

Data Path : Z:\voasrv\HPCHEM1\MSVOA L\Data\VL091721\
 Data File : VL037647.D
 Acq On : 17 Sep 2021 18:41
 Operator : SY/AP
 Sample : M3801-03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Manual Integrations
 APPROVED

MMDadoda
 9/20/2021 5:28:43 PM

Quant Time: Sep 18 07:44:30 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL091621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 18 07:44:30 2021
 QLast Update : Thu Sep 16 13:42:46 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1366380	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3964647	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3346000	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2384416	9.86	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	41706m	0.169	ppbv	
3) Chlorodifluoromethane	2.98	51	63539m	0.247	ppbv	
4) Chloromethane	3.13	50	50935	0.535	ppbv #	80
9) Propene	3.01	41	59702m	0.657	ppbv	
11) Trichlorofluoromethane	3.94	101	48541	0.245	ppbv	88
13) Ethanol	3.60	45	325906m	36.650	ppbv	
15) Acetone	3.84	43	496528	3.498	ppbv	97
19) Isopropyl Alcohol	3.97	45	372834m	4.827	ppbv	
20) Methylene Chloride	4.34	84	293553	4.331	ppbv	93
26) Hexane	5.68	57	216004	1.322	ppbv #	53
34) 2-Butanone	5.24	43	51119m	0.317	ppbv	
35) Carbon Tetrachloride	7.01	117	12470m	0.056	ppbv	
36) Benzene	6.87	78	64348	0.195	ppbv #	88
44) 2,2,4-Trimethylpentane	7.85	57	102679m	0.185	ppbv	
52) Tetrachloroethene	11.20	164	5873m	0.046	ppbv	
53) Toluene	9.79	91	152454	0.415	ppbv	97
59) m/p-Xylene	12.95	91	71095m	0.184	ppbv	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

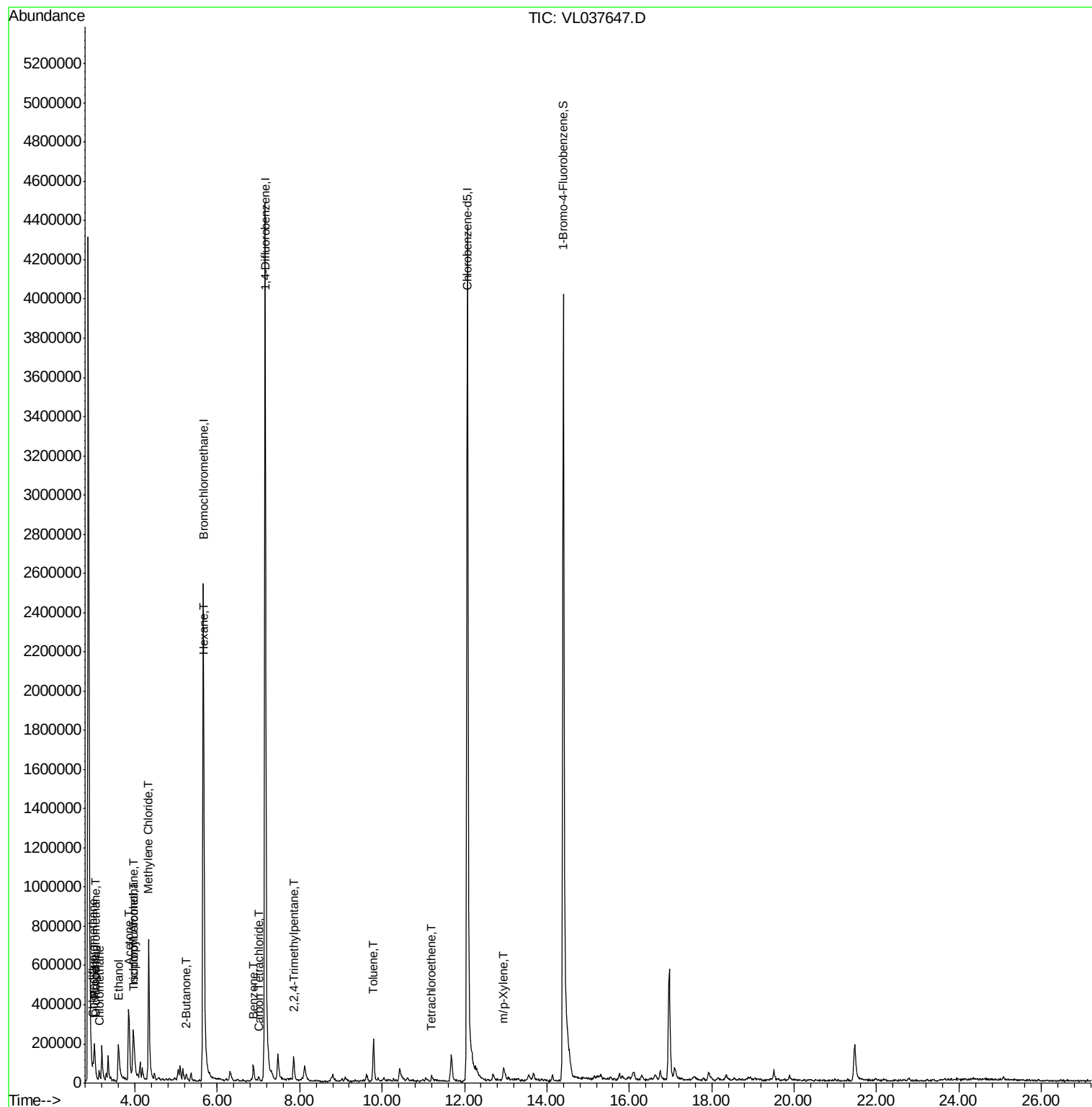
Data Path : Z:\voasrv\HPCHEM1\MSVOA L\Data\VL091721\
Data File : VL037647.D
Acq On : 17 Sep 2021 18:41
Operator : SY/AP
Sample : M3801-03
Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

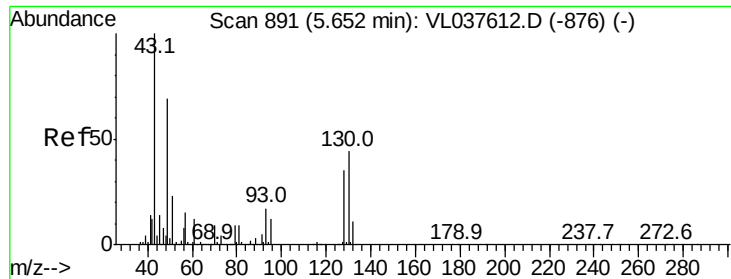
Instrument :
MSVOA_L
ClientSampleId :
OA1

Manual Integrations
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Quant Time: Sep 18 07:44:30 2021
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL091621AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep
QLast Update : Thu Sep 16 13:42:46 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. 0.00 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Instrument :

MSVOA_L

ClientSampleId :

QA1

Tot Ion: 49 Resp: 1366380

Ion Ratio Lower Upper

49 100

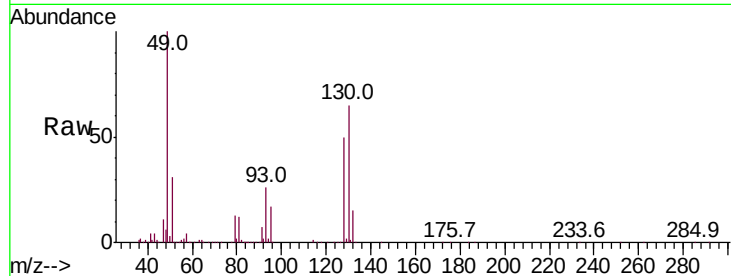
128 52.6 27.9 83.6

130 67.8 33.9 101.7

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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

800000

600000

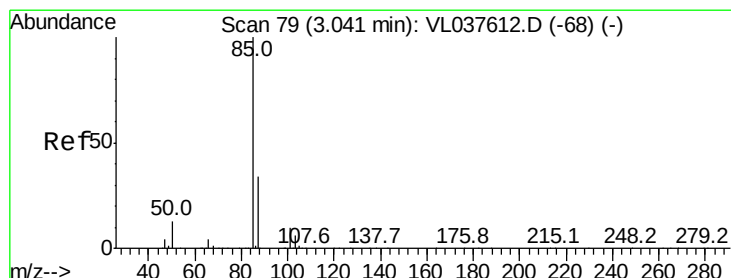
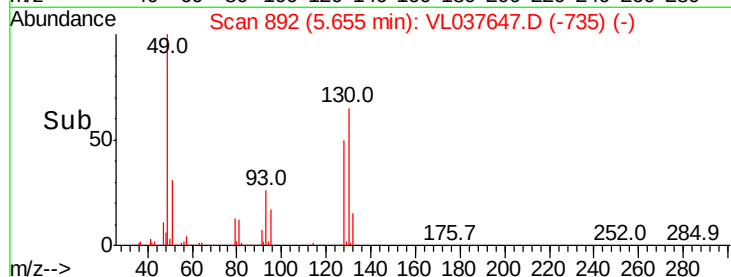
400000

200000

0

5.60 5.65 5.70 5.75

Time-->



#2

Dichlorodifluoromethane

Concen: 0.169 ppbv m

RT: 3.05 min Scan# 81

Delta R.T. 0.01 min

Lab File: VL037647.D

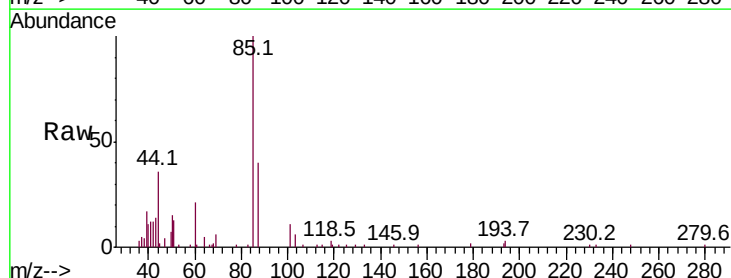
Acq: 17 Sep 2021 18:41

Tgt Ion: 85 Resp: 41706

Ion Ratio Lower Upper

85 100

87 39.6 26.8 40.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

30000

25000

20000

15000

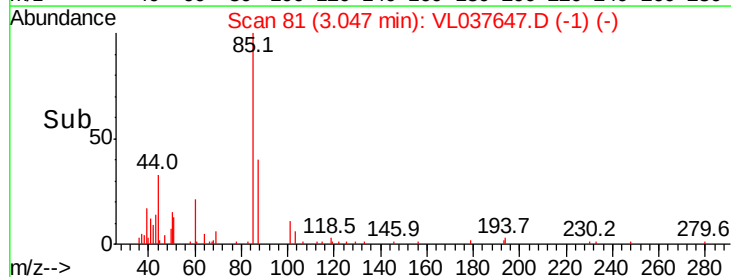
10000

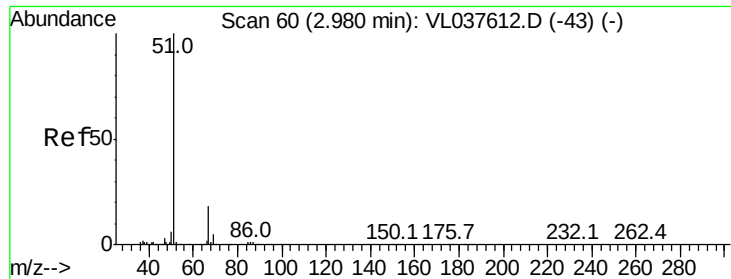
5000

0

3.00 3.05 3.10

Time-->





#3

Chlorodifluoromethane

Concen: 0.247 ppbv m

RT: 2.98 min Scan# 60

Delta R.T. 0.00 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Instrument :

MSVOA_L

ClientSampleId :

QA1

Tot Ion: 51 Resp: 63539

Ion Ratio Lower Upper

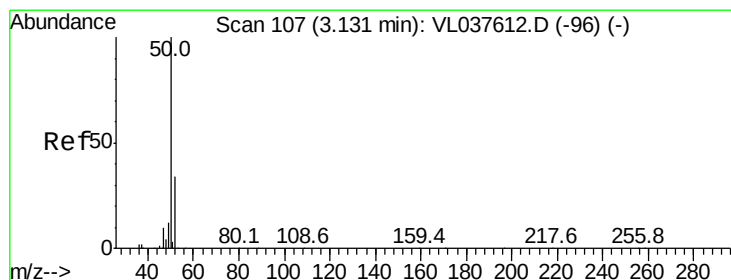
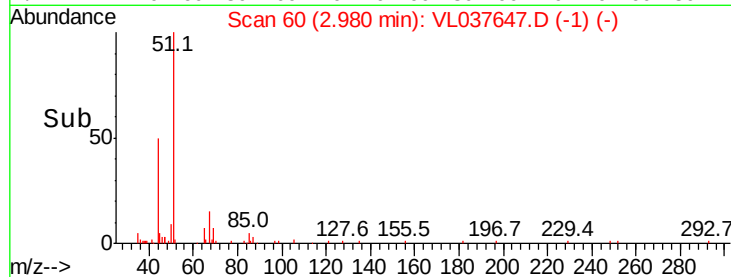
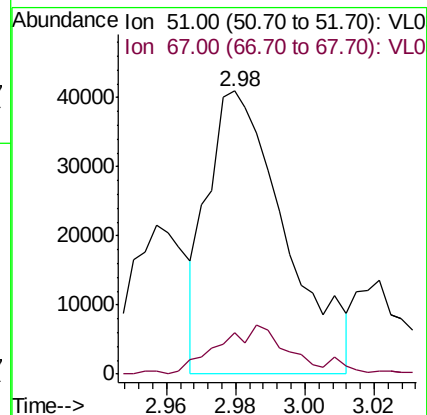
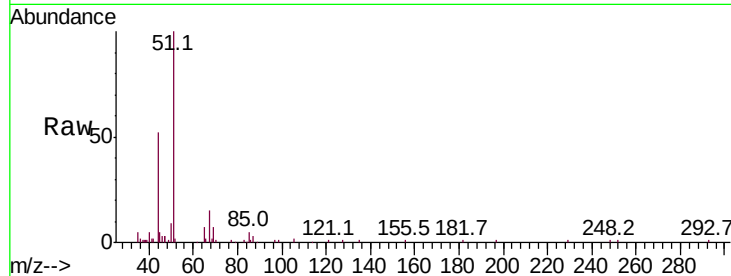
51 100

67 18.0 14.0 21.0

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#4

Chloromethane

Concen: 0.535 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL037647.D

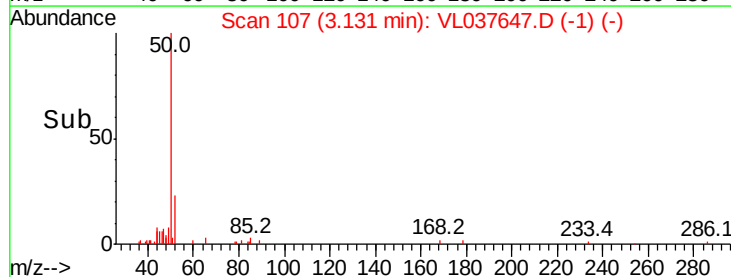
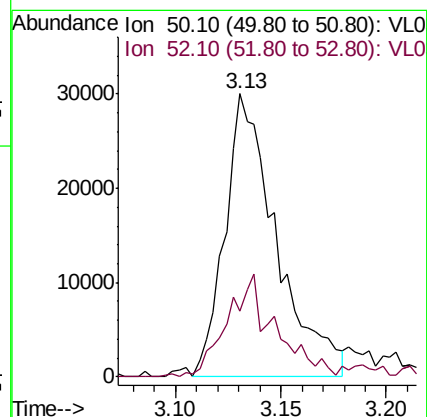
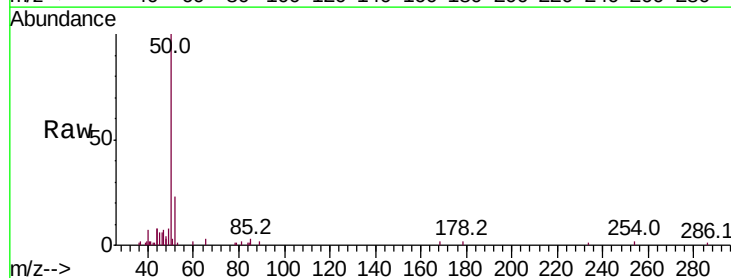
Acq: 17 Sep 2021 18:41

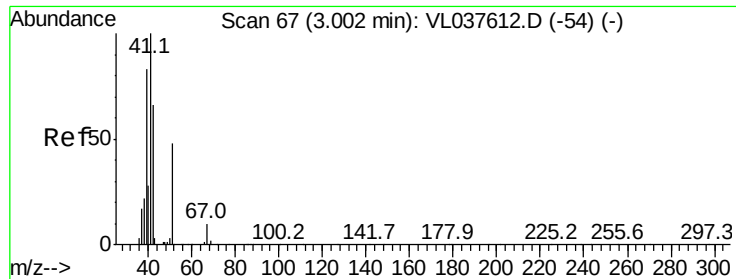
Tgt Ion: 50 Resp: 50935

Ion Ratio Lower Upper

50 100

52 22.2 27.1 40.7#





#9

Propene

Concen: 0.657 ppbv m

RT: 3.01 min Scan# 69

Delta R.T. 0.01 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Instrument :

MSVOA_L

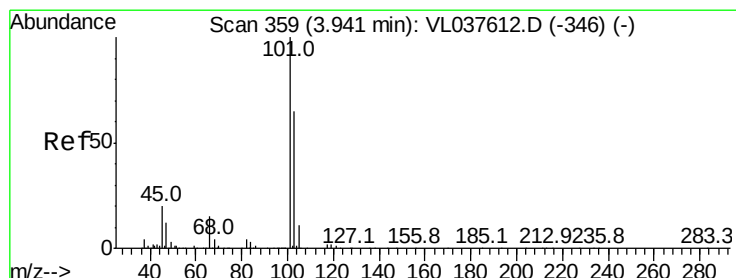
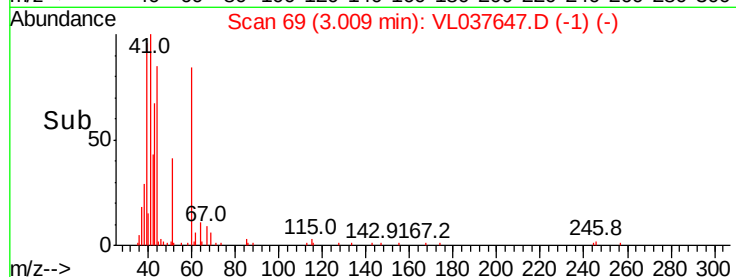
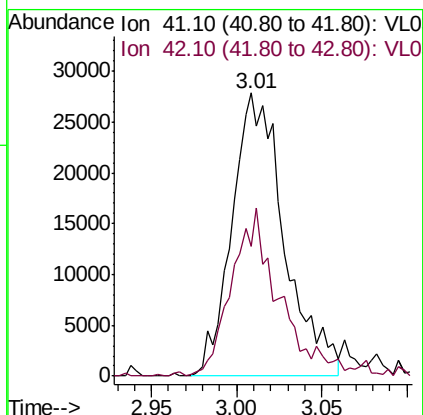
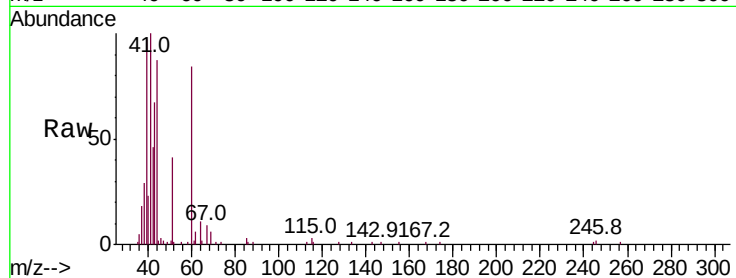
ClientSampleId :

QA1

Manual Integrations
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Tot Ion: 41 Resp: 59702
Ion Ratio Lower Upper
41 100
42 55.4 57.2 85.8#



#11

Trichlorofluoromethane

Concen: 0.245 ppbv

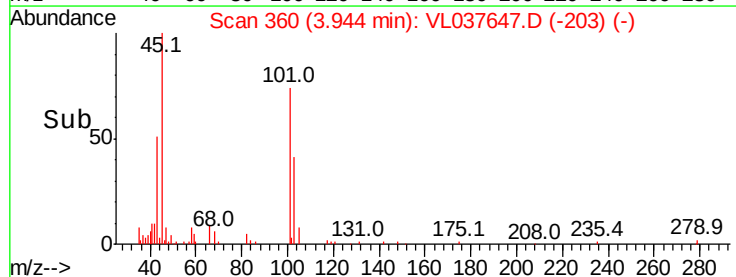
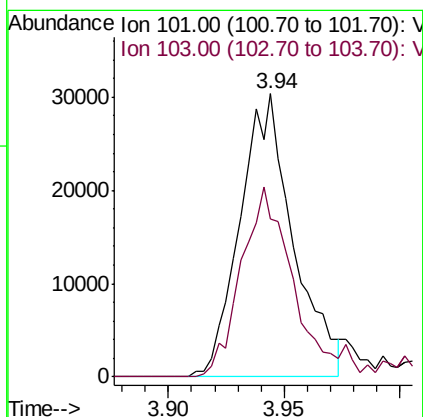
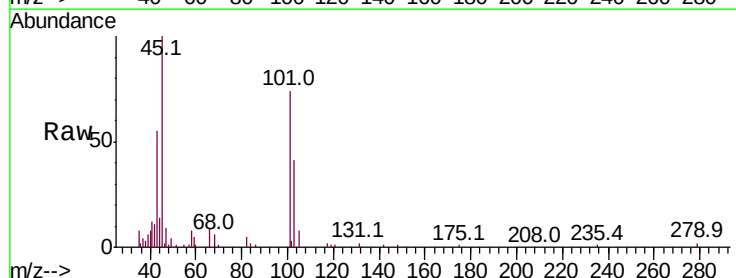
RT: 3.94 min Scan# 360

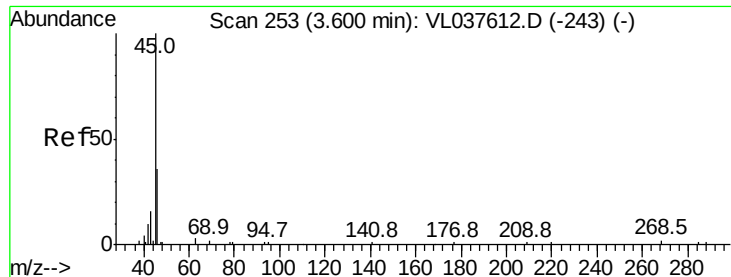
Delta R.T. 0.00 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Tgt Ion: 101 Resp: 48541
Ion Ratio Lower Upper
101 100
103 55.7 51.9 77.9





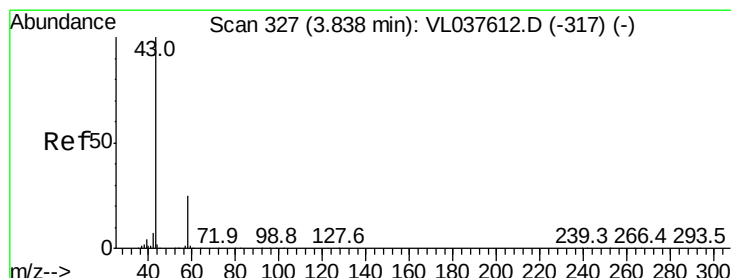
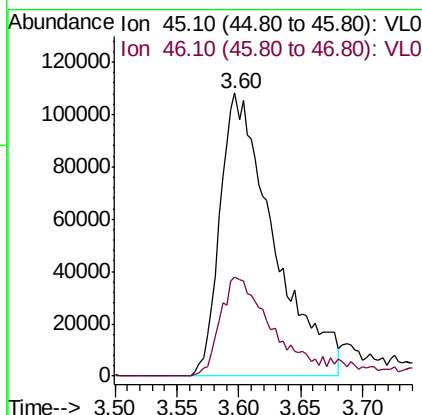
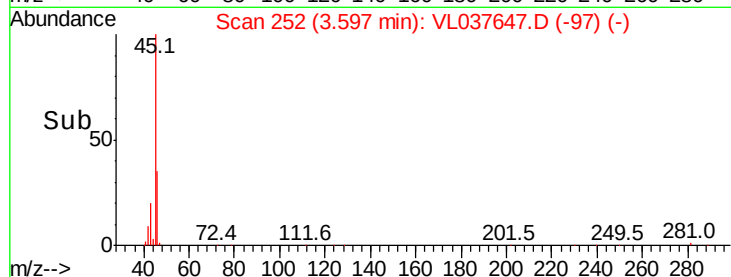
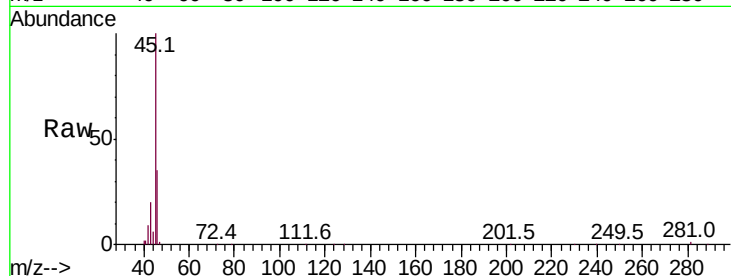
#13
Ethanol
Concen: 36.650 ppbv m
RT: 3.60 min Scan# 252
Delta R.T. -0.00 min
Lab File: VL037647.D
Acq: 17 Sep 2021 18:41

Instrument :
MSVOA_L
ClientSampleId :
QA1

Tot Ion	45	Resp	325906
Ion Ratio	100	Lower	Upper
46	33.7	17.2	68.8

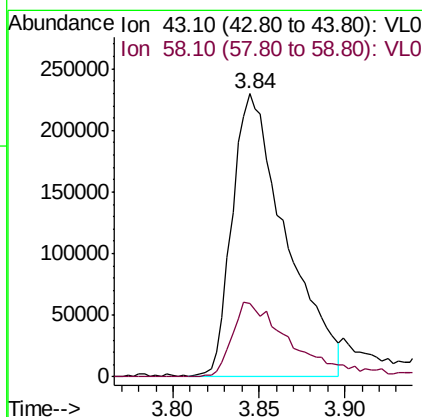
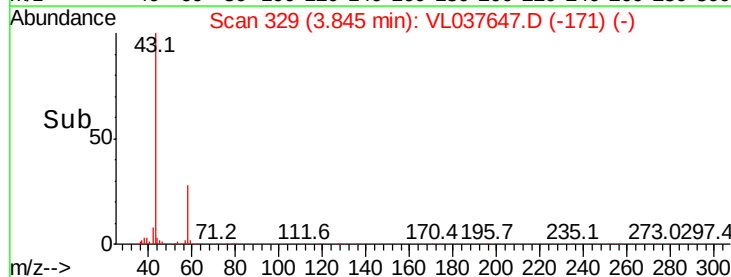
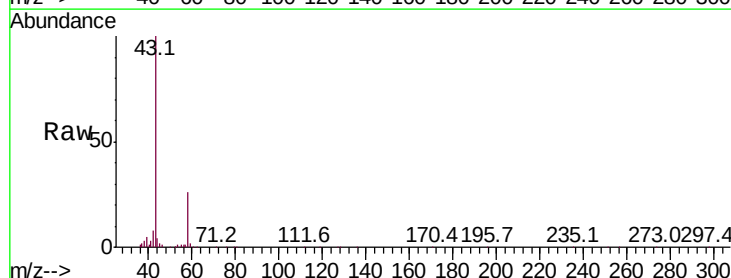
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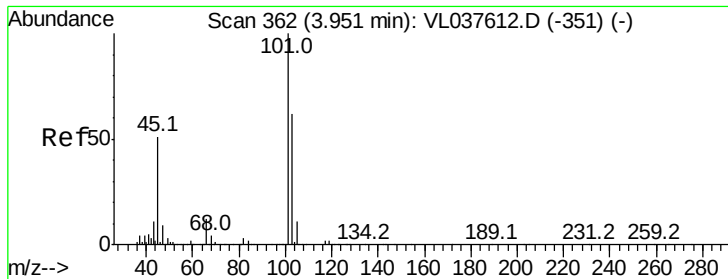
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#15
Acetone
Concen: 3.498 ppbv
RT: 3.84 min Scan# 329
Delta R.T. 0.01 min
Lab File: VL037647.D
Acq: 17 Sep 2021 18:41

Tgt Ion	43	Resp	496528
Ion Ratio	100	Lower	Upper
58	29.2	24.9	37.3





#19

Isopropyl Alcohol

Concen: 4.827 ppbv m

RT: 3.97 min Scan# 367

Delta R.T. 0.02 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Instrument :

MSVOA_L

ClientSampled :

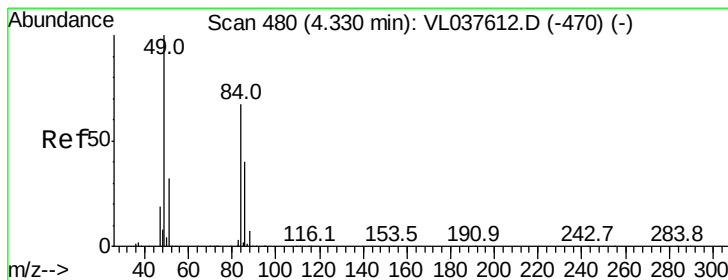
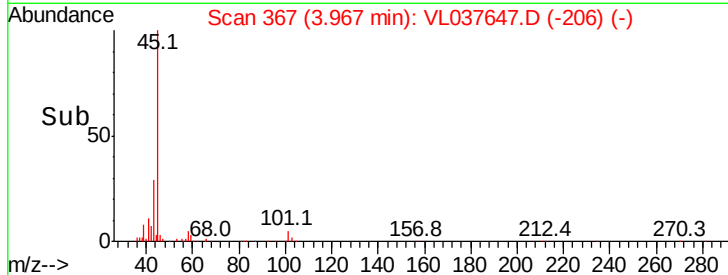
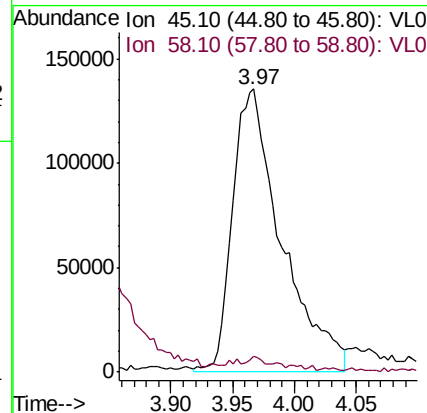
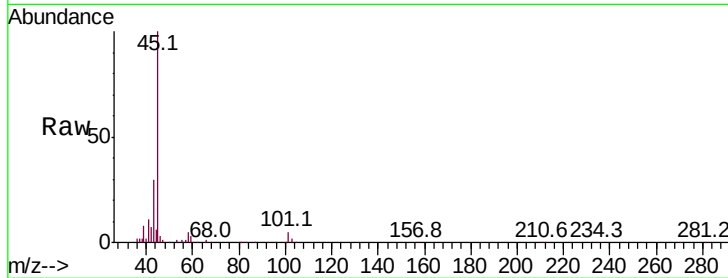
QA1

Tot Ion: 45 Resp: 372834

Ion	Ratio	Lower	Upper
45	100		
58	6.9	2.9	4.3#

Manual Integrations
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#20

Methylene Chloride

Concen: 4.331 ppbv

RT: 4.34 min Scan# 482

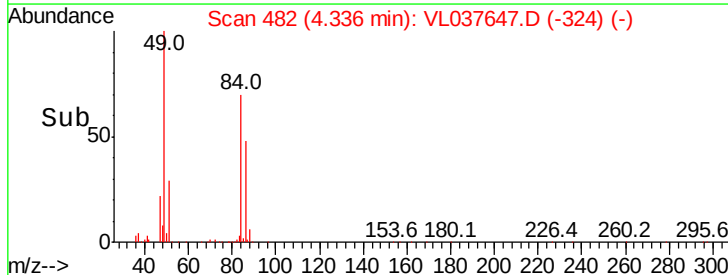
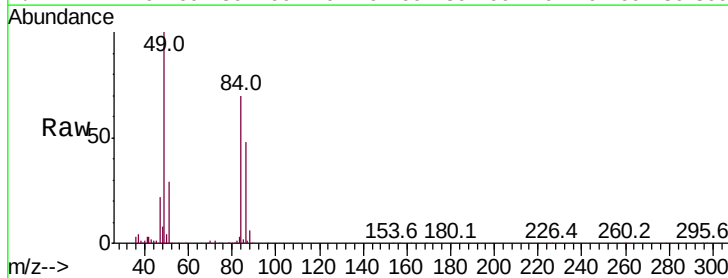
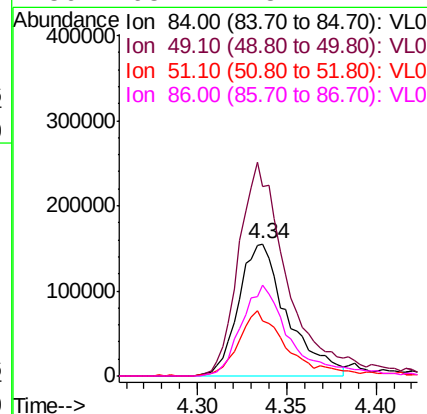
Delta R.T. 0.01 min

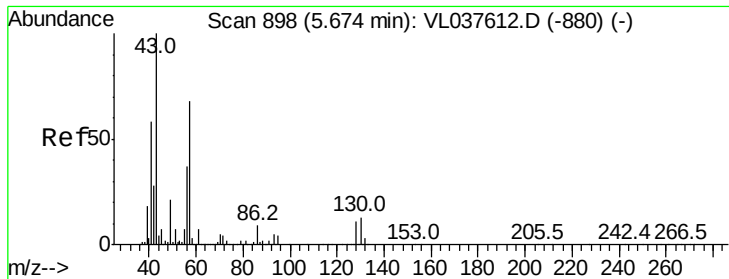
Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Tgt Ion: 84 Resp: 293553

Ion	Ratio	Lower	Upper
84	100		
49	143.4	120.0	180.0
51	41.3	38.0	57.0
86	68.2	48.2	72.2





#26

Hexane

Concen: 1.322 ppbv

RT: 5.68 min Scan# 899

Delta R.T. 0.00 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Instrument :

MSVOA_L

ClientSampled :

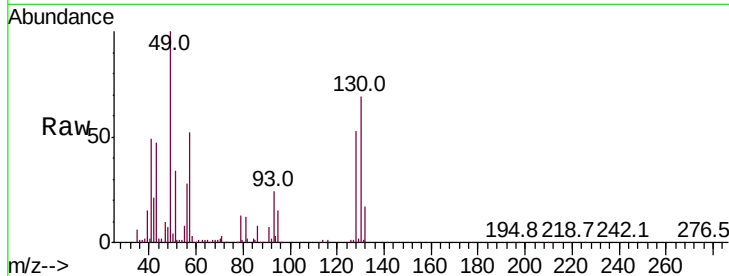
QA1

Tot Ion: 57 Resp: 216004

Ion	Ratio	Lower	Upper
57	100		
41	94.4	70.9	106.3
43	95.0	170.4	255.6#
56	56.1	42.6	64.0

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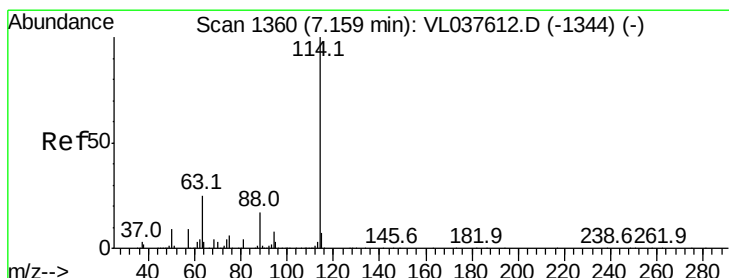
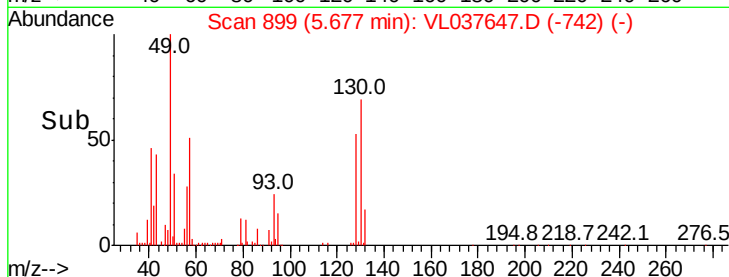
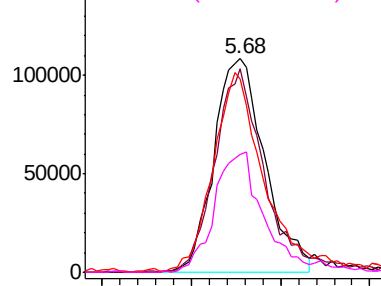
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1360

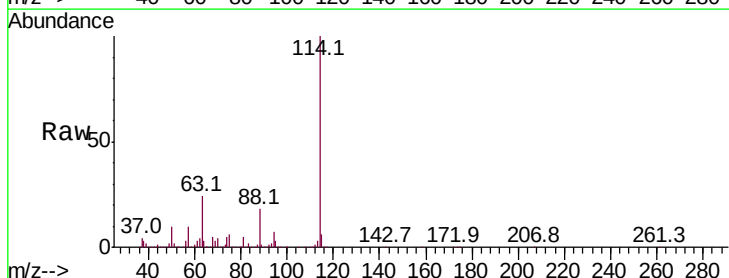
Delta R.T. 0.00 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Tgt Ion: 114 Resp: 3964647

Ion	Ratio	Lower	Upper
114	100		
63	24.2	19.6	29.4
88	18.3	14.2	21.4

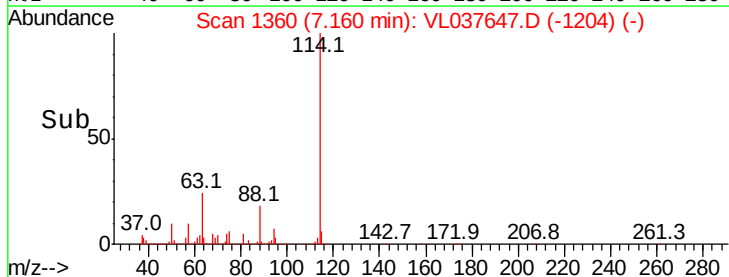
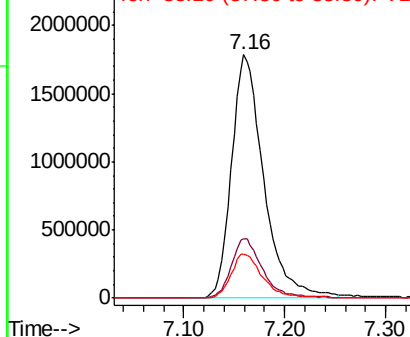


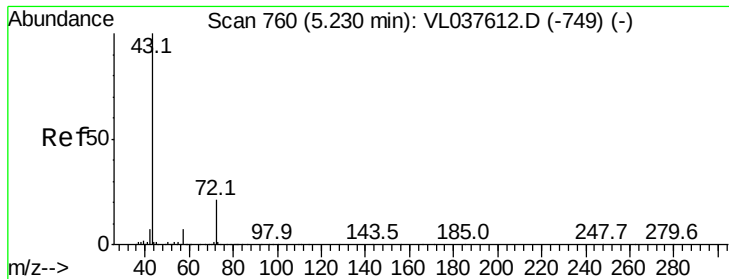
Abundance

Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





#34

2-Butanone

Concen: 0.317 ppbv m

RT: 5.24 min Scan# 764

Delta R.T. 0.01 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

Instrument :

MSVOA_L

ClientSampled :

QA1

Tot Ion: 43 Resp: 51119

Ion Ratio Lower Upper

43 100

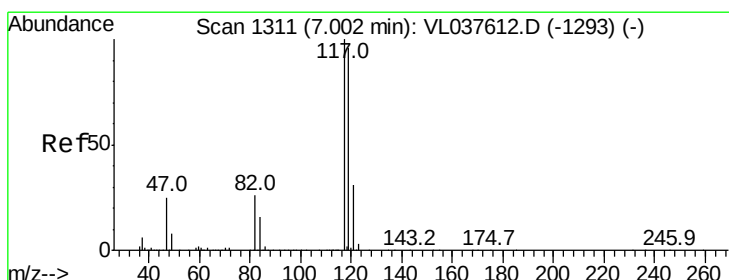
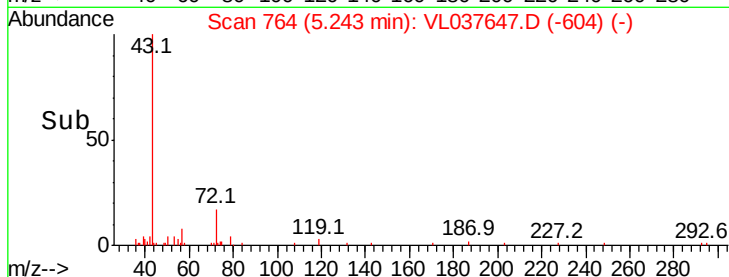
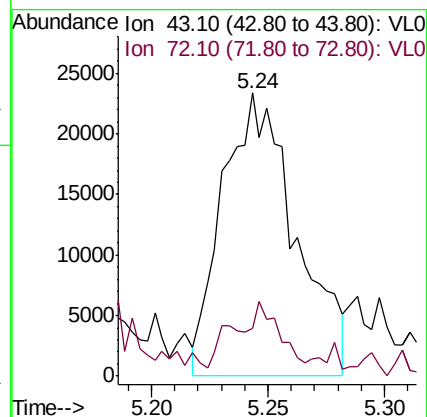
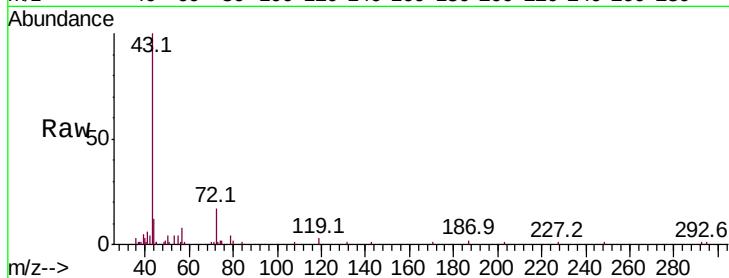
72 0.0 18.4 27.6#

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#35

Carbon Tetrachloride

Concen: 0.056 ppbv m

RT: 7.01 min Scan# 1314

Delta R.T. 0.01 min

Lab File: VL037647.D

Acq: 17 Sep 2021 18:41

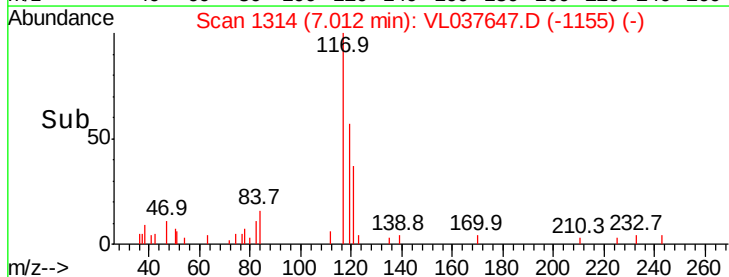
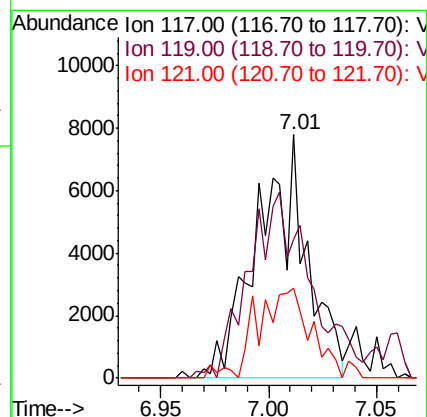
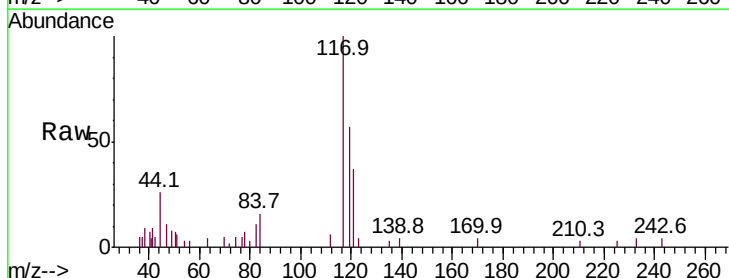
Tgt Ion: 117 Resp: 12470

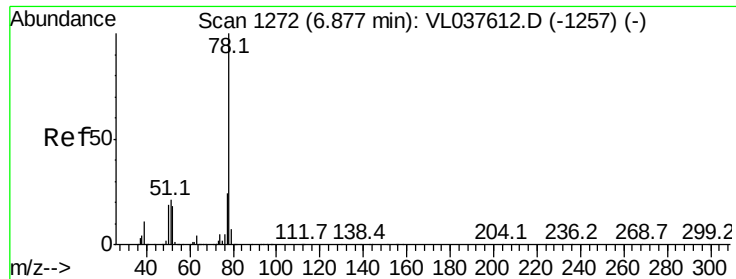
Ion Ratio Lower Upper

117 100

119 57.0 77.0 115.6#

121 37.1 24.5 36.7#





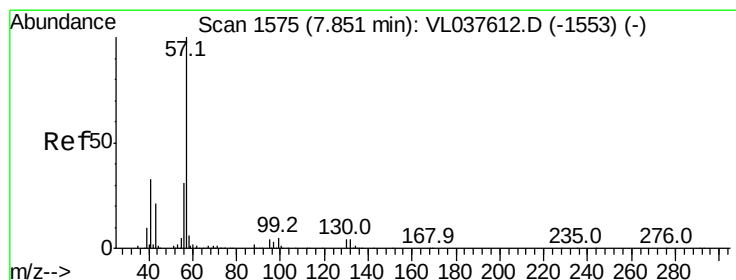
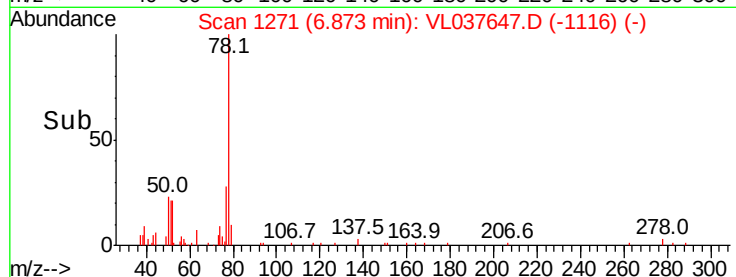
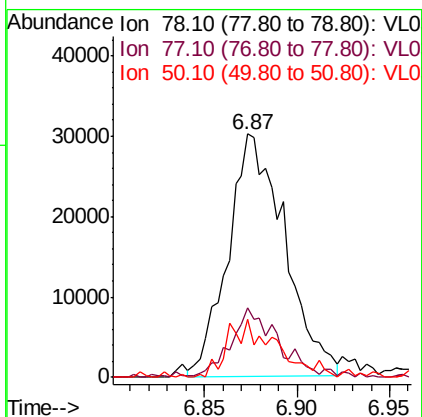
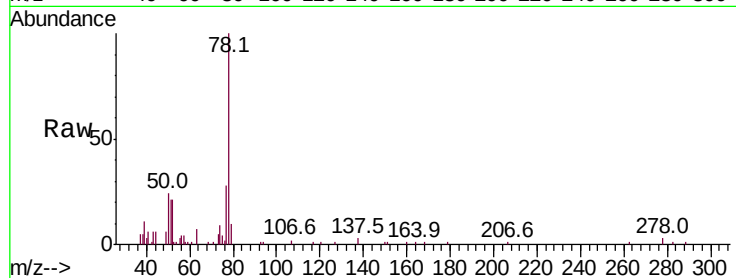
#36
Benzene
Concen: 0.195 ppbv
RT: 6.87 min Scan# 1271
Delta R.T. -0.00 min
Lab File: VL037647.D
Acq: 17 Sep 2021 18:41

Instrument :
MSVOA_L
ClientSampled :
QA1

Tot Ion	Ratio	Lower	Upper
78	100		
77	28.7	19.0	28.4#
50	24.7	14.8	22.2#

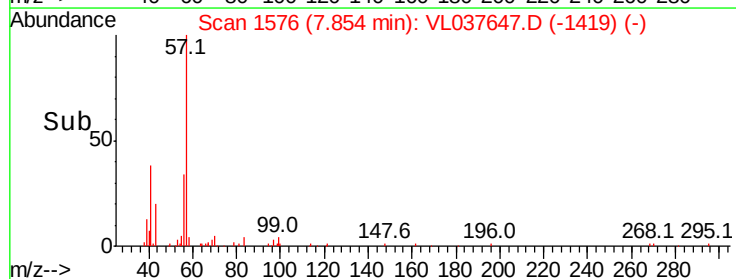
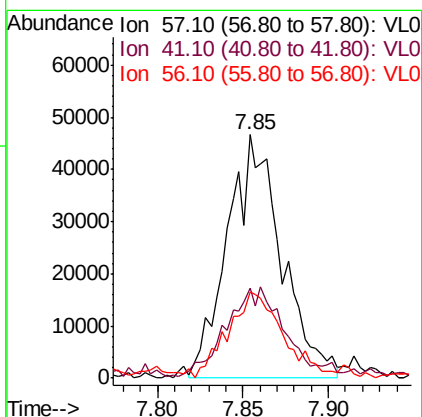
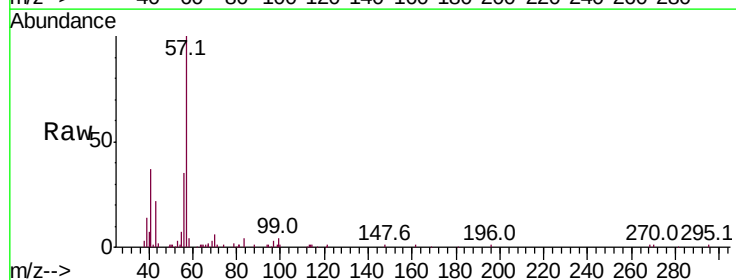
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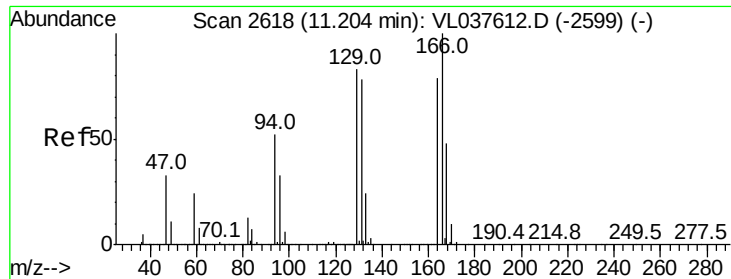
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#44
2,2,4-Trimethylpentane
Concen: 0.185 ppbv m
RT: 7.85 min Scan# 1576
Delta R.T. 0.00 min
Lab File: VL037647.D
Acq: 17 Sep 2021 18:41

Tgt Ion	Ratio	Lower	Upper
57	100		
41	0.0	26.1	39.1#
56	0.0	25.7	38.5#





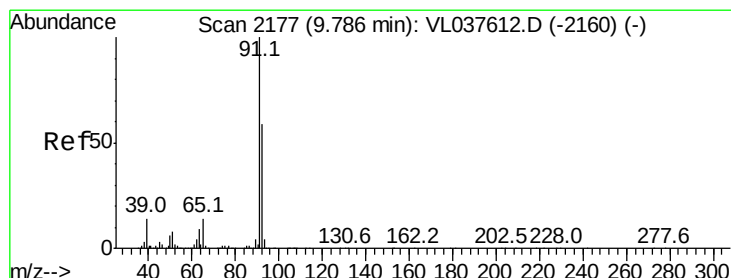
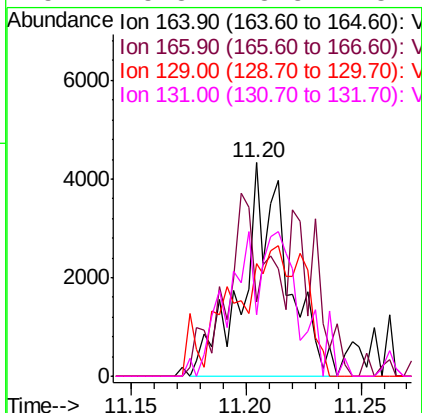
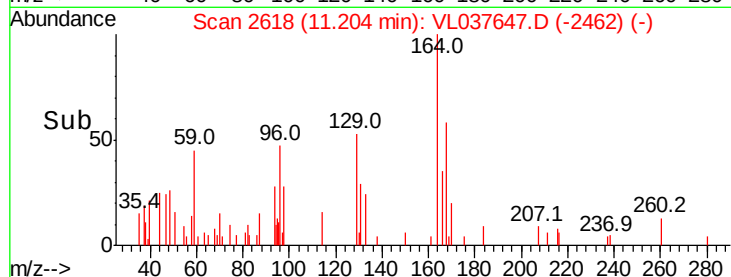
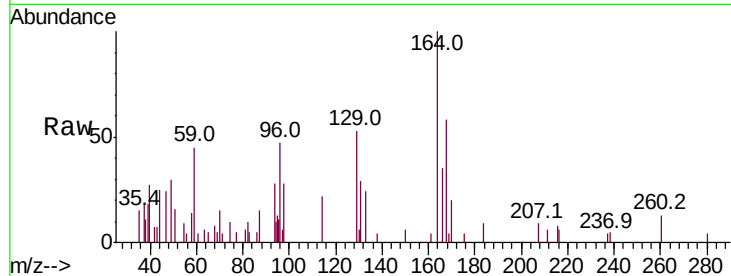
#52
Tetrachloroethene
Concen: 0.046 ppbv m
RT: 11.20 min Scan# 2618
Delta R.T. 0.00 min
Lab File: VL037647.D
Acq: 17 Sep 2021 18:41

Instrument :
MSVOA_L
ClientSampled :
OA1

Tot Ion	Ratio	Lower	Upper
164	100		
166	34.8	101.2	151.8#
129	52.6	84.0	126.0#
131	28.8	78.8	118.2#

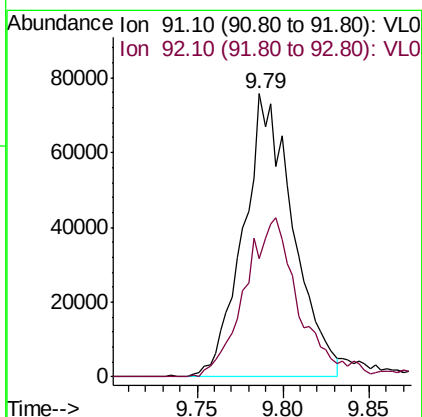
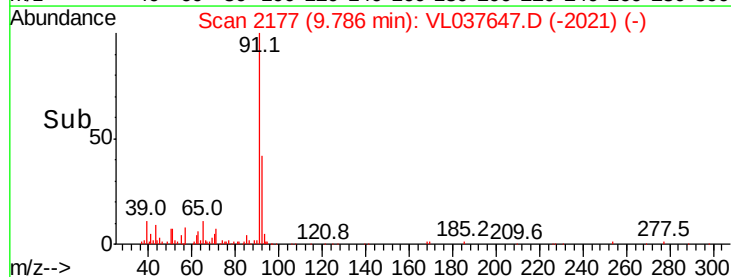
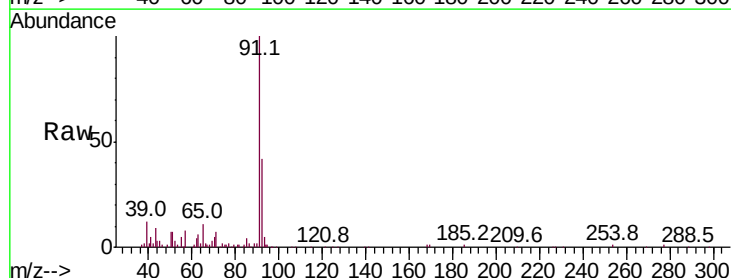
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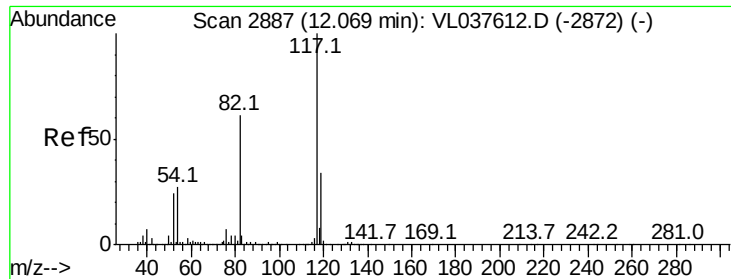
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#53
Toluene
Concen: 0.415 ppbv
RT: 9.79 min Scan# 2177
Delta R.T. 0.00 min
Lab File: VL037647.D
Acq: 17 Sep 2021 18:41

Tgt Ion	Ratio	Lower	Upper
91	100		
92	63.0	48.9	73.3





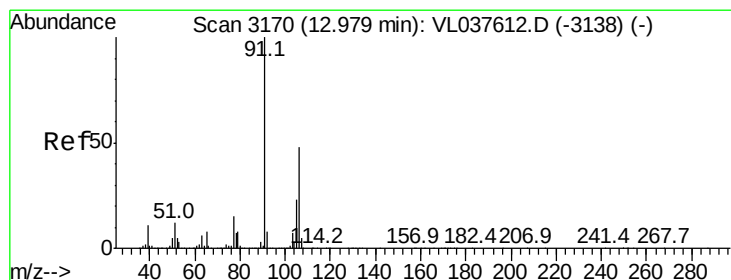
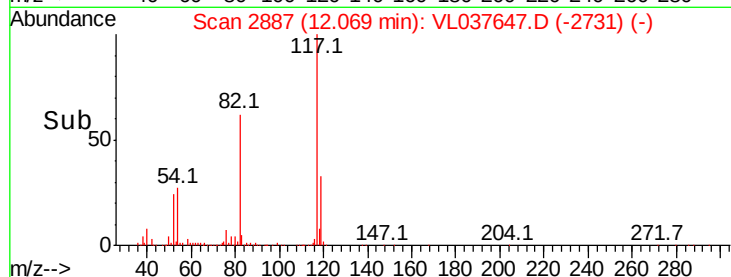
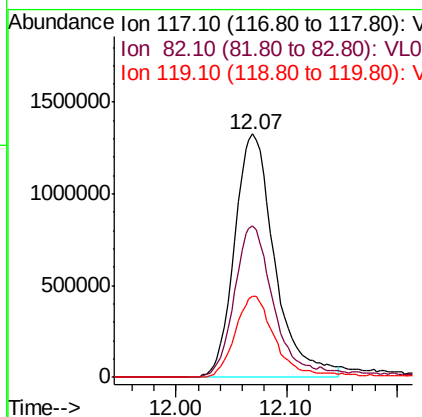
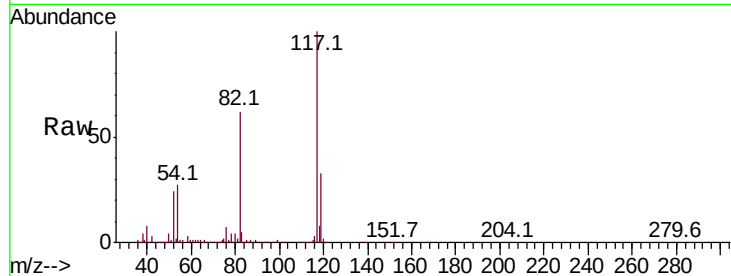
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2887
Delta R.T. 0.00 min
Lab File: VL037647.D
Acq: 17 Sep 2021 18:41

Instrument :
MSVOA_L
ClientSampleId :
QA1

Tot Ion:117 Resp: 3346000
Ion Ratio Lower Upper
117 100
82 65.5 50.6 75.8
119 35.0 26.2 39.2

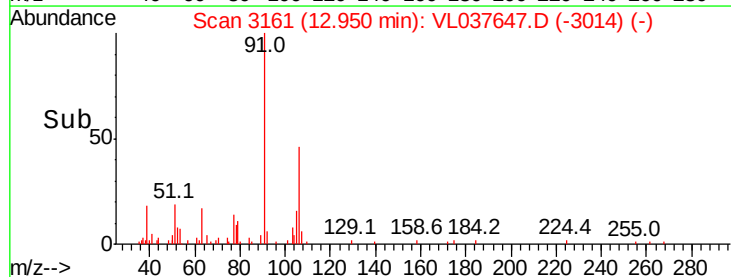
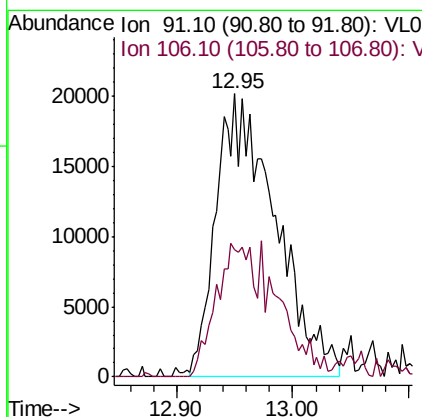
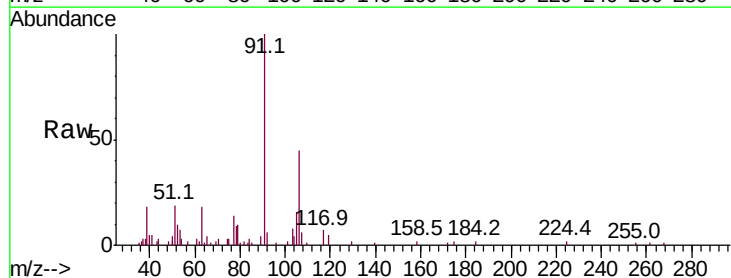
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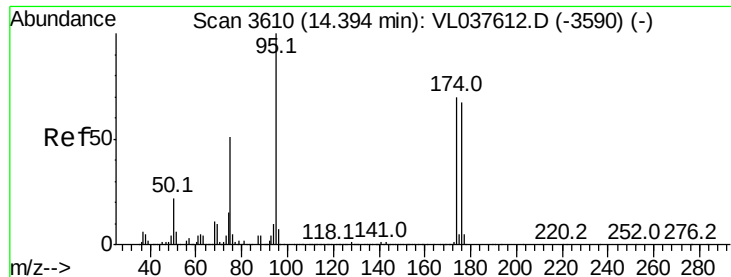
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#59
m/p-Xylene
Concen: 0.184 ppbv m
RT: 12.95 min Scan# 3161
Delta R.T. -0.03 min
Lab File: VL037647.D
Acq: 17 Sep 2021 18:41

Tgt Ion: 91 Resp: 71095
Ion Ratio Lower Upper
91 100
106 51.4 36.6 55.0





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.860 ppbv
 RT: 14.40 min Scan# 3612
 Delta R.T. 0.01 min
 Lab File: VL037647.D
 Acq: 17 Sep 2021 18:41

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Tot Ion	Ratio	Lower	Upper
95	100		
174	75.1	56.3	84.5
175	5.1	4.4	6.6

Manual Integrations
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