

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032921\
 Data File : VL036546.D
 Acq On : 29 Mar 2021 19:31
 Operator : SY/AP
 Sample : M1760-10
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 30 06:42:15 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

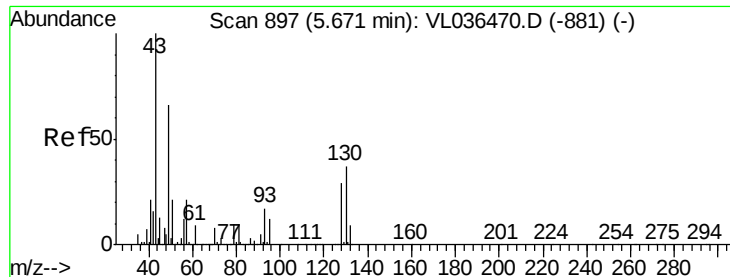
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1499395	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.17	114	3368311	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.08	117	2978765	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2385788	10.05	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	51455	0.210	ppbv	92
3) Chlorodifluoromethane	2.98	51	118586	0.423	ppbv #	80
4) Chloromethane	3.13	50	49084	0.496	ppbv	91
9) Propene	3.01	41	37453	0.419	ppbv #	14
10) Heptane	8.11	43	6312	0.028	ppbv #	28
11) Trichlorofluoromethane	3.94	101	19528	0.078	ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.48	101	3996	0.025	ppbv #	1
13) Ethanol	3.61	45	3579729	336.595	ppbv	95
15) Acetone	3.84	43	1127280	7.639	ppbv	95
16) 1,3-Butadiene	3.31	39	3850	0.037	ppbv #	1
17) tert-Butyl alcohol	4.30	59	13858	0.108	ppbv #	72
19) Isopropyl Alcohol	3.97	45	3933804	48.457	ppbv #	95
20) Methylene Chloride	4.33	84	796332	11.525	ppbv	97
21) Allyl Chloride	4.35	41	9222	0.078	ppbv #	18
23) Vinyl Acetate	5.06	43	11177	0.044	ppbv #	76
25) Ethyl Acetate	5.68	43	941354	2.683	ppbv #	79
26) Hexane	5.68	57	1219435	7.490	ppbv #	47
34) 2-Butanone	5.24	43	69850	0.425	ppbv #	90
35) Carbon Tetrachloride	7.01	117	6869	0.027	ppbv	94
36) Benzene	6.88	78	37672	0.121	ppbv	97
37) 1,2-Dichloroethane	6.30	62	5180	0.028	ppbv #	89
39) 1,2-Dichloropropane	7.16	63	931922	7.395	ppbv #	23
41) Tetrahydrofuran	5.68	42	511060	6.741	ppbv #	53
44) 2,2,4-Trimethylpentane	7.86	57	16215	0.030	ppbv #	1
53) Toluene	9.80	91	698522	2.111	ppbv	99
58) Ethyl Benzene	12.70	91	13616	0.031	ppbv	95
59) m/p-Xylene	12.99	91	25997	0.069	ppbv #	32
60) o-Xylene	13.69	91	32071	0.088	ppbv	86
74) 1,2,4-Trimethylbenzene	16.75	105	10969	0.027	ppbv #	68

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.01 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

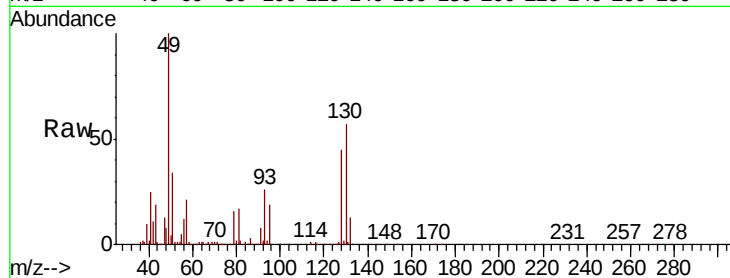
Instrument :

MSVOA_L

ClientSampled :

Tot Ion: 49 Resp: 1499395

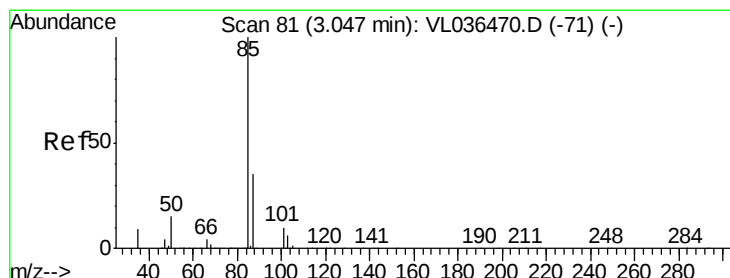
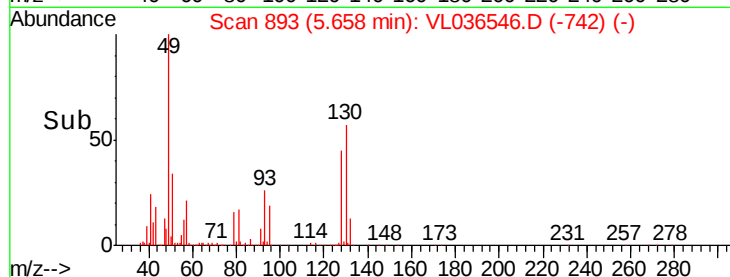
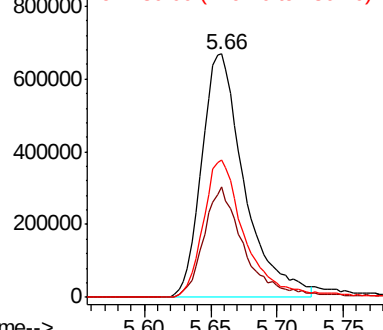
Ion	Ratio	Lower	Upper
49	100		
128	44.1	23.5	70.6
130	56.6	29.1	87.4



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



#2

Dichlorodifluoromethane

Concen: 0.210 ppbv

RT: 3.04 min Scan# 79

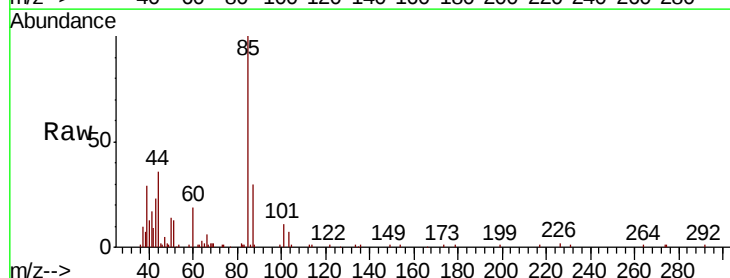
Delta R.T. -0.01 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

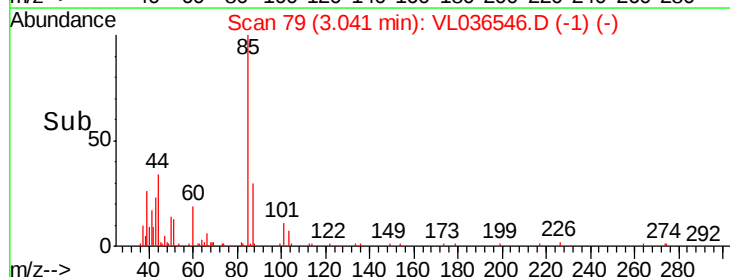
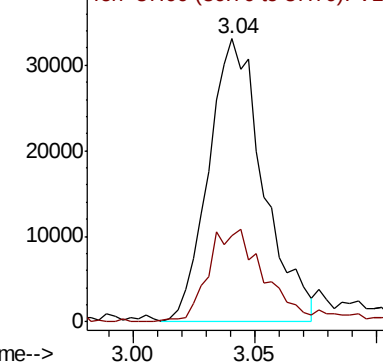
Tgt Ion: 85 Resp: 51455

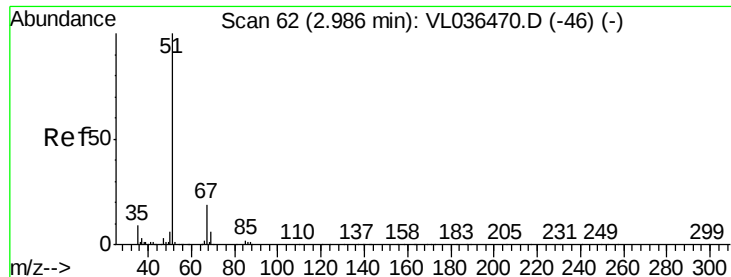
Ion	Ratio	Lower	Upper
85	100		
87	30.0	27.8	41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

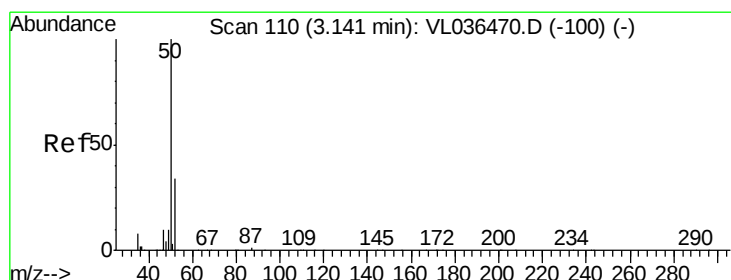
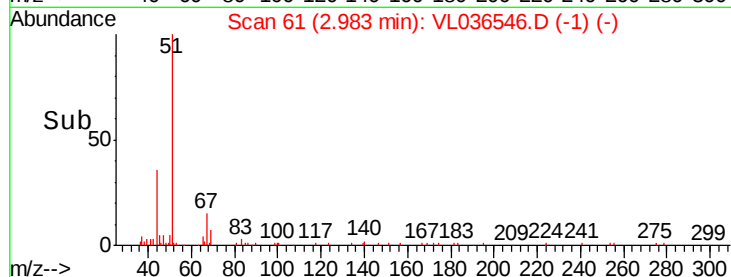
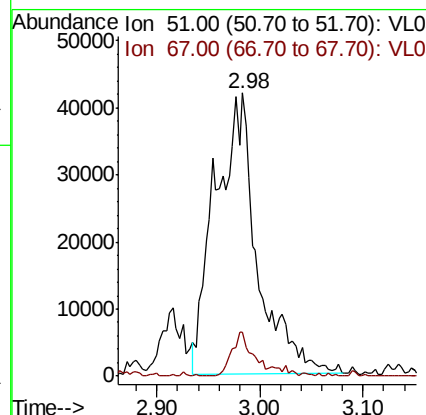
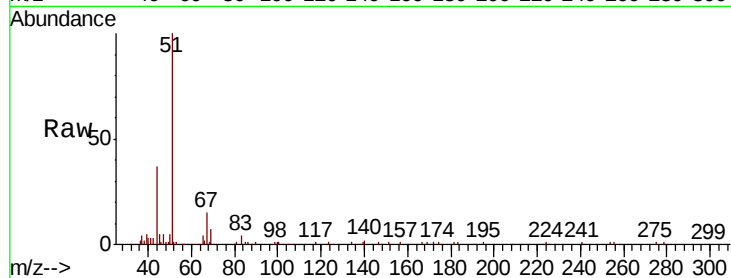




#3
Chlorodifluoromethane
Concen: 0.423 ppbv
RT: 2.98 min Scan# 61
Delta R.T. -0.00 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

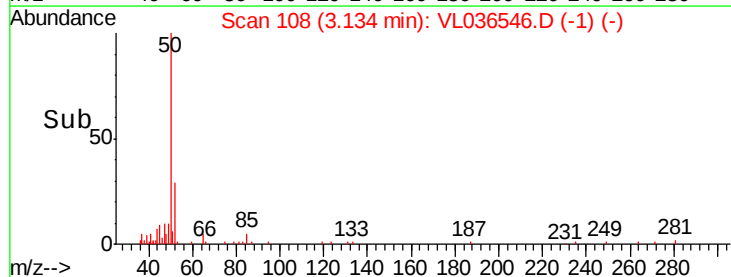
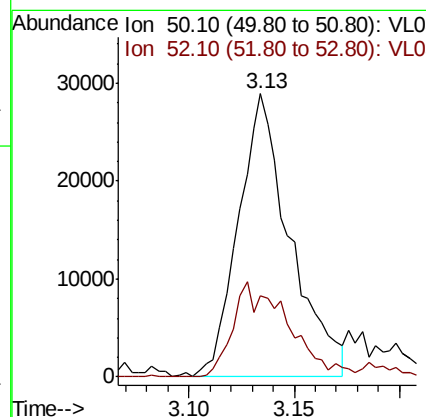
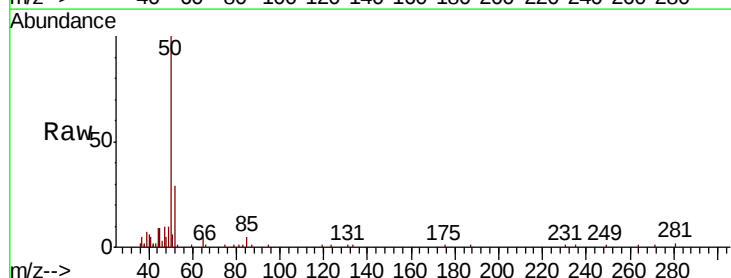
Instrument :
MSVOA_L
ClientSampleId :

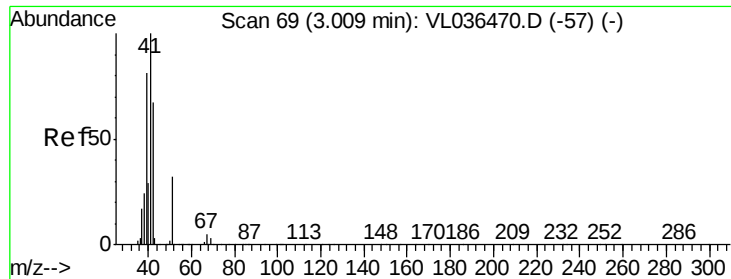
Tot Ion: 51 Resp: 118586
Ion Ratio Lower Upper
51 100
67 9.5 14.7 22.1#



#4
Chloromethane
Concen: 0.496 ppbv
RT: 3.13 min Scan# 108
Delta R.T. -0.01 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

Tgt Ion: 50 Resp: 49084
Ion Ratio Lower Upper
50 100
52 28.6 27.0 40.6





#9

Propene

Concen: 0.419 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

Instrument :

MSVOA_L

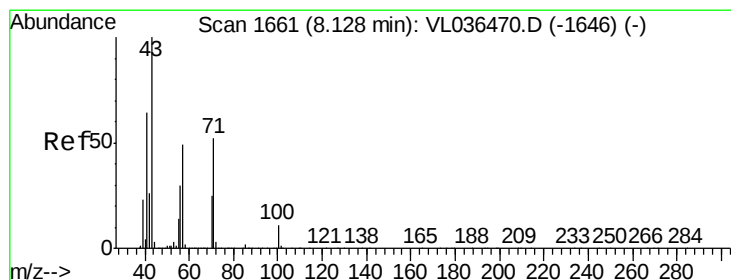
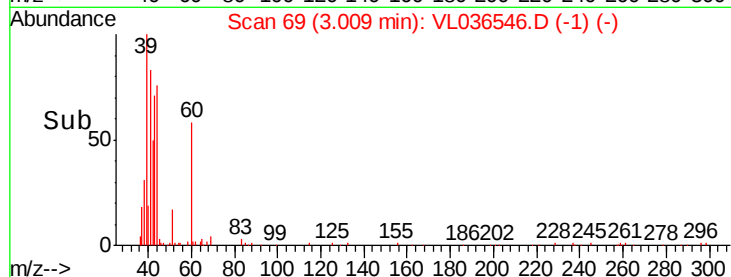
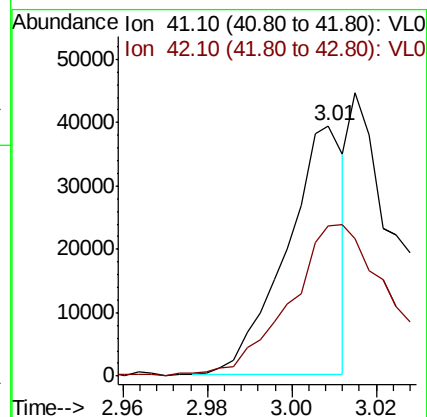
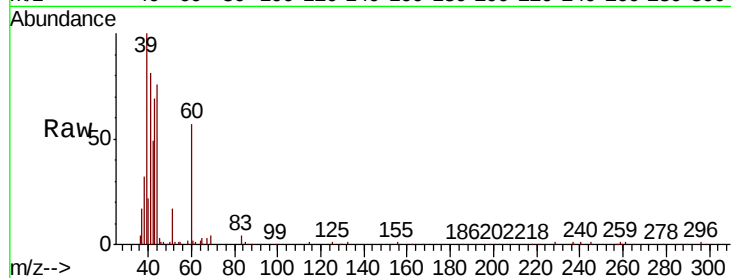
ClientSampleId :

Tot Ion: 41 Resp: 37453

Ion Ratio Lower Upper

41 100

42 0.0 57.0 85.4#



#10

Heptane

Concen: 0.028 ppbv

RT: 8.11 min Scan# 1656

Delta R.T. -0.02 min

Lab File: VL036546.D

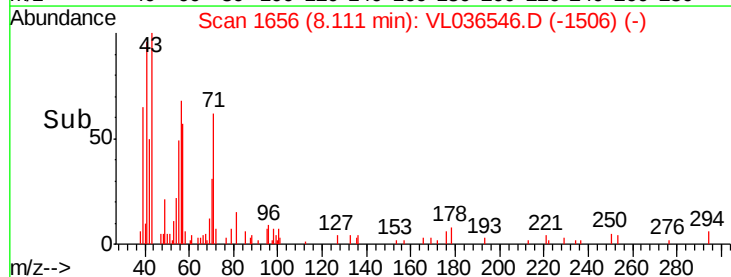
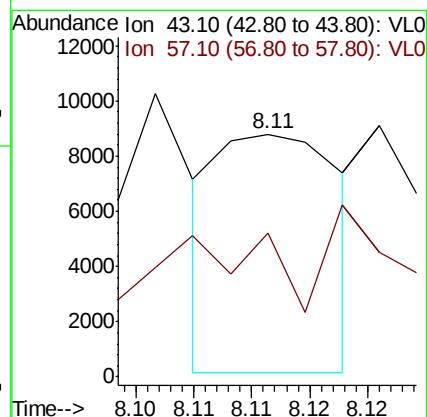
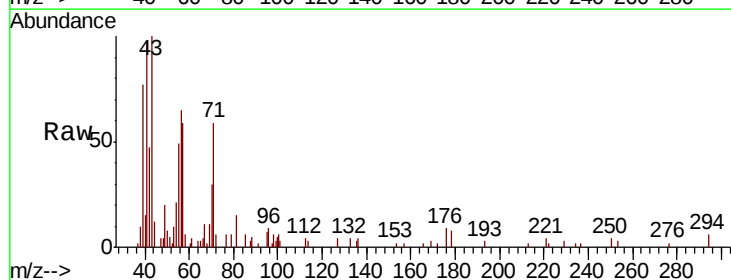
Acq: 29 Mar 2021 19:31

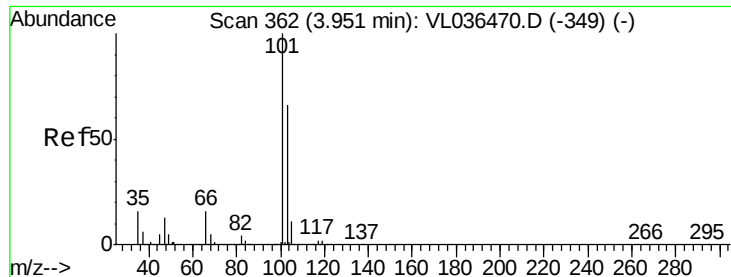
Tgt Ion: 43 Resp: 6312

Ion Ratio Lower Upper

43 100

57 0.0 39.0 58.6#

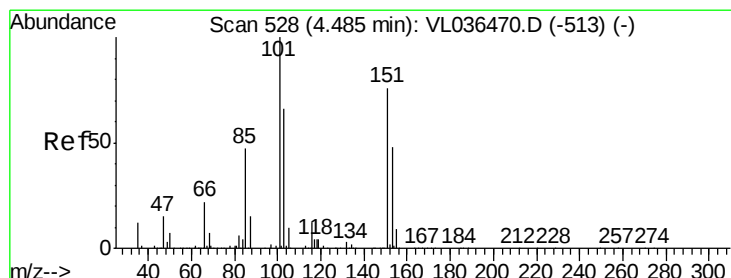
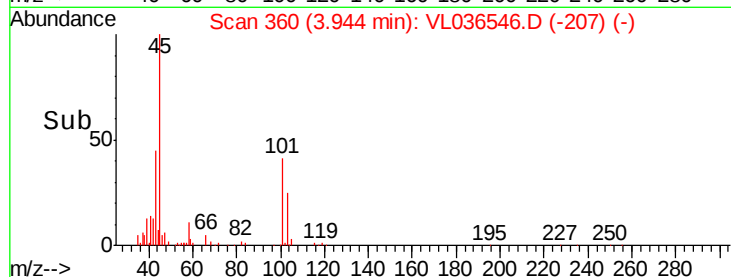
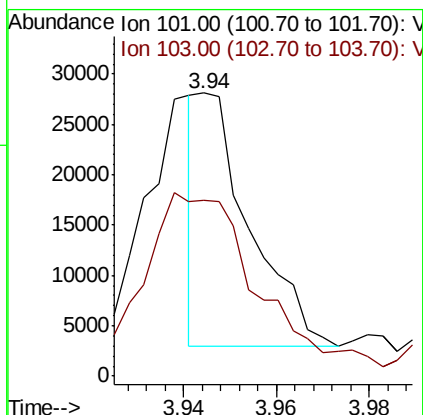
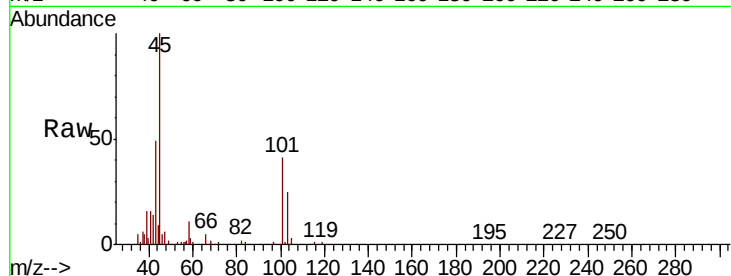




#11
 Trichlorofluoromethane
 Concen: 0.078 ppbv
 RT: 3.94 min Scan# 360
 Delta R.T. -0.01 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

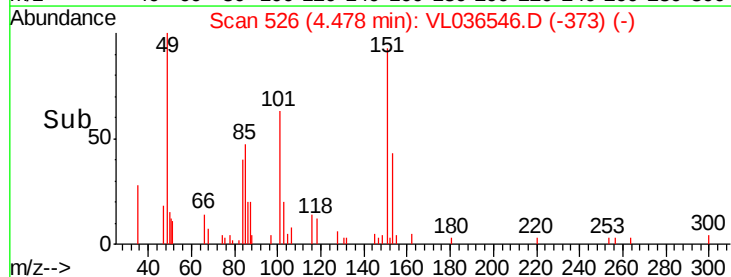
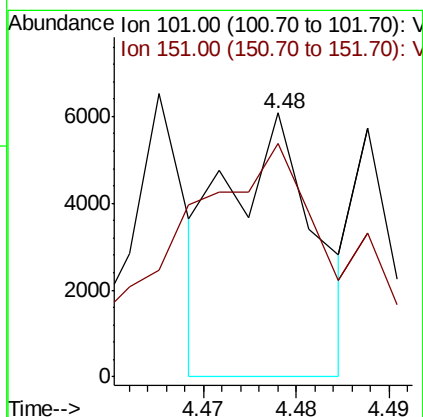
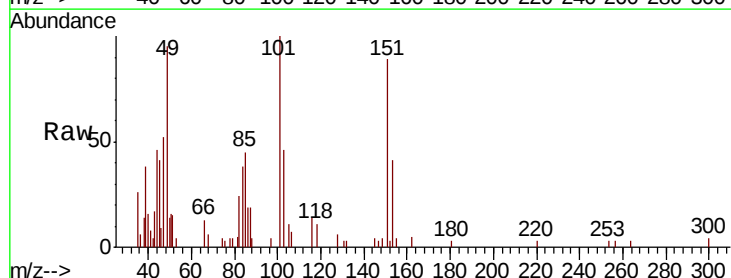
Instrument :
 MSVOA_L
 ClientSampled :

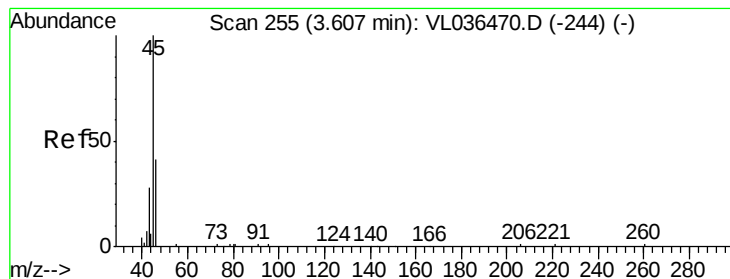
Tot Ion:101 Resp: 19528
 Ion Ratio Lower Upper
 101 100
 103 59.7 52.5 78.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.025 ppbv
 RT: 4.48 min Scan# 526
 Delta R.T. -0.01 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

Tgt Ion:101 Resp: 3996
 Ion Ratio Lower Upper
 101 100
 151 248.8 60.9 91.3#





#13

Ethanol

Concen: 336.595 ppbv

RT: 3.61 min Scan# 255

Delta R.T. -0.00 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

Instrument :

MSVOA_L

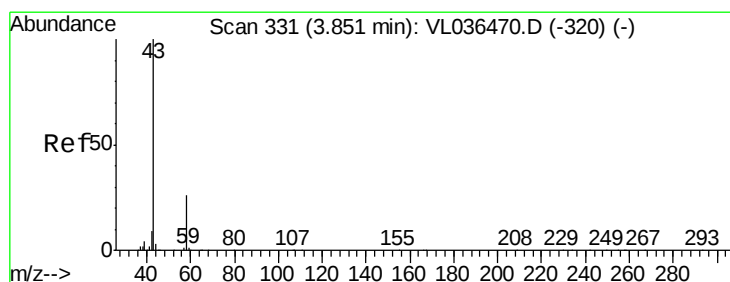
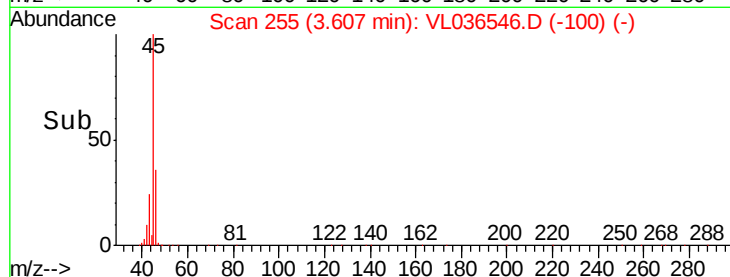
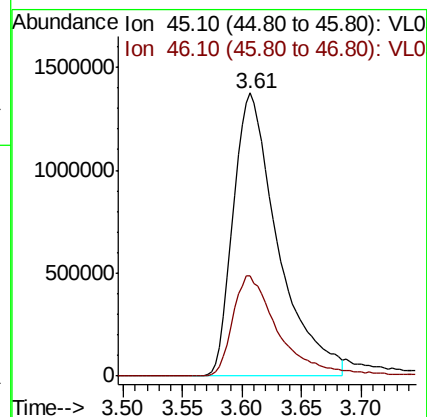
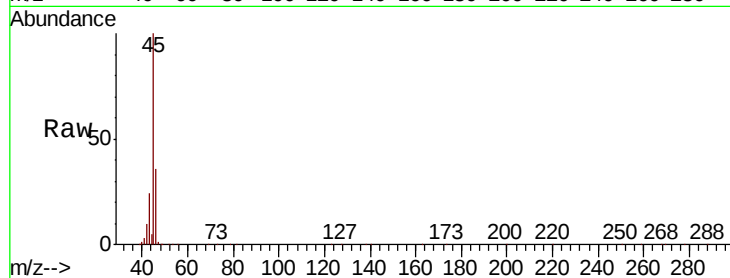
ClientSampleId :

Tot Ion: 45 Resp: 3579729

Ion Ratio Lower Upper

45 100

46 38.1 16.6 66.2



#15

Acetone

Concen: 7.639 ppbv

RT: 3.84 min Scan# 328

Delta R.T. -0.01 min

Lab File: VL036546.D

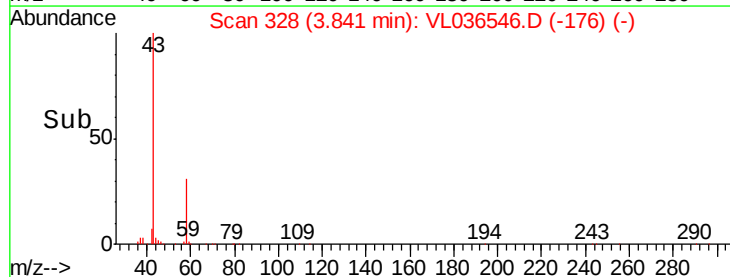
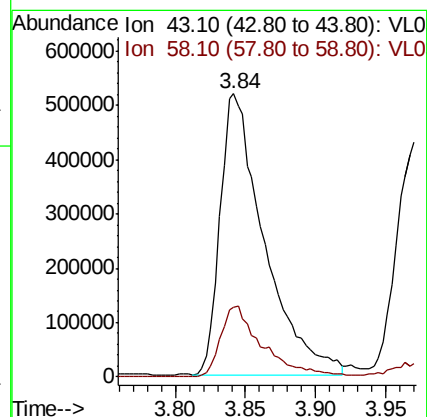
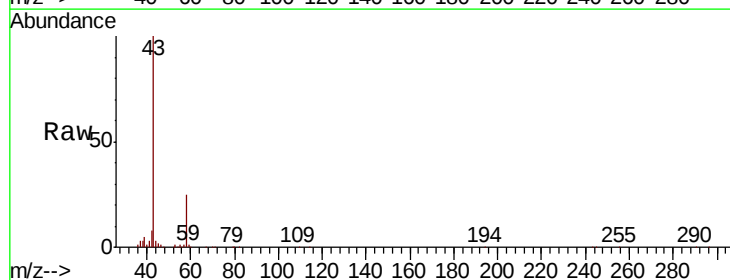
Acq: 29 Mar 2021 19:31

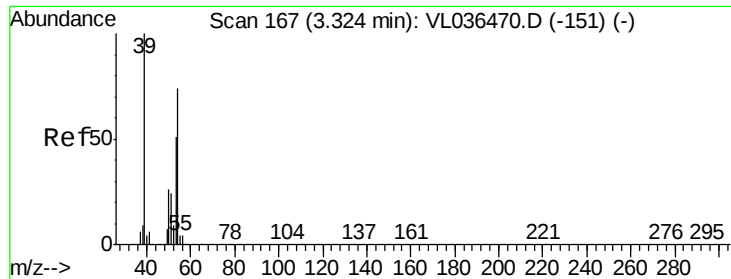
Tgt Ion: 43 Resp: 1127280

Ion Ratio Lower Upper

43 100

58 24.2 21.2 31.8





#16

1,3-Butadiene

Concen: 0.037 ppbv

RT: 3.31 min Scan# 164

Delta R.T. -0.01 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

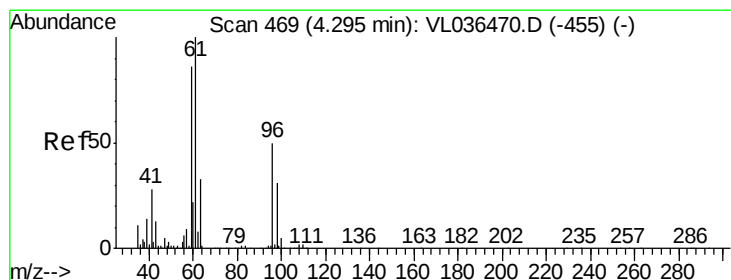
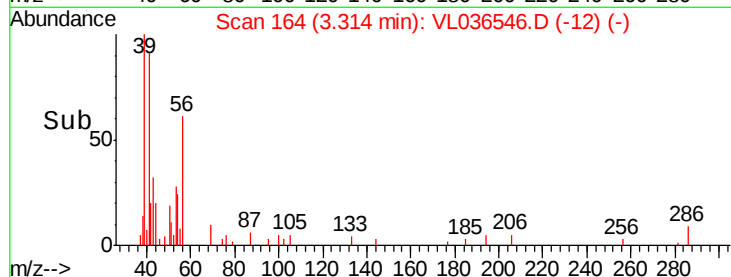
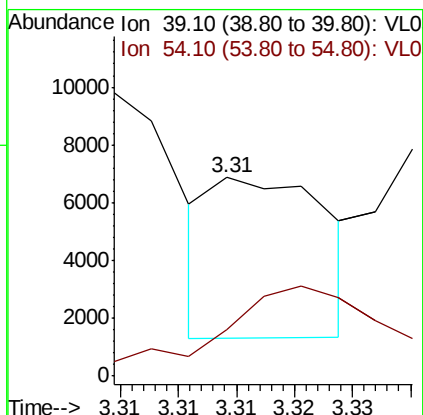
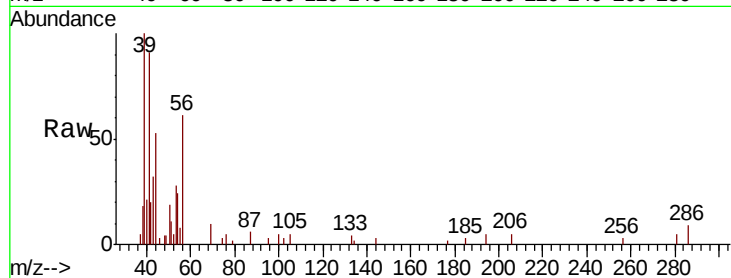
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 39 Resp: 3850

Ion Ratio Lower Upper

39 100

54 162.1 58.8 88.2#



#17

tert-Butyl alcohol

Concen: 0.108 ppbv

RT: 4.30 min Scan# 471

Delta R.T. 0.01 min

Lab File: VL036546.D

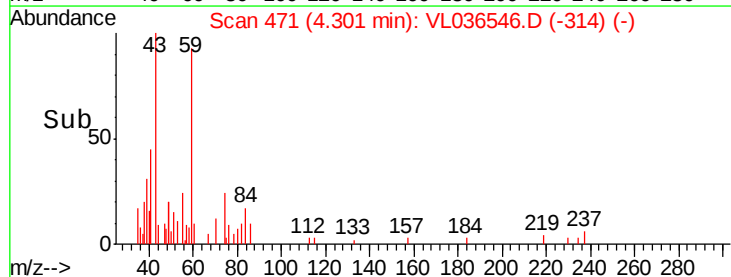
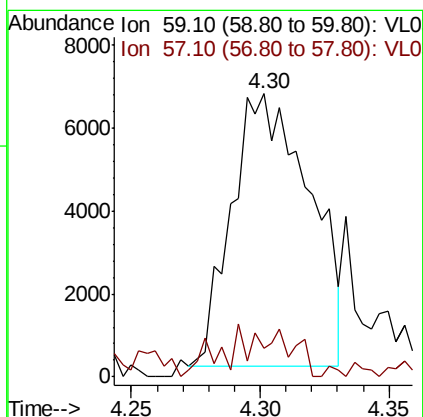
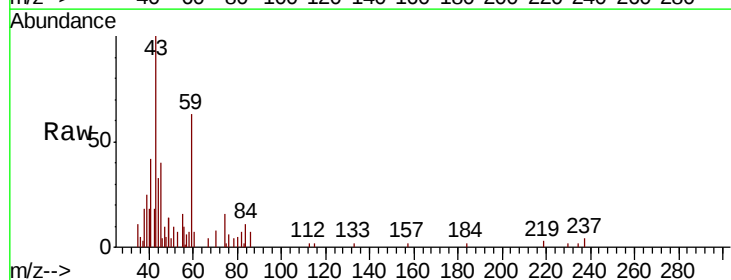
Acq: 29 Mar 2021 19:31

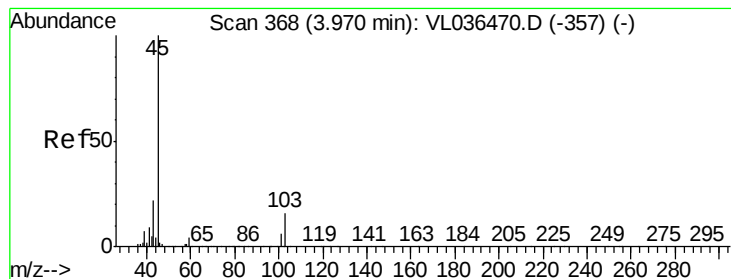
Tgt Ion: 59 Resp: 13858

Ion Ratio Lower Upper

59 100

57 0.0 8.6 12.8#



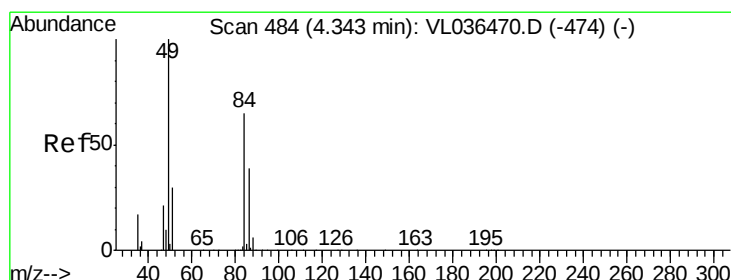
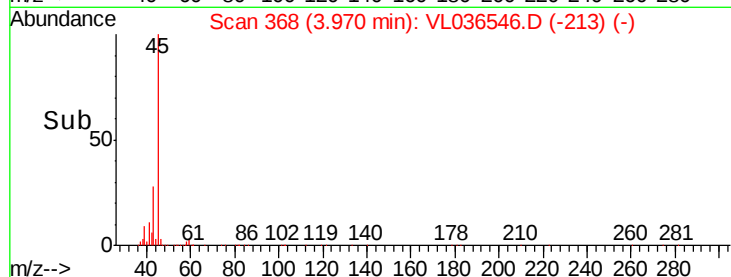
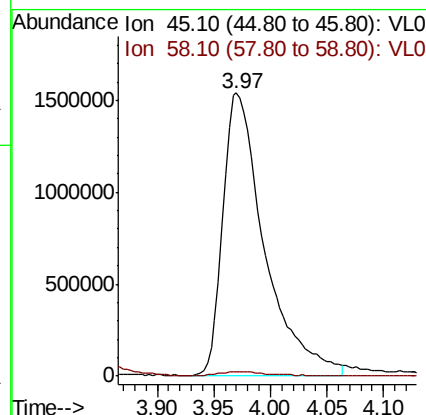
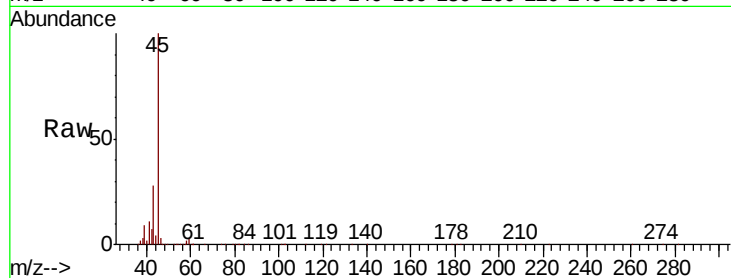


#19

Isopropyl Alcohol
 Concen: 48.457 ppbv
 RT: 3.97 min Scan# 368
 Delta R.T. -0.00 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

Instrument :
 MSVOA_L
 ClientSampleId :

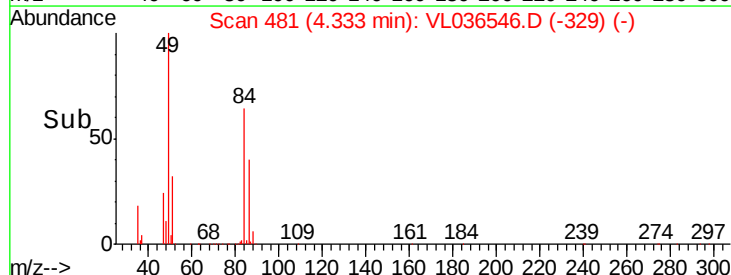
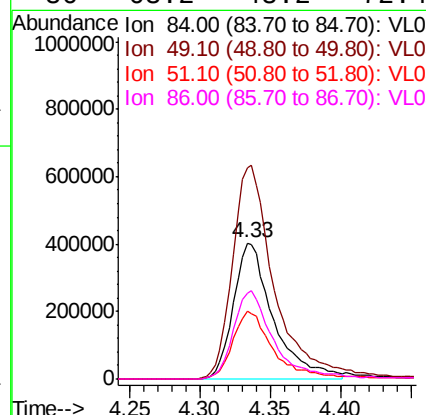
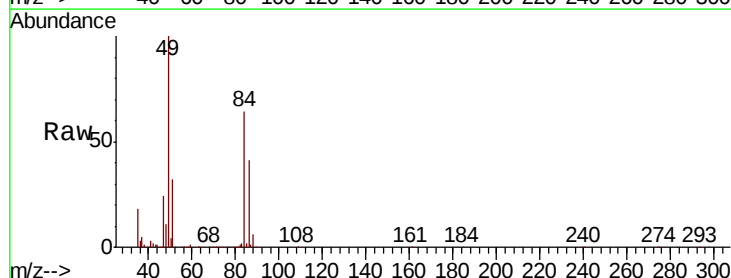
Tot Ion: 45 Resp: 3933804
 Ion Ratio Lower Upper
 45 100
 58 2.0 2.9 4.3#

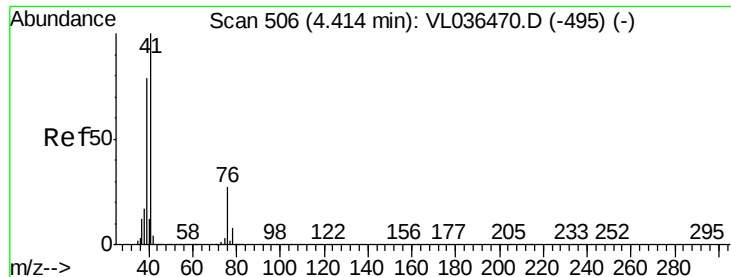


#20

Methylene Chloride
 Concen: 11.525 ppbv
 RT: 4.33 min Scan# 481
 Delta R.T. -0.01 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

Tgt Ion: 84 Resp: 796332
 Ion Ratio Lower Upper
 84 100
 49 155.6 122.9 184.3
 51 49.5 36.9 55.3
 86 63.2 48.2 72.4

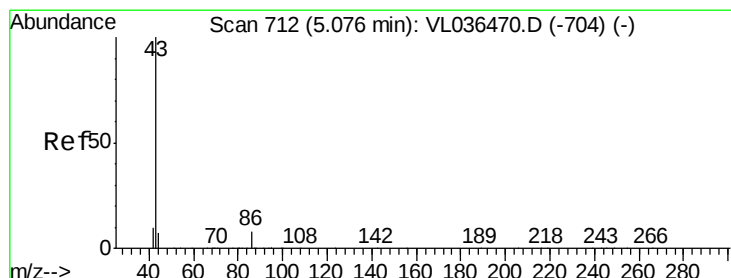
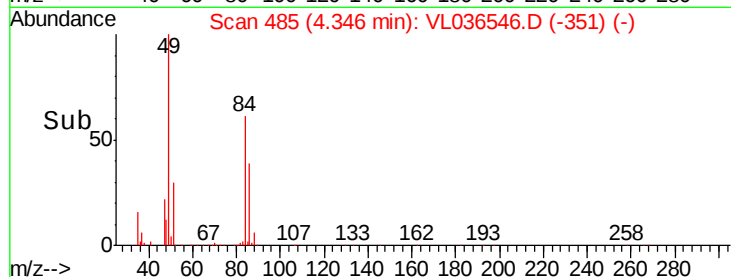
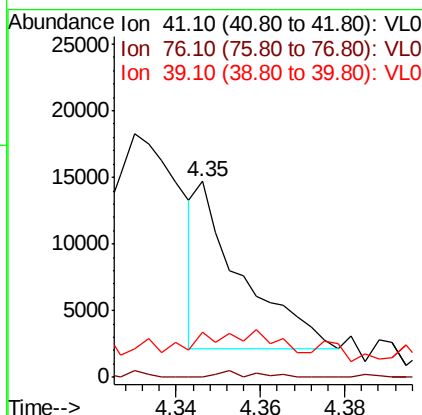
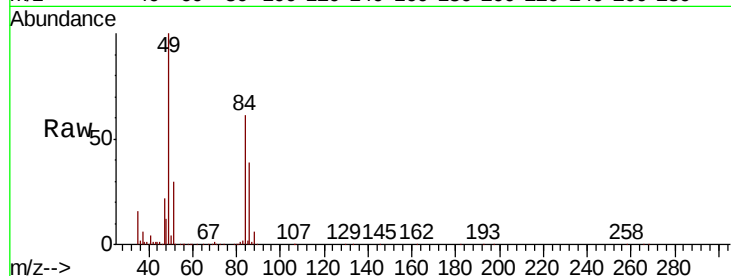




#21
Allvl Chloride
Concen: 0.078 ppbv
RT: 4.35 min Scan# 485
Delta R.T. -0.07 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

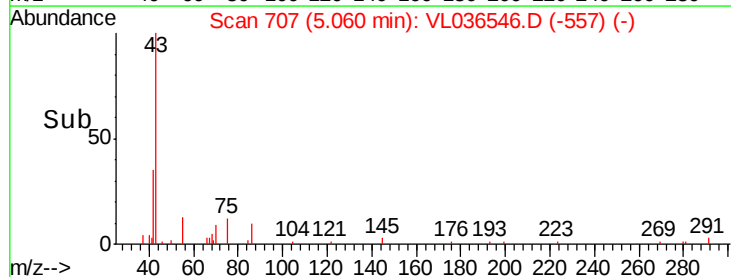
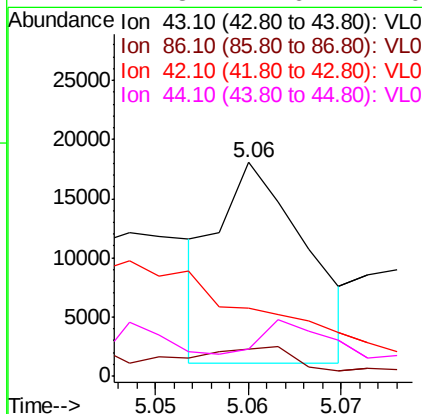
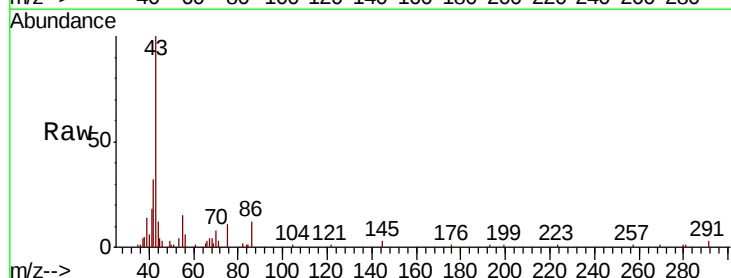
Instrument :
MSVOA_L
ClientSampleId :

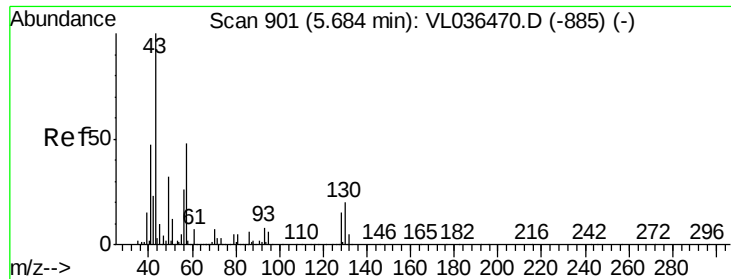
Tot Ion: 41 Resp: 9222
Ion Ratio Lower Upper
41 100
76 2.4 22.9 34.3#
39 0.0 67.3 100.9#



#23
Vinyl Acetate
Concen: 0.044 ppbv
RT: 5.06 min Scan# 707
Delta R.T. -0.02 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

Tgt Ion: 43 Resp: 11177
Ion Ratio Lower Upper
43 100
86 17.3 5.4 8.0#
42 20.2 8.5 12.7#
44 1.8 4.6 7.0#

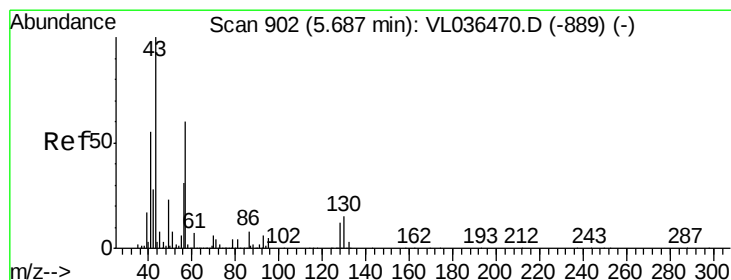
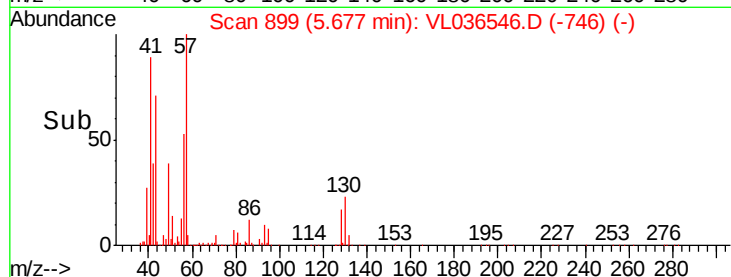
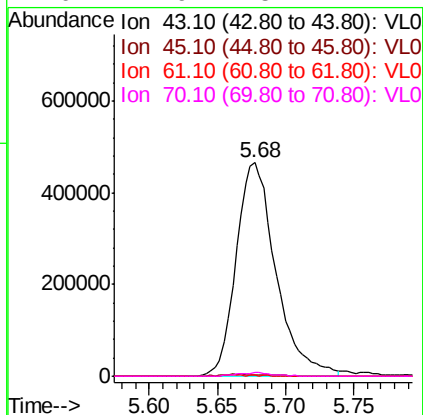
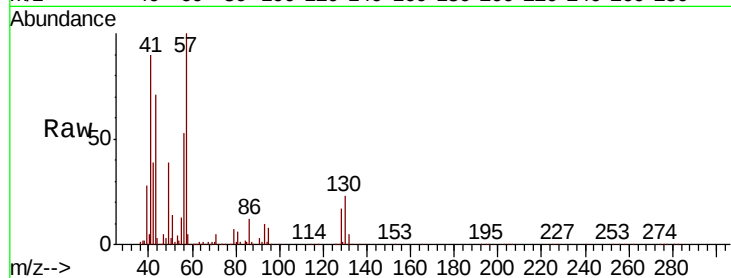




#25
Ethyl Acetate
Concen: 2.683 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.01 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

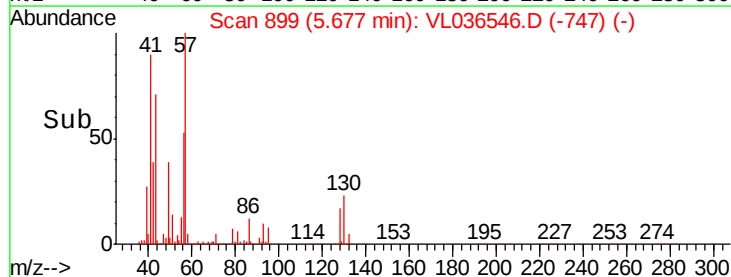
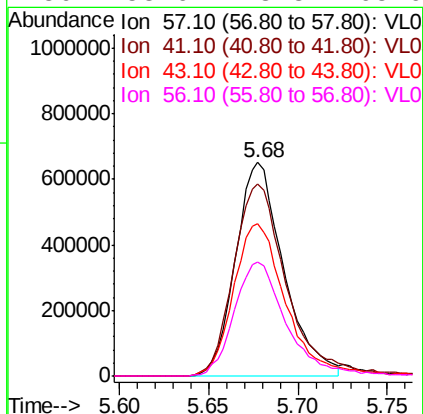
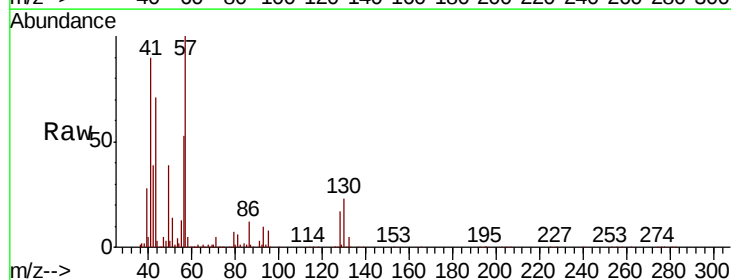
Instrument :
MSVOA_L
ClientSampleId :

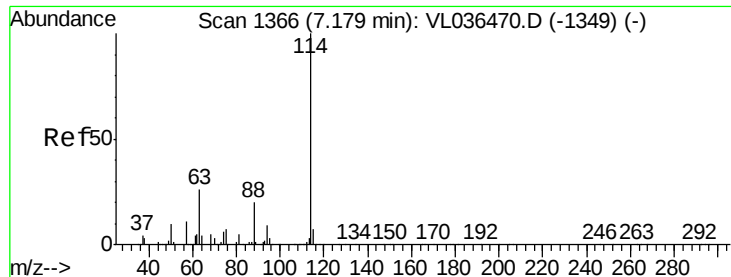
Tot Ion:	43	Resp:	941354
Ion	Ratio	Lower	Upper
43	100		
45	1.2	7.9	11.9#
61	0.6	7.4	11.2#
70	1.9	5.1	7.7#



#26
Hexane
Concen: 7.490 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.01 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

Tgt Ion:	57	Resp:	1219435
Ion	Ratio	Lower	Upper
57	100		
41	100.8	77.2	115.8
43	79.1	173.8	260.6#
56	58.6	43.8	65.6

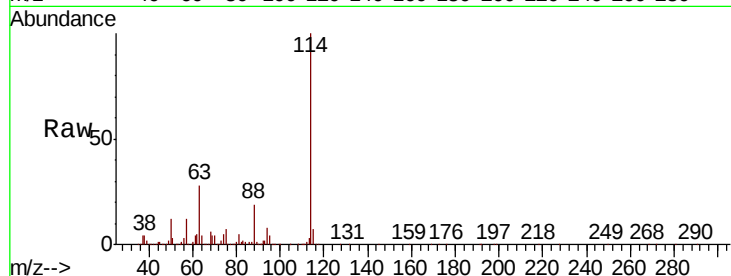




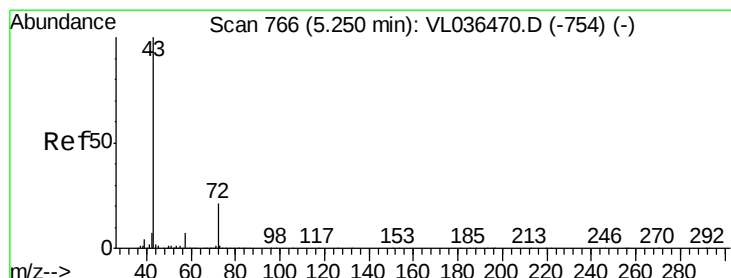
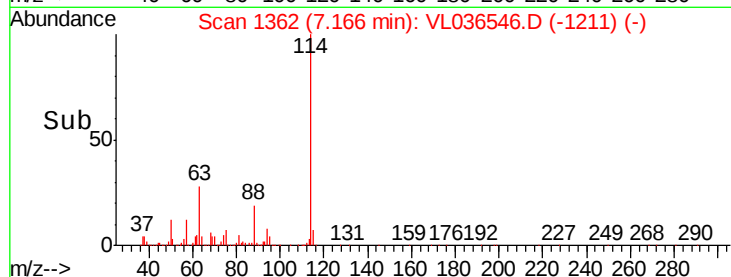
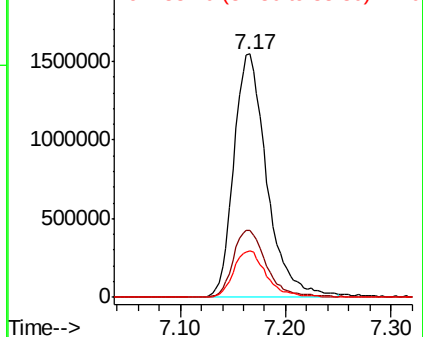
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1362
 Delta R.T. -0.01 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3368311
 Ion Ratio Lower Upper
 114 100
 63 28.0 22.4 33.6
 88 19.4 15.4 23.0

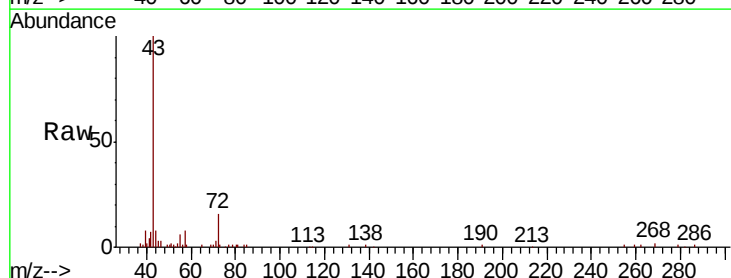


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

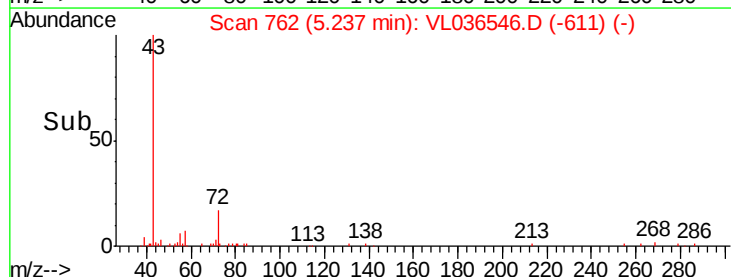
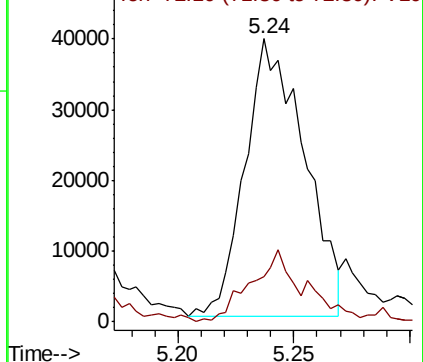


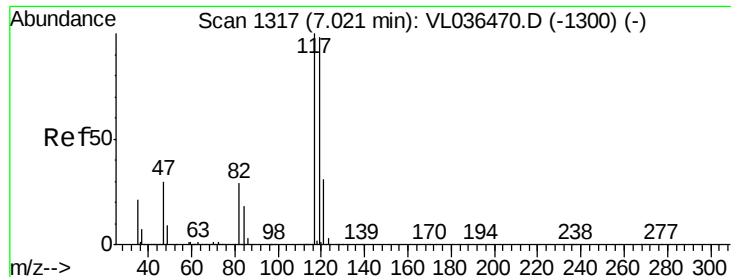
#34
 2-Butanone
 Concen: 0.425 ppbv
 RT: 5.24 min Scan# 762
 Delta R.T. -0.01 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

Tgt Ion: 43 Resp: 69850
 Ion Ratio Lower Upper
 43 100
 72 25.9 17.0 25.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.027 ppbv

RT: 7.01 min Scan# 1314

Delta R.T. -0.01 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

Instrument :

MSVOA_L

ClientSampled :

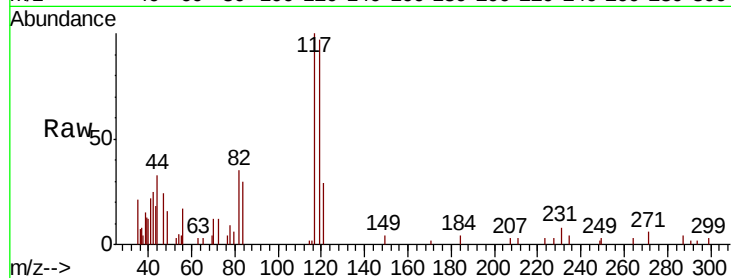
Tot Ion:117 Resp: 6869

Ion Ratio Lower Upper

117 100

119 90.5 78.2 117.2

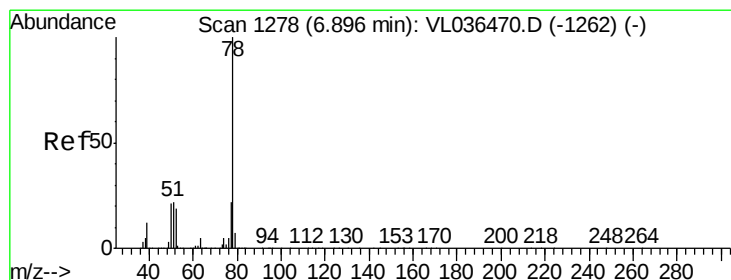
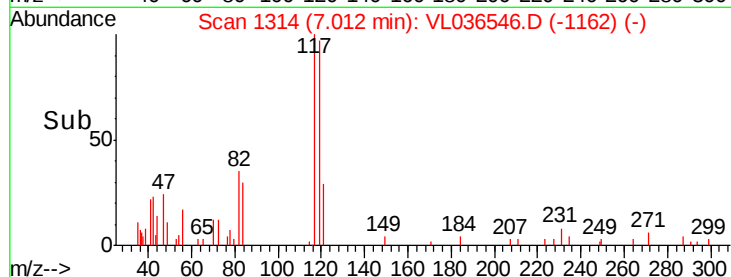
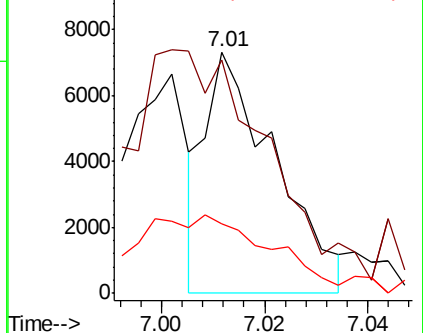
121 30.2 24.5 36.7



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.121 ppbv

RT: 6.88 min Scan# 1274

Delta R.T. -0.01 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

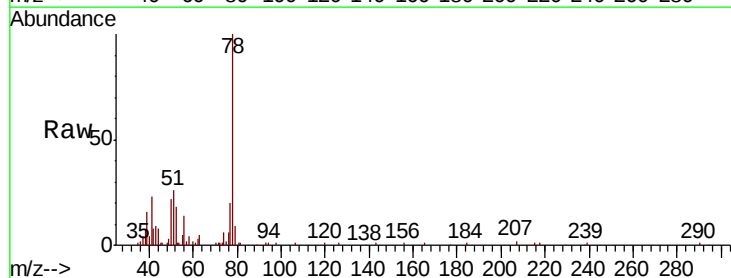
Tgt Ion: 78 Resp: 37672

Ion Ratio Lower Upper

78 100

77 20.1 18.0 27.0

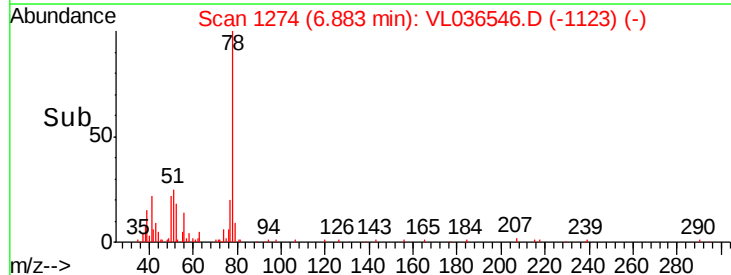
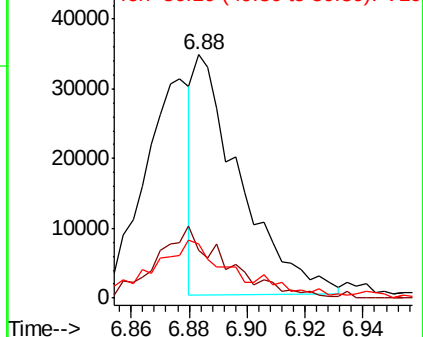
50 21.3 16.5 24.7

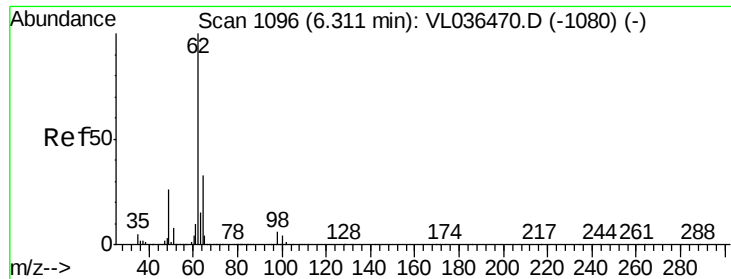


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

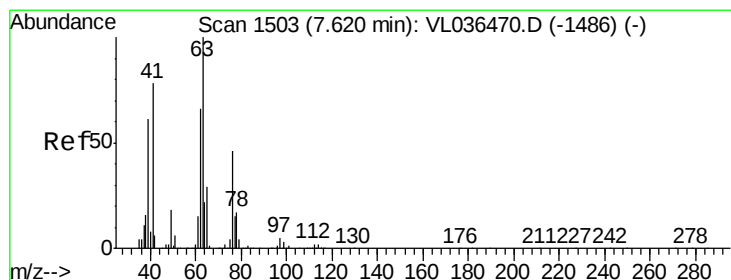
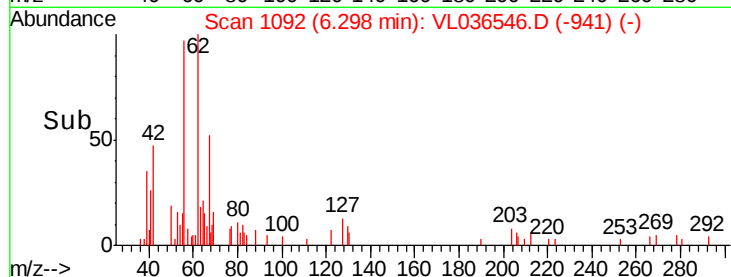
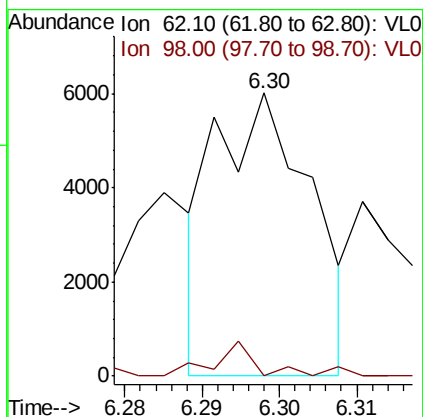
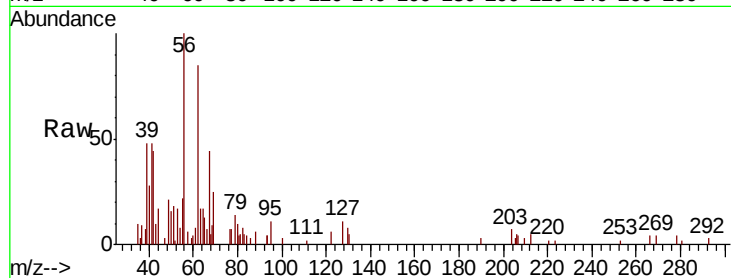




#37
 1,2-Dichloroethane
 Concen: 0.028 ppbv
 RT: 6.30 min Scan# 1092
 Delta R.T. -0.01 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

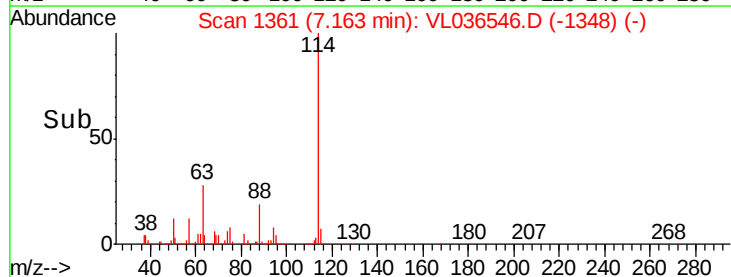
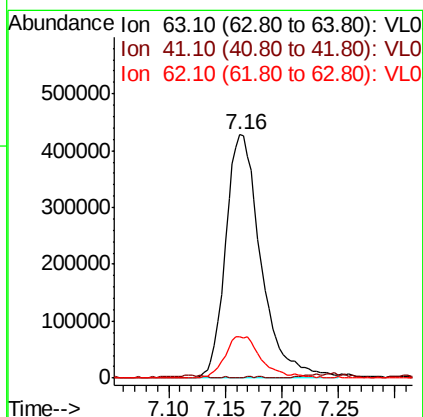
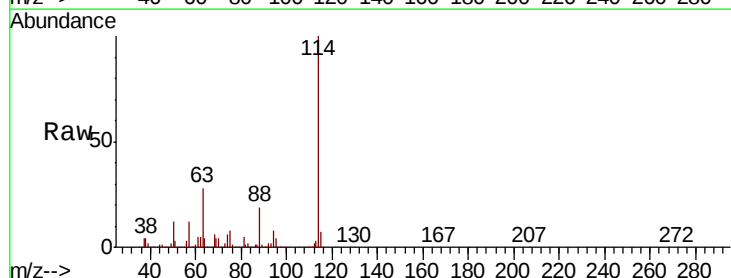
Instrument :
 MSVOA_L
 ClientSampleId :

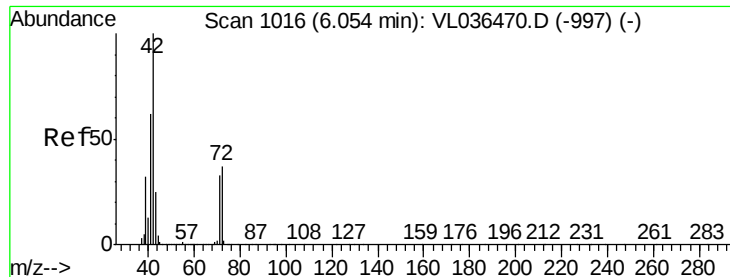
Tot Ion: 62 Resp: 5180
 Ion Ratio Lower Upper
 62 100
 98 9.7 4.9 7.3#



#39
 1,2-Dichloropropane
 Concen: 7.395 ppbv
 RT: 7.16 min Scan# 1361
 Delta R.T. -0.46 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

Tgt Ion: 63 Resp: 931922
 Ion Ratio Lower Upper
 63 100
 41 0.0 62.4 93.6#
 62 16.9 52.8 79.2#

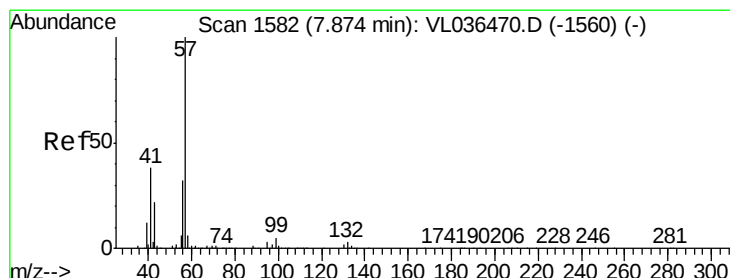
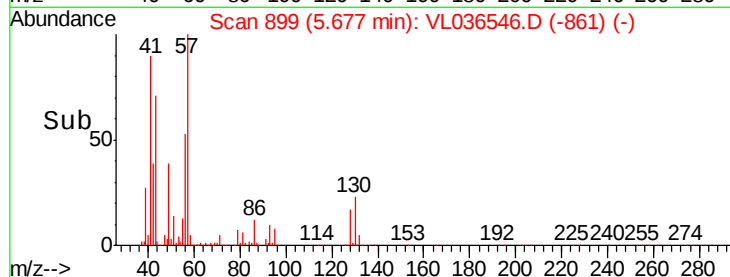
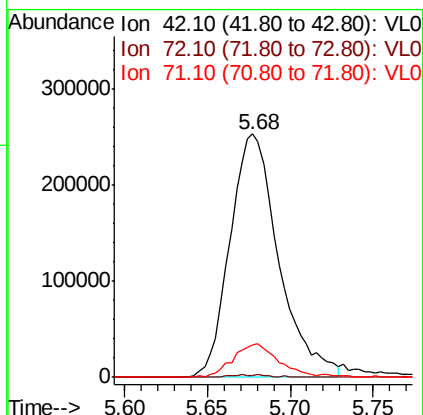
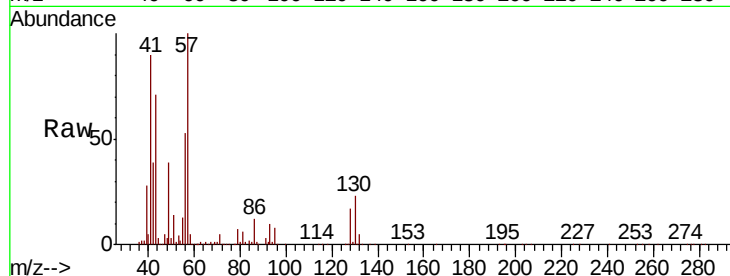




#41
Tetrahydrofuran
Concen: 6.741 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.38 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

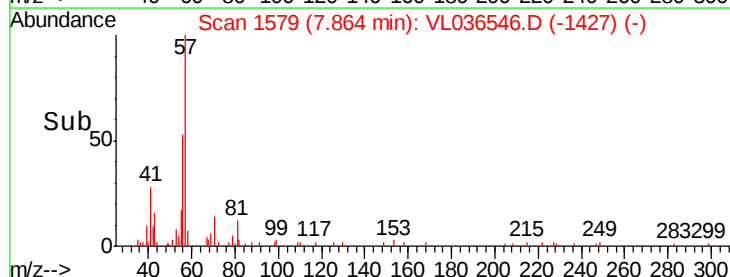
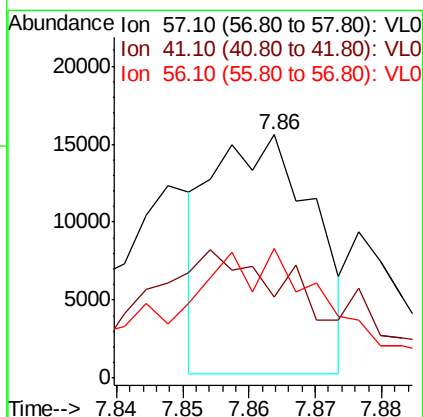
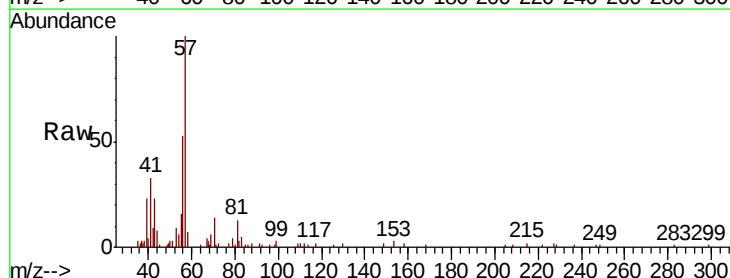
Instrument :
MSVOA_L
ClientSampleId :

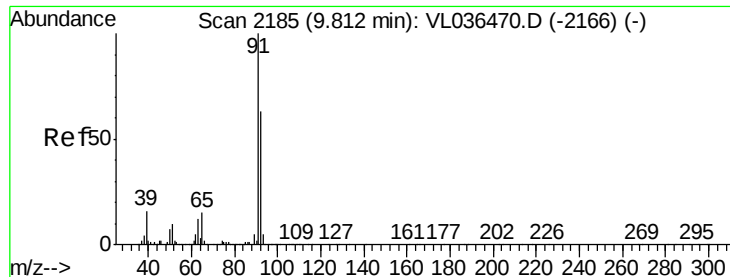
Tot Ion	Ratio	Lower	Upper
42	100		
72	1.1	27.6	41.4#
71	13.6	27.0	40.4#



#44
2,2,4-Trimethylpentane
Concen: 0.030 ppbv
RT: 7.86 min Scan# 1579
Delta R.T. -0.01 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

Tgt Ion	Ratio	Lower	Upper
57	100		
41	0.0	28.8	43.2#
56	114.5	26.1	39.1#





#53

Toluene

Concen: 2.111 ppbv

RT: 9.80 min Scan# 2180

Delta R.T. -0.02 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

Instrument :

MSVOA_L

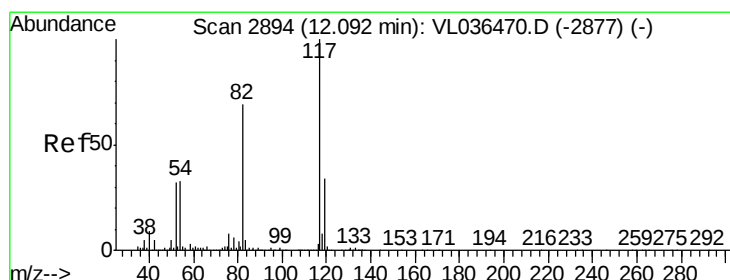
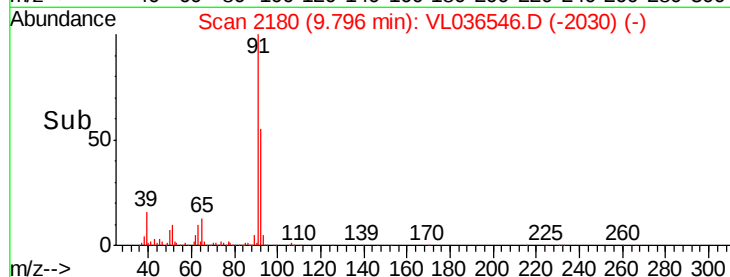
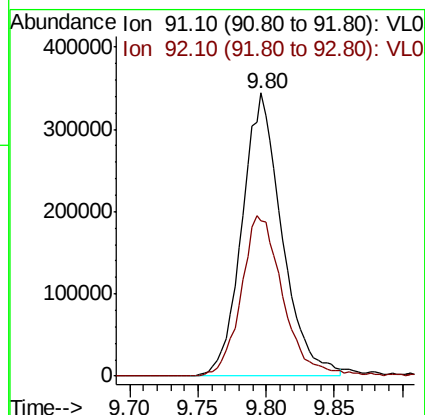
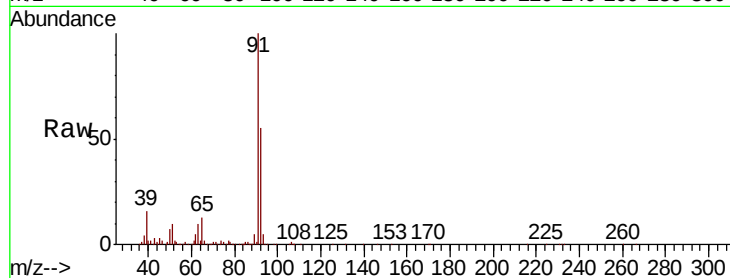
ClientSampleId :

Tot Ion: 91 Resp: 698522

Ion Ratio Lower Upper

91 100

92 60.2 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2889

Delta R.T. -0.02 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

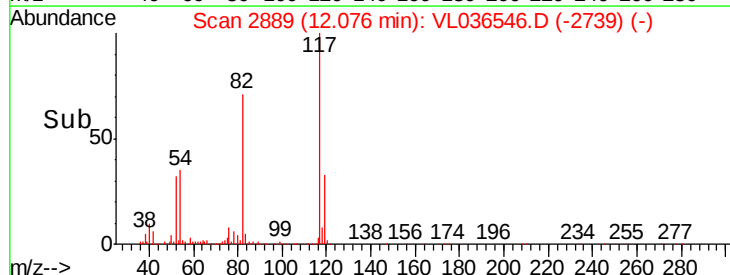
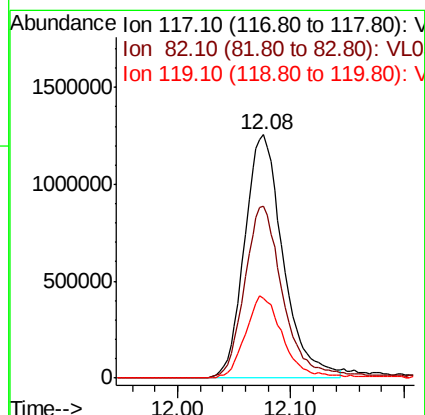
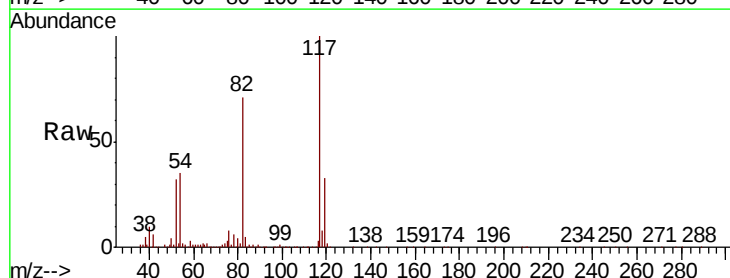
Tgt Ion: 117 Resp: 2978765

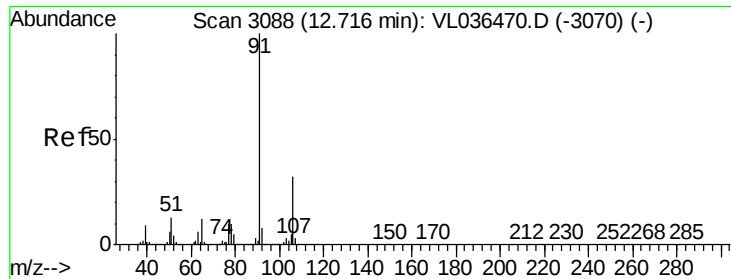
Ion Ratio Lower Upper

117 100

82 73.5 57.4 86.0

119 34.2 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.031 ppbv

RT: 12.70 min Scan# 3083

Delta R.T. -0.02 min

Lab File: VL036546.D

Acq: 29 Mar 2021 19:31

Instrument :

MSVOA_L

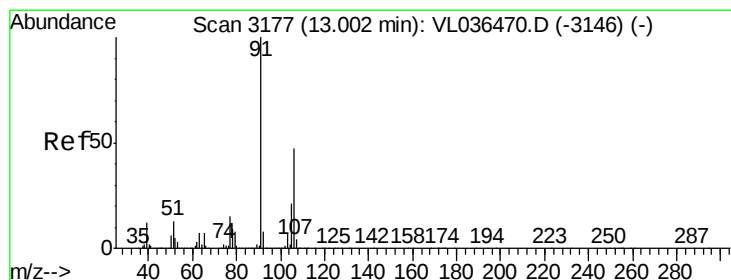
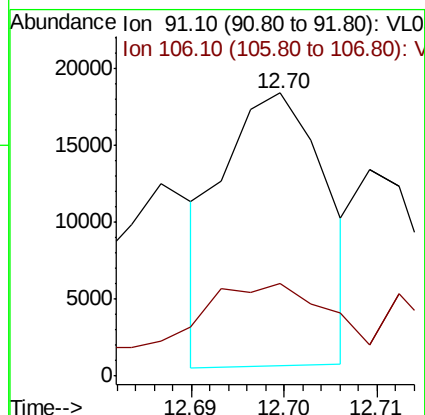
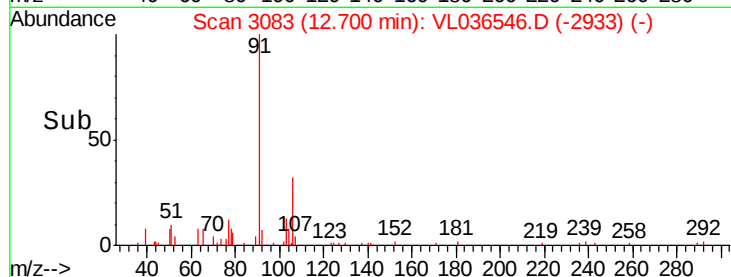
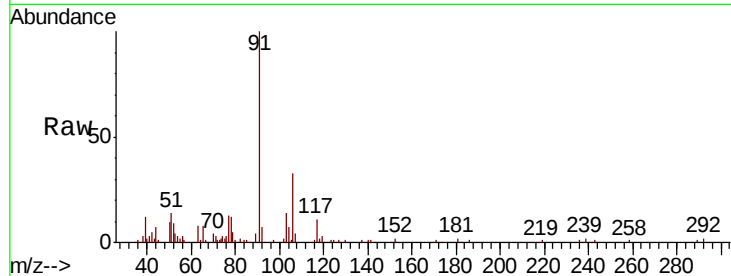
ClientSampled :

Tot Ion: 91 Resp: 13616

Ion Ratio Lower Upper

91 100

106 34.6 25.3 37.9



#59

m/p-Xylene

Concen: 0.069 ppbv

RT: 12.99 min Scan# 3172

Delta R.T. -0.02 min

Lab File: VL036546.D

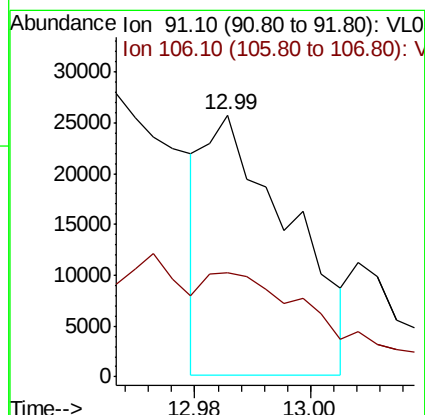
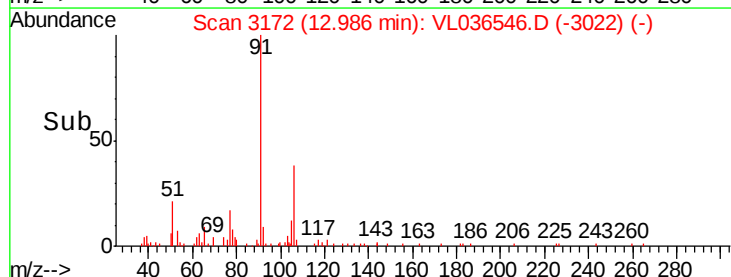
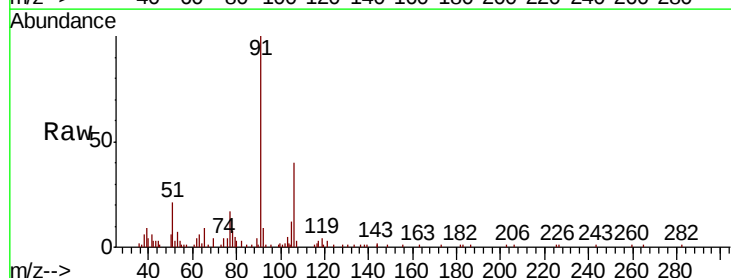
Acq: 29 Mar 2021 19:31

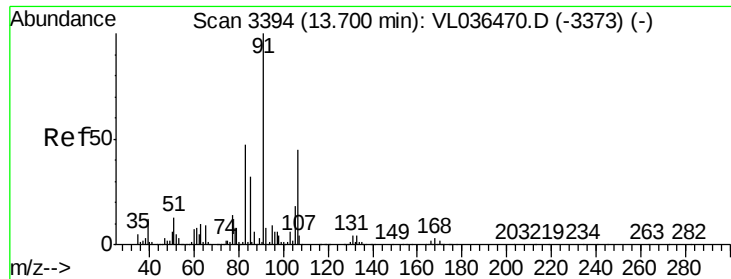
Tgt Ion: 91 Resp: 25997

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#

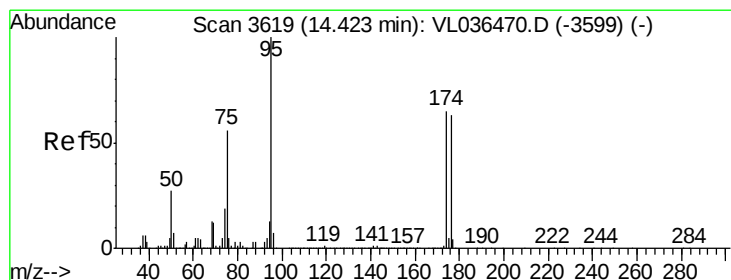
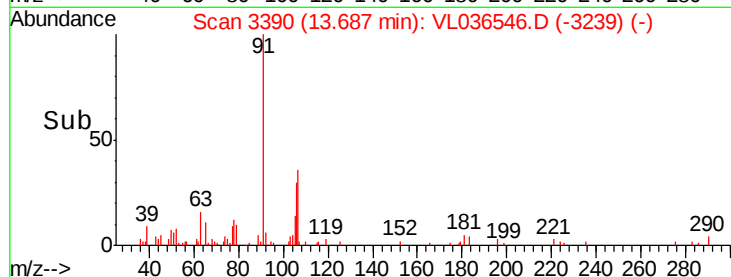
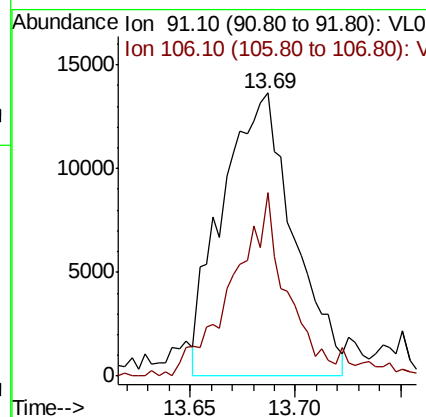
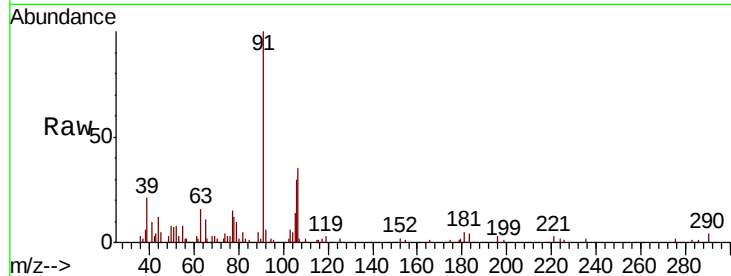




#60
o-Xylene
Concen: 0.088 ppbv
RT: 13.69 min Scan# 3390
Delta R.T. -0.01 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

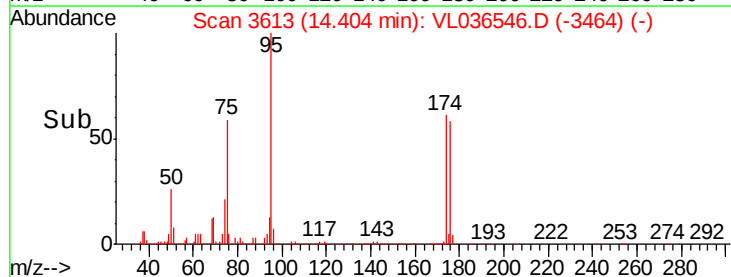
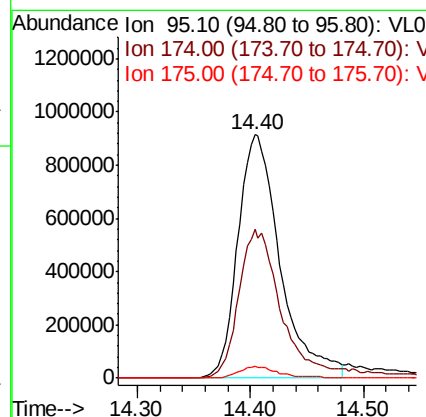
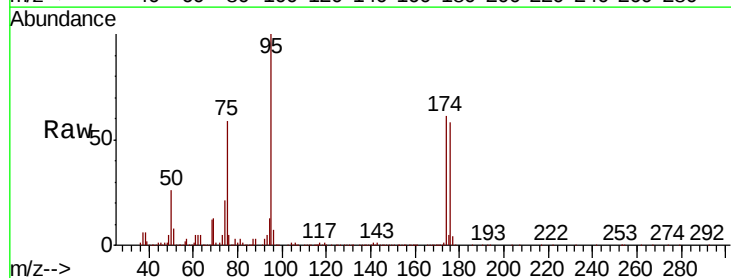
Instrument :
MSVOA_L
ClientSampled :

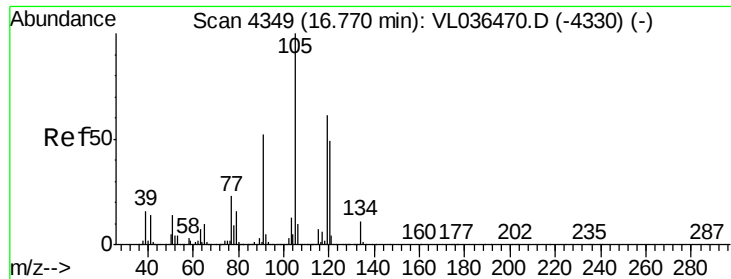
Tot Ion: 91 Resp: 32071
Ion Ratio Lower Upper
91 100
106 53.6 22.3 66.9



#68
1-Bromo-4-Fluorobenzene
Concen: 10.049 ppbv
RT: 14.40 min Scan# 3613
Delta R.T. -0.02 min
Lab File: VL036546.D
Acq: 29 Mar 2021 19:31

Tgt Ion: 95 Resp: 2385788
Ion Ratio Lower Upper
95 100
174 65.6 51.0 76.6
175 4.7 3.9 5.9





#74
 1,2,4-Trimethylbenzene
 Concen: 0.027 ppbv
 RT: 16.75 min Scan# 4342
 Delta R.T. -0.02 min
 Lab File: VL036546.D
 Acq: 29 Mar 2021 19:31

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	10969
Ion	Ratio	Lower	Upper
105	100		
120	41.7	39.2	58.8
91	8.4	42.6	64.0#
77	20.0	18.6	28.0

