

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL062922\
 Data File : VL039413.D
 Acq On : 30 Jun 2022 2:28
 Operator : SY/AP
 Sample : N3530-01 2X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: Jun 30 05:45:14 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jun 30 05:40:11 2022
 QLast Update : Thu Jun 30 05:40:11 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1266101	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3396900	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3060672	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	2333648	10.28	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.80%

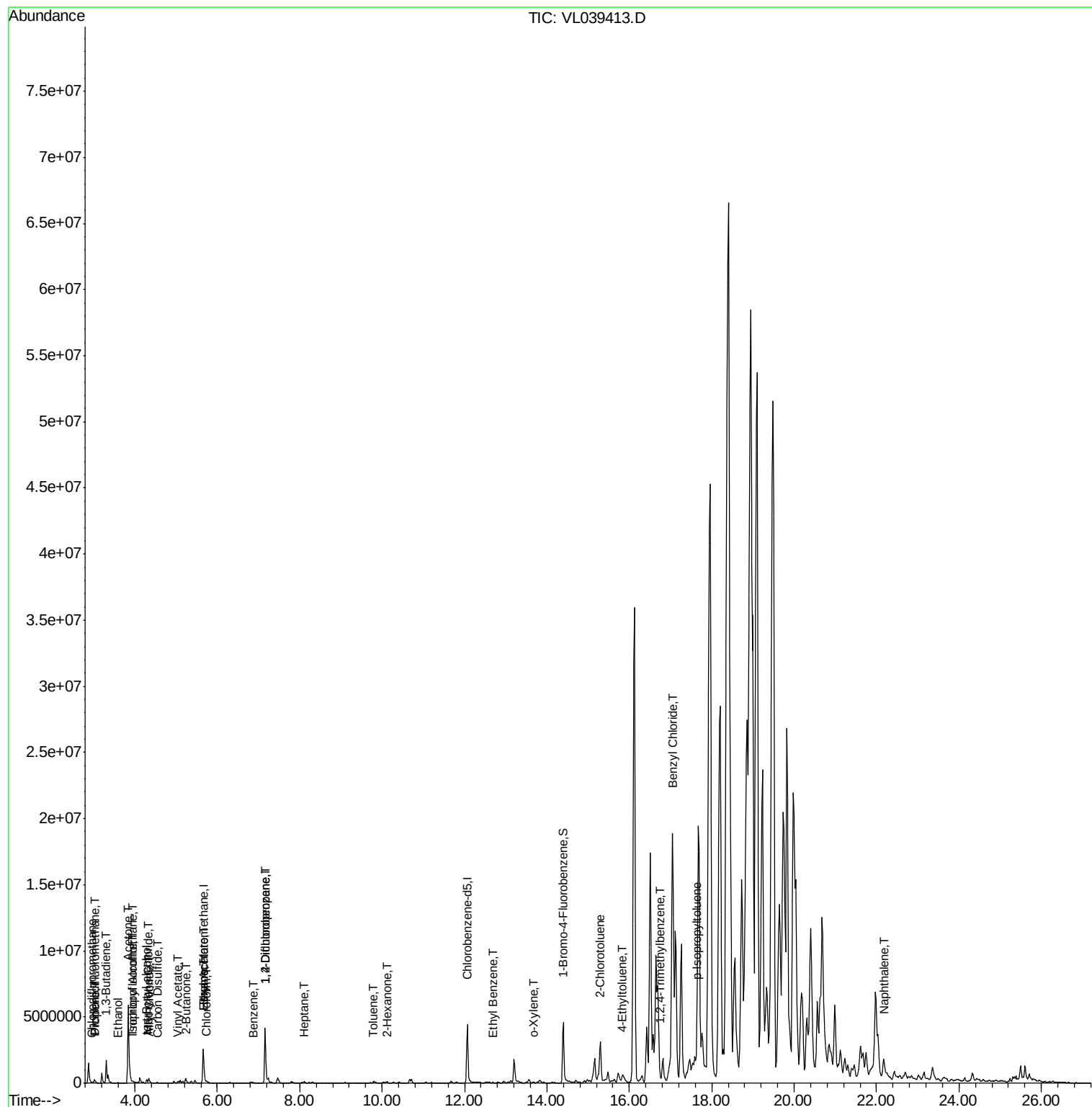
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	13698	0.08	ppbv	95
3) Chlorodifluoromethane	2.96	51	80367	0.50	ppbv #	78
9) Propene	3.02	41	69033	0.95	ppbv	83
10) Heptane	8.11	43	9580	0.06	ppbv #	1
11) Trichlorofluoromethane	3.94	101	13356	0.07	ppbv	97
13) Ethanol	3.59	45	44787	10.64	ppbv	79
15) Acetone	3.83	43	7944215	53.04	ppbv	96
16) 1,3-Butadiene	3.30	39	546858	7.04	ppbv #	16
17) tert-Butyl alcohol	4.28	59	212712	1.67	ppbv	95
19) Isopropyl Alcohol	3.95	45	9162	0.11	ppbv #	88
20) Methylene Chloride	4.33	84	112721	1.89	ppbv	94
21) Allyl Chloride	4.36	41	3892	0.04	ppbv #	1
23) Vinyl Acetate	5.05	43	22098	0.22	ppbv #	44
25) Ethyl Acetate	5.67	43	121653	0.40	ppbv #	81
26) Hexane	5.67	57	166396	1.34	ppbv #	34
27) Carbon Disulfide	4.54	76	31227	0.21	ppbv #	73
29) Chloroform	5.74	83	69339	0.32	ppbv	87
34) 2-Butanone	5.23	43	419841	2.46	ppbv	100
36) Benzene	6.88	78	19111	0.07	ppbv #	94
39) 1,2-Dichloropropane	7.16	63	835690	8.51	ppbv #	26
51) 2-Hexanone	10.12	43	81449	0.42	ppbv #	98
53) Toluene	9.79	91	99959	0.33	ppbv	98
58) Ethyl Benzene	12.69	91	12736	0.03	ppbv	93
60) o-Xylene	13.67	91	9717	0.03	ppbv #	1
66) Benzyl Chloride	17.04	91	3112	0.07	ppbv #	1
69) p-Isopropyltoluene	17.63	119	14379	0.03	ppbv #	48
71) 2-Chlorotoluene	15.29	91	743198	2.07	ppbv #	45
72) 4-Ethyltoluene	15.82	105	11356	0.03	ppbv #	47
74) 1,2,4-Trimethylbenzene	16.74	105	71879	0.18	ppbv #	62
79) Naphthalene	22.17	128	6829	0.03	ppbv #	85

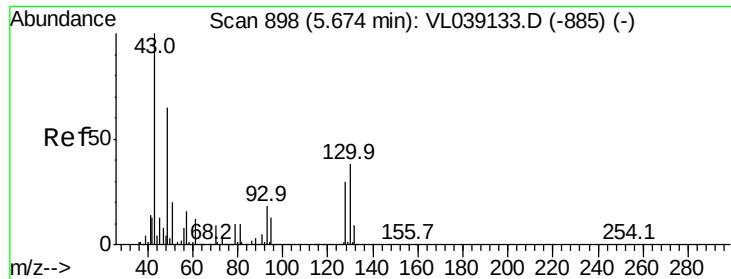
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL062922\
Data File : VL039413.D
Acq On : 30 Jun 2022 2:28
Operator : SY/AP
Sample : N3530-01 2X
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SV1

Quant Time: Jun 30 05:45:14 2022
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL062922AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jun 30 05:40:11 2022
QLast Update : Thu Jun 30 05:40:11 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV1

Acq: 30 Jun 2022 2:28

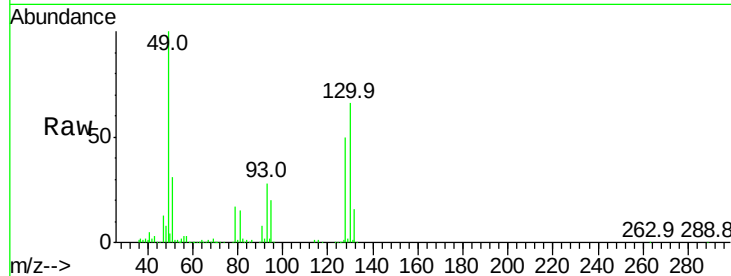
Tgt Ion: 49 Resp: 1266101

Ion Ratio Lower Upper

49 100

128 52.5 26.7 80.0

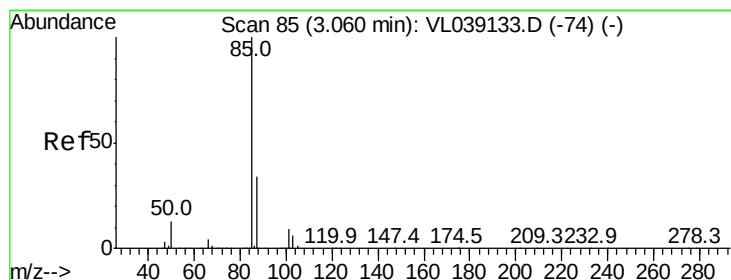
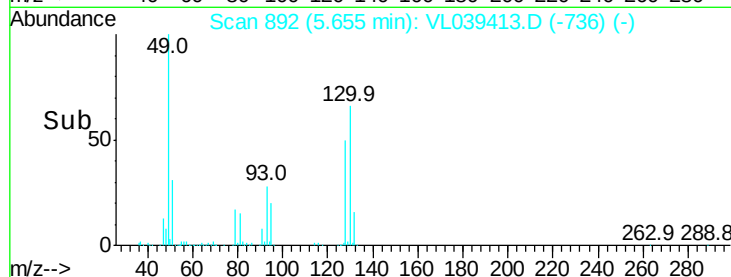
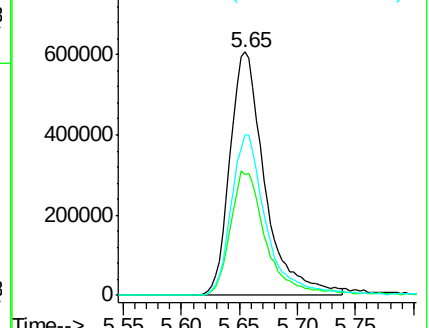
130 66.8 34.3 102.8



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: 0.08 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.00 min

Lab File: VL039413.D

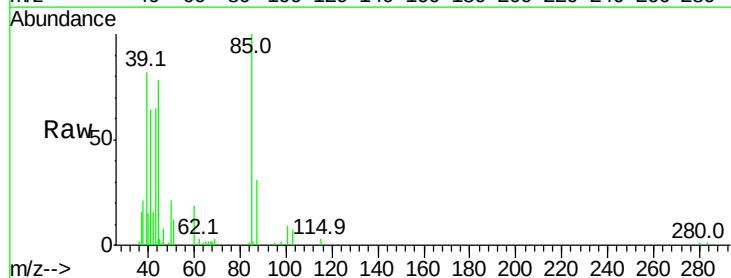
Acq: 30 Jun 2022 2:28

Tgt Ion: 85 Resp: 13698

Ion Ratio Lower Upper

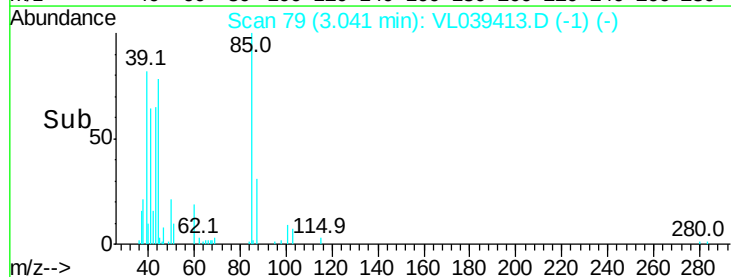
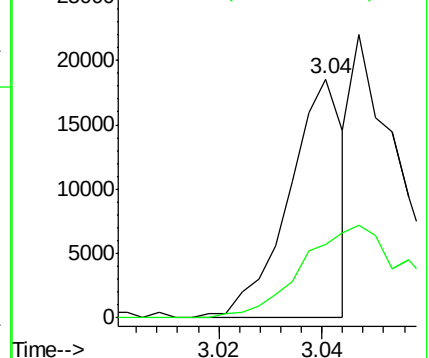
85 100

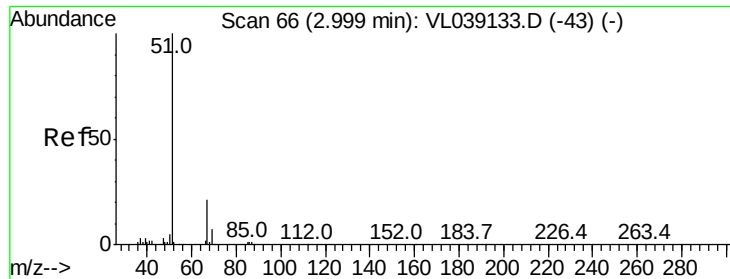
87 30.7 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

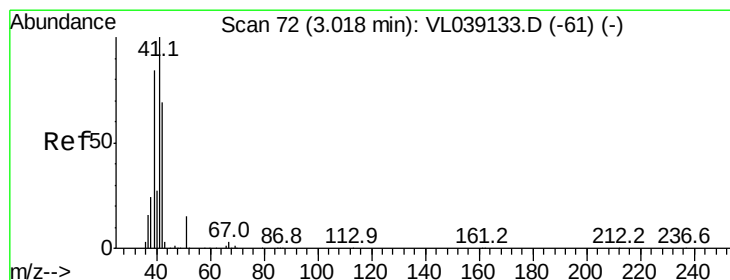
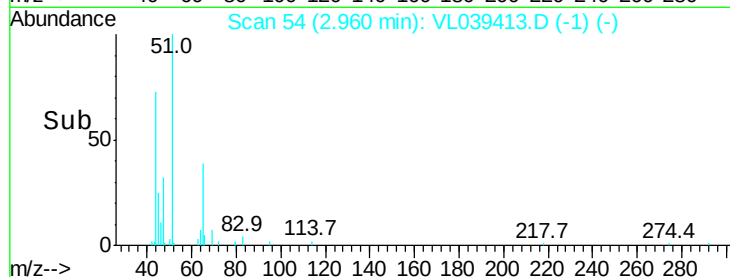
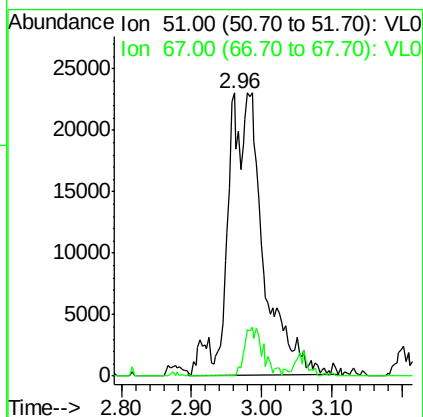
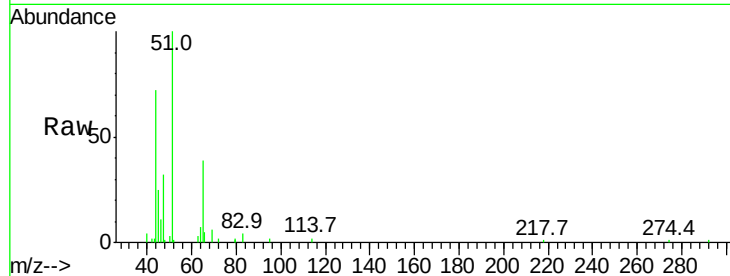
Ion 87.00 (86.70 to 87.70): VL0





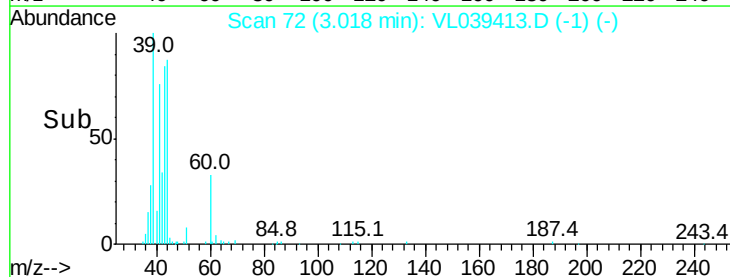
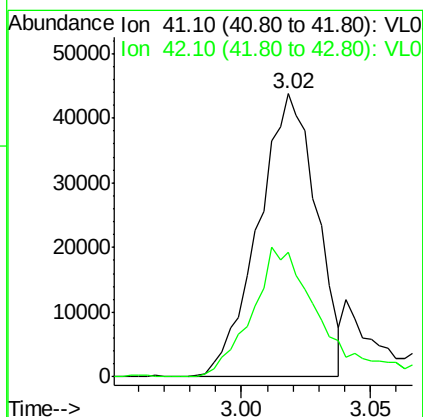
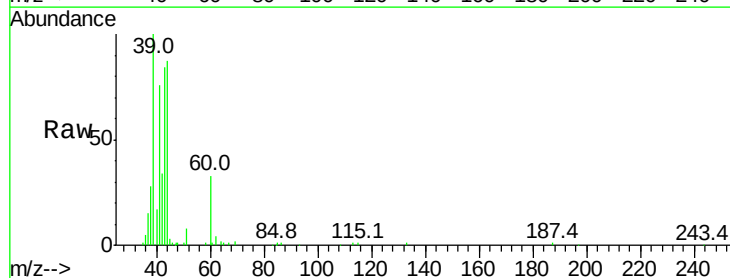
#3
 Chlorodifluoromethane
 Concen: 0.50 ppbv
 RT: 2.96
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV1
 Acq: 30 Jun 2022 2:28

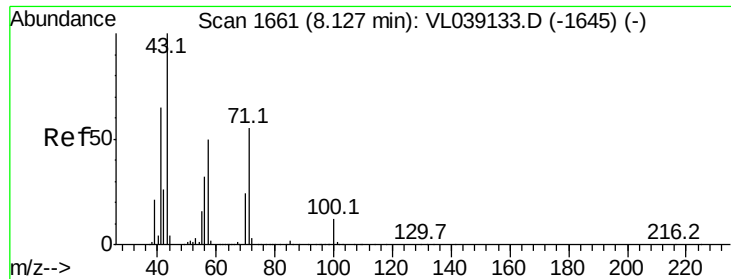
Tgt Ion: 51 Resp: 80367
 Ion Ratio Lower Upper
 51 100
 67 9.4 15.7 23.5#



#9
 Propene
 Concen: 0.95 ppbv
 RT: 3.02 min Scan# 72
 Delta R.T. 0.02 min
 Lab File: VL039413.D
 Acq: 30 Jun 2022 2:28

Tgt Ion: 41 Resp: 69033
 Ion Ratio Lower Upper
 41 100
 42 55.3 55.2 82.8





#10

Heptane

Concen: 0.06 ppbv

RT: 8.11 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

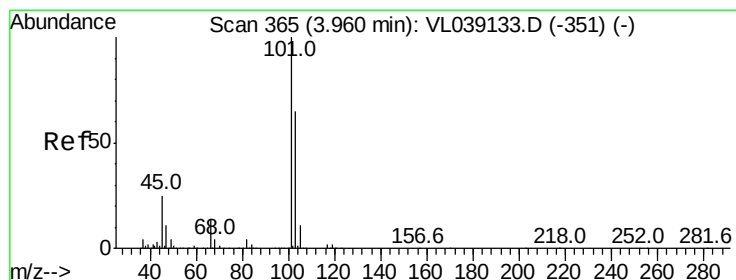
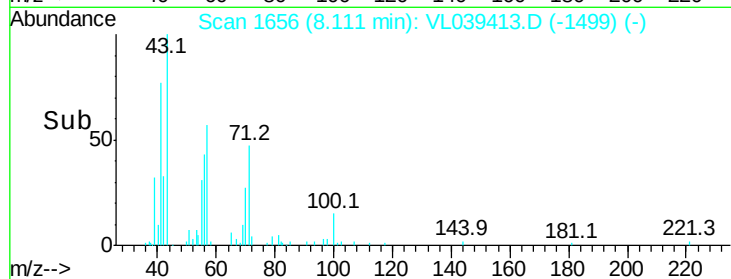
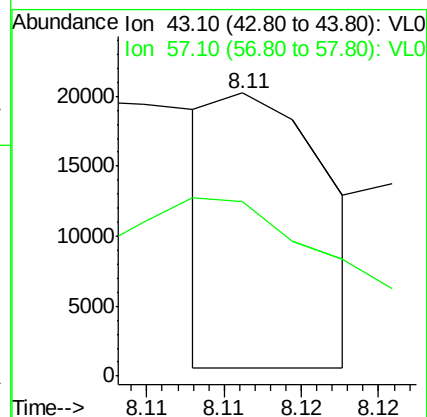
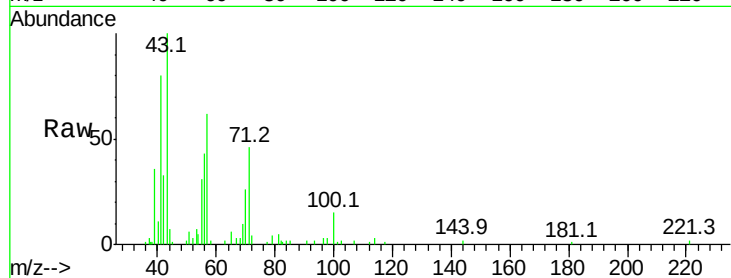
Acq: 30 Jun 2022 2:28 SV1

Tgt Ion: 43 Resp: 9580

Ion Ratio Lower Upper

43 100

57 272.5 40.5 60.7#



#11

Trichlorofluoromethane

Concen: 0.07 ppbv

RT: 3.94 min Scan# 359

Delta R.T. 0.00 min

Lab File: VL039413.D

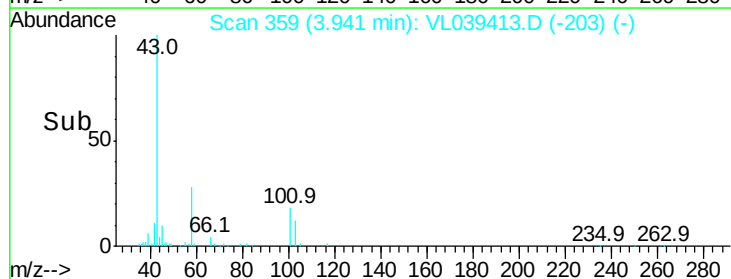
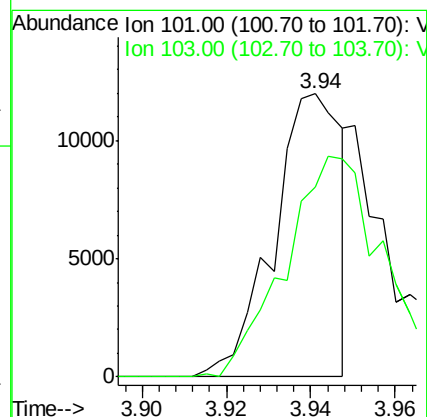
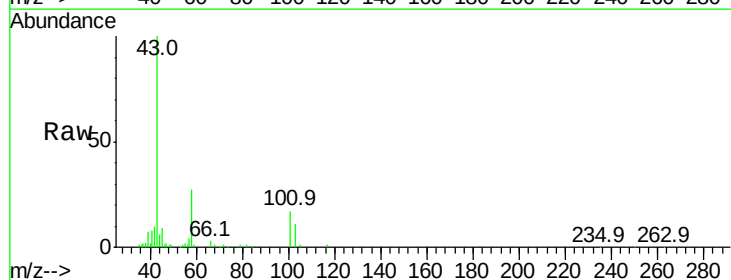
Acq: 30 Jun 2022 2:28

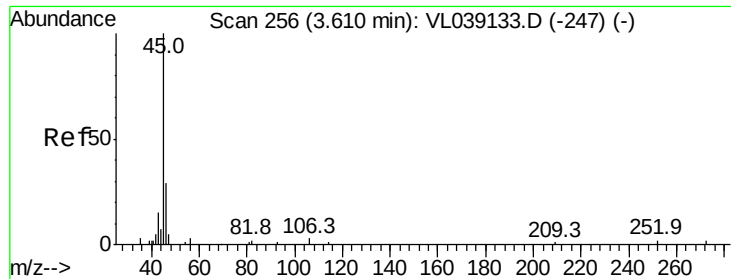
Tgt Ion: 101 Resp: 13356

Ion Ratio Lower Upper

101 100

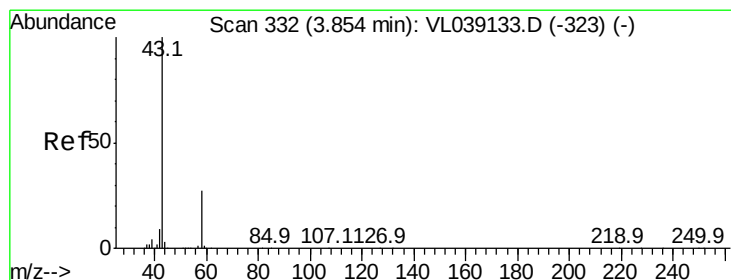
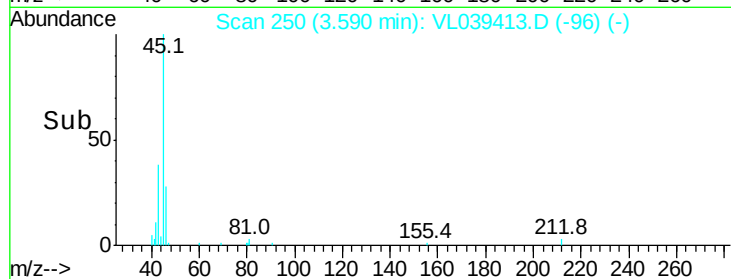
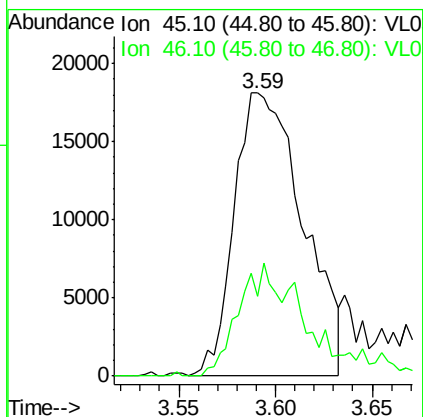
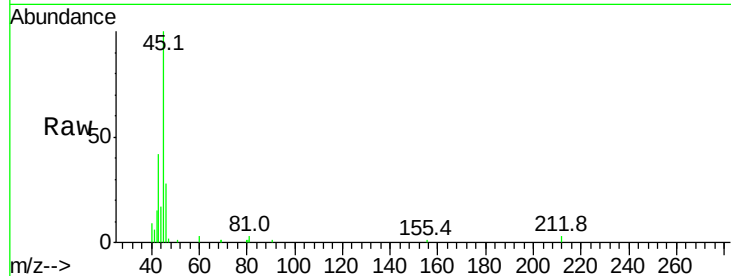
103 67.0 51.8 77.8





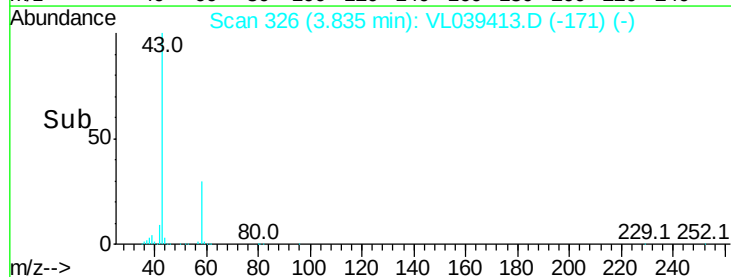
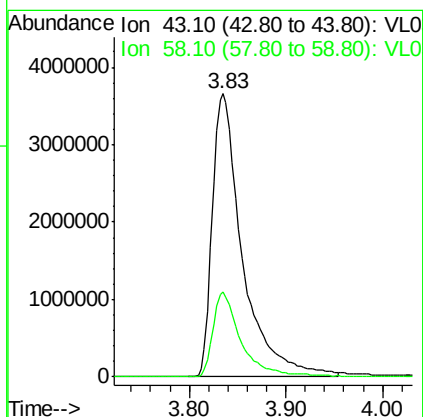
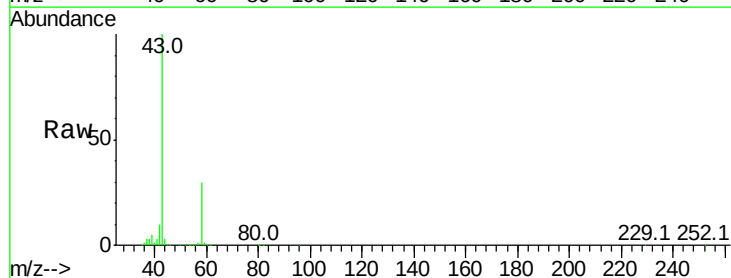
#13
 Ethanol
 Concen: 10.64 ppbv
 RT: 3.59
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Jun 2022 2:28

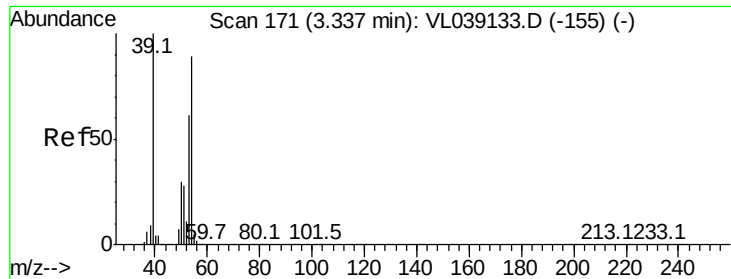
Tgt Ion: 45 Resp: 44787
 Ion Ratio Lower Upper
 45 100
 46 41.6 22.8 91.2



#15
 Acetone
 Concen: 53.04 ppbv
 RT: 3.83 min Scan# 326
 Delta R.T. -0.00 min
 Lab File: VL039413.D
 Acq: 30 Jun 2022 2:28

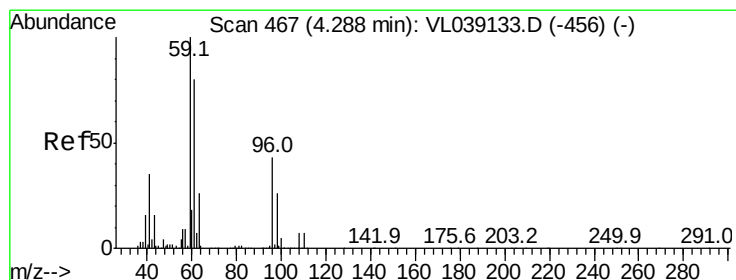
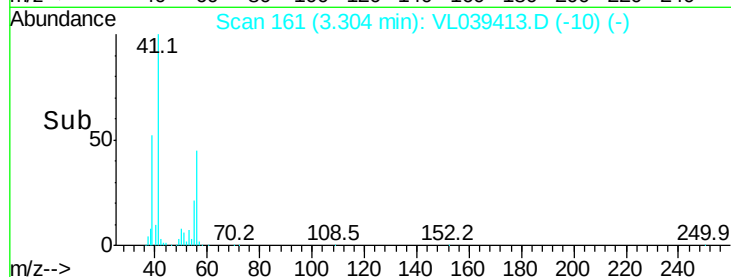
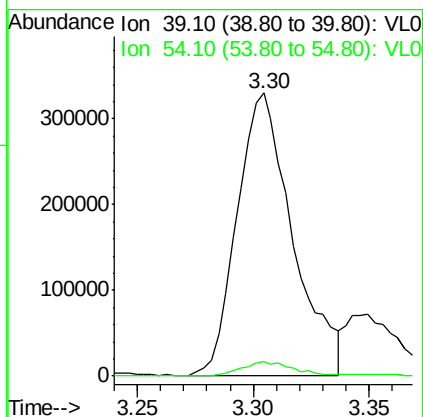
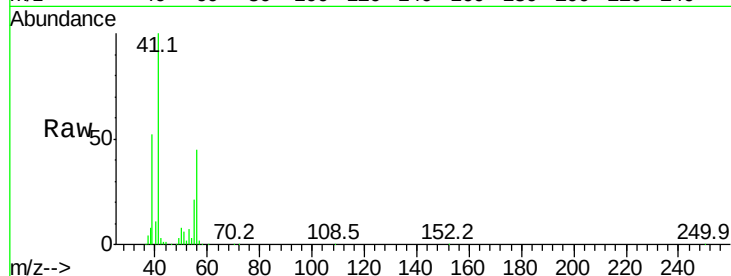
Tgt Ion: 43 Resp: 7944215
 Ion Ratio Lower Upper
 43 100
 58 28.6 21.0 31.6





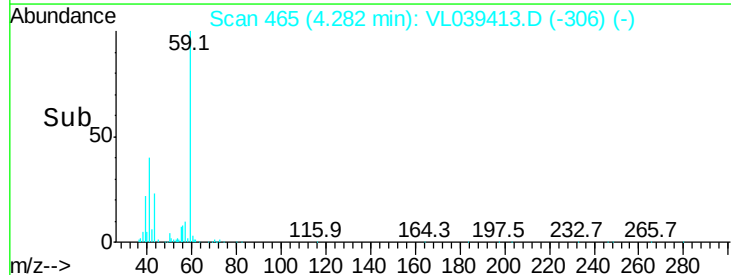
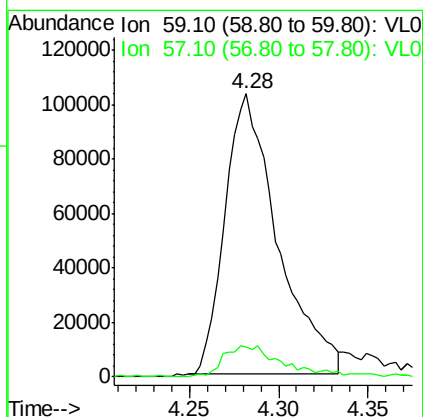
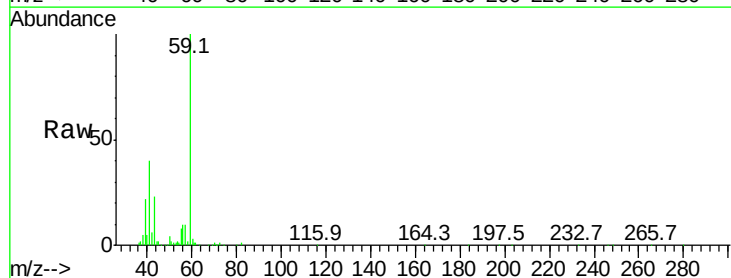
#16
 1,3-Butadiene
 Concen: 7.04 ppbv
 RT: 3.30
 Delta R.T.: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Jun 2022 2:28

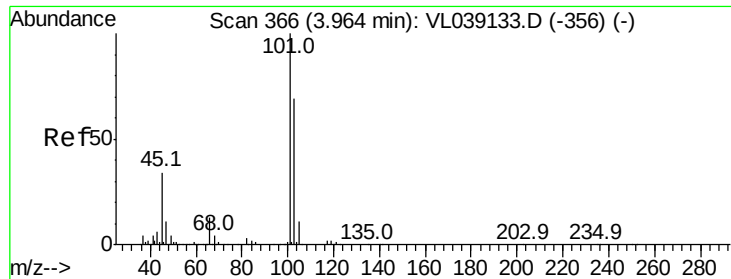
Tgt Ion: 39 Resp: 546858
 Ion Ratio Lower Upper
 39 100
 54 5.9 63.7 95.5#



#17
 tert-Butyl alcohol
 Concen: 1.67 ppbv
 RT: 4.28 min Scan# 465
 Delta R.T.: 0.01 min
 Lab File: VL039413.D
 Acq: 30 Jun 2022 2:28

Tgt Ion: 59 Resp: 212712
 Ion Ratio Lower Upper
 59 100
 57 12.8 8.7 13.1





#19

Isopropyl Alcohol

Concen: 0.11 ppbv

RT: 3.95 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

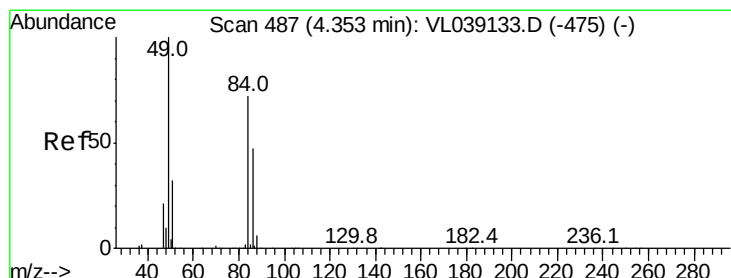
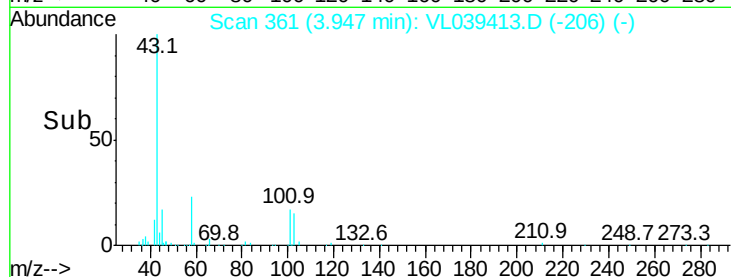
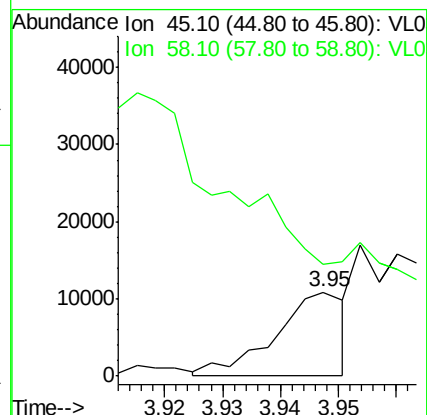
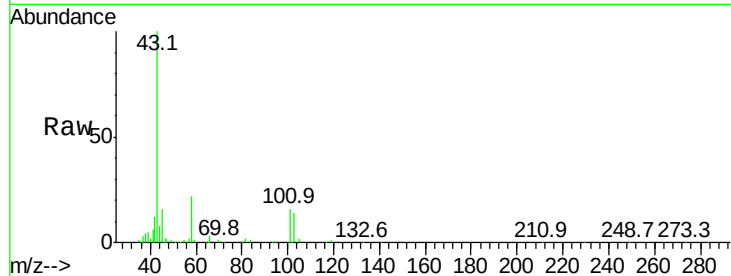
Acq: 30 Jun 2022 2:28 SV1

Tgt Ion: 45 Resp: 9162

Ion Ratio Lower Upper

45 100

58 0.0 3.2 4.8#



#20

Methylene Chloride

Concen: 1.89 ppbv

RT: 4.33 min Scan# 481

Delta R.T. 0.00 min

Lab File: VL039413.D

Acq: 30 Jun 2022 2:28

Tgt Ion: 84 Resp: 112721

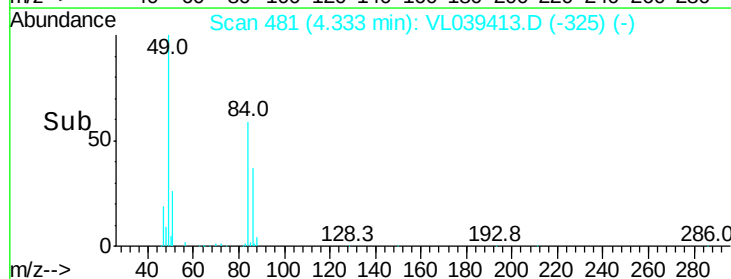
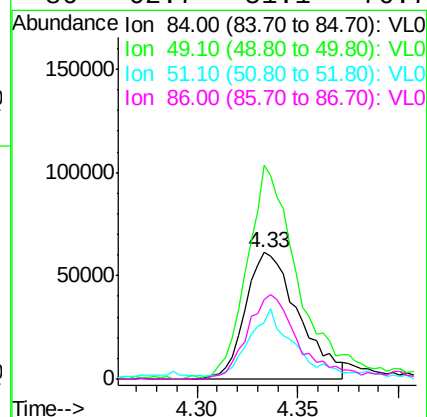
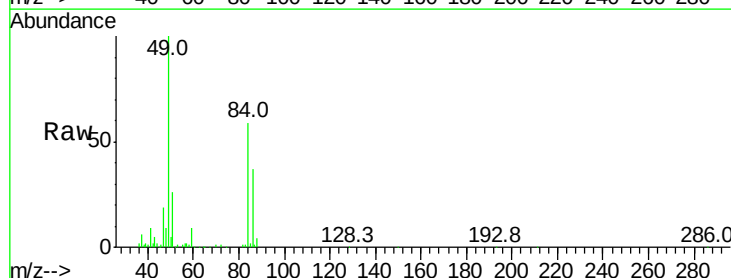
Ion Ratio Lower Upper

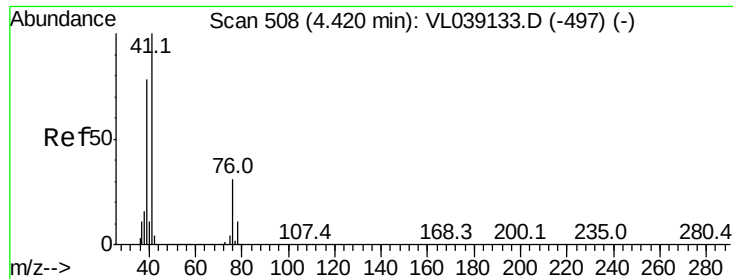
84 100

49 166.3 123.1 184.7

51 42.2 34.4 51.6

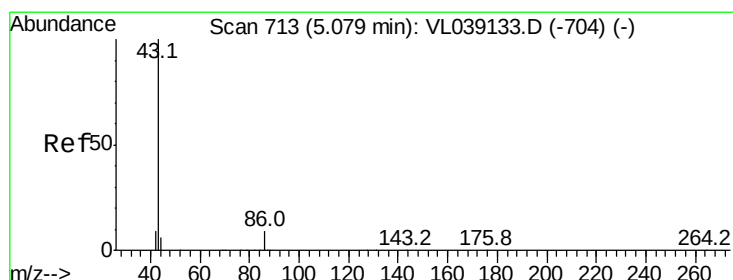
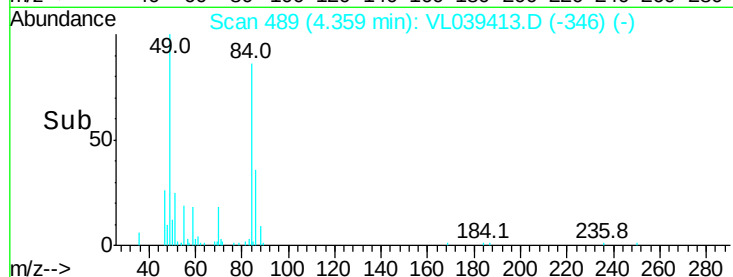
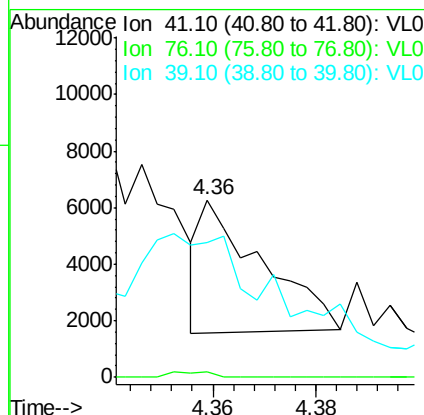
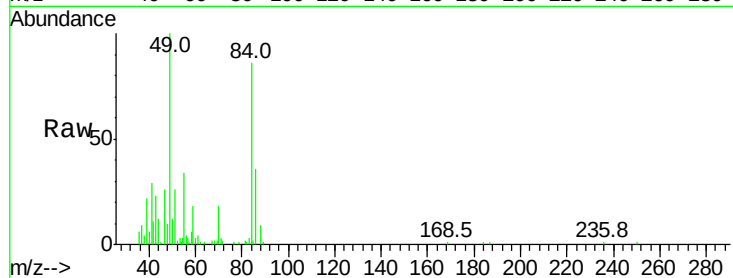
86 62.7 51.1 76.7





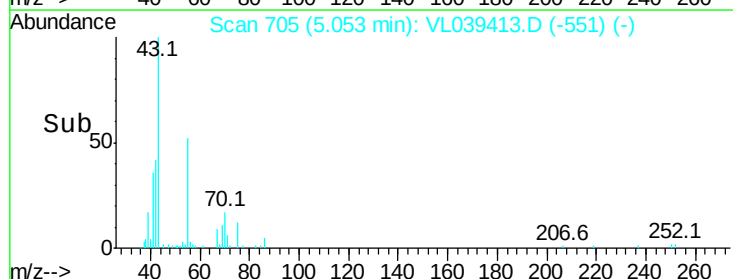
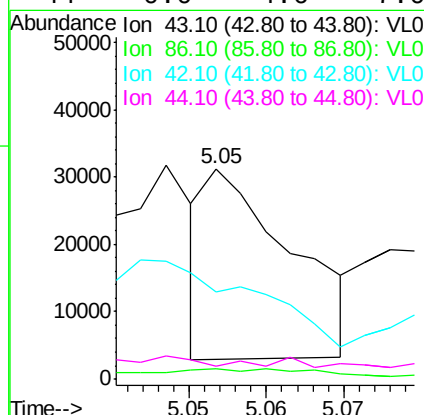
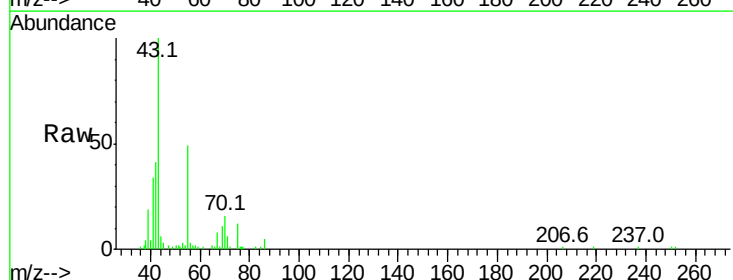
#21
 Allyl Chloride
 Concen: 0.04 ppbv
 RT: 4.36
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Jun 2022 2:28

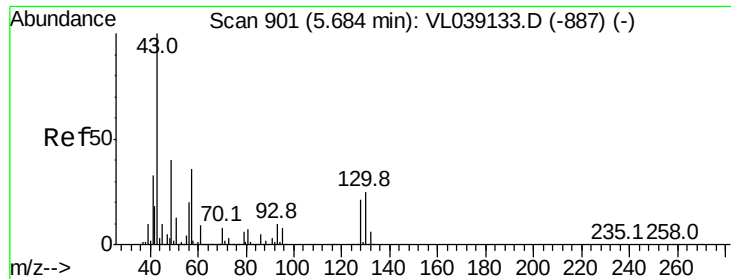
Tgt Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.4	36.6#
39	378.6	63.5	95.3#



#23
 Vinyl Acetate
 Concen: 0.22 ppbv
 RT: 5.05 min Scan# 705
 Delta R.T. -0.00 min
 Lab File: VL039413.D
 Acq: 30 Jun 2022 2:28

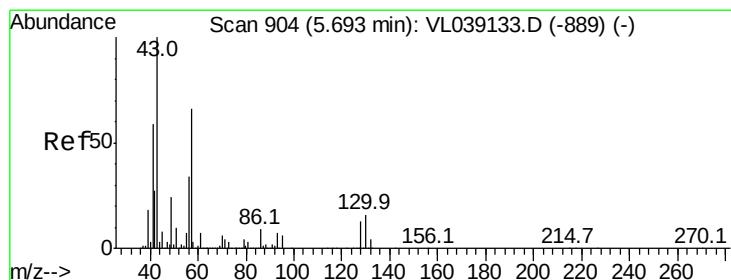
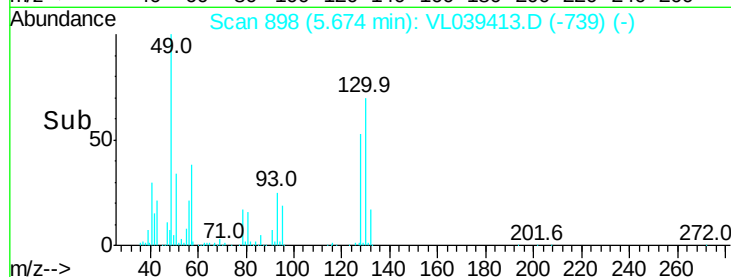
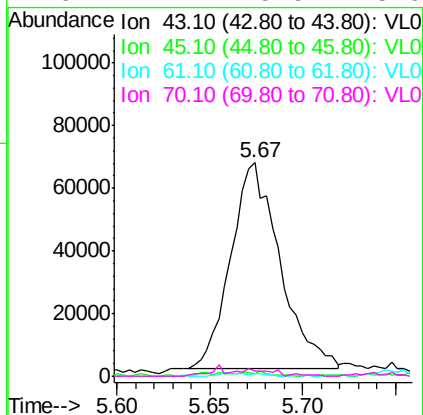
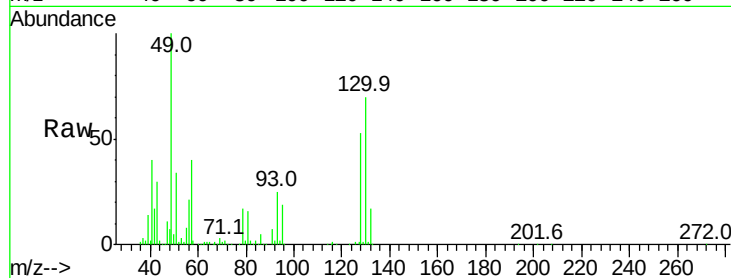
Tgt Ion	Ratio	Lower	Upper
43	100		
86	4.2	5.0	7.6#
42	50.9	7.7	11.5#
44	0.0	4.6	7.0#





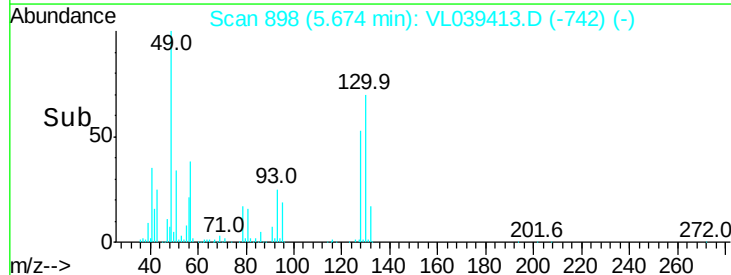
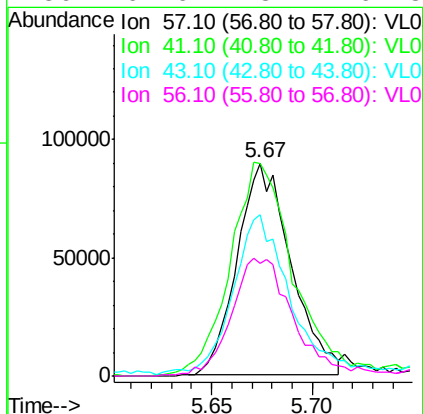
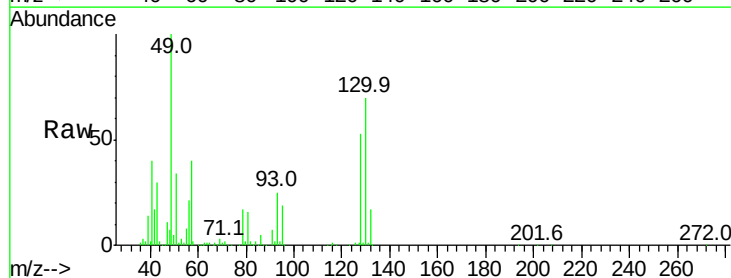
#25
Ethyl Acetate
Concen: 0.40 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV1
Acq: 30 Jun 2022 2:28

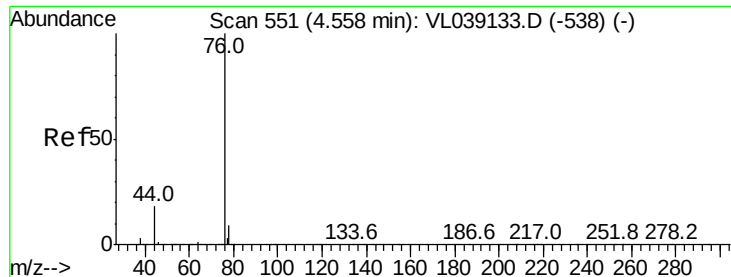
Tgt Ion:	43	Resp:	121653
Ion	Ratio	Lower	Upper
43	100		
45	2.7	8.2	12.4#
61	1.3	8.3	12.5#
70	4.2	5.9	8.9#



#26
Hexane
Concen: 1.34 ppbv
RT: 5.67 min Scan# 898
Delta R.T. 0.00 min
Lab File: VL039413.D
Acq: 30 Jun 2022 2:28

Tgt Ion:	57	Resp:	166396
Ion	Ratio	Lower	Upper
57	100		
41	119.6	76.9	115.3#
43	78.6	191.0	286.6#
56	64.6	43.2	64.8





#27

Carbon Disulfide

Concen: 0.21 ppbv

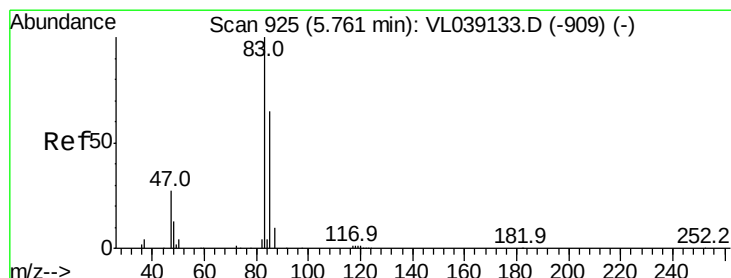
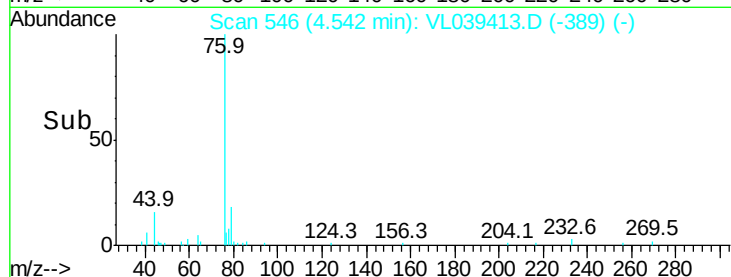
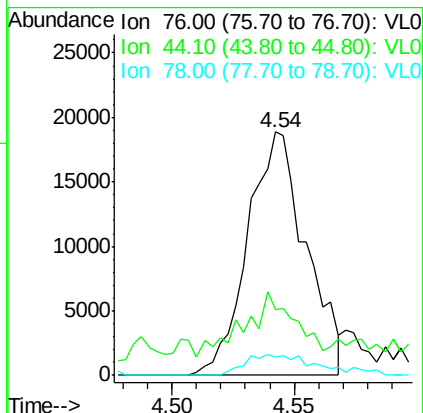
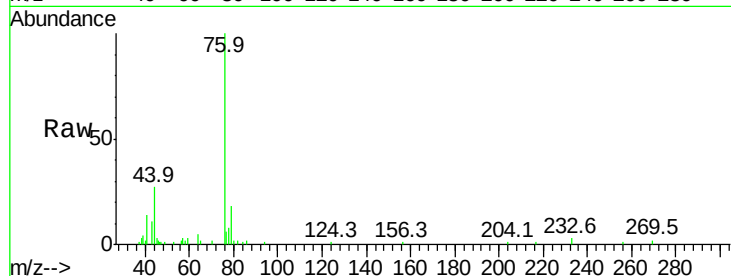
RT: 4.54 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId :

Acq: 30 Jun 2022 2:28

Tgt Ion:	76	Resp:	31227
Ion	Ratio	Lower	Upper
76	100		
44	35.9	14.6	21.8#
78	10.8	7.8	11.6



#29

Chloroform

Concen: 0.32 ppbv

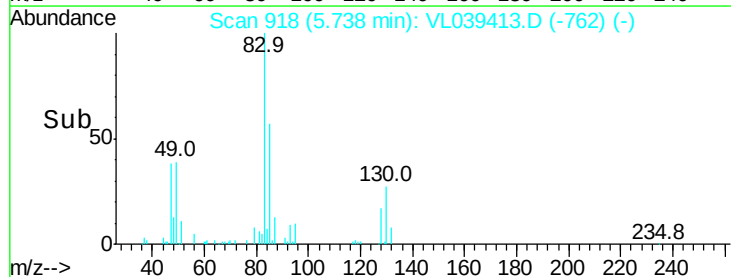
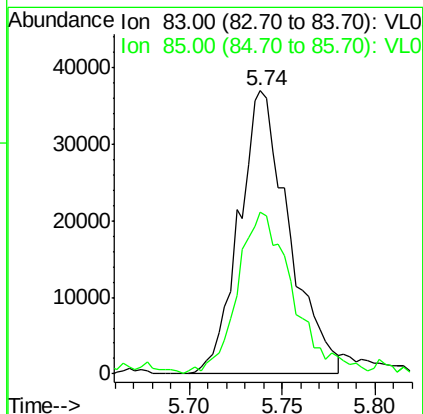
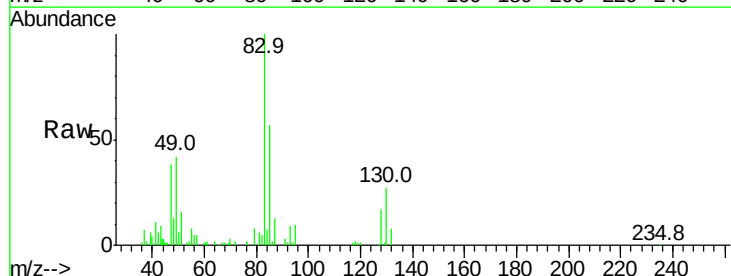
RT: 5.74 min Scan# 918

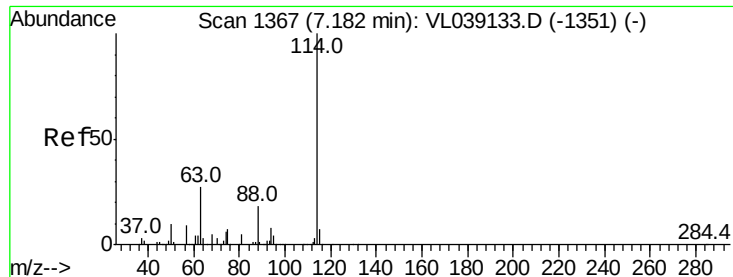
Delta R.T. 0.00 min

Lab File: VL039413.D

Acq: 30 Jun 2022 2:28

Tgt Ion:	83	Resp:	69339
Ion	Ratio	Lower	Upper
83	100		
85	55.9	52.8	79.2





#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.16

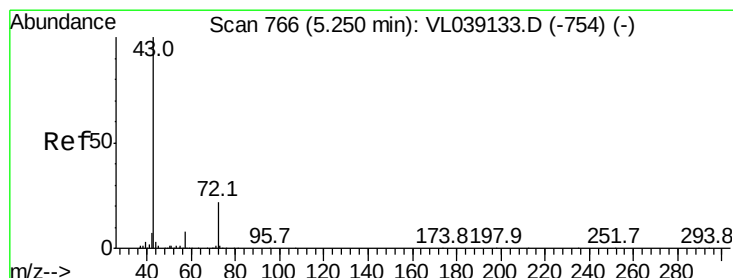
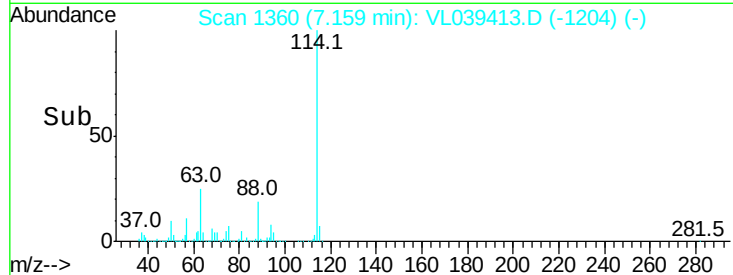
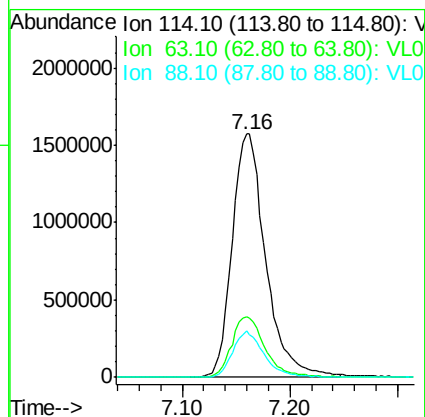
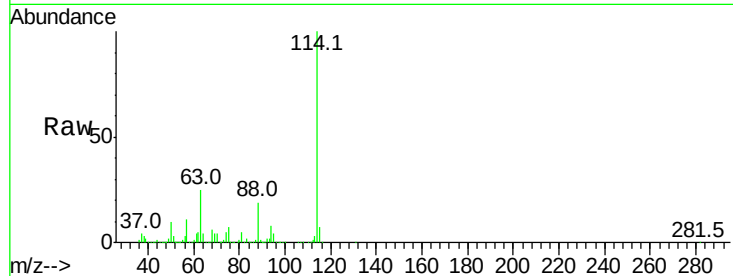
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 30 Jun 2022 2:28

Tgt Ion: 114 Resp: 3396900

Ion	Ratio	Lower	Upper
114	100		
63	25.2	20.2	30.4
88	18.1	14.5	21.7



#34

2-Butanone

Concen: 2.46 ppbv

RT: 5.23 min Scan# 761

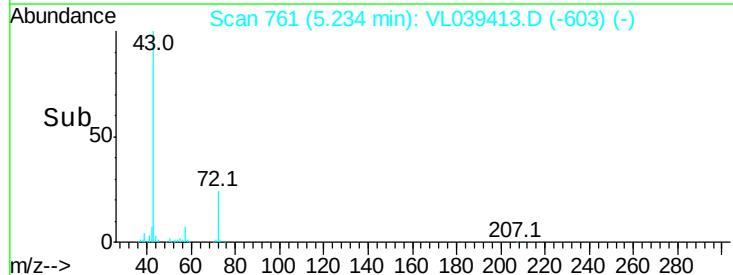
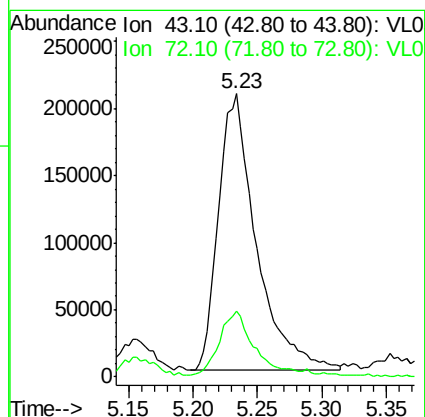
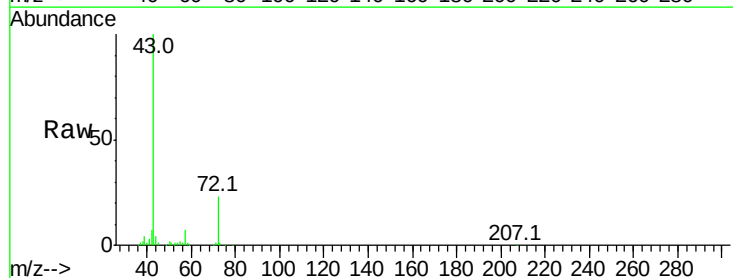
Delta R.T. 0.01 min

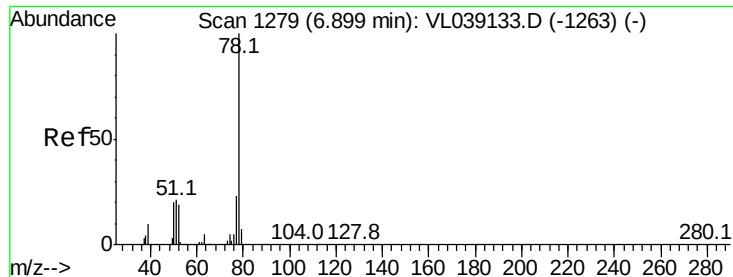
Lab File: VL039413.D

Acq: 30 Jun 2022 2:28

Tgt Ion: 43 Resp: 419841

Ion	Ratio	Lower	Upper
43	100		
72	22.2	17.9	26.9





#36

Benzene

Concen: 0.07 ppbv

RT: 6.88 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV1

Acq: 30 Jun 2022 2:28

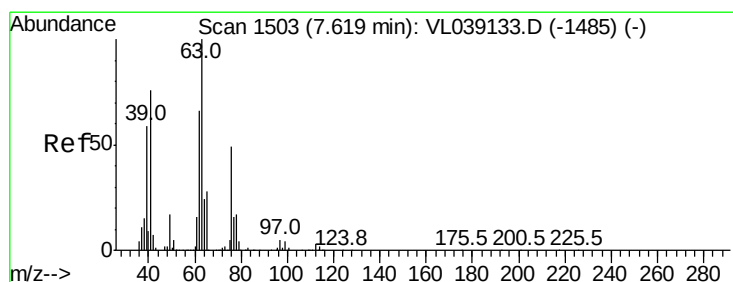
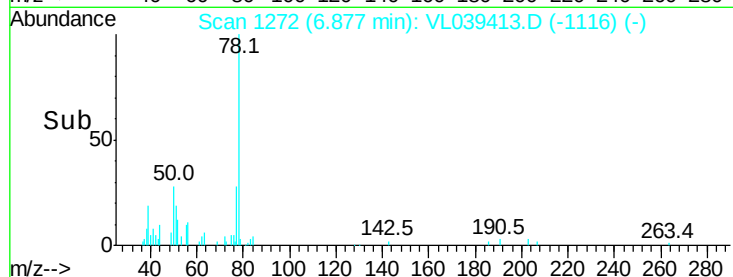
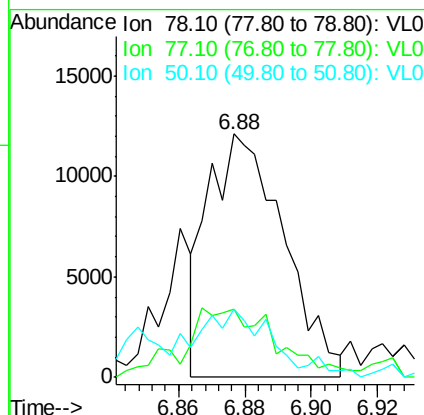
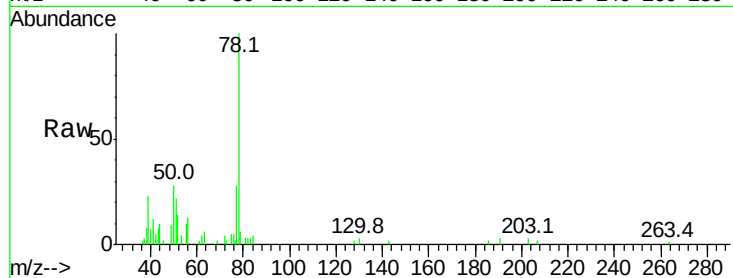
Tgt Ion: 78 Resp: 19111

Ion Ratio Lower Upper

78 100

77 25.0 20.3 30.5

50 25.7 15.5 23.3#



#39

1,2-Dichloropropane

Concen: 8.51 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.43 min

Lab File: VL039413.D

Acq: 30 Jun 2022 2:28

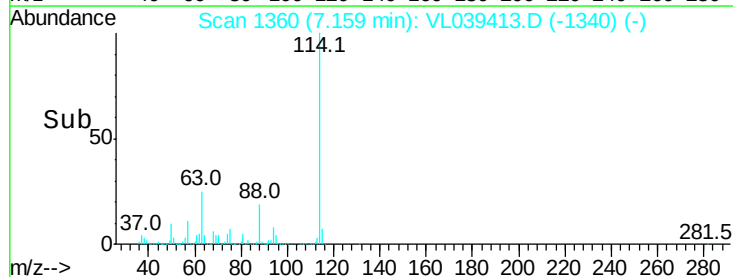
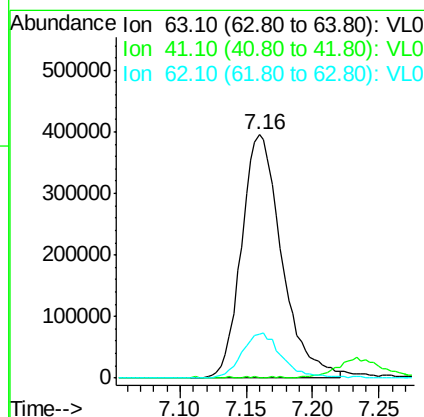
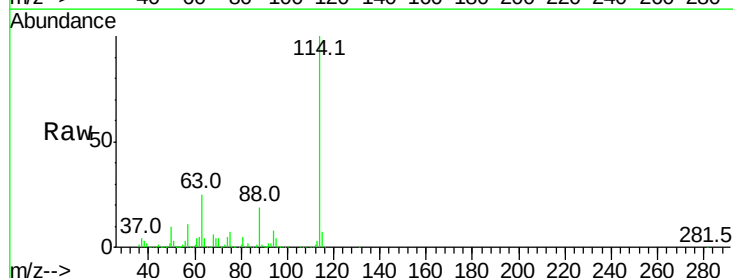
Tgt Ion: 63 Resp: 835690

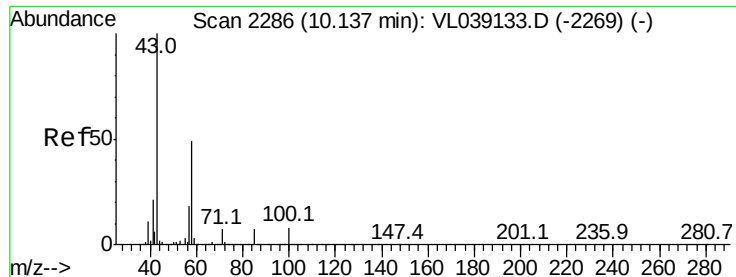
Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

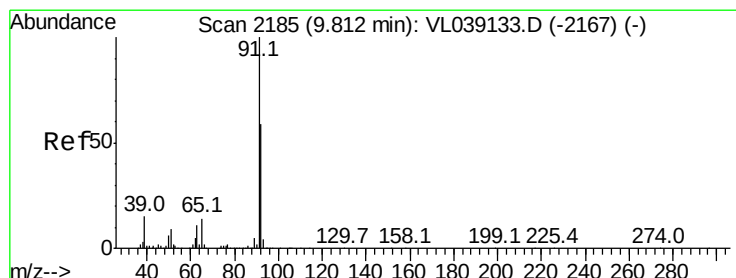
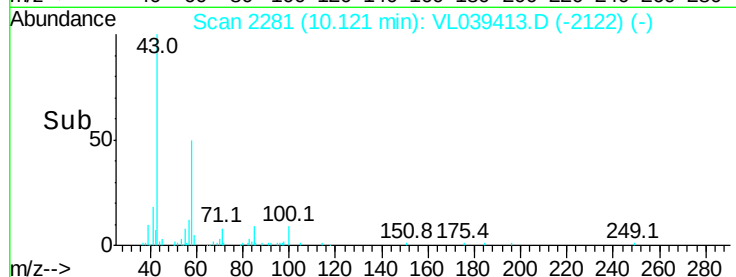
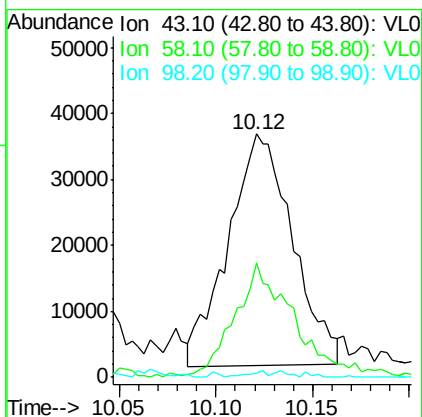
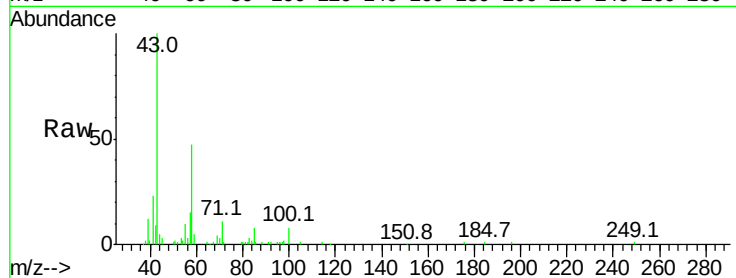
62 18.1 51.4 77.0#





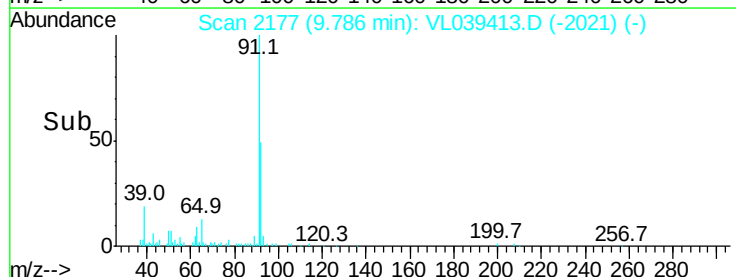
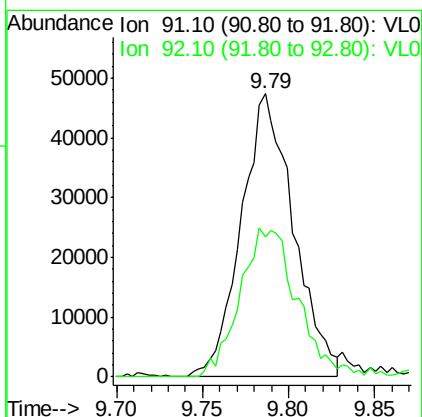
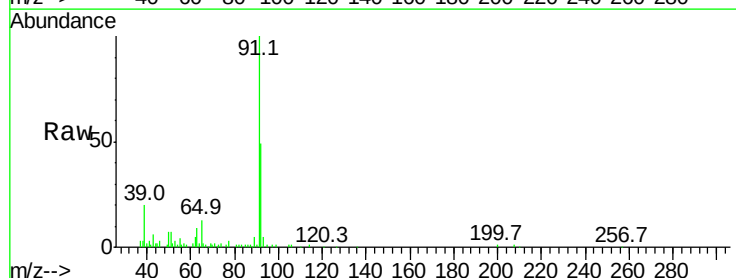
#51
 2-Hexanone
 Concen: 0.42 ppbv
 RT: 10.12
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Jun 2022 2:28

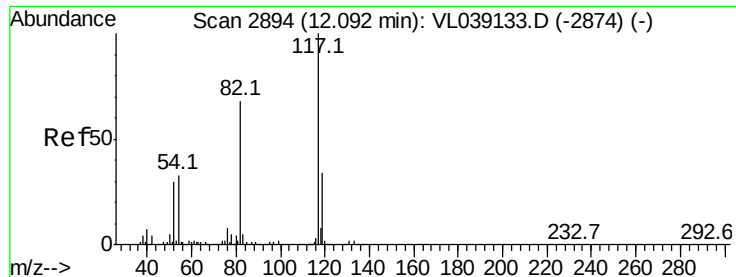
Tgt Ion: 43 Resp: 81449
 Ion Ratio Lower Upper
 43 100
 58 46.5 38.4 57.6
 98 1.9 0.3 0.5#



#53
 Toluene
 Concen: 0.33 ppbv
 RT: 9.79 min Scan# 2177
 Delta R.T. 0.00 min
 Lab File: VL039413.D
 Acq: 30 Jun 2022 2:28

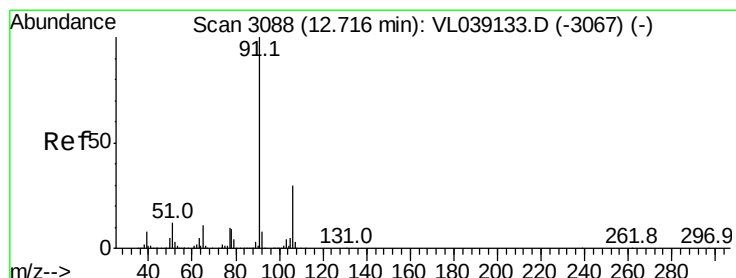
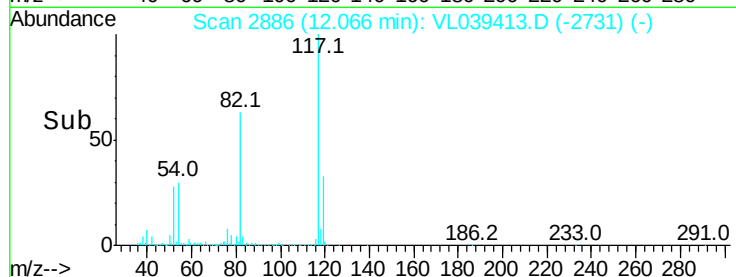
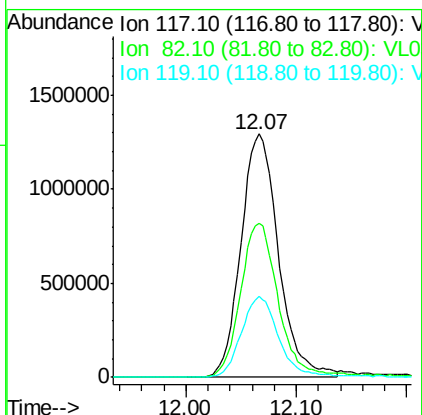
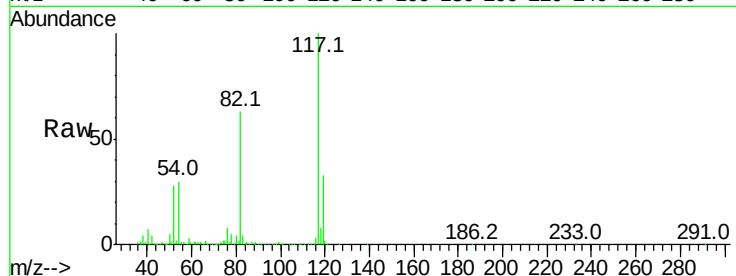
Tgt Ion: 91 Resp: 99959
 Ion Ratio Lower Upper
 91 100
 92 59.0 48.2 72.2





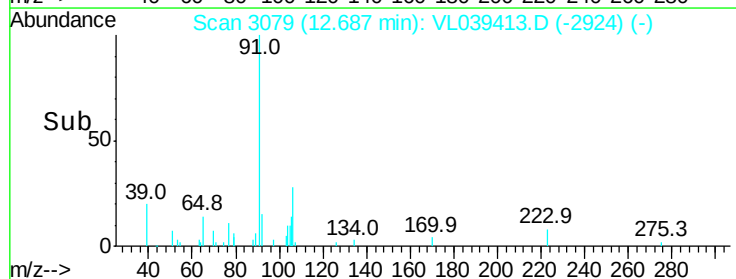
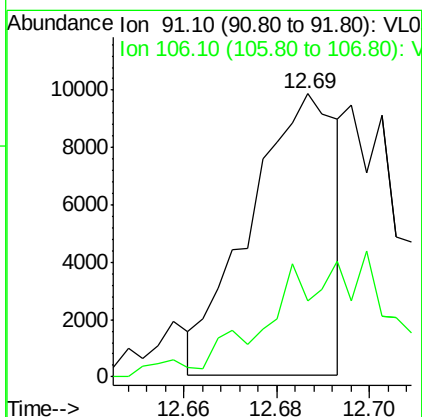
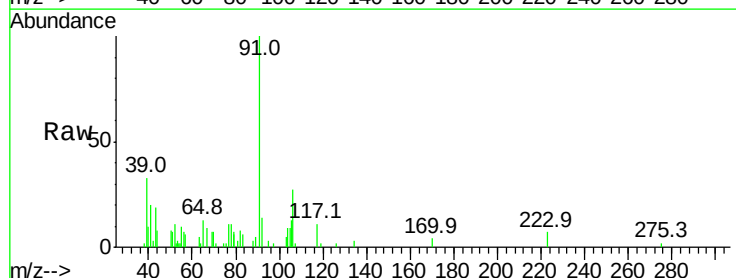
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.07 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
SV1
Acq: 30 Jun 2022 2:28

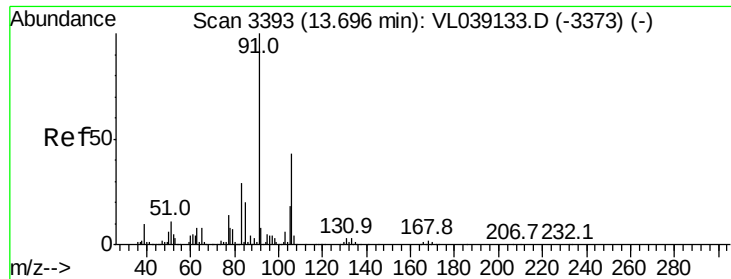
Tgt Ion: 117 Resp: 3060672
Ion Ratio Lower Upper
117 100
82 65.1 50.8 76.2
119 33.9 24.1 36.1



#58
Ethyl Benzene
Concen: 0.03 ppbv
RT: 12.69 min Scan# 3079
Delta R.T. -0.00 min
Lab File: VL039413.D
Acq: 30 Jun 2022 2:28

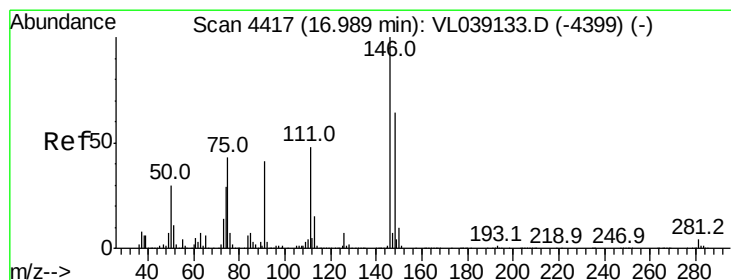
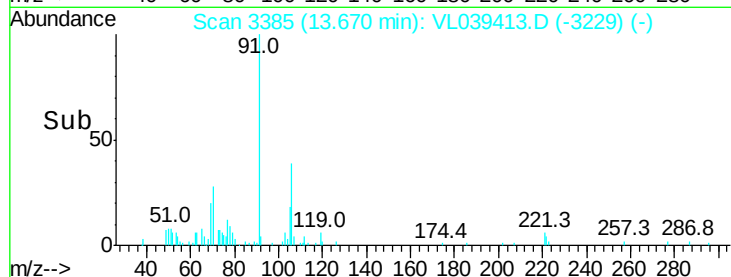
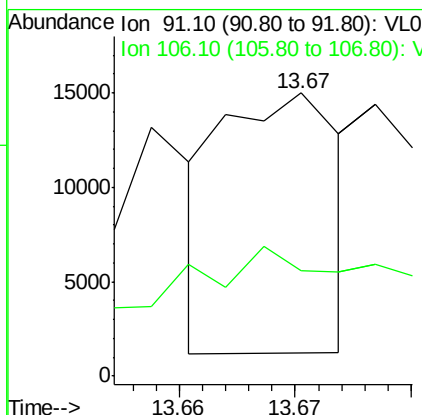
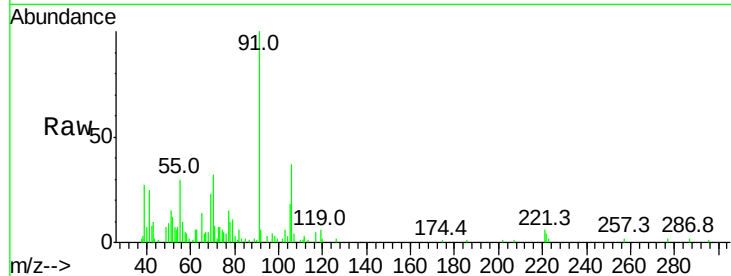
Tgt Ion: 91 Resp: 12736
Ion Ratio Lower Upper
91 100
106 27.8 25.4 38.0





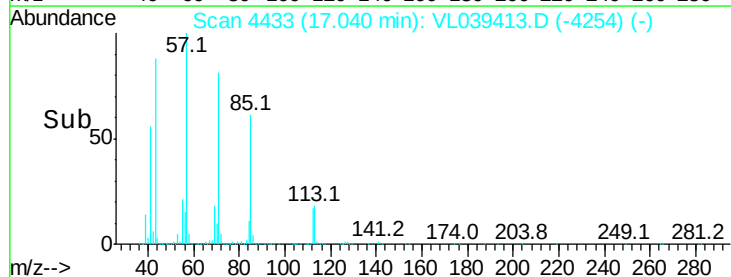
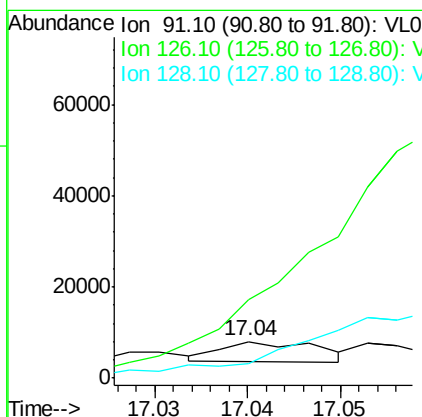
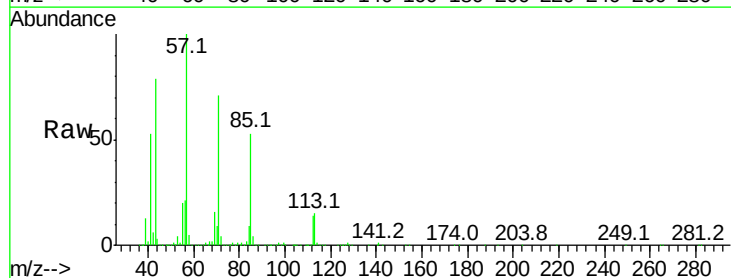
#60
o-Xylene
Concen: 0.03 ppbv
RT: 13.67 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
SV1
Acq: 30 Jun 2022 2:28

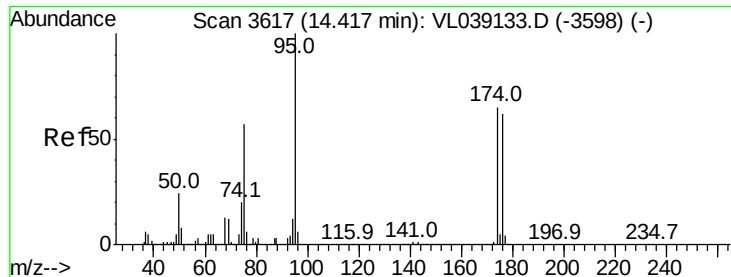
Tgt Ion: 91 Resp: 9717
Ion Ratio Lower Upper
91 100
106 163.2 22.4 67.3#



#66
Benzyl Chloride
Concen: 0.07 ppbv
RT: 17.04 min Scan# 4433
Delta R.T. 0.08 min
Lab File: VL039413.D
Acq: 30 Jun 2022 2:28

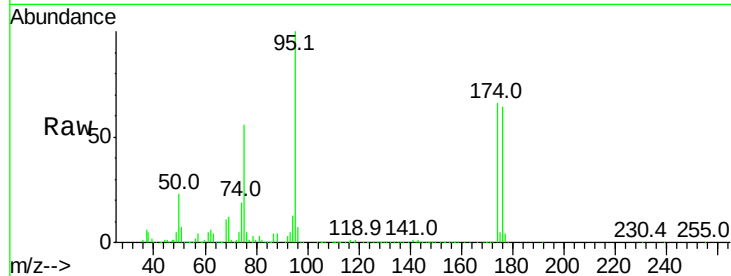
Tgt Ion: 91 Resp: 3112
Ion Ratio Lower Upper
91 100
126 254.6 13.1 19.7#
128 0.0 4.4 6.6#



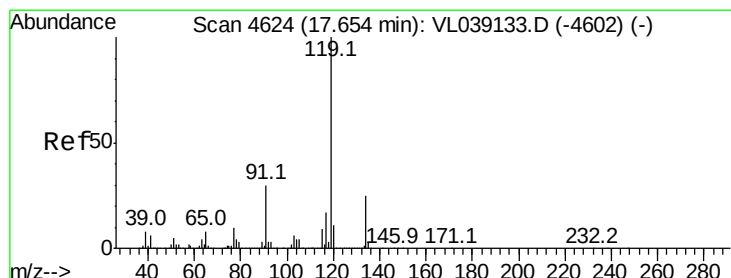
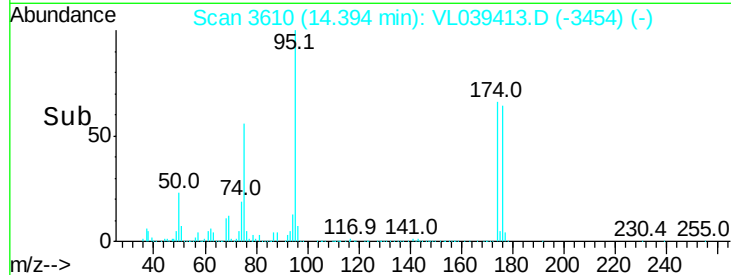
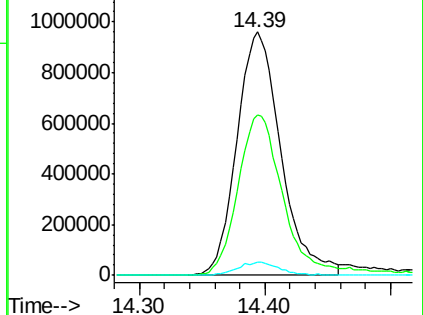


#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.28 ppbv
 RT: 14.39 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 30 Jun 2022 2:28

Tgt Ion: 95 Resp: 2333648
 Ion Ratio Lower Upper
 95 100
 174 71.2 55.9 83.9
 175 5.3 4.2 6.4

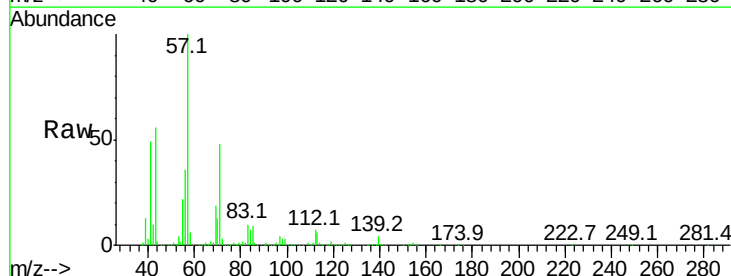


Abundance Ion 95.10 (94.80 to 95.80): VL0
 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V

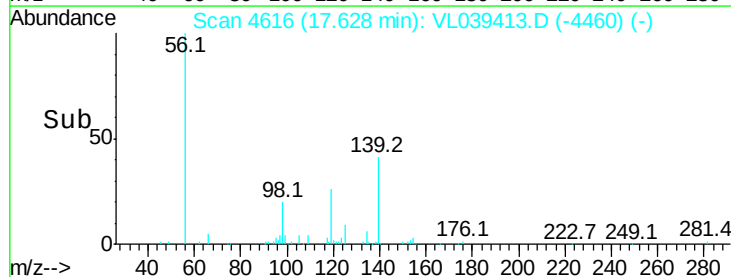
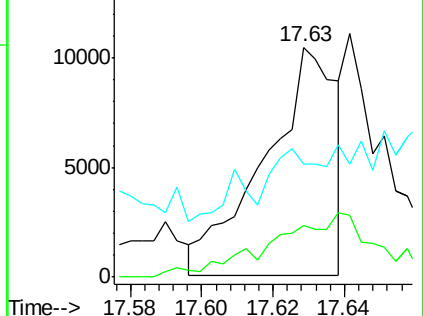


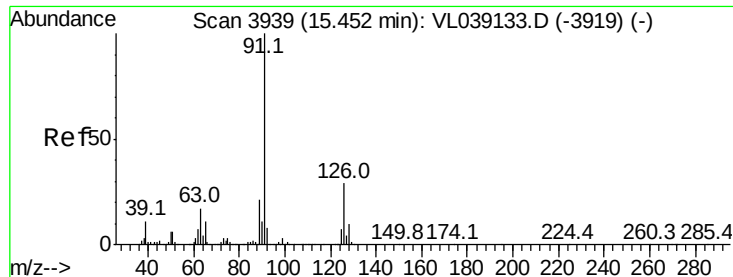
#69
 p-Isopropyltoluene
 Concen: 0.03 ppbv
 RT: 17.63 min Scan# 4616
 Delta R.T. 0.00 min
 Lab File: VL039413.D
 Acq: 30 Jun 2022 2:28

Tgt Ion: 119 Resp: 14379
 Ion Ratio Lower Upper
 119 100
 134 0.0 20.3 30.5#
 91 0.0 22.9 34.3#



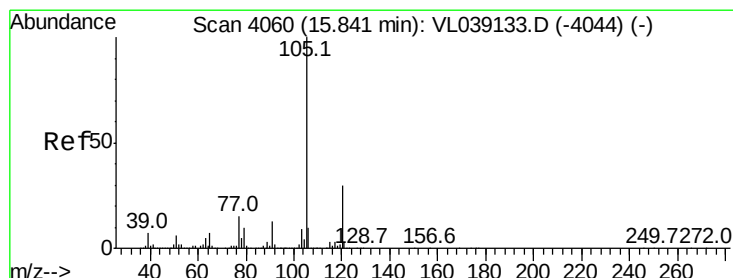
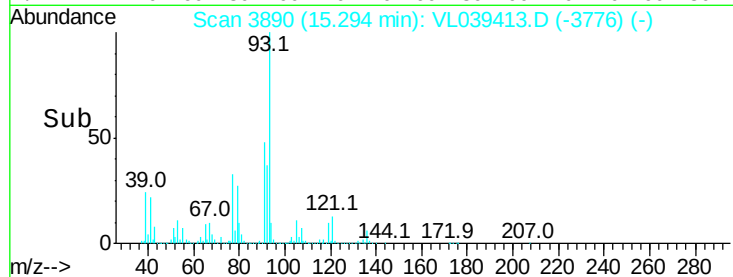
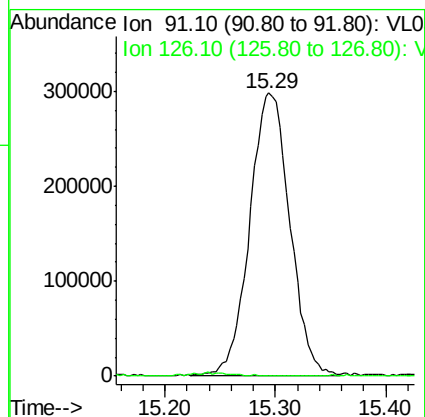
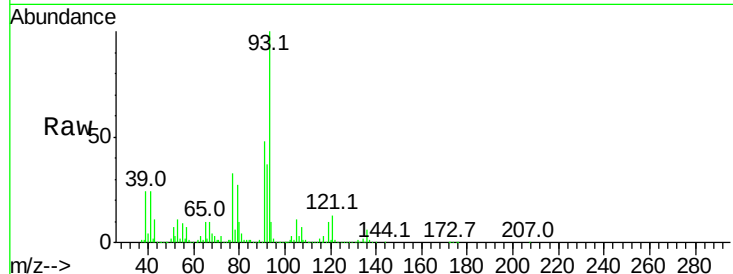
Abundance Ion 119.10 (118.80 to 119.80): V
 Ion 134.20 (133.90 to 134.90): V
 Ion 91.10 (90.80 to 91.80): VL0





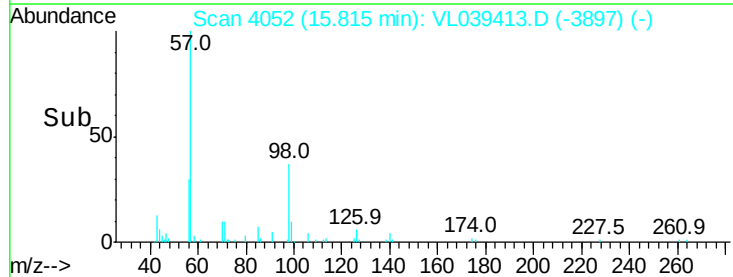
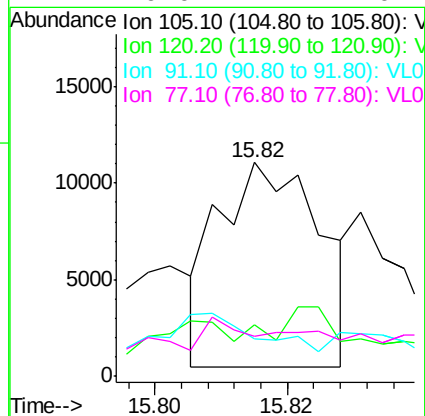
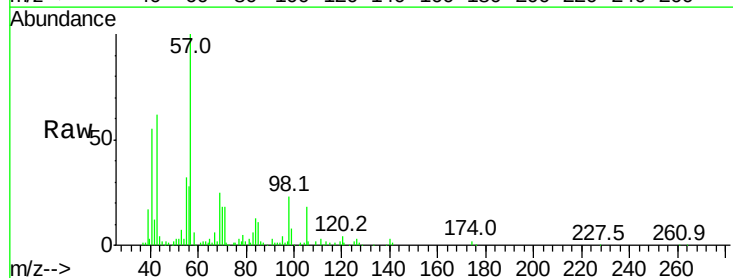
#71
 2-Chlorotoluene
 Concen: 2.07 ppbv
 RT: 15.29
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV1
 Acq: 30 Jun 2022 2:28

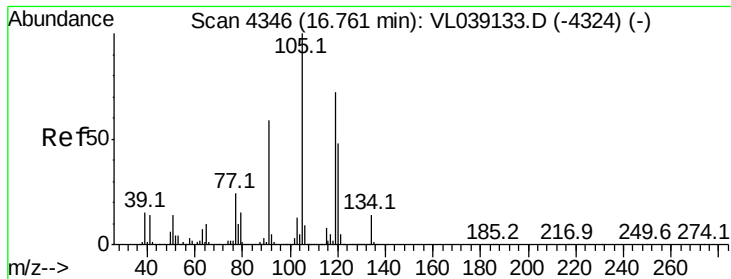
Tgt Ion: 91 Resp: 743198
 Ion Ratio Lower Upper
 91 100
 126 1.3 13.0 51.8#



#72
 4-Ethyltoluene
 Concen: 0.03 ppbv
 RT: 15.82 min Scan# 4052
 Delta R.T. -0.00 min
 Lab File: VL039413.D
 Acq: 30 Jun 2022 2:28

Tgt Ion: 105 Resp: 11356
 Ion Ratio Lower Upper
 105 100
 120 68.7 24.2 36.2#
 91 0.0 10.2 15.4#
 77 0.0 11.1 16.7#





#74

1,2,4-Trimethylbenzene

Concen: 0.18 ppbv

RT: 16.74

Delta R.T.

Lab File:

Acq: 30 Jun 2022

Instrument:

MSVOA_1

ClientSampleId:

SV1

Tgt Ion:105 Resp: 71879

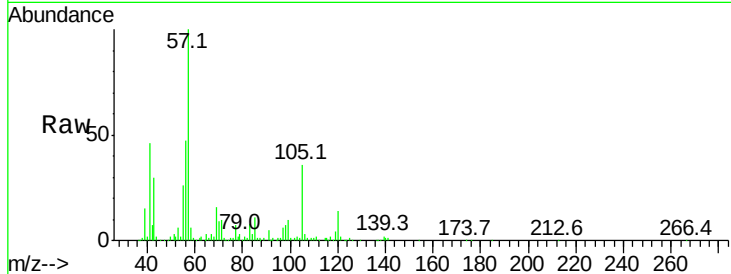
Ion Ratio Lower Upper

105 100

120 38.7 39.5 59.3#

91 8.7 39.2 58.8#

77 2.9 17.2 25.8#

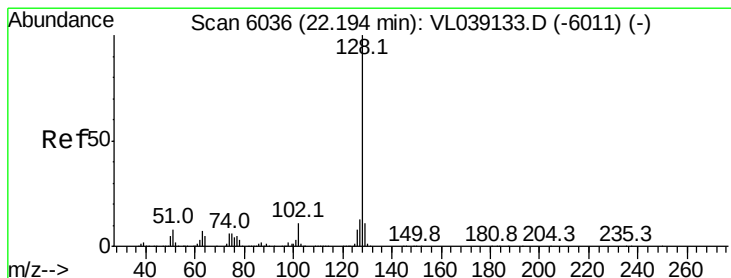
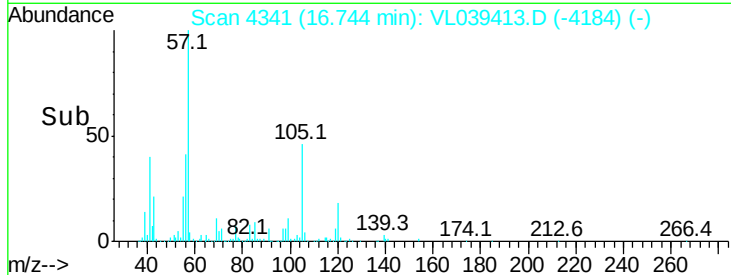
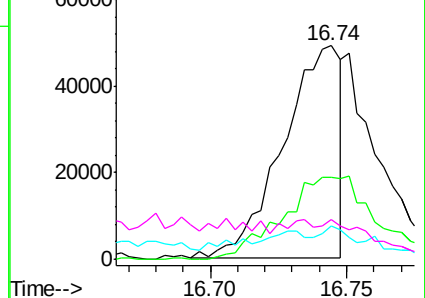


Abundance Ion 105.10 (104.80 to 105.80): V

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



#79

Naphthalene

Concen: 0.03 ppbv

RT: 22.17 min Scan# 6030

Delta R.T. 0.02 min

Lab File: VL039413.D

Acq: 30 Jun 2022 2:28

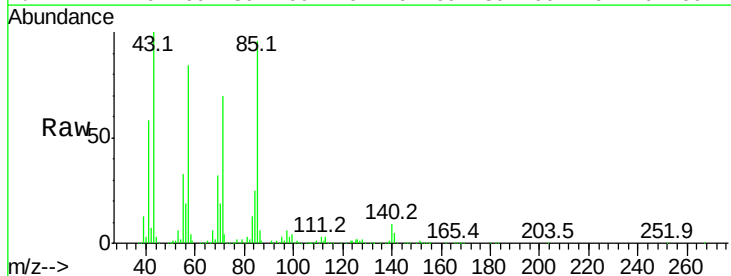
Tgt Ion:128 Resp: 6829

Ion Ratio Lower Upper

128 100

127 2.2 10.6 15.8#

129 10.8 8.8 13.2



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V

