

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040621\
 Data File : VL036711.D
 Acq On : 6 Apr 2021 23:47
 Operator : SY/AP
 Sample : M1877-07
 Misc : 400mL/MSVOA L
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 UP-SG-4(2021)

Manual Integrations
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 4/12/2021 11:11:26 AM

Quant Time: Apr 11 12:01:17 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 2
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1234830	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3111244	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2801499	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2194577	9.83	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	44428	0.221	ppbv	92
3) Chlorodifluoromethane	2.99	51	74795m	0.324	ppbv	
4) Chloromethane	3.14	50	29137	0.358	ppbv	95
9) Propene	3.02	41	395176	5.373	ppbv #	73
10) Heptane	8.12	43	265689	1.418	ppbv	97
11) Trichlorofluoromethane	3.95	101	96287	0.469	ppbv	90
13) Ethanol	3.61	45	593155	67.723	ppbv	92
15) Acetone	3.84	43	1614664m	13.285	ppbv	
17) tert-Butyl alcohol	4.31	59	20640m	0.195	ppbv	
19) Isopropyl Alcohol	3.98	45	616103	9.215	ppbv	100
20) Methylene Chloride	4.34	84	1248538	21.941	ppbv	95
26) Hexane	5.69	57	1110088	8.279	ppbv #	47
27) Carbon Disulfide	4.55	76	102809	0.778	ppbv #	91
29) Chloroform	5.76	83	55240m	0.258	ppbv	
34) 2-Butanone	5.25	43	228720	1.506	ppbv	96
35) Carbon Tetrachloride	7.02	117	11986m	0.050	ppbv	
36) Benzene	6.89	78	43069m	0.150	ppbv	
38) Trichloroethene	7.83	130	46446m	0.416	ppbv	
44) 2,2,4-Trimethylpentane	7.87	57	119718	0.237	ppbv #	73
52) Tetrachloroethene	11.23	164	3201544	30.300	ppbv	96
53) Toluene	9.81	91	260869	0.854	ppbv	99
59) m/p-Xylene	12.96	91	130635m	0.367	ppbv	
60) o-Xylene	13.70	91	65604m	0.191	ppbv	
69) p-Isopropyltoluene	17.66	119	68464	0.155	ppbv	94
73) 1,3,5-Trimethylbenzene	16.00	105	55059m	0.157	ppbv	
74) 1,2,4-Trimethylbenzene	16.77	105	128047	0.340	ppbv #	73

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

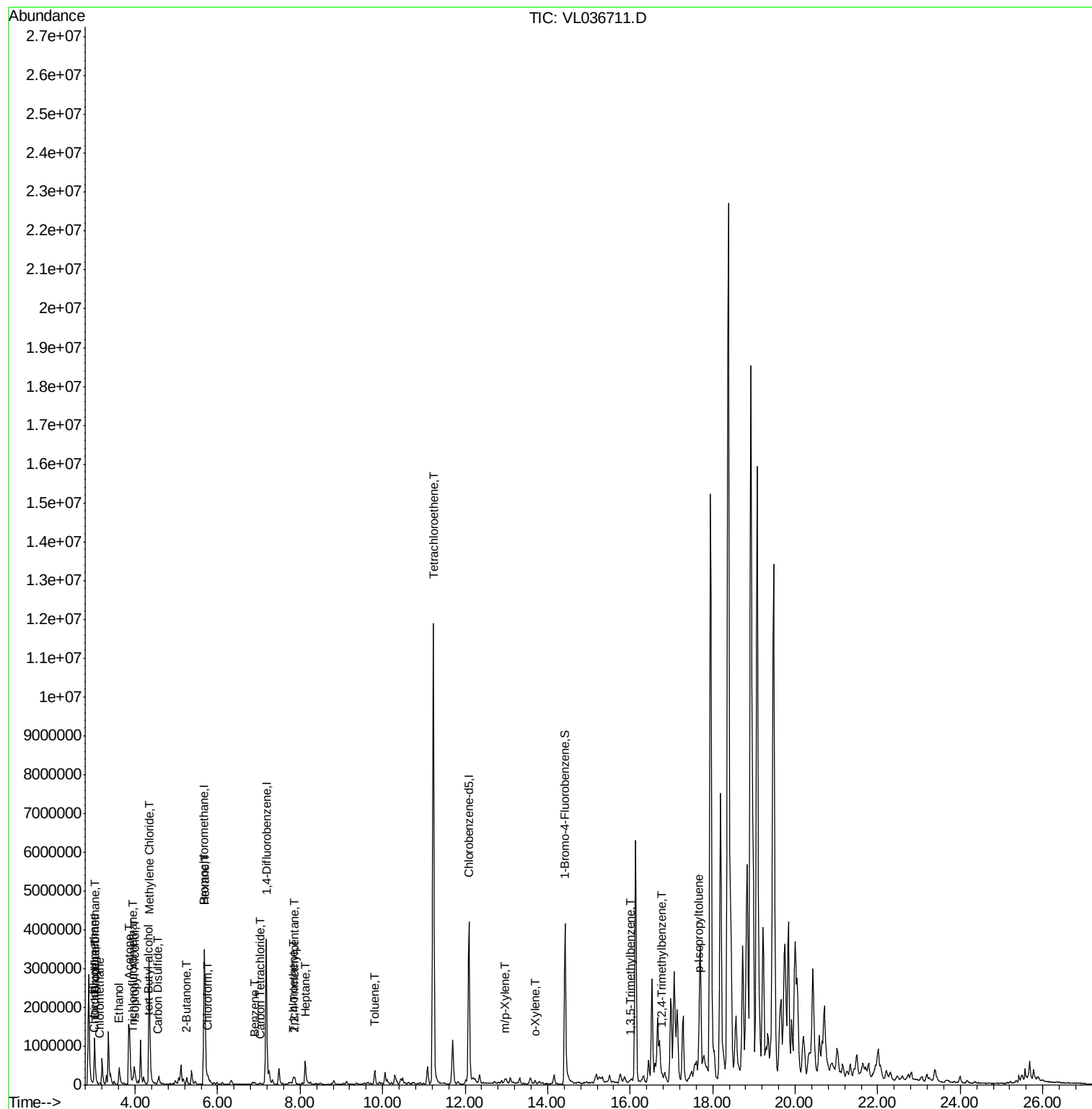
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040621\
Data File : VL036711.D
Acq On : 6 Apr 2021 23:47
Operator : SY/AP
Sample : M1877-07
Misc : 400mL/MSVOA L
ALS Vial : 13 Sample Multiplier: 1

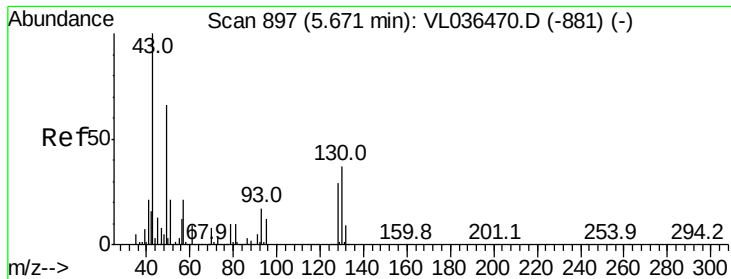
Instrument :
MSVOA_L
ClientSampleId :
UP-SG-4(2021)

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Quant Time: Apr 11 12:01:17 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar
QLast Update : Thu Mar 25 09:42:40 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Instrument :

MSVOA_L

ClientSampleId :

UP-SG-4(2021)

Tot Ion: 49 Resp: 1234830

Ion Ratio Lower Upper

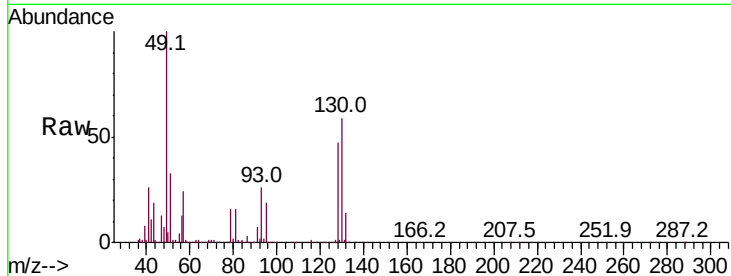
49 100

128 48.1 23.5 70.6

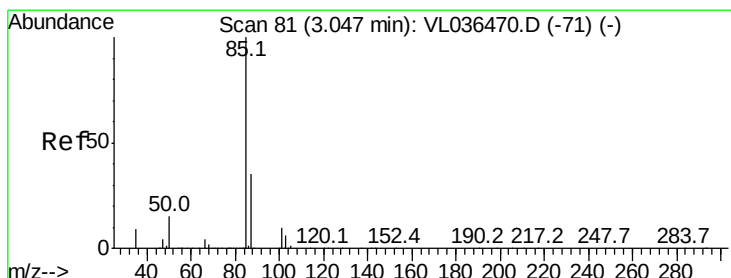
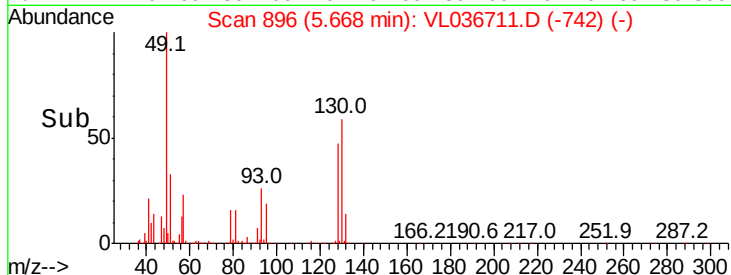
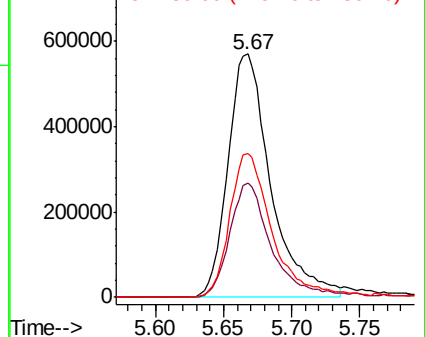
130 60.4 29.1 87.4

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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



#2

Dichlorodifluoromethane

Concen: 0.221 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.00 min

Lab File: VL036711.D

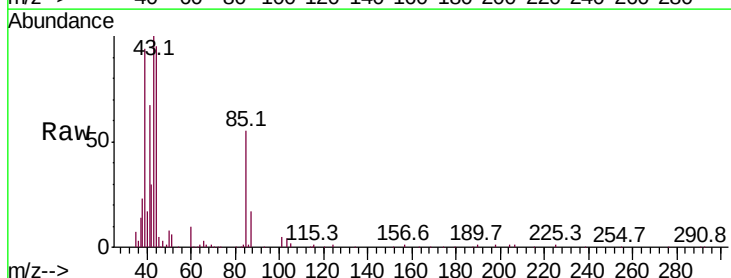
Acq: 6 Apr 2021 23:47

Tgt Ion: 85 Resp: 44428

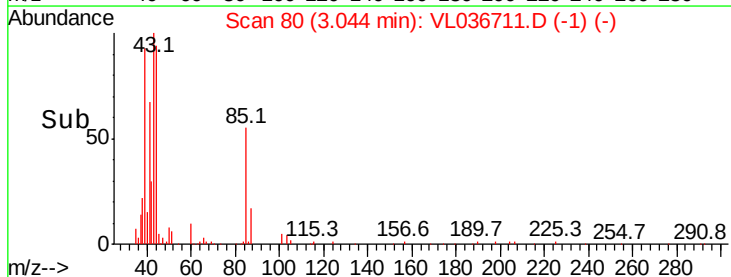
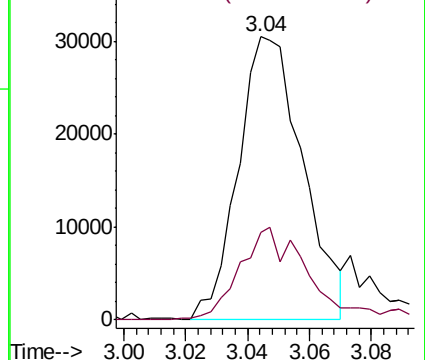
Ion Ratio Lower Upper

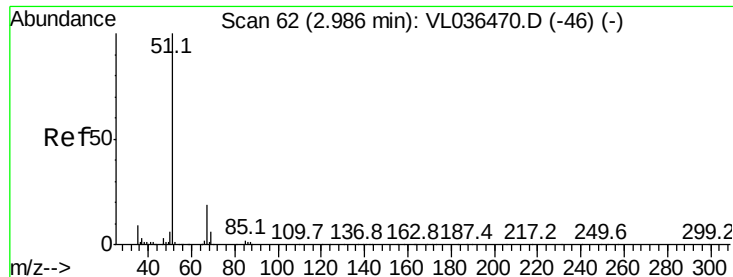
85 100

87 30.4 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





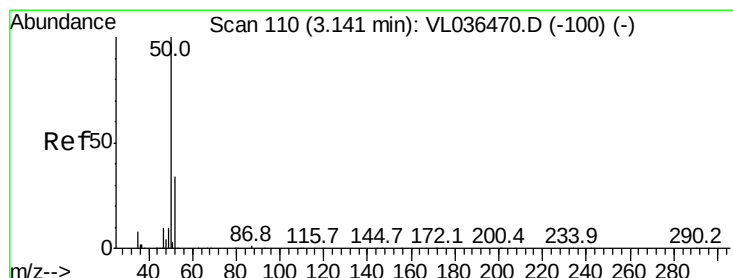
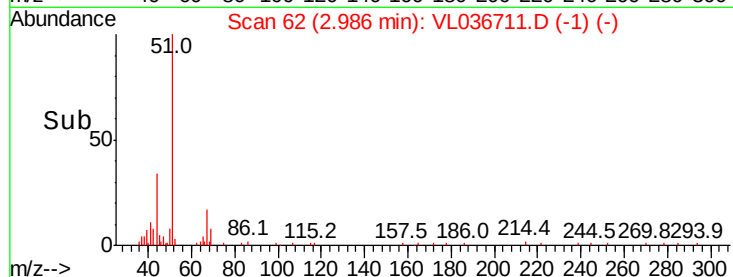
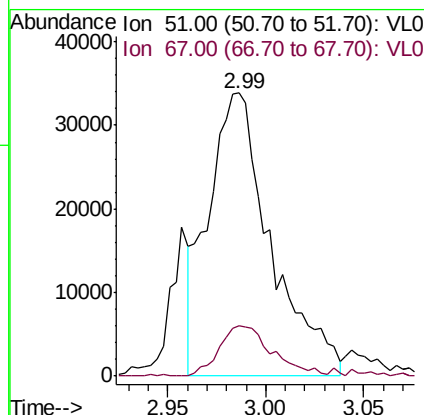
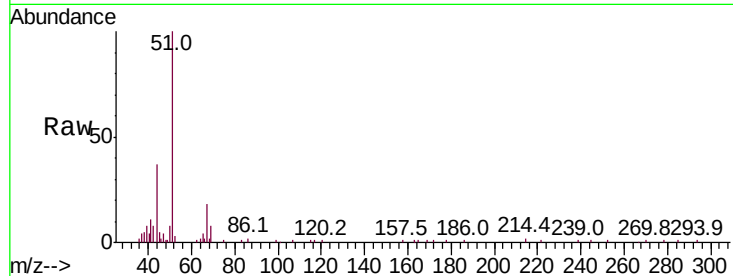
#3
Chlorodifluoromethane
Concen: 0.324 ppbv
RT: 2.99 min Scan# 62
Delta R.T. -0.00 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Instrument :
MSVOA_L
ClientSampleId :
UP-SG-4(2021)

Tot Ion: 51 Resp: 74795
Ion Ratio Lower Upper
51 100
67 1.0 14.7 22.1#

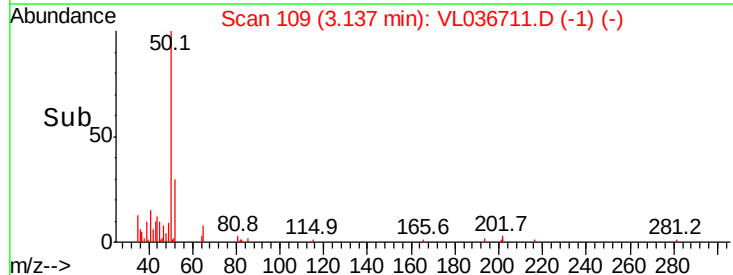
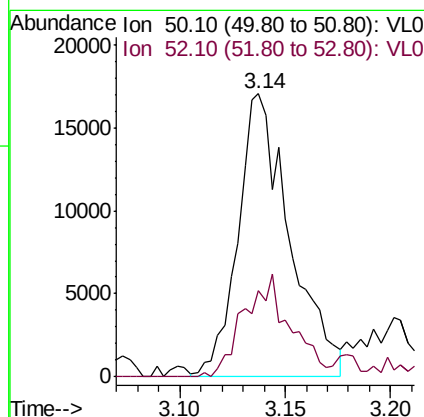
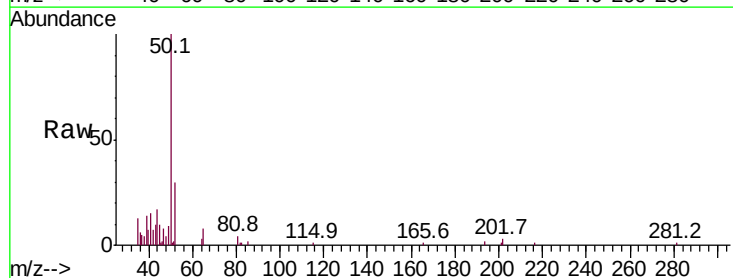
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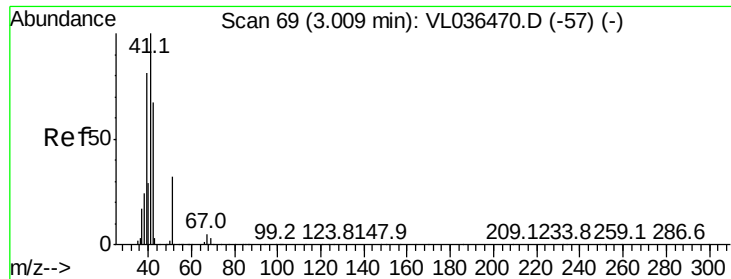
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#4
Chloromethane
Concen: 0.358 ppbv
RT: 3.14 min Scan# 109
Delta R.T. -0.00 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Tgt Ion: 50 Resp: 29137
Ion Ratio Lower Upper
50 100
52 30.8 27.0 40.6





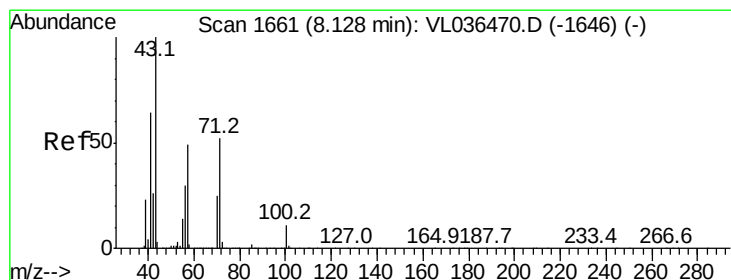
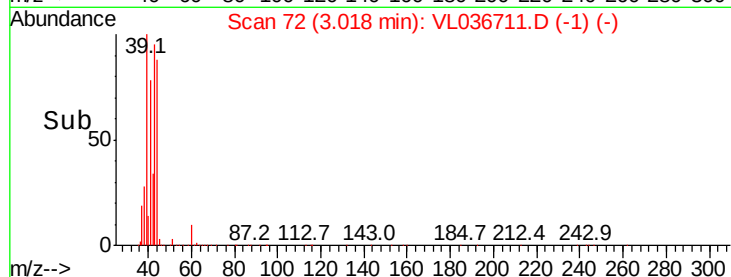
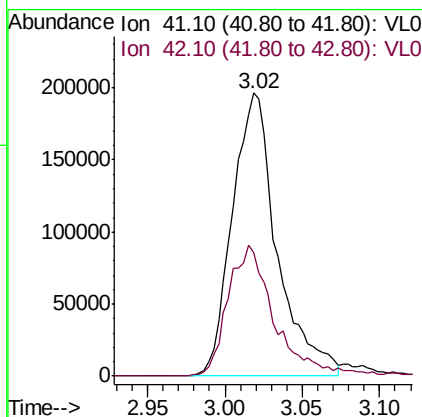
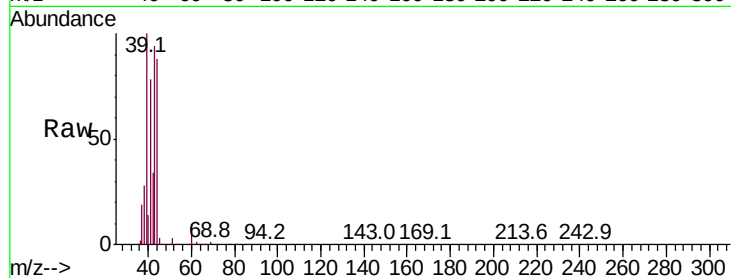
#9
 Propene
 Concen: 5.373 ppbv
 RT: 3.02 min Scan# 72
 Delta R.T. 0.01 min
 Lab File: VL036711.D
 Acq: 6 Apr 2021 23:47

Instrument :
 MSVOA_L
 ClientSampleId :
 UP-SG-4(2021)

Tot Ion: 41 Resp: 395176
 Ion Ratio Lower Upper
 41 100
 42 48.6 57.0 85.4#

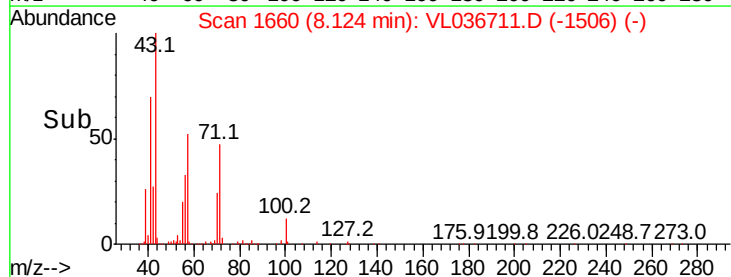
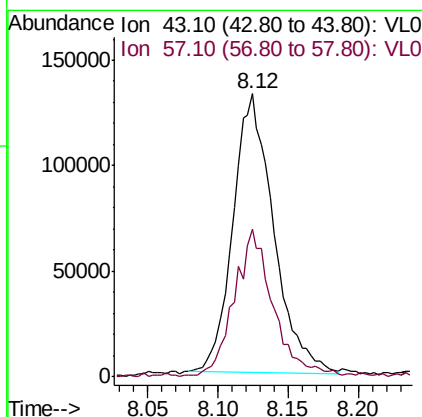
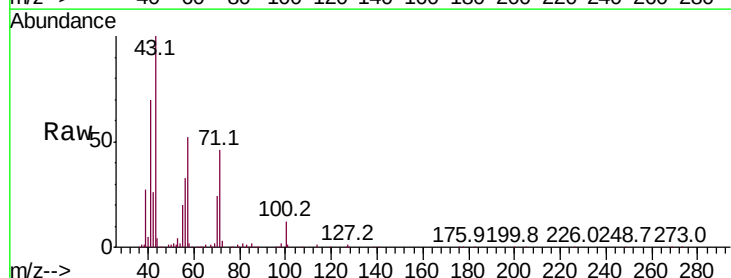
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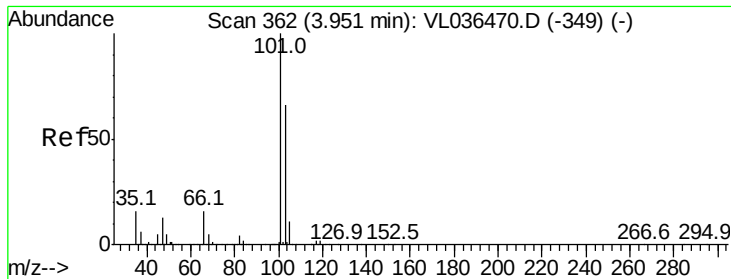
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#10
 Heptane
 Concen: 1.418 ppbv
 RT: 8.12 min Scan# 1660
 Delta R.T. -0.00 min
 Lab File: VL036711.D
 Acq: 6 Apr 2021 23:47

Tgt Ion: 43 Resp: 265689
 Ion Ratio Lower Upper
 43 100
 57 50.8 39.0 58.6





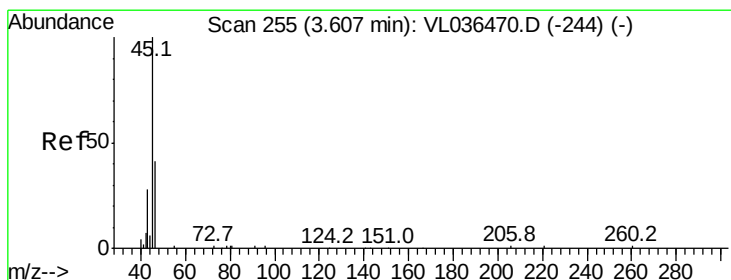
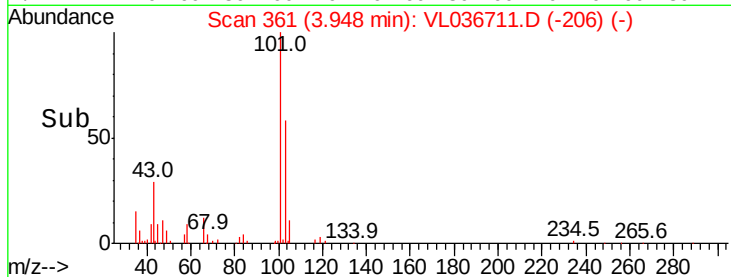
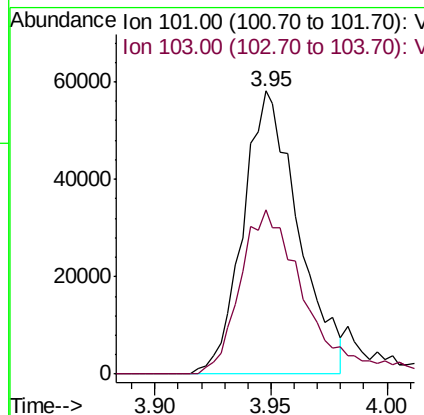
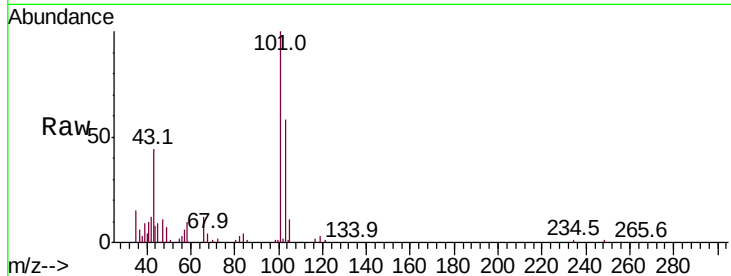
#11
Trichlorofluoromethane
Concen: 0.469 ppbv
RT: 3.95 min Scan# 361
Delta R.T. -0.00 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Instrument :
MSVOA_L
ClientSampleId :
UP-SG-4(2021)

Tot Ion:101 Resp: 96287
Ion Ratio Lower Upper
101 100
103 57.9 52.5 78.7

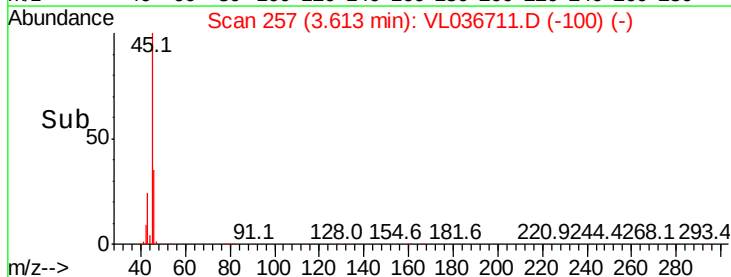
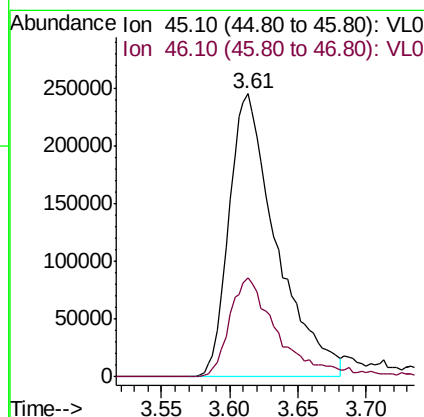
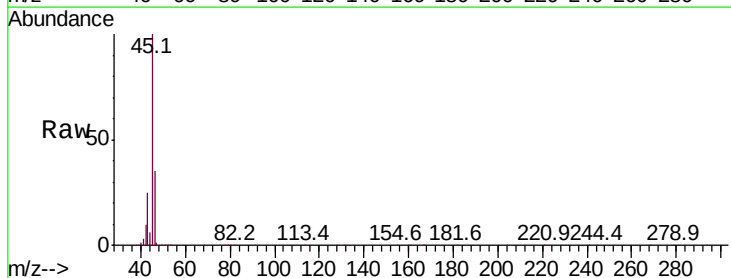
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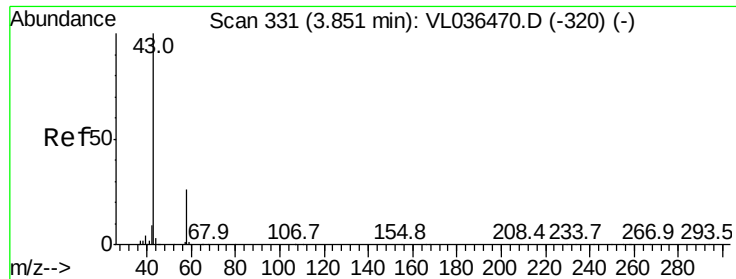
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#13
Ethanol
Concen: 67.723 ppbv
RT: 3.61 min Scan# 257
Delta R.T. 0.01 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Tgt Ion: 45 Resp: 593155
Ion Ratio Lower Upper
45 100
46 36.2 16.6 66.2





#15

Acetone

Concen: 13.285 ppbv m

RT: 3.84 min Scan# 329

Delta R.T. -0.01 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Instrument :

MSVOA_L

ClientSampleId :

UP-SG-4(2021)

Tot Ion: 43 Resp: 1614664

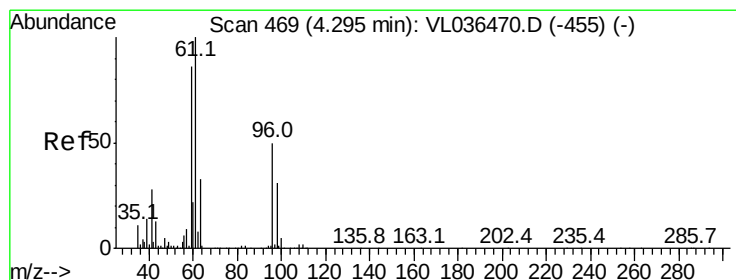
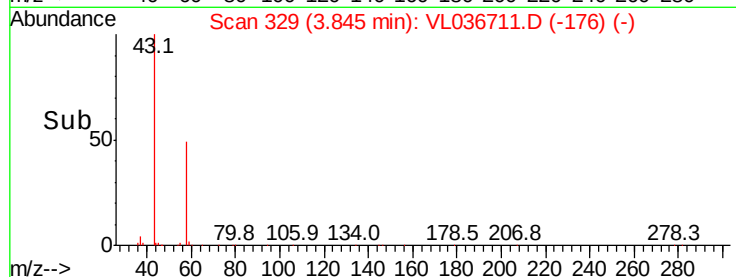
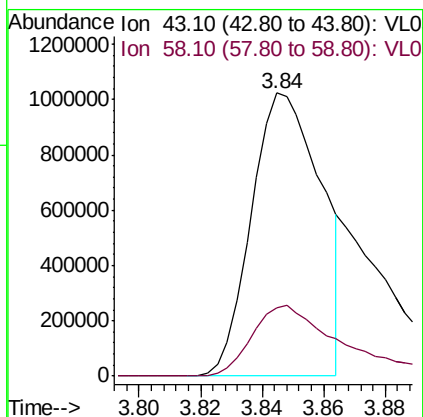
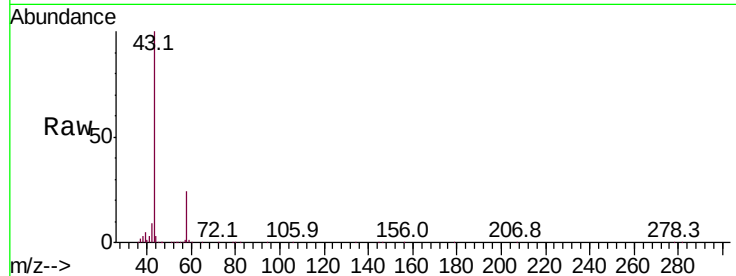
Ion Ratio Lower Upper

43 100

58 34.2 21.2 31.8#

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#17

tert-Butyl alcohol

Concen: 0.195 ppbv m

RT: 4.31 min Scan# 475

Delta R.T. 0.02 min

Lab File: VL036711.D

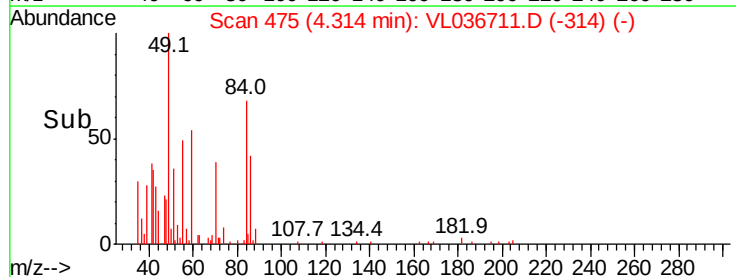
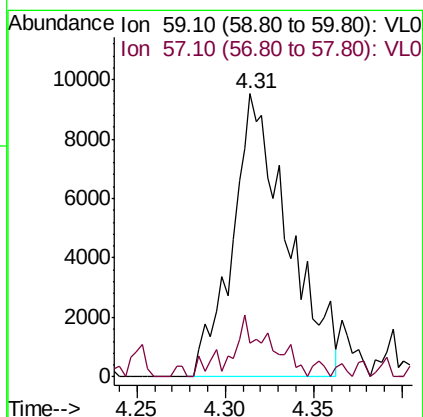
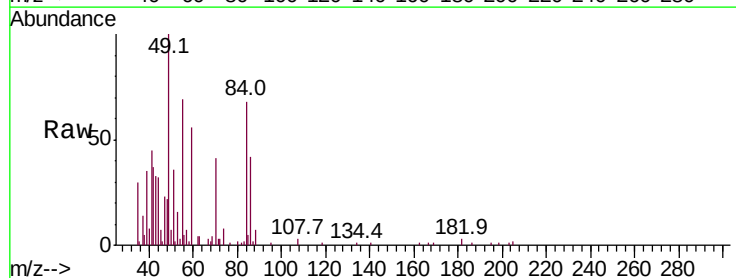
Acq: 6 Apr 2021 23:47

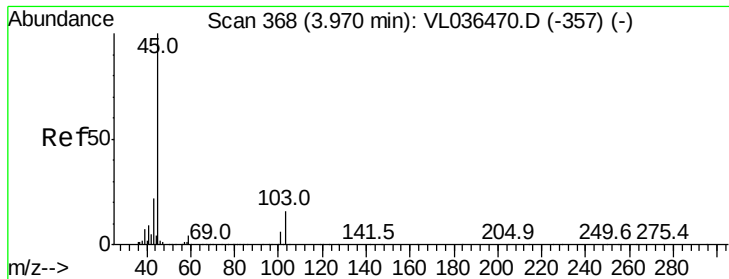
Tgt Ion: 59 Resp: 20640

Ion Ratio Lower Upper

59 100

57 0.0 8.6 12.8#





#19

Isopropyl Alcohol

Concen: 9.215 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.01 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Instrument :

MSVOA_L

ClientSampleId :

UP-SG-4(2021)

Tot Ion: 45 Resp: 616103

Ion Ratio Lower Upper

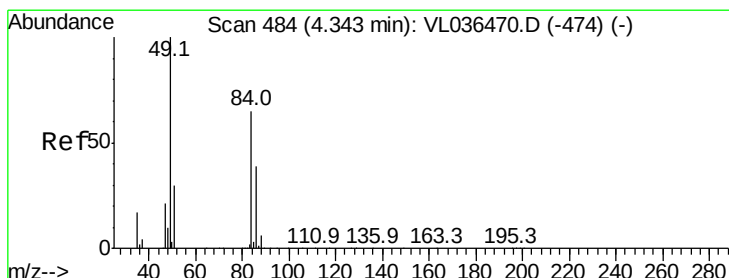
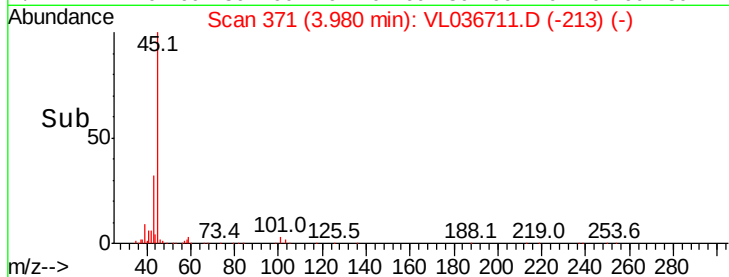
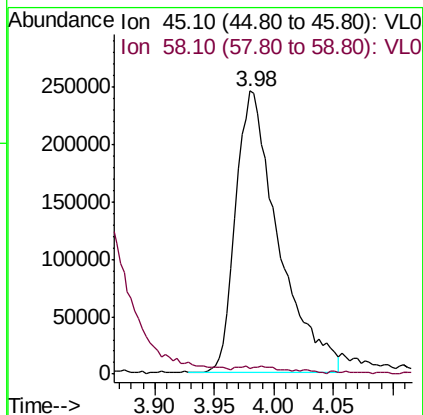
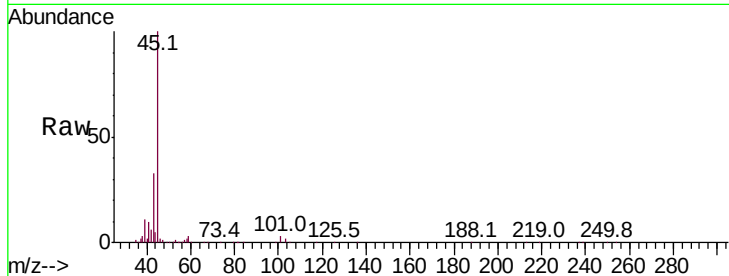
45 100

58 3.7 2.9 4.3

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#20

Methylene Chloride

Concen: 21.941 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Tgt Ion: 84 Resp: 1248538

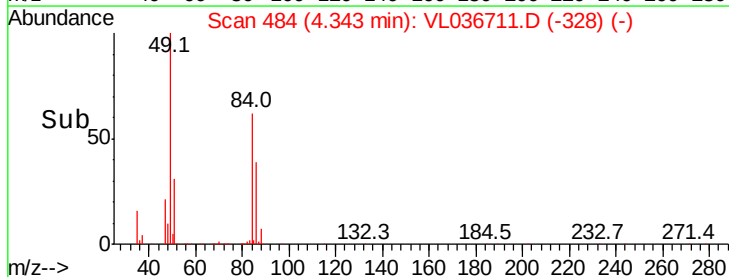
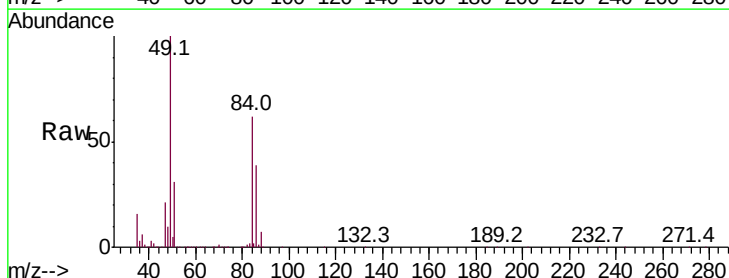
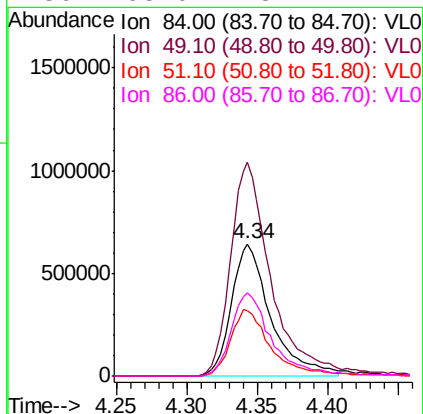
Ion Ratio Lower Upper

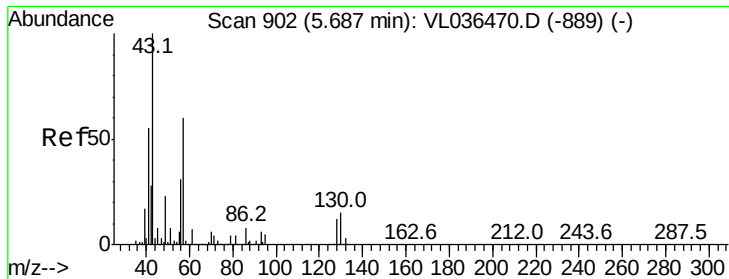
84 100

49 161.8 122.9 184.3

51 49.2 36.9 55.3

86 63.0 48.2 72.4





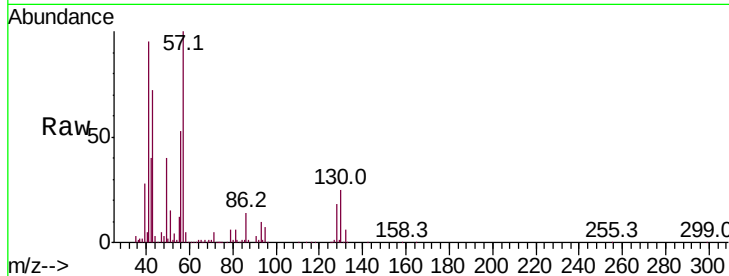
#26
Hexane
Concen: 8.279 ppbv
RT: 5.69 min Scan# 902
Delta R.T. -0.00 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Instrument :
MSVOA_L
ClientSampleId :
UP-SG-4(2021)

Tot Ion	Ratio	Lower	Upper
57	100		
41	98.0	77.2	115.8
43	76.3	173.8	260.6#
56	57.5	43.8	65.6

Manual Integrations
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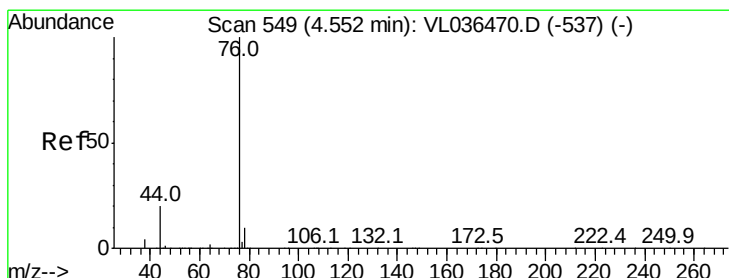
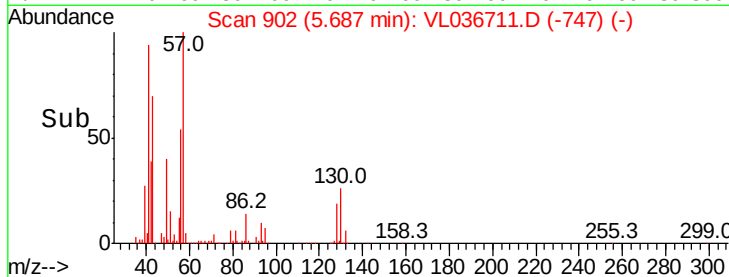
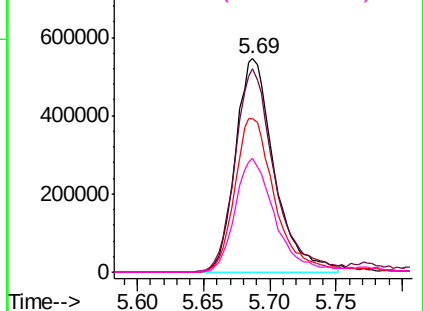
Abundance

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



#27
Carbon Disulfide
Concen: 0.778 ppbv
RT: 4.55 min Scan# 548
Delta R.T. -0.00 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

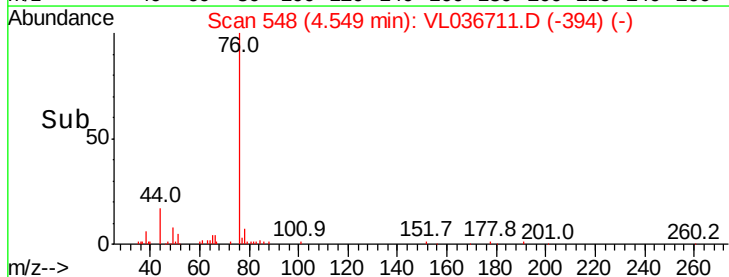
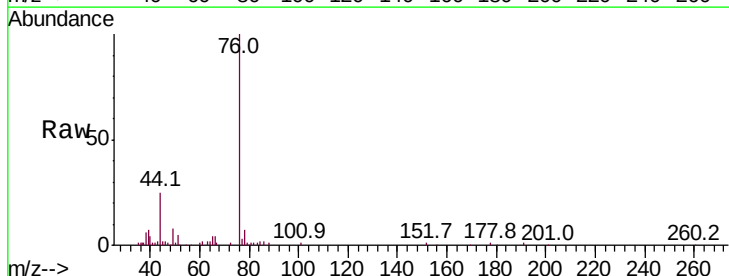
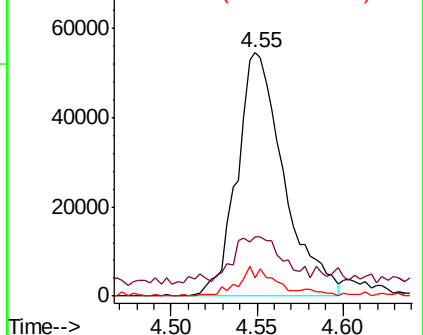
Tgt Ion	Ratio	Lower	Upper
76	100		
44	28.2	17.5	26.3#
78	11.3	8.6	13.0

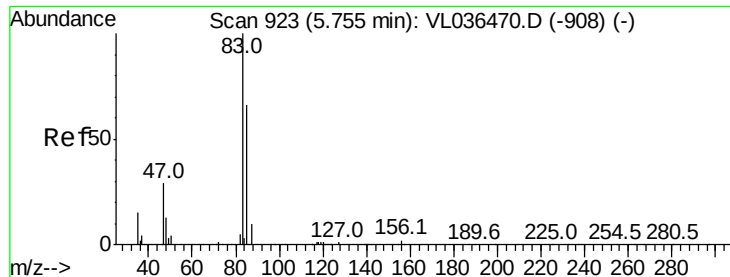
Abundance

Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 0.258 ppbv m

RT: 5.76 min Scan# 924

Delta R.T. 0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Instrument :

MSVOA_L

ClientSampleId :

UP-SG-4(2021)

Tot Ion: 83 Resp: 55240

Ion Ratio Lower Upper

83 100

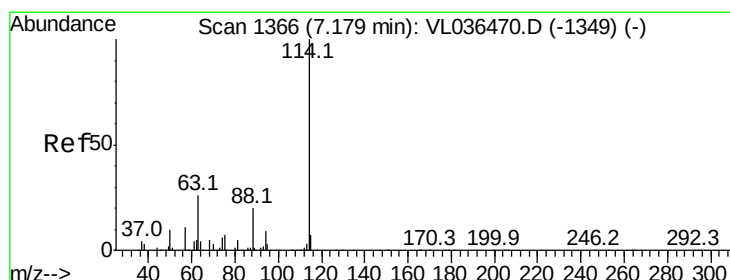
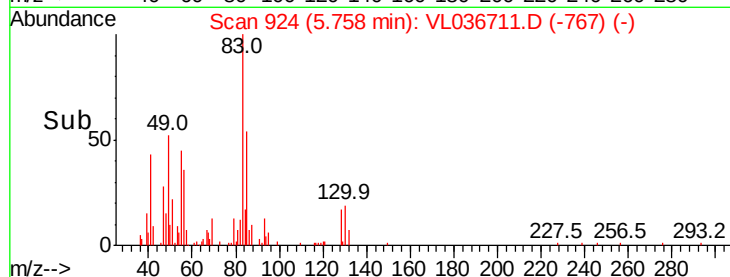
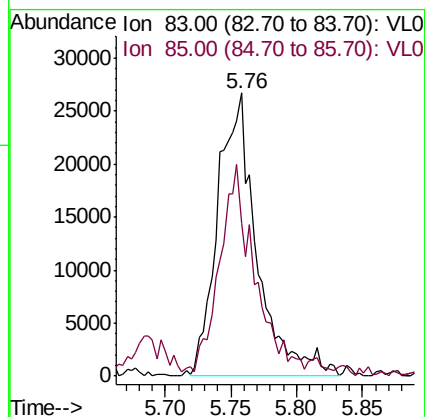
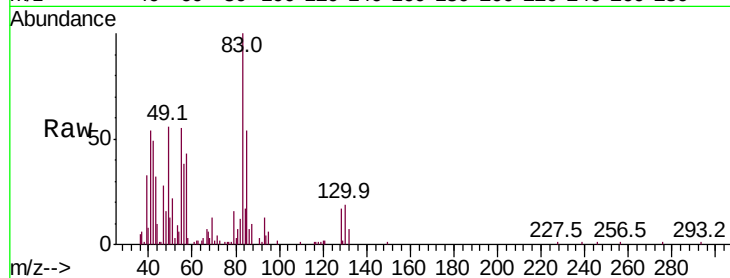
85 54.1 52.6 78.8

Manual Integrations

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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

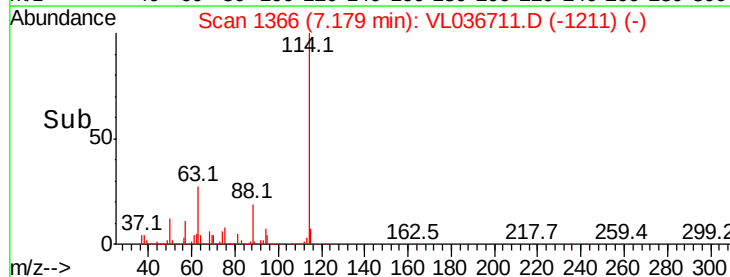
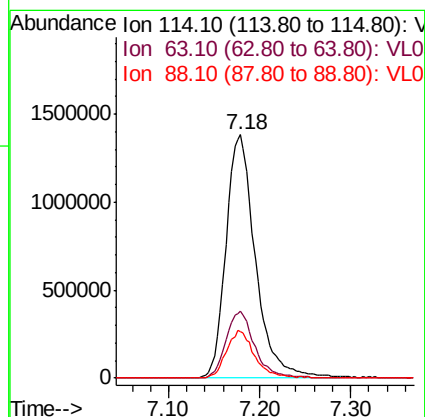
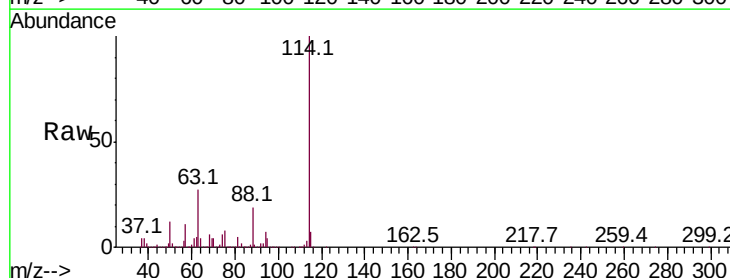
Tgt Ion: 114 Resp: 3111244

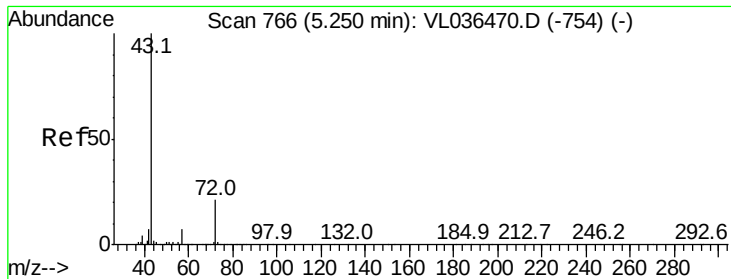
Ion Ratio Lower Upper

114 100

63 27.1 22.4 33.6

88 18.9 15.4 23.0





#34

2-Butanone

Concen: 1.506 ppbv

RT: 5.25 min Scan# 765

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Instrument :

MSVOA_L

ClientSampled :

UP-SG-4(2021)

Tot Ion: 43 Resp: 228720

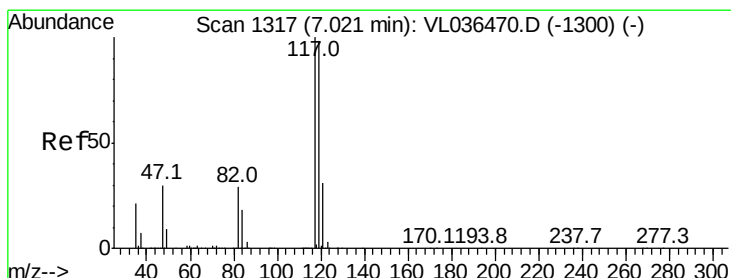
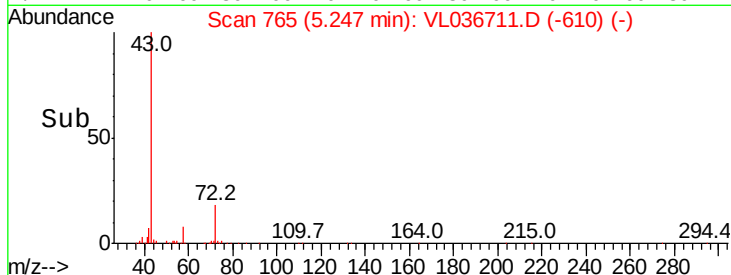
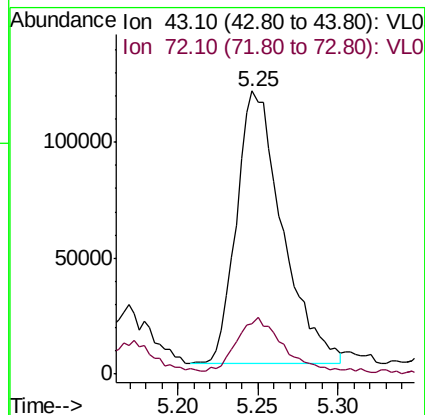
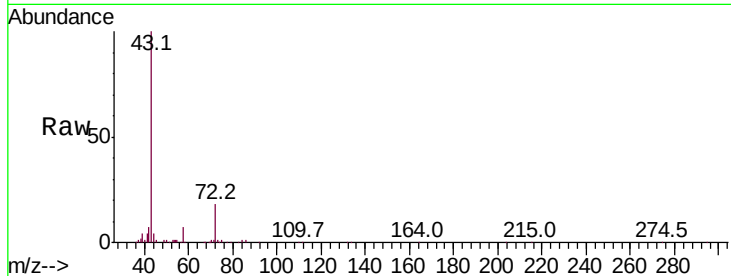
Ion Ratio Lower Upper

43 100

72 23.0 17.0 25.6

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#35

Carbon Tetrachloride

Concen: 0.050 ppbv m

RT: 7.02 min Scan# 1316

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

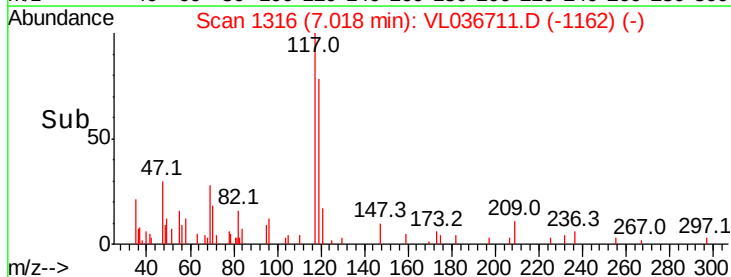
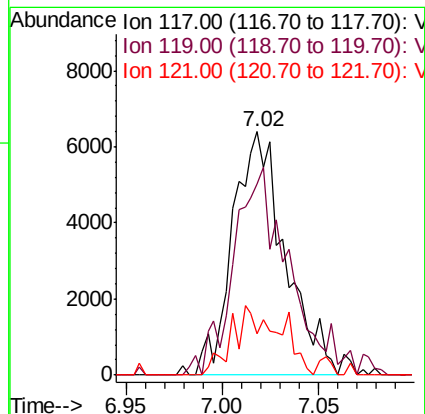
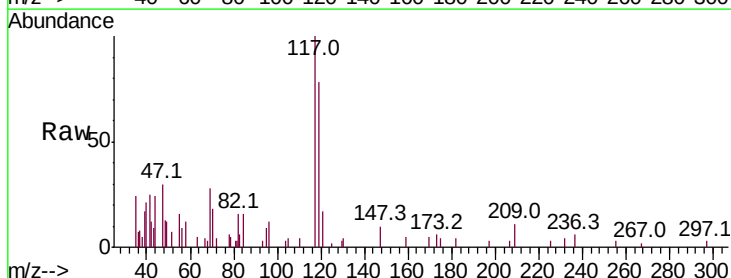
Tgt Ion: 117 Resp: 11986

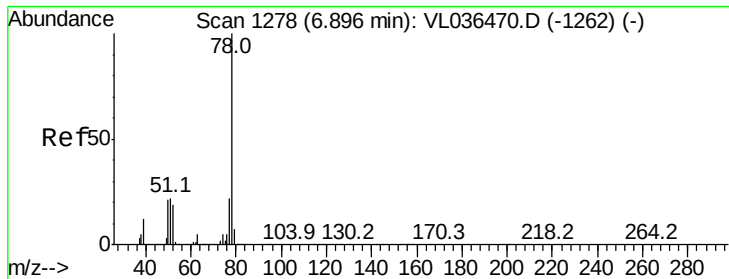
Ion Ratio Lower Upper

117 100

119 78.3 78.2 117.2

121 16.9 24.5 36.7#





#36

Benzene

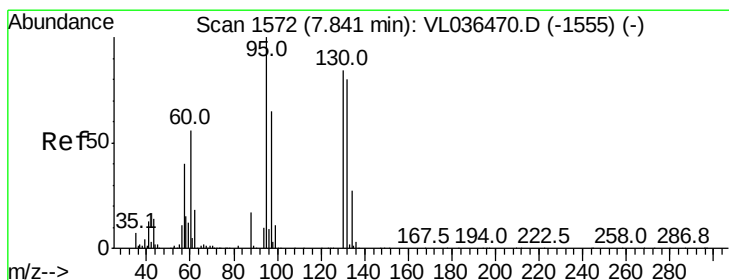
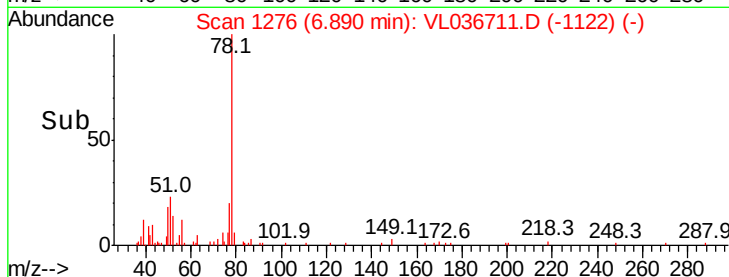
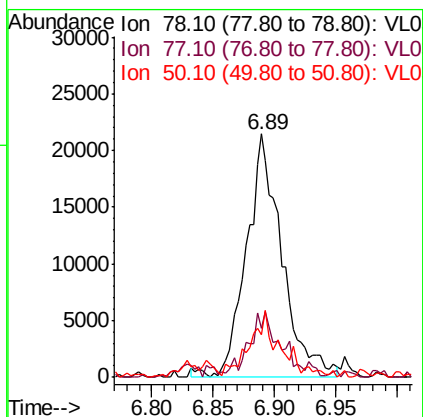
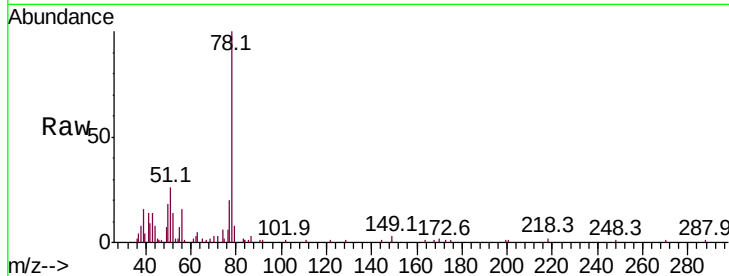
Concen: 0.150 ppbv m
RT: 6.89 min Scan# 1276
Delta R.T. -0.01 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Instrument :
MSVOA_L
ClientSampleId :
UP-SG-4(2021)

Tot Ion	Ratio	Lower	Upper
78	100		
77	20.3	18.0	27.0
50	17.5	16.5	24.7

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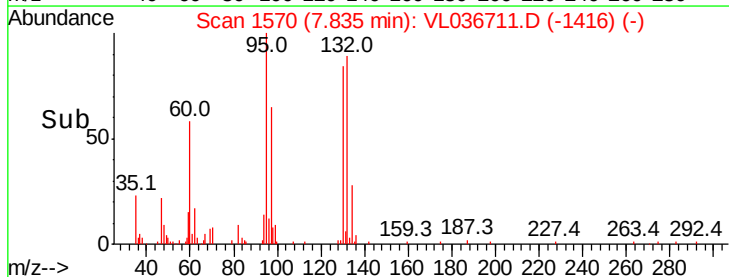
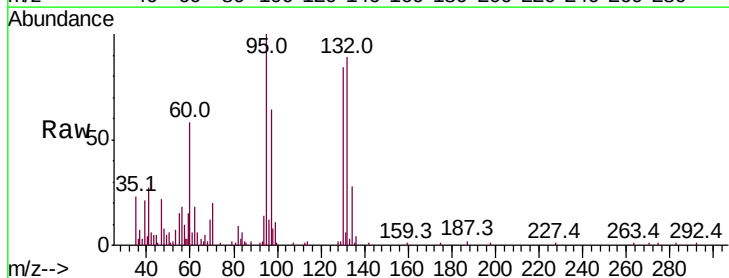
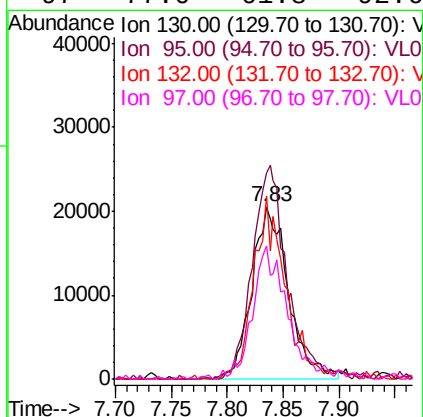


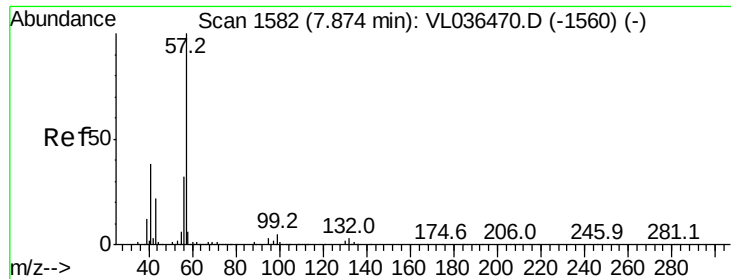
#38

Trichloroethene

Concen: 0.416 ppbv m
RT: 7.83 min Scan# 1570
Delta R.T. -0.01 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Tgt Ion	Ratio	Lower	Upper
130	100		
95	119.5	95.7	143.5
132	106.4	76.2	114.4
97	77.0	61.8	92.6





#44

2,2,4-Trimethylpentane

Concen: 0.237 ppbv

RT: 7.87 min Scan# 1580

Delta R.T. -0.01 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Instrument :

MSVOA_L

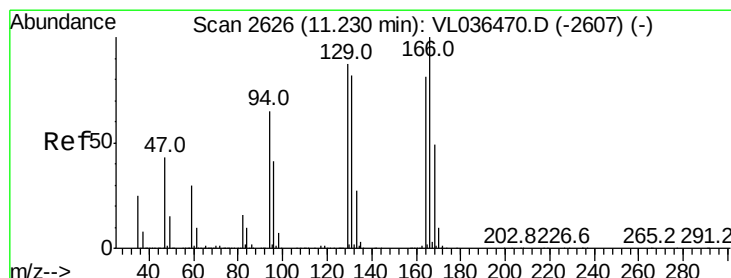
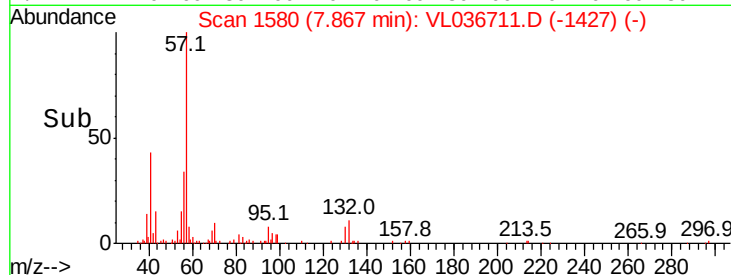
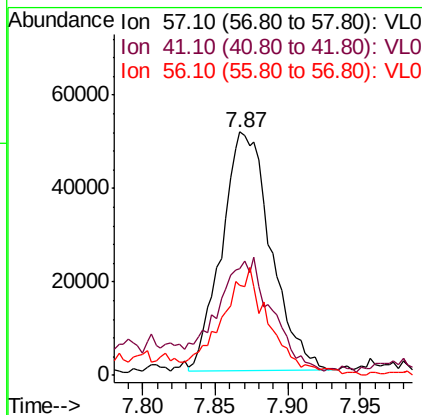
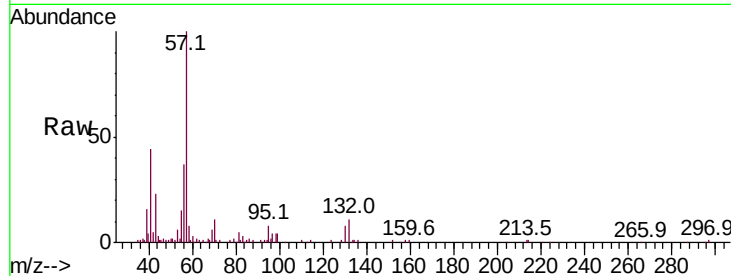
ClientSampleId :

UP-SG-4(2021)

Tot Ion:	57	Resp:	119718
Ion Ratio	Lower	Upper	
57	100		
41	51.3	28.8	43.2#
56	48.2	26.1	39.1#

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#52

Tetrachloroethene

Concen: 30.300 ppbv

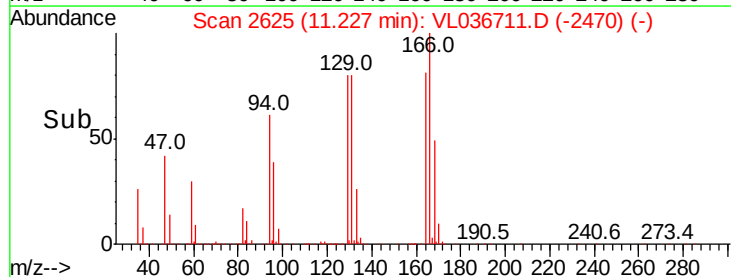
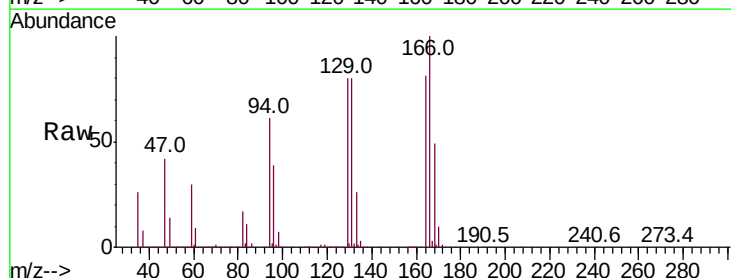
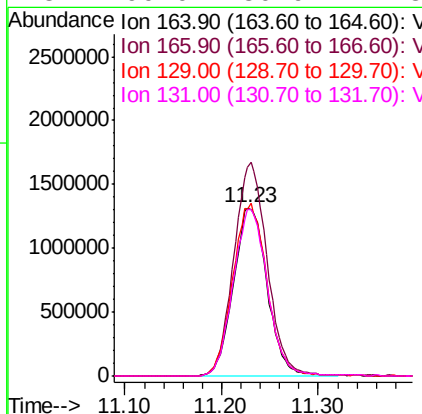
RT: 11.23 min Scan# 2625

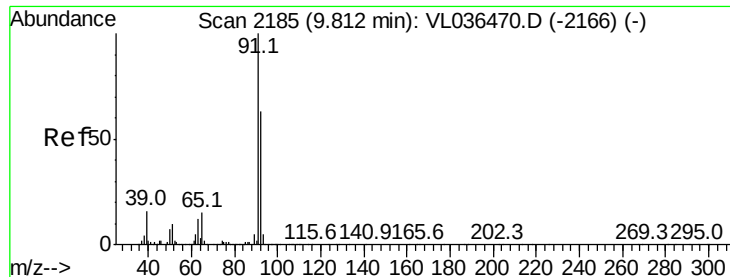
Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Tgt Ion:	164	Resp:	3201544
Ion Ratio	Lower	Upper	
164	100		
166	124.1	98.3	147.5
129	99.3	85.8	128.8
131	99.0	80.9	121.3





#53

Toluene

Concen: 0.854 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Instrument :

MSVOA_L

ClientSampled :

UP-SG-4(2021)

Tot Ion: 91 Resp: 260869

Ion Ratio Lower Upper

91 100

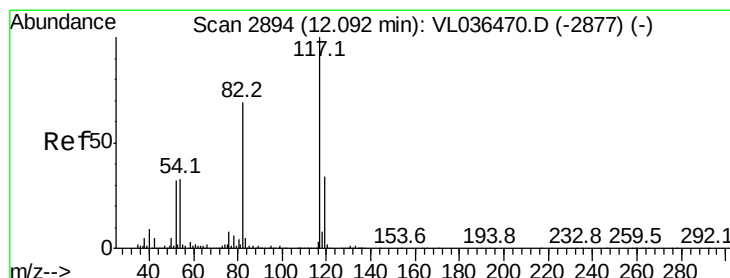
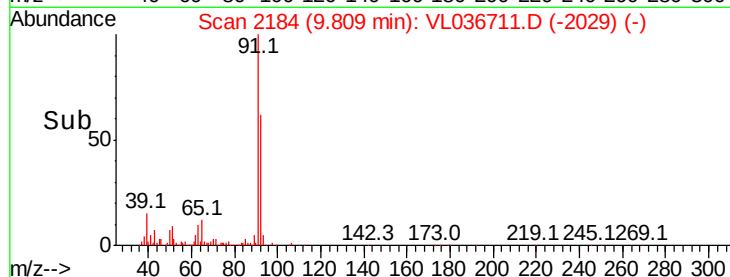
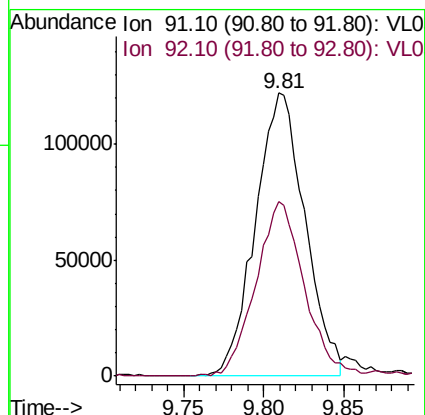
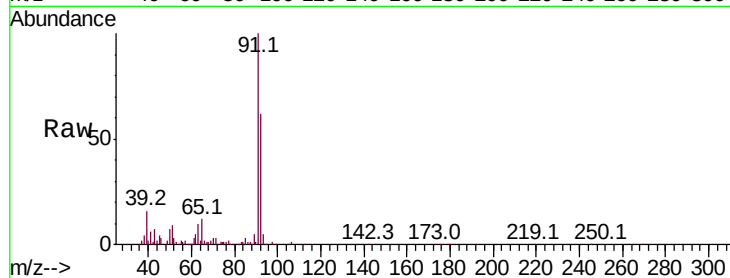
92 61.4 48.8 73.2

Manual Integrations

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2894

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

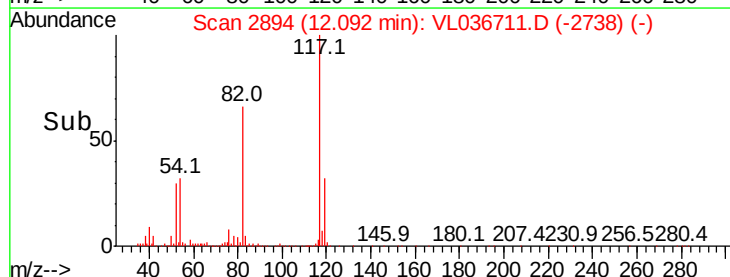
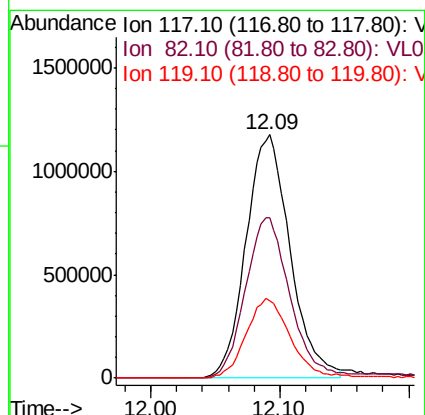
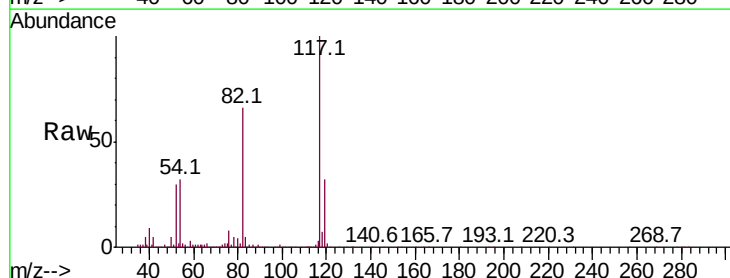
Tgt Ion: 117 Resp: 2801499

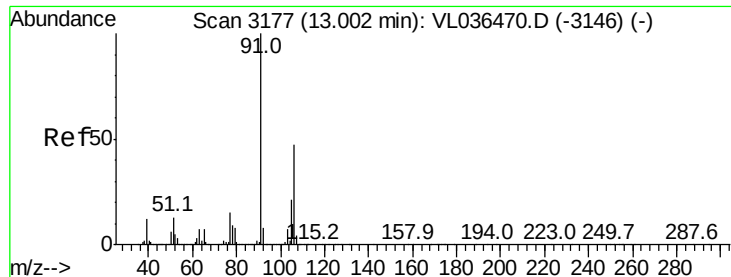
Ion Ratio Lower Upper

117 100

82 69.9 57.4 86.0

119 33.6 47.4 71.0#





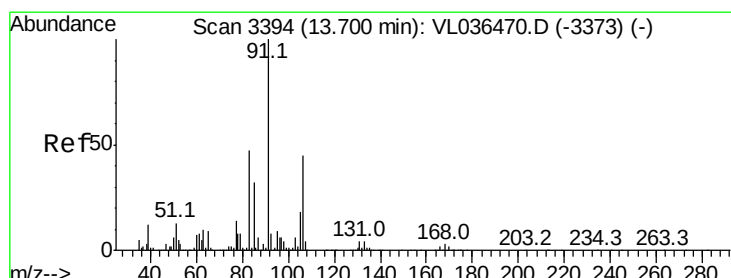
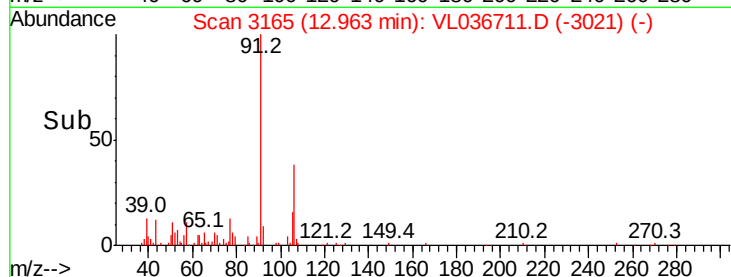
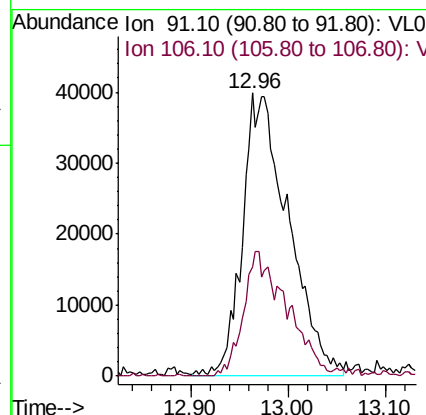
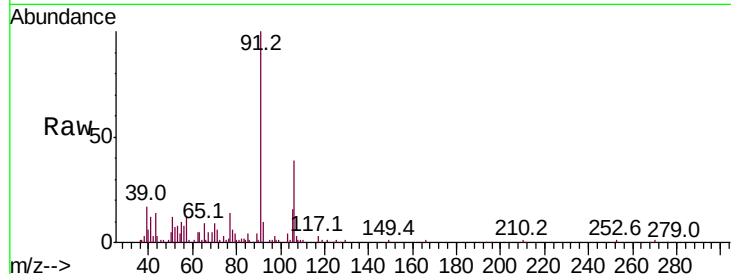
#59
m/p-Xylene
Concen: 0.367 ppbv m
RT: 12.96 min Scan# 3165
Delta R.T. -0.04 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Instrument :
MSVOA_L
ClientSampleId :
UP-SG-4(2021)

Tot Ion	Ratio	Lower	Upper
91	100		
106	0.0	35.3	52.9#

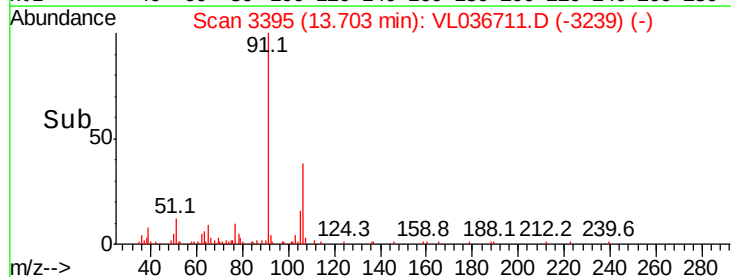
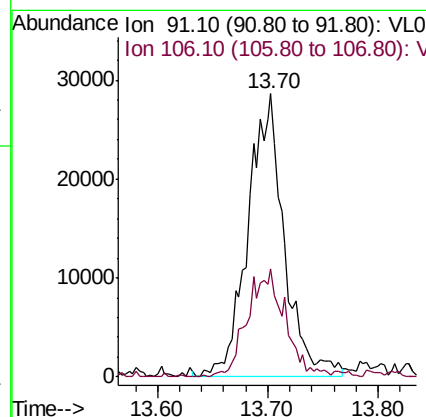
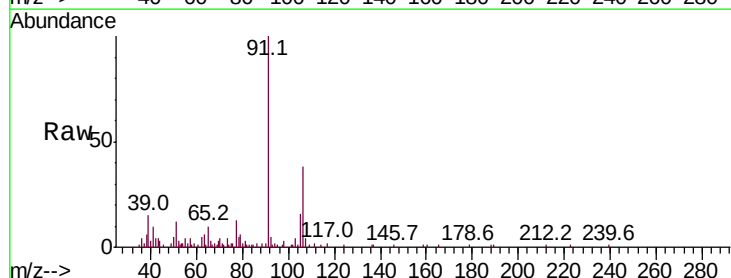
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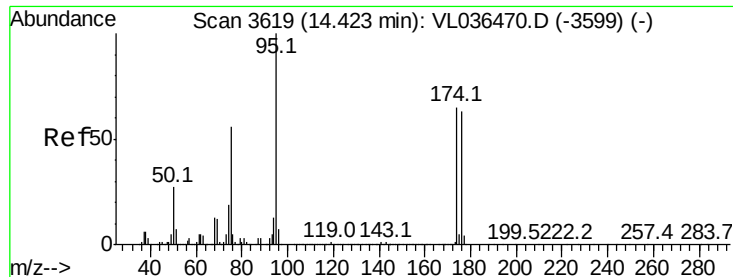
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#60
o-Xylene
Concen: 0.191 ppbv m
RT: 13.70 min Scan# 3395
Delta R.T. 0.00 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Tgt Ion	Ratio	Lower	Upper
91	100		
106	40.5	22.3	66.9





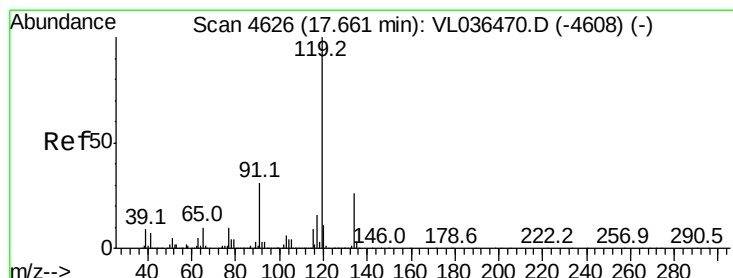
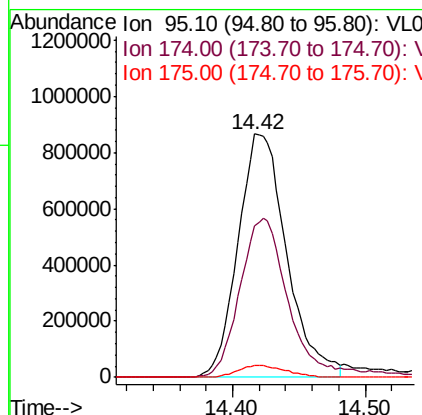
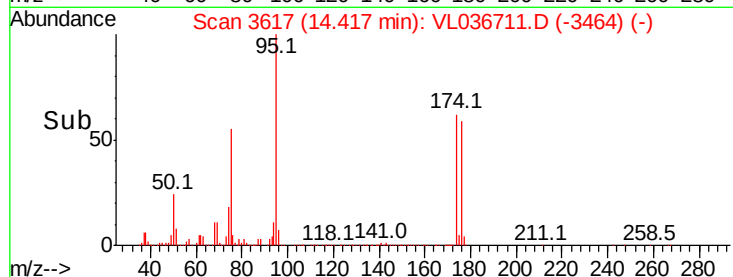
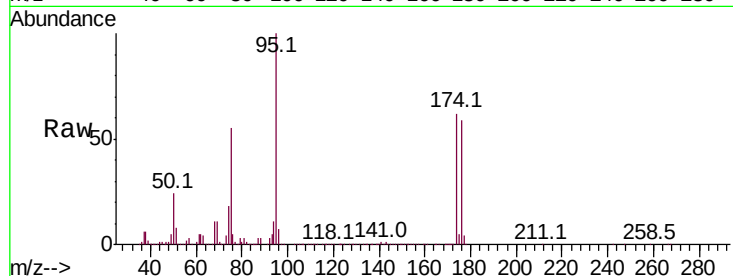
#68
1-Bromo-4-Fluorobenzene
Concen: 9.829 ppbv
RT: 14.42 min Scan# 3617
Delta R.T. -0.01 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Instrument :
MSVOA_L
ClientSampleId :
UP-SG-4(2021)

Tot Ion	Ratio	Lower	Upper
95	100		
174	68.8	51.0	76.6
175	5.3	3.9	5.9

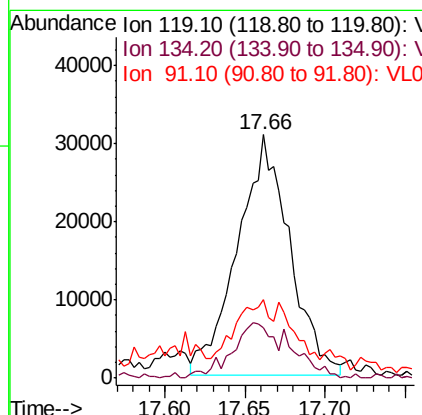
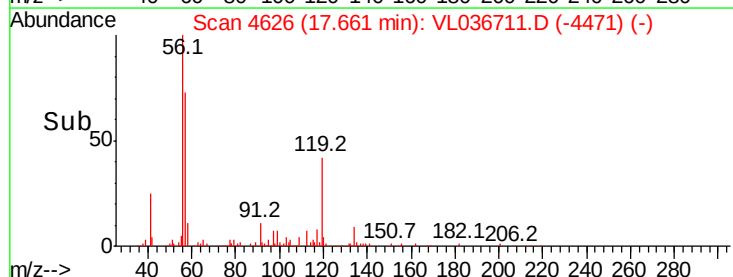
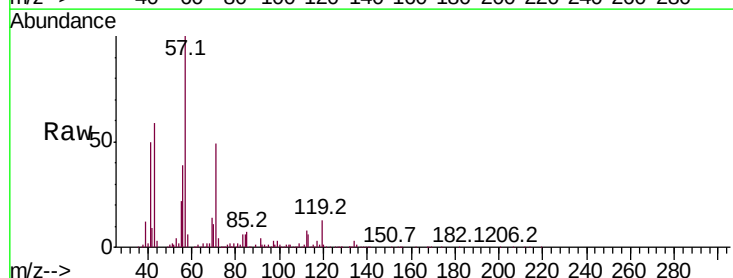
Manual Integrations
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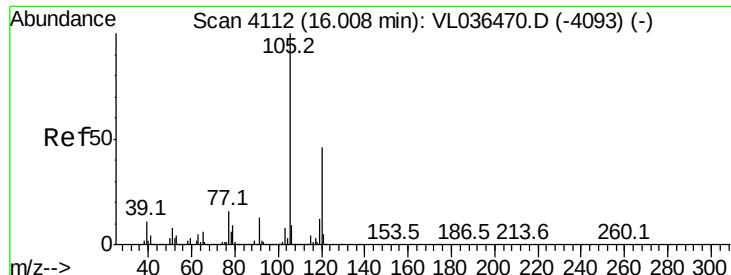
MMDadoda
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#69
p-Isopropyltoluene
Concen: 0.155 ppbv
RT: 17.66 min Scan# 4626
Delta R.T. -0.00 min
Lab File: VL036711.D
Acq: 6 Apr 2021 23:47

Tgt Ion	Ratio	Lower	Upper
119	100		
134	26.1	20.6	30.8
91	37.0	25.0	37.6





#73

1,3,5-Trimethylbenzene

Concen: 0.157 ppbv m

RT: 16.00 min Scan# 4111

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Instrument :

MSVOA_L

ClientSampleId :

UP-SG-4(2021)

Tot Ion:105 Resp: 55059

Ion Ratio Lower Upper

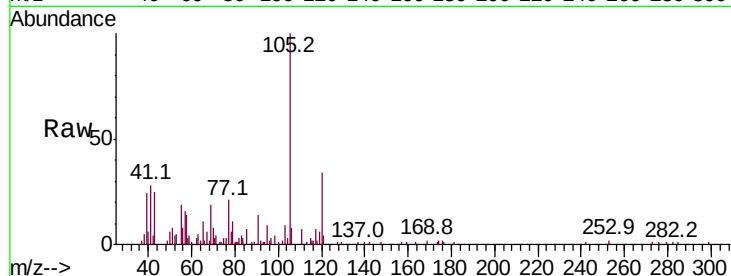
105 100

120 34.0 36.6 54.8#

Manual Integrations
APPROVED

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.00

25000

20000

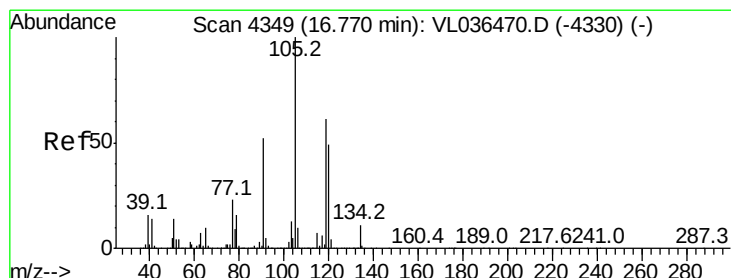
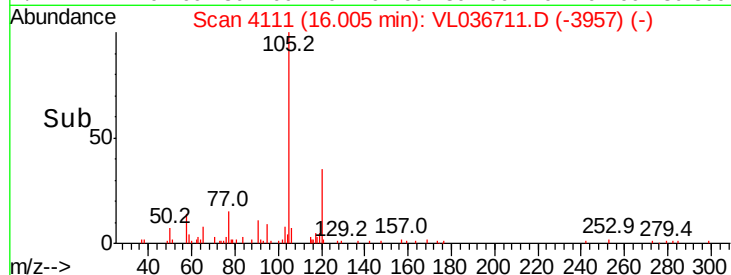
15000

10000

5000

0

Time--> 15.90 15.95 16.00 16.05



#74

1,2,4-Trimethylbenzene

Concen: 0.340 ppbv

RT: 16.77 min Scan# 4348

Delta R.T. -0.00 min

Lab File: VL036711.D

Acq: 6 Apr 2021 23:47

Tgt Ion:105 Resp: 128047

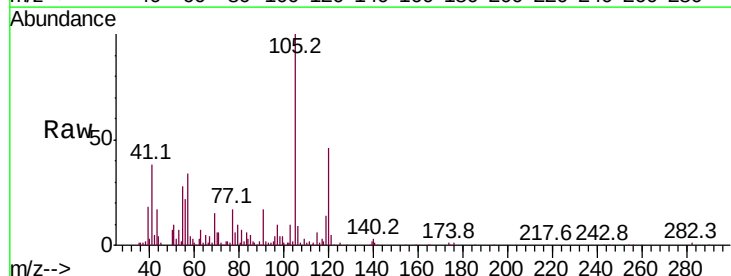
Ion Ratio Lower Upper

105 100

120 45.9 39.2 58.8

91 17.0 42.6 64.0#

77 14.0 18.6 28.0#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

16.77

80000

60000

40000

20000

0

Time--> 16.70 16.75 16.80 16.85

