

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL022222\
 Data File : VL038375.D
 Acq On : 22 Feb 2022 4:10
 Operator : SY/AP
 Sample : VSTDICCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Quant Time: Feb 22 07:52:36 2022

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL022222AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Feb 22 07:53:26 2022

QLast Update : Tue Feb 22 07:53:26 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	974905	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.15	114	2383011	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.06	117	2827804	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	1916795	8.86	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	88.60%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	1521324	7.80	ppbv	100
3) Chlorodifluoromethane	2.98	51	1597378	8.46	ppbv	100
4) Chloromethane	3.13	50	551171	8.47	ppbv	100
5) Vinyl Chloride	3.25	62	577460	8.78	ppbv	100
6) Bromomethane	3.46	94	301694	8.65	ppbv	100
7) Chloroethane	3.55	64	191772	8.77	ppbv	100
8) Dichlorotetrafluoroethane	3.18	85	1349624	8.60	ppbv	100
9) Propene	3.00	41	537333	8.76	ppbv	100
10) Heptane	8.10	43	1375824	8.71	ppbv	100
11) Trichlorofluoromethane	3.94	101	1388727	8.81	ppbv	100
12) 1,1,2-Trichlorotrifluoroet	4.47	101	1022845	8.59	ppbv	100
13) Ethanol	3.60	45	11858	1.88	ppbv #	1
14) Bromoethene	3.73	108	407982	8.76	ppbv	100
15) Acetone	3.84	43	696111	8.21	ppbv	99
16) 1,3-Butadiene	3.32	39	542027	8.97	ppbv	99
17) tert-Butyl alcohol	4.27	59	783562	8.59	ppbv	99
18) 1,1-Dichloroethene	4.28	96	441368	8.57	ppbv	100
19) Isopropyl Alcohol	3.95	45	428424	8.19	ppbv	100
20) Methylene Chloride	4.33	84	363116	7.49	ppbv	100
21) Allyl Chloride	4.40	41	666489	9.04	ppbv	99
22) trans-1,2-Dichloroethene	4.87	96	467630	8.75	ppbv	100
23) Vinyl Acetate	5.06	43	1063018	8.77	ppbv	100
24) 1,1-Dichloroethane	4.99	63	920606	8.51	ppbv	100
25) Ethyl Acetate	5.66	43	2130878	8.95	ppbv	100
26) Hexane	5.67	57	958399	8.70	ppbv	100
27) Carbon Disulfide	4.53	76	1150877	9.12	ppbv	100
28) Methyl tert-Butyl Ether	5.02	73	987217	8.75	ppbv	100
29) Chloroform	5.73	83	1581934	8.82	ppbv	100
30) Cyclohexane	7.11	84	804263	8.55	ppbv	100
31) cis-1,2-Dichloroethene	5.53	61	970562	9.66	ppbv	100
32) 1,1,1-Trichloroethane	6.49	97	1548660	8.65	ppbv	100
34) 2-Butanone	5.22	43	736935	9.37	ppbv	100
35) Carbon Tetrachloride	7.00	117	1636906	9.76	ppbv	100
36) Benzene	6.87	78	2064946	9.75	ppbv	100
37) 1,2-Dichloroethane	6.28	62	1210673	9.98	ppbv	100
38) Trichloroethene	7.81	130	734331	9.34	ppbv	100
39) 1,2-Dichloropropane	7.59	63	811044	9.50	ppbv	100
40) 1,4-Dioxane	7.81	88	190224	9.15	ppbv	100
41) Tetrahydrofuran	6.03	42	514515	9.76	ppbv	100
42) Bromodichloromethane	7.77	83	1756783	9.76	ppbv	100
43) Methyl Methacrylate	7.99	69	771723	10.32	ppbv	100

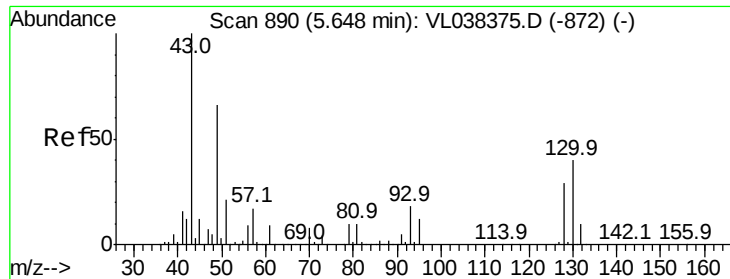
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL022222\
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 QLast Update : Tue Feb 22 07:53:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,2,4-Trimethylpentane	7.85	57	3468940	9.31	ppbv	100
45) t-1,3-Dichloropropene	9.25	75	678862	11.25	ppbv	100
46) cis-1,3-Dichloropropene	8.68	75	849778	10.52	ppbv	100
47) 1,1,2-Trichloroethane	9.45	97	829880	9.80	ppbv	100
48) Dibromochloromethane	10.28	129	1438473	10.11	ppbv	100
49) Bromoform	13.01	173	1125745	10.82	ppbv	100
50) 4-Methyl-2-Pentanone	8.72	43	1420309	10.15	ppbv	100
51) 2-Hexanone	10.11	43	657590	10.63	ppbv #	100
52) Tetrachloroethene	11.19	164	667391	9.16	ppbv	100
53) Toluene	9.78	91	2286445	9.79	ppbv	99
54) 1,2-Dibromoethane	10.58	107	1198521	9.98	ppbv	100
56) 1,1,1,2-Tetrachloroethane	12.10	131	931160	7.53	ppbv	98
57) Chlorobenzene	12.12	112	1651330	7.33	ppbv	100
58) Ethyl Benzene	12.68	91	3120390	7.54	ppbv	100
59) m/p-Xylene	12.97	91	2975670	8.40	ppbv #	48
60) o-Xylene	13.66	91	2501464	7.57	ppbv	100
61) Styrene	13.50	104	1295270	8.42	ppbv	100
62) Isopropylbenzene	14.64	105	3334302	7.56	ppbv	100
63) 1,1,2,2-Tetrachloroethane	13.65	83	1852692	7.50	ppbv	100
64) n-propylbenzene	15.53	120	872122	8.15	ppbv	100
65) tert-Butylbenzene	16.72	119	2905149	7.89	ppbv	100
66) Benzyl Chloride	16.96	91	196900	11.40	ppbv	100
67) sec-Butylbenzene	17.26	105	4108827	8.00	ppbv	100
69) p-Isopropyltoluene	17.62	119	3388391	8.53	ppbv	100
70) n-Butylbenzene	18.52	91	3551820	9.00	ppbv	100
71) 2-Chlorotoluene	15.42	91	2651132	8.03	ppbv	100
72) 4-Ethyltoluene	15.81	105	2922272	8.33	ppbv	100
73) 1,3,5-Trimethylbenzene	15.97	105	2617897	8.27	ppbv	100
74) 1,2,4-Trimethylbenzene	16.73	105	2736287	8.18	ppbv	100
75) 1,3-Dichlorobenzene	16.96	146	1537798	8.49	ppbv	100
76) 1,4-Dichlorobenzene	17.10	146	1487225	8.50	ppbv	100
77) 1,2-Dichlorobenzene	17.79	146	1453804	8.57	ppbv	100
78) Hexachloro-1,3-Butadiene	23.35	225	983935	8.31	ppbv	100
79) Naphthalene	22.16	128	1830187	11.32	ppbv	100
80) Naphthalene,2-methyl-	24.95	142	424422	20.57	ppbv	98
81) 1,2,4-Trichlorobenzene	21.89	180	1017005	10.62	ppbv	100

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



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.65 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 22 Feb 2022 4:10

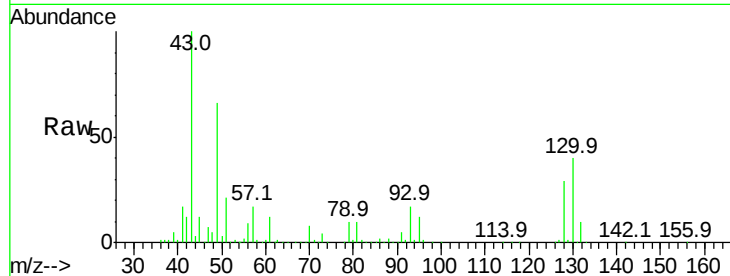
Tgt Ion: 49 Resp: 974905

Ion Ratio Lower Upper

49 100

128 48.6 24.3 72.9

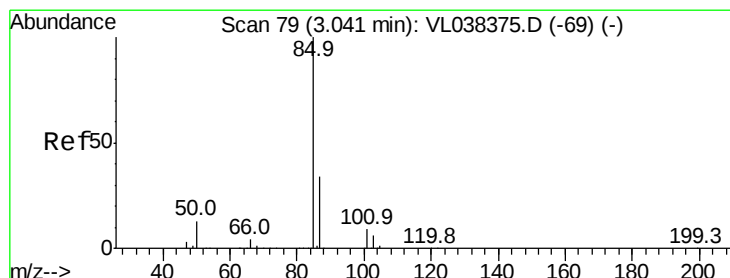
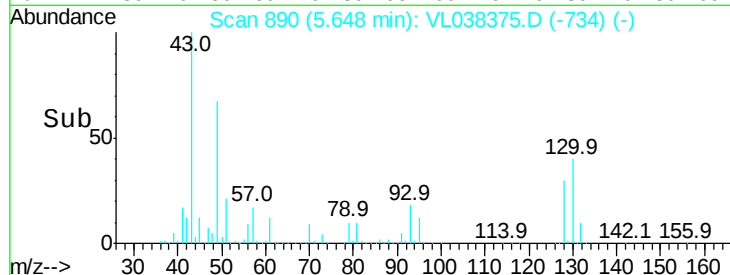
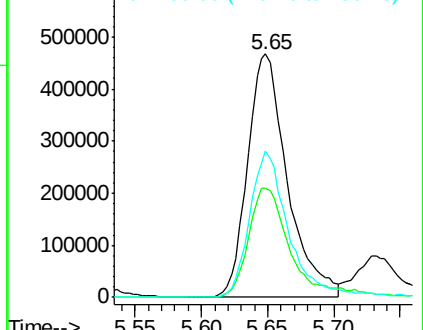
130 60.3 30.1 90.5



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: 7.80 ppbv

RT: 3.04 min Scan# 79

Delta R.T. 0.00 min

Lab File: VL038375.D

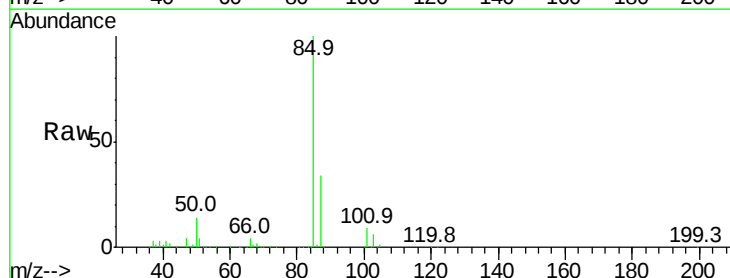
Acq: 22 Feb 2022 4:10

Tgt Ion: 85 Resp: 1521324

Ion Ratio Lower Upper

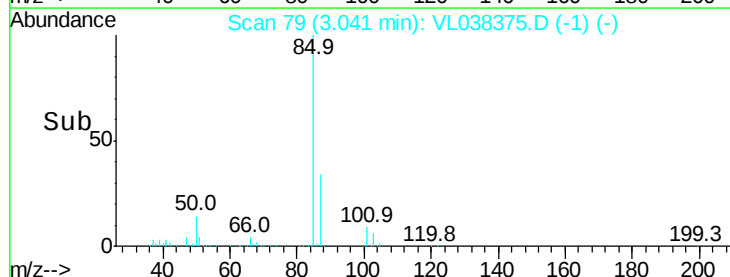
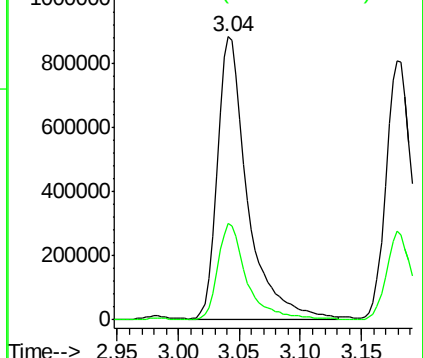
85 100

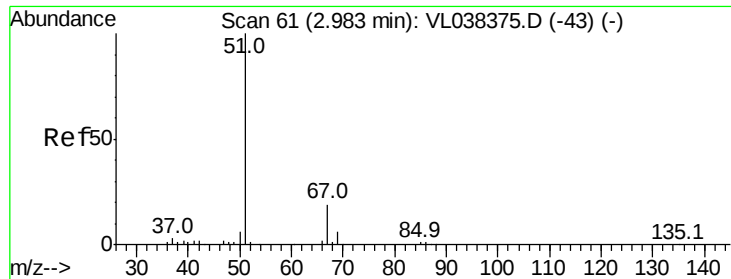
87 34.2 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 8.46 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: BFB

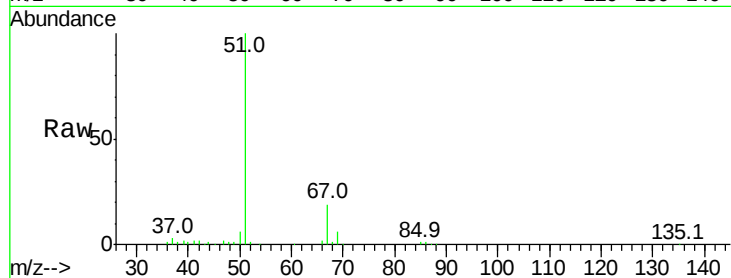
Acq: 22 Feb 2022 4:10

Tgt Ion: 51 Resp: 1597378

Ion Ratio Lower Upper

51 100

67 18.4 14.7 22.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.98

800000

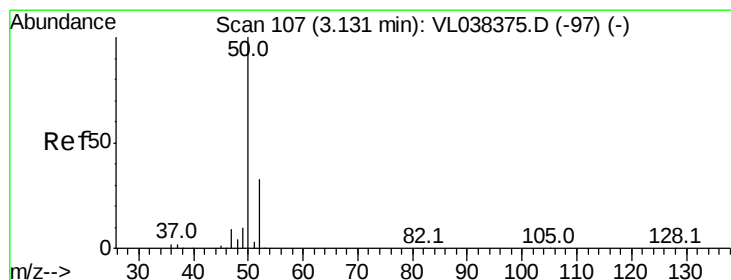
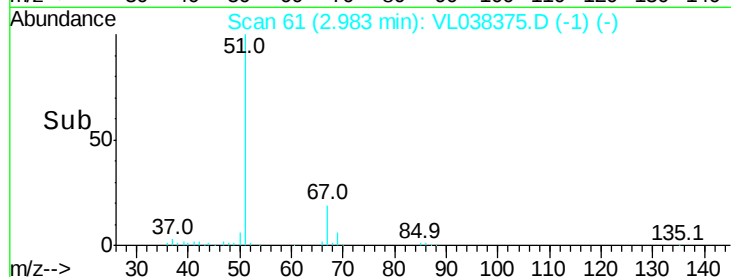
600000

400000

200000

0

Time-->



#4

Chloromethane

Concen: 8.47 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL038375.D

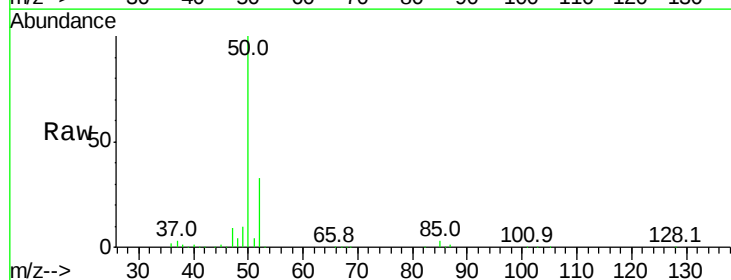
Acq: 22 Feb 2022 4:10

Tgt Ion: 50 Resp: 551171

Ion Ratio Lower Upper

50 100

52 33.1 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.13

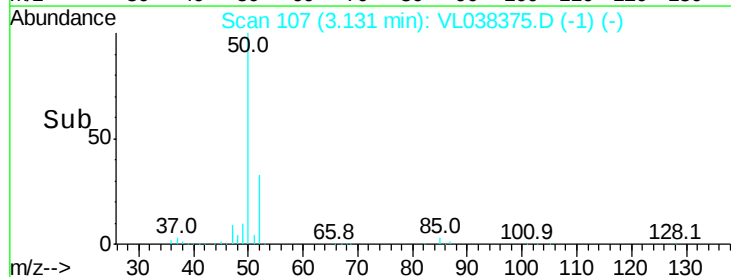
300000

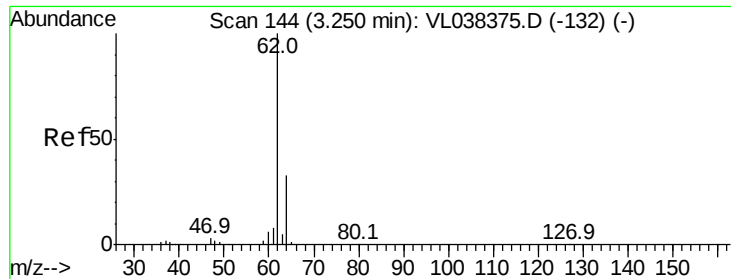
200000

100000

0

Time-->





#5

Vinyl Chloride

Concen: 8.78 ppbv

RT: 3.25 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: BFB

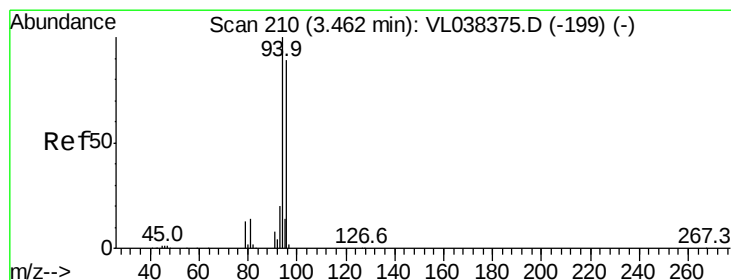
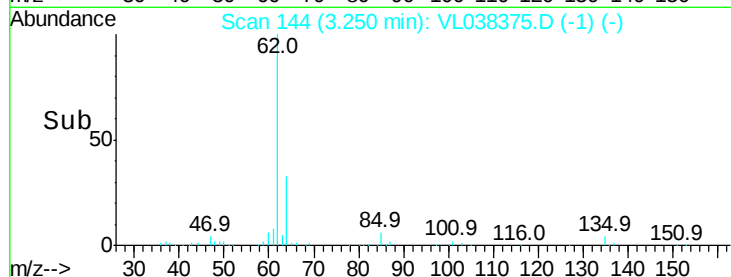
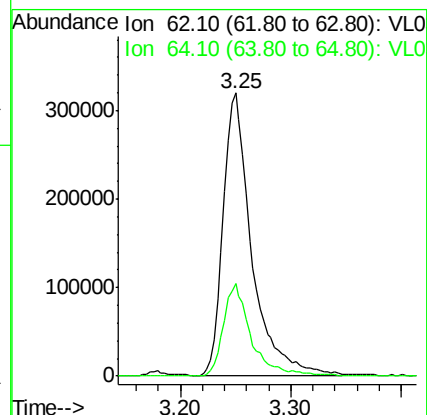
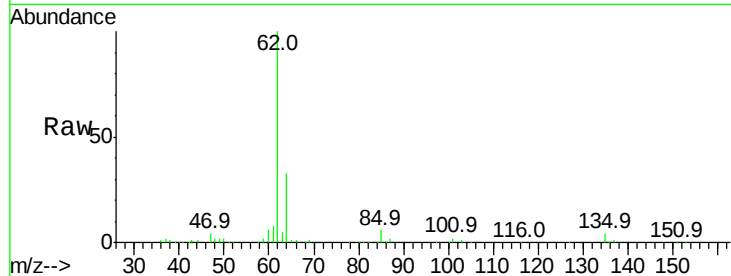
Acq: 22 Feb 2022 4:10

Tgt Ion: 62 Resp: 577460

Ion Ratio Lower Upper

62 100

64 32.7 26.2 39.2



#6

Bromomethane

Concen: 8.65 ppbv

RT: 3.46 min Scan# 210

Delta R.T. 0.00 min

Lab File: VL038375.D

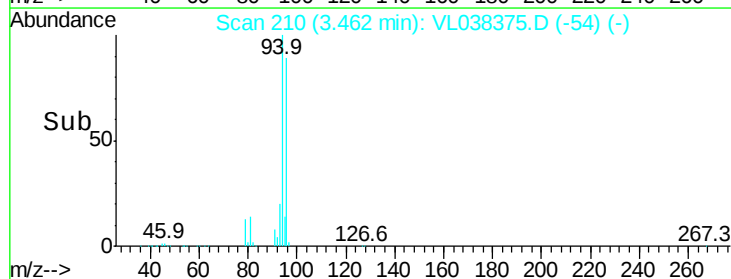
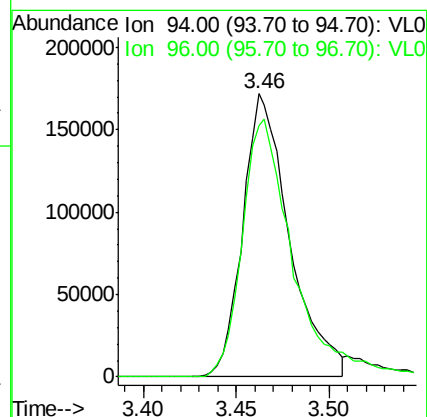
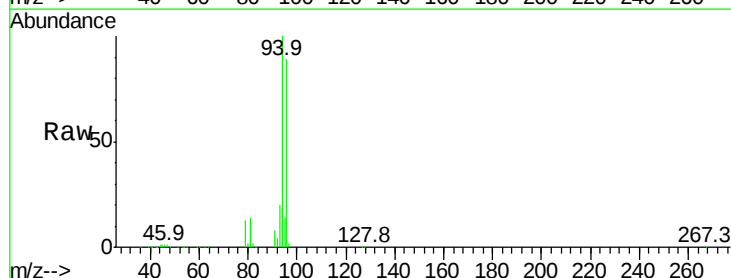
Acq: 22 Feb 2022 4:10

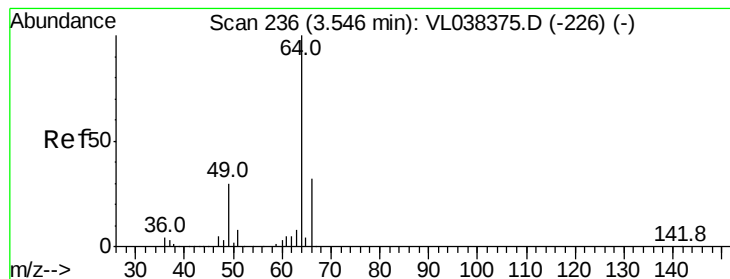
Tgt Ion: 94 Resp: 301694

Ion Ratio Lower Upper

94 100

96 88.8 71.0 106.6





#7

Chloroethane

Concen: 8.77 ppbv

RT: 3.55 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: BFB

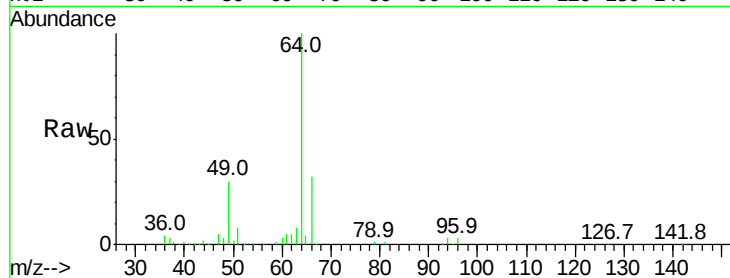
Acq: 22 Feb 2022 4:10

Tgt Ion: 64 Resp: 191772

Ion Ratio Lower Upper

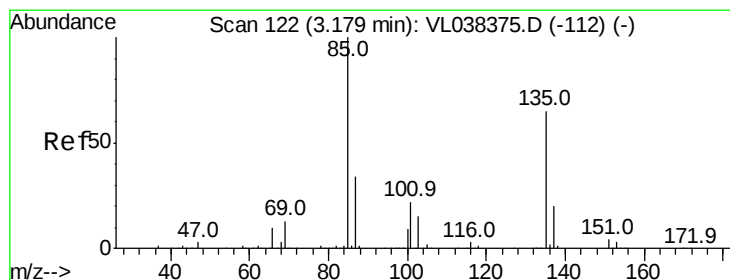
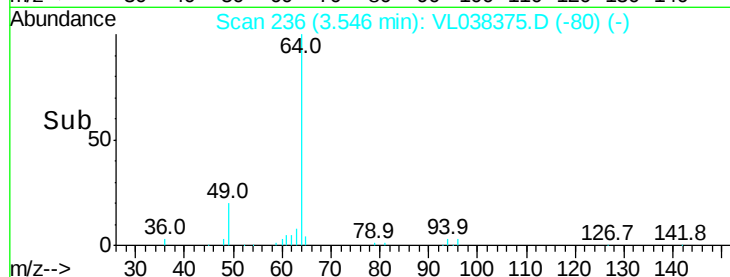
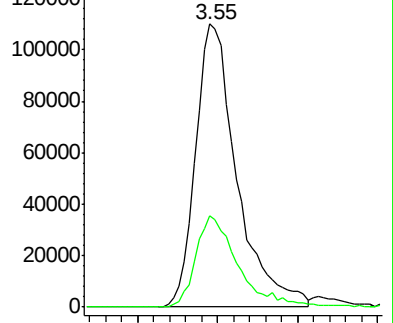
64 100

66 32.4 25.9 38.9



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 8.60 ppbv

RT: 3.18 min Scan# 122

Delta R.T. 0.00 min

Lab File: VL038375.D

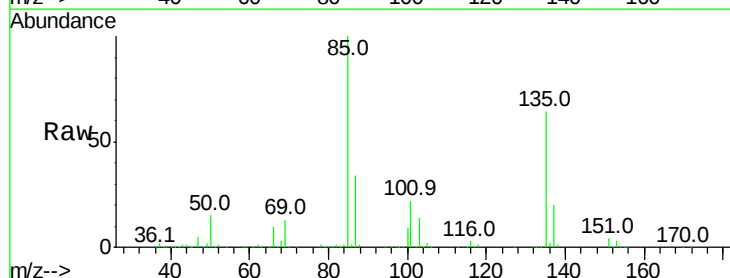
Acq: 22 Feb 2022 4:10

Tgt Ion: 85 Resp: 1349624

Ion Ratio Lower Upper

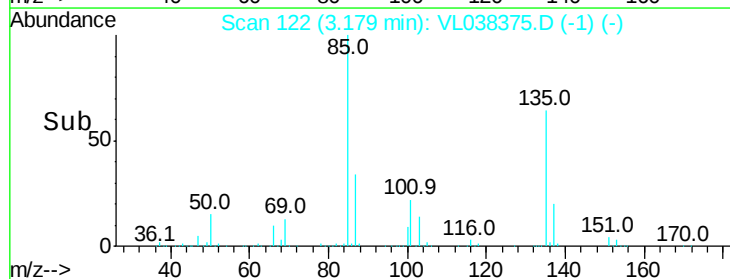
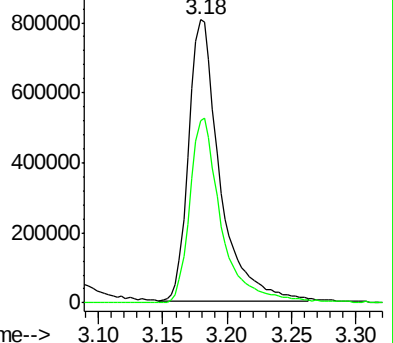
85 100

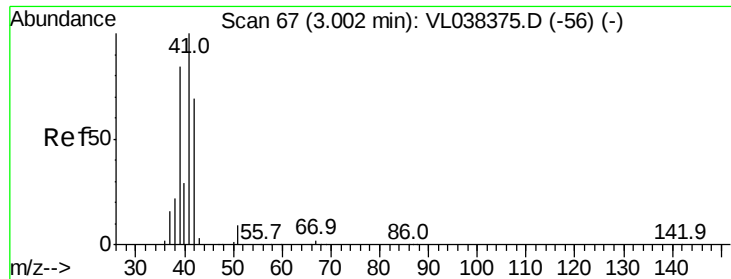
135 67.6 54.1 81.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 8.76 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

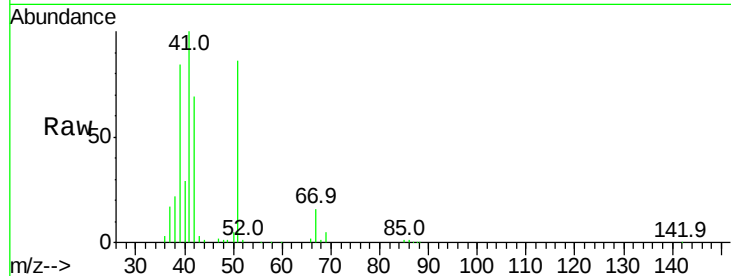
Acq: 22 Feb 2022 4:10 BFB

Tgt Ion: 41 Resp: 537333

Ion Ratio Lower Upper

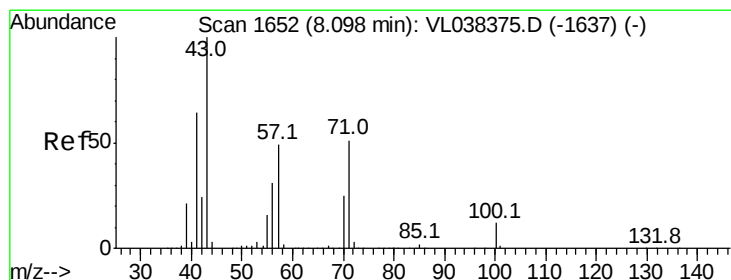
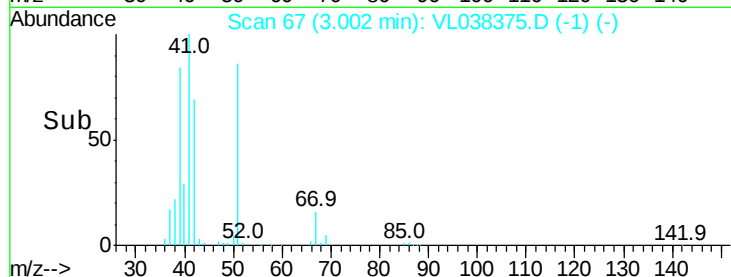
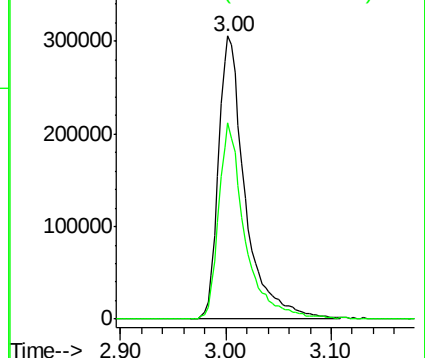
41 100

42 68.3 54.6 82.0



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 8.71 ppbv

RT: 8.10 min Scan# 1652

Delta R.T. 0.00 min

Lab File: VL038375.D

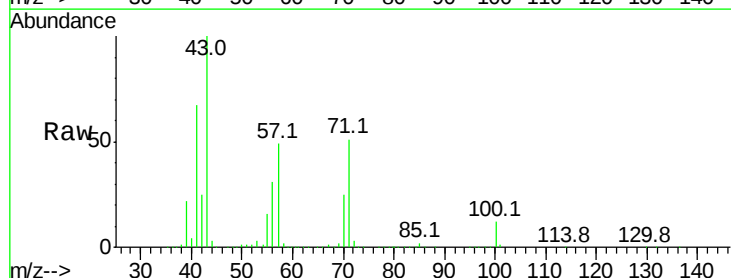
Acq: 22 Feb 2022 4:10

Tgt Ion: 43 Resp: 1375824

Ion Ratio Lower Upper

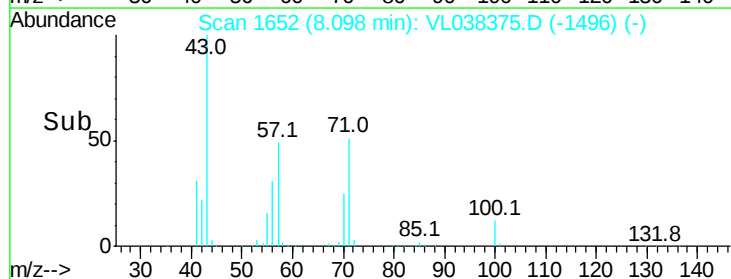
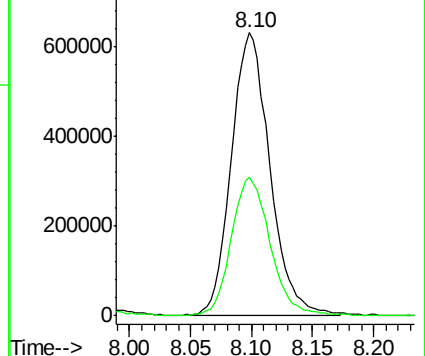
43 100

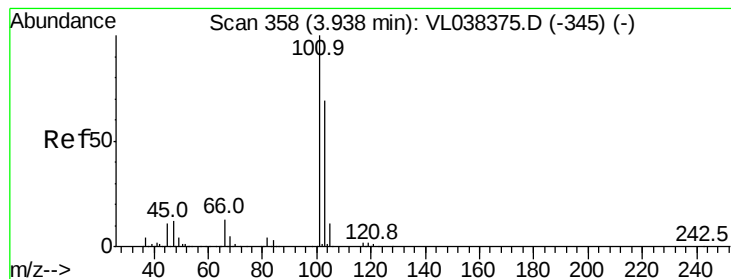
57 49.7 39.8 59.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#11

Trichlorofluoromethane

Concen: 8.81 ppbv

RT: 3.94 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

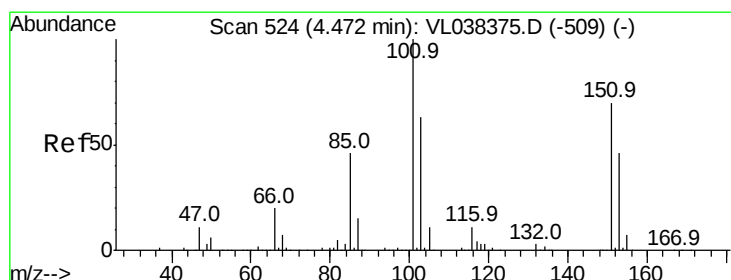
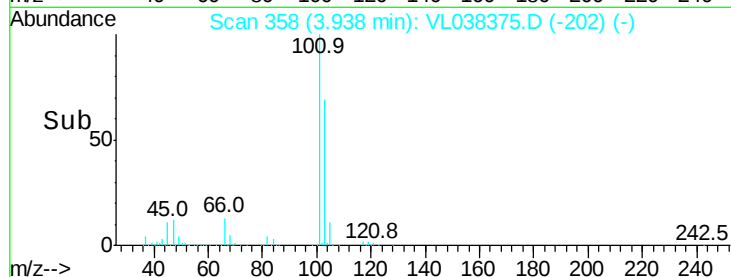
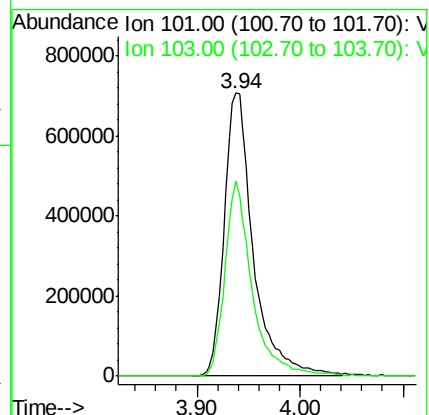
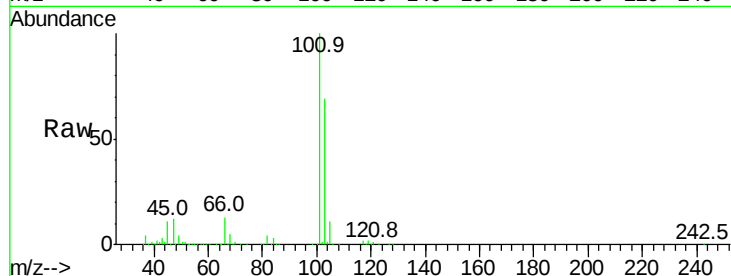
Acq: 22 Feb 2022 4:10 BFB

Tgt Ion:101 Resp: 1388727

Ion Ratio Lower Upper

101 100

103 68.7 55.0 82.4



#12

1,1,2-Trichlorotrifluoroethane

Concen: 8.59 ppbv

RT: 4.47 min Scan# 524

Delta R.T. 0.00 min

Lab File: VL038375.D

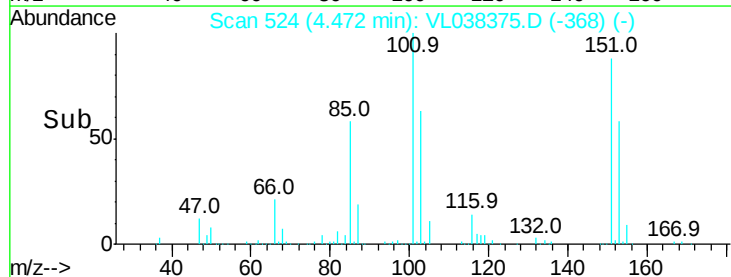
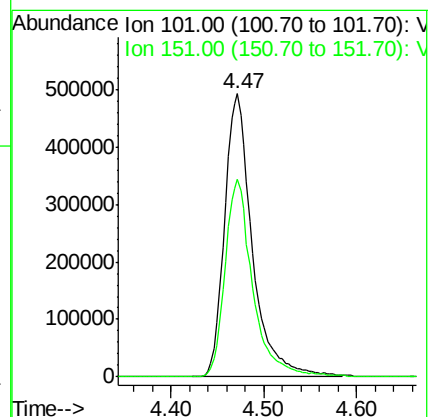
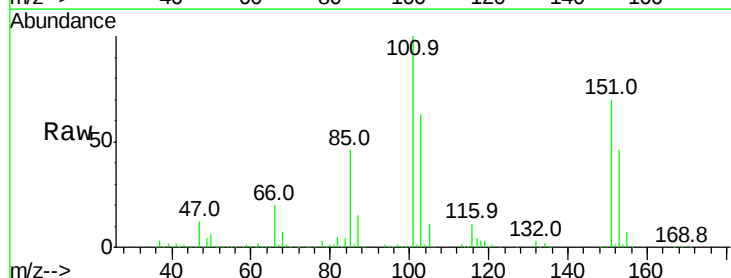
Acq: 22 Feb 2022 4:10

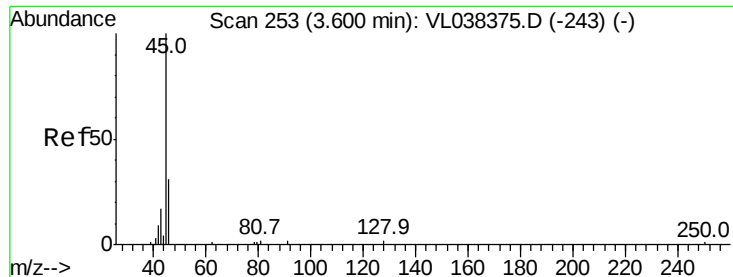
Tgt Ion:101 Resp: 1022845

Ion Ratio Lower Upper

101 100

151 70.0 55.9 83.9





#13

Ethanol

Concen: 1.88 ppbv

RT: 3.60 Instrument: MSVOA_1

Delta R.T. 0.00 min

Lab File: ClientSampleId: BFB

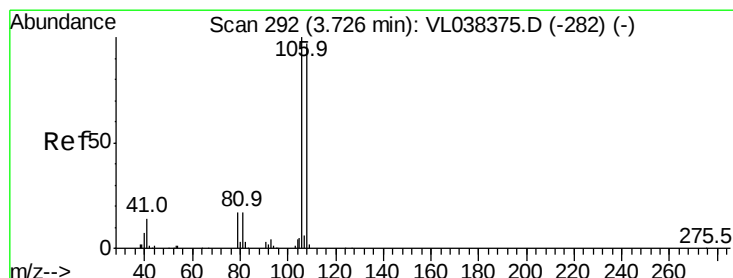
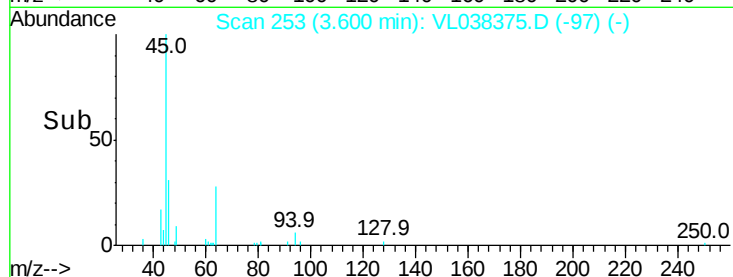
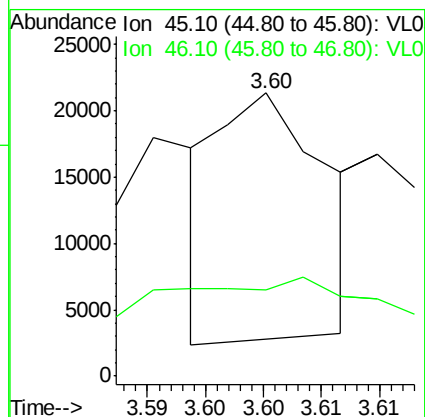
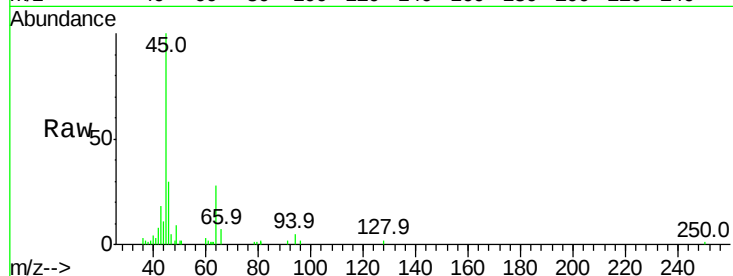
Acq: 22 Feb 2022 4:10

Tgt Ion: 45 Resp: 11858

Ion Ratio Lower Upper

45 100

46 162.9 18.2 72.8#



#14

Bromoethene

Concen: 8.76 ppbv

RT: 3.73 min Scan# 292

Delta R.T. 0.00 min

Lab File: VL038375.D

Acq: 22 Feb 2022 4:10

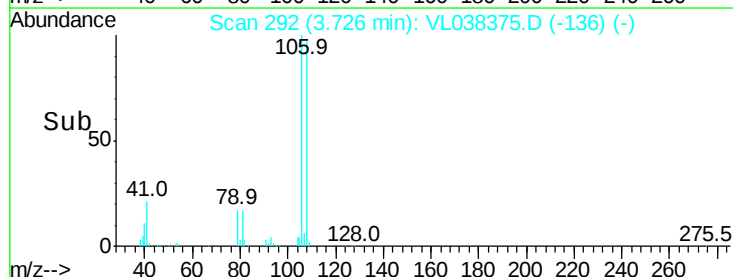
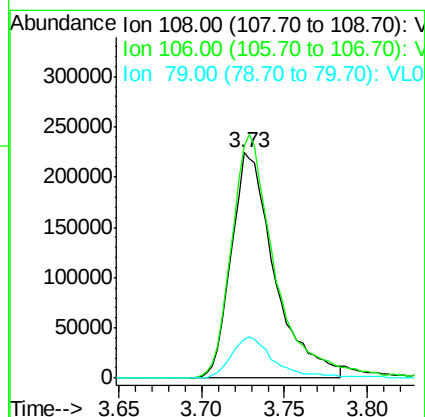
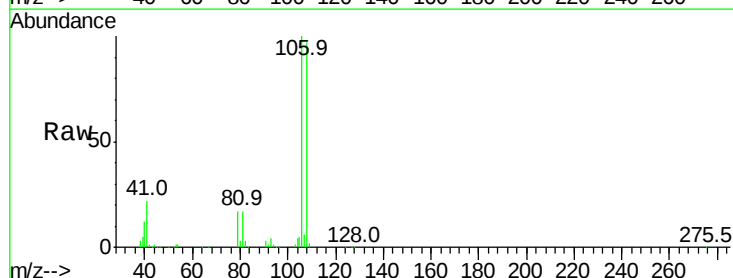
Tgt Ion: 108 Resp: 407982

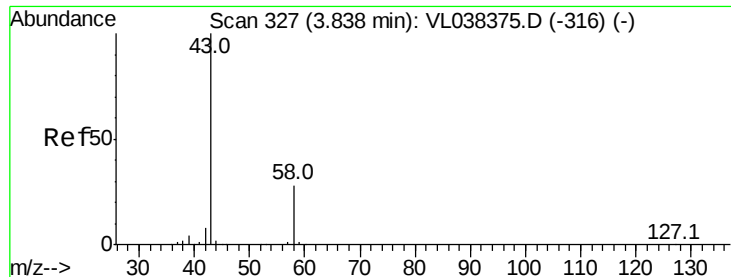
Ion Ratio Lower Upper

108 100

106 110.5 88.4 132.6

79 18.8 15.0 22.6





#15

Acetone

Concen: 8.21 ppbv

RT: 3.84

Delta R.T.

Lab File:

Acq: 22 Feb 2022 4:10

Instrument :

MSVOA_1

ClientSampleId :

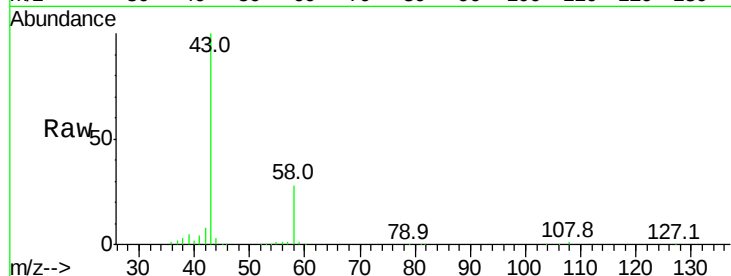
BFB

Tgt Ion: 43 Resp: 696111

Ion Ratio Lower Upper

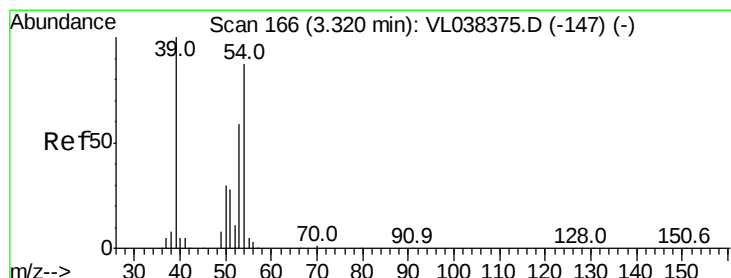
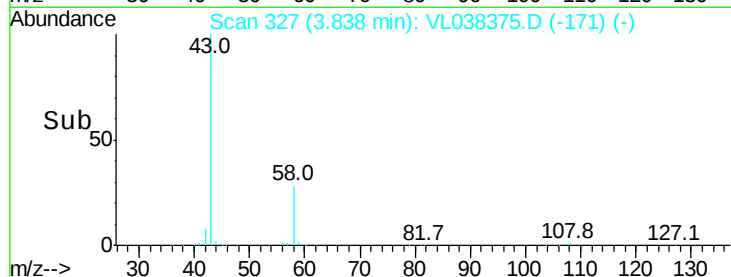
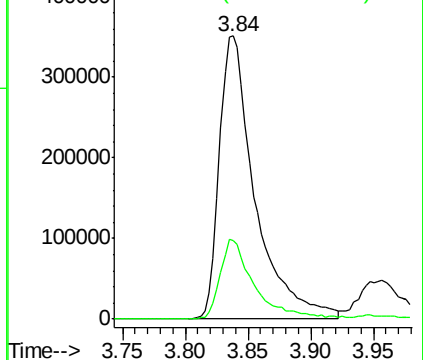
43 100

58 26.8 21.7 32.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 8.97 ppbv

RT: 3.32 min Scan# 166

Delta R.T. 0.00 min

Lab File: VL038375.D

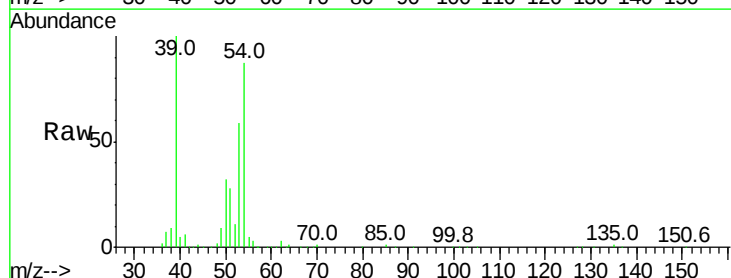
Acq: 22 Feb 2022 4:10

Tgt Ion: 39 Resp: 542027

Ion Ratio Lower Upper

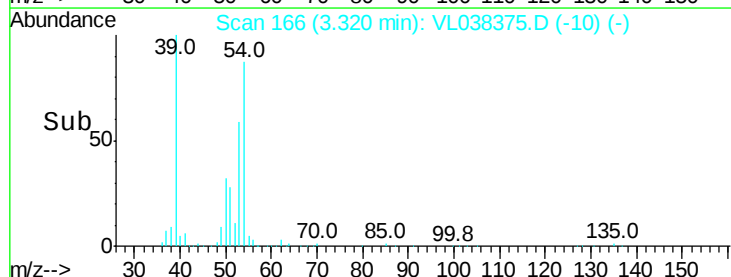
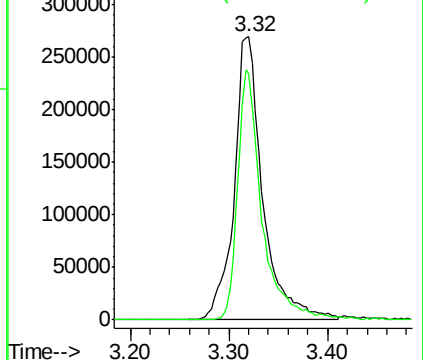
39 100

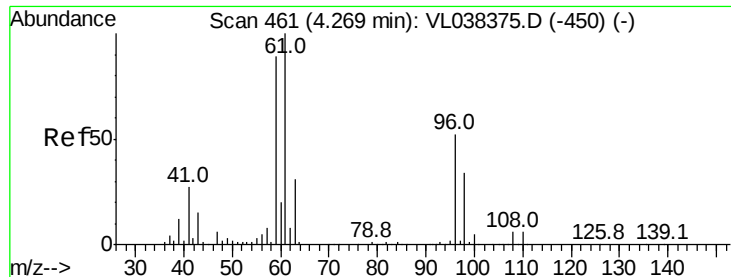
54 74.9 60.3 90.5



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

tert-Butyl alcohol

Concen: 8.59 ppbv

RT: 4.27 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

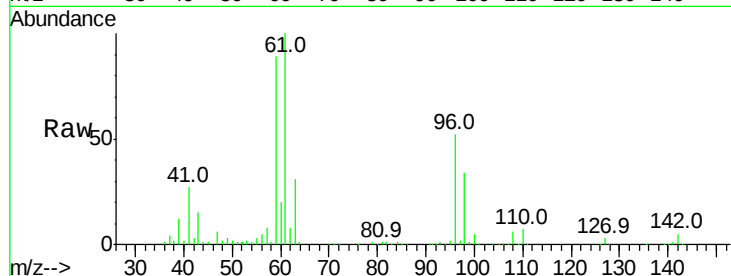
Acq: 22 Feb 2022 4:10

Tgt Ion: 59 Resp: 783562

Ion Ratio Lower Upper

59 100

57 10.9 8.4 12.6



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

400000

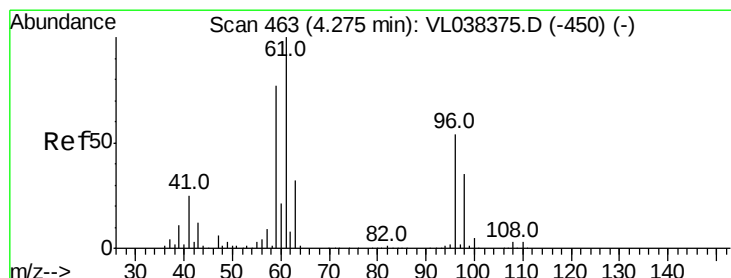
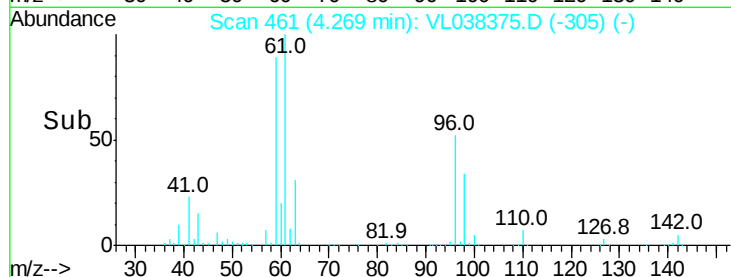
300000

200000

100000

0

Time-->



#18

1,1-Dichloroethene

Concen: 8.57 ppbv

RT: 4.28 min Scan# 463

Delta R.T. 0.00 min

Lab File: VL038375.D

Acq: 22 Feb 2022 4:10

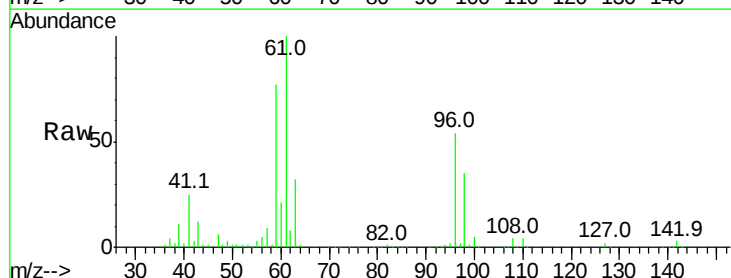
Tgt Ion: 96 Resp: 441368

Ion Ratio Lower Upper

96 100

61 183.5 146.8 220.2

98 64.4 51.5 77.3



Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

600000

500000

400000

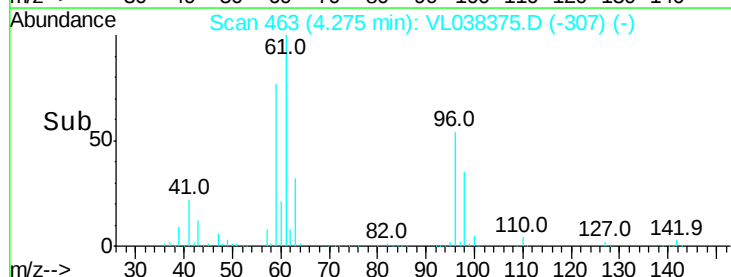
300000

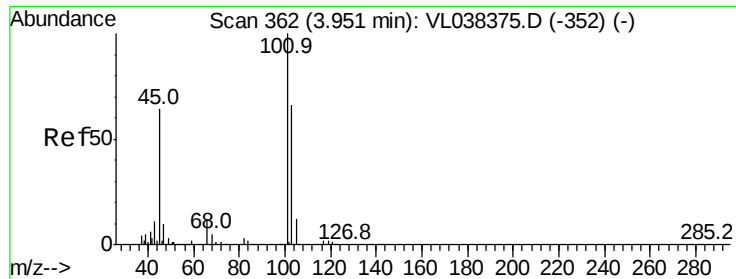
200000

100000

0

Time-->





#19

Isopropyl Alcohol

Concen: 8.19 ppbv

RT: 3.95 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: BFB

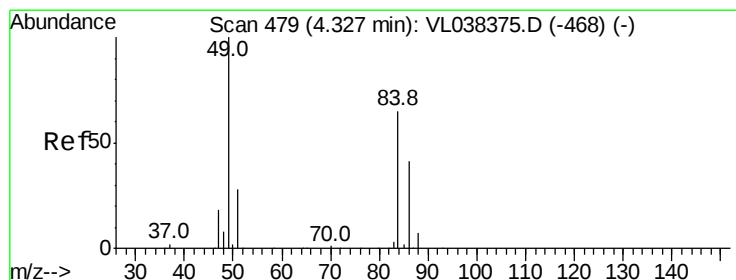
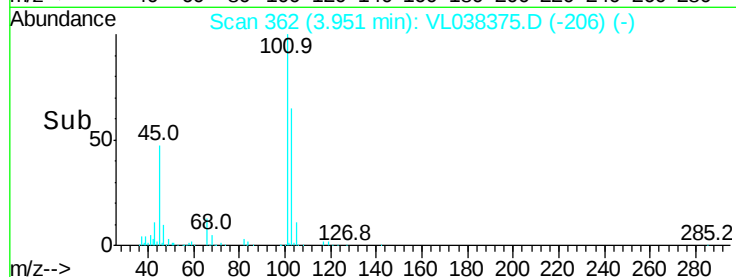
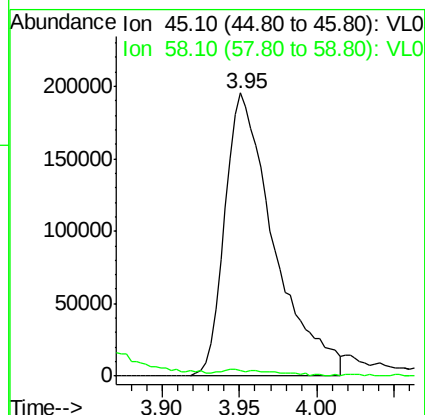
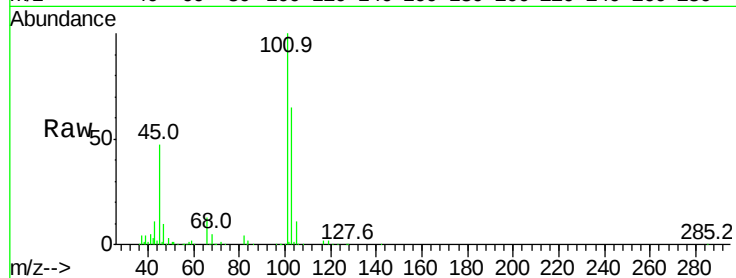
Acq: 22 Feb 2022 4:10

Tgt Ion: 45 Resp: 428424

Ion Ratio Lower Upper

45 100

58 2.2 1.8 2.8



#20

Methylene Chloride

Concen: 7.49 ppbv

RT: 4.33 min Scan# 479

Delta R.T. 0.00 min

Lab File: VL038375.D

Acq: 22 Feb 2022 4:10

Tgt Ion: 84 Resp: 363116

Ion Ratio Lower Upper

84 100

49 153.0 122.4 183.6

51 41.6 33.3 49.9

86 63.4 50.7 76.1

