

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL020122\
 Data File : VL038319.D
 Acq On : 1 Feb 2022 13:06
 Operator : SY/AP
 Sample : VL0201ABS01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VL0201ABS01

Quant Time: Feb 02 05:12:57 2022

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL012422AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Jan 24 14:12:48 2022

QLast Update : Mon Jan 24 14:12:48 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	924323	10.00	ppbv	-0.04
33) 1,4-Difluorobenzene	7.14	114	2527164	10.00	ppbv	-0.04
55) Chlorobenzene-d5	12.04	117	2870205	10.00	ppbv	-0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.37	95	1931298	8.87	ppbv	-0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	88.70%

Target Compounds

					Qvalue
2) Dichlorodifluoromethane	3.03	85	1858884	9.447	ppbv 100
3) Chlorodifluoromethane	2.97	51	1571148	8.538	ppbv 99
4) Chloromethane	3.12	50	538100	8.500	ppbv 97
5) Vinyl Chloride	3.24	62	546258	8.645	ppbv 97
6) Bromomethane	3.46	94	318573	9.326	ppbv 98
7) Chloroethane	3.54	64	183580	8.602	ppbv 98
8) Dichlorotetrafluoroethane	3.17	85	1311178	8.612	ppbv 98
9) Propene	3.00	41	523589	8.741	ppbv 99
10) Heptane	8.09	43	1350889	8.765	ppbv 99
11) Trichlorofluoromethane	3.93	101	1373334	8.959	ppbv 98
12) 1,1,2-Trichlorotrifluoroet	4.46	101	1030593	8.894	ppbv 98
13) Ethanol	3.59	45	15742	2.448	ppbv # 37
14) Bromoethene	3.72	108	413303	9.128	ppbv 100
15) Acetone	3.83	43	672806	8.257	ppbv 100
16) 1,3-Butadiene	3.31	39	512373	8.763	ppbv 100
17) tert-Butyl alcohol	4.26	59	798557	8.930	ppbv 97
18) 1,1-Dichloroethene	4.26	96	461017	9.149	ppbv 96
19) Isopropyl Alcohol	3.94	45	445276	8.736	ppbv 100
20) Methylene Chloride	4.32	84	368846	7.783	ppbv 98
21) Allyl Chloride	4.39	41	647980	8.988	ppbv 95
22) trans-1,2-Dichloroethene	4.86	96	490990	9.430	ppbv 97
23) Vinyl Acetate	5.04	43	1080853	9.123	ppbv 99
24) 1,1-Dichloroethane	4.98	63	964421	9.138	ppbv 99
25) Ethyl Acetate	5.65	43	2097109	9.192	ppbv 100
26) Hexane	5.65	57	965031	9.095	ppbv 99
27) Carbon Disulfide	4.53	76	1148954	9.255	ppbv 99
28) Methyl tert-Butyl Ether	5.01	73	1012217	9.196	ppbv 99
29) Chloroform	5.72	83	1560685	9.011	ppbv 99
30) Cyclohexane	7.09	84	827959	8.962	ppbv 99
31) cis-1,2-Dichloroethene	5.52	61	882950	9.539	ppbv 98
32) 1,1,1-Trichloroethane	6.48	97	1574462	9.101	ppbv 99
34) 2-Butanone	5.21	43	735788	8.903	ppbv 99
35) Carbon Tetrachloride	6.98	117	1632438	9.202	ppbv 98
36) Benzene	6.85	78	2059384	9.213	ppbv 99
37) 1,2-Dichloroethane	6.27	62	1201967	9.388	ppbv 99
38) Trichloroethene	7.80	130	737919	8.862	ppbv 96
39) 1,2-Dichloropropane	7.58	63	816885	9.013	ppbv 100
40) 1,4-Dioxane	7.79	88	191719	8.789	ppbv # 1
41) Tetrahydrofuran	6.02	42	522838	9.411	ppbv 99
42) Bromodichloromethane	7.75	83	1746855	9.196	ppbv 99
43) Methyl Methacrylate	7.98	69	763445	9.656	ppbv 98

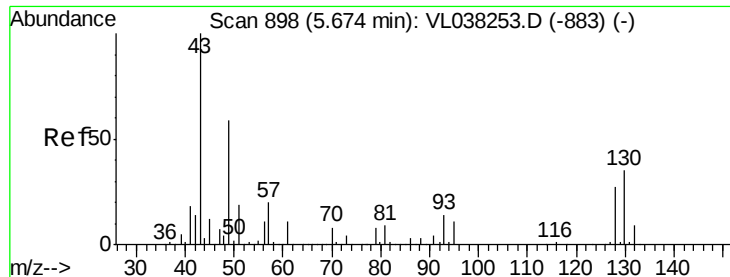
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL020122\
 Data File : VL038319.D
 Acq On : 1 Feb 2022 13:06
 Operator : SY/AP
 Sample : VL0201ABS01
 Misc : 400mL/MSVOA_L
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Instrument :
 MSVOA_L
 ClientSampleId :
 VL0201ABS01

Quant Time: Feb 02 05:12:57 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL012422AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Jan 24 14:12:48 2022
 QLast Update : Mon Jan 24 14:12:48 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,2,4-Trimethylpentane	7.83	57	3463686	8.792	ppbv	100
45) t-1,3-Dichloropropene	9.24	75	703346	10.948	ppbv	97
46) cis-1,3-Dichloropropene	8.66	75	864637	10.088	ppbv	97
47) 1,1,2-Trichloroethane	9.43	97	829131	9.311	ppbv	100
48) Dibromochloromethane	10.26	129	1429070	9.532	ppbv	99
49) Bromoform	13.00	173	1101709	10.193	ppbv	99
50) 4-Methyl-2-Pentanone	8.70	43	1391912	9.441	ppbv	100
51) 2-Hexanone	10.09	43	623232	9.598	ppbv #	98
52) Tetrachloroethene	11.18	164	685091	8.892	ppbv	97
53) Toluene	9.76	91	2326997	9.405	ppbv	98
54) 1,2-Dibromoethane	10.57	107	1226718	9.690	ppbv	96
56) 1,1,1,2-Tetrachloroethane	12.08	131	918727	7.313	ppbv #	59
57) Chlorobenzene	12.10	112	1696439	7.386	ppbv	99
58) Ethyl Benzene	12.67	91	3125551	7.410	ppbv	100
59) m/p-Xylene	12.95	91	2959299	8.223	ppbv #	48
60) o-Xylene	13.65	91	2487903	7.433	ppbv	99
61) Styrene	13.48	104	1304272	8.349	ppbv	100
62) Isopropylbenzene	14.63	105	3315345	7.430	ppbv	100
63) 1,1,2,2-Tetrachloroethane	13.63	83	1791202	7.232	ppbv	100
64) n-propylbenzene	15.52	120	845053	7.872	ppbv	98
65) tert-Butylbenzene	16.70	119	2815310	7.660	ppbv	100
66) Benzyl Chloride	16.94	91	166228	9.957	ppbv	99
67) sec-Butylbenzene	17.25	105	3953555	7.733	ppbv	100
69) p-Isopropyltoluene	17.61	119	3155247	8.064	ppbv	99
70) n-Butylbenzene	18.50	91	3167478	8.266	ppbv	100
71) 2-Chlorotoluene	15.41	91	2581777	7.812	ppbv	98
72) 4-Ethyltoluene	15.79	105	2834187	8.097	ppbv	99
73) 1,3,5-Trimethylbenzene	15.95	105	2522313	8.013	ppbv	99
74) 1,2,4-Trimethylbenzene	16.72	105	2573164	7.759	ppbv	99
75) 1,3-Dichlorobenzene	16.95	146	1455027	8.176	ppbv	100
76) 1,4-Dichlorobenzene	17.09	146	1384805	8.037	ppbv	97
77) 1,2-Dichlorobenzene	17.77	146	1322012	7.998	ppbv	99
78) Hexachloro-1,3-Butadiene	23.33	225	713218	6.206	ppbv	100
79) Naphthalene	22.14	128	1231845	7.945	ppbv	98
80) Naphthalene,2-methyl-	24.94	142	231389	13.723	ppbv	99
81) 1,2,4-Trichlorobenzene	21.87	180	663895	7.280	ppbv	99

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: VL0201ABS01

Acq: 1 Feb 2022 13:00

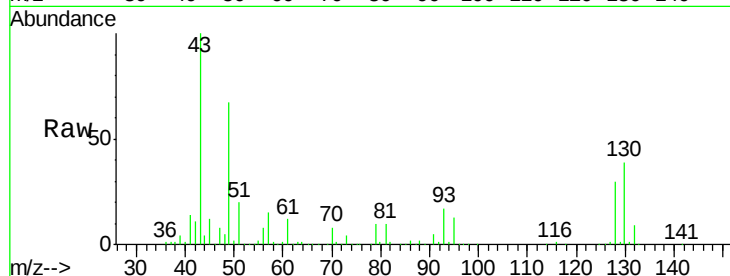
Tgt Ion: 49 Resp: 924323

Ion Ratio Lower Upper

49 100

128 49.7 24.5 73.5

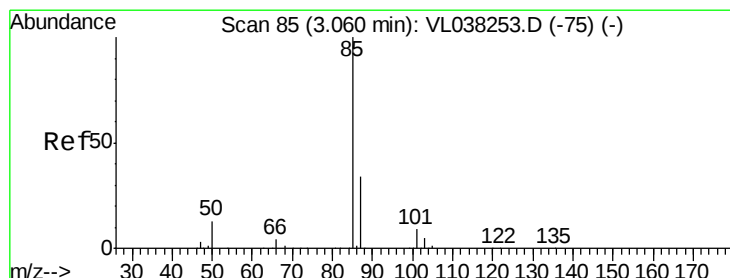
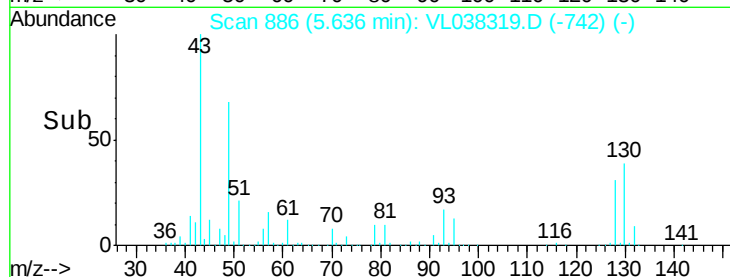
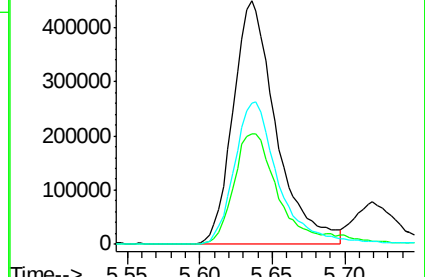
130 61.5 30.1 90.5



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: 9.447 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.03 min

Lab File: VL038319.D

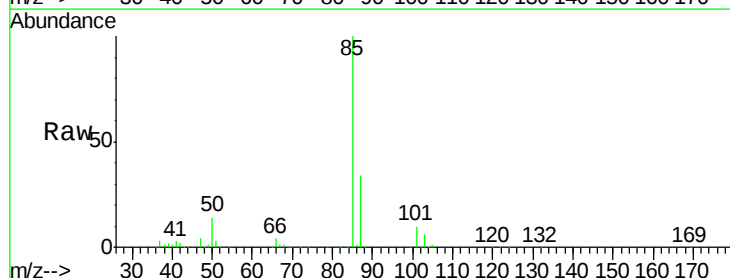
Acq: 1 Feb 2022 13:06

Tgt Ion: 85 Resp: 1858884

Ion Ratio Lower Upper

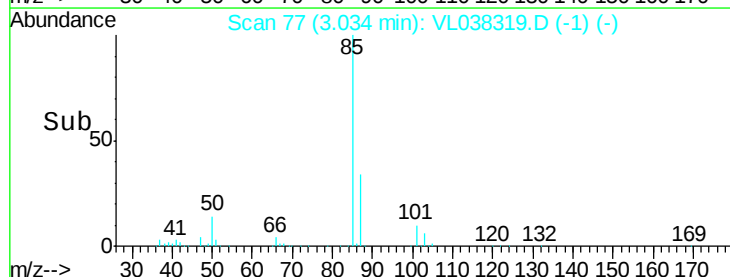
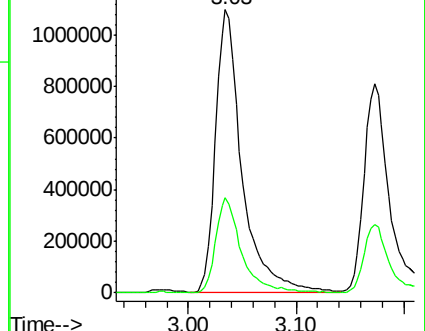
85 100

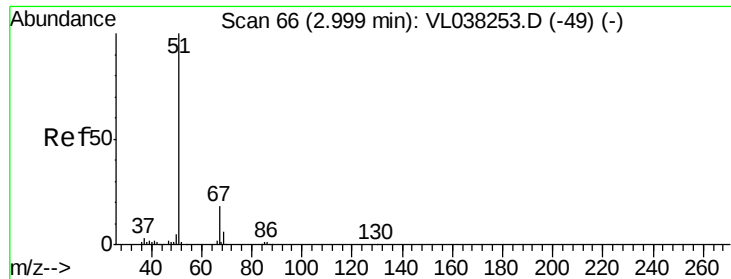
87 33.6 27.0 40.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

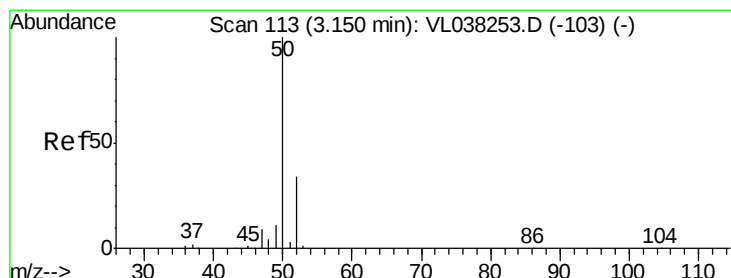
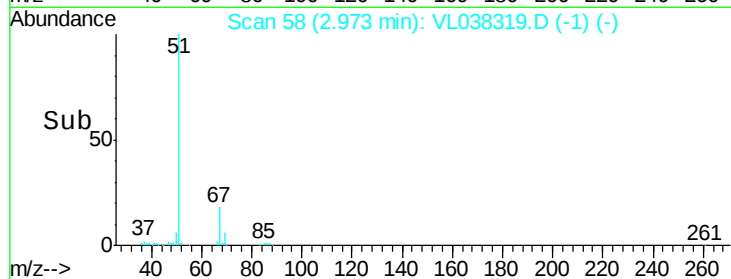
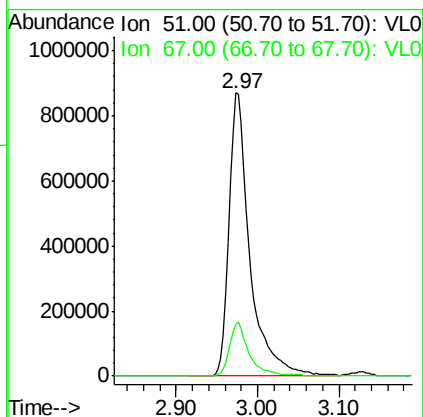
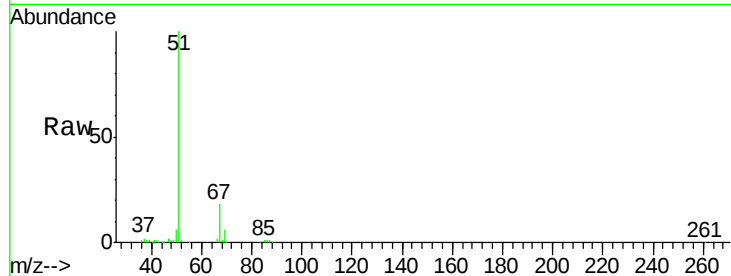
Ion 87.00 (86.70 to 87.70): VL0





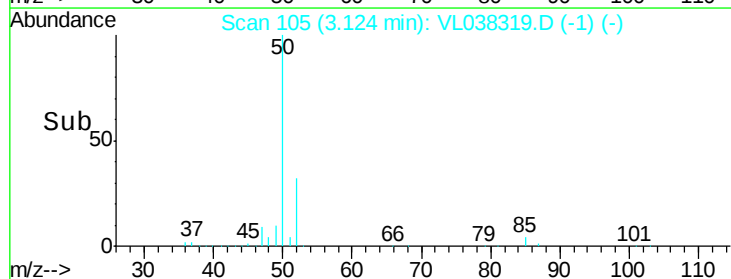
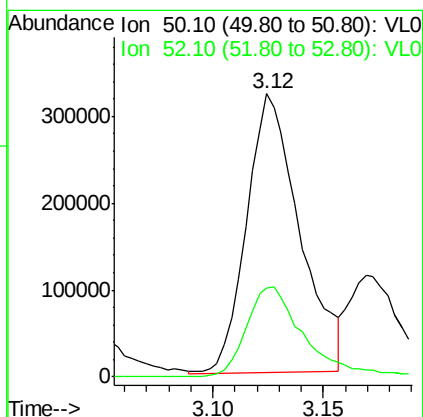
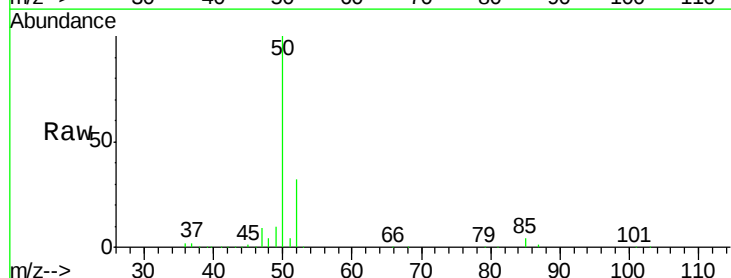
#3
 Chlorodifluoromethane
 Concen: 8.538 ppbv
 RT: 2.97
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId : VL0201ABS01
 Acq: 1 Feb 2022 13:00

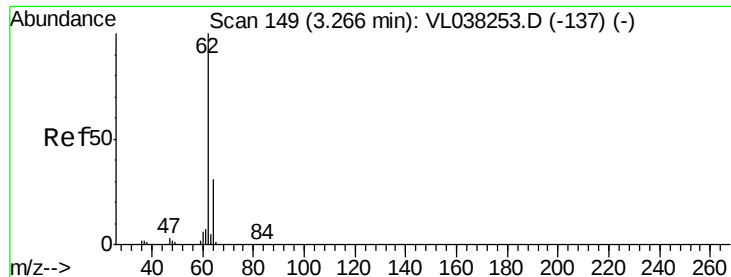
Tgt Ion: 51 Resp: 1571148
 Ion Ratio Lower Upper
 51 100
 67 18.3 14.4 21.6



#4
 Chloromethane
 Concen: 8.500 ppbv
 RT: 3.12 min Scan# 105
 Delta R.T. -0.03 min
 Lab File: VL038319.D
 Acq: 1 Feb 2022 13:06

Tgt Ion: 50 Resp: 538100
 Ion Ratio Lower Upper
 50 100
 52 32.1 27.1 40.7





#5

Vinyl Chloride

Concen: 8.645 ppbv

RT: 3.24 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: VL0201ABS01

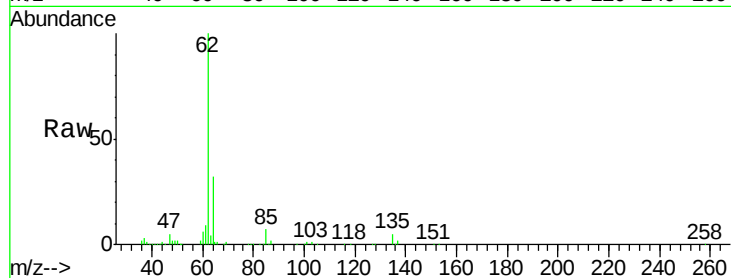
Acq: 1 Feb 2022 13:00

Tgt Ion: 62 Resp: 546258

Ion Ratio Lower Upper

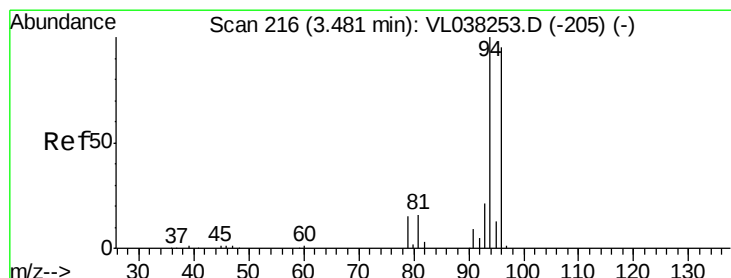
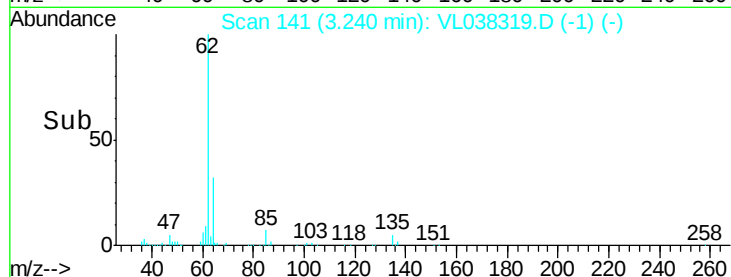
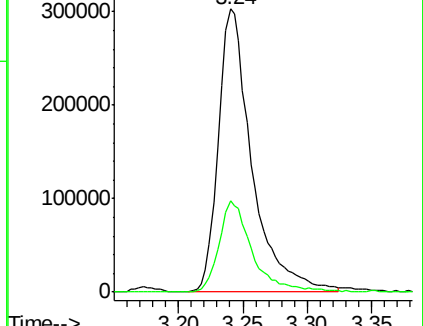
62 100

64 32.2 24.4 36.6



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 9.326 ppbv

RT: 3.46 min Scan# 208

Delta R.T. -0.03 min

Lab File: VL038319.D

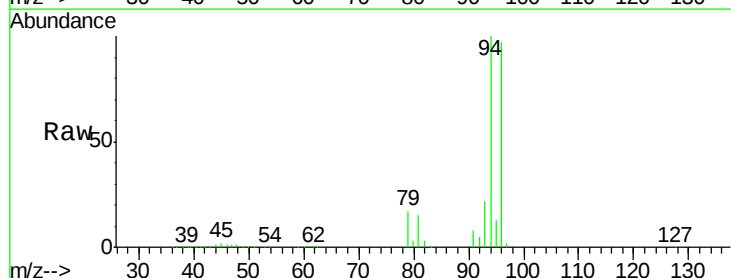
Acq: 1 Feb 2022 13:06

Tgt Ion: 94 Resp: 318573

Ion Ratio Lower Upper

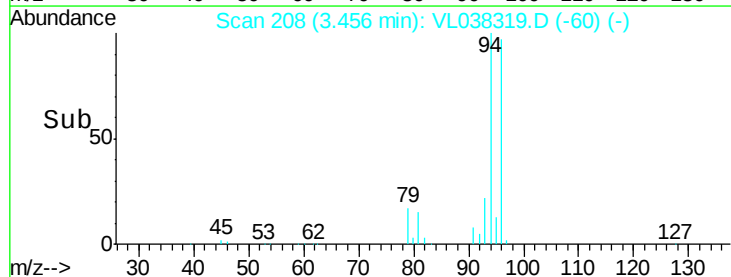
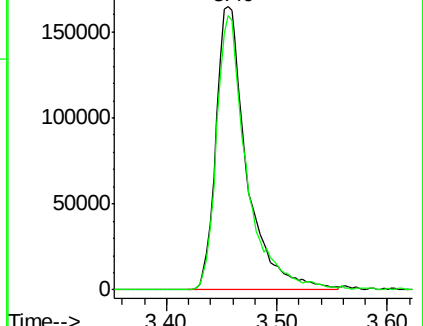
94 100

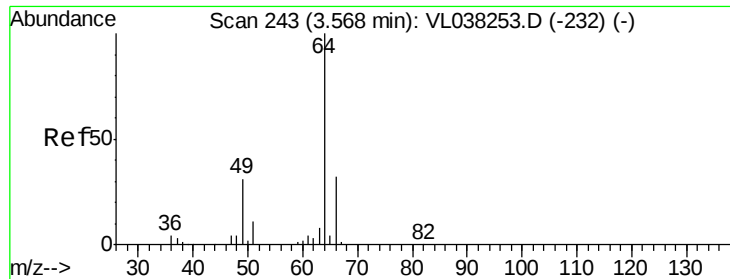
96 96.8 76.0 114.0



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 8.602 ppbv

RT: 3.54 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: VL0201ABS01

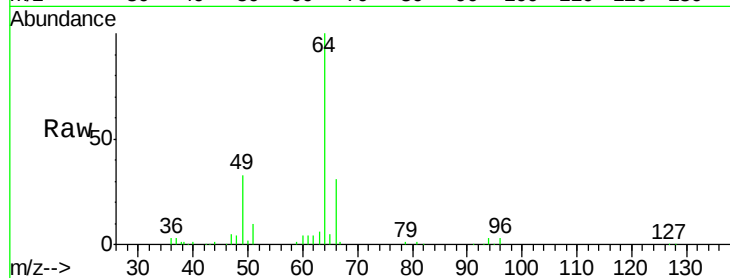
Acq: 1 Feb 2022 13:00

Tgt Ion: 64 Resp: 183580

Ion Ratio Lower Upper

64 100

66 31.0 25.8 38.6



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0

3.54

100000

80000

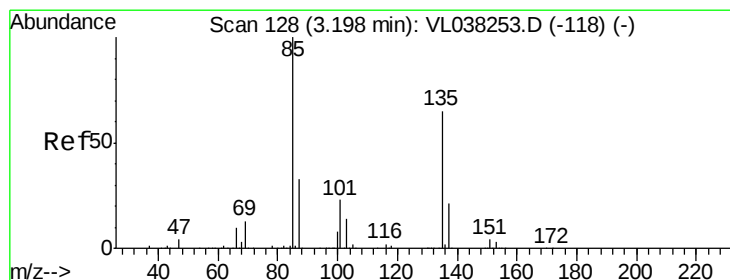
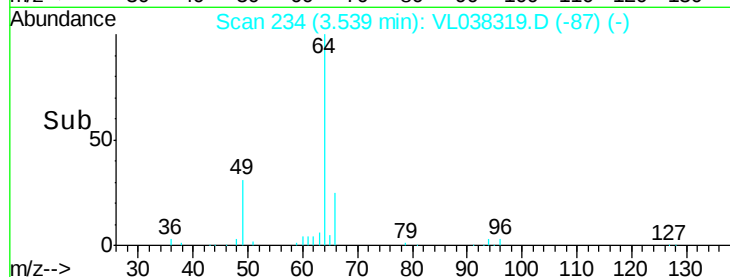
60000

40000

20000

0

Time-->



#8

Dichlorotetrafluoroethane

Concen: 8.612 ppbv

RT: 3.17 min Scan# 120

Delta R.T. -0.03 min

Lab File: VL038319.D

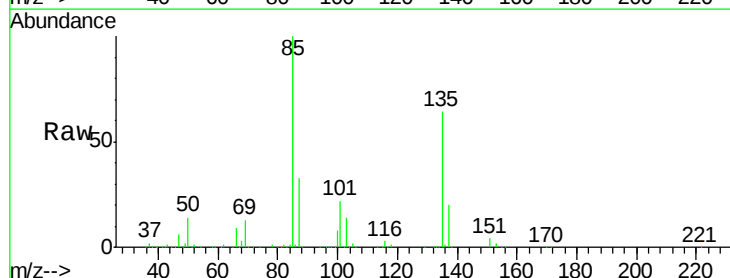
Acq: 1 Feb 2022 13:06

Tgt Ion: 85 Resp: 1311178

Ion Ratio Lower Upper

85 100

135 68.5 53.7 80.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V

3.17

800000

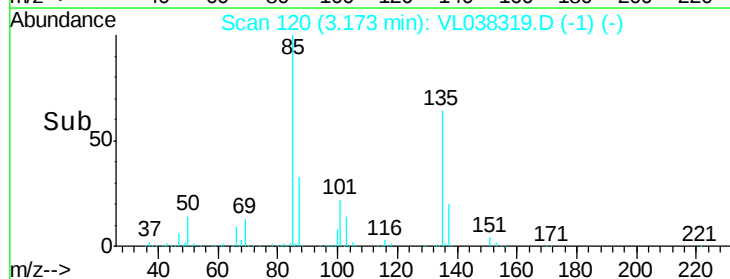
600000

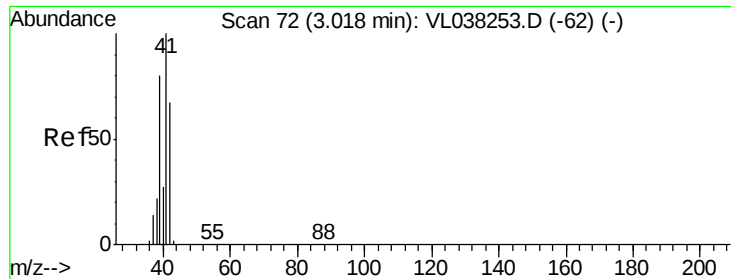
400000

200000

0

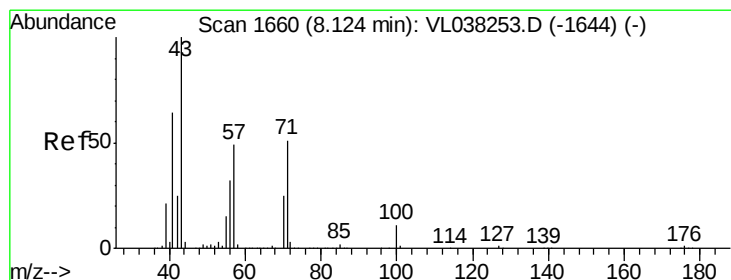
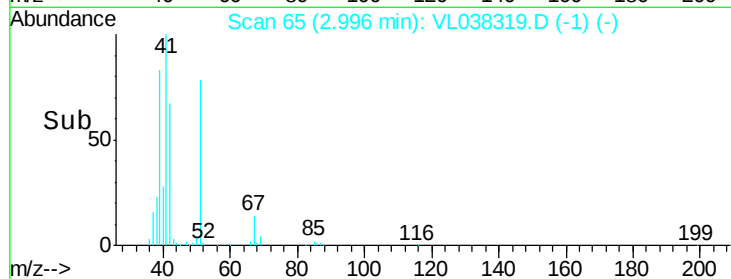
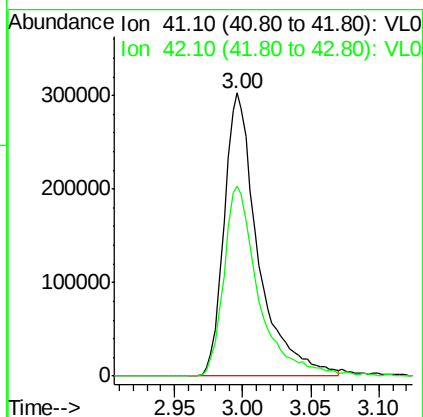
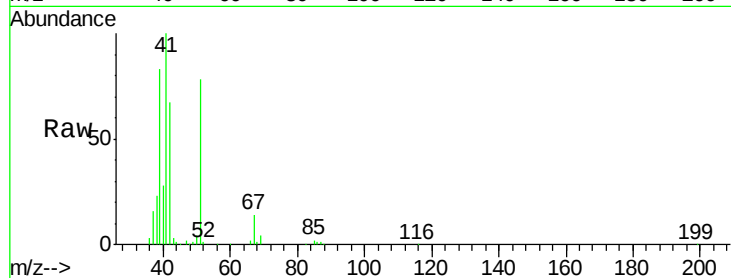
Time-->





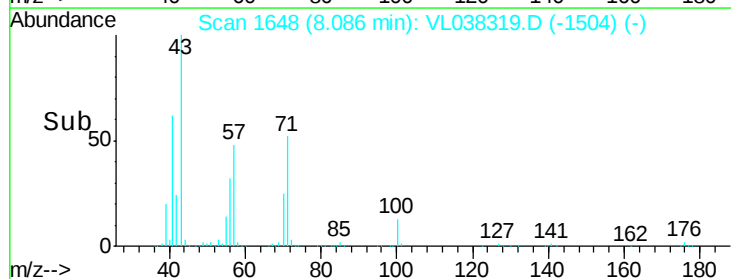
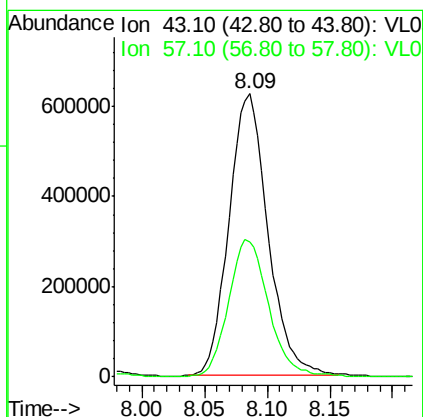
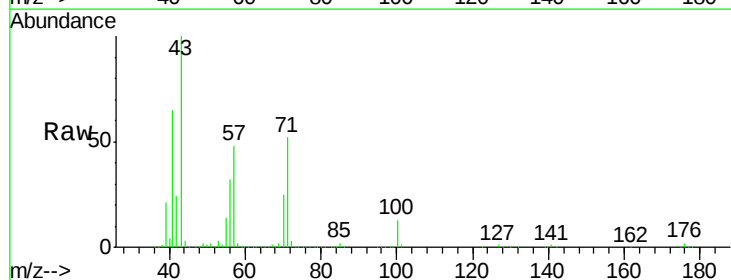
#9
 Propene
 Concen: 8.741 ppbv
 RT: 3.00
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 VL0201ABS01
 Acq: 1 Feb 2022 13:00

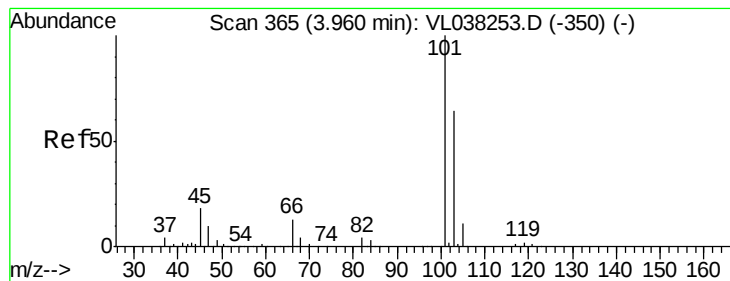
Tgt Ion: 41 Resp: 523589
 Ion Ratio Lower Upper
 41 100
 42 69.2 54.9 82.3



#10
 Heptane
 Concen: 8.765 ppbv
 RT: 8.09 min Scan# 1648
 Delta R.T. -0.04 min
 Lab File: VL038319.D
 Acq: 1 Feb 2022 13:06

Tgt Ion: 43 Resp: 1350889
 Ion Ratio Lower Upper
 43 100
 57 50.3 39.5 59.3





#11

Trichlorofluoromethane

Concen: 8.959 ppbv

RT: 3.93 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

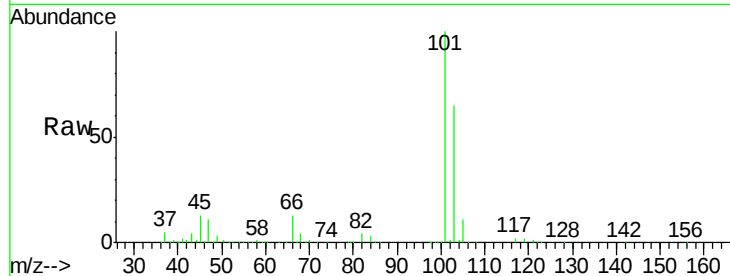
Acq: 1 Feb 2022 13:00 VL0201ABS01

Tgt Ion:101 Resp: 1373334

Ion Ratio Lower Upper

101 100

103 65.4 51.2 76.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V

3.93

800000

600000

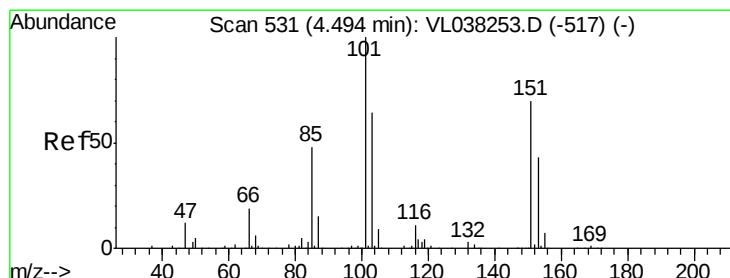
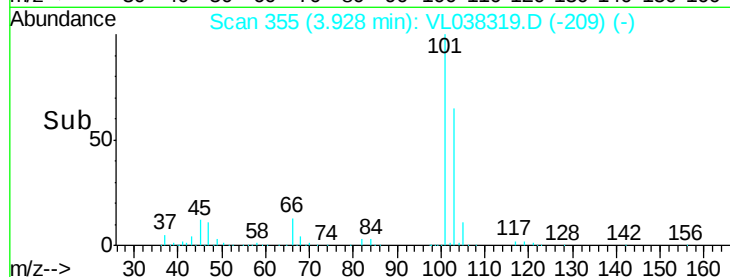
400000

200000

0

3.85 3.90 3.95 4.00

Time-->



#12

1,1,2-Trichlorotrifluoroethane

Concen: 8.894 ppbv

RT: 4.46 min Scan# 521

Delta R.T. -0.03 min

Lab File: VL038319.D

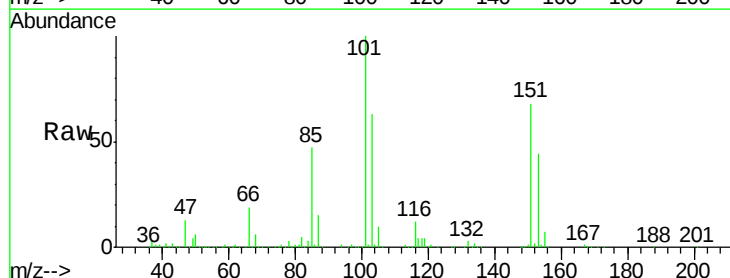
Acq: 1 Feb 2022 13:06

Tgt Ion:101 Resp: 1030593

Ion Ratio Lower Upper

101 100

151 70.4 55.3 82.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

4.46

500000

400000

300000

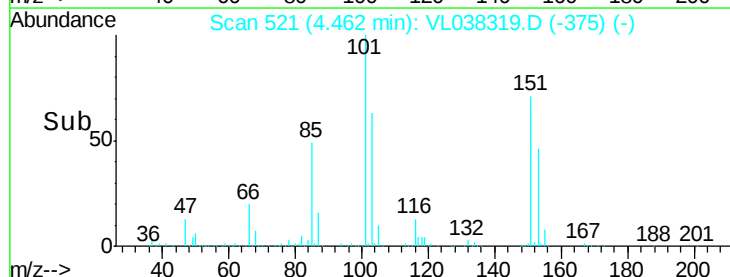
200000

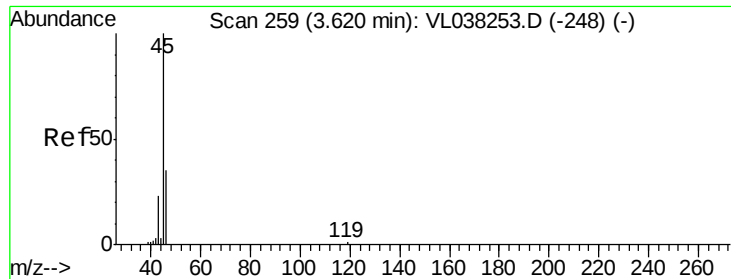
100000

0

4.35 4.40 4.45 4.50 4.55

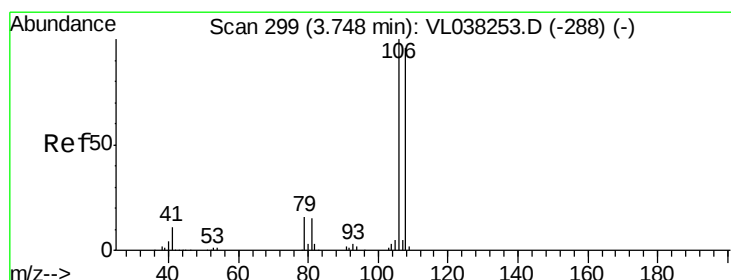
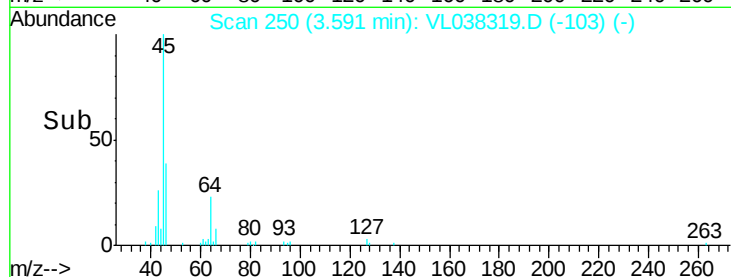
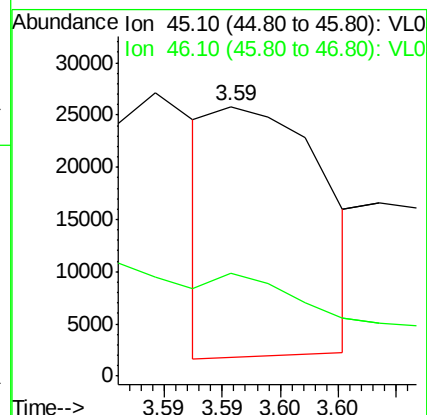
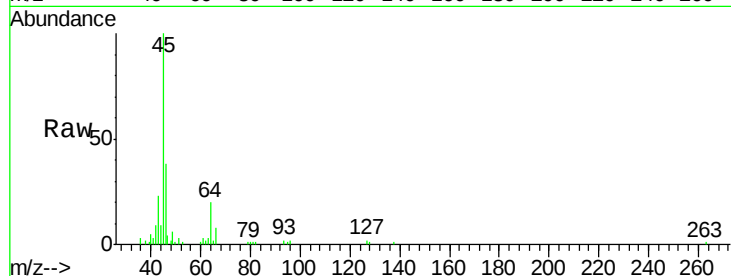
Time-->





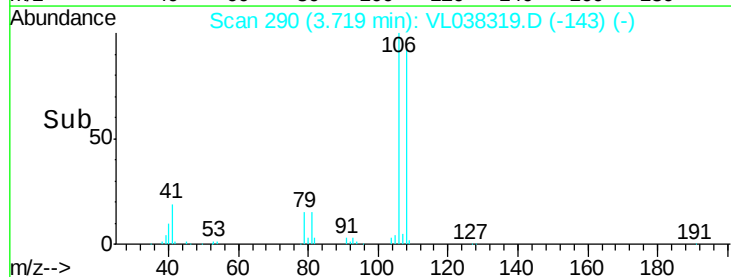
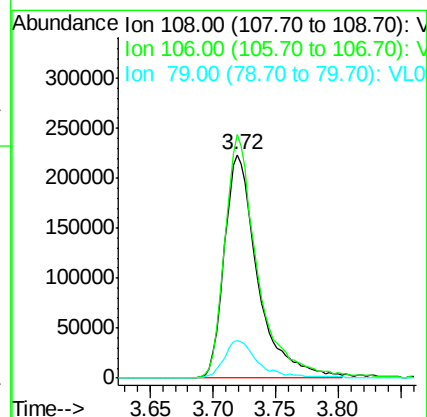
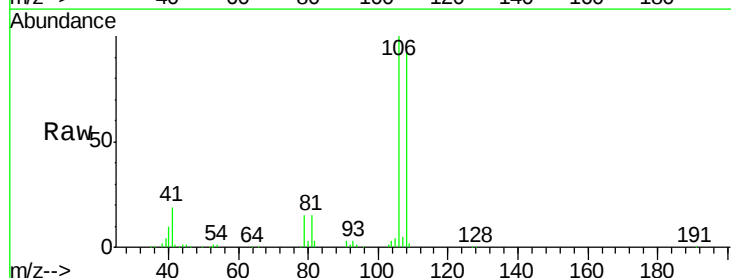
#13
Ethanol
Concen: 2.448 ppbv
RT: 3.59
Delta R.T. MSVOA_1
Lab File: ClientSampleId : VL0201ABS01
Acq: 1 Feb 2022 13:00

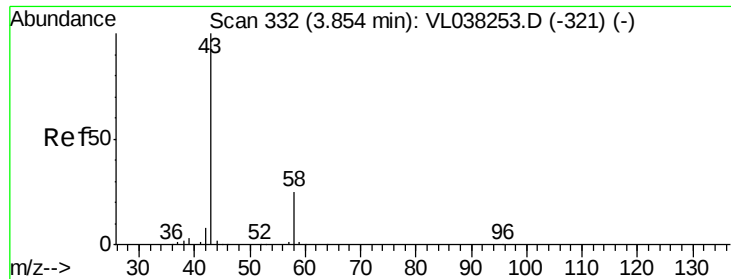
Tgt Ion: 45 Resp: 15742
Ion Ratio Lower Upper
45 100
46 0.0 15.4 61.6#



#14
Bromoethene
Concen: 9.128 ppbv
RT: 3.72 min Scan# 290
Delta R.T. -0.03 min
Lab File: VL038319.D
Acq: 1 Feb 2022 13:06

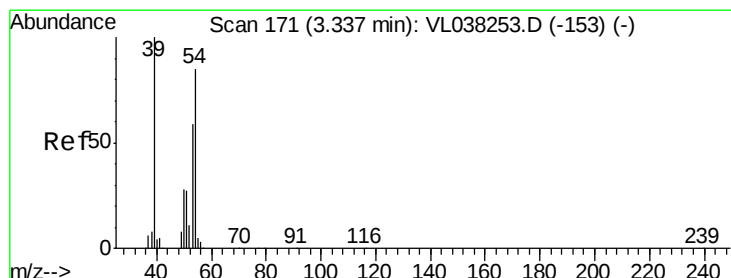
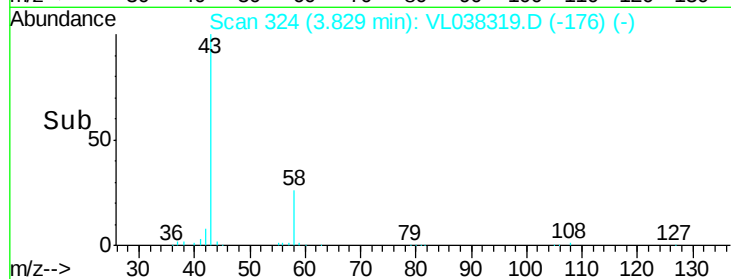
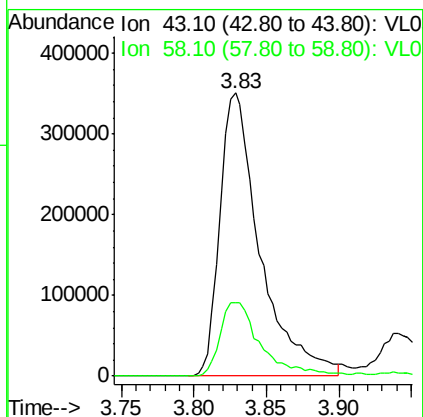
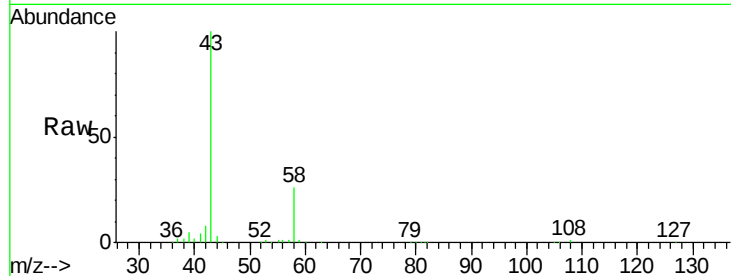
Tgt Ion: 108 Resp: 413303
Ion Ratio Lower Upper
108 100
106 108.4 86.4 129.6
79 17.8 14.1 21.1





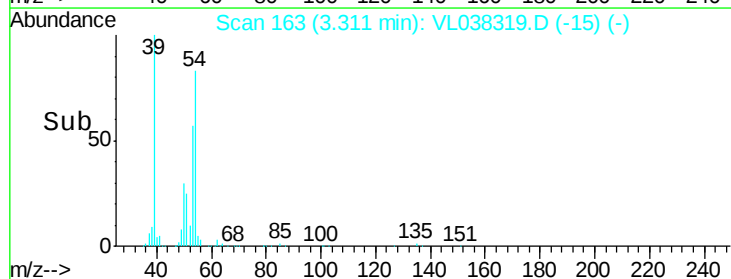
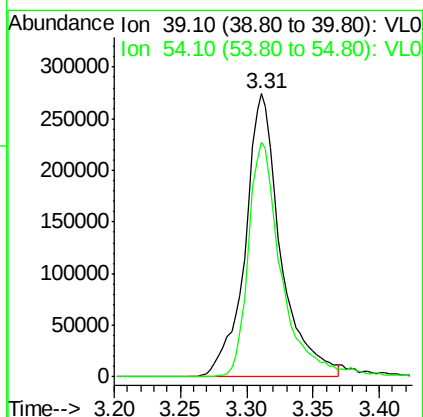
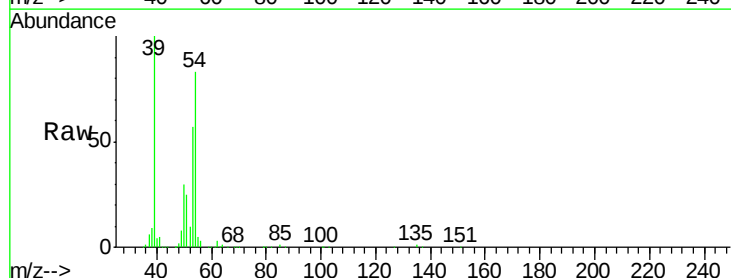
#15
Acetone
Concen: 8.257 ppbv
RT: 3.83
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
VL0201ABS01
Acq: 1 Feb 2022 13:00

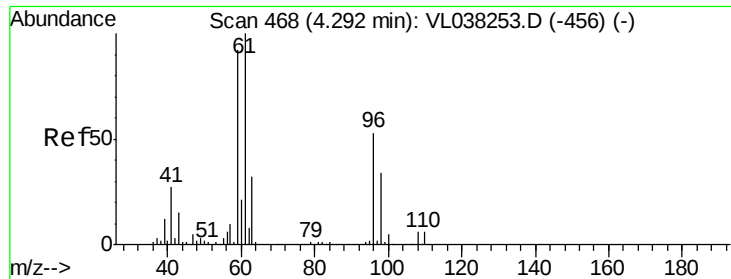
Tgt Ion: 43 Resp: 672806
Ion Ratio Lower Upper
43 100
58 27.1 21.5 32.3



#16
1,3-Butadiene
Concen: 8.763 ppbv
RT: 3.31 min Scan# 163
Delta R.T. -0.03 min
Lab File: VL038319.D
Acq: 1 Feb 2022 13:06

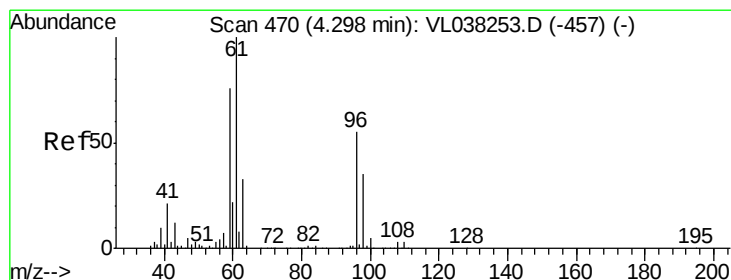
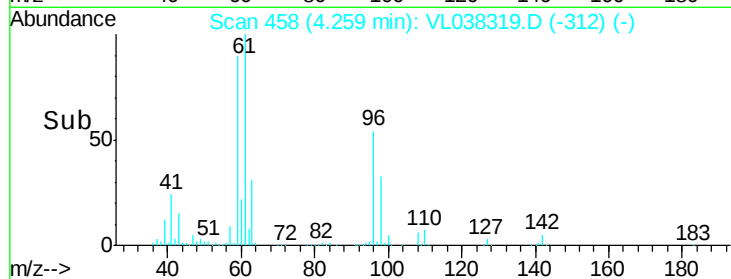
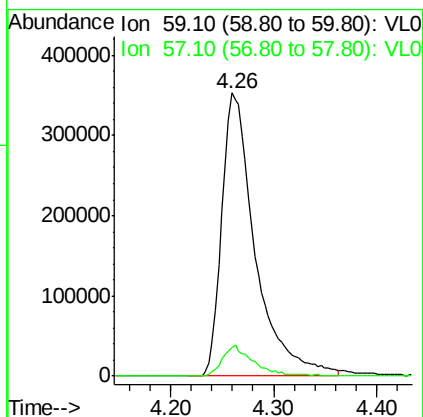
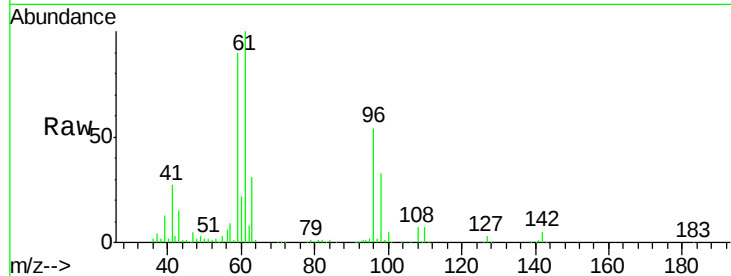
Tgt Ion: 39 Resp: 512373
Ion Ratio Lower Upper
39 100
54 77.9 62.6 94.0





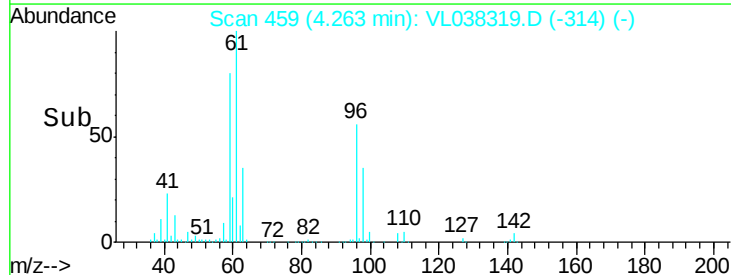
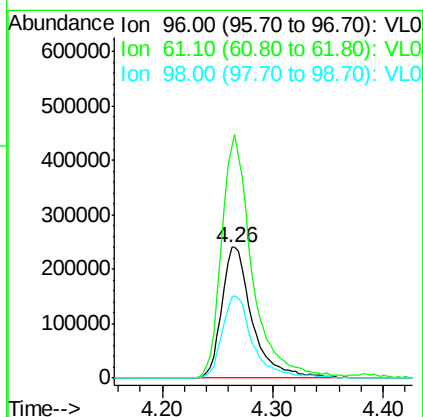
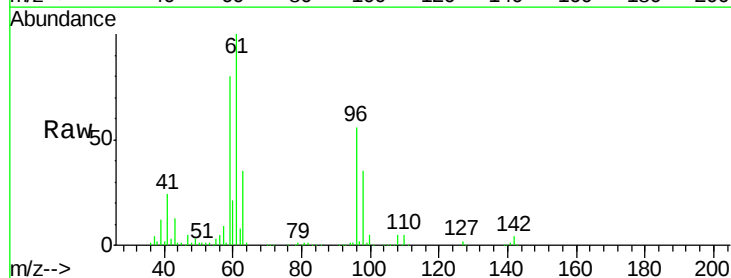
#17
 tert-Butyl alcohol
 Concen: 8.930 ppbv
 RT: 4.26
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 VL0201ABS01
 Acq: 1 Feb 2022 13:00

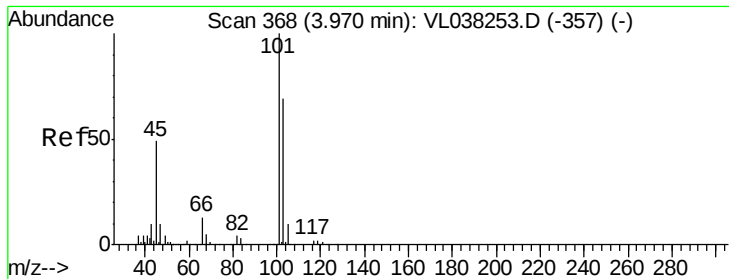
Tgt Ion: 59 Resp: 798557
 Ion Ratio Lower Upper
 59 100
 57 10.3 9.2 13.8



#18
 1,1-Dichloroethene
 Concen: 9.149 ppbv
 RT: 4.26 min Scan# 459
 Delta R.T. -0.04 min
 Lab File: VL038319.D
 Acq: 1 Feb 2022 13:06

Tgt Ion: 96 Resp: 461017
 Ion Ratio Lower Upper
 96 100
 61 177.7 146.5 219.7
 98 61.7 51.9 77.9





#19

Isopropyl Alcohol

Concen: 8.736 ppbv

RT: 3.94 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

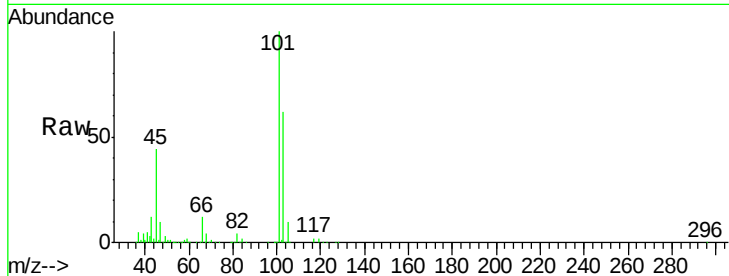
Acq: 1 Feb 2022 13:00 VL0201ABS01

Tgt Ion: 45 Resp: 445276

Ion Ratio Lower Upper

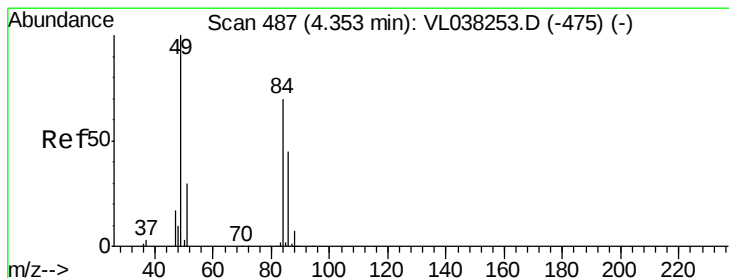
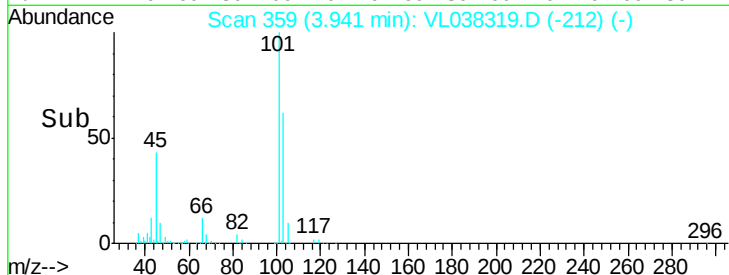
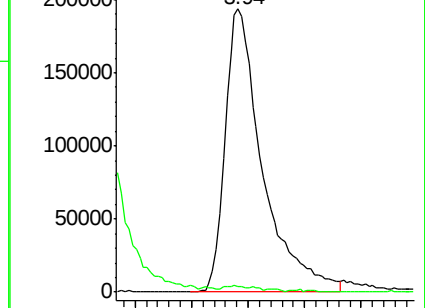
45 100

58 2.8 2.3 3.5



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 7.783 ppbv

RT: 4.32 min Scan# 477

Delta R.T. -0.03 min

Lab File: VL038319.D

Acq: 1 Feb 2022 13:06

Tgt Ion: 84 Resp: 368846

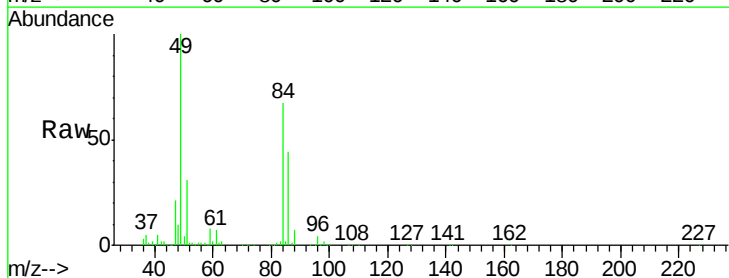
Ion Ratio Lower Upper

84 100

49 146.4 115.0 172.6

51 45.3 35.0 52.6

86 64.9 51.4 77.0

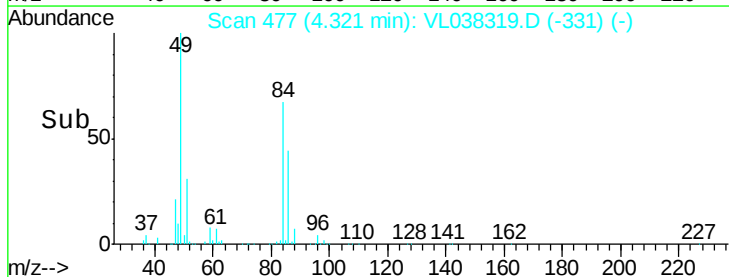
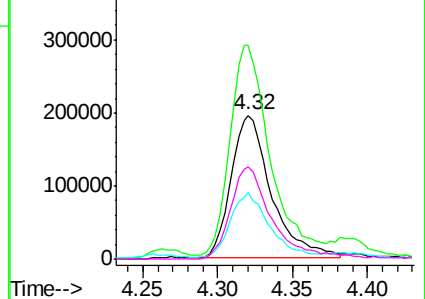


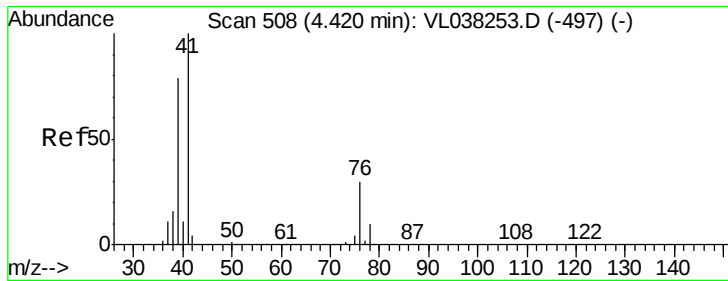
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

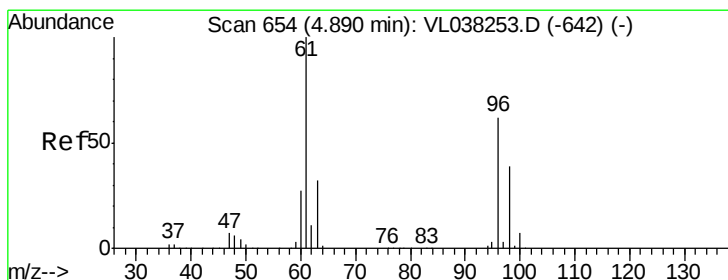
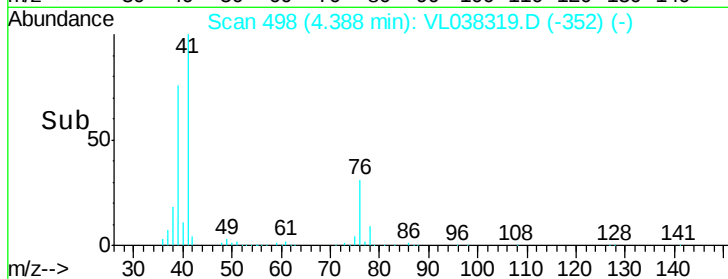
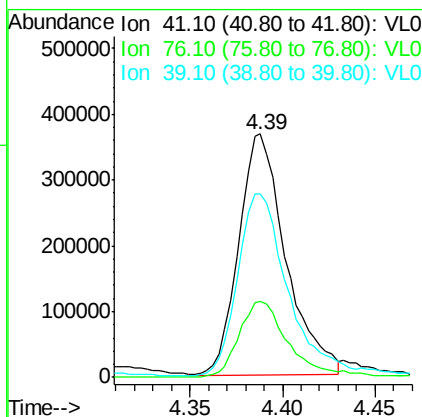
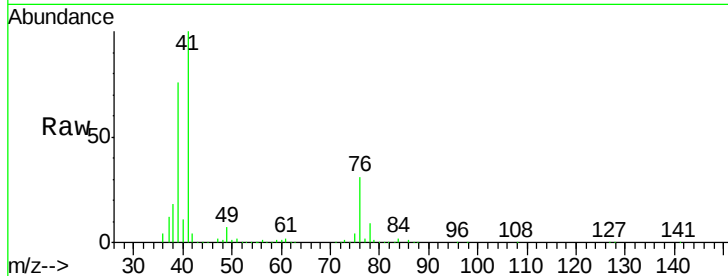
Ion 86.00 (85.70 to 86.70): VL0





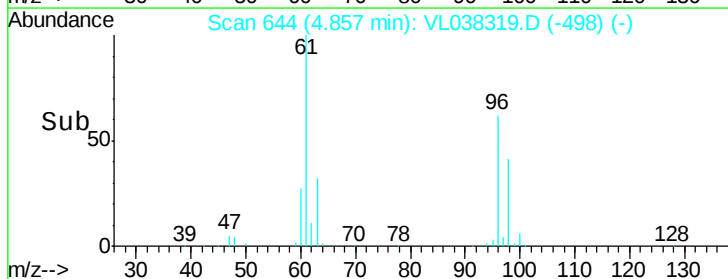
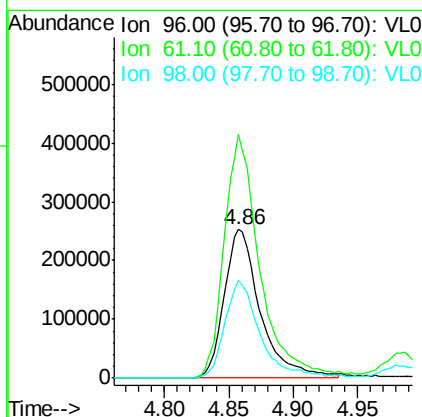
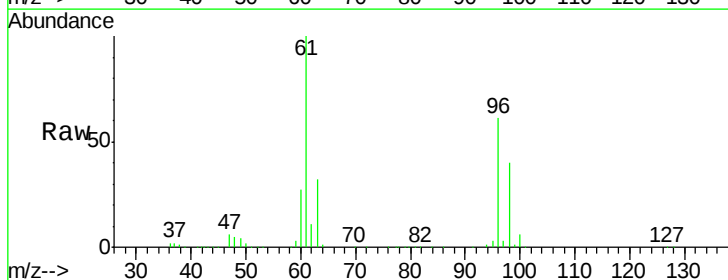
#21
 Allyl Chloride
 Concen: 8.988 ppbv
 RT: 4.39
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId : VL0201ABS01
 Acq: 1 Feb 2022 13:00

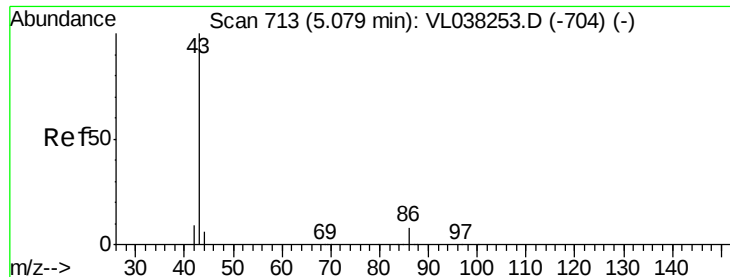
Tgt Ion: 41 Resp: 647980
 Ion Ratio Lower Upper
 41 100
 76 33.6 25.0 37.6
 39 82.9 63.0 94.6



#22
 trans-1,2-Dichloroethene
 Concen: 9.430 ppbv
 RT: 4.86 min Scan# 644
 Delta R.T. -0.03 min
 Lab File: VL038319.D
 Acq: 1 Feb 2022 13:06

Tgt Ion: 96 Resp: 490990
 Ion Ratio Lower Upper
 96 100
 61 163.7 128.8 193.2
 98 65.6 49.8 74.8





#23

Vinyl Acetate

Concen: 9.123 ppbv

RT: 5.04 Instrument: MSVOA_1

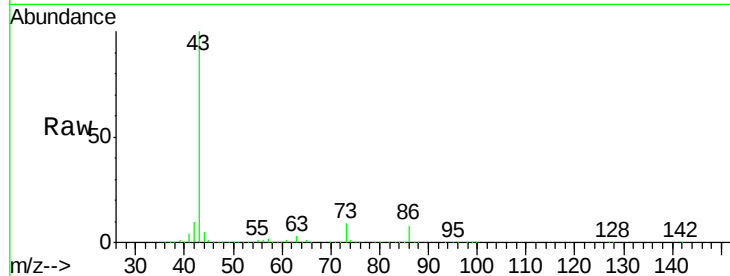
Delta R.T. ClientSampleId:

Lab File: VL0201ABS01

Acq: 1 Feb 2022 13:00

Tgt Ion: 43 Resp: 1080853

Ion	Ratio	Lower	Upper
43	100		
86	8.2	5.7	8.5
42	9.9	7.7	11.5
44	5.1	4.2	6.4

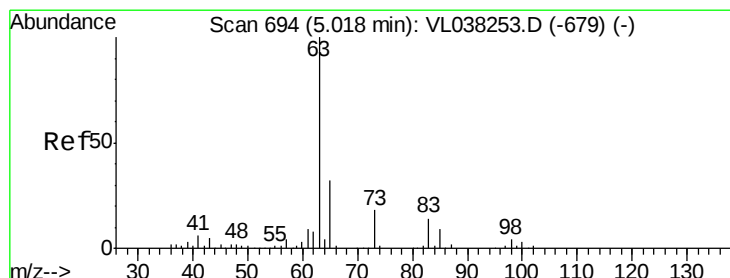
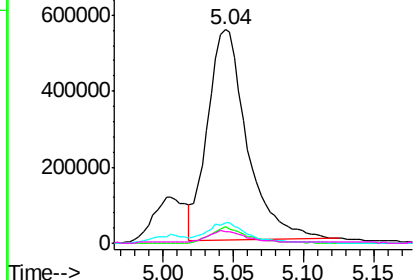
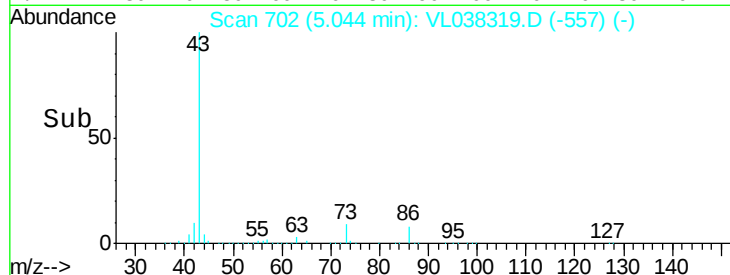


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 9.138 ppbv

RT: 4.98 min Scan# 683

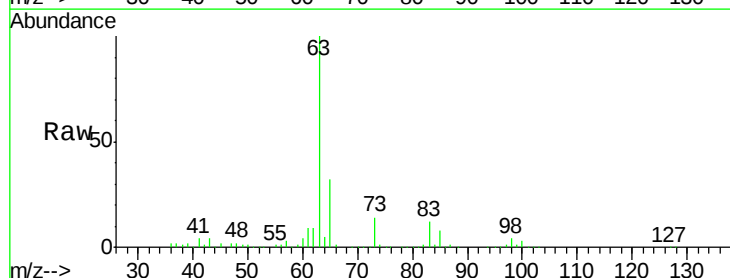
Delta R.T. -0.04 min

Lab File: VL038319.D

Acq: 1 Feb 2022 13:06

Tgt Ion: 63 Resp: 964421

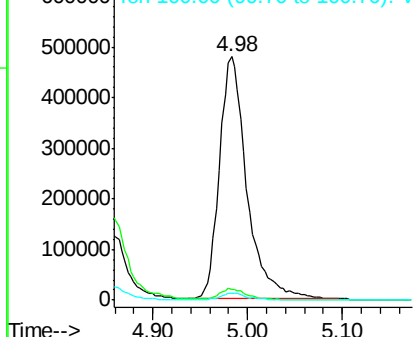
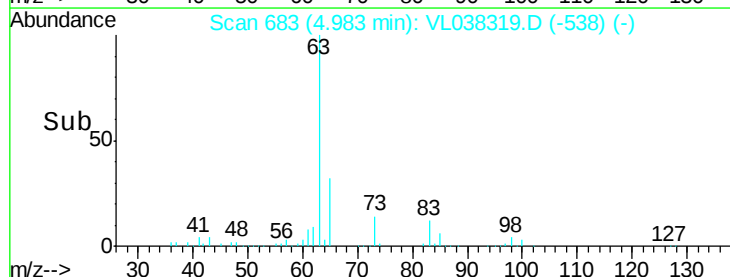
Ion	Ratio	Lower	Upper
63	100		
98	4.0	2.3	6.8
100	2.9	1.3	3.9

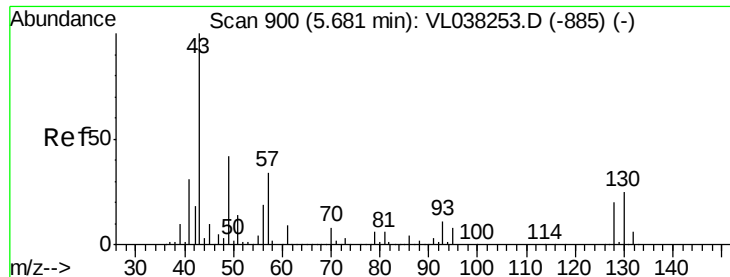


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0

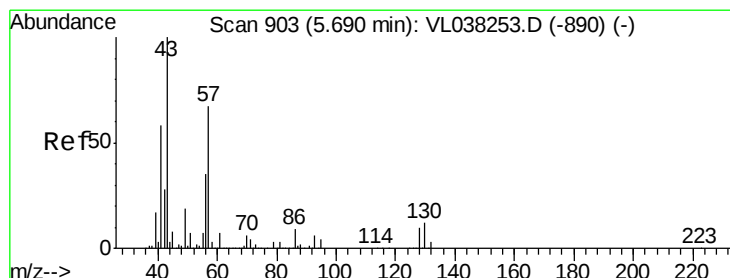
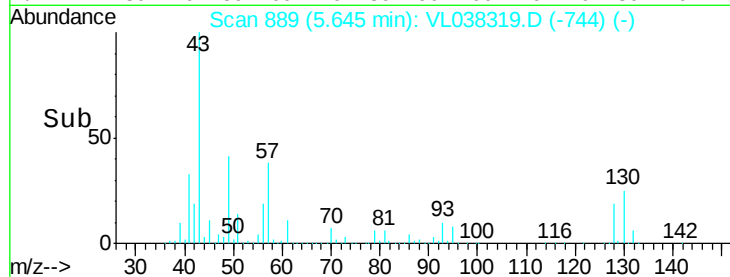
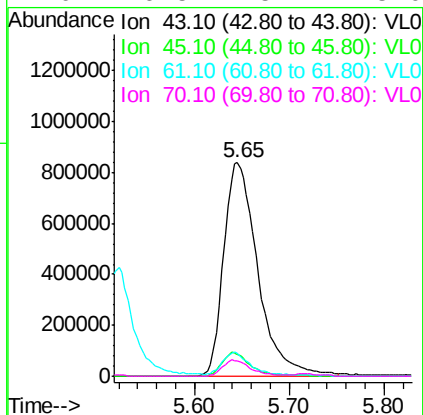
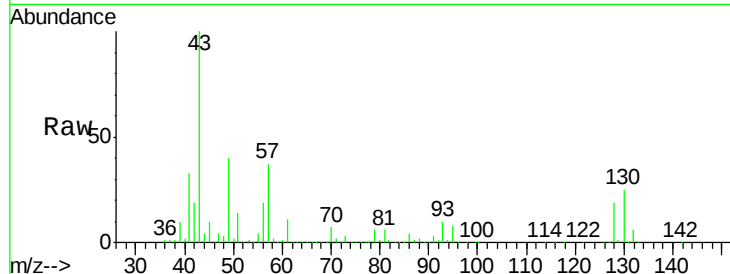




#25
Ethyl Acetate
Concen: 9.192 ppbv
RT: 5.65
Delta R.T. MSVOA_L
Lab File: ClientSampleId : VL0201ABS01
Acq: 1 Feb 2022 13:00

Tgt Ion: 43 Resp: 2097109

Ion	Ratio	Lower	Upper
43	100		
45	9.7	7.9	11.9
61	9.7	7.8	11.8
70	6.5	5.4	8.0



#26
Hexane
Concen: 9.095 ppbv
RT: 5.65 min Scan# 892
Delta R.T. -0.04 min
Lab File: VL038319.D
Acq: 1 Feb 2022 13:06

Tgt Ion: 57 Resp: 965031

Ion	Ratio	Lower	Upper
57	100		
41	89.5	72.8	109.2
43	219.5	177.0	265.6
56	52.7	43.3	64.9

