

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081621\
 Data File : VL037472.D
 Acq On : 16 Aug 2021 22:01
 Operator : SY/AP
 Sample : L1314-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Aug 17 02:23:21 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Aug 17 02:13:47 2021
 QLast Update : Tue Aug 17 02:13:47 2021
 Response via : Initial Calibration

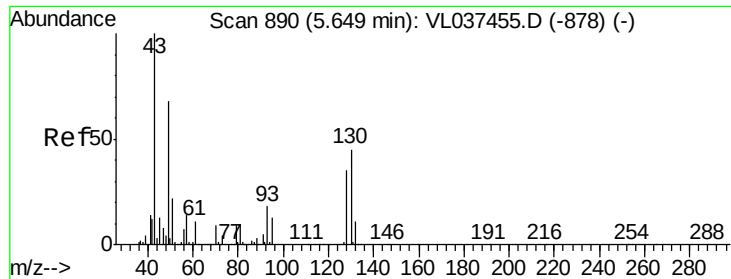
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1281837	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3959600	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3504234	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2816676	11.31	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	113.10%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	6349	0.031	ppbv 89
3) Chlorodifluoromethane	2.99	51	17758	0.072	ppbv 99
4) Chloromethane	3.13	50	162077	1.848	ppbv 96
6) Bromomethane	3.47	94	1583530	32.169	ppbv 97
9) Propene	3.01	41	5070	0.058	ppbv # 16
13) Ethanol	3.61	45	25931	3.034	ppbv # 60
15) Acetone	3.84	43	140070	1.074	ppbv 90
18) 1,1-Dichloroethene	4.28	96	20169	0.313	ppbv # 77
20) Methylene Chloride	4.33	84	748036	11.453	ppbv 98
25) Ethyl Acetate	5.67	43	3722192	11.239	ppbv # 76
26) Hexane	5.67	57	5209867	32.175	ppbv # 45
29) Chloroform	5.74	83	45972	0.200	ppbv 86
30) Cyclohexane	7.11	84	4443971	32.939	ppbv 97
34) 2-Butanone	5.67	43	3557546	22.002	ppbv # 54
35) Carbon Tetrachloride	7.01	117	5585916	23.871	ppbv 98
38) Trichloroethene	7.82	130	4174	0.031	ppbv # 43
39) 1,2-Dichloropropane	7.16	63	838569	6.556	ppbv # 44
41) Tetrahydrofuran	5.67	42	1929175	24.768	ppbv # 49
42) Bromodichloromethane	7.77	83	10269	0.043	ppbv # 71
47) 1,1,2-Trichloroethane	9.46	97	4234774	30.641	ppbv 98
52) Tetrachloroethene	11.21	164	3833307	28.103	ppbv 99
58) Ethyl Benzene	12.95	91	9625277	19.793	ppbv # 67
59) m/p-Xylene	12.95	91	9625277	22.831	ppbv 91
60) o-Xylene	13.67	91	8438379	21.445	ppbv 98
64) n-propylbenzene	15.82	120	3719630	26.320	ppbv # 1
66) Benzyl Chloride	16.99	91	1053	0.046	ppbv # 63
71) 2-Chlorotoluene	15.82	91	1493280	3.667	ppbv # 41
72) 4-Ethyltoluene	15.82	105	12575632	26.870	ppbv 98
73) 1,3,5-Trimethylbenzene	15.82	105	12575632	28.866	ppbv # 79
75) 1,3-Dichlorobenzene	16.98	146	5503547	19.750	ppbv 98
76) 1,4-Dichlorobenzene	17.12	146	223672	0.797	ppbv 69
77) 1,2-Dichlorobenzene	17.80	146	303387	1.106	ppbv 99

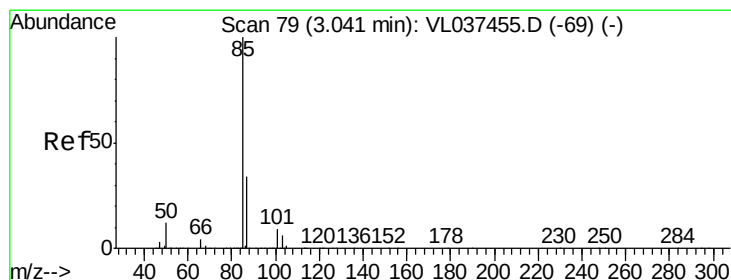
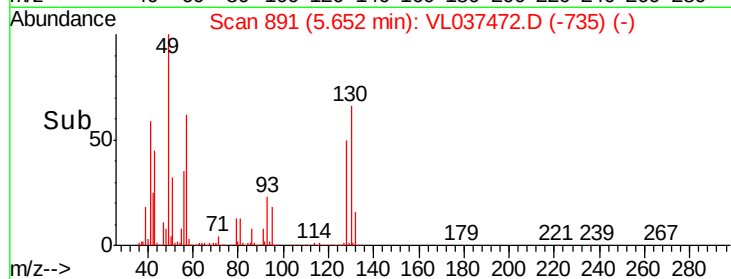
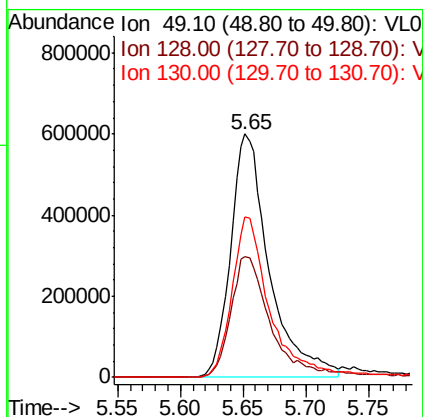
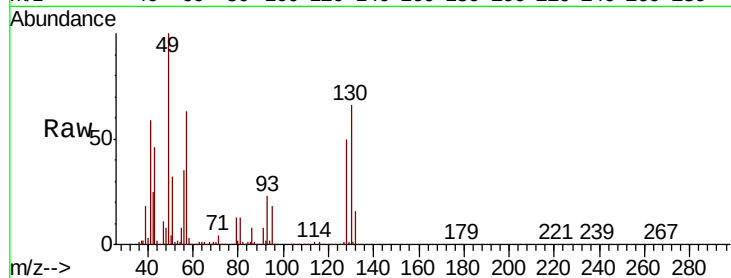
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.65 min Scan# 891
 Delta R.T. 0.00 min
 Lab File: VL037472.D
 Acq: 16 Aug 2021 22:01

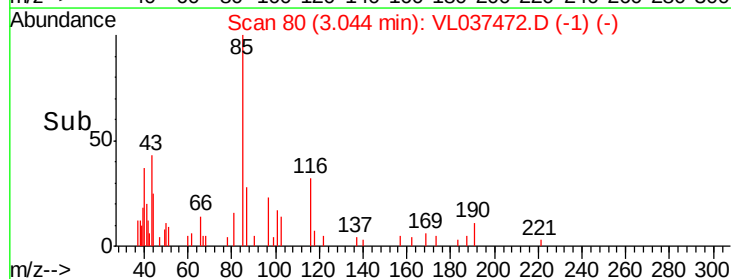
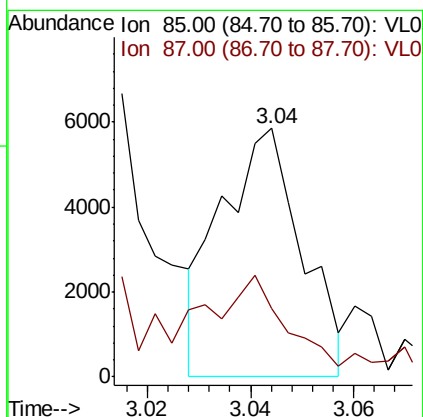
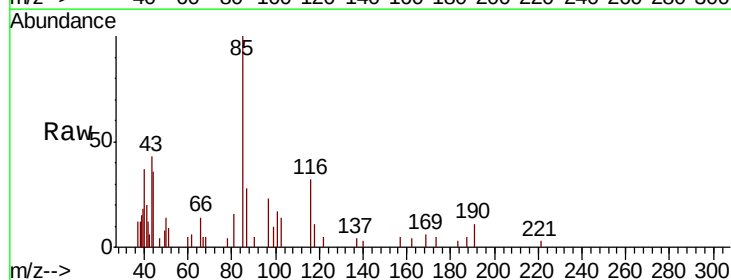
Instrument :
 MSVOA_L
 ClientSampleId :

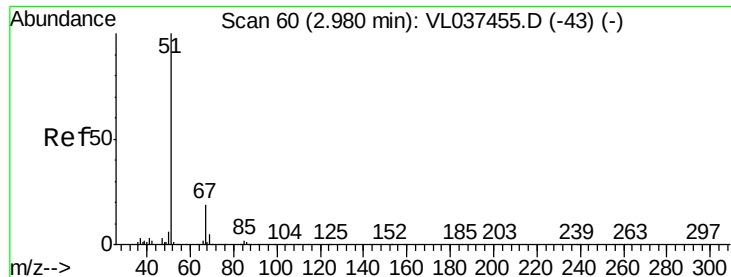
Tot Ion: 49 Resp: 1281837
 Ion Ratio Lower Upper
 49 100
 128 53.1 27.5 82.4
 130 67.2 34.0 101.8



#2
 Dichlorodifluoromethane
 Concen: 0.031 ppbv
 RT: 3.04 min Scan# 80
 Delta R.T. 0.00 min
 Lab File: VL037472.D
 Acq: 16 Aug 2021 22:01

Tgt Ion: 85 Resp: 6349
 Ion Ratio Lower Upper
 85 100
 87 28.4 27.6 41.4





#3

Chlorodifluoromethane

Concen: 0.072 ppbv

RT: 2.99 min Scan# 63

Delta R.T. 0.01 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

Instrument :

MSVOA_L

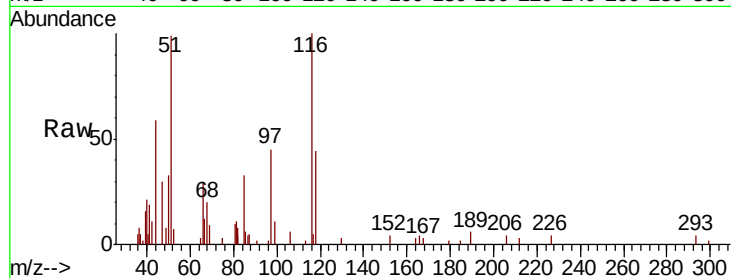
ClientSampleId :

Tot Ion: 51 Resp: 17758

Ion Ratio Lower Upper

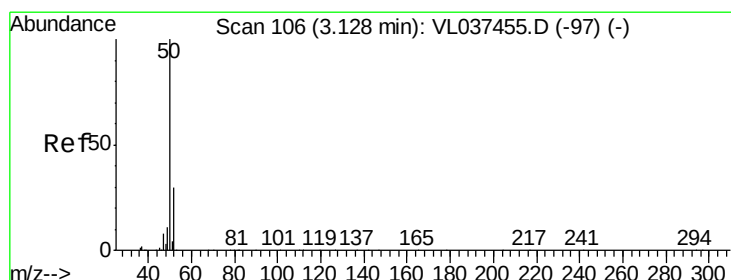
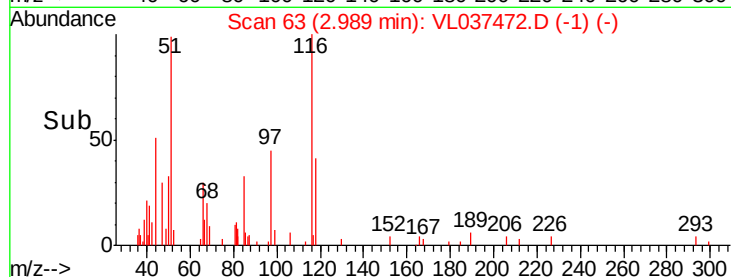
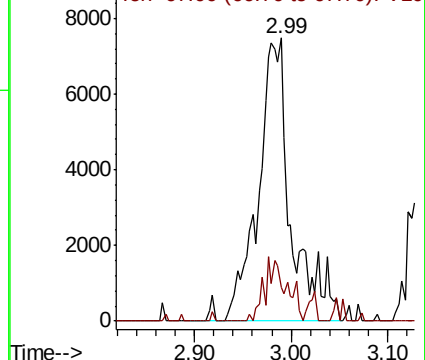
51 100

67 17.1 14.2 21.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 1.848 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL037472.D

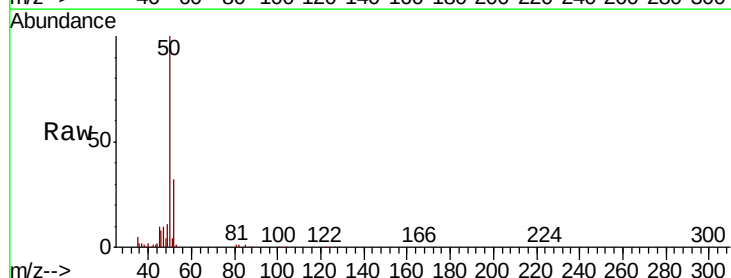
Acq: 16 Aug 2021 22:01

Tgt Ion: 50 Resp: 162077

Ion Ratio Lower Upper

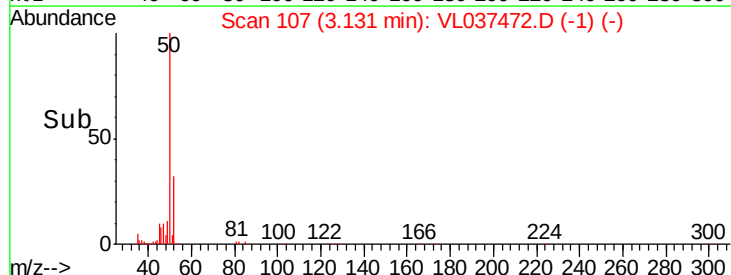
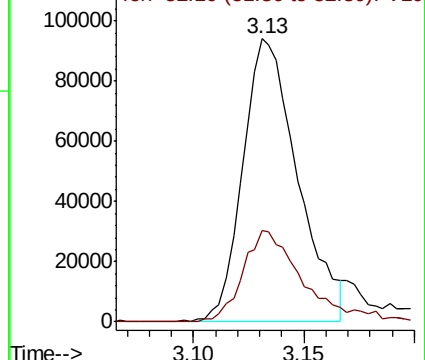
50 100

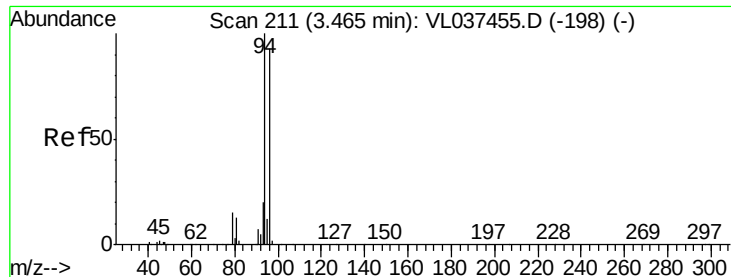
52 32.1 24.0 36.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#6

Bromomethane

Concen: 32.169 ppbv

RT: 3.47 min Scan# 211

Delta R.T. -0.00 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

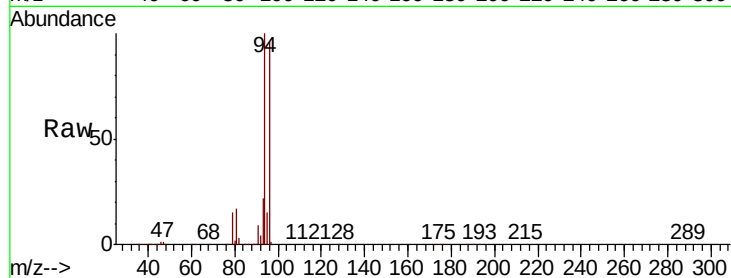
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 94 Resp: 1583530

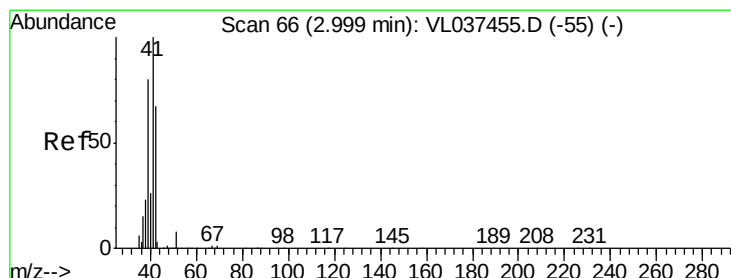
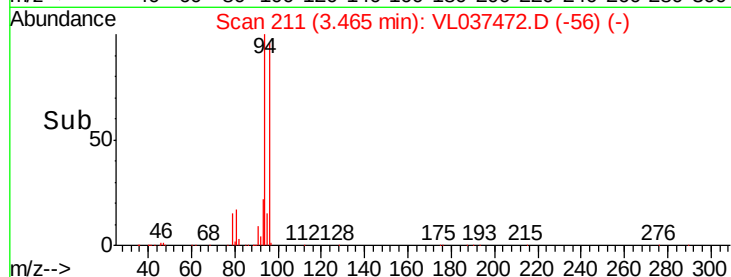
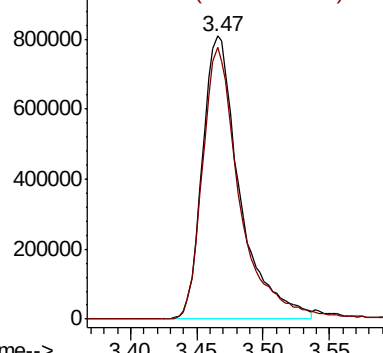
Ion Ratio Lower Upper

94 100

96 96.0 74.5 111.7



Abundance Ion 94.00 (93.70 to 94.70): VL0
Ion 96.00 (95.70 to 96.70): VL0



#9

Propene

Concen: 0.058 ppbv

RT: 3.01 min Scan# 68

Delta R.T. 0.01 min

Lab File: VL037472.D

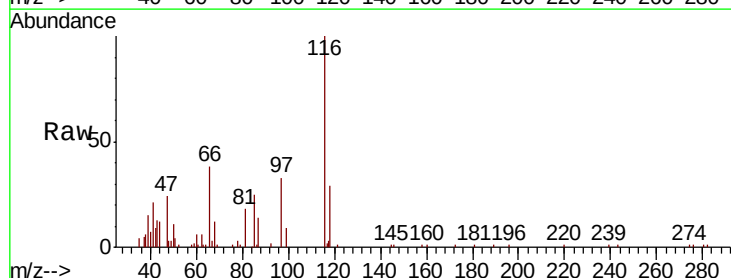
Acq: 16 Aug 2021 22:01

Tgt Ion: 41 Resp: 5070

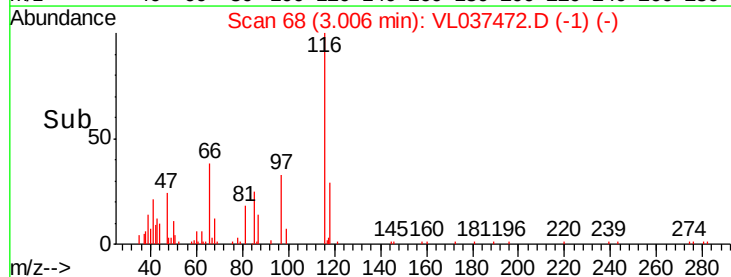
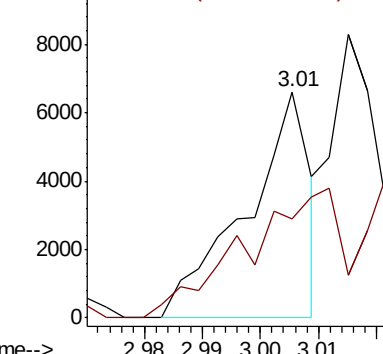
Ion Ratio Lower Upper

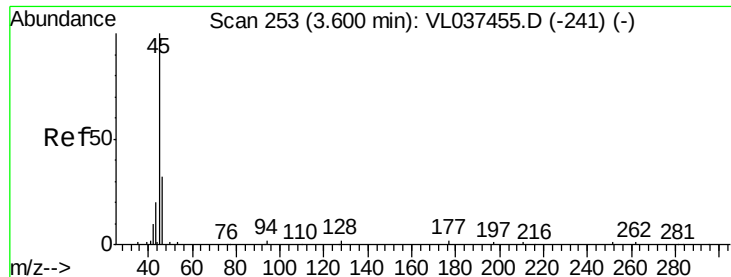
41 100

42 0.0 53.7 80.5#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 42.10 (41.80 to 42.80): VL0

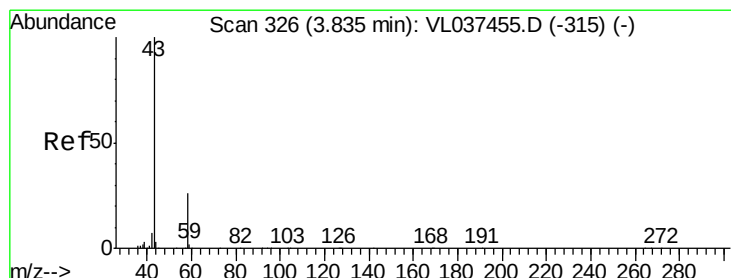
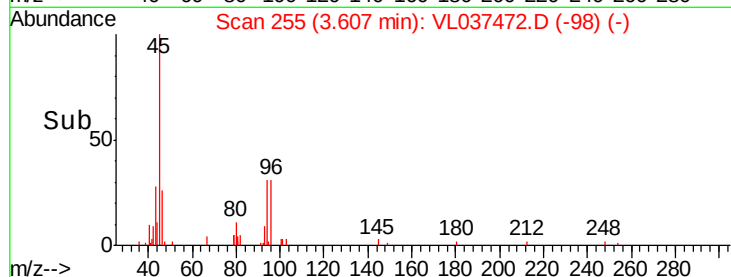
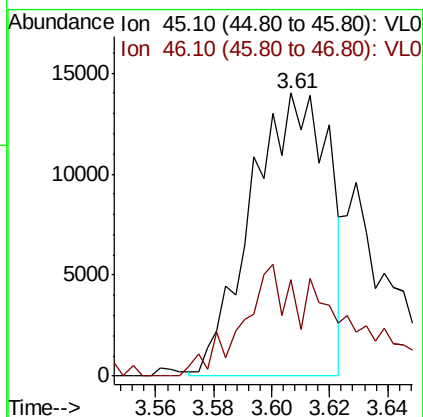
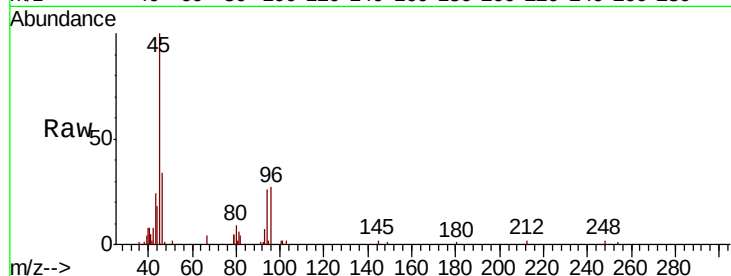




#13
Ethanol
Concen: 3.034 ppbv
RT: 3.61 min Scan# 255
Delta R.T. 0.01 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

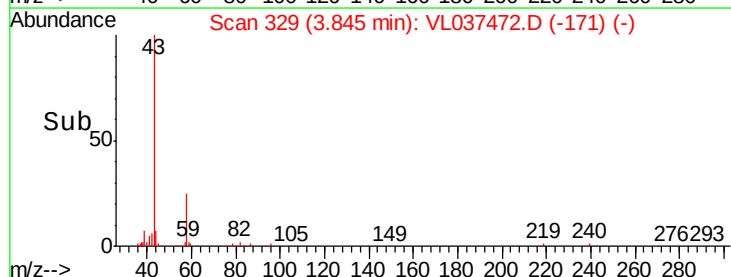
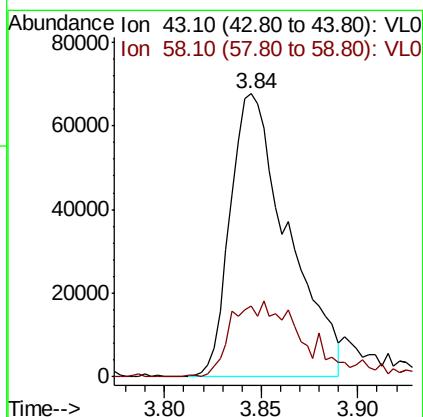
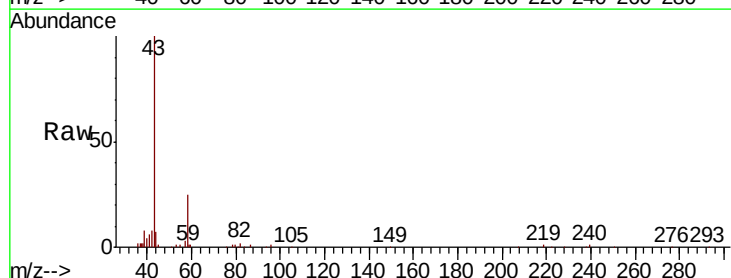
Instrument :
MSVOA_L
ClientSampleId :

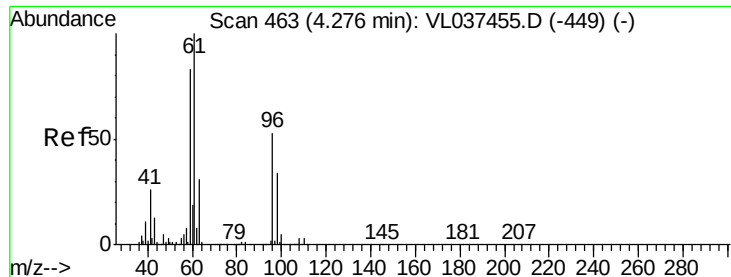
Tot Ion: 45 Resp: 25931
Ion Ratio Lower Upper
45 100
46 58.4 14.1 56.5#



#15
Acetone
Concen: 1.074 ppbv
RT: 3.84 min Scan# 329
Delta R.T. 0.01 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

Tgt Ion: 43 Resp: 140070
Ion Ratio Lower Upper
43 100
58 36.7 24.8 37.2

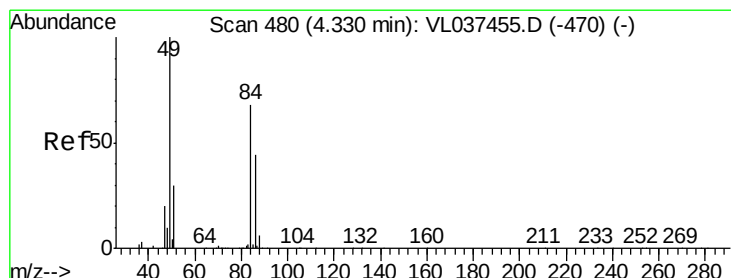
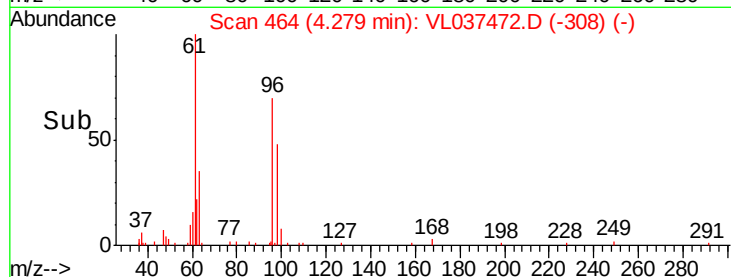
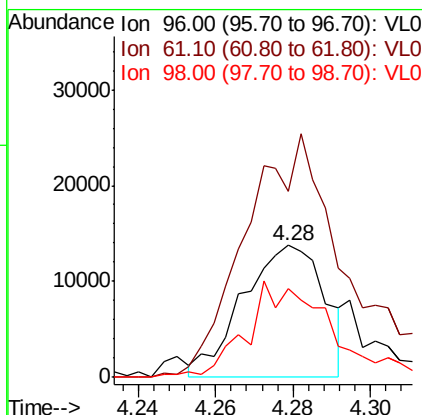
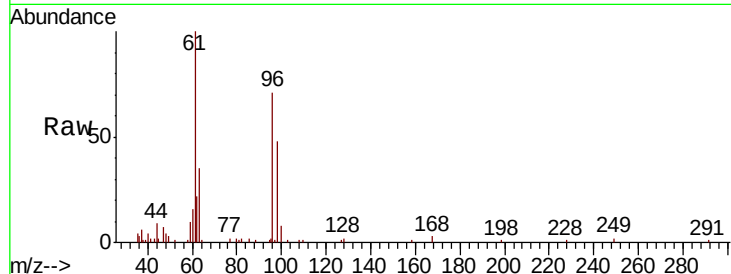




#18
 1,1-Dichloroethene
 Concen: 0.313 ppbv
 RT: 4.28 min Scan# 464
 Delta R.T. 0.00 min
 Lab File: VL037472.D
 Acq: 16 Aug 2021 22:01

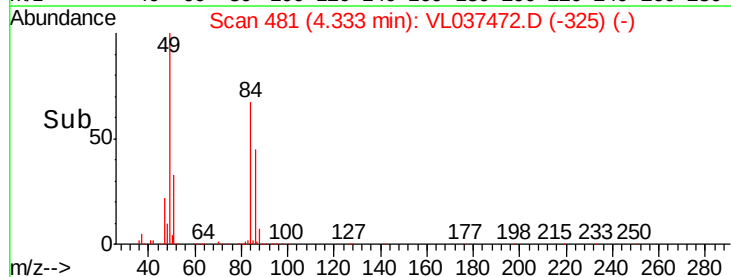
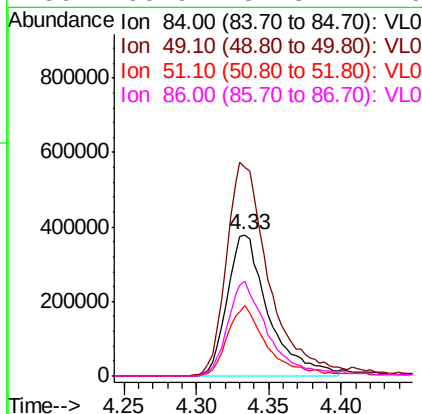
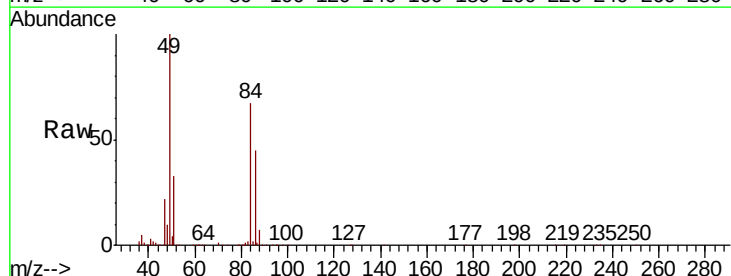
Instrument :
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 ClientSampleId :

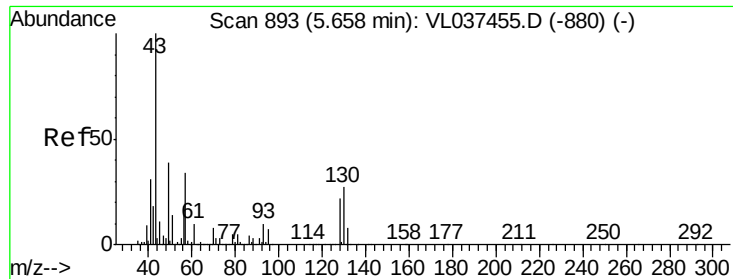
Tot Ion: 96 Resp: 20169
 Ion Ratio Lower Upper
 96 100
 61 146.6 151.1 226.7#
 98 70.1 51.8 77.8



#20
 Methylene Chloride
 Concen: 11.453 ppbv
 RT: 4.33 min Scan# 481
 Delta R.T. 0.00 min
 Lab File: VL037472.D
 Acq: 16 Aug 2021 22:01

Tgt Ion: 84 Resp: 748036
 Ion Ratio Lower Upper
 84 100
 49 147.7 118.2 177.2
 51 49.6 36.6 55.0
 86 66.9 51.8 77.6

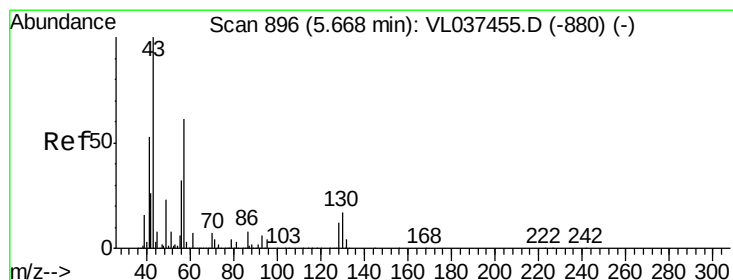
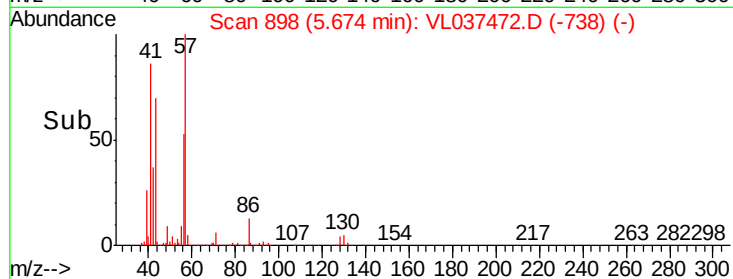
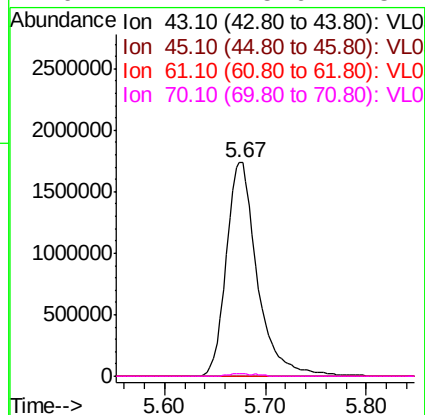
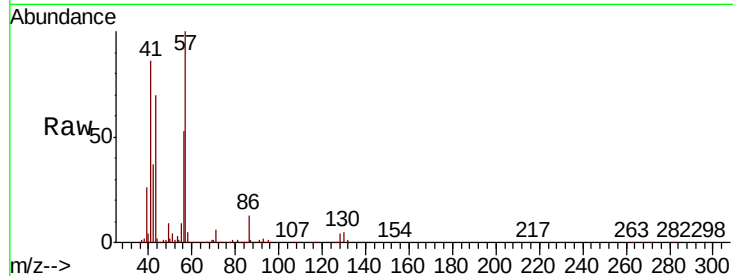




#25
Ethyl Acetate
Concen: 11.239 ppbv
RT: 5.67 min Scan# 898
Delta R.T. 0.02 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

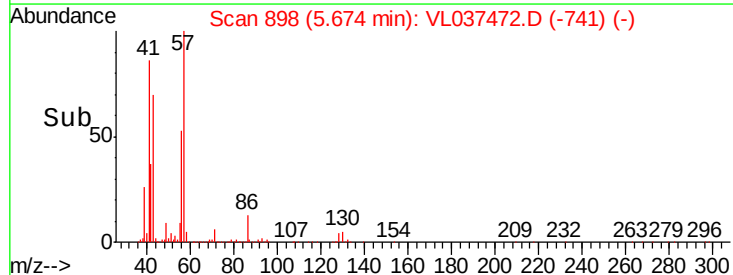
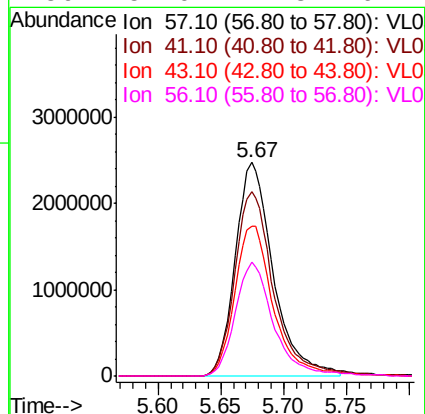
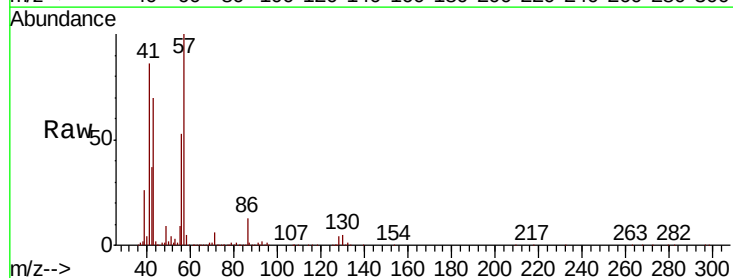
Instrument :
MSVOA_L
ClientSampleID :

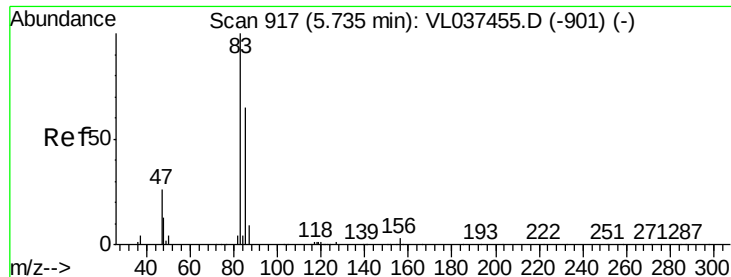
Tot Ion:	43	Resp:	3722192
Ion	Ratio	Lower	Upper
43	100		
45	0.1	8.0	12.0#
61	0.2	8.0	12.0#
70	1.4	5.6	8.4#



#26
Hexane
Concen: 32.175 ppbv
RT: 5.67 min Scan# 898
Delta R.T. 0.01 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

Tgt Ion:	57	Resp:	5209867
Ion	Ratio	Lower	Upper
57	100		
41	89.3	72.3	108.5
43	72.0	172.3	258.5#
56	54.0	42.8	64.2

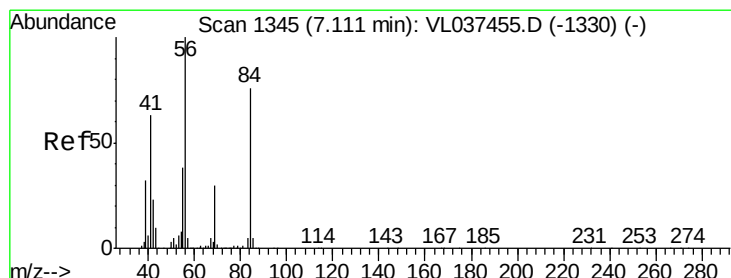
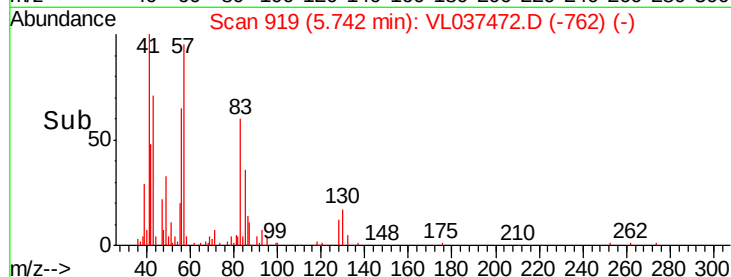
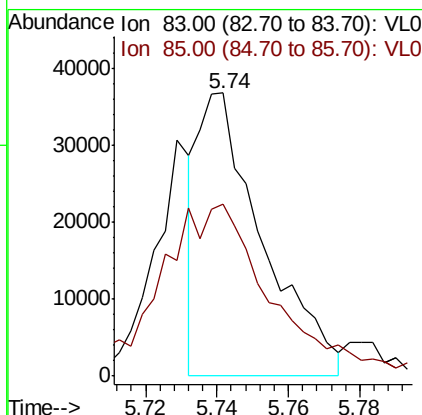
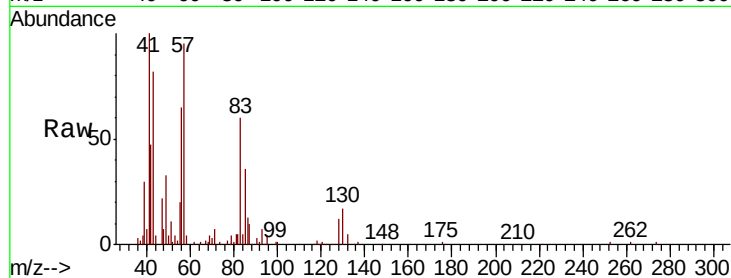




#29
Chloroform
Concen: 0.200 ppbv
RT: 5.74 min Scan# 919
Delta R.T. 0.01 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

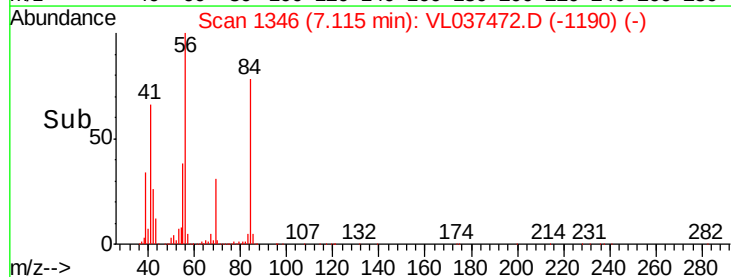
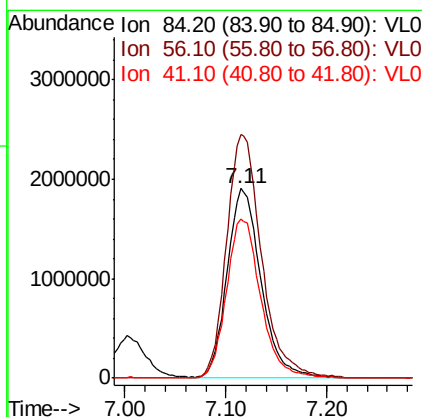
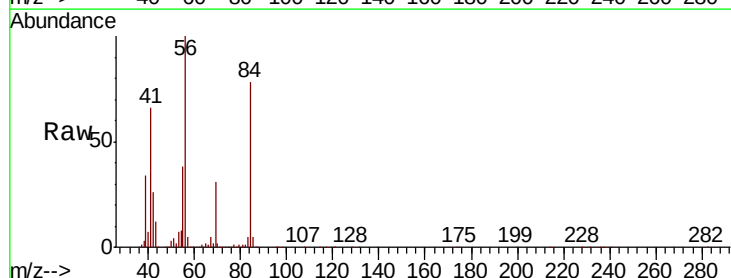
Instrument :
MSVOA_L
ClientSampleId :

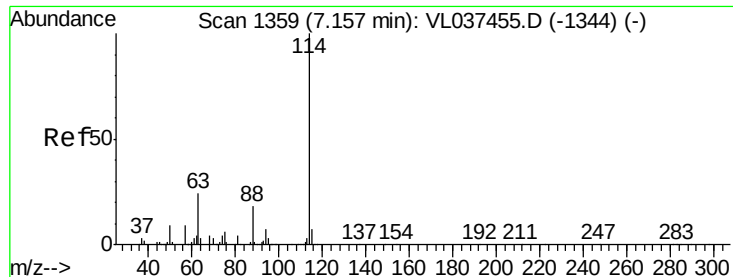
Tot Ion: 83 Resp: 45972
Ion Ratio Lower Upper
83 100
85 54.0 52.3 78.5



#30
Cyclohexane
Concen: 32.939 ppbv
RT: 7.11 min Scan# 1346
Delta R.T. 0.00 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

Tgt Ion: 84 Resp: 4443971
Ion Ratio Lower Upper
84 100
56 133.8 110.6 165.8
41 85.6 67.0 100.6

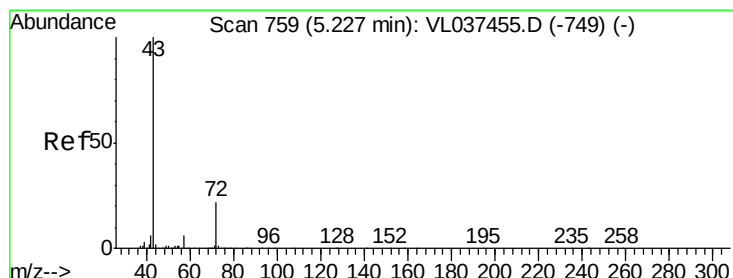
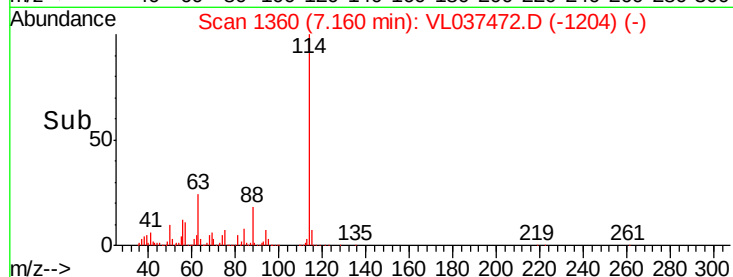
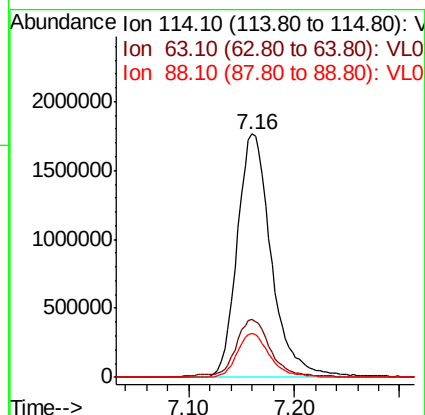
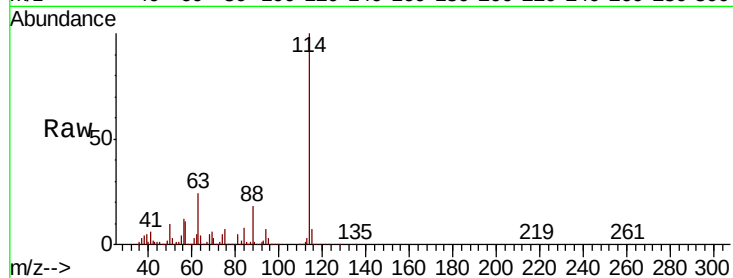




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1360
 Delta R.T. 0.00 min
 Lab File: VL037472.D
 Acq: 16 Aug 2021 22:01

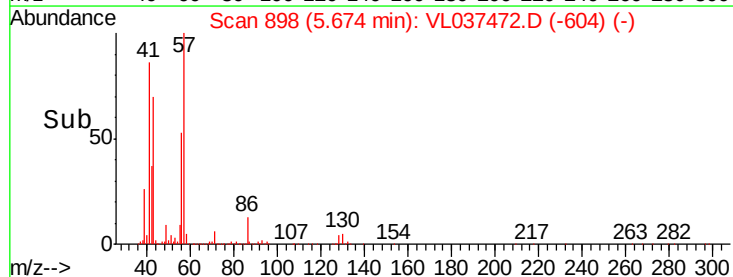
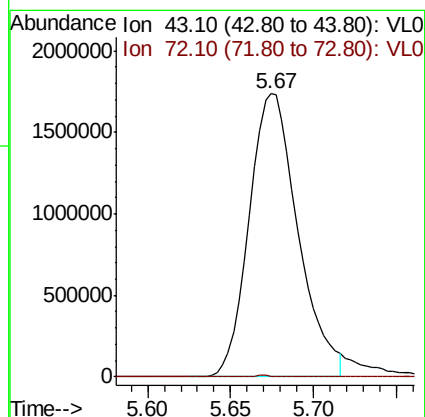
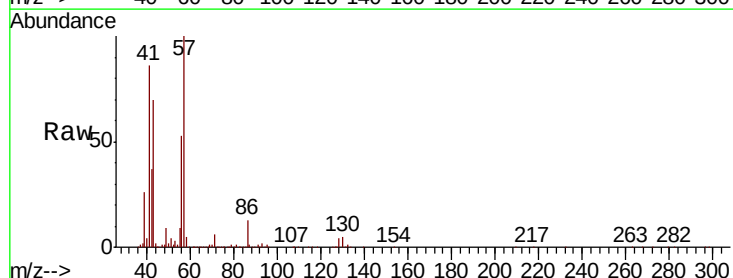
Instrument :
 MSVOA_L
 ClientSampleId :

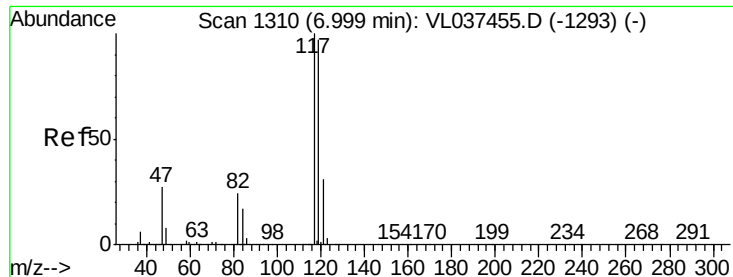
Tot Ion:114 Resp: 3959600
 Ion Ratio Lower Upper
 114 100
 63 24.9 19.3 28.9
 88 17.7 14.2 21.4



#34
 2-Butanone
 Concen: 22.002 ppbv
 RT: 5.67 min Scan# 898
 Delta R.T. 0.45 min
 Lab File: VL037472.D
 Acq: 16 Aug 2021 22:01

Tgt Ion: 43 Resp: 3557546
 Ion Ratio Lower Upper
 43 100
 72 0.0 17.4 26.0#

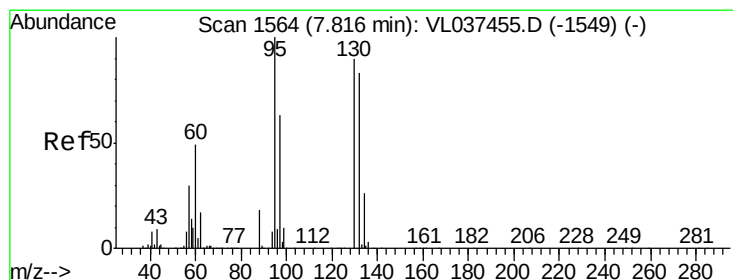
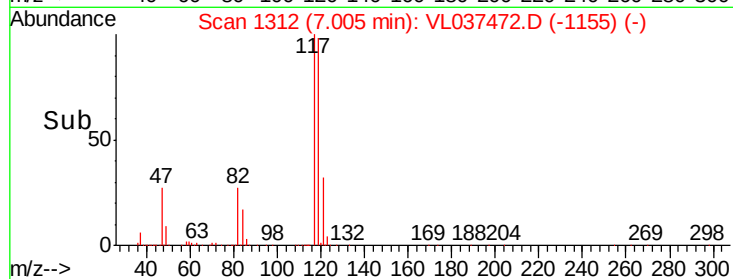
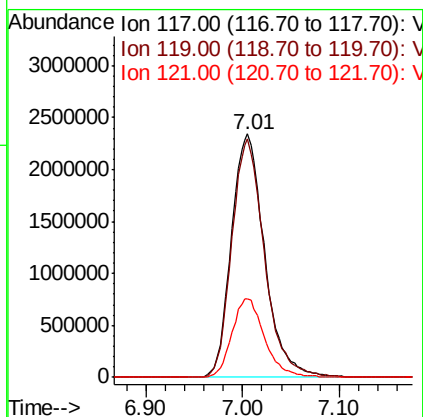
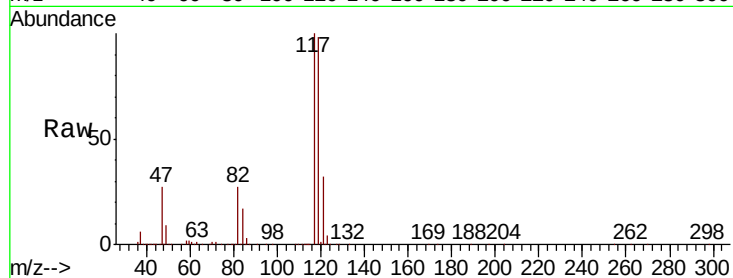




#35
Carbon Tetrachloride
Concen: 23.871 ppbv
RT: 7.01 min Scan# 1312
Delta R.T. 0.01 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

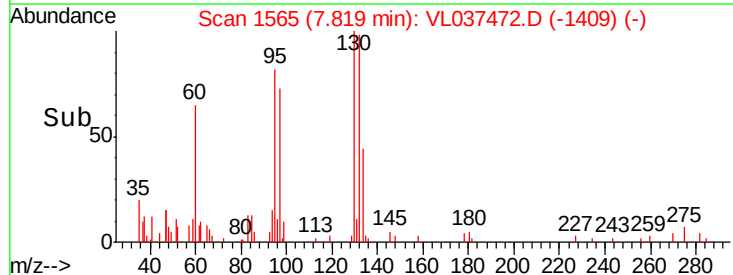
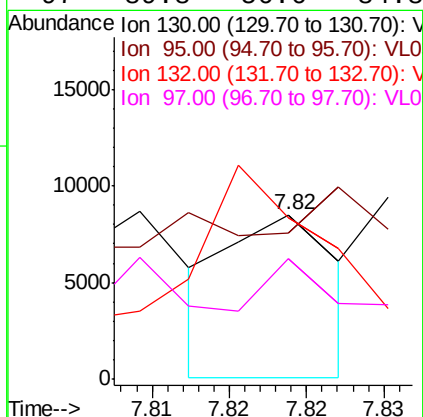
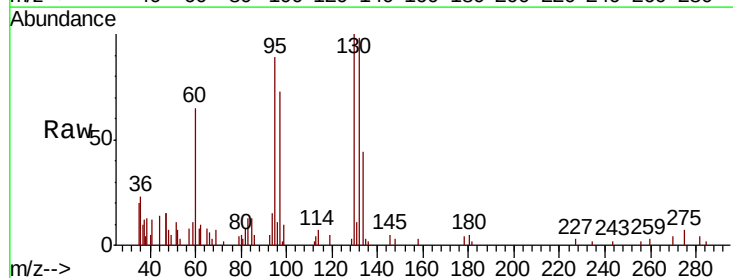
Instrument :
MSVOA_L
ClientSampleId :

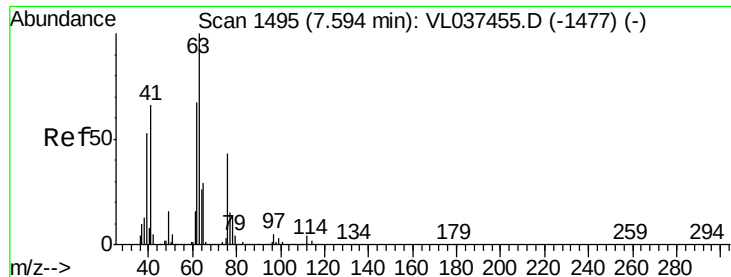
Tot Ion:117 Resp: 5585916
Ion Ratio Lower Upper
117 100
119 98.1 77.3 115.9
121 32.5 25.2 37.8



#38
Trichloroethene
Concen: 0.031 ppbv
RT: 7.82 min Scan# 1565
Delta R.T. 0.00 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

Tgt Ion:130 Resp: 4174
Ion Ratio Lower Upper
130 100
95 0.0 89.2 133.8#
132 117.6 74.0 111.0#
97 89.8 56.6 84.8#

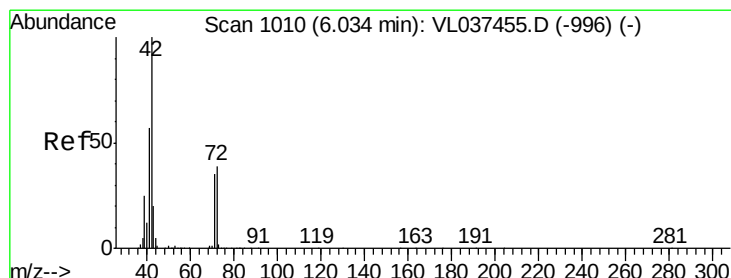
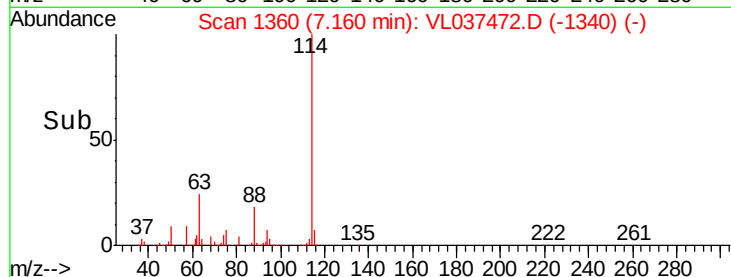
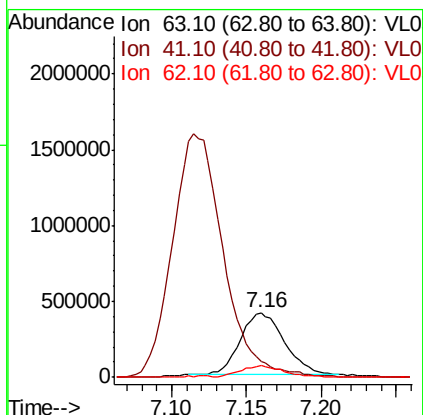
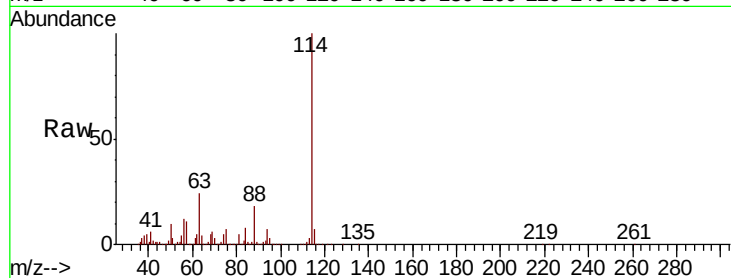




#39
 1,2-Dichloropropane
 Concen: 6.556 ppbv
 RT: 7.16 min Scan# 1360
 Delta R.T. -0.43 min
 Lab File: VL037472.D
 Acq: 16 Aug 2021 22:01

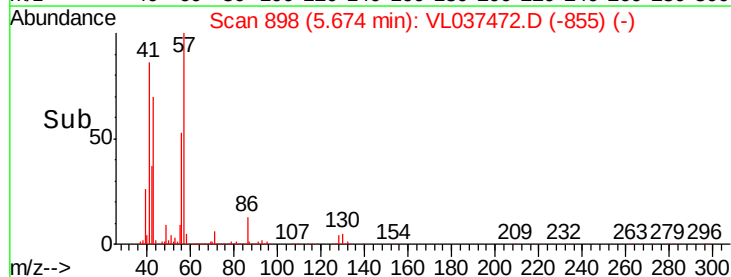
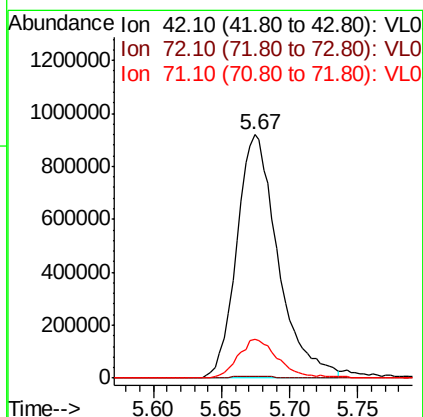
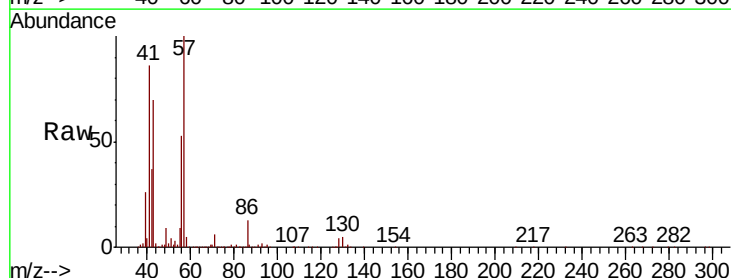
Instrument :
 MSVOA_L
 ClientSampled :

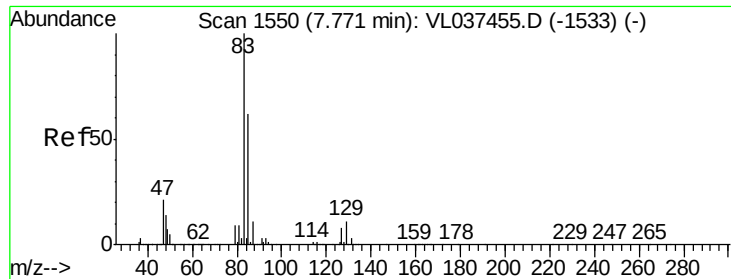
Tot Ion	Ratio	Lower	Upper
63	100		
41	24.3	52.4	78.6#
62	19.4	53.6	80.4#



#41
 Tetrahydrofuran
 Concen: 24.768 ppbv
 RT: 5.67 min Scan# 898
 Delta R.T. -0.36 min
 Lab File: VL037472.D
 Acq: 16 Aug 2021 22:01

Tgt Ion	Ratio	Lower	Upper
42	100		
72	0.9	32.2	48.4#
71	15.8	30.5	45.7#





#42

Bromodichloromethane

Concen: 0.043 ppbv

RT: 7.77 min Scan# 1550

Delta R.T. -0.00 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

Instrument :

MSVOA_L

ClientSampled :

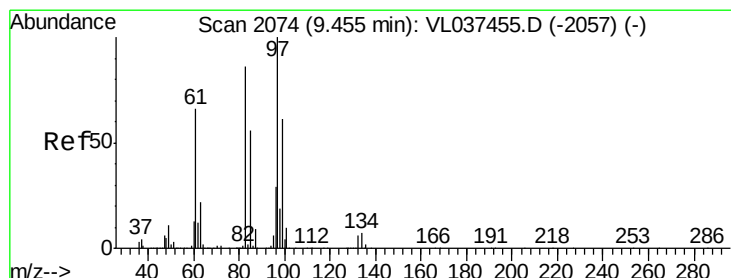
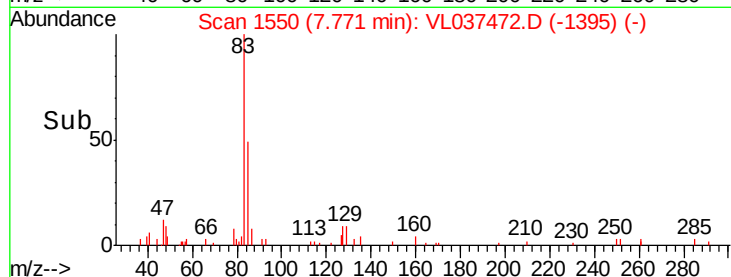
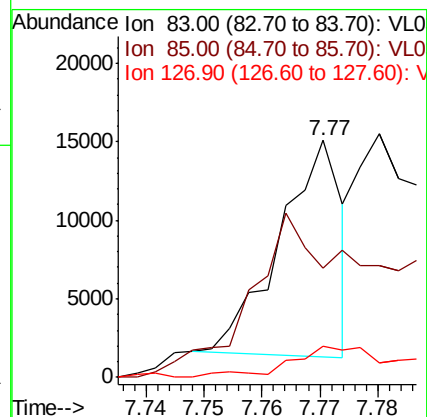
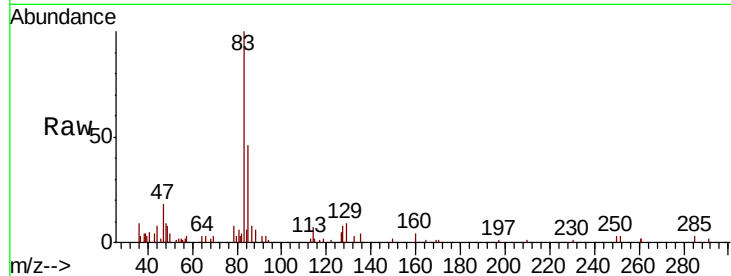
Tot Ion: 83 Resp: 10269

Ion Ratio Lower Upper

83 100

85 38.7 49.5 74.3#

127 14.7 6.3 9.5#



#47

1,1,2-Trichloroethane

Concen: 30.641 ppbv

RT: 9.46 min Scan# 2075

Delta R.T. 0.00 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

Tgt Ion: 97 Resp: 4234774

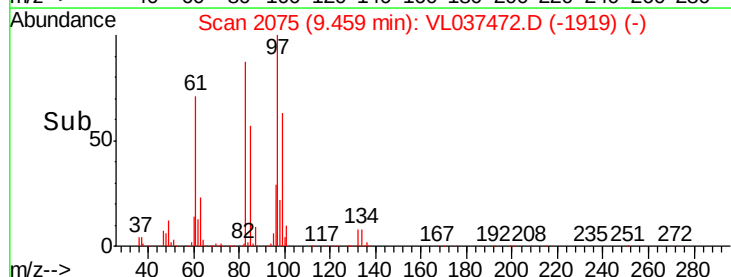
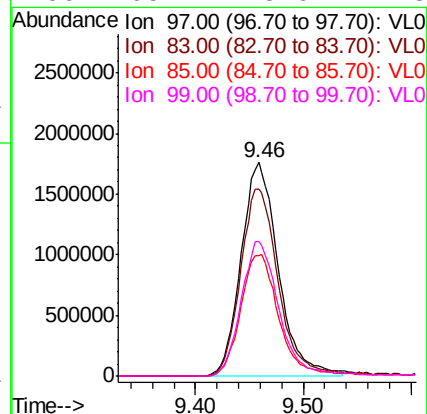
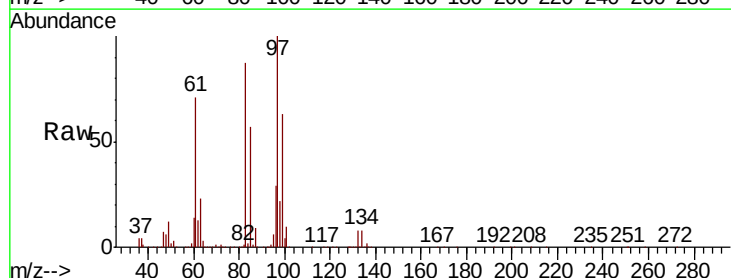
Ion Ratio Lower Upper

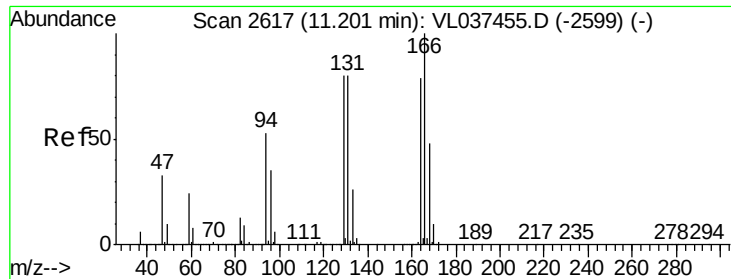
97 100

83 87.3 68.7 103.1

85 56.6 44.7 67.1

99 63.2 48.6 72.8





#52

Tetrachloroethene

Concen: 28.103 ppbv

RT: 11.21 min Scan# 2619

Delta R.T. 0.01 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

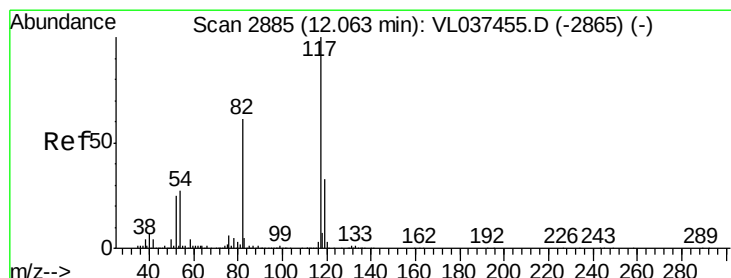
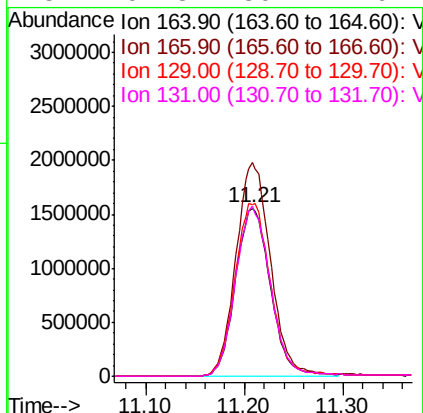
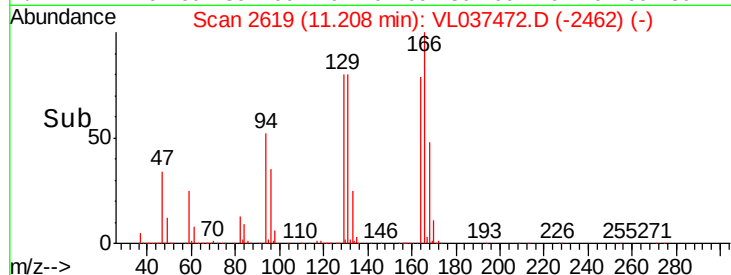
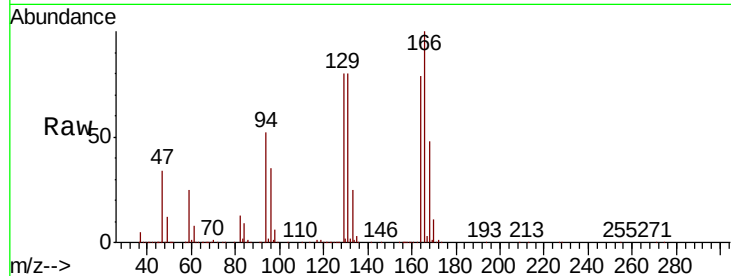
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:164 Resp: 3833307

Ion	Ratio	Lower	Upper
164	100		
166	127.2	100.7	151.1
129	102.0	80.9	121.3
131	101.8	80.2	120.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2887

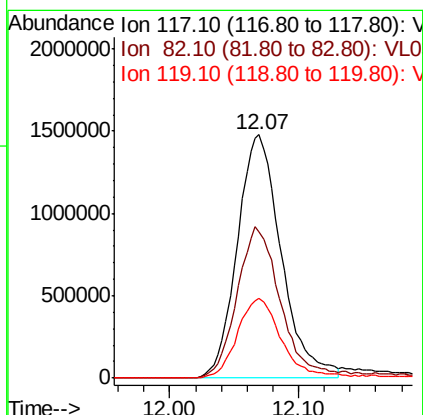
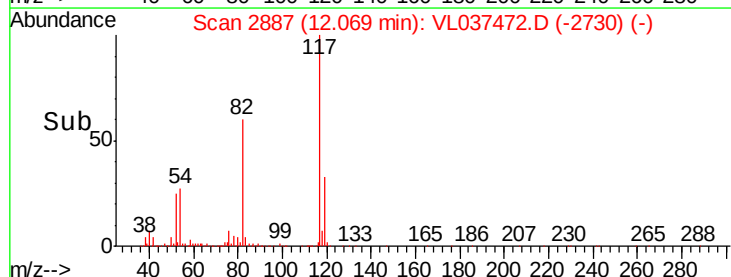
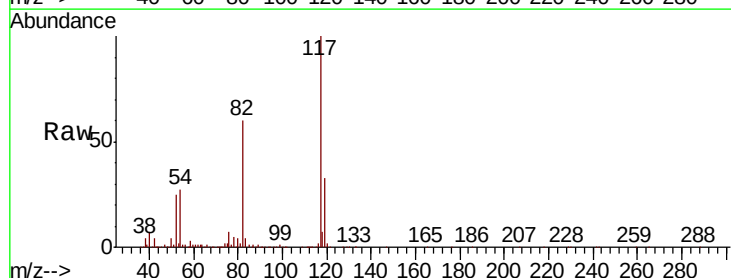
Delta R.T. 0.01 min

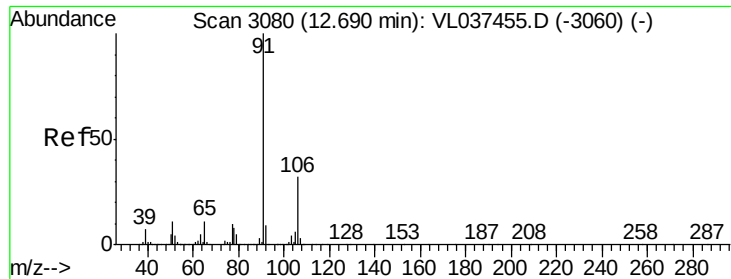
Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

Tgt Ion:117 Resp: 3504234

Ion	Ratio	Lower	Upper
117	100		
82	65.8	52.9	79.3
119	34.3	24.8	37.2

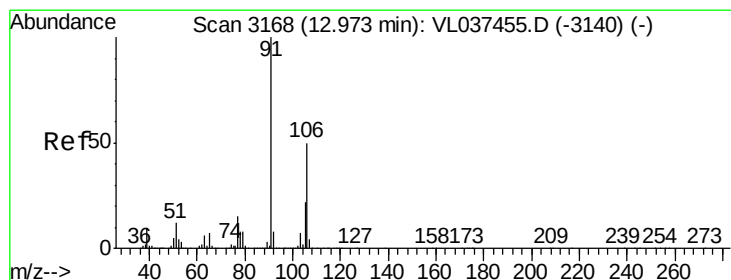
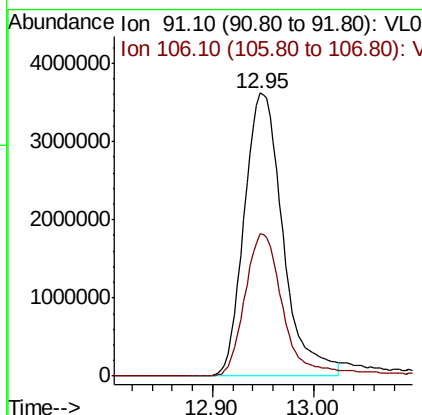
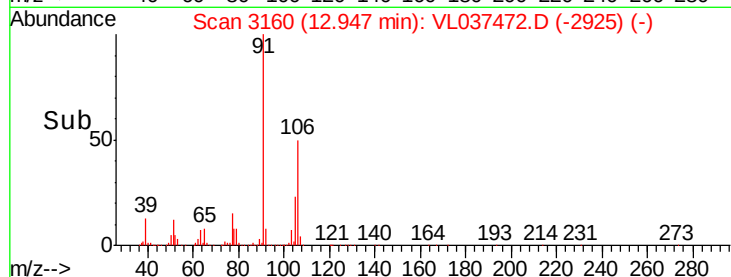
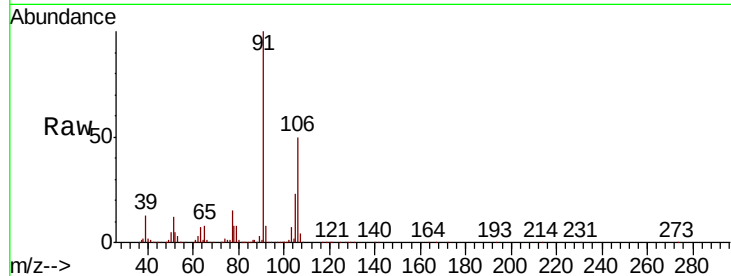




#58
Ethyl Benzene
Concen: 19.793 ppbv
RT: 12.95 min Scan# 3160
Delta R.T. 0.26 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

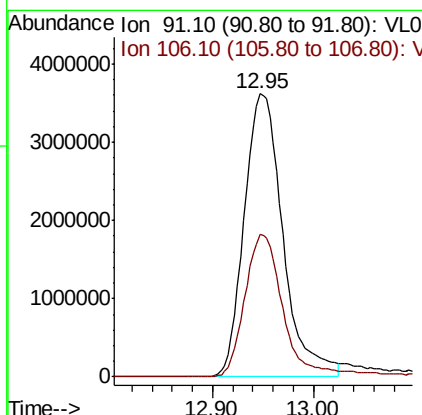
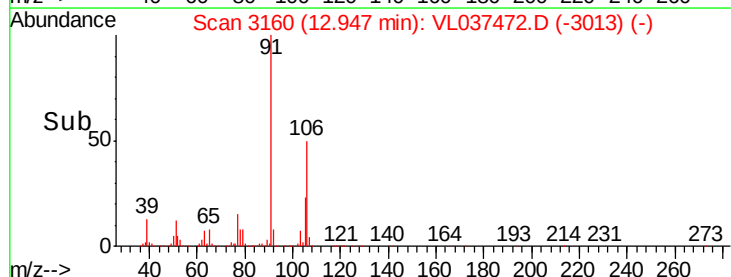
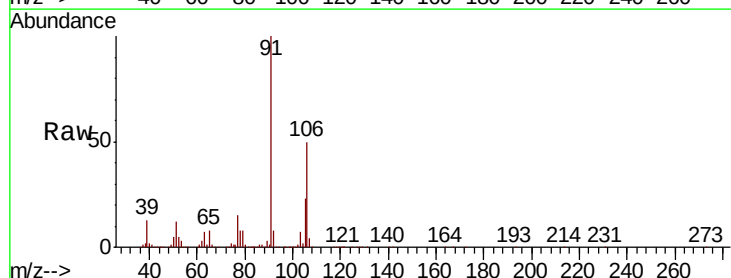
Instrument :
MSVOA_L
ClientSampleId :

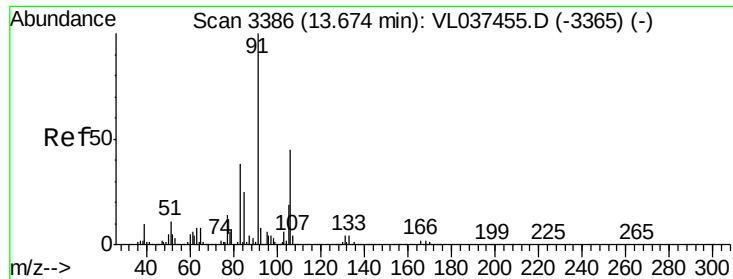
Tot Ion: 91 Resp: 9625277
Ion Ratio Lower Upper
91 100
106 50.3 25.7 38.5#



#59
m/p-Xylene
Concen: 22.831 ppbv
RT: 12.95 min Scan# 3160
Delta R.T. -0.03 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

Tgt Ion: 91 Resp: 9625277
Ion Ratio Lower Upper
91 100
106 52.0 36.9 55.3

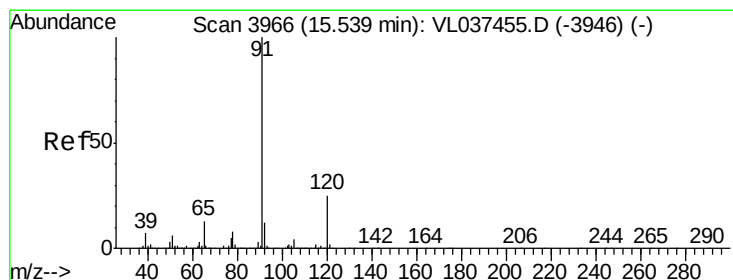
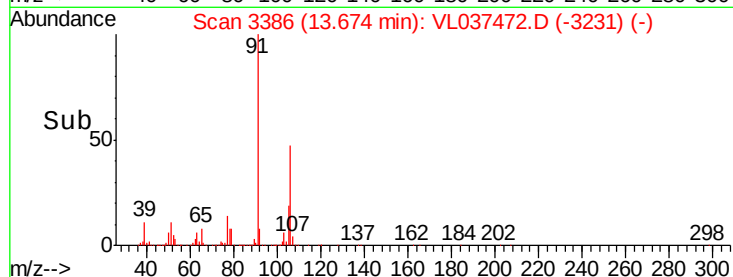
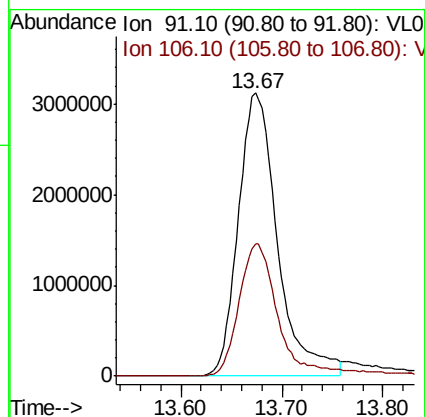
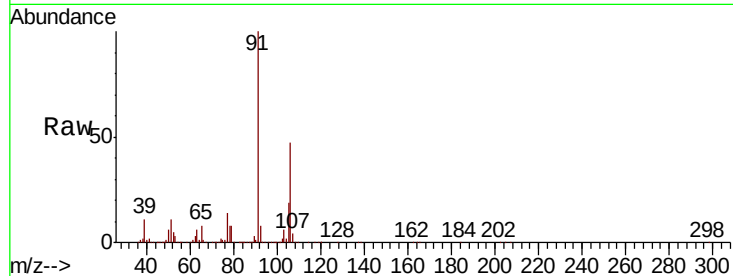




#60
o-Xylene
Concen: 21.445 ppbv
RT: 13.67 min Scan# 3386
Delta R.T. -0.00 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

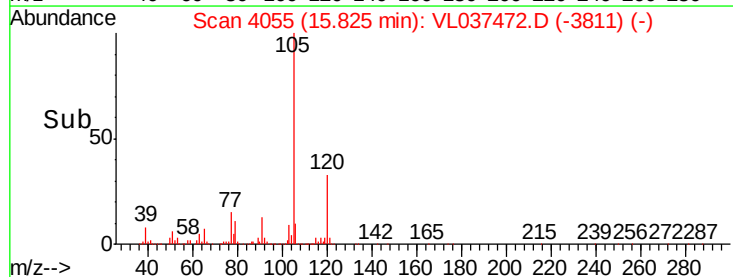
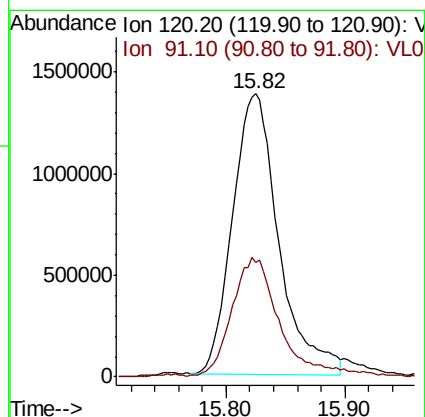
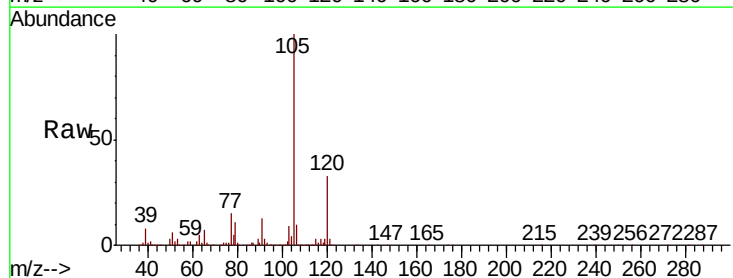
Instrument :
MSVOA_L
ClientSampleId :

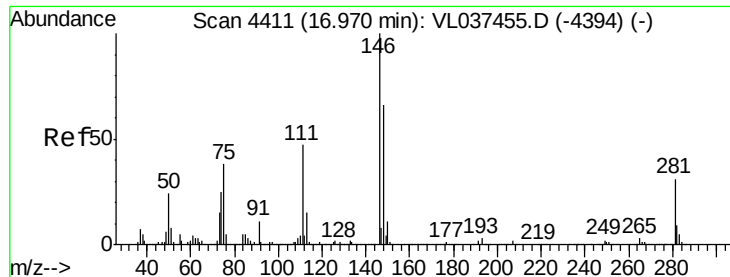
Tot Ion: 91 Resp: 8438379
Ion Ratio Lower Upper
91 100
106 48.5 23.7 71.1



#64
n-propylbenzene
Concen: 26.320 ppbv
RT: 15.82 min Scan# 4055
Delta R.T. 0.29 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

Tgt Ion:120 Resp: 3719630
Ion Ratio Lower Upper
120 100
91 44.4 373.8 560.6#

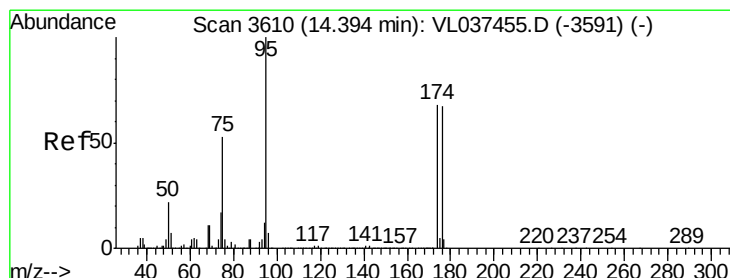
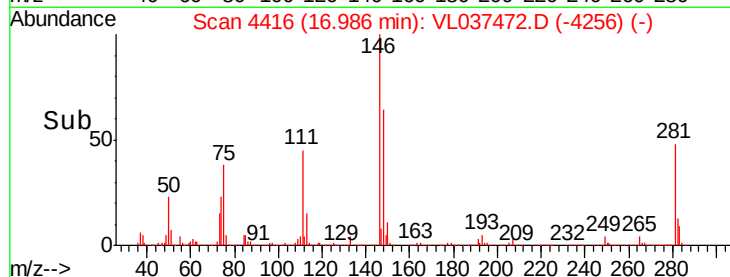
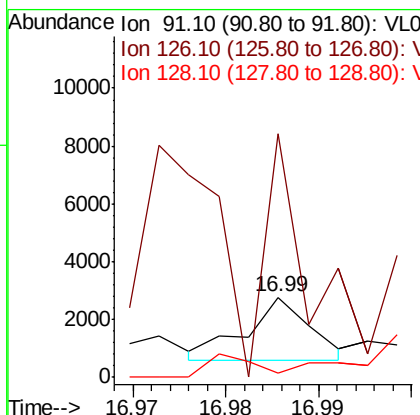
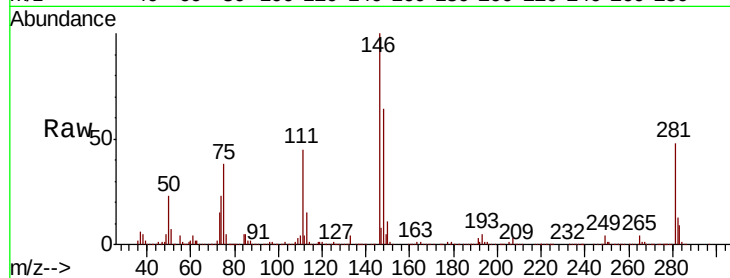




#66
Benzyl Chloride
Concen: 0.046 ppbv
RT: 16.99 min Scan# 4416
Delta R.T. 0.02 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

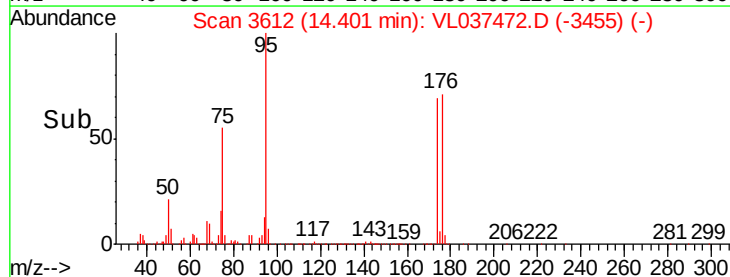
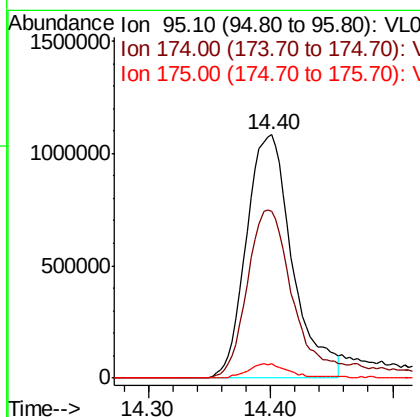
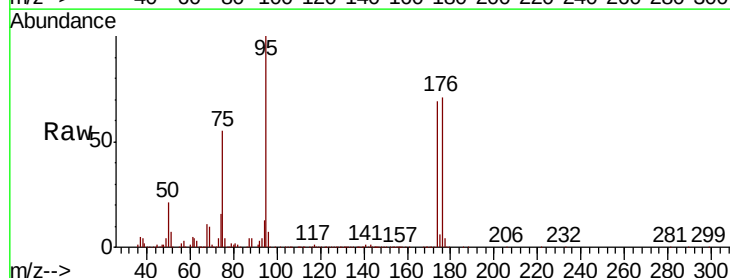
Instrument :
MSVOA_L
ClientSampled :

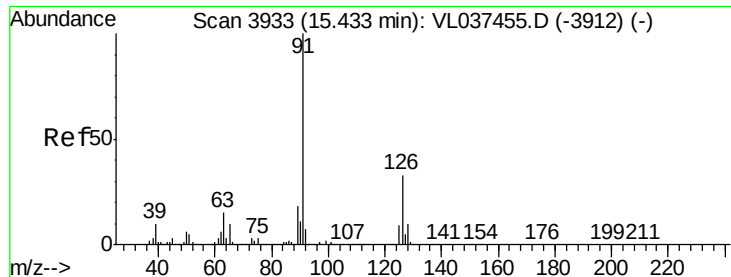
Tot Ion: 91 Resp: 1053
Ion Ratio Lower Upper
91 100
126 0.0 15.9 23.9#
128 0.0 5.4 8.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 11.314 ppbv
RT: 14.40 min Scan# 3612
Delta R.T. 0.01 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

Tgt Ion: 95 Resp: 2816676
Ion Ratio Lower Upper
95 100
174 76.7 59.6 89.4
175 5.9 4.6 7.0

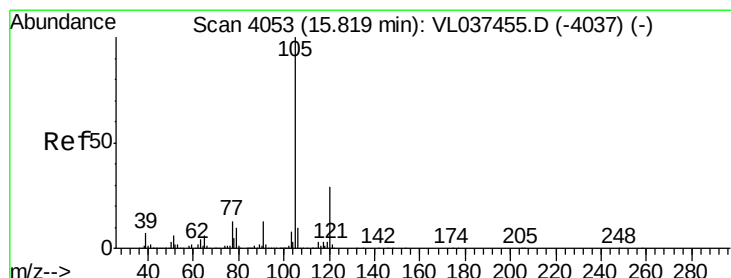
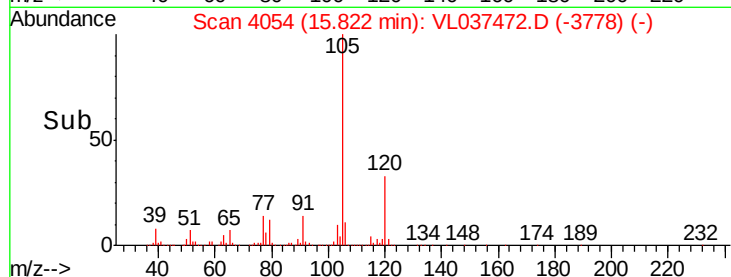
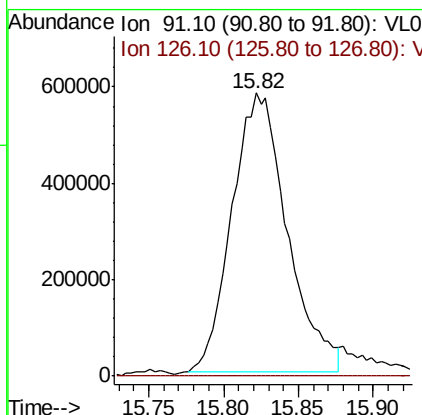
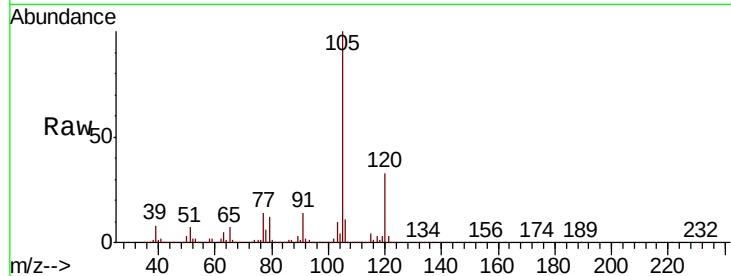




#71
2-Chlorotoluene
Concen: 3.667 ppbv
RT: 15.82 min Scan# 4054
Delta R.T. 0.39 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

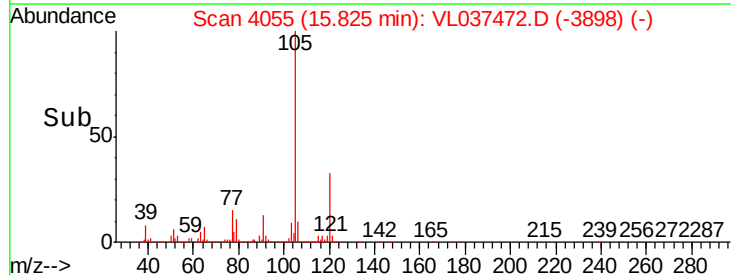
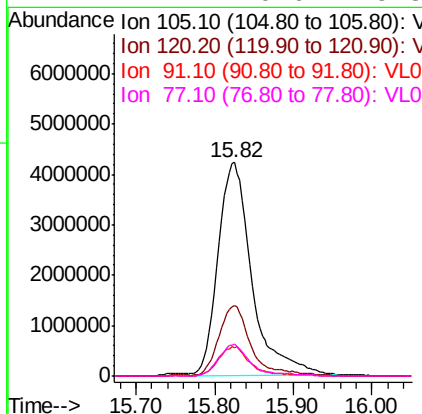
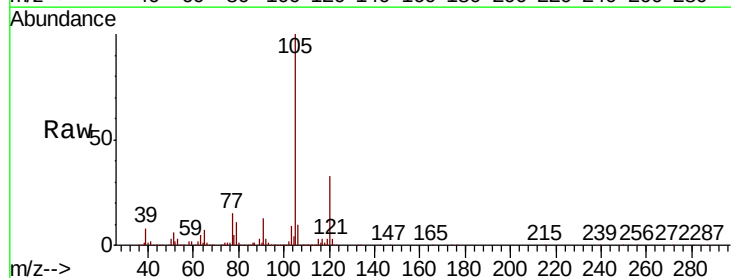
Instrument :
MSVOA_L
ClientSampleId :

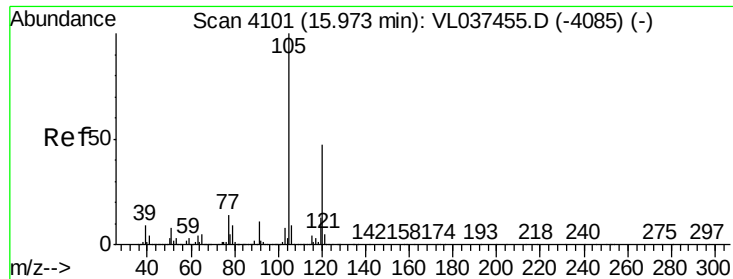
Tot Ion: 91 Resp: 1493280
Ion Ratio Lower Upper
91 100
126 0.0 13.6 54.4#



#72
4-Ethyltoluene
Concen: 26.870 ppbv
RT: 15.82 min Scan# 4055
Delta R.T. 0.01 min
Lab File: VL037472.D
Acq: 16 Aug 2021 22:01

Tgt Ion:105 Resp:12575632
Ion Ratio Lower Upper
105 100
120 32.0 24.7 37.1
91 13.1 9.8 14.8
77 14.1 10.6 15.8





#73

1,3,5-Trimethylbenzene

Concen: 28.866 ppbv

RT: 15.82 min Scan# 4055

Delta R.T. -0.15 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

Instrument :

MSVOA_L

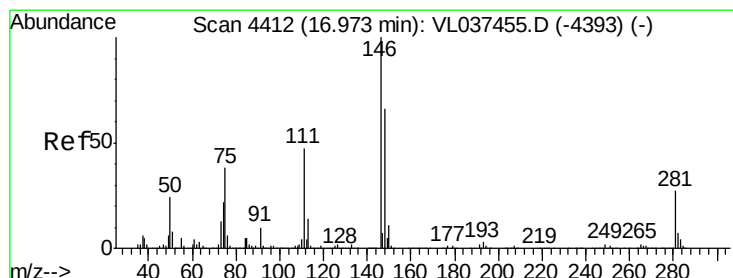
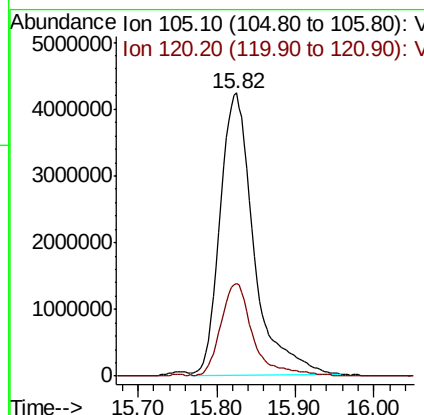
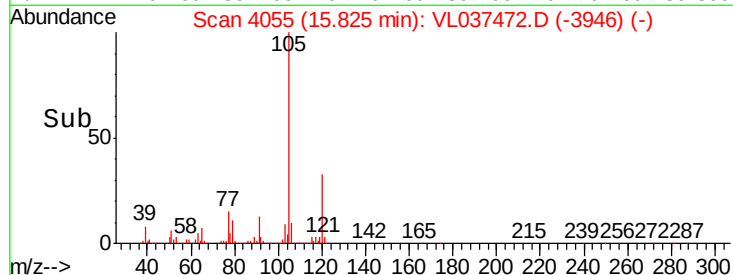
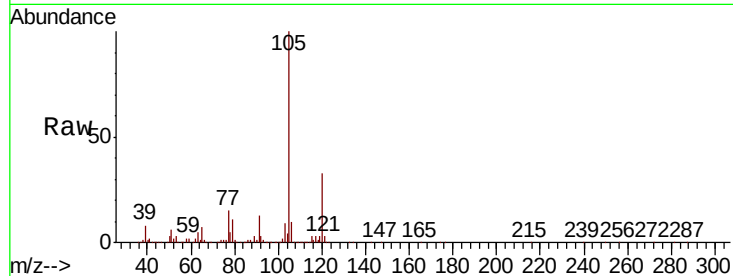
ClientSampleId :

Tot Ion:105 Resp:12575632

Ion Ratio Lower Upper

105 100

120 32.7 37.6 56.4#



#75

1,3-Dichlorobenzene

Concen: 19.750 ppbv

RT: 16.98 min Scan# 4414

Delta R.T. 0.01 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

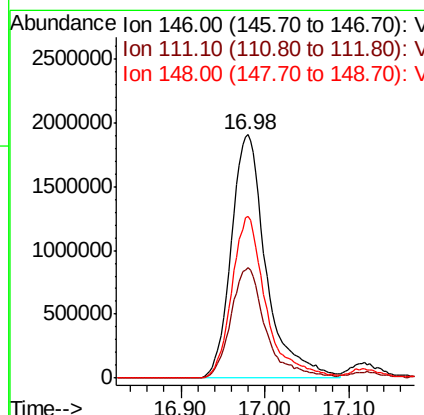
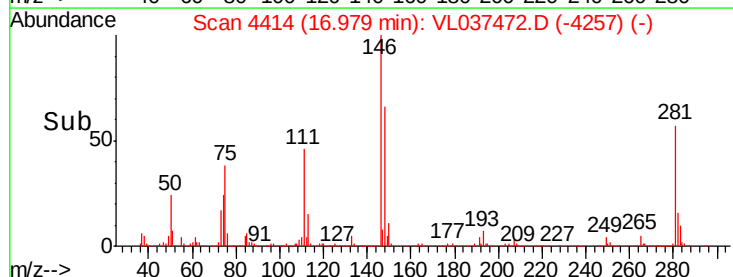
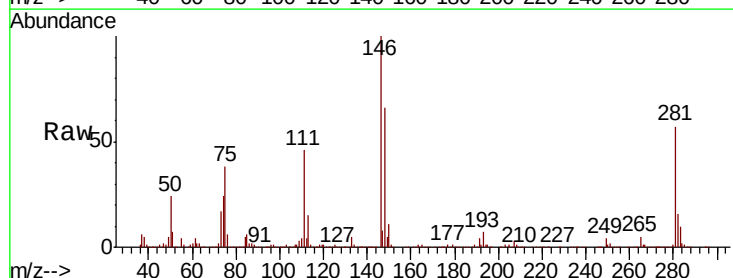
Tgt Ion:146 Resp: 5503547

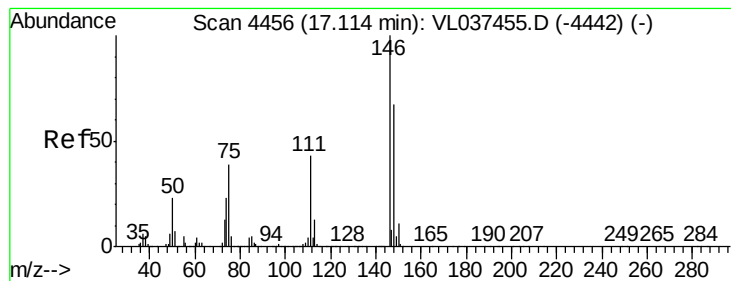
Ion Ratio Lower Upper

146 100

111 45.3 23.4 70.0

148 64.9 33.1 99.5





#76

1,4-Dichlorobenzene

Concen: 0.797 ppbv

RT: 17.12 min Scan# 4457

Delta R.T. 0.00 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

Instrument :

MSVOA_L

ClientSampleId :

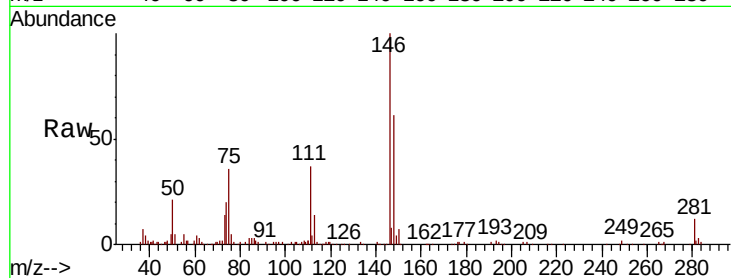
Tot Ion:146 Resp: 223672

Ion Ratio Lower Upper

146 100

111 62.2 22.1 66.5

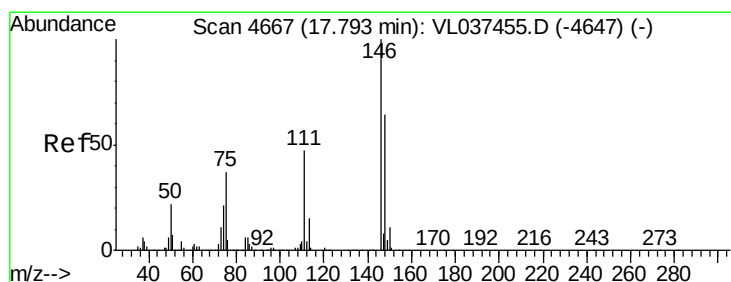
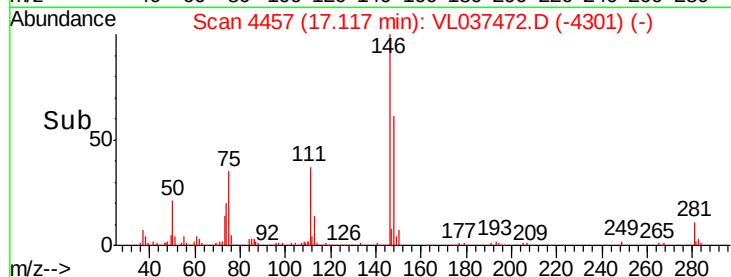
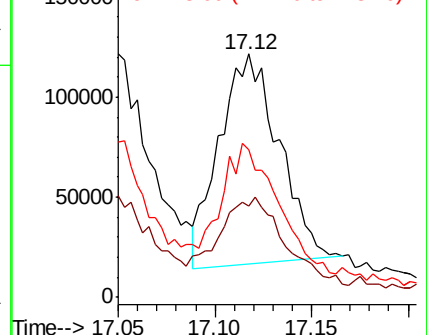
148 91.1 32.4 97.0



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#77

1,2-Dichlorobenzene

Concen: 1.106 ppbv

RT: 17.80 min Scan# 4669

Delta R.T. 0.01 min

Lab File: VL037472.D

Acq: 16 Aug 2021 22:01

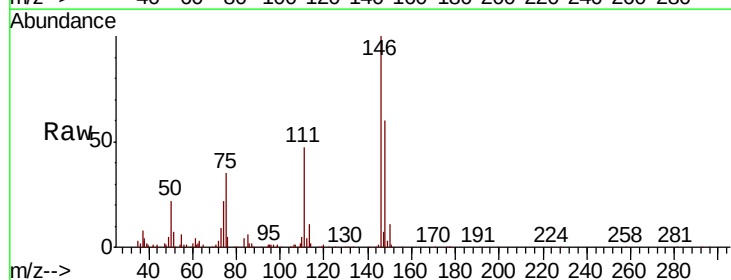
Tgt Ion:146 Resp: 303387

Ion Ratio Lower Upper

146 100

111 46.8 23.4 70.3

148 63.4 32.5 97.5



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

