

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL012821\
 Data File : VL036280.D
 Acq On : 28 Jan 2021 20:34
 Operator : SY/AP
 Sample : M1245-01 4X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jan 29 02:27:34 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL011321AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jan 14 16:13:38 2021
 QLast Update : Thu Jan 14 16:13:38 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1613520	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3536761	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3206988	10.00	ppbv	-0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2746953	10.35	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.50%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	16131	0.075 ppbv #	76
3) Chlorodifluoromethane	2.98	51	55762	0.281 ppbv	97
4) Chloromethane	3.13	50	43731	0.447 ppbv	98
9) Propene	3.00	41	19865	0.211 ppbv #	44
10) Heptane	8.11	43	191651	0.818 ppbv	94
11) Trichlorofluoromethane	3.93	101	10393	0.047 ppbv	85
13) Ethanol	3.62	45	10327837	697.002 ppbv	85
15) Acetone	3.83	43	14585072	73.807 ppbv #	89
16) 1,3-Butadiene	3.34	39	15794	0.164 ppbv #	69
17) tert-Butyl alcohol	4.31	59	11615813	71.234 ppbv	98
19) Isopropyl Alcohol	3.99	45	1696156	14.237 ppbv #	1
20) Methylene Chloride	4.33	84	36892	0.585 ppbv #	66
21) Allyl Chloride	4.31	41	4454951	41.417 ppbv #	62
23) Vinyl Acetate	5.05	43	31794	0.133 ppbv #	1
25) Ethyl Acetate	5.67	43	480890	1.212 ppbv #	95
26) Hexane	5.67	57	325316	1.969 ppbv #	67
30) Cyclohexane	7.12	84	58238	0.461 ppbv	88
34) 2-Butanone	5.24	43	65393	0.251 ppbv #	82
36) Benzene	6.88	78	239171	0.738 ppbv	95
39) 1,2-Dichloropropane	7.16	63	1021873	7.766 ppbv #	22
44) 2,2,4-Trimethylpentane	7.85	57	264587	0.445 ppbv #	80
53) Toluene	9.79	91	2279116	6.287 ppbv	100
58) Ethyl Benzene	12.70	91	423840	0.891 ppbv	97
59) m/p-Xylene	12.95	91	1421349	3.476 ppbv	97
60) o-Xylene	13.68	91	465867	1.182 ppbv	96
72) 4-Ethyltoluene	15.83	105	76763	0.173 ppbv #	65
73) 1,3,5-Trimethylbenzene	15.99	105	56745	0.134 ppbv #	78
74) 1,2,4-Trimethylbenzene	16.75	105	302281	0.695 ppbv #	64

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.00 min

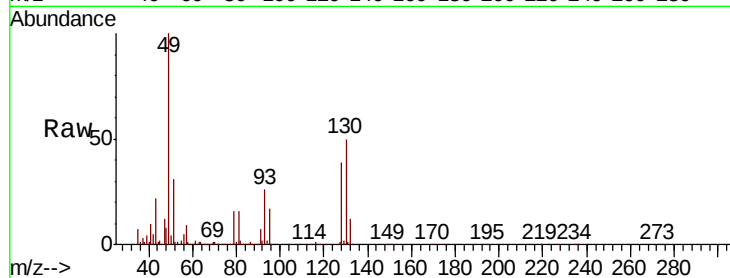
Lab File: VL036280.D

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Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 49 Resp: 1613520

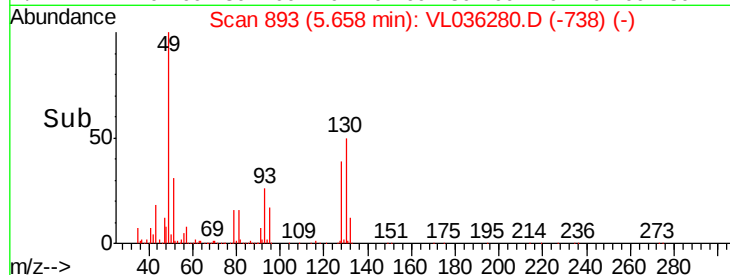
Ion	Ratio	Lower	Upper
49	100		
128	41.5	20.1	60.2
130	51.9	25.3	75.9



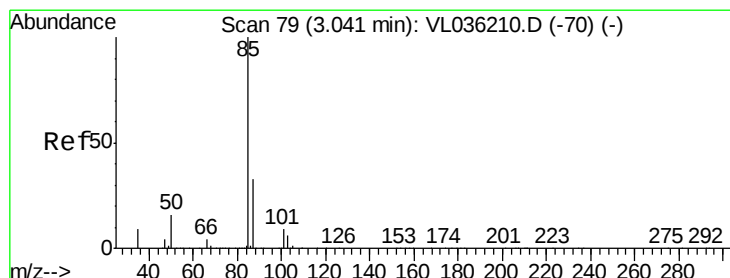
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



Time-->



#2

Dichlorodifluoromethane

Concen: 0.075 ppbv

RT: 3.03 min Scan# 77

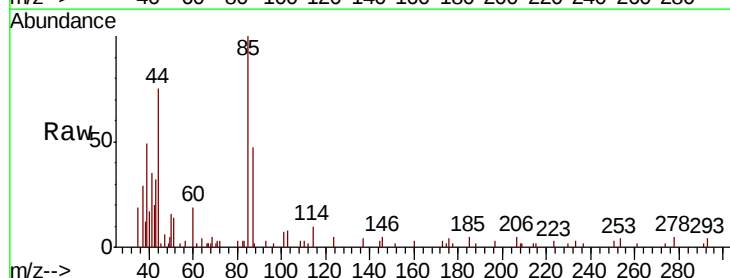
Delta R.T. -0.01 min

Lab File: VL036280.D

Acq: 28 Jan 2021 20:34

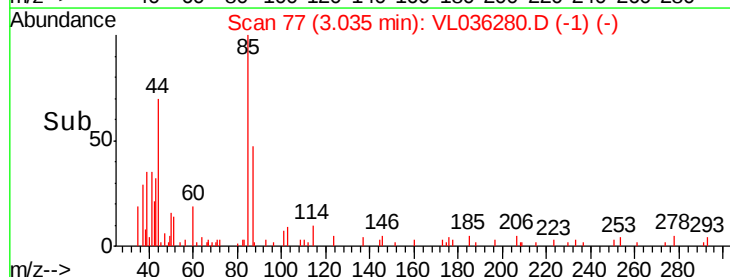
Tgt Ion: 85 Resp: 16131

Ion	Ratio	Lower	Upper
85	100		
87	46.7	26.4	39.6

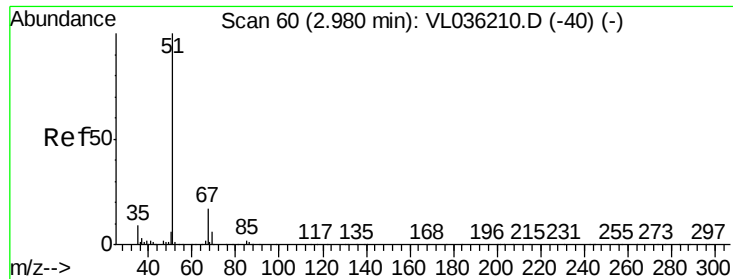


Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0



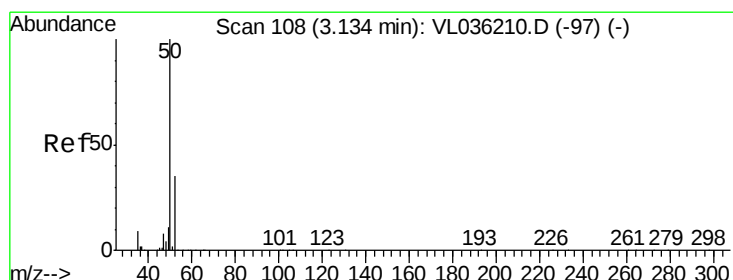
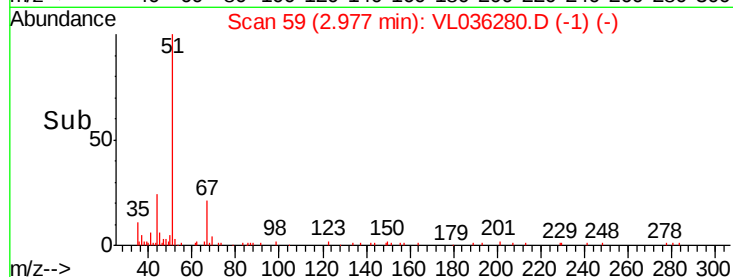
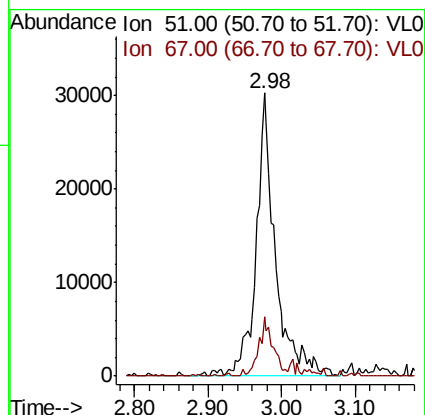
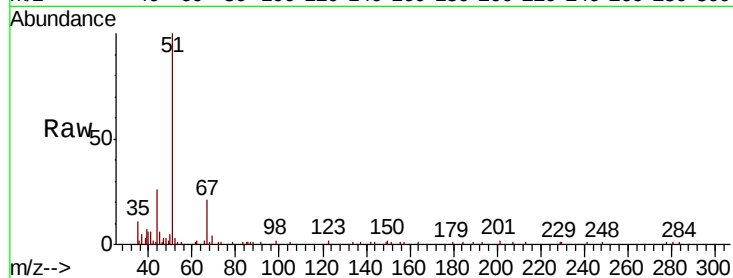
Time-->



#3
Chlorodifluoromethane
Concen: 0.281 ppbv
RT: 2.98 min Scan# 59
Delta R.T. -0.00 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

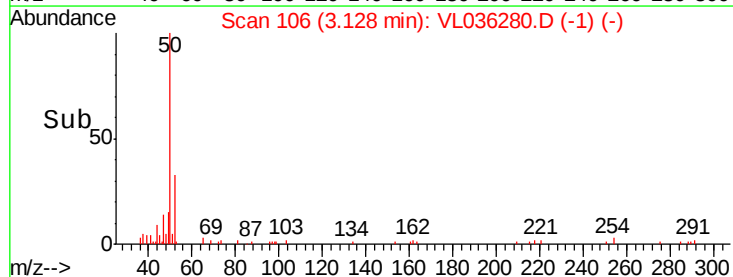
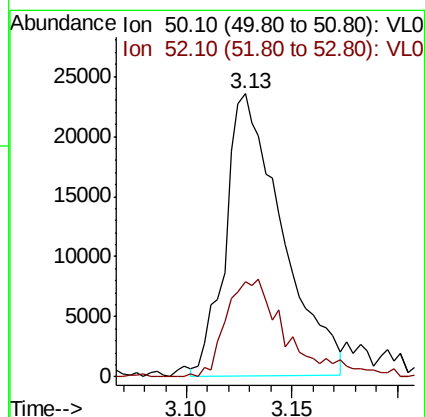
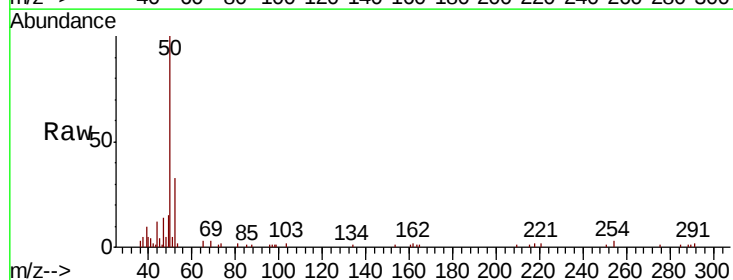
Instrument :
MSVOA_L
ClientSampleId :

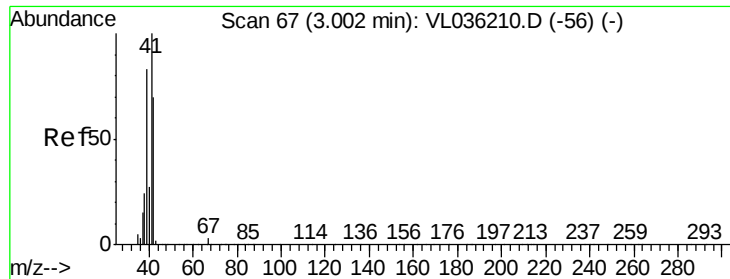
Tot Ion: 51 Resp: 55762
Ion Ratio Lower Upper
51 100
67 18.7 14.0 21.0



#4
Chloromethane
Concen: 0.447 ppbv
RT: 3.13 min Scan# 106
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

Tgt Ion: 50 Resp: 43731
Ion Ratio Lower Upper
50 100
52 33.4 27.8 41.8





#9

Propene

Concen: 0.211 ppbv

RT: 3.00 min Scan# 67

Delta R.T. 0.00 min

Lab File: VL036280.D

Acq: 28 Jan 2021 20:34

Instrument :

MSVOA_L

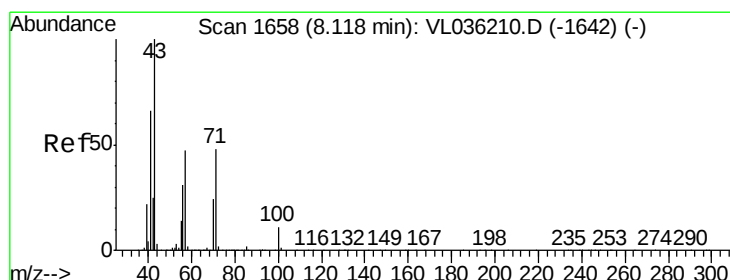
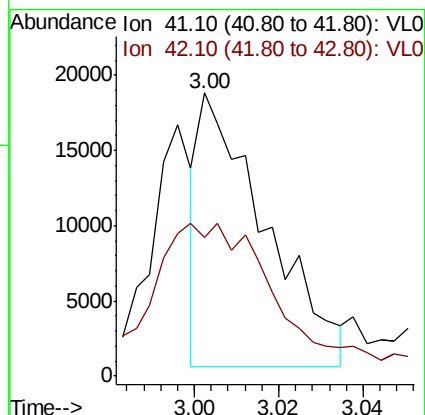
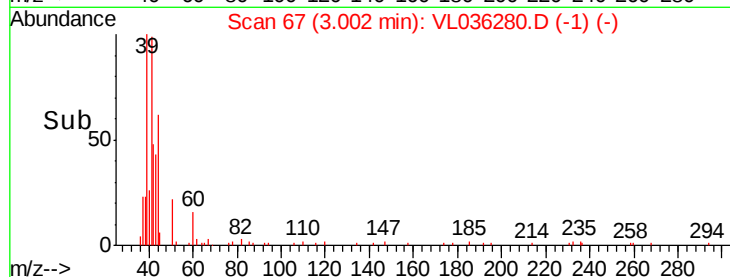
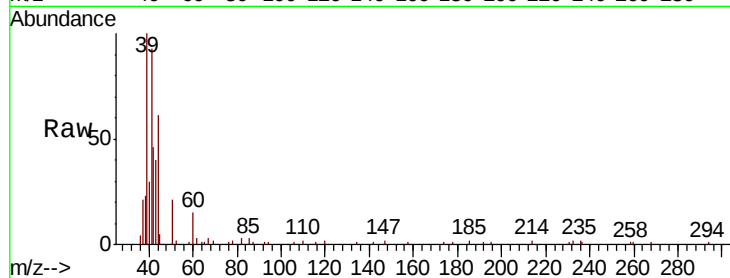
ClientSampled :

Tot Ion: 41 Resp: 19865

Ion Ratio Lower Upper

41 100

42 118.2 57.1 85.7#



#10

Heptane

Concen: 0.818 ppbv

RT: 8.11 min Scan# 1655

Delta R.T. -0.01 min

Lab File: VL036280.D

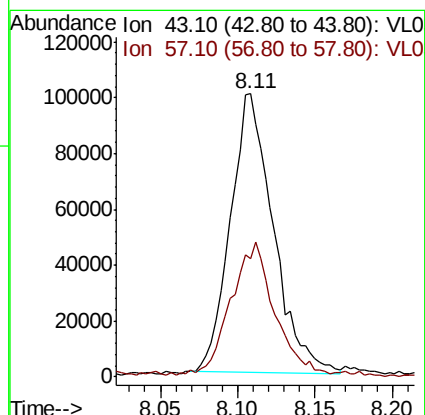
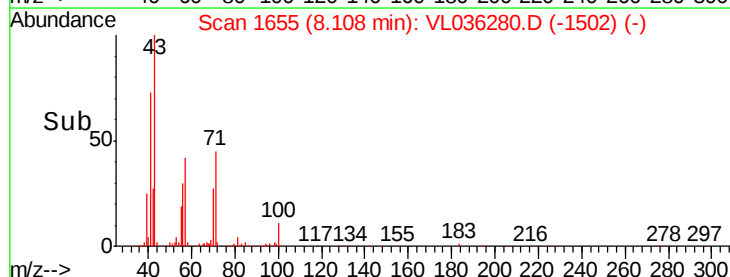
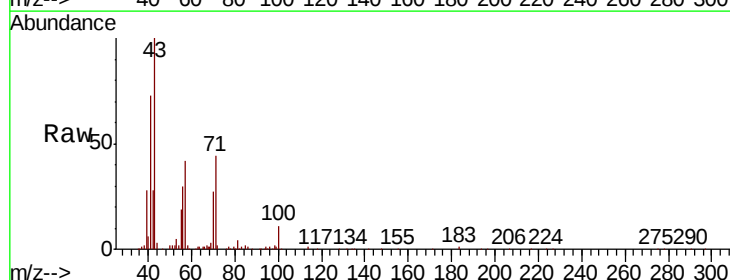
Acq: 28 Jan 2021 20:34

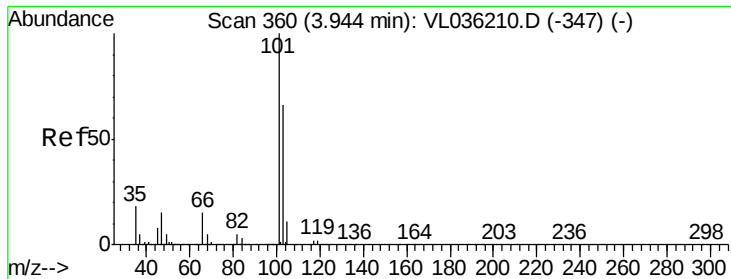
Tgt Ion: 43 Resp: 191651

Ion Ratio Lower Upper

43 100

57 51.8 38.1 57.1

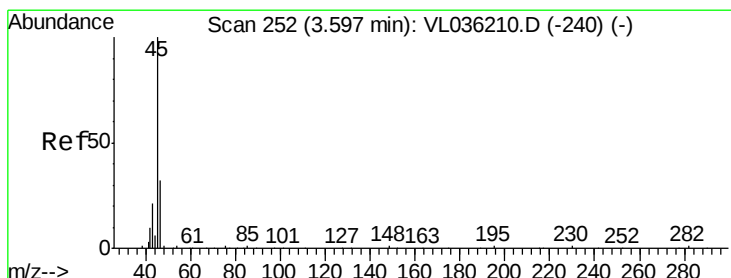
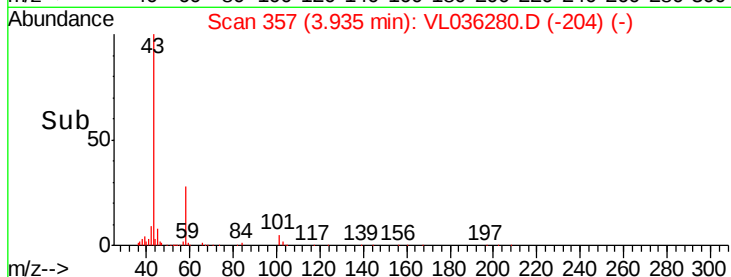
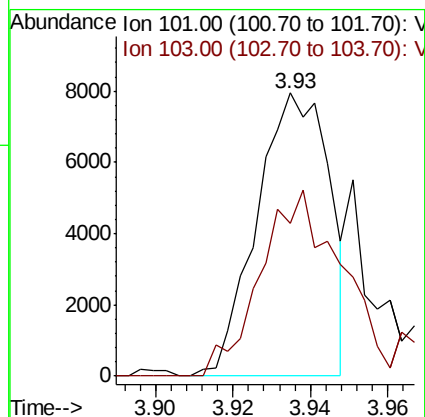
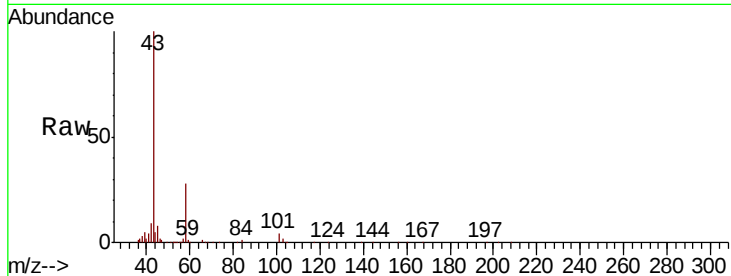




#11
 Trichlorofluoromethane
 Concen: 0.047 ppbv
 RT: 3.93 min Scan# 357
 Delta R.T. -0.01 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

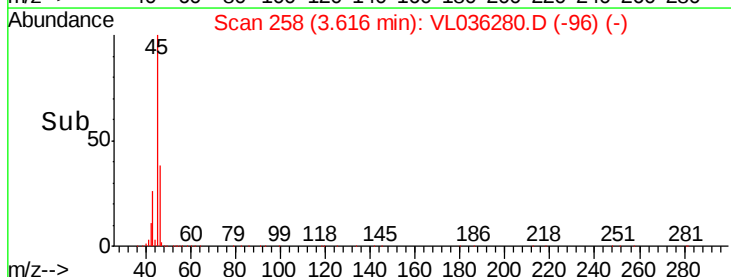
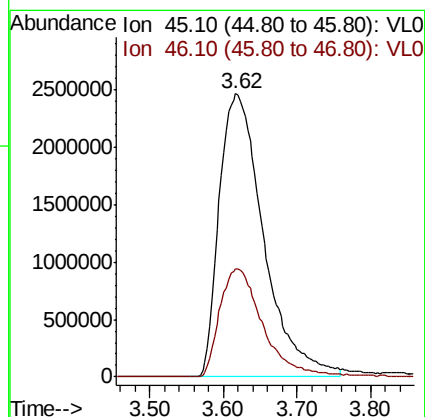
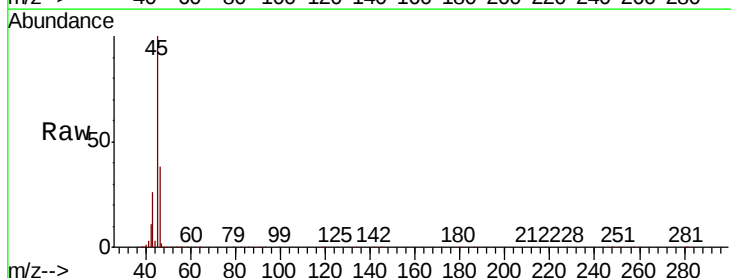
Instrument :
 MSVOA_L
 ClientSampleId :

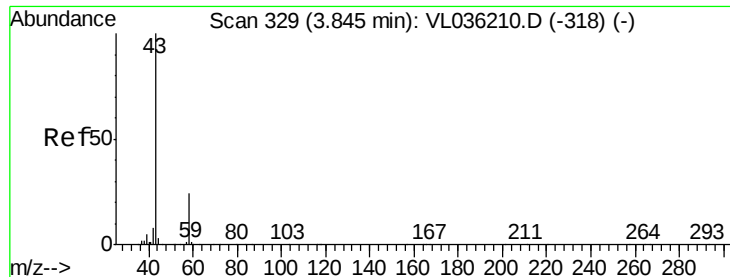
Tot Ion:101 Resp: 10393
 Ion Ratio Lower Upper
 101 100
 103 53.9 52.6 78.8



#13
 Ethanol
 Concen: 697.002 ppbv
 RT: 3.62 min Scan# 258
 Delta R.T. 0.02 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

Tgt Ion: 45 Resp:10327837
 Ion Ratio Lower Upper
 45 100
 46 37.7 19.2 77.0

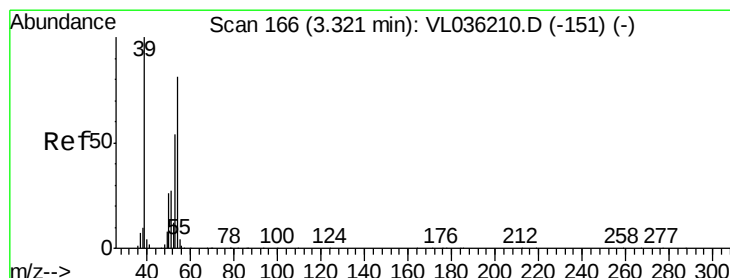
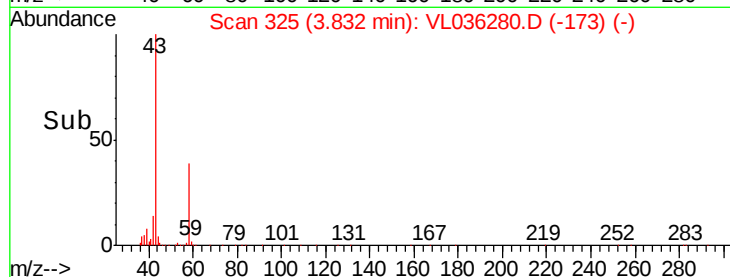
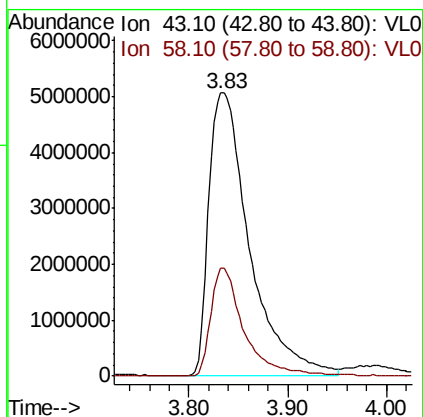
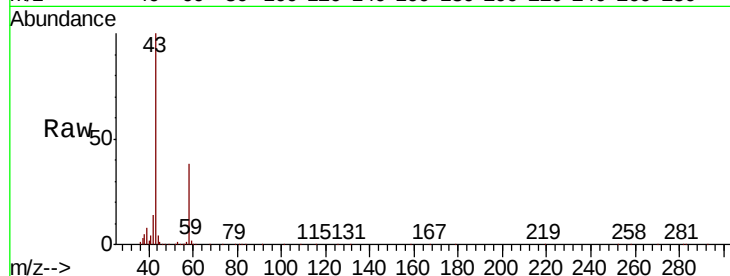




#15
Acetone
Concen: 73.807 ppbv
RT: 3.83 min Scan# 325
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

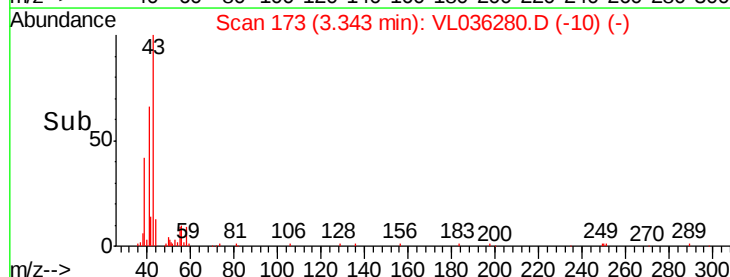
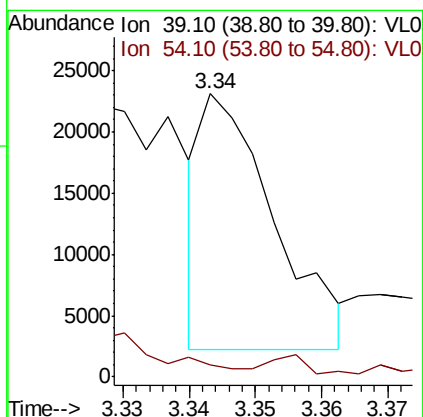
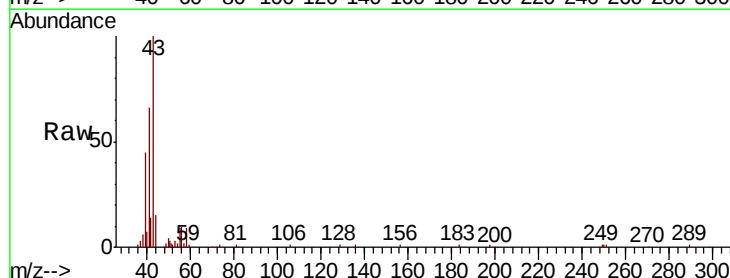
Instrument :
MSVOA_L
ClientSampled :

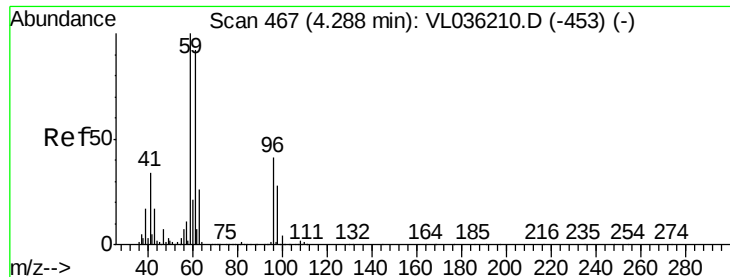
Tot Ion: 43 Resp:14585072
Ion Ratio Lower Upper
43 100
58 31.9 20.9 31.3#



#16
1,3-Butadiene
Concen: 0.164 ppbv
RT: 3.34 min Scan# 173
Delta R.T. 0.02 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

Tgt Ion: 39 Resp: 15794
Ion Ratio Lower Upper
39 100
54 105.2 62.5 93.7#





#17

tert-Butyl alcohol
 Concen: 71.234 ppbv
 RT: 4.31 min Scan# 473
 Delta R.T. 0.02 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

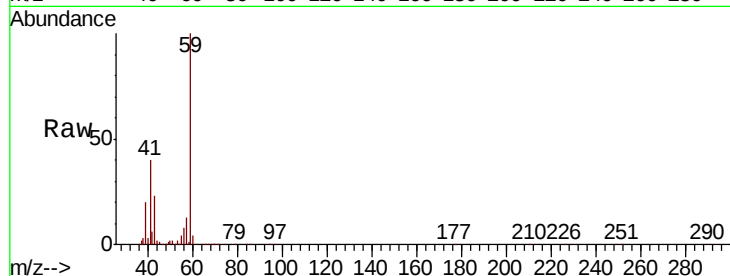
Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 59 Resp: 11615813

Ion Ratio Lower Upper

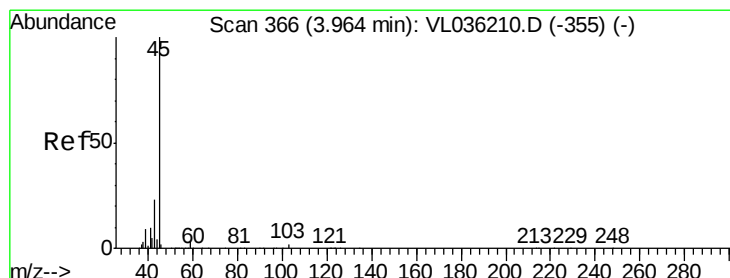
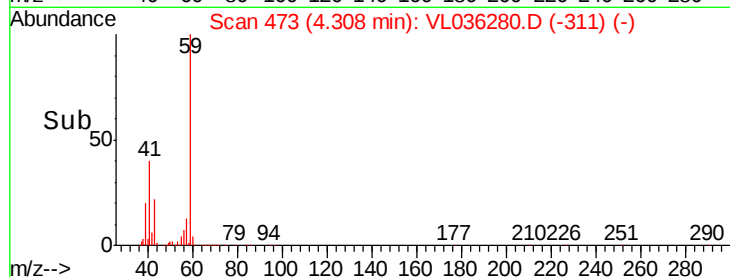
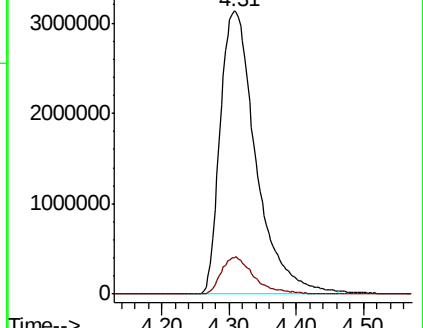
59 100

57 12.2 9.2 13.8



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

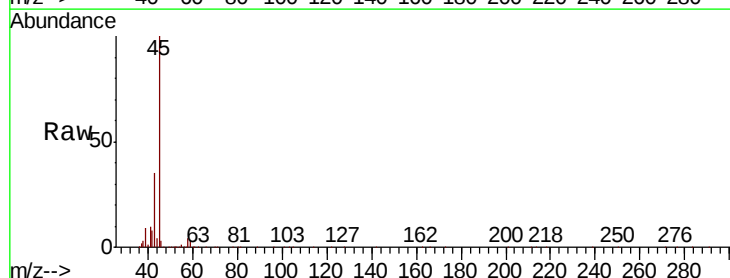
Isopropyl Alcohol
 Concen: 14.237 ppbv
 RT: 3.99 min Scan# 373
 Delta R.T. 0.02 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

Tgt Ion: 45 Resp: 1696156

Ion Ratio Lower Upper

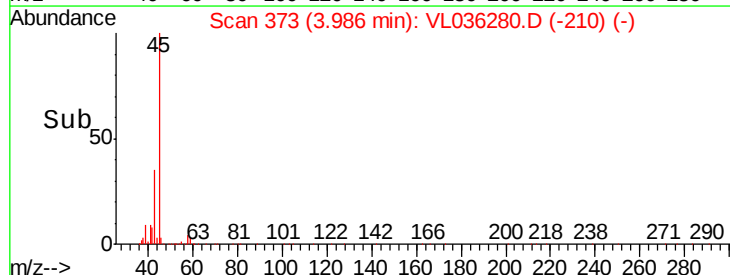
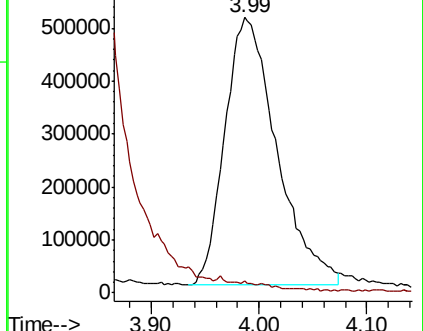
45 100

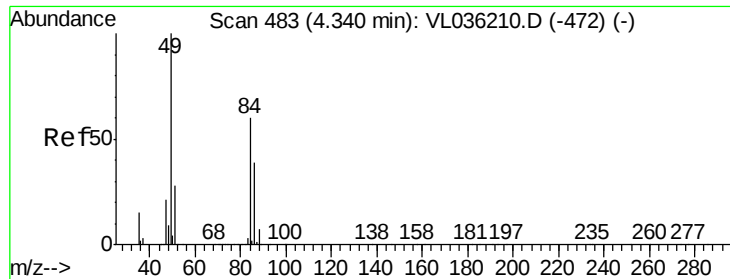
58 274.4 1.9 2.9#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

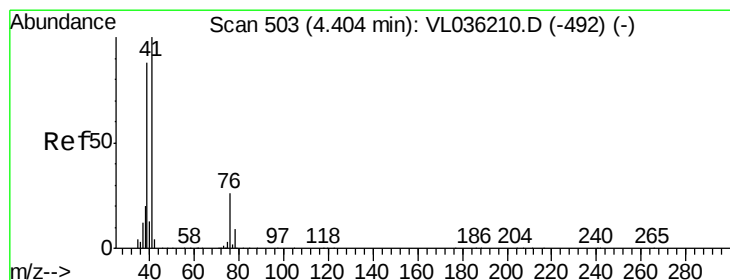
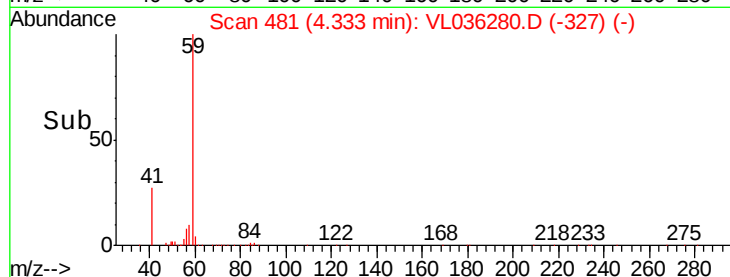
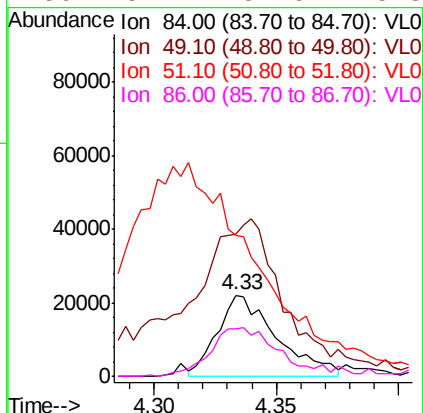
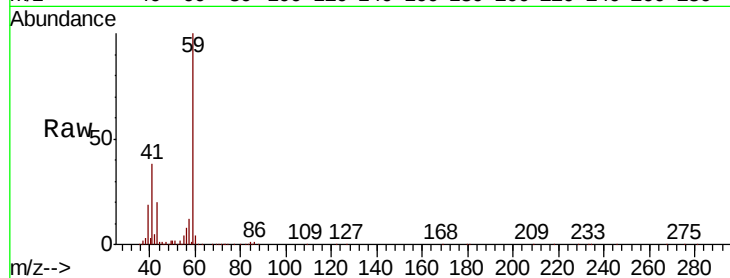




#20
Methylene Chloride
Concen: 0.585 ppbv
RT: 4.33 min Scan# 481
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

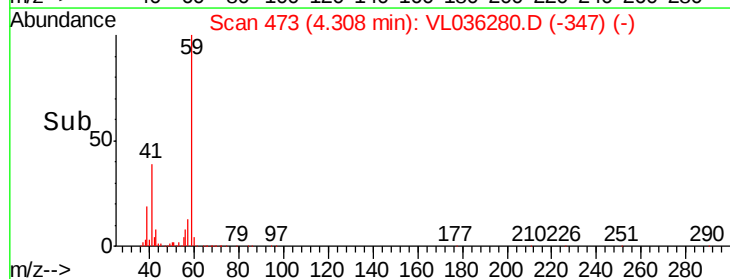
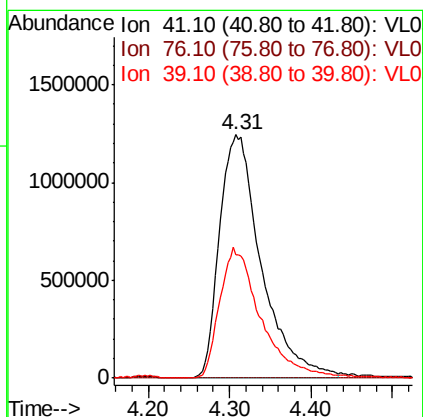
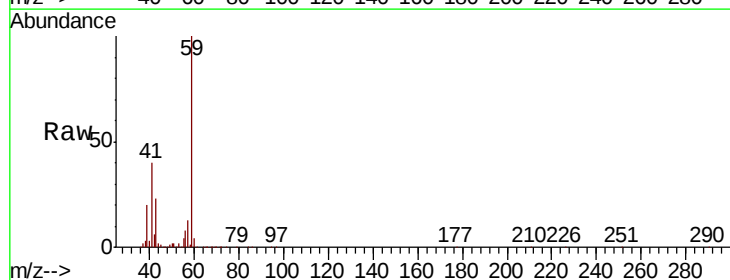
Instrument :
MSVOA_L
ClientSampleId :

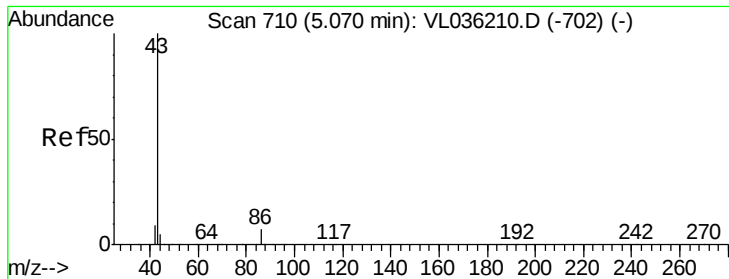
Tot Ion: 84 Resp: 36892
Ion Ratio Lower Upper
84 100
49 151.9 134.1 201.1
51 139.8 37.4 56.0#
86 51.4 52.6 78.8#



#21
Allyl Chloride
Concen: 41.417 ppbv
RT: 4.31 min Scan# 473
Delta R.T. -0.10 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

Tgt Ion: 41 Resp: 4454951
Ion Ratio Lower Upper
41 100
76 0.0 20.5 30.7#
39 53.2 67.8 101.8#





#23

Vinyl Acetate

Concen: 0.133 ppbv

RT: 5.05 min Scan# 705

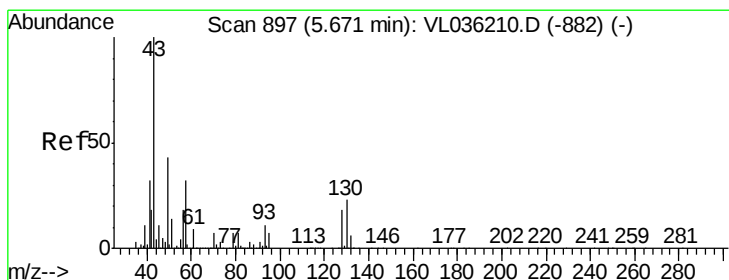
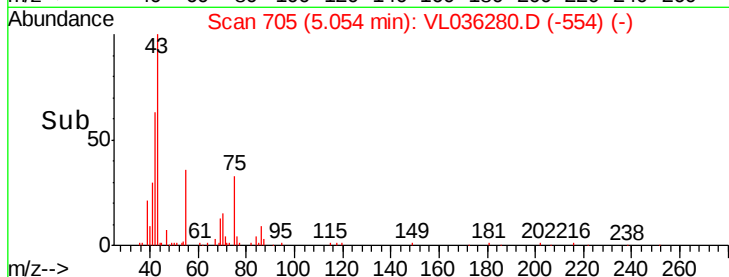
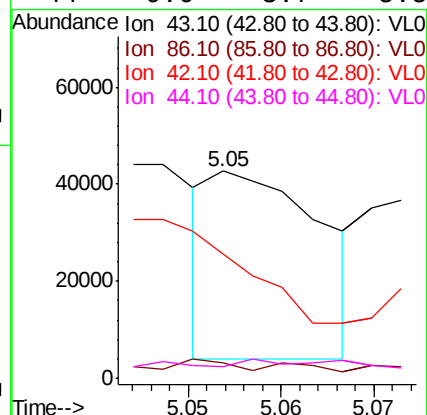
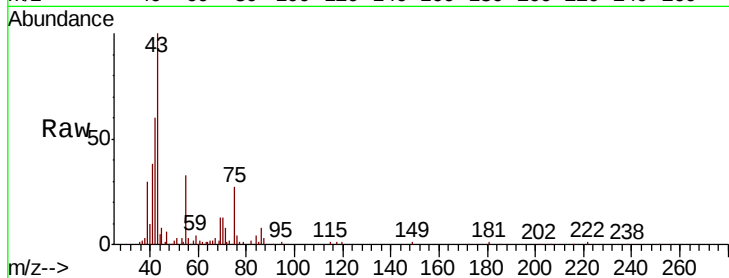
Delta R.T. -0.02 min

Lab File: VL036280.D

Acq: 28 Jan 2021 20:34

Instrument :
MSVOA_L
ClientSampled :

Tot Ion:	43	Resp:	31794
Ion	Ratio	Lower	Upper
43	100		
86	16.2	4.9	7.3#
42	115.9	7.8	11.6#
44	0.0	3.7	5.5#



#25

Ethyl Acetate

Concen: 1.212 ppbv

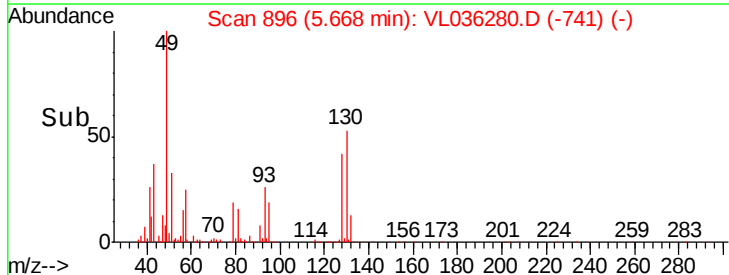
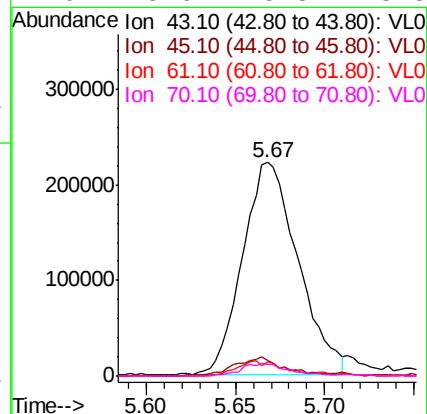
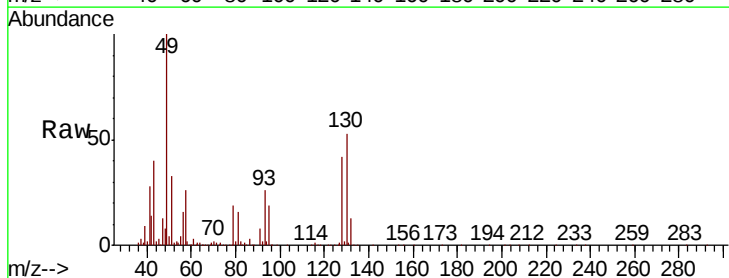
RT: 5.67 min Scan# 896

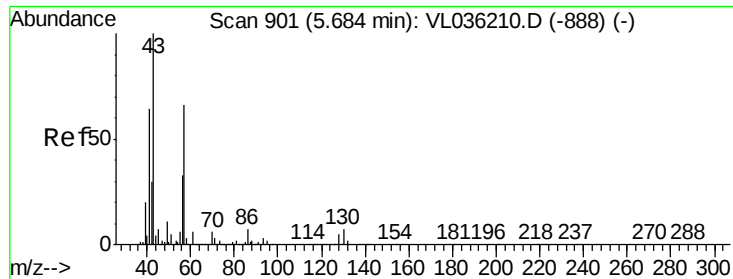
Delta R.T. -0.00 min

Lab File: VL036280.D

Acq: 28 Jan 2021 20:34

Tgt Ion:	43	Resp:	480890
Ion	Ratio	Lower	Upper
43	100		
45	8.6	8.3	12.5
61	6.8	7.4	11.2#
70	5.6	5.5	8.3

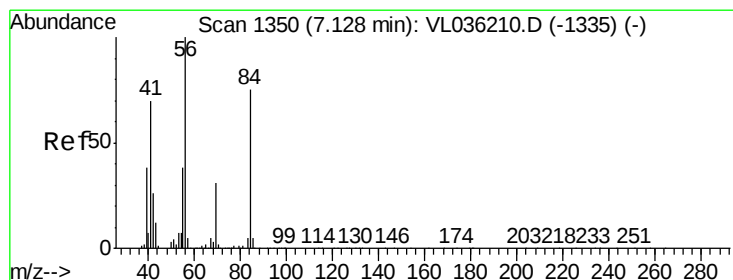
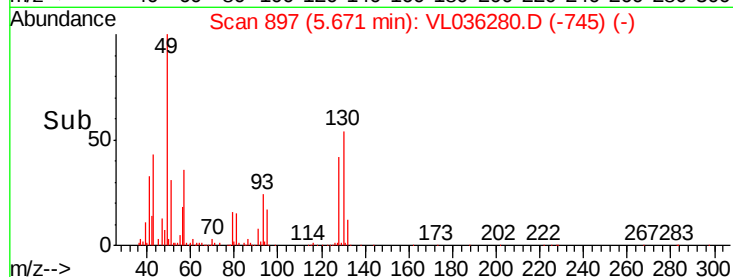
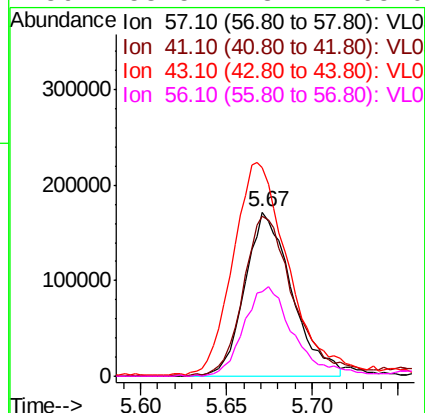
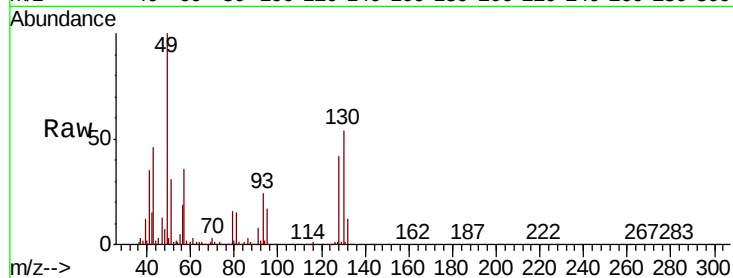




#26
Hexane
Concen: 1.969 ppbv
RT: 5.67 min Scan# 897
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

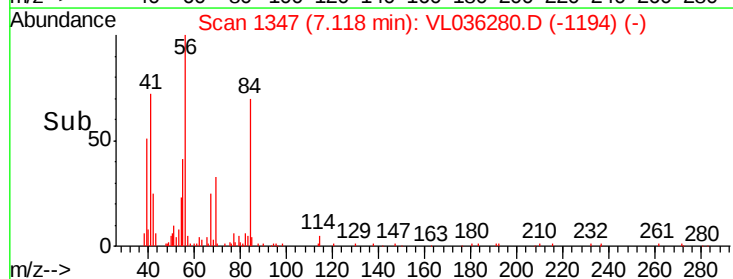
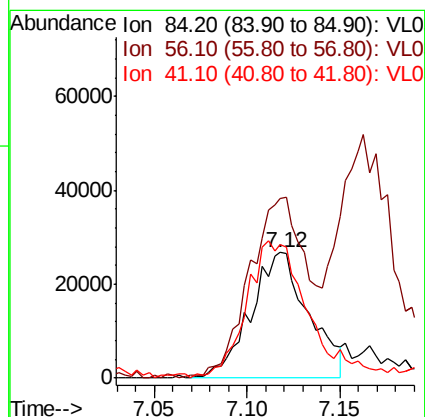
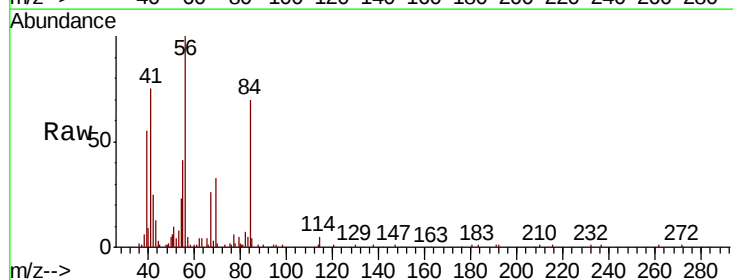
Instrument :
MSVOA_L
ClientSampleId :

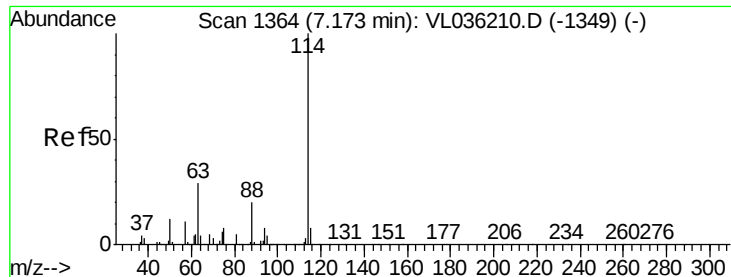
Tot Ion: 57 Resp: 325316
Ion Ratio Lower Upper
57 100
41 105.8 83.0 124.6
43 161.7 202.4 303.6#
56 58.5 43.4 65.0



#30
Cyclohexane
Concen: 0.461 ppbv
RT: 7.12 min Scan# 1347
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

Tgt Ion: 84 Resp: 58238
Ion Ratio Lower Upper
84 100
56 132.3 119.4 179.0
41 109.4 79.4 119.0

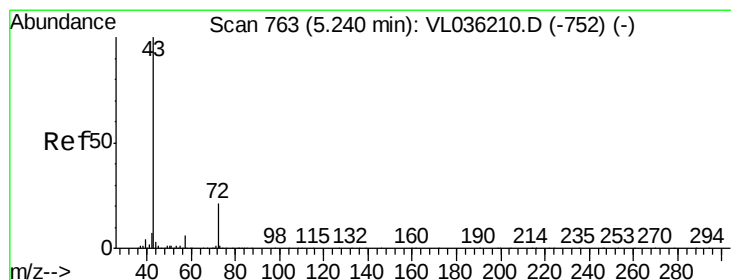
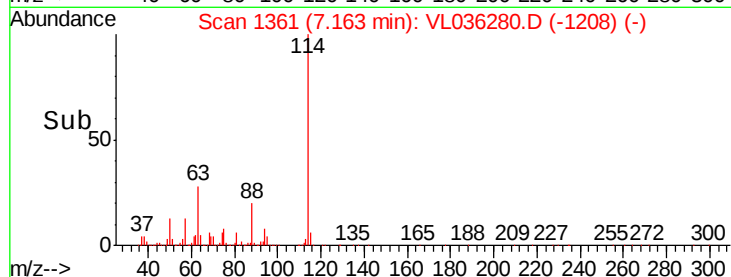
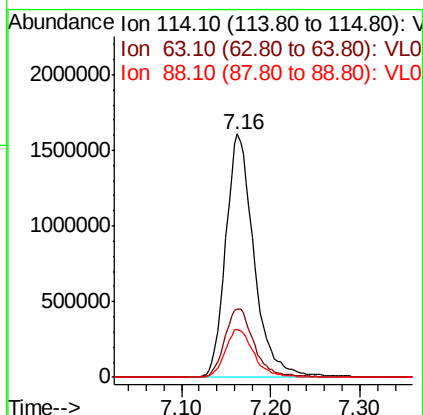
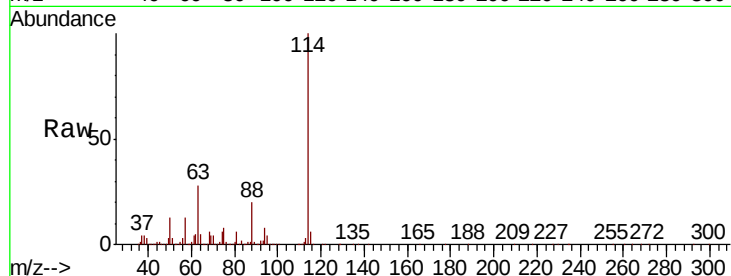




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1361
 Delta R.T. -0.01 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

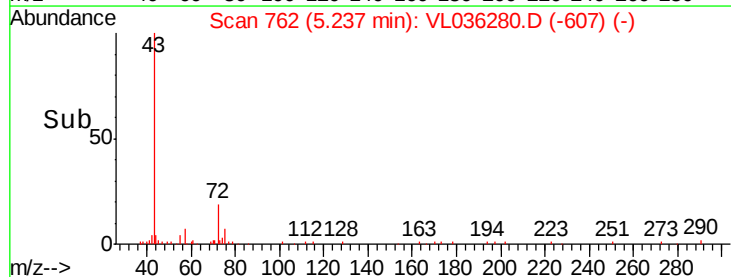
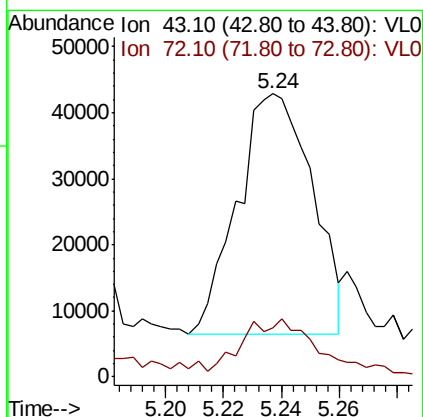
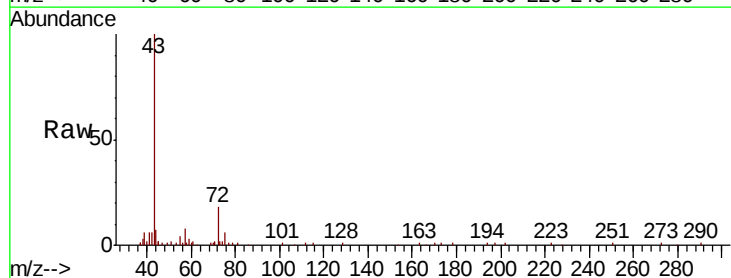
Instrument :
 MSVOA_L
 ClientSampleId :

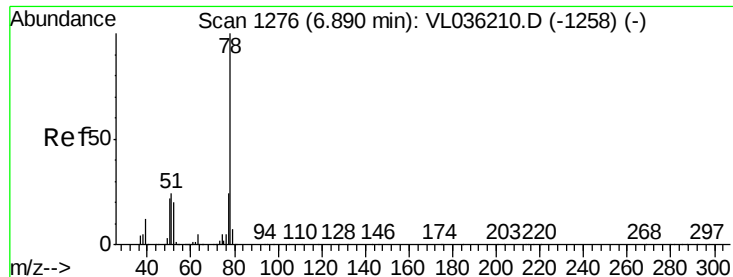
Tot Ion:114 Resp: 3536761
 Ion Ratio Lower Upper
 114 100
 63 29.4 24.7 37.1
 88 20.1 16.6 24.8



#34
 2-Butanone
 Concen: 0.251 ppbv
 RT: 5.24 min Scan# 762
 Delta R.T. -0.00 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

Tgt Ion: 43 Resp: 65393
 Ion Ratio Lower Upper
 43 100
 72 28.6 16.1 24.1#

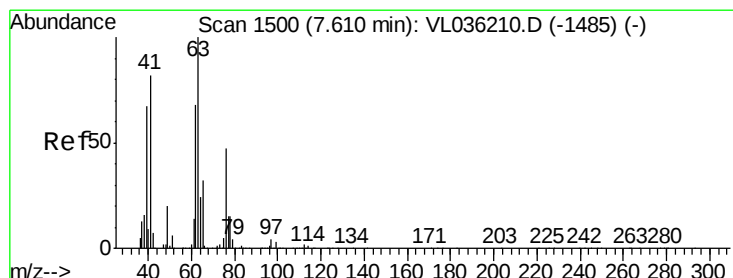
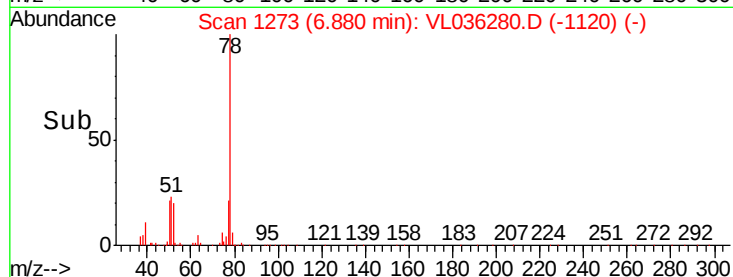
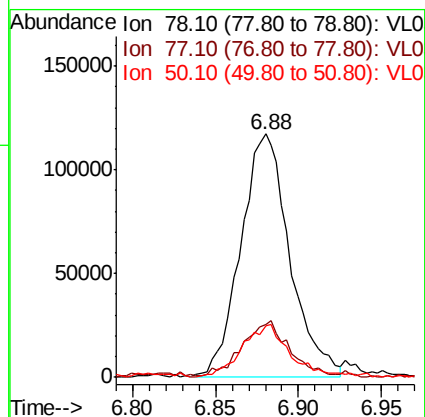
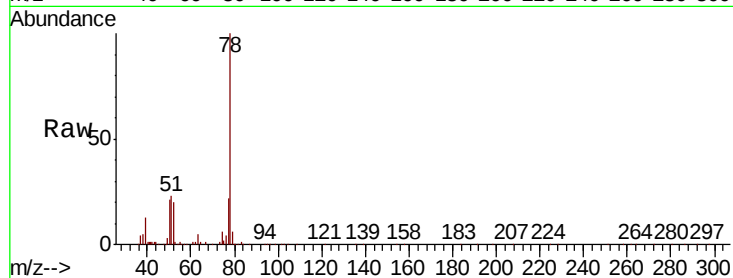




#36
Benzene
Concen: 0.738 ppbv
RT: 6.88 min Scan# 1273
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

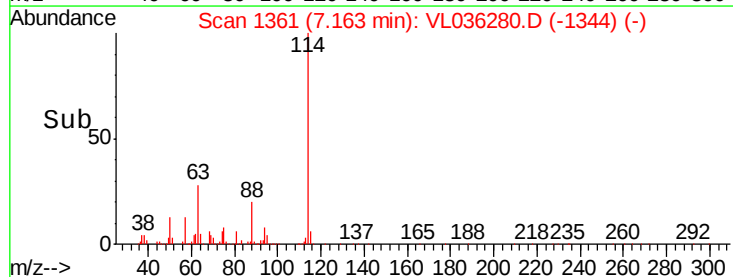
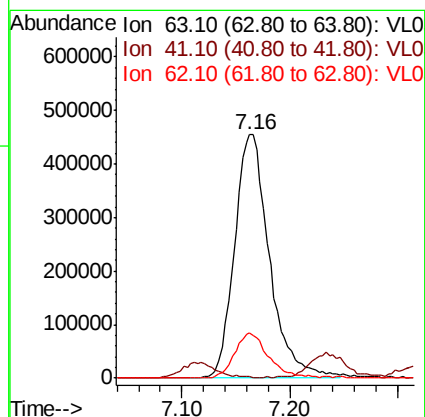
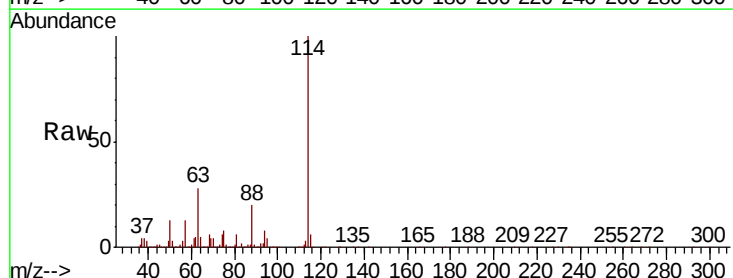
Instrument :
MSVOA_L
ClientSampled :

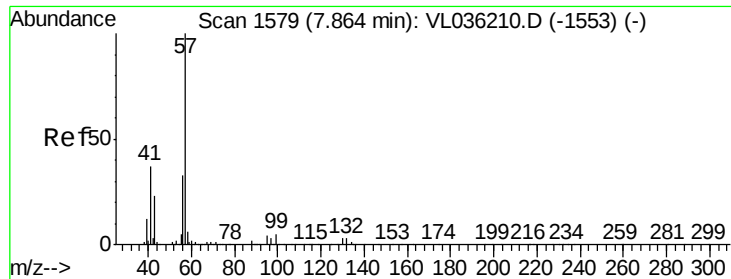
Tot Ion: 78 Resp: 239171
Ion Ratio Lower Upper
78 100
77 20.5 19.4 29.0
50 21.1 17.4 26.2



#39
1,2-Dichloropropane
Concen: 7.766 ppbv
RT: 7.16 min Scan# 1361
Delta R.T. -0.45 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

Tgt Ion: 63 Resp: 1021873
Ion Ratio Lower Upper
63 100
41 0.0 66.1 99.1#
62 18.2 54.8 82.2#

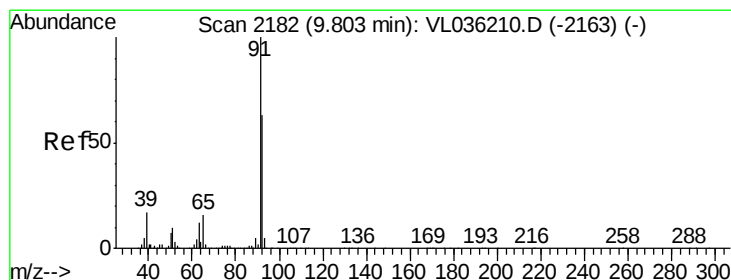
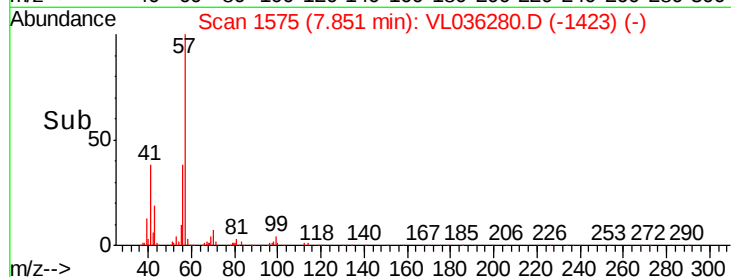
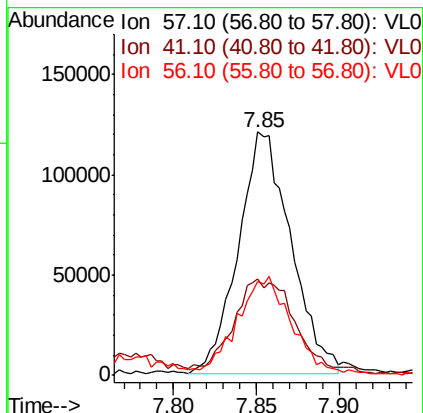
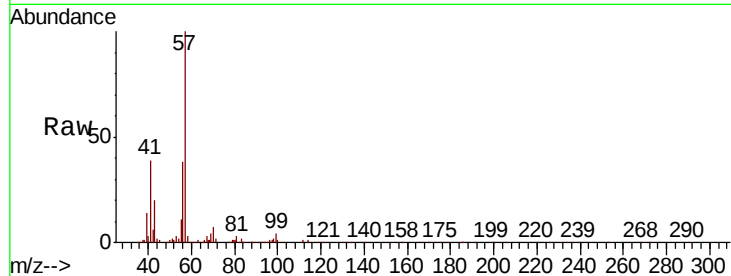




#44
 2,2,4-Trimethylpentane
 Concen: 0.445 ppbv
 RT: 7.85 min Scan# 1575
 Delta R.T. -0.01 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

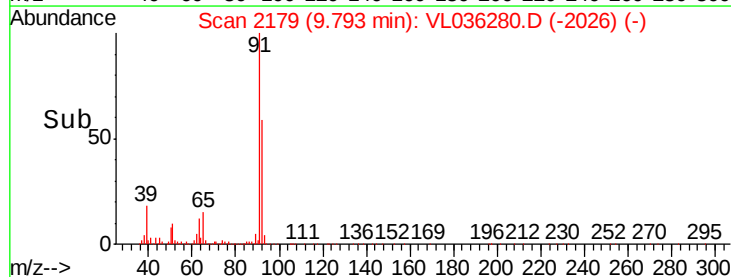
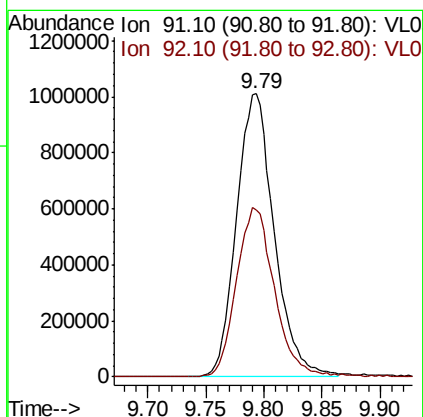
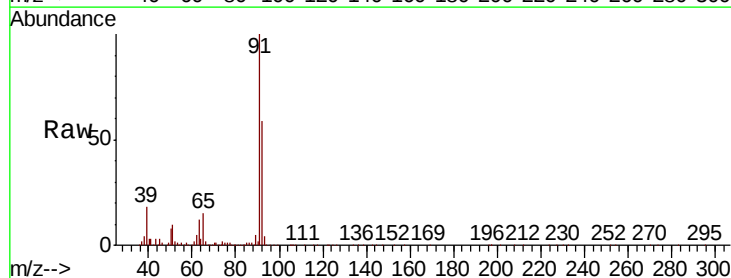
Instrument :
 MSVOA_L
 ClientSampleId :

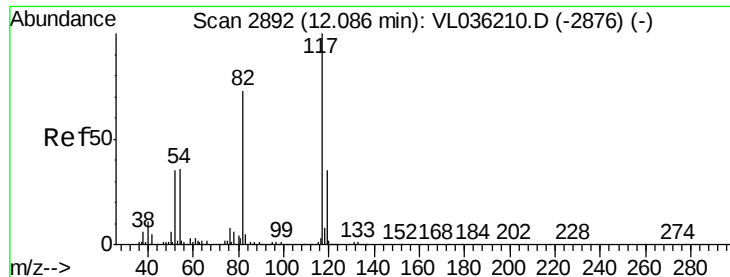
Tot Ion	57	Resp	264587
Ion Ratio	Lower	Upper	
57	100		
41	48.5	28.5	42.7#
56	42.1	25.5	38.3#



#53
 Toluene
 Concen: 6.287 ppbv
 RT: 9.79 min Scan# 2179
 Delta R.T. -0.01 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

Tgt Ion	91	Resp	2279116
Ion Ratio	Lower	Upper	
91	100		
92	60.5	48.5	72.7

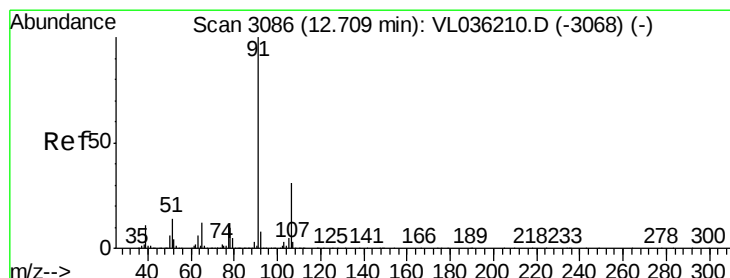
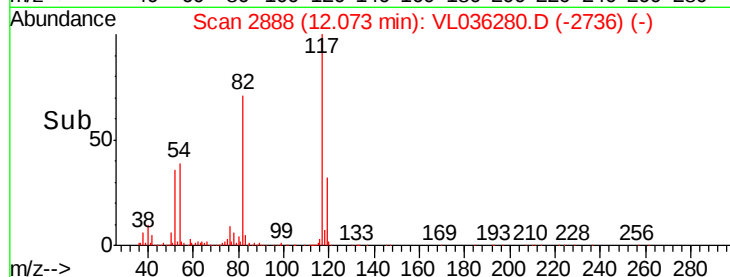
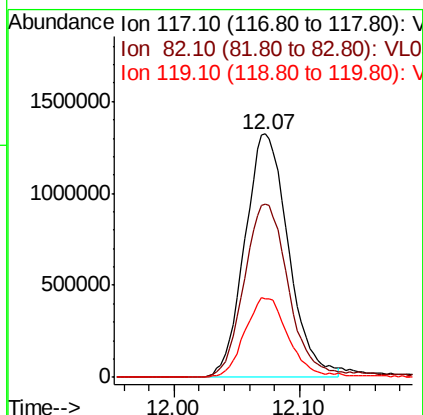
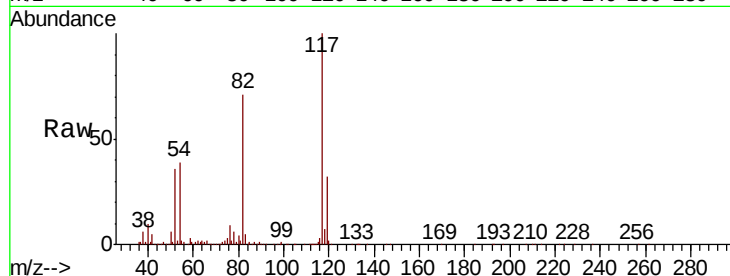




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2888
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

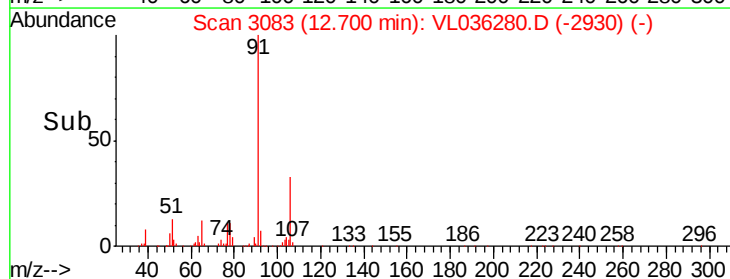
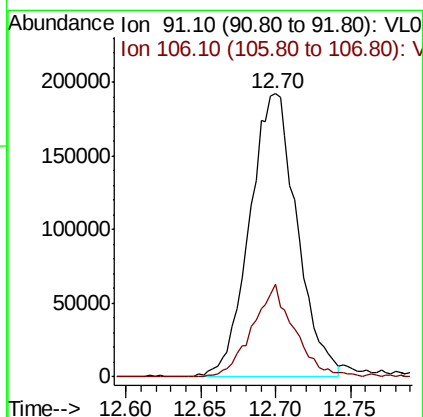
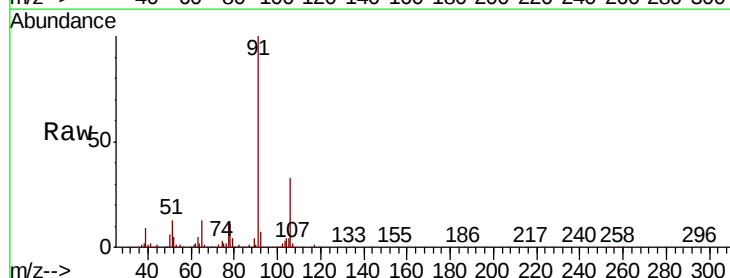
Instrument :
MSVOA_L
ClientSampleId :

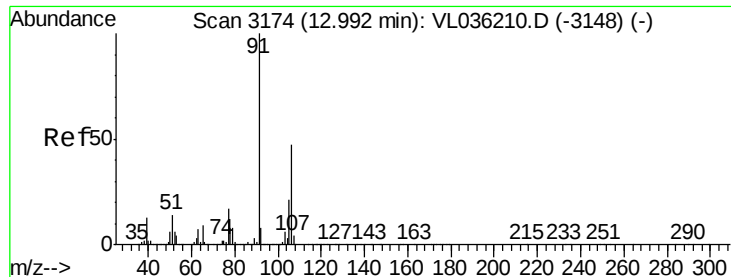
Tot Ion:117 Resp: 3206988
Ion Ratio Lower Upper
117 100
82 75.0 59.7 89.5
119 33.9 28.6 43.0



#58
Ethyl Benzene
Concen: 0.891 ppbv
RT: 12.70 min Scan# 3083
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

Tgt Ion: 91 Resp: 423840
Ion Ratio Lower Upper
91 100
106 32.6 24.8 37.2

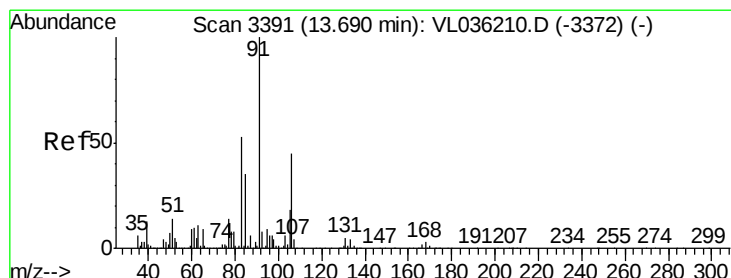
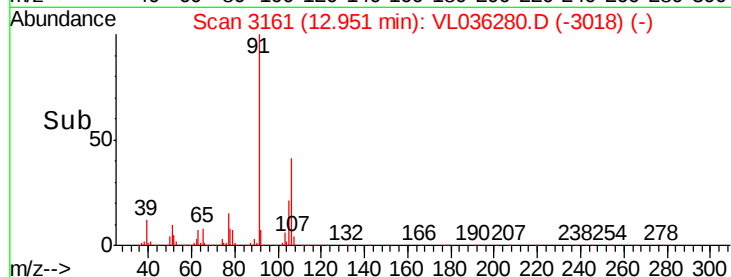
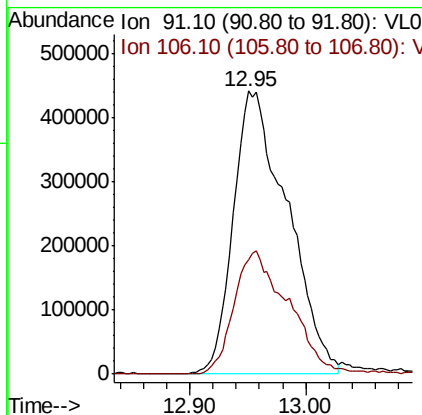
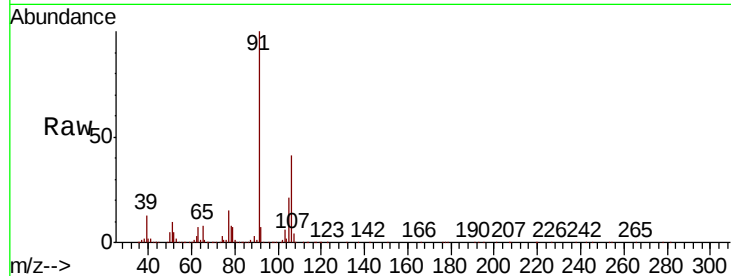




#59
m/p-Xylene
Concen: 3.476 ppbv
RT: 12.95 min Scan# 3161
Delta R.T. -0.04 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

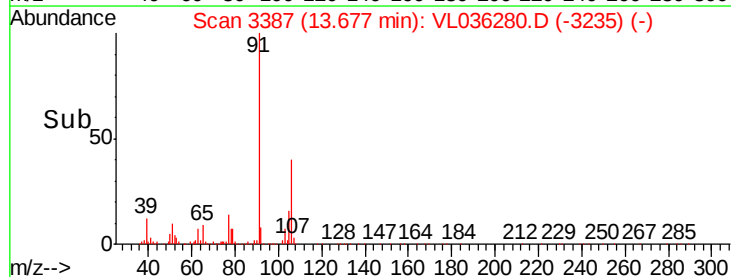
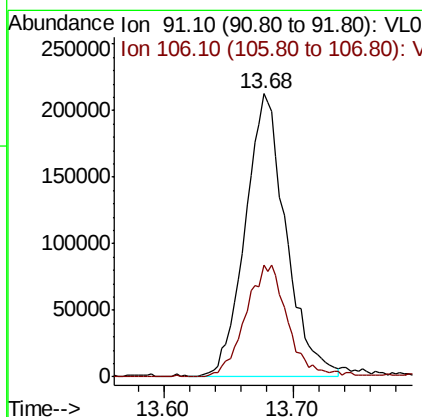
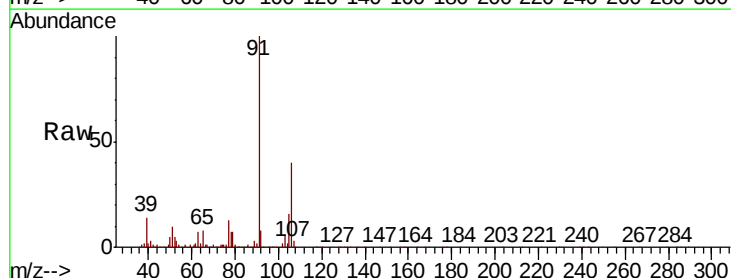
Instrument :
MSVOA_L
ClientSampleId :

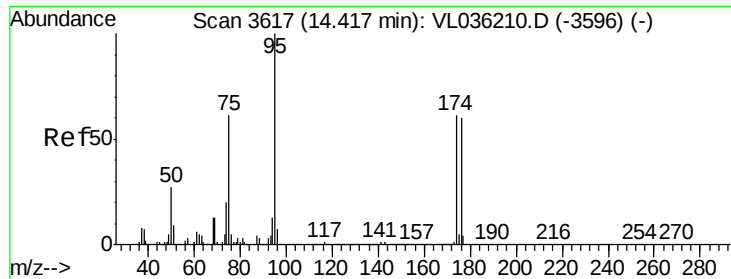
Tot Ion: 91 Resp: 1421349
Ion Ratio Lower Upper
91 100
106 44.9 34.6 51.8



#60
o-Xylene
Concen: 1.182 ppbv
RT: 13.68 min Scan# 3387
Delta R.T. -0.01 min
Lab File: VL036280.D
Acq: 28 Jan 2021 20:34

Tgt Ion: 91 Resp: 465867
Ion Ratio Lower Upper
91 100
106 41.3 21.9 65.8

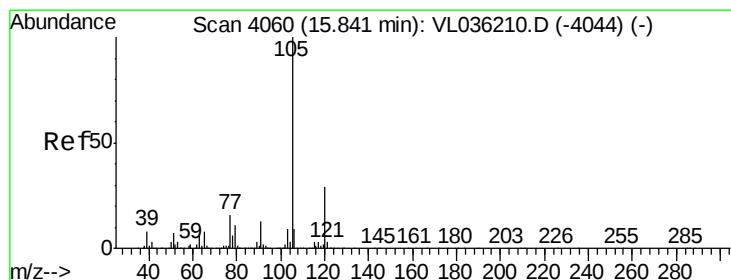
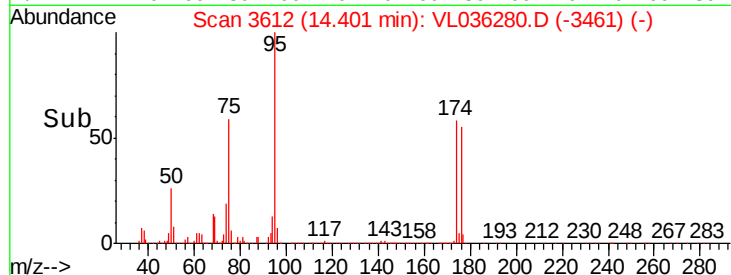
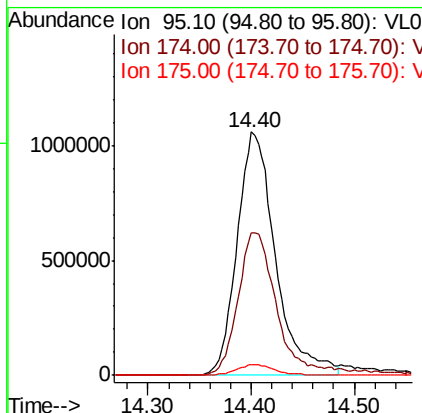
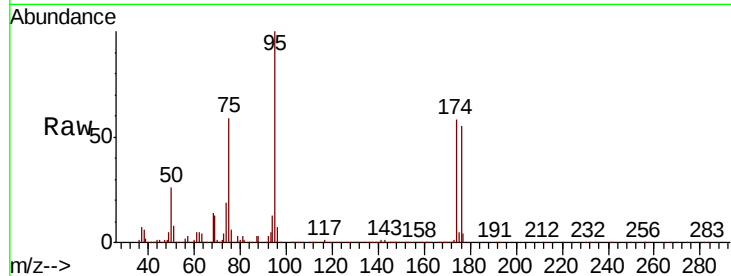




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.348 ppbv
 RT: 14.40 min Scan# 3612
 Delta R.T. -0.02 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

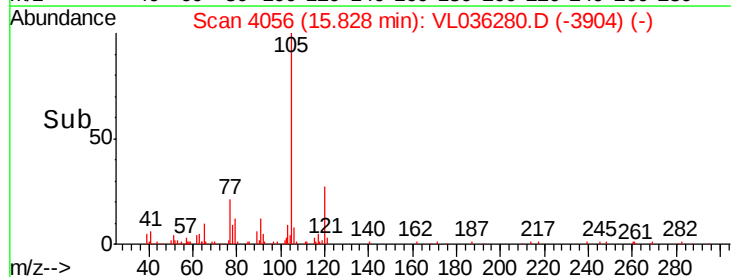
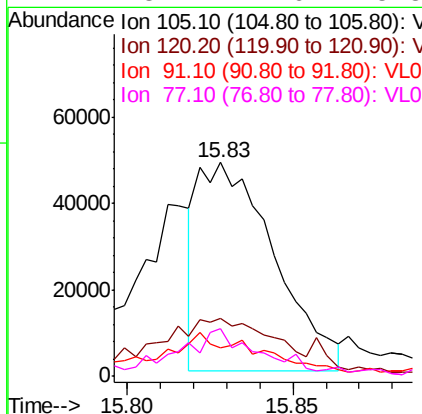
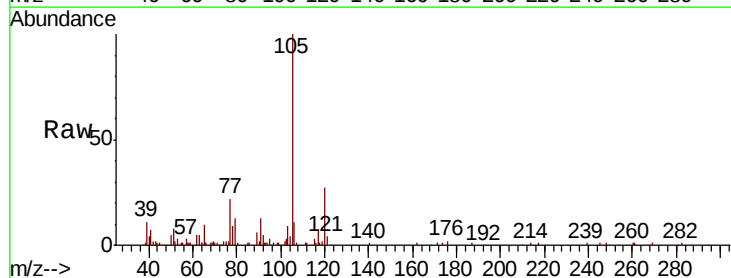
Instrument :
 MSVOA_L
 ClientSampleId :

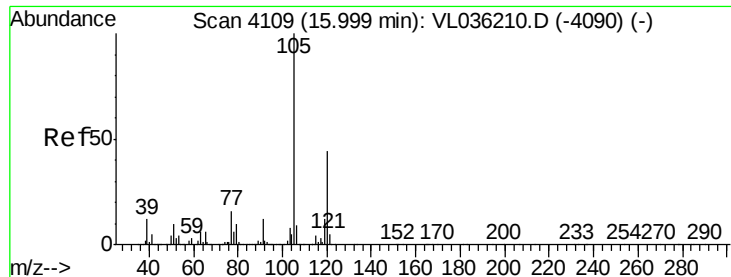
Tot Ion: 95 Resp: 2746953
 Ion Ratio Lower Upper
 95 100
 174 62.0 49.4 74.0
 175 4.6 3.8 5.8



#72
 4-Ethyltoluene
 Concen: 0.173 ppbv
 RT: 15.83 min Scan# 4056
 Delta R.T. -0.01 min
 Lab File: VL036280.D
 Acq: 28 Jan 2021 20:34

Tgt Ion: 105 Resp: 76763
 Ion Ratio Lower Upper
 105 100
 120 50.4 23.7 35.5#
 91 29.0 11.9 17.9#
 77 28.4 12.6 18.8#





#73

1,3,5-Trimethylbenzene

Concen: 0.134 ppbv

RT: 15.99 min Scan# 4105

Delta R.T. -0.01 min

Lab File: VL036280.D

Acq: 28 Jan 2021 20:34

Instrument :

MSVOA_L

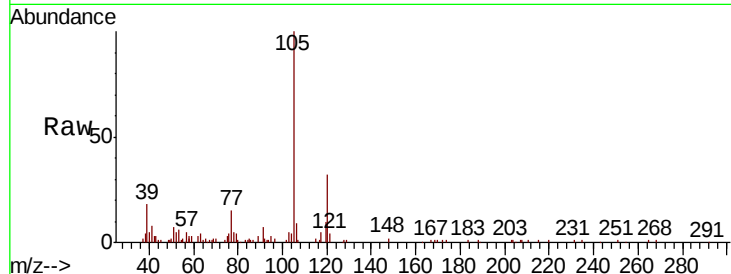
ClientSampleId :

Tot Ion:105 Resp: 56745

Ion Ratio Lower Upper

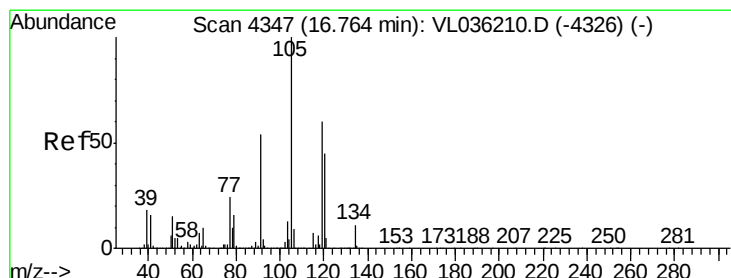
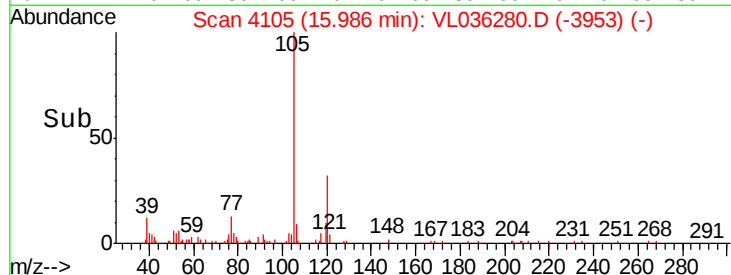
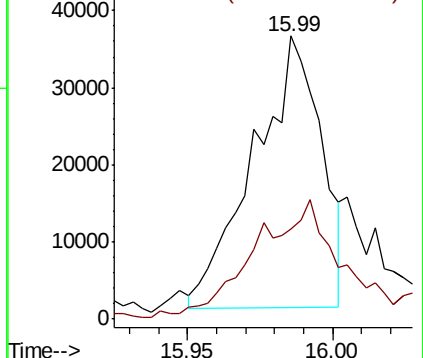
105 100

120 29.9 35.5 53.3#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.695 ppbv

RT: 16.75 min Scan# 4342

Delta R.T. -0.02 min

Lab File: VL036280.D

Acq: 28 Jan 2021 20:34

Tgt Ion:105 Resp: 302281

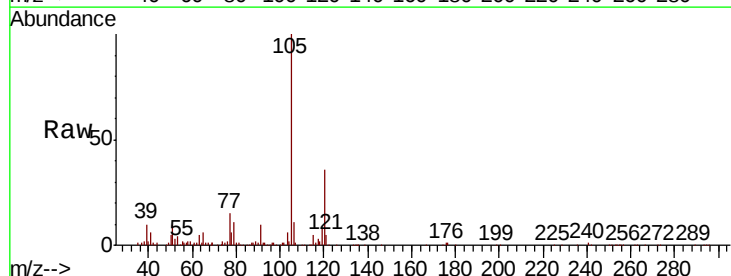
Ion Ratio Lower Upper

105 100

120 36.5 36.2 54.2

91 9.6 43.3 64.9#

77 14.2 19.1 28.7#



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

