

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081820\
 Data File : VL035462.D
 Acq On : 19 Aug 2020 9:42
 Operator : SY/AP
 Sample : L3730-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AA

Manual Integrations
 APPROVED

MMDadoda
 8/20/2020 11:07:46 AM

Quant Time: Aug 20 03:16:33 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	1088385	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	5079369	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	5079317	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	3670586	10.32	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	60214	0.298	ppbv	95
3) Chlorodifluoromethane	2.99	51	78107m	0.572	ppbv	
4) Chloromethane	3.14	50	37367	0.526	ppbv	95
9) Propene	3.02	41	76494	1.395	ppbv #	65
10) Heptane	8.13	43	18050	0.126	ppbv #	80
11) Trichlorofluoromethane	3.95	101	76744	0.242	ppbv	94
13) Ethanol	3.60	45	260570	12.966	ppbv	99
15) Acetone	3.85	43	1307194	10.435	ppbv #	82
17) tert-Butyl alcohol	4.31	59	16247m	0.100	ppbv	
19) Isopropyl Alcohol	3.97	45	266169	3.083	ppbv #	1
20) Methylene Chloride	4.35	84	533628	5.280	ppbv #	65
26) Hexane	5.69	57	467883	3.401	ppbv #	30
30) Cyclohexane	7.14	84	53247	0.349	ppbv #	56
34) 2-Butanone	5.26	43	78053	0.460	ppbv #	70
35) Carbon Tetrachloride	7.03	117	16677	0.062	ppbv	96
36) Benzene	6.90	78	55203	0.148	ppbv #	86
44) 2,2,4-Trimethylpentane	7.88	57	142186	0.292	ppbv	92
50) 4-Methyl-2-Pentanone	8.77	43	197345	0.811	ppbv #	82
52) Tetrachloroethene	11.25	164	12472	0.055	ppbv #	61
53) Toluene	9.82	91	440038	0.916	ppbv	97
58) Ethyl Benzene	12.73	91	118701	0.194	ppbv	95
59) m/p-Xylene	12.99	91	363933m	0.702	ppbv	
60) o-Xylene	13.72	91	110344	0.219	ppbv	89
61) Styrene	13.55	104	73188	0.180	ppbv #	88
74) 1,2,4-Trimethylbenzene	16.79	105	83689m	0.125	ppbv	

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

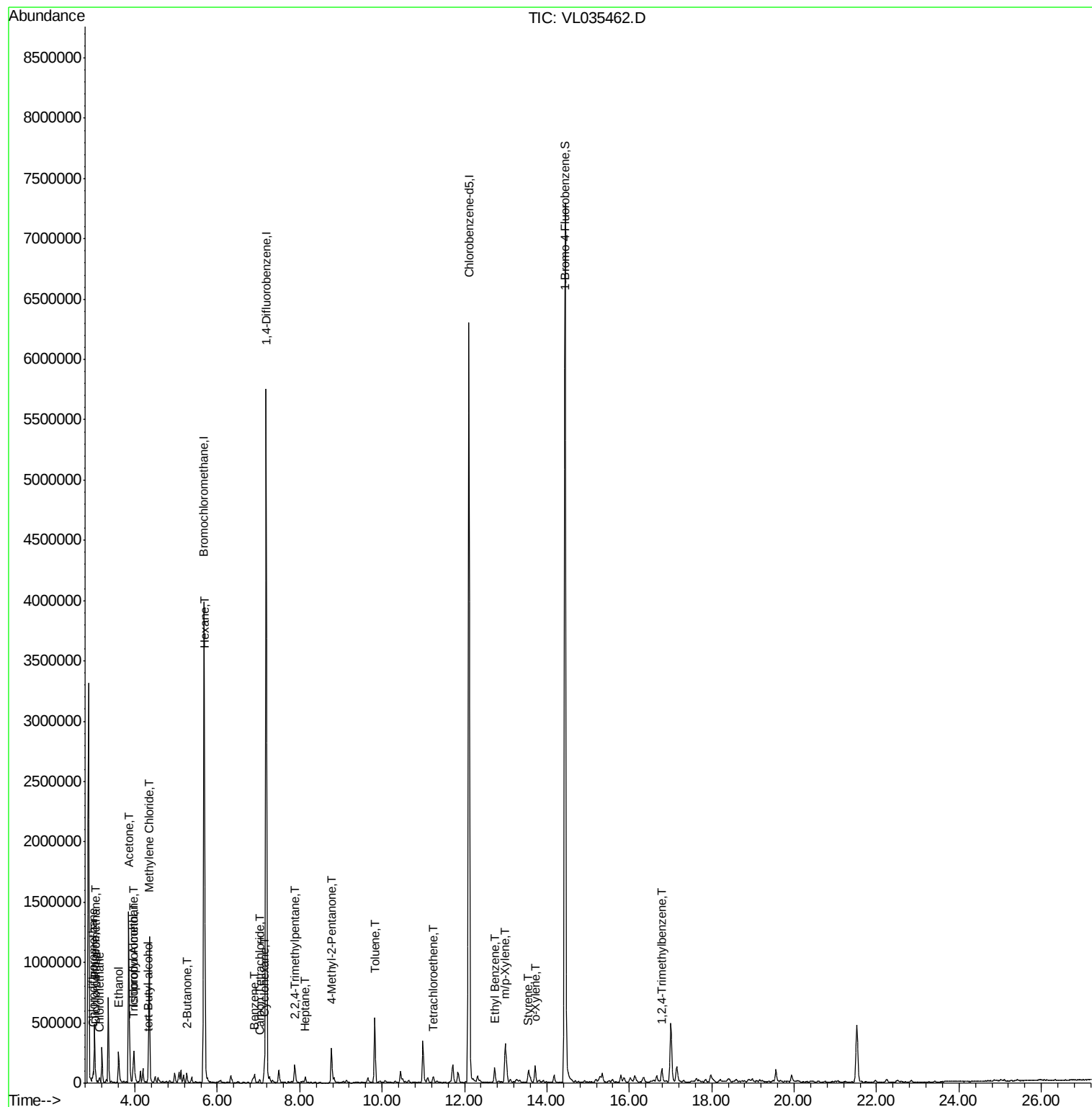
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL081820\
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Quant Time: Aug 20 03:16:33 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL081720AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Aug
QLast Update : Mon Aug 17 19:28:30 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.00 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Instrument :

MSVOA_L

ClientSampled :

AA

Tot Ion: 49 Resp: 1088385

Ion Ratio Lower Upper

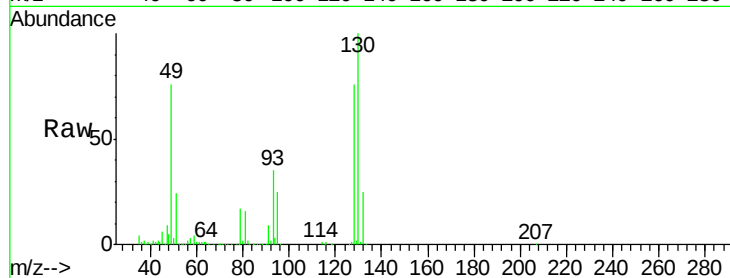
49 100

128 104.6 20.9 62.7#

130 134.8 26.7 80.1#

Manual Integrations
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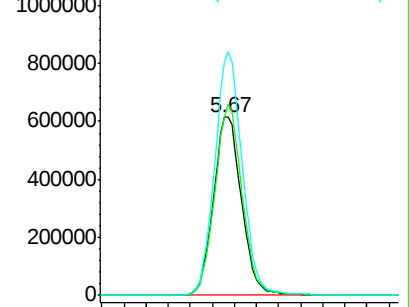
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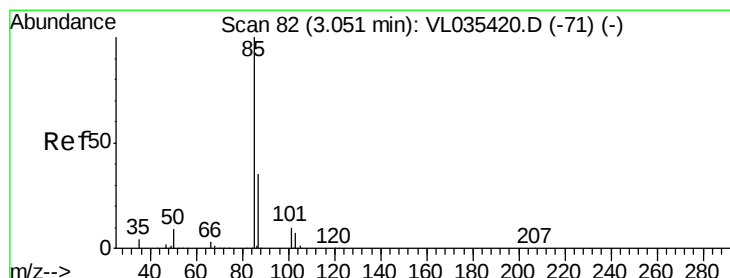
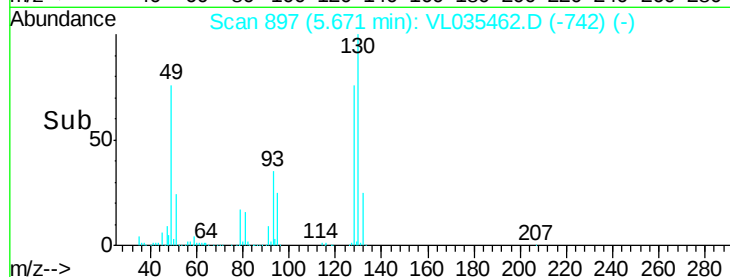
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



Time-->



#2

Dichlorodifluoromethane

Concen: 0.298 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL035462.D

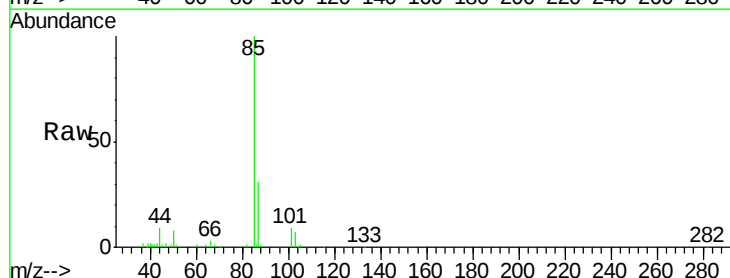
Acq: 19 Aug 2020 9:42

Tgt Ion: 85 Resp: 60214

Ion Ratio Lower Upper

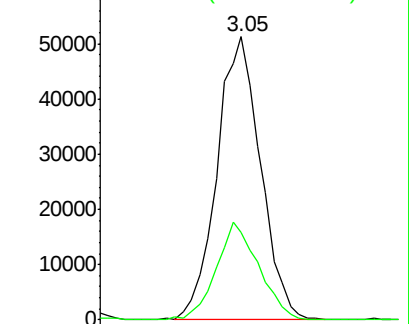
85 100

87 31.0 27.1 40.7

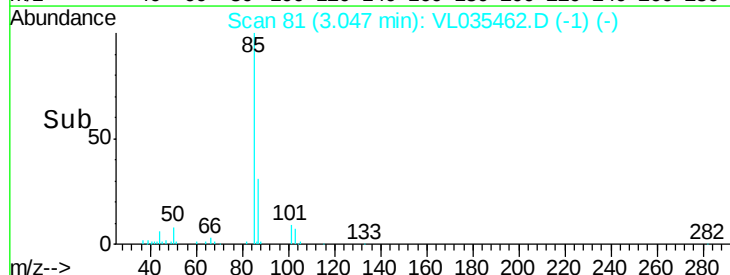


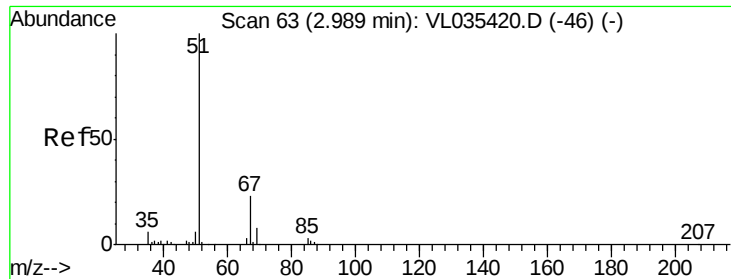
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0



Time-->





#3

Chlorodifluoromethane

Concen: 0.572 ppbv

RT: 2.99 min Scan# 62

Delta R.T. 0.00 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Instrument :

MSVOA_L

ClientSampleId :

AA

Tot Ion: 51 Resp: 78107

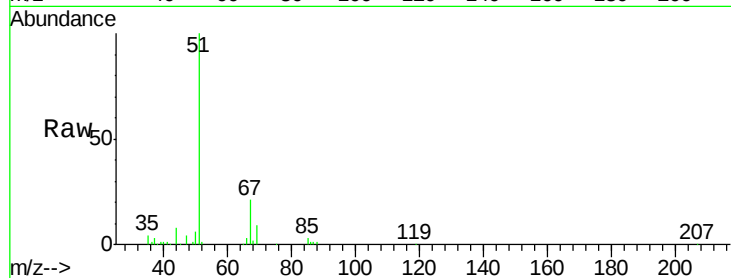
Ion Ratio Lower Upper

51 100

67 22.2 15.0 22.6

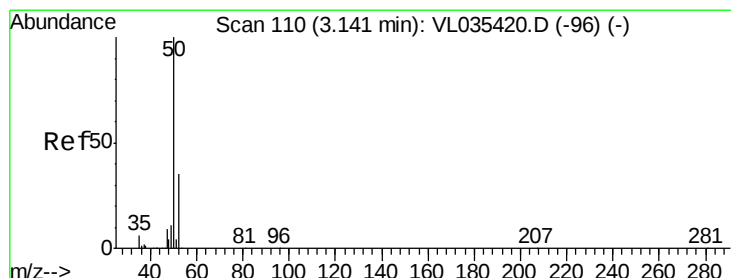
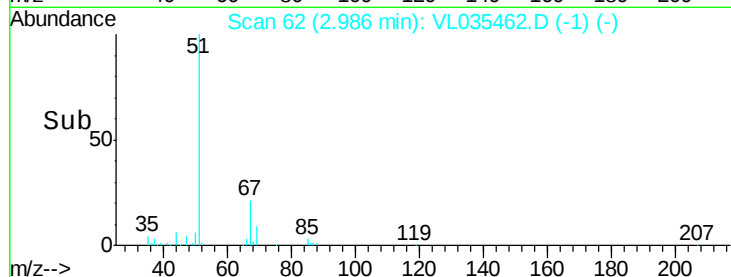
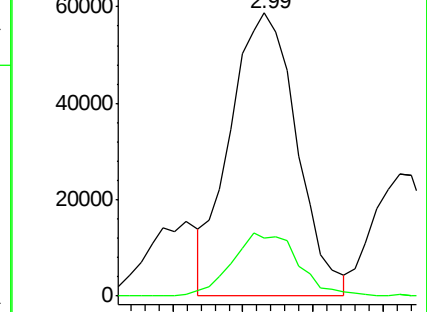
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.526 ppbv

RT: 3.14 min Scan# 109

Delta R.T. 0.00 min

Lab File: VL035462.D

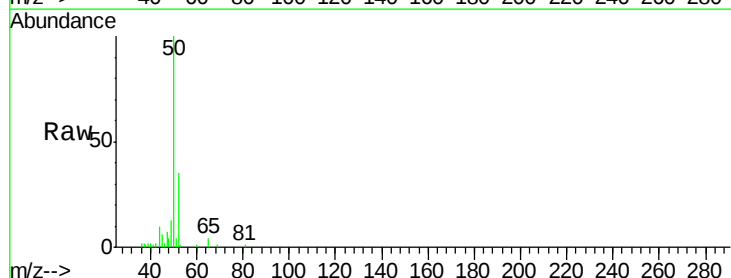
Acq: 19 Aug 2020 9:42

Tgt Ion: 50 Resp: 37367

Ion Ratio Lower Upper

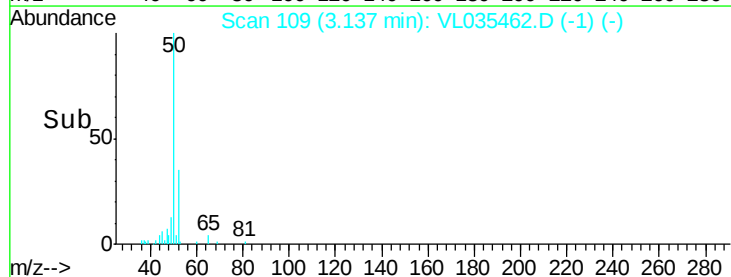
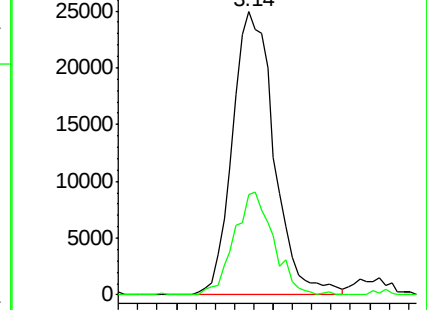
50 100

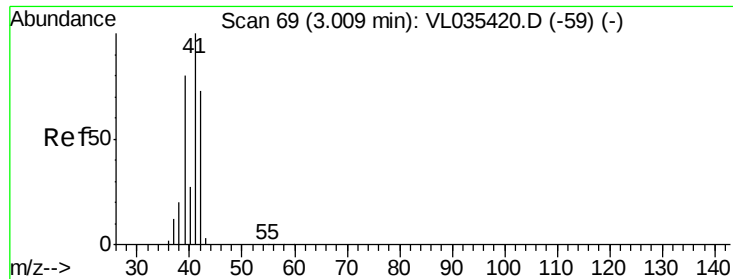
52 35.2 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.395 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Instrument :

MSVOA_L

ClientSampleId :

AA

Tot Ion: 41 Resp: 76494

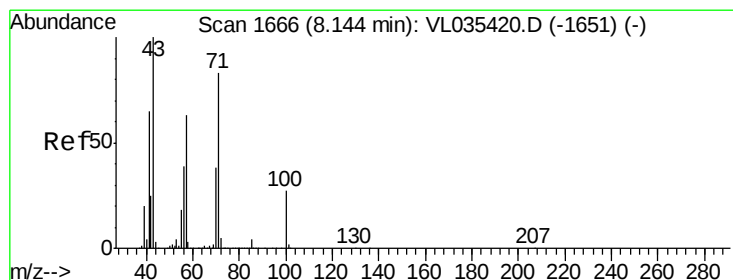
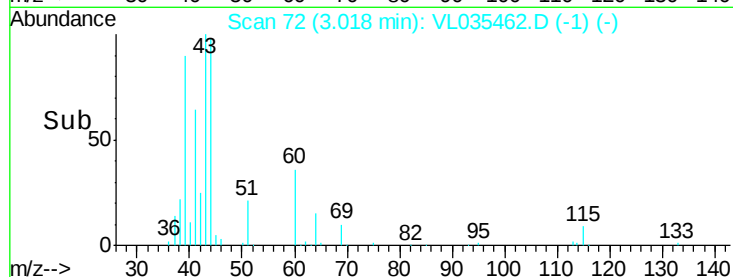
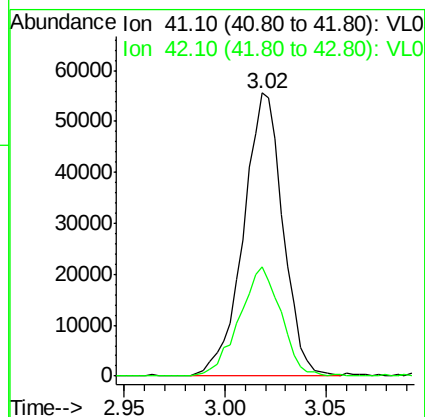
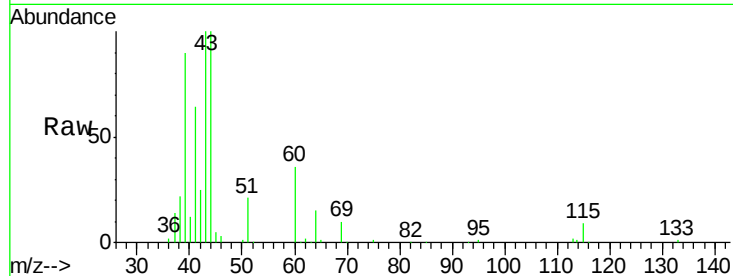
Ion Ratio Lower Upper

41 100

42 40.7 55.5 83.3#

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#10

Heptane

Concen: 0.126 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. -0.00 min

Lab File: VL035462.D

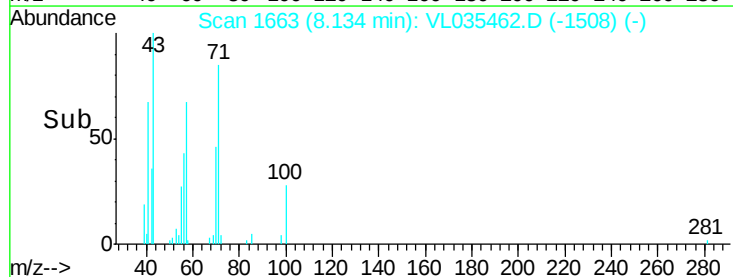
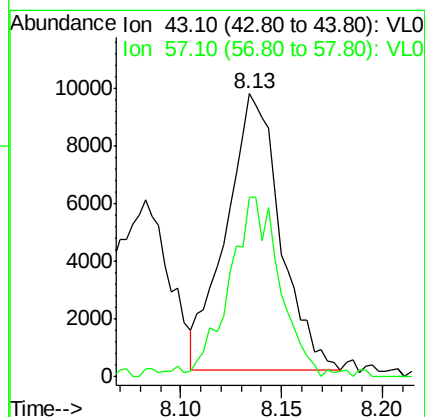
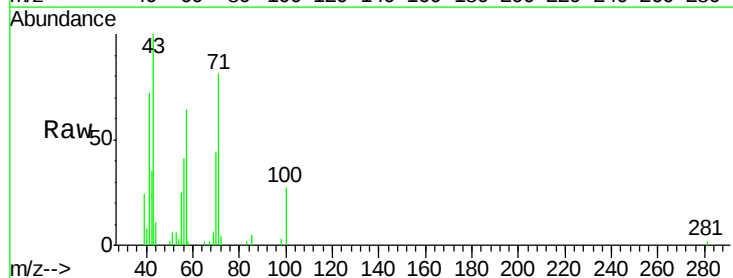
Acq: 19 Aug 2020 9:42

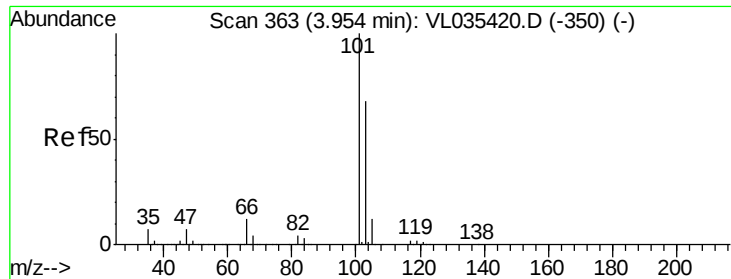
Tgt Ion: 43 Resp: 18050

Ion Ratio Lower Upper

43 100

57 63.5 39.8 59.6#





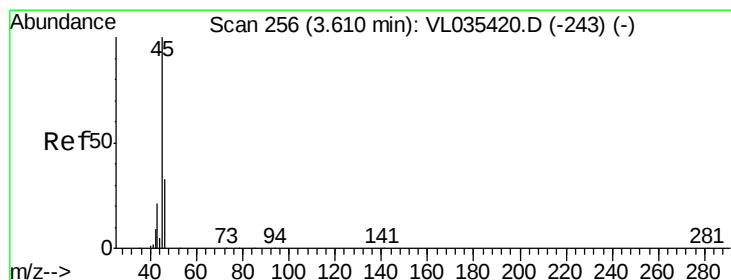
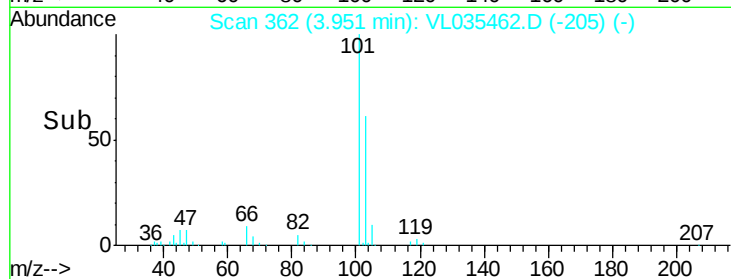
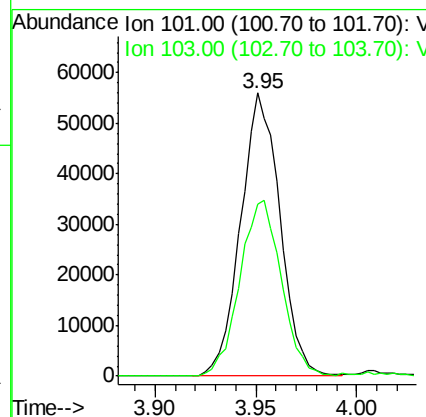
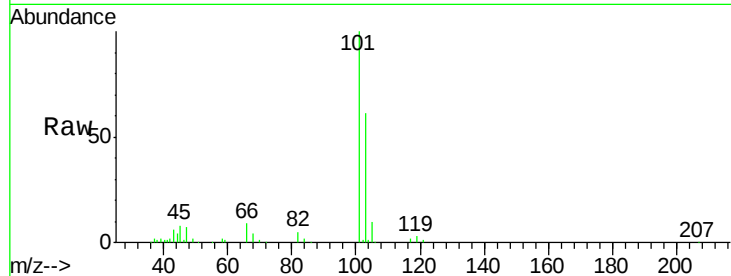
#11
 Trichlorofluoromethane
 Concen: 0.242 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T. 0.00 min
 Lab File: VL035462.D
 Acq: 19 Aug 2020 9:42

Instrument :
 MSVOA_L
 ClientSampleId :
 AA

Tot Ion	Ion	Ratio	Resp	Lower	Upper
101	100		76744		
103	60.8	52.6	78.8		

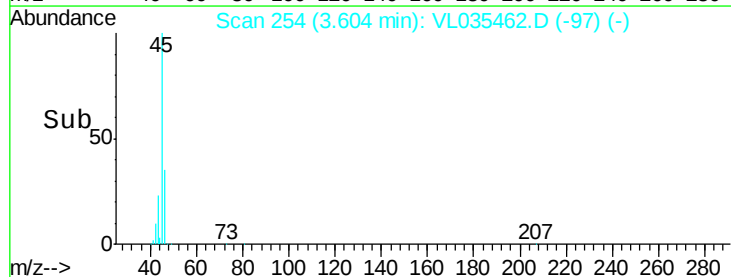
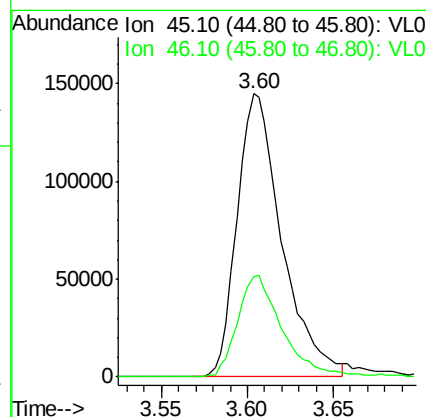
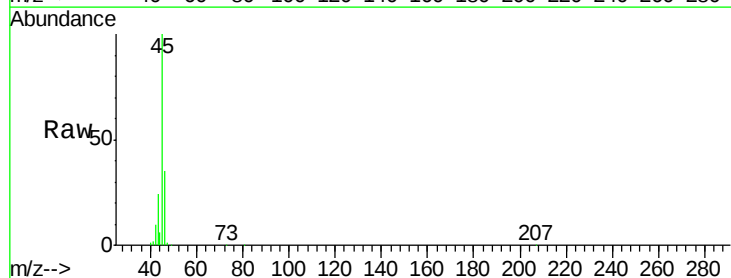
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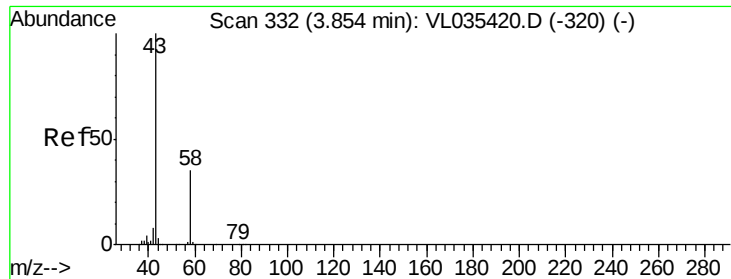
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#13
 Ethanol
 Concen: 12.966 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. 0.00 min
 Lab File: VL035462.D
 Acq: 19 Aug 2020 9:42

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
45	100		260570		
46	36.2	14.2	56.6		





#15

Acetone

Concen: 10.435 ppbv

RT: 3.85 min Scan# 331

Delta R.T. 0.00 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Instrument :

MSVOA_L

ClientSampleId :

AA

Tot Ion: 43 Resp: 1307194

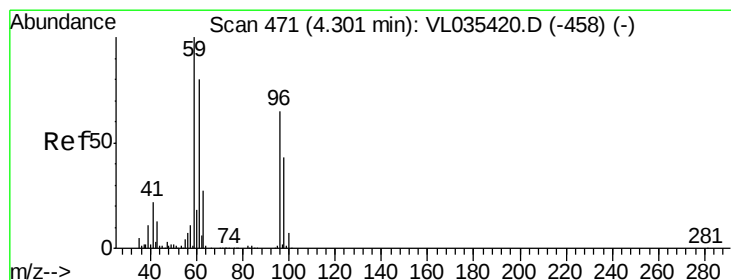
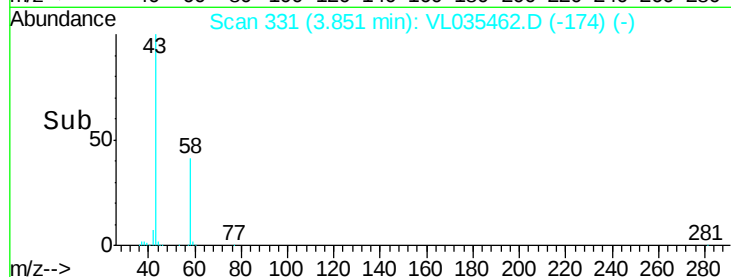
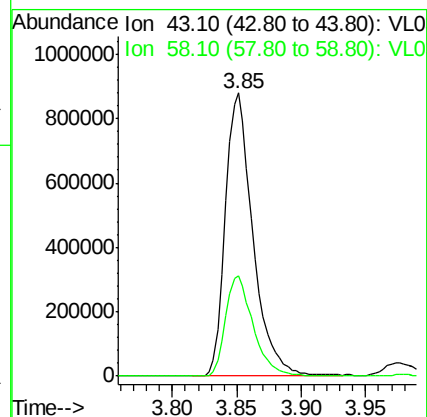
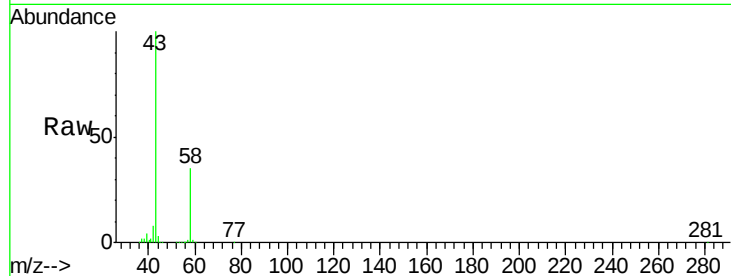
Ion Ratio Lower Upper

43 100

58 35.7 21.0 31.6#

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#17

tert-Butyl alcohol

Concen: 0.100 ppbv m

RT: 4.31 min Scan# 474

Delta R.T. 0.02 min

Lab File: VL035462.D

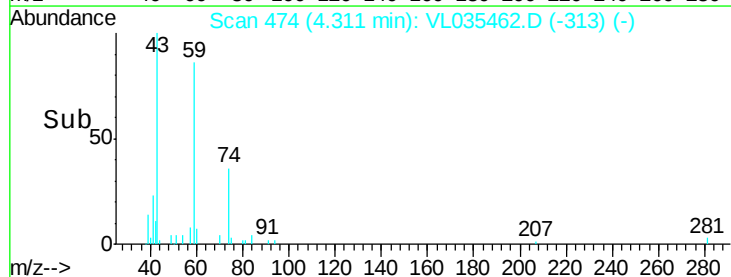
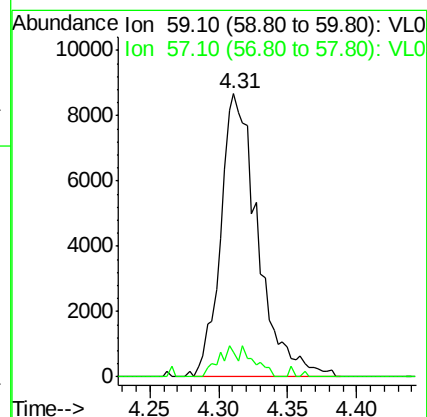
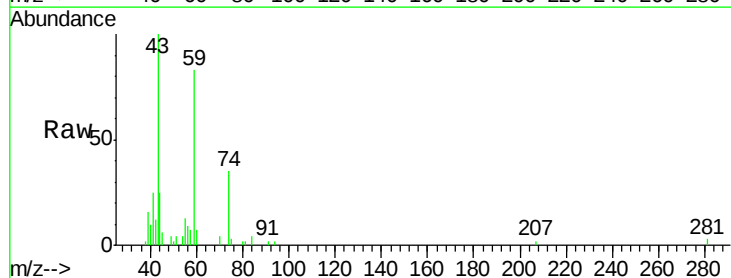
Acq: 19 Aug 2020 9:42

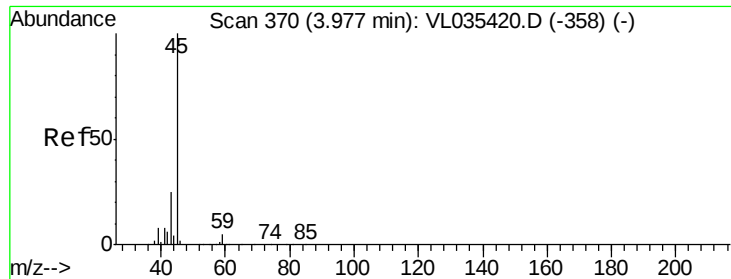
Tgt Ion: 59 Resp: 16247

Ion Ratio Lower Upper

59 100

57 0.0 8.9 13.3#





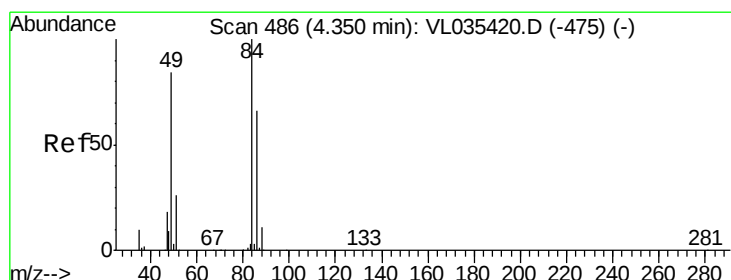
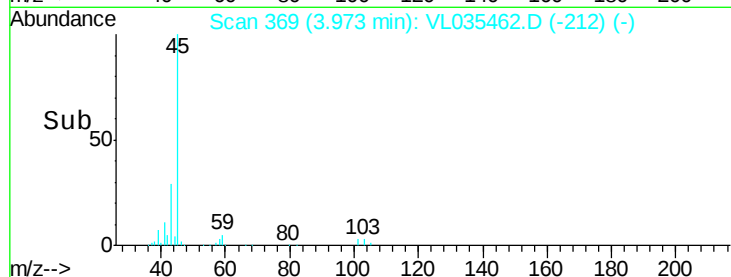
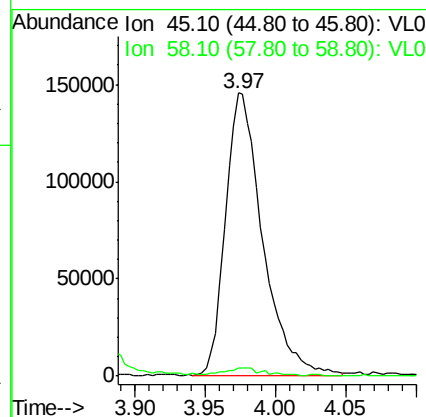
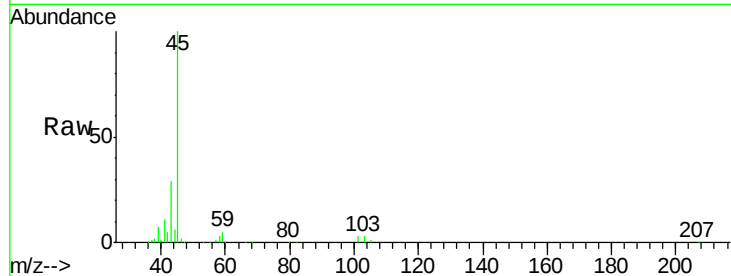
#19
Isopropyl Alcohol
Concen: 3.083 ppbv
RT: 3.97 min Scan# 369
Delta R.T. 0.00 min
Lab File: VL035462.D
Acq: 19 Aug 2020 9:42

Instrument :
MSVOA_L
ClientSampleId :
AA

Tot Ion: 45 Resp: 266169
Ion Ratio Lower Upper
45 100
58 175.7 1.0 1.6#

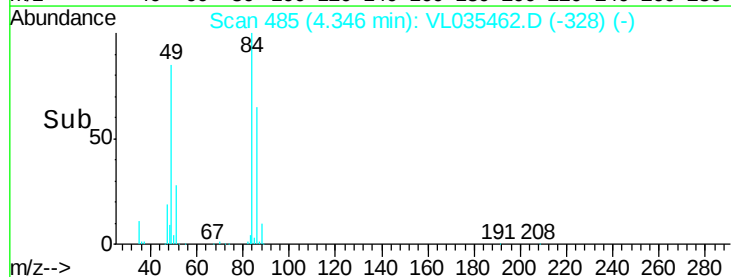
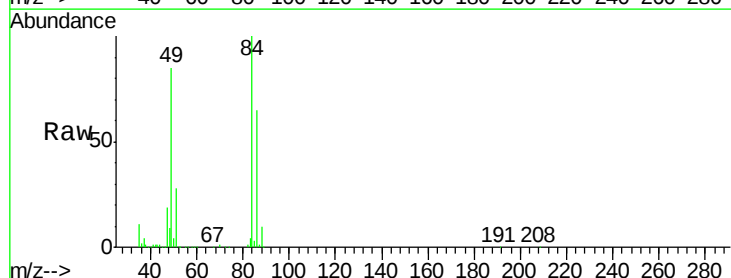
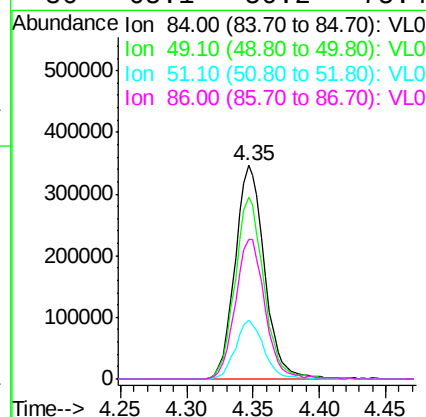
Manual Integrations
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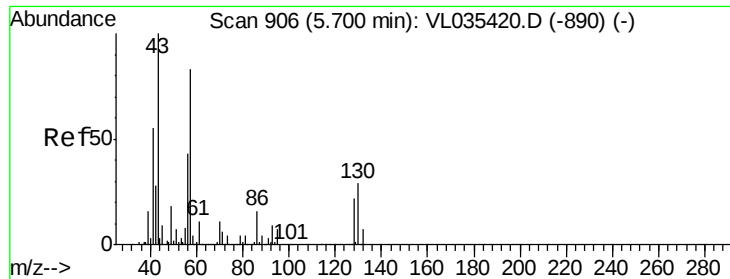
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#20
Methylene Chloride
Concen: 5.280 ppbv
RT: 4.35 min Scan# 485
Delta R.T. 0.00 min
Lab File: VL035462.D
Acq: 19 Aug 2020 9:42

Tgt Ion: 84 Resp: 533628
Ion Ratio Lower Upper
84 100
49 84.8 118.6 177.8#
51 27.6 36.4 54.6#
86 65.1 50.2 75.4





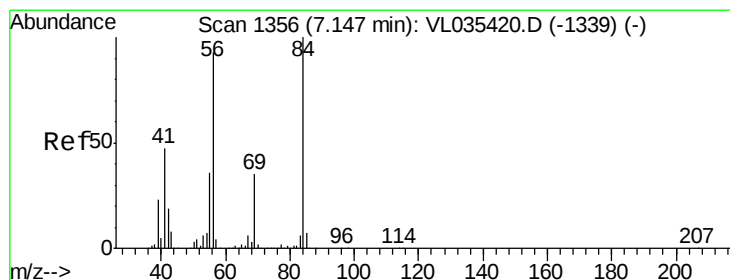
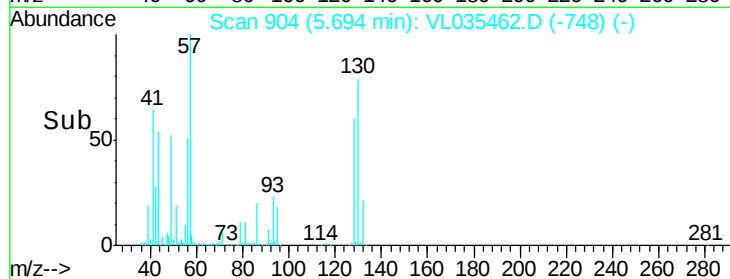
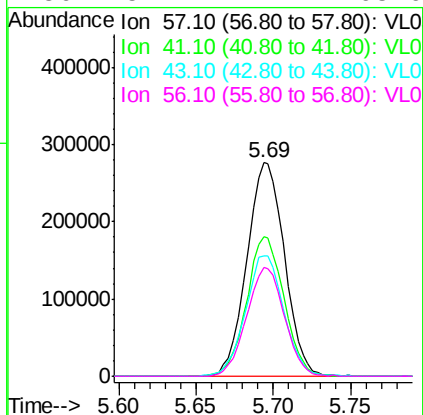
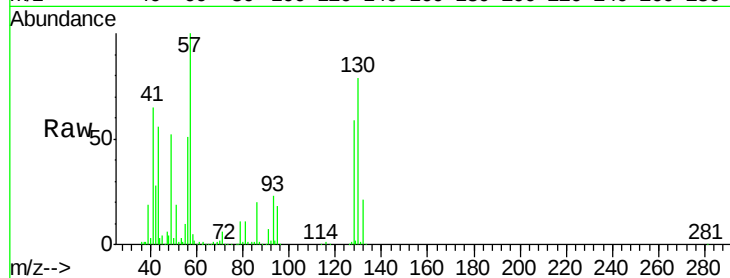
#26
Hexane
Concen: 3.401 ppbv
RT: 5.69 min Scan# 904
Delta R.T. 0.00 min
Lab File: VL035462.D
Acq: 19 Aug 2020 9:42

Instrument :
MSVOA_L
ClientSampleId :
AA

Tot Ion	Ratio	Lower	Upper
57	100		
41	65.3	75.5	113.3#
43	58.4	181.7	272.5#
56	51.2	42.4	63.6

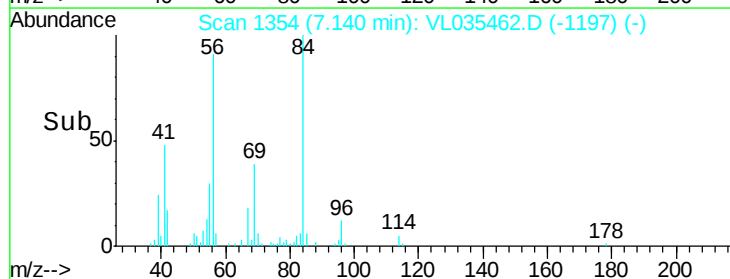
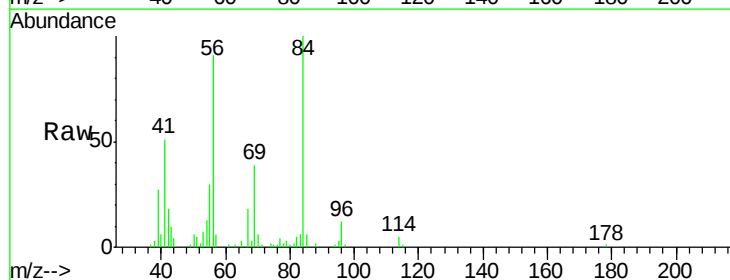
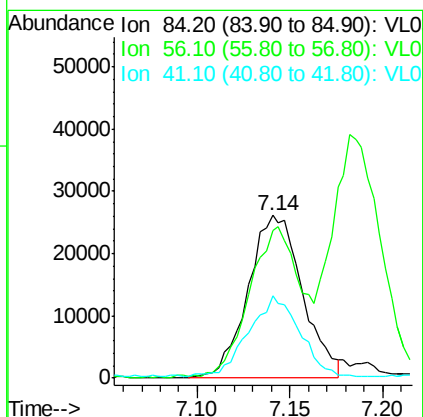
Manual Integrations
APPROVED

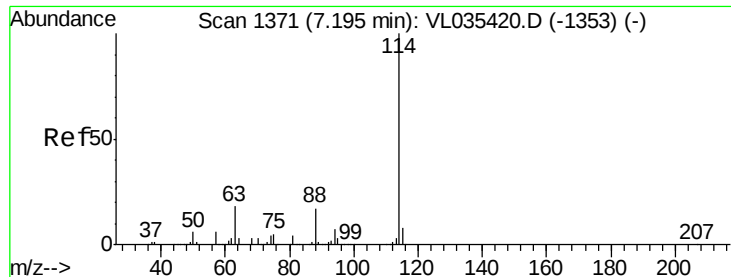
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8/20/2020 11:07:46 AM



#30
Cyclohexane
Concen: 0.349 ppbv
RT: 7.14 min Scan# 1354
Delta R.T. 0.00 min
Lab File: VL035462.D
Acq: 19 Aug 2020 9:42

Tgt Ion	Ratio	Lower	Upper
84	100		
56	89.3	114.9	172.3#
41	47.9	72.3	108.5#





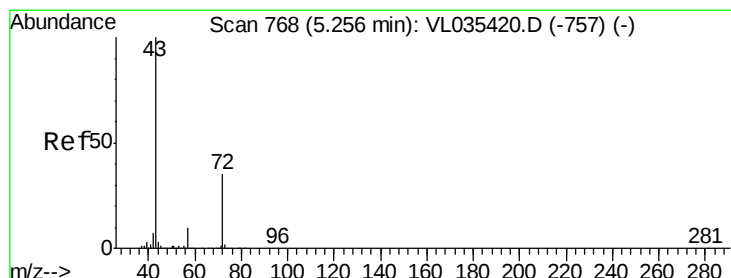
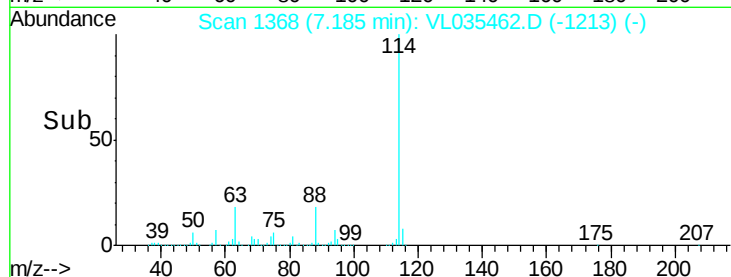
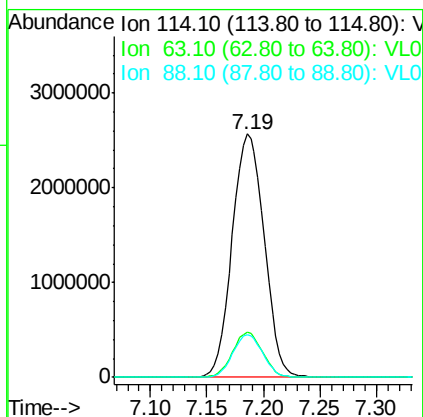
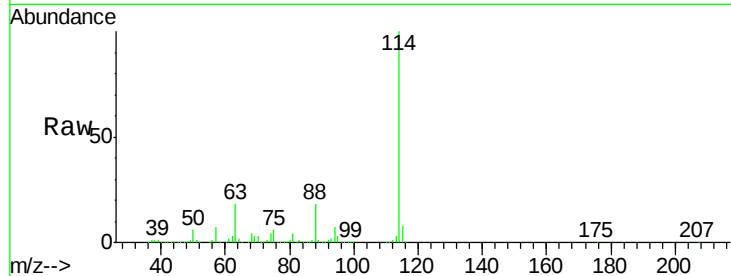
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1368
 Delta R.T. -0.00 min
 Lab File: VL035462.D
 Acq: 19 Aug 2020 9:42

Instrument :
 MSVOA_L
 ClientSampleId :
 AA

Tot Ion:114 Resp: 5079369
 Ion Ratio Lower Upper
 114 100
 63 17.3 23.1 34.7#
 88 16.5 15.9 23.9

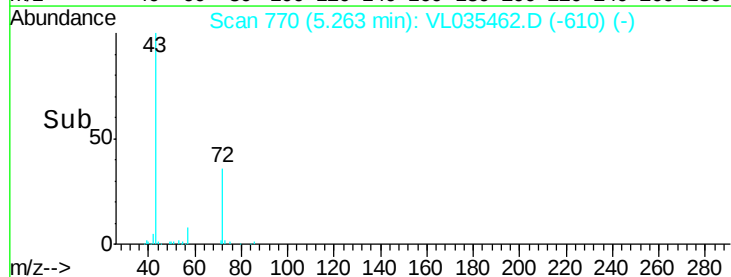
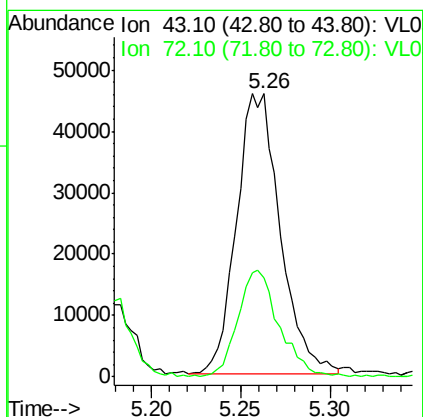
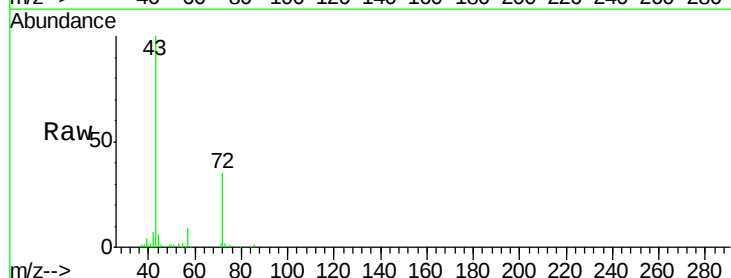
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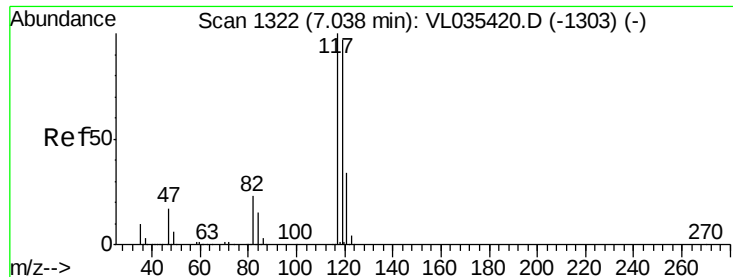
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#34
 2-Butanone
 Concen: 0.460 ppbv
 RT: 5.26 min Scan# 770
 Delta R.T. 0.01 min
 Lab File: VL035462.D
 Acq: 19 Aug 2020 9:42

Tgt Ion: 43 Resp: 78053
 Ion Ratio Lower Upper
 43 100
 72 36.2 17.6 26.4#





#35

Carbon Tetrachloride

Concen: 0.062 ppbv

RT: 7.03 min Scan# 1319

Delta R.T. 0.00 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Instrument :

MSVOA_L

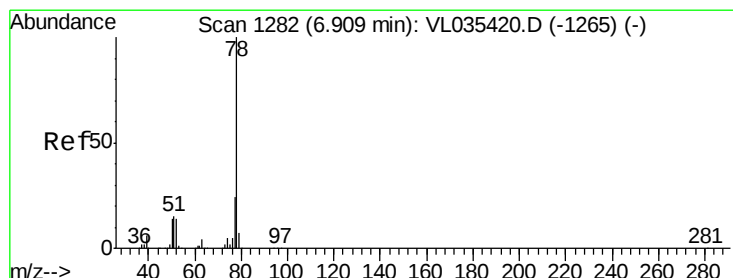
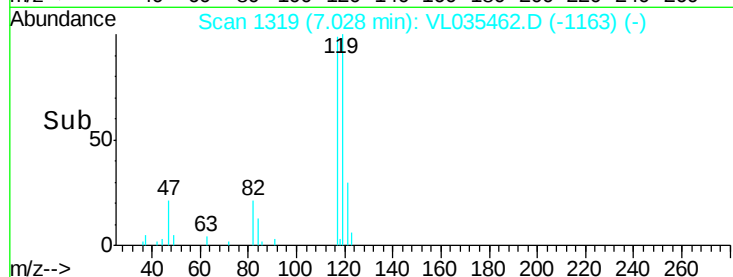
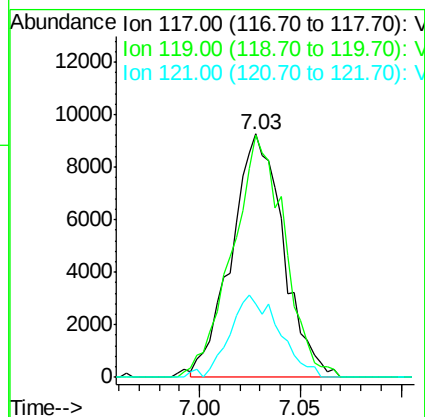
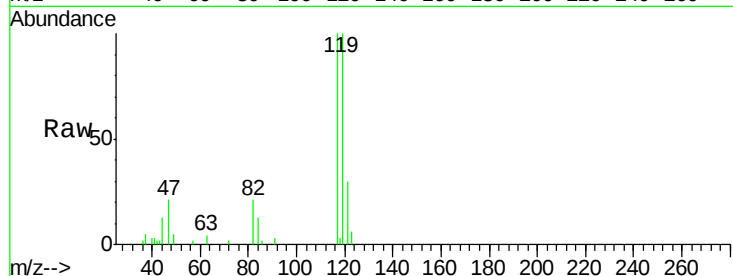
ClientSampled :

AA

Tot Ion:	117	Resp:	16677
Ion Ratio	Lower	Upper	
117	100		
119	99.7	76.1	114.1
121	30.0	25.5	38.3

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#36

Benzene

Concen: 0.148 ppbv

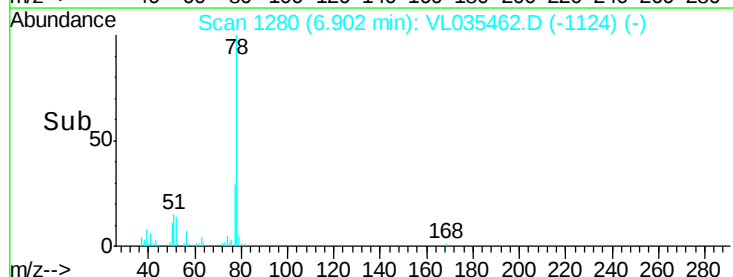
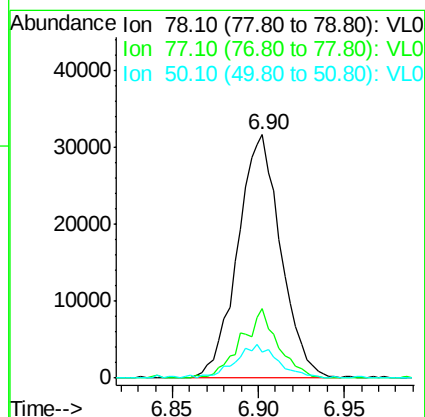
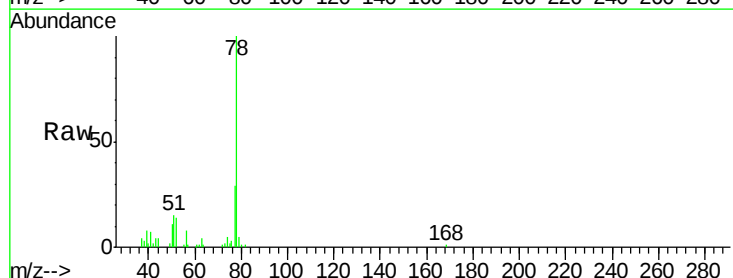
RT: 6.90 min Scan# 1280

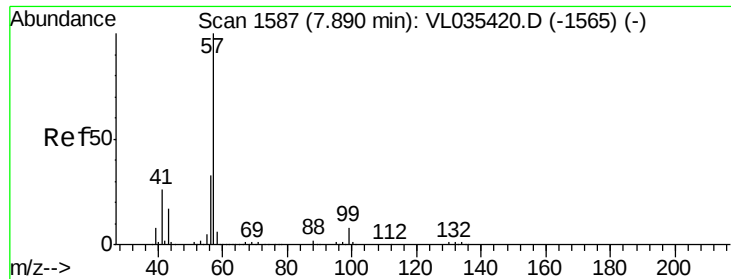
Delta R.T. 0.00 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Tgt Ion:	78	Resp:	55203
Ion Ratio	Lower	Upper	
78	100		
77	28.5	19.6	29.4
50	10.9	16.3	24.5#





#44

2,2,4-Trimethylpentane

Concen: 0.292 ppbv

RT: 7.88 min Scan# 1584

Delta R.T. -0.00 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Instrument :

MSVOA_L

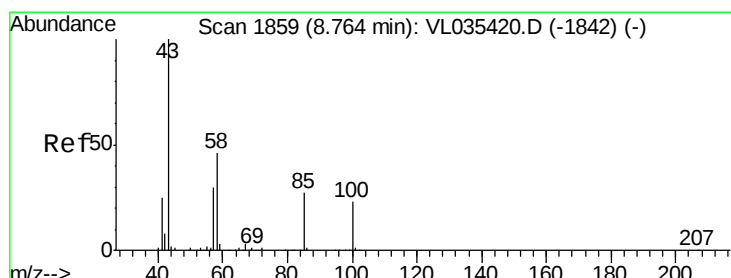
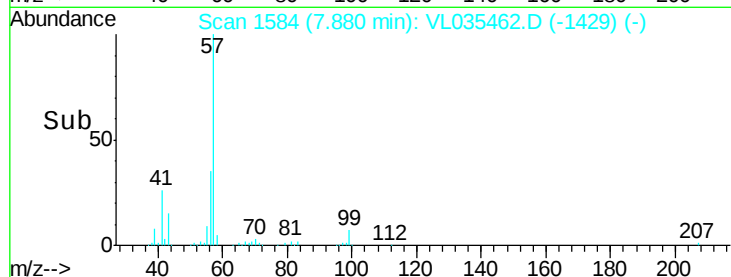
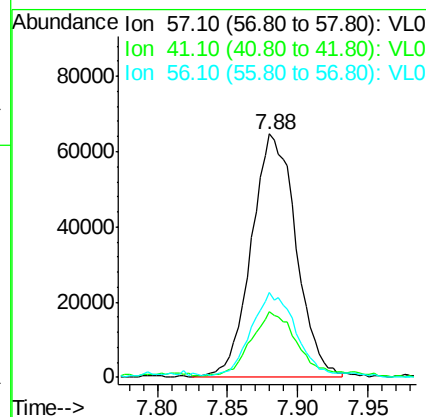
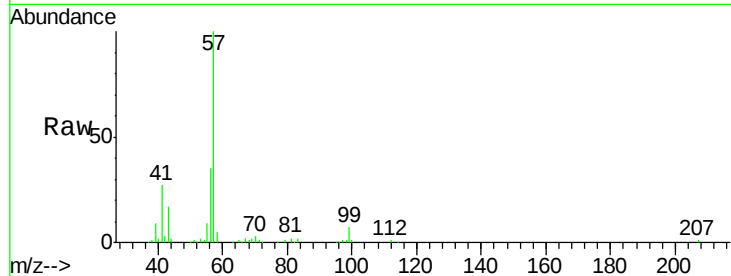
ClientSampleId :

AA

Tot Ion:	57	Resp:	142186
Ion	Ratio	Lower	Upper
57	100		
41	30.0	27.2	40.8
56	36.5	25.4	38.0

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#50

4-Methyl-2-Pentanone

Concen: 0.811 ppbv

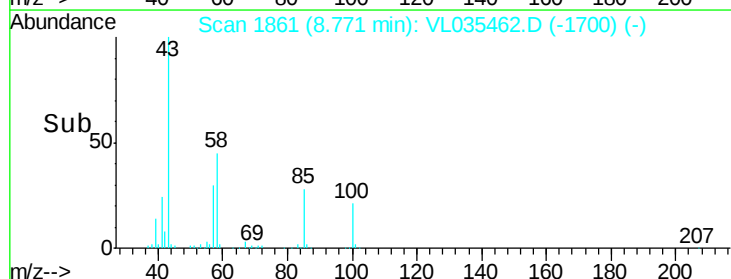
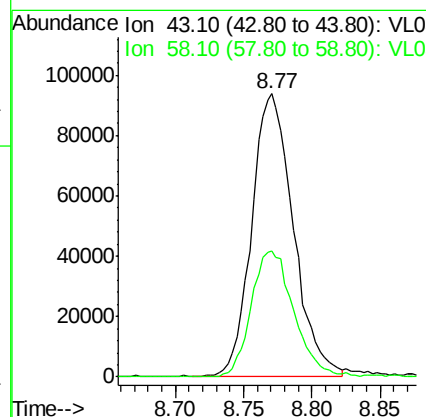
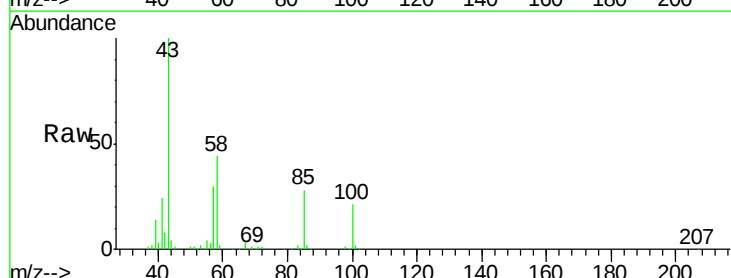
RT: 8.77 min Scan# 1861

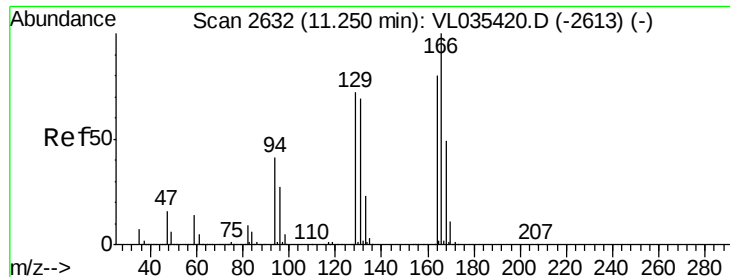
Delta R.T. 0.02 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Tgt Ion:	43	Resp:	197345
Ion	Ratio	Lower	Upper
43	100		
58	46.6	28.7	43.1#





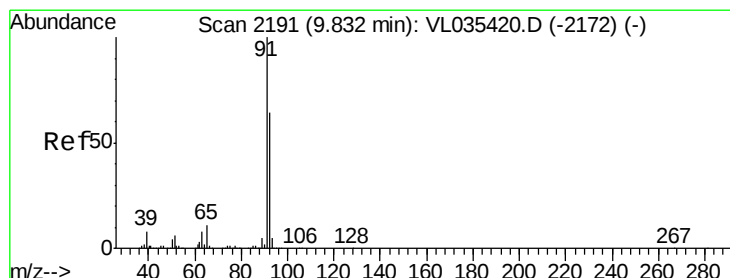
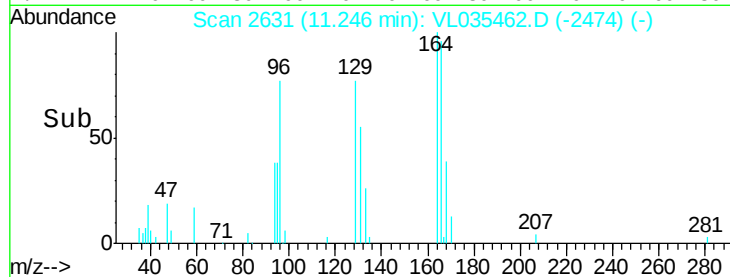
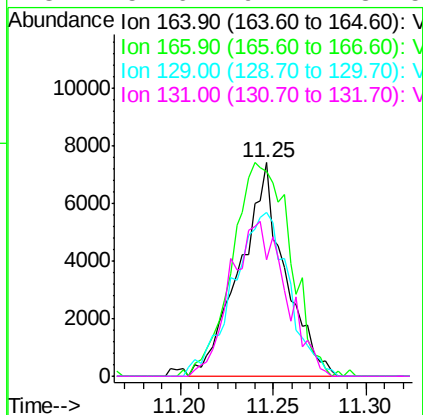
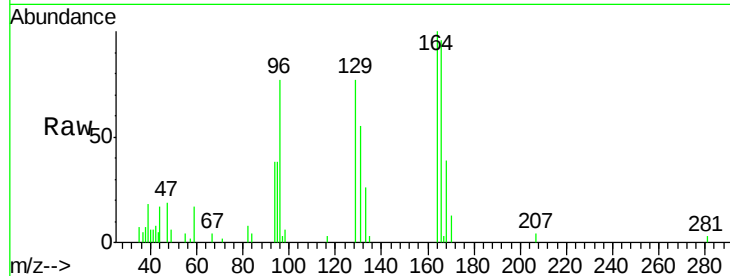
#52
Tetrachloroethene
Concen: 0.055 ppbv
RT: 11.25 min Scan# 2631
Delta R.T. 0.00 min
Lab File: VL035462.D
Acq: 19 Aug 2020 9:42

Instrument :
MSVOA_L
ClientSampleId :
AA

Tot Ion	Ratio	Lower	Upper
164	100		
166	96.3	103.4	155.0#
129	76.5	90.2	135.4#
131	54.6	91.7	137.5#

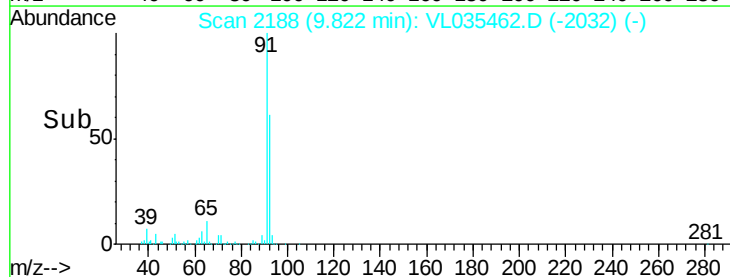
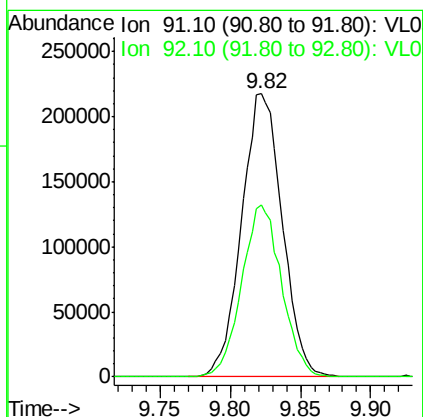
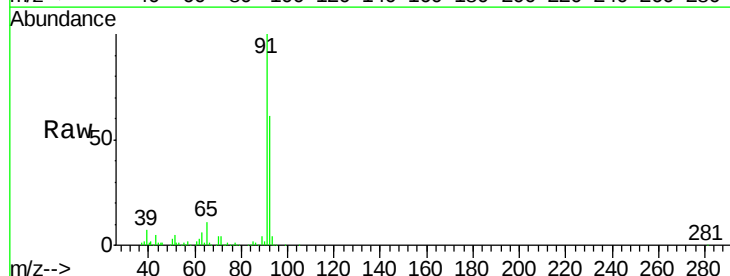
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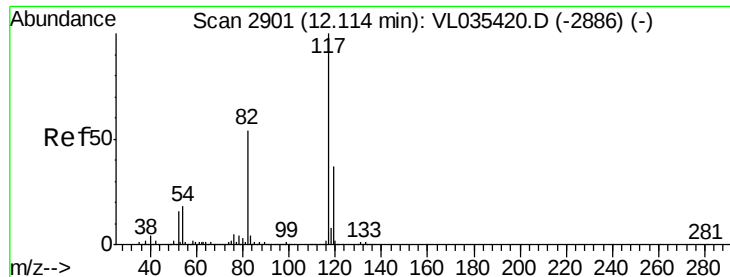
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#53
Toluene
Concen: 0.916 ppbv
RT: 9.82 min Scan# 2188
Delta R.T. 0.00 min
Lab File: VL035462.D
Acq: 19 Aug 2020 9:42

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.4	49.1	73.7





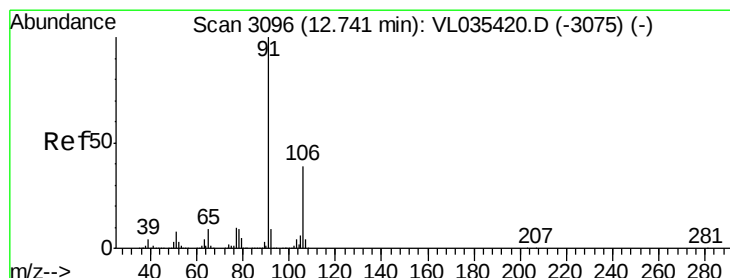
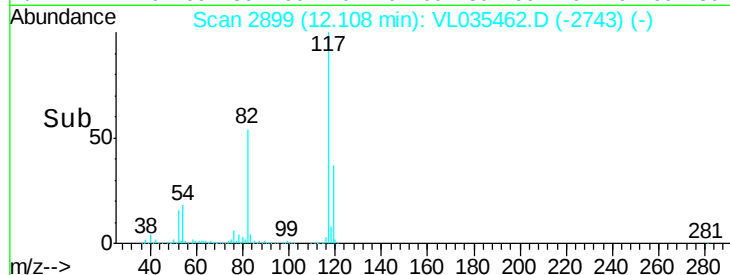
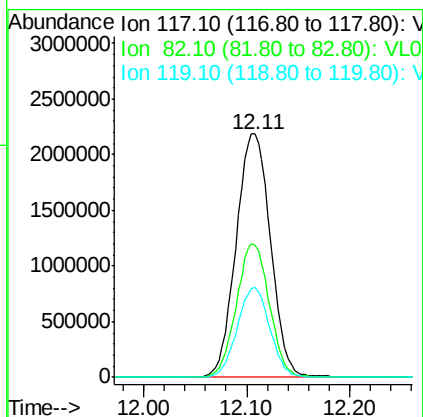
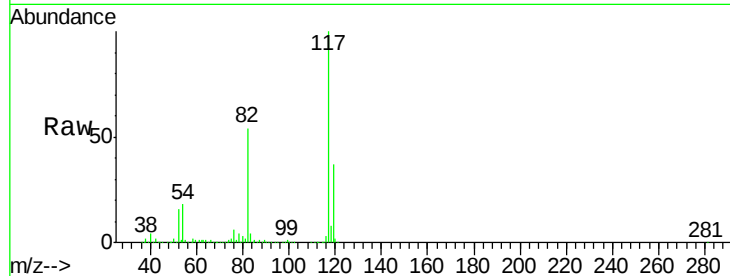
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.11 min Scan# 2899
Delta R.T. 0.00 min
Lab File: VL035462.D
Acq: 19 Aug 2020 9:42

Instrument :
MSVOA_L
ClientSampled :
AA

Tot Ion	Ratio	Lower	Upper
117	100		
82	52.9	57.4	86.0#
119	35.1	28.4	42.6

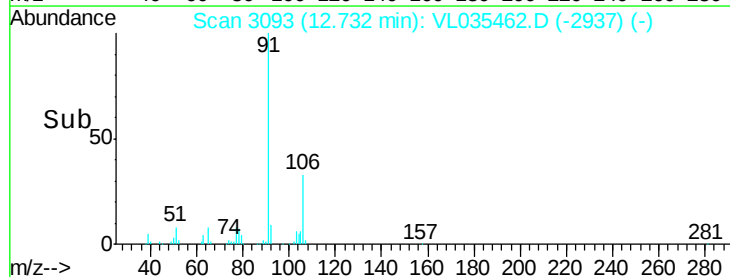
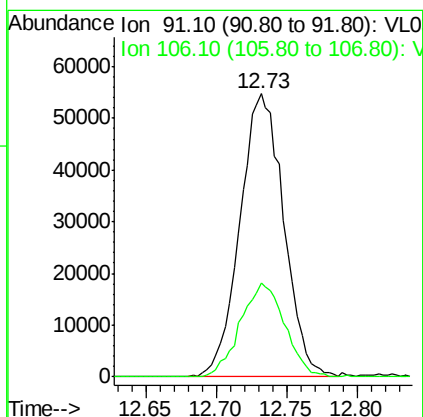
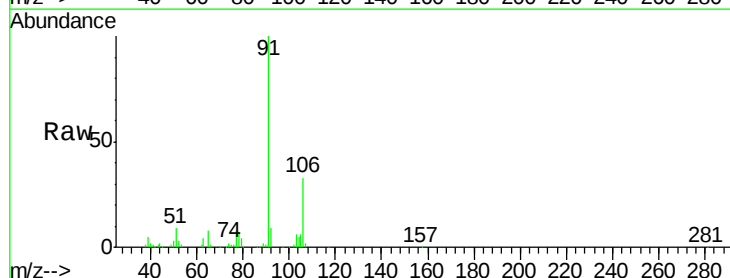
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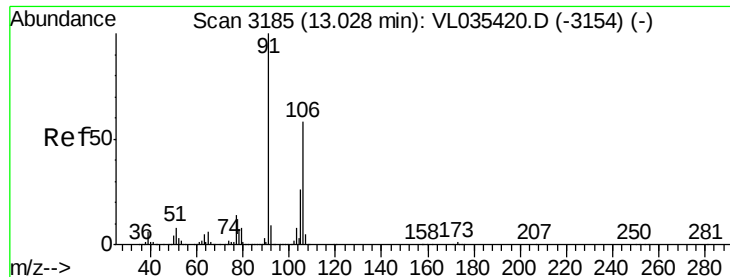
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#58
Ethyl Benzene
Concen: 0.194 ppbv
RT: 12.73 min Scan# 3093
Delta R.T. 0.00 min
Lab File: VL035462.D
Acq: 19 Aug 2020 9:42

Tgt Ion	Ratio	Lower	Upper
91	100		
106	33.0	24.1	36.1





#59

m/p-Xylene

Concen: 0.702 ppbv m

RT: 12.99 min Scan# 3174

Delta R.T. -0.03 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Instrument :

MSVOA_L

ClientSampleId :

AA

Tot Ion: 91 Resp: 363933

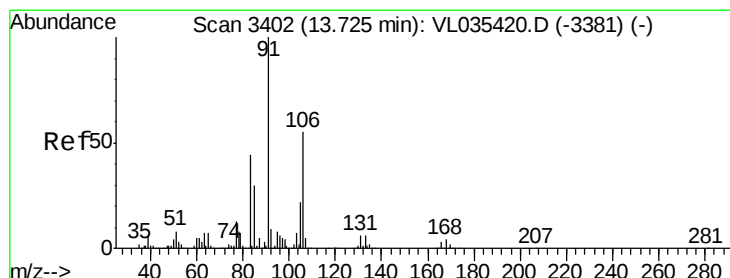
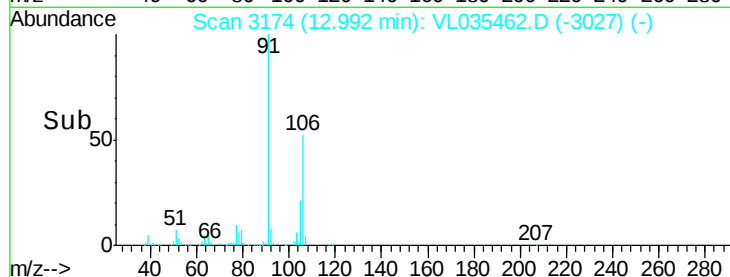
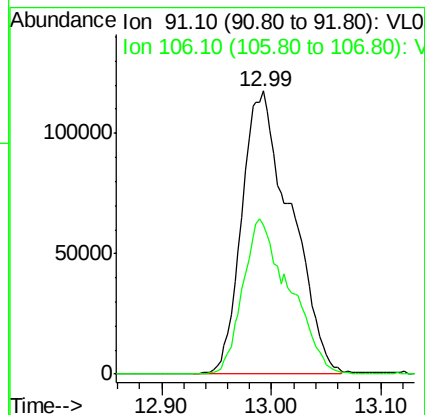
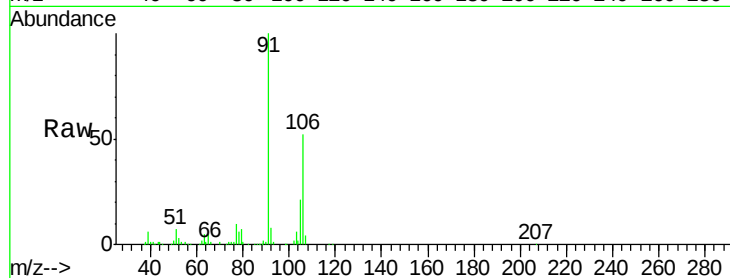
Ion Ratio Lower Upper

91 100

106 0.0 34.0 51.0#

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#60

o-Xylene

Concen: 0.219 ppbv

RT: 13.72 min Scan# 3399

Delta R.T. 0.00 min

Lab File: VL035462.D

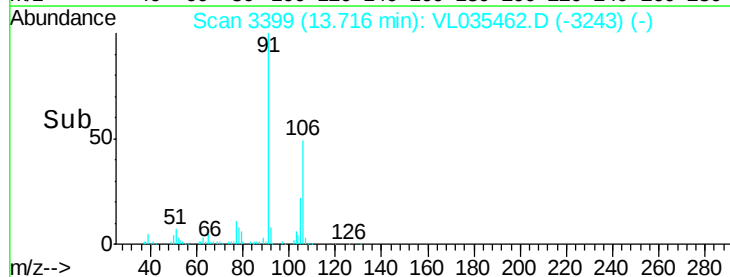
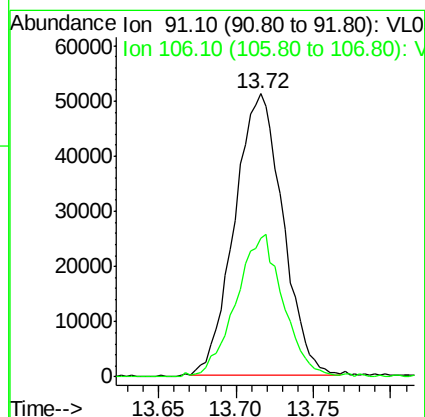
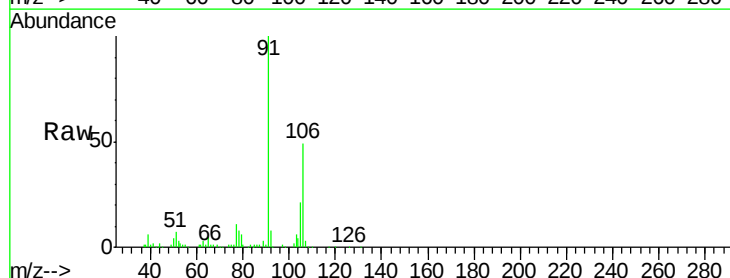
Acq: 19 Aug 2020 9:42

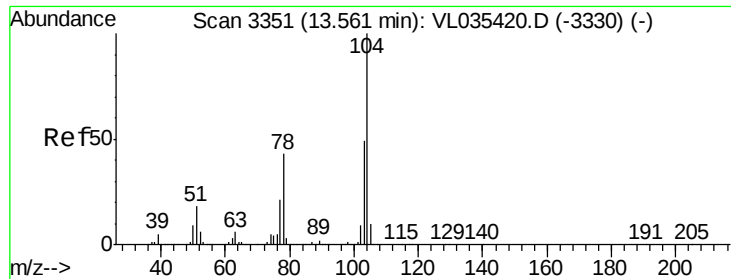
Tgt Ion: 91 Resp: 110344

Ion Ratio Lower Upper

91 100

106 50.3 21.8 65.3





#61

Stvrene

Concen: 0.180 ppbv

RT: 13.55 min Scan# 3348

Delta R.T. 0.00 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

Instrument :

MSVOA_L

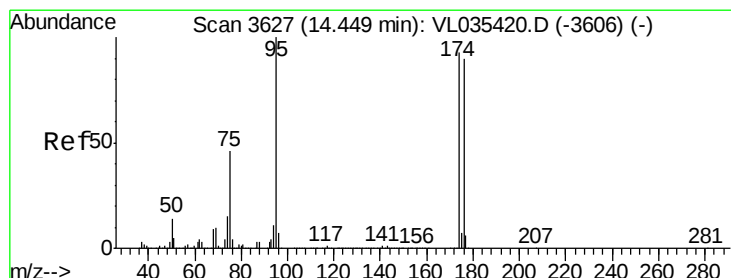
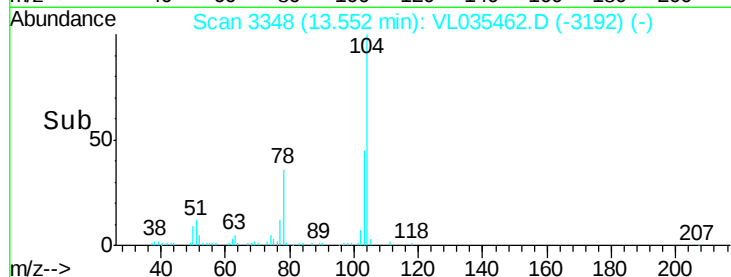
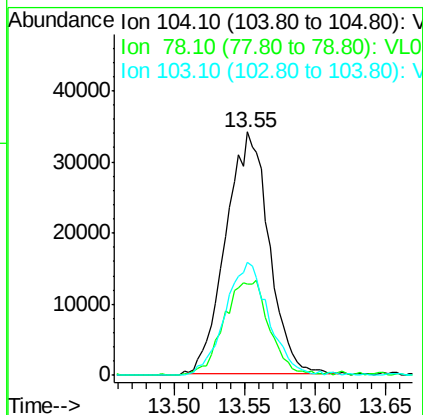
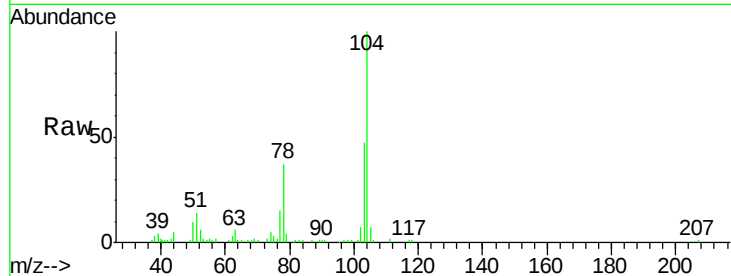
ClientSampleId :

AA

Tot Ion:	104	Resp:	73188
Ion Ratio	Lower	Upper	
104	100		
78	40.9	45.4	68.2#
103	47.1	37.8	56.8

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#68

1-Bromo-4-Fluorobenzene

Concen: 10.322 ppbv

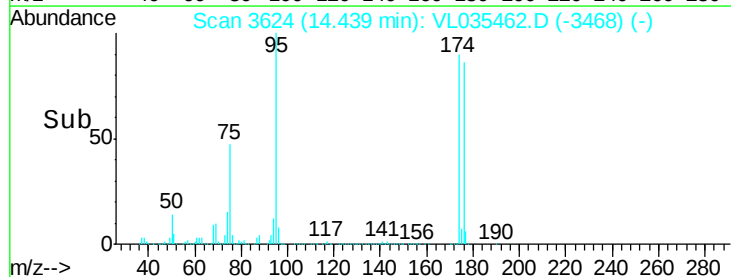
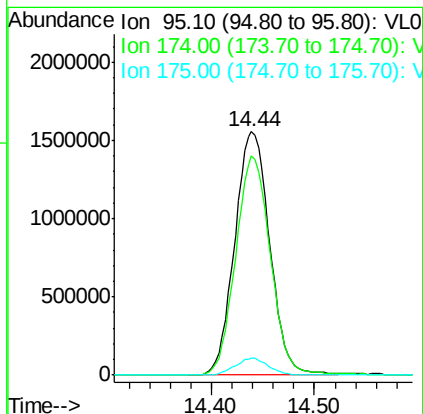
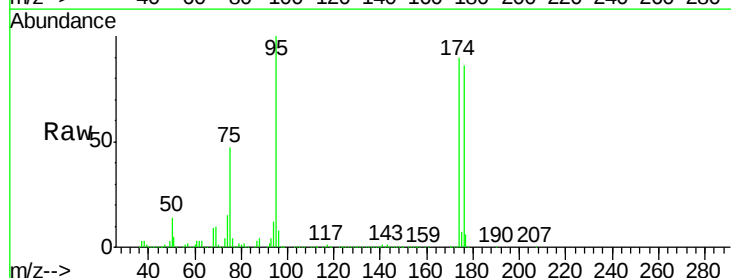
RT: 14.44 min Scan# 3624

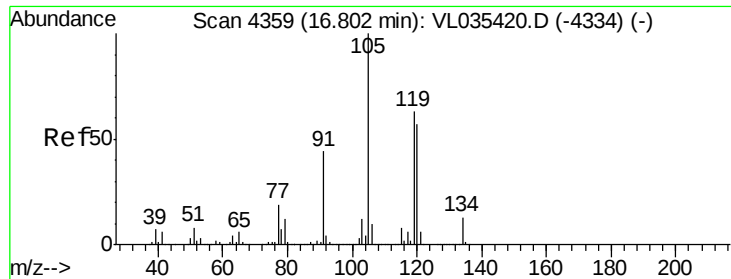
Delta R.T. 0.00 min

Lab File: VL035462.D

Acq: 19 Aug 2020 9:42

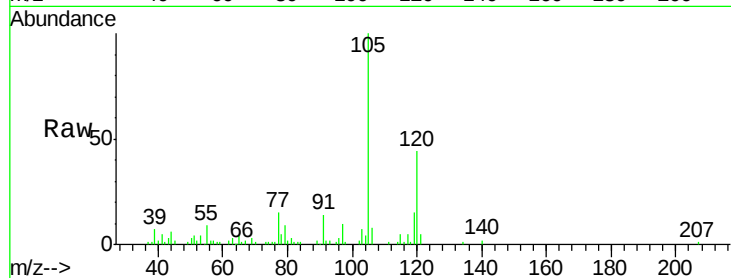
Tgt Ion:	95	Resp:	3670586
Ion Ratio	Lower	Upper	
95	100		
174	90.2	44.0	66.0#
175	6.6	3.2	4.8#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.125 ppbv m
 RT: 16.79 min Scan# 4355
 Delta R.T. -0.00 min
 Lab File: VL035462.D
 Acq: 19 Aug 2020 9:42

Instrument :
 MSVOA_L
 ClientSampleId :
 AA



Tot Ion:	105	Resp:	83689
Ion Ratio		Lower	Upper
105	100		
120	44.1	37.8	56.8
91	13.6	40.0	60.0#
77	14.7	18.8	28.2#

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