

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081820\
 Data File : VL035467.D
 Acq On : 19 Aug 2020 13:09
 Operator : SY/AP
 Sample : L3730-03DUP
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3DUP

Manual Integrations
 APPROVED

MMDadoda
 8/20/2020 11:07:58 AM

Quant Time: Aug 20 03:54:08 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Aug 1
 QLast Update : Mon Aug 17 19:28:30 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1051700	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	4794586	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	4795359	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	3467885	10.33	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	56937	0.292	ppbv	98
3) Chlorodifluoromethane	2.99	51	268462m	2.036	ppbv	
4) Chloromethane	3.14	50	39406	0.574	ppbv	91
9) Propene	3.02	41	37805	0.713	ppbv #	77
10) Heptane	8.13	43	15957	0.115	ppbv #	82
11) Trichlorofluoromethane	3.95	101	150571	0.492	ppbv	100
13) Ethanol	3.61	45	771728	39.741	ppbv	99
15) Acetone	3.85	43	1347242	11.130	ppbv #	82
17) tert-Butyl alcohol	4.31	59	21386	0.137	ppbv	99
19) Isopropyl Alcohol	3.97	45	1091324	13.080	ppbv #	97
20) Methylene Chloride	4.35	84	252806	2.588	ppbv #	64
26) Hexane	5.69	57	183986	1.384	ppbv #	35
29) Chloroform	5.76	83	36274m	0.136	ppbv	
30) Cyclohexane	7.14	84	43143	0.293	ppbv #	55
34) 2-Butanone	5.26	43	72799	0.454	ppbv #	70
35) Carbon Tetrachloride	7.03	117	17154	0.067	ppbv	92
36) Benzene	6.90	78	54218m	0.154	ppbv	
37) 1,2-Dichloroethane	6.32	62	33295	0.207	ppbv #	89
44) 2,2,4-Trimethylpentane	7.88	57	123564	0.269	ppbv	92
50) 4-Methyl-2-Pentanone	8.77	43	168744	0.734	ppbv #	85
52) Tetrachloroethene	11.25	164	12353m	0.058	ppbv	
53) Toluene	9.82	91	393971	0.869	ppbv	99
59) m/p-Xylene	12.99	91	107324	0.219	ppbv #	80
60) o-Xylene	13.72	91	48254m	0.101	ppbv	
61) Styrene	13.55	104	48839	0.127	ppbv #	89
62) Isopropylbenzene	14.69	105	95494m	0.123	ppbv	
74) 1,2,4-Trimethylbenzene	16.79	105	71383	0.113	ppbv #	69

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.00 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Instrument :

MSVOA_L

ClientSampleId :

IA-3DUP

Tot Ion: 49 Resp: 1051700

Ion Ratio Lower Upper

49 100

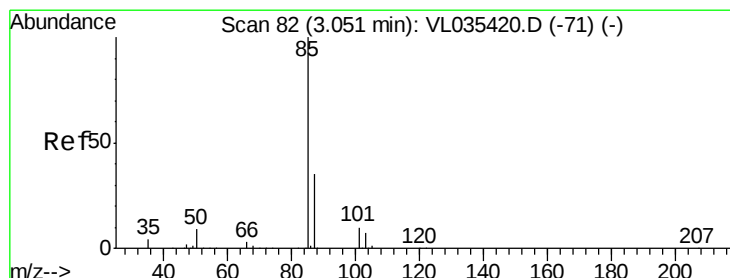
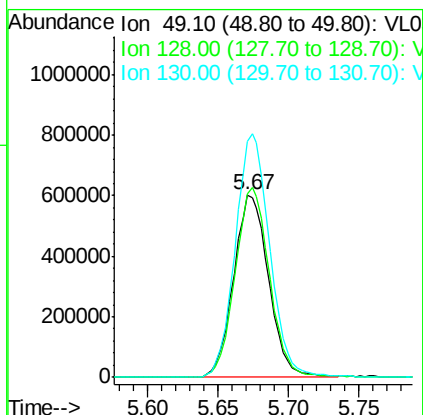
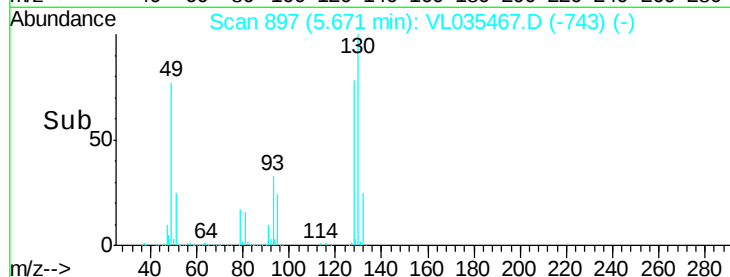
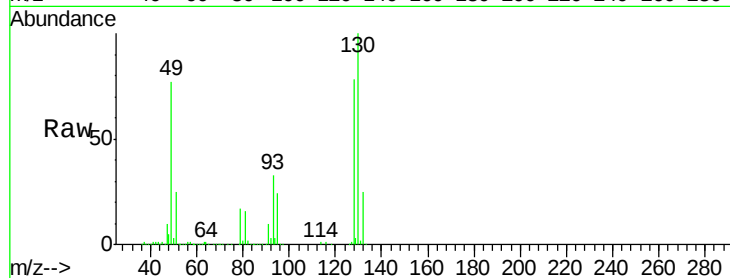
128 102.2 20.9 62.7#

130 132.3 26.7 80.1#

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#2

Dichlorodifluoromethane

Concen: 0.292 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL035467.D

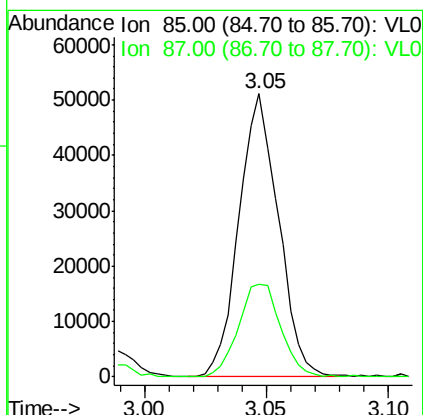
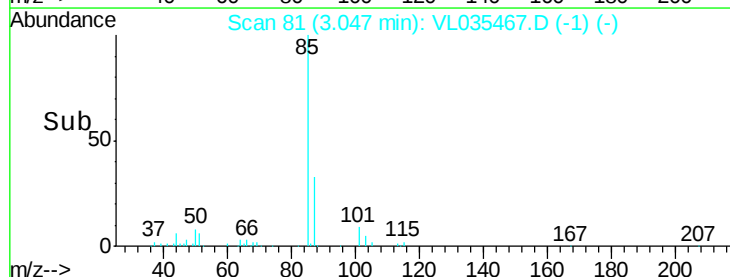
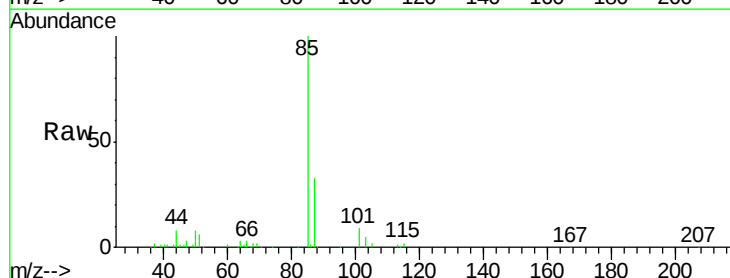
Acq: 19 Aug 2020 13:09

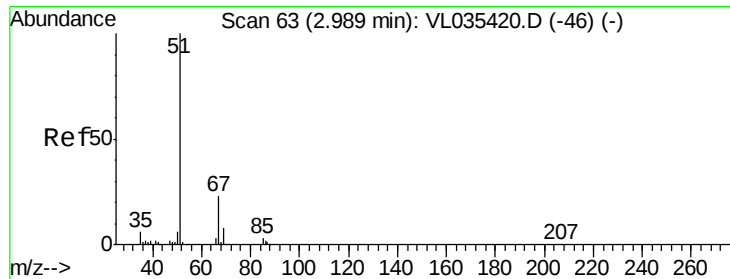
Tgt Ion: 85 Resp: 56937

Ion Ratio Lower Upper

85 100

87 33.0 27.1 40.7





#3

Chlorodifluoromethane

Concen: 2.036 ppbv

RT: 2.99 min Scan# 62

Delta R.T. 0.00 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Instrument :

MSVOA_L

ClientSampleId :

IA-3DUP

Tot Ion: 51 Resp: 268462

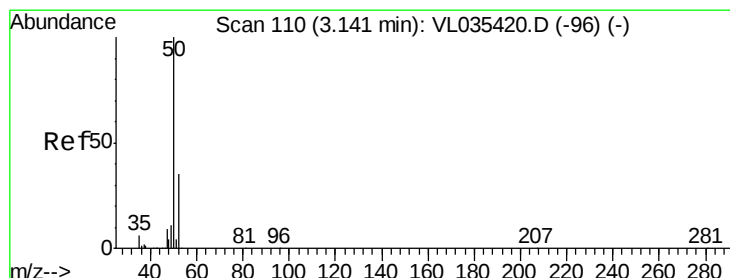
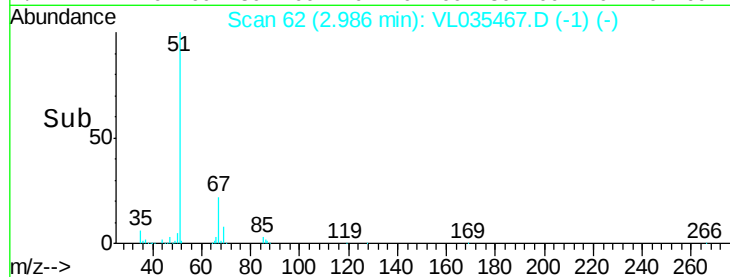
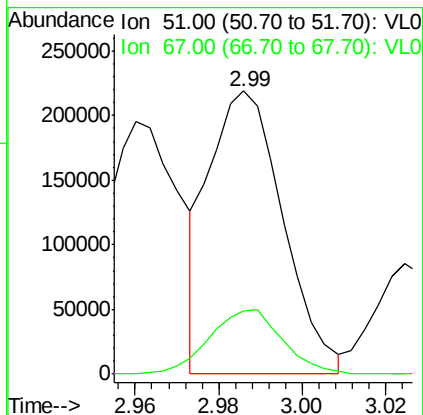
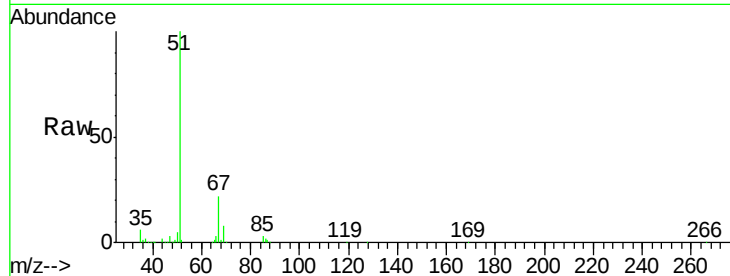
Ion Ratio Lower Upper

51 100

67 22.8 15.0 22.6#

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#4

Chloromethane

Concen: 0.574 ppbv

RT: 3.14 min Scan# 110

Delta R.T. 0.01 min

Lab File: VL035467.D

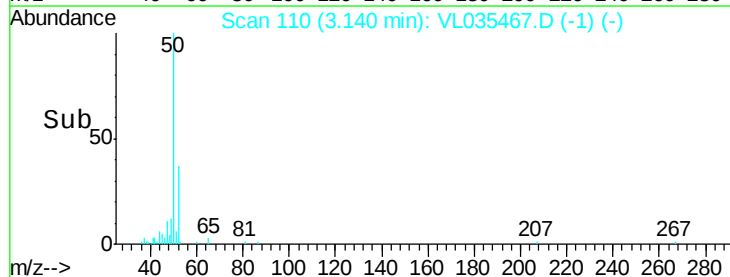
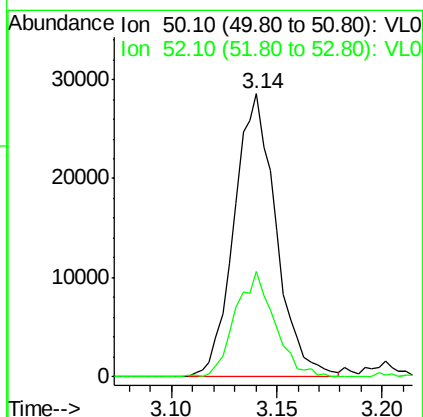
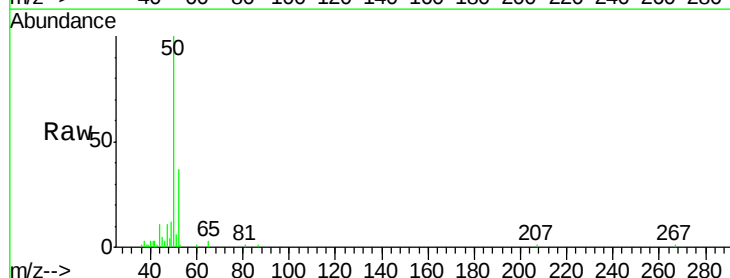
Acq: 19 Aug 2020 13:09

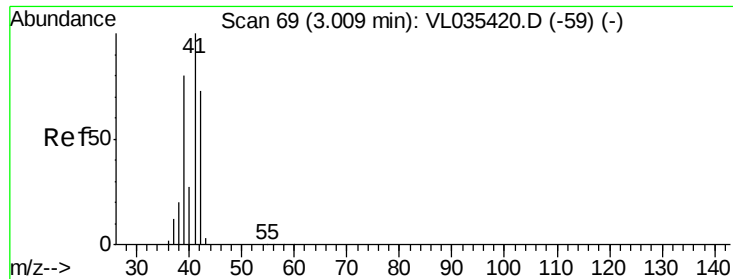
Tgt Ion: 50 Resp: 39406

Ion Ratio Lower Upper

50 100

52 37.4 25.9 38.9





#9

Propene

Concen: 0.713 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Instrument :

MSVOA_L

ClientSampleId :

IA-3DUP

Tot Ion: 41 Resp: 37805

Ion Ratio Lower Upper

41 100

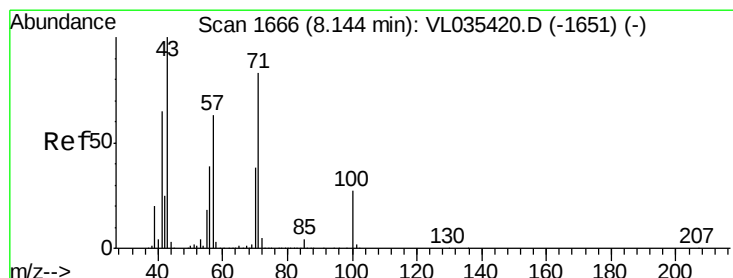
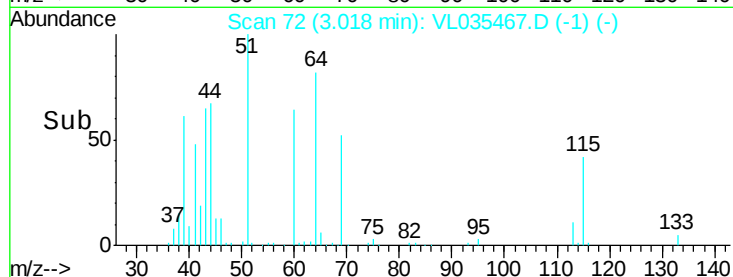
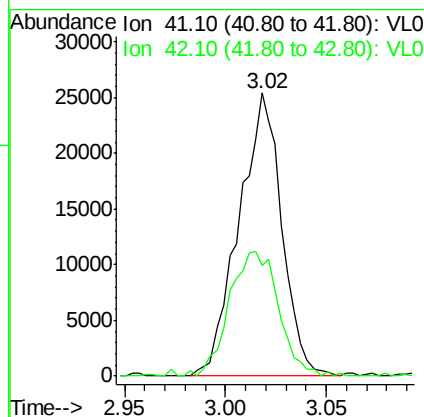
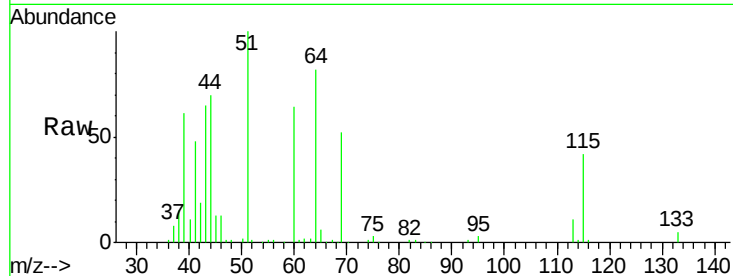
42 51.0 55.5 83.3#

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#10

Heptane

Concen: 0.115 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. -0.00 min

Lab File: VL035467.D

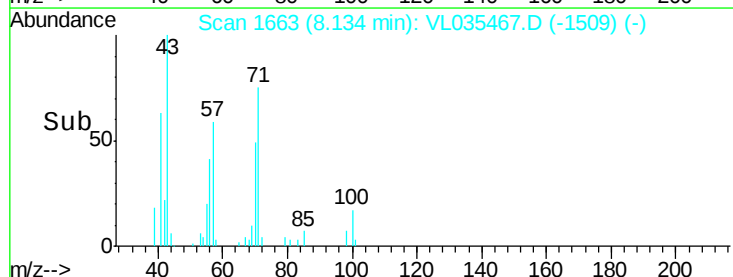
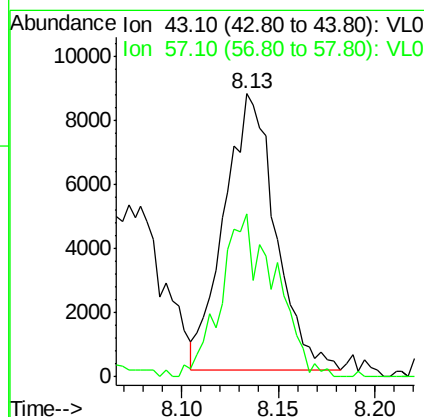
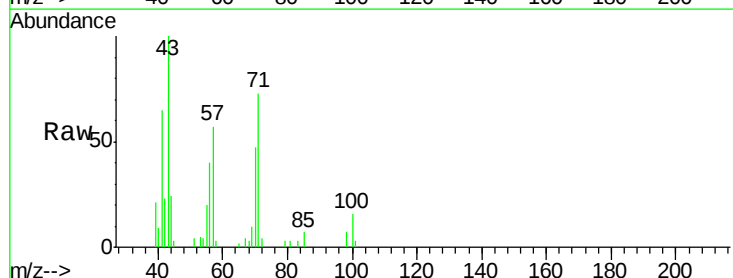
Acq: 19 Aug 2020 13:09

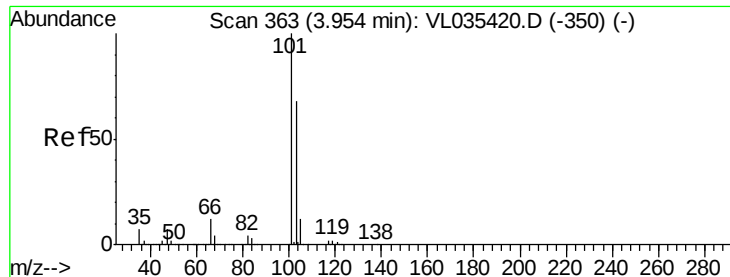
Tgt Ion: 43 Resp: 15957

Ion Ratio Lower Upper

43 100

57 62.2 39.8 59.6#





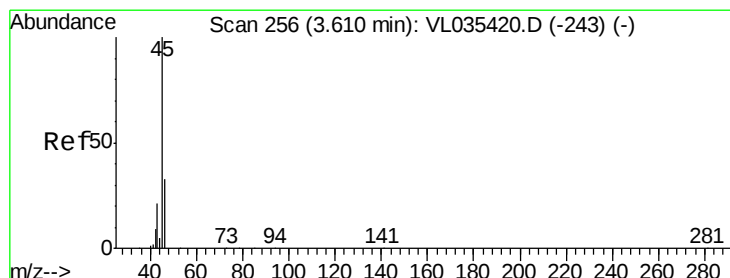
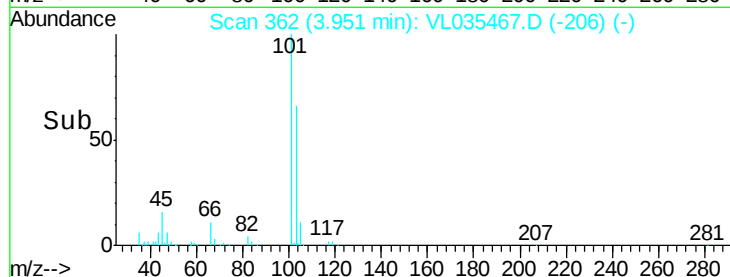
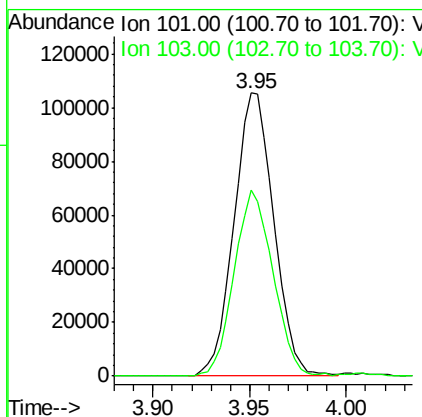
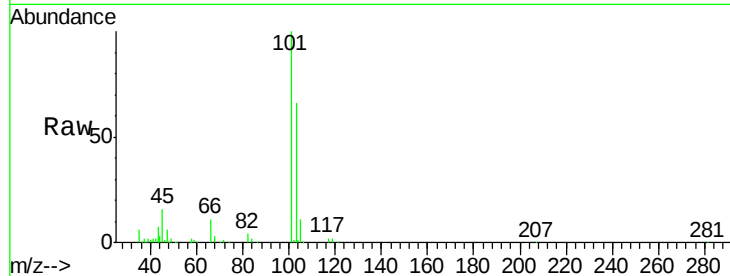
#11
Trichlorofluoromethane
Concen: 0.492 ppbv
RT: 3.95 min Scan# 362
Delta R.T. 0.00 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Instrument :
MSVOA_L
ClientSampleId :
IA-3DUP

Tot Ion	Ion	Ratio	Lower	Upper
101	100			
103	65.4	52.6	78.8	

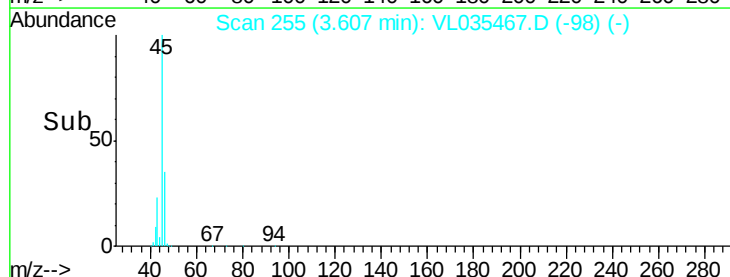
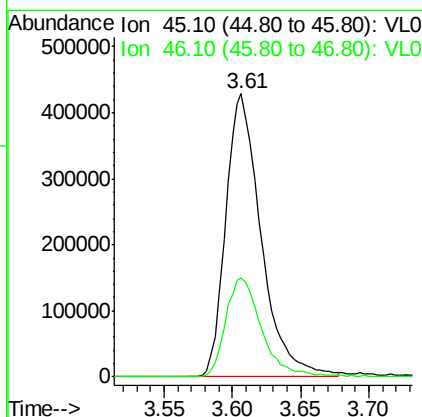
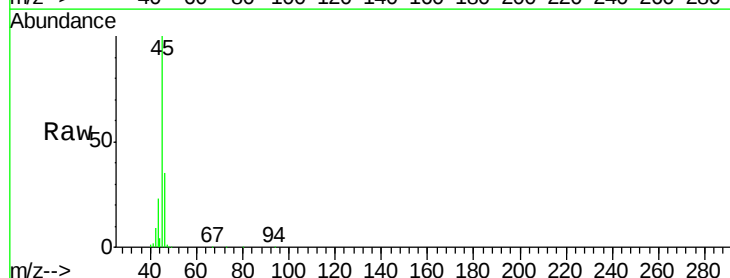
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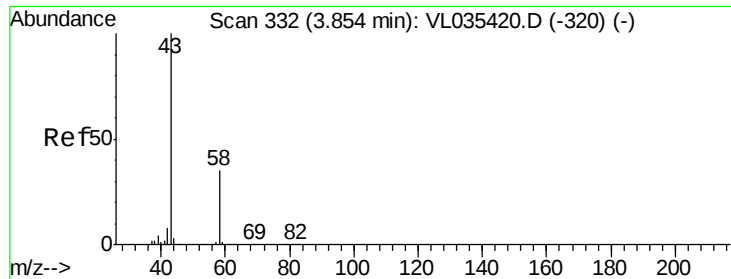
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#13
Ethanol
Concen: 39.741 ppbv
RT: 3.61 min Scan# 255
Delta R.T. 0.01 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Tgt Ion	Ion	Ratio	Lower	Upper
45	100			
46	35.9	14.2	56.6	





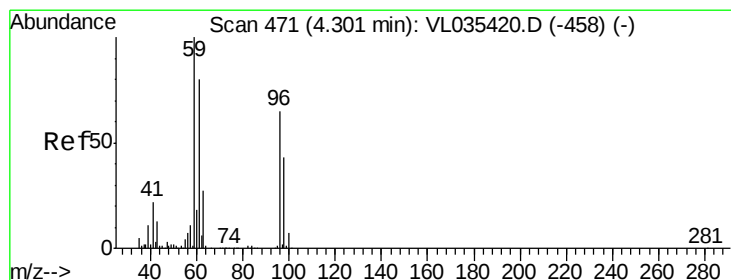
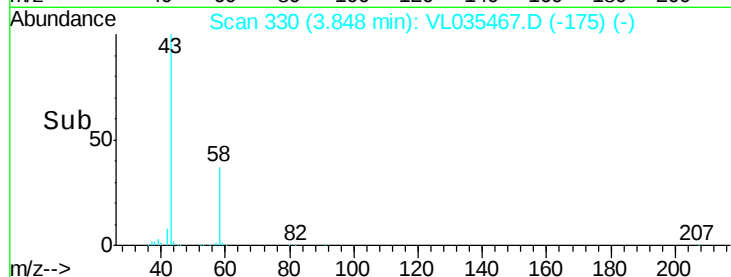
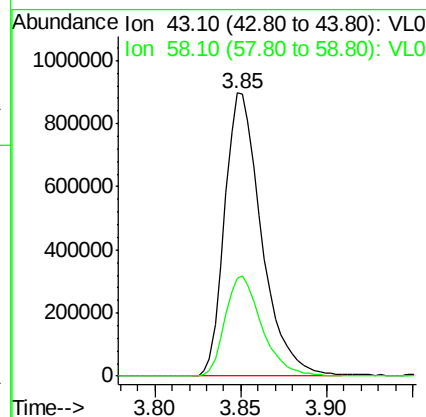
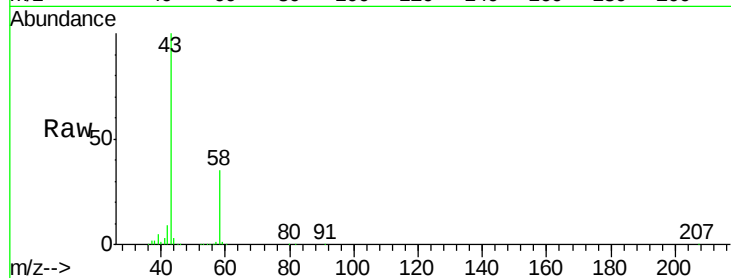
#15
Acetone
Concen: 11.130 ppbv
RT: 3.85 min Scan# 330
Delta R.T. -0.00 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Instrument :
MSVOA_L
ClientSampled :
IA-3DUP

Tot Ion: 43 Resp: 1347242
Ion Ratio Lower Upper
43 100
58 35.5 21.0 31.6#

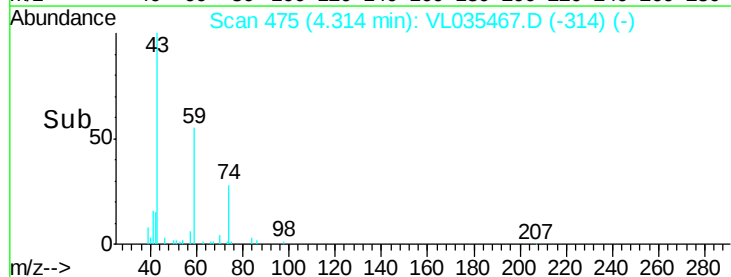
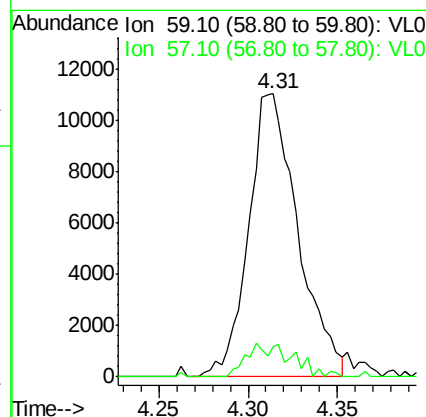
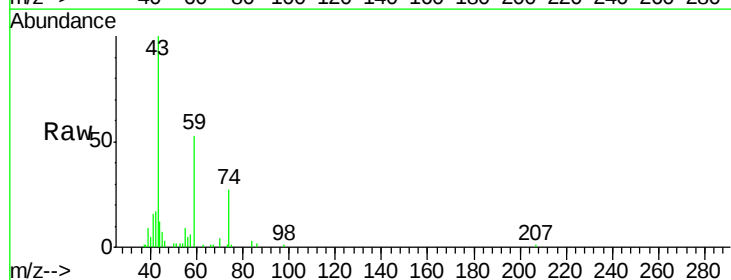
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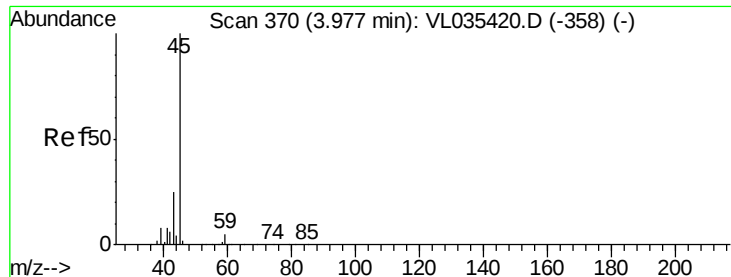
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#17
tert-Butyl alcohol
Concen: 0.137 ppbv
RT: 4.31 min Scan# 475
Delta R.T. 0.02 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Tgt Ion: 59 Resp: 21386
Ion Ratio Lower Upper
59 100
57 10.8 8.9 13.3





#19

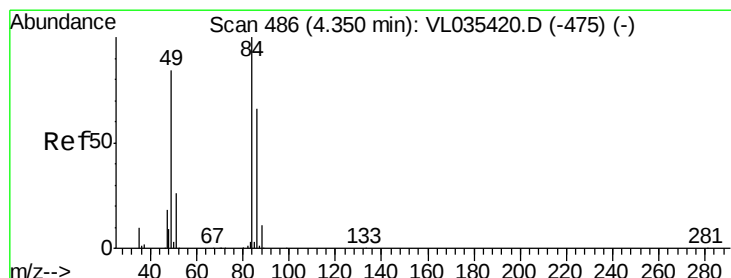
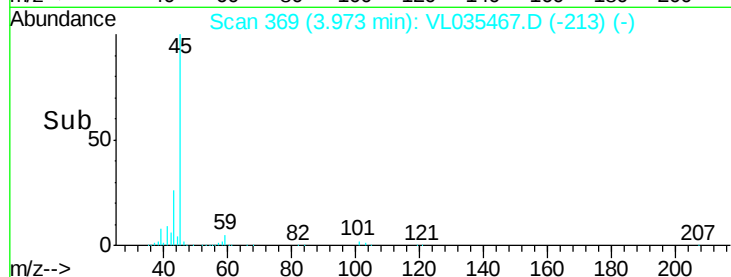
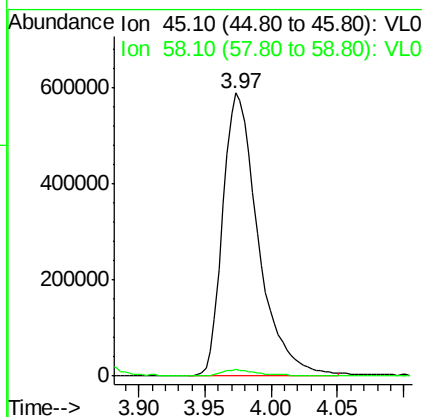
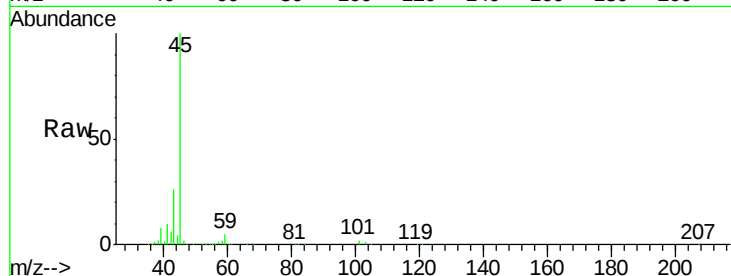
Isopropyl Alcohol
 Concen: 13.080 ppbv
 RT: 3.97 min Scan# 369
 Delta R.T. 0.00 min
 Lab File: VL035467.D
 Acq: 19 Aug 2020 13:09

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3DUP

Tot Ion: 45 Resp: 1091324
 Ion Ratio Lower Upper
 45 100
 58 2.6 1.0 1.6#

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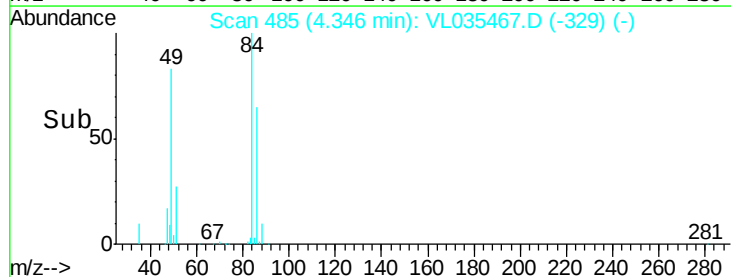
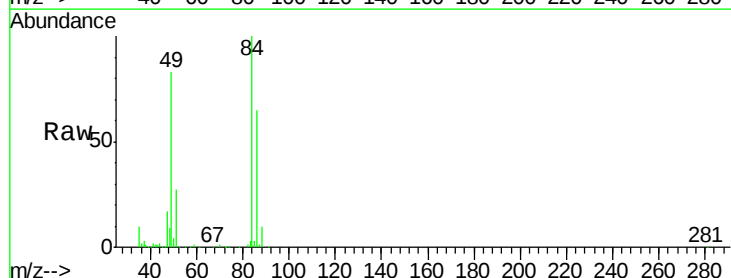
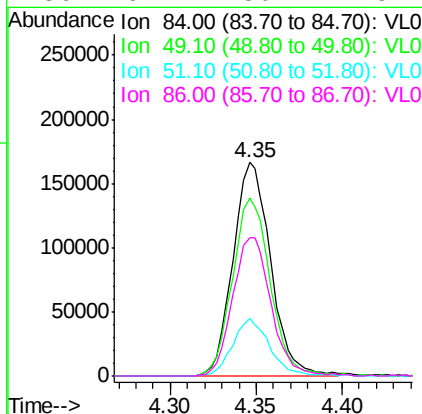
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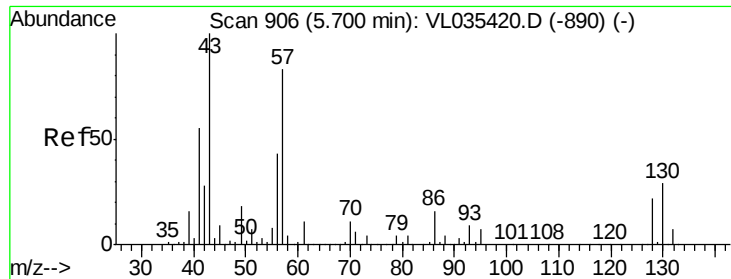


#20

Methylene Chloride
 Concen: 2.588 ppbv
 RT: 4.35 min Scan# 485
 Delta R.T. 0.00 min
 Lab File: VL035467.D
 Acq: 19 Aug 2020 13:09

Tgt Ion: 84 Resp: 252806
 Ion Ratio Lower Upper
 84 100
 49 83.0 118.6 177.8#
 51 26.8 36.4 54.6#
 86 64.7 50.2 75.4





#26

Hexane

Concen: 1.384 ppbv

RT: 5.69 min Scan# 904

Delta R.T. -0.00 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Instrument :

MSVOA_L

ClientSampleId :

IA-3DUP

Tot Ion: 57 Resp: 183986

Ion Ratio Lower Upper

57 100

41 68.2 75.5 113.3#

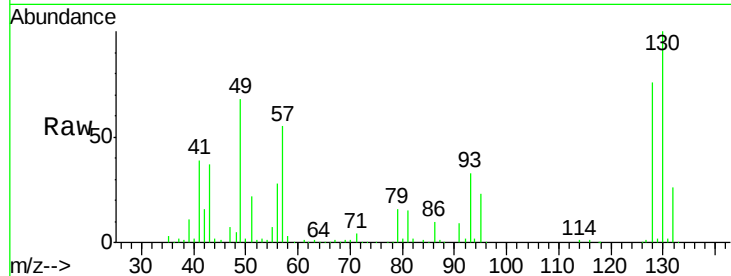
43 68.6 181.7 272.5#

56 52.5 42.4 63.6

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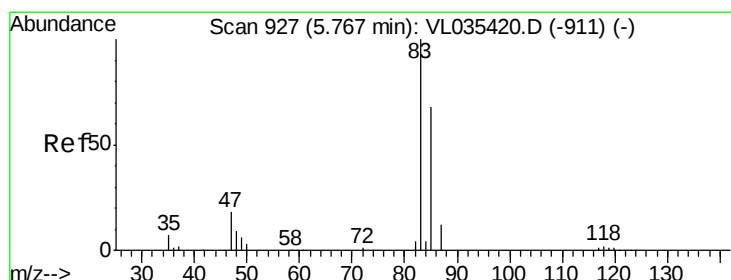
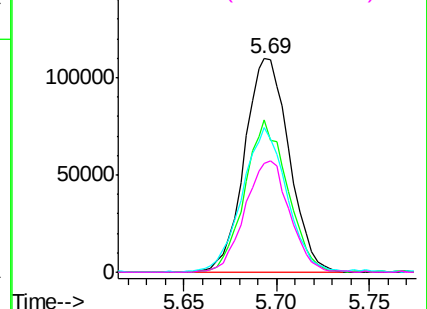
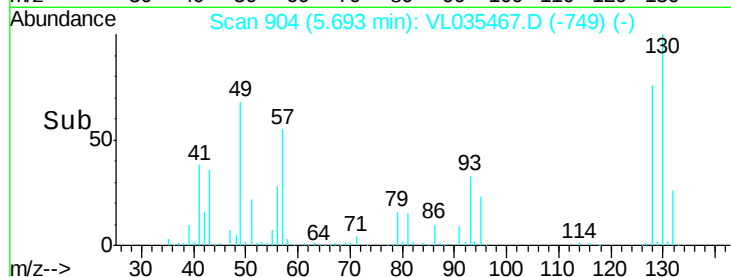


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#29

Chloroform

Concen: 0.136 ppbv m

RT: 5.76 min Scan# 925

Delta R.T. -0.00 min

Lab File: VL035467.D

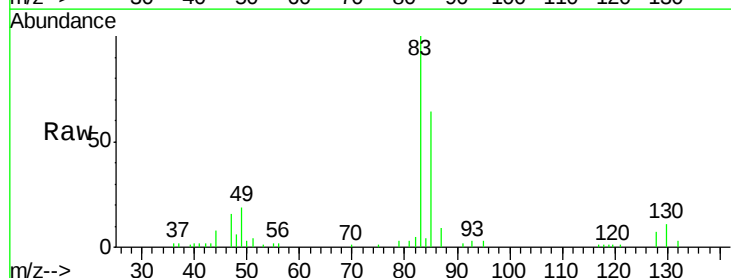
Acq: 19 Aug 2020 13:09

Tgt Ion: 83 Resp: 36274

Ion Ratio Lower Upper

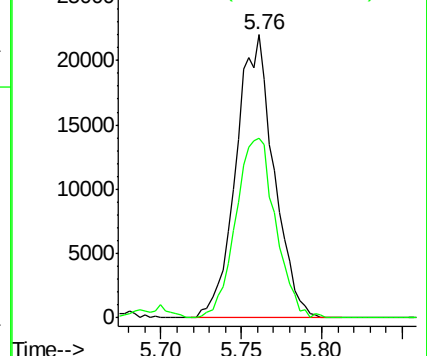
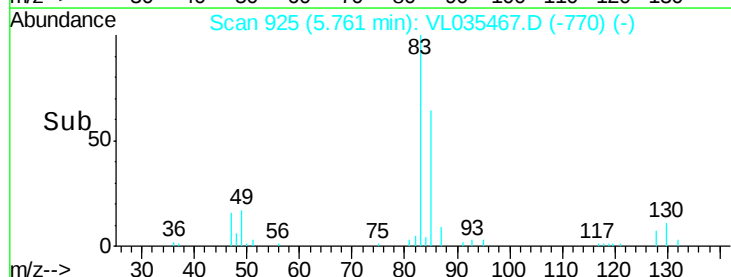
83 100

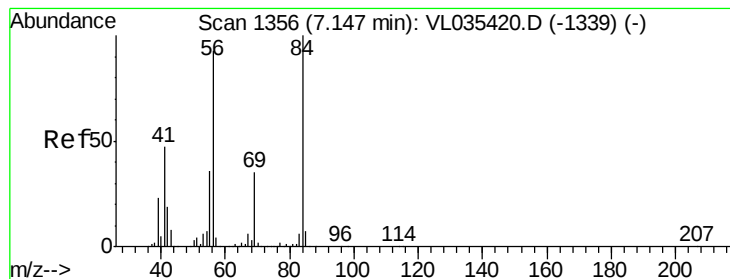
85 63.5 52.7 79.1



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0





#30

Cvclohexane

Concen: 0.293 ppbv

RT: 7.14 min Scan# 1355

Delta R.T. 0.01 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Instrument :

MSVOA_L

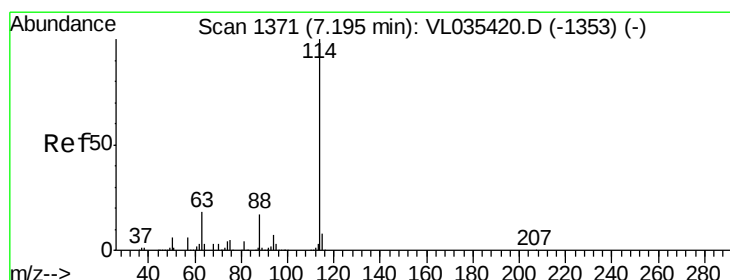
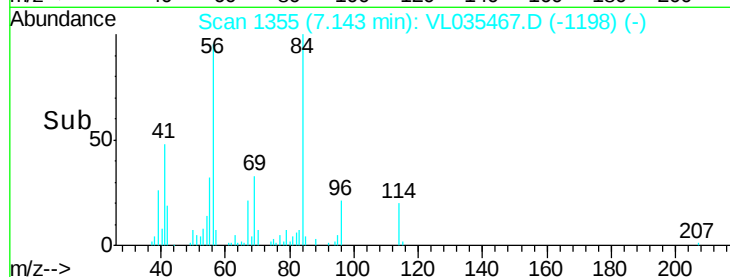
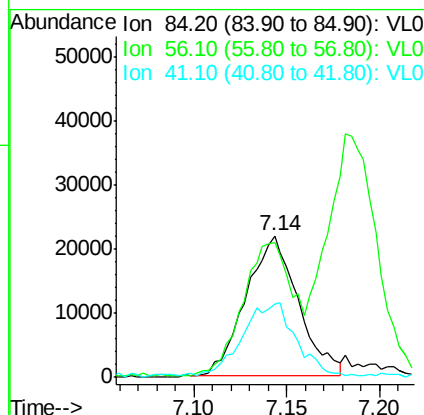
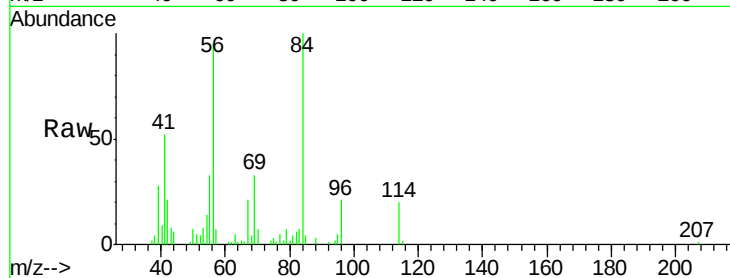
ClientSampled :

IA-3DUP

Tot Ion:	84	Resp:	43143
Ion	Ratio	Lower	Upper
84	100		
56	83.6	114.9	172.3#
41	53.6	72.3	108.5#

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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

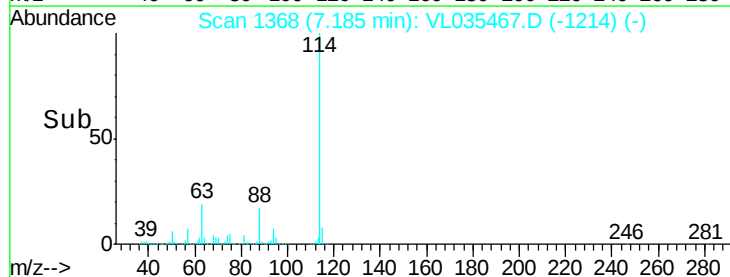
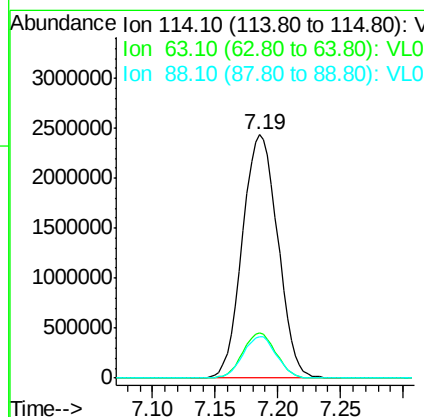
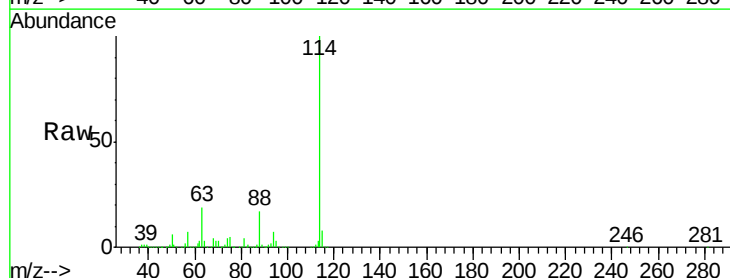
RT: 7.19 min Scan# 1368

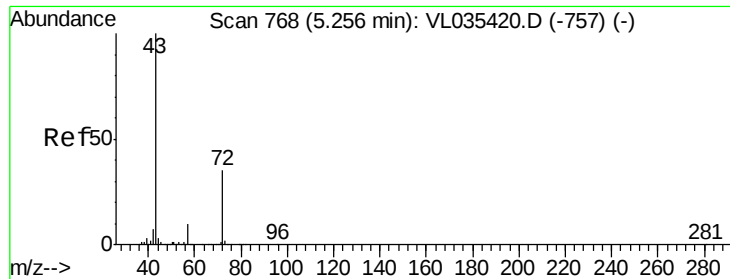
Delta R.T. -0.00 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Tgt Ion:	114	Resp:	4794586
Ion	Ratio	Lower	Upper
114	100		
63	17.6	23.1	34.7#
88	16.4	15.9	23.9





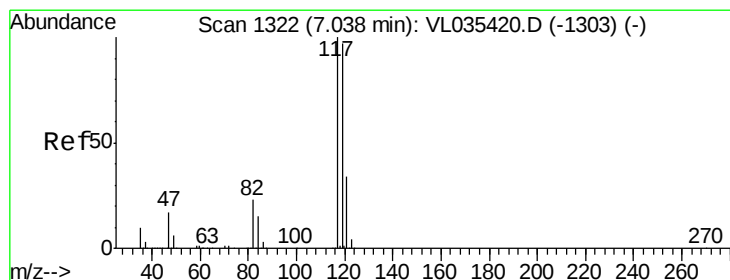
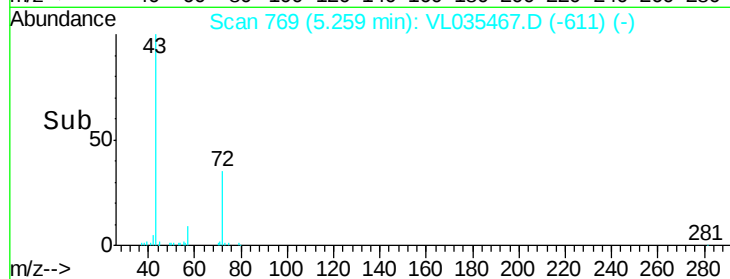
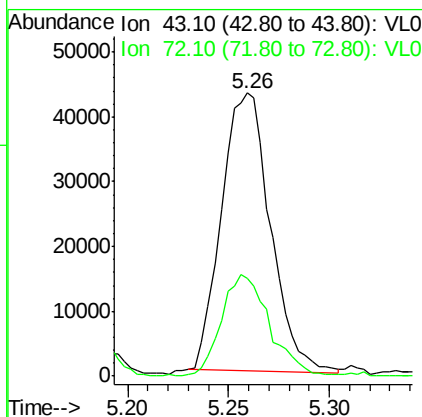
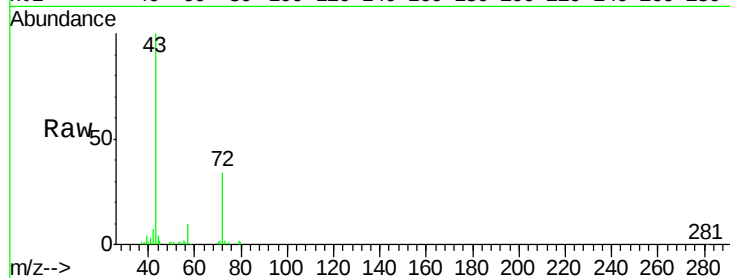
#34
2-Butanone
Concen: 0.454 ppbv
RT: 5.26 min Scan# 769
Delta R.T. 0.01 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Instrument :
MSVOA_L
ClientSampleId :
IA-3DUP

Tot Ion: 43 Resp: 72799
Ion Ratio Lower Upper
43 100
72 36.3 17.6 26.4#

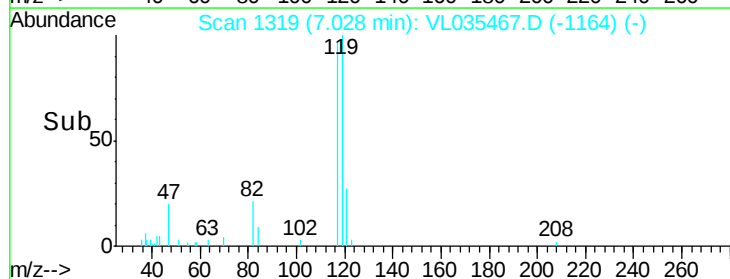
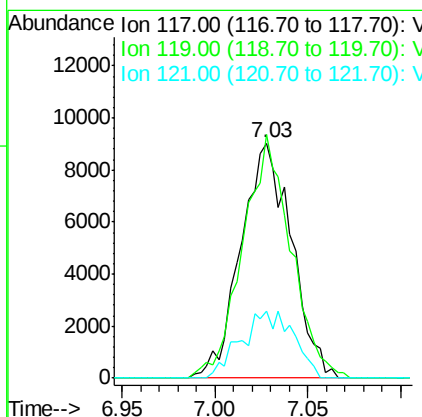
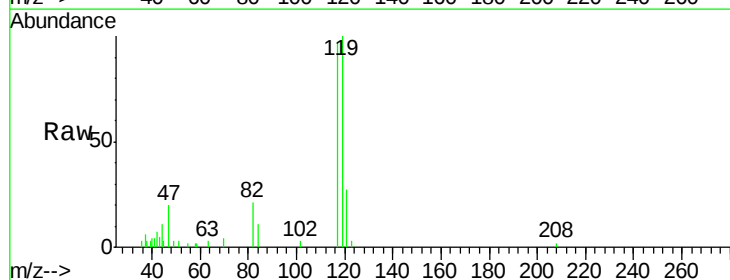
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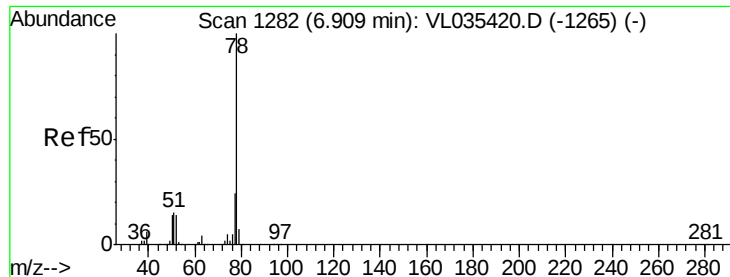
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#35
Carbon Tetrachloride
Concen: 0.067 ppbv
RT: 7.03 min Scan# 1319
Delta R.T. -0.00 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Tgt Ion: 117 Resp: 17154
Ion Ratio Lower Upper
117 100
119 103.5 76.1 114.1
121 28.4 25.5 38.3





#36

Benzene

Concen: 0.154 ppbv m

RT: 6.90 min Scan# 1278

Delta R.T. -0.01 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Instrument :

MSVOA_L

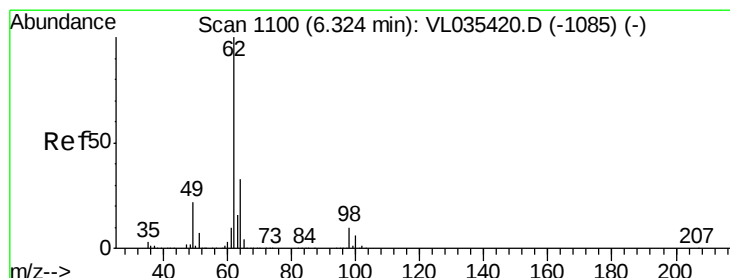
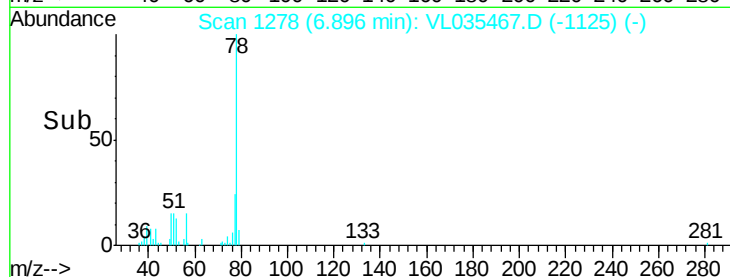
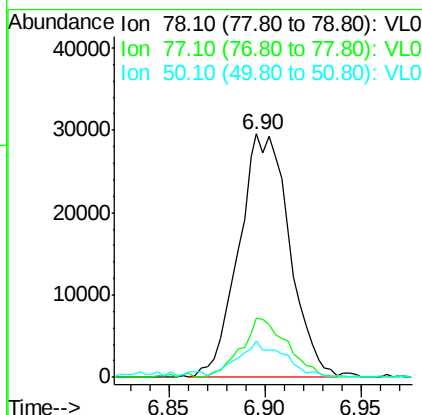
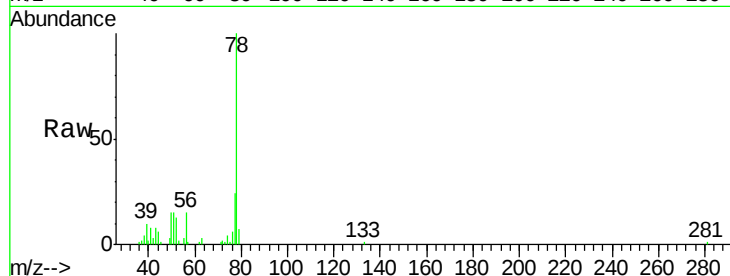
ClientSampleId :

IA-3DUP

Tot Ion:	78	Resp:	54218
Ion	Ratio	Lower	Upper
78	100		
77	24.1	19.6	29.4
50	14.7	16.3	24.5#

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#37

1,2-Dichloroethane

Concen: 0.207 ppbv

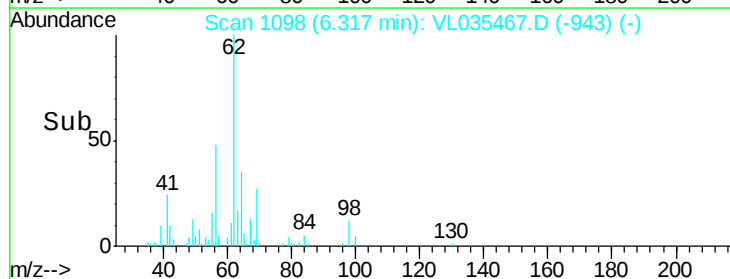
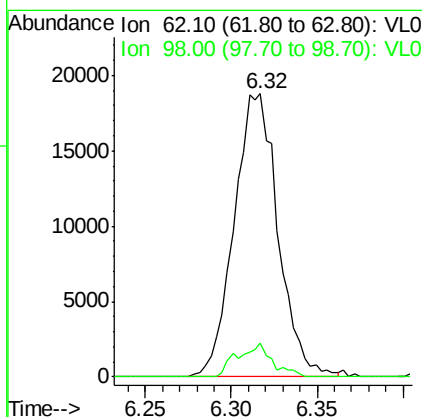
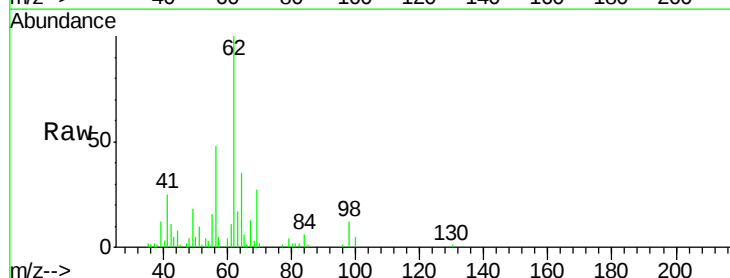
RT: 6.32 min Scan# 1098

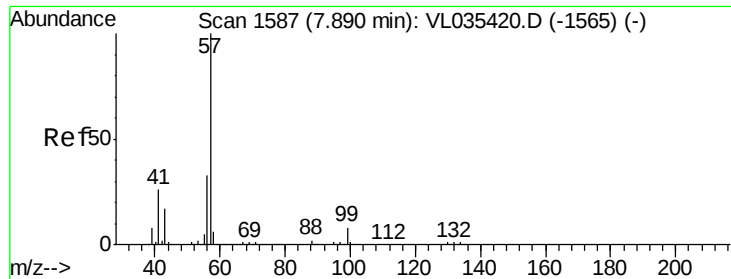
Delta R.T. -0.00 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Tgt Ion:	62	Resp:	33295
Ion	Ratio	Lower	Upper
62	100		
98	9.5	4.6	7.0#





#44

2,2,4-Trimethylpentane

Concen: 0.269 ppbv

RT: 7.88 min Scan# 1585

Delta R.T. -0.00 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Instrument :

MSVOA_L

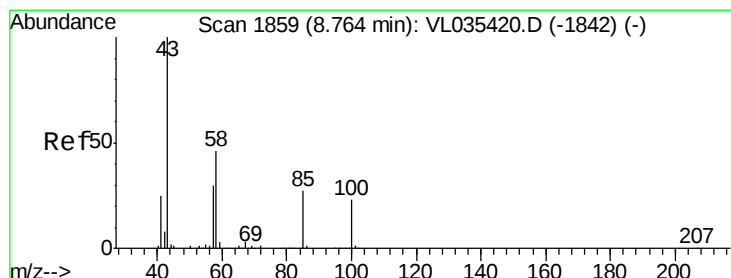
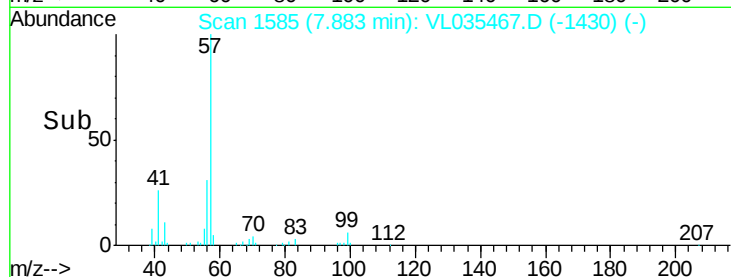
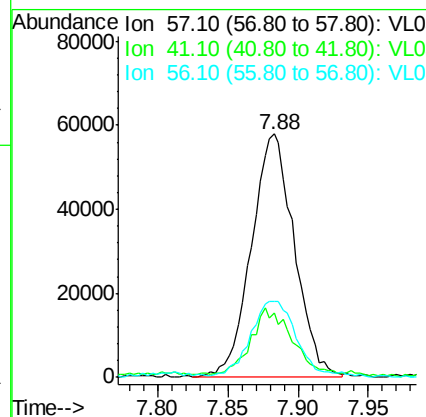
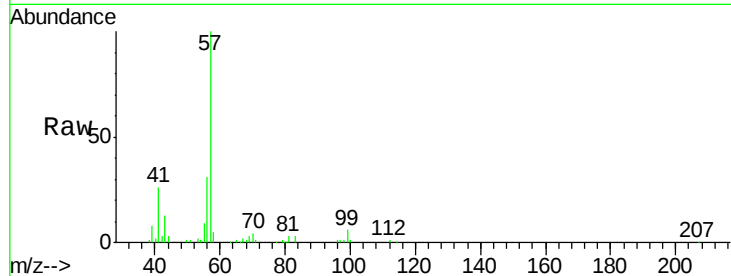
ClientSampleId :

IA-3DUP

Tot Ion:	57	Resp:	123564
Ion	Ratio	Lower	Upper
57	100		
41	27.3	27.2	40.8
56	34.2	25.4	38.0

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#50

4-Methyl-2-Pentanone

Concen: 0.734 ppbv

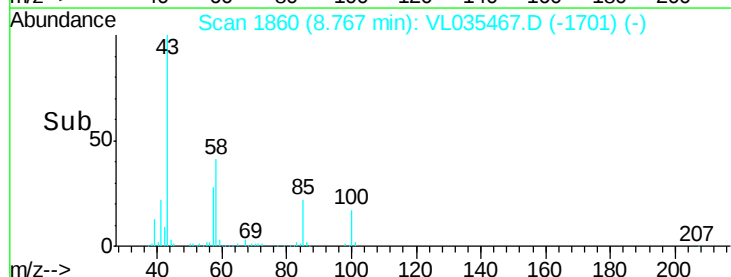
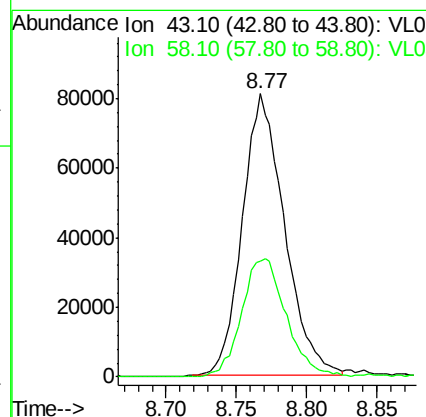
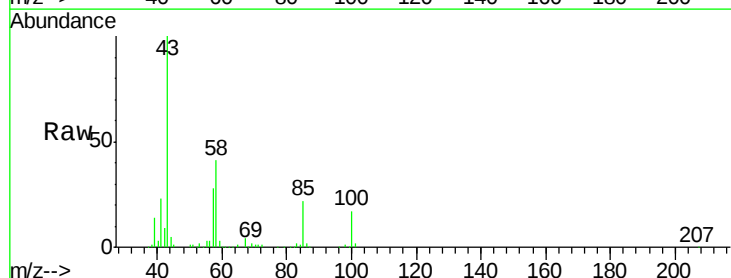
RT: 8.77 min Scan# 1860

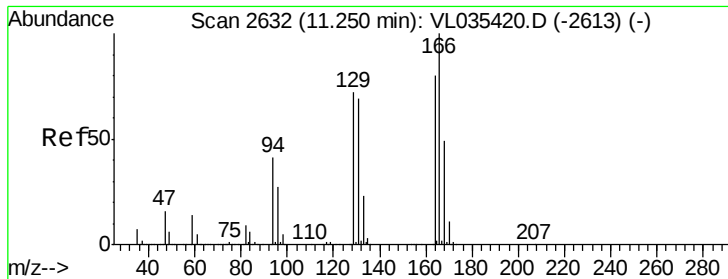
Delta R.T. 0.01 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Tgt Ion:	43	Resp:	168744
Ion	Ratio	Lower	Upper
43	100		
58	44.8	28.7	43.1#





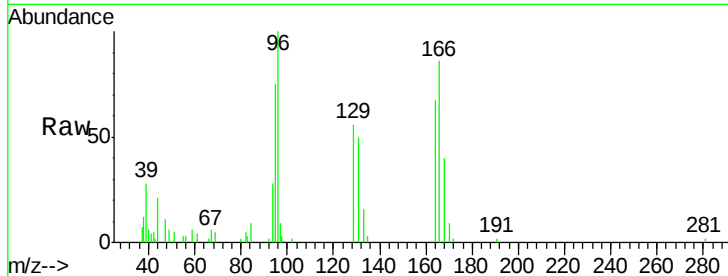
#52
Tetrachloroethene
Concen: 0.058 ppbv m
RT: 11.25 min Scan# 2631
Delta R.T. 0.00 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Instrument :
MSVOA_L
ClientSampleId :
IA-3DUP

Tot Ion	Ratio	Lower	Upper
164	100		
166	128.9	103.4	155.0
129	84.3	90.2	135.4#
131	74.7	91.7	137.5#

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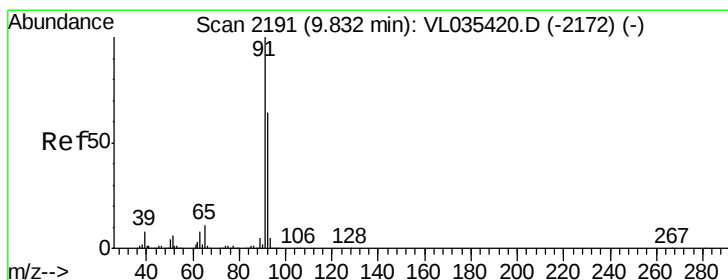
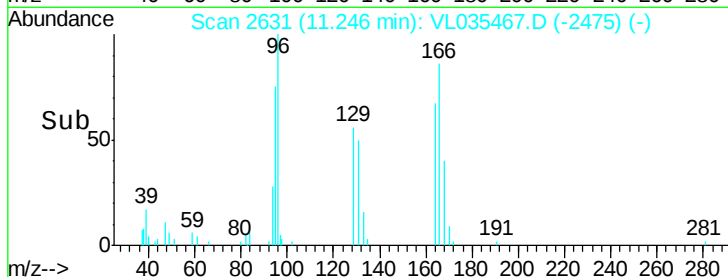
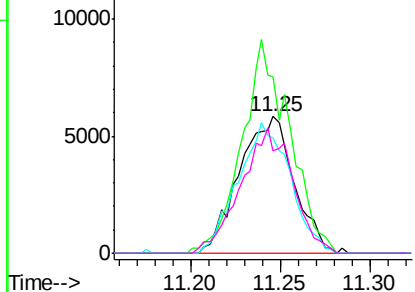


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

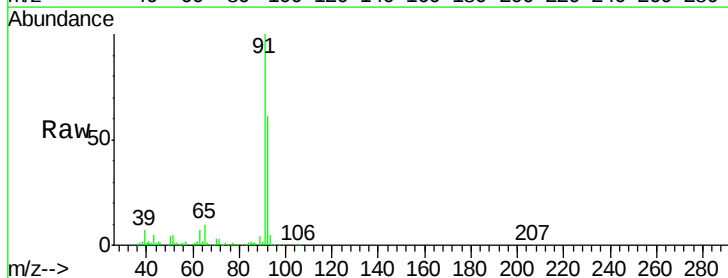
Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



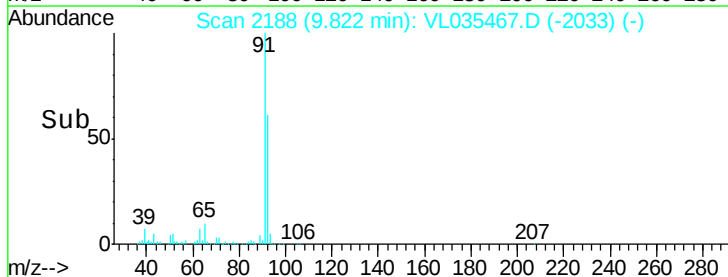
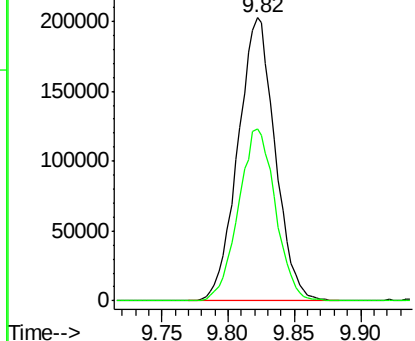
#53
Toluene
Concen: 0.869 ppbv
RT: 9.82 min Scan# 2188
Delta R.T. -0.00 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

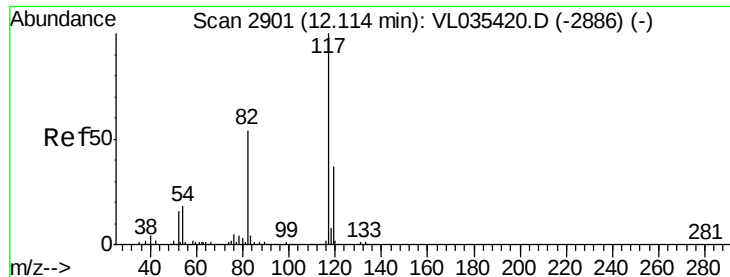
Tgt Ion	Ratio	Lower	Upper
91	100		
92	60.7	49.1	73.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





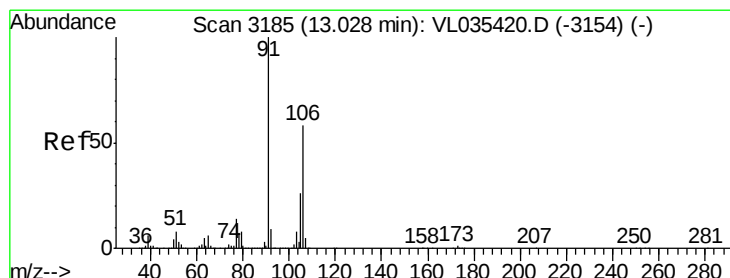
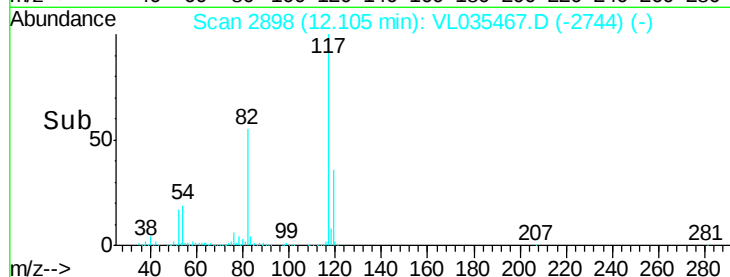
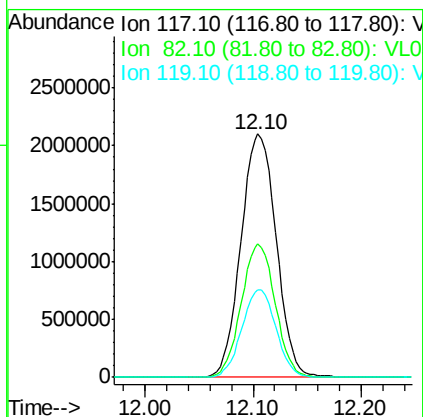
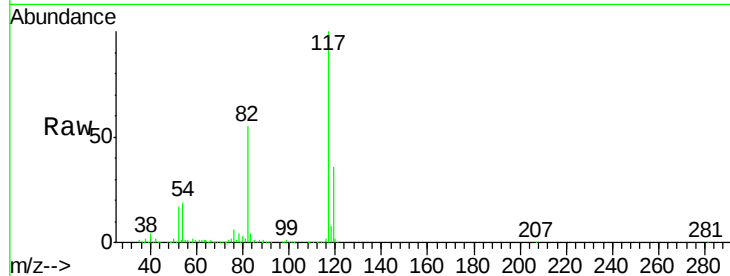
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2898
Delta R.T. -0.00 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Instrument :
MSVOA_L
ClientSampleId :
IA-3DUP

Tot Ion:117 Resp: 4795359
Ion Ratio Lower Upper
117 100
82 52.8 57.4 86.0#
119 35.1 28.4 42.6

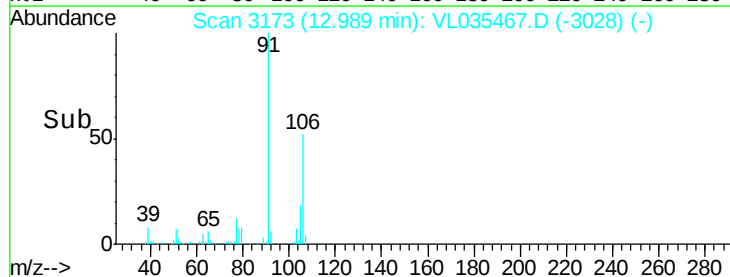
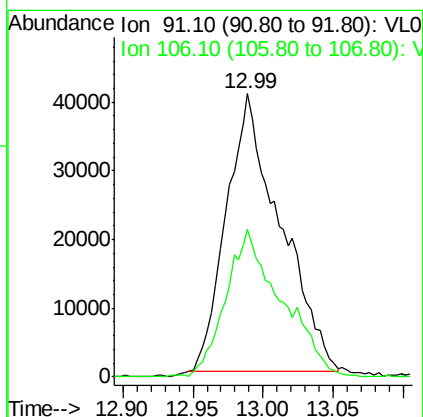
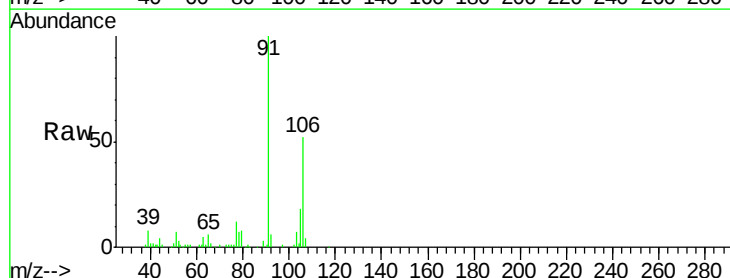
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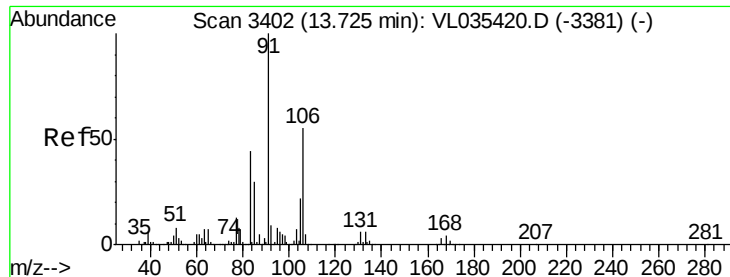
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#59
m/p-Xylene
Concen: 0.219 ppbv
RT: 12.99 min Scan# 3173
Delta R.T. -0.03 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Tgt Ion: 91 Resp: 107324
Ion Ratio Lower Upper
91 100
106 55.2 34.0 51.0#





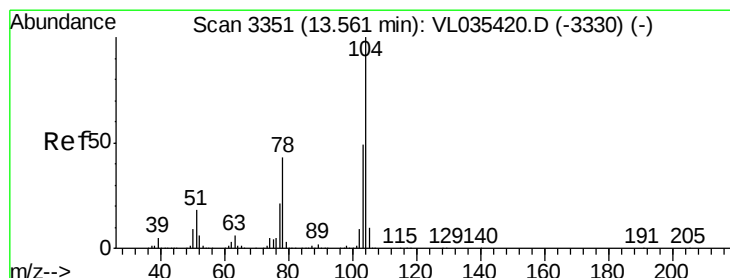
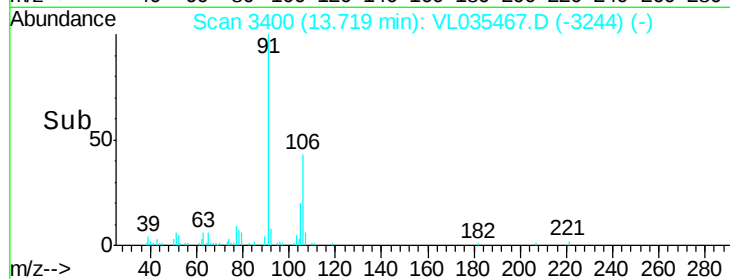
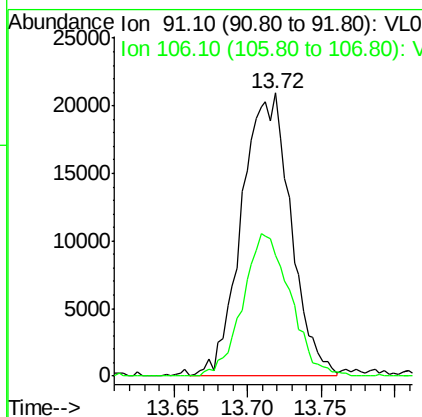
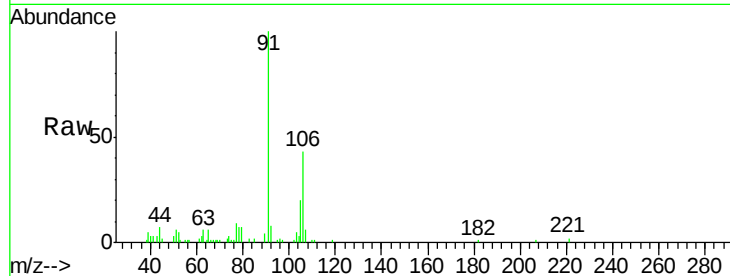
#60
o-Xylene
Concen: 0.101 ppbv m
RT: 13.72 min Scan# 3400
Delta R.T. 0.00 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Instrument :
MSVOA_L
ClientSampled :
IA-3DUP

Tot Ion	Ion	Ratio	Lower	Upper
91	100			
106	48.7	21.8	65.3	

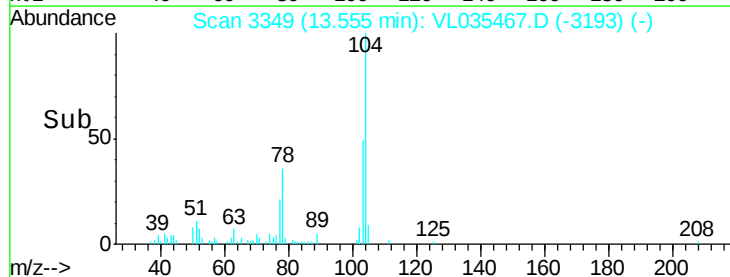
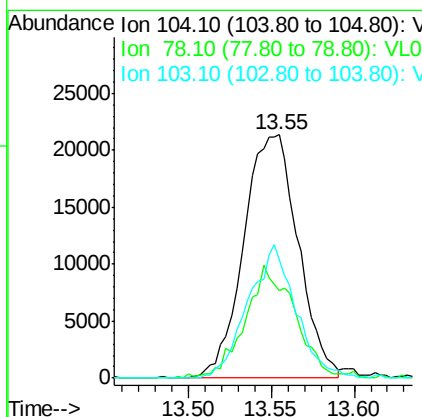
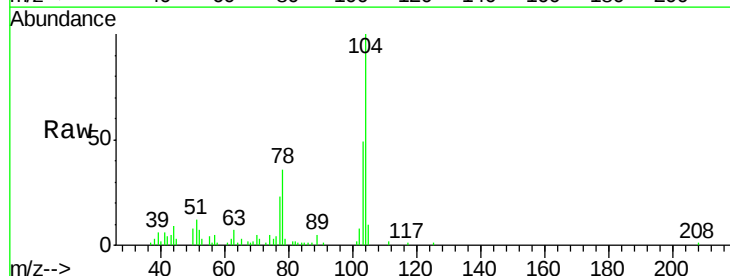
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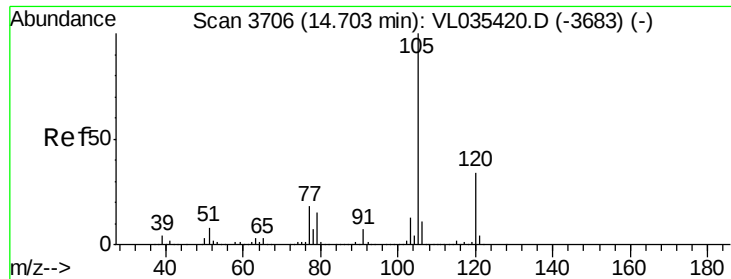
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#61
Styrene
Concen: 0.127 ppbv
RT: 13.55 min Scan# 3349
Delta R.T. 0.00 min
Lab File: VL035467.D
Acq: 19 Aug 2020 13:09

Tgt Ion	Ion	Ratio	Lower	Upper
104	100			
78	42.8	45.4	68.2	
103	48.3	37.8	56.8	





#62

Isopropylbenzene

Concen: 0.123 ppbv m

RT: 14.69 min Scan# 3701

Delta R.T. -0.01 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

Instrument :

MSVOA_L

ClientSampled :

IA-3DUP

Tot Ion: 105 Resp: 95494

Ion Ratio Lower Upper

105 100

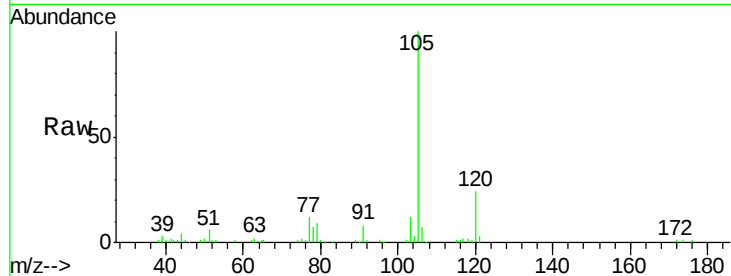
120 0.0 20.3 30.5#

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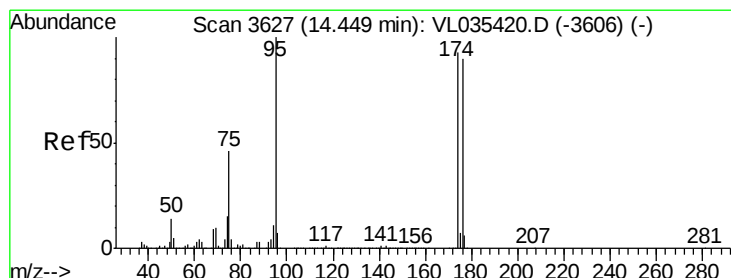
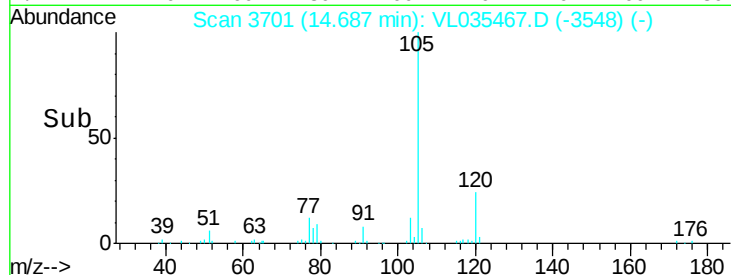
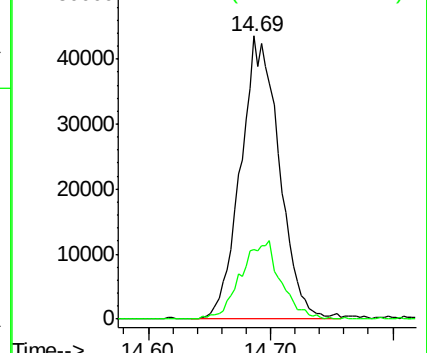
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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.330 ppbv

RT: 14.44 min Scan# 3624

Delta R.T. -0.00 min

Lab File: VL035467.D

Acq: 19 Aug 2020 13:09

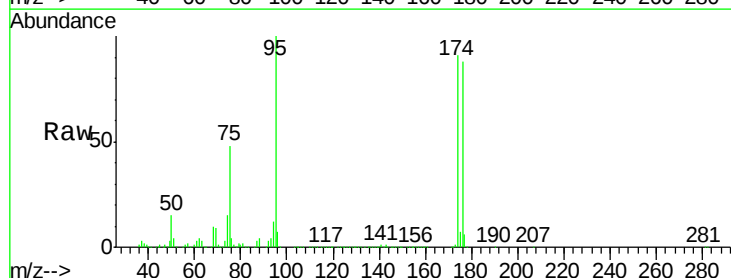
Tgt Ion: 95 Resp: 3467885

Ion Ratio Lower Upper

95 100

174 92.2 44.0 66.0#

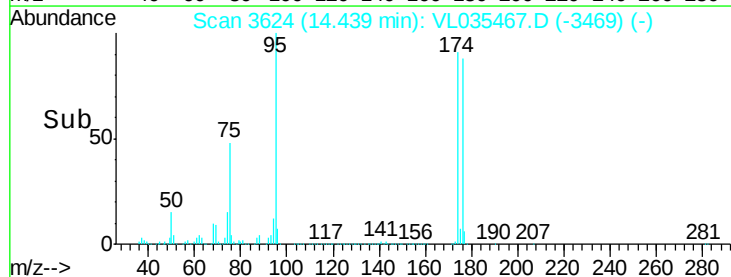
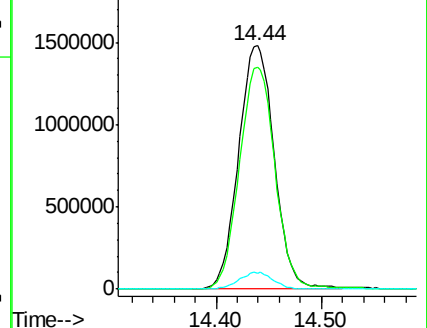
175 6.8 3.2 4.8#

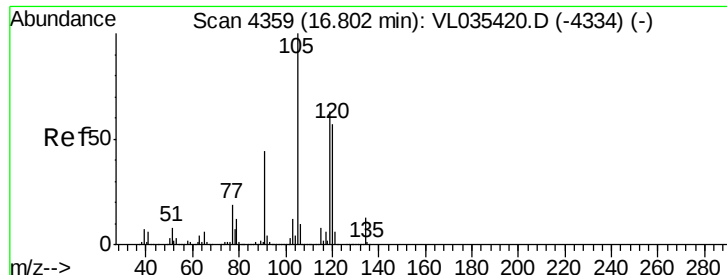


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.113 ppbv
 RT: 16.79 min Scan# 4354
 Delta R.T. -0.01 min
 Lab File: VL035467.D
 Acq: 19 Aug 2020 13:09

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3DUP

Tot Ion	Ratio	Resp Lower	Resp Upper
105	100		
120	40.9	37.8	56.8
91	13.2	40.0	60.0#
77	10.5	18.8	28.2#

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