

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081722\
 Data File : VL039545.D
 Acq On : 17 Aug 2022 12:06
 Operator : SY/AP
 Sample : N3986-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 E061-1100

Quant Time: Aug 18 05:34:51 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081722AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Aug 17 12:06:24 2022
 QLast Update : Wed Aug 17 12:06:24 2022
 Response via : Initial Calibration

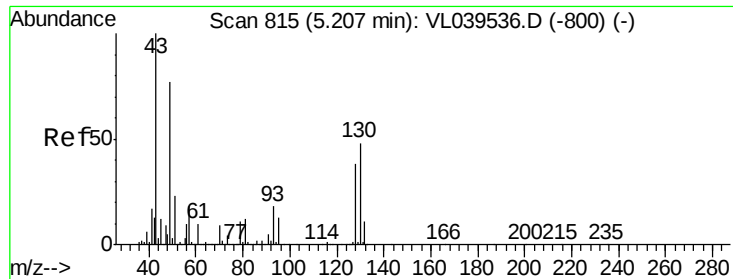
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.20	49	910356	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	6.66	114	2482728	10.00	ppbv	0.00
55) Chlorobenzene-d5	11.47	117	2358621	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	13.77	95	1880671	10.59	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.90%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	2.75	85	2247274	18.366	ppbv 99
3) Chlorodifluoromethane	2.75	51	8833	0.081	ppbv 96
4) Chloromethane	2.83	50	4061	0.062	ppbv # 71
5) Vinyl Chloride	2.94	62	1362184	24.214	ppbv 98
7) Chloroethane	2.94	64	420931	21.017	ppbv # 43
8) Dichlorotetrafluoroethane	2.75	85	2247274	17.103	ppbv # 14
9) Propene	2.73	41	7059	0.142	ppbv # 15
12) 1,1,2-Trichlorotrifluoroet	4.08	101	3738838	37.657	ppbv 98
13) Ethanol	3.26	45	1376	0.385	ppbv # 1
15) Acetone	3.50	43	52038	0.506	ppbv # 84
20) Methylene Chloride	3.95	84	135877	3.245	ppbv 95
23) Vinyl Acetate	4.63	43	2129	0.041	ppbv # 77
25) Ethyl Acetate	5.23	43	63960	0.292	ppbv # 75
26) Hexane	5.22	57	84172	0.936	ppbv # 37
29) Chloroform	5.28	83	4719811	33.532	ppbv 94
36) Benzene	6.38	78	3573837	18.887	ppbv 99
39) 1,2-Dichloropropane	7.24	63	6242	0.088	ppbv # 16
42) Bromodichloromethane	7.25	83	4230618	29.449	ppbv 95
48) Dibromochloromethane	9.72	129	10511	0.087	ppbv # 40
53) Toluene	9.23	91	7045605	33.234	ppbv 97
58) Ethyl Benzene	12.09	91	7044376	25.792	ppbv 94
59) m/p-Xylene	12.09	91	7044376	28.686	ppbv # 100
64) n-propylbenzene	15.36	120	5035035	54.194	ppbv # 1
72) 4-Ethyltoluene	15.36	105	10592930	38.294	ppbv # 100
73) 1,3,5-Trimethylbenzene	15.36	105	10592930	41.930	ppbv 89
74) 1,2,4-Trimethylbenzene	16.11	105	36276	0.129	ppbv # 67
75) 1,3-Dichlorobenzene	16.48	146	7506013	43.865	ppbv 99
76) 1,4-Dichlorobenzene	16.48	146	7506013	43.802	ppbv 97

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.20 Instrument: MSVOA_1

Delta R.T. 0.00

Lab File: ClientSampleId: E061-1100

Acq: 17 Aug 2022 12:00

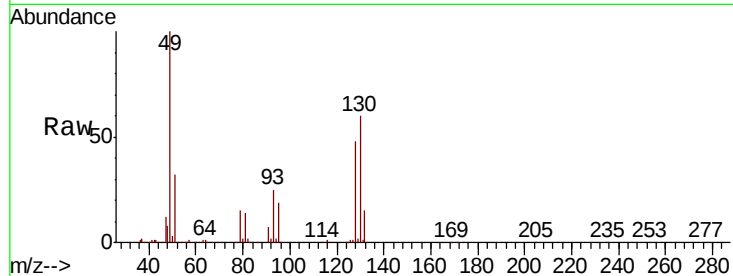
Tot Ion: 49 Resp: 910356

Ion Ratio Lower Upper

49 100

128 50.2 25.7 77.0

130 66.2 31.6 95.0



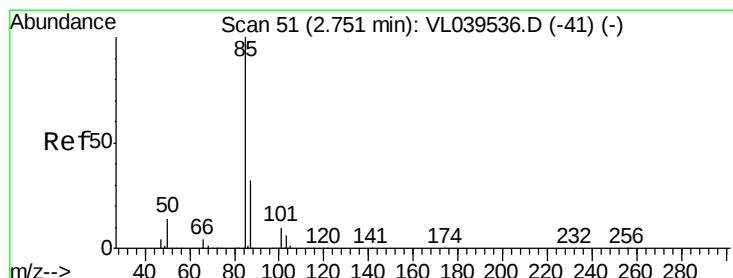
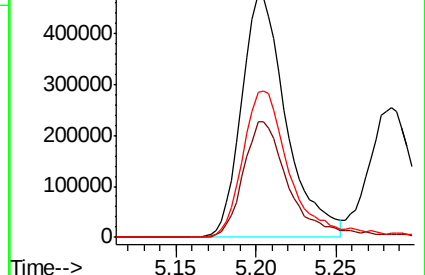
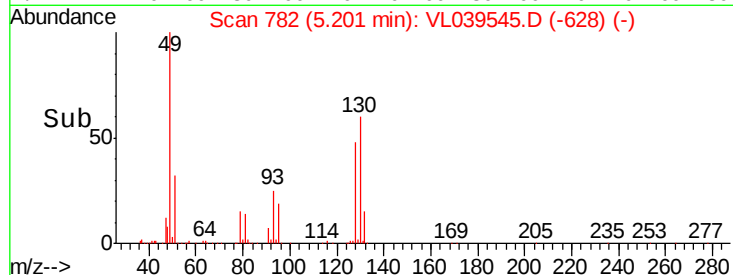
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.20

Time-->



#2

Dichlorodifluoromethane

Concen: 18.366 ppbv

RT: 2.75 min Scan# 20

Delta R.T. 0.00 min

Lab File: VL039545.D

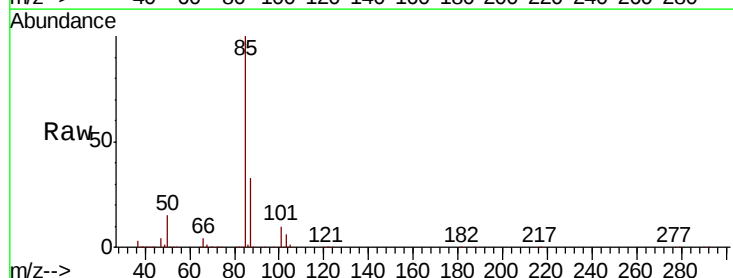
Acq: 17 Aug 2022 12:06

Tgt Ion: 85 Resp: 2247274

Ion Ratio Lower Upper

85 100

87 32.7 25.9 38.9

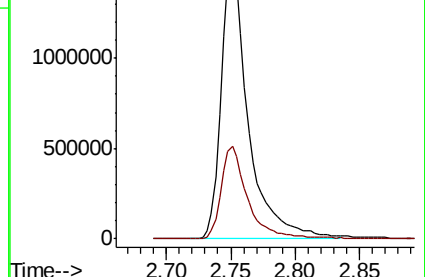
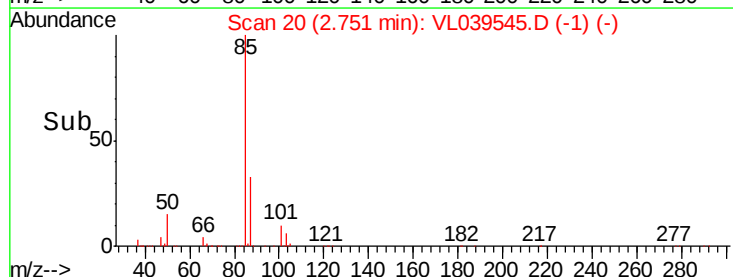


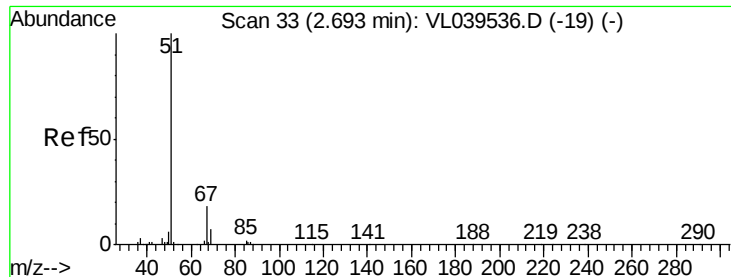
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

2.75

Time-->





#3

Chlorodifluoromethane

Concen: 0.081 ppbv

RT: 2.75 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

E061-1100

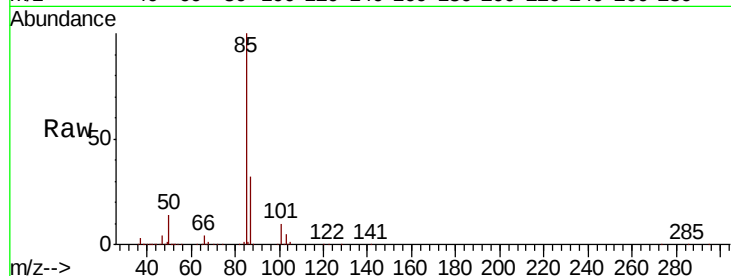
Acq: 17 Aug 2022 12:00

Tot Ion: 51 Resp: 8833

Ion Ratio Lower Upper

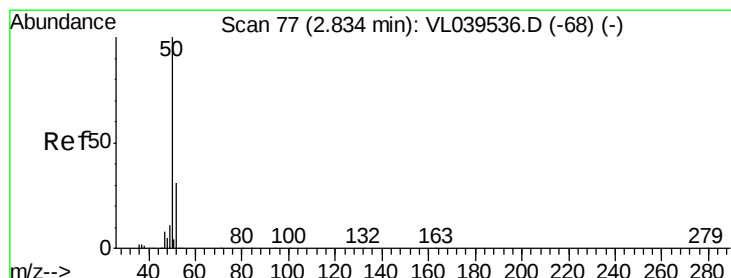
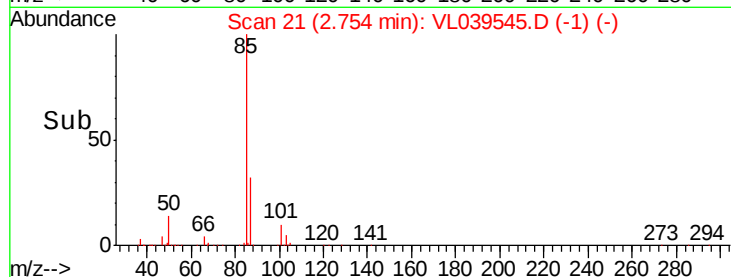
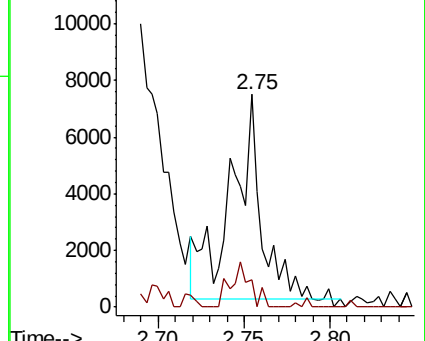
51 100

67 16.8 14.7 22.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.062 ppbv

RT: 2.83 min Scan# 45

Delta R.T. -0.00 min

Lab File: VL039545.D

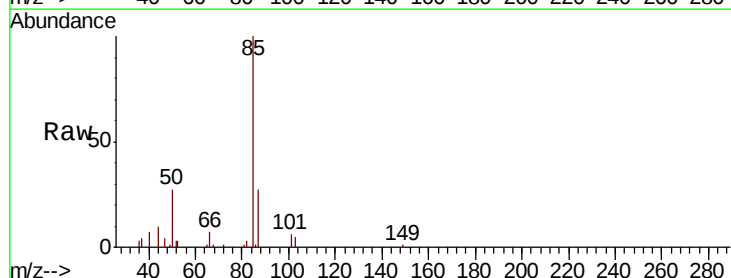
Acq: 17 Aug 2022 12:06

Tgt Ion: 50 Resp: 4061

Ion Ratio Lower Upper

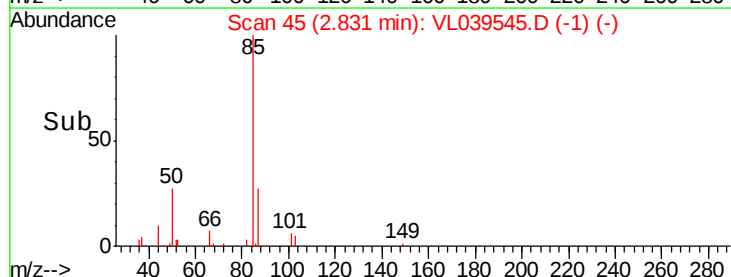
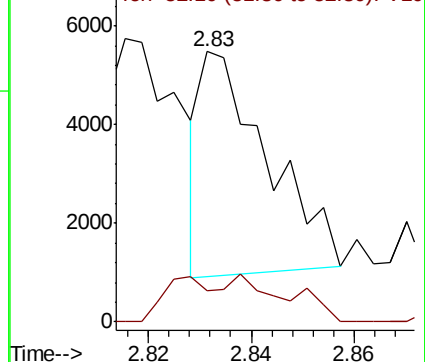
50 100

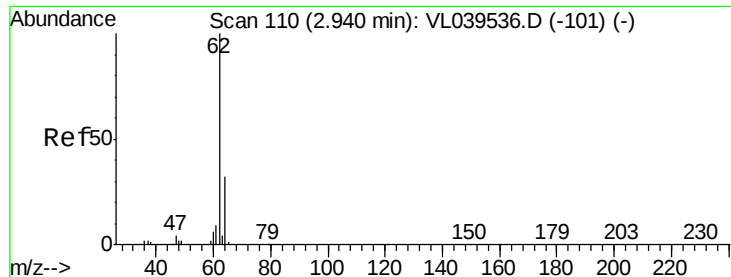
52 14.5 24.3 36.5#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 24.214 ppbv

RT: 2.94 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

E061-1100

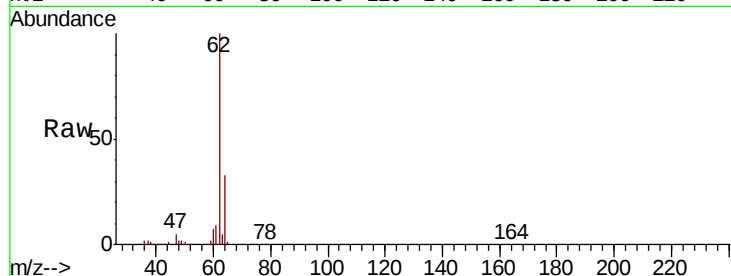
Acq: 17 Aug 2022 12:00

Tot Ion: 62 Resp: 1362184

Ion Ratio Lower Upper

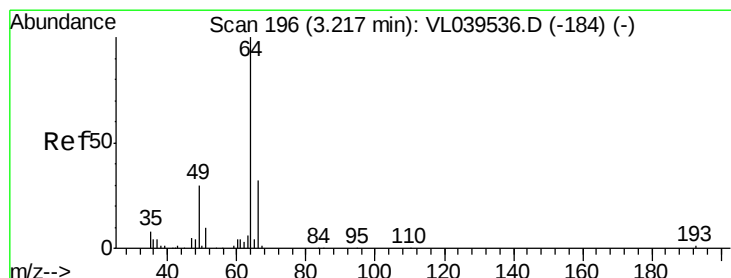
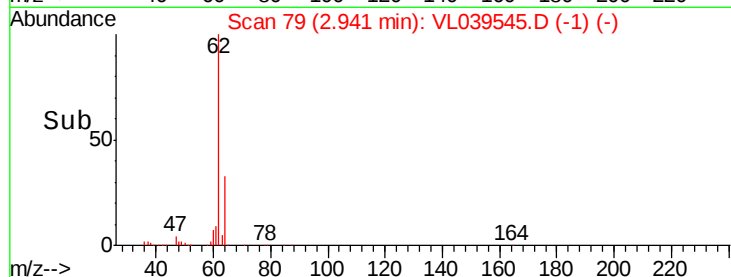
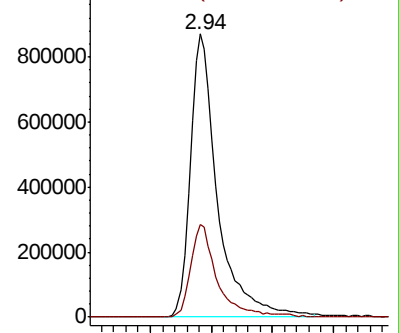
62 100

64 32.9 25.5 38.3



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#7

Chloroethane

Concen: 21.017 ppbv

RT: 2.94 min Scan# 79

Delta R.T. -0.28 min

Lab File: VL039545.D

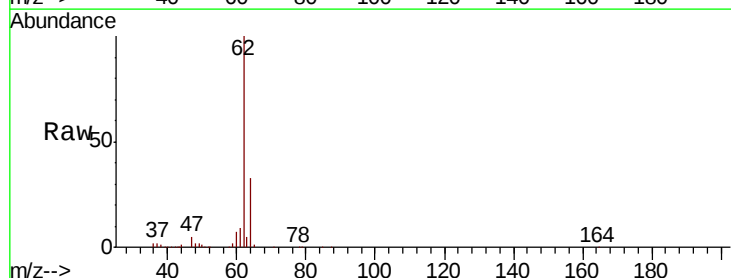
Acq: 17 Aug 2022 12:06

Tgt Ion: 64 Resp: 420931

Ion Ratio Lower Upper

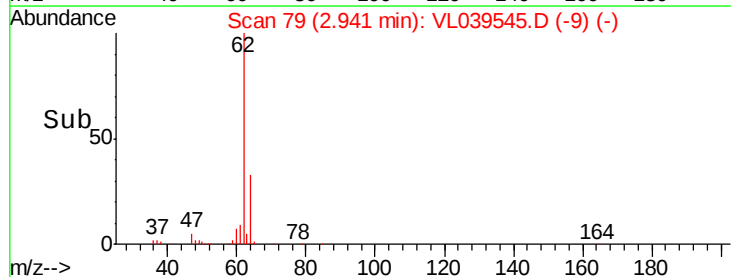
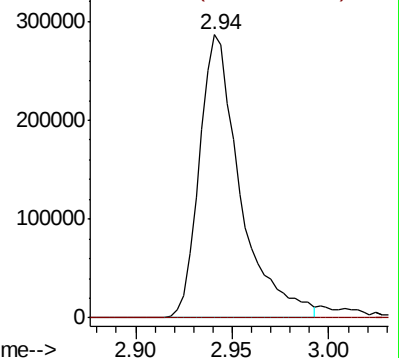
64 100

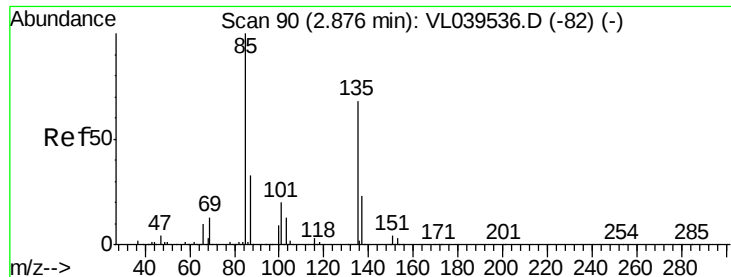
66 0.0 25.6 38.4#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#8

Dichlorotetrafluoroethane

Concen: 17.103 ppbv

RT: 2.75 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

E061-1100

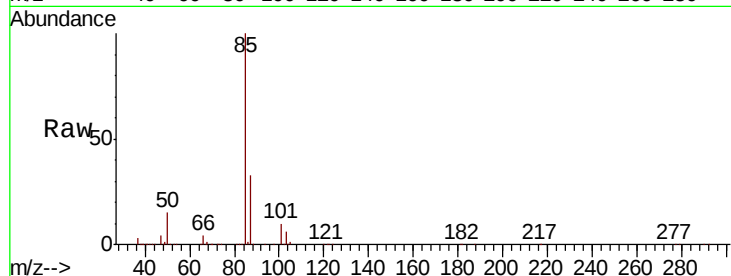
Acq: 17 Aug 2022 12:00

Tot Ion: 85 Resp: 2247274

Ion Ratio Lower Upper

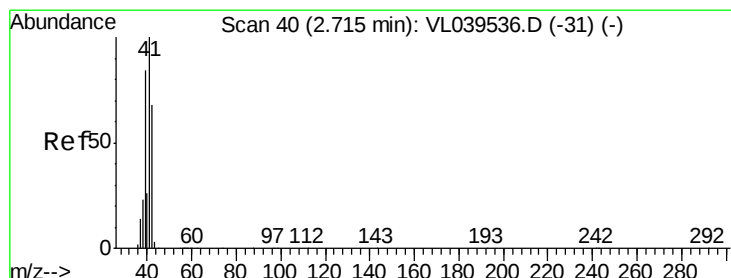
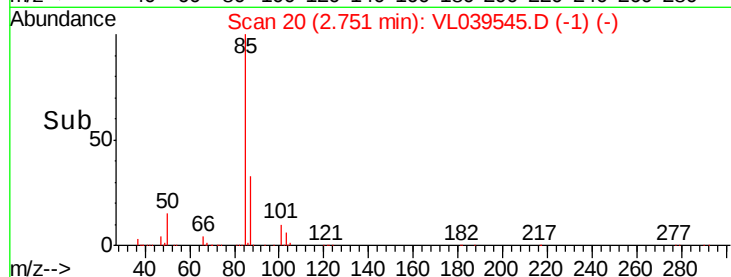
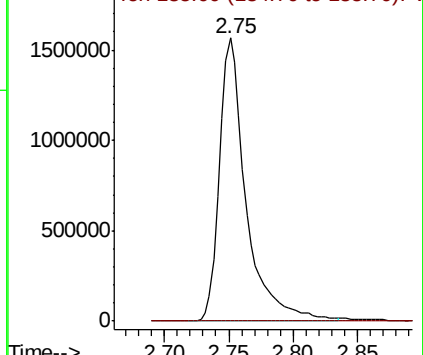
85 100

135 0.0 56.3 84.5#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



#9

Propene

Concen: 0.142 ppbv

RT: 2.73 min Scan# 13

Delta R.T. 0.01 min

Lab File: VL039545.D

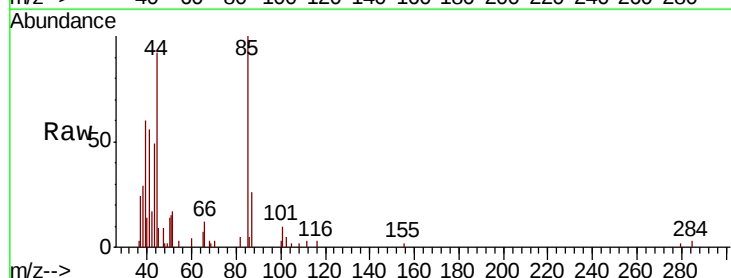
Acq: 17 Aug 2022 12:06

Tgt Ion: 41 Resp: 7059

Ion Ratio Lower Upper

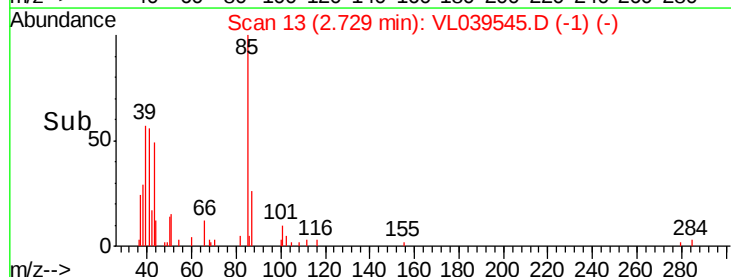
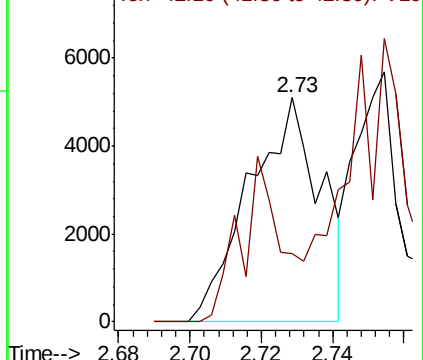
41 100

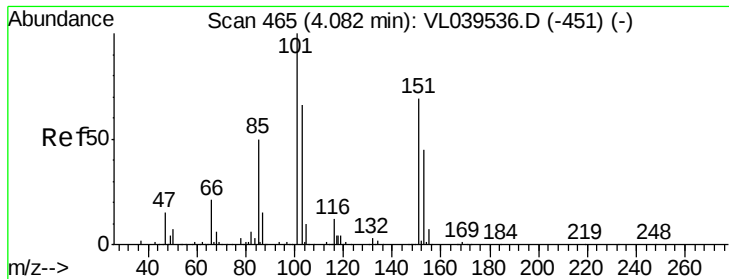
42 0.0 55.4 83.0#



Abundance Ion 41.10 (40.80 to 41.80): VL0

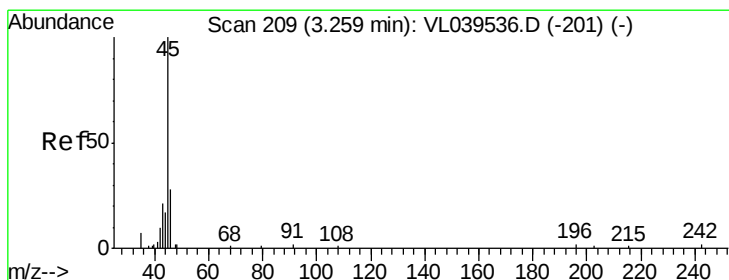
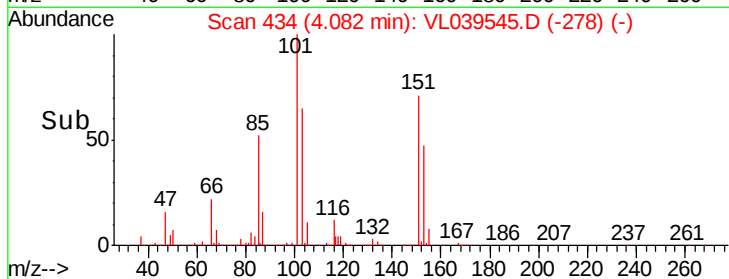
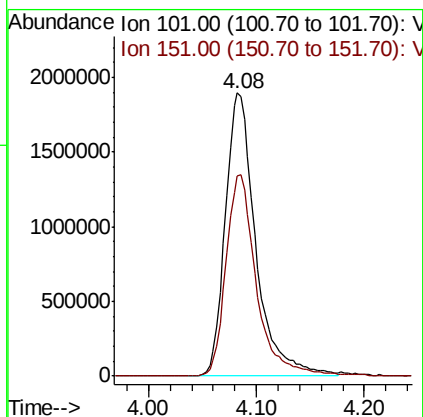
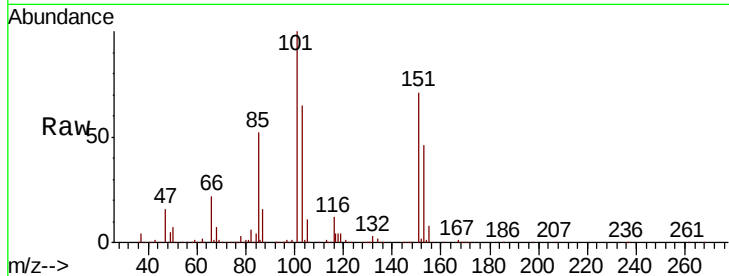
Ion 42.10 (41.80 to 42.80): VL0





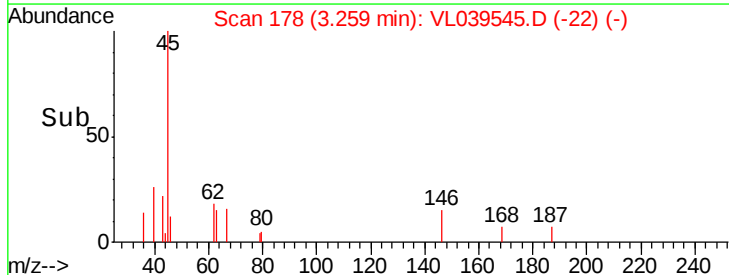
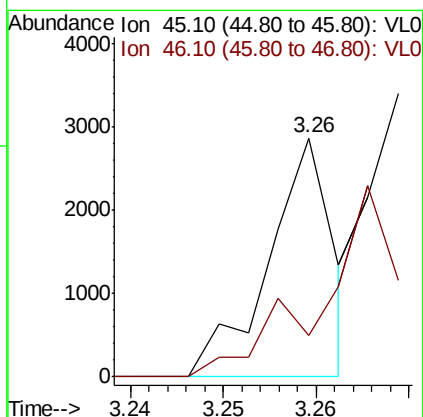
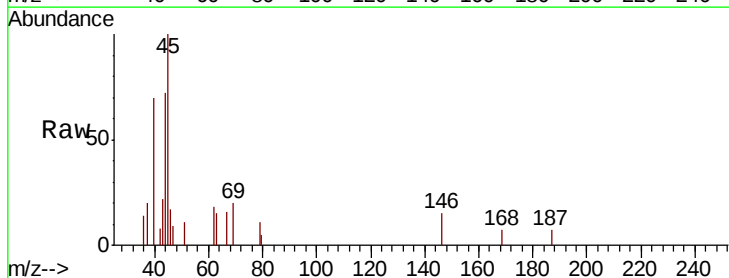
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 37.657 ppbv
 RT: 4.08
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 E061-1100
 Acq: 17 Aug 2022 12:00

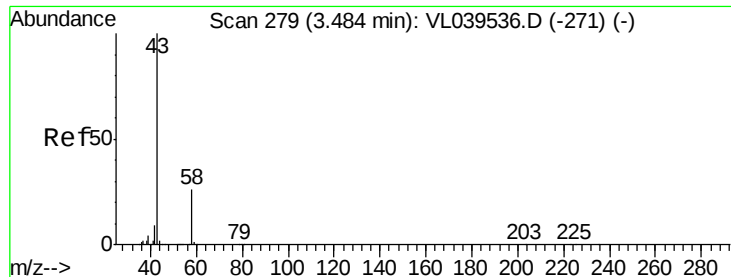
Tot Ion:101 Resp: 3738838
 Ion Ratio Lower Upper
 101 100
 151 71.6 58.6 87.8



#13
 Ethanol
 Concen: 0.385 ppbv
 RT: 3.26 min Scan# 178
 Delta R.T. 0.00 min
 Lab File: VL039545.D
 Acq: 17 Aug 2022 12:06

Tgt Ion: 45 Resp: 1376
 Ion Ratio Lower Upper
 45 100
 46 144.3 19.3 77.1#





#15

Acetone

Concen: 0.506 ppbv

RT: 3.50 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

E061-1100

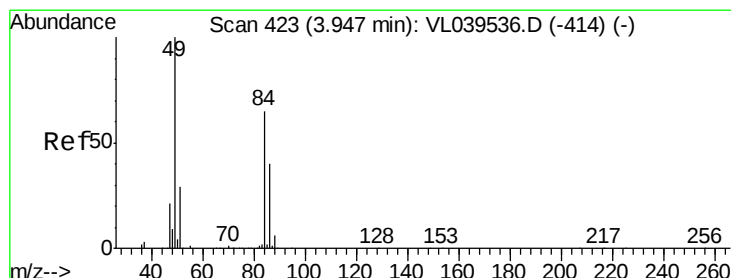
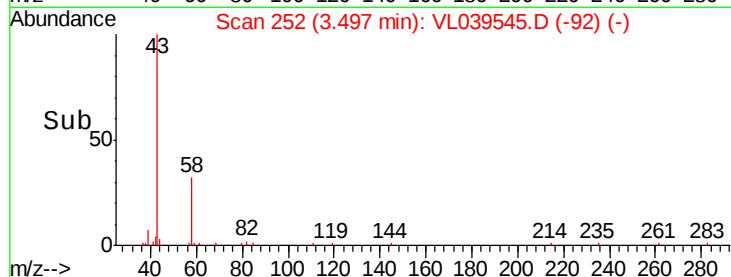
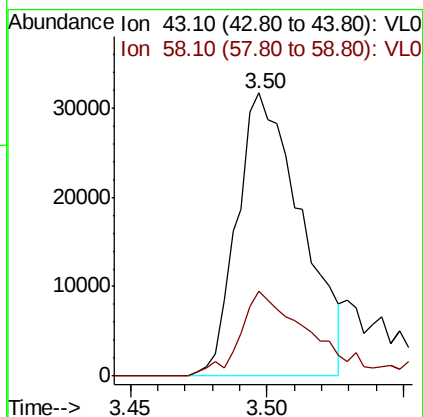
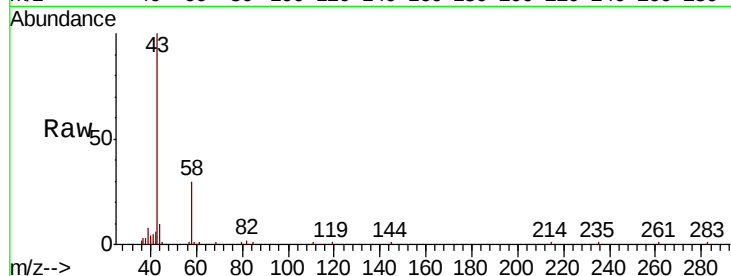
Acq: 17 Aug 2022 12:00

Tot Ion: 43 Resp: 52038

Ion Ratio Lower Upper

43 100

58 34.3 20.7 31.1#



#20

Methylene Chloride

Concen: 3.245 ppbv

RT: 3.95 min Scan# 393

Delta R.T. 0.00 min

Lab File: VL039545.D

Acq: 17 Aug 2022 12:06

Tgt Ion: 84 Resp: 135877

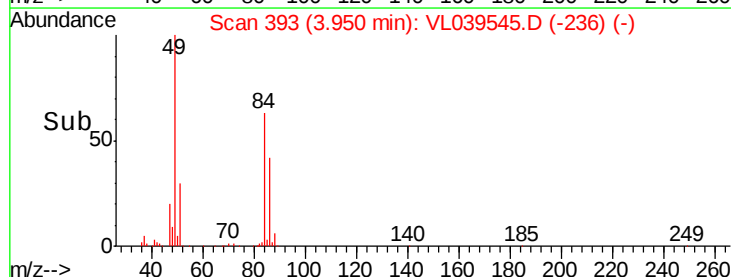
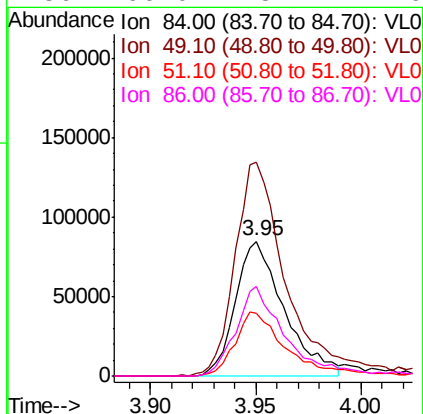
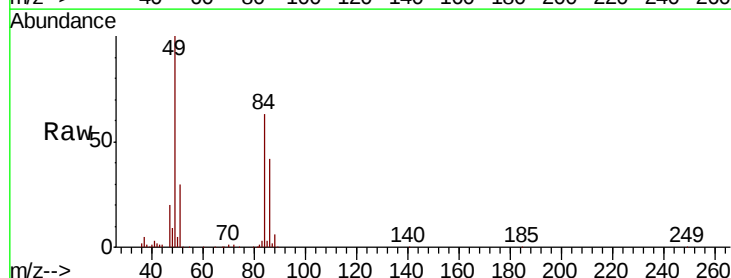
Ion Ratio Lower Upper

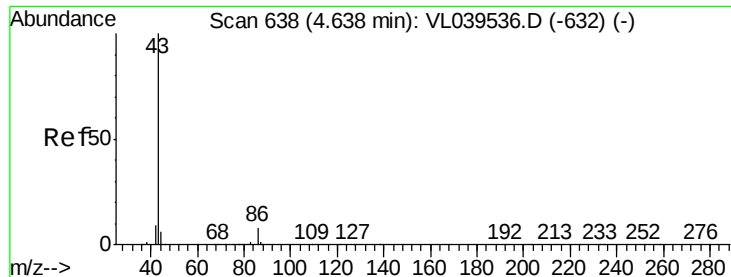
84 100

49 158.2 122.2 183.4

51 46.5 35.8 53.6

86 66.0 48.4 72.6





#23

Vinyl Acetate

Concen: 0.041 ppbv

RT: 4.63 Instrument: MSVOA_1

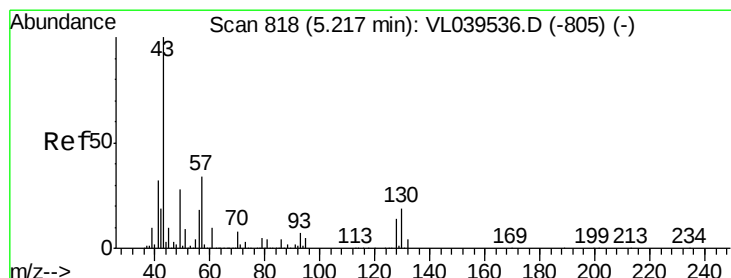
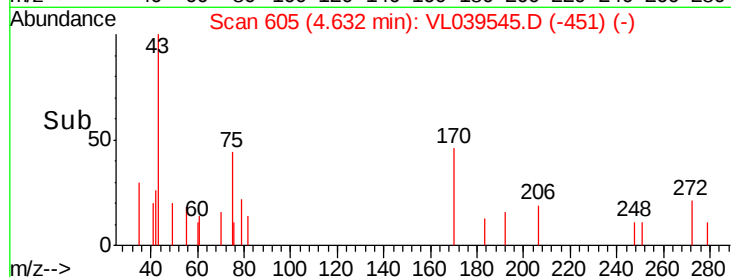
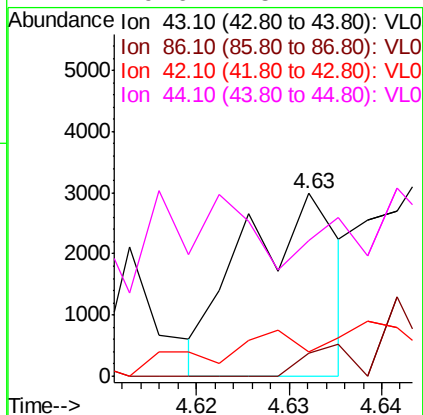
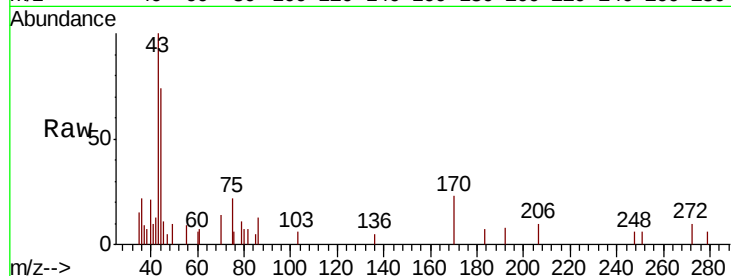
Delta R.T. ClientSampleId:

Lab File: E061-1100

Acq: 17 Aug 2022 12:00

Tot Ion: 43 Resp: 2129

Ion	Ratio	Lower	Upper
43	100		
86	15.8	5.3	7.9#
42	0.0	8.7	13.1#
44	9.6	5.1	7.7#



#25

Ethyl Acetate

Concen: 0.292 ppbv

RT: 5.23 min Scan# 790

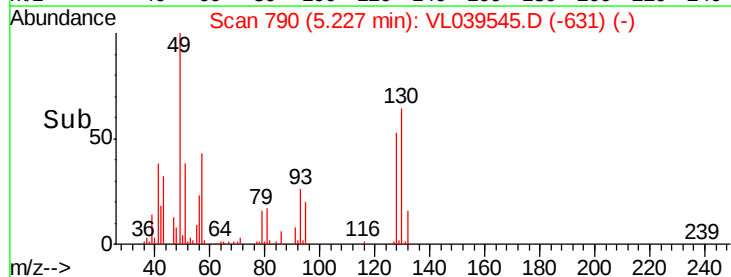
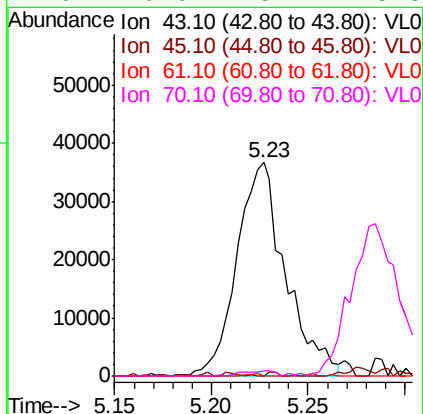
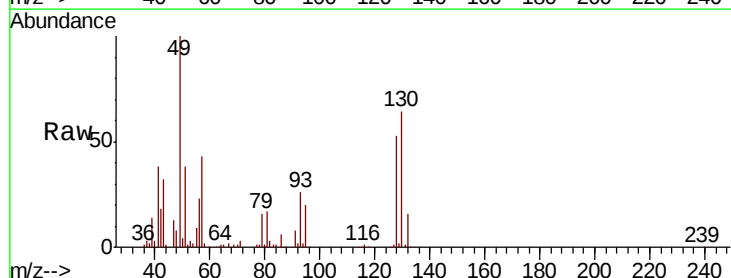
Delta R.T. 0.01 min

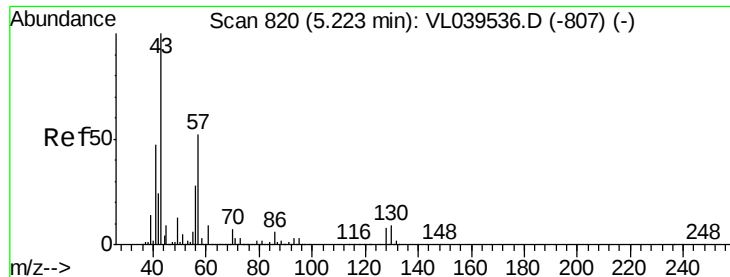
Lab File: VL039545.D

Acq: 17 Aug 2022 12:06

Tgt Ion: 43 Resp: 63960

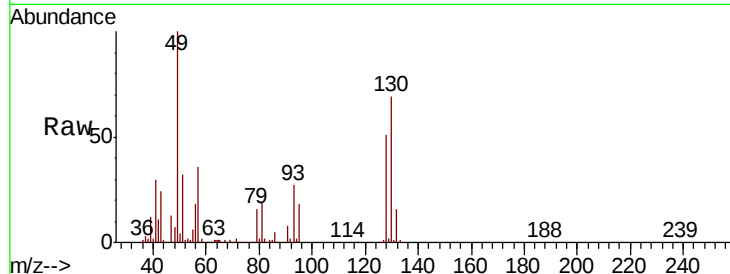
Ion	Ratio	Lower	Upper
43	100		
45	1.0	8.2	12.4#
61	0.3	8.6	12.8#
70	0.0	5.7	8.5#



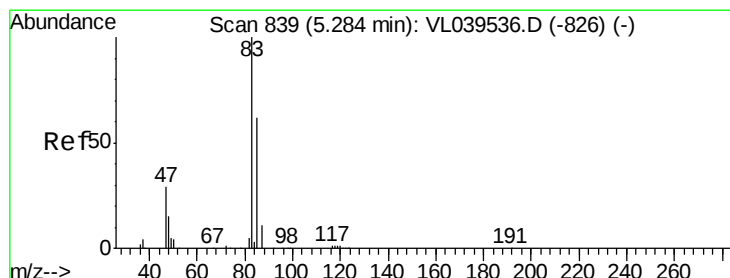
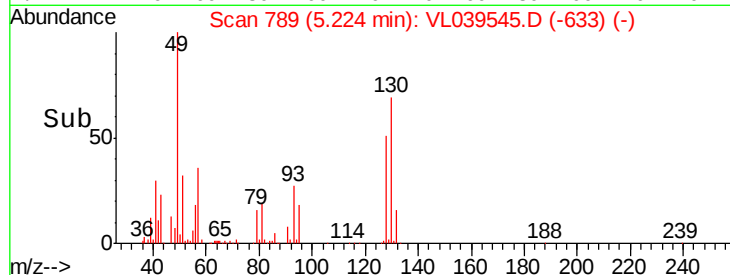
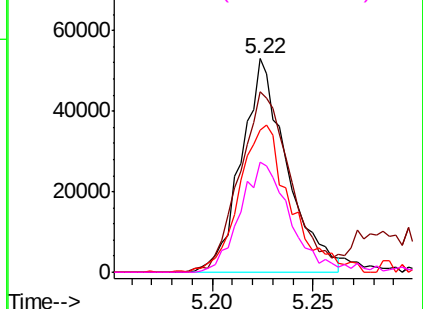


#26
Hexane
Concen: 0.936 ppbv
RT: 5.22
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
E061-1100
Acq: 17 Aug 2022 12:00

Tot Ion: 57 Resp: 84172
Ion Ratio Lower Upper
57 100
41 93.8 79.4 119.2
43 77.3 199.7 299.5#
56 58.8 44.0 66.0

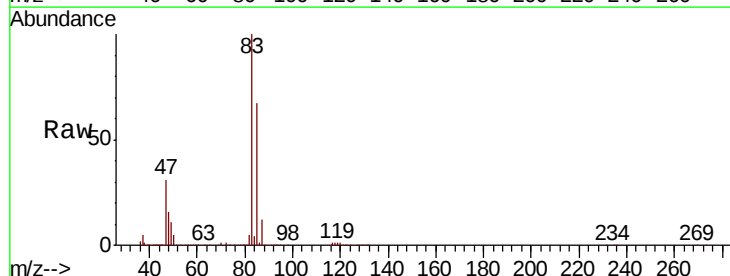


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

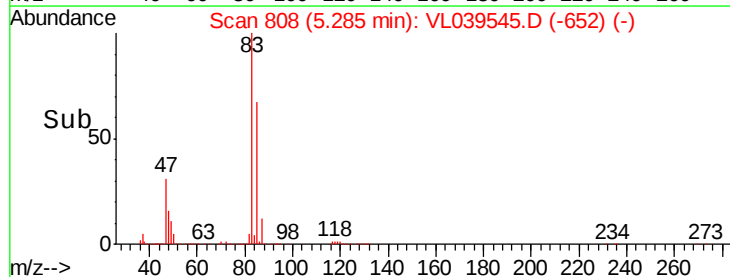
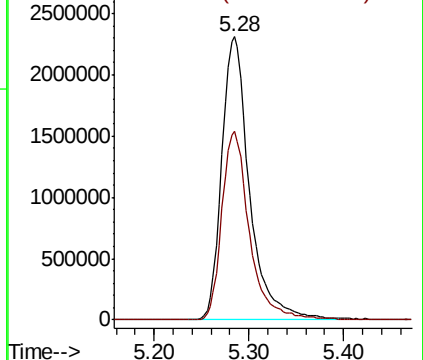


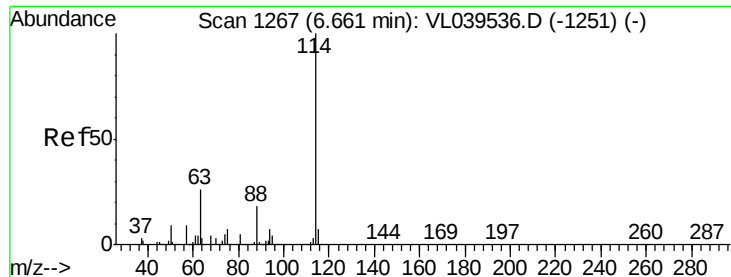
#29
Chloroform
Concen: 33.532 ppbv
RT: 5.28 min Scan# 808
Delta R.T. 0.00 min
Lab File: VL039545.D
Acq: 17 Aug 2022 12:06

Tgt Ion: 83 Resp: 4719811
Ion Ratio Lower Upper
83 100
85 66.7 49.8 74.8



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0

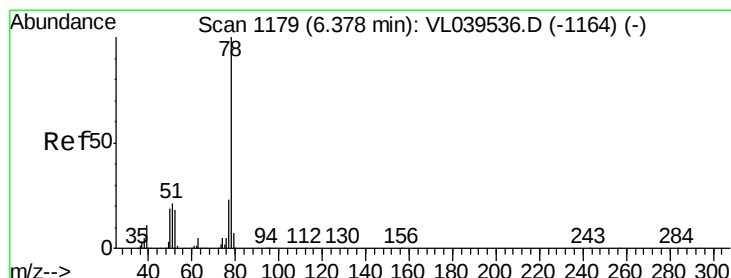
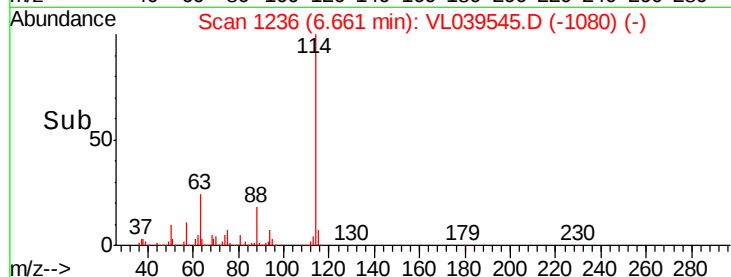
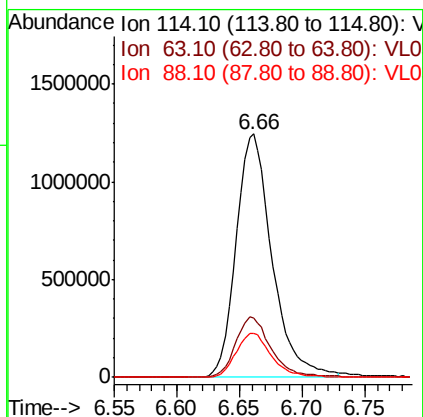
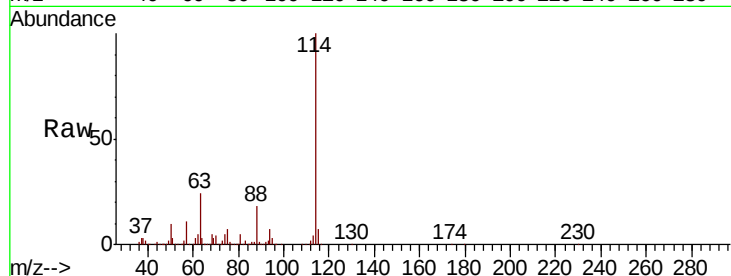




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 6.66
 Instrument: MSVOA_L
 Delta R.T.:
 Lab File: ClientSampleId:
 E061-1100
 Acq: 17 Aug 2022 12:00

Tot Ion:114 Resp: 2482728

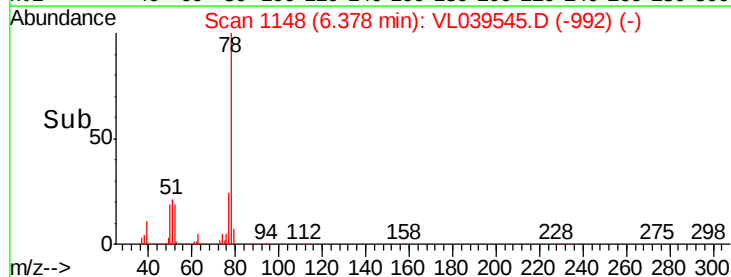
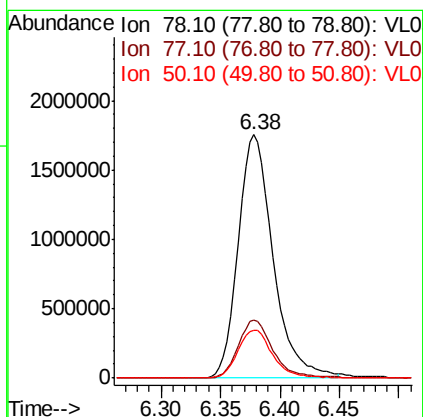
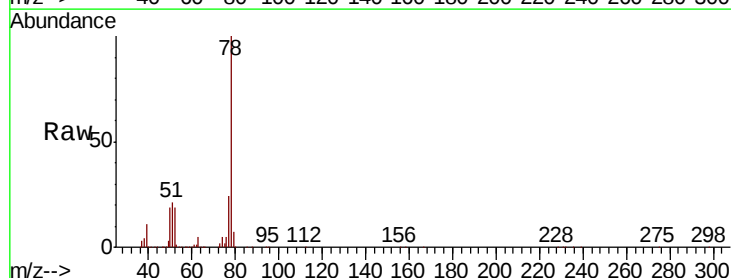
Ion	Ratio	Lower	Upper
114	100		
63	24.7	20.6	31.0
88	18.3	14.6	22.0

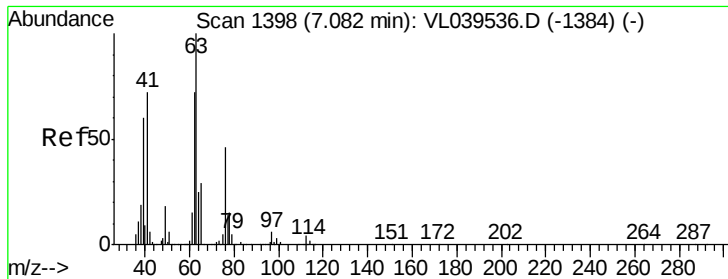


#36
 Benzene
 Concen: 18.887 ppbv
 RT: 6.38 min Scan# 1148
 Delta R.T.: 0.00 min
 Lab File: VL039545.D
 Acq: 17 Aug 2022 12:06

Tgt Ion: 78 Resp: 3573837

Ion	Ratio	Lower	Upper
78	100		
77	23.7	18.6	27.8
50	19.5	15.0	22.4





#39

1,2-Dichloropropane

Concen: 0.088 ppbv

RT: 7.24 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 17 Aug 2022 12:00

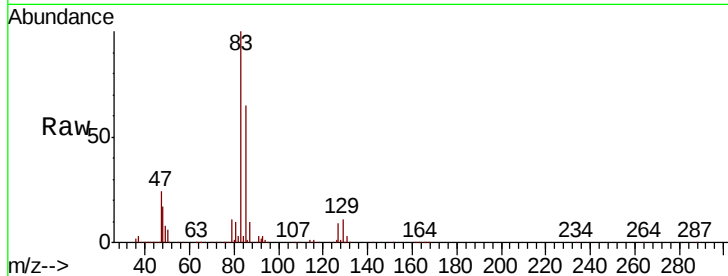
Tot Ion: 63 Resp: 6242

Ion Ratio Lower Upper

63 100

41 4.4 58.0 87.0#

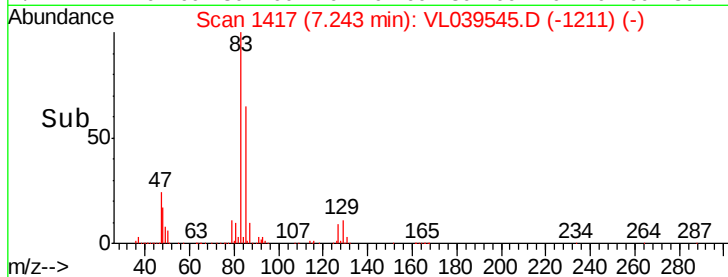
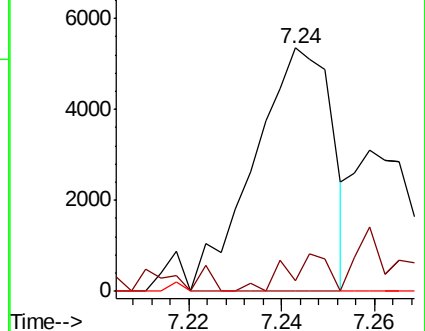
62 0.0 57.8 86.8#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#42

Bromodichloromethane

Concen: 29.449 ppbv

RT: 7.25 min Scan# 1420

Delta R.T. -0.00 min

Lab File: VL039545.D

Acq: 17 Aug 2022 12:06

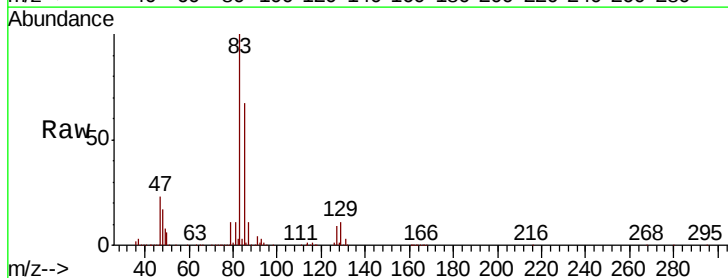
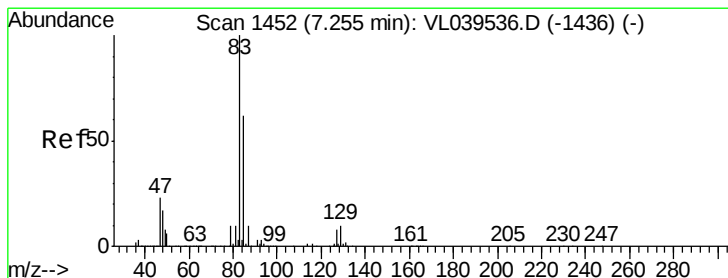
Tgt Ion: 83 Resp: 4230618

Ion Ratio Lower Upper

83 100

85 66.5 49.9 74.9

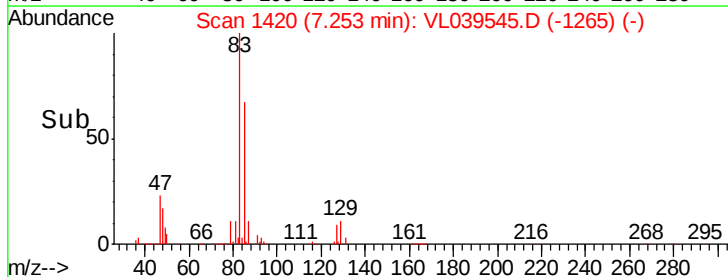
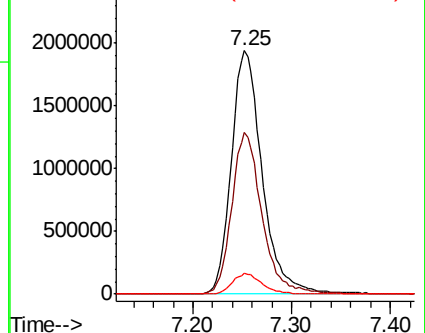
127 8.7 6.7 10.1

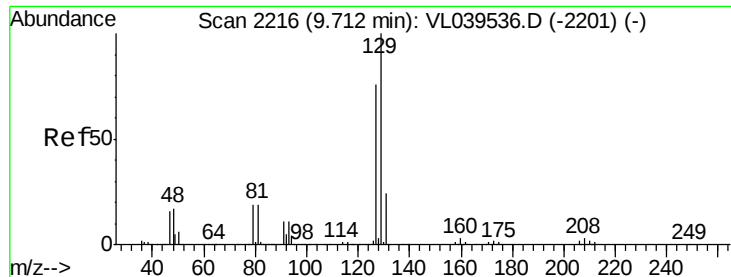


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

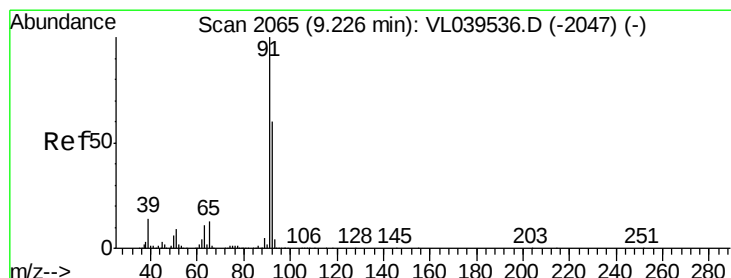
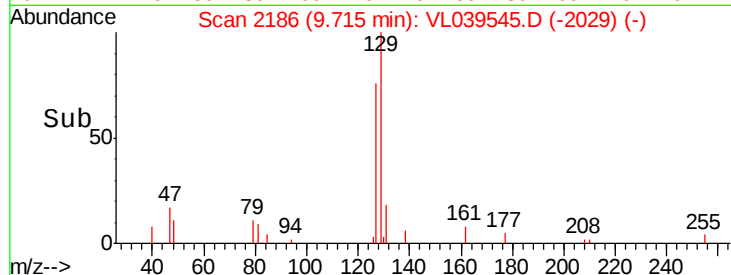
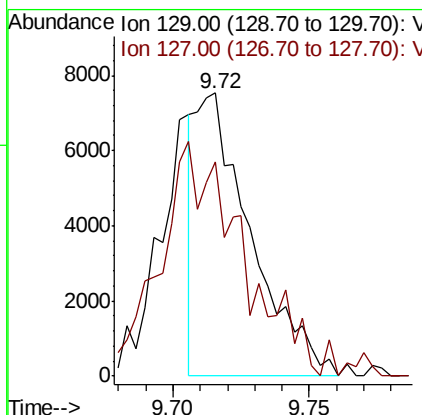
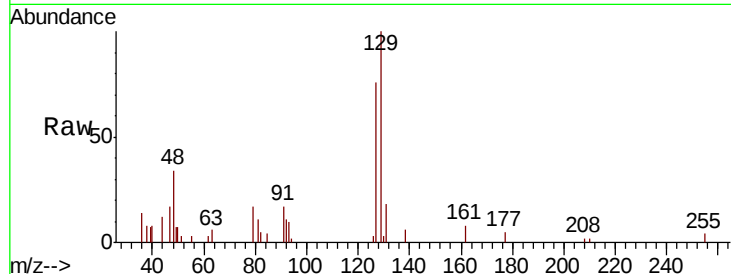
Ion 126.90 (126.60 to 127.60): V





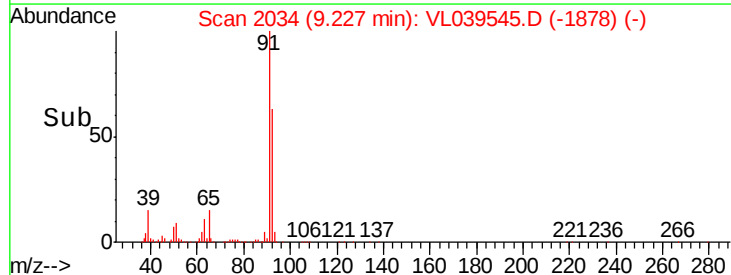
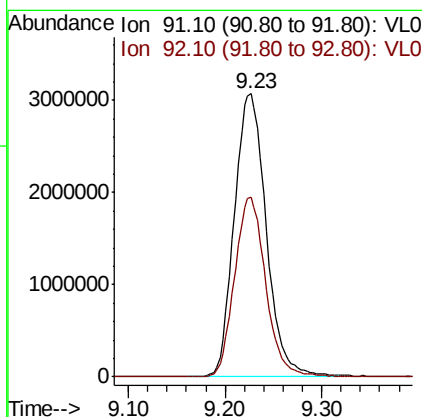
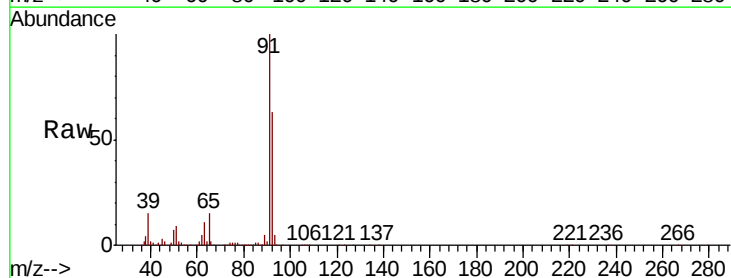
#48
 Dibromochloromethane
 Concen: 0.087 ppbv
 RT: 9.72
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId : E061-1100
 Acq: 17 Aug 2022 12:00

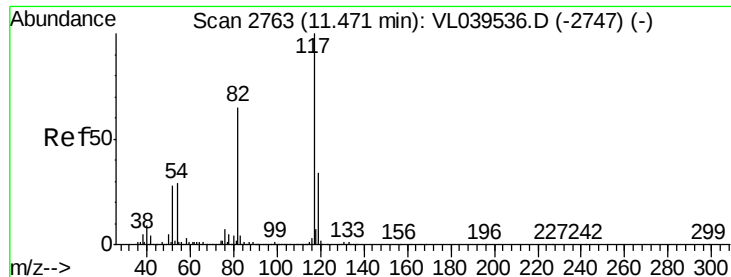
Tot Ion:129 Resp: 10511
 Ion Ratio Lower Upper
 129 100
 127 129.6 38.8 116.3#



#53
 Toluene
 Concen: 33.234 ppbv
 RT: 9.23 min Scan# 2034
 Delta R.T. 0.00 min
 Lab File: VL039545.D
 Acq: 17 Aug 2022 12:06

Tgt Ion: 91 Resp: 7045605
 Ion Ratio Lower Upper
 91 100
 92 62.0 47.9 71.9





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.47

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

E061-1100

Acq: 17 Aug 2022 12:00

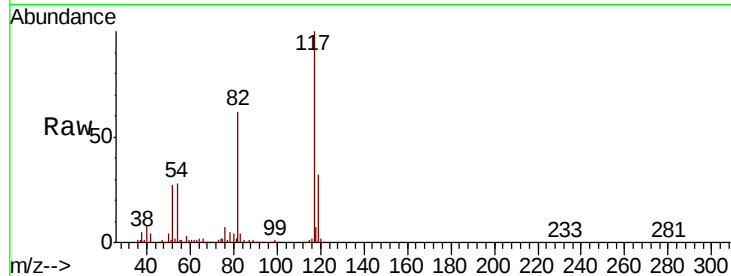
Tot Ion:117 Resp: 2358621

Ion Ratio Lower Upper

117 100

82 64.0 49.1 73.7

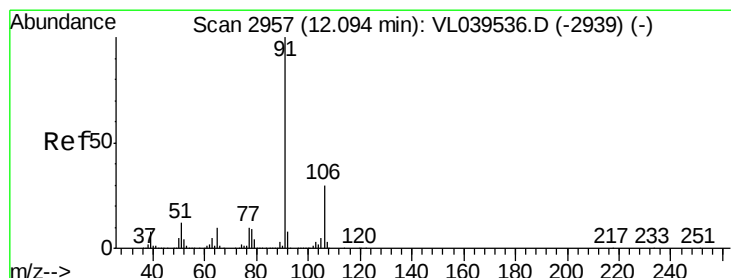
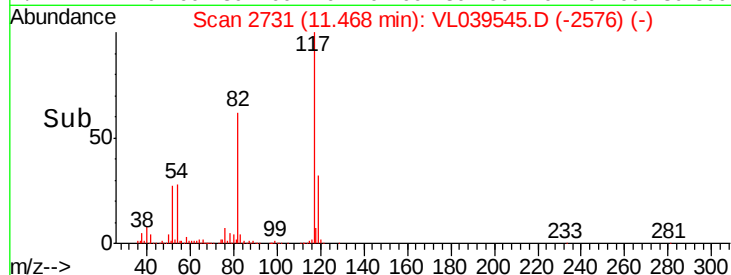
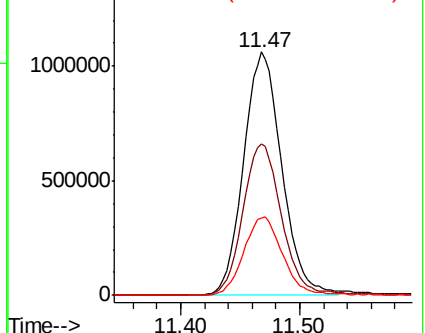
119 33.0 25.9 38.9



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 25.792 ppbv

RT: 12.09 min Scan# 2925

Delta R.T. -0.00 min

Lab File: VL039545.D

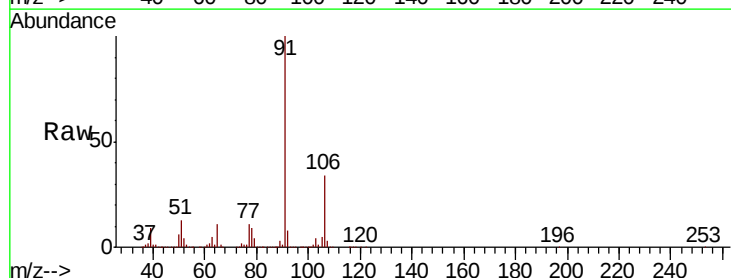
Acq: 17 Aug 2022 12:06

Tgt Ion: 91 Resp: 7044376

Ion Ratio Lower Upper

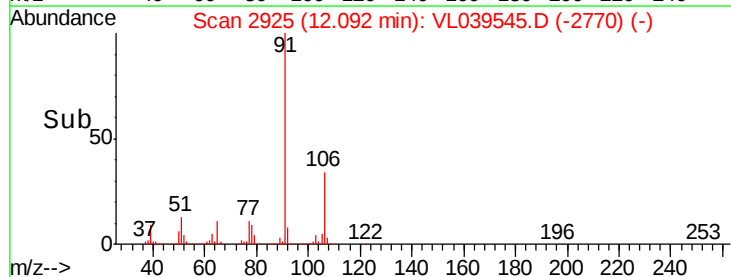
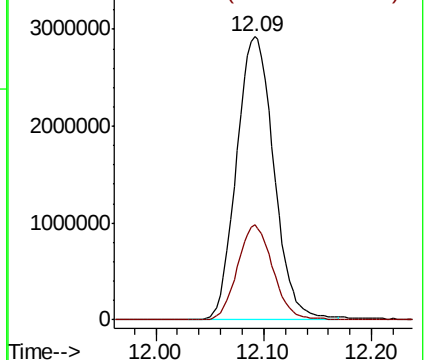
91 100

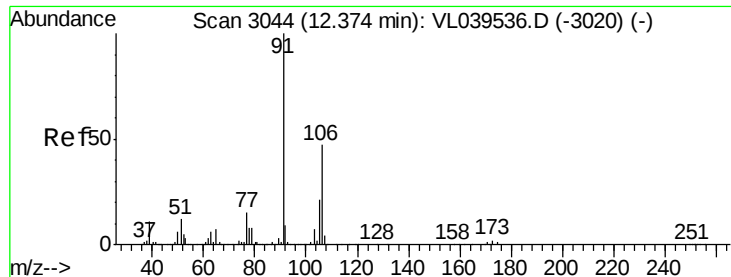
106 33.8 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

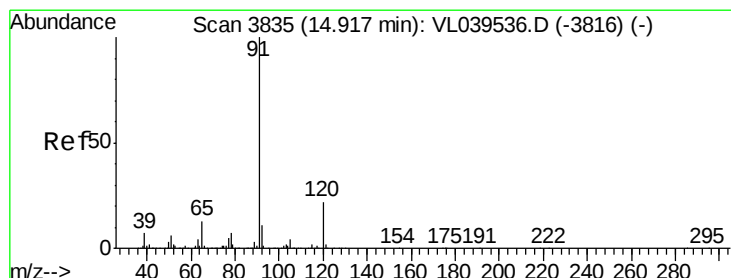
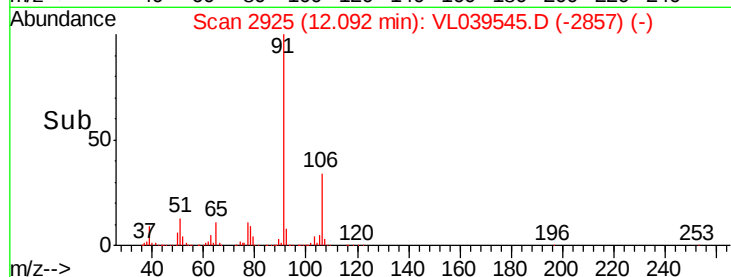
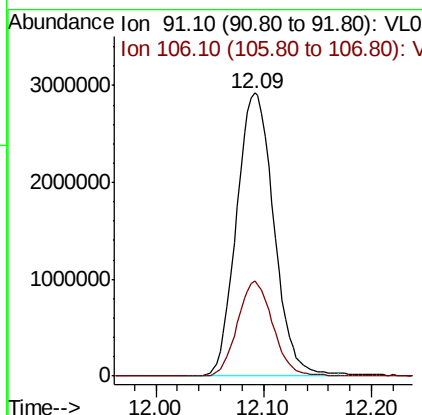
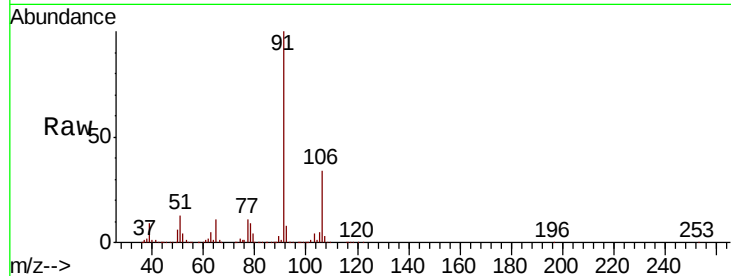
Ion 106.10 (105.80 to 106.80): V





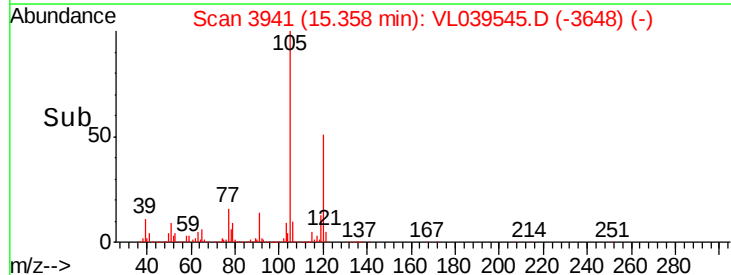
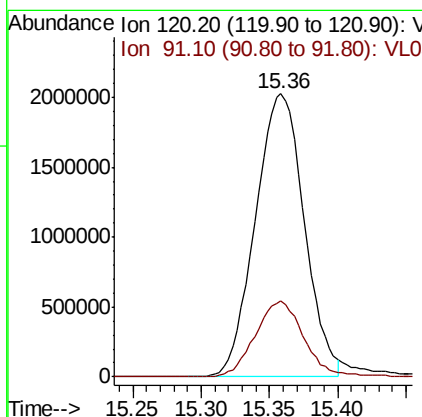
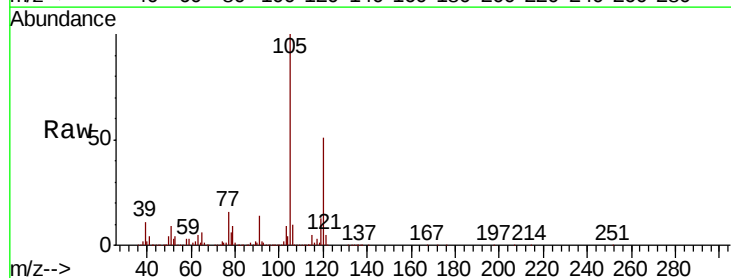
#59
m/p-Xylene
Concen: 28.686 ppbv
RT: 12.09 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId : E061-1100
Acq: 17 Aug 2022 12:00

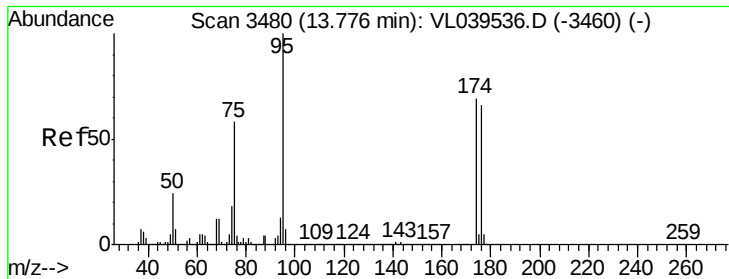
Tot Ion: 91 Resp: 7044376
Ion Ratio Lower Upper
91 100
106 32.1 0.0 0.0#



#64
n-propylbenzene
Concen: 54.194 ppbv
RT: 15.36 min Scan# 3941
Delta R.T.: 0.44 min
Lab File: VL039545.D
Acq: 17 Aug 2022 12:06

Tgt Ion:120 Resp: 5035035
Ion Ratio Lower Upper
120 100
91 0.0 372.6 559.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.592 ppbv

RT: 13.77

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

E061-1100

Acq: 17 Aug 2022 12:00

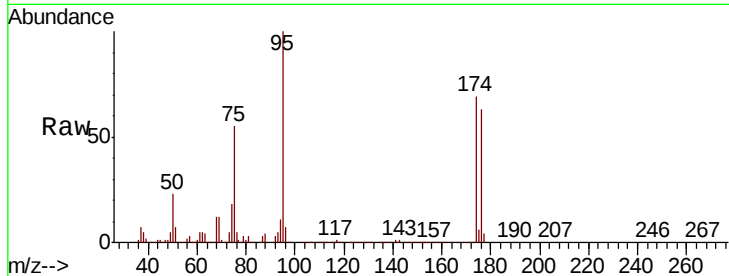
Tot Ion: 95 Resp: 1880671

Ion Ratio Lower Upper

95 100

174 71.5 56.3 84.5

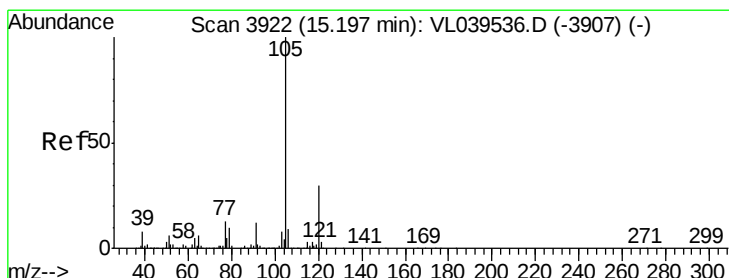
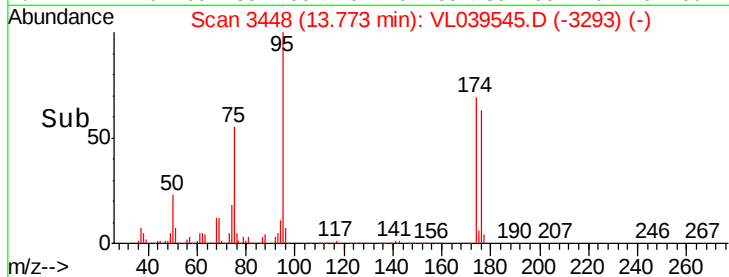
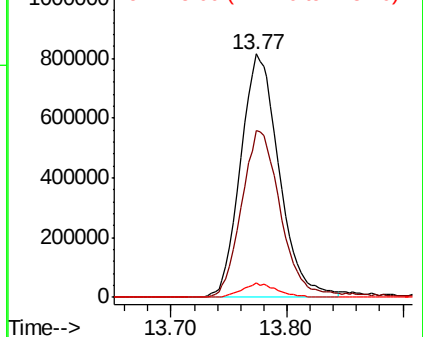
175 5.3 4.3 6.5



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



#72

4-Ethyltoluene

Concen: 38.294 ppbv

RT: 15.36 min Scan# 3941

Delta R.T. 0.16 min

Lab File: VL039545.D

Acq: 17 Aug 2022 12:06

Tgt Ion:105 Resp:10592930

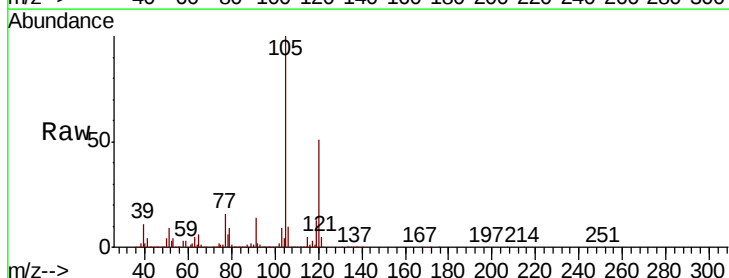
Ion Ratio Lower Upper

105 100

120 49.3 0.0 0.0#

91 12.9 0.0 0.0#

77 15.8 0.0 0.0#

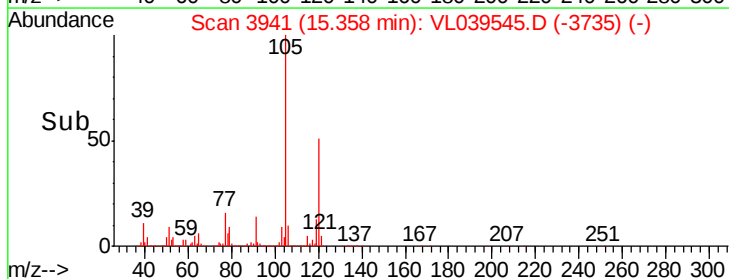
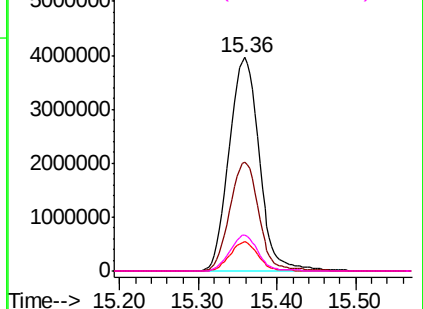


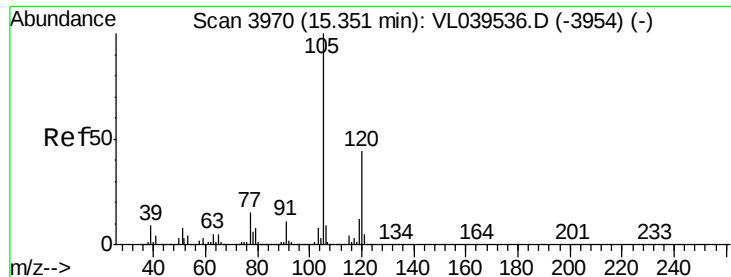
Abundance Ion 105.10 (104.80 to 105.80): V

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





#73

1,3,5-Trimethylbenzene

Concen: 41.930 ppbv

RT: 15.36

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

E061-1100

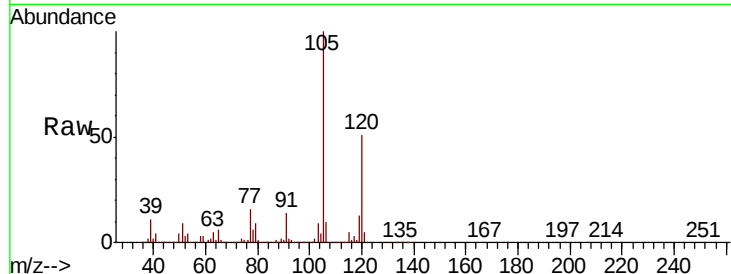
Acq: 17 Aug 2022 12:00

Tot Ion:105 Resp:10592930

Ion Ratio Lower Upper

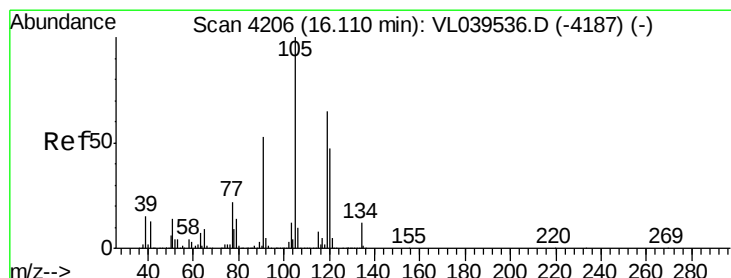
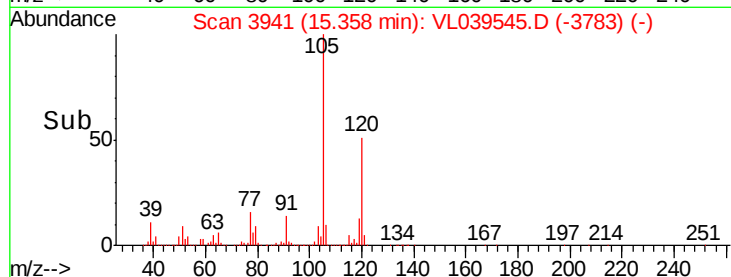
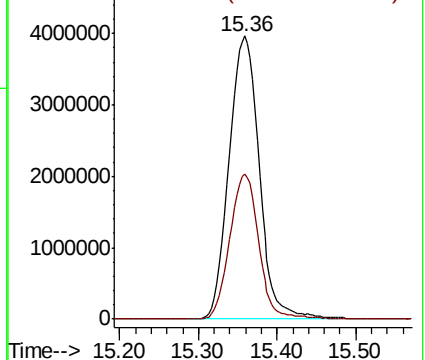
105 100

120 51.1 35.4 53.2



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.129 ppbv

RT: 16.11 min Scan# 4175

Delta R.T. 0.00 min

Lab File: VL039545.D

Acq: 17 Aug 2022 12:06

Tgt Ion:105 Resp: 36276

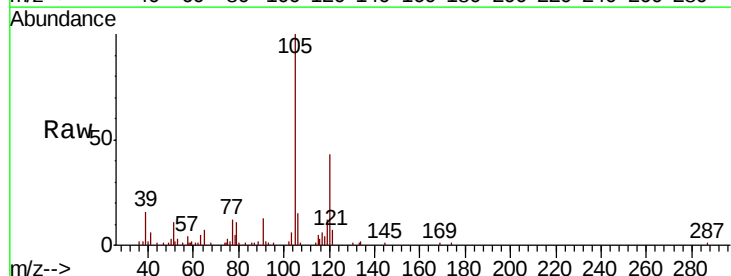
Ion Ratio Lower Upper

105 100

120 45.8 37.8 56.8

91 9.3 43.8 65.6#

77 9.6 17.8 26.6#

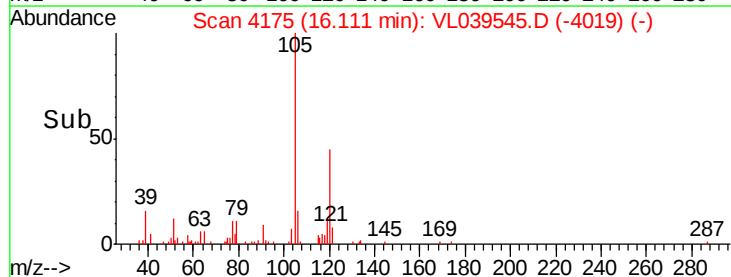
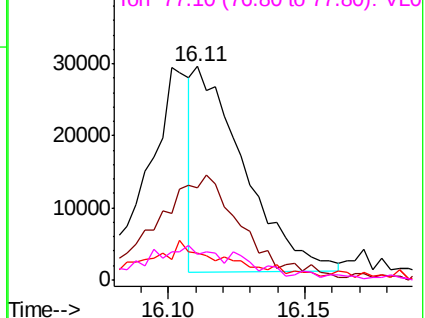


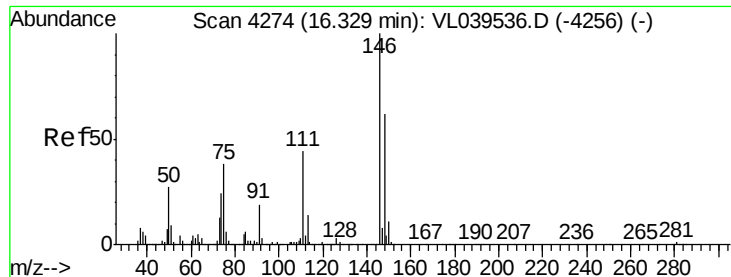
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

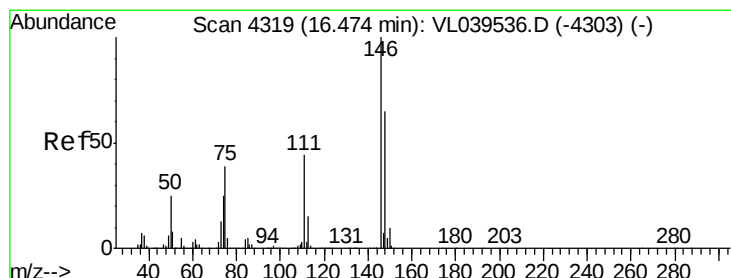
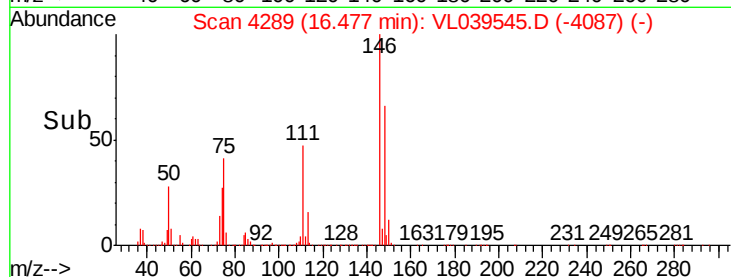
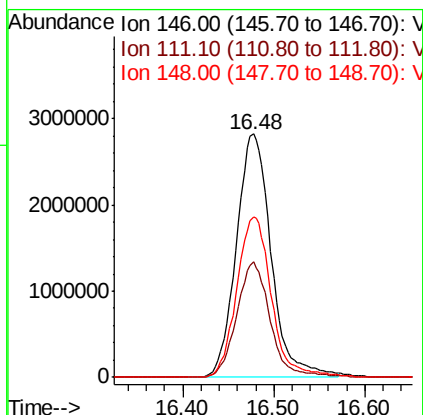
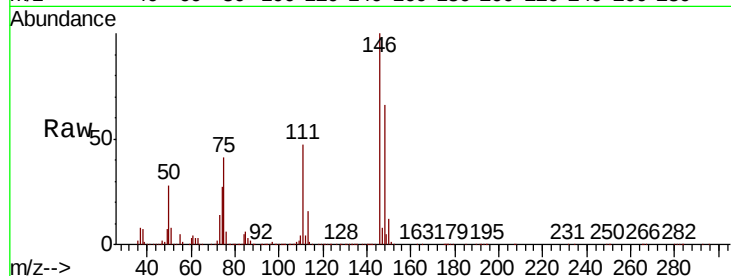
Ion 77.10 (76.80 to 77.80): VL0





#75
 1,3-Dichlorobenzene
 Concen: 43.865 ppbv
 RT: 16.48 min
 Instrument: MSVOA_L
 Delta R.T.:
 Lab File: ClientSampleId : E061-1100
 Acq: 17 Aug 2022 12:00

Tot Ion:146 Resp: 7506013
 Ion Ratio Lower Upper
 146 100
 111 45.8 22.9 68.5
 148 66.3 32.4 97.0



#76
 1,4-Dichlorobenzene
 Concen: 43.802 ppbv
 RT: 16.48 min Scan# 4289
 Delta R.T.: 0.00 min
 Lab File: VL039545.D
 Acq: 17 Aug 2022 12:06

Tgt Ion:146 Resp: 7506013
 Ion Ratio Lower Upper
 146 100
 111 45.8 22.3 66.8
 148 66.3 31.5 94.5

