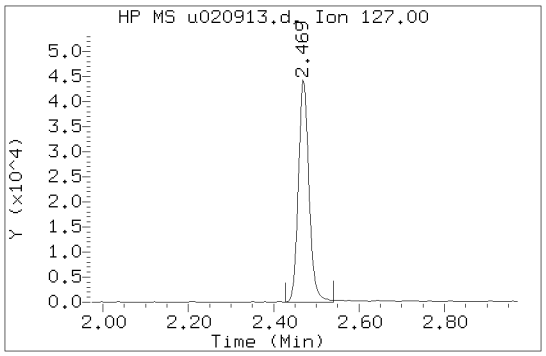

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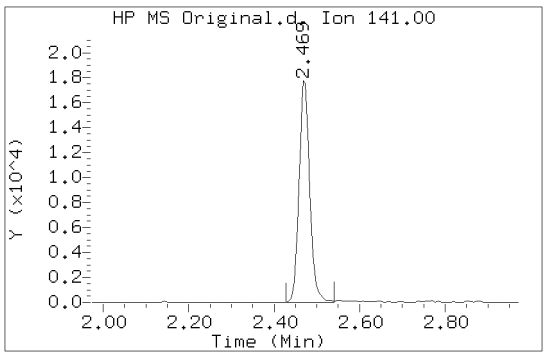

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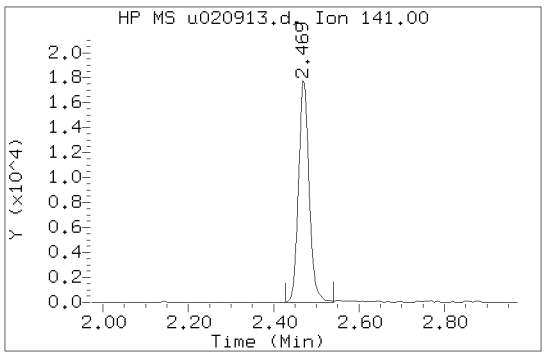

right solutions.
right partner.

RawData

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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\U240214.b\U021429.D Page 1
Report Date: 15-Feb-2024 08:29

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\U240214.b\U021429.D
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Operator : FT Inst ID: VOA9.i
Smp Info : BFB
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\U240214.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: 28 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7066

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	69376			0.00- 100.00	91.13
9.194	9.180	(0.000)	50	10854			15.00- 40.00	15.65
9.194	9.180	(0.000)	75	31360			30.00- 60.00	45.20
9.194	9.180	(0.000)	96	4929			5.00- 9.00	7.10
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	76128			50.00- 0.00	109.73
9.194	9.180	(0.000)	175	6722			5.00- 9.00	8.83
9.194	9.180	(0.000)	176	74984			95.00- 101.00	98.50
9.194	9.180	(0.000)	177	4984			5.00- 9.00	6.65

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.65
75	30.00 - 60.00% of mass 95	45.20
96	5.00 - 9.00% of mass 95	7.10
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	109.73
175	5.00 - 9.00% of mass 174	9.69 (8.83)
176	95.00 - 101.00% of mass 174	108.08 (98.50)
177	5.00 - 9.00% of mass 176	7.18 (6.65)

Data File: U021429.D
Spectrum: Scan 2294 (9.19)
Location of Maximum: 174.00
Number of points: 93

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	457	63.00	1915	93.10	2663	140.10	70
37.10	2345	64.00	188	94.10	8540	140.90	552
38.10	2220	64.80	71	95.10	69376	141.90	141
39.10	1231	68.10	5644	96.10	4929	143.00	516
40.00	260	69.10	6544	97.10	290	144.70	100
41.00	354	70.00	704	98.10	618	145.90	122
42.10	597	71.00	141	103.90	251	146.70	139
43.00	380	72.00	400	105.00	254	148.00	245
44.00	389	73.10	2752	106.00	287	148.90	118
45.00	684	74.10	9583	106.80	164	149.90	96
47.00	744	75.10	31360	113.00	62	153.10	58
48.00	314	76.00	2819	115.00	128	155.00	255
49.10	2152	77.10	467	115.90	299	156.90	148
50.10	10854	78.00	404	116.90	424	160.90	210
51.00	3145	79.00	1567	118.10	224	170.40	55
52.00	149	80.00	470	118.70	209	172.00	258
55.10	1281	81.00	1388	119.00	182	174.00	76128
56.00	837	81.90	304	126.90	126	175.10	6722
57.10	1542	83.00	289	127.90	282	176.00	74984
58.00	220	87.00	3131	129.00	112	177.00	4984
59.20	90	88.00	2732	129.90	316	177.90	160
60.10	747	88.80	73	131.00	141		
61.00	2490	91.00	266	134.90	138		
62.10	2376	92.00	2086	136.80	87		

Data File: \\NAHSTWS005\Target\chem\voa9.i\u240214.b\v021401.d Page 1

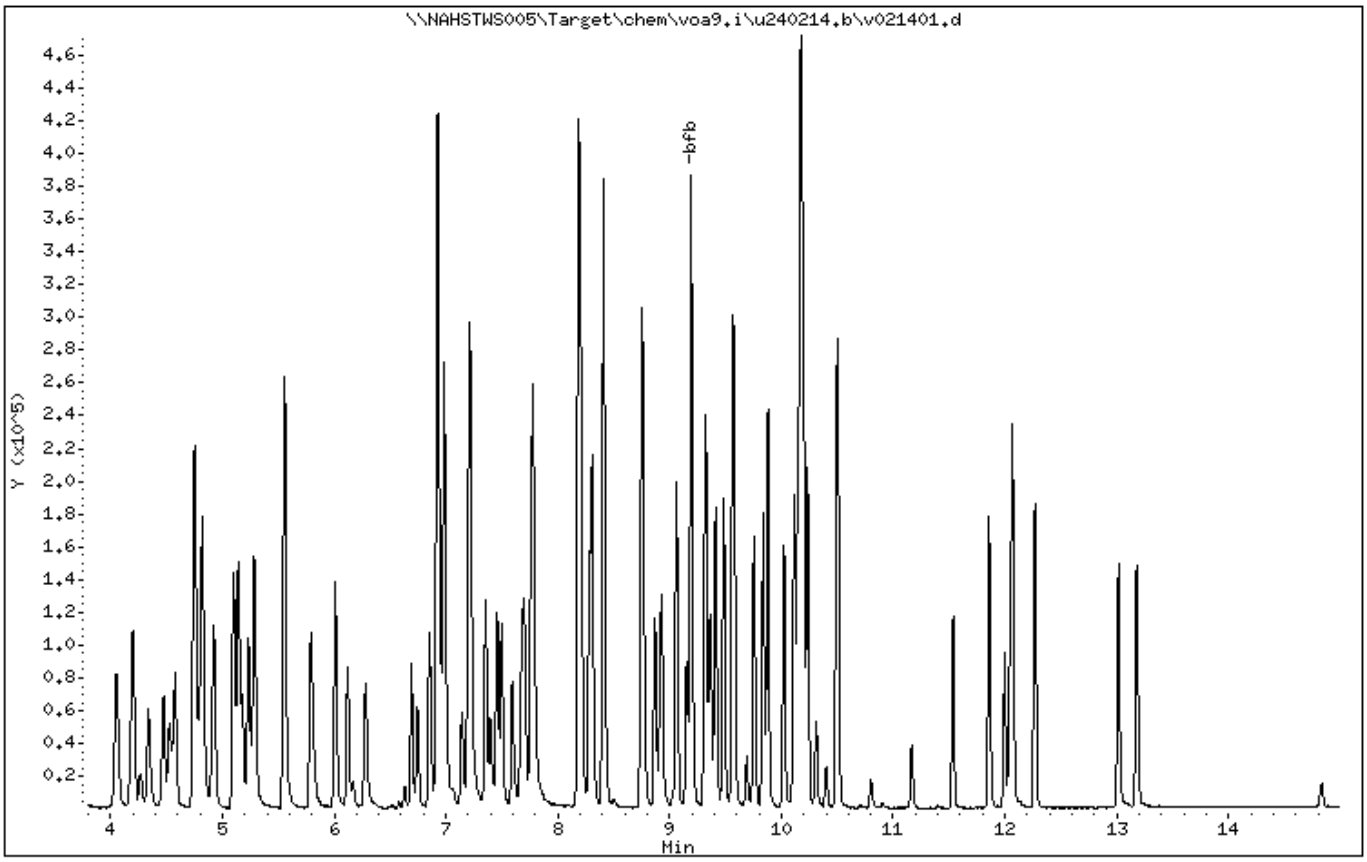
Date : 14-FEB-2024 19:21

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa9.i\u240214.b\v021401.d
Inj Date : 14-FEB-2024 19:21
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021402.D Page 1
Report Date: 22-Feb-2024 16:21

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021402.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-FEB-2024 20:50
Operator : FT Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.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

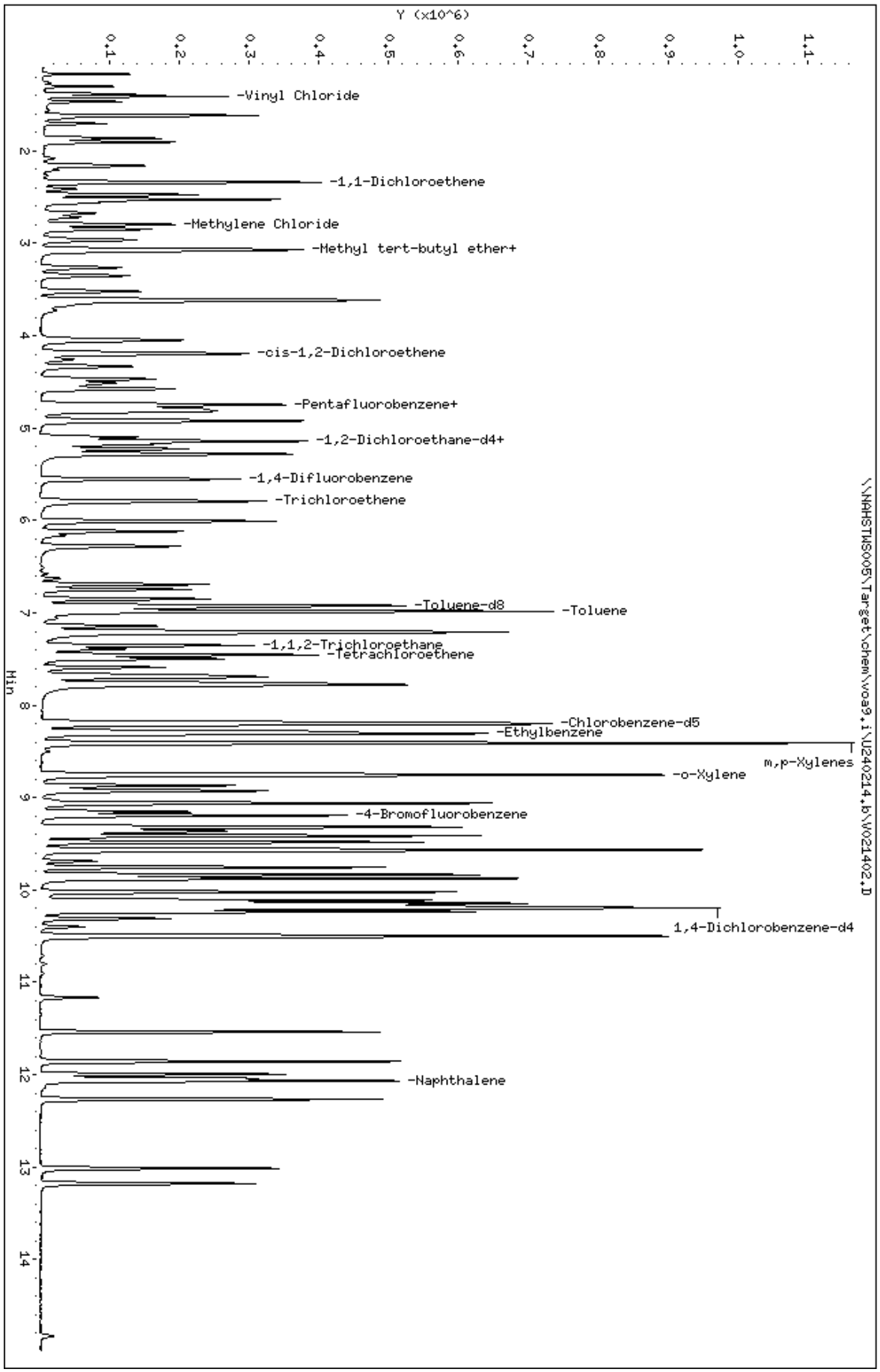
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	185244	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	93135	50.0000	48.69
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	91892	50.0000	47.96
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	255430	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	244108	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	337732	50.0000	50.76
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	127130	50.0000	51.74
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	144982	50.0000	
5 Vinyl Chloride	62	1.381	1.381	(0.287)	81873	50.0000	51.02
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	76904	50.0000	51.02
17 Methylene Chloride	84	2.795	2.795	(0.580)	89753	50.0000	53.16
18 Methyl tert-butyl ether	73	3.079	3.079	(0.639)	212172	50.0000	51.31
20 trans-1,2-Dichloroethene	96	3.064	3.064	(0.636)	91328	50.0000	53.07
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	105433	50.0000	51.65
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	112749	50.0000	54.33
37 Benzene	78	5.141	5.141	(0.926)	348246	50.0000	55.56
38 Trichloroethene	130	5.790	5.790	(1.043)	115663	50.0000	57.47
56 Tetrachloroethene	164	7.458	7.458	(0.911)	96601	50.0000	55.97
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	72612	50.0000	57.47
50 Toluene	91	6.982	6.982	(0.853)	399005	50.0000	52.82

61 Ethylbenzene	106	8.305	8.305 (1.015)	141450	50.0000	55.08
62 m,p-Xylenes	106	8.406	8.406 (1.027)	358430	100.000	113.58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	63 o-Xylene	106	8.747	8.747	(1.069)	174649	50.0000	56.51	
	92 Naphthalene	128	12.065	12.065	(1.187)	391527	50.0000	59.02	
M	95 Xylenes (total)	106				533079	150.000		(a)

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U240214.b\V021402.D
Date : 14-FEB-2024 20:50
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021402.D
Inj Date : 14-FEB-2024 20:50
InstruID : VOA9.i
LabSampID : CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021403.D Page 1
Report Date: 22-Feb-2024 16:21

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021403.D
Lab Smp Id: VLCSW-240214 Client Smp ID: VLCSW-240214
Inj Date : 14-FEB-2024 21:12
Operator : FT Inst ID: VOA9.i
Smp Info : VLCSW-240214;VLCSW-240214;3;;LCS
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 32 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

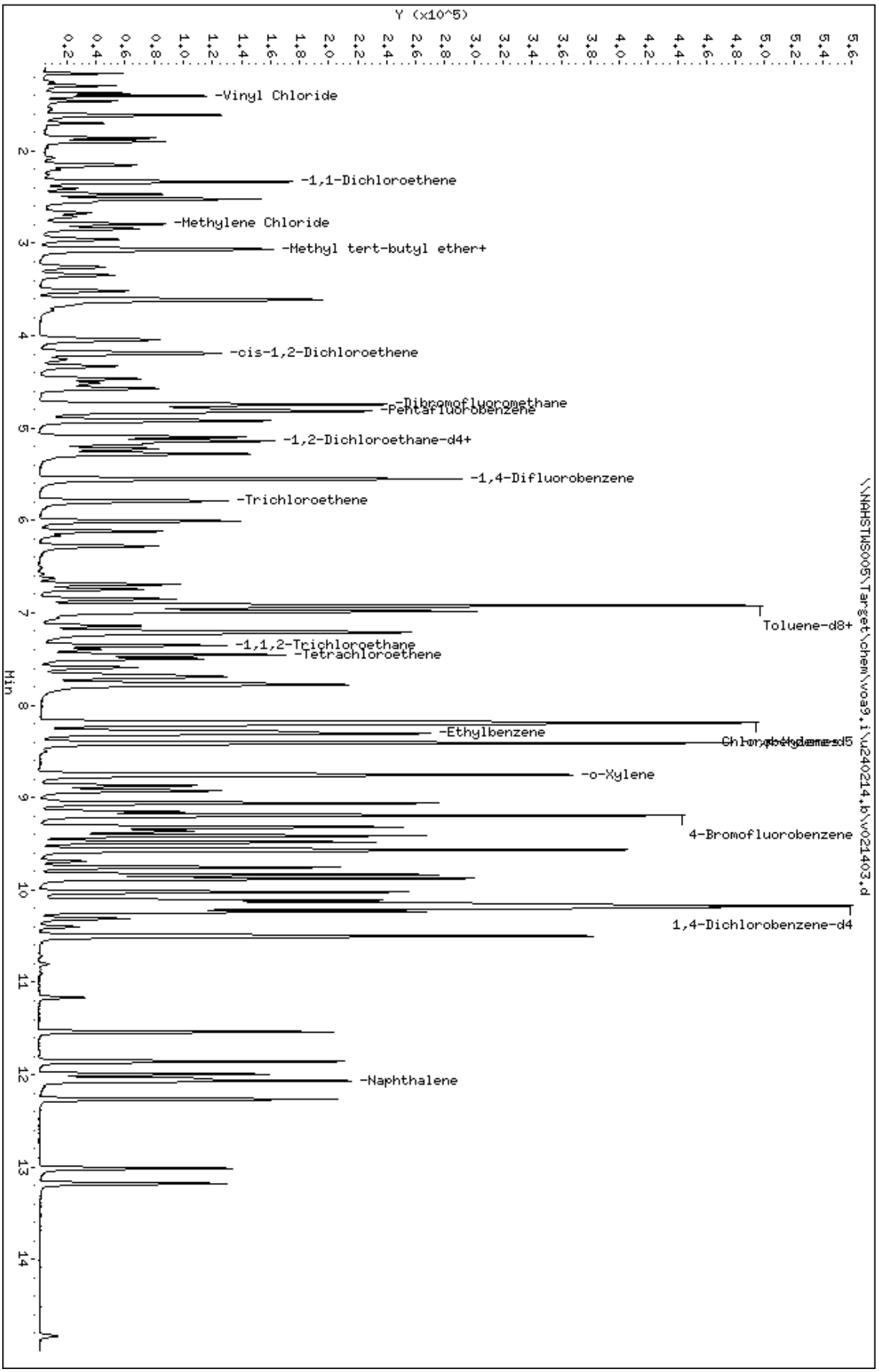
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.819	(1.000)	202744	50.0000	
$ 30 Dibromofluoromethane	113	4.744	4.748	(0.985)	96755	46.2010	46.20
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	94596	45.0673	45.06
* 36 1,4-Difluorobenzene	114	5.550	5.554	(1.000)	276289	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	263283	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	354184	49.3621	49.36
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	129350	48.7948	48.79
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	155052	50.0000	
5 Vinyl Chloride	62	1.374	1.381	(0.285)	36587	20.8702	20.87
11 1,1-Dichloroethene	96	2.334	2.337	(0.485)	34060	20.7365	20.73
17 Methylene Chloride	84	2.791	2.795	(0.580)	39556	20.5799	20.57
18 Methyl tert-butyl ether	73	3.076	3.079	(0.639)	87518	19.4057	19.40
20 trans-1,2-Dichloroethene	96	3.061	3.064	(0.636)	41190	21.8908	21.89
27 cis-1,2-Dichloroethene	96	4.197	4.200	(0.872)	44082	19.7326	19.73
33 1,2-Dichloroethane	62	5.171	5.175	(0.932)	50820	22.2312	22.23
37 Benzene	78	5.138	5.141	(0.926)	154241	22.8278	22.82
38 Trichloroethene	130	5.786	5.790	(1.043)	49220	22.7200	22.72
56 Tetrachloroethene	164	7.458	7.458	(0.911)	43312	23.2711	23.27
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	31117	22.7090	22.70
50 Toluene	91	6.982	6.982	(0.853)	174353	21.4024	21.40

61 Ethylbenzene	106	8.305	8.305 (1.015)	61073	22.0500	22.05
62 m,p-Xylenes	106	8.407	8.406 (1.027)	154876	45.5033	45.50

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021403.D Page 2
Report Date: 22-Feb-2024 16:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	63 o-Xylene	106	8.748	8.747	(1.069)	75787	22.7382	22.73
	92 Naphthalene	128	12.065	12.065	(1.187)	166563	24.2281	24.22
M	95 Xylenes (total)	106				230663	70.1065	70.10



Data File: \\NAHSTMS005\Target\chem\voa9.i\u240214.b\v021403.d
Date : 14-FEB-2024 21:12
Client ID: VLCSW-240214
Sample Info: VLCSW-240214;VLCSW-240214;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240214.b\v021403.d
Inj Date : 14-FEB-2024 21:12
InstruID : VOA9.i
LabSampID : VLCSW-240214

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021404.D Page 1
Report Date: 22-Feb-2024 16:21

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021404.D
Lab Smp Id: VLCSDW-240214 Client Smp ID: VLCSDW-240214
Inj Date : 14-FEB-2024 21:34
Operator : FT Inst ID: VOA9.i
Smp Info : VLCSDW-240214;VLCSDW-240214;3;;LCSD
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 32 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

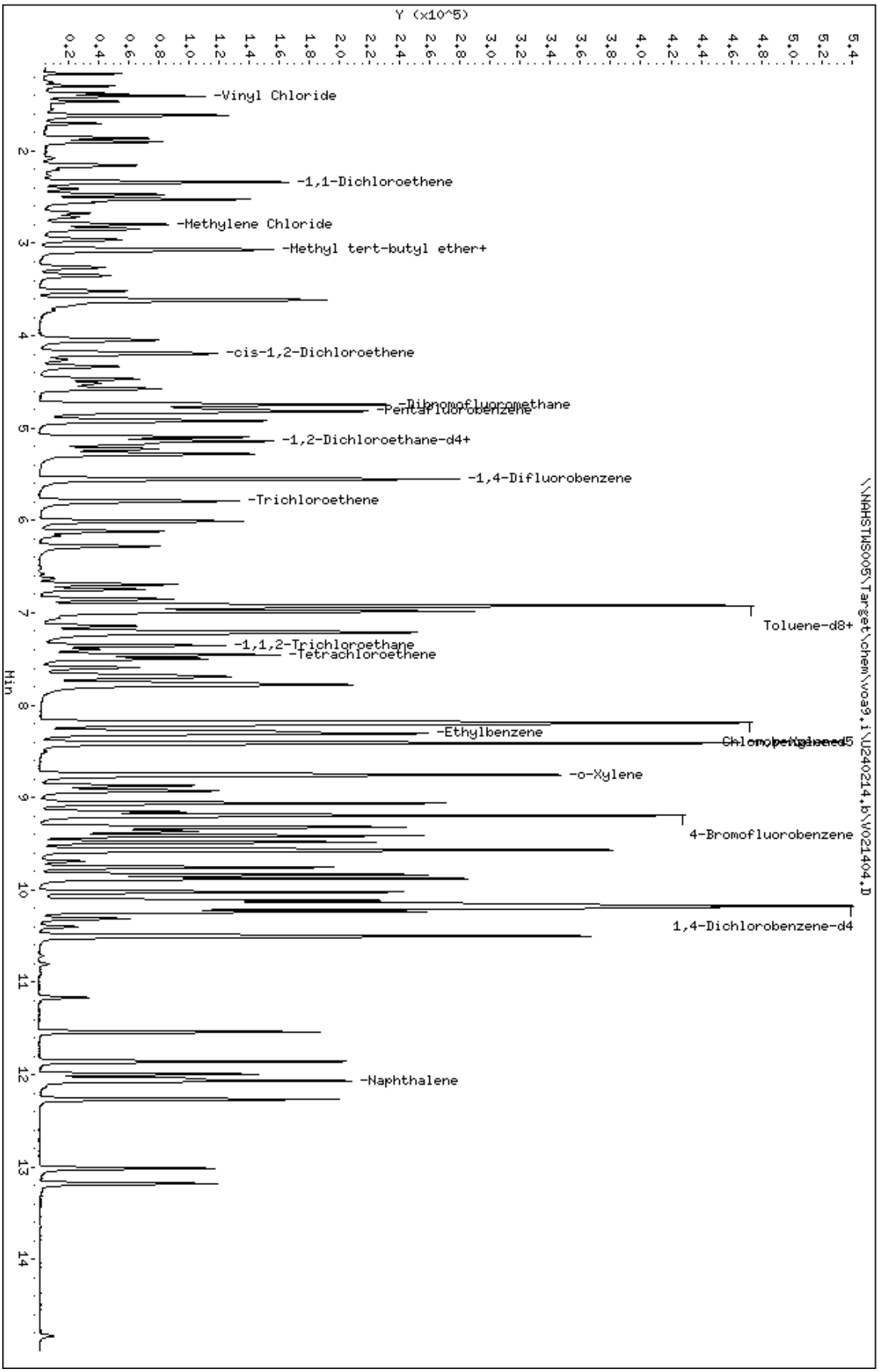
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	191632	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	93180	47.0823	47.08
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	92270	46.5323	46.53
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	265001	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	249804	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	338531	49.7268	49.72
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	126377	50.2542	50.25
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	147865	50.0000	
5 Vinyl Chloride	62	1.378	1.381	(0.286)	33779	20.3872	20.38
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	31574	20.3405	20.34
17 Methylene Chloride	84	2.795	2.795	(0.580)	38884	21.4587	21.45
18 Methyl tert-butyl ether	73	3.080	3.079	(0.639)	86393	20.2623	20.26
20 trans-1,2-Dichloroethene	96	3.061	3.064	(0.635)	37822	21.2674	21.26
27 cis-1,2-Dichloroethene	96	4.197	4.200	(0.871)	42134	19.9542	19.95
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	47025	21.4226	21.42
37 Benzene	78	5.141	5.141	(0.926)	145616	22.4713	22.47
38 Trichloroethene	130	5.790	5.790	(1.043)	48843	23.5002	23.50
56 Tetrachloroethene	164	7.458	7.458	(0.911)	40260	22.7985	22.79
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	29835	22.9505	22.95
50 Toluene	91	6.982	6.982	(0.853)	166564	21.5495	21.54

61 Ethylbenzene	106	8.305	8.305 (1.015)	59307	22.5678	22.56
62 m,p-Xylenes	106	8.410	8.406 (1.027)	148691	46.0433	46.04

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021404.D Page 2
Report Date: 22-Feb-2024 16:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	63 o-Xylene	106	8.748	8.747	(1.069)	72370	22.8846	22.88
	92 Naphthalene	128	12.065	12.065	(1.187)	158933	24.2412	24.24
M	95 Xylenes (total)	106				221061	70.0501	70.05



Data File: \\NAHSTWS005\Target\chem\voa9,i\U240214,b\W021404.D
Date : 14-FEB-2024 21:34
Client ID: VLCSDW-240214
Sample Info: VLCSDW-240214;VLCSDW-240214;3;;LCSD
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021404.D
Inj Date : 14-FEB-2024 21:34
InstruID : VOA9.i
LabSampID : VLCSDW-240214

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021406.D Page 1
Report Date: 22-Feb-2024 16:22

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Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021406.D
Lab Smp Id: VBLKW-240214 Client Smp ID: VBLKW-240214
Inj Date : 14-FEB-2024 22:18
Operator : FT Inst ID: VOA9.i
Smp Info : VBLKW-240214;VBLKW-240214;3;;BLANK
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 34 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

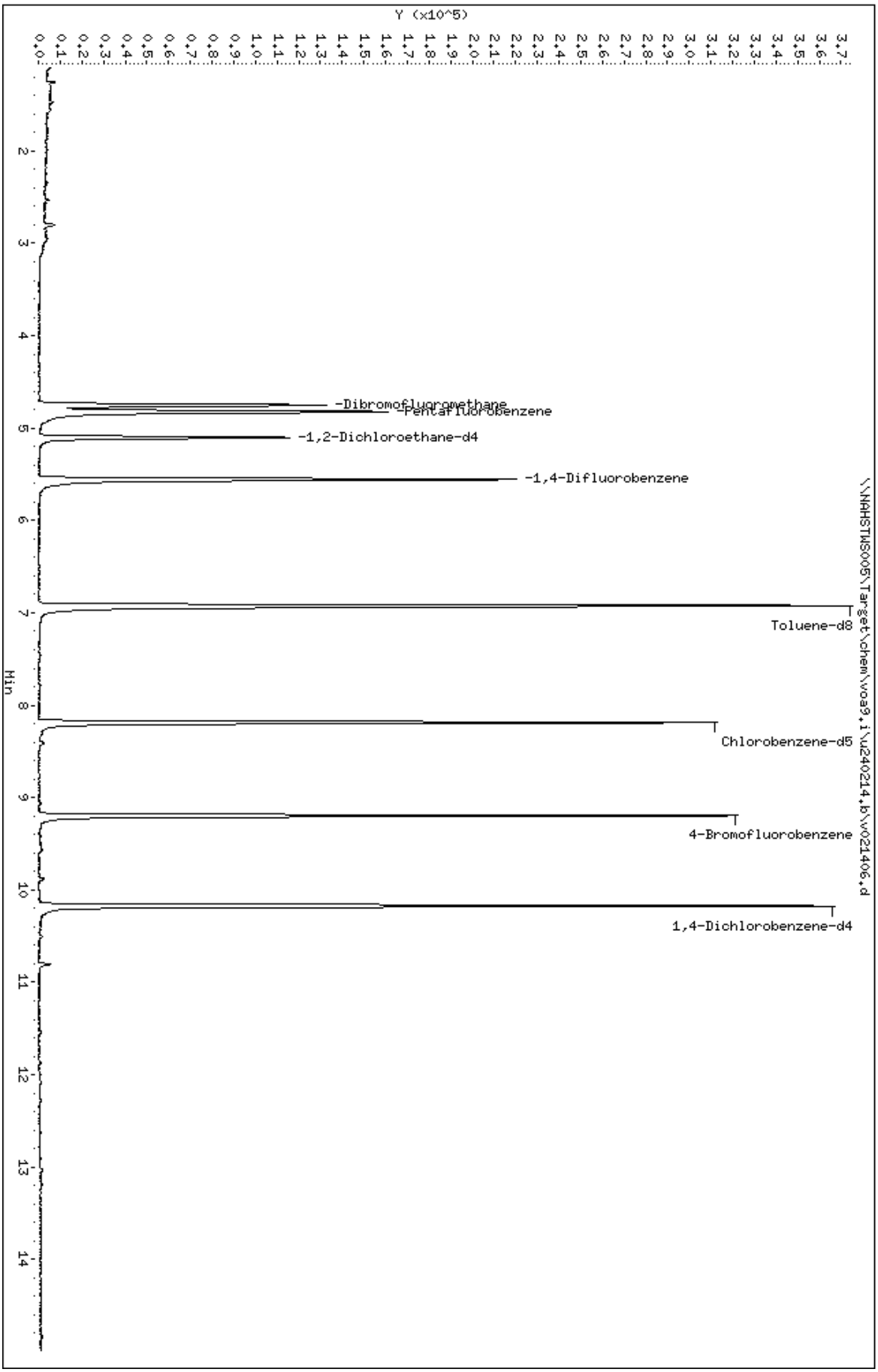
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.823	4.819	(1.000)	158930	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.985)	78196	47.6462	47.64
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	78708	47.8817	47.88
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	221792	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	212110	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	287327	49.7057	49.70
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	101353	47.4497	47.44
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	114119	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9,i\w240214,b\v021406,d
Date : 14-FEB-2024 22:18
Client ID: VBLKW-240214
Sample Info: VBLKW-240214;VBLKW-240214;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18



Data File : \\nahstws005\target\chem\voa9.i\u240214.b\v021406.d
Inj Date : 14-FEB-2024 22:18
InstruID : VOA9.i
LabSampID : VBLKW-240214

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021424.D Page 1
Report Date: 22-Feb-2024 16:22

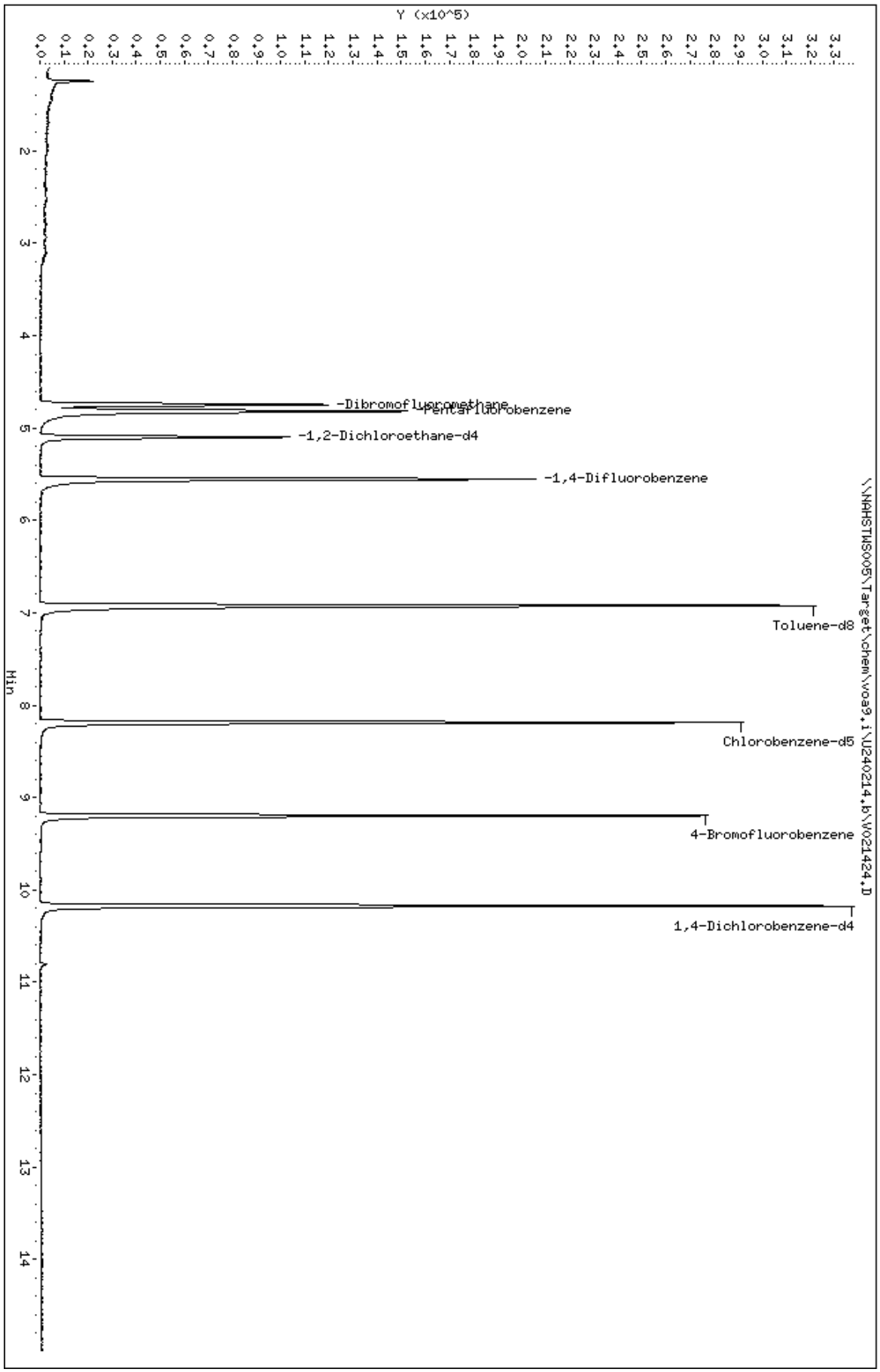
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021424.D
Lab Smp Id: HS24020577-01
Inj Date : 15-FEB-2024 04:56
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020577-01
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 52
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.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	4.815	4.819	(1.000)	150069	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	70811	45.6761	45.67
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	71876	46.2826	46.28
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	207072	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	192202	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	248428	47.4254	47.42
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	85574	44.1926	44.19
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	104031	50.0000	


Data File: \\NAHSTWS005\Target\chem\voa9,i\U240214,b\W021424.D
Date : 15-FEB-2024 04:56
Client ID:
Sample Info: HS24020577-01
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9,i
Operator: FT
Column diameter: 0.18
Page 1
Y (x10^5)
Min
-Dibromofluoromethane
-Pentafluorobenzene
-1,2-Dichloroethane-d4
-1,4-Difluorobenzene
Toluene-d8
Chlorobenzene-d5
4-Bromofluorobenzene
1,4-Dichlorobenzene-d4
\\NAHSTWS005\Target\chem\voa9,i\U240214,b\W021424.D

Data File : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021424.D
Inj Date : 15-FEB-2024 04:56
InstruID : VOA9.i
LabSampID : HS24020577-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021425.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021425.D
Lab Smp Id: HS24020577-02
Inj Date : 15-FEB-2024 05:19
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020577-02
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 53
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

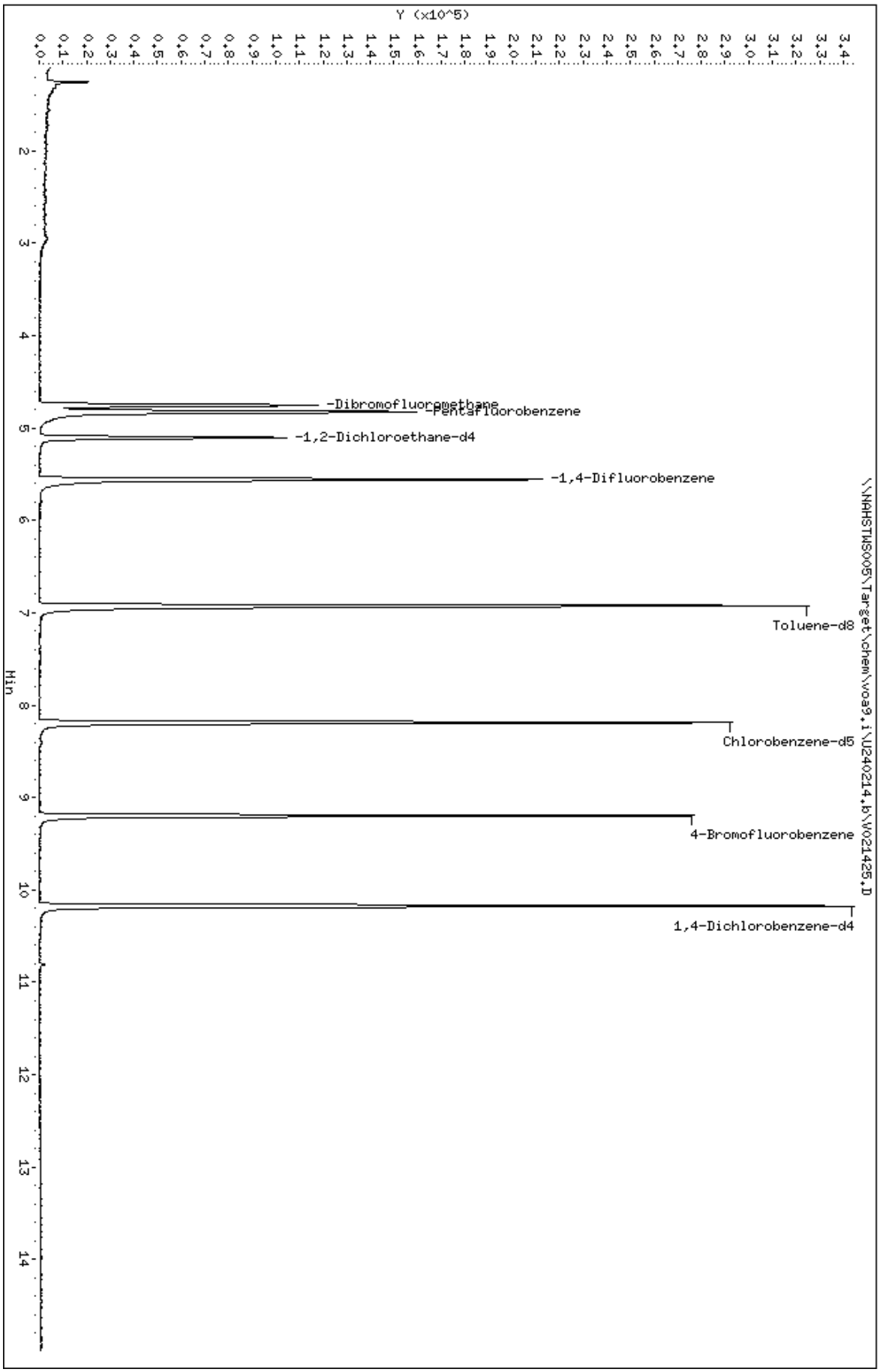
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.823	4.819	(1.000)	153847	50.0000	
$ 30 Dibromofluoromethane	113	4.755	4.748	(0.986)	69768	43.8811	43.88
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	71880	45.1301	45.13
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	212631	50.0000	
* 47 Chlorobenzene-d5	117	8.189	8.185	(1.000)	194235	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	243031	45.9077	45.90
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	85158	43.5130	43.51
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	108022	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\W021425.D
Date : 15-FEB-2024 05:19
Client ID:
Sample Info: HS24020577-02
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18



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Inj Date : 15-FEB-2024 05:19
InstruID : VOA9.i
LabSampID : HS24020577-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021426.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021426.D
Lab Smp Id: HS24020577-04
Inj Date : 15-FEB-2024 05:41
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020577-04
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:21 VOA9.i   Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42   Cal File: U020911.D
Als bottle: 54
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 000bhatedod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

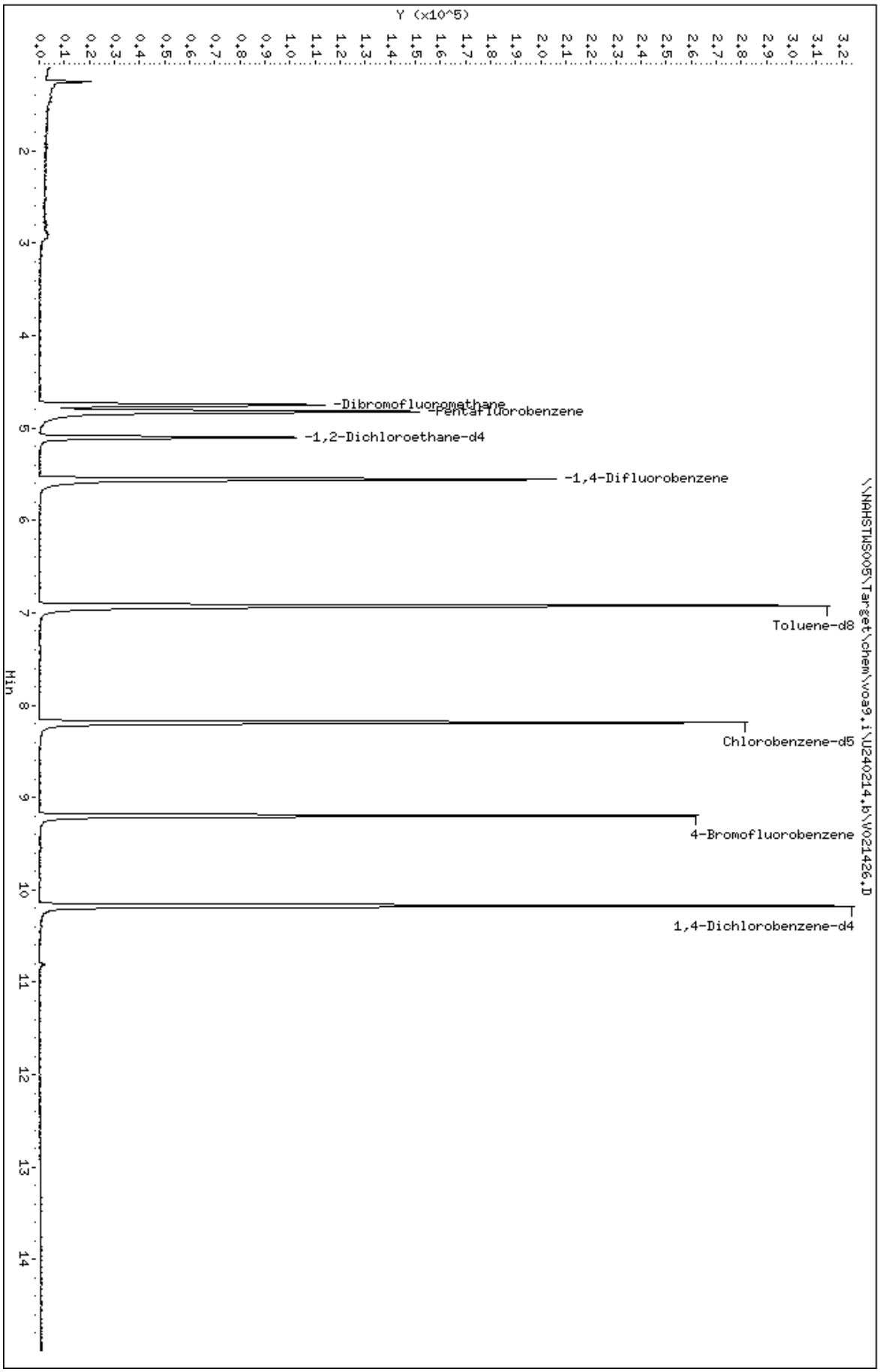
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	145306	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.748	(0.986)	68527	45.6515	45.65
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	69592	46.2807	46.28
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	204235	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	189083	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	240107	46.5920	46.59
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	82556	43.3317	43.33
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	103604	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021426.D
Date : 15-FEB-2024 05:41
Client ID:
Sample Info: HS24020577-04
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18



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Inj Date : 15-FEB-2024 05:41
InstruID : VOA9.i
LabSampID : HS24020577-04

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021427.D Page 1
Report Date: 22-Feb-2024 16:22

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\V021427.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 15-FEB-2024 06:03
Operator : FT Inst ID: VOA9.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U240214.b\8260C.m
Meth Date : 22-Feb-2024 16:22 VOA9.i Quant Type: ISTD
Cal Date : 09-FEB-2024 12:42 Cal File: U020911.D
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 000bhatedod+.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

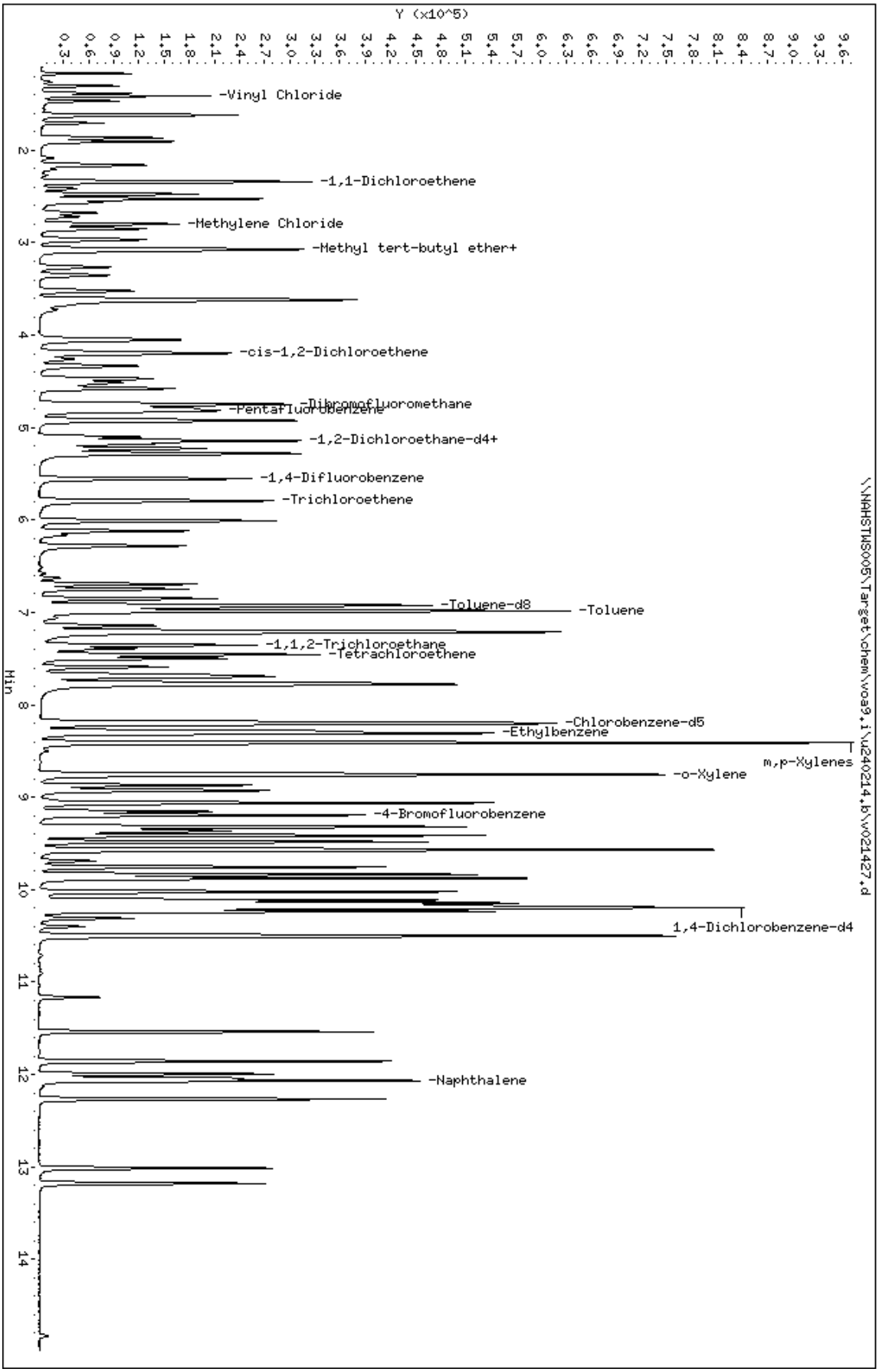
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	160278	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.752	(0.986)	82223	50.0000	49.69
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	80749	50.0000	48.72
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	224482	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	218203	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	293571	50.0000	49.36
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	110471	50.0000	50.29
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	132224	50.0000	
5 Vinyl Chloride	62	1.381	1.381	(0.287)	63843	50.0000	45.98
11 1,1-Dichloroethene	96	2.341	2.341	(0.486)	62953	50.0000	48.27
17 Methylene Chloride	84	2.798	2.798	(0.581)	77853	50.0000	53.29
18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	178447	50.0000	49.88
20 trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	75168	50.0000	50.48
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	85575	50.0000	48.45
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	97550	50.0000	53.47
37 Benzene	78	5.141	5.141	(0.926)	285198	50.0000	51.78
38 Trichloroethene	130	5.790	5.790	(1.043)	97633	50.0000	55.21
56 Tetrachloroethene	164	7.458	7.458	(0.911)	82084	50.0000	53.20
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	61456	50.0000	54.40
50 Toluene	91	6.982	6.982	(0.853)	337686	50.0000	50.01

61 Ethylbenzene	106	8.305	8.305 (1.015)	117179	50.0000	51.04
62 m,p-Xylenes	106	8.410	8.410 (1.027)	299769	100.000	106.26

		QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	
	63 o-Xylene	106	8.748	8.748	(1.069)	144573	50.0000	52.33	
	92 Naphthalene	128	12.065	12.065	(1.187)	337638	50.0000	55.87	
M	95 Xylenes (total)	106				444342	150.000		(a)

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9.i\u240214.b\v021427.d
Date : 15-FEB-2024 06:03
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u240214.b\v021427.d
Inj Date : 15-FEB-2024 06:03
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

right solutions.
right partner.

RawData

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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\V240215.b\U021501.D Page 1
Report Date: 15-Feb-2024 16:23

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\V240215.b\U021501.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 15-FEB-2024 16:03
Operator : FT Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\V240215.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: NAHSTW7066

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	
0.000	9.180	(0.000)	95	15156			0.00- 100.00	100.00
0.000	9.180	(0.000)	50	3105			15.00- 40.00	20.49
0.000	9.180	(0.000)	75	7379			30.00- 60.00	48.69
0.000	9.180	(0.000)	96	1243			5.00- 9.00	8.20
0.000	9.180	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
0.000	9.180	(0.000)	174	14235			50.00- 0.00	93.92
0.000	9.180	(0.000)	175	1112			5.00- 9.00	7.81
0.000	9.180	(0.000)	176	13638			95.00- 101.00	95.81
0.000	9.180	(0.000)	177	817			5.00- 9.00	5.99

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.49
75	30.00 - 60.00% of mass 95	48.69
96	5.00 - 9.00% of mass 95	8.20
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	93.92
175	5.00 - 9.00% of mass 174	7.34 (7.81)
176	95.00 - 101.00% of mass 174	89.98 (95.81)
177	5.00 - 9.00% of mass 176	5.39 (5.99)

Data File: U021501.D
Spectrum: HP ChemStation MS U021501.D, Scan 2299: 9.209 min.
Location of Maximum: 95.05
Number of points: 123

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.40	132	63.80	171	95.00	15156	139.70	58
36.00	346	65.10	142	96.00	1243	140.80	122
37.00	910	66.20	139	96.80	98	142.10	54
38.00	1007	66.80	213	97.90	118	142.80	312
39.00	742	68.00	1763	100.00	78	145.10	65
40.00	409	69.00	1594	100.90	53	146.30	77
41.20	230	69.90	256	102.90	57	148.70	96
41.90	198	71.40	123	103.90	71	149.70	52
42.40	162	72.20	212	105.10	97	150.20	56
43.00	248	73.00	689	105.90	125	151.90	64
43.90	509	74.00	2523	106.80	72	154.50	56
45.00	293	75.00	7379	110.30	63	154.90	86
45.90	136	76.00	769	110.90	57	156.70	74
46.10	132	76.90	151	113.40	54	158.20	57
47.20	286	77.80	153	115.50	59	158.80	94
48.00	173	78.80	498	116.00	133	161.20	68
49.00	663	79.90	264	116.80	181	162.80	57
50.00	3105	80.90	501	117.80	80	170.10	58
51.00	923	82.00	208	118.90	147	170.60	60
52.00	164	82.80	154	121.10	81	171.90	331
53.20	131	84.00	74	122.40	107	173.90	14235
53.90	86	86.10	154	124.80	61	174.90	1112
54.80	221	86.90	729	125.70	80	175.90	13638
56.00	327	87.90	608	126.80	94	177.00	817
56.90	468	89.20	118	127.80	75	177.90	66
58.10	117	89.90	74	129.00	82	187.30	63
58.90	120	90.80	182	129.90	121	207.30	96
59.90	241	91.20	166	131.10	54	218.10	58
61.00	760	91.90	393	132.00	57	233.40	64
61.90	1010	93.10	673	134.60	89	348.70	59
62.90	675	94.00	1923	138.80	84		

Data File: \\NAHSTWS005\Target\chem\voa9.i\v240215.b\u021501.d Page 1

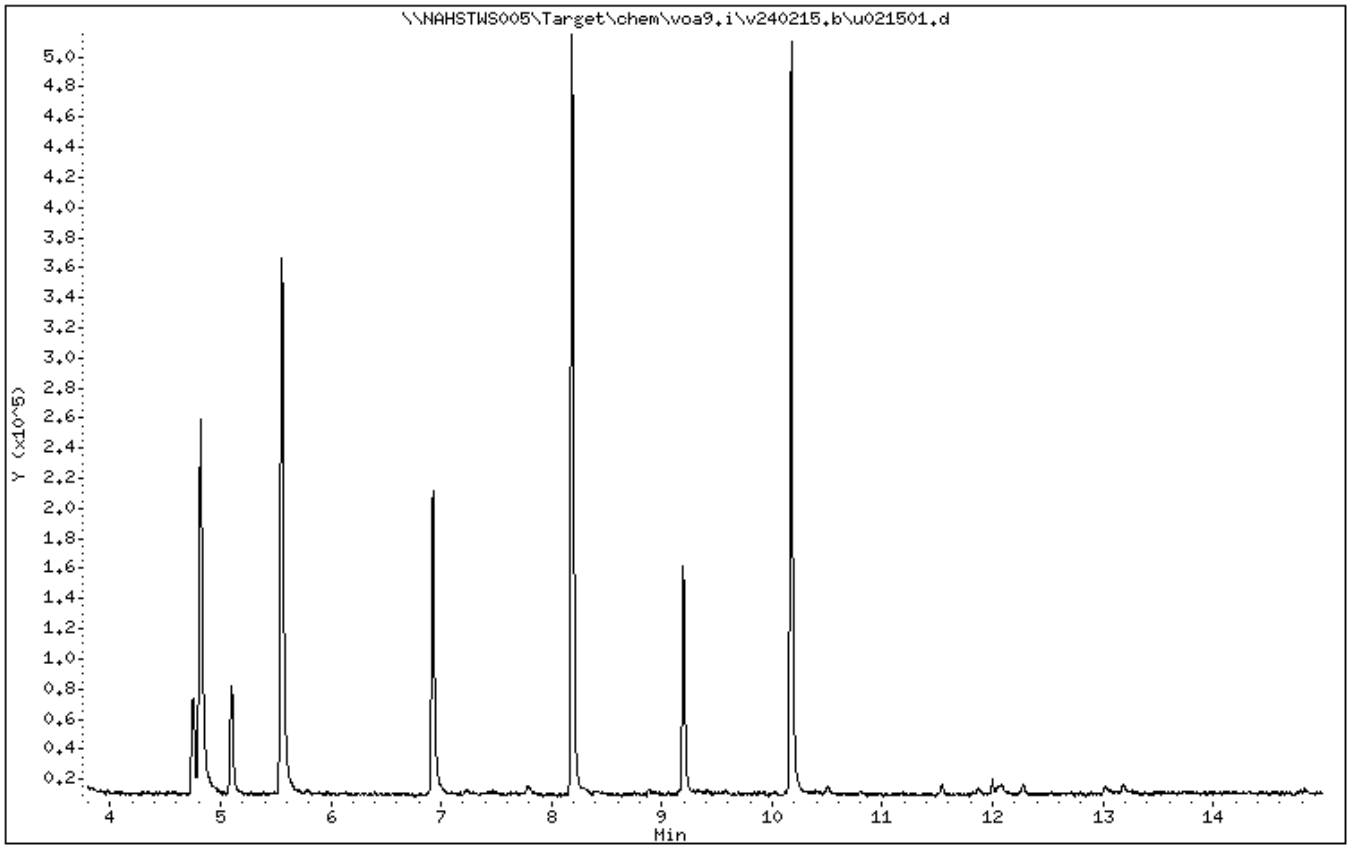
Date : 15-FEB-2024 16:03

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021501.d
Inj Date : 15-FEB-2024 16:03
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D Page 1
Report Date: 22-Feb-2024 16:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D
Lab Smp Id: VSTD00.5 Client Smp ID: VSTD00.5
Inj Date : 15-FEB-2024 16:47
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD00.5;VSTD00.5;1;2;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:14 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 16:25 Cal File: U021502.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

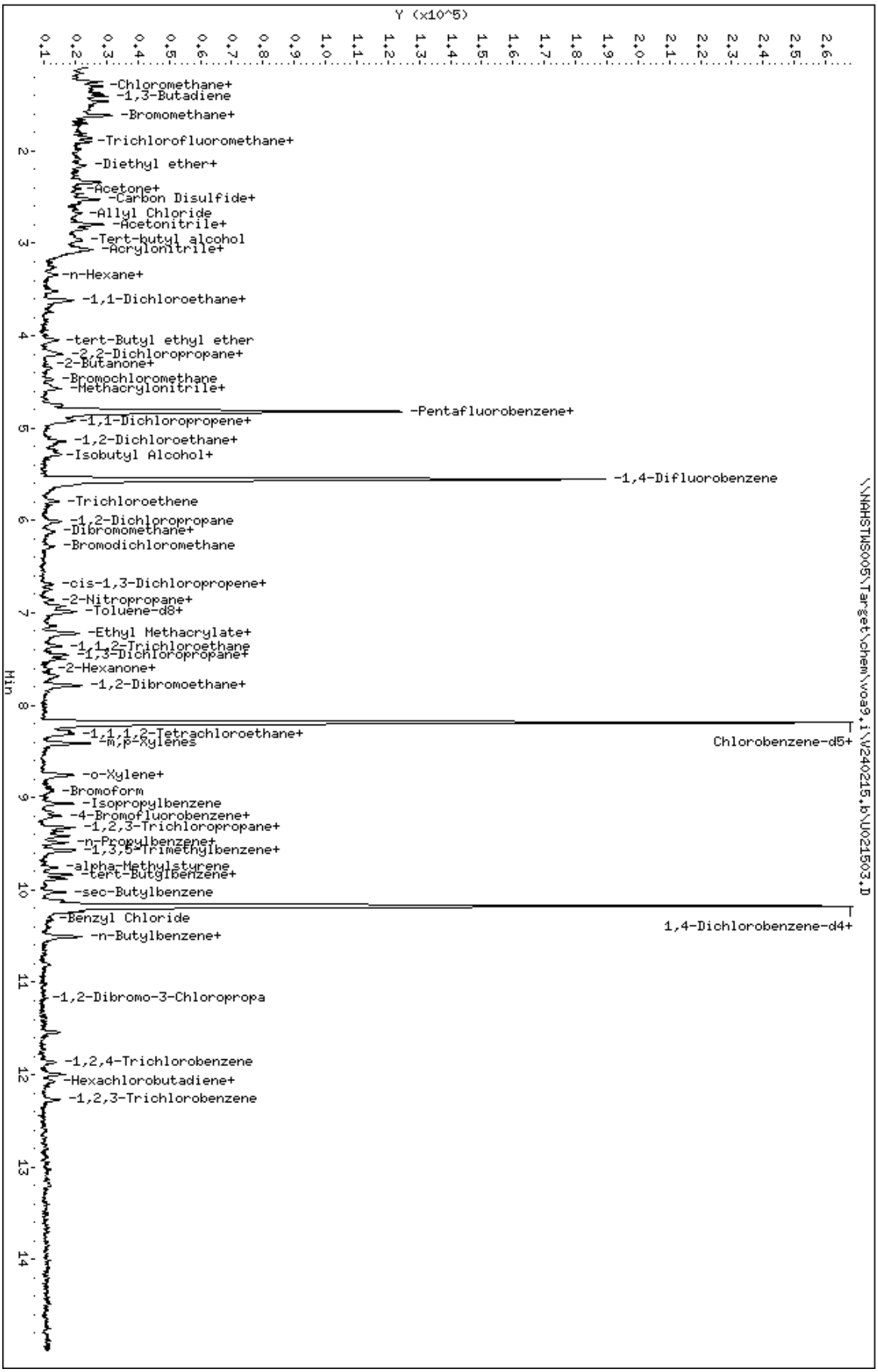
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
*	1 Pentafluorobenzene	168	4.819	4.819	(1.000)	96628	50.0000		
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	1818	0.50000		(a)
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	2121	0.50000		(Ta)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	163437	50.0000		
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	151697	50.0000		
$	48 Toluene-d8	98	6.929	6.929	(0.847)	5625	0.50000		(Ta)
$	69 4-Bromofluorobenzene	95	9.201	9.201	(1.124)	2332	0.50000		(a)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	73198	50.0000		
	5 Vinyl Chloride	62	1.378	1.378	(0.286)	2686	0.50000		
	11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	1843	0.50000		
	17 Methylene Chloride	84	2.795	2.795	(0.580)	4152	0.50000	0.82	
	18 Methyl tert-butyl ether	73	3.080	3.080	(0.639)	4423	0.50000		
	20 trans-1,2-Dichloroethene	96	3.053	3.053	(0.634)	1525	0.50000		
	23 Chloroprene	53	2.161	2.161	(0.449)	536	0.50000		(M)
	27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	2003	0.50000		
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	2663	0.50000		
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	2477	0.50000	1.29	
	37 Benzene	78	5.145	5.145	(0.926)	7043	0.50000		
	38 Trichloroethene	130	5.794	5.794	(1.043)	2136	0.50000	0.06	
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	1578	0.50000		

53 1,1,2-Trichloroethane	83	7.361	7.361 (0.899)	1287	0.50000
50 Toluene	91	6.986	6.986 (0.853)	6331	0.50000

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	61 Ethylbenzene	106	8.309	8.309	(1.015)	2000	0.50000		
	62 m,p-Xylenes	106	8.414	8.414	(1.028)	5072	1.00000		
	63 o-Xylene	106	8.751	8.751	(1.069)	2363	0.50000	0.04	
	92 Naphthalene	128	12.076	12.076	(1.187)	3519	0.50000	0.55	
	45 4-Methyl-2-Pentanone	43	6.862	6.862	(0.838)	2977	1.00000	0.41	
	13 Acetonitrile	39	2.843	2.843	(0.590)	931	5.00000		
	9 Acrolein	56	2.214	2.214	(0.459)	70	1.00000		(M)
	16 Acrylonitrile	53	3.068	3.068	(0.637)	1469	1.00000		
	25 Methacrylonitrile	41	4.549	4.549	(0.944)	845	0.50000		
	64 Styrene	104	8.770	8.770	(1.071)	3596	0.50000	0.14	
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	1847	0.50000		
	28 Chloroform	83	4.572	4.572	(0.949)	3607	0.50000		
	59 Chlorobenzene	112	8.212	8.212	(1.003)	5026	0.50000		
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	2117	0.50000		(M)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	1364	0.50000		
	66 Bromoform	173	8.920	8.920	(1.090)	1108	0.50000	0.70	(M)
M	95 Xylenes (total)	106				7435	1.50000		
M	94 1,2-Dichloroethylene (total)	96				3528	1.00000		

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.



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Date : 15-FEB-2024 16:47
Client ID: VSTD00.5
Sample Info: VSTD00.5;VSTD00.5;1;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021503.D
Inj Date : 15-FEB-2024 16:47
InstruID : VOA9.i
LabSampID : VSTD00.5

Bromodichloromethane (75-27-4)

Reason Code:

BEFORE
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AREA
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HEIGHT
1168
22-Feb-2024
15:48
linh
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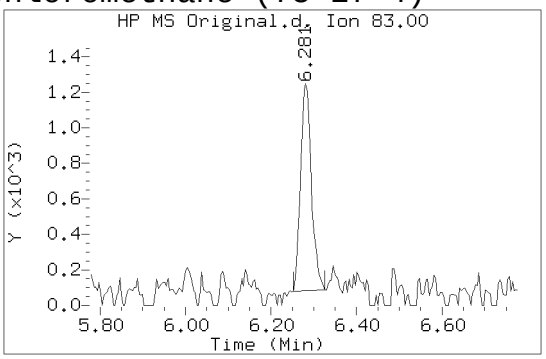

AFTER
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22-Feb-2024
16:14
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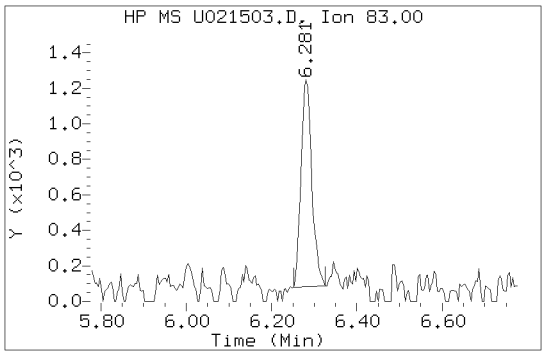
pham



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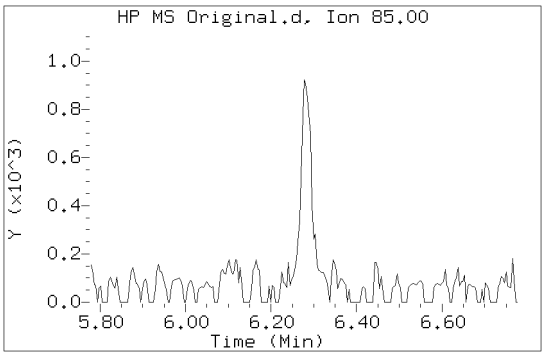

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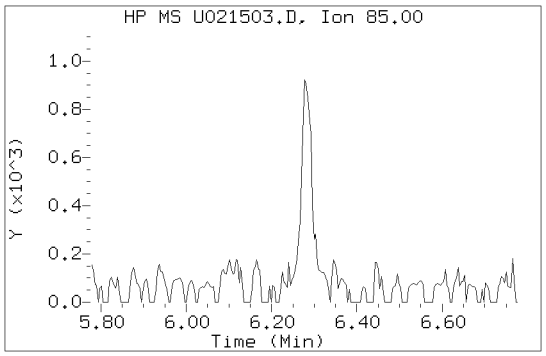

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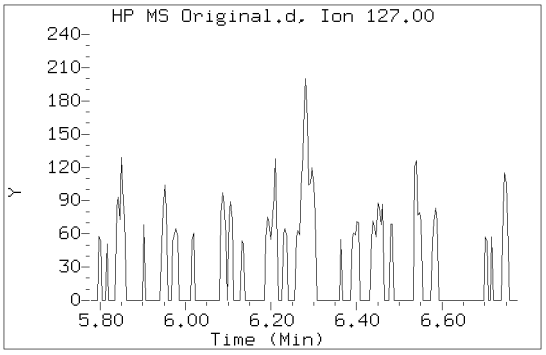

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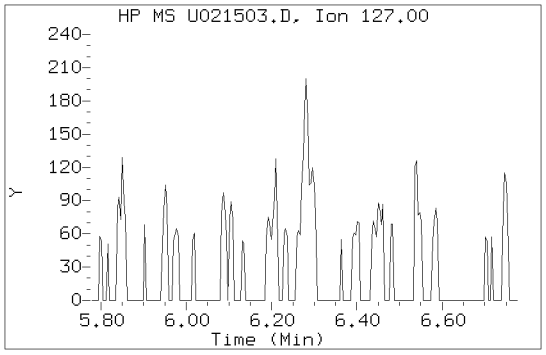

Bromoform (75-25-2)

Reason Code:

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22-Feb-2024
15:48
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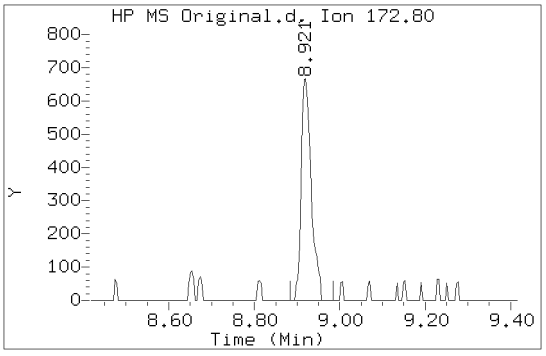
pham



AFTER
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AREA
1108
HEIGHT
667
22-Feb-2024
16:14
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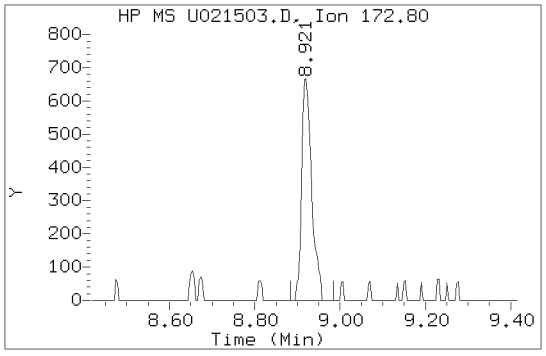
pham



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InstruID : VOA9.i
LabSampID : VSTD00.5

Bromoform (75-25-2)

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15:48
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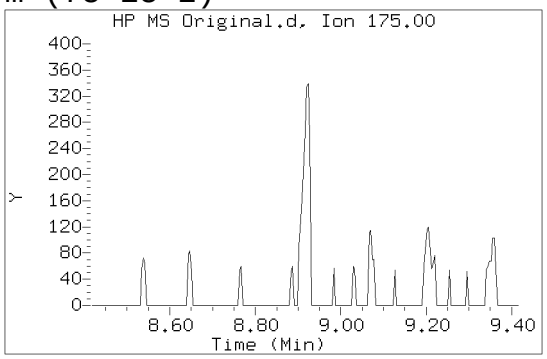

AFTER
MASS
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AREA
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HEIGHT
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22-Feb-2024
16:14
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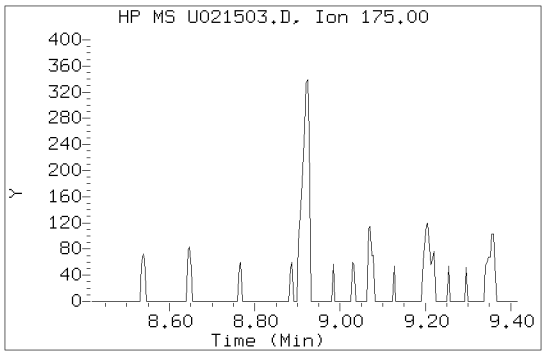

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15:48
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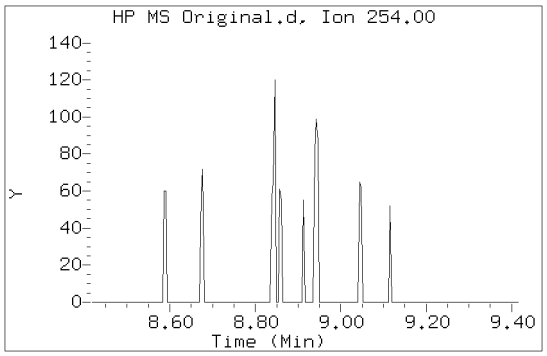

AFTER
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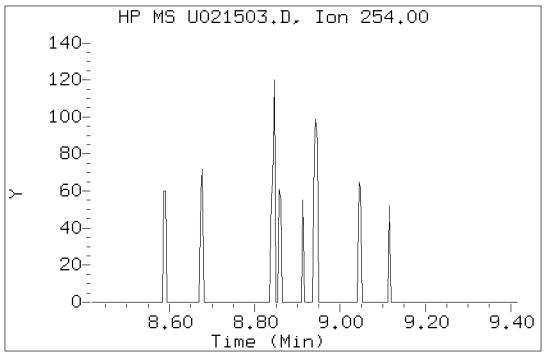

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Reason Code:

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AREA
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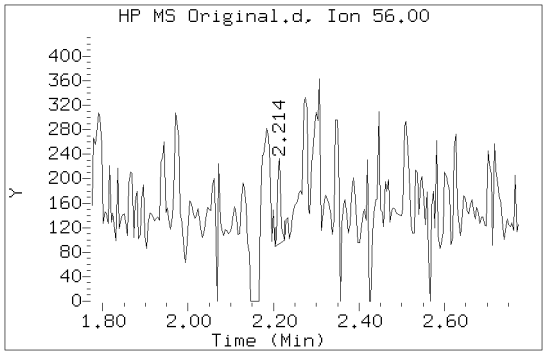

AFTER
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AREA
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22-Feb-2024
16:14
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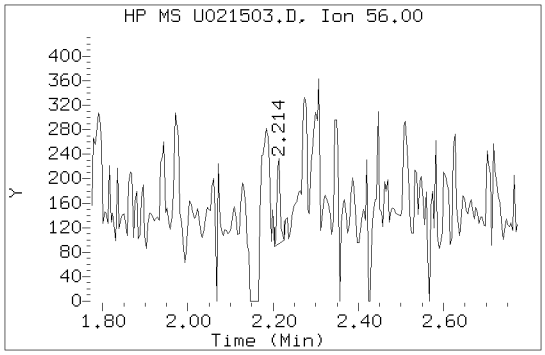

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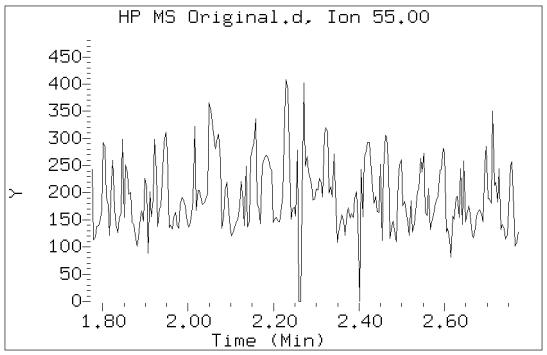

AFTER
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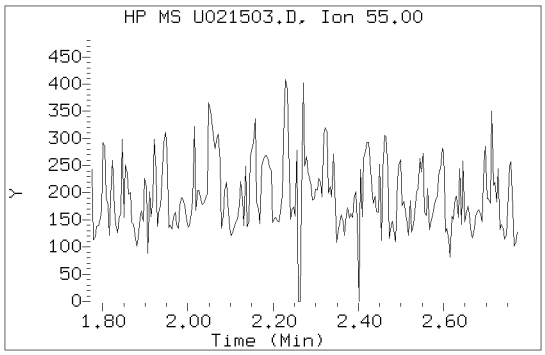

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Inj Date : 15-FEB-2024 16:47
InstruID : VOA9.i
LabSampID : VSTD00.5

Chloroprene (126-99-8)

Reason Code:

BEFORE

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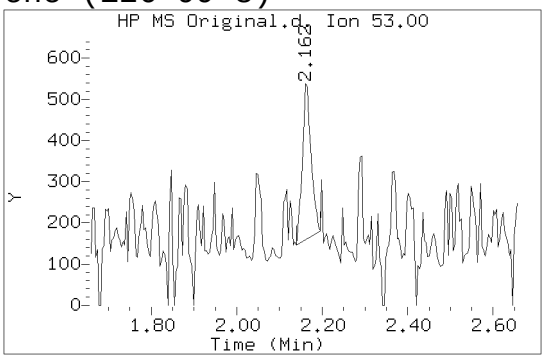
AREA
536
HEIGHT
377
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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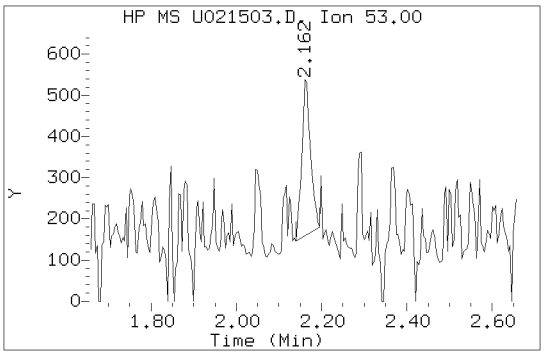

BEFORE

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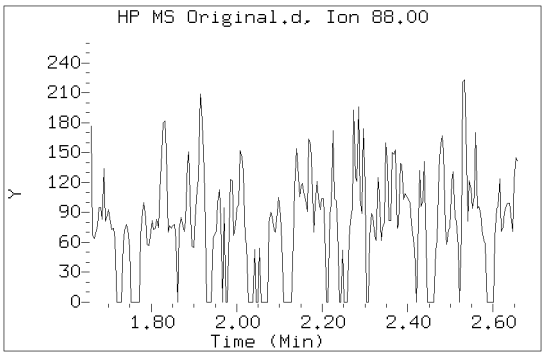

AFTER

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22-Feb-2024
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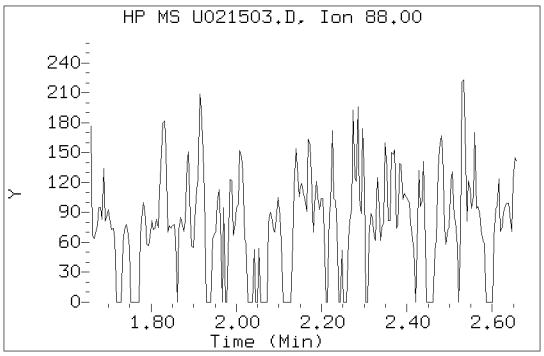


Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021504.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021504.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 15-FEB-2024 17:09
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD001;VSTD001;1;3;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 16:47 Cal File: U021503.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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	4.823	4.823	(1.000)	149433	50.0000	
$ 30 Dibromofluoromethane	113	4.755	4.755	(0.986)	4050	1.00000	0.26(a)
$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	4585	1.00000	0.06(a)
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	248743	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	240606	50.0000	
$ 48 Toluene-d8	98	6.926	6.926	(0.846)	12807	1.00000	0.53(a)
$ 69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	5364	1.00000	0.60(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	117629	50.0000	
5 Vinyl Chloride	62	1.389	1.389	(0.288)	4995	1.00000	0.31
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	3507	1.00000	0.13
17 Methylene Chloride	84	2.806	2.806	(0.582)	7151	1.00000	1.23
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	8958	1.00000	0.42
20 trans-1,2-Dichloroethene	96	3.072	3.072	(0.637)	4050	1.00000	0.56
23 Chloroprene	53	2.169	2.169	(0.450)	843	1.00000	0.00(M)
27 cis-1,2-Dichloroethene	96	4.212	4.212	(0.873)	3678	1.00000	0.11
33 1,2-Dichloroethane	62	5.182	5.182	(0.933)	5952	1.00000	0.26
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	4229	1.00000	1.48
37 Benzene	78	5.145	5.145	(0.926)	14872	1.00000	0.35
38 Trichloroethene	130	5.797	5.797	(1.043)	4231	1.00000	0.66
56 Tetrachloroethene	164	7.458	7.458	(0.911)	3472	1.00000	0.50

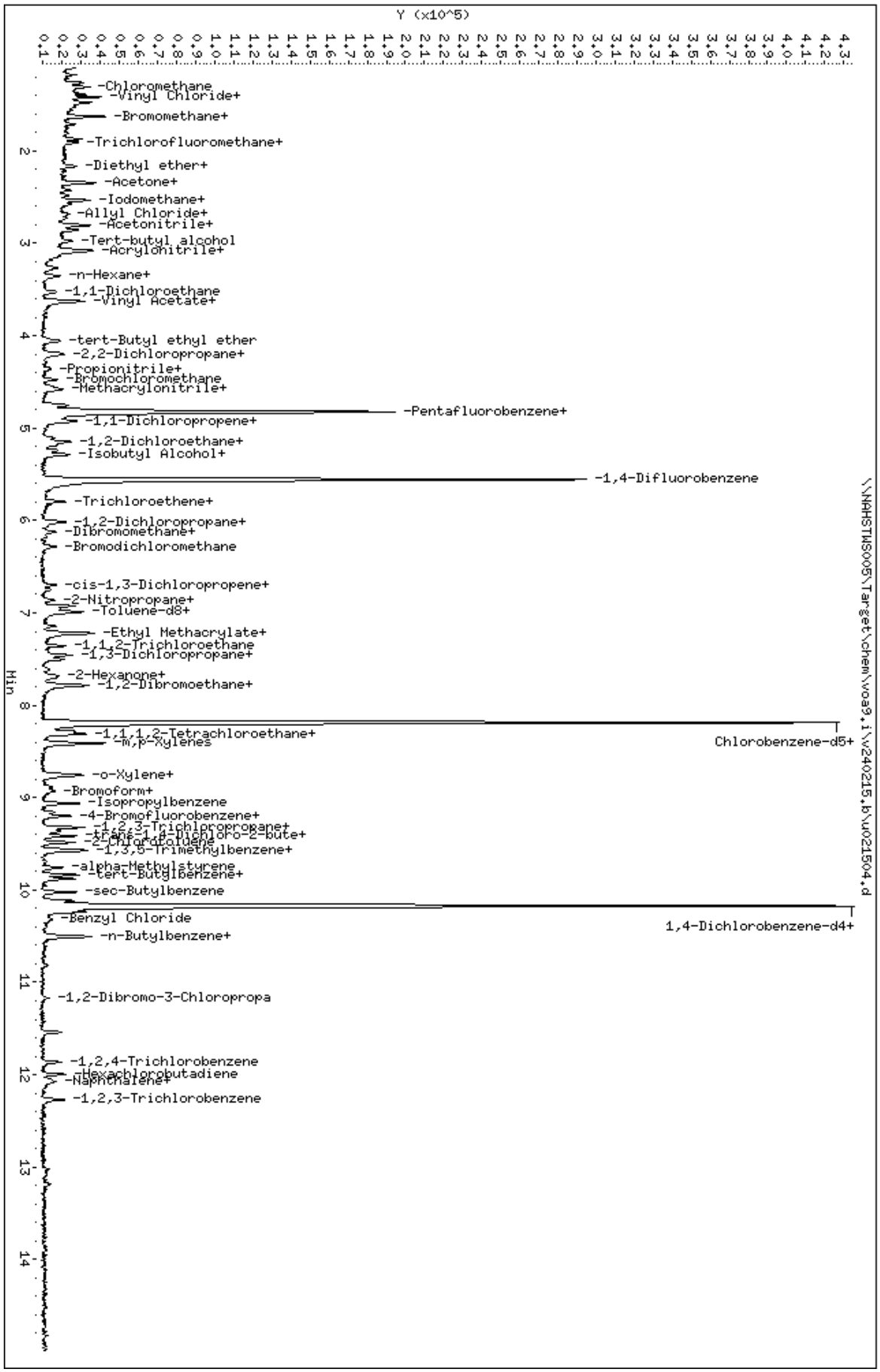
53 1,1,2-Trichloroethane	83	7.357	7.357 (0.899)	3272	1.00000	0.43
50 Toluene	91	6.986	6.986 (0.853)	13786	1.00000	0.33

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021504.D Page 2
Report Date: 22-Feb-2024 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.313	8.313	(1.016)	4753	1.00000	0.43
	62 m,p-Xylenes	106	8.414	8.414	(1.028)	10243	2.00000	0.65
	63 o-Xylene	106	8.747	8.747	(1.069)	5255	1.00000	0.57
	92 Naphthalene	128	12.073	12.073	(1.187)	6831	1.00000	0.76
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	5697	2.00000	0.92
	13 Acetonitrile	39	2.851	2.851	(0.591)	2213	10.0000	8.01
	9 Acrolein	56	2.277	2.277	(0.472)	187	2.00000	(M)
	16 Acrylonitrile	53	3.079	3.079	(0.639)	3409	2.00000	1.26
	25 Methacrylonitrile	41	4.553	4.553	(0.944)	2142	1.00000	1.10
	194 Acetaldehyde	44	1.475	1.475	(0.306)	4370	4.00000	(M)
	64 Styrene	104	8.766	8.766	(1.071)	8645	1.00000	0.71
	140 1,3-Butadiene	54	1.415	1.415	(0.293)	4079	1.00000	0.32
	28 Chloroform	83	4.579	4.579	(0.949)	7268	1.00000	0.17
	59 Chlorobenzene	112	8.211	8.211	(1.003)	10769	1.00000	0.26
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	4384	1.00000	0.52(M)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	3319	1.00000	0.67
	66 Bromoform	173	8.920	8.920	(1.090)	1984	1.00000	0.91(T)
M	95 Xylenes (total)	106				15498	3.00000	
M	94 1,2-Dichloroethylene (total)	96				7728	2.00000	

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.


Y (x10^5)
Min
-Chloromethane
-Vinyl Chloride+
-Bromomethane+
-Trichlorofluoromethane+
-Diethyl ether+
-Acetone+
-Iodomethane+
-Allyl Chloride+
-Acetonitrile+
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2,2-Dichloropropane+
-Propionitrile+
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Dibromomethane+
-Bromodichloromethane
-cis-1,3-Dichloropropene+
-2-Nitropropane+
-Toluene-d8+
-Ethyl Methacrylate+
-1,1,2-Trichloroethane
-1,3-Dichloropropane+
-2-Hexanone+
-1,2-Dibromoethane+
-1,1,1,2-Tetrachloroethane+
-m,p-Xylenes
Chlorobenzene-d5+
-o-Xylene+
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,2,3-Trichloropropane+
-trans-1,4-Dichloro-2-bute+
-2-Chlorotoluene
-1,3,5-Trimethylbenzene+
-alpha-Methylstyrene
-tert-Butylbenzene+
-sec-Butylbenzene
-Benzyl Chloride
1,4-Dichlorobenzene-d4+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene+
-1,2,3-Trichlorobenzene
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Date : 15-FEB-2024 17:09
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;;
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9,i
Operator: FT
Column diameter: 0.18
Page 1

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021504.d
Inj Date : 15-FEB-2024 17:09
InstruID : VOA9.i
LabSampID : VSTD001

Bromodichloromethane (75-27-4)

Reason Code:

BEFORE

MASS
83
AREA
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HEIGHT
2411
22-Feb-2024
15:48
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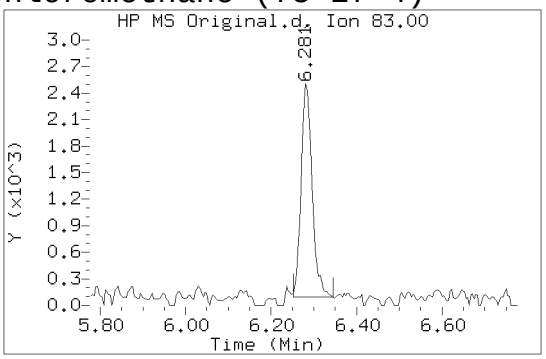

AFTER

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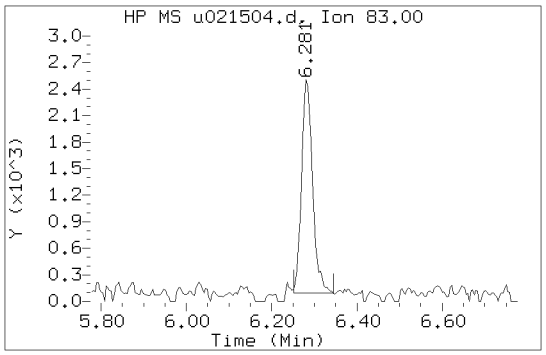

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15:48
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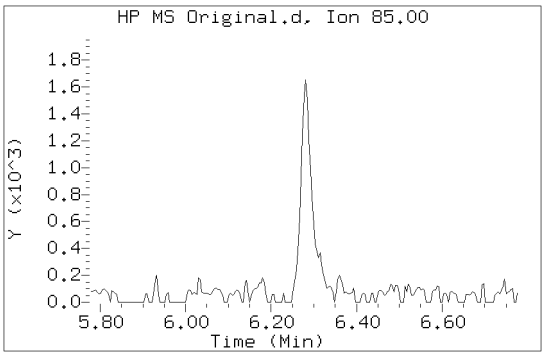

AFTER

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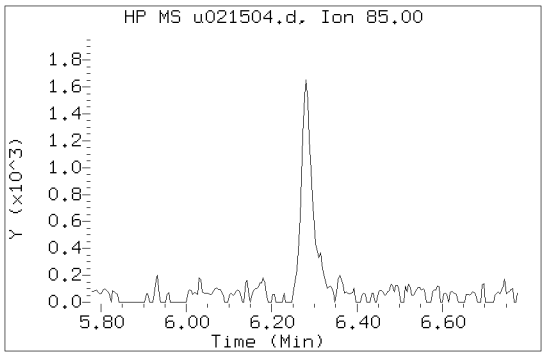

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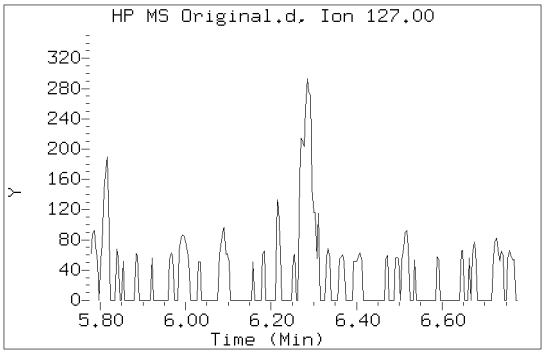

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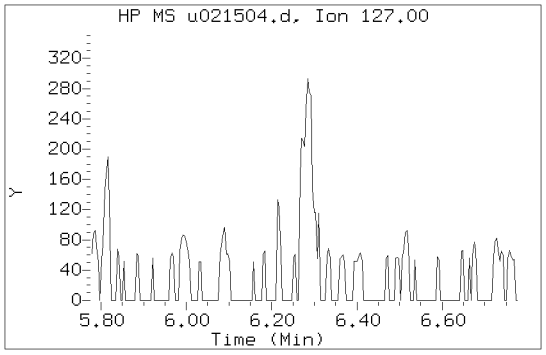

Acrolein (107-02-8)

Reason Code:

BEFORE

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15:48
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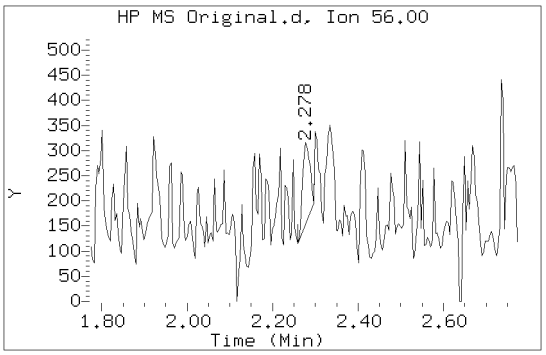

AFTER

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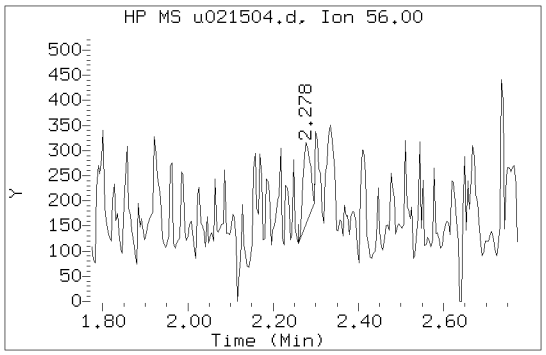

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021504.d
Inj Date : 15-FEB-2024 17:09
InstruID : VOA9.i
LabSampID : VSTD001

Acrolein (107-02-8)

Reason Code:

BEFORE

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AREA
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HEIGHT
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22-Feb-2024
15:48
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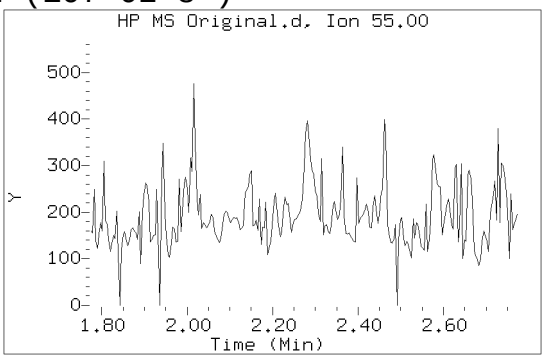

AFTER

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16:14
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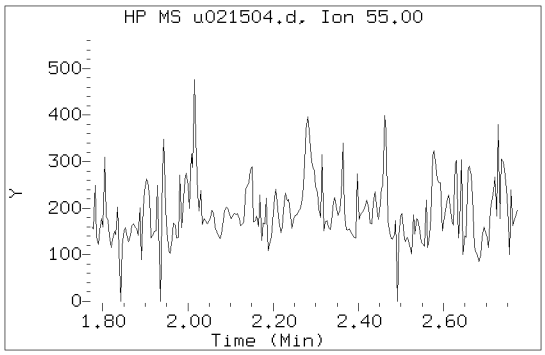

Chloroprene (126-99-8)

Reason Code:

BEFORE

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22-Feb-2024
15:48
linh
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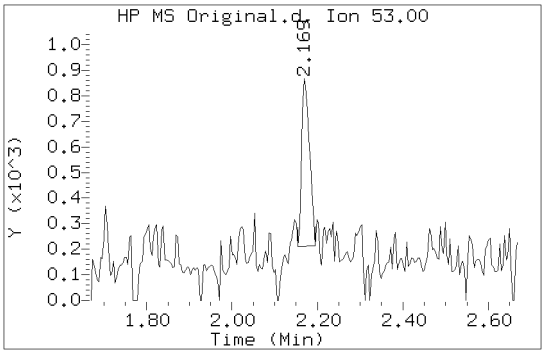

AFTER

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655
22-Feb-2024
16:14
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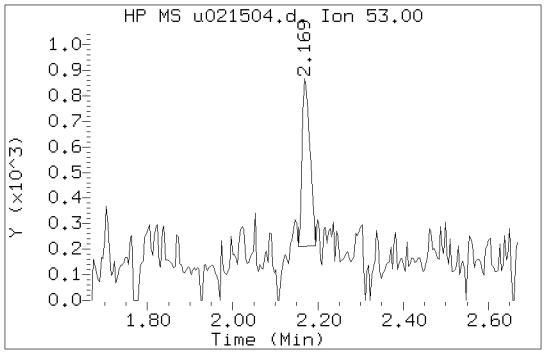

BEFORE

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HEIGHT
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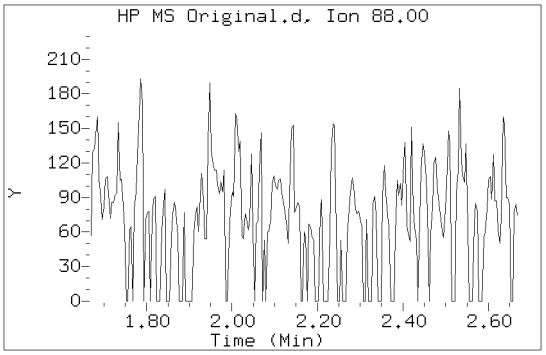
22-Feb-2024
15:48
linh
pham



AFTER

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16:14
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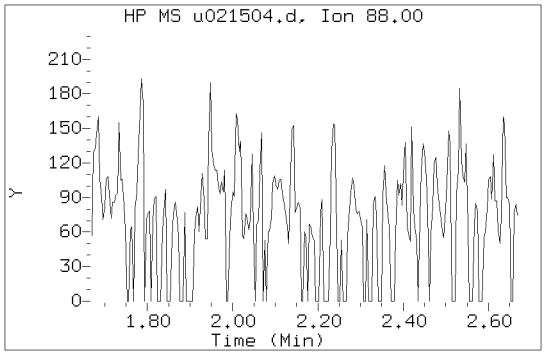
pham



Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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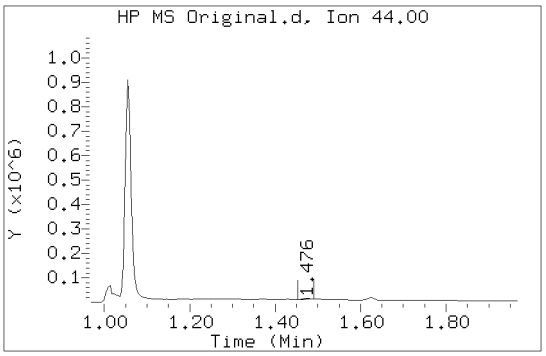

AFTER

MASS
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AREA
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HEIGHT
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16:14
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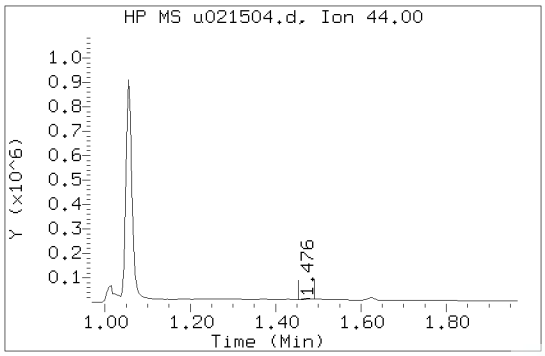
pham



Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021504.d
Inj Date : 15-FEB-2024 17:09
InstruID : VOA9.i
LabSampID : VSTD001

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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43
AREA
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HEIGHT
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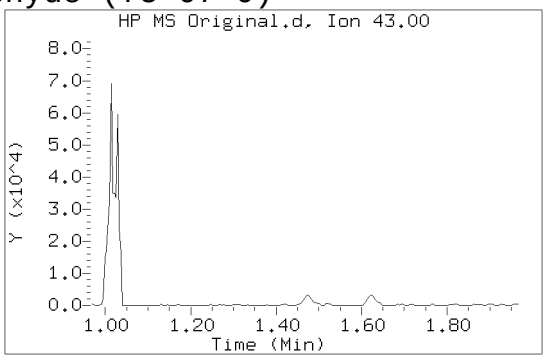
22-Feb-2024
15:48
linh
pham



AFTER

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22-Feb-2024
16:14
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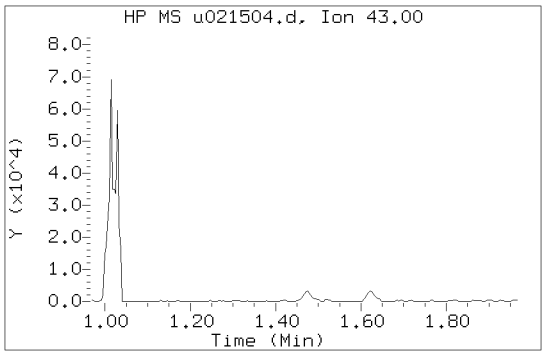

BEFORE

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15:48
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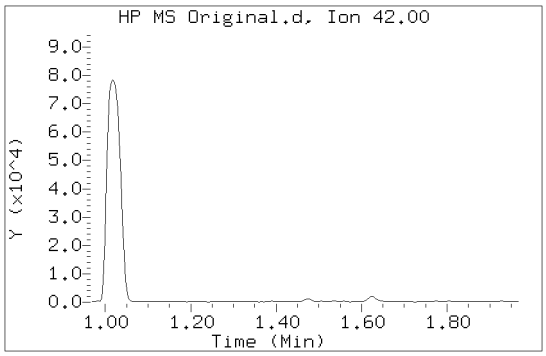

AFTER

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22-Feb-2024
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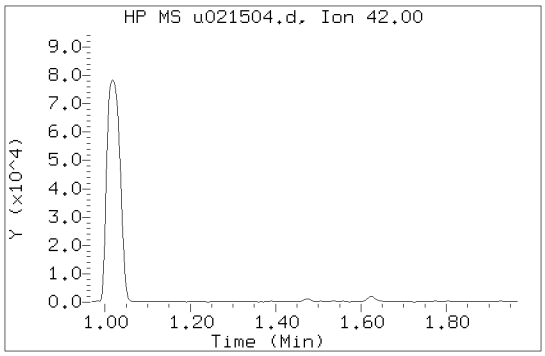


Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 15-FEB-2024 17:32
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD002;VSTD002;1;4;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 17:09 Cal File: U021504.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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)	249727	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.751	(0.986)	6913	2.00000	0.31(a)
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	8676	2.00000	0.37(a)
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	444142	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	420434	50.0000	
$ 48 Toluene-d8	98	6.926	6.926	(0.846)	22021	2.00000	0.50(a)
$ 69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	9030	2.00000	0.52(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	201087	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	9607	2.00000	0.70
11 1,1-Dichloroethene	96	2.345	2.345	(0.487)	6759	2.00000	0.55
17 Methylene Chloride	84	2.802	2.802	(0.582)	10938	2.00000	0.89
18 Methyl tert-butyl ether	73	3.087	3.087	(0.641)	20219	2.00000	1.25
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.637)	7041	2.00000	0.66
23 Chloroprene	53	2.168	2.168	(0.450)	2626	2.00000	1.35(M)
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	8361	2.00000	0.87
33 1,2-Dichloroethane	62	5.182	5.182	(0.933)	12481	2.00000	0.70
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	9087	2.00000	1.84
37 Benzene	78	5.145	5.145	(0.926)	31823	2.00000	0.79
38 Trichloroethene	130	5.793	5.793	(1.042)	7995	2.00000	0.81
56 Tetrachloroethene	164	7.458	7.458	(0.911)	6199	2.00000	0.56

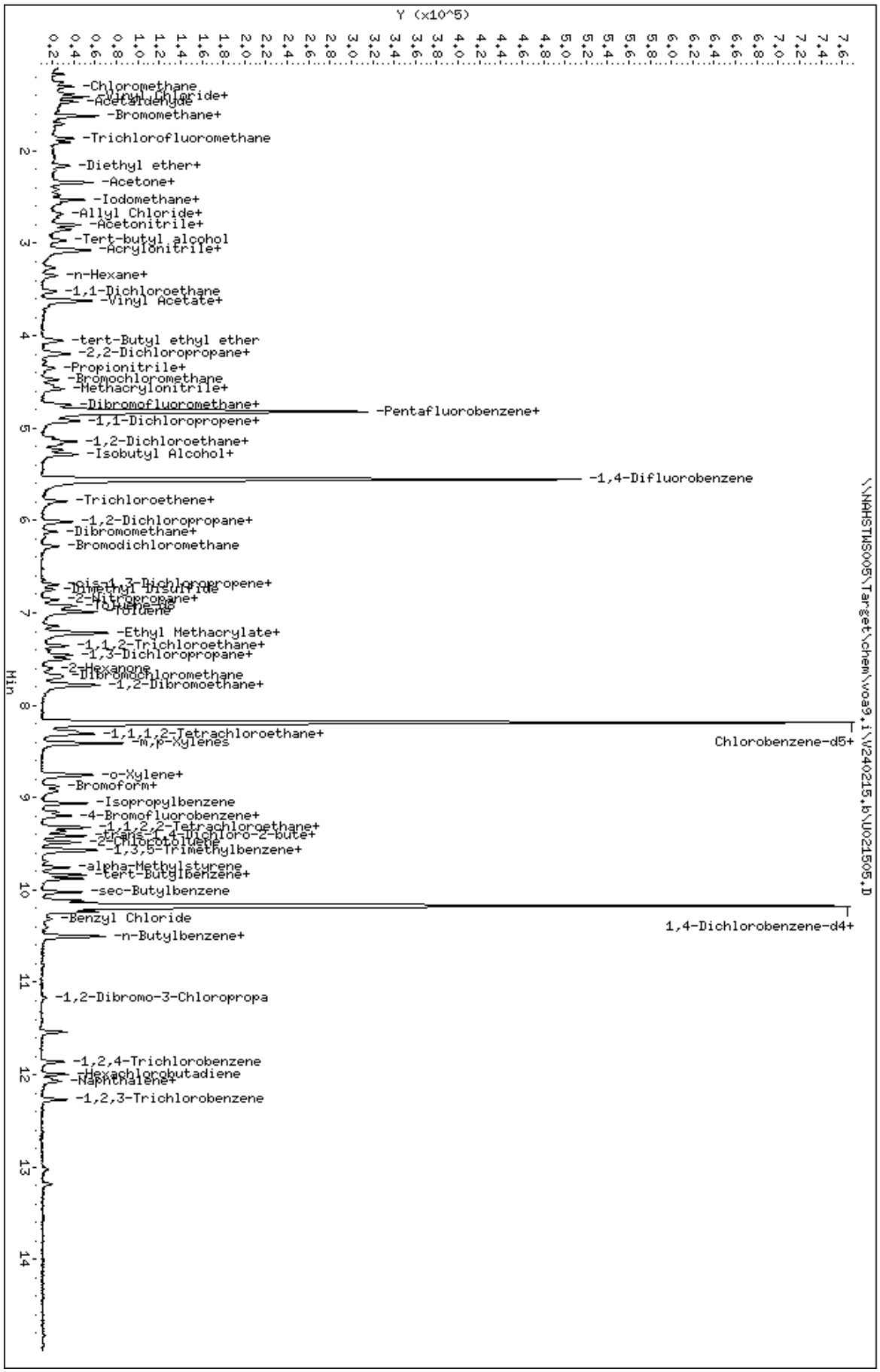
53	1,1,2-Trichloroethane	83	7.357	7.357 (0.899)	6740	2.00000	0.86
50	Toluene	91	6.986	6.986 (0.853)	29146	2.00000	0.73

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D Page 2
Report Date: 22-Feb-2024 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	9353	2.00000	0.69
	62 m,p-Xylenes	106	8.414	8.414	(1.028)	22908	4.00000	1.61
	63 o-Xylene	106	8.751	8.751	(1.069)	11241	2.00000	0.98
	92 Naphthalene	128	12.072	12.072	(1.187)	16149	2.00000	1.22
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	14827	4.00000	2.35
	13 Acetonitrile	39	2.847	2.847	(0.591)	3614	20.0000	7.25
	9 Acrolein	56	2.273	2.273	(0.472)	740	4.00000	3.43(M)
	16 Acrylonitrile	53	3.076	3.076	(0.638)	6963	4.00000	2.45
	25 Methacrylonitrile	41	4.541	4.541	(0.942)	3192	2.00000	0.75
	194 Acetaldehyde	44	1.467	1.467	(0.305)	10033	8.00000	1.16(M)
	64 Styrene	104	8.766	8.766	(1.071)	17274	2.00000	0.95
	140 1,3-Butadiene	54	1.411	1.411	(0.293)	9240	2.00000	1.08
	28 Chloroform	83	4.575	4.575	(0.949)	14505	2.00000	0.66
	59 Chlorobenzene	112	8.211	8.211	(1.003)	22406	2.00000	0.71
	39 Bromodichloromethane	83	6.277	6.277	(1.129)	9982	2.00000	1.07
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	6848	2.00000	1.02
	66 Bromoform	173	8.916	8.916	(1.089)	3819	2.00000	1.08(T)
	182 Epichlorohydrin	57	6.637	6.637	(1.194)	1465	8.00000	4.45
M	95 Xylenes (total)	106				34149	6.00000	
M	94 1,2-Dichloroethylene (total)	96				15402	4.00000	

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.



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Date : 15-FEB-2024 17:32
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;;
Purge Volume: 5.0
Column phase: DB624

\\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

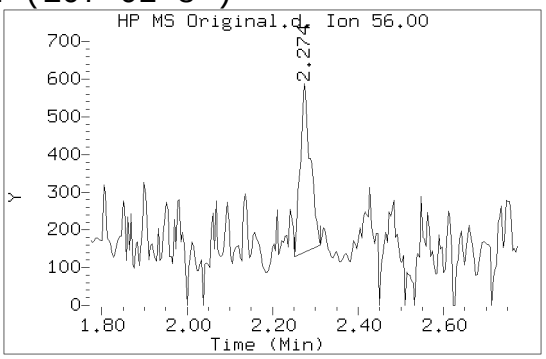
Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Inj Date : 15-FEB-2024 17:32
InstruID : VOA9.i
LabSampID : VSTD002

Acrolein (107-02-8)

Reason Code:

BEFORE

MASS
56
AREA
740
HEIGHT
447
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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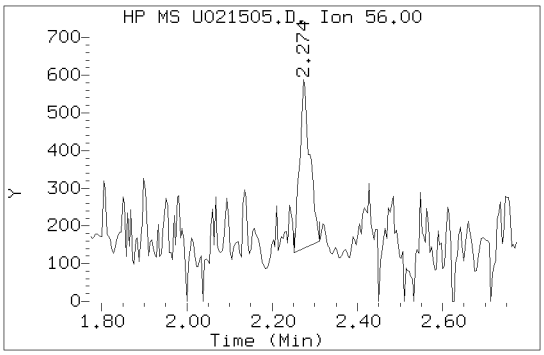
AREA
740
HEIGHT
447
22-Feb-2024
16:14
linh
pham



BEFORE

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AREA
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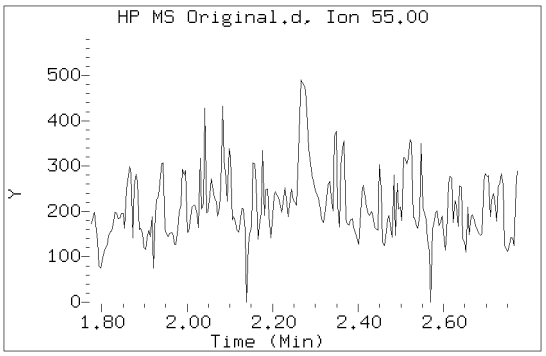
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

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AREA
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HEIGHT
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22-Feb-2024
16:14
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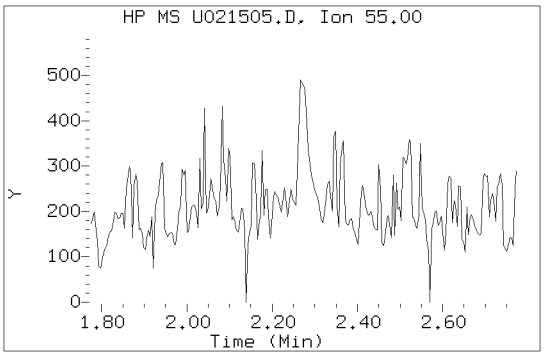

Chloroprene (126-99-8)

Reason Code:

BEFORE

MASS
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AREA
2626
HEIGHT
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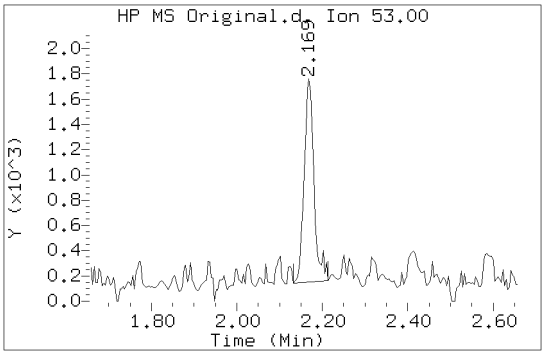
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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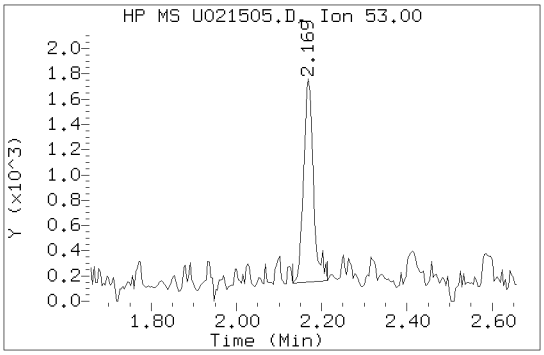
AREA
2626
HEIGHT
1608
22-Feb-2024
16:14
linh
pham



BEFORE

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HEIGHT
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22-Feb-2024
15:48
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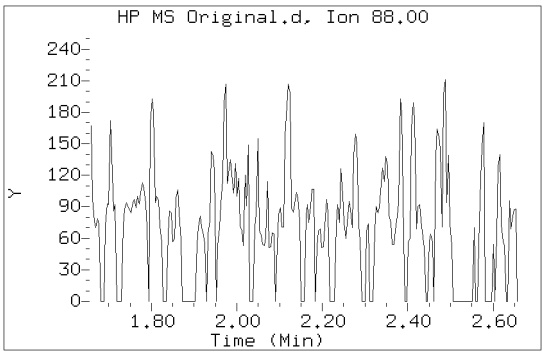

AFTER

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AREA
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HEIGHT
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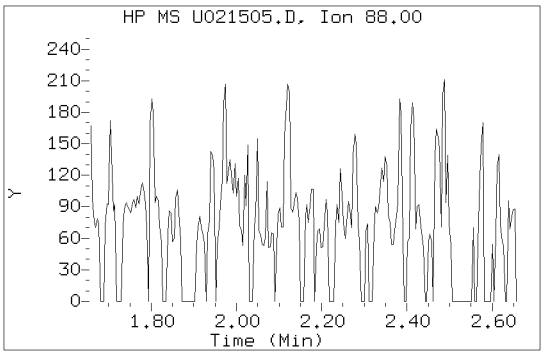
16:14
linh
pham



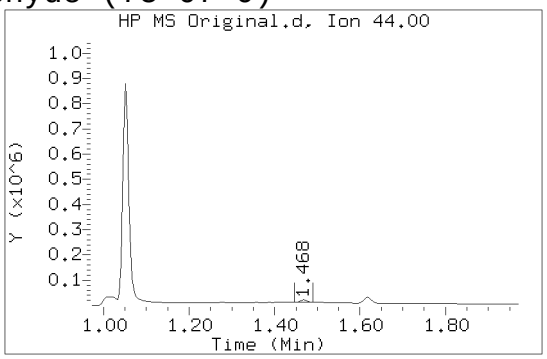
Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021505.D
Inj Date : 15-FEB-2024 17:32
InstruID : VOA9.i
LabSampID : VSTD002

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

MASS
44
AREA
10033
HEIGHT
9277
22-Feb-2024
15:48
linh
pham



AFTER

MASS
44
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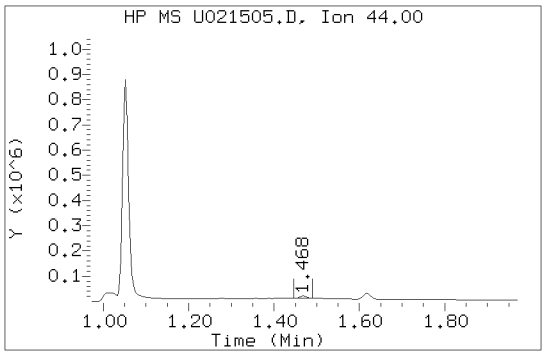
10033
HEIGHT
9277
22-Feb-2024
16:14
linh
pham



BEFORE

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5990
22-Feb-2024
15:48
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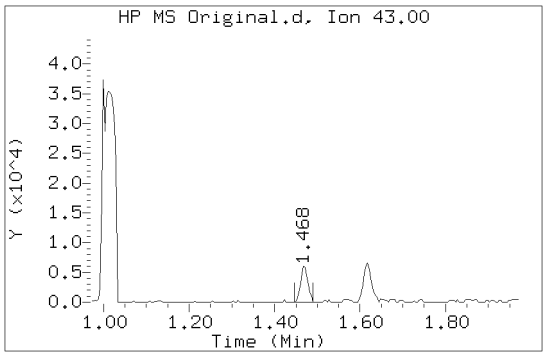
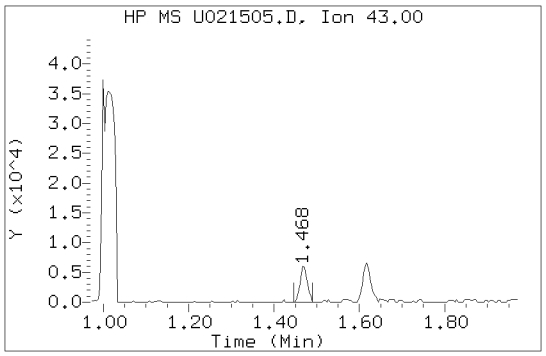
pham



AFTER

MASS
43
AREA
7270
HEIGHT
5990
22-Feb-2024
16:14
linh
pham



BEFORE

MASS
42
AREA
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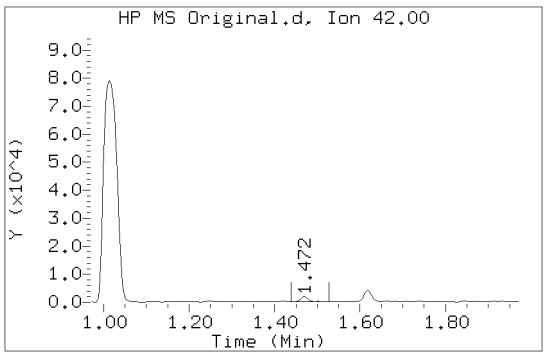
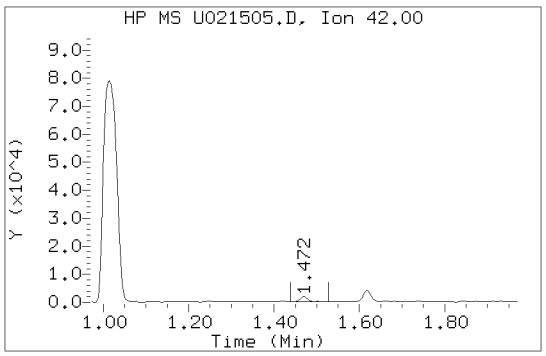
HEIGHT
1978
22-Feb-2024
15:48
linh
pham



AFTER

MASS
42
AREA
2606
HEIGHT
1978
22-Feb-2024
16:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021506.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021506.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 15-FEB-2024 17:54
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD005;VSTD005;1;5;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 17:32 Cal File: U021505.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

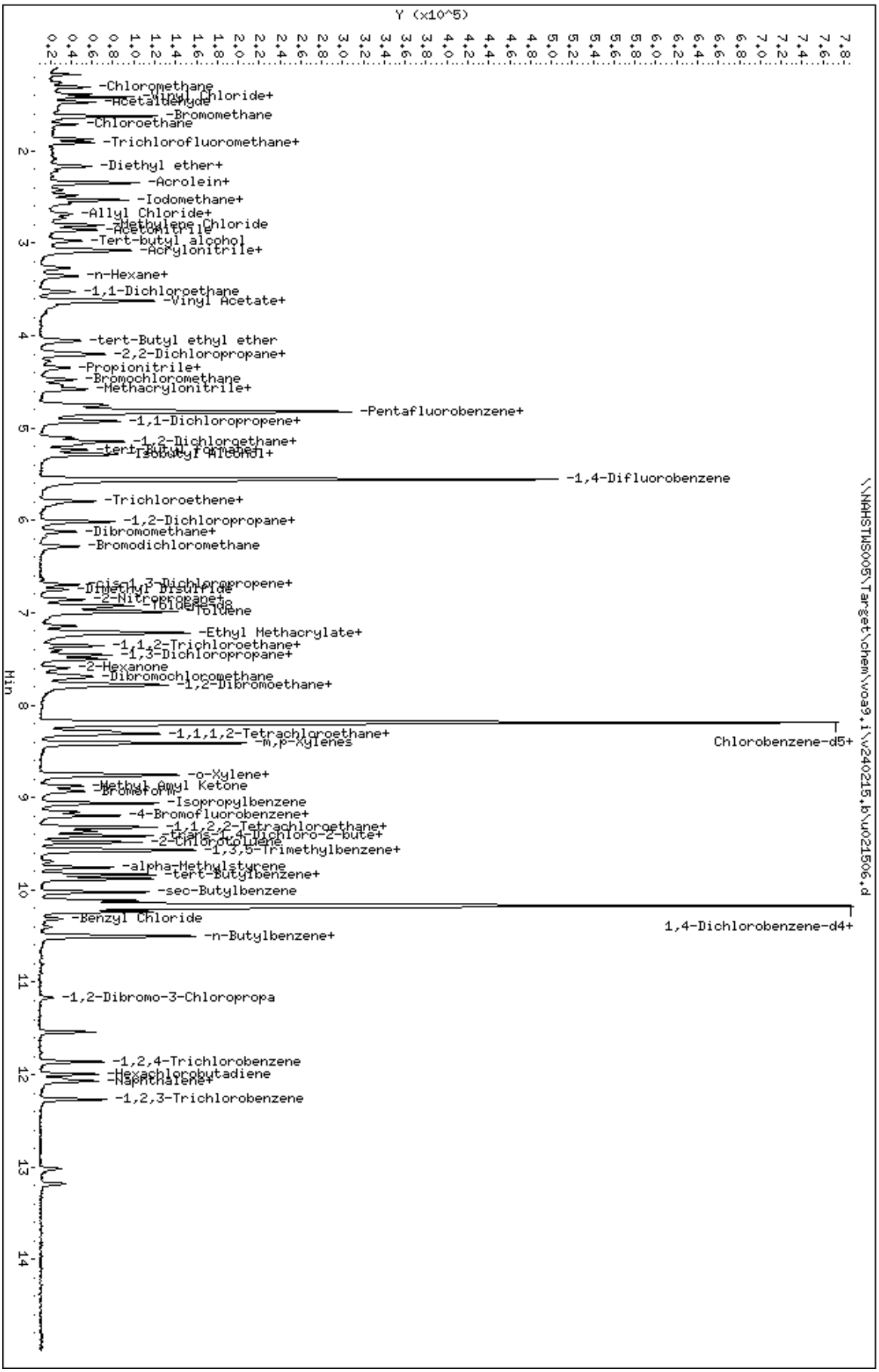
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	239924	50.0000	
$ 30 Dibromofluoromethane	113	4.755	4.755	(0.986)	18053	5.00000	4.74(a)
$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	22461	5.00000	4.81(a)
* 36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	422264	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	402250	50.0000	
$ 48 Toluene-d8	98	6.926	6.926	(0.846)	60442	5.00000	4.26(a)
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	24236	5.00000	4.49(a)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	198593	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	21964	5.00000	4.77
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	14587	5.00000	4.45
17 Methylene Chloride	84	2.802	2.802	(0.581)	20251	5.00000	4.26
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	39677	5.00000	4.55
20 trans-1,2-Dichloroethene	96	3.072	3.072	(0.637)	17111	5.00000	4.75
23 Chloroprene	53	2.169	2.169	(0.450)	5747	5.00000	5.03(M)
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	18909	5.00000	4.72
33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	28362	5.00000	4.79
34 Carbon Tetrachloride	117	4.920	4.920	(0.885)	20799	5.00000	4.87
37 Benzene	78	5.145	5.145	(0.926)	74151	5.00000	4.64
38 Trichloroethene	130	5.794	5.794	(1.042)	17702	5.00000	4.38
56 Tetrachloroethene	164	7.458	7.458	(0.911)	15149	5.00000	4.74

53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	14362	5.00000	4.32
50 Toluene	91	6.986	6.986 (0.853)	72586	5.00000	4.43

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	23907	5.00000	4.54
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	58327	10.0000	8.89
	63 o-Xylene	106	8.748	8.748	(1.069)	27904	5.00000	4.54
	92 Naphthalene	128	12.069	12.069	(1.186)	42279	5.00000	3.95
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	34940	10.0000	8.68
	13 Acetonitrile	39	2.855	2.855	(0.592)	7819	50.0000	47.87
	9 Acrolein	56	2.274	2.274	(0.471)	1669	10.0000	12.50
	16 Acrylonitrile	53	3.076	3.076	(0.638)	12265	10.0000	7.90
	25 Methacrylonitrile	41	4.538	4.538	(0.941)	6743	5.00000	4.12
	194 Acetaldehyde	44	1.471	1.471	(0.305)	22369	20.0000	17.50(M)
	64 Styrene	104	8.763	8.763	(1.071)	44038	5.00000	4.09
	140 1,3-Butadiene	54	1.415	1.415	(0.294)	19893	5.00000	4.65
	28 Chloroform	83	4.579	4.579	(0.949)	33698	5.00000	4.89
	59 Chlorobenzene	112	8.212	8.212	(1.003)	51478	5.00000	4.62
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	21410	5.00000	4.28
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	16676	5.00000	4.53
	66 Bromoform	173	8.920	8.920	(1.090)	9703	5.00000	4.28
	182 Epichlorohydrin	57	6.637	6.637	(1.194)	3848	20.0000	17.06
M	95 Xylenes (total)	106				86231	15.0000	
M	94 1,2-Dichloroethylene (total)	96				36020	10.0000	

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\voa9,i\v240215,b\u021506,d
Date : 15-FEB-2024 17:54
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;;
Purge Volume: 5.0
Column phase: DB624

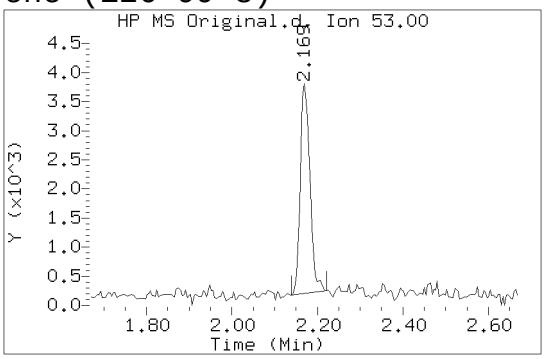
Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021506.d
Inj Date : 15-FEB-2024 17:54
InstruID : VOA9.i
LabSampID : VSTD005

Chloroprene (126-99-8)

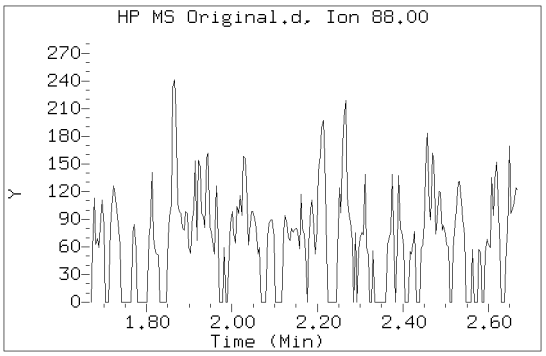
BEFORE

MASS
53
AREA
5747
HEIGHT
3602
22-Feb-2024
15:48
linh
pham



BEFORE

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



Reason Code:

AFTER

MASS
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HEIGHT
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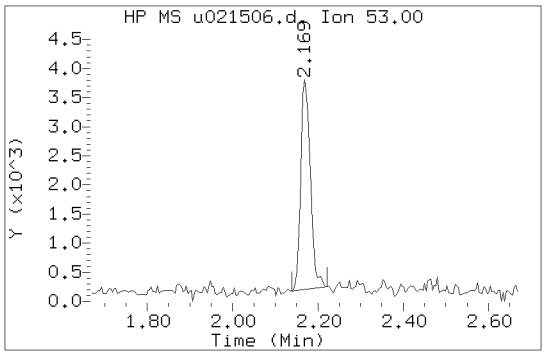
22-Feb-2024
16:14
linh
pham



AFTER

MASS
88
AREA
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HEIGHT
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22-Feb-2024
16:14
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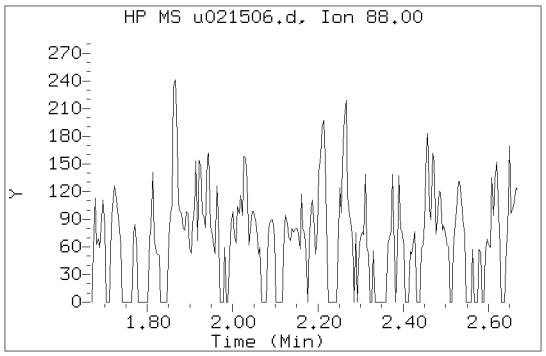

Acetaldehyde (75-07-0)

BEFORE

MASS
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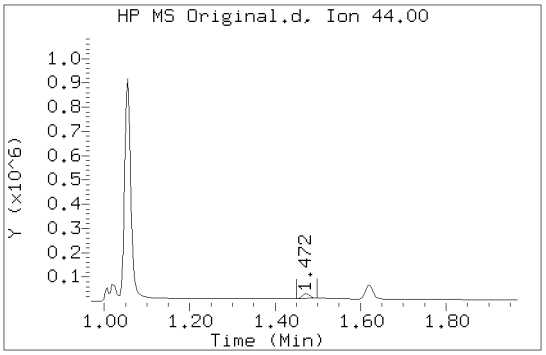
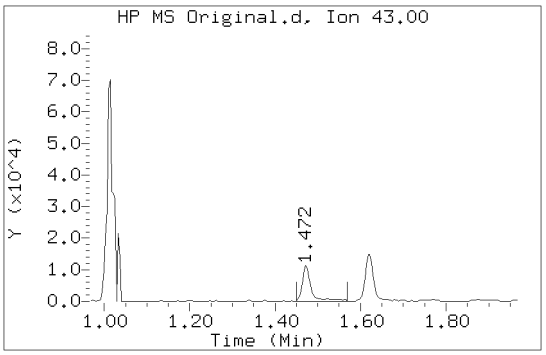
AREA
22369
HEIGHT
18933
22-Feb-2024
15:48
linh
pham



BEFORE

MASS
43
AREA
16968
HEIGHT
11405
22-Feb-2024
15:48
linh
pham



Reason Code:

AFTER

MASS
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AREA
22369
HEIGHT
18933
22-Feb-2024
16:14
linh
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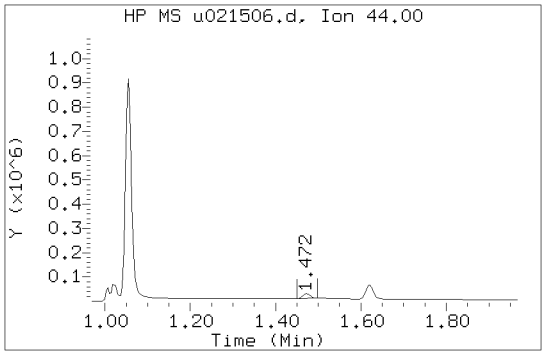

AFTER

MASS
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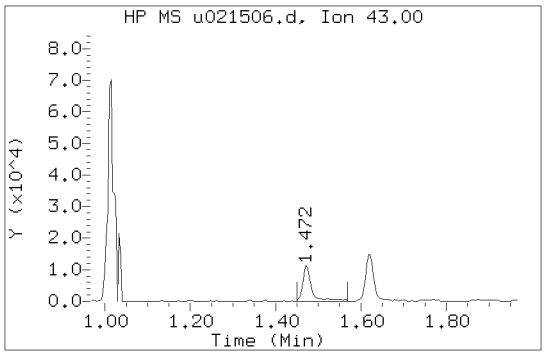
AREA
16968
HEIGHT
11405
22-Feb-2024
16:14
linh
pham



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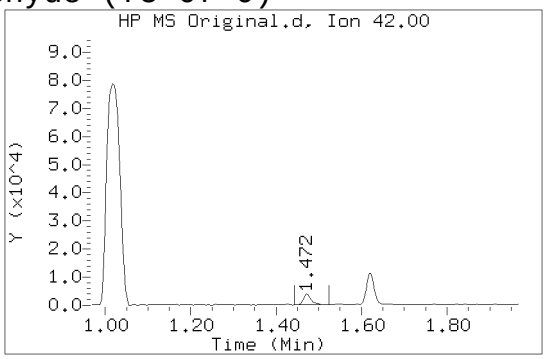
Inj Date : 15-FEB-2024 17:54
InstruID : VOA9.i
LabSampID : VSTD005

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

MASS
42
AREA
5262
HEIGHT
4022
22-Feb-2024
15:48
linh
pham



AFTER

MASS
42
AREA
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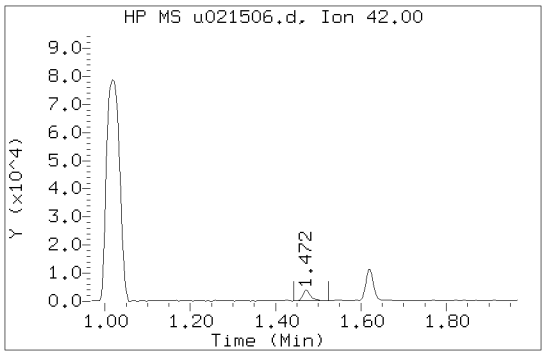
HEIGHT
4022
22-Feb-2024
16:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 15-FEB-2024 18:16
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD020;VSTD020;1;6;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 17:54 Cal File: U021506.D
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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	4.815	4.815	(1.000)	260953	50.0000	
$ 30 Dibromofluoromethane	113	4.744	4.744	(0.985)	75713	20.0000	24.00
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	93658	20.0000	24.10
* 36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	431457	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	413671	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	279697	20.0000	23.76
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	103152	20.0000	23.22
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	216533	50.0000	
5 Vinyl Chloride	62	1.374	1.374	(0.285)	89488	20.0000	23.36
11 1,1-Dichloroethene	96	2.334	2.334	(0.485)	61875	20.0000	24.09
17 Methylene Chloride	84	2.791	2.791	(0.580)	77125	20.0000	21.80
18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	160160	20.0000	21.51
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	70382	20.0000	22.92
23 Chloroprene	53	2.157	2.157	(0.448)	23597	20.0000	22.65(M)
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.872)	78448	20.0000	22.95
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	109373	20.0000	23.60
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	86103	20.0000	20.69
37 Benzene	78	5.138	5.138	(0.926)	302226	20.0000	23.38
38 Trichloroethene	130	5.786	5.786	(1.043)	74057	20.0000	23.08
56 Tetrachloroethene	164	7.458	7.458	(0.911)	59413	20.0000	23.42

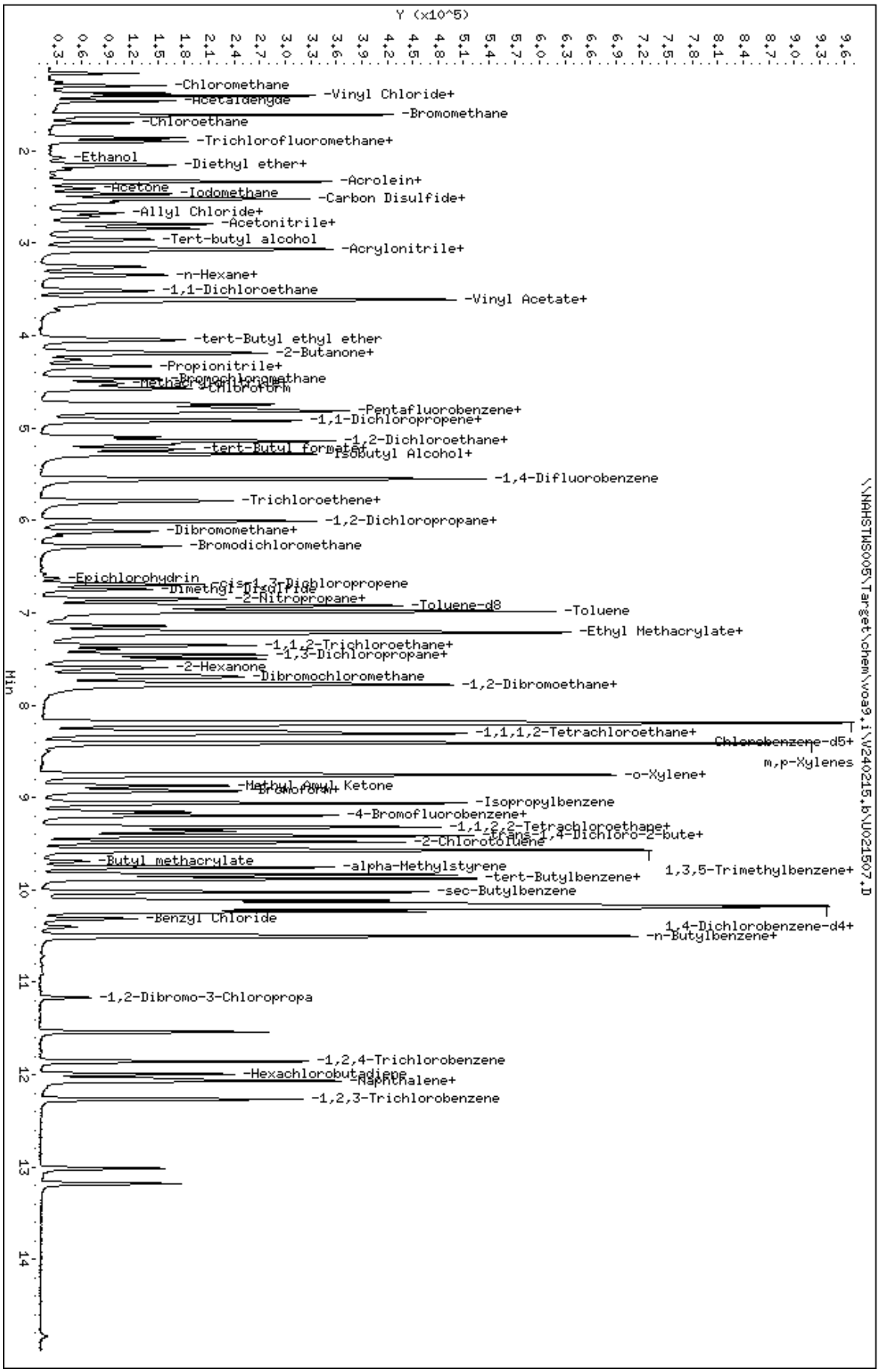
53	1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	62634	20.0000	24.01
50	Toluene	91	6.982	6.982 (0.853)	321152	20.0000	23.60

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D Page 2
Report Date: 22-Feb-2024 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	103214	20.0000	23.48
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	262023	40.0000	46.79
	63 o-Xylene	106	8.748	8.748	(1.069)	120768	20.0000	22.53
	92 Naphthalene	128	12.065	12.065	(1.187)	241679	20.0000	21.99
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	163146	40.0000	45.17
	13 Acetonitrile	39	2.840	2.840	(0.590)	29219	200.000	220.60
	9 Acrolein	56	2.262	2.262	(0.470)	5380	40.0000	42.72
	16 Acrylonitrile	53	3.061	3.061	(0.636)	55078	40.0000	44.21
	25 Methacrylonitrile	41	4.527	4.527	(0.940)	28858	20.0000	21.65
	194 Acetaldehyde	44	1.456	1.456	(0.303)	91174	80.0000	94.27(M)
	64 Styrene	104	8.763	8.763	(1.071)	219130	20.0000	22.75
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	85358	20.0000	23.01
	28 Chloroform	83	4.572	4.572	(0.949)	133268	20.0000	23.25
	59 Chlorobenzene	112	8.208	8.208	(1.003)	210166	20.0000	23.82
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	95243	20.0000	22.91
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	71845	20.0000	22.36
	66 Bromoform	173	8.916	8.916	(1.089)	44824	20.0000	21.56
	182 Epichlorohydrin	57	6.626	6.626	(1.194)	17509	80.0000	83.06
M	95 Xylenes (total)	106				382791	60.0000	
M	94 1,2-Dichloroethylene (total)	96				148830	40.0000	

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\voa9.i\V240215.b\U021507.D
Date : 15-FEB-2024 18:16
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

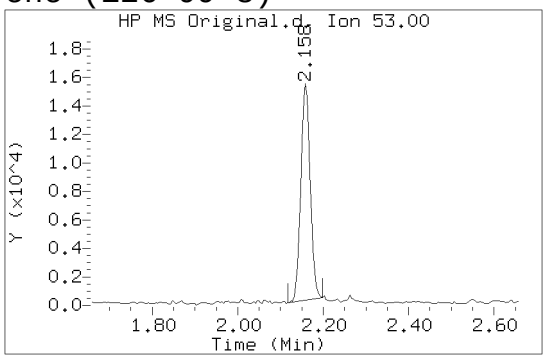
Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021507.D
Inj Date : 15-FEB-2024 18:16
InstruID : VOA9.i
LabSampID : VSTD020

Chloroprene (126-99-8)

Reason Code:

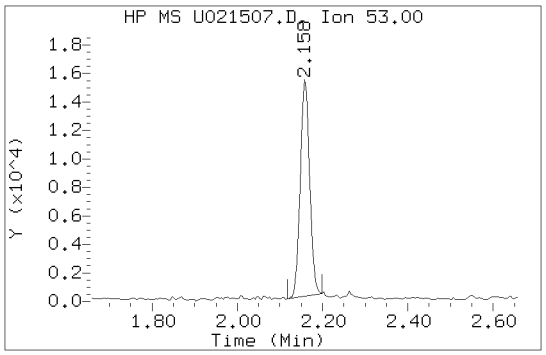
BEFORE

MASS
53
AREA
23597
HEIGHT
15196
22-Feb-2024
15:48
linh
pham



AFTER

MASS
53
AREA
23597
HEIGHT
15196
22-Feb-2024
16:14
linh
pham



BEFORE

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
15:48
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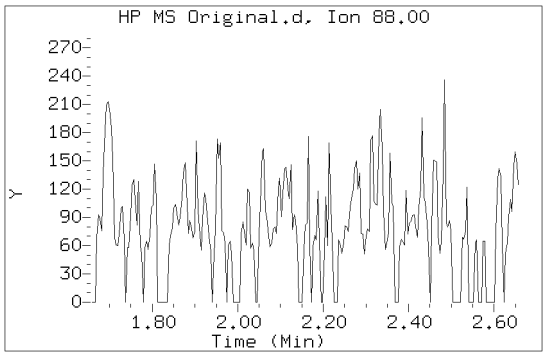
pham



AFTER

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22-Feb-2024
16:14
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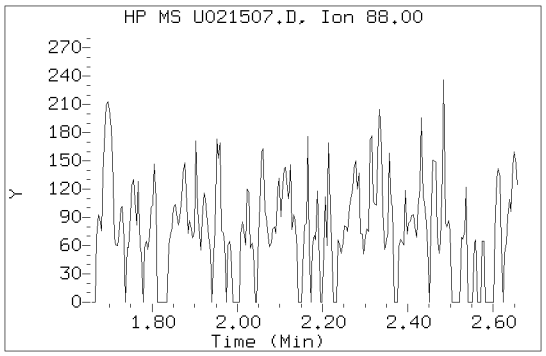

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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AREA
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HEIGHT
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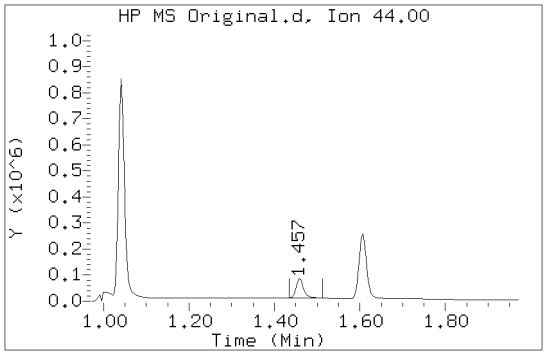
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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HEIGHT
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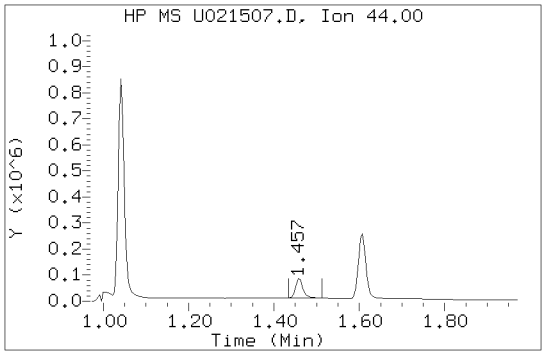
22-Feb-2024
16:14
linh
pham



BEFORE

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AREA
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22-Feb-2024
15:48
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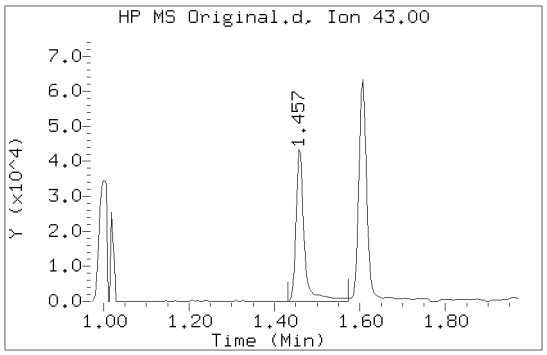
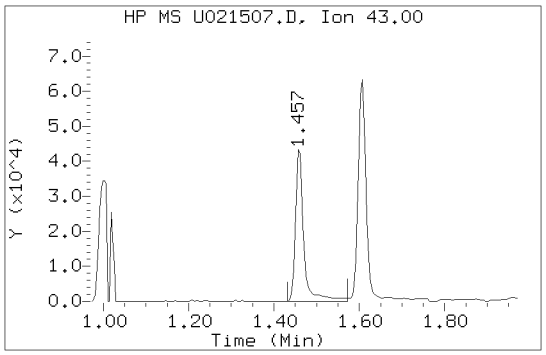
pham



AFTER

MASS
43
AREA
60111
HEIGHT
43336
22-Feb-2024
16:14
linh
pham



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Inj Date : 15-FEB-2024 18:16
InstruID : VOA9.i
LabSampID : VSTD020

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

MASS
42
AREA
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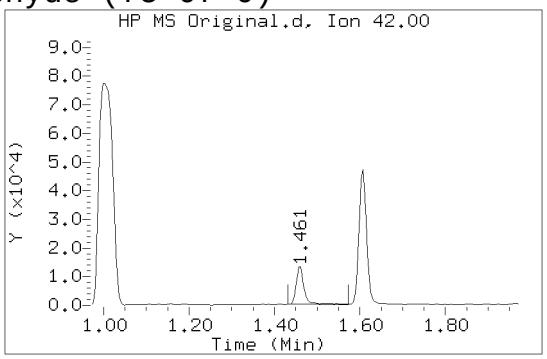
HEIGHT
13180
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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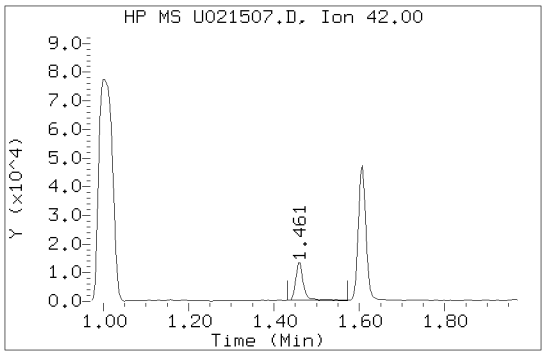
HEIGHT
13180
22-Feb-2024
16:14
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021508.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021508.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 15-FEB-2024 18:38
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD050;VSTD050;1;7;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 18:16 Cal File: U021507.D
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

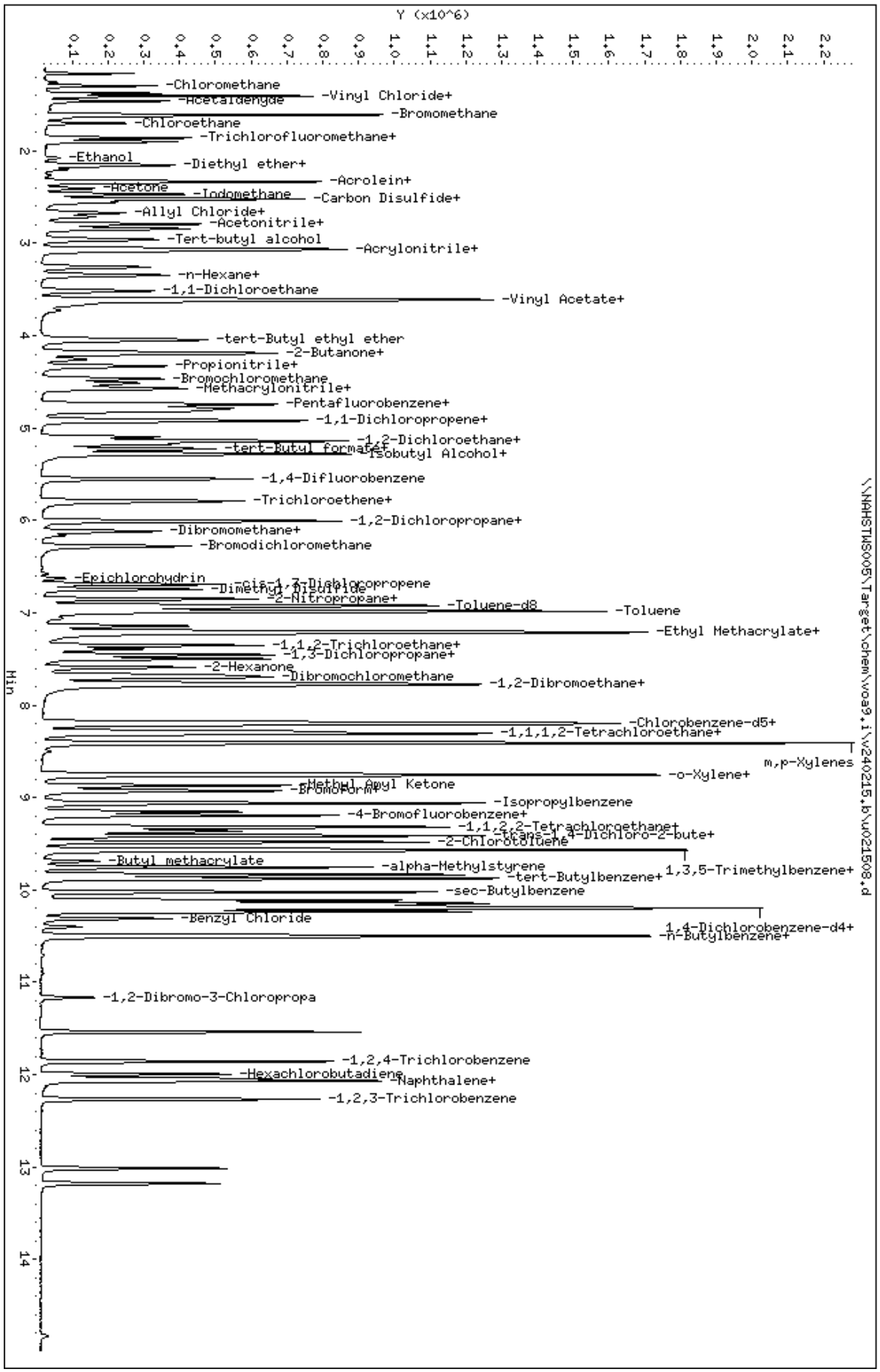
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	276490	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	175024	50.0000	52.28
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	216883	50.0000	52.59
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	464750	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	446311	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	663921	50.0000	51.51
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	250338	50.0000	51.71
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	233322	50.0000	
5 Vinyl Chloride	62	1.374	1.374	(0.285)	207106	50.0000	50.98
11 1,1-Dichloroethene	96	2.334	2.334	(0.485)	141341	50.0000	52.08
17 Methylene Chloride	84	2.791	2.791	(0.580)	174452	50.0000	49.66
18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	423342	50.0000	53.28
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	171444	50.0000	52.39
23 Chloroprene	53	2.161	2.161	(0.449)	56472	50.0000	50.46(M)
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.872)	190476	50.0000	52.25
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	258913	50.0000	51.88
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	209448	50.0000	47.10
37 Benzene	78	5.138	5.138	(0.925)	721041	50.0000	51.36
38 Trichloroethene	130	5.786	5.786	(1.042)	176731	50.0000	50.76
56 Tetrachloroethene	164	7.458	7.458	(0.911)	140382	50.0000	51.18

53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	144965	50.0000	51.29
50 Toluene	91	6.982	6.982 (0.853)	766250	50.0000	51.52

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	247295	50.0000	51.39
	62 m,p-Xylenes	106	8.407	8.407	(1.027)	630783	100.000	102.56
	63 o-Xylene	106	8.748	8.748	(1.069)	302454	50.0000	51.18
	92 Naphthalene	128	12.065	12.065	(1.187)	631757	50.0000	51.21
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	408001	100.000	101.89
	13 Acetonitrile	39	2.844	2.844	(0.591)	73241	500.000	529.28
	9 Acrolein	56	2.266	2.266	(0.471)	13924	100.000	104.06
	16 Acrylonitrile	53	3.061	3.061	(0.636)	142490	100.000	107.45
	25 Methacrylonitrile	41	4.527	4.527	(0.940)	76219	50.0000	53.76
	194 Acetaldehyde	44	1.460	1.460	(0.303)	218362	200.000	217.90(M)
	64 Styrene	104	8.763	8.763	(1.071)	549384	50.0000	51.38
	140 1,3-Butadiene	54	1.404	1.404	(0.292)	204149	50.0000	51.40
	28 Chloroform	83	4.572	4.572	(0.949)	316607	50.0000	52.18
	59 Chlorobenzene	112	8.208	8.208	(1.003)	490604	50.0000	51.37
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	233014	50.0000	51.14
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	181717	50.0000	51.24
	66 Bromoform	173	8.916	8.916	(1.089)	117490	50.0000	50.69
	182 Epichlorohydrin	57	6.626	6.626	(1.193)	49704	200.000	209.77
M	95 Xylenes (total)	106				933237	150.000	
M	94 1,2-Dichloroethylene (total)	96				361920	100.000	

QC Flag Legend

M - Compound response manually integrated.



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Date : 15-FEB-2024 18:38
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

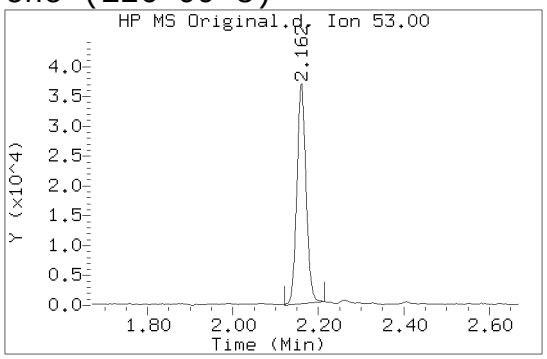
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021508.d
Inj Date : 15-FEB-2024 18:38
InstruID : VOA9.i
LabSampID : VSTD050

Chloroprene (126-99-8)

Reason Code:

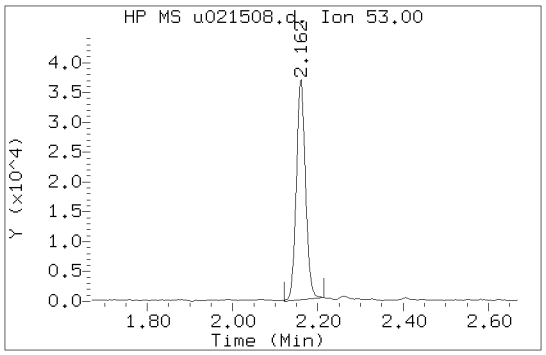
BEFORE

MASS
53
AREA
56472
HEIGHT
36878
22-Feb-2024
15:48
linh
pham



AFTER

MASS
53
AREA
56472
HEIGHT
36878
22-Feb-2024
16:14
linh
pham



BEFORE

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AREA
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HEIGHT
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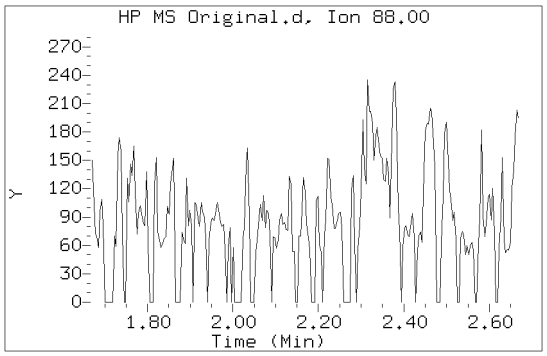
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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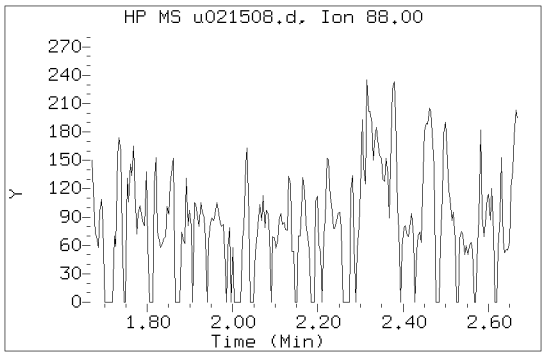
HEIGHT
0
22-Feb-2024
16:14
linh
pham



Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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AREA
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HEIGHT
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22-Feb-2024
15:48
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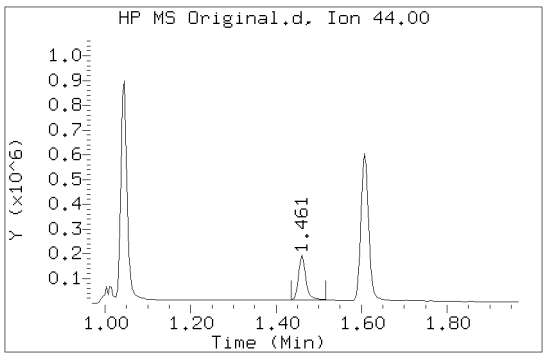
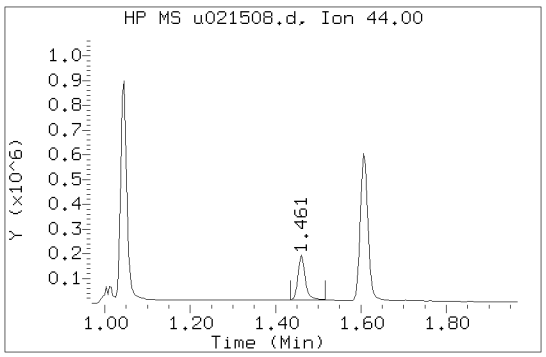
pham



AFTER

MASS
44
AREA
218362
HEIGHT
181441
22-Feb-2024
16:14
linh
pham



BEFORE

MASS
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AREA
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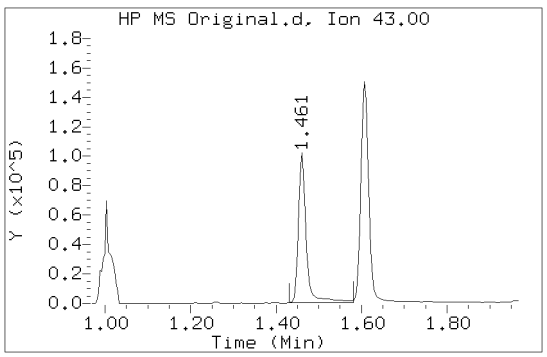
HEIGHT
101889
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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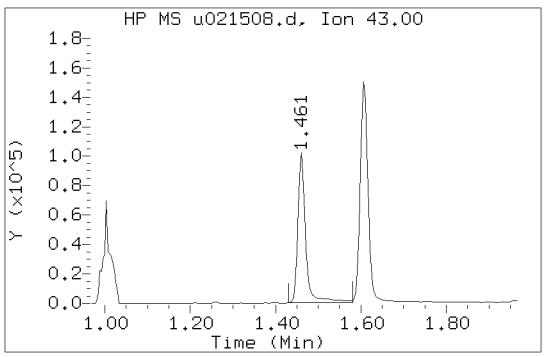
HEIGHT
101889
22-Feb-2024
16:14
linh
pham



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Inj Date : 15-FEB-2024 18:38
InstruID : VOA9.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

MASS
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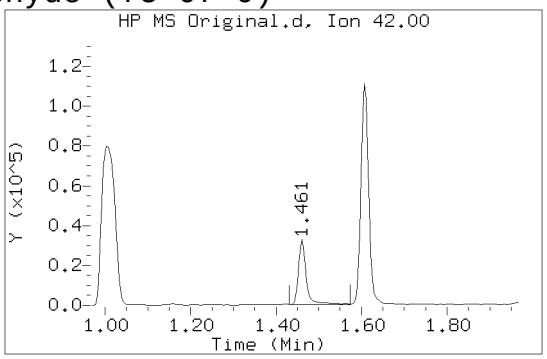
AREA
42743
HEIGHT
32644
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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HEIGHT
32644
22-Feb-2024
16:14
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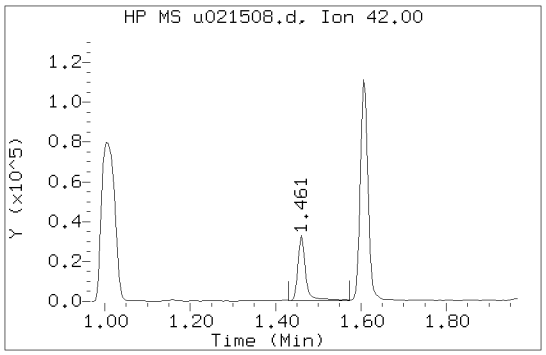
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 15-FEB-2024 19:00
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD100;VSTD100;1;8;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 18:38 Cal File: U021508.D
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

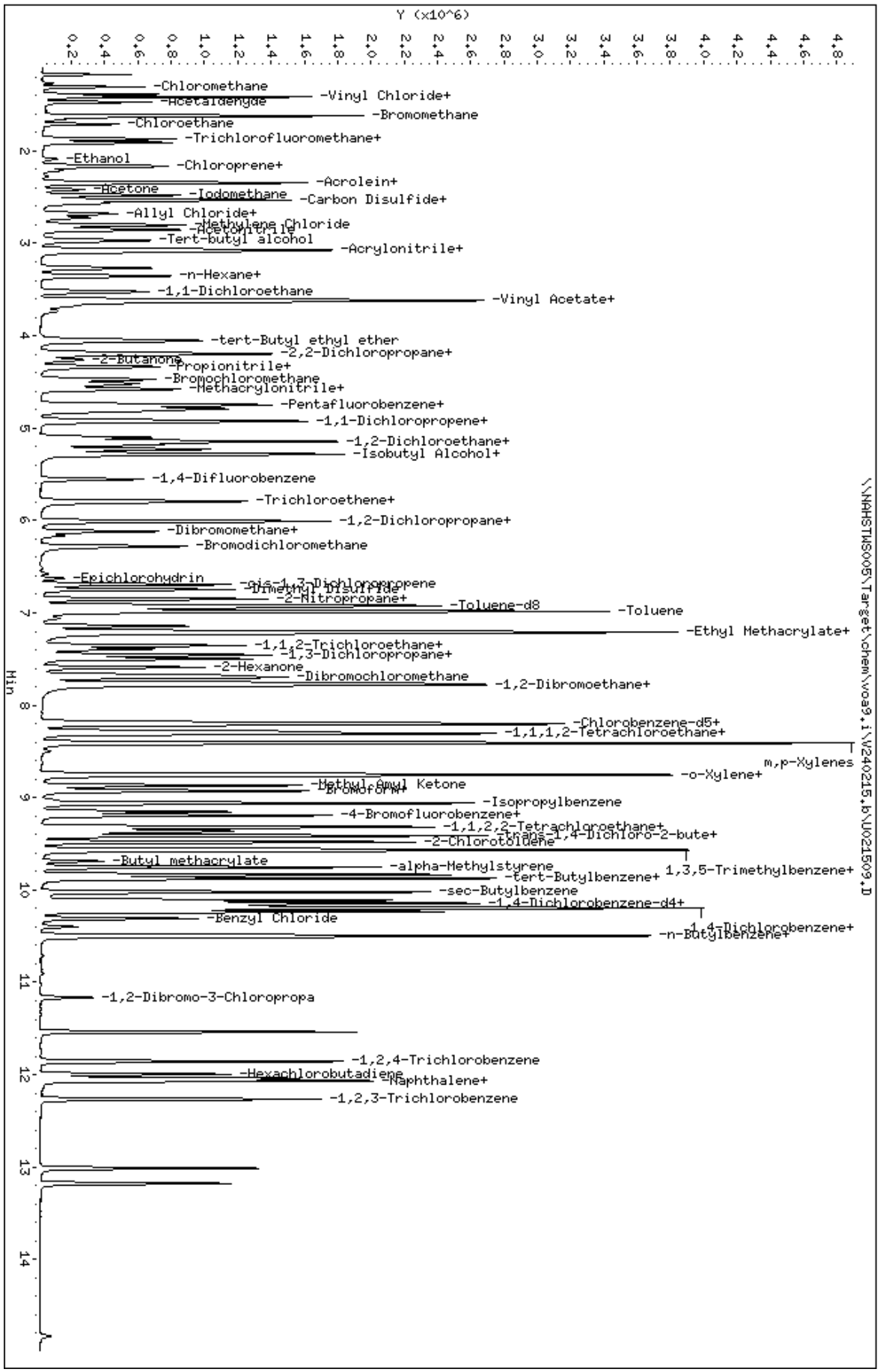
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	280274	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.751	(0.985)	355456	100.000	96.70
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	435109	100.000	96.37
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	458313	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	443720	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	1360843	100.000	97.41
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	510054	100.000	97.47
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	231378	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	441981	100.000	98.04
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	289798	100.000	96.92
17 Methylene Chloride	84	2.802	2.802	(0.581)	346045	100.000	99.80
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	852991	100.000	97.03
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.636)	351188	100.000	97.13
23 Chloroprene	53	2.172	2.172	(0.450)	123345	100.000	98.68
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	391824	100.000	97.23
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	517470	100.000	97.15
34 Carbon Tetrachloride	117	4.920	4.920	(0.886)	442212	100.000	101.19
37 Benzene	78	5.145	5.145	(0.926)	1477867	100.000	97.71
38 Trichloroethene	130	5.790	5.790	(1.043)	370838	100.000	98.35
56 Tetrachloroethene	164	7.458	7.458	(0.911)	290731	100.000	97.82

53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	296494	100.000	97.43
50 Toluene	91	6.982	6.982 (0.853)	1569859	100.000	97.46

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	513090	100.000	97.69
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	1310958	200.000	195.56
	63 o-Xylene	106	8.747	8.747	(1.069)	637581	100.000	98.26
	92 Naphthalene	128	12.065	12.065	(1.187)	1339078	100.000	98.47
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	868111	200.000	196.84
	13 Acetonitrile	39	2.851	2.851	(0.591)	144866	1000.00	968.69
	9 Acrolein	56	2.274	2.274	(0.471)	28448	200.000	195.33
	16 Acrylonitrile	53	3.072	3.072	(0.637)	281335	200.000	192.91
	25 Methacrylonitrile	41	4.526	4.526	(0.939)	150658	100.000	96.59
	194 Acetaldehyde	44	1.471	1.471	(0.305)	400473	400.000	378.59(M)
	64 Styrene	104	8.759	8.759	(1.070)	1149524	100.000	98.02
	140 1,3-Butadiene	54	1.415	1.415	(0.293)	432924	100.000	97.89
	28 Chloroform	83	4.579	4.579	(0.949)	648109	100.000	97.12
	59 Chlorobenzene	112	8.208	8.208	(1.003)	1006357	100.000	97.49
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	486964	100.000	98.16
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	383886	100.000	98.30
	66 Bromoform	173	8.916	8.916	(1.089)	255707	100.000	99.04
	182 Epichlorohydrin	57	6.629	6.629	(1.194)	102824	400.000	392.42
M	95 Xylenes (total)	106				1948539	300.000	
M	94 1,2-Dichloroethylene (total)	96				743012	200.000	

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D
Date : 15-FEB-2024 19:00
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021509.D
Inj Date : 15-FEB-2024 19:00
InstruID : VOA9.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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44
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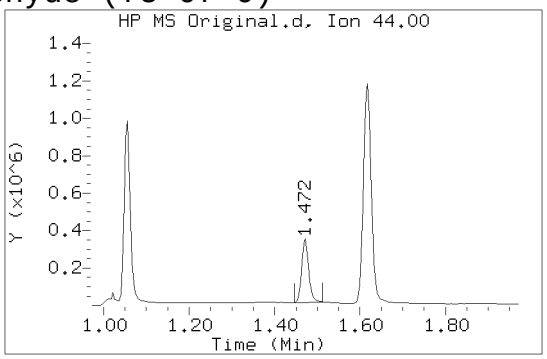
HEIGHT
341930
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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16:14
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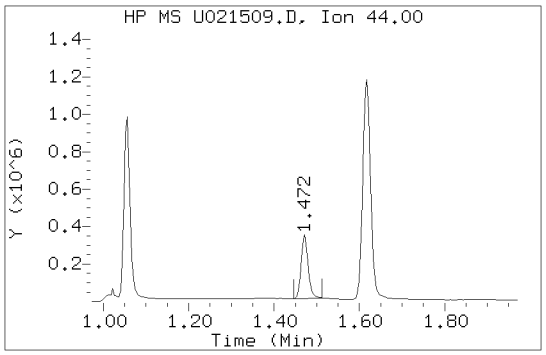

BEFORE

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HEIGHT
195584
22-Feb-2024
15:48
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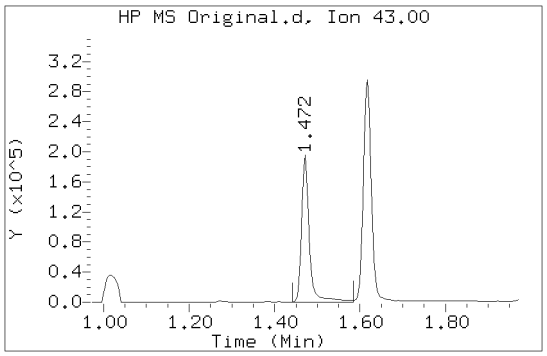

AFTER

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195584
22-Feb-2024
16:14
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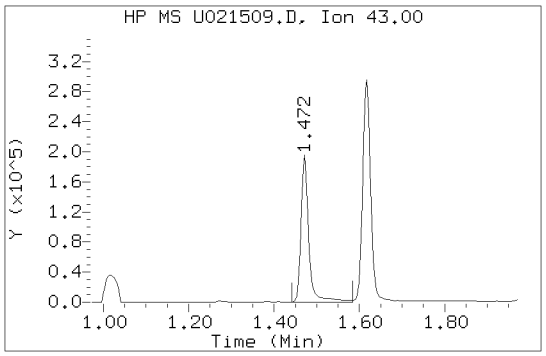

BEFORE

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62947
22-Feb-2024
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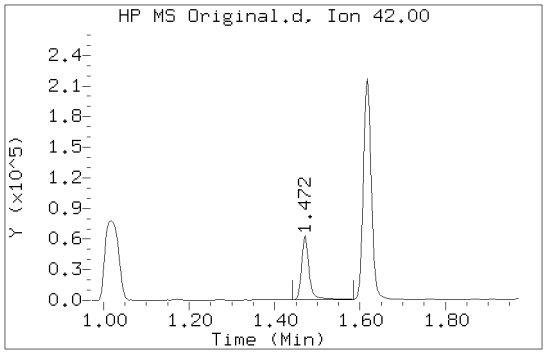

AFTER

MASS
42
AREA
81351
HEIGHT
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22-Feb-2024
16:14
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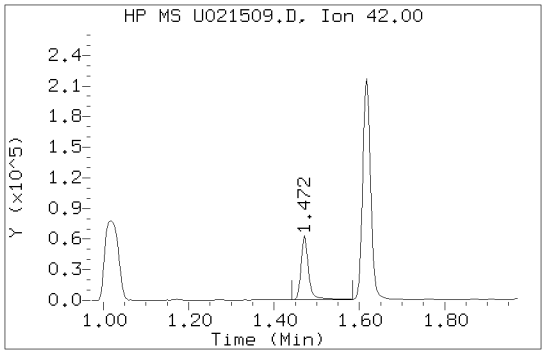
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021510.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021510.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 15-FEB-2024 19:22
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD150;VSTD150;1;09;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:00 Cal File: U021509.D
Als bottle: 10 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

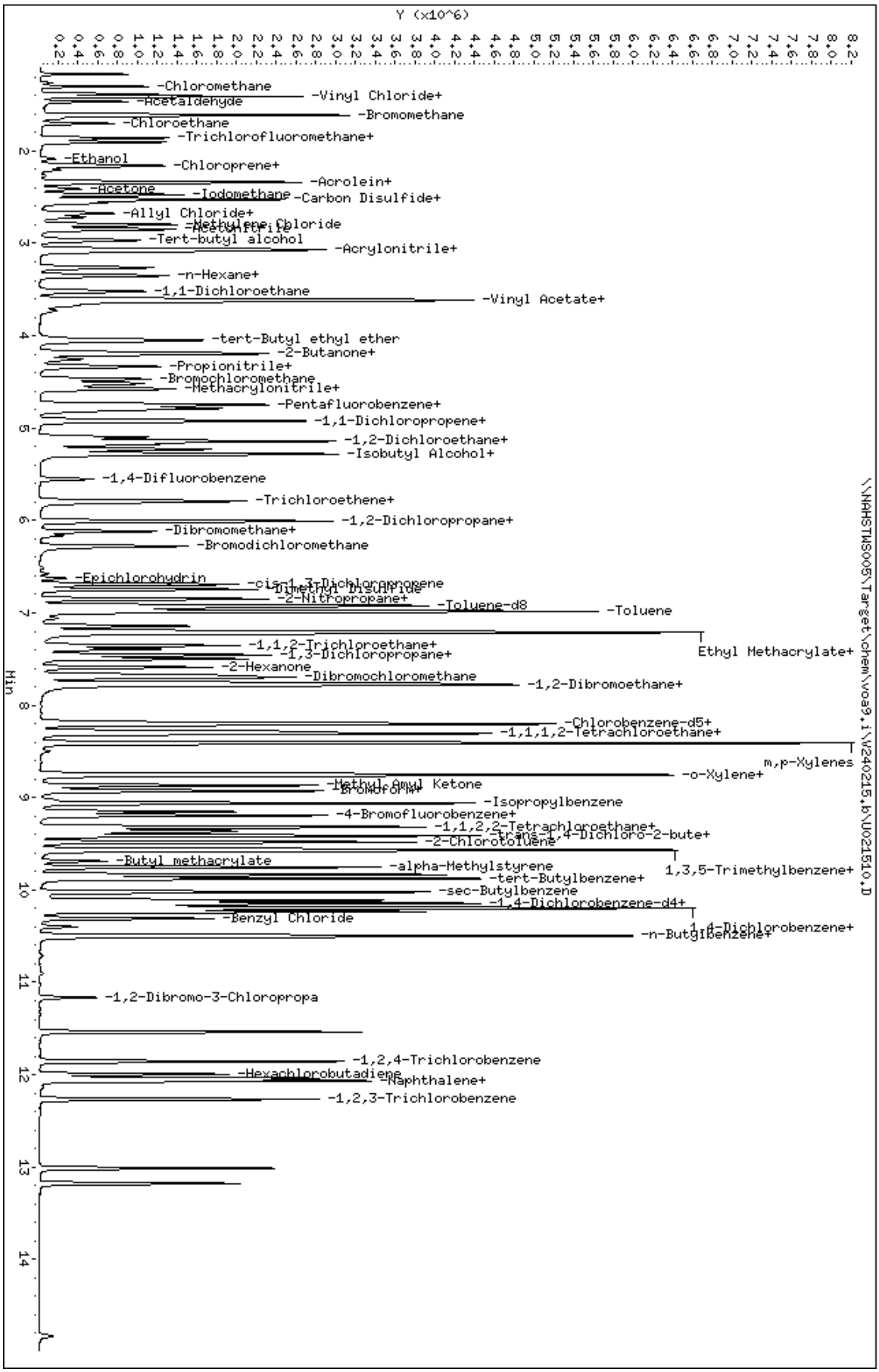
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

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)	241396	50.0000	
$ 30 Dibromofluoromethane	113	4.747	4.747	(0.985)	583421	150.000	150.69
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	711802	150.000	150.76
* 36 1,4-Difluorobenzene	114	5.553	5.553	(1.000)	399863	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	389864	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	2234434	150.000	150.58
$ 69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	832825	150.000	150.56
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	202367	50.0000	
5 Vinyl Chloride	62	1.381	1.381	(0.287)	729037	150.000	150.42
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	485516	150.000	150.62
17 Methylene Chloride	84	2.794	2.794	(0.580)	564342	150.000	191.43
18 Methyl tert-butyl ether	73	3.083	3.083	(0.640)	1427264	150.000	150.54
20 trans-1,2-Dichloroethene	96	3.064	3.064	(0.636)	581359	150.000	150.58
23 Chloroprene	53	2.165	2.165	(0.449)	199783	150.000	150.31
27 cis-1,2-Dichloroethene	96	4.200	4.200	(0.872)	647036	150.000	150.56
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	845674	150.000	150.62
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	750990	150.000	197.26
37 Benzene	78	5.141	5.141	(0.926)	2438420	150.000	150.50
38 Trichloroethene	130	5.790	5.790	(1.043)	613589	150.000	150.37
56 Tetrachloroethene	164	7.458	7.458	(0.911)	481044	150.000	150.48

53 1,1,2-Trichloroethane	83	7.353	7.353 (0.898)	481328	150.000	150.60
50 Toluene	91	6.982	6.982 (0.853)	2573676	150.000	150.57

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021510.D Page 2
Report Date: 22-Feb-2024 16:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	863680	150.000	150.49
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	2169718	300.000	300.99
	63 o-Xylene	106	8.747	8.747	(1.069)	1069987	150.000	150.37
	92 Naphthalene	128	12.065	12.065	(1.187)	2218825	150.000	150.33
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	1452742	300.000	300.69
	13 Acetonitrile	39	2.847	2.847	(0.591)	225497	1500.00	1506.94
	9 Acrolein	56	2.270	2.270	(0.471)	43606	300.000	301.11
	16 Acrylonitrile	53	3.064	3.064	(0.636)	467729	300.000	301.32
	25 Methacrylonitrile	41	4.523	4.523	(0.939)	250288	150.000	150.63
	194 Acetaldehyde	44	1.464	1.464	(0.304)	612666	600.000	604.78
	64 Styrene	104	8.762	8.762	(1.071)	1912397	150.000	150.43
	140 1,3-Butadiene	54	1.407	1.407	(0.292)	717788	150.000	150.44
	28 Chloroform	83	4.575	4.575	(0.949)	1061272	150.000	150.60
	59 Chlorobenzene	112	8.208	8.208	(1.003)	1660036	150.000	150.56
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	819897	150.000	150.39
	55 Dibromochloromethane	129	7.690	7.690	(0.940)	653133	150.000	150.35
	66 Bromoform	173	8.916	8.916	(1.089)	441113	150.000	150.19
	182 Epichlorohydrin	57	6.626	6.626	(1.193)	186074	600.000	601.22
M	95 Xylenes (total)	106				3239705	450.000	
M	94 1,2-Dichloroethylene (total)	96				1228395	300.000	


Y (x10^6)
Hin
-Chloromethane
-Vinyl Chloride+
-Acetaldehyde
-Bromomethane
-Chloroethane
-Trichlorofluoromethane+
-Ethanol
-Chloroprene+
-Acrolein+
-Acetone
-Iodomethane
-Carbon Disulfide+
-Allyl Chloride+
-Methylene Chloride
-Acetonitrile
-Tert-butyl alcohol
-Acrylonitrile+
-n-Hexane+
-1,1-Dichloroethane
-Vinyl Acetate+
-tert-Butyl ethyl ether
-2-Butanone+
-Propionitrile+
-Bromochloromethane
-Methacrylonitrile+
-Pentafluorobenzene+
-1,1-Dichloropropene+
-1,2-Dichloroethane+
-Isobutyl Alcohol+
-1,4-Difluorobenzene
-Trichloroethene+
-1,2-Dichloropropane+
-Dibromomethane+
-Bromodichloromethane
-Epichlorohydrin
-cis-1,3-Dichloropropene
-Dimethyl Disulfide
-2-Nitropropane+
-Toluene-d8
-Toluene
Ethyl Methacrylate+
-1,1,2-Trichloroethane+
-1,3-Dichloropropane+
-2-Hexanone
-Dibromochloromethane
-1,2-Dibromoethane+
-Chlorobenzene-d5+
-1,1,1,2-Tetrachloroethane+
m,p-Xylenes
-o-Xylene+
-Methyl Amyl Ketone
-Bromoform+
-Isopropylbenzene
-4-Bromofluorobenzene+
-1,1,2,2-Tetrachloroethane+
-trans-1,4-Dichloro-2-bute+
-2-Chlorotoluene
-Butyl methacrylate
-alpha-Methylstyrene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene+
-sec-Butylbenzene
-1,4-Dichlorobenzene-d4+
-Benzyl Chloride
1,4-Dichlorobenzene+
-n-Butylbenzene+
-1,2-Dibromo-3-Chloropropa
-1,2,4-Trichlorobenzene
-Hexachlorobutadiene
-Naphthalene+
-1,2,3-Trichlorobenzene
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Data File: \\NAHSTWS005\Target\chem\voa9,i\W240215,b\U021510,D
Date : 15-FEB-2024 19:22
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;09;;
Purge Volume: 5.0
Column phase: DB624
Instrument: VOA9,i
Operator: FT
Column diameter: 0.18
Page 1

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021510.d
Inj Date : 15-FEB-2024 19:22
InstruID : VOA9.i
LabSampID : VSTD150

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D Page 1
Report Date: 22-Feb-2024 16:15

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 15-FEB-2024 19:44
Operator : FT Inst ID: VOA9.i
Smp Info : VSTD200;VSTD200;1;10;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:15 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:22 Cal File: U021510.D
Als bottle: 11 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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

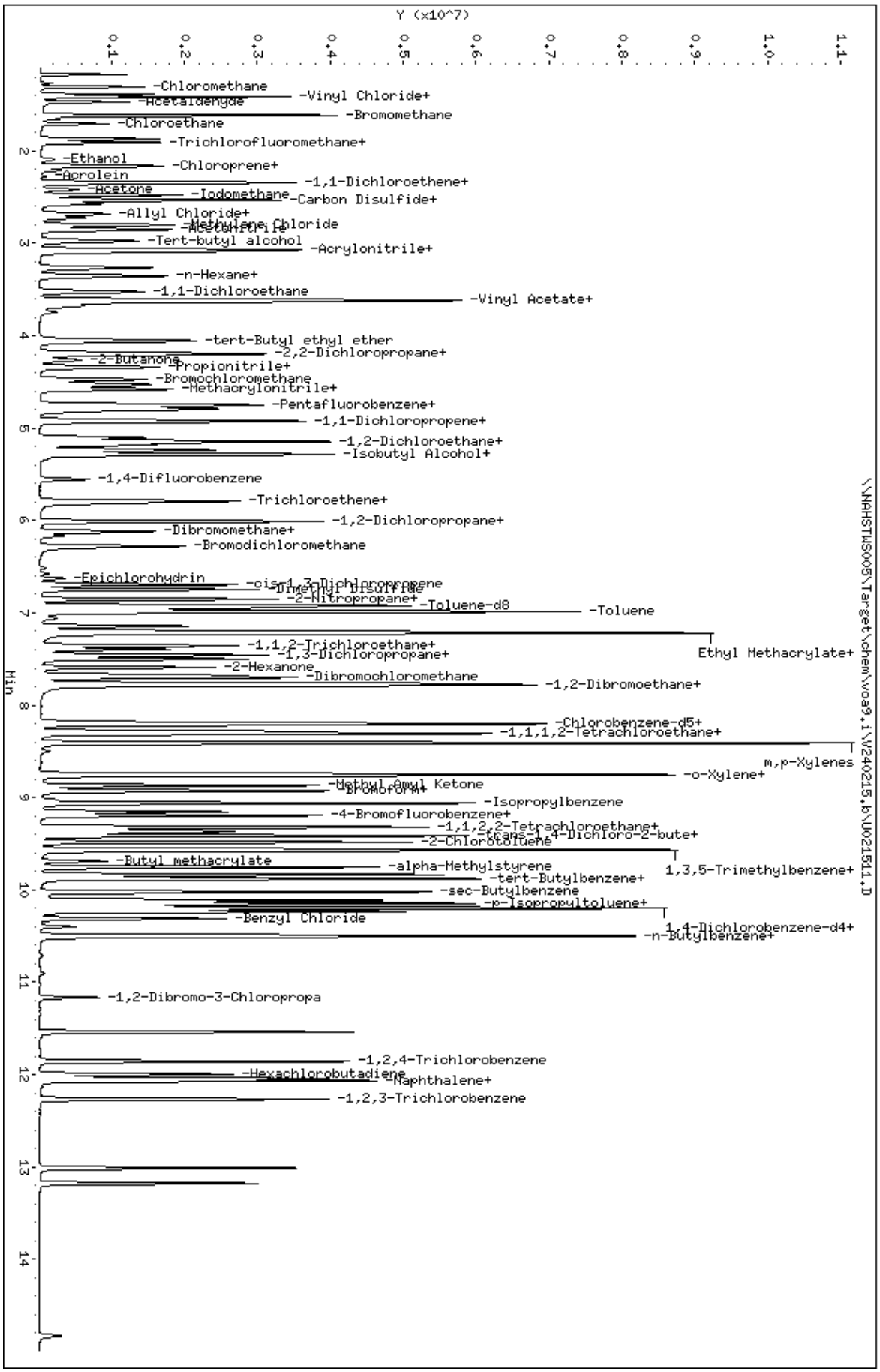
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	298669	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.752	(0.985)	767328	200.000	155.30
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	930805	200.000	155.10
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	502373	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	485709	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	2947183	200.000	155.13
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1111511	200.000	156.12
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	248721	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	957550	200.000	154.43
11 1,1-Dichloroethene	96	2.341	2.341	(0.485)	639342	200.000	154.78
17 Methylene Chloride	84	2.802	2.802	(0.581)	751196	200.000	206.16(A)
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	1838203	200.000	153.29
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.636)	741322	200.000	152.75
23 Chloroprene	53	2.169	2.169	(0.450)	266973	200.000	155.70
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	861510	200.000	155.72
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1124403	200.000	155.12
34 Carbon Tetrachloride	117	4.920	4.920	(0.886)	1010053	200.000	211.19(A)
37 Benzene	78	5.145	5.145	(0.926)	3251597	200.000	154.88
38 Trichloroethene	130	5.790	5.790	(1.043)	840074	200.000	156.20
56 Tetrachloroethene	164	7.458	7.458	(0.911)	651564	200.000	156.59

53 1,1,2-Trichloroethane	83	7.357	7.357 (0.899)	650852	200.000	157.34
50 Toluene	91	6.982	6.982 (0.853)	3423675	200.000	155.79

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	1158229	200.000	155.55
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	2917019	400.000	312.31
	63 o-Xylene	106	8.748	8.748	(1.069)	1437613	200.000	155.44
	92 Naphthalene	128	12.065	12.065	(1.186)	3094275	200.000	158.78
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	2011875	400.000	314.61
	13 Acetonitrile	39	2.851	2.851	(0.591)	295345	2000.00	1560.02
	9 Acrolein	56	2.274	2.274	(0.471)	58496	400.000	316.52
	16 Acrylonitrile	53	3.072	3.072	(0.637)	584095	400.000	302.71
	25 Methacrylonitrile	41	4.530	4.530	(0.939)	334961	200.000	156.20
	194 Acetaldehyde	44	1.468	1.468	(0.304)	843709	800.000	652.41
	64 Styrene	104	8.763	8.763	(1.071)	2567974	200.000	155.81
	140 1,3-Butadiene	54	1.411	1.411	(0.293)	925988	200.000	153.26
	28 Chloroform	83	4.579	4.579	(0.949)	1413501	200.000	156.02
	59 Chlorobenzene	112	8.212	8.212	(1.003)	2217399	200.000	155.90
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	1100615	200.000	154.64
	55 Dibromochloromethane	129	7.691	7.691	(0.940)	877268	200.000	155.02
	66 Bromoform	173	8.916	8.916	(1.089)	611961	200.000	155.72
	182 Epichlorohydrin	57	6.630	6.630	(1.194)	253251	800.000	613.95
M	95 Xylenes (total)	106				4354632	600.000	
M	94 1,2-Dichloroethylene (total)	96				1602832	400.000	

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D
Date : 15-FEB-2024 19:44
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021511.D
Inj Date : 15-FEB-2024 19:44
InstruID : VOA9.i
LabSampID : VSTD200

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021513.D Page 1
Report Date: 22-Feb-2024 16:17

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021513.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 15-FEB-2024 20:29
Operator : FT Inst ID: VOA9.i
Smp Info : ICV;ICV;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 16:17 Linh.Pham Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 13 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V9dod+.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	4.815	4.823	(1.000)	294448	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.752	(0.986)	204525	57.0472	57.04
$ 35 1,2-Dichloroethane-d4	65	5.096	5.100	(1.058)	252447	57.1772	57.17
* 36 1,4-Difluorobenzene	114	5.550	5.554	(1.000)	492917	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	467791	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	780008	57.2817	57.28
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	287017	56.2350	56.23
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.172	(1.000)	237313	50.0000	
5 Vinyl Chloride	62	1.374	1.385	(0.285)	250123	57.3558	57.35
11 1,1-Dichloroethene	96	2.330	2.341	(0.484)	166624	57.3046	57.30
17 Methylene Chloride	84	2.791	2.802	(0.580)	204049	54.8167	54.81
18 Methyl tert-butyl ether	73	3.076	3.087	(0.639)	436013	51.6472	51.64
20 trans-1,2-Dichloroethene	96	3.057	3.068	(0.635)	202388	57.6713	57.67
23 Chloroprene	53	2.157	2.169	(0.448)	66766	55.6169	55.61(M)
27 cis-1,2-Dichloroethene	96	4.193	4.204	(0.871)	226558	57.9199	57.91
33 1,2-Dichloroethane	62	5.175	5.179	(0.932)	300879	56.5485	56.54
34 Carbon Tetrachloride	117	4.913	4.920	(0.885)	249043	52.8468	52.84
37 Benzene	78	5.138	5.145	(0.926)	861128	57.3795	57.37
38 Trichloroethene	130	5.786	5.790	(1.043)	216592	58.0663	58.06
56 Tetrachloroethene	164	7.458	7.458	(0.911)	166218	57.3819	57.38

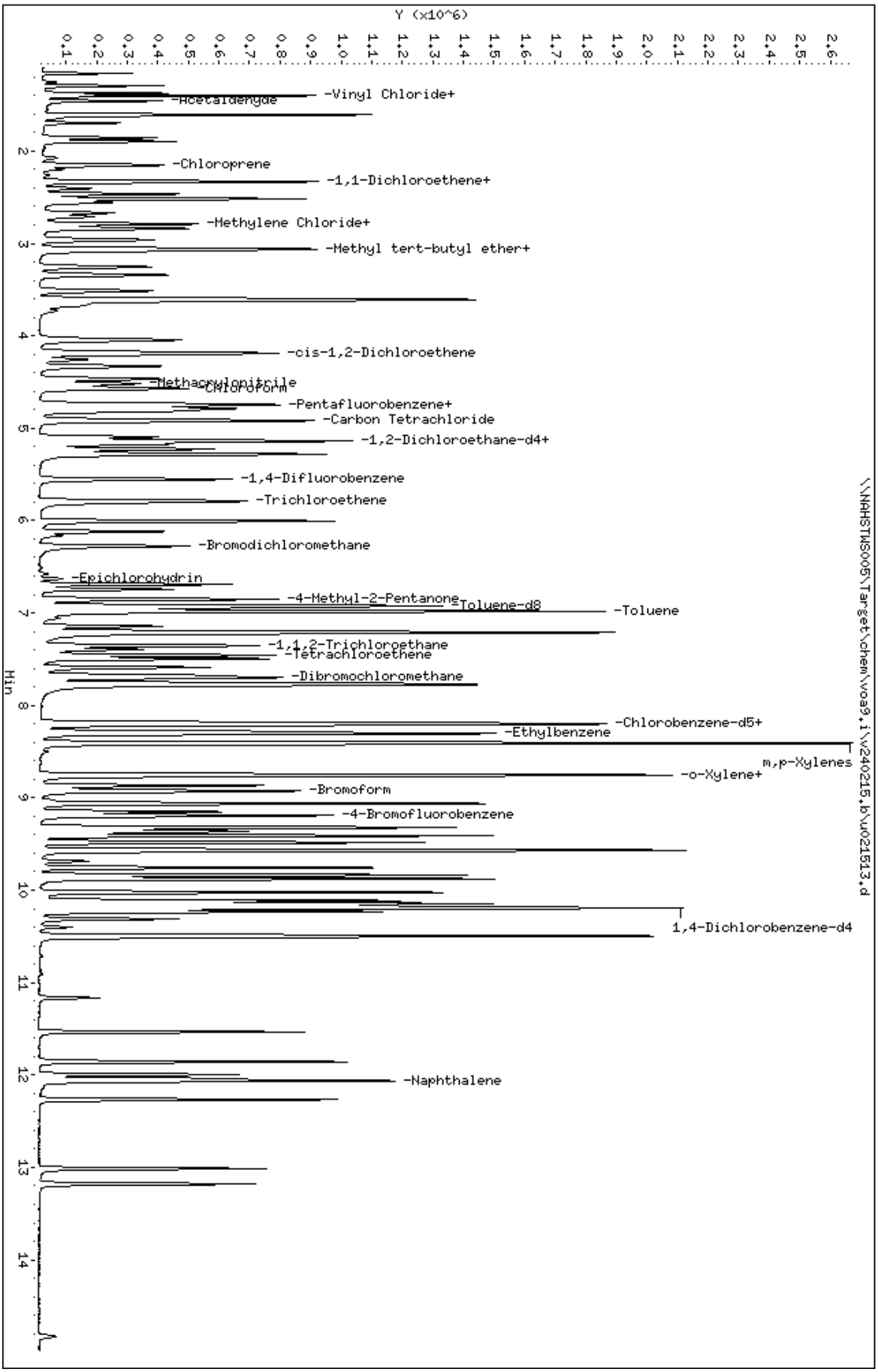
53 1,1,2-Trichloroethane	83	7.353	7.357 (0.898)	173234	58.0166	58.01
50 Toluene	91	6.982	6.982 (0.853)	908504	57.7906	57.79

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\U021513.D Page 2
Report Date: 22-Feb-2024 16:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	61 Ethylbenzene	106	8.305	8.309	(1.015)	297621	58.4031	58.40
	62 m,p-Xylenes	106	8.406	8.410	(1.027)	748358	115.032	115.03
	63 o-Xylene	106	8.748	8.748	(1.069)	358175	57.2730	57.27
	92 Naphthalene	128	12.065	12.065	(1.187)	762123	59.7804	59.78(M)
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	494757	116.453	116.45(M)
	13 Acetonitrile	39	2.840	2.851	(0.590)	79024	535.947	535.94
	9 Acrolein	56	2.262	2.274	(0.470)	16054	112.169	112.16(M)
	16 Acrylonitrile	53	3.061	3.072	(0.636)	146894	104.225	104.22
	25 Methacrylonitrile	41	4.527	4.530	(0.940)	85037	56.1537	56.15
	194 Acetaldehyde	44	1.456	1.468	(0.303)	229556	215.176	215.17(M)
	64 Styrene	104	8.763	8.763	(1.071)	650978	57.5066	57.50(M)
	140 1,3-Butadiene	54	1.400	1.411	(0.291)	241984	56.7809	56.78(M)
	28 Chloroform	83	4.571	4.579	(0.949)	371383	57.1398	57.13(M)
	59 Chlorobenzene	112	8.208	8.212	(1.003)	577781	57.3026	57.30(M)
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	276273	56.6936	56.69(M)
	55 Dibromochloromethane	129	7.690	7.691	(0.940)	217509	57.8922	57.89(M)
	66 Bromoform	173	8.916	8.916	(1.089)	144196	58.5121	58.51(M)
	182 Epichlorohydrin	57	6.626	6.630	(1.194)	53489	212.558	212.55(M)
M	95 Xylenes (total)	106				1106533	132.639	132.63
M	94 1,2-Dichloroethylene (total)	96				428946	80.0512	80.05

QC Flag Legend

M - Compound response manually integrated.



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Client ID: ICV
Sample Info: ICV;ICV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Chloroform (67-66-3)

Reason Code:

BEFORE

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HEIGHT
188207
22-Feb-2024
15:48
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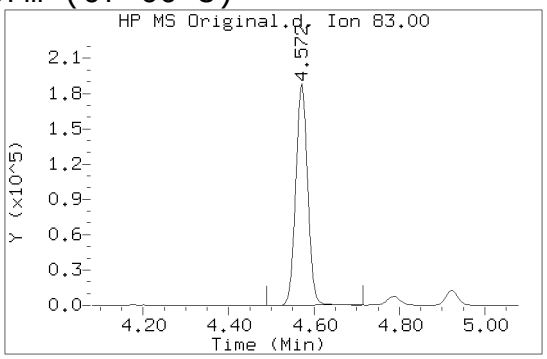
pham



AFTER

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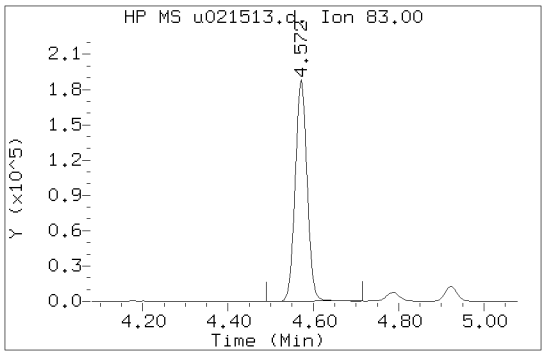

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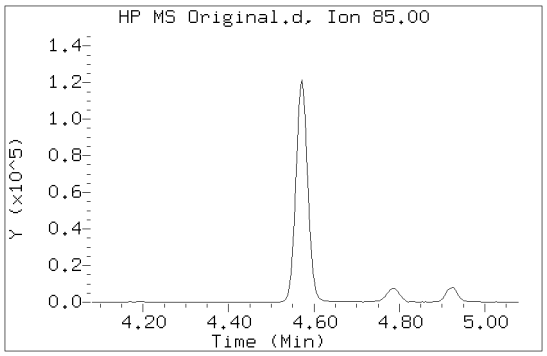

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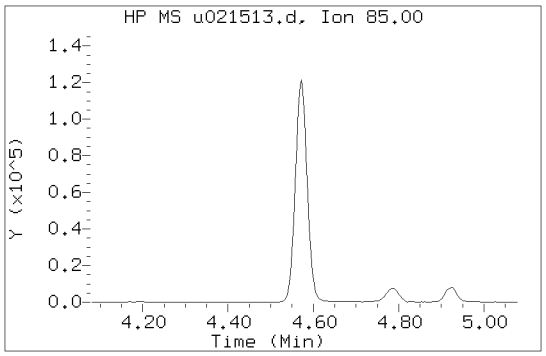

Bromodichloromethane (75-27-4)

Reason Code:

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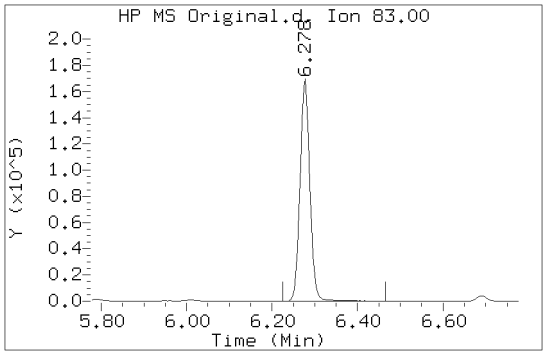

AFTER

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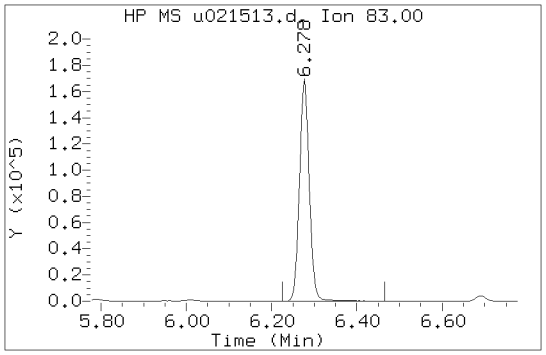

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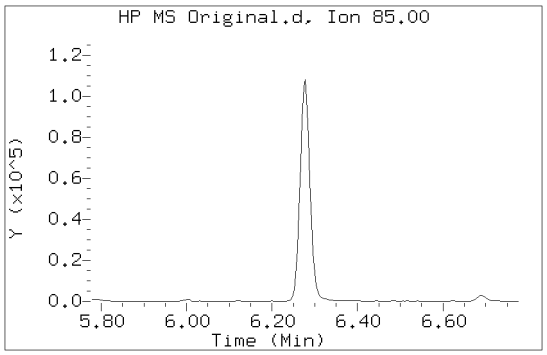

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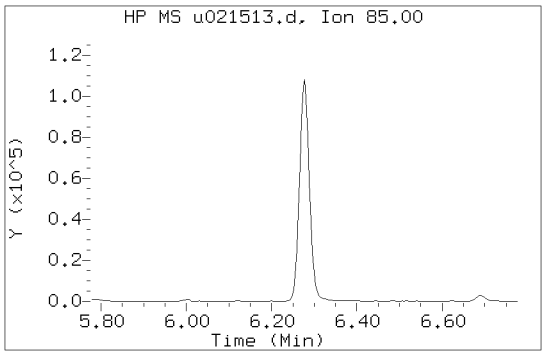

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InstruID : VOA9.i
LabSampID : ICV

Bromodichloromethane (75-27-4)

Reason Code:

BEFORE

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15:48
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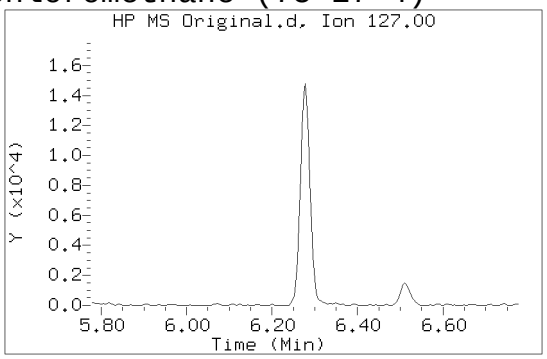

AFTER

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22-Feb-2024
16:17
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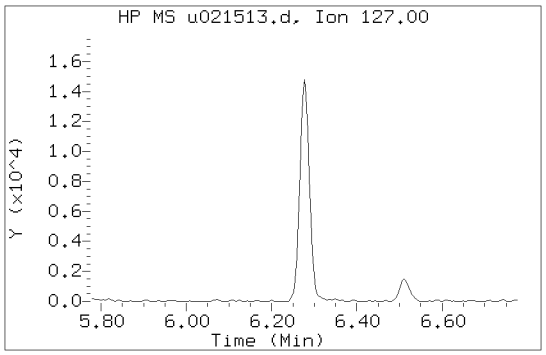

Dibromochloromethane (124-48-1)

Reason Code:

BEFORE

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HEIGHT
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22-Feb-2024
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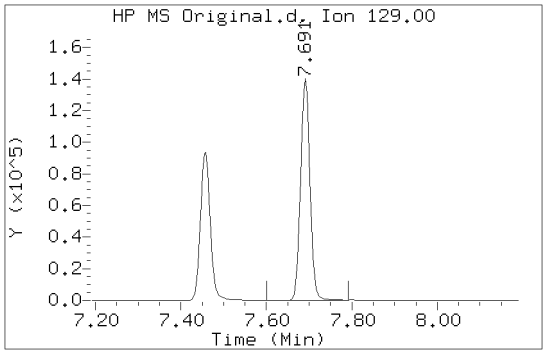

AFTER

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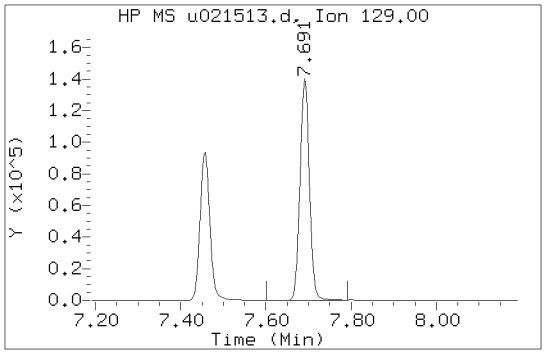

BEFORE

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HEIGHT
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22-Feb-2024
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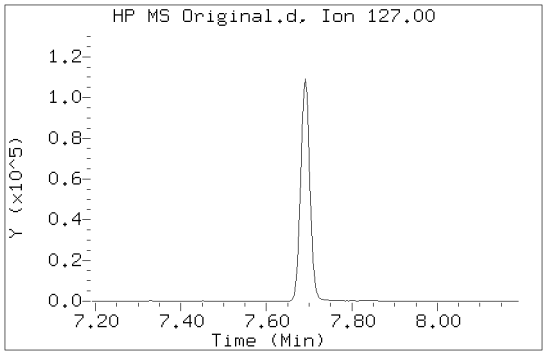

AFTER

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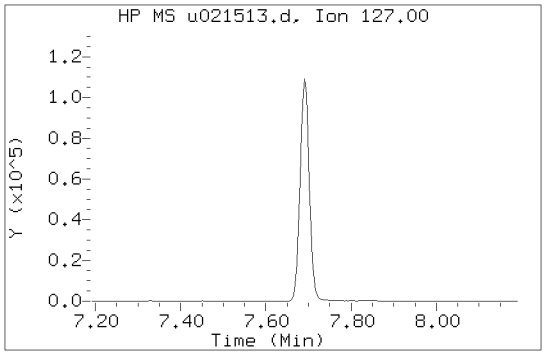

Bromoform (75-25-2)

Reason Code:

BEFORE

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AREA
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95310
22-Feb-2024
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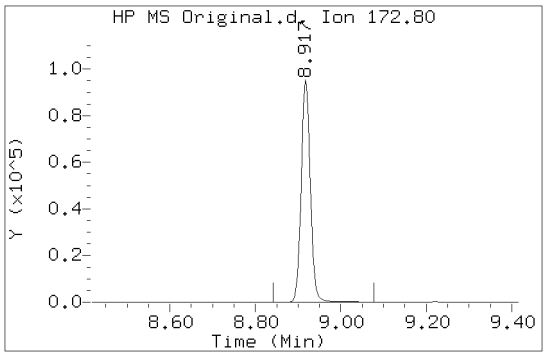

AFTER

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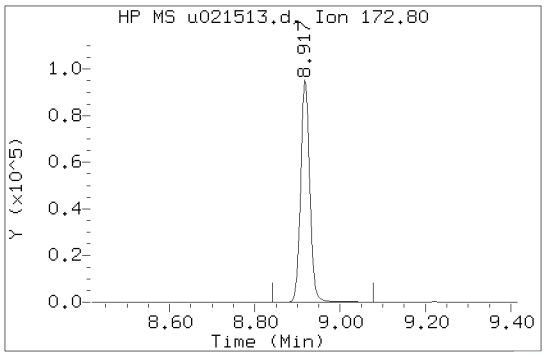

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Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Bromoform (75-25-2)

Reason Code:

BEFORE
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15:48
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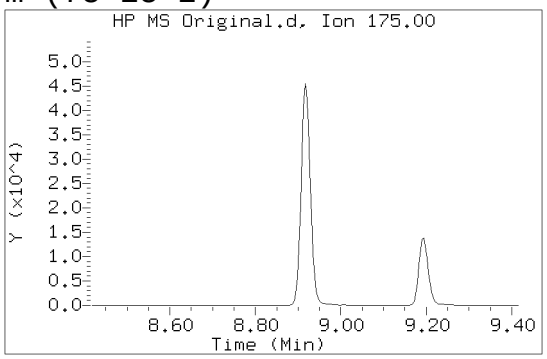

AFTER
MASS
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HEIGHT
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16:17
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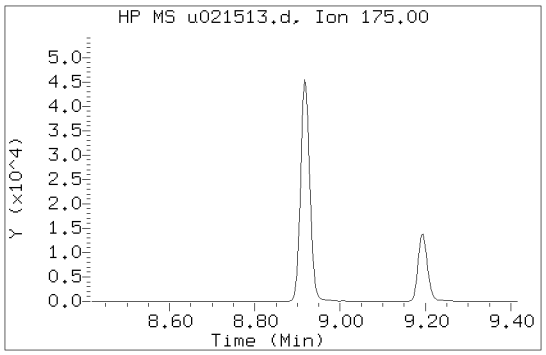
pham



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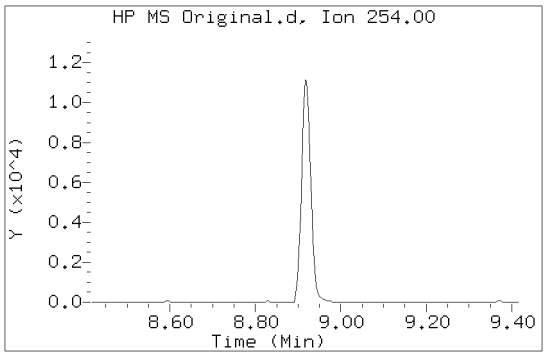

AFTER
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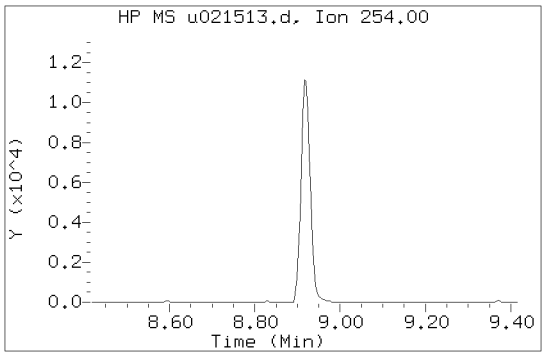

4-Methyl-2-Pentanone (108-10-1)

Reason Code:

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HEIGHT
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22-Feb-2024
15:48
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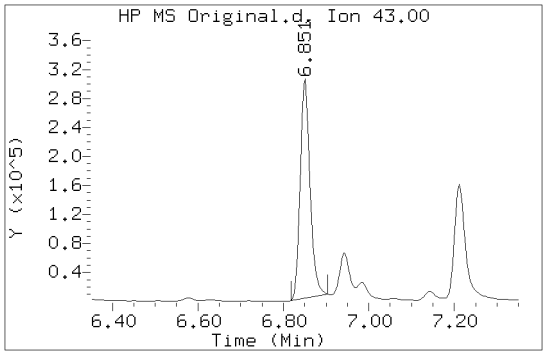
pham



AFTER
MASS
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AREA
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HEIGHT
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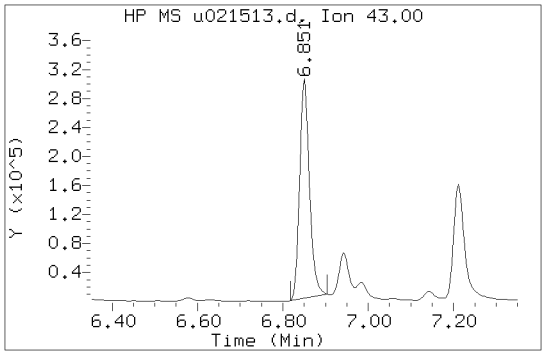
22-Feb-2024
16:17
linh
pham



BEFORE
MASS
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HEIGHT
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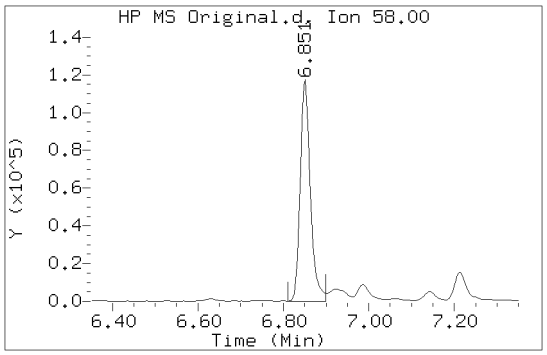
22-Feb-2024
15:48
linh
pham



AFTER
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HEIGHT
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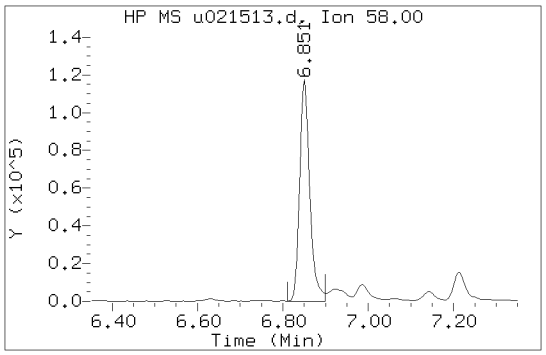

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Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

4-Methyl-2-Pentanone (108-10-1)

Reason Code:

BEFORE

MASS
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AREA
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HEIGHT
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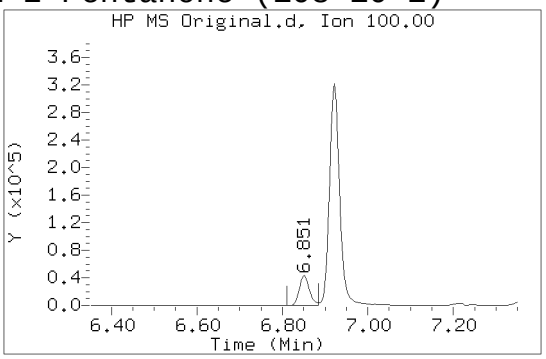
22-Feb-2024
15:48
linh
pham



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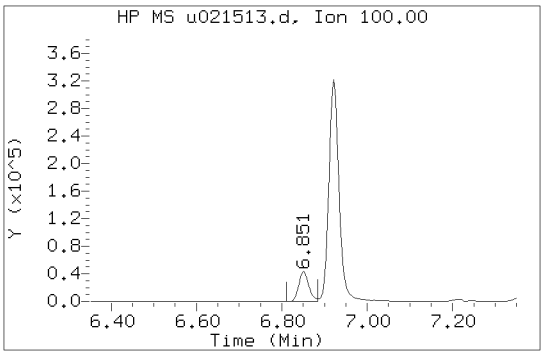

Chlorobenzene (108-90-7)

Reason Code:

BEFORE

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HEIGHT
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22-Feb-2024
15:48
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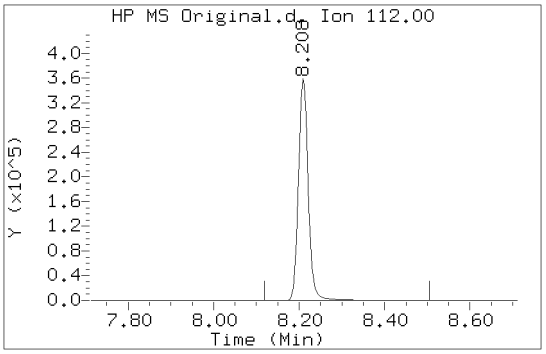

AFTER

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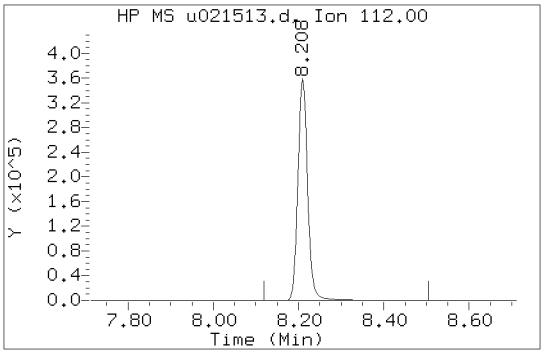

BEFORE

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HEIGHT
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22-Feb-2024
15:48
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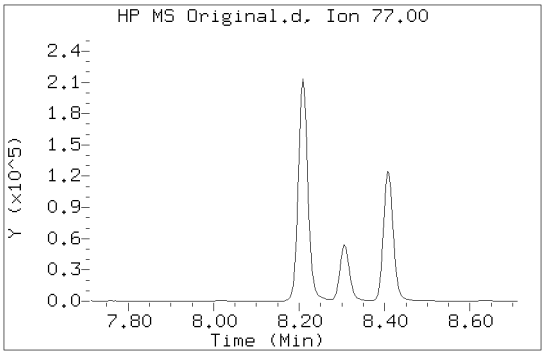

AFTER

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AREA
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22-Feb-2024
16:17
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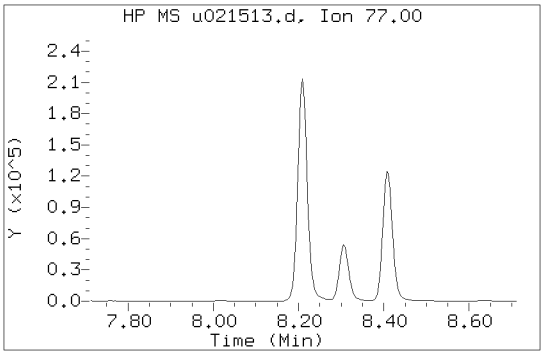
pham



BEFORE

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15:48
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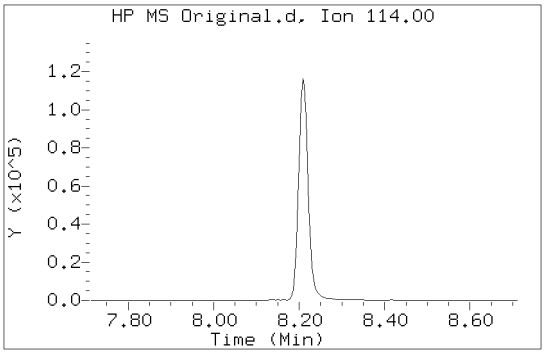

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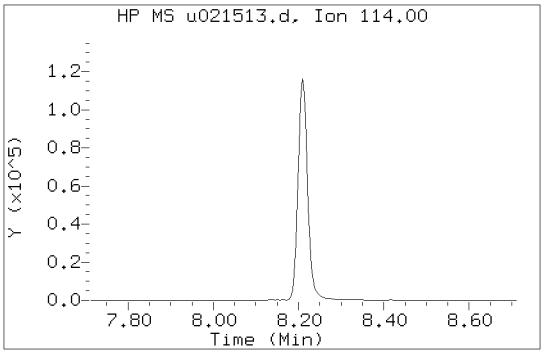

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Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Styrene (100-42-5)

Reason Code:

BEFORE

MASS
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AREA
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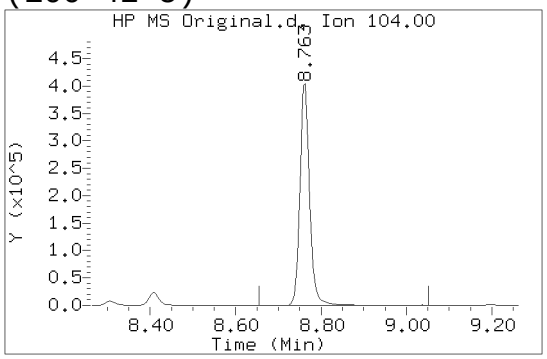
HEIGHT
404288
22-Feb-2024
15:48
linh
pham



AFTER

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HEIGHT
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22-Feb-2024
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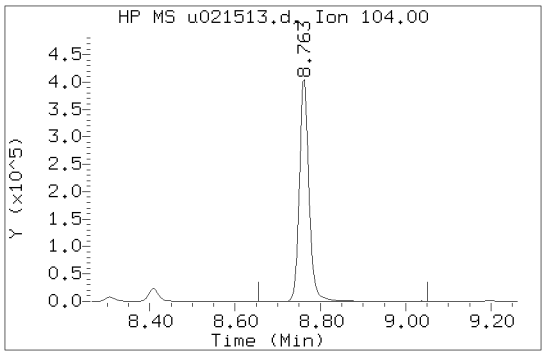

BEFORE

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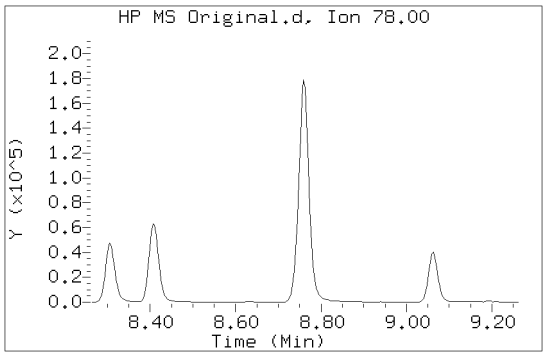
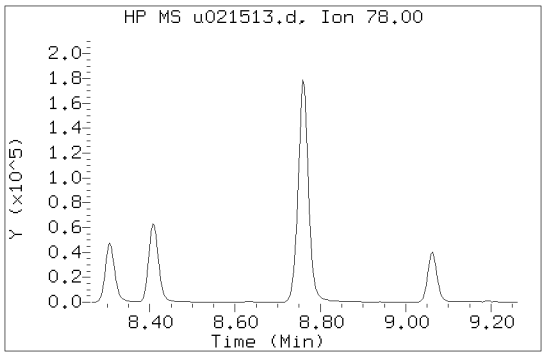
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
78
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

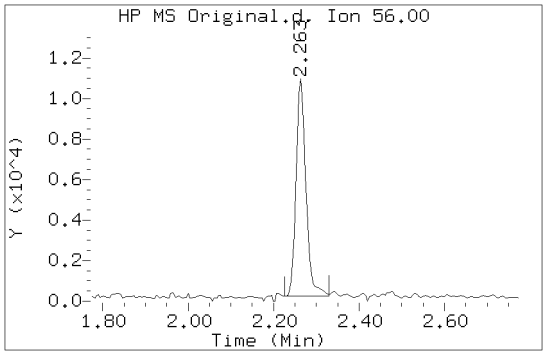


Acrolein (107-02-8)

Reason Code:

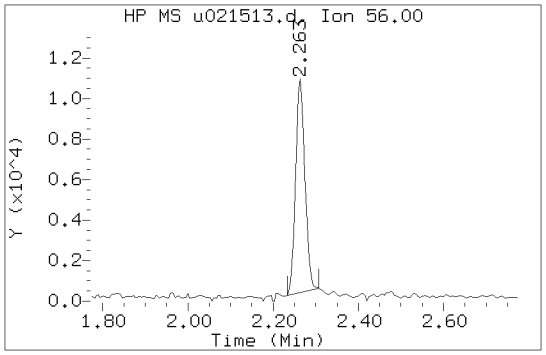
BEFORE

MASS
56
AREA
17276
HEIGHT
10709
22-Feb-2024
15:48
linh
pham



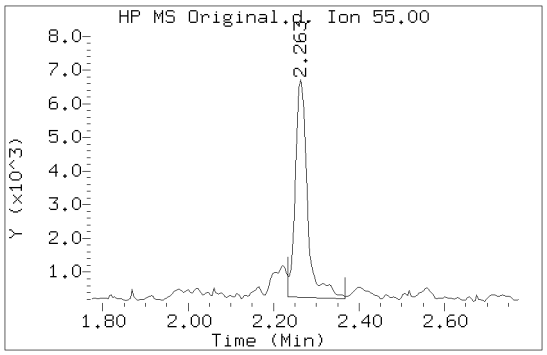
AFTER

MASS
56
AREA
16054
HEIGHT
10534
22-Feb-2024
16:17
linh
pham



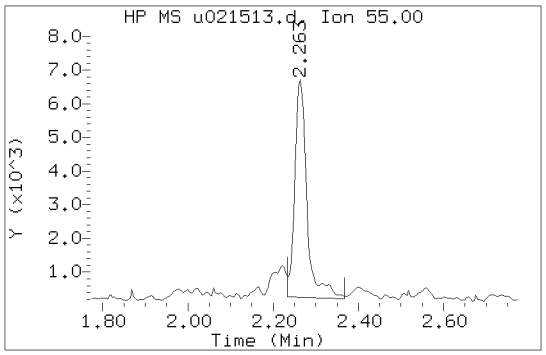
BEFORE

MASS
55
AREA
12952
HEIGHT
6454
22-Feb-2024
15:48
linh
pham



AFTER

MASS
55
AREA
12952
HEIGHT
6454
22-Feb-2024
16:17
linh
pham



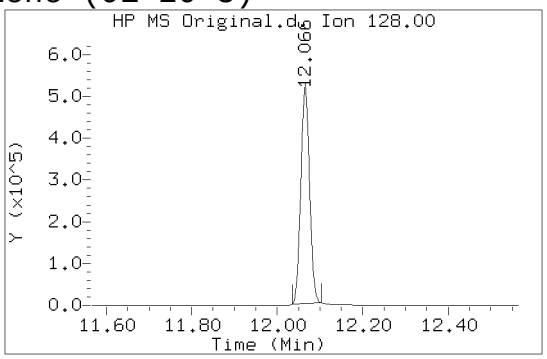
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Naphthalene (91-20-3)

Reason Code:

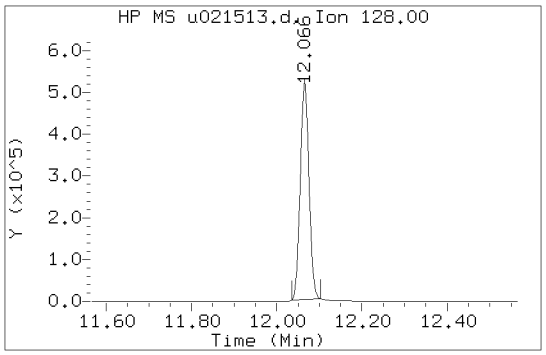
BEFORE

MASS
128
AREA
762123
HEIGHT
525883
22-Feb-2024
15:48
linh
pham



AFTER

MASS
128
AREA
762123
HEIGHT
525883
22-Feb-2024
16:17
linh
pham

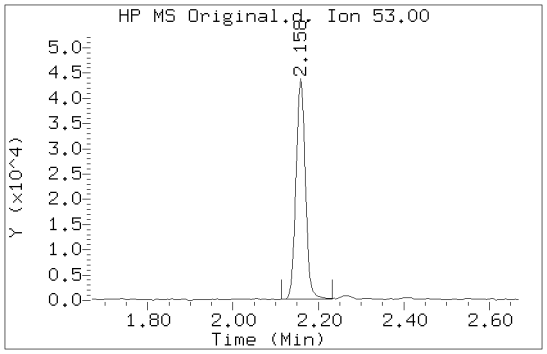


Chloroprene (126-99-8)

Reason Code:

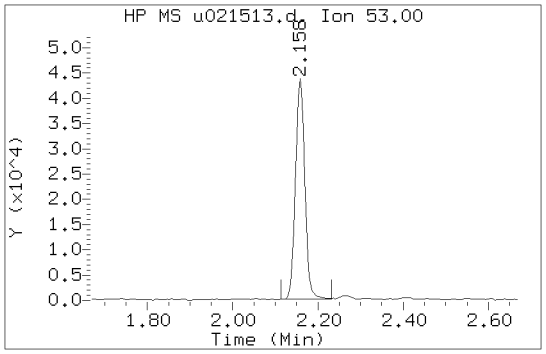
BEFORE

MASS
53
AREA
66766
HEIGHT
43619
22-Feb-2024
15:48
linh
pham



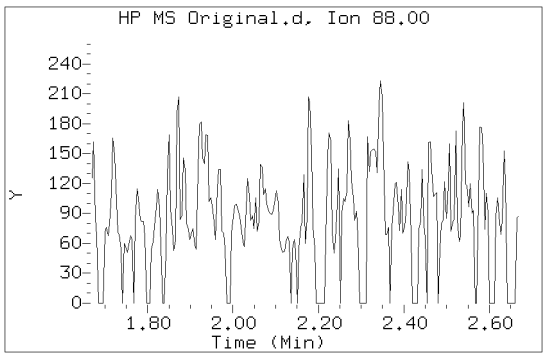
AFTER

MASS
53
AREA
66766
HEIGHT
43619
22-Feb-2024
16:17
linh
pham



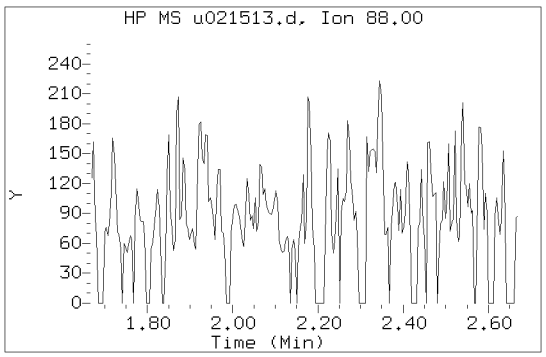
BEFORE

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

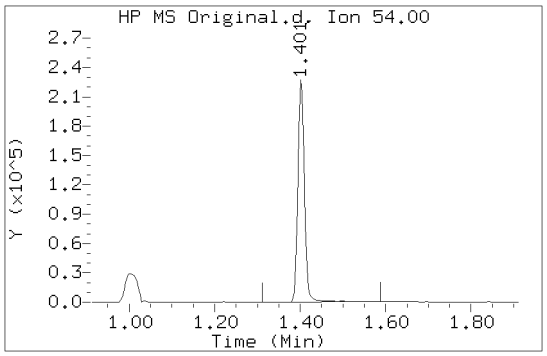


1,3-Butadiene (106-99-0)

Reason Code:

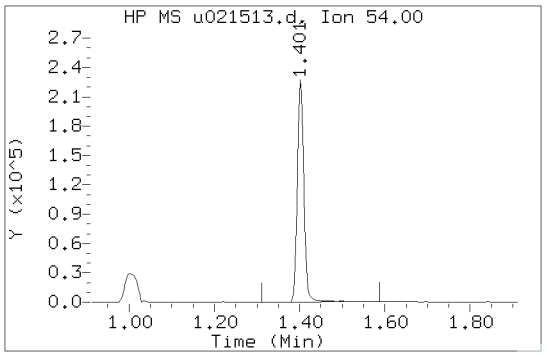
BEFORE

MASS
54
AREA
241984
HEIGHT
227004
22-Feb-2024
15:48
linh
pham



AFTER

MASS
54
AREA
241984
HEIGHT
227004
22-Feb-2024
16:17
linh
pham



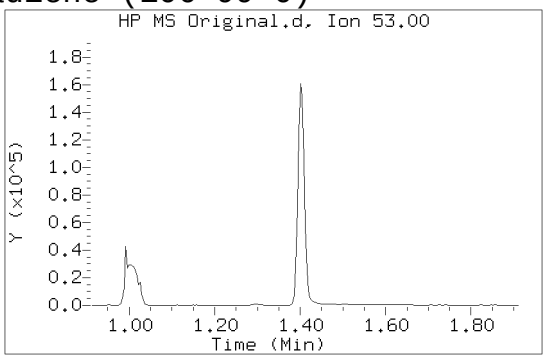
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

1,3-Butadiene (106-99-0)

Reason Code:

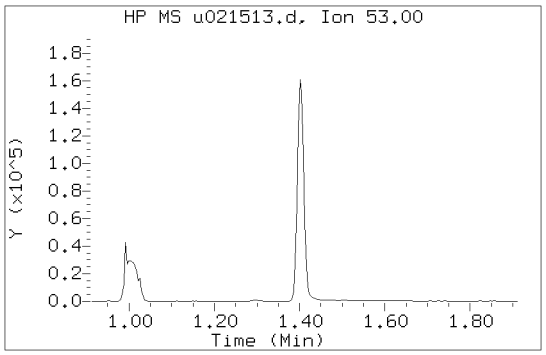
BEFORE

MASS
53
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
53
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

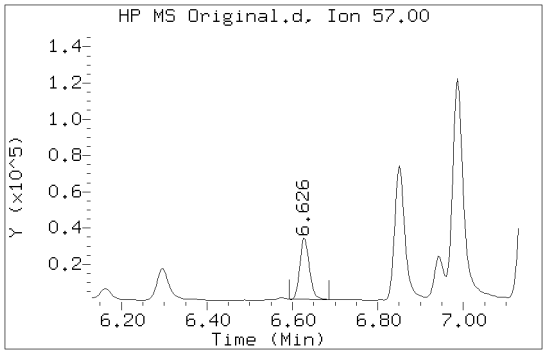


Epichlorohydrin (106-89-8)

Reason Code:

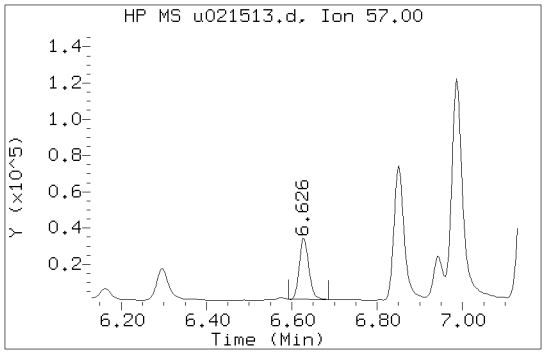
BEFORE

MASS
57
AREA
53489
HEIGHT
33689
22-Feb-2024
15:48
linh
pham



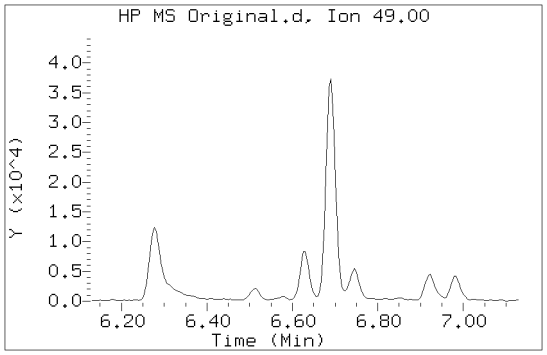
AFTER

MASS
57
AREA
53489
HEIGHT
33689
22-Feb-2024
16:17
linh
pham



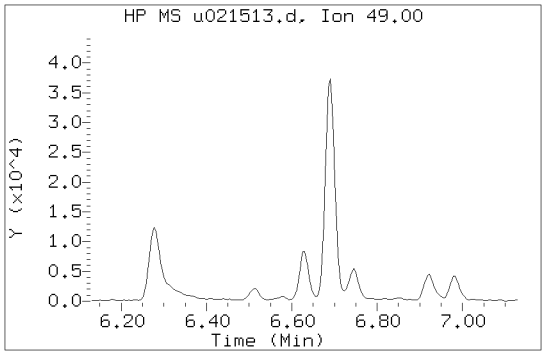
BEFORE

MASS
49
AREA
0
HEIGHT
0
22-Feb-2024
15:48
linh
pham



AFTER

MASS
49
AREA
0
HEIGHT
0
22-Feb-2024
16:17
linh
pham

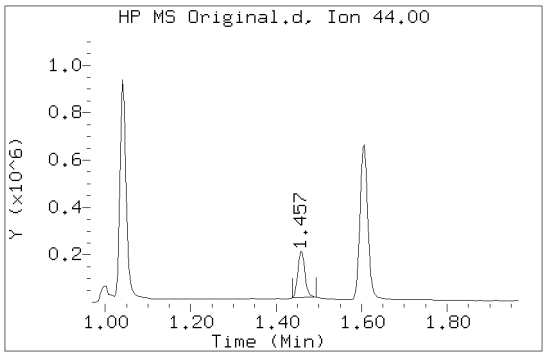


Acetaldehyde (75-07-0)

Reason Code:

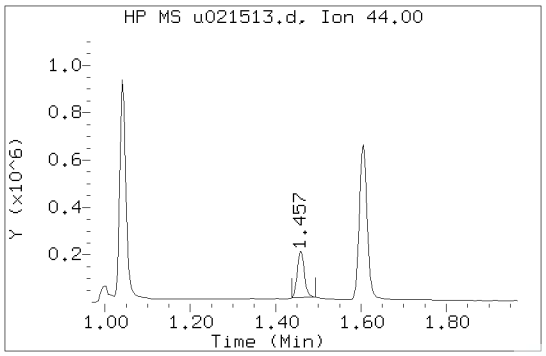
BEFORE

MASS
44
AREA
229556
HEIGHT
195583
22-Feb-2024
15:48
linh
pham



AFTER

MASS
44
AREA
229556
HEIGHT
195583
22-Feb-2024
16:17
linh
pham



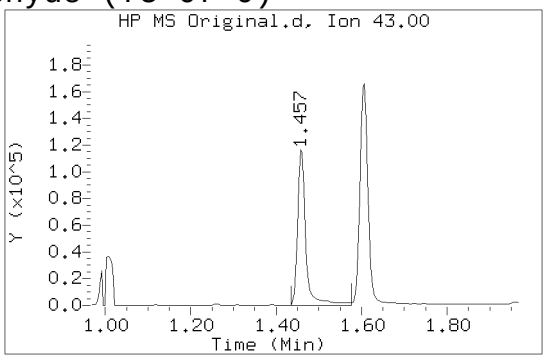
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\u021513.d
Inj Date : 15-FEB-2024 20:29
InstruID : VOA9.i
LabSampID : ICV

Acetaldehyde (75-07-0)

Reason Code:

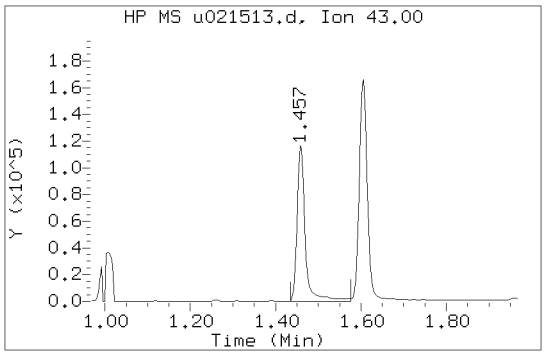
BEFORE

MASS
43
AREA
158720
HEIGHT
116816
22-Feb-2024
15:48
linh
pham



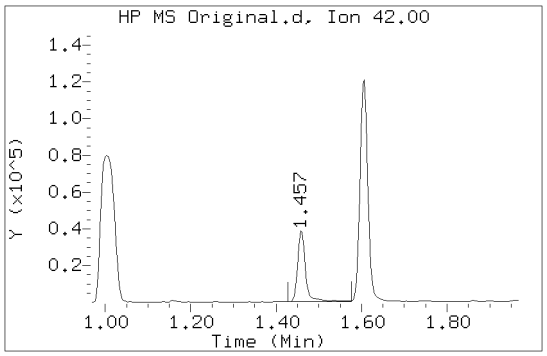
AFTER

MASS
43
AREA
158720
HEIGHT
116816
22-Feb-2024
16:17
linh
pham



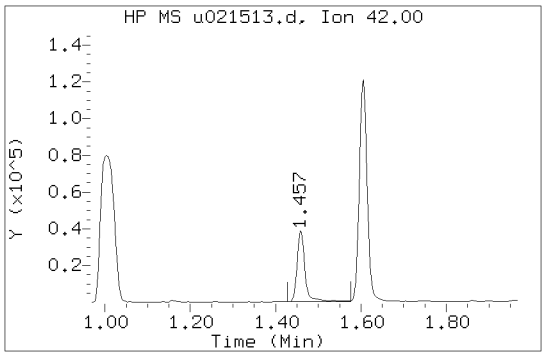
BEFORE

MASS
42
AREA
50481
HEIGHT
38406
22-Feb-2024
15:48
linh
pham



AFTER

MASS
42
AREA
50481
HEIGHT
38406
22-Feb-2024
16:17
linh
pham



right solutions.
right partner.

RawData

Volatiles by EPA Volatiles Organics by Method 8260C

Workorder

HS24020577

Client

Bhate Environmental Associates, Inc.

Project

LHAAP Site 16

02/27/2024

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\V240215.b\V021501.D Page 1
Report Date: 15-Feb-2024 22:00

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\voa9.i\V240215.b\V021501.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 15-FEB-2024 21:13
Operator : FT Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa9.i\V240215.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: 14 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7066

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	103968			0.00- 100.00	100.00
9.194	9.180	(0.000)	50	20976			15.00- 40.00	20.18
9.194	9.180	(0.000)	75	52472			30.00- 60.00	50.47
9.194	9.180	(0.000)	96	7891			5.00- 9.00	7.59
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	83088			50.00- 0.00	79.92
9.194	9.180	(0.000)	175	7224			5.00- 9.00	8.69
9.194	9.180	(0.000)	176	78976			95.00- 101.00	95.05
9.194	9.180	(0.000)	177	5423			5.00- 9.00	6.87

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.18
75	30.00 - 60.00% of mass 95	50.47
96	5.00 - 9.00% of mass 95	7.59
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	79.92
175	5.00 - 9.00% of mass 174	6.95 (8.69)
176	95.00 - 101.00% of mass 174	75.96 (95.05)
177	5.00 - 9.00% of mass 176	5.22 (6.87)

Data File: V021501.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 129

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1451	69.00	10806	102.80	140	143.70	54
37.00	5946	70.00	962	103.90	481	144.10	51
38.00	5662	71.00	146	105.00	194	144.90	191
39.00	2340	72.00	641	105.80	428	145.90	150
39.90	471	73.00	4972	107.00	111	147.00	88
41.00	263	74.00	17296	107.80	74	147.90	281
42.00	325	75.00	52472	110.10	122	148.90	90
43.00	269	76.00	4990	111.60	85	149.80	146
44.00	985	77.10	518	113.00	112	151.00	57
45.00	1115	78.00	445	114.70	87	151.80	86
45.70	240	78.90	2984	115.80	449	152.60	138
47.00	1797	79.90	882	116.90	745	153.90	83
47.90	869	80.90	3019	117.90	426	154.90	313
49.00	4892	81.90	673	118.80	514	156.90	167
50.00	20976	82.70	179	120.20	75	158.70	119
51.00	6509	85.00	56	123.80	77	159.10	125
52.00	470	85.80	305	124.30	54	160.70	121
52.90	185	86.90	5349	125.90	76	165.10	66
53.80	119	88.00	4754	126.70	53	166.70	65
54.20	135	89.00	111	127.80	383	170.70	109
55.00	661	89.80	106	128.70	194	172.00	628
55.90	1723	90.80	404	129.10	182	173.90	83088
57.00	2857	92.00	3099	129.80	285	175.00	7224
57.90	182	93.00	4554	130.90	245	175.90	78976
60.00	1136	94.00	13113	131.80	87	176.90	5423
61.00	5157	95.00	103968	134.80	249	177.90	190
62.00	4839	96.00	7891	135.90	128	189.40	70
63.00	3968	97.00	254	136.80	199	192.50	59
64.00	569	98.00	180	138.80	54	238.00	78
65.00	439	98.70	64	140.10	137	271.10	55
65.90	92	99.30	106	140.90	862		
67.00	404	100.00	50	141.80	156		
68.00	11076	101.10	52	142.90	1090		

Data File: \\nahstws005\Target\chem\voa9.i\V240215.b\V021501.D Page 1

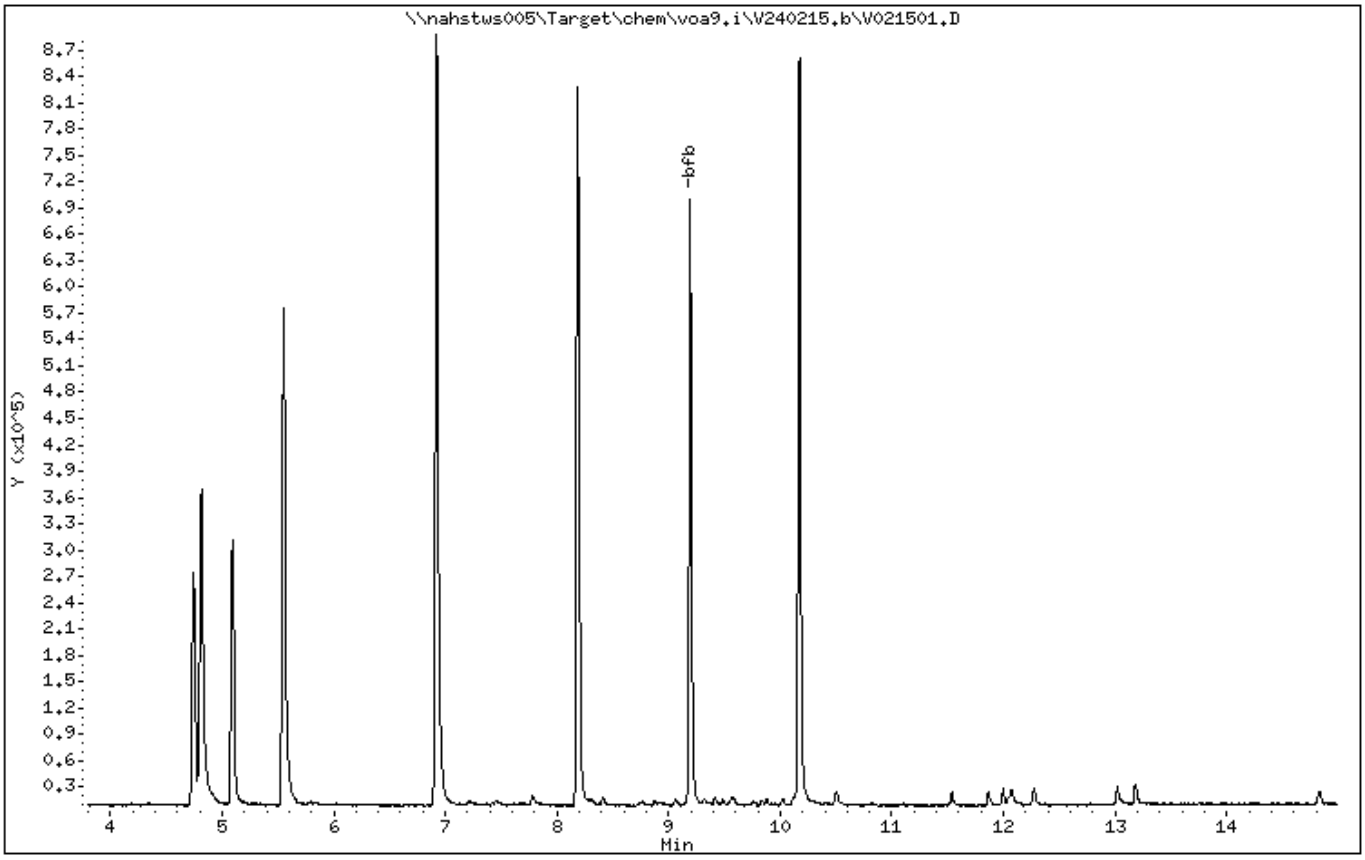
Date : 15-FEB-2024 21:13

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25



Data File: \\nahstws005\Target\chem\voa9.i\V240215.b\V021501.D Page 2

Date : 15-FEB-2024 21:13

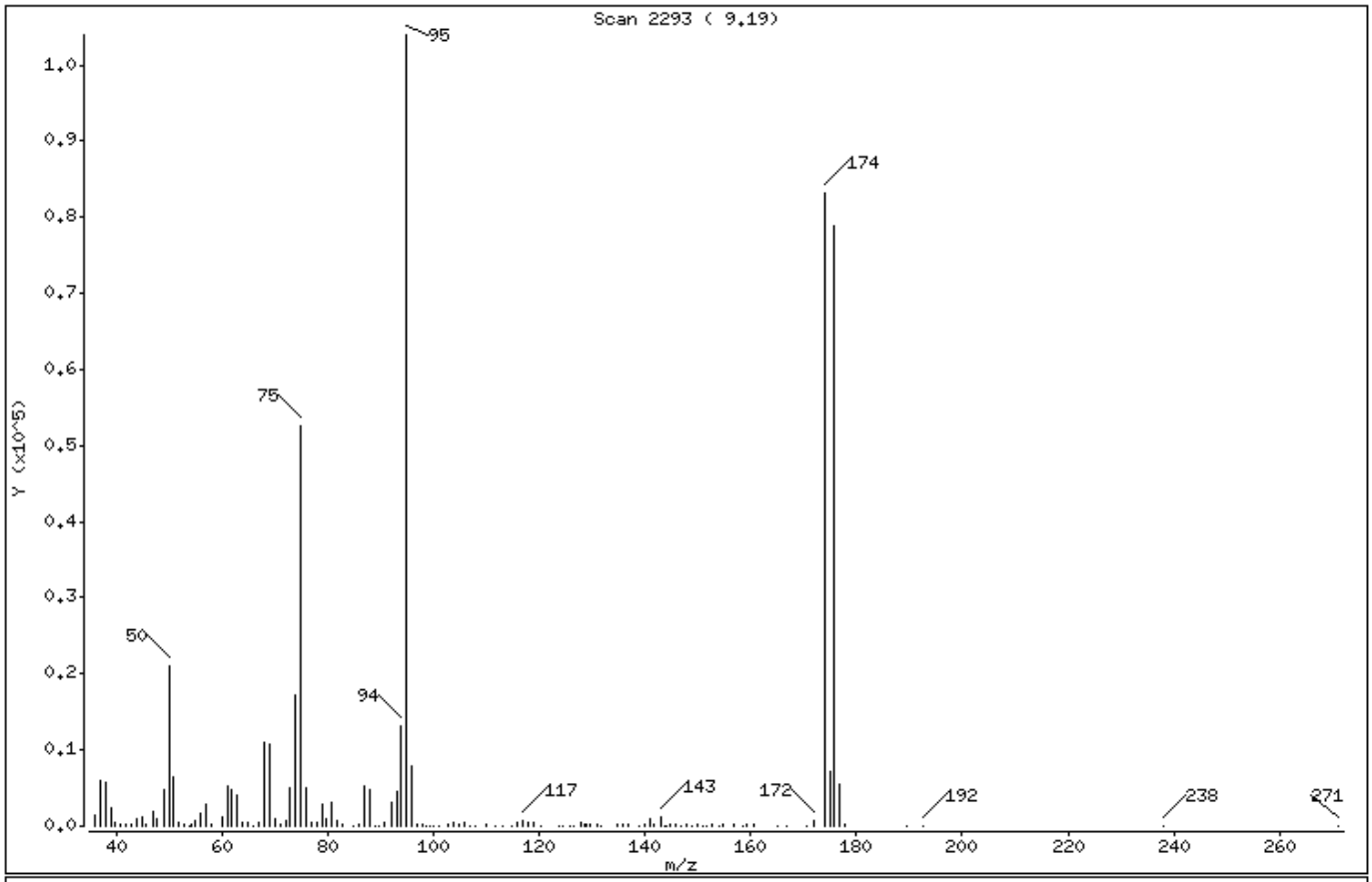
Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

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	20.18
75	30.00 - 60.00% of mass 95	50.47
96	5.00 - 9.00% of mass 95	7.59
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	79.92
175	5.00 - 9.00% of mass 174	6.95 (8.69)
176	95.00 - 101.00% of mass 174	75.96 (95.05)
177	5.00 - 9.00% of mass 176	5.22 (6.87)

Data File: \\nahstws005\Target\chem\voa9.i\V240215.b\V021501.D Page 3

Date : 15-FEB-2024 21:13

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: FT

Column phase: DB624 Column diameter: 0.25

Data File: V021501.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 129

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1451	69.00	10806	102.80	140	143.70	54
37.00	5946	70.00	962	103.90	481	144.10	51
38.00	5662	71.00	146	105.00	194	144.90	191
39.00	2340	72.00	641	105.80	428	145.90	150
39.90	471	73.00	4972	107.00	111	147.00	88
41.00	263	74.00	17296	107.80	74	147.90	281
42.00	325	75.00	52472	110.10	122	148.90	90
43.00	269	76.00	4990	111.60	85	149.80	146
44.00	985	77.10	518	113.00	112	151.00	57
45.00	1115	78.00	445	114.70	87	151.80	86
45.70	240	78.90	2984	115.80	449	152.60	138
47.00	1797	79.90	882	116.90	745	153.90	83
47.90	869	80.90	3019	117.90	426	154.90	313
49.00	4892	81.90	673	118.80	514	156.90	167
50.00	20976	82.70	179	120.20	75	158.70	119
51.00	6509	85.00	56	123.80	77	159.10	125
52.00	470	85.80	305	124.30	54	160.70	121
52.90	185	86.90	5349	125.90	76	165.10	66
53.80	119	88.00	4754	126.70	53	166.70	65
54.20	135	89.00	111	127.80	383	170.70	109
55.00	661	89.80	106	128.70	194	172.00	628
55.90	1723	90.80	404	129.10	182	173.90	83088
57.00	2857	92.00	3099	129.80	285	175.00	7224
57.90	182	93.00	4554	130.90	245	175.90	78976
60.00	1136	94.00	13113	131.80	87	176.90	5423
61.00	5157	95.00	103968	134.80	249	177.90	190
62.00	4839	96.00	7891	135.90	128	189.40	70
63.00	3968	97.00	254	136.80	199	192.50	59
64.00	569	98.00	180	138.80	54	238.00	78
65.00	439	98.70	64	140.10	137	271.10	55
65.90	92	99.30	106	140.90	862		
67.00	404	100.00	50	141.80	156		
68.00	11076	101.10	52	142.90	1090		

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021502.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021502.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 15-FEB-2024 21:57
Operator : FT Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.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	4.819	4.819	(1.000)	306536	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	182482	50.0000	49.32
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	227267	50.0000	49.85
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	505047	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	487567	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	697517	50.0000	49.65
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	261128	50.0000	49.50
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	252873	50.0000	
5 Vinyl Chloride	62	1.378	1.378	(0.286)	210056	50.0000	46.84
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	143082	50.0000	47.76
17 Methylene Chloride	84	2.795	2.795	(0.580)	177497	50.0000	45.35
18 Methyl tert-butyl ether	73	3.080	3.080	(0.639)	472037	50.0000	53.57
20 trans-1,2-Dichloroethene	96	3.061	3.061	(0.635)	171839	50.0000	47.62
27 cis-1,2-Dichloroethene	96	4.197	4.197	(0.871)	198364	50.0000	49.26
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	262958	50.0000	48.64
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	210903	50.0000	43.62
37 Benzene	78	5.141	5.141	(0.926)	738863	50.0000	48.59
38 Trichloroethene	130	5.790	5.790	(1.043)	183862	50.0000	48.71
56 Tetrachloroethene	164	7.458	7.458	(0.911)	142988	50.0000	47.89
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	149454	50.0000	48.54

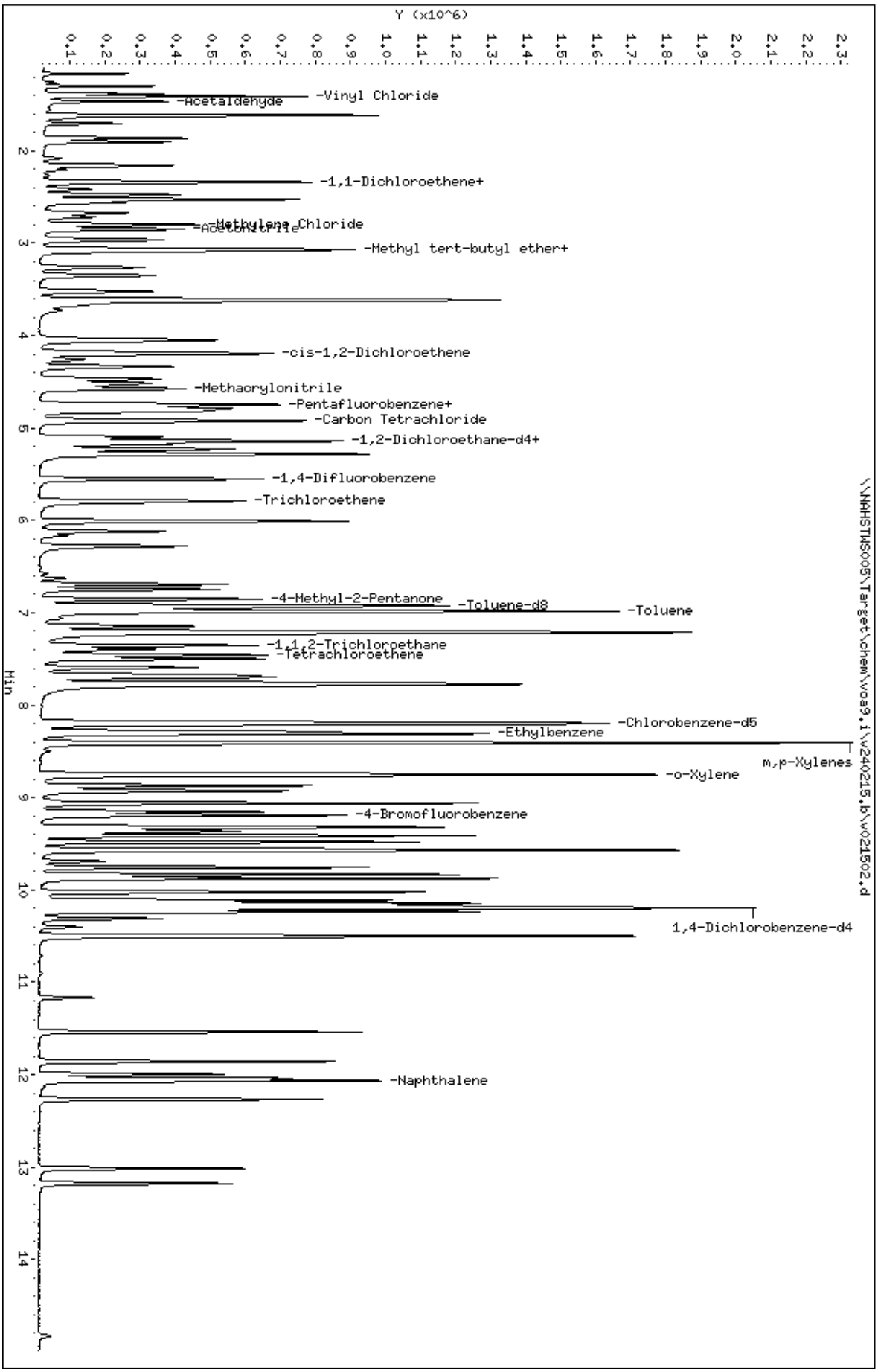
50 Toluene	91	6.982	6.982 (0.853)	774360	50.0000	47.87
61 Ethylbenzene	106	8.305	8.305 (1.015)	253123	50.0000	48.34

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021502.D Page 2
Report Date: 22-Feb-2024 15:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	641302	100.000	95.87	
	63 o-Xylene	106	8.748	8.748	(1.069)	310721	50.0000	48.33	
	92 Naphthalene	128	12.065	12.065	(1.187)	661548	50.0000	49.62	
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	434265	100.000	99.46	
	13 Acetonitrile	39	2.847	2.847	(0.591)	67583	500.000	442.88	
	9 Acrolein	56	2.270	2.270	(0.471)	14417	100.000	97.50	
	16 Acrylonitrile	53	3.065	3.065	(0.636)	155877	100.000	106.11	
	25 Methacrylonitrile	41	4.523	4.523	(0.939)	83451	50.0000	53.14	
	194 Acetaldehyde	44	1.464	1.464	(0.304)	263861	200.000	236.85	
M	95 Xylenes (total)	106				952023	150.000		(a)
M	94 1,2-Dichloroethylene (total)	96				370203	100.000		(a)

QC Flag Legend

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



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Date : 15-FEB-2024 21:57
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\v021502.d
Inj Date : 15-FEB-2024 21:57
InstruID : VOA9.i
LabSampID : CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021503.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021503.D
Lab Smp Id: VLCSW-240215 Client Smp ID: VLCSW-240215
Inj Date : 15-FEB-2024 22:19
Operator : FT Inst ID: VOA9.i
Smp Info : VLCSW-240215;VLCSW-240215;3;;LCS
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

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

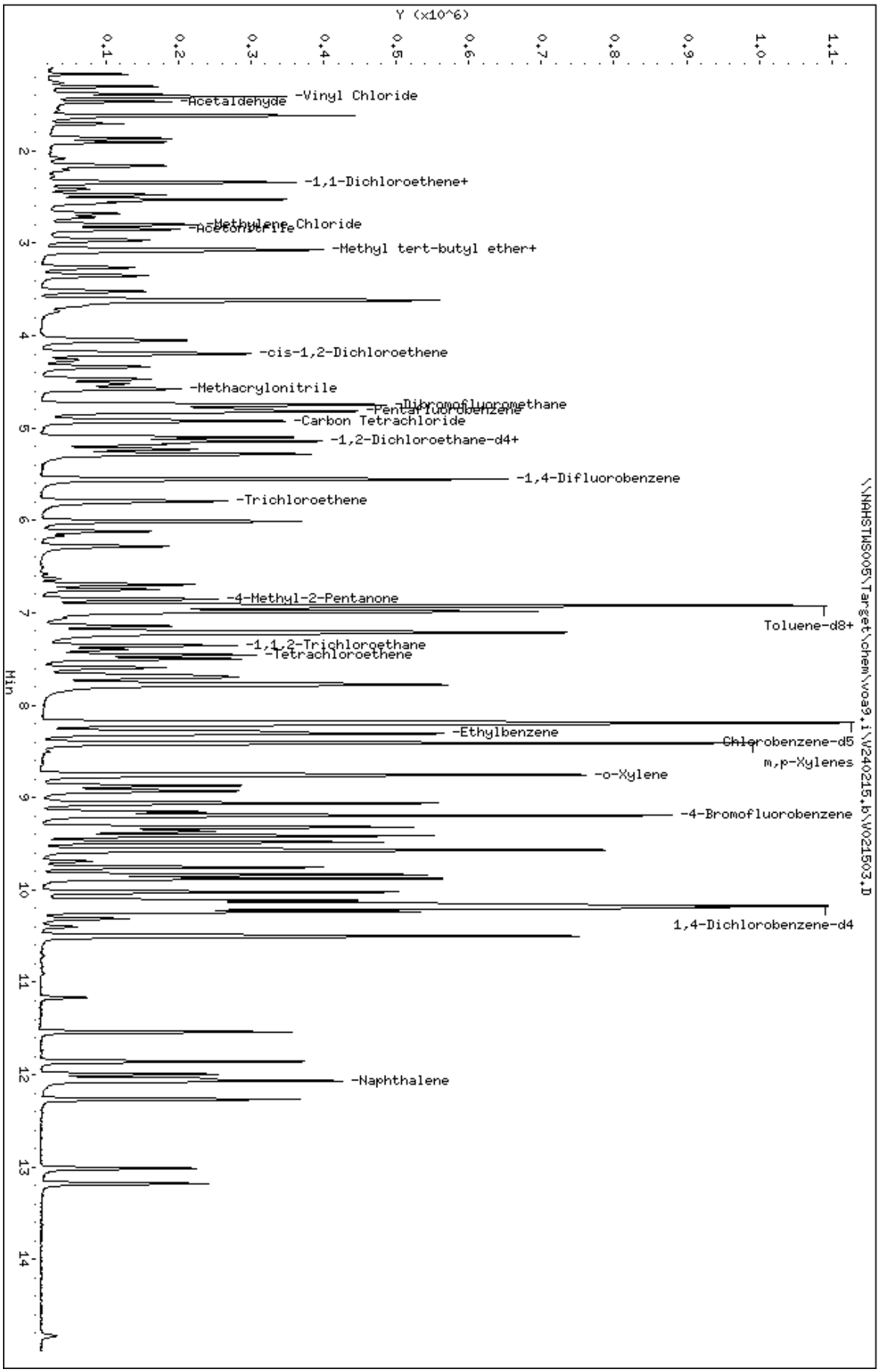
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	314244	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.748	(0.986)	186381	49.1509	49.15
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	229248	49.0909	49.09
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	518050	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	496568	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	713699	49.8748	49.87
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	265315	49.3946	49.39
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	256883	50.0000	
5 Vinyl Chloride	62	1.381	1.378	(0.287)	95494	20.5540	20.55
11 1,1-Dichloroethene	96	2.341	2.337	(0.486)	63440	20.2738	20.27
17 Methylene Chloride	84	2.798	2.795	(0.581)	83957	19.4485	19.44
18 Methyl tert-butyl ether	73	3.083	3.080	(0.640)	192846	21.5160	21.51
20 trans-1,2-Dichloroethene	96	3.065	3.061	(0.636)	78496	21.1535	21.15
27 cis-1,2-Dichloroethene	96	4.200	4.197	(0.872)	90669	21.9872	21.98
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	117628	21.0045	21.00
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	92530	18.4866	18.48
37 Benzene	78	5.141	5.141	(0.926)	332271	21.3311	21.33
38 Trichloroethene	130	5.790	5.790	(1.043)	84784	21.9675	21.96
56 Tetrachloroethene	164	7.458	7.458	(0.911)	65091	21.2721	21.27
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	65184	20.6779	20.67

50 Toluene	91	6.982	6.982 (0.853)	349725	21.3506	21.35
61 Ethylbenzene	106	8.305	8.305 (1.015)	112524	21.2653	21.26

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021503.D Page 2
Report Date: 22-Feb-2024 15:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
62	m,p-Xylenes	106	8.410	8.406	(1.027)	286681	42.5601	42.56
63	o-Xylene	106	8.748	8.748	(1.069)	137714	21.3843	21.38
92	Naphthalene	128	12.065	12.065	(1.187)	288764	22.1482	22.14
45	4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	178926	41.2438	41.24
13	Acetonitrile	39	2.847	2.847	(0.591)	30858	191.252	191.25
9	Acrolein	56	2.270	2.270	(0.471)	6434	42.4149	42.41
16	Acrylonitrile	53	3.068	3.065	(0.637)	61967	41.1541	41.15
25	Methacrylonitrile	41	4.534	4.523	(0.941)	34491	21.4831	21.48
194	Acetaldehyde	44	1.468	1.464	(0.305)	141337	123.379	123.37
M 95	Xylenes (total)	106				424395	48.4038	48.40
M 94	1,2-Dichloroethylene (total)	96				169165	29.5813	29.58



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Date : 15-FEB-2024 22:19
Client ID: VLCSW-240215
Sample Info: VLCSW-240215;VLCSW-240215;3;;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021503.D
Inj Date : 15-FEB-2024 22:19
InstruID : VOA9.i
LabSampID : VLCSW-240215

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021505.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021505.D
Lab Smp Id: VBLKW-240215 Client Smp ID: VBLKW-240215
Inj Date : 15-FEB-2024 23:03
Operator : FT Inst ID: VOA9.i
Smp Info : VBLKW-240215;VBLKW-240215;3;;BLANK
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 18 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

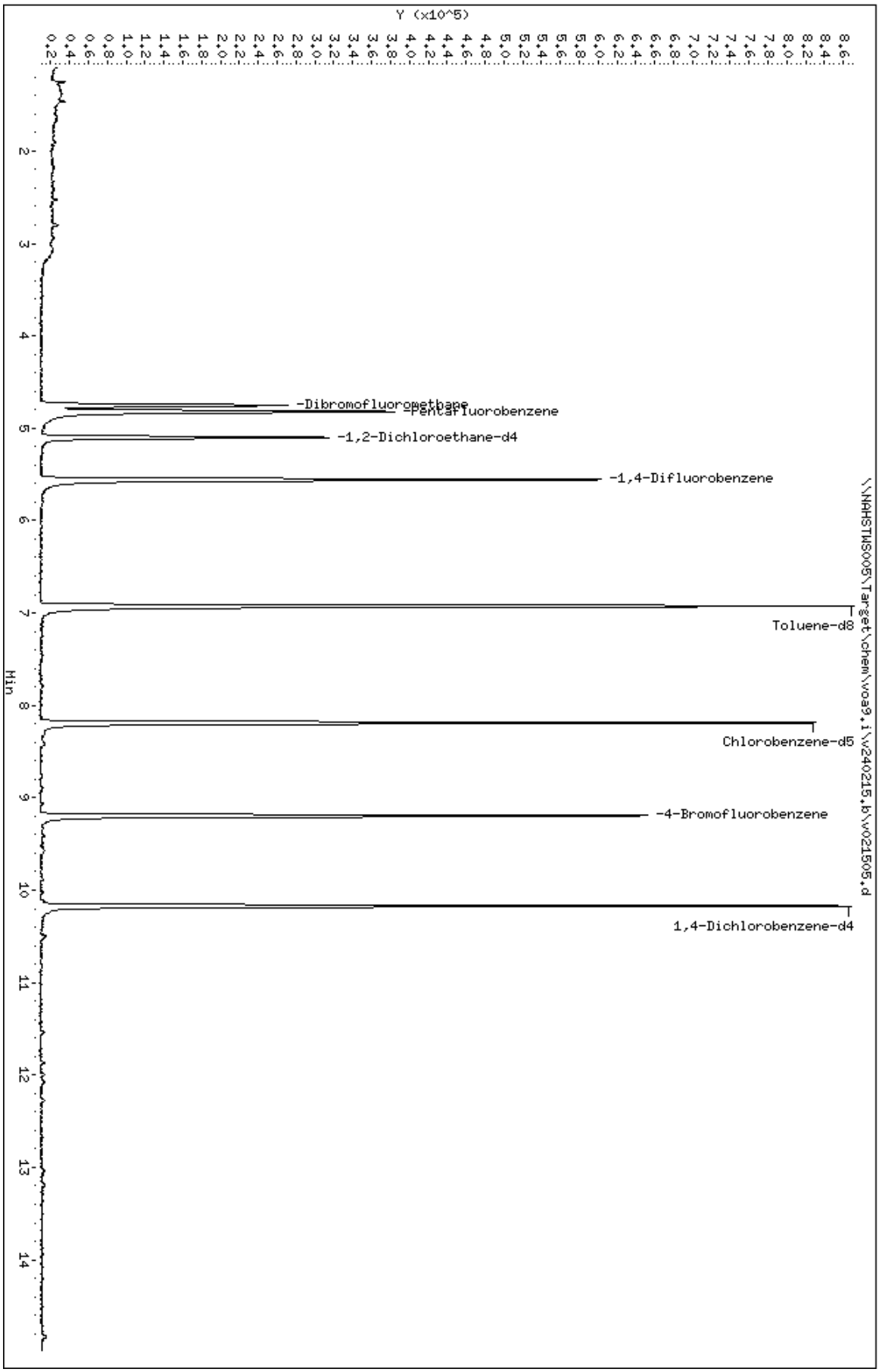
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	306787	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.748	(0.986)	159001	43.1597	43.15
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	204302	44.9675	44.96
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	516066	50.0000	
* 47 Chlorobenzene-d5	117	8.189	8.185	(1.000)	474220	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	605751	44.5952	44.59
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	219409	43.0490	43.04(M)
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	229639	50.0000	

QC Flag Legend

M - Compound response manually integrated.



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Date : 15-FEB-2024 23:03
Client ID: VBLKW-240215
Sample Info: VBLKW-240215;VBLKW-240215;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

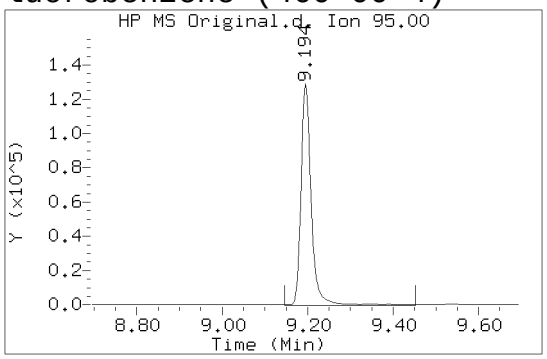
Data File : \\nahstws005\target\chem\voa9.i\v240215.b\v021505.d
Inj Date : 15-FEB-2024 23:03
InstruID : VOA9.i
LabSampID : VBLKW-240215

4-Bromofluorobenzene (460-00-4)

Reason Code:

BEFORE

MASS
95
AREA
219409
HEIGHT
129375
22-Feb-2024
15:48
linh
pham



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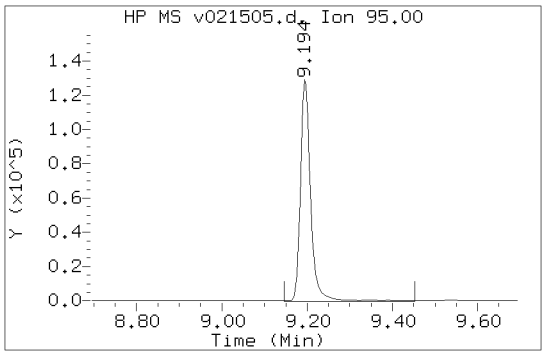

BEFORE

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22-Feb-2024
15:48
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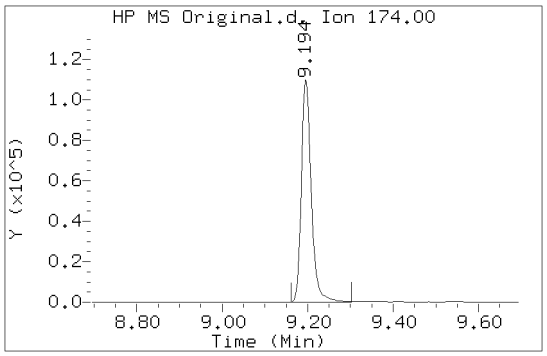

AFTER

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22-Feb-2024
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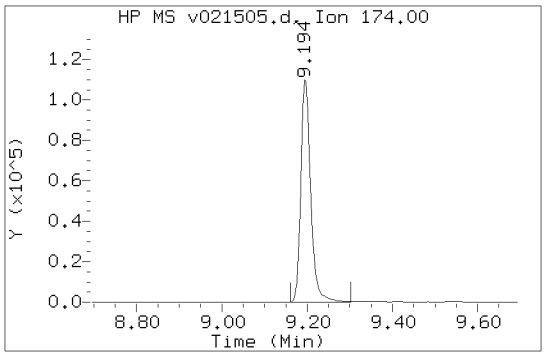

BEFORE

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AREA
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HEIGHT
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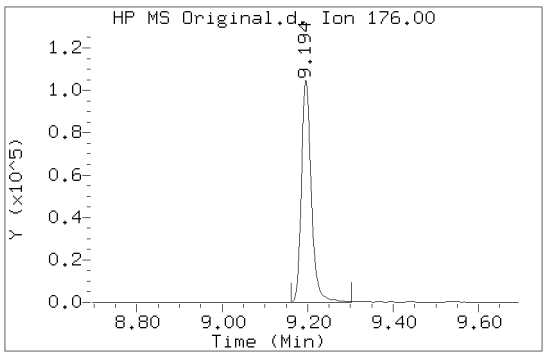
22-Feb-2024
15:48
linh
pham



AFTER

MASS
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AREA
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HEIGHT
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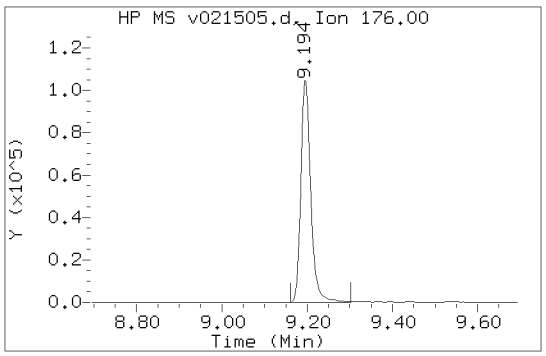
22-Feb-2024
15:51
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021507.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021507.D
Lab Smp Id: HS24020577-07
Inj Date : 15-FEB-2024 23:48
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020577-07
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

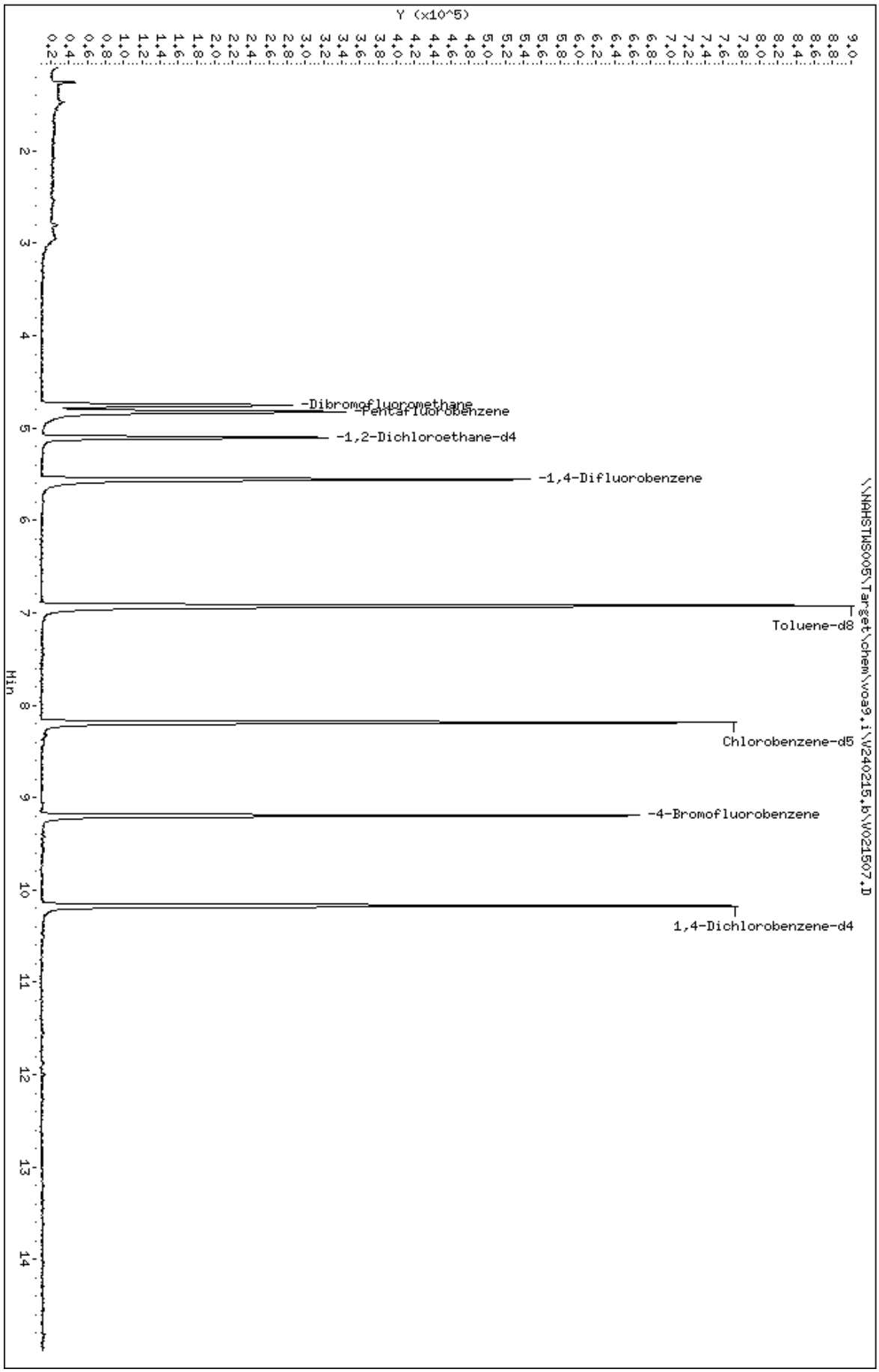
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.823	4.819	(1.000)	279356	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.748	(0.985)	169706	50.2858	50.28
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	216320	51.9577	51.95
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	469753	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	440564	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	630644	49.6847	49.68
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	215961	45.5055	45.50
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	203252	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021507.D
Date : 15-FEB-2024 23:48
Client ID:
Sample Info: HS24020577-07
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021507.D
Inj Date : 15-FEB-2024 23:48
InstruID : VOA9.i
LabSampID : HS24020577-07

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021508.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021508.D
Lab Smp Id: HS24020577-03
Inj Date : 16-FEB-2024 00:10
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020577-03
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

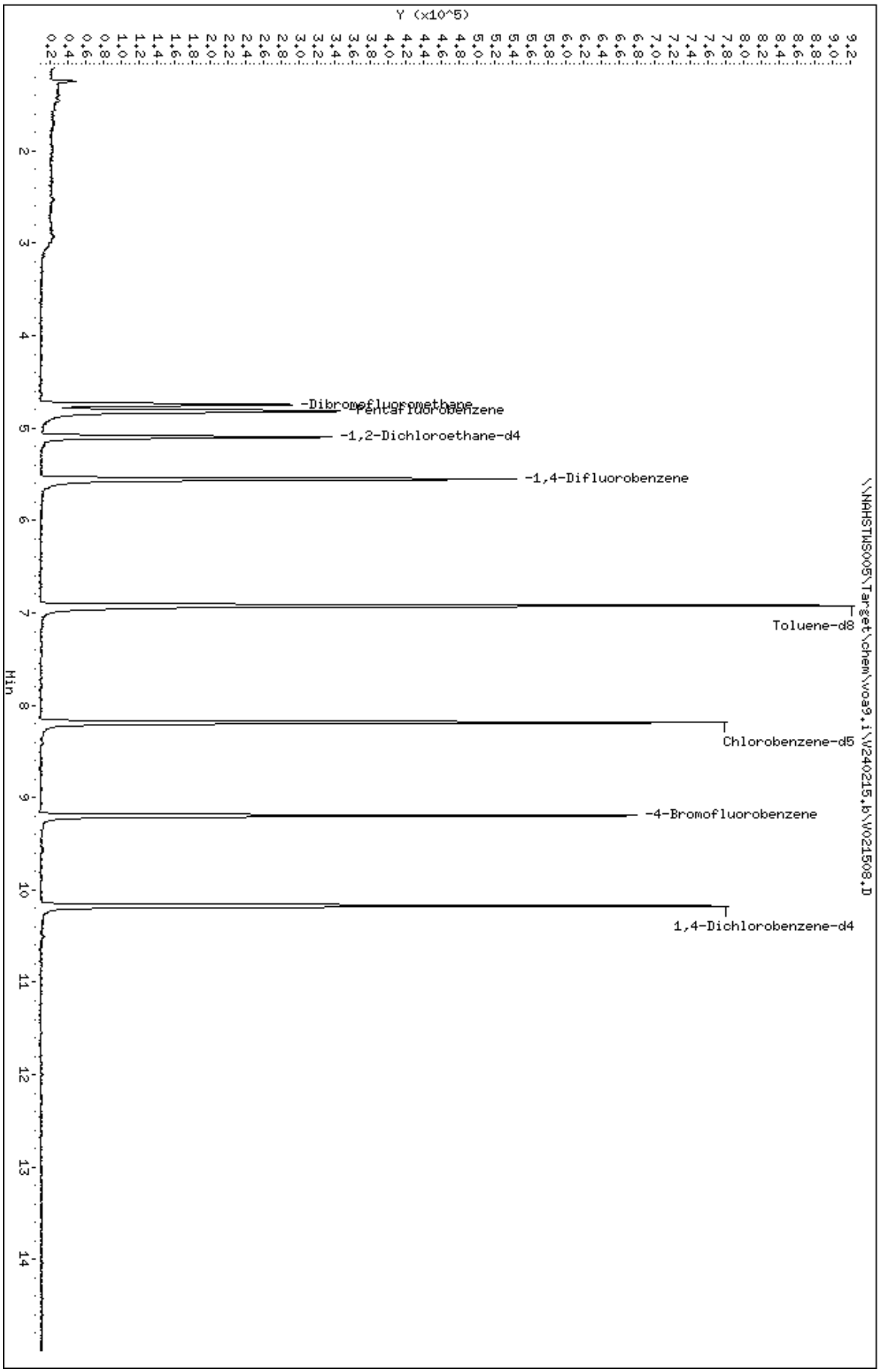
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.815	4.819	(1.000)	281488	50.0000	
$ 30 Dibromofluoromethane	113	4.747	4.748	(0.986)	173532	50.9927	50.99
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	222901	53.0686	53.06
* 36 1,4-Difluorobenzene	114	5.553	5.554	(1.000)	473910	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	436764	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	642651	50.9875	50.98
$ 69 4-Bromofluorobenzene	95	9.193	9.194	(1.123)	215943	45.8805	45.88
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	205260	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021508.D
Date : 16-FEB-2024 00:10
Client ID:
Sample Info: HS24020577-03
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18



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Inj Date : 16-FEB-2024 00:10
InstruID : VOA9.i
LabSampID : HS24020577-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021509.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021509.D
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Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.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	4.823	4.819	(1.000)	276493	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.985)	171440	51.2728	51.27
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	214617	52.0758	52.07
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	452421	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	432183	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	664952	53.1636	53.16
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	242463	51.7221	51.72
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	227792	50.0000	
5 Vinyl Chloride	62	1.385	1.378	(0.287)	95124	23.4461	23.44
11 1,1-Dichloroethene	96	2.345	2.337	(0.486)	65021	23.8857	23.88
17 Methylene Chloride	84	2.802	2.795	(0.581)	79055	21.0058	21.00
18 Methyl tert-butyl ether	73	3.087	3.080	(0.640)	161249	20.3923	20.39
20 trans-1,2-Dichloroethene	96	3.068	3.061	(0.636)	73514	22.5887	22.58
27 cis-1,2-Dichloroethene	96	4.204	4.197	(0.872)	82381	22.7397	22.73
33 1,2-Dichloroethane	62	5.179	5.175	(0.933)	110807	22.7650	22.76
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	90381	20.7126	20.71
37 Benzene	78	5.145	5.141	(0.926)	316156	23.3268	23.32
38 Trichloroethene	130	5.790	5.790	(1.043)	78519	23.3521	23.35
56 Tetrachloroethene	164	7.458	7.458	(0.911)	61101	23.0400	23.04
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	62174	22.7714	22.77

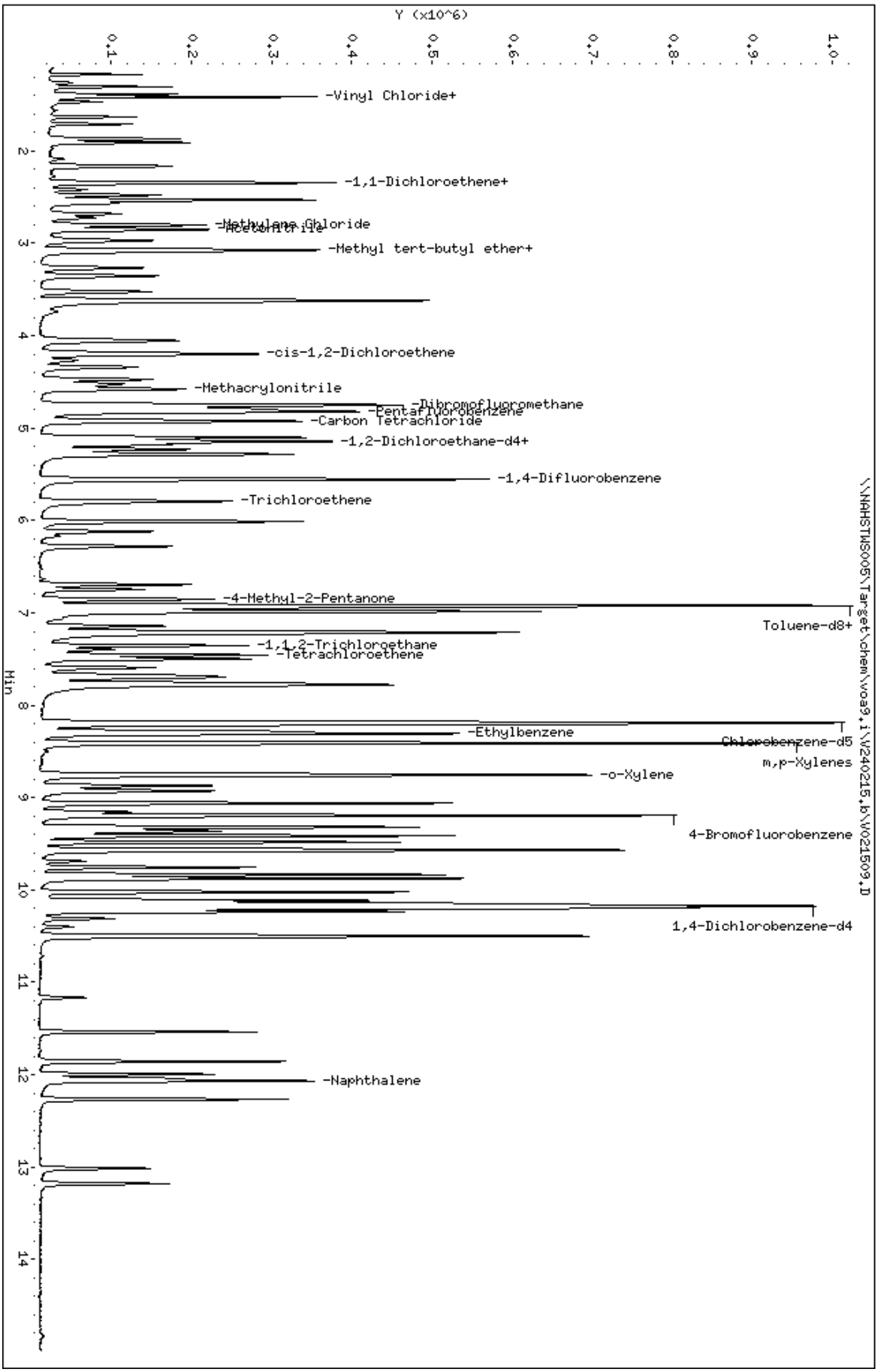
50 Toluene	91	6.982	6.982 (0.853)	332371	23.3800	23.37
61 Ethylbenzene	106	8.309	8.305 (1.015)	104981	22.8479	22.84

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021509.D Page 2
Report Date: 22-Feb-2024 15:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	62 m,p-Xylenes	106	8.410	8.406	(1.027)	268430	45.8692	45.86
	63 o-Xylene	106	8.748	8.748	(1.069)	127922	22.8495	22.84
	92 Naphthalene	128	12.065	12.065	(1.187)	235376	20.3834	20.38
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	166759	44.1948	44.19
	13 Acetonitrile	39	2.851	2.847	(0.591)	34018	244.005	244.00
	9 Acrolein	56	2.274	2.270	(0.471)	5117	38.1399	38.13
	16 Acrylonitrile	53	3.072	3.065	(0.637)	54824	41.3954	41.39
	25 Methacrylonitrile	41	4.534	4.523	(0.940)	29711	21.0070	21.00
	194 Acetaldehyde	44	1.468	1.464	(0.304)	36453	29.3048	29.30(M)
M	95 Xylenes (total)	106				396352	51.7630	51.76
M	94 1,2-Dichloroethylene (total)	96				155895	30.9829	30.98

QC Flag Legend

M - Compound response manually integrated.



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Sample Info: HS24020577-03MS;HS24020577-03MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021509.D
Inj Date : 16-FEB-2024 00:32
InstruID : VOA9.i
LabSampID : HS24020577-03MS

Acetaldehyde (75-07-0)

Reason Code:

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22-Feb-2024
15:48
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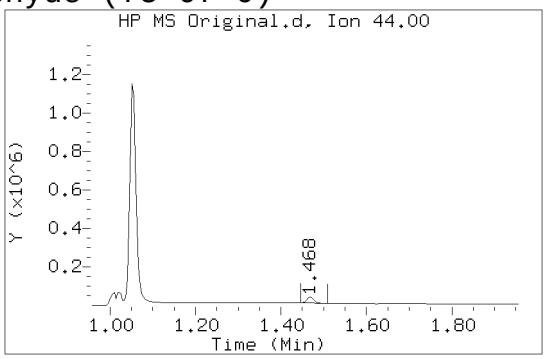

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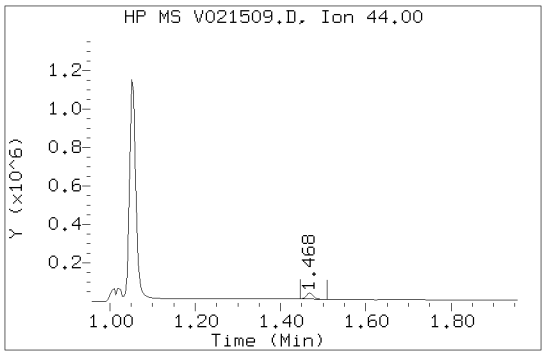

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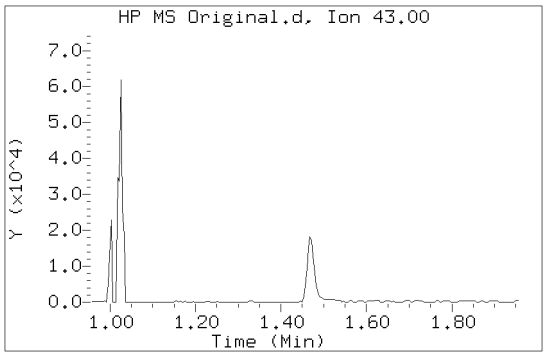

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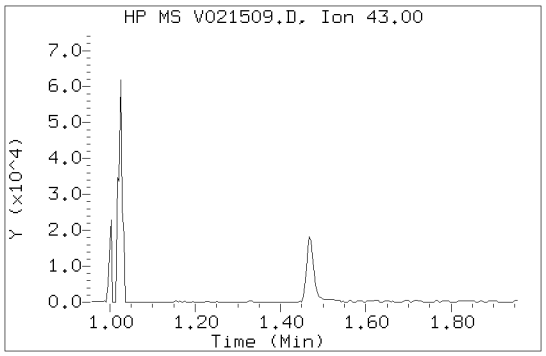

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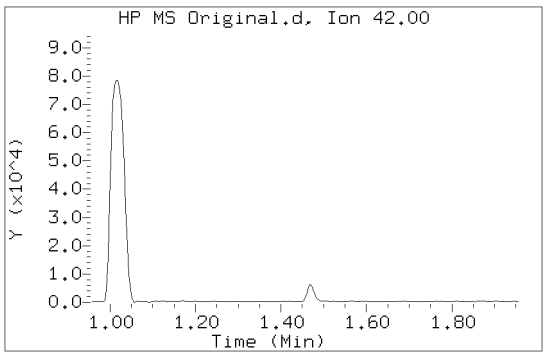

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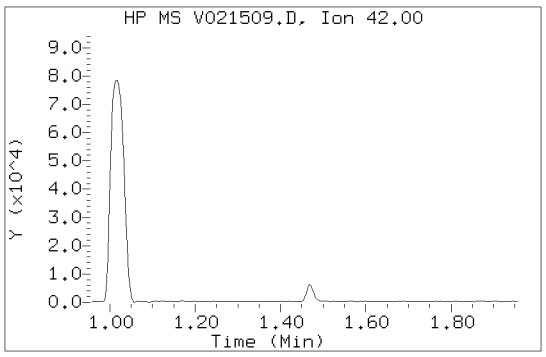


Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021510.D Page 1
Report Date: 22-Feb-2024 15:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021510.D
Lab Smp Id: HS24020577-03MSD Client Smp ID: HS24020577-03MSD
Inj Date : 16-FEB-2024 00:54
Operator : FT Inst ID: VOA9.i
Smp Info : HS24020577-03MSD;HS24020577-03MSD;3;;MSD
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 22 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.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	4.819	4.819	(1.000)	267758	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.985)	169380	52.2536	52.25
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	211551	52.9557	52.95
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	445359	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	421790	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	650961	53.3164	53.31
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	233517	51.0809	51.08
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	217514	50.0000	
5 Vinyl Chloride	62	1.381	1.378	(0.287)	91811	23.3637	23.36
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	63496	24.0988	24.09
17 Methylene Chloride	84	2.798	2.795	(0.581)	76134	20.8744	20.87
18 Methyl tert-butyl ether	73	3.083	3.080	(0.640)	166450	21.8087	21.80
20 trans-1,2-Dichloroethene	96	3.064	3.061	(0.636)	69366	21.9813	21.98
27 cis-1,2-Dichloroethene	96	4.200	4.197	(0.872)	79713	22.7202	22.72
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	109714	22.9054	22.90
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	86790	20.1976	20.19
37 Benzene	78	5.141	5.141	(0.926)	306993	22.9978	22.99
38 Trichloroethene	130	5.790	5.790	(1.043)	74163	22.3690	22.36
56 Tetrachloroethene	164	7.458	7.458	(0.911)	60088	23.2252	23.22
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	60916	22.8645	22.86

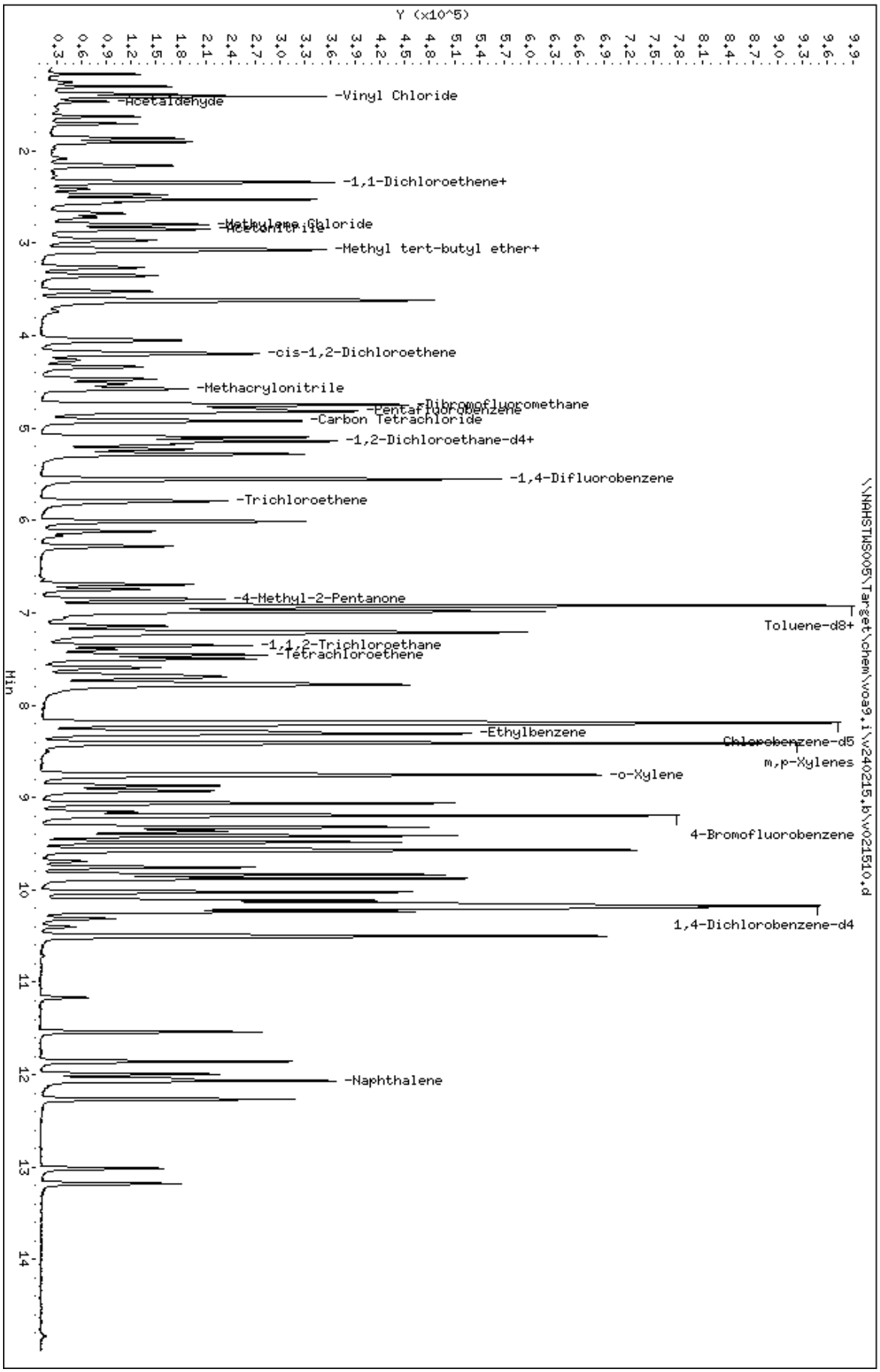
50 Toluene	91	6.982	6.982 (0.853)	327058	23.5783	23.57
61 Ethylbenzene	106	8.309	8.305 (1.015)	103454	23.0767	23.07

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021510.D Page 2
Report Date: 22-Feb-2024 15:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	62 m,p-Xylenes	106	8.410	8.406	(1.027)	263892	46.2117	46.21
	63 o-Xylene	106	8.748	8.748	(1.069)	124177	22.7253	22.72
	92 Naphthalene	128	12.065	12.065	(1.187)	238299	21.5945	21.59
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	166219	45.1427	45.14
	13 Acetonitrile	39	2.847	2.847	(0.591)	32205	238.190	238.18
	9 Acrolein	56	2.266	2.270	(0.470)	4900	37.6894	37.68
	16 Acrylonitrile	53	3.068	3.065	(0.637)	54457	42.5233	42.52
	25 Methacrylonitrile	41	4.534	4.523	(0.941)	27781	20.2396	20.23
	194 Acetaldehyde	44	1.464	1.464	(0.304)	39213	33.7479	33.74(M)
M	95 Xylenes (total)	106				388069	51.4848	51.48
M	94 1,2-Dichloroethylene (total)	96				149079	30.5948	30.59

QC Flag Legend

M - Compound response manually integrated.



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Date : 16-FEB-2024 00:54
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Sample Info: HS24020577-03MSD;HS24020577-03MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Page 1

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\v021510.d
Inj Date : 16-FEB-2024 00:54
InstruID : VOA9.i
LabSampID : HS24020577-03MSD

Acetaldehyde (75-07-0)

Reason Code:

BEFORE

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33162
22-Feb-2024
15:48
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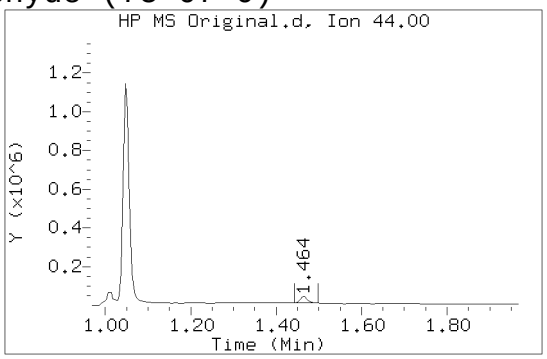
pham



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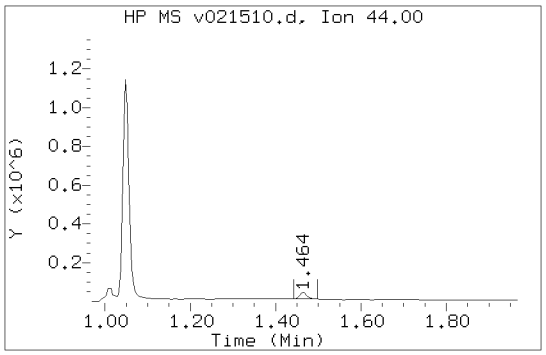

BEFORE

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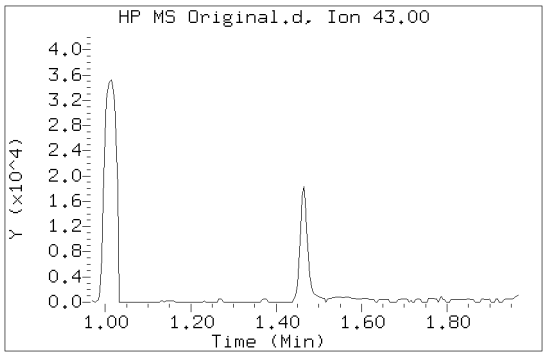

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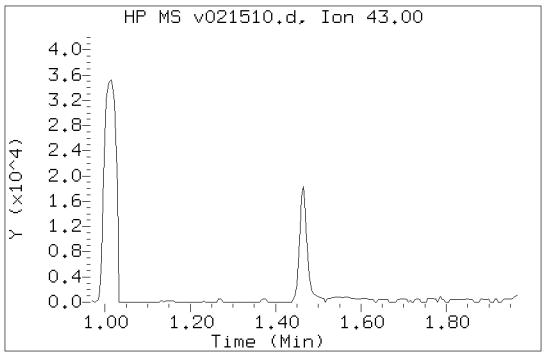

BEFORE

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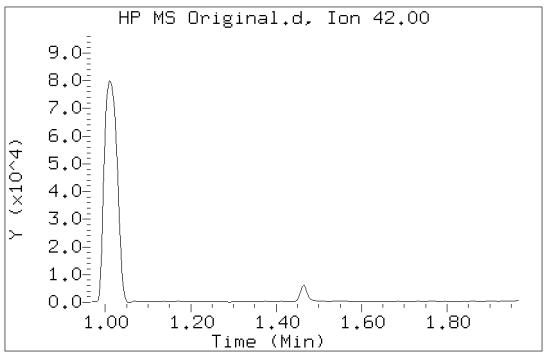

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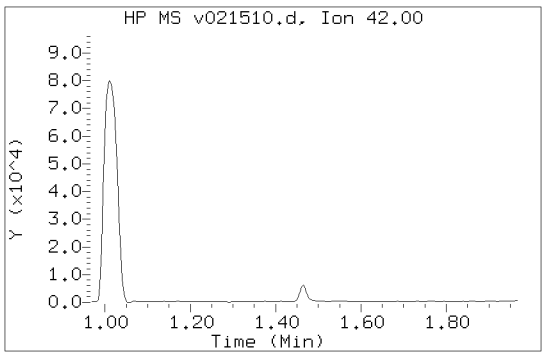

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021519.D Page 1
Report Date: 22-Feb-2024 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021519.D
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Inj Date : 16-FEB-2024 04:13
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020577-05
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.sub
Target Version: 4.14
Processing Host: NAHSTW7056

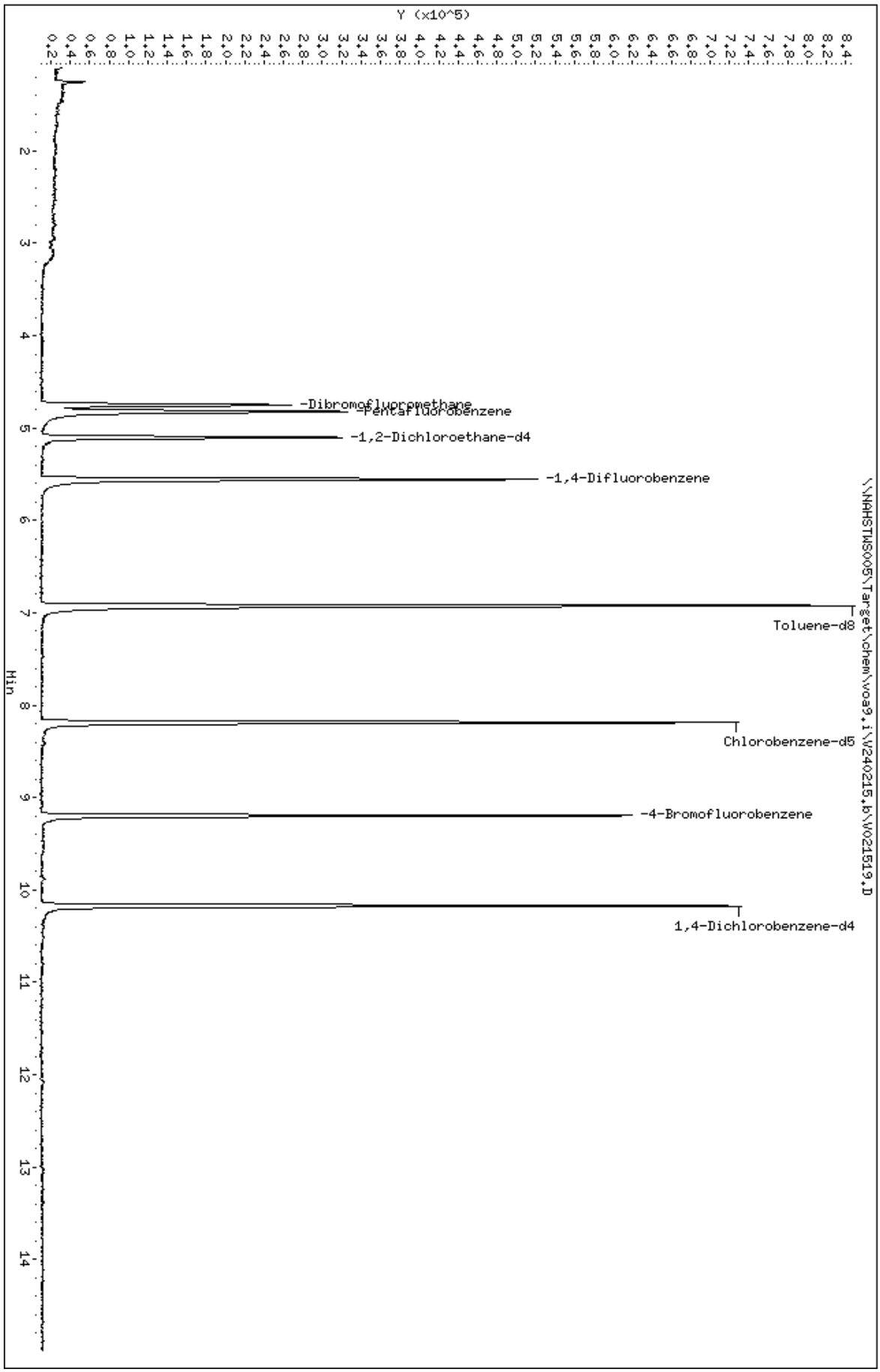
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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	4.819	4.819	(1.000)	254709	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.986)	158069	51.3147	51.31
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	212218	55.6686	55.66
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	442945	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	415048	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	587503	49.1629	49.16
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	198406	44.4228	44.42
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	193582	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9,i\V240215,b\V021519,D
Date : 16-FEB-2024 04:13
Client ID:
Sample Info: HS24020577-05
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021519.D
Inj Date : 16-FEB-2024 04:13
InstruID : VOA9.i
LabSampID : HS24020577-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021520.D Page 1
Report Date: 22-Feb-2024 15:50

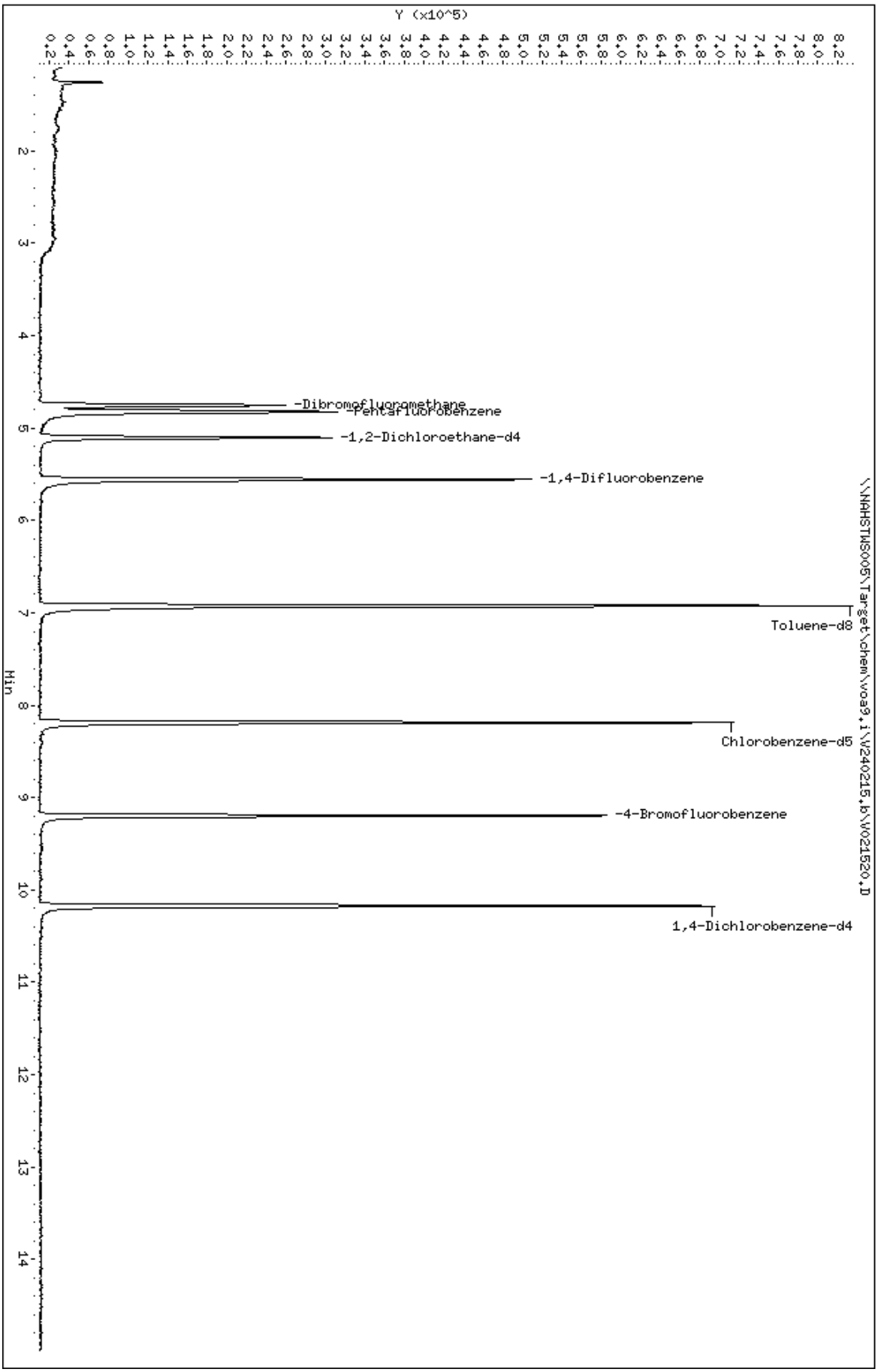
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021520.D
Lab Smp Id: HS24020577-06
Inj Date : 16-FEB-2024 04:36
Operator : FT   Inst ID: VOA9.i
Smp Info : HS24020577-06
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:49 VOA9.i   Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44   Cal File: U021511.D
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 0000dod+.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	4.823	4.819	(1.000)	243190	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.985)	153579	52.1702	52.17
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	201214	55.3063	55.30
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	423941	50.0000	
* 47 Chlorobenzene-d5	117	8.189	8.185	(1.000)	395054	50.0000	
$ 48 Toluene-d8	98	6.926	6.922	(0.846)	564231	49.5797	49.57
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	188453	44.3335	44.33
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.168	(1.000)	181695	50.0000	



Data File: \\NAHSTWS005\Target\chem\voa9,i\V240215,b\V021520,D
Date : 16-FEB-2024 04:36
Client ID:
Sample Info: HS24020577-06
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9,i
Operator: FT
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021520.D
Inj Date : 16-FEB-2024 04:36
InstruID : VOA9.i
LabSampID : HS24020577-06

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021528.D Page 1
Report Date: 22-Feb-2024 15:50

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\V021528.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 16-FEB-2024 07:33
Operator : FT Inst ID: VOA9.i
Smp Info : CCV-END;CCV-END;2;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\V240215.b\8260C.m
Meth Date : 22-Feb-2024 15:50 VOA9.i Quant Type: ISTD
Cal Date : 15-FEB-2024 19:44 Cal File: U021511.D
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 0000dod+.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

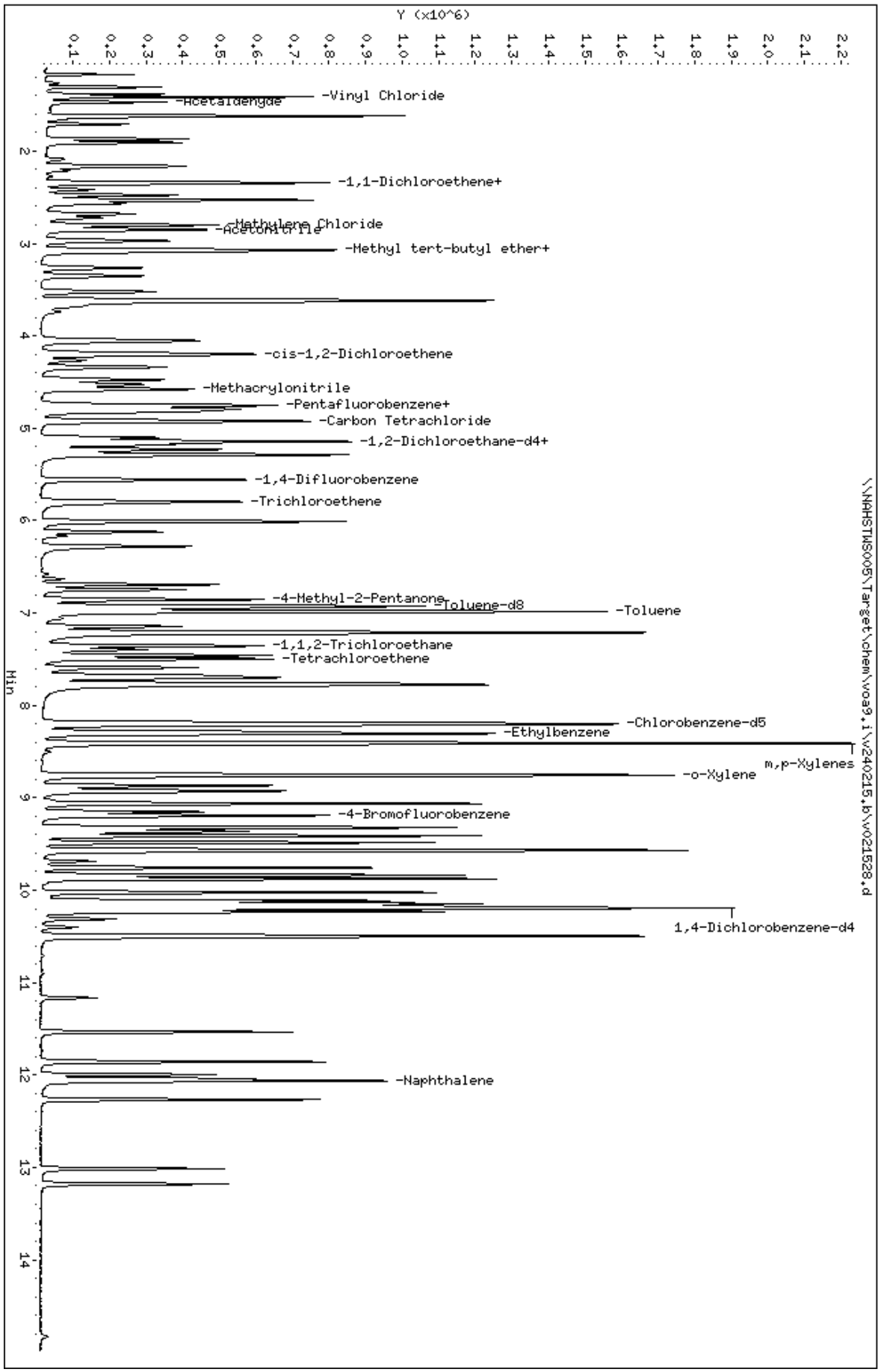
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	248469	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.752	(0.985)	163092	50.0000	54.10
$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	209592	50.0000	56.31
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	424568	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	423295	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	616186	50.0000	50.47
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	232059	50.0000	50.61
* 70 1,4-Dichlorobenzene-d4	152	10.168	10.168	(1.000)	222936	50.0000	
5 Vinyl Chloride	62	1.385	1.385	(0.287)	202817	50.0000	55.27
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	141540	50.0000	57.65
17 Methylene Chloride	84	2.802	2.802	(0.581)	178173	50.0000	56.81
18 Methyl tert-butyl ether	73	3.087	3.087	(0.640)	386129	50.0000	54.03
20 trans-1,2-Dichloroethene	96	3.068	3.068	(0.636)	158046	50.0000	53.66
27 cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	183374	50.0000	55.72
33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	257359	50.0000	56.18
34 Carbon Tetrachloride	117	4.920	4.920	(0.885)	200941	50.0000	49.48
37 Benzene	78	5.145	5.145	(0.926)	704909	50.0000	54.73
38 Trichloroethene	130	5.794	5.794	(1.042)	167889	50.0000	52.65
56 Tetrachloroethene	164	7.458	7.458	(0.911)	129636	50.0000	49.90
53 1,1,2-Trichloroethane	83	7.353	7.353	(0.898)	143621	50.0000	53.45

50 Toluene	91	6.982	6.982 (0.853)	745309	50.0000	52.76
61 Ethylbenzene	106	8.309	8.309 (1.015)	237263	50.0000	51.94

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	604288	100.000	103.53	
	63 o-Xylene	106	8.748	8.748	(1.069)	289092	50.0000	51.55	
	92 Naphthalene	128	12.065	12.065	(1.187)	618452	50.0000	52.36	
	45 4-Methyl-2-Pentanone	43	6.851	6.851	(0.837)	419938	100.000	109.85	
	13 Acetonitrile	39	2.851	2.851	(0.591)	80366	500.000	639.06	
	9 Acrolein	56	2.274	2.274	(0.471)	16691	100.000	136.06	
	16 Acrylonitrile	53	3.072	3.072	(0.637)	135037	100.000	112.90	
	25 Methacrylonitrile	41	4.530	4.530	(0.939)	81181	50.0000	62.89	
	194 Acetaldehyde	44	1.471	1.471	(0.305)	243969	200.000	268.54	
M	95 Xylenes (total)	106				893380	150.000		(a)
M	94 1,2-Dichloroethylene (total)	96				341420	100.000		(a)

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\v240215.b\v021528.d
Date : 16-FEB-2024 07:33
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: FT
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\v240215.b\v021528.d
Inj Date : 16-FEB-2024 07:33
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

HS24020577 E2400132 Perch Level IV Report

ALS WO# HS24020577

February 26, 2024 Service Request No:E2400132

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

Laboratory Results for: HS24020577

Enclosed are the results of the sample(s) submitted to our laboratory February 10, 2024
For your reference, these analyses have been assigned our service request number **E2400132.**

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 2190. You may also contact me via email at hussam.kelany@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

H Kelany

Hussam Kelany
Project Manager

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

Certificate of Analysis

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

Client:	ALS Environmental - US	**Service Request No.:**	E2400132
Project:	HS24020577	**Date Received:**	02/10/24
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

Six samples were received for analysis at ALS Environmental in Houston on 02/10/24.

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:

EQ2400093: 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.

Client: ALS Environmental - US **Service Request:**E2400132
Project: HS24020577

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2400132-001	16WW23-240207	2/7/2024	0750
E2400132-002	16WW23-240207-FD	2/7/2024	0750
E2400132-003	16WW24-240207	2/7/2024	0835
E2400132-004	16WW24-240207-FD	2/7/2024	0835
E2400132-005	16WW27-240207	2/7/2024	0925
E2400132-006	16WW43-240207	2/7/2024	1005

Service Request Summary

Folder #: **E2400132**
Client Name: ALS Environmental - US
Project Name: HS24020577
Project Number:

Report To:

ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA

Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: alsusa_accountspayable@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/10/24
Internal Due Date: 2/19/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: No EDD Specified

8 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10B
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	Semivoa GCMS ClO4 DOD/6850
E2400132-001	16WW23-240207	Ground Water	02/07/24 0750	**IV**
E2400132-002	16WW23-240207-FD	Ground Water	02/07/24 0750	**IV**
E2400132-003	16WW24-240207	Ground Water	02/07/24 0835	**IV**
E2400132-004	16WW24-240207-FD	Ground Water	02/07/24 0835	**IV**
E2400132-005	16WW27-240207	Ground Water	02/07/24 0925	**IV**
E2400132-006	16WW43-240207	Ground Water	02/07/24 1005	**IV**

Service Request Summary

Folder #: **E2400132**
Client Name: ALS Environmental - US
Project Name: HS24020577
Project Number:

Report To:

ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA

Phone Number: 281-530-5656
Cell Number:
Fax Number: 281-530-5887
E-mail: alsusa_accountspayable@alsglobal.com

Project Chemist: Hussam Kelany
Originating Lab: HOUSTON
Logged By: JCORONADO2
Date Received: 02/10/24
Internal Due Date: 2/19/2024
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: No EDD Specified

8 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-WIC 10B
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

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
California State Environmental Laboratory Accreditation Program	2919	4/30/2024
Department of Defense	L22-90	3/31/2024
Department of Defense	L23-358	5/31/2025
Florida Department of Health	E87611-38	6/30/2024
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2023-2024	7/31/2024
Louisiana Department of Environmental Quality	03087-2023	6/30/2024
Louisiana Department of Health and Hospitals	LA028-2024	12/31/2024
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343-2023	6/30/2024
Michigan Depratment of Environmental Quality	9971-2023	4/30/2024
Minnesota Department of Health	2645386	12/31/2024
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2024
Nevada Division of Environmental Protection	TX026932024-1	7/31/2024
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2023-140	8/31/2024
Oregon Environmental Laboratory Accreditation Program	TX200002-011	5/15/2024
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
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	TX026932023-14	7/31/2024
Washington Department of Ecology	C819-23	11/14/2024

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: Dept of Defense **COC ID:** 24711

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	James Guin
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	James.Guin@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:	HS24020577
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24020577-01**	**16WW23-240207**	**Groundwater**	**07 Feb 2024 07:50**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
2.	**HS24020577-02**	**16WW23-240207-FD**	**Groundwater**	**07 Feb 2024 07:50**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
3.	**HS24020577-03**	**16WW24-240207**	**Groundwater**	**07 Feb 2024 08:35**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
4.	**HS24020577-04**	**16WW24-240207-FD**	**Groundwater**	**07 Feb 2024 08:35**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
5.	**HS24020577-05**	**16WW27-240207**	**Groundwater**	**07 Feb 2024 09:25**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024
6.	**HS24020577-06**	**16WW43-240207**	**Groundwater**	**07 Feb 2024 10:05**
	Perchlorate Level II and Level IV reports on a seperate pdf. Send WOA to Vicki Graves.			15 Feb 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.
HS24020577-03 = ms/msd

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 24711

QC Level: DOD IV (DoD Data Package)

Relinquished By: JC

Date/Time: 2/10 13:15

Received By:

Date/Time:

Cooler ID(s):

Temperature(s):

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Houston, TX 77099
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F: +1 281 530 5887
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Sample Receipt Checklist

Work Order ID: HS24020577 **Date/Time received:** 08 Feb 2024 09:30

Client name: Bhate Environmental Associates, Inc. **Received by:** Jacob Coronado

Completed/By: 10 Feb 2024 13:15 Paresh M. Giga (Date/Time / eSignature) **Reviewed/By:** _____ (Date/Time / eSignature)

Matrices: GW/Water **Carrier name:** FedEx Priority Overnight

Shipping container/cooler in good condition?	☑ Yes	☐ No	☐ Not Present	
Custody seals intact on shipping container/cooler?	☑ Yes	☐ No	☐ Not Present	
Custody seals intact on Sample bottles?	☐ Yes	☐ No	☑ Not Present	
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	☐ Yes	☐ No	☑ Not Present	
Chain of custody present?	☑ Yes	☐ No	1 Page(s)	
Chain of custody signed when relinquished and received?	☑ Yes	☐ No	COC ID(s): none	
Samplers name present on COC?	☑ Yes	☐ No		
Chain of custody agrees with sample labels?	☑ Yes	☐ No		
Samples in proper container/bottle?	☑ Yes	☐ No		
Sample containers intact?	☑ Yes	☐ No		
Sufficient sample volume for indicated test?	☑ Yes	☐ No		
All samples received within holding time?	☑ Yes	☐ No		
Container/Temp Blank temperature in compliance?	☑ Yes	☐ No		
Temperature(s)/Thermometer(s):	2.2C/2.1C U/C		IR31	
Cooler Information:	1 Cooler(s), Blue			
Date/Time sample(s) sent to storage:	2/10/24 13:35			
Water - VOA vials have zero headspace?	☑ Yes	☐ No	☐ No VOA vials submitted	
Water - pH acceptable upon receipt?	☐ Yes	☐ No	☑ Not Applicable	
pH adjusted?	☐ Yes	☐ No	☑ Not Applicable	

pH adjusted by: _____

Login notes: _____

Client contacted: _____ **Date contacted:** _____ **Person contacted:** _____

Contacted by: _____ **Regarding:** _____

Comments: _____

Corrective action: _____

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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#: 434181 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/19/24 09:00

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2400131-001	2402071322X PL-7-630	.01	6850/ClO4 DOD			Water	10mL	
2	E2400132-001	16WW23-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2400132-002	16WW23-240207-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2400132-003	16WW24-240207	.02	6850/ClO4 DOD			Ground Water	10mL	
5	E2400132-004	16WW24-240207-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2400132-005	16WW27-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2400132-006	16WW43-240207	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2400136-001	16RW09-240206	.01	6850/ClO4 DOD			Water	10mL	
9	E2400136-002	16RW10-240206	.01	6850/ClO4 DOD			Water	10mL	
10	E2400136-003	16RW12-240206	.01	6850/ClO4 DOD			Water	10mL	
11	E2400136-004	16RW12-240206-FD	.01	6850/ClO4 DOD			Water	10mL	
12	E2400136-005	16WW40-240206	.01	6850/ClO4 DOD			Water	10mL	
13	E2400136-006	16WW12-240206	.01	6850/ClO4 DOD			Water	10mL	
14	E2400136-007	16WW34-240206	.01	6850/ClO4 DOD			Water	10mL	
15	E2400136-008	16WW33-240206	.01	6850/ClO4 DOD			Water	10mL	
16	E2400136-009	16WW25-240206	.01	6850/ClO4 DOD			Water	10mL	
17	E2400136-010	16WW26-240206	.01	6850/ClO4 DOD			Water	10mL	
18	E2400160-001	LGAC INF 021224	.05	6850/ClO4 DOD			Water	10mL	
19	EQ2400093-01	MB		6850/ClO4 DOD			Liquid	10mL	
20	EQ2400093-02	LCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2400093-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
22	EQ2400093-04	ICS		6850/ClO4 DOD			Liquid	10mL	
23	EQ2400093-05	16WW24-240207 MS	.02	6850/ClO4 DOD			Liquid	10mL	
24	EQ2400093-06	16WW24-240207 DMS	.02	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock 2 Inventory ID 233555 Logbook Ref: Perchlorate INT. Stock2 Expires On: 08/05/2024

EQ2400093-02	10.00µL	EQ2400093-03	10.00µL	EQ2400093-04	10.00µL	EQ2400093-05	10.00µL	EQ2400093-06	10.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 233561 Logbook Ref: Perchlorate Internal Standard Expires On: 08/05/2024

E2400131-001	100.00µL	E2400132-001	100.00µL	E2400132-002	100.00µL	E2400132-003	100.00µL	E2400132-004	100.00µL	E2400132-005	100.00µL
E2400132-006	100.00µL	E2400136-001	100.00µL	E2400136-002	100.00µL	E2400136-003	100.00µL	E2400136-004	100.00µL	E2400136-005	100.00µL
E2400136-006	100.00µL	E2400136-007	100.00µL	E2400136-008	100.00µL	E2400136-009	100.00µL	E2400136-010	100.00µL	E2400160-001	100.00µL
EQ2400093-01	100.00µL	EQ2400093-02	100.00µL	EQ2400093-03	100.00µL	EQ2400093-04	100.00µL	EQ2400093-05	100.00µL	EQ2400093-06	100.00µL

Preparation Information Benchsheet

Prep Run#: 434181 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/JOSEL.JUAREZ **Prep Method:** Method **Prep Date/Time:** 2/19/24 09:00

Name:	Perchlorate Anion Spiking Soln. 25,000 ppm	Inventory ID	233595	Logbook Ref:	Expires On:	08/04/2024

EQ2400093-04 20.00µL

Preparation Materials

6850 Amber Glass screw vial 2mL Screw Top Vial (221894) 6850 0.45um syringe filters 6850 0.45 SYRING FILTER (229979) 6850 Luer-Lok Syringes Luer Lok Syringes (231696)
6850 20mM amonium acetate in H2O (233412)

Preparation Steps

Step: Preparation
Started: 2/19/24 09:00
Finished: 2/19/24 10:30
By: JOSEL.JUAREZ
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined
Received By: _____ Date: _____ Yes No

Analytical Results

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0750
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW23-240207	**Units:**	µg/L
Lab Code:	E2400132-001	**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	ND	U	1.00	0.500	0.250	10	2/19/24	2/21/24 11:10	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0750
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW23-240207-FD	**Units:**	µg/L
Lab Code:	E2400132-002	**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	ND	U	1.00	0.500	0.250	10	2/19/24	2/21/24 11:19	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0835
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW24-240207	**Units:**	µg/L
Lab Code:	E2400132-003	**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	ND	U	0.100	0.0500	0.0250	1	2/19/24	2/19/24 13:35	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0835
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW24-240207-FD	**Units:**	µg/L
Lab Code:	E2400132-004	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	2/19/24	2/19/24 13:53	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0925
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW27-240207	**Units:**	µg/L
Lab Code:	E2400132-005	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	1.00	0.500	0.250	10	2/19/24	2/21/24 11:25	434181	833240	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 1005
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW43-240207	**Units:**	µg/L
Lab Code:	E2400132-006	**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	**0.102**		0.100	0.0500	0.0250	1	2/19/24	2/19/24 14:04	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2400093-01	**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	2/19/24	2/19/24 12:45	434181	833219	

Accuracy & Precision

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020577
Sample Matrix: Ground Water

Service Request: E2400132
Date Analyzed: 2/19/24

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: 434181

	Lab Control Sample EQ2400093-02			Duplicate Lab Control Sample EQ2400093-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0877	0.100	88	0.0854	0.100	85	84 - 119	3	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:**	E2400132
Project:	HS24020577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400093-02	**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	**0.0877**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 12:51	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2400093-03	**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	**0.0854**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 12:56	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/7/24
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
		Date Analyzed:	2/19/24

Matrix Spike Summary

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

Sample Name:	16WW24-240207	**Units:**	µg/L
Lab Code:	E2400132-003	**Basis:**	NA

Analytical Method: 6850
Prep Method: Method

		16WW24-240207MS				16WW24-240207DMS					
		Matrix Spike				**Duplicate Matrix Spike**					
		EQ2400093-05				EQ2400093-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	ND	0.0810	0.100	81	*	0.0846	0.100	85	84 - 119	4	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:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0835
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW24-240207	**Units:**	µg/L
Lab Code:	EQ2400093-05	**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	**0.0810**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 13:07	434181	833219	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Collected:**	2/ 7/24 0835
Sample Matrix:	Ground Water	**Date Received:**	2/10/24
Sample Name:	16WW24-240207	**Units:**	µg/L
Lab Code:	EQ2400093-06	**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	**0.0846**	J	0.100	0.0500	0.0250	1	2/19/24	2/19/24 13:13	434181	833219	

Initial Calibration

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www.alsglobal.com

832255

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: JLJ

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240213-001	IB	Perchlorate6850c.lcm	1x		2/13/2024 9:34
2	20240213-002	Perchlorate ICAL 1	Perchlorate6850c.lcm	1x	233572	2/13/2024 9:40
3	20240213-003	Perchlorate ICAL 2	Perchlorate6850c.lcm	1x	233571	2/13/2024 9:45
4	20240213-004	Perchlorate ICAL 3	Perchlorate6850c.lcm	1x	233570	2/13/2024 9:51
5	20240213-005	Perchlorate ICAL 4	Perchlorate6850c.lcm	1x	233569	2/13/2024 9:56
6	20240213-006	Perchlorate ICAL 5	Perchlorate6850c.lcm	1x	233568	2/13/2024 10:02
7	20240213-007	Perchlorate ICAL 6	Perchlorate6850c.lcm	1x	233567	2/13/2024 10:08
8	20240213-008	Perchlorate ICAL 7	Perchlorate6850c.lcm	1x	233566	2/13/2024 10:13
9	20240213-009	Perchlorate ICAL 8	Perchlorate6850c.lcm	1x	233564	2/13/2024 10:19
10	20240213-010	Perchlorate ICAL 9	Perchlorate6850c.lcm	1x	233563	2/13/2024 10:24
11	20240213-011	Perchlorate ICAL 10	Perchlorate6850c.lcm	1x	233562	2/13/2024 10:30
12	20240213-012	PerchlorateICV	Perchlorate6850c.lcm	1x	230380	2/13/2024 10:35
13	20240213-013	IB	Perchlorate6850c.lcm	1x		2/13/2024 10:41
14	20240213-014	LODV	Perchlorate6850c.lcm	1x		2/13/2024 10:49
15	20240213-015	ICS	Perchlorate6850c.lcm	1x		2/13/2024 10:55
16	20240213-016	E2400101-001	Perchlorate6850c.lcm	1x		2/13/2024 11:18
17	20240213-017	E2400101-002	Perchlorate6850c.lcm	1x		2/13/2024 11:23
18	20240213-018	E2400101-003	Perchlorate6850c.lcm	1x		2/13/2024 11:29
19	20240213-019	E2400101-004	Perchlorate6850c.lcm	1x		2/13/2024 11:34
20	20240213-020	E2400101-005	Perchlorate6850c.lcm	1x		2/13/2024 11:40
21	20240213-021	E2400101-006	Perchlorate6850c.lcm	1x		2/13/2024 11:45
22	20240213-022	E2400101-007	Perchlorate6850c.lcm	1x		2/13/2024 11:51
23	20240213-023	E2400101-008	Perchlorate6850c.lcm	1x		2/13/2024 11:56
24	20240213-024	E2400101-009	Perchlorate6850c.lcm	1x		2/13/2024 12:02
25	20240213-025	E2400101-010	Perchlorate6850c.lcm	1x	DNU-IR-RI	2/13/2024 12:07
26	20240213-026	CCV	Perchlorate6850c.lcm	1x		2/13/2024 12:13
27	20240213-027	IB	Perchlorate6850c.lcm	1x		2/13/2024 12:18
28	20240213-028	E2400101-011	Perchlorate6850c.lcm	1x		2/13/2024 12:24
29	20240213-029	E2400101-012	Perchlorate6850c.lcm	1x		2/13/2024 12:29
30	20240213-030	E2400101-013	Perchlorate6850c.lcm	1x		2/13/2024 12:35
31	20240213-031	E2400112-001	Perchlorate6850c.lcm	1x		2/13/2024 12:40
32	20240213-032	IB	Perchlorate6850c.lcm	1x		2/13/2024 13:03
33	20240213-033	E2400112-002	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:09
34	20240213-034	E2400112-003	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:16
35	20240213-035	E2400112-004	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:22
36	20240213-036	E2400112-005	Perchlorate6850c.lcm	1x		2/13/2024 13:27
37	20240213-037	E2400112-006	Perchlorate6850c.lcm	1x	DNU-MATRIX INTERFERENCE	2/13/2024 13:33
38	20240213-038	E2400112-007x5	Perchlorate6850c.lcm	5x		2/13/2024 13:38
39	20240213-039	CCV	Perchlorate6850c.lcm	1x		2/13/2024 13:44
40	20240213-040	IB	Perchlorate6850c.lcm	1x		2/13/2024 13:49
41	20240213-041	E2400112-008	Perchlorate6850c.lcm	1x		2/13/2024 13:55

832255

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: JLJ

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
42	20240213-042	E2400101-010	Perchlorate6850c.lcm	1x		2/13/2024 14:00
43	20240213-043	E2400081-01 MB	Perchlorate6850c.lcm	1x		2/13/2024 14:06
44	20240213-044	E2400081-02 LCS	Perchlorate6850c.lcm	1x		2/13/2024 14:11
45	20240213-045	E2400081-03 DLCS	Perchlorate6850c.lcm	1x		2/13/2024 14:17
46	20240213-046	E2400081-06 ICS	Perchlorate6850c.lcm	1x		2/13/2024 14:22
47	20240213-047	E2400081-04 MS	Perchlorate6850c.lcm	1x		2/13/2024 14:28
48	20240213-048	E2400081-05 DMS	Perchlorate6850c.lcm	1x		2/13/2024 14:33
49	20240213-049	E2400112-004	Perchlorate6850c.lcm	1x		2/13/2024 14:39
50	20240213-050	CCV	Perchlorate6850c.lcm	1x		2/13/2024 14:45
51	20240213-051	IB	Perchlorate6850c.lcm	1x		2/13/2024 14:51
52	20240213-052	E2400112-006	Perchlorate6850c.lcm	1x		2/13/2024 14:58
53	20240213-053	E2400112-002X10	Perchlorate6850c.lcm	10x		2/13/2024 15:22
54	20240213-054	E2400112-003X10	Perchlorate6850c.lcm	10x		2/13/2024 15:27
55	20240213-055	CCV	Perchlorate6850c.lcm	1x		2/13/2024 15:33
56	20240213-056	IB	Perchlorate6850c.lcm	1x		2/13/2024 15:38

Initial Calibration - Detailed Report

Calibration ID: EC2400004 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2400004-01	Perchlorate ICAL 1	20240213-002	02/13/2024 09:40
02	EC2400004-02	Perchlorate ICAL 2	20240213-003	02/13/2024 09:45
03	EC2400004-03	Perchlorate ICAL 3	20240213-004	02/13/2024 09:51
04	EC2400004-04	Perchlorate ICAL 4	20240213-005	02/13/2024 09:56
05	EC2400004-05	Perchlorate ICAL 5	20240213-006	02/13/2024 10:02
06	EC2400004-06	Perchlorate ICAL 6	20240213-007	02/13/2024 10:08
07	EC2400004-07	Perchlorate ICAL 7	20240213-008	02/13/2024 10:13
08	EC2400004-08	Perchlorate ICAL 8	20240213-009	02/13/2024 10:19
09	EC2400004-09	Perchlorate ICAL 9	20240213-010	02/13/2024 10:24
10	EC2400004-10	Perchlorate ICAL 10	20240213-011	02/13/2024 10:30

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

Perchlorate **Average RF** **RSD = 1.405** **Average RF = 0.1578**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1593	02	0.5000	0.1567	03	0.7000	0.1554	04	1.0000	0.1575
05	2.0000	0.1534	06	5.0000	0.1574	07	10.0000	0.1595	08	20.0000	0.16
09	30.0000	0.1586	10	50.0000	0.1604						

Analyte

Perchlorate RSE = 1.41

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.101	0.9	02	0.5000	0.496	-0.7	03	0.7000	0.689	-1.5
04	1.0000	0.998	-0.2	05	2.0000	1.94	-2.8	06	5.0000	4.99	-0.2
07	10.0000	10.1	1.1	08	20.0000	20.3	1.4	09	30.0000	30.1	0.5
10	50.0000	50.8	1.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2400004	**Instrument ID:**	E-LCMS-01
Datafile ID:	20240213-012	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2400004-11	T	Average RF	10	9.980	ng/mL	-0.2	<= 15

Insight Report

Printed at 2/13/2024 3:53:21 PM

Method File: I:\LCMS01\DATA\20240213\ICAL 20240213.lcm
Project File: I:\LCMS01\DATA\20240213\20240213.damlp

IB

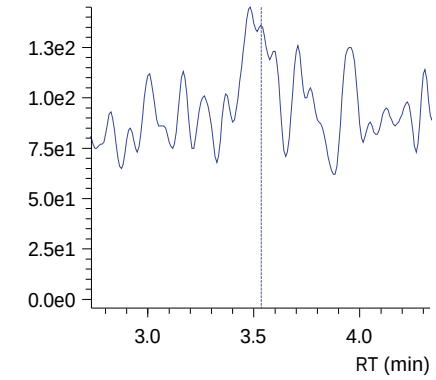
Sample ID: IB
Date Acquired: 2/13/2024 9:34:46 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	487658	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.529	487658	487658	1.0000	ng/mL	----	----	

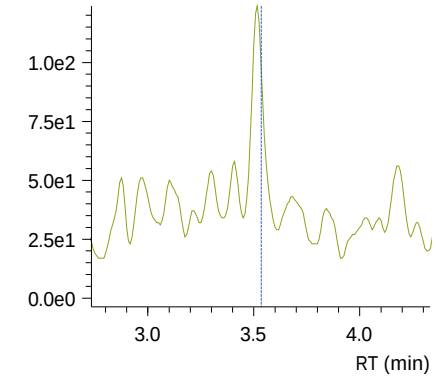
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.45e2



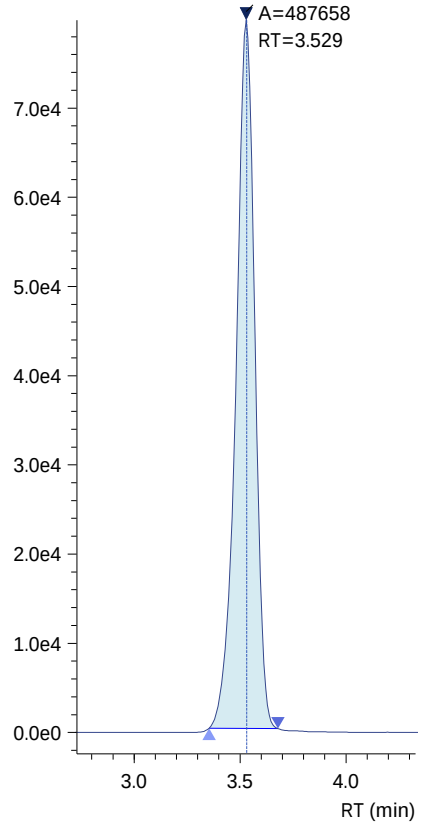
R1 101.00>85.00 (-) 1.24e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.99e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

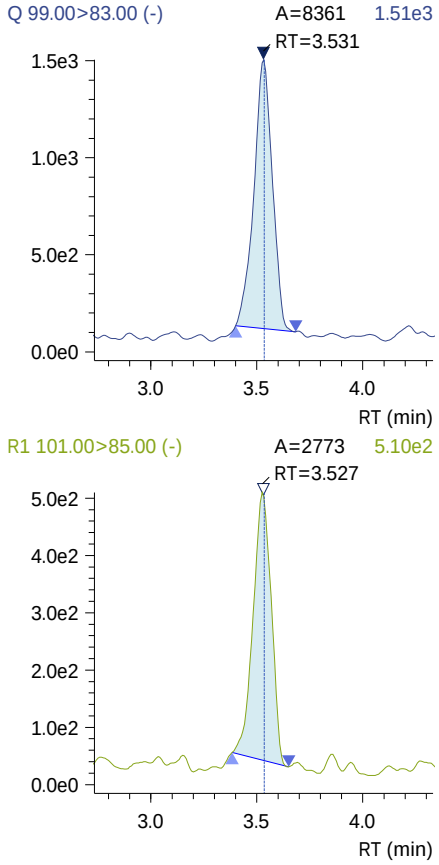
Perchlorate ICAL 1

Sample ID: Perchlorate ICAL 1
Date Acquired: 2/13/2024 9:40:17 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	8361	524837	0.1009	ng/mL	101.00 >85.00	33.17	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.529	524837	524837	1.0000	ng/mL	----	----	

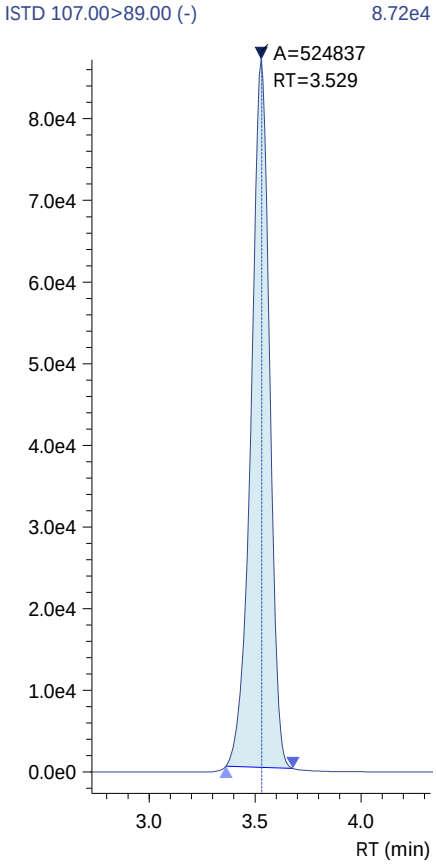
Perchlorate

Conc 0.1009
R#1 33.17 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 2

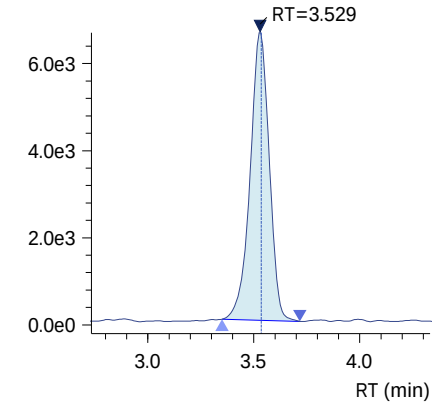
Sample ID: Perchlorate ICAL 2
Date Acquired: 2/13/2024 9:45:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	41323	527565	0.4963	ng/mL	101.00 >85.00	33.63	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	527565	527565	1.0000	ng/mL	----	----	

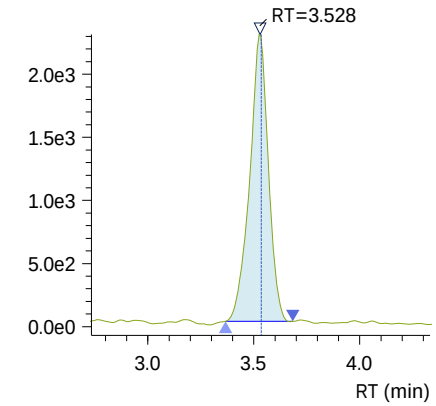
Perchlorate

Conc 0.4963
R#1 33.63 (34.10)

Q 99.00>83.00 (-) A=41323 6.71e3



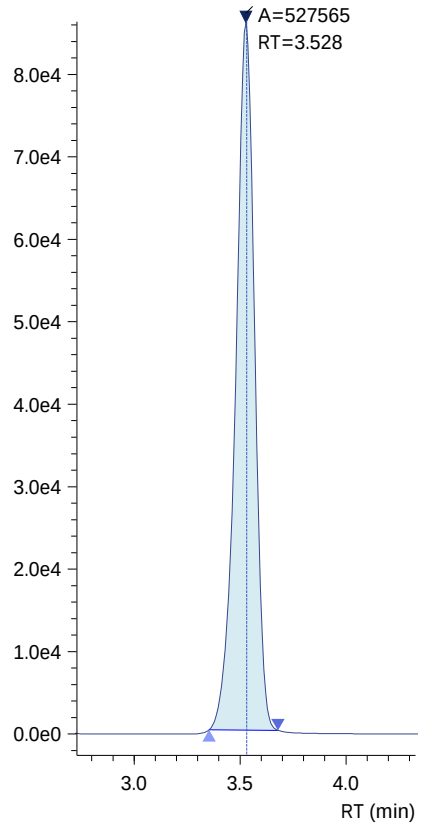
R1 101.00>85.00 (-) A=13897 2.32e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.64e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

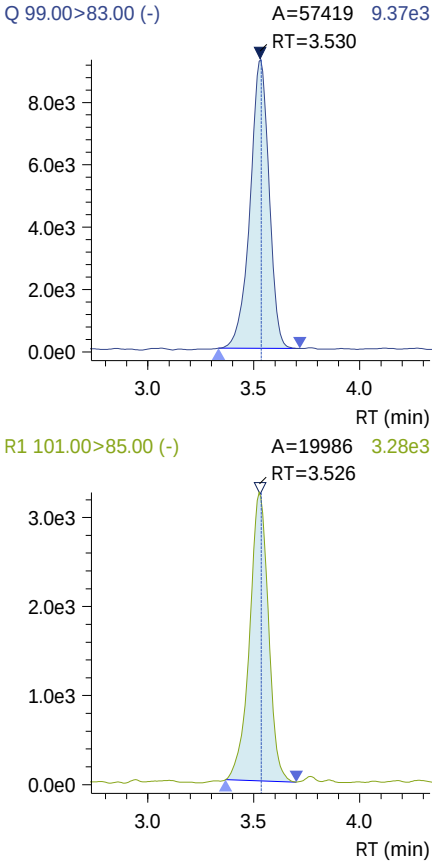
Perchlorate ICAL 3

Sample ID: Perchlorate ICAL 3
Date Acquired: 2/13/2024 9:51:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	57419	527846	0.6893	ng/mL	101.00 >85.00	34.81	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	527846	527846	1.0000	ng/mL	----	----	

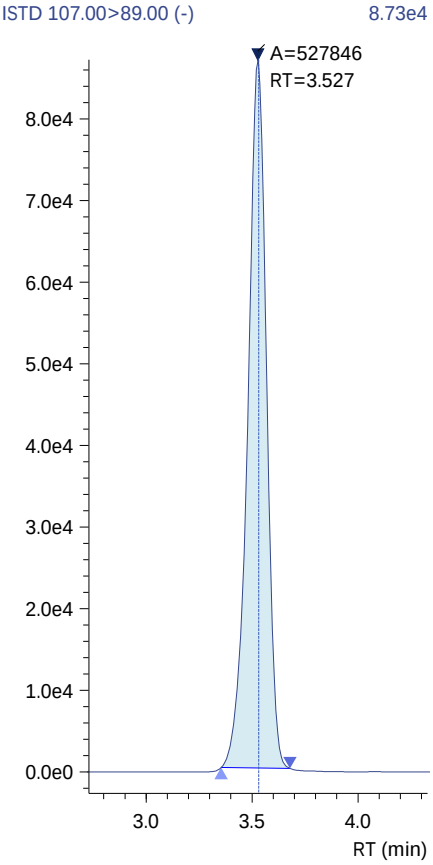
Perchlorate

Conc 0.6893
R#1 34.81 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

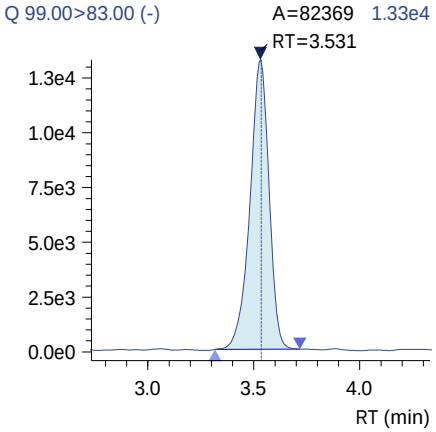
Perchlorate ICAL 4

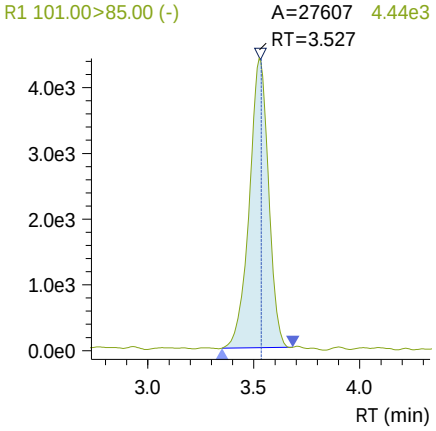
Sample ID: Perchlorate ICAL 4
Date Acquired: 2/13/2024 9:56:57 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-005.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	82369	523106	0.9977	ng/mL	101.00 >85.00	33.52	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	523106	523106	1.0000	ng/mL	----	----	

Perchlorate

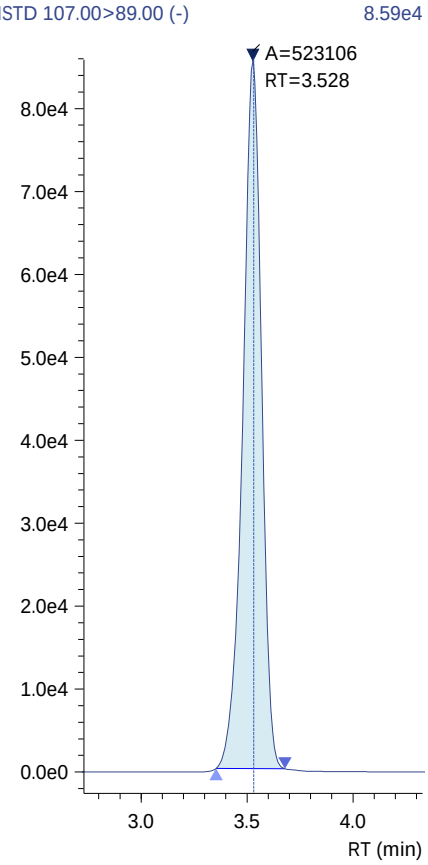
Conc 0.9977
R#1 33.52 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 5

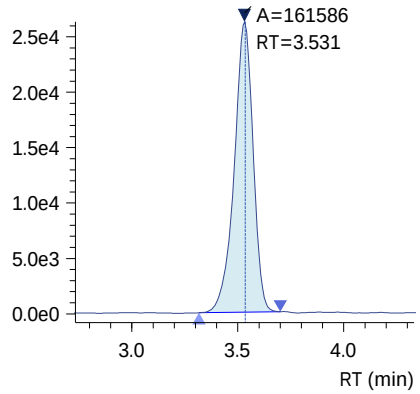
Sample ID: Perchlorate ICAL 5
Date Acquired: 2/13/2024 10:02:32 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-006.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	161586	526634	1.9441	ng/mL	101.00 >85.00	34.10	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.529	526634	526634	1.0000	ng/mL	----	----	

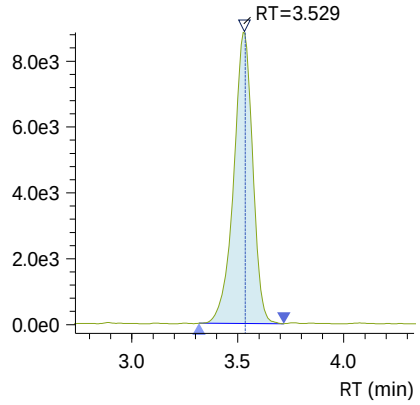
Perchlorate

Conc 1.9441
R#1 34.10 (34.10)

Q 99.00>83.00 (-) 2.64e4



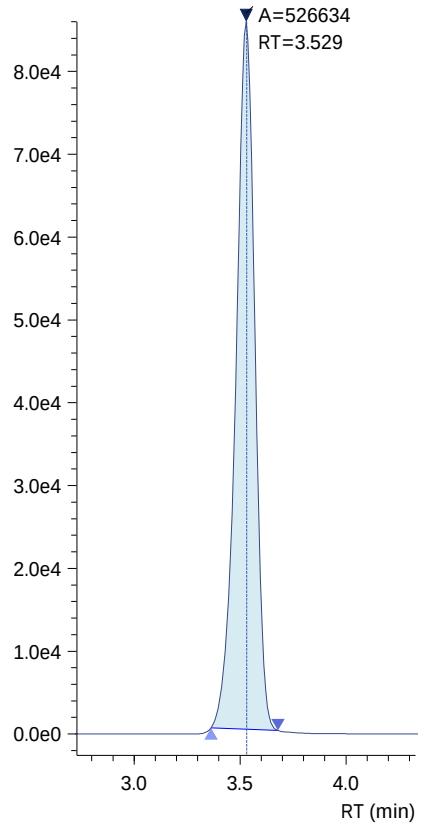
R1 101.00>85.00 (-) A=55098 8.87e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.60e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 6

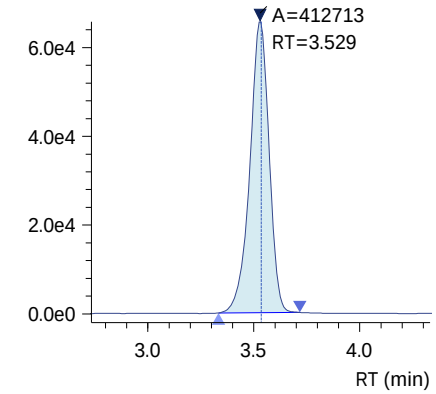
Sample ID: Perchlorate ICAL 6
Date Acquired: 2/13/2024 10:08:05 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-007.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	412713	524318	4.9876	ng/mL	101.00 >85.00	33.17	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	524318	524318	1.0000	ng/mL	----	----	

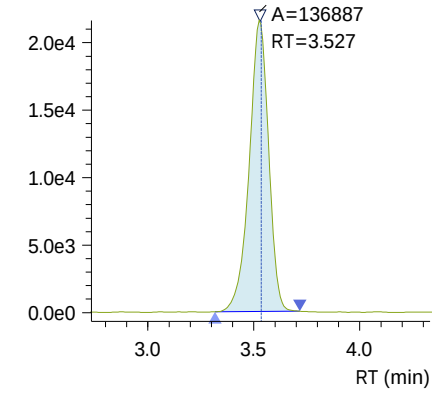
Perchlorate

Conc 4.9876
R#1 33.17 (34.10)

Q 99.00>83.00 (-) 6.58e4



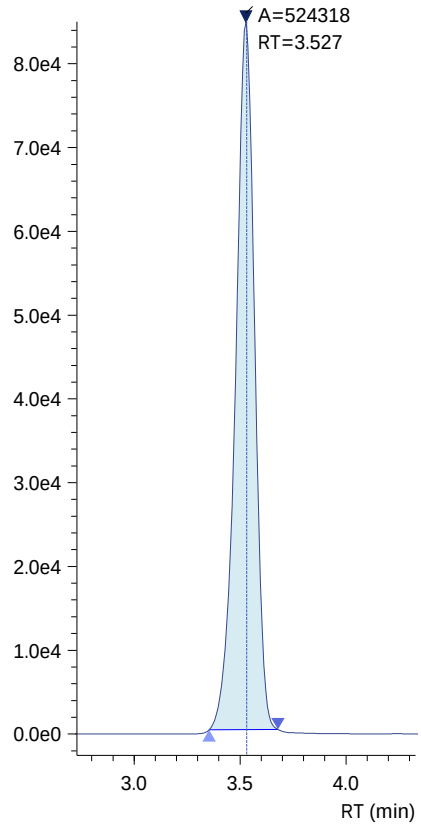
R1 101.00>85.00 (-) 2.16e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.50e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 7

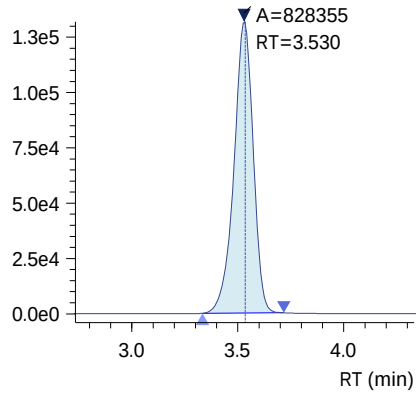
Sample ID: Perchlorate ICAL 7
Date Acquired: 2/13/2024 10:13:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-008.lcd
Vial: 7 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	828355	519280	10.1076	ng/mL	101.00 >85.00	33.46	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	519280	519280	1.0000	ng/mL	----	----	

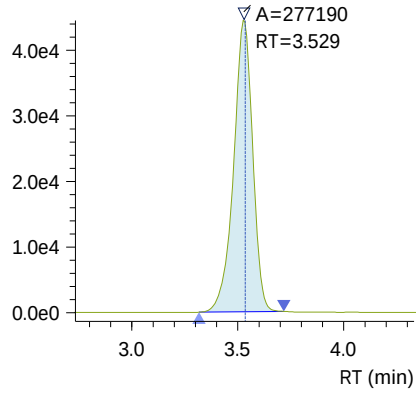
Perchlorate

Conc 10.1076
R#1 33.46 (34.10)

Q 99.00>83.00 (-) 1.32e5



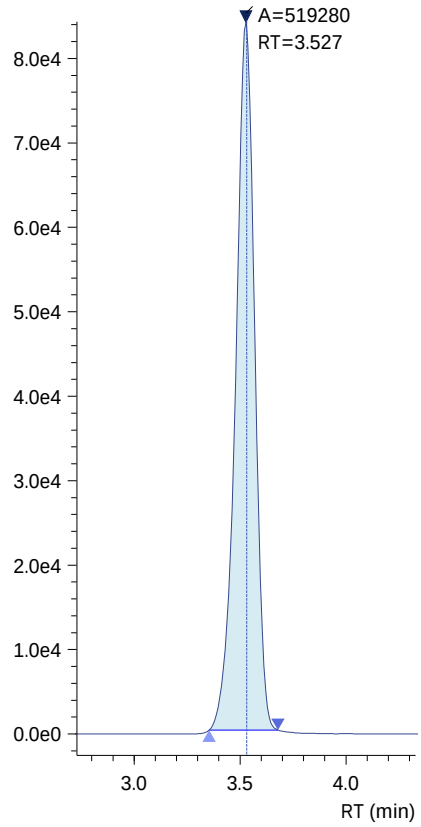
R1 101.00>85.00 (-) 4.45e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.44e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 8

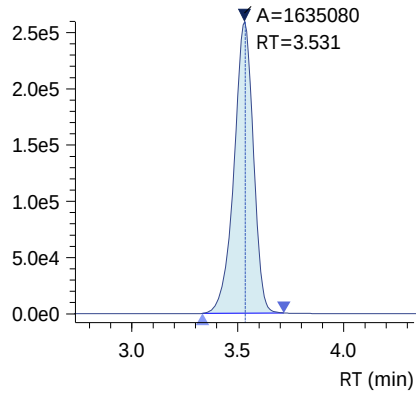
Sample ID: Perchlorate ICAL 8
Date Acquired: 2/13/2024 10:19:12 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-009.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	16350 80	510855	20.2 804	ng/mL	101.00 >85.00	32.92	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	510855	510855	1.0000	ng/mL	----	----	

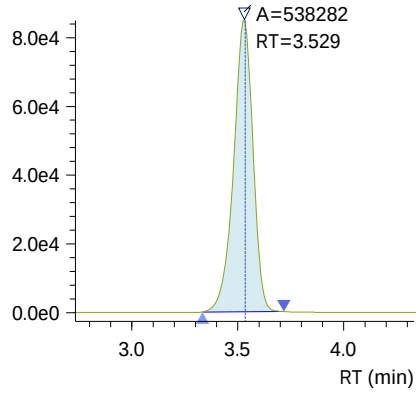
Perchlorate

Conc 20.2804
R#1 32.92 (34.10)

Q 99.00>83.00 (-) 2.60e5



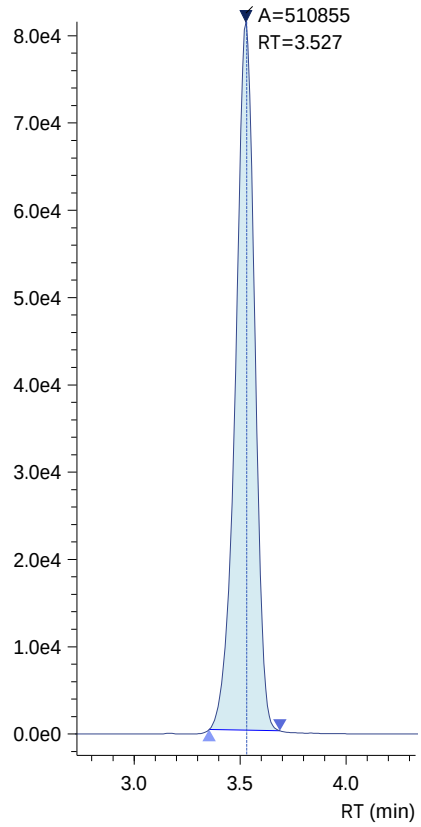
R1 101.00>85.00 (-) 8.50e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.16e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 9

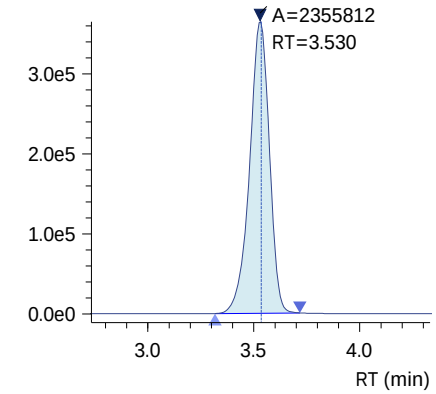
Sample ID: Perchlorate ICAL 9
Date Acquired: 2/13/2024 10:24:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-010.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	23558	495209	30.1	ng/mL	101.00	33.20	26.31
			12		430		>85.00		-43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	495209	495209	1.0000	ng/mL	----	----	

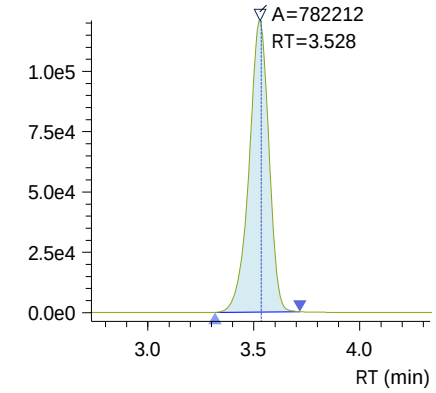
Perchlorate

Conc 30.1430
R#1 33.20 (34.10)

Q 99.00>83.00 (-) 3.65e5



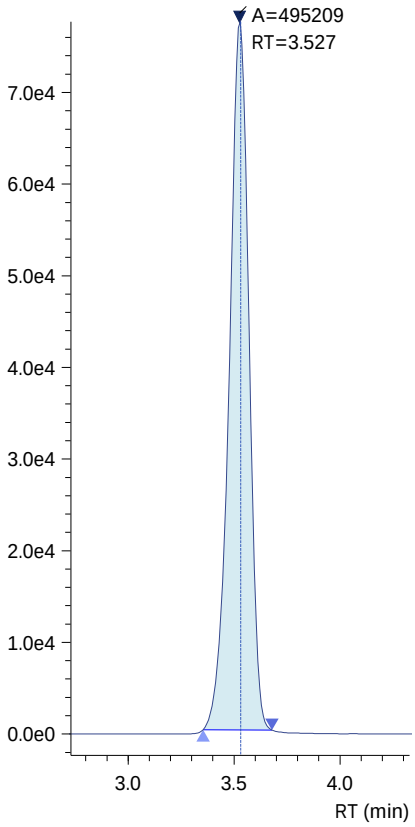
R1 101.00>85.00 (-) 1.21e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.77e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

Perchlorate ICAL 10

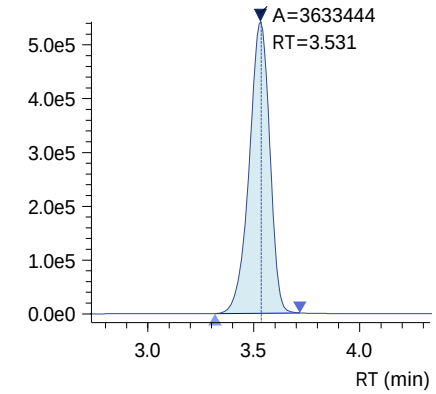
Sample ID: Perchlorate ICAL 10
Date Acquired: 2/13/2024 10:30:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-011.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	36334	452979	50.8	ng/mL	101.00	33.19	26.31
			44		246		>85.00		-43.47
Sodium Perchlorate -18O4_IS	Auto	3.528	452979	452979	1.0000	ng/mL	----	----	

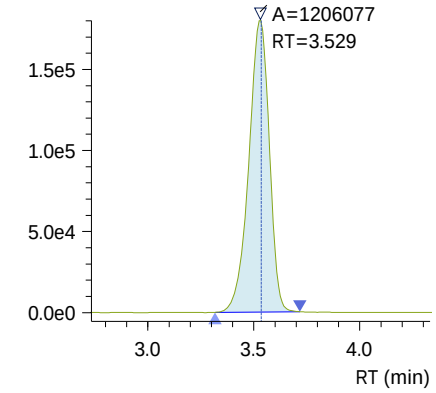
Perchlorate

Conc 50.8246
R#1 33.19 (34.10)

Q 99.00>83.00 (-) 5.43e5



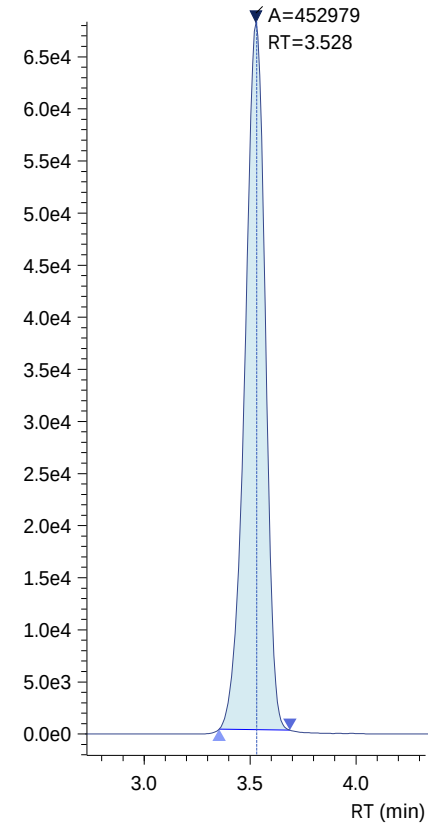
R1 101.00>85.00 (-) 1.80e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.84e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

PerchlorateICV

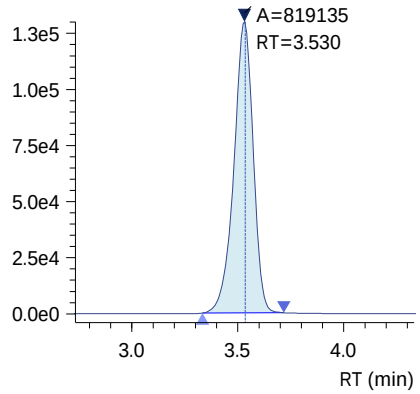
Sample ID: PerchlorateICV
Date Acquired: 2/13/2024 10:35:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-012.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.530	819135	520077	9.9798	ng/mL	101.00 >85.00	33.19	26.31 -43.47
Sodium Perchlorate -18O4_IS	Auto	3.527	520077	520077	1.0000	ng/mL	----	----	

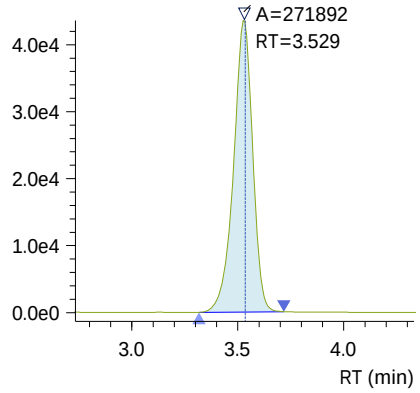
Perchlorate

Conc 9.9798
R#1 33.19 (34.10)

Q 99.00>83.00 (-) 1.30e5



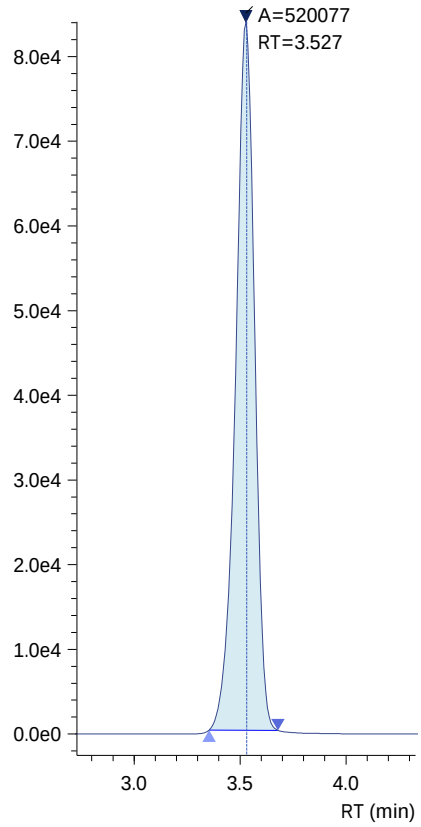
R1 101.00>85.00 (-) 4.36e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.41e4



Insight Report

Printed at 2/13/2024 3:53:21 PM

IB

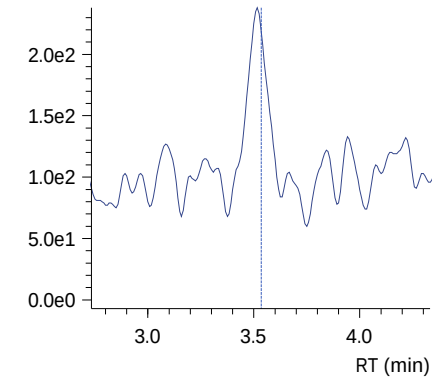
Sample ID: IB
Date Acquired: 2/13/2024 10:41:21 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240213\20240213-013.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	494605	----	ng/mL	101.00 >85.00	0.00	26.31 -43.47
Sodium Perchlorate-18O4_IS	Auto	3.527	494605	494605	1.0000	ng/mL	----	----	

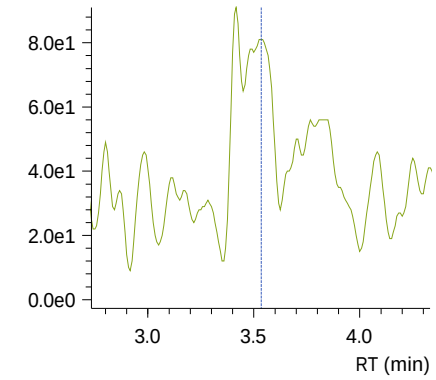
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 2.38e2



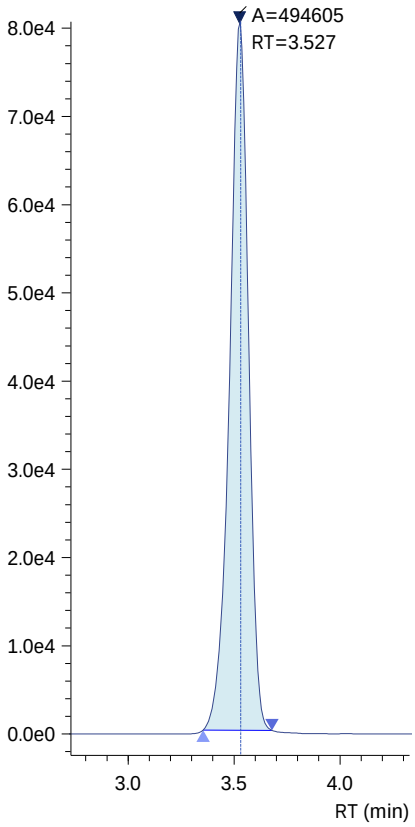
R1 101.00>85.00 (-) 9.10e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 8.07e4



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

833078

Injection Log

LCMS01 -Shimadzu 8050

1st Review: JLJ
2nd Review: SP

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240221-001	IB	Perchlorate6850c.lcm	1x		2/21/2024 10:05
2	20240221-002	LODV	Perchlorate6850c.lcm	1x		2/21/2024 10:10
3	20240221-003	ICS	Perchlorate6850c.lcm	1x		2/21/2024 10:16
4	20240221-004	CCV	Perchlorate6850c.lcm	1x		2/21/2024 10:21
5	20240221-005	IB	Perchlorate6850c.lcm	1x		2/21/2024 10:27
6	20240221-006	E2400136-006 X10	Perchlorate6850c.lcm	10		2/21/2024 10:32
7	20240221-007	E2400115-005	Perchlorate6850c.lcm	1x		2/21/2024 10:38
8	20240221-008	E2400115-005MS	Perchlorate6850c.lcm	1x		2/21/2024 10:43
9	20240221-009	E2400115-005MSD	Perchlorate6850c.lcm	1x		2/21/2024 11:05
10	20240221-010	E2400132-001X10	Perchlorate6850c.lcm	10		2/21/2024 11:10
11	20240221-011	E2400132-002X10	Perchlorate6850c.lcm	10		2/21/2024 11:19
12	20240221-012	E2400132-005X10	Perchlorate6850c.lcm	10		2/21/2024 11:25
13	20240221-013	E2400136-005X10	Perchlorate6850c.lcm	10		2/21/2024 11:30
14	20240221-014	CCV	Perchlorate6850c.lcm	1		2/21/2024 11:56
15	20240221-015	IB	Perchlorate6850c.lcm	1		2/21/2024 12:02

833061

Injection Log

LCMS01 -Shimadzu 8050

1st Review: JLJ
2nd Review: SP

ICAL Date: 2/13/2024
Cal. Std. xp: 8/13/2024
ICAL ID: EC2400004

Mobile Phases : A:20mM ammonium acetate in water 233412 **B:**Acetonitrile 233145
LODV: 233573 **CCV:233565**

	File Name	Sample Name	Acquisition Method	Dilution	Comments	Date/Time
1	20240219-001	IB	Perchlorate6850c.lcm	1x		2/19/2024 12:17
2	20240219-002	LODV	Perchlorate6850c.lcm	1x		2/19/2024 12:23
3	20240219-003	ICS	Perchlorate6850c.lcm	1x		2/19/2024 12:28
4	20240219-004	CCV	Perchlorate6850c.lcm	1x		2/19/2024 12:34
5	20240219-005	IB	Perchlorate6850c.lcm	1x		2/19/2024 12:39
6	20240219-006	EQ2400093-01 MB	Perchlorate6850c.lcm	1x		2/19/2024 12:45
7	20240219-007	EQ2400093-02 LCS	Perchlorate6850c.lcm	1x		2/19/2024 12:51
8	20240219-008	EQ2400093-03 DLCS	Perchlorate6850c.lcm	1x		2/19/2024 12:56
9	20240219-009	EQ2400093-04 ICS	Perchlorate6850c.lcm	1x		2/19/2024 13:02
10	20240219-010	EQ2400093-05 MS	Perchlorate6850c.lcm	1x		2/19/2024 13:07
11	20240219-011	EQ2400093-06 DMS	Perchlorate6850c.lcm	1x		2/19/2024 13:13
12	20240219-012	E2400131-001	Perchlorate6850c.lcm	1x		2/19/2024 13:18
13	20240219-013	E2400132-001	Perchlorate6850c.lcm	1x	DNU-ISs	2/19/2024 13:24
14	20240219-014	E2400132-002	Perchlorate6850c.lcm	1x	DNU-ISs	2/19/2024 13:29
15	20240219-015	E2400132-003	Perchlorate6850c.lcm	1x		2/19/2024 13:35
16	20240219-016	CCV	Perchlorate6850c.lcm	1x		2/19/2024 13:40
17	20240219-017	IB	Perchlorate6850c.lcm	1x		2/19/2024 13:47
18	20240219-018	E2400132-004	Perchlorate6850c.lcm	1x		2/19/2024 13:53
19	20240219-019	E2400132-005	Perchlorate6850c.lcm	1x	DNU-ISs	2/19/2024 13:58
20	20240219-020	E2400132-006	Perchlorate6850c.lcm	1x		2/19/2024 14:04
21	20240219-021	E2400136-001	Perchlorate6850c.lcm	1x		2/19/2024 14:09
22	20240219-022	E2400136-002	Perchlorate6850c.lcm	1x		2/19/2024 14:15

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2400132
Project:	HS24020577	**Date Analyzed:**	2/19/24 12:34

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20240219\20240219-004	**Lab Code:**	EQ2400101-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833219
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400101-01	418,552	3.52
Method Blank	EQ2400093-01	431,364	3.52
Lab Control Sample	EQ2400093-02	431,611	3.52
Duplicate Lab Control Sample	EQ2400093-03	427,832	3.52
16WW24-240207MS	EQ2400093-05	425,139	3.53
16WW24-240207DMS	EQ2400093-06	430,760	3.53
16WW24-240207	E2400132-003	411,604	3.53

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:**	E2400132
Project:	HS24020577	**Date Analyzed:**	2/19/24 13:40

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20240219\20240219-016	**Lab Code:**	EQ2400101-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833219
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400101-02	401,595	3.53
16WW24-240207-FD	E2400132-004	413,083	3.53
16WW43-240207	E2400132-006	434,612	3.53

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:**	E2400132
Project:	HS24020577	**Date Analyzed:**	2/19/24 14:48

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20240219\20240219-028	**Lab Code:**	EQ2400101-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833219
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400101-03	356,248	3.53

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:**	E2400132
Project:	HS24020577	**Date Analyzed:**	2/19/24 15:49

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20240219\20240219-039	**Lab Code:**	EQ2400101-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833219
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400101-04	295,131	3.53

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:**	E2400132
Project:	HS24020577	**Date Analyzed:**	2/21/24 10:21

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20240221\20240221-004	**Lab Code:**	EQ2400102-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833240
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400102-01	394,473	3.55
16WW23-240207	E2400132-001	459,277	3.55
16WW23-240207-FD	E2400132-002	462,603	3.55
16WW27-240207	E2400132-005	452,736	3.55

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:**	E2400132
Project:	HS24020577	**Date Analyzed:**	2/21/24 11:56

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20240221\20240221-014	**Lab Code:**	EQ2400102-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	833240
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	513,263	3.53
	Upper Limit ==>	769,895	5.53
	Lower Limit ==>	256,632	1.53
Associated Analyses			
Continuing Calibration Verification	EQ2400102-02	421,246	3.55

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: HS24020577

Service Request: E2400132
Date Analyzed: 2/19/24

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\20240219\20240219-004

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 833219
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1578	0.1597	1.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020577

Service Request: E2400132
Date Analyzed: 2/19/24

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\20240219\20240219-016

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 833219
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1578	0.1613	2.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020577

Service Request: E2400132
Date Analyzed: 2/19/24

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\20240219\20240219-028

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 833219
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.3	0.1578	0.1620	2.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020577

Service Request: E2400132
Date Analyzed: 2/19/24

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\20240219\20240219-039

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 833219
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1578	0.1611	2.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020577

Service Request: E2400132
Date Analyzed: 2/21/24

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\20240221\20240221-004

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 833240
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.84	0.1578	0.1553	-1.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS24020577

Service Request: E2400132
Date Analyzed: 2/21/24

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\20240221\20240221-014

Calibration Date: 2/13/24
Calibration ID: EC2400004
Analysis Lot: 833240
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.0	0.1578	0.1578	0.0	NA	± 15 %	Average RF

Insight Report

Printed at 2/22/2024 2:52:21 PM

Method File: I:\LCMS01\DATA\20240219\20240219.lcm
Project File: I:\LCMS01\DATA\20240219\20240219.damlp

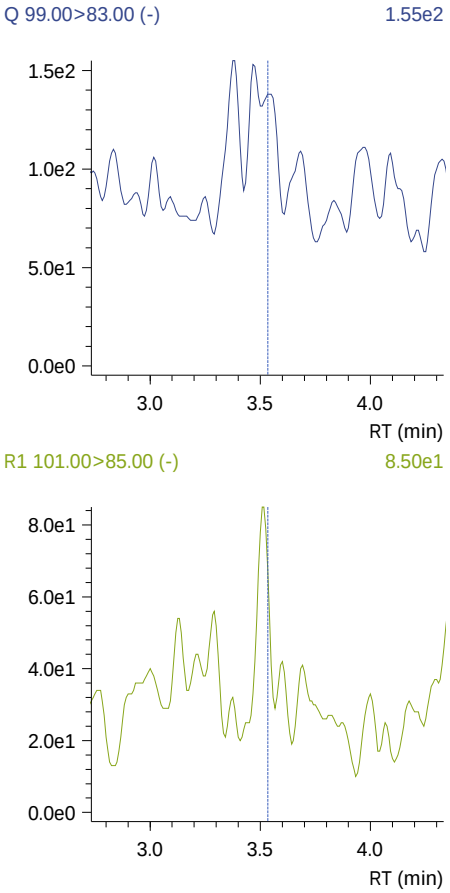
IB

Sample ID: IB
Date Acquired: 2/19/2024 12:17:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-001.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	ND(W/B)	----	----	407195	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.522	407195	407195	1.0000	ng/mL	----	----	

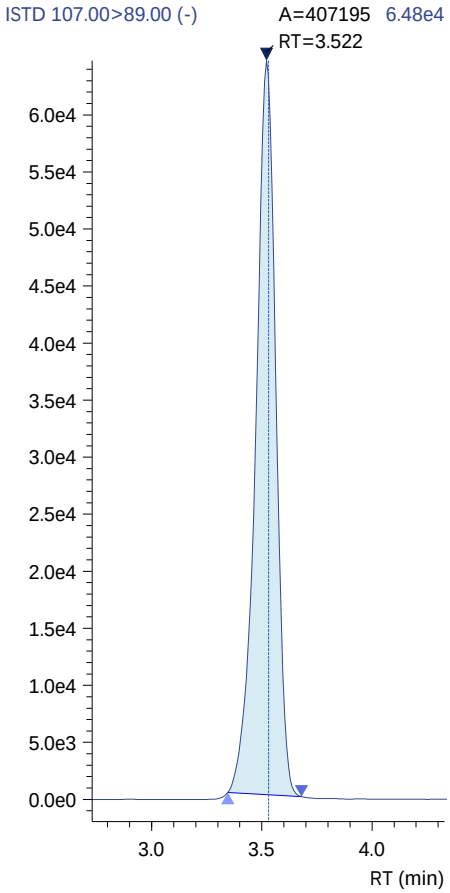
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

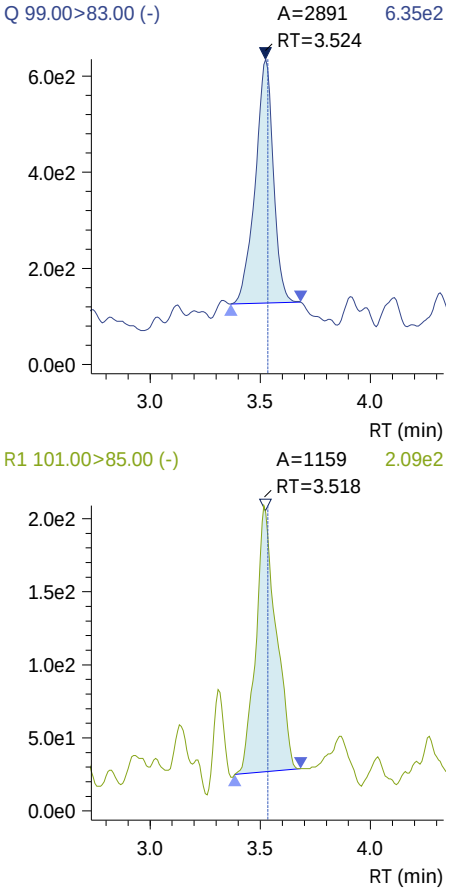
LODV

Sample ID: LODV
Date Acquired: 2/19/2024 12:23:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-002.lcd
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.524	2891	426390	0.0430	ng/mL	101.00 >85.00	40.07	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.520	4263 90	426390	1.0000	ng/mL	----	----	

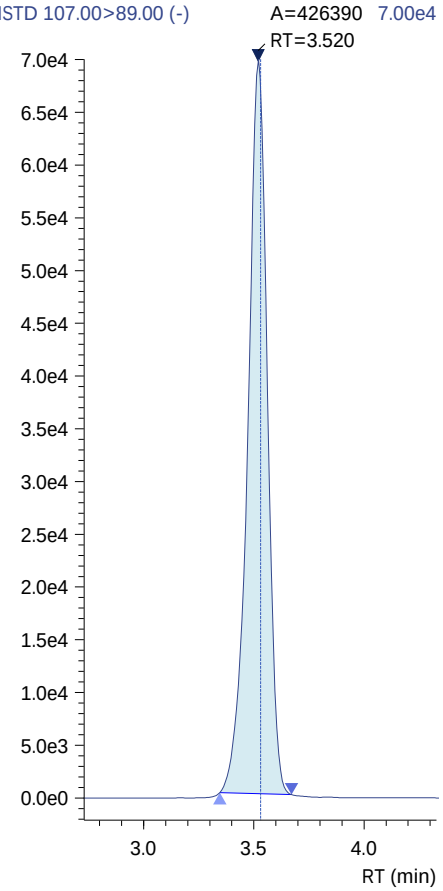
Perchlorate

Conc 0.0430
R#1 40.07 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

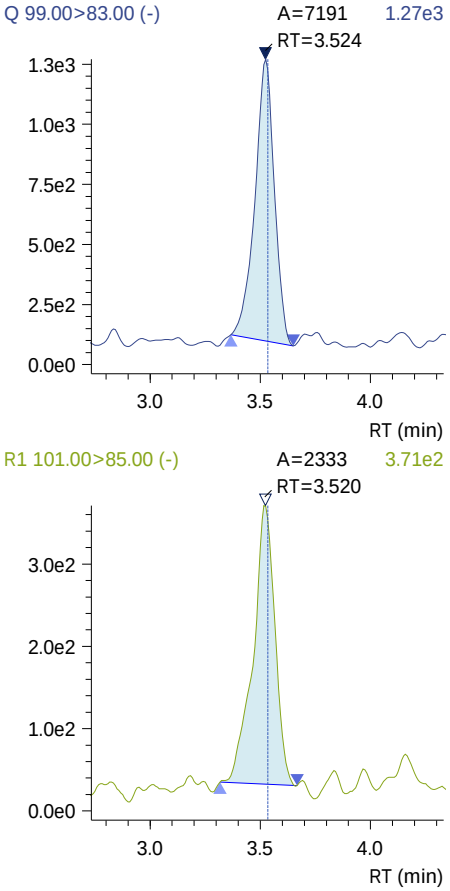
ICS

Sample ID: ICS
Date Acquired: 2/19/2024 12:28:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-003.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	Auto	3.524	7191	448720	0.1015	ng/mL	101.00 >85.00	32.44	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.522	4487 20	448720	1.0000	ng/mL	----	----	

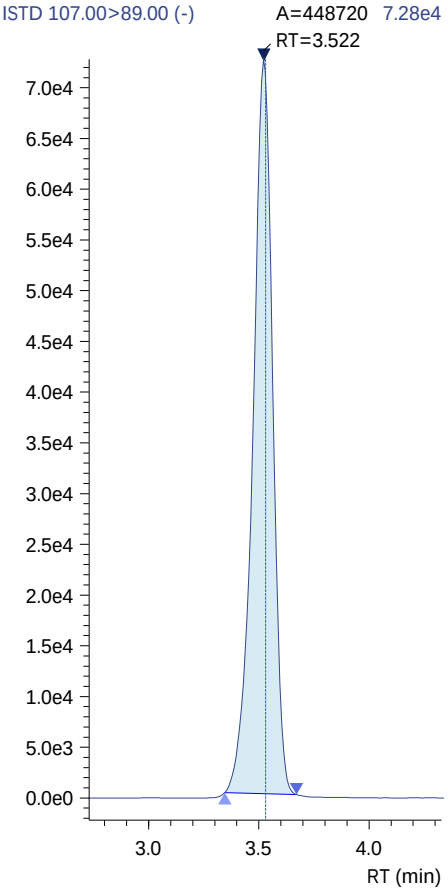
Perchlorate

Conc 0.1015
R#1 32.44 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

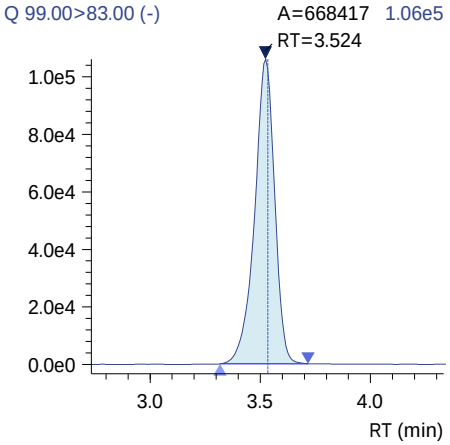
CCV

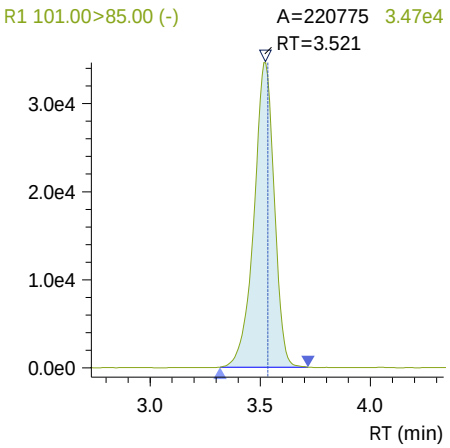
Sample ID: CCV
Date Acquired: 2/19/2024 12:34:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-004.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.524	668417	418552	10.1189	ng/mL	101.00 >85.00	33.03	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.520	418552	418552	1.0000	ng/mL	----	----	

Perchlorate

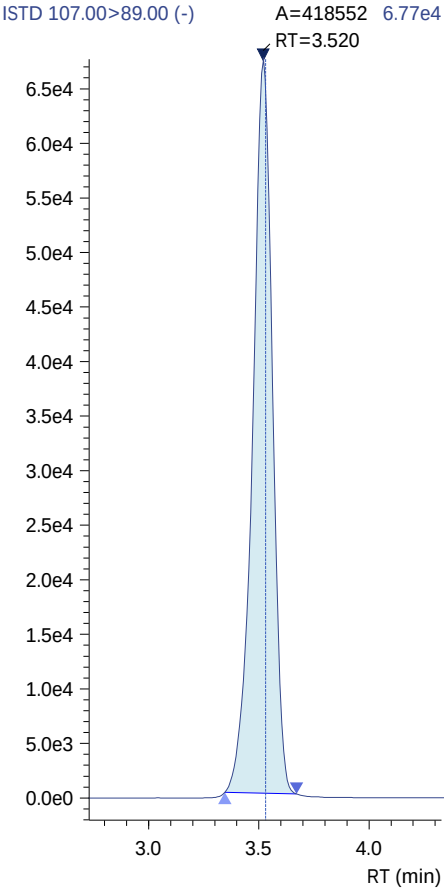
Conc 10.1189
R#1 33.03 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

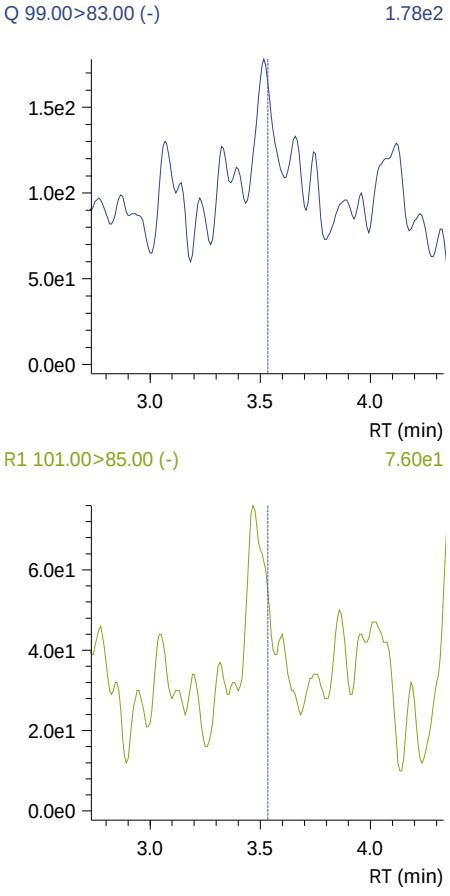
IB

Sample ID: IB
Date Acquired: 2/19/2024 12:39:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-005.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	ND(W/B)	----	----	407511	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.519	407511	407511	1.0000	ng/mL	----	----	

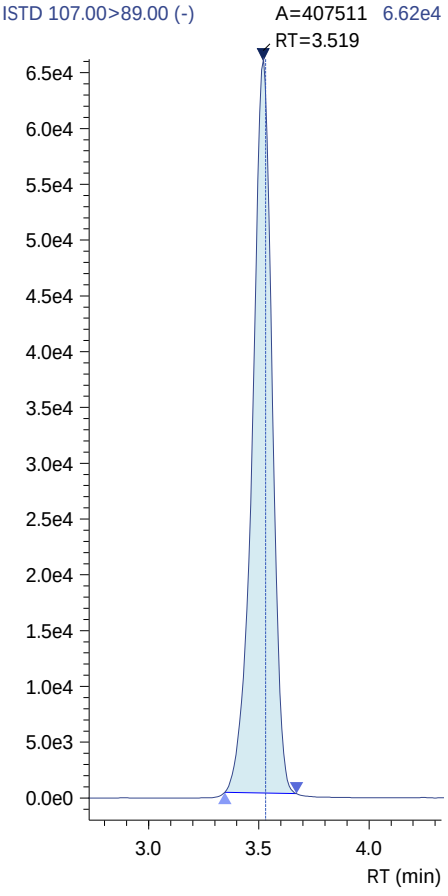
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

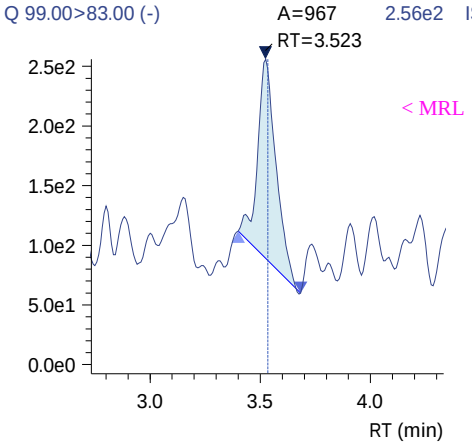
EQ2400093-01 MB

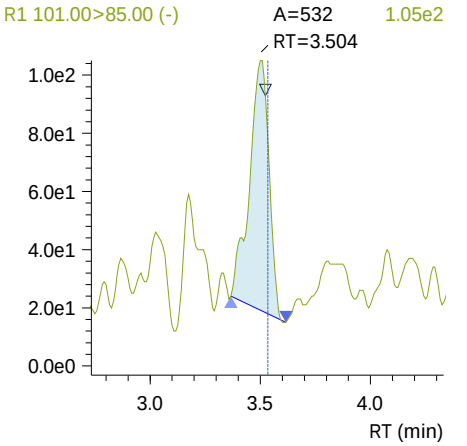
Sample ID: EQ2400093-01
Date Acquired: 2/19/2024 12:45:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-006.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.523	967	431364	0.0142	ng/mL	101.00 >85.00	54.99	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.519	4313 64	431364	1.0000	ng/mL	----	----	

Perchlorate

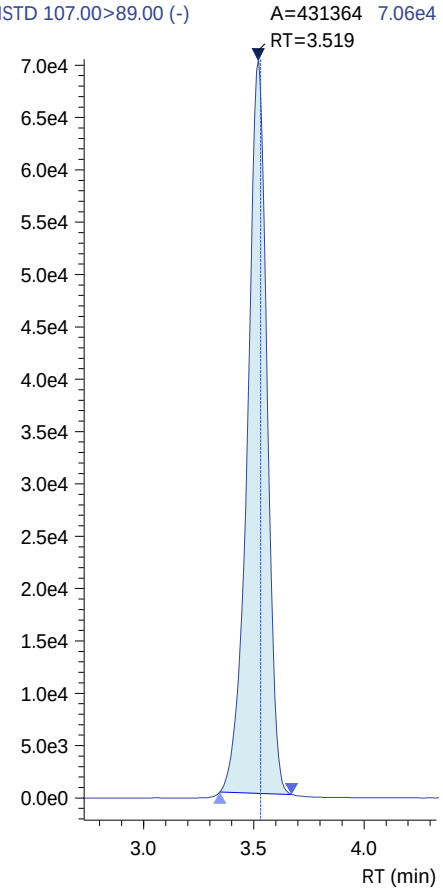
Conc 0.0142
R#1 54.99 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

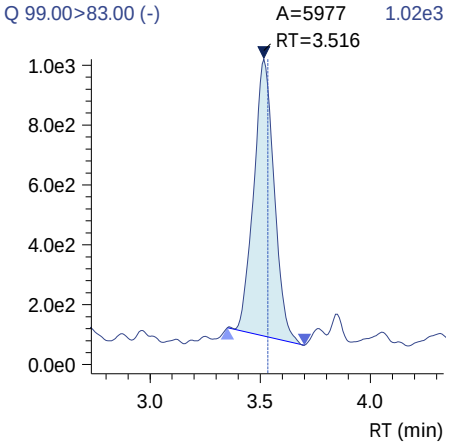
EQ2400093-02 LCS

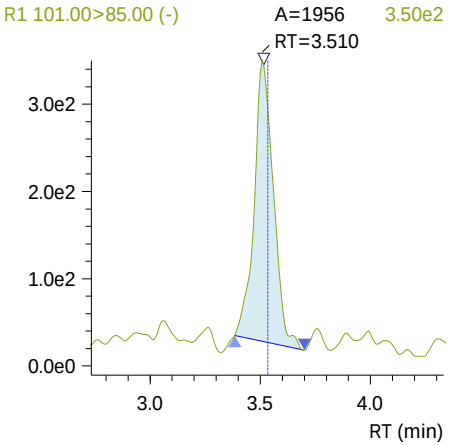
Sample ID: EQ2400093-02
Date Acquired: 2/19/2024 12:51:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-007.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.516	5977	431611	0.0877	ng/mL	101.00 >85.00	32.73	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.519	4316 11	431611	1.0000	ng/mL	----	----	

Perchlorate

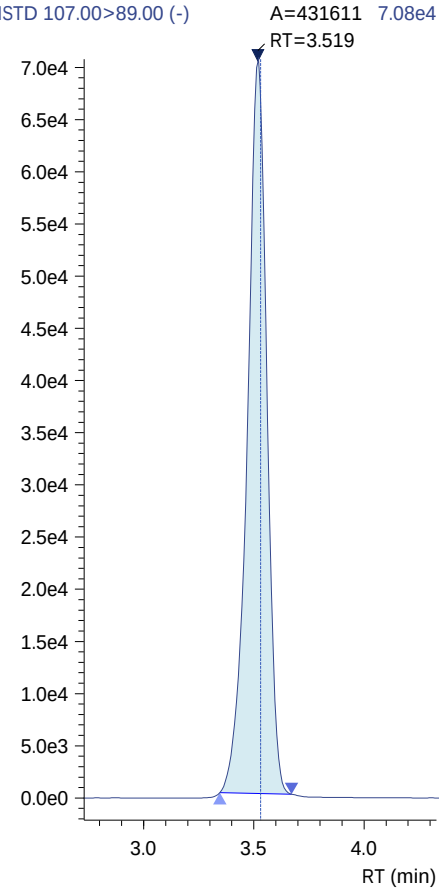
Conc 0.0877
R#1 32.73 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:54:30 PM

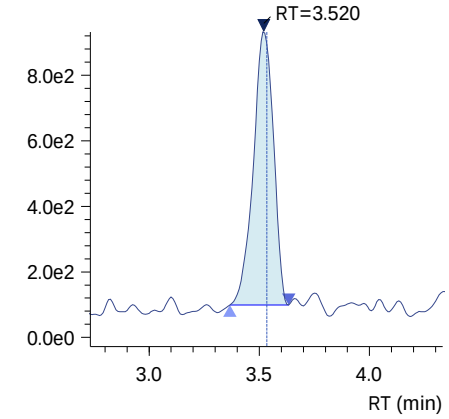
EQ2400093-03 DLCS

Sample ID: EQ2400093-03
Date Acquired: 2/19/2024 12:56:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-008.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 3

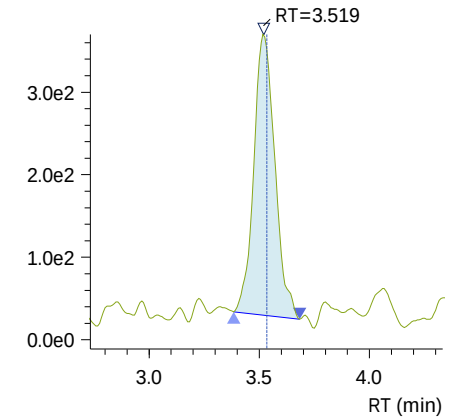
Perchlorate

Conc 0.0789
R#1 42.56 (34.10)

Q 99.00>83.00 (-) A=5329 9.32e2



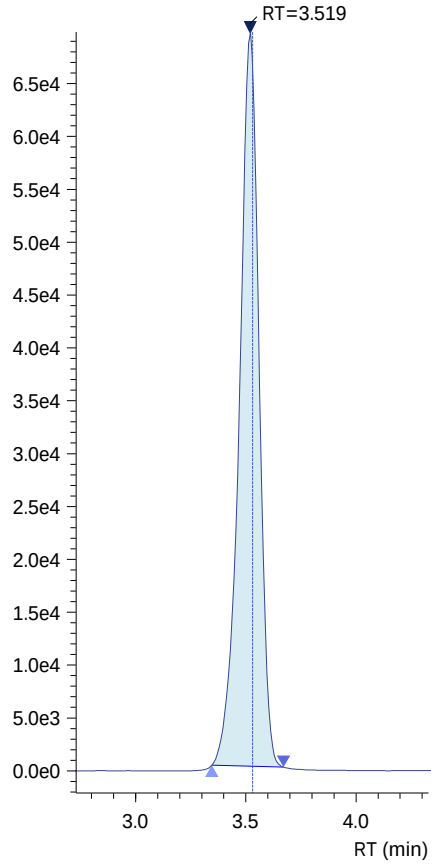
R1 101.00>85.00 (-) A=2268 3.70e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=427832 6.99e4



Insight Report

Printed at 2/26/2024 9:26:39 AM

Method File: I:\LCMS01\DATA\20240219\20240219.lcm
Project File: I:\LCMS01\DATA\20240219\20240219.damlp

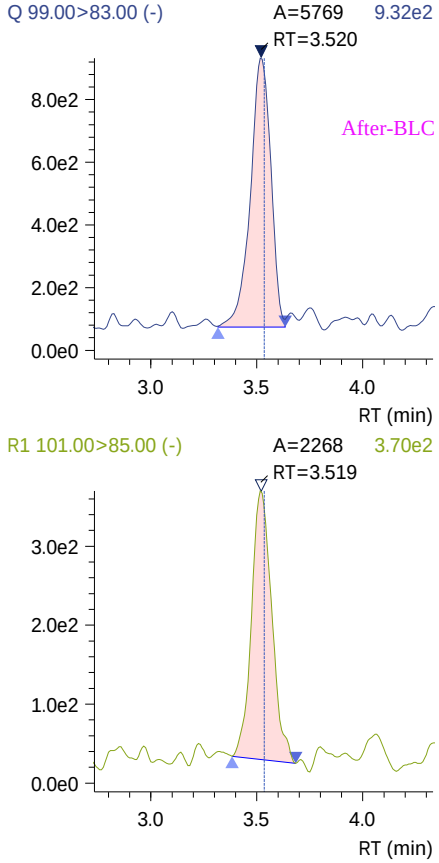
EQ2400093-03 DLCS

Sample ID: EQ2400093-03
Date Acquired: 2/19/2024 12:56:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-008.lcd
Vial: 3 | 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	M	3.520	5769	427832	0.0854	ng/mL	101.00 >85.00	39.31	23.32 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.519	4278 32	427832	1.0000	ng/mL	----	----	

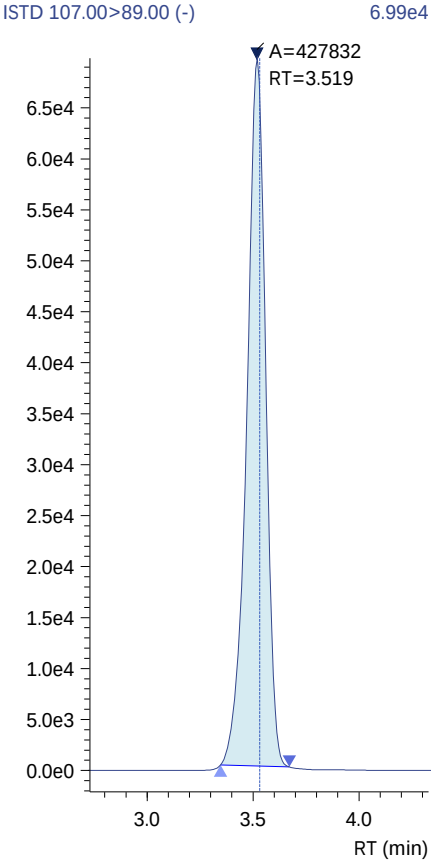
Perchlorate

Conc 0.0854
R#1 39.31 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

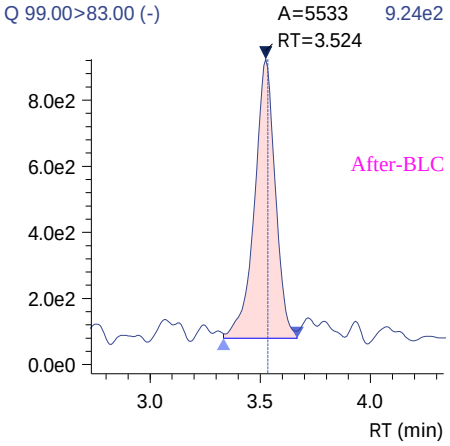
EQ2400093-04 ICS

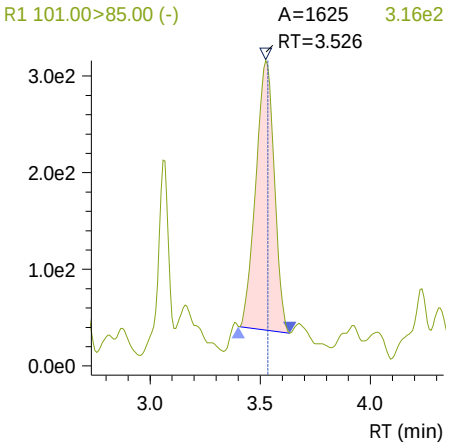
Sample ID: EQ2400093-04
Date Acquired: 2/19/2024 1:02:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-009.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.524	5533	437325	0.0802	ng/mL	101.00 >85.00	29.38	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.522	4373 25	437325	1.0000	ng/mL	----	----	

Perchlorate

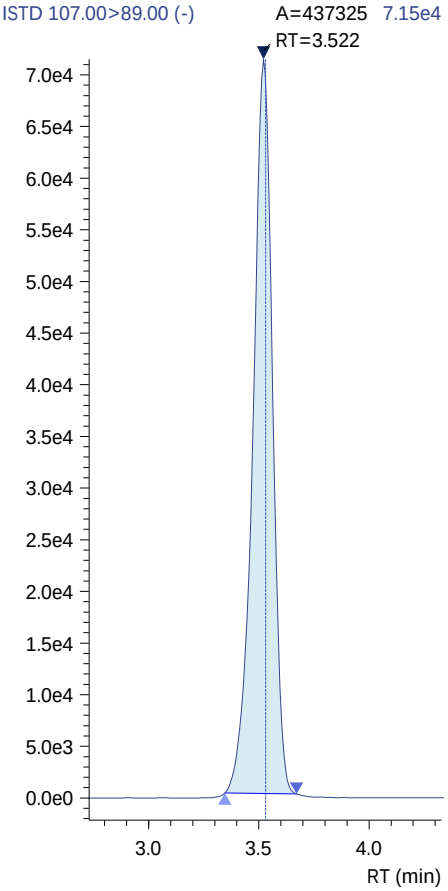
Conc 0.0802
R#1 29.38 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

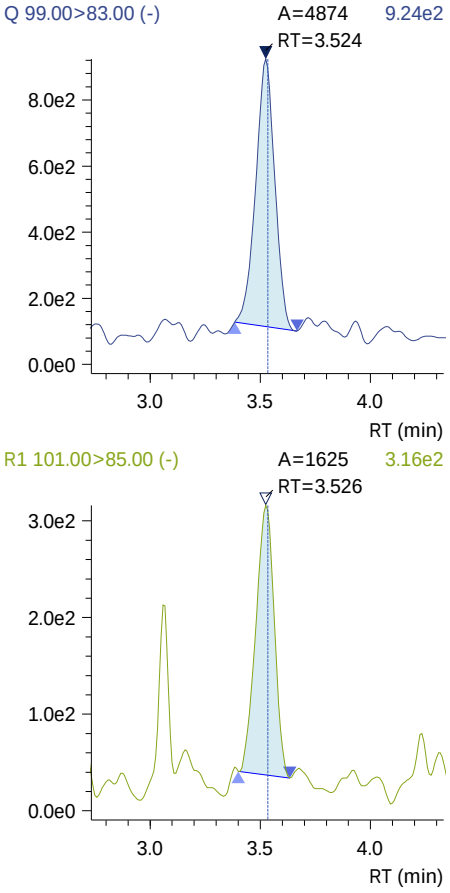
Printed at 2/22/2024 2:54:30 PM

EQ2400093-04 ICS

Sample ID: EQ2400093-04
Date Acquired: 2/19/2024 1:02:04 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-009.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 3

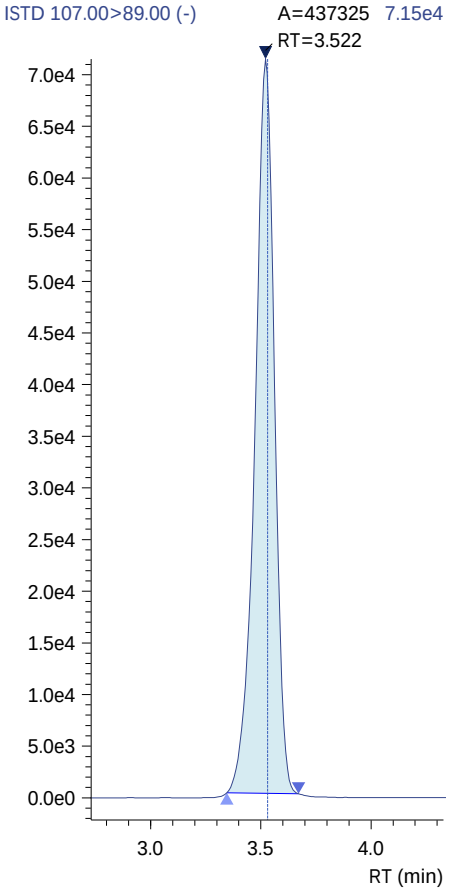
Perchlorate

Conc 0.0706
R#1 33.34 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

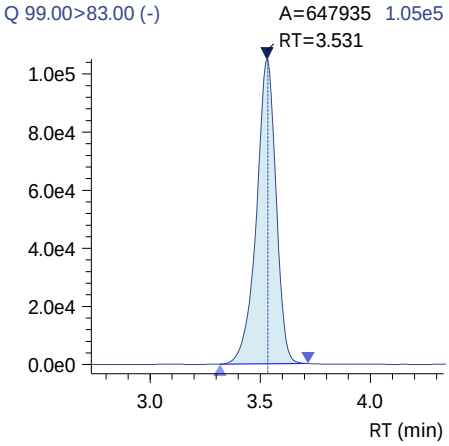
CCV

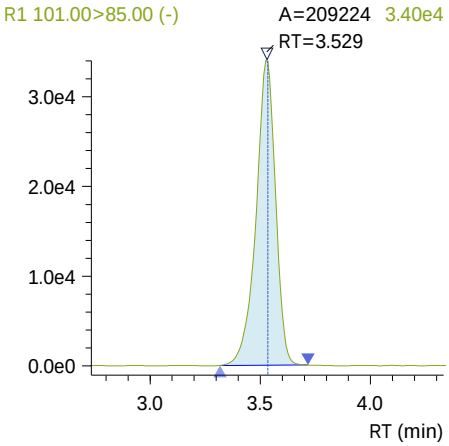
Sample ID: CCV
Date Acquired: 2/19/2024 1:40:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-016.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.531	647935	401595	10.2230	ng/mL	101.00 >85.00	32.29	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.528	401595	401595	1.0000	ng/mL	----	----	

Perchlorate

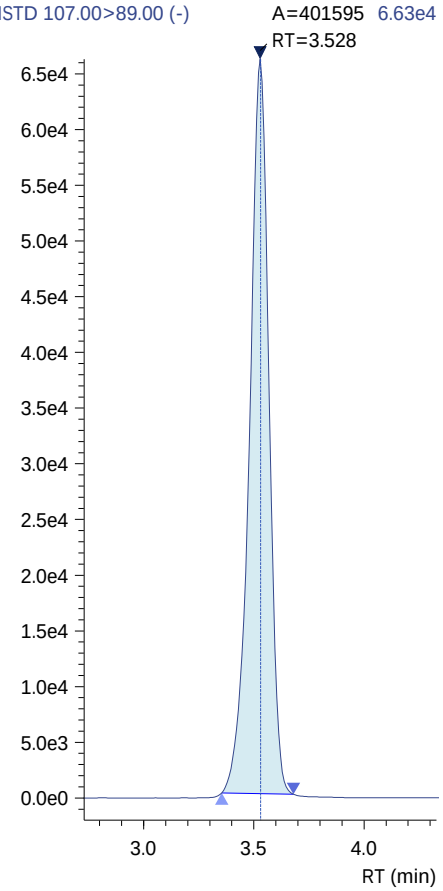
Conc 10.2230
R#1 32.29 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

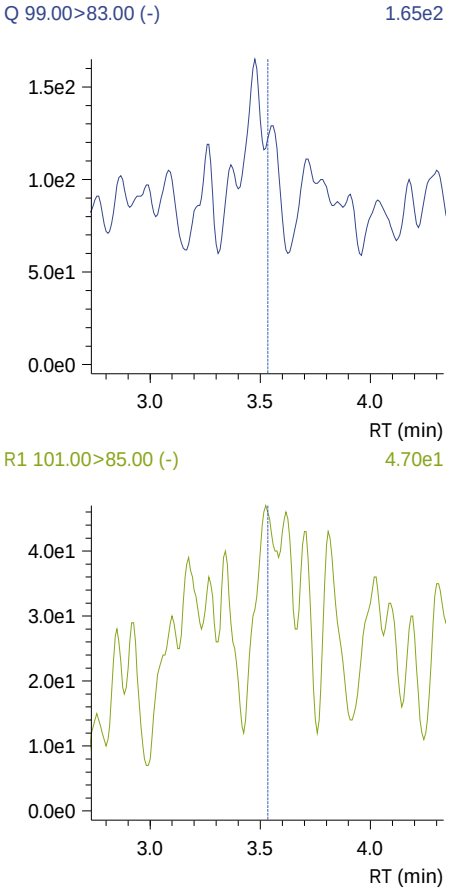
IB

Sample ID: IB
Date Acquired: 2/19/2024 1:47:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-017.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	ND(W/B)	----	----	392287	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.528	392287	392287	1.0000	ng/mL	----	----	

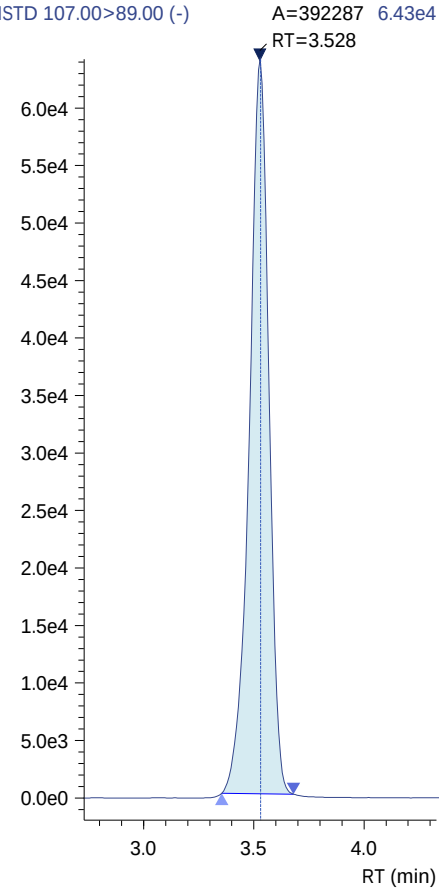
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

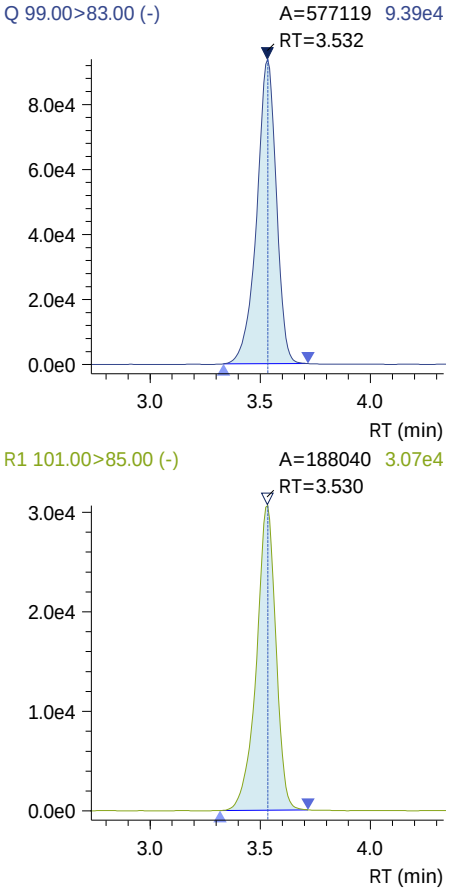
CCV

Sample ID: CCV
Date Acquired: 2/19/2024 2:48:37 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-028.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.532	577119	356248	10.2647	ng/mL	101.00 >85.00	32.58	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.529	356248	356248	1.0000	ng/mL	----	----	

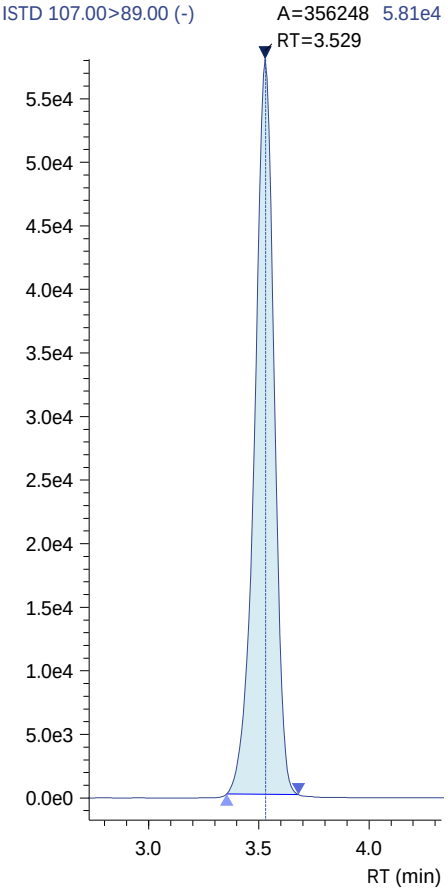
Perchlorate

Conc 10.2647
R#1 32.58 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

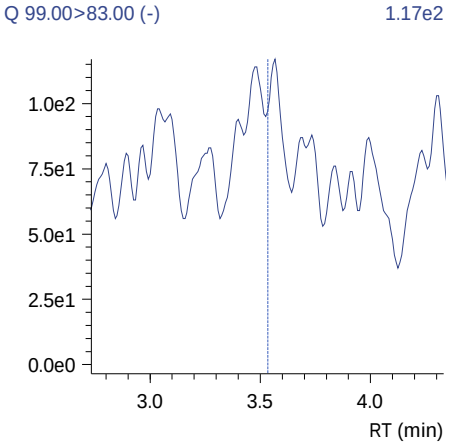
IB

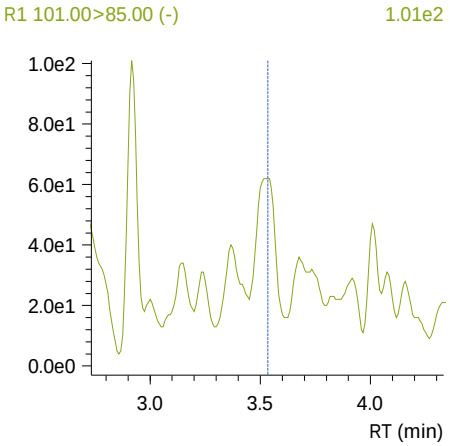
Sample ID: IB
Date Acquired: 2/19/2024 2:54:07 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-029.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	342253	----	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4_IS	Auto	3.529	342253	342253	1.0000	ng/mL	----	----	

Perchlorate

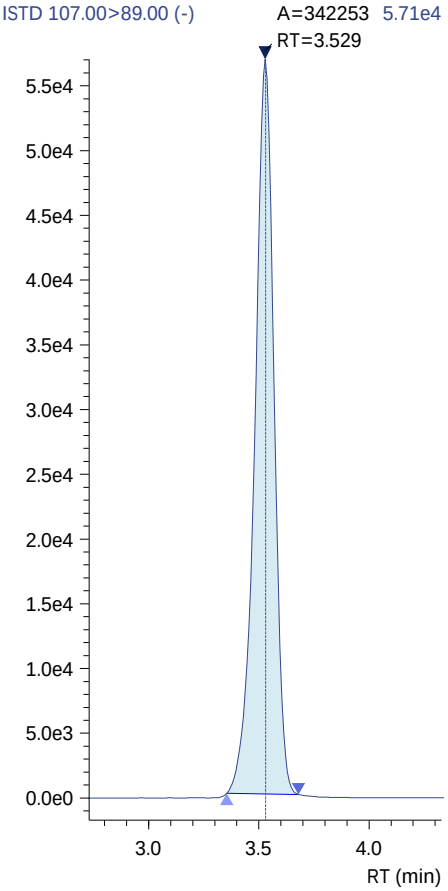
Conc ----
R#1 0.00 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

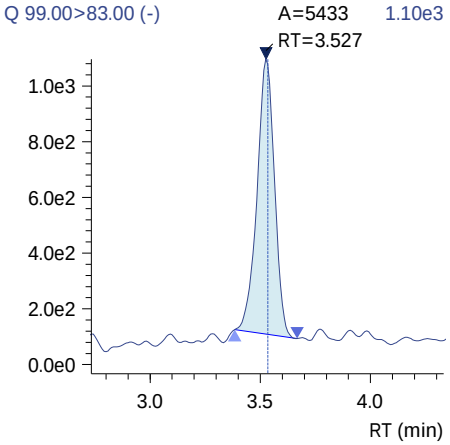
EQ2400093-05 MS

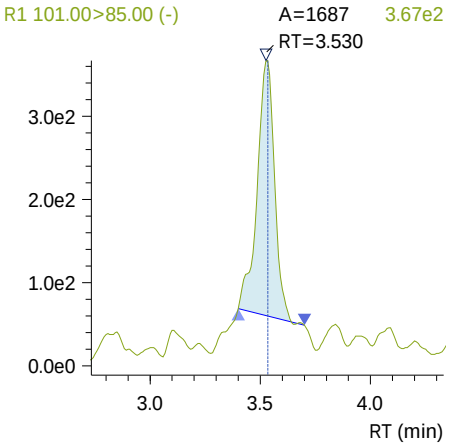
Sample ID: EQ2400093-05
Date Acquired: 2/19/2024 1:07:36 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-010.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.527	5433	425139	0.0810	ng/mL	101.00 >85.00	31.05	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.526	4251 39	425139	1.0000	ng/mL	----	----	

Perchlorate

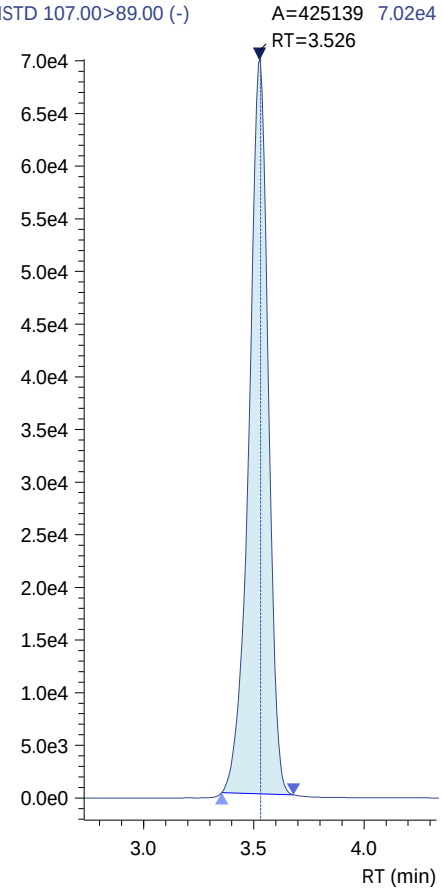
Conc 0.0810
R#1 31.05 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

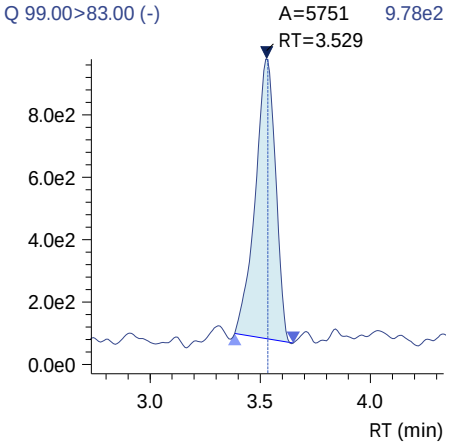
EQ2400093-06 DMS

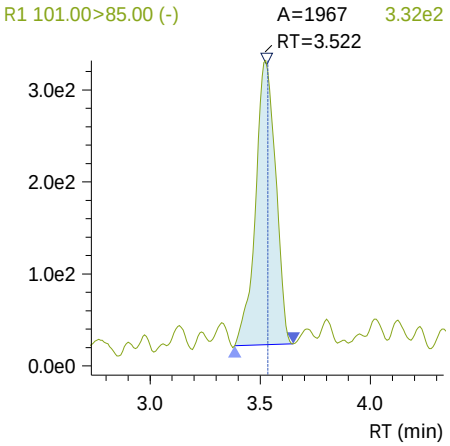
Sample ID: EQ2400093-06
Date Acquired: 2/19/2024 1:13:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-011.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	5751	430760	0.0846	ng/mL	101.00 >85.00	34.19	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.527	4307 60	430760	1.0000	ng/mL	----	----	

Perchlorate

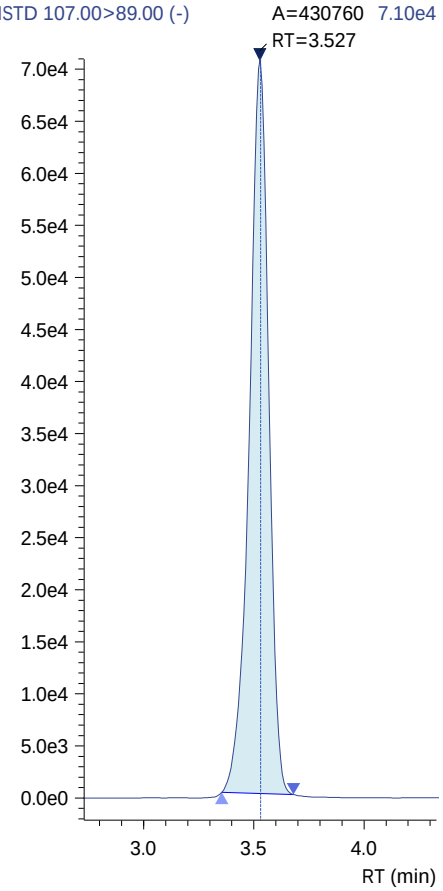
Conc 0.0846
R#1 34.19 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

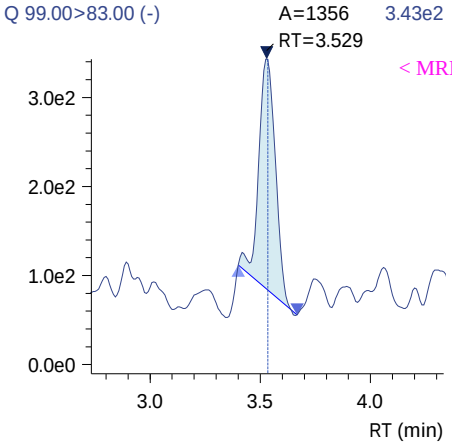
E2400132-003

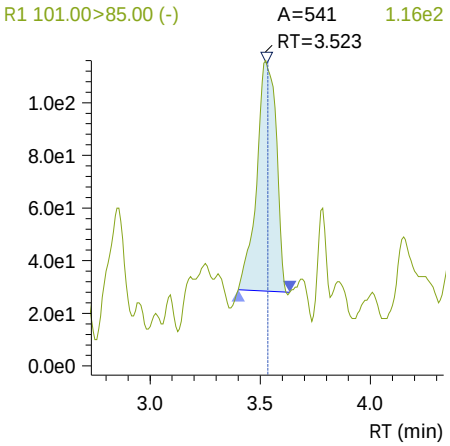
Sample ID: E2400132-003
Date Acquired: 2/19/2024 1:35:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-015.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.529	1356	411604	0.0209	ng/mL	101.00 >85.00	39.89	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.531	411604	411604	1.0000	ng/mL	----	----	

Perchlorate

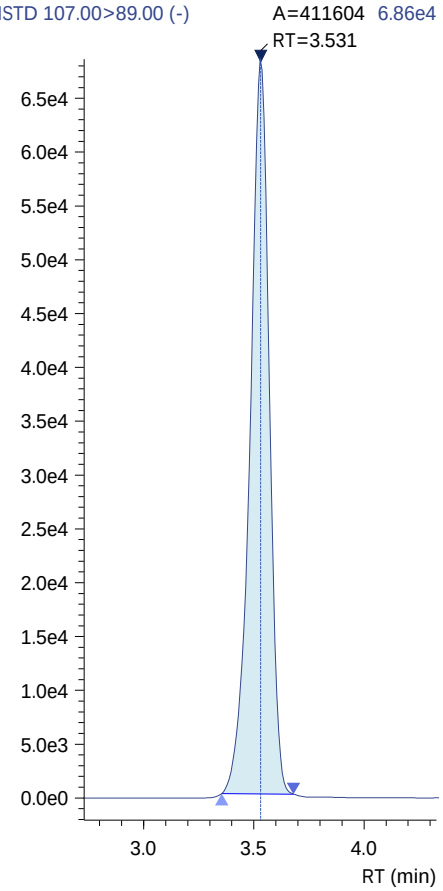
Conc 0.0209
R#1 39.89 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/22/2024 2:52:21 PM

E2400132-004

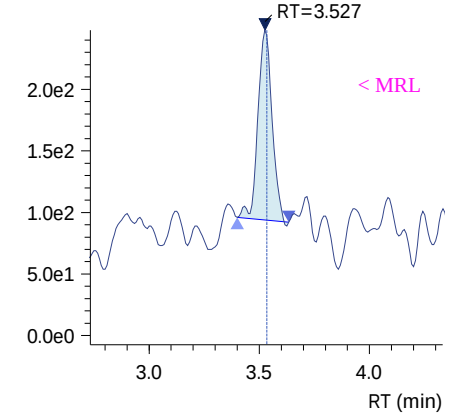
Sample ID: E2400132-004
Date Acquired: 2/19/2024 1:53:17 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-018.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.527	686	413083	0.0105	ng/mL	101.00 >85.00	0.00	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.531	4130 83	413083	1.0000	ng/mL	----	----	

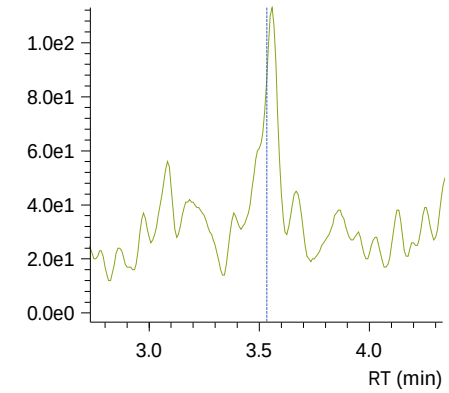
Perchlorate

Conc 0.0105
R#1 0.00 (34.10)

Q 99.00>83.00 (-) A=686 2.48e2
RT=3.527



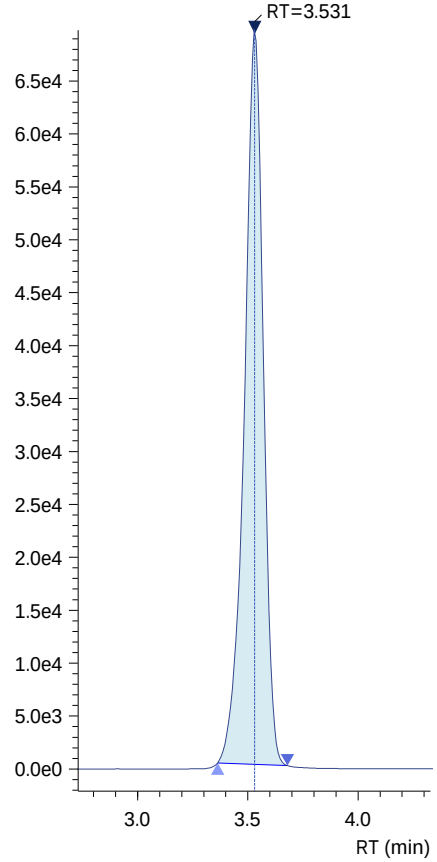
R1 101.00>85.00 (-) 1.13e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=413083 6.98e4
RT=3.531



Insight Report

Printed at 2/22/2024 2:52:21 PM

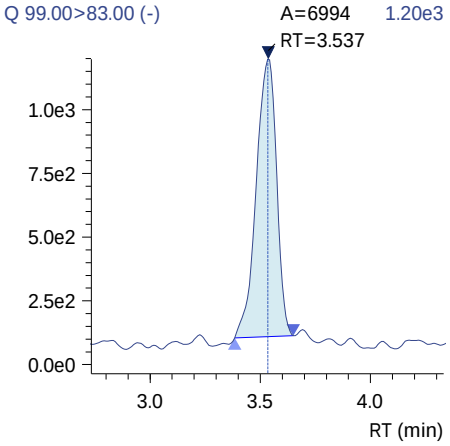
E2400132-006

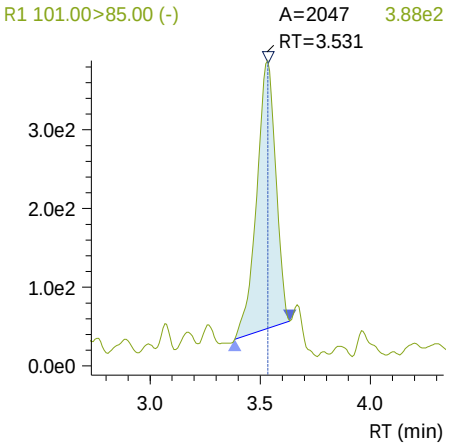
Sample ID: E2400132-006
Date Acquired: 2/19/2024 2:04:26 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240219\20240219-020.lcd
Vial: 13 | Inj. Volume: 10.0000uL | Tray: 3

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.537	6994	434612	0.1020	ng/mL	101.00 >85.00	29.27	23.32-42.46
Sodium Perchlorate-18O4 _IS	Auto	3.528	4346 12	434612	1.0000	ng/mL	----	----	

Perchlorate

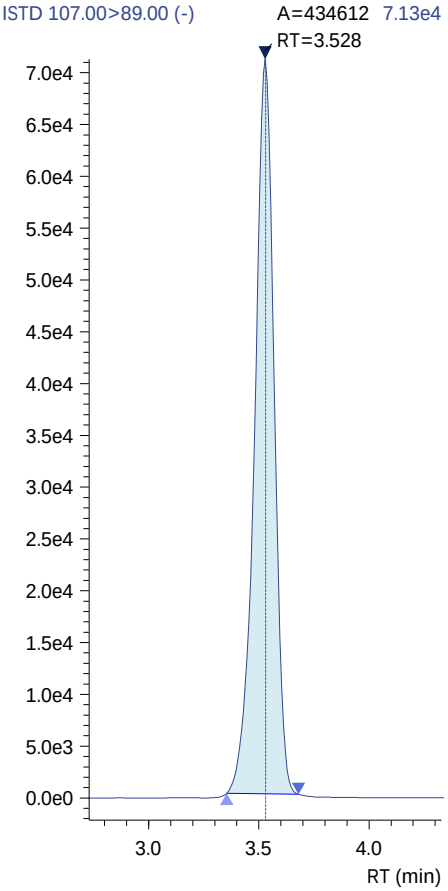
Conc 0.1020
R#1 29.27 (34.10)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/23/2024 3:54:43 PM

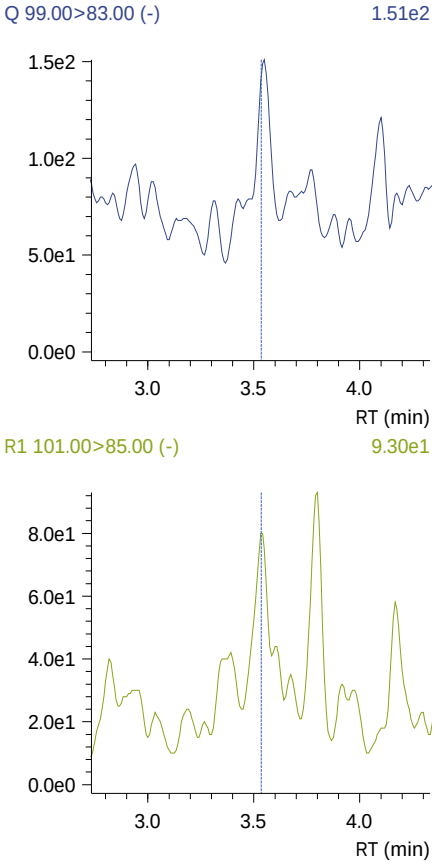
IB

Sample ID: IB
Date Acquired: 2/21/2024 12:02:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-015.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	ND(W/B)	----	----	397785	----	ng/mL	101.00 >85.00	0.00	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.545	397785	397785	1.0000	ng/mL	----	----	

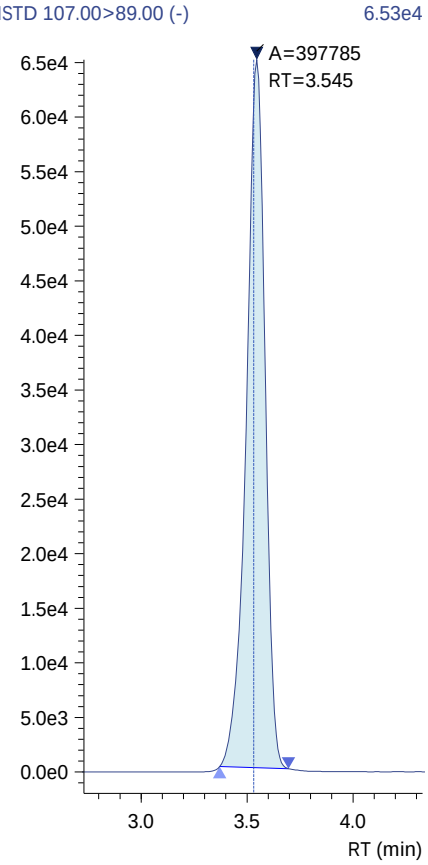
Perchlorate

Conc ----
R#1 0.00 (34.10)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/23/2024 3:54:43 PM

Method File: I:\LCMS01\DATA\20240221\20240221.lcm
Project File: I:\LCMS01\DATA\20240221\20240221.damlp

IB

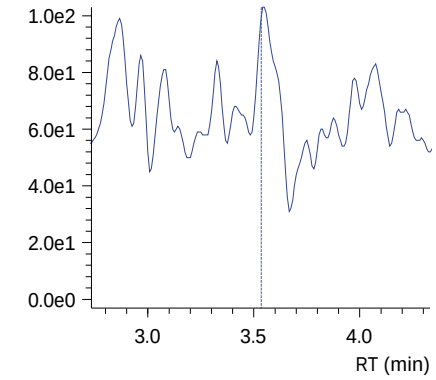
Sample ID: IB
Date Acquired: 2/21/2024 10:05:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	376889	----	ng/mL	101.00 >85.00	0.00	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.555	376889	376889	1.0000	ng/mL	----	----	

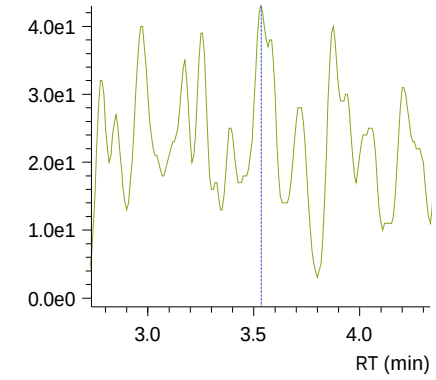
Perchlorate

Conc ----
R#1 0.00 (34.10)

Q 99.00>83.00 (-) 1.03e2



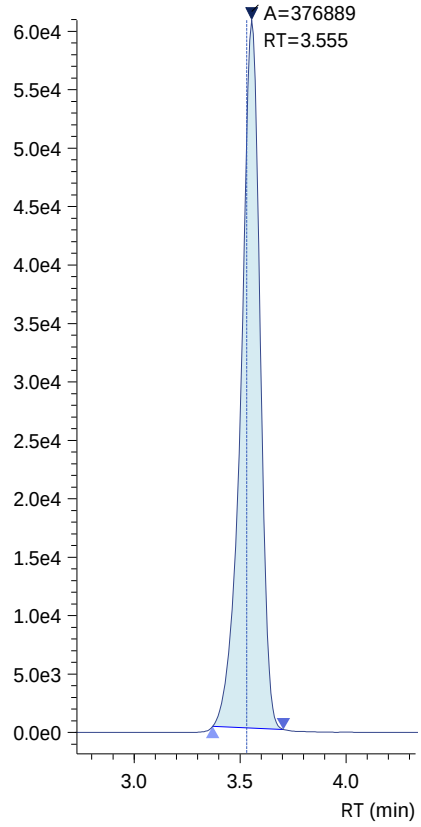
R1 101.00>85.00 (-) 4.30e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.10e4



Insight Report

Printed at 2/23/2024 3:54:43 PM

LODV

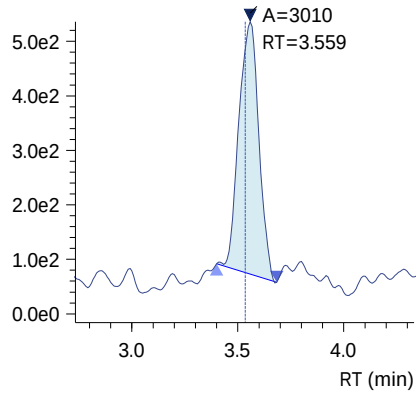
Sample ID: LODV
Date Acquired: 2/21/2024 10:10:47 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-002.lcd
Vial: 12 | Inj. Volume: 10.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.559	3010	388392	0.0491	ng/mL	101.00 >85.00	29.44	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.552	388392	388392	1.0000	ng/mL	----	----	

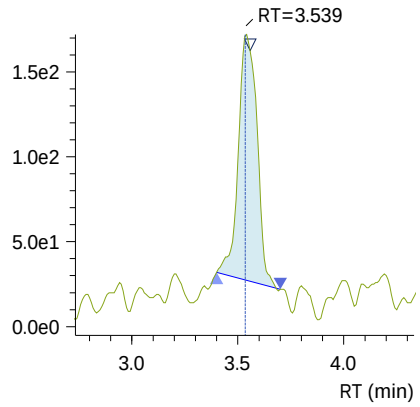
Perchlorate

Conc 0.0491
R#1 29.44 (34.10)

Q 99.00>83.00 (-) 5.36e2



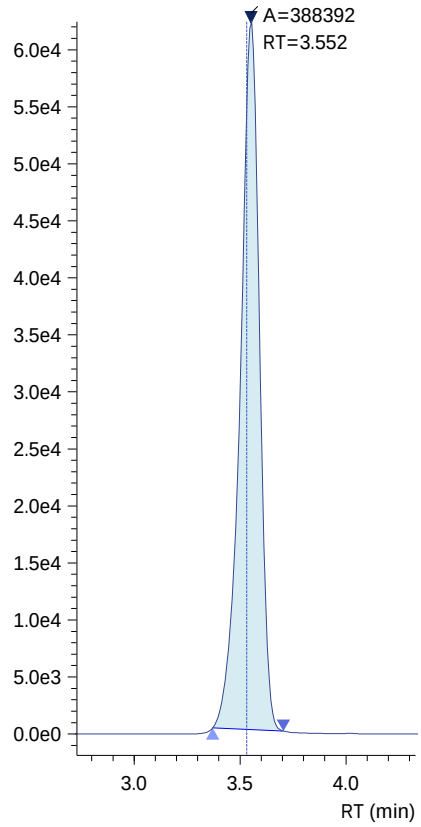
R1 101.00>85.00 (-) A=886 1.72e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.25e4



Insight Report

Printed at 2/23/2024 3:54:43 PM

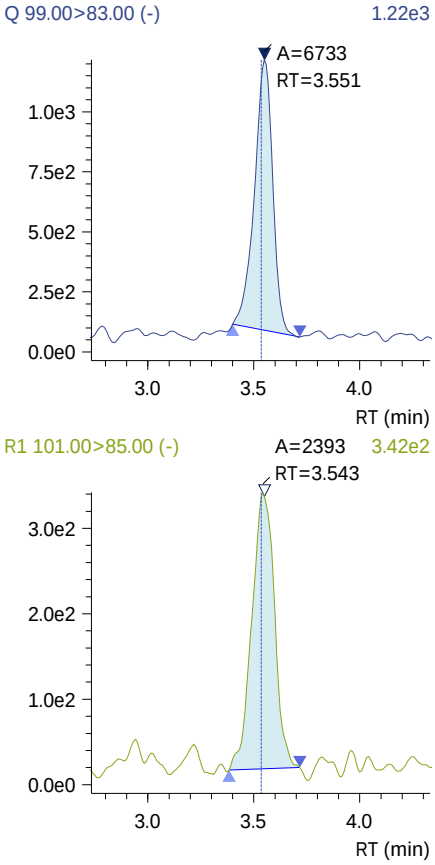
ICS

Sample ID: ICS
Date Acquired: 2/21/2024 10:16:16 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20240221\20240221-003.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	Auto	3.551	6733	448239	0.0952	ng/mL	101.00 >85.00	35.54	23.26 -42.46
Sodium Perchlorate-18O4_IS	Auto	3.549	448239	448239	1.0000	ng/mL	----	----	

Perchlorate

Conc 0.0952
R#1 35.54 (34.10)



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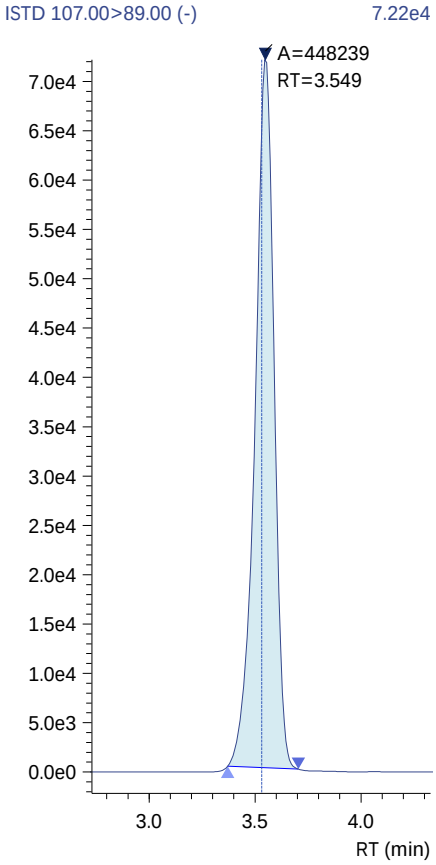

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Sodium Perchlorate-18O4 _IS	Auto	3.548	3944 73	394473	1.0000	ng/mL	----	----	

Perchlorate

Conc 9.8377
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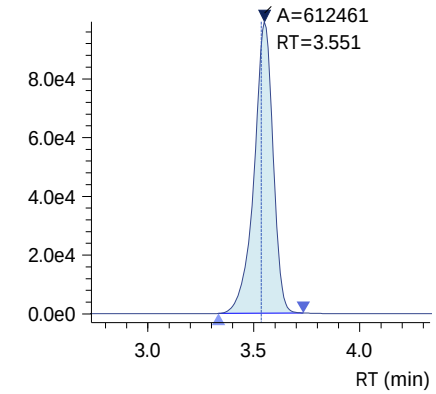

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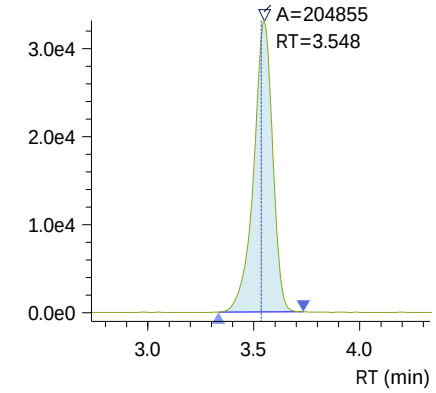

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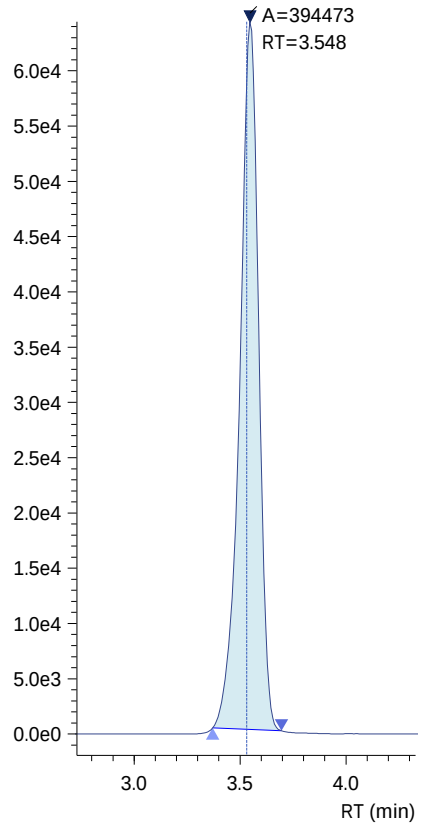

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Sodium Perchlorate-18O4_IS	Auto	3.549	378874	378874	1.0000	ng/mL	----	----	

Perchlorate

Conc ----
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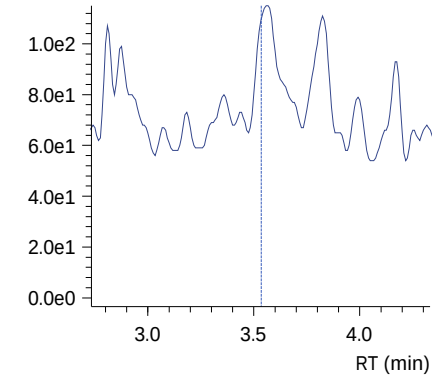

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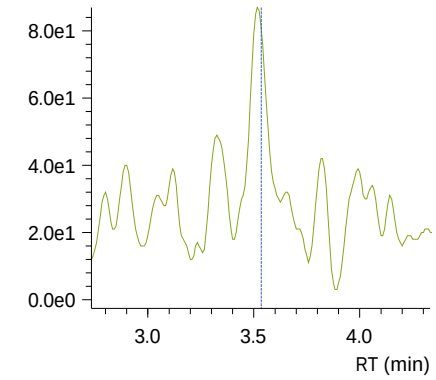

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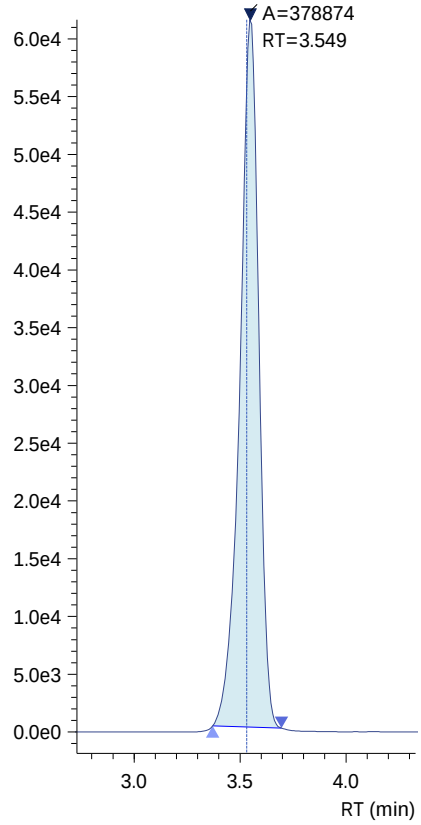

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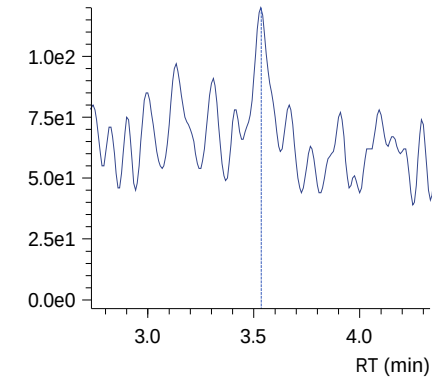

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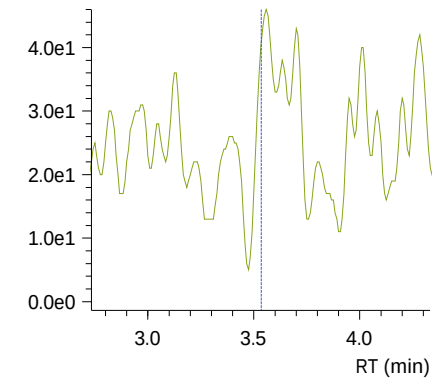

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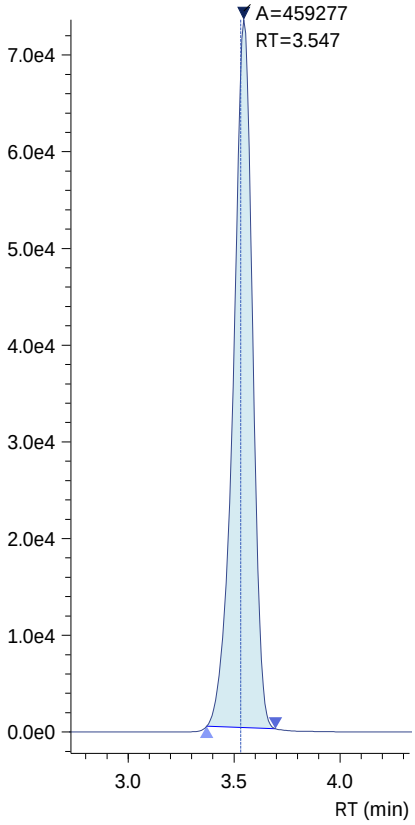

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Sodium Perchlorate-18O4_IS	Auto	3.547	462603	462603	1.0000	ng/mL	----	----	

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Conc ----
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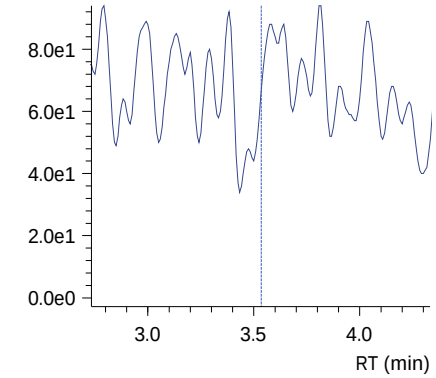

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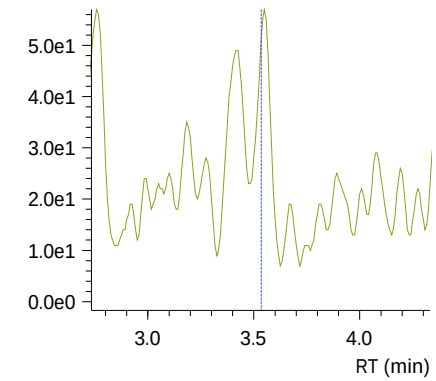

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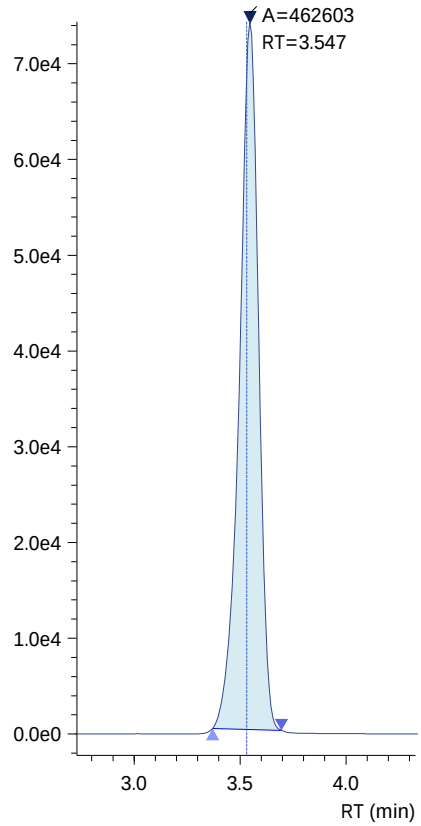

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Sodium Perchlorate-18O4_IS	Auto	3.545	452736	452736	1.0000	ng/mL	----	----	

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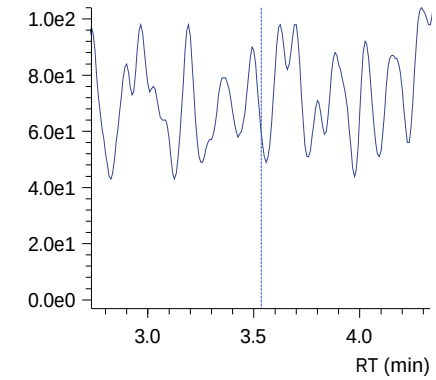

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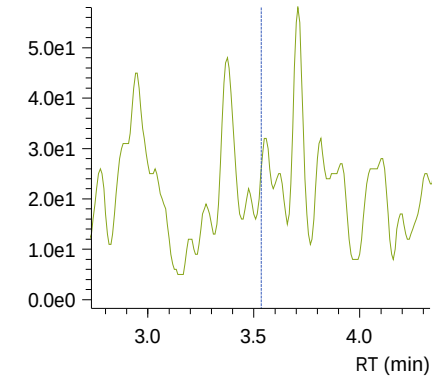

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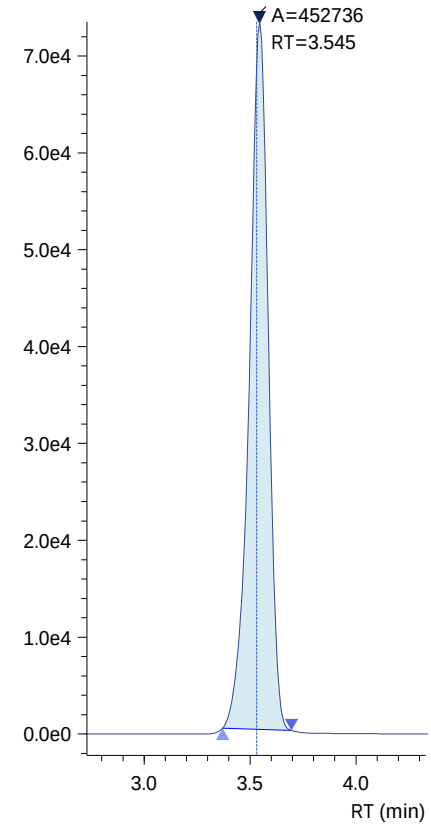

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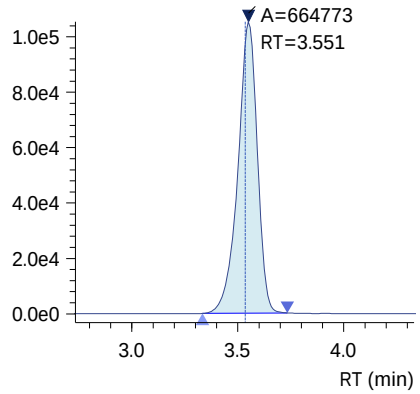

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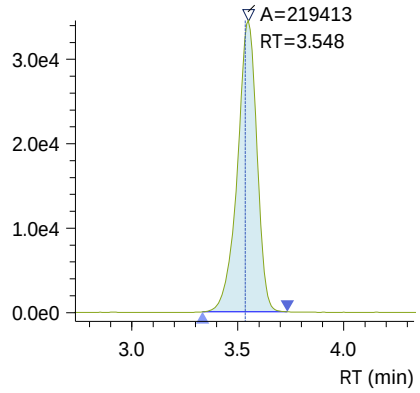

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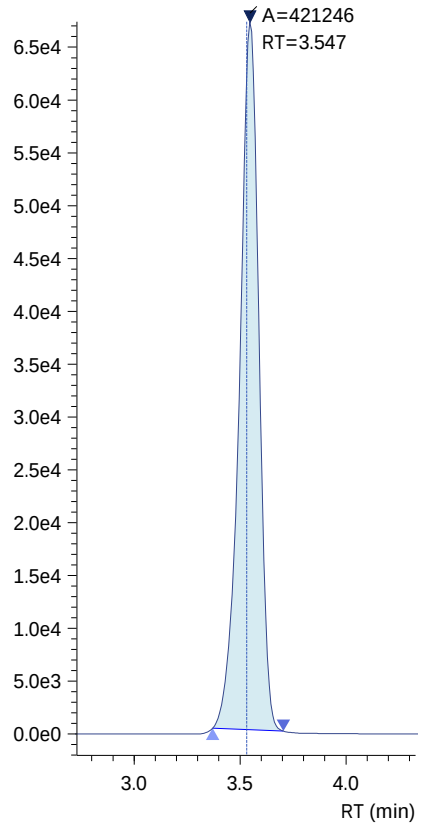

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
US ARMY ENVIRONMENTAL COMMAND
2455 REYNOLDS ROAD
JOINT BASE SAN ANTONIO FORT SAM HOUSTON, TX 78234-7588

March 19, 2025

SUBJECT: Final Conceptual Site Model Update Report, LHAAP-16 Landfill, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, March 2025

Mr. Brian Follin
U.S. Environmental Protection Agency
1201 Elm Street, Suite 500
Dallas, TX 75270-2002

Dear Mr. Follin,

An electronic copy of the above referenced document has been added to the project portal's "Documents" folder at the following address for your records: (https://aptimcorp.sharepoint.com/sites/501032/regulators/Shared%20Documents/Forms/AllItems.aspx). An electronic copy of this letter and download instructions for the electronic file have been sent via email. There were no comments received on the draft report from the Texas Commission on Environmental Quality (TCEQ) or the United States Environmental Protection Agency (USEPA).

The document was prepared by the PCI-Bhate Joint Venture (PCI-Bhate) team, on behalf of the Army as part of PCI-Bhate's Performance Based Remediation contract for the facility. I ask that Zack Beck, PCI-Bhate's Project Manager, be copied on any communications related to the project.

The point of contact for this action is the undersigned. I may be contacted at (210) 846-8652, or by email at: michael.a.bowlby.civ@army.mil.

Sincerely,

Michael A. Bowlby

Michael Bowlby
Team Lead, EPA Regions 6 and 8
U.S. Army Environmental Command

Electronic copies furnished:
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J. Reyes, USEPA Region 6, Dallas, TX

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K. Russell, BRAC, Huntsville, AL
Z. Beck, Bhate, Lakewood, CO
N. Alfino, PCI Environmental, Denver, CO
P. Srivastav, APTIM, Houston, TX

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
US ARMY ENVIRONMENTAL COMMAND
2455 REYNOLDS ROAD
JOINT BASE SAN ANTONIO FORT SAM HOUSTON, TX 78234-7588

March 19, 2025

SUBJECT: Final Conceptual Site Model Update Report, LHAAP-16 Landfill, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, March 2025

Ms. April Palmie
Texas Commission on Environmental Quality
Superfund Section, MC-136
12100 Park 35 Circle, Bldg D
Austin, TX 78753

Dear Ms. Palmie,

An electronic copy of the above referenced document has been added to the project portal's "Documents" folder at the following address for your records: (https://aptimcorp.sharepoint.com/sites/501032/regulators/Shared%20Documents/Forms/AllItems.aspx). An electronic copy of this letter and download instructions for the electronic file have been sent via email. There were no comments received on the draft report from the Texas Commission on Environmental Quality (TCEQ) or the United States Environmental Protection Agency (USEPA).

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Sincerely,

Michael A. Bowlby

Michael Bowlby
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U.S. Army Environmental Command

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E. Duerkop, USFWS, Caddo Lake NWR, TX
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K. Russell, BRAC, Huntsville, AL
Z. Beck, Bhate, Lakewood, CO
N. Alfino, PCI Environmental, Denver, CO
P. Srivastav, APTIM, Houston, TX

Final
Conceptual Site Model Update Report
LHAAP-16 Landfill
Longhorn Army Ammunition Plant
Karnack, Texas

Contract Number: W912BV23C0007
Task Order: W45XMA31085678

Rev 0
March 2025

Prepared for:

U.S. Army Corps of Engineers, Tulsa District
Contracting Division
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10333 Richmond Avenue, Suite 1030
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Appendix A Photos of Surface Water Elevation Gauges

Acronyms and Abbreviations

ABC+™	microscale ZVI and ABC™
ABC™	carbon source
AECOM	AECOM Technical Services, Inc.
amsl	above mean sea level
APTIM	Aptim Federal Services, LLC
Bhate	Bhate Environmental Associates, Inc.
cis-1,2-DCE	cis-1,2-dichloroethene
COCs	contaminants of concern
CSM	Conceptual Site Model
EDS-ER™	Electron Donor Solution Extended Release
EPA	U.S. Environmental Protection Agency
EVO	emulsified vegetable oil
IRA	interim remedial action
ISB	in situ bioremediation
LHAAP	Longhorn Army Ammunition Plant
LUC	land use controls
NAD 83	North American Datum of 1983
No.	number
OHM	OHM Remediation Services Corp.
PCI-Bhate JV	PCI-Bhate Joint Venture LLC
RACR	Remedial Action Completion Report
RAWP	Remedial Action Work Plan
RD	Remedial Design
ROD	Record of Decision
SDC-9™	APTIM Dechlorinating Consortium
TCE	trichloroethene
TCEQ	Texas Commission on Environmental Quality
TNT	trinitrotoluene
U.S. Army	U.S. Department of the Army
VC	vinyl chloride
VOCs	volatile organic compounds
ZVI	zero valent iron

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1.0 INTRODUCTION

This Conceptual Site Model (CSM) Update Report incorporates the findings from recently performed field activities and data evaluations into the CSM for Landfill 16 (LHAAP-16) located at the former Longhorn Army Ammunition Plant (LHAAP). The U.S. Army Corps of Engineers (USACE), Tulsa District, contracted with the PCI-Bhate Joint Venture LLC (PCI-Bhate JV) under Omaha Multiple Environmental Government Acquisition National Small Business Multiple Award Task Order Contract, Environmental Remediation Services with Military Munitions Response Program, Task Order Number (No.) W45XMA31085678, to conduct environmental restoration at multiple sites at the former LHAAP. The PCI-Bhate JV Team consists of the PCI-Bhate JV as the prime contractor and Aptim Federal Services, LLC (APTIM) as a subcontractor responsible for remedial activities at several sites, including LHAAP-16.

LHAAP is located in east-central Texas, between State Highway 43 in Karnack, Texas, and the western shore of Caddo Lake, in the northeastern corner of Harrison County (**Figure 1-1** and **Figure 1-2**). The nearest cities are Marshall, Texas, approximately 14 miles to the southwest, and Shreveport, Louisiana, approximately 40 miles to the east. Caddo Lake is a large freshwater lake that bounds the former LHAAP installation to the northeast. Details of the site, including Site boundaries, land use restrictions, groundwater plumes, treatment areas, and monitoring locations are shown on **Figure 1-3**.

1.1 Conceptual Site Model Update Objectives

The objective of this report is to update the existing LHAAP-16 CSM with newly collected site data and findings collected during recent field activities and data evaluation. The primary objectives for this update include:

1. Evaluate the influence of topography on the groundwater potentiometric surface in the shallow zone.
2. Assess the potential connection between the shallow and intermediate groundwater zones.
3. Clarify the groundwater flow regimes in the shallow and intermediate zones in the vicinity of Harrison Bayou.

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2.0 BACKGROUND

This section provides background information relevant to the conceptual site model of LHAAP-16.

2.1 LHAAP Facility Background

The LHAAP is an inactive, government-owned, formerly contractor-operated and maintained industrial facility located in central-east Texas in the northeastern corner of Harrison County. The facility occupies approximately 1,200 of its former 8,416 acres located between State Highway 43 in Karnack, Texas, and the western shore of Caddo Lake as shown in **Figure 1-1**.

LHAAP was established in December 1941 with the primary mission of manufacturing trinitrotoluene (TNT). Production of TNT began at Plant 1 in October 1942 and continued through World War II until August 1945, when the facility was placed on standby status until February 1952. A portion of the site was reactivated (Plant 2) to produce pyrotechnic ammunition until 1956. In December 1954, a third facility, Plant 3, began production of solid-fuel rocket motors for tactical missiles. Rocket motor production at Plant 3 continued to be the primary operation at LHAAP until 1965 when Plant 2 was reactivated to produce pyrotechnic and illuminating ammunition. From September 1988 to May 1991, LHAAP was also used for the static firing and elimination of Pershing I and II rocket motors in compliance with the Intermediate-Range Nuclear Force Treaty in effect between the U.S. and the former Union of Soviet Socialist Republics. LHAAP operated until 1997 when it was placed on inactive status and classified by the U.S. Army Armament, Munitions, and Chemical Command as excess property.

LHAAP was listed as a National Priorities List site on August 9, 1990, due to threatened releases of hazardous substances, pollutants, or contaminants. U.S. Environmental Protection Agency (EPA), the Texas Water Commission (now the Texas Commission on Environmental Quality [TCEQ]), and the U.S. Department of the Army (U.S. Army) signed a Federal Facility Agreement on December 30, 1991.

2.1.1 LHAAP-16 Description

LHAAP-16 is a capped landfill covering 17.8 acres in the south-central portion of the former LHAAP (**Figure 1-3**). Harrison Bayou is located along the eastern edge of the site and flows into Caddo Lake. The landfill, which covered approximately 13 acres prior to cap construction, was established in the 1940s for the disposal of solid and industrial wastes, until the 1980s, when disposal activities were terminated.

The U.S. Army and the EPA signed a Record of Decision (ROD) in 1995 (U.S. Army 1995) approving an interim remedial action (IRA) for LHAAP-16 to mitigate potential risks posed by buried source material at the site. The interim remedial action included the construction of a landfill cap, performing long-term maintenance, and land use controls (LUC). In addition, at the request of the regulatory authorities, but not pursuant to a decision document, a groundwater extraction system was voluntarily installed by the U.S. Army in the mid-plume area as a treatability study to prevent the groundwater plume from migrating to Harrison Bayou.

The Final ROD for LHAAP-16 (including the impacted groundwater) was issued in September 2016 and describes the final selected remedy for the site. The final selected remedy for LHAAP-16 includes maintenance of the existing cap, enhanced LUC, in situ enhanced bioremediation in a target area, biobarriers, and monitored natural attenuation. The final remedy also incorporates the LUC implemented during the early IRA, which was a containment presumptive remedy (U.S. Army 2016).

2.2 Groundwater Remedies

The groundwater contaminants of concern (COCs) identified in the Final ROD include chlorinated volatile organic compounds (trichloroethene [TCE], cis-1,2-dichloroethene [cis-1,2-DCE], 1,1-dichloroethene, 1,2-dichloroethane, vinyl chloride [VC], 1,1,2-trichloroethane, and methylene chloride), perchlorate, and metals (arsenic, chromium, manganese, nickel, and thallium) in the shallow and/or intermediate groundwater. The Final Remedial Design (RD) was submitted and approved in January 2017 (U.S. Army 2017). The Draft Final Remedial Action Work Plan (RAWP) describing the in-situ bioremediation (ISB) activities was submitted and approved in June 2018 (Bhate Environmental Associates, Inc. [Bhate] 2018a). The injection activities for the ISB remedy took place between September 24 and December 21, 2019, as reported in the Final Remedial Action Completion Report (RACR) in April 2021 (Bhate 2021).

2.2.1 Landfill Cap

The main contaminant source area at LHAAP-16 was the landfill waste materials containing volatile organic compounds (VOCs) and perchlorate. The landfill contents are not thoroughly known, but disposal history indicates that TNT wastewater ash was deposited in the early 1940s. During the 1950s, a large bermed depression in the central section of the currently capped area was reportedly used for disposal of a variety of materials such as substandard TNT, barrels of chemicals, oil, paint, scrap iron, containers, scrap metal, wood, and other items. Burn pits and waste storage were reported to be common at the site, although there is little documentation of these activities (Jacobs 2000).

A multilayer cap was constructed at the LHAAP-16 landfill from 1996 to 1998 as part of the early IRA in accordance with the interim ROD. Per the 1995 IRA ROD and 2016 Final ROD, this cap includes the following layers: foundation soil layer, sodium bentonite geocomposite liner, geomembrane, 18-inch fill soil layer, 6-inch top soil, and perimeter berms and drainage swales. The multilayer cap addressed the risks associated with landfill source materials by eliminating the direct exposure pathway to source area waste material, preventing contaminant transport to surface water via surface runoff, and reducing leaching of contaminants to the groundwater.

2.2.2 Groundwater Treatment

A groundwater extraction system was voluntarily installed by the U.S. Army in 1996 and 1997 as a treatability study to prevent the VOCs and perchlorate contaminated groundwater plume from migrating to Harrison Bayou (OHM Remediation Services Corp. [OHM] 1998). According to the letters written by the U.S. Army to EPA and TCEQ (U.S. Army 1996), the intended duration of operation of the extraction system at LHAAP-16 was 24 months; however, the extraction system was incorporated into

the IRA and remained in operation until September 27, 2019, with two prolonged outages from August 2012 to November 2012, and December 2018 to September 4, 2019, due to power supply outages (Bhate 2021).

ISB was implemented at LHAAP-16 to remediate groundwater impacted with VOCs and perchlorate from September through December 2019. As planned in the RD (AECOM Technical Services, Inc. [AECOM] 2017) and RAWP (Bhate 2018a), the following six ISB systems were implemented (**Figure 1-3**):

- Landfill Biobarrier #1 in the shallow groundwater zone southwest of the Mid-Plume Area and adjacent to the landfill.
- Landfill Biobarrier #2 in the shallow groundwater zone west of the Mid-Plume Area and adjacent to the landfill at the location of the past Semi-Passive Biobarrier Demonstration.
- Landfill Biobarrier #3 in the shallow groundwater zone west of the Mid-Plume Area and adjacent to the landfill and immediately north of Landfill Biobarrier #2.
- A "Bayou Biobarrier" in the shallow groundwater zone northeast of the Mid-Plume Area near Harrison Bayou.
- A biogrid in the shallow groundwater zone in the Mid-Plume Area.
- A biobarrier in the intermediate groundwater zone in the Mid-Plume Area.

The primary injection components were a carbon source (ABC™) and APTIM's dechlorinating microbial consortium (SDC-9™). The carbon source (an emulsified vegetable oil [EVO] product known as Electron Donor Solution Extended Release [EDS-ER™] from Tersus Environmental, LLC) was used for the injection mixtures at all ISB areas except for the Bayou Biobarrier. At the Bayou Biobarrier, an amendment mixture referred to as ABC+™ (composed of microscale zero valent iron [ZVI] and a carbon source) was used instead of EDS-ER™. ZVI was added to the injectate solution at the Bayou Biobarrier to supplement the other amendments and accelerate degradation of the site COCs. The volume of amendment mixtures injected at each area and the targeted injection intervals are provided in the RACR (Bhate 2021). The EDS-ER™ product used contains EVO, which should not require replenishment for three to five years (AECOM 2017). The long-lived C14 to C18 fatty acids contained in the ABC+™ used in the Bayou Biobarrier were expected to last at least two years, however the ZVI is expected to last more than 5 years.

2.3 Existing Conceptual Site Model

The existing CSM, as assembled from the *Final Remedial Investigation Report* (Jacobs 2000) and the *Final Remedial Design* (AECOM 2017),presents the role of the landfill cap constructed in the IRA of 1998 and specifies the potential exposure pathways that were cut off by the landfill cap. The construction of the cap as part of the IRA was consistent with EPA (1993) guidance. The non-source area lies outside the landfill cap and may contain residues of waste materials that may have been transported from the landfill prior to the IRA of 1998. Before the landfill was capped, soil outside the landfill, the non-source

area, could have become contaminated from spills, leaks, and runoff of contaminants from the landfill. The baseline human health risk assessment indicated that the cancer risk for the hypothetical maintenance worker was at the lower end of or below the target risk range for surface soil, surface/subsurface soil, and sediment. The Baseline Ecological Risk Assessment concluded that no action was needed at LHAAP-16 for the protection of ecological receptors (Shaw 2007a).

The groundwater is affected by contaminants from the landfill. This was probably caused by the migration of contaminants, via rainwater infiltration, from the landfill waste to groundwater prior to capping the landfill. Analytical results from groundwater samples indicate that the groundwater contamination poses a risk well above the target risk range. The primary COCs in groundwater include TCE, cis-1,2-DCE, VC, and perchlorate. Since the groundwater at LHAAP-16 may pose a risk for the hypothetical future maintenance worker, the pathways considered for remediation include future industrial groundwater use. However, the primary COCs with the exception of perchlorate all have EPA maximum contaminant limits that are based on residential exposure scenarios and the TCEQ residential protective concentration level for perchlorate is used as the cleanup level. Therefore, the groundwater cleanup levels are based on residential exposure limits.

The general hydrogeologic model incorporated into the RD depicted groundwater flow from the landfill in a generally east and northeastward direction towards the bend in the bayou near the location of the Bayou Biobarrier that was injected in 2019. The contaminants near the Bayou Biobarrier were presumed to flow east and east-southeast towards Harrison Bayou to seep in the bayou bank or direct connection points between the bayou and the shallow groundwater zone. The depth to the bottom of the bayou was unknown and there was expected to be some level of connection between the shallow and intermediate groundwater zones throughout most of LHAAP-16. The degree to which the bayou impeded or interacted with the eastward flow of contaminants in the shallow and intermediate groundwater zones was unclear during preparation of the RD and implementation of the remedy.

2.4 Data Gap Identification

As part of the 2019 ISB remedy implementation, 28 new injection and monitoring wells were installed prior to the injections to assist with performing the injections and monitoring the progress of the remedy. During the pre-remedy baseline monitoring, site COCs exceeding the cleanup values were detected on the east side of Harrison Bayou in intermediate zone wells 16WW57 and 16WW58. Those two wells were originally intended to be shallow downgradient sentinel locations to detect any downgradient migration of COCs that could happen when the IRA extraction system was shut down and injections for the ISB remedy were performed. However, during drilling, there was no saturated zone identified in the boreholes that would correspond to the shallow zone seen on the west side of the bayou, and the wells were installed in the uppermost saturated zone encountered, which turned out to correlate to the intermediate zone seen on the west of the bayou.

Additionally, over the course of quarterly and semiannual monitoring, it became apparent that the groundwater flow direction had some seasonal variability and that groundwater in the shallow zone to

the west and southwest of the Bayou Biobarrier may be flowing parallel to the southern portion of the barrier instead of through it, likely due to localized topography sloping to the southeast in that area.

In response to some of those identified data gaps, a Technical Memorandum (PCI-Bhate JV 2023) proposed the following activities to update the conceptual site model at LHAAP-16:

1. Install two surface water elevation gauges in Harrison Bayou.
2. Perform monthly gauging of stream elevations and groundwater elevations for six months at monitoring wells in the shallow and intermediate zones near the bayou.
3. Perform a detailed topographic survey of the entire site, including areas east of Harrison Bayou.

These activities were intended to provide additional information about the relationship between groundwater and surface water in the shallow and intermediate zones in the vicinity of Harrison Bayou. Such evaluation is necessary to determine if additional delineation and/or remediation of the shallow or intermediate groundwater plumes is necessary to achieve the LHAAP-16 remedial action objectives. The following sections describe the implementation of those recommended activities and summarize the results of the data evaluation into an updated conceptual site model.

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3.0 FIELDWORK

This section discusses the fieldwork performed between January and August 2024 to implement the Draft Final CSM Update Technical Memorandum (Bhate 2023).

3.1 Topographic Survey

The detailed topographic survey of the LHAAP-16 site was performed on both sides of Harrison Bayou in late January 2024 by Collins Surveying, a Texas-licensed public surveyor. The survey was performed using a Trimble R12i base unit with rovers. In areas where the tree canopy was too dense, the survey was conducted using a conventional Topcon GPT-series total station. The surveying crew also captured the locations of pertinent ground features such as grade breaks, top/toe of slopes, etc. All coordinates were published in the North American Datum of 1983 (NAD 83), Zone 4202, US survey feet, GEOID12.

In addition to the surface topography, the locations of the newly installed surface water elevation gauges (described in **Section 3.2**) as well as the stream bottom elevation and surface water elevation gauge zero reference elevation were surveyed. The horizontal locations are accurate to within 1 foot and the vertical elevations are accurate to 0.01 feet. The surveying was performed in accordance with standard operating procedure A15 in the Final Installation-Wide Work Plan (Bhate 2018b). The topographic survey map with the stream elevation gauge locations and elevations is provided as **Figure 3-1**.

3.2 Surface Water Gauges

Two surface water elevation gauges were installed in Harrison Bayou in late February. The gauge locations were selected to be in between the two intermediate wells on the east side of Harrison Bayou and shallow wells located west of the bayou (**Figure 3-1**). The location of the southern gauge proposed in the Technical Memorandum was adjusted slightly in the field to ensure that there was a clear line of sight to read the gauge from the west side of the bayou.

The gauges were constructed using 21-foot long 2” inside diameter galvanized steel pipes. Prior to installation, 16 feet of Watermark Style C Stream Gauge from Forestry Suppliers was attached to each pipe using stainless steel hardware. The gauges were installed by lifting the pipe to a vertical position with the bottom of the pipe resting on the floor of the bayou. After it was verified that each pipe was vertically plumb, the pipe was pushed into the floor of the bayou approximately 4 to 4.5 feet using a Volvo EC-140 excavator with constant checks to verify that the gauge remained plumb. Photos of the installed gauges are provided in **Appendix A**.

3.3 Water Levels

Beginning in late March 2024, groundwater and surface water elevations were measured monthly for six months (March through August 2024). The elevations were measured at the two newly installed surface

water elevation gauges (16SWG1 and 16SWG2), as well as 25 shallow and intermediate monitoring wells near Harrison Bayou. The groundwater and surface water elevation measurements are provided on **Table 3-1**. The elevation measurements were used to construct potentiometric surface maps for each round of measurements to allow for comparison of the groundwater flow directions over time and evaluation of seasonal effects on groundwater flow.

4.0 DATA EVALUATION

4.1 Topography

The topographic survey and subsequent evaluation were performed to clarify what affect the topography of the site may be having on groundwater flow and where enhanced surface water infiltration may be influencing the groundwater flow direction on a seasonal basis. Prior to performing the topographic survey, with the dense vegetation obscuring the view of the site, it was easy to assume a relatively uniform eastward slope away from the landfill towards the bayou. However, what the topographic survey revealed is that the overall site topography within the plume areas slopes generally to the southeast (**Figure 4-1**). In the absence of other influencing factors, shallow groundwater flow is likely to mimic the topographic slopes, making the identification of areas of enhanced infiltration or discharge/recharge from the bayou important to understanding factors influencing the plume migration.

The area immediately to the east of the Bayou Biobarrier shows a very steep slope down to Harrison Bayou and there have been previous anecdotal mentions of seeps occurring along the slope just above the interface with the bayou that represent shallow zone or perched groundwater discharging to the bayou in that area. There are two areas with distinct “channels” incised into the slope in the vicinity of Landfill Biobarriers #1 and #2, and immediately west-southwest of the Bayou Biobarrier. The channel adjacent to the southern arm of the Bayou Biobarrier matches a distinct southeastward gradient that has been noted in several recent Remedial Action Operation report for LHAAP-16.

There is a low area visible between Landfill Biobarriers #1 and #2 (near 16PM09 and 16PM14) that receives drainage from the west, north, and northeast and has limited drainage exiting the low area to the southeast. This area is known to hold standing water after rainfall events, which likely enhances the infiltration into the shallow groundwater zone in that location. There is a large low-lying area to the southeast of Landfill Biobarrier #1 (near monitoring wells 16WW43, 16WW27, and 16WW28) where the land surface is just a few feet above the typical elevation of the bayou and where the depth to shallow groundwater ranges from approximately 2 to 6 feet below ground surface. This relatively flat and low-lying area may enhance groundwater infiltration in times of higher precipitation but may also be a sink for groundwater flow and bayou recharge in times of low rainfall and high temperatures, due to the large volume of vegetation and the shallow depth to groundwater in the area (See **Section 4.3** for further discussion).

In addition to the distinctly southeastern slope to the overall contours in the plume areas, there are numerous topographic signatures indicative of cutoff “ox bow” channels along the bayou that suggest the potential for localized channelization of the flow in the shallow subsurface or that the shallow saturated zone may have been scoured by the bayou and then backfilled with overbank flood deposits containing fine grained silts and clays. The location for intermediate zone monitoring well 16WW58

appears to have intersected one of the former ox bow channel signatures to the east of the bayou. This may explain the absence of a shallow saturated unit during drilling of that location.

4.2 Geology

The surface soil at LHAAP-16 consists of fine sandy loam. The subsurface is composed of medium plastic sandy silt, fine sands, and clay. The clay layers tend to separate the groundwater into shallow, intermediate, upper deep and deep zones. The influence of Harrison Bayou's meanders over time likely has created localized areas of higher and lower flow potential via remnant channels and scouring of saturated intervals. To better understand the localized geologic features at LHAAP-16, five new geologic cross sections were constructed using the wells installed during the implementation of the ISB remedy and the depths to the bottom of the bayou channel surveyed following installation of the surface water elevation gauges. Three west to east cross sections (A-A', B-B', and C-C') and two north to south cross sections (D-D' and E-E') were developed for the lines shown on **Figure 4-2** to evaluate the relationships between the shallow and intermediate groundwater zones and Harrison Bayou.

Cross-section A-A' (**Figure 4-3**)—This cross-section runs along the northern portion of the site from west of Landfill Biobarrier #3, along the northern edge of the mid-plume injection area, across the northern end of the Bayou Biobarrier, and terminates at monitoring well 16WW57 on the east side of Harrison Bayou. The depth to shallow groundwater is approximately 20 to 25 feet across most of the site, with very little fluctuation between the minimum and maximum groundwater elevations shown on the map. This suggests relatively stable groundwater elevations across the length of the cross-section and minimal influence from infiltration features or bayou discharge/recharge. The shallow groundwater elevations adjacent to Harrison Bayou are slightly above the bayou elevation in both minimum and maximum elevation conditions. This suggests that shallow groundwater discharges to the bayou. There is a notable dip in the bottom of the shallow zone in the vicinity of 16EW01/16EW05 that suggests that the aquitard is likely to be relatively thin and may be leaky or non-existent in some parts of the mid-plume area.

Cross-section B-B' (**Figure 4-4**)—This cross-section runs across the southern boundary of the plume extent, from west of Landfill Biobarrier #1, along the southern boundary of the mid-plume injection area, and across the bayou to terminate at 16WW58. The shallow groundwater depth on this cross-section is significantly shallower than A-A' reflecting the lower topographic elevations in the southern portion of the site. The depth to groundwater ranges from approximately 15 feet near 16WW24/16WW25 to less than 2 feet near Harrison Bayou. There is a bifurcation in the shallow zone in the vicinity of 16EW04/16EW08 that suggests there may also be a connection between the shallow and intermediate zones in this area. The small difference in groundwater elevations discussed further in **Section 4.3** reinforces the potential connection. The eastern portion of this cross-section and cross-section C-C' both show the topographic low area previously mentioned in the topographic survey discussion in **Section 4.1**. The minimum and maximum groundwater elevations to the east of the low area show a wider range on both cross-sections, likely from the influence of the enhanced infiltration from the topographic low area. Well 16WW30 located west of Harrison Bayou has historically been

referred to as a shallow zone well. However, this cross-section shows that it is actually screened in the upper portion of the intermediate zone and 16WW29 is screened approximately 7 feet deeper in the lower portion of the intermediate zone. This lack of a shallow well represents a data gap that should be remedied with the installation of a new shallow zone well at the same location as 16WW29/16WW30, since this location is key to monitoring concentrations in the shallow zone downgradient of the mid-plume injection area.

Cross-section C-C' (**Figure 4-5**)—This cross-section bisects the middle of the site, running from the west side of Landfill Biobarrier #2, through the middle of the mid-plume injection area, and terminating at well 16WW58 on the east side of Harrison Bayou. As with cross-section B-B', there is a bifurcation visible in the shallow zone and several areas where the aquitard between the shallow and intermediate zones may be thin or even discontinuous. As mentioned above, the spread between the minimum and maximum groundwater elevations at 16EW02/16EW06 is wider in the mid-plume area to the east of the topographic low area near 16WW35/16WW36, suggesting possible infiltration influences on the groundwater elevations in that area. In several locations, the shallow and intermediate groundwater elevations are very close, suggesting that any aquitard that is present is likely to be leaky.

Cross-section D-D' (**Figure 4-6**)—This cross-section runs from the north end of the site to the south end of the site along the general course of Harrison Bayou at the eastern edge of the site. The distinct topographic high area near well 16WW46 at the northern end of the cross-section terminates along the northern bank of the bayou bend adjacent to well 16WW57, and the elevated groundwater elevations at well 16WW46 suggest that shallow groundwater under that high area is flowing towards and recharging the bayou under most, if not all conditions. The remainder of the cross-section traverses the low-lying land adjacent to the bayou, with numerous traverses across the bayou. The groundwater elevations all along the cross-section suggest that shallow groundwater is generally flowing to the bayou under most conditions, with the exception of the area at the south end around wells 16WW27/16WW28/16WW43. In that area, the minimum groundwater elevations suggest that there are times when the shallow groundwater elevation is below the bottom of the bayou and that the bayou may be recharging the groundwater in those conditions. The potentiometric surface maps discussed in **Section 4.3** provide additional documentation that recharge from the bayou is occurring in that area. The aquitard between the shallow and intermediate zones in the vicinity of the bayou appears to be relatively thick throughout the cross-section and the bayou does not come close to intersecting the top of the intermediate zone, suggesting that the intermediate zone is not directly discharging to or recharging from the bayou. However, the small differences between the shallow and intermediate zone groundwater elevations suggests that there is a connection between the zones near enough to Harrison Bayou to allow relative equalization of the groundwater elevations.

Cross-section E-E' (**Figure 4-7**)—This cross-section bisects the site from north to south through the eastern portion of the mid-plume area. The distinct topographic slope downward from north to south is clearly visible on the surface trace. The shallow zone in the northern portion of the site shows multiple potentially transmissive layers present above the saturated groundwater, suggesting the possibility that

perched groundwater may be present in some conditions and may migrate eastward to seep along the bank of the bayou as previously noted. The somewhat wider spread between the minimum and maximum groundwater elevations at the northern end of the cross-section likely reflects the periodic influence of infiltration from the flatter highland areas north of the sloped area. The depiction of groundwater elevations significantly higher than the screened elevation in the vicinity of 16EW04 suggests that the upper portion of the shallow zone in the mid-plume injection area may be saturated, but hydraulically connected to the lower portion of the shallow zone screened by 16EW04 or that confined conditions exist in the lower portion of the shallow zone at that location.

4.3 Evaluation of the Groundwater and Surface Water Relationship

Following installation of the surface water elevation gauges in Harrison Bayou, groundwater elevation measurements from 25 shallow and intermediate monitoring locations and surface water elevations at the two newly installed gauges were measured monthly for six months between March and August 2024 (**Table 3-1**). **Figure 4-8** and **Figure 4-9** show the shallow and intermediate zone potentiometric surfaces from each month in six separate panels per figure.

Prior to the installation of the surface water elevation gauges, the rainfall was relatively low for several months and bayou flow was low through most of the winter. Between the time the gauges were installed in late February and the first round of measurements was collected in late March, the area received a total of approximately 6.5 inches of rain. From April through July, the area averaged approximately 9 inches of rain per month for a total of 36 inches. During the month of August, the total rainfall was 0.91 inches. So the measurements represent a good spread of low to moderate bayou flow and moderate recent rainfall in March, heavier rain and higher springtime flows in April through July, and moderate flow and very low rainfall in August. The following sections discuss the potentiometric surface evaluations for the shallow and intermediate zones during those time periods.

4.3.1 Shallow Groundwater Zone Evaluation

In the March 2024 groundwater/surface water elevation measurements (**Figure 4-8**, top left panel), elevations ranged from 175.09 feet above mean sea level (amsl) at well 16WW42 (nearly 1 foot above ground surface) at the western edge of the site to 172.56 at well 16WW40 east of the Bayou Biobarrier and 172.67 feet amsl in Harrison Bayou. The March 2024 bayou elevations were moderately high relative to the other measurements in the 6-month monitoring period (exceeding the elevation measured in groundwater at 16WW40). The April 2024 groundwater elevations were similar, ranging from 175.21 at 16WW42 (over 1 foot above ground surface) to 172.61 at 16WW40 and 172.77 in the bayou. In May 2024, the bayou elevations reached their highest point of the monitoring period while groundwater elevations declined slightly across the site. In June 2024, the bayou elevations declined significantly from May and the groundwater elevations in the southern portion of the site declined by approximately 2 to 3 feet, likely from the influence of higher temperatures and elevated evapotranspiration in the low-lying area with shallow depths to groundwater. Beginning in June and continuing through August, the groundwater elevations in the southern portion of the site were below

the elevation of the bayou in that area. In July 2024, the groundwater elevations continued to decline slightly in the northern portion of the site, while the bayou and elevations in the southern portion of the site rose slightly, likely due to recharge from the bayou in the case of 16WW43. In August 2024, the wells over most of the site continued to decline slightly, while the three southernmost wells dropped by approximately another 2 to 3 feet relative to July. During August, the southern portion of the site showed groundwater elevations generally 1 to 2 feet below the elevation of the bayou, indicating that significant recharge from the bayou was likely occurring.

Generally, shallow groundwater flow in March, April, and May was eastward toward Harrison Bayou, with a slight northeastward turn in the northern portion of the site during March and April, likely in response to recharge in the topographic low area between Landfill Biobarriers #1 and #2 before the ground surface dried out in response to higher temperatures and more evapotranspiration later in the monitoring period. The elevation at 16WW40 being slightly lower than the bayou elevation in March, April, and May could indicate that there was slight recharge from the bayou to the shallow groundwater during that time period.

From June through August, there was a significantly turn to the southeast, south, and even the southwest in the southern portion of the potentiometric surface, largely driven by significant declines in the groundwater elevations in wells 16WW42, 16WW24, and 16WW43 and subsequent recharge from the bayou into this area. This indicates that groundwater flow from the mid-plume area and eastward was not flowing towards the Bayou Biobarrier and is unlikely to be intercepted by that barrier during a significant portion of the monitoring period. However, the significant southward turn to the gradient is combined with a large drop in groundwater elevations in the southern portions of the site likely from increased evapotranspiration in the low-lying heavily vegetated area. That potential uptake and subsequent transpiration by trees and vegetation, combined with the increased recharge from the bayou during such times may lead to significant dilution and/or degradation of the COCs in the southern portion of the site and may explain why the plume has not shown signs of southward migration despite the gradient turning in that direction.

The installation of a new shallow well adjacent to well 16WW30 (as previously suggested in **Section 4.2**) as well as installation of another surface water elevation gauge at the southern end of the bayou (adjacent to 16WW43) should provide additional potentiometric data to determine to what degree contaminants near the eastern edge of the mid-plume area are migrating eastward towards the bayou or southward towards the low-lying area. Supplemental collection of at least quarterly potentiometric data from the same wells and surface water gauges (including the new locations) is advisable to further guide decision-making about the potential need to extend the Bayou Biobarrier southward to capture eastward contaminant migration from the mid-plume area.

4.3.2 Intermediate Groundwater Zone Evaluation

On **Figure 4-9**, there are six panels showing the monthly groundwater potentiometric surface maps for March 2024 through August 2024. The wells located in lower portions of the intermediate zone are

shown with pink highlighting, while the wells in the upper portion of the intermediate zone are shown with green highlighting. Wells where there is no appreciable difference between the upper and lower intermediate are shown without highlighting. In general, there is very little difference in the elevations between the upper and lower intermediate zones and it is recommended to continue to treat them as the same zone going forward. In the March 2024 groundwater/surface water elevation measurements (**Figure 4-9**, top left panel), groundwater elevations ranged from 175.15 feet amsl at well 16WW13 (less than 1 foot below ground surface) at the western edge of the site to 170.92 feet amsl at well 16WW58 east of Harrison Bayou. Groundwater elevations were generally similar in April and May, with elevations declining slightly in May. The overall groundwater flow direction in March through May was eastward with the two lowest elevations in wells 16WW57 and 16WW58 east of Harrison Bayou. In June through August, the elevations remain relatively static in the northern portion of the site, but as with the shallow zone, the intermediate wells in the southern portion of the site (16WW13, 16WW23, 16WW27, and 16WW28 dropped by 2 to 3 feet in general between May and August 2024 and the gradient turned to the southeast and south in June, July, and August. The similarity between the behavior of the shallow and intermediate potentiometric surfaces in response to changes in bayou flow and recharge/evapotranspiration in the shallow zone strongly reinforces the likelihood that there is significant connection between the shallow and intermediate zones either via direct flow in the absence of an aquitard or via flow through a leaky aquitard. Such interconnection is consistent with overlapping strata formed in fluvial depositional environments.

The wells along the downgradient edge of the intermediate zone under southeastward or southward flow regimes (16WW23 and 16WW27) do not contain COCs exceeding the cleanup levels and the plume appears to be delineated in that direction. However, monitoring well 16WW30, previously identified as a shallow zone well, is located in the intermediate zone and contained TCE concentrations above the cleanup levels in July 2023 and January 2024 (maximum detection of 48 micrograms per liter in July 2023), but did not contain detectable COCs in July 2024 (Bhate 2024). This suggests that detectable concentrations at the well may be transient in nature, representing a fluctuating downgradient edge of the intermediate plume to the southeast. Based on the concentrations detected in 16WW30 in July 2023 and January 2024, it is recommended that an additional intermediate well be installed east of Harrison Bayou near 16WW30 (**Figure 4-10**) to confirm that concentrations have not crossed under the bayou in the intermediate zone to the southeast of the mid-plume area.

4.3.3 Connection to Harrison Bayou

As previously discussed, during certain portions of the year, elevation data suggested that the bayou may be recharging the northern portion of the site near 16WW40 (March 2024) and the southern area near 16WW43 (June through August 2024). This evidence for groundwater/surface water connection between the shallow groundwater zone and Harrison Bayou and the periodic recharge to groundwater from the bayou along the eastern and southern margin of the shallow plume likely contributes to the dilution and/or dispersion of contaminants to below the cleanup levels. While it is unlikely that shallow groundwater is crossing the bayou without being intercepted, it is recommended to re-attempt to install

shallow zone groundwater wells near or to the east of 16WW57 and 16WW58 (**Figure 4-10**) to confirm either the absence of a shallow saturated zone or that COCs are not crossing the bayou in the shallow zone.

The intermediate zone groundwater does not appear to be as heavily influenced by Harrison Bayou as the shallow water zone, as evidenced by intermediate zone groundwater elevations on the east side of the bayou being consistently 1 to 2 feet lower than the nearest wells on the west side of the bayou, with the lowest elevations measured in the wells farthest to the east. While there is clear evidence of a connection between the shallow and intermediate zones in the vicinity of the bayou, it cannot be concluded on the basis of the available data that the bayou is likely to act as a groundwater divide in the intermediate zone. Therefore, three additional wells are recommended to the east and southeast of 16WW57 and 16WW58 (**Figure 4-10**) to evaluate the extent of the COCs in the intermediate zone east of Harrison Bayou.

4.4 Nature and Extent of Contamination

The groundwater plume in the shallow zone appears to be delineated and is likely cutoff or defined by Harrison Bayou either through excision of the transmissive zone by the bayou channel or via backflushing of the shallow zone near the bayou via periodic recharge from the bayou. There is a data gap in the vicinity of well 16WW30 where a shallow well is needed to delineate and/or act as a downgradient monitoring location for shallow contamination in the mid-plume area. Additionally, shallow wells across the bayou adjacent to or east of 16WW57 and 16WW58 are recommended to conclusively determine if a unit comparable to the shallow saturated zone exists to the east of the bayou and if so, whether contamination has found a way across the bayou in the shallow zone.

In the intermediate zone, contamination is well delineated to the south, but the presence of COCs above the cleanup levels in 16WW57 and 16WW58 and evidence of both eastward and southeastward gradients near the bayou suggest the need for additional delineation to the east and southeast of those two wells. The influence of the recharge from the bayou and evapotranspiration effects in the shallow zone may directly influence the contamination to the south of the mid-plume area in the intermediate zone via downward infiltration of clean water from the shallow zone.

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5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The field activities and data evaluations performed and described in the preceding sections have resulted in significant conclusions that will impact the CSM going forward, including:

- There is a significant seasonal fluctuation in both the shallow and intermediate zone groundwater flow directions that is likely to be driven by a combination of localized recharge of shallow groundwater by surface water runoff, increases in evapotranspiration in the southern portion of the site during the summer months, and recharge of the shallow zone from the bayou.
- There is likely to be widespread connection and/or leakage of groundwater and contaminants between the shallow and intermediate zones based on the similarity of the groundwater elevations and the intermediate zone response to changes in the shallow zone potentiometric surface.
- Shallow groundwater is likely to be directly connected to and cutoff from eastward migration by Harrison Bayou.
- Contamination has migrated beyond Harrison Bayou in the intermediate zone and the potentiometric evaluation of the available data suggests that Harrison Bayou may not directly act as a groundwater divide in the intermediate zone.

Based on those conclusions, the following data gaps in the delineation of the site plumes and understanding of the plume migration pathways have been identified:

- The reclassification of well 16WW30 from shallow zone to intermediate zone has left a delineation gap in the shallow zone to the southeast of the mid-plume area.
- The potential interaction between the bayou and the shallow zone south of the mid-plume area of the Bayou Biobarrier is unclear and would benefit from an additional surface water elevation gauge in the vicinity of 16WW43 and additional groundwater and surface water elevation gauging at least quarterly.
- Groundwater contamination in the intermediate zone has crossed under Harrison Bayou and additional delineation is necessary to the east and southeast of wells 16WW57 and 16WW58.
- The status of a comparable shallow saturated zone east of Harrison Bayou is unknown and should be evaluated by attempting to install new shallow zone wells near or east of 16WW57 and 16WW58.

5.2 Recommendations

Based on the data gaps identified above, the following actions are recommended at the locations shown on **Figure 4-10**:

- Install a new shallow zone well adjacent to the 16WW30.
- Attempt to install two new shallow zone wells adjacent to or east of 16WW57 and 16WW58 to verify the presence of a shallow saturated zone and the presence or absence of COCs.
- Install a new surface water elevation gauge in Harrison Bayou adjacent to well 16WW43.
- Install three new intermediate zone wells to the east and southeast of wells 16WW57 and 16WW58 to delineate contamination exceeding the cleanup levels in the intermediate zone.
- Upon completion of the surface water gauge and well installations, perform quarterly groundwater and surface water gauging at the same list of locations used for this CSM Update as well as the newly installed locations. For consistency with sampling efforts at LHAAP-16 and the previously collected data, the quarterly gauging events should be conducted in January. April, July, and October.

6.0 REFERENCES

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Tables

Table 3-1
Groundwater and Surface Water Elevation Measurements

Location	Zone	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	March 2024		April 2024		May 2024		June 2024		July 2024		August 2024	
				Depth to Water (ft BTOC) or Height on Gauge (ft)	Elevation (ft amsl)	Depth to Water (ft BTOC) or Height on Gauge (ft)	Elevation (ft amsl)	Depth to Water (ft BTOC) or Height on Gauge (ft)	Elevation (ft amsl)	Depth to Water (ft BTOC) or Height on Gauge (ft)	Elevation (ft amsl)	Depth to Water (ft BTOC) or Height on Gauge (ft)	Elevation (ft amsl)	Depth to Water (ft BTOC) or Height on Gauge (ft)	Elevation (ft amsl)
16EW04	SHALLOW	180.71	180.66	5.95	174.71	5.67	174.99	5.95	174.71	6.20	174.46	6.41	174.25	7.35	173.31
16IW20	SHALLOW	186.03	188.94	16.18	172.76	16.10	172.84	16.69	172.25	16.36	172.58	16.49	172.45	17.22	171.72
16RW12	SHALLOW	193.23	196.22	23.43	172.79	23.18	173.04	23.45	172.77	23.15	173.07	23.35	172.87	23.88	172.34
16WW12	SHALLOW	186.17	188.81	15.85	172.96	15.73	173.08	16.08	172.73	16.01	172.8	16.18	172.63	16.89	171.92
16WW24	SHALLOW	174.66	177.95	3.52	174.43	3.44	174.51	4.12	173.83	6.15	171.8	5.05	172.9	8.70	169.25
16WW26	SHALLOW	185.36	188.83	14.52	174.31	13.95	174.88	14.39	174.44	14.45	174.38	15.02	173.81	16.07	172.76
16WW36	SHALLOW	187.95	190.94	16.68	174.26	16.21	174.73	16.55	174.39	15.88	175.06	16.08	174.86	16.38	174.56
16WW40	SHALLOW	179.39	182.19	9.63	172.56	9.58	172.61	10.29	171.9	9.97	172.22	10.13	172.06	10.81	171.38
16WW42	SHALLOW	174.17	178.74	3.65	175.09	3.53	175.21	4.63	174.11	7.54	171.2	7.40	171.34	10.32	168.42
16WW43	SHALLOW	174.54	177.13	4.49	172.64	4.32	172.81	4.92	172.21	6.76	170.37	6.21	170.92	8.81	168.32
16WW48	SHALLOW	181.46	184.41	11.37	173.04	11.21	173.20	11.64	172.77	11.50	172.91	11.37	173.04	12.45	171.96
16WW56	SHALLOW	195.35	198.61	25.84	172.77	25.57	173.04	25.93	172.68	25.55	173.06	25.78	172.83	26.25	172.36
16WW13	INTERMEDIATE	175.74	178.47	3.32	175.15	3.28	175.19	4.09	174.38	5.98	172.49	5.92	172.55	8.99	169.48
16WW23	INTERMEDIATE	174.78	177.98	4.16	173.82	4.06	173.92	4.88	173.10	5.18	172.80	5.18	172.80	6.95	171.03
16WW25	INTERMEDIATE	185.52	188.77	14.80	173.97	14.70	174.07	15.21	173.56	15.57	173.20	15.63	173.14	17.13	171.64
16WW27	INTERMEDIATE	174.21	177.31	4.02	173.29	3.90	173.41	4.51	172.80	5.10	172.21	5.13	172.18	6.92	170.39
16WW28	INTERMEDIATE	174.06	176.97	3.87	173.10	3.71	173.26	4.32	172.65	5.95	171.02	5.43	171.54	7.95	169.02
16WW29	INTERMEDIATE	175.16	178.24	4.64	173.60	4.52	173.72	5.07	173.17	5.37	172.87	5.48	172.76	6.90	171.34
16WW30	INTERMEDIATE	175.33	178.47	4.92	173.55	4.80	173.67	5.40	173.07	5.75	172.72	5.78	172.69	7.32	171.15
16WW35	INTERMEDIATE	188.15	191.23	17.14	174.09	16.75	174.48	17.12	174.11	16.41	174.82	16.53	174.70	16.90	174.33
16WW41	INTERMEDIATE	195.38	197.98	25.08	172.90	24.61	173.37	24.95	173.03	24.40	173.58	24.67	173.31	25.02	172.96
16WW49	INTERMEDIATE	187.66	190.69	17.51	173.18	17.27	173.42	17.66	173.03	17.47	173.22	17.72	172.97	18.46	172.23
16WW51	INTERMEDIATE	180.13	183.26	10.13	173.13	10.02	173.24	10.47	172.79	10.87	172.39	10.97	172.29	12.37	170.89
16WW57	INTERMEDIATE	173.12	177.06	5.15	171.91	5.02	172.04	5.61	171.45	5.19	171.87	4.80	172.26	5.32	171.74
16WW58	INTERMEDIATE	173.32	177.24	6.32	170.92	6.19	171.05	6.73	170.51	5.58	171.66	5.91	171.33	7.16	170.08
16SWG1 [a]	Surface Water	168.66 (bottom of bayou)	170.26 (zero on gauge)	2.41	172.67	2.52	172.78	2.83	173.09	0.70	170.96	1.64	171.90	0.16	170.42
16SWG2 [a]	Surface Water	169.08 (bottom of bayou)	169.99 (zero on gauge)	2.70	172.69	2.78	172.77	3.09	173.08	0.79	170.78	1.72	171.71	0.22	170.21

Notes:

[a] Locations 16SWG1 (north) and 16SWG2 (south) are surface water elevation gauges.

amsl - above mean sea level

BTOC - below top of casing

ft - feet

Figures

Marion County

Upshur County

Harrison County

Gregg County

Panola County

Caddo County

Longhorn Army Ammunition Plant

Marshall

Lake O the Pines

Clinton Lake

Caddo Lake

WOODLAWN OIL FIELD

LONGWOOD OIL AND GAS FIELD

TEXAS OIL FIELD

North Business Park

Eastman Chemical

Potters Creek

HARRISON

UPSHUR

PANOLA

TEXAS

LOUISIANA

49 154 259 390 80 59 20 43 149 79 530 1 538 169 300 281 63 31

Harrison County

Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA

43 State Highway

59 US Highway

20 Interstate Highway

LHAAP Boundary

N

0 2 4 Miles

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Figure 1-1

LHAAP Location Map Conceptual Site Model Update

LHAAP-16

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 4/9/2024

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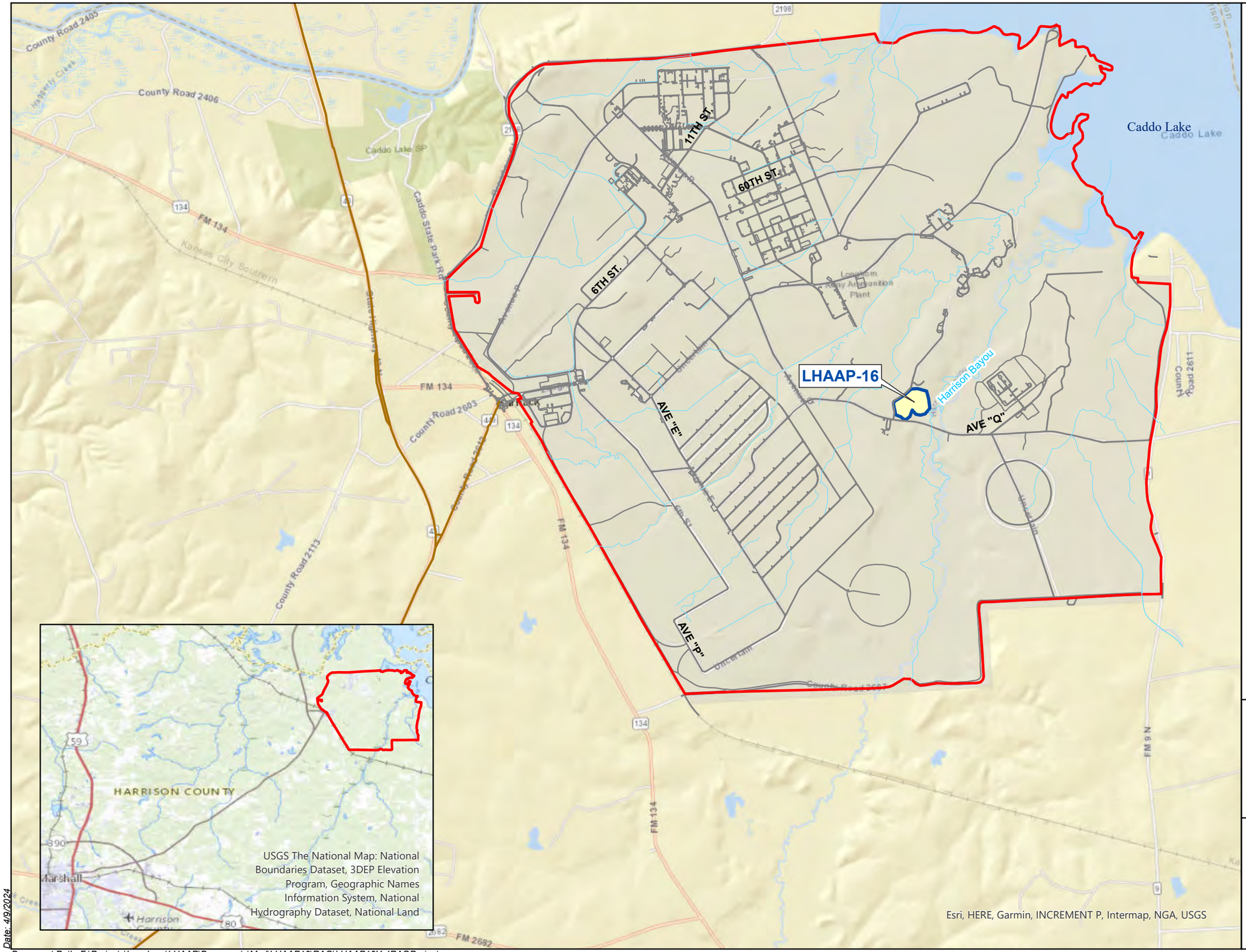

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Figure 1-2

LHAAP Site Location Map
Conceptual Site Model
Update LHAAP-16

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 4/9/2024

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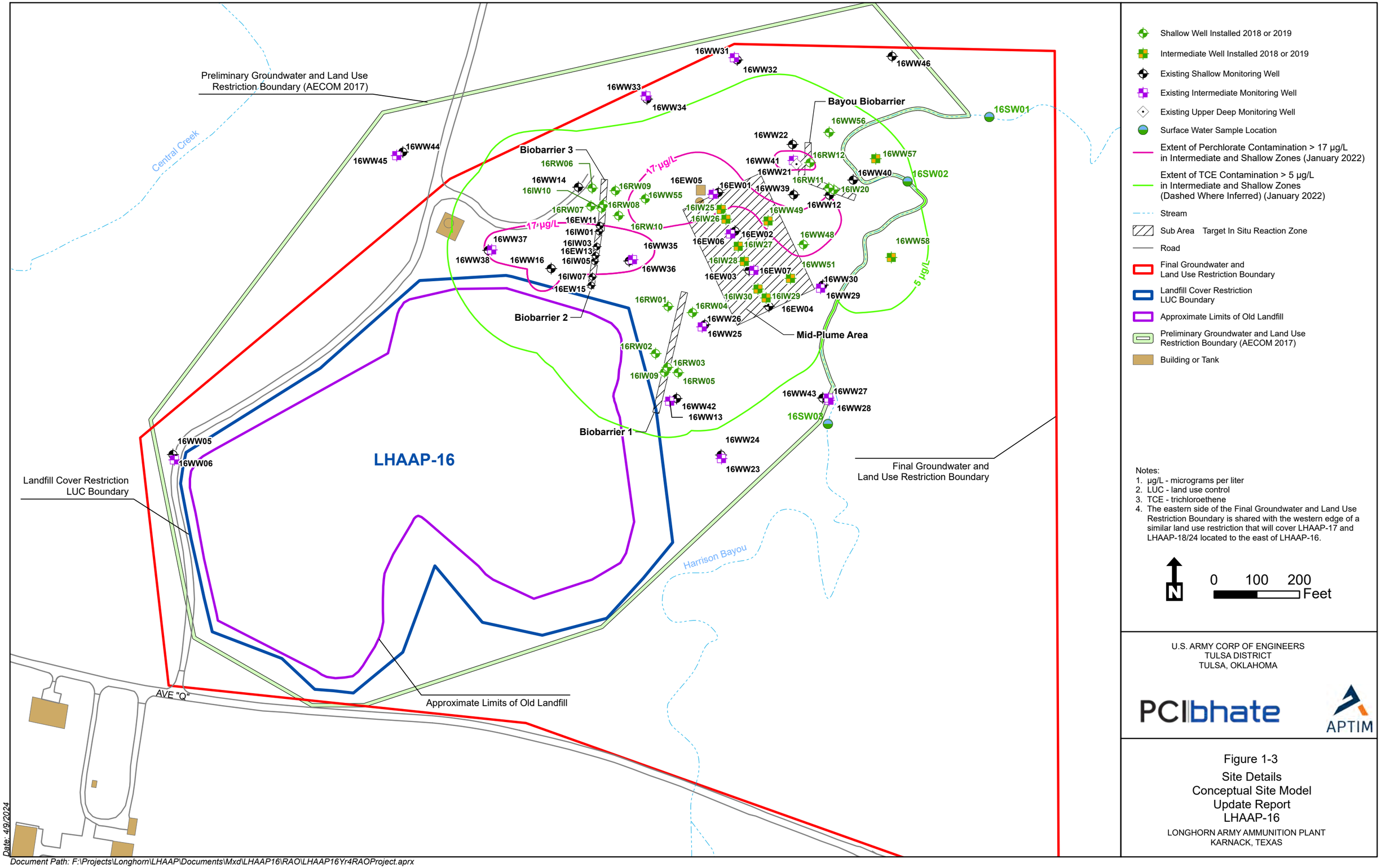

- Shallow Well Installed 2018 or 2019
- Intermediate Well Installed 2018 or 2019
- Existing Shallow Monitoring Well
- Existing Intermediate Monitoring Well
- Existing Upper Deep Monitoring Well
- Surface Water Sample Location
- Extent of Perchlorate Contamination > 17 µg/L in Intermediate and Shallow Zones (January 2022)
- Extent of TCE Contamination > 5 µg/L in Intermediate and Shallow Zones (Dashed Where Inferred) (January 2022)
- Stream
- Sub Area Target In Situ Reaction Zone
- Road
- Final Groundwater and Land Use Restriction Boundary
- Landfill Cover Restriction LUC Boundary
- Approximate Limits of Old Landfill
- Preliminary Groundwater and Land Use Restriction Boundary (AECOM 2017)
- Building or Tank

Notes:
1. µg/L - micrograms per liter
2. LUC - land use control
3. TCE - trichloroethene
4. The eastern side of the Final Groundwater and Land Use Restriction Boundary is shared with the western edge of a similar land use restriction that will cover LHAAP-17 and LHAAP-18/24 located to the east of LHAAP-16.

N

0 100 200 Feet

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Figure 1-3
Site Details
Conceptual Site Model
Update Report
LHAAP-16
LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 4/9/2024

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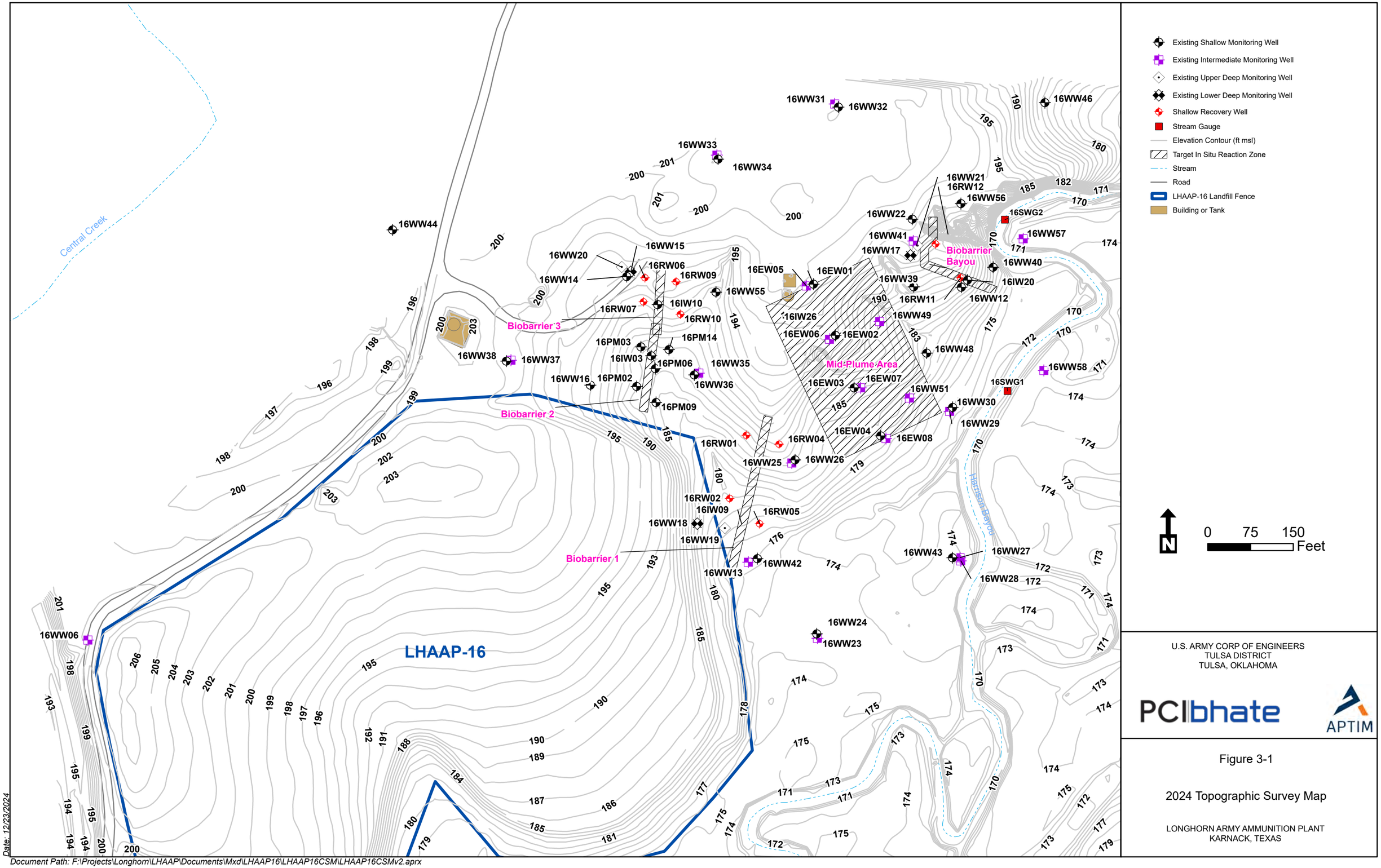

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Figure 3-1

2024 Topographic Survey Map

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 12/23/2024

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Existing Shallow Monitoring Well
Existing Intermediate Monitoring Well
Existing Upper Deep Monitoring Well
Existing Lower Deep Monitoring Well
Shallow Recovery Well
Proposed MW
Surface Water Elevation Gauge
Elevation Contour (ft msl)
Target In Situ Reaction Zone
Road
LHAAP-16 Landfill Fence
Building or Tank
General Slope to Southeast
Channelized Areas
Cutoff Oxbows on Former Channel
Low Area with Potentially Enhanced Infiltration

N
0 75 150
Feet

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Figure 4-1

Topographic Survey Areas of Interest

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 2/17/2025

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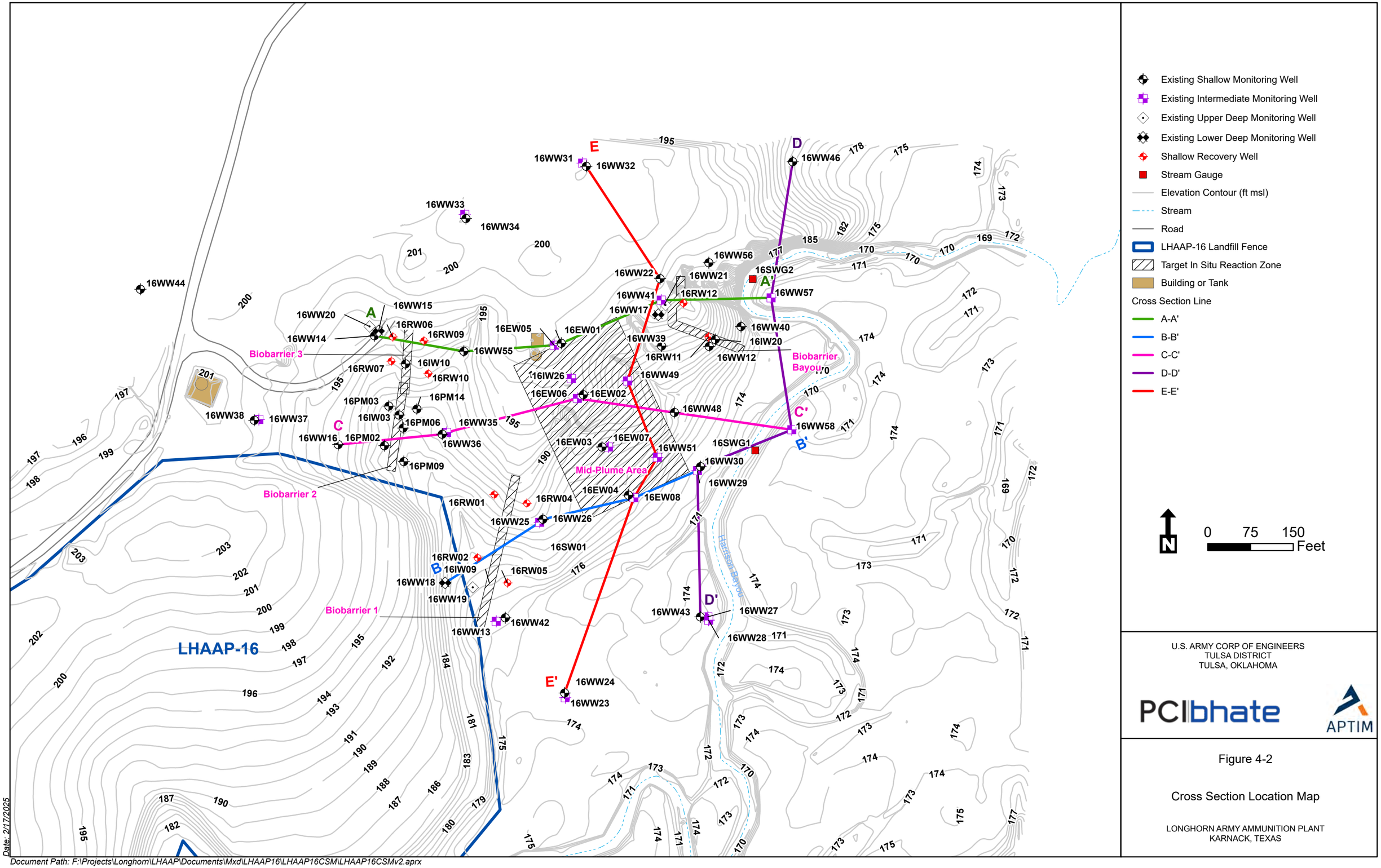

Existing Shallow Monitoring Well
Existing Intermediate Monitoring Well
Existing Upper Deep Monitoring Well
Existing Lower Deep Monitoring Well
Shallow Recovery Well
Stream Gauge
Elevation Contour (ft msl)
Stream
Road
LHAAP-16 Landfill Fence
Target In Situ Reaction Zone
Building or Tank

Cross Section Line
A-A'
B-B'
C-C'
D-D'
E-E'

N

0 75 150 Feet

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Figure 4-2

Cross Section Location Map

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 2/17/2025

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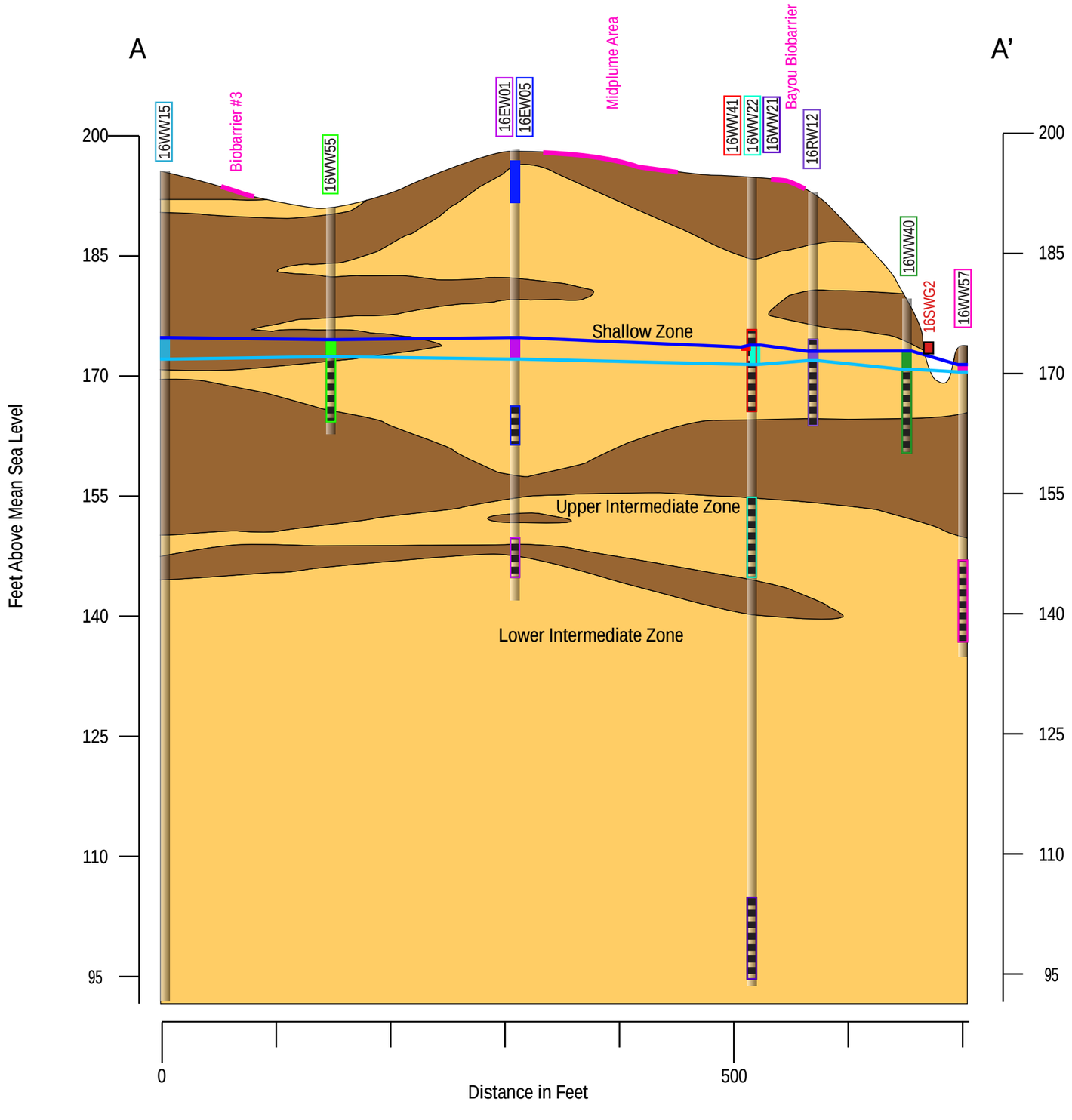

Stream Gauge

Target In situ Reaction Zone

Maximum Water Level

Minimum Water Level

Monitoring Well Construction

Well Screen

Clay

Sand

Color around Well ID reflects the maximum and minimun water level range as well as the wells corresponding Well Screen.

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Figure 4-3

Cross Section A-A'

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

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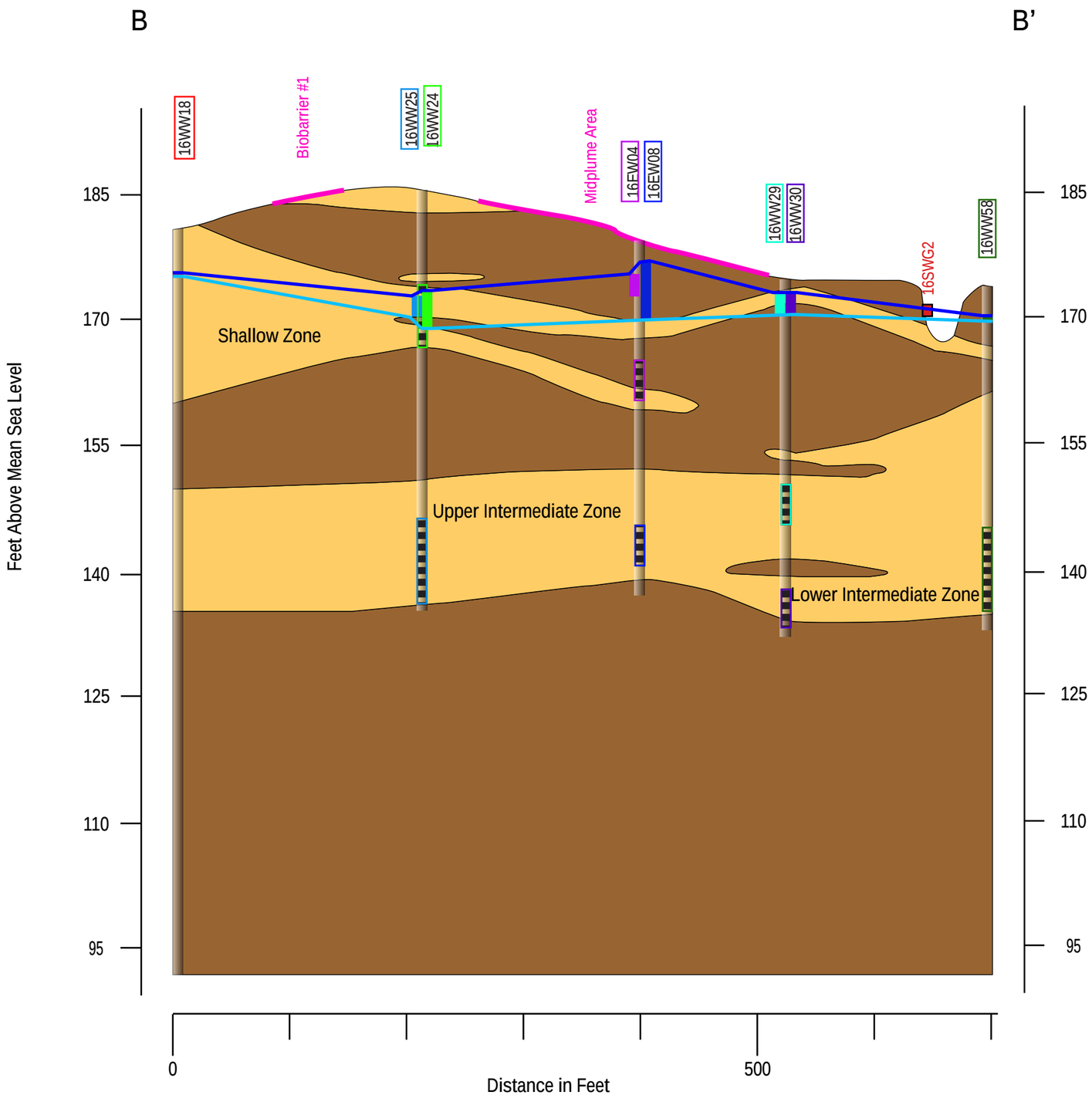

Stream Gauge

Target In situ Reaction Zone

Maximum Water Level

Minimum Water Level

Monitoring Well Construction

Well Screen

Clay

Sand

Color around Well ID reflects the maximum and minimun water level range as well as the wells corresponding Well Screen.

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Figure 4-4

Cross Section B-B'

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

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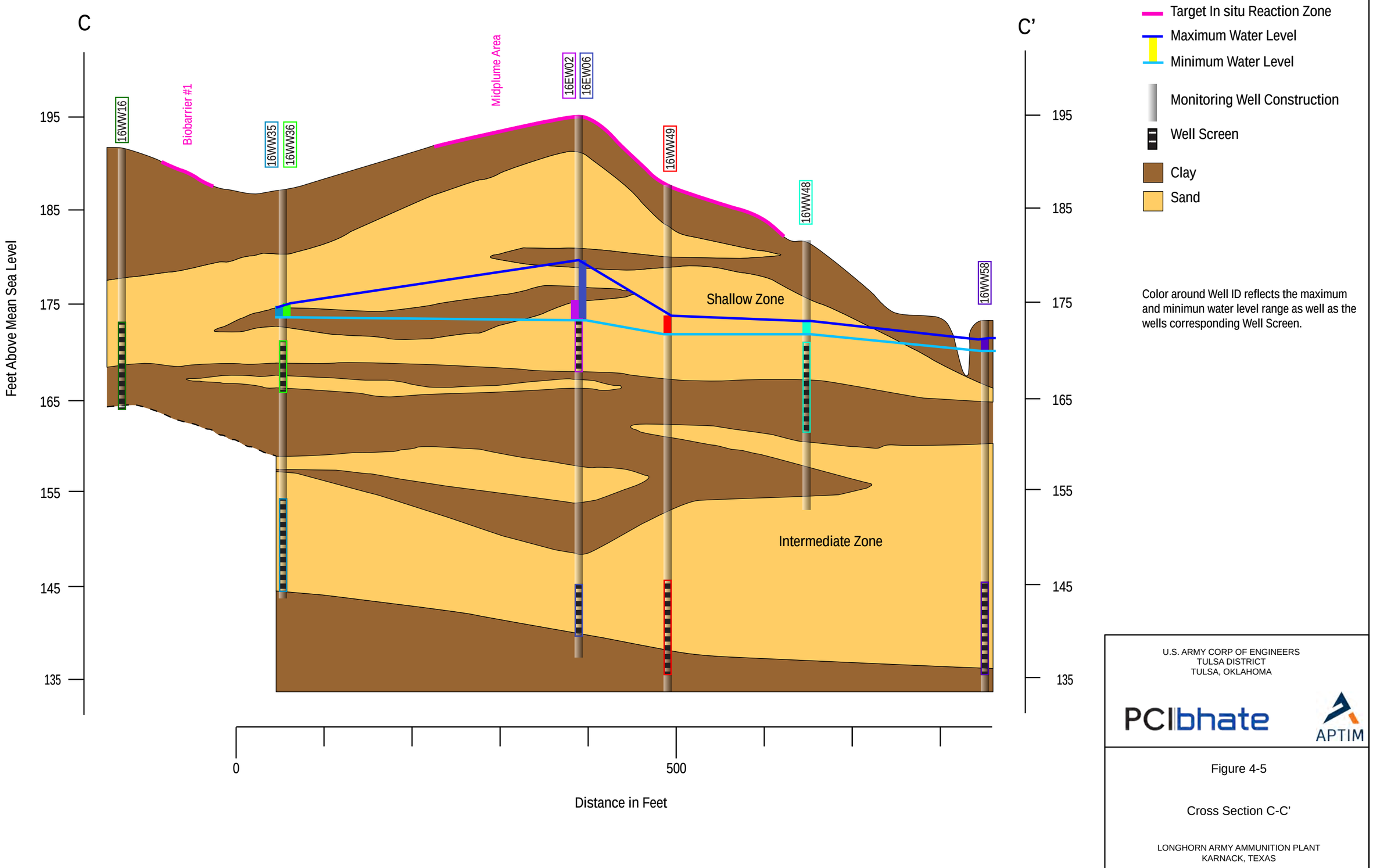

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Figure 4-5

Cross Section C-C'

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

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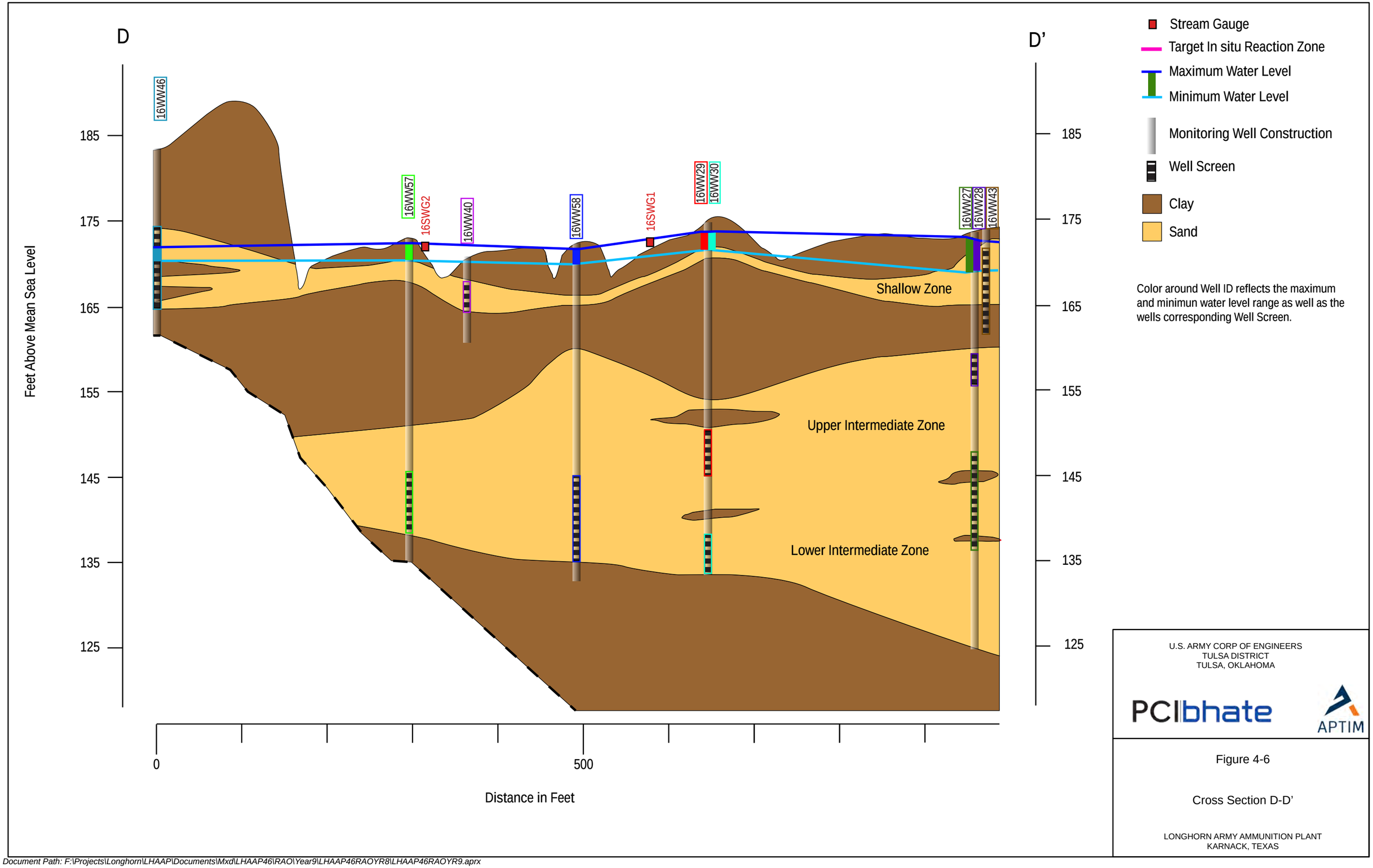

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Figure 4-6

Cross Section D-D'

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

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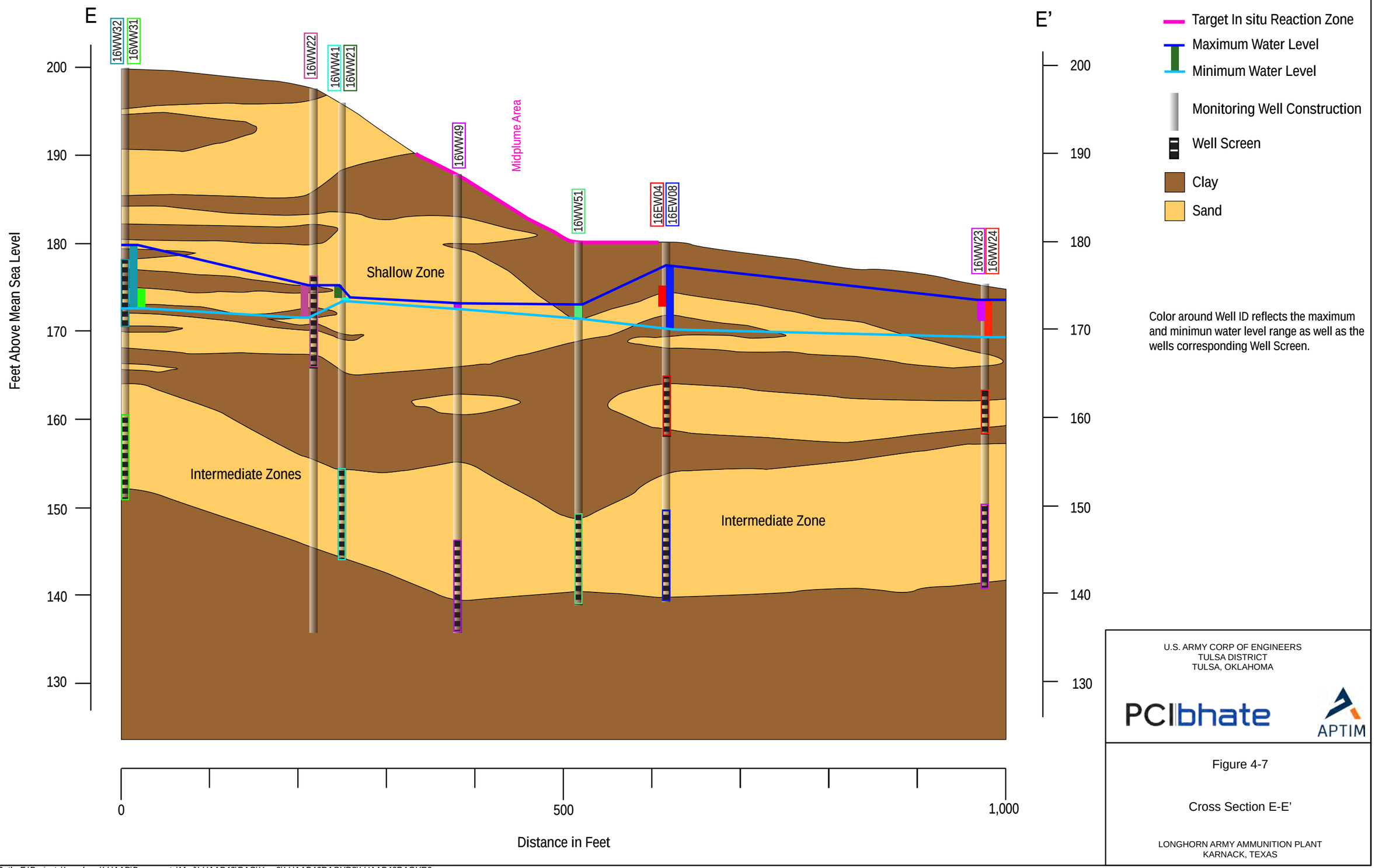

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Figure 4-7

Cross Section E-E'

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

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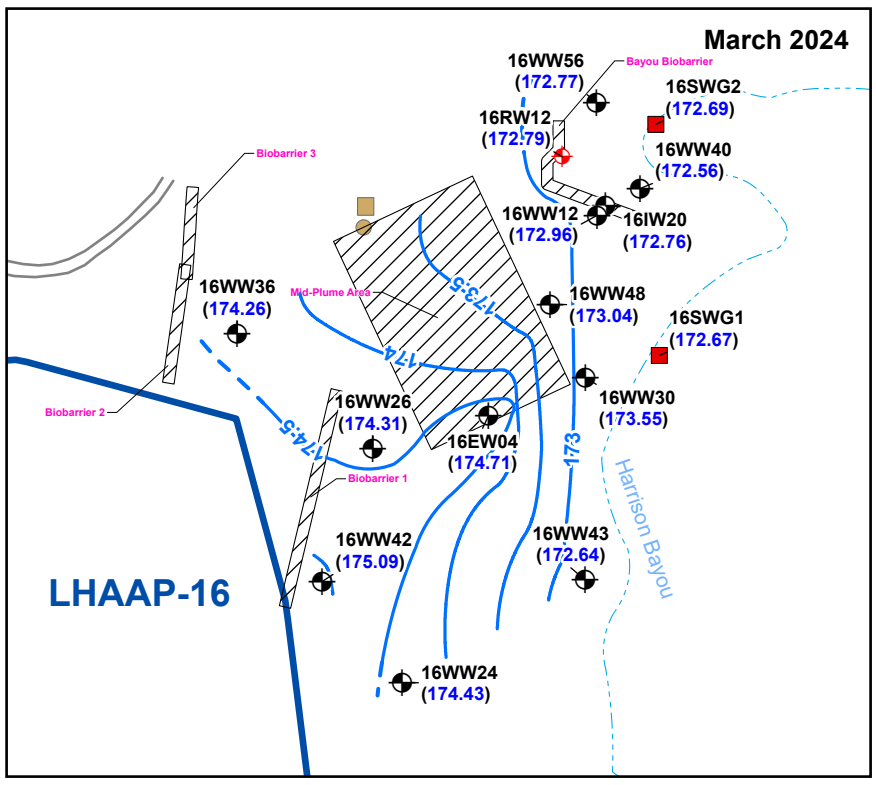

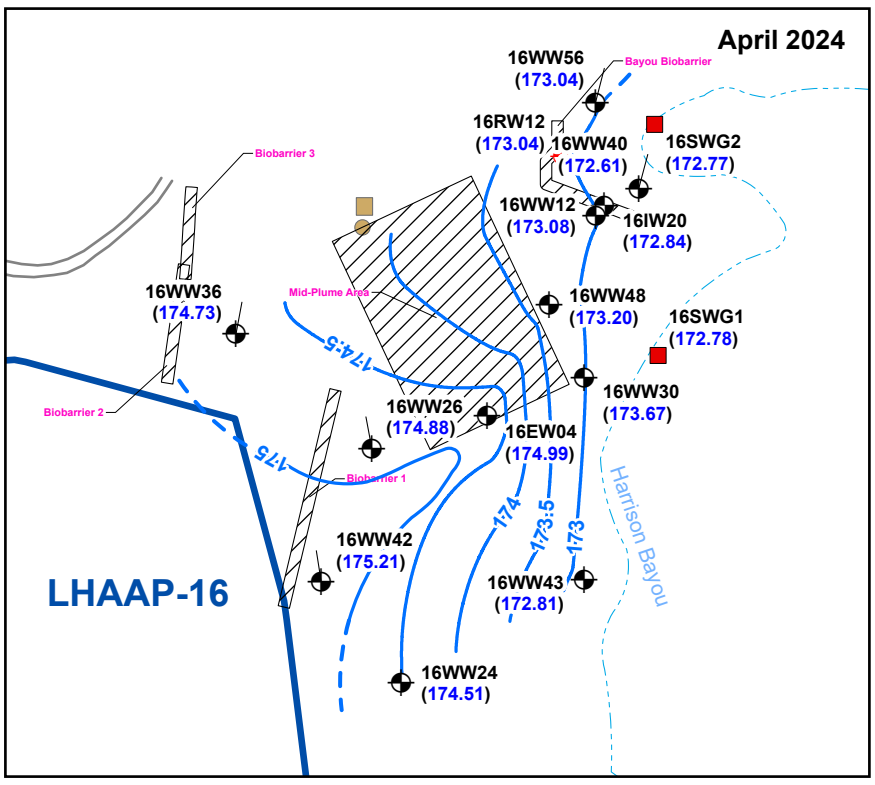

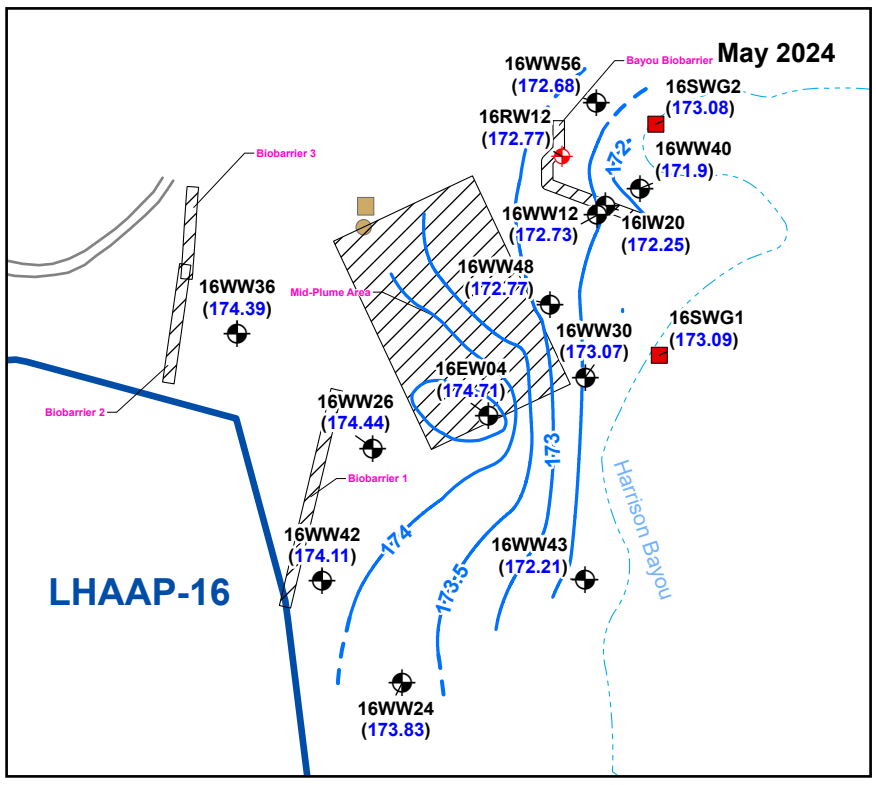

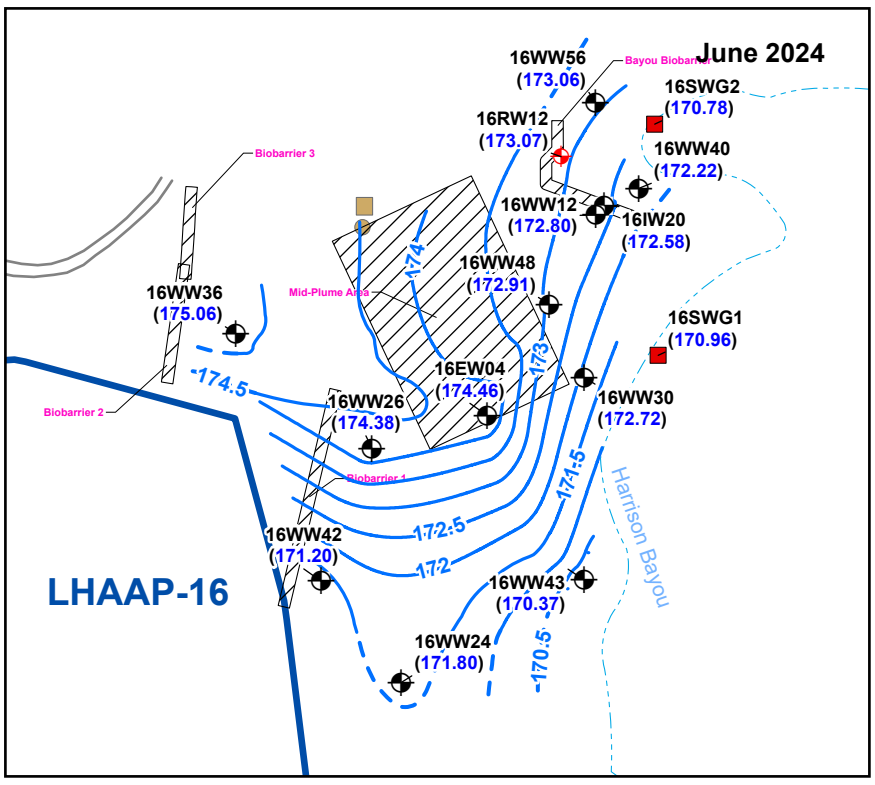

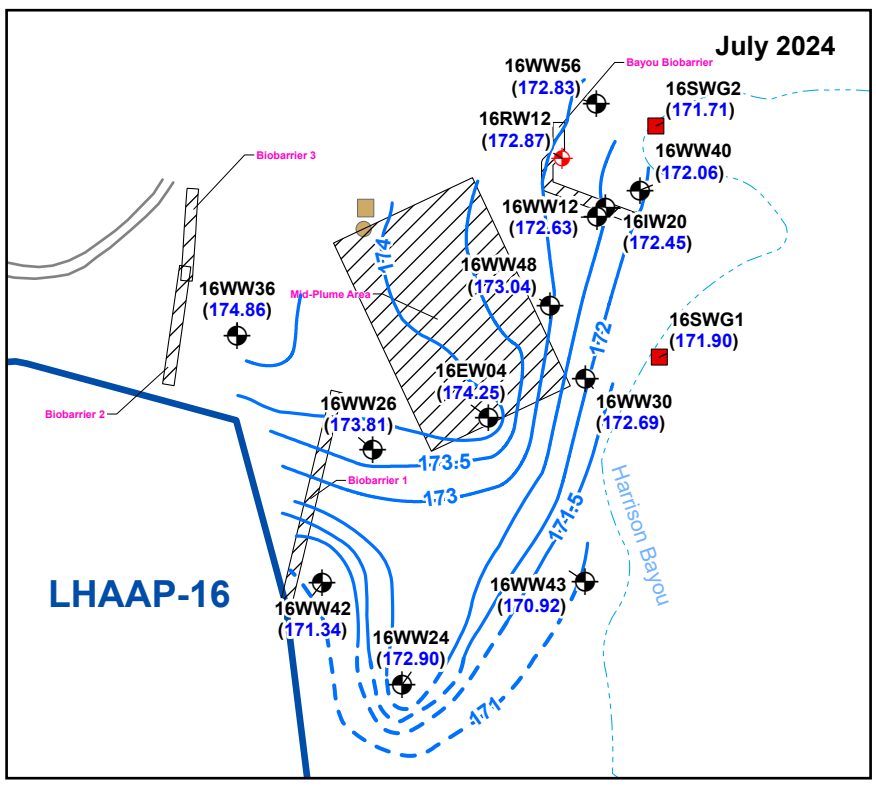

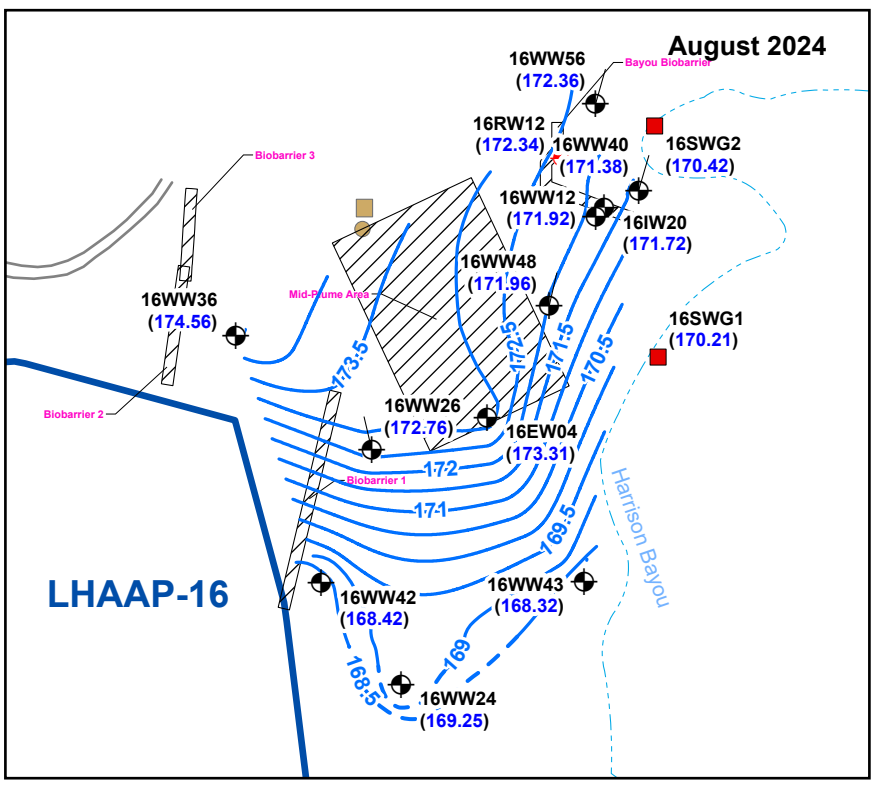

- Existing Shallow Monitoring Well
- Shallow Recovery Well
- Stream Gauge
- Groundwater Contour (*Dashed where inferred*)
- Target In Situ Reaction Zone
- Stream
- Road
- LHAAP-16 Landfill Fence
- Building or Tank

N

0 125 250 Feet

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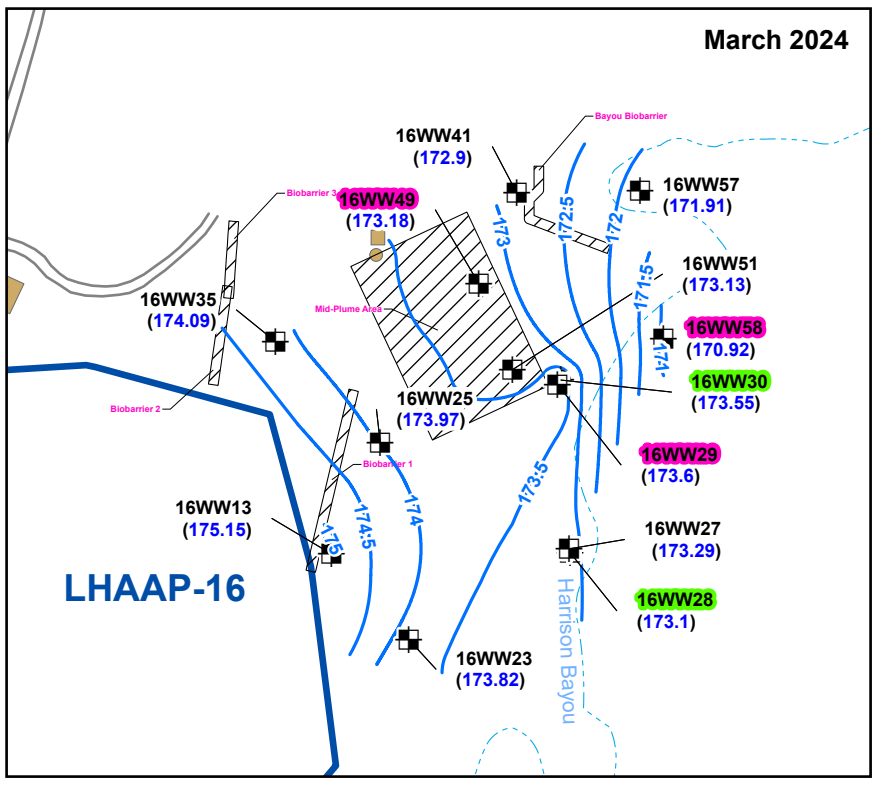
Figure 4-8

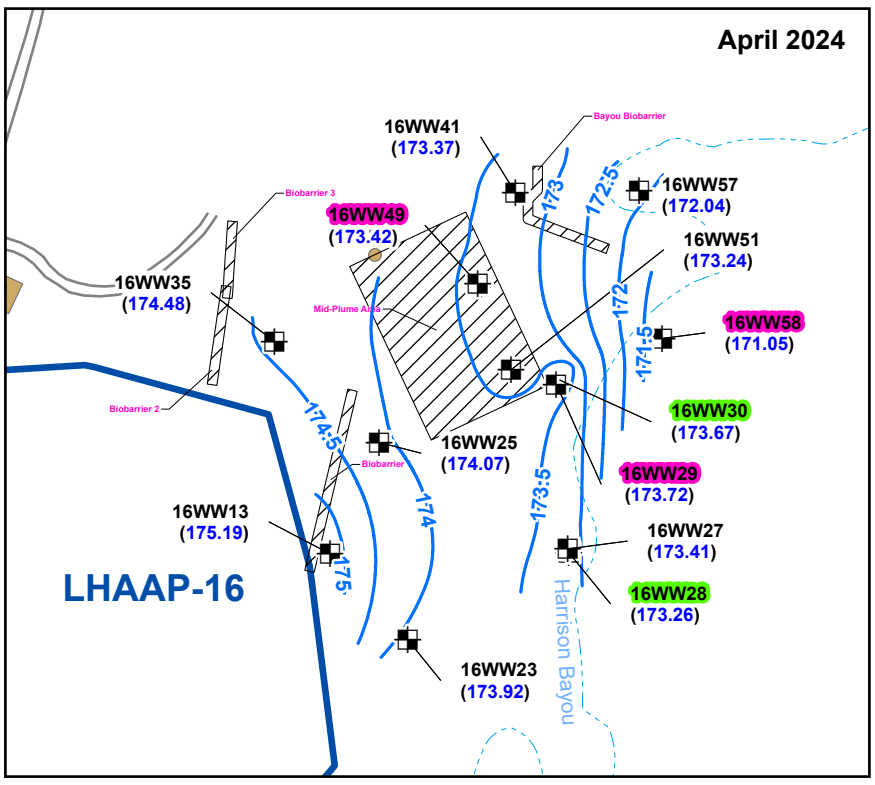
Shallow Zone Potentiometric Surface Maps
March 2024 to August 2024

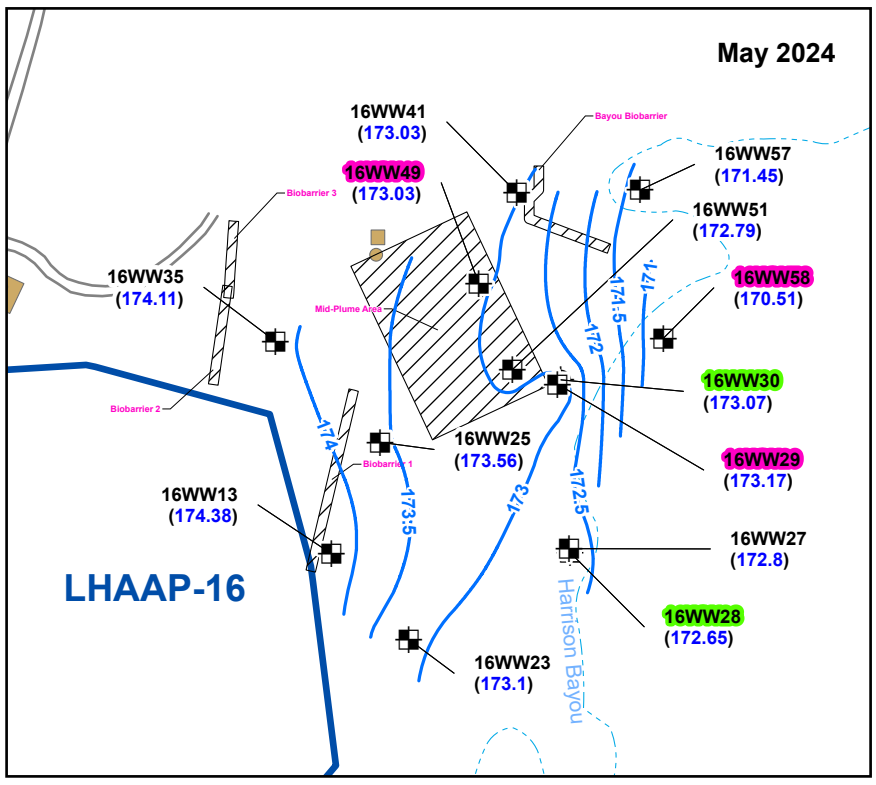
LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

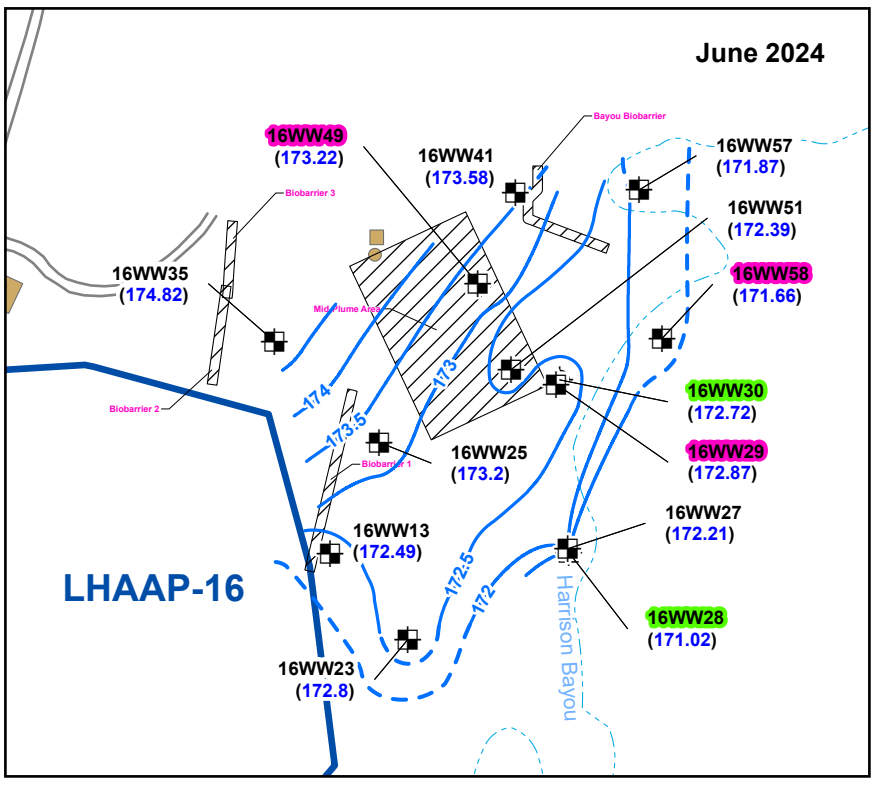
Date: 12/23/2024

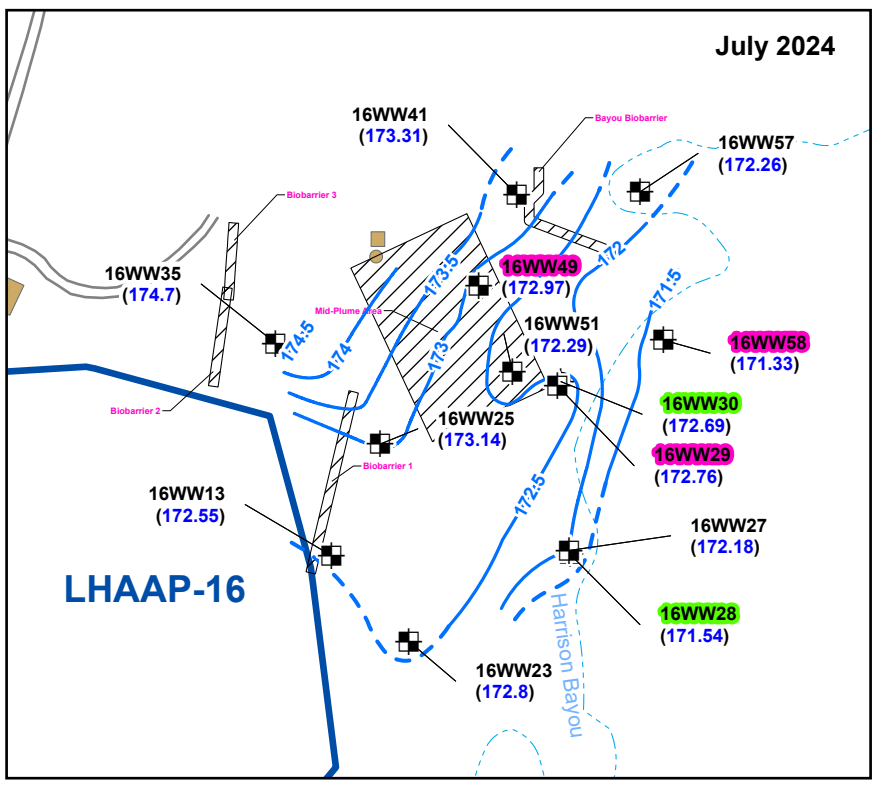
Document Path: F:\Projects\Longhorn\LHAAP\Documents\Mxd\LHAAP16\LHAAP16CSM\LHAAP16CSMv2.aprx

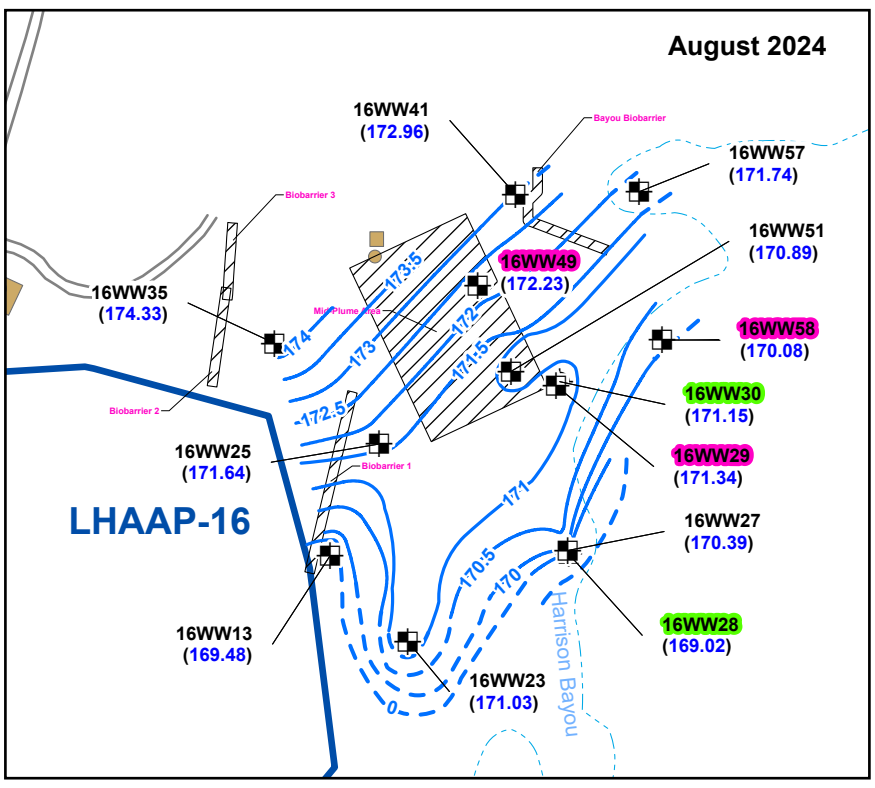












Existing Intermediate Monitoring Well
Groundwater Contour (*Dashed where inferred*)
Target In Situ Reaction Zone
Stream
Road
LHAAP-16 Landfill Fence
Building or Tank

Notes:
1. **Green** highlighting indicates upper intermediate.
2. **Pink** highlighting indicates lower intermediate.

N

0 150 300 Feet

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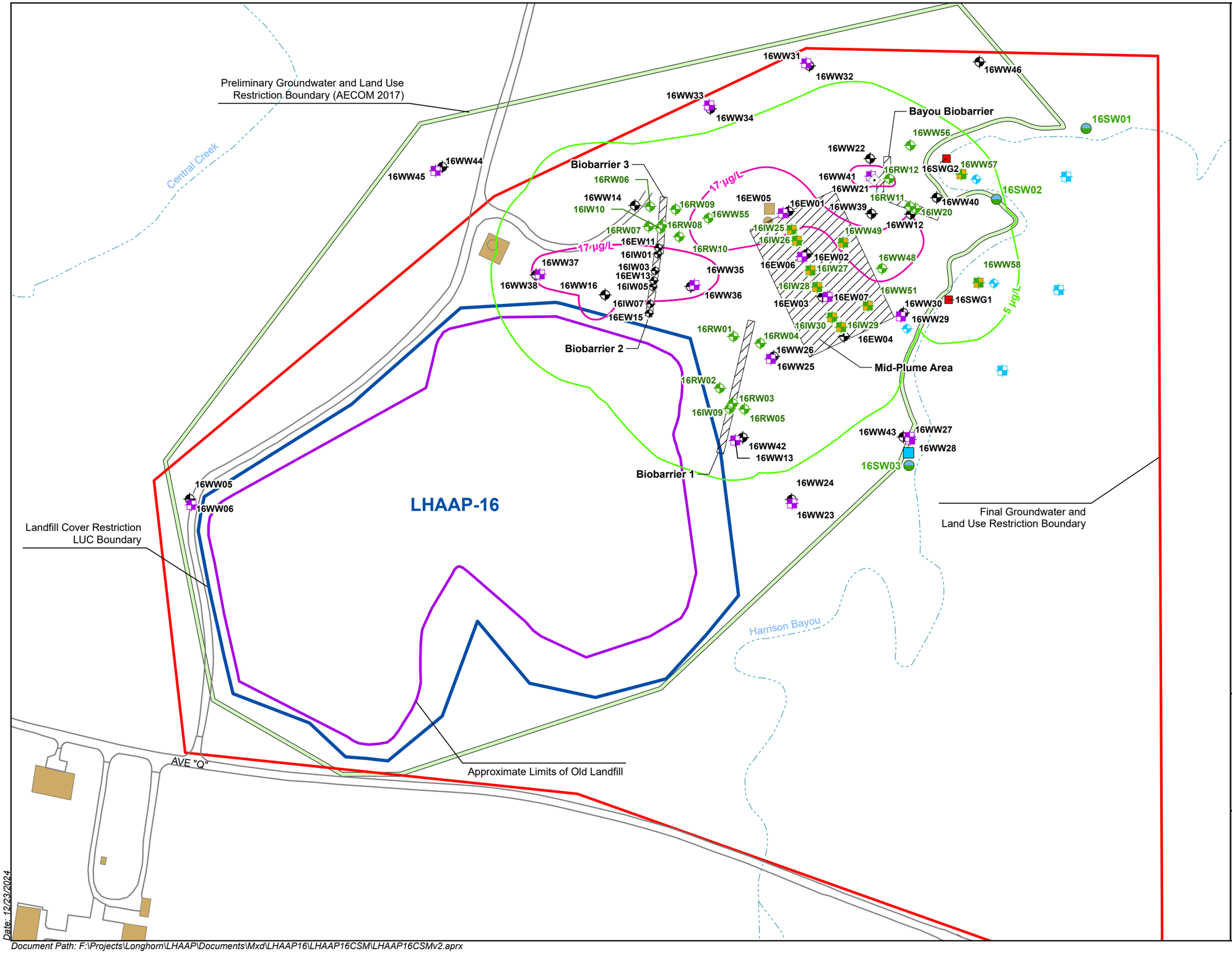
Figure 4-9

Intermediate Zone Potentiometric Surface Map
March 2024 to August 2024

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 12/23/2024

Document Path: F:\Projects\Longhorn\LHAAP\Documents\Mxd\LHAAP16\LHAAP16CSM\LHAAP16CSMv2.aprx



Proposed Surface Water Elevation Gauge
Proposed Shallow Zone Monitoring Well
Proposed Intermediate Zone Monitoring Well
Shallow Well Installed 2018 or 2019
Intermediate Well Installed 2018 or 2019
Existing Shallow Monitoring Well
Existing Intermediate Monitoring Well
Existing Upper Deep Monitoring Well
Surface Water Sample Location
Stream Gauge
Extent of Perchlorate Contamination > 17 µg/L in Intermediate and Shallow Zones (January 2022)
Extent of TCE Contamination > 5 µg/L in Intermediate and Shallow Zones (Dashed Where Inferred) (January 2022)
Stream
Target In Situ Reaction Zone
Road
Final Groundwater and Land Use Restriction Boundary
Landfill Cover Restriction LUC Boundary
Approximate Limits of Old Landfill
Preliminary Groundwater and Land Use Restriction Boundary (AECOM 2017)
Building or Tank

Notes:
1. µg/L - micrograms per liter
2. LUC - land use control
3. TCE - trichloroethene
4. The eastern side of the Final Groundwater and Land Use Restriction Boundary is shared with the western edge of a similar land use restriction that will cover LHAAP-17 and LHAAP-18/24 located to the east of LHAAP-16.

N
0 100 200 Feet

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Figure 4-10

Recommended New Monitoring Well and Surface Water Gauge Locations

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 12/23/2024

Document Path: F:\Projects\Longhorn\LHAAP\Documents\Mxd\LHAAP16\LHAAP16CSM\LHAAP16CSMv2.aprx

Appendix A

Photos of Surface Water Elevation Gauges

PHOTO 1: Surface Water Elevation Gauge Mounted to Steel Post
DATE: February 29, 2024

PHOTO 2: Installation of Surface Water Elevation Gauge 16SWG1
Post Level and Ready to Push
DATE: February 29, 2024

PHOTO 3: Pushing Surface Water Elevation Gauge into Bayou Bottom Using Track Hoe

DATE: February 29, 2024

PHOTO 4: View of Surface Water Elevation Gauge 16SWG2
DATE: March 4, 2024

PHOTO 5: View of Surface Water Elevation Gauge 16SWG1
DATE: March 4, 2024

Subject:	**Final Monthly Managers' Meeting (MMM), Longhorn Army Ammunition Plant (LHAAP)**
Location of Meeting:	**WebEx**
Date of Meeting:	**18 February 2025 – 10:00 AM Central Daylight Time (CDT)**

Attendees:

USEPA:	Brian Follin (BF)
USACE:	Aaron Williams (AW)
USAEC:	Mike Bowlby (MB)
TCEQ:	April Palmie (AP)
PCI/Bhate JV (PBJV):	Zack Beck (ZB); Kelsey Edwards; Michelle Schwartz
APTIM:	William Foss (WF), Praveen Srivastav
HDR:	Gregory Kelly (GK)
BRAC:	Kyle Russel (KR)

Defense Environmental Restoration Program (DERP) Performance-Based Remediation Update:

ZB started the meeting with a discussion on PBJV action items. Action Item 1: He stated that the PBJV is preparing the quarterly Restoration Advisory Board (RAB) update with a goal to submit it to the RAB members by the end of March 2025. Action Item 2: ZB said that the PBJV has reached out the Marshall Public Library regarding the use of compact disc (CD) admin record (AR) updates that are sent to them. WF said he spoke with someone at the library, and they believed they had desktop computers for public use that had CD drives, but would leave a message for the reference librarian to verify. WF said he would call the Marshall Public Library back to verify with the reference librarian.

Groundwater Treatment Plant (GWTP): ZB stated that the GWTP is back up and running after the freezing weather experienced in January 2025. He added there are a few Interception Collection Trench (ICT) wells that require additional repairs. ZB stated the GWTP has been running 2 days a week over the past month and water levels within Harrison Bayou continue to allow discharge to the Bayou.

Field Work: ZB said that field work planned for February 2025 includes sampling at LHAAP-04 and LHAAP-46. WF added that sampling was completed at LHAAP-16 in January 2025.

DI tracker: ZB referred to the DI tracker for February 2025.

- **Tasks 1 -5** (Project Management) – ZB stated that the PBJV submitted a revised Draft Final version of the November 2024 MMM minutes on 03 February 2025 and added that the PBJV addressed AP's follow-on comment. BF added that the EPA would provide feedback as soon as possible. ZB added that the January 2025 MMM minutes were submitted for review last week and that the PBJV has received AP's comments. ZB reminded the group that there was not a December 2024 MMM. ZB said the Draft Final November 2025 RAB meeting minutes were submitted via email to the RAB members in January 2025 and received a motion to approve from Tom Walker on 31 January 2025. AP suggested we request a second to approve the minutes. ZB stated that the PBJV has an action item to respond to Tom's email to request a second motion.
- **Task 6** (LHAAP-04) – ZB stated that the Year 5 Remedial Action – Operation (RA-O) Report is in progress and will likely be a March 2025 submittal to the Regulators. ZB said the first

semi-annual sampling event for Year 6 is scheduled for February 2025. He added we should have that data to discuss at the March 2025 MMM.

- **Task 7** (LHAAP-12) –ZB stated that the annual sampling event was completed in December 2024. He said that the data is included in this month's validated data package and the annual report is expected for Regulatory submittal in March 2025. ZB referred to the validated data for LHAAP-12. ZB stated that trichloroethylene (TCE) was detected along with cis- 1,2- dichloroethylene (DCE) at monitoring well 12WW24 and referred to the map to show the location of the well. He stated that TCE detections were below the maximum contaminant level (MCL).
- **Task 8** (LHAAP-16) and **Task 1022** (Option 22: LHAAP-16) – WF stated that the Draft Final Year 4 Report was submitted to the regulators on 05 February 2025 along with response to comments (RTCs). He stated that the second semi-annual groundwater sampling for Year 5 was conducted in January 2025 and validated data will be ready by the March 2025 MMM. He stated the Draft Conceptual Site Model (CSM) Report was submitted on 18 February 2025, prior to the meeting with comments due on 20 March 2025.
- **Task 9** (LHAAP-18/24/GWTP) – ZB said the semi-annual sampling event was completed in December 2024 and the data is still being validated and can be expected by the March 2025 MMM. He said the 2nd Quarter 2024 GWTP Report will include any comments received on the first quarter report. He added that the 2nd Quarter 2024 Report includes a recommendation for semi-annual reporting. ZB stated that the first semi-annual report is being compiled which will cover the 3rd and 4th quarters of 2024. AW asked about the frequency of water level measurements as discussed in the 2nd Quarter 2024 GWTP Report. ZB stated that there was a previous discussion on potential changes in the frequency of water level sampling as we move into semi-annual sampling. He asked whether monthly water level sampling was still necessary or whether quarterly potentiometric surface maps were more appropriate. AP stated that the move to semi-annual reporting along with 20+ years of historical data justifies less frequent water level sampling. ZB asked if BF was in agreement. AW added that the recommendation should be included in the 2nd Quarter 2024 GWTP Report.
- **Task 10** (LHAAP-37) – WF stated that the Year 7 RA-O Report has been finalized and will be included in the next round of Administrative Record (AR) updates. He said the Year 8 sampling was conducted in November and the validated data is included in this month's data package. WF said that the two wells of primary interest (35BWW24 and 35BWW25) located on the north side of the site have recently had hits of TCE above the MCL, but were relatively stable from 2024 to 2025. He added that there has been a recommendation included in recent reports to put additional wells to the north to provide better delineation.
- **Task 11** (LHAAP-46) – WF said the Year 10 Annual RA-O Report RTCs and Draft Final were submitted on 27 January 2025. He added that the next round of sampling for this site will be occurring at the end of February 2025 and that validated data is expected to be ready by the April 2025 MMM.
- **Task 12** (LHAAP-50) **–** ZB said the Draft Year 10 RA-O Report was submitted on 30 January 2025. He stated that the next sampling event is scheduled for May 2025. AP commented that previously approved language included in the report has been pulled out or changed within the Year 10 Report. She asked that the PBJV does not manipulate approved

language within all LHAAP reports going forward. ZB concurred and stated the PBJV would discuss internally to ensure this does not continue.

- **Task 13** (LHAAP-58) – ZB stated that the Year 10 RA-O Report is scheduled for a March 2025 submittal. ZB said the next sampling event will be May 2025.
- **Task 14** (LHAAP-67)- WF stated that the Year 10 RA-O Report was finalized in November and will be included in the fourth quarter AR. He added sampling was completed in November and validated data is included in this month's data package. He referred to the site map and stated that wells towards the north and northeast (16WW12 and 16WW17) showed increases in 1,1-DCE concentrations from 2023 to 2024. WF stated that the upcoming report will include some recommendations based on these findings.
- **Task 15** (LHAAP-001-R-01 and LHAAP-003-R-01) – ZB stated that the 2024 Annual Report has been approved and will be included in the next AR update. He added the PBJV is preparing for another LTM event once the site dries out. He said it will likely occur in March or April 2025.
- **Task 16** (Surface Water)- ZB stated that the PBJV is expecting to collect the first quarter surface water sample this month and expects validated data by the March 2025 MMM. He added that the Year 6 Annual Surface Water Data Transmittal was submitted on 04 February 2025 and will be included in the AR.
- **Task 17** (2023 Land Use Control (LUC) Management Plan) – ZB stated that the next LUC Management Plan update will take place in 2025. He said the 2023 and 2024 combined update will be included in the fourth quarter AR update.
- **Task 18** (AR) – WF stated that the July through September 2024 tracking list has been approved and should be sent for printing within the next week or two. He added that CDs are still being sent to the library and everything is still included online within the AR. He stated that they intend to work on the October through December 2024 tracking list soon.

Update on other DERP Sites:

- **LHAAP 18/24 –** GK stated there are no further updates, and the 100% Remedial Design (RD) will be included in the AR Update.
- **LHAAP-29** – GK stated there are no further updates, and the 100% RDI will be included in the AR Update.
- **LHAAP-47** – GK said they submitted the Army Draft Pre-Design Investigation (PDI) Addendum to the Army and the Draft is scheduled for delivery to the regulators in March 2025. He said the 30% design has been submitted to the Army and is currently under review with an expected delivery date to the regulators in late April or early May 2025.
- **LHAAP-17** –ZB said the Year 2 RA-O Report has undergone Army review and revisions are underway. He stated that performance monitoring is ongoing, and a quarterly event is planned for February. He added that the air compressor requires service prior to sampling and that the necessary parts have been ordered.

Per- and polyfluoroalkyl substances (PFAS) Update: AW said that Army Environmental Command (AEC) is responsible for getting the contract set up for the next phase of PFAS investigation. MB stated that a March 2025 award is currently the plan but that there is a lot of ongoing conversation regarding the prioritization of funds. AP asked about adding PFAS sampling at the

GWTP. AW said that PFAS sampling of influent and effluent at the GWTP is included as a yearly option within the next five-year award.

Five-Year Review: ZB said that the Five-Year Review will be included in the 2025 first quarter update for the AR. MB stated that the public notice has been sent out for this report.

Transfer Update: KR said he was drafting a letter to be sent to U.S. Fish and Wildlife to create a track record of requests sent. He added that Jennifer Solomon will be the new BRAC program manager and will arrive 24 February 2025.

Schedule Next Managers' Meeting:

ZB said the next MMM will be held via Webex on Wednesday, 19 March 2025 at 10:00 AM CDT. Meeting adjourned at 10:45 CST.

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ACRONYM LIST

“	inch(es)
µg/L	micrograms per liter
mg/L	milligrams per liter
AP	April Palmie
AR	Administrative Record
AW	Aaron Williams
CDT	Central Daylight Time
CSM	Conceptual Site Model
DERP	Defense Environmental Restoration Program
FBR	Fluidized bed reactor
GK	Gregory Kelly
GWTP	Groundwater Treatment Plant
ICT	Interception Collection Trench
KR	Kyle Russel
LHAAP	Longhorn Army Ammunition Plant
LUC	Land Use Control
MCL	Maximum Contaminant Level
MMM	Monthly Managers’ Meeting
PBJV	Poarch Creek Indians, Governmental Services, LLC /Bhate Environmental Associates Joint Venture
PDI	Pre- Design Investigation
PFAS	Per- and polyfluoroalkyl substances
RAB	Restoration Advisory Board
RD	Remedial Design
RTC	Response to comments
TCEQ	Texas Commission on Environmental Quality
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WF	William Foss
ZB	Zack Beck

LHAAP Validated Data
MMM February 2025

GWTP Effluent *Weekly Perchlorate Sampling –December 2024*
Perchlorate (6850)

GWTP Effluent *Weekly, Bi-Weekly, and Monthly Sampling – December 2024*
Ammonia (350.3)
Ortho-Phosphate (365.3)
Total Organic Carbon (415.1)
VOC (8260C)
Metals (6020A)
Hexavalent Chromium (7196A)
1,4-Dioxane (8270D-SIM)
Anions (9056)

GWTP Influent *Monthly Sampling – December 2024*
Metals (6020A)
Perchlorate (6850)
Hexavalent Chromium (7196A)

LHAAP-12 *Annual Sample - December 2024*
VOC (8260C)

LHAAP-35B(37) *Remedial Action Operation Monitoring (Year 8 Annual) - November 2024*
Volatile Organic Compounds (8260C)
Dissolved Gases (RSK-175)
Nitrate, Chloride, and Sulfate (SW9056A)
Total Organic Carbon (SM5310C)
Field Measurements (Dissolved Oxygen, Oxidation Reduction Potential, Ferrous Iron, and pH)

LHAAP-67 *Remedial Action OperationMonitoring (Year 11 Annual) - November 2024*
Volatile Organic Compounds (SW8260C)
Dissolved Gases (RSK-175)
Nitrate, Chloride, and Sulfate (SW9056A)
Total Organic Carbon (SM5310C)
Field Measurements (Dissolved Oxygen, Oxidation Reduction Potential, Ferrous Iron, and pH)

GWTP Weekly/Effluent Perchlorate Sampling - December 2024

Location Identification: Sample Date:	Units	Daily Maximum Concentration	PCL	LH18/24-SP650_120324_BIX 12/3/24	LH18/24-SP650_120324_AIX 12/3/24	LH18/24_SP650_120324_AIX 12/3/24	LH18/24-SP650_121024_BIX 12/10/24	LH18/24-SP650_121024_AIX 12/10/24	LH18/24-SP650_121724_BIX 12/17/24	LH18/24-SP650_121724_AIX 12/17/24	LH18/24-SP650_122624_BIX 12/26/24	LH18/24-SP650_122624_AIX 12/26/24
Location Description												
				Weekly	Weekly	Monthly Eff	Weekly	Weekly	Weekly	Weekly	Weekly	Weekly
Perchlorate (6850)												
Perchlorate	µg/L	589	17	**82.5**	**32.3**	**32.9**	**58.9**	**28.4**	**27.9**	**2.9**	**25.8**	< 0.10 U

Bold Values- Detections

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

µg/L - micrograms per liter

BIX - before ion exchange/AIX - after ion exchange

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

Analytical results above the PCL but below the Daily Maximum Concentration

GWTP Weekly Sampling - December 2024

Location ID: Sample Date:	Units	Daily Maximum Conc	LH18/24-SP650_120324 12/3/24	LH18/24-SP650_121024 12/10/24	LH18/24-SP650_121724 12/17/24	LH18/24-SP650_122624 12/26/24
Location Description			**GWTP–Collected from a spigot on the discharge of effluent TK-650. Sampled Weekly.**			
Ammonia as N (350.3)						
Ammonia as N	mg/L	NV	**2.3**	**8.2**	**9.0**	**8.9**
Ortho-Phosphate (365.3)						
Ortho-Phosphate	mg/L	NV	**1.51**	**2.03**	**2.69**	**2.29**
Organic Carbon (415.1)						
Total Organic Carbon (TOC)	mg/L	NV	**2.30**	**3.24**	**2.82**	**2.72**

Notes:

GWTP - Groundwater Treatment Plant

TK - Tank

mg/L - milligrams per liter

NV - No Value

Bold Values- Detections

GWTP Bi-Weekly Sampling - December 2024

Location ID: / Sample Date:	Units	(Bayou) Daily Maximum Conc	(INF pond) MCL	LH18/24-SP650_121024 12/10/24	LH18/24-SP650_122624 12/26/24
Location Description				**GWTP – Collected from a spigot on the discharge of effluent TK-650. Sampled Biweekly.**	
Volatile Organic Compounds (8260C)					
1,1,1-Trichloroethane	µg/L	7,230	200	< 0.500 U	< 0.500 U
1,1,2-Trichloroethane	µg/L	216.9	5	< 0.500 U	< 0.500 U
1,1-Dichloroethane	µg/L	14,032	NV	< 0.500 U	< 0.500 U
1,1-Dichloroethene	µg/L	253	7	< 0.500 U	< 0.500 U
1,2-Dichloroethane	µg/L	181	5	< 0.500 U	< 0.500 U
1,2-Dichloropropane	µg/L	5	5	< 0.500 U	< 0.500 U
Acetone	µg/L	2,395	NV	< 1.00 U	< 1.00 U
Benzene	µg/L	181	5	< 0.500 U	< 0.500 U
Carbon tetrachloride	µg/L	181	5	< 1.00 U	< 1.00 U
Chlorobenzene	µg/L	47,180	100	< 0.500 U	< 0.500 U
Chloroform	µg/L	3,615	NV	< 0.500 U	< 0.500 U
cis-1,2-Dichloroethene	µg/L	NV	70	< 0.500 U	< 0.500 U
Ethylbenzene	µg/L	57,025	700	< 0.500 U	< 0.500 U
m,p-Xylene	µg/L	83.6	NV	< 1.00 U	< 1.00 U
Methylene chloride	µg/L	1,699	5	< 0.500 U	< 0.500 U
o-Xylene	µg/L	83.6	NV	< 0.500 U	< 0.500 U
Styrene	µg/L	5,987	100	< 0.500 U	< 0.500 U
Tetrachloroethene	µg/L	180.7	5	< 0.500 U	< 0.500 U
Toluene	µg/L	4,189	10	< 0.500 U	< 0.500 U
Trichloroethene	µg/L	181	5	< 0.500 U	< 0.500 U
Vinyl chloride	µg/L	72	2	< 0.500 U	< 0.500 U
Anions (9056)					
Chloride	mg/L	NV	NV	**265**	**241**
Sulfate	mg/L	NV	NV	**25.6**	**1.13**

Notes:

GWTP - Groundwater Treatment Plant

INF - Intermediate Range Nuclear Forces

MCL - Maximum Contaminant Level

TK - Tank

µg/L - micrograms per liter

mg/L - milligrams per liter

Bold Values- Detections

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

GWTP Monthly Effluent Sampling - December 2024

Location ID: Sample Date:	Units	Daily Maximum Conc	(INF pond) MCL	LH18/24_SP650_120324 12/3/24
Location Description				**GWTP – Collected from a spigot on the discharge of effluent TK-650. Sampled monthly**
Volatile Organic Compounds (8260C)				
1,1,1-Trichloroethane	µg/L	7,230	200	< 0.500 U
1,1,2-Trichloroethane	µg/L	216.9	5	< 0.500 U
1,1-Dichloroethane	µg/L	14,032	NV	< 0.500 U
1,1-Dichloroethene	µg/L	253	7	< 0.500 U
1,2-Dichloroethane	µg/L	181	5	< 0.500 U
1,2-Dichloropropane	µg/L	5	5	< 0.500 U
Acetone	µg/L	2,395	NV	< 1.00 U
Benzene	µg/L	181	5	< 0.500 U
Carbon tetrachloride	µg/L	181	5	< 0.500 U
Chlorobenzene	µg/L	47,180	100	< 0.500 U
Chloroform	µg/L	3,615	NV	< 0.500 U
cis-1,2-dichloroethene	µg/L	NV	70	**0.915 J**
Ethylbenzene	µg/L	57,025	700	< 0.500 U
m,p-Xylene	µg/L	83.6	NV	< 1.00 U
Methylene chloride	µg/L	1,699	5	< 0.500 U
o-Xylene	µg/L	83.6	NV	< 0.500 U
Styrene	µg/L	5,987	100	< 0.500 U
Tetrachloroethene	µg/L	180.7	5	< 0.500 U
Toluene	µg/L	4,189	10	< 0.500 U
Trichloroethene	µg/L	181	5	< 0.500 U
Vinyl chloride	µg/L	72	2	< 0.500 U
Metals (6020A)				
Barium	mg/L	2	2	**0.339**
Lead	mg/L	0.0046	0.015	< 0.00125 U
Selenium	mg/L	0.012	0.05	< 0.00125 U
Silver	mg/L	0.003	0.1	< 0.000500 U
Hexavalent Chromium (7196A)				
Hexavalent Chromium	mg/L	0.1244	NV	< 0.0100 U
Semi-Volatile Organic Compounds (8270D SIM)				
1,4-Dioxane	µg/L	134.2	NV	**0.81 J**

Notes:

GWTP - Groundwater Treatment Plant

INF - Intermediate Range Nuclear Forces

MCL - Maximum Contaminant Level

TK - Tank

SIM - Select Ion monitoring

µg/L - micrograms per liter

mg/L - milligrams per liter

Bold Values- Detections

J - estimated value

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

GWTP Monthly Influent Sampling - December 2024

Location ID: / Sample Date:	Units	LH18/24-SP140_120324 12/3/24
Location Description		**GWTP – Collected from a spigot on the influent to TK-140. Sampled Monthly.**
Metals (6020A)		
Selenium	mg/L	< 0.00125 U
Silver	mg/L	< 0.000500 U
Hexavalent Chromium (7196A)		
Hexavalent Chromium	mg/L	< 0.0100 U
Perchlorate (6850)		
Perchlorate	µg/L	**5,890**

Notes:

GWTP - Groundwater Treatment Plant

TK - Tank

mg/L - milligrams per liter

µg/L - micrograms per liter

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

Bold Values- Detections

LHAAP 12 2024 Annual Event

Sample ID Well Identification Sample # ANALYTE	CAS NUMBER	UNITS	MCL/MSC/ PCL	12WW10R_120224 12WW10R HS24120141-01	12WW20_120224 12WW20 HS24120141-05	12WW21_120224 12WW21 HS24120141-02	12WW24_120224 12WW24 HS24120141-03	12WW24_120224_a 12WW24 HS24120141-04
Method: SW8260								
1,1,1,2-Tetrachloroethane	630-20-6	µg/L	110	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1,1-Trichloroethane	71-55-6	µg/L	200	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	14	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,1,2-Trichloroethane	79-00-5	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1-Dichloroethane	75-34-3	µg/L	10,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1-Dichloroethene	75-35-4	µg/L	7	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1-Dichloropropene	563-58-6	µg/L	2.9	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2,3-Trichlorobenzene	87-61-6	µg/L	310	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2,3-Trichloropropane	96-18-4	µg/L	0.041	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,2,4-Trichlorobenzene	120-82-1	µg/L	70	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,2,4-Trimethylbenzene	95-63-6	µg/L	5,100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2-Dibromo-3-chloropropane	96-12-8	µg/L	0.2	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2-Dibromoethane	106-93-4	µg/L	0.05	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2-Dichlorobenzene	95-50-1	µg/L	600	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,2-Dichloroethane	107-06-2	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2-Dichloropropane	78-87-5	µg/L	5	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,3,5-Trimethylbenzene	108-67-8	µg/L	5,100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,3-Dichlorobenzene	541-73-1	µg/L	3,100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,3-Dichloropropane	142-28-9	µg/L	29	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,4-Dichlorobenzene	106-46-7	µg/L	75	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
2,2-Dichloropropane	594-20-7	µg/L	42	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
2-Butanone	78-93-3	µg/L	61,000	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
2-Chlorotoluene	95-49-8	µg/L	2,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
2-Hexanone	591-78-6	µg/L	6,100	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U
4-Chlorotoluene	106-43-4	µg/L	2,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
4-Isopropyltoluene	99-87-6	µg/L	10,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
4-Methyl-2-pentanone	108-10-1	µg/L	8,200	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Acetone	67-64-1	µg/L	92,000	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Benzene	71-43-2	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromobenzene	108-86-1	µg/L	2,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromochloromethane	74-97-5	µg/L	4,100	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 0.500 U
Bromodichloromethane	75-27-4	µg/L	4.6	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromoform	75-25-2	µg/L	36	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromomethane	74-83-9	µg/L	140	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Carbon disulfide	75-15-0	µg/L	10,000	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Carbon tetrachloride	56-23-5	µg/L	5	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Chlorobenzene	108-90-7	µg/L	100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U

Sample ID Well Identification Sample # ANALYTE	CAS NUMBER	UNITS	MCL/MSC/ PCL	12WW10R_120224 12WW10R HS24120141-01	12WW20_120224 12WW20 HS24120141-05	12WW21_120224 12WW21 HS24120141-02	12WW24_120224 12WW24 HS24120141-03	12WW24_120224_a 12WW24 HS24120141-04
Chloroethane	75-00-3	µg/L	41,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Chloroform	67-66-3	µg/L	1,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Chloromethane	74-87-3	µg/L	220	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
cis-1,2-Dichloroethene	156-59-2	µg/L	70	< 0.500 U	< 0.500 U	< 0.500 U	**4.70**	**4.94**
cis-1,3-Dichloropropene	10061-01-5	µg/L	5.3	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Dibromochloromethane	124-48-1	µg/L	34	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Dibromomethane	74-95-3	µg/L	380	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Dichlorodifluoromethane	75-71-8	µg/L	20,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Ethylbenzene	100-41-4	µg/L	700	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Hexachlorobutadiene	87-68-3	µg/L	20	< 1.50 U	< 1.50 U	< 1.50 U	< 1.50 U	< 1.50 U
Isopropylbenzene	98-82-8	µg/L	10,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
m,p-Xylene	179601-23-1	µg/L	10,000**	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Methylene chloride	75-09-2	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
n-Butylbenzene	104-51-8	µg/L	4,100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
n-Propylbenzene	103-65-1	µg/L	4,100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Naphthalene	91-20-3	µg/L	2,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
o-Xylene	95-47-6	µg/L	10,000**	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
sec-Butylbenzene	135-98-8	µg/L	4,100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Styrene	100-42-5	µg/L	100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
tert-Butylbenzene	98-06-6	µg/L	4,100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Tetrachloroethene	127-18-4	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Toluene	108-88-3	µg/L	1,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
trans-1,2-Dichloroethene	156-60-5	µg/L	100	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
trans-1,3-Dichloropropene	10061-02-6	µg/L	29	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Trichloroethene	79-01-6	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	**3.16**	**3.27**
Trichlorofluoromethane	75-69-4	µg/L	31,000	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Vinyl chloride	75-01-4	µg/L	2	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter

a - duplicate sample

U - Undetected: The analyte was analyzed for, but not detected at the limit of detection presented.

UJ - estimated non-detect due to quality control difficiencies

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

01330998

12WW22
(180.08)

180.00

12WW23
(180.31)

180.50

12WW21
(180.55)

Central Creek

12WW05
(180.94)

12WW20
(180.85)

12WW10R
(179.61)

181.00

12WW24
(181.17)

12WW01
(181.19)

12WW02
(181.04)

LHAAP-12

Site LHAAP-12
Boundary

PENNINGTON ST.

AVE "P"

LHAAP-11

LHAAP-16

AVE "Q"

LHAAP-13

Acronyms:
DPT - Direct Push Technology

Aerial Photography Source:
Maxar, 1/7/2022

0 125 250
Feet

Legend:

- Shallow Monitoring Well Location
- (181.04) Potentiometric Surface Elevation in Feet Above Mean Sea Level
- Potentiometric Surface Contour (Dashed Where Inferred)
- Direction of Groundwater Flow
- Installation Restoration Program (IRP) Area
- Railroad Track
- Stream
- Surface Water

Shallow Zone Potentiometric Map (December 2023)

Figure 3

2023 Remedial Action Operation Report
Landfill 12 (LHAAP-12)
Longhorn Army Ammunition Plant
Karnack, Texas

DRAWN BY: MRM

DATE: 6/17/2024

SCALE: As Shown

PROJECT NO: JVPCIBH.0001.0003.01

PCIbhate

LHAAP-35B(37) Year 8 Annual Remedial Action Operation Monitoring
(November 2024)

			Location Code	35BWW01		35BWW04				35BWW05				35BWW07		35BWW08	
			Sample ID	35BWW01-241106		35BWW04-241107		35BWW04-241107-FD		35BWW05-241104		35BWW05-241104-FD		35BWW07-241106		35BWW08-241107	
			Sample Date	11/6/2024		11/7/2024		11/7/2024		11/4/2024		11/4/2024		11/6/2024		11/7/2024	
			Location Description:	Shallow zone, unimpacted, within site boundary		Shallow zone, impacted, within site boundary				Shallow zone, impacted, within site boundary				Shallow zone, unimpacted, downgradient		Shallow zone, impacted, within site boundary	
Analyte	**Units**	**MCL**		**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements																	
Dissolved oxygen	mg/L	NV		0.03		0.04		0.04		0.04		0.04		0.02		3	
Ferrous Iron	mg/L	NV		NM		0.56		0.56		NM		NM		NM		0.41	
Oxidation-Reduction Potential	mV	NV		127		209		209		83		83		33		211	
pH	Std. Units	NV		5.19		6.22		6.22		5.86		5.86		6.56		6.42	
Dissolved Gases (RSK175)																	
Carbon dioxide	µg/L	NV		NA		41,000		41,000		NA		NA		NA		25,000	J
Ethane	µg/L	NV		NA		< 0.25	U	0.24	J	NA		NA		NA		0.263	J
Ethylene	µg/L	NV		NA		< 0.25	U	< 0.25	U	NA		NA		NA		< 0.25	UJ
Methane	µg/L	NV		NA		1.04	J	1.2	J	NA		NA		NA		1.79	J
General Chemistry (9056A/SM5310C)																	
Chloride	mg/L	NV		NA		2.35		2.18		NA		NA		NA		5.41	
Nitrate	mg/L	NV		NA		< 0.1	U	< 0.1	U	NA		NA		NA		0.286	
Sulfate	mg/L	NV		NA		22.3		21.8		NA		NA		NA		32.1	
Total organic carbon	mg/L	NV		NA		3.27		3.1		NA		NA		NA		2.62	
Volatile Organic Compounds (8260C)																	
1,1-Dichloroethene	µg/L	7		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	UJ
cis-1,2-Dichloroethene	µg/L	70		< 0.5	U	< 0.5	U	< 0.5	U	0.715	J	0.675	J	< 0.5	U	< 0.5	UJ
Tetrachloroethene	µg/L	5		< 0.5	U	**7.58**	J	< 0.5	UJ	3.27		3.24		< 0.5	U	< 0.5	UJ
Trichloroethene	µg/L	5		< 0.5	U	0.837	J	0.76	J	4.52		4.22		< 0.5	U	0.768	J
Vinyl chloride	µg/L	2		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	UJ

Notes:

Blue Highlighting Indicates concentrations above the MCL

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected.

UJ - Undetected estimated: The analyte was analyzed for but, was not detected. Even though the analyte was not detected, certain discrepancies in meeting analyte specific quality control were not met.

MCL - Maximum Contaminant Limit, shown for contaminants of concern

Val Qual - validation qualifier

mg/L - milligrams per liter

ug/L - micrograms per liter

Std. Units - standard pH units

mV - millivolts

ID - identification

NV - MCL value not established and/or analyte is not a contaminant of concern

NA - not analyzed

NM - not measured

FD - field duplicate

LHAAP-35B(37) Year 8 Annual Remedial Action Operation Monitoring
(November 2024)

			Location Code	35BWW09		35BWW10		35BWW11		35BWW12		35BWW13		35BWW14		35BWW15	
			Sample ID	35BWW09-241104		35BWW10-241104		35BWW11-241104		35BWW12-241107		35BWW13-241106		35BWW14-241107		35BWW15-241106	
			Sample Date	11/4/2024		11/4/2024		11/4/2024		11/7/2024		11/6/2024		11/7/2024		11/6/2024	
			Location Description:	Shallow zone, impacted outside site boundary		Shallow, impacted, within site boundary		Shallow zone, unimpacted, within site boundary		Shallow zone, impacted, within site boundary		Shallow zone, impacted, crossgradient		Shallow zone, impacted, within site boundary		Shallow zone, impacted, within site boundary	
Analyte	**Units**	**MCL**		**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements																	
Dissolved oxygen	mg/L	NV		0.03		2.29		0.06		0.02		0.21		0.01		0.04	
Ferrous Iron	mg/L	NV		NM		NM		NM		0		NM		0.26		NM	
Oxidation-Reduction Potential	mV	NV		115		211		51		189		254		174		142	
pH	Std. Units	NV		7.04		5.96		6.09		5.8		4.64		6.42		6.22	
Dissolved Gases (RSK175)																	
Carbon dioxide	µg/L	NV		NA		NA		NA		140,000		NA		41,000		NA	
Ethane	µg/L	NV		NA		NA		NA		0.176	J	NA		0.225	J	NA	
Ethylene	µg/L	NV		NA		NA		NA		< 0.25	U	NA		< 0.25	U	NA	
Methane	µg/L	NV		NA		NA		NA		1.54	J	NA		1.99	J	NA	
General Chemistry (9056A/SM5310C)																	
Chloride	mg/L	NV		NA		NA		NA		6.02		NA		19.5		NA	
Nitrate	mg/L	NV		NA		NA		NA		< 0.1	U	NA		< 0.1	U	NA	
Sulfate	mg/L	NV		NA		NA		NA		40.2		NA		49.7		NA	
Total organic carbon	mg/L	NV		NA		NA		NA		5.09		NA		3.68		NA	
Volatile Organic Compounds (8260C)																	
1,1-Dichloroethene	µg/L	7		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	1.02		< 0.5	U
cis-1,2-Dichloroethene	µg/L	70		1.13		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Tetrachloroethene	µg/L	5		< 0.5	U	2.19		< 0.5	U	**6.86**		0.673	J	**24.8**		**10.7**	
Trichloroethene	µg/L	5		**64.3**		1.2		< 0.5	U	< 0.5	U	< 0.5	U	4.2		3.53	
Vinyl chloride	µg/L	2		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

Notes:

Blue Highlighting Indicates concentrations above the MCL

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U - Undetected: The analyte was analyzed for, but not detected.

UJ - Undetected estimated: The analyte was analyzed for but, was not detected. Even though the analyte was not detected, certain discrepancies in meeting analyte specific quality control were not met.

MCL - Maximum Contaminant Limit, shown for contaminants of concern

Val Qual - validation qualifier

mg/L - milligrams per liter

ug/L - micrograms per liter

Std. Units - standard pH units

mV - millivolts

ID - identification

NV - MCL value not established and/or analyte is not a contaminant of concern

NA - not analyzed

NM - not measured

FD - field duplicate

LHAAP-35B(37) Year 8 Annual Remedial Action Operation Monitoring
(November 2024)

			Location Code	35BWW16		35BWW17		35BWW18		35BWW19		35BWW20		35BWW23		35BWW24	
			Sample ID	35BWW16-241106		35BWW17-241106		35BWW18-241104		35BWW19-241104		35BWW20-241104		35BWW23-241107		35BWW24-241106	
			Sample Date	11/6/2024		11/6/2024		11/4/2024		11/4/2024		11/4/2024		11/7/2024		11/6/2024	
			Location Description:	Shallow zone, impacted, outside site boundary		Shallow zone, unimpacted, within site boundary		Shallow zone, unimpacted, outside site boundary		Shallow zone, unimpacted, outside site boundary		Shallow zone, impacted, within site boundary		Shallow zone, unimpacted, outside site boundary		Shallow zone, impacted, outside site boundary	
Analyte	**Units**	**MCL**		**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements																	
Dissolved oxygen	mg/L	NV		0.18		1.66		0.25		0.52		2.2		1.13		2.07	
Ferrous Iron	mg/L	NV		NM		NM		NM		NM		NM		0.21		NM	
Oxidation-Reduction Potential	mV	NV		182		274		173		161		133		179		178	
pH	Std. Units	NV		5.46		4.81		6.2		6.12		6.49		6.22		6.07	
Dissolved Gases (RSK175)																	
Carbon dioxide	µg/L	NV		NA		NA		NA		NA		NA		35,000		NA	
Ethane	µg/L	NV		NA		NA		NA		NA		NA		0.285	J	NA	
Ethylene	µg/L	NV		NA		NA		NA		NA		NA		< 0.25	U	NA	
Methane	µg/L	NV		NA		NA		NA		NA		NA		1.55	J	NA	
General Chemistry (9056A/SM5310C)																	
Chloride	mg/L	NV		NA		NA		NA		NA		NA		11.2		NA	
Nitrate	mg/L	NV		NA		NA		NA		NA		NA		< 0.1	U	NA	
Sulfate	mg/L	NV		NA		NA		NA		NA		NA		67.8		NA	
Total organic carbon	mg/L	NV		NA		NA		NA		NA		NA		2.06		NA	
Volatile Organic Compounds (8260C)																	
1,1-Dichloroethene	µg/L	7		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	1.59	
cis-1,2-Dichloroethene	µg/L	70		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	0.523	J
Tetrachloroethene	µg/L	5		2.45		< 0.5	U	< 0.5	U	< 0.5	U	**10.6**		< 0.5	U	0.578	J
Trichloroethene	µg/L	5		1.35		< 0.5	U	< 0.5	U	< 0.5	U	2.23		< 0.5	U	**5.53**	
Vinyl chloride	µg/L	2		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

Notes:

Blue Highlighting Indicates concentrations above the MCL

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected.

UJ - Undetected estimated: The analyte was analyzed for but, was not detected. Even though the analyte was not detected, certain discrepancies in meeting analyte specific quality control were not met.

MCL - Maximum Contaminant Limit, shown for contaminants of concern

Val Qual - validation qualifier

mg/L - milligrams per liter

ug/L - micrograms per liter

Std. Units - standard pH units

mV - millivolts

ID - identification

NV - MCL value not established and/or analyte is not a contaminant of concern

NA - not analyzed

NM - not measured

FD - field duplicate

LHAAP-35B(37) Year 8 Annual Remedial Action Operation Monitoring
(November 2024)

			Location Code	35BWW25		35BWW26		LHSMW58			
			Sample ID	35BWW25-241106		35BWW26-241107		LHSMW58-241104		LHSMW58-241104-FD	
			Sample Date	11/6/2024		11/7/2024		11/4/2024		11/4/2024	
			Location Description:	Shallow zone, impacted, outside site boundary		Shallow zone, unimpacted, within site boundary		Shallow zone, impacted, within site boundary			
Analyte	**Units**	**MCL**		**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements											
Dissolved oxygen	mg/L	NV		1.03		0.05		0.53		0.53	
Ferrous Iron	mg/L	NV		NM		0.28		NM		NM	
Oxidation-Reduction Potential	mV	NV		189		215		166		166	
pH	Std. Units	NV		5.95		5.74		5.84		5.84	
Dissolved Gases (RSK175)											
Carbon dioxide	µg/L	NV		NA		74,000		NA		NA	
Ethane	µg/L	NV		NA		0.304	J	NA		NA	
Ethylene	µg/L	NV		NA		< 0.25	U	NA		NA	
Methane	µg/L	NV		NA		1.8	J	NA		NA	
General Chemistry (9056A/SM5310C)											
Chloride	mg/L	NV		NA		31.2		NA		NA	
Nitrate	mg/L	NV		NA		0.132		NA		NA	
Sulfate	mg/L	NV		NA		26.8		NA		NA	
Total organic carbon	mg/L	NV		NA		3.5		NA		NA	
Volatile Organic Compounds (8260C)											
1,1-Dichloroethene	µg/L	7		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
cis-1,2-Dichloroethene	µg/L	70		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Tetrachloroethene	µg/L	5		1.95		< 0.5	U	**13.4**		**13.9**	
Trichloroethene	µg/L	5		**9.06**		< 0.5	U	0.694	J	0.74	J
Vinyl chloride	µg/L	2		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

Notes:

Blue Highlighting Indicates concentrations above the MCL

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected.

UJ - Undetected estimated: The analyte was analyzed for but, was not detected. Even though the analyte was not detected, certain discrepancies in meeting analyte specific quality control were not met.

MCL - Maximum Contaminant Limit, shown for contaminants of concern

Val Qual - validation qualifier

mg/L - milligrams per liter

ug/L - micrograms per liter

Std. Units - standard pH units

mV - millivolts

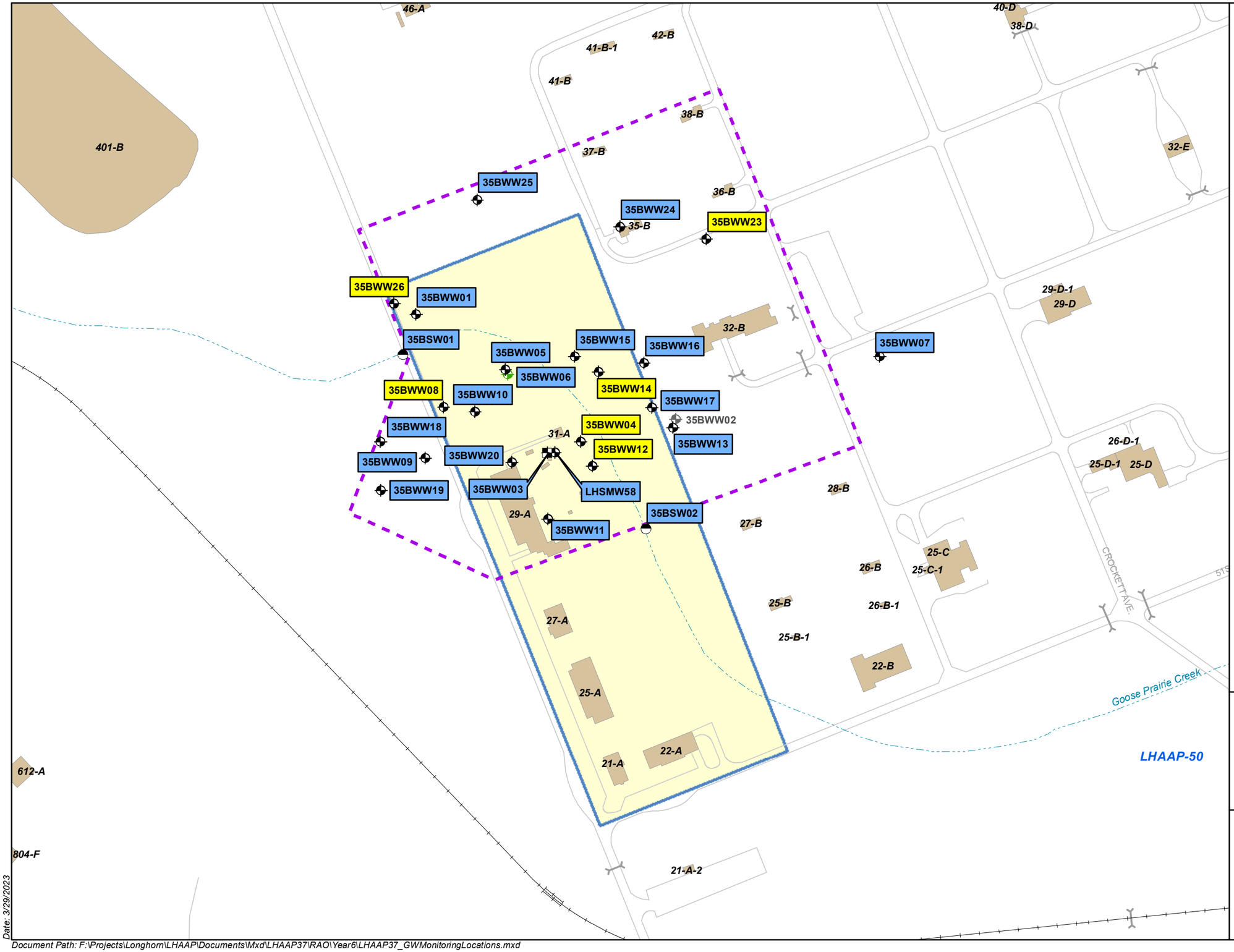
ID - identification

NV - MCL value not established and/or analyte is not a contaminant of concern

NA - not analyzed

NM - not measured

FD - field duplicate



- Shallow Zone Monitoring Well
- Monitoring Well - Not Sampled
- Lower Shallow Zone Monitoring Well
- Intermediate Zone Monitoring Well
- Surface Water Location
- Former Railroad Location
- Land Use Control Boundary
- Goose Prairie Creek
- Roads
- Buildings
- LHAAP-35B(37) Site Boundary

Note:
1. RA-O = Remedial Action Operations

35BWW15 Sampling Location

35BWW14 Sampling Location including Monitored Natural Attenuation (MNA) Parameters

2. 35BWW01 is screened above shallow zone
3. 35BWW02 is no longer sampled
4. 35BWW03 and 35BWW06 are sampled every 5 years

N

0 100 200 Feet

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Figure 2-1

Groundwater Monitoring Well Locations
Sixth Annual RA-O Report
LHAAP-35B(37)

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 3/29/2023

Document Path: F:\Projects\Longhorn\LHAAP\Documents\Mxd\LHAAP37\RAO\Year6\LHAAP37_GWMonitoringLocations.mxd

LHAAP-67 Year 11 Annual Remedial Action Operations Monitoring
(November 2024)

		Location Code	67WW01		67WW02		67WW05		67WW07		67WW08			
		Sample ID	67WW01-241112		67WW02-241111		67WW05-241111		67WW07-241111		67WW08-241112		67WW08-241112-FD	
		Sample Date	11/12/2024		11/11/2024		11/11/2024		11/11/2024		11/12/2024		11/12/2024	
		Location Description	Site 67 - Central, within site boundary		Site 67 - NW, within site boundary		Site 67 - WNW, outside site boundary		Site 67 - E, outside site boundary		Site 67 - S, within site boundary			
Analyte	**Units**	**MCL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements														
Dissolved oxygen	mg/L	NV	0.04		0.05		0.07		0.03		0.04		0.04	
Oxidation-Reduction Potential	mV	NV	-56		57		30		1		102		102	
pH	Std. Units	NV	6.53		6.37		5.56		6		6		6	
Ferrous Iron	mg/L	NV	NM		NM		NM		NM		0.65		0.65	
Dissolved Gases (RSK175)														
Carbon dioxide	µg/L	NV	NA		NA		NA		NA		91,000		87,000	
Ethane	µg/L	NV	NA		NA		NA		NA		< 0.25	U	0.147	J
Ethylene	µg/L	NV	NA		NA		NA		NA		< 0.25	U	0.456	J
Methane	µg/L	NV	NA		NA		NA		NA		3.22	J	2.81	J
General Chemistry (9056A/SM5310C)														
Chloride	mg/L	NV	NA		NA		NA		NA		1,890		1,980	
Nitrate	mg/L	NV	NA		NA		NA		NA		< 0.1	U	< 0.1	U
Sulfate	mg/L	NV	NA		NA		NA		NA		634		674	
Total organic carbon	mg/L	NV	NA		NA		NA		NA		4.26		4.08	
Volatile Organic Compounds (8260C)														
1,1,1-Trichloroethane	µg/L	200	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	0.91	J	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,1-Dichloroethene	µg/L	7	**26.3**		**215**		< 0.5	U	< 0.5	U	**10.9**		**10.7**	
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Trichloroethene	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

Notes:

Blue highlighted/**bold** results indicate concentrations above the MCL/PCL.

J - Estimated. The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected. The analyte was analyzed for, but not detected.

µg/L - micrograms per liter

mg/L - milligrams per liter

FD - field duplicate

ID - identification

MCL - maximum contaminant limit

Val Qual - validation qualifier

NV - No value established or analyte is not a constituent of concern

Std. Units - standard pH units

mV - millivolts

NA - not analyzed

NM - not measured

LHAAP-67 Year 11 Annual Remedial Action Operations Monitoring
(November 2024)

		Location Code	67WW09		67WW09A		67WW10		67WW11		67WW12		67WW13	
		Sample ID	67WW09-241112		67WW09A-241111		67WW10-241111		67WW11-241112		67WW12-241111		67WW13-241112	
		Sample Date	11/12/2024		11/11/2024		11/11/2024		11/12/2024		11/11/2024		11/12/2024	
		Location Description	Site 67 - S, outside site boundary		Site 67 - S, outside site boundary		Site 67 - SE, outside site boundary		Site 67 - SW, outside site boundary		Site 67 - NE, within site boundary		Site 67 - NE, within site boundary	
Analyte	**Units**	**MCL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements														
Dissolved oxygen	mg/L	NV	0.03		0.05		0.07		0.03		0.02		0.27	
Oxidation-Reduction Potential	mV	NV	175		71		114		122		122		130	
pH	Std. Units	NV	6.18		6.32		5.46		6.27		6.55		6.53	
Ferrous Iron	mg/L	NV	NM		NM		NM		NM		NM		0.25	
Dissolved Gases (RSK175)														
Carbon dioxide	µg/L	NV	NA		NA		NA		NA		NA		57,000	J
Ethane	µg/L	NV	NA		NA		NA		NA		NA		0.293	J
Ethylene	µg/L	NV	NA		NA		NA		NA		NA		< 0.25	U
Methane	µg/L	NV	NA		NA		NA		NA		NA		2.01	J
General Chemistry (9056A/SM5310C)														
Chloride	mg/L	NV	NA		NA		NA		NA		NA		1,100	
Nitrate	mg/L	NV	NA		NA		NA		NA		NA		< 0.1	U
Sulfate	mg/L	NV	NA		NA		NA		NA		NA		273	
Total organic carbon	mg/L	NV	NA		NA		NA		NA		NA		3.32	
Volatile Organic Compounds (8260C)														
1,1,1-Trichloroethane	µg/L	200	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	5.86	
1,1-Dichloroethene	µg/L	7	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	**39.8**		**503**	
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	**48.1**	
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	1.91	
Trichloroethene	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	2.47	
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

Notes:

Blue highlighted/**bold** results indicate concentrations above the MCL/PCL.

J - Estimated. The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected. The analyte was analyzed for, but not detected.

µg/L - micrograms per liter

mg/L - milligrams per liter

FD - field duplicate

ID - identification

MCL - maximum contaminant limit

Val Qual - validation qualifier

NV - No value established or analyte is not a constituent of concern

Std. Units - standard pH units

mV - millivolts

NA - not analyzed

NM - not measured

LHAAP-67 Year 11 Annual Remedial Action Operations Monitoring
(November 2024)

		Location Code	67WW14		67WW15		67WW16I		67WW17		67WW18			
		Sample ID	67WW14-241111		67WW15-241112		67WW16I-241112		67WW17-241111		67WW18-241111		67WW18-241111-FD	
		Sample Date	11/11/2024		11/12/2024		11/12/2024		11/11/2024		11/11/2024		11/11/2024	
		Location Description	Site 67 - SW, outside the site boundary beside Ignatius Ave.		Site 67 - W, outside site boundary		Site 67 - S, within site boundary		Site 67 - NW, within site boundary		Site 67 - N, outside site boundary			
Analyte	**Units**	**MCL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements														
Dissolved oxygen	mg/L	NV	0.03		0.06		0.06		0.84		0.02		0.02	
Oxidation-Reduction Potential	mV	NV	55		184		21		118		52		52	
pH	Std. Units	NV	5.8		6.07		6.08		6.59		6.54		6.54	
Ferrous Iron	mg/L	NV	NM		NM		NM		NM		NM		NM	
Dissolved Gases (RSK175)														
Carbon dioxide	µg/L	NV	NA		NA		NA		NA		NA		NA	
Ethane	µg/L	NV	NA		NA		NA		NA		NA		NA	
Ethylene	µg/L	NV	NA		NA		NA		NA		NA		NA	
Methane	µg/L	NV	NA		NA		NA		NA		NA		NA	
General Chemistry (9056A/SM5310C)														
Chloride	mg/L	NV	NA		NA		NA		NA		NA		NA	
Nitrate	mg/L	NV	NA		NA		NA		NA		NA		NA	
Sulfate	mg/L	NV	NA		NA		NA		NA		NA		NA	
Total organic carbon	mg/L	NV	NA		NA		NA		NA		NA		NA	
Volatile Organic Compounds (8260C)														
1,1,1-Trichloroethane	µg/L	200	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	3.55		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	**239**		< 0.5	U	4.03		< 0.5	U	< 0.5	U
1,2-Dichloroethane	µg/L	5	< 0.5	U	**25**		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	1.25		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Trichloroethene	µg/L	5	< 0.5	U	1.39		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

Notes:

Blue highlighted/**bold** results indicate concentrations above the MCL/PCL.

J - Estimated. The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

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Std. Units - standard pH units

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NM - not measured

67WW17
(176.31)

67WW05
(176.70)

176.50

67WW02
(176.59)

67WW18
(176.48)

67WW03
(Dry)

67WW12
(176.52)

67WW13
(176:87)

176:75

67WW01*
(176.30)

67WW06
(176.81)

67WW07
(176.82)

67WW15
(177.02)

67WW08
(176:87)

177:25

67WW14
(177.51)

177.50

67WW11
(176.91)

67WW09*
(176.43)

67WW10
(176.92)

177:00

67WW09A
(176.91)

67WW04
(Dry)

Shallow Monitoring Well
Groundwater Flow Direction
Groundwater Contour
Former Railroad Location
Culvert
Roads
Buildings

Notes:
1. LHAAP = Longhorn Army Ammunition Plant
2. RA-O = Remedial Action Operations
3. Groundwater elevations are presented in feet above mean sea level (MSL).
4. *67WW01 and 67WW09 are believed to be anomalous and were not used to develop the potentiometric contours.

N

0 30 60
Feet

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TULSA DISTRICT
TULSA, OKLAHOMA

bhate APTIM

Figure 2-2
Shallow Zone Potentiometric Map - November 2022
Ninth Annual RA-O Report
LHAAP-67
LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 7/26/2023

Document Path: F:\Projects\Longhorn\LHAAP\Documents\Mxd\LHAAP67\RAO\Year9\LHAAP67_ShallowZone_Pot_Nov2022.mxd