

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL022222\
 Data File : VL038403.D
 Acq On : 23 Feb 2022 00:43
 Operator : SY/AP
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDCCC010EC

Quant Time: Feb 23 07:08:16 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 19:45:51 2022

QLast Update : Tue Feb 22 19:45:51 2022

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	883381	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.18	114	2188967	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.09	117	2049548	10.00	ppbv	0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	1702811	10.04	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.40%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.06	85	1287616	9.20	ppbv	96
3) Chlorodifluoromethane	3.00	51	1530312	9.81	ppbv	99
4) Chloromethane	3.15	50	532443	9.82	ppbv	99
5) Vinyl Chloride	3.27	62	540956	9.55	ppbv	98
6) Bromomethane	3.48	94	276814	9.26	ppbv	98
7) Chloroethane	3.57	64	186423	10.24	ppbv	93
8) Dichlorotetrafluoroethane	3.20	85	1347809	10.36	ppbv	97
9) Propene	3.02	41	506410	9.83	ppbv	97
10) Heptane	8.13	43	1293273	10.32	ppbv	100
11) Trichlorofluoromethane	3.96	101	1321877	9.87	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.49	101	925779	9.43	ppbv	99
13) Ethanol	3.62	45	42055	8.18	ppbv	98
14) Bromoethene	3.75	108	400706	10.24	ppbv	98
15) Acetone	3.86	43	631866	8.41	ppbv	99
16) 1,3-Butadiene	3.34	39	520674	10.38	ppbv	97
17) tert-Butyl alcohol	4.29	59	729990	9.74	ppbv	100
18) 1,1-Dichloroethene	4.30	96	410636	9.52	ppbv	97
19) Isopropyl Alcohol	3.97	45	410406	9.43	ppbv #	97
20) Methylene Chloride	4.35	84	327525	8.80	ppbv	95
21) Allyl Chloride	4.42	41	590671	9.31	ppbv	97
22) trans-1,2-Dichloroethene	4.89	96	434879	10.00	ppbv	99
23) Vinyl Acetate	5.08	43	958661	9.63	ppbv	99
24) 1,1-Dichloroethane	5.02	63	853993	9.54	ppbv	99
25) Ethyl Acetate	5.68	43	2017909	10.00	ppbv	99
26) Hexane	5.70	57	927555	10.15	ppbv	98
27) Carbon Disulfide	4.56	76	979899	9.64	ppbv	97
28) Methyl tert-Butyl Ether	5.04	73	919644	9.88	ppbv	100
29) Chloroform	5.76	83	1506844	10.10	ppbv	97
30) Cyclohexane	7.14	84	768809	10.29	ppbv	100
31) cis-1,2-Dichloroethene	5.56	61	947956	10.71	ppbv	96
32) 1,1,1-Trichloroethane	6.52	97	1508342	10.05	ppbv	99
34) 2-Butanone	5.25	43	822751	11.95	ppbv	99
35) Carbon Tetrachloride	7.02	117	1523658	9.90	ppbv	98
36) Benzene	6.90	78	1949408	10.12	ppbv	96
37) 1,2-Dichloroethane	6.31	62	1127716	10.13	ppbv	99
38) Trichloroethene	7.84	130	695739	9.91	ppbv	94
39) 1,2-Dichloropropane	7.62	63	760421	9.91	ppbv	99
40) 1,4-Dioxane	7.84	88	76473	4.20	ppbv #	1
41) Tetrahydrofuran	6.06	42	495405	10.65	ppbv	99
42) Bromodichloromethane	7.80	83	1641861	10.21	ppbv	97
43) Methyl Methacrylate	8.02	69	719518	10.74	ppbv	99

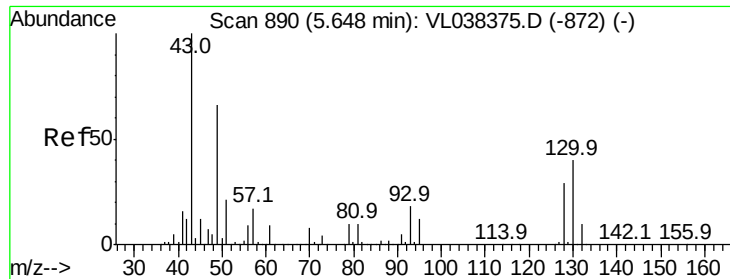
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL022222\
 Data File : VL038403.D
 Acq On : 23 Feb 2022 00:43
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 ClientSampleId :
 VSTDCCC010EC

Quant Time: Feb 23 07:08:16 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL022222AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Tue Feb 22 19:45:51 2022
 QLast Update : Tue Feb 22 19:45:51 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,2,4-Trimethylpentane	7.87	57	3282376	9.91	ppbv	100
45) t-1,3-Dichloropropene	9.28	75	543493	10.15	ppbv	98
46) cis-1,3-Dichloropropene	8.71	75	685705	9.77	ppbv	98
47) 1,1,2-Trichloroethane	9.48	97	777546	10.18	ppbv	96
48) Dibromochloromethane	10.31	129	1300278	10.41	ppbv	98
49) Bromoform	13.04	173	983752	10.67	ppbv	99
50) 4-Methyl-2-Pentanone	8.75	43	1310826	10.77	ppbv	98
51) 2-Hexanone	10.14	43	589286	10.81	ppbv #	98
52) Tetrachloroethene	11.23	164	617541	9.65	ppbv	99
53) Toluene	9.81	91	2173157	10.39	ppbv	100
54) 1,2-Dibromoethane	10.62	107	1144235	10.64	ppbv	100
56) 1,1,1,2-Tetrachloroethane	12.13	131	863237	10.10	ppbv	97
57) Chlorobenzene	12.15	112	1515491	9.58	ppbv	99
58) Ethyl Benzene	12.71	91	2880310	10.28	ppbv	98
59) m/p-Xylene	13.00	91	2580023	10.72	ppbv #	40
60) o-Xylene	13.70	91	2314334	10.17	ppbv	100
61) Styrene	13.53	104	1166938	11.12	ppbv	99
62) Isopropylbenzene	14.67	105	3108354	10.18	ppbv	100
63) 1,1,2,2-Tetrachloroethane	13.68	83	1689409	9.14	ppbv	99
64) n-propylbenzene	15.56	120	792578	10.48	ppbv	94
65) tert-Butylbenzene	16.75	119	2737975	10.35	ppbv	100
66) Benzyl Chloride	16.99	91	136403	9.54	ppbv	98
67) sec-Butylbenzene	17.30	105	3896629	10.40	ppbv	100
69) p-Isopropyltoluene	17.65	119	3172915	10.78	ppbv	99
70) n-Butylbenzene	18.55	91	3375813	11.08	ppbv	100
71) 2-Chlorotoluene	15.46	91	2425116	10.33	ppbv	100
72) 4-Ethyltoluene	15.84	105	2693196	10.74	ppbv	100
73) 1,3,5-Trimethylbenzene	16.00	105	2433241	10.69	ppbv	98
74) 1,2,4-Trimethylbenzene	16.77	105	2545679	10.59	ppbv	94
75) 1,3-Dichlorobenzene	17.00	146	1389897	10.32	ppbv	99
76) 1,4-Dichlorobenzene	17.14	146	1331054	10.03	ppbv	98
77) 1,2-Dichlorobenzene	17.82	146	1332990	10.29	ppbv	99
78) Hexachloro-1,3-Butadiene	23.38	225	524385	5.31	ppbv #	29
79) Naphthalene	22.20	128	1830169	14.05	ppbv	99
80) Naphthalene,2-methyl-	24.97	142	345419	13.57	ppbv	98
81) 1,2,4-Trichlorobenzene	21.92	180	1015244	12.89	ppbv	99

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



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

VSTDCCC010EC

Acq: 23 Feb 2022 00:43

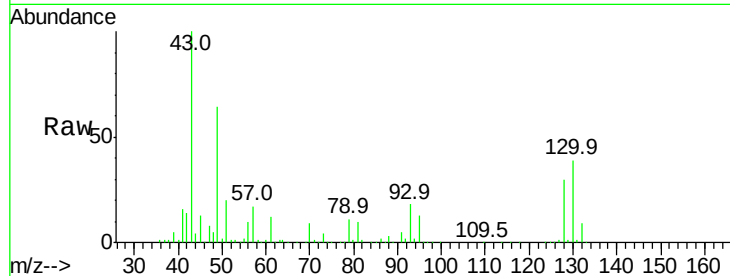
Tgt Ion: 49 Resp: 883381

Ion Ratio Lower Upper

49 100

128 48.9 24.3 72.9

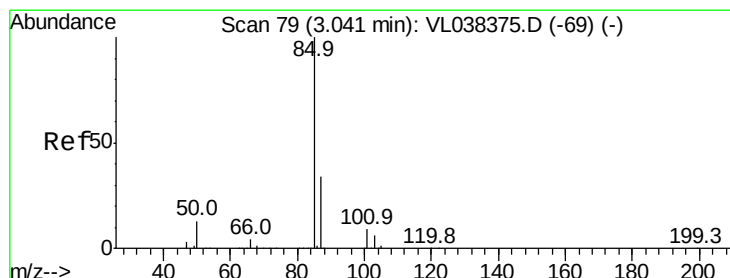
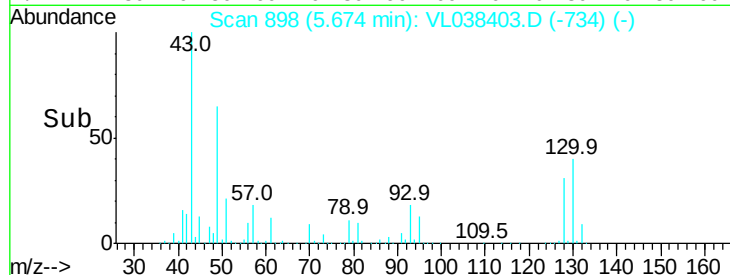
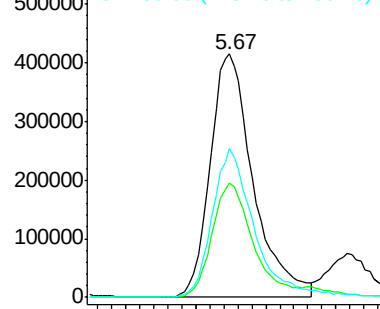
130 61.1 30.1 90.5



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 9.20 ppbv

RT: 3.06 min Scan# 85

Delta R.T. 0.02 min

Lab File: VL038403.D

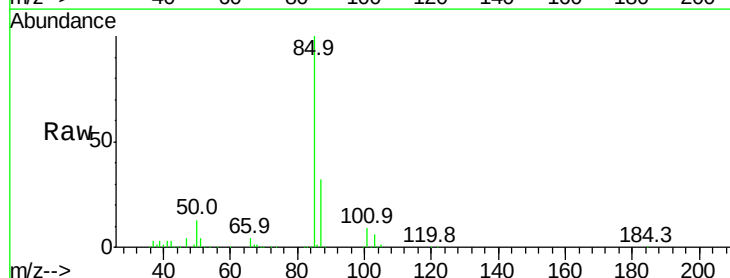
Acq: 23 Feb 2022 00:43

Tgt Ion: 85 Resp: 1287616

Ion Ratio Lower Upper

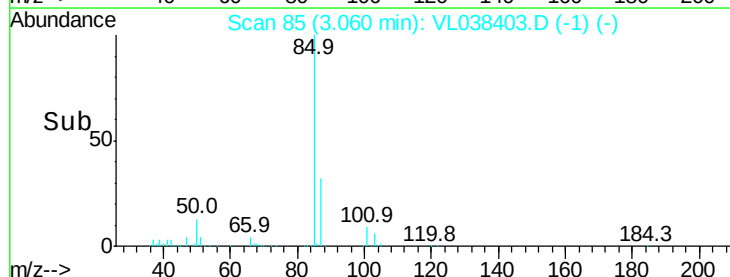
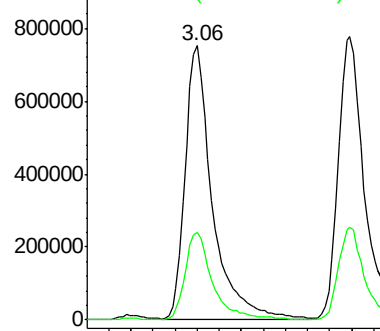
85 100

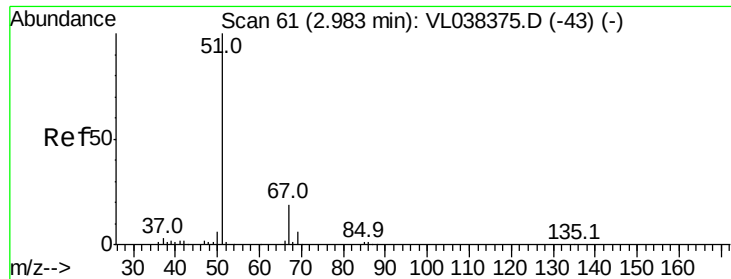
87 31.8 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

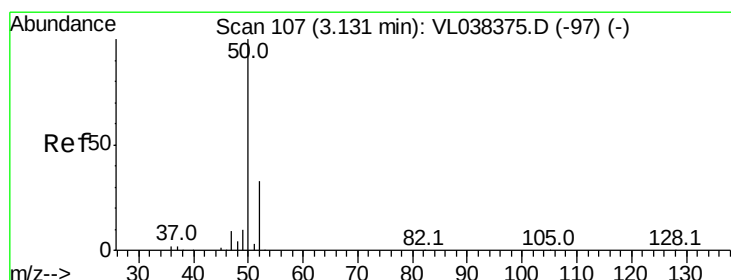
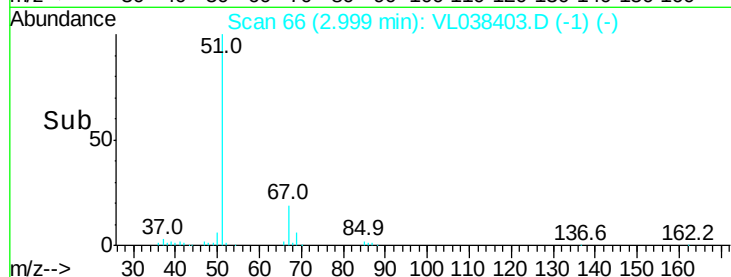
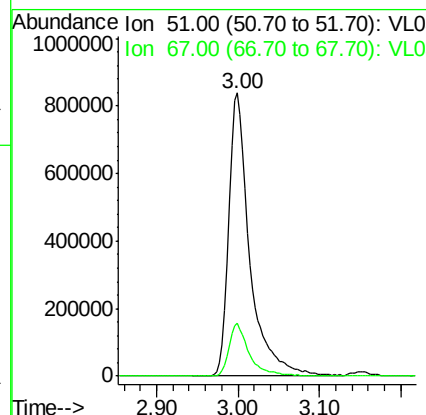
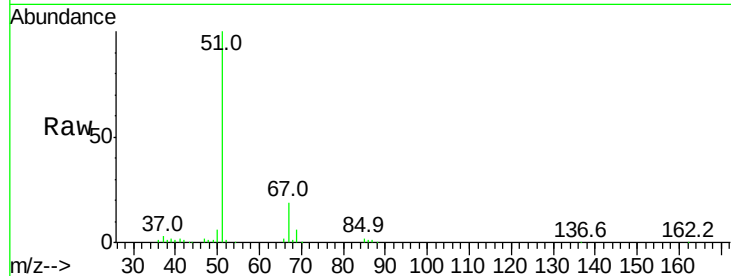
Ion 87.00 (86.70 to 87.70): VL0





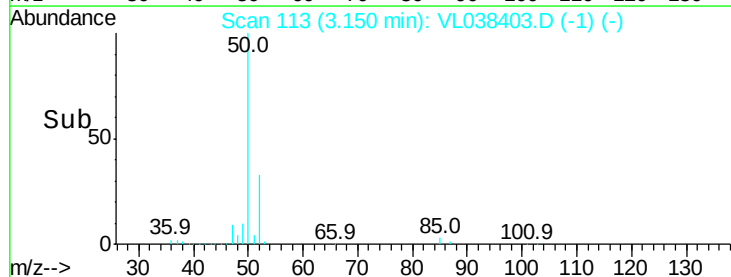
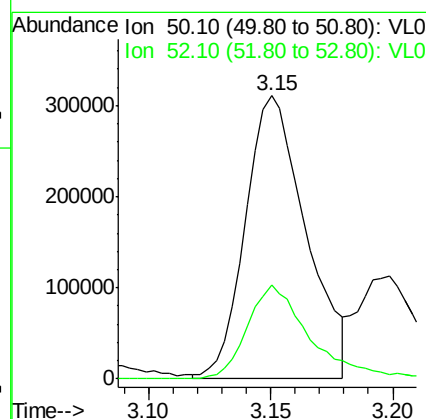
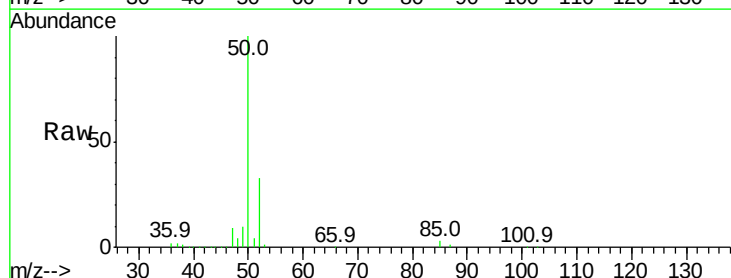
#3
 Chlorodifluoromethane
 Concen: 9.81 ppbv
 RT: 3.00
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId : VSTDCCC010EC
 Acq: 23 Feb 2022 00:43

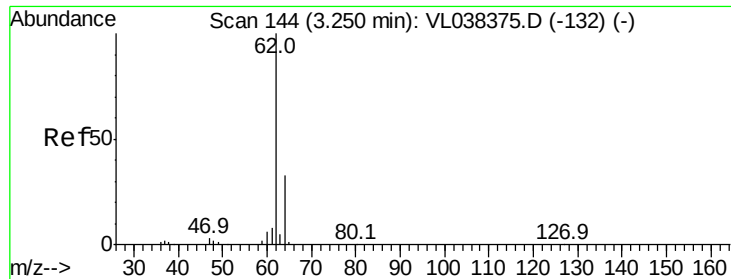
Tgt Ion: 51 Resp: 1530312
 Ion Ratio Lower Upper
 51 100
 67 18.2 14.7 22.1



#4
 Chloromethane
 Concen: 9.82 ppbv
 RT: 3.15 min Scan# 113
 Delta R.T. 0.02 min
 Lab File: VL038403.D
 Acq: 23 Feb 2022 00:43

Tgt Ion: 50 Resp: 532443
 Ion Ratio Lower Upper
 50 100
 52 33.4 26.5 39.7





#5

Vinyl Chloride

Concen: 9.55 ppbv

RT: 3.27 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

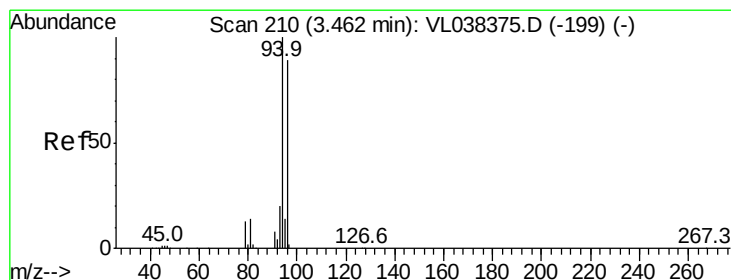
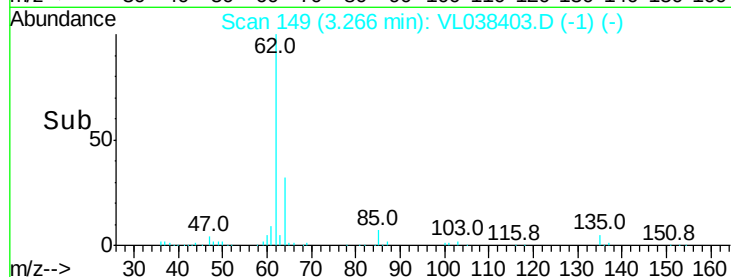
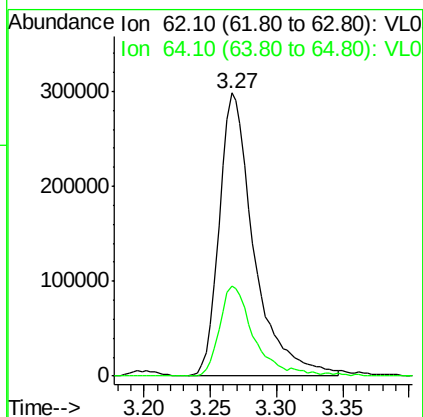
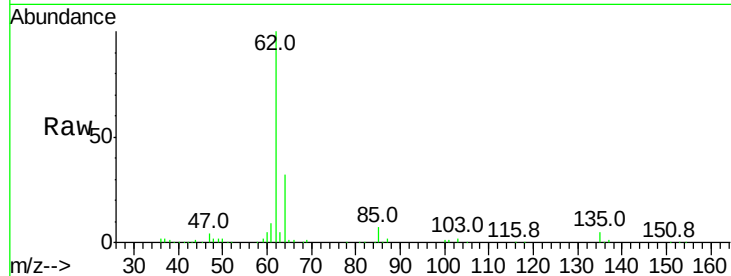
Acq: 23 Feb 2022 00:43 VSTDCCC010EC

Tgt Ion: 62 Resp: 540956

Ion Ratio Lower Upper

62 100

64 31.7 26.2 39.2



#6

Bromomethane

Concen: 9.26 ppbv

RT: 3.48 min Scan# 217

Delta R.T. 0.02 min

Lab File: VL038403.D

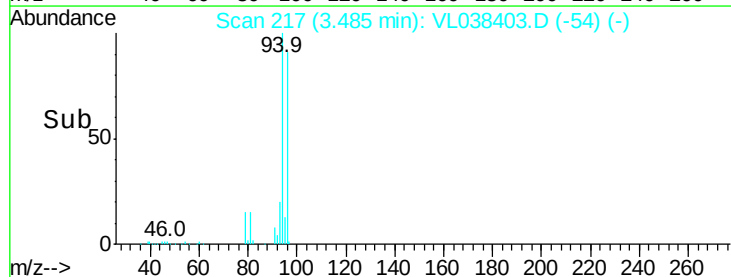
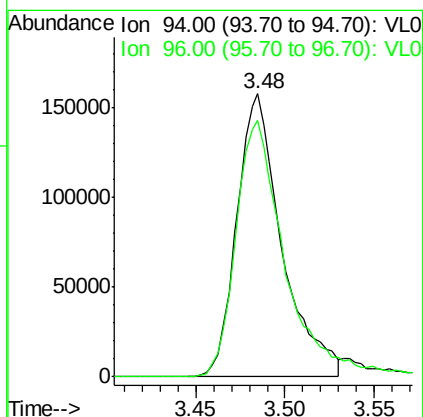
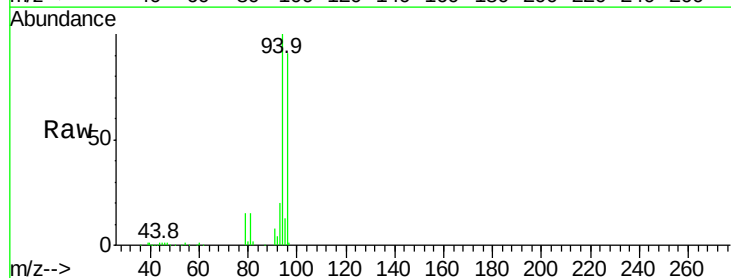
Acq: 23 Feb 2022 00:43

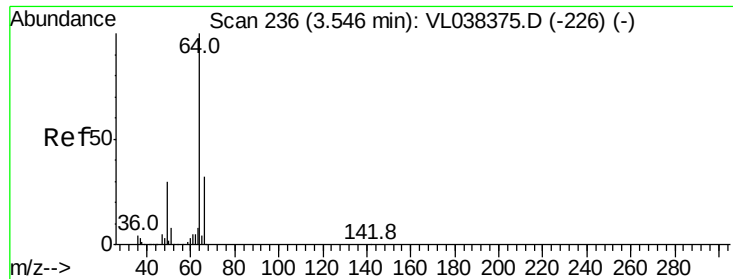
Tgt Ion: 94 Resp: 276814

Ion Ratio Lower Upper

94 100

96 90.6 71.0 106.6





#7

Chloroethane

Concen: 10.24 ppbv

RT: 3.57

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

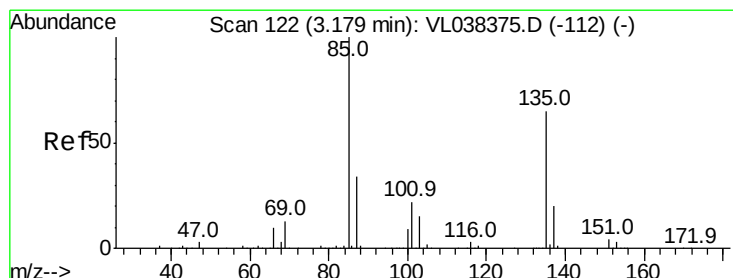
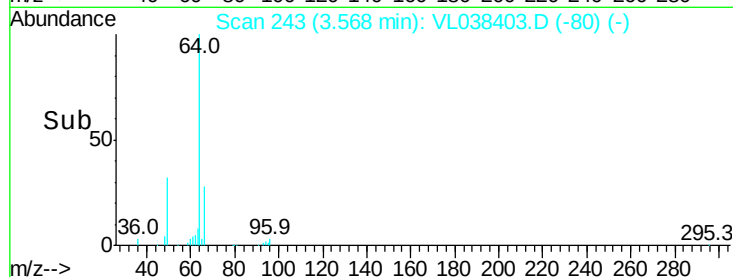
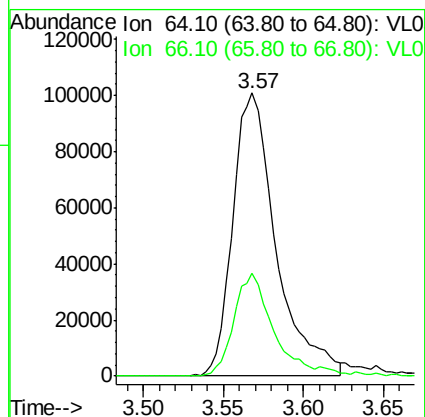
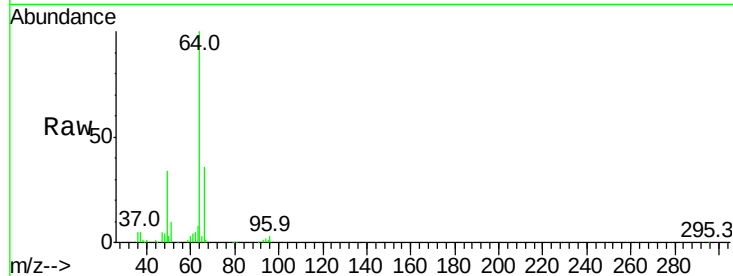
Acq: 23 Feb 2022 00:43

Tgt Ion: 64 Resp: 186423

Ion Ratio Lower Upper

64 100

66 36.4 25.9 38.9



#8

Dichlorotetrafluoroethane

Concen: 10.36 ppbv

RT: 3.20 min Scan# 128

Delta R.T. 0.02 min

Lab File: VL038403.D

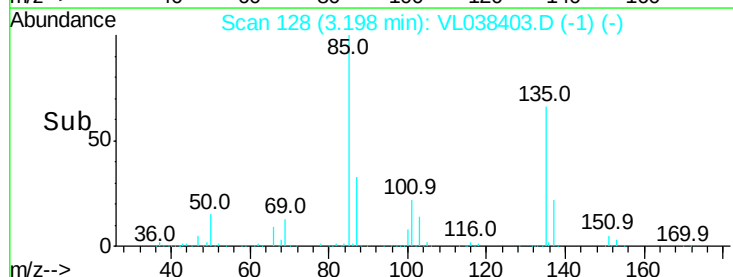
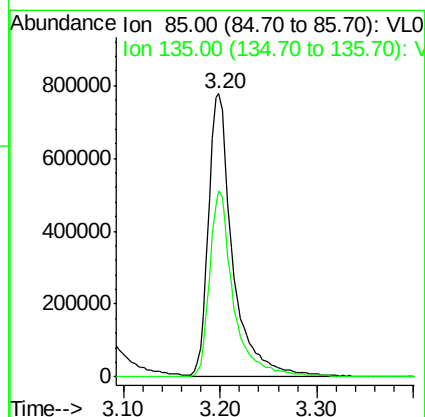
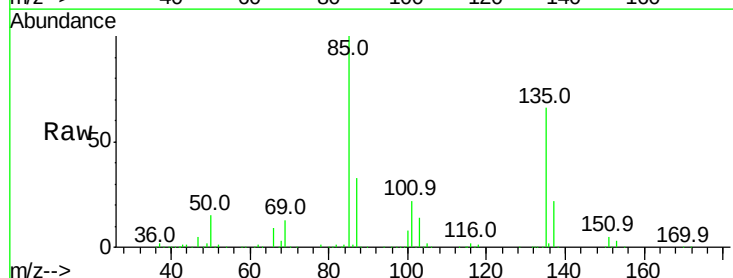
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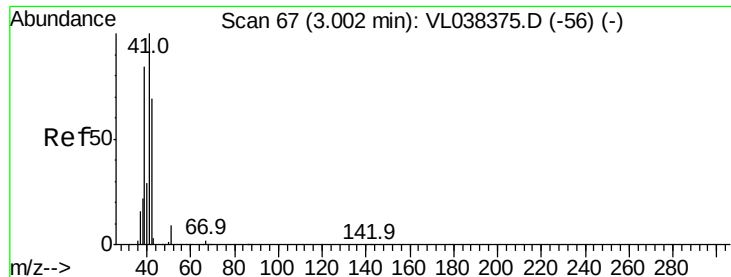
Tgt Ion: 85 Resp: 1347809

Ion Ratio Lower Upper

85 100

135 65.4 54.1 81.1





#9

Propene

Concen: 9.83 ppbv

RT: 3.02 Instrument: MSVOA_1

Delta R.T. 0.03 min

Lab File: ClientSampleId: VSTDCCC010EC

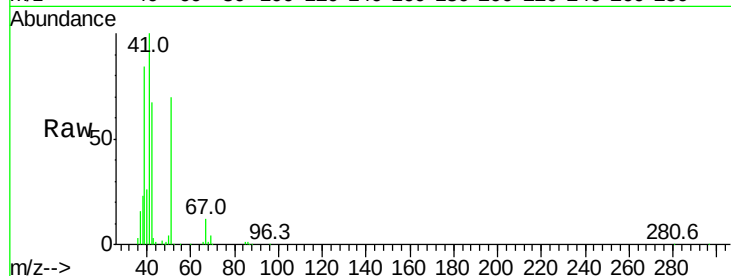
Acq: 23 Feb 2022 00:43

Tgt Ion: 41 Resp: 506410

Ion Ratio Lower Upper

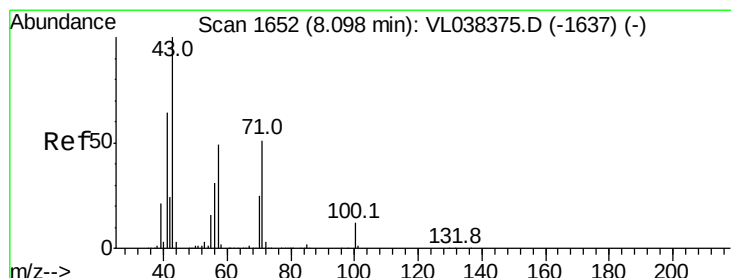
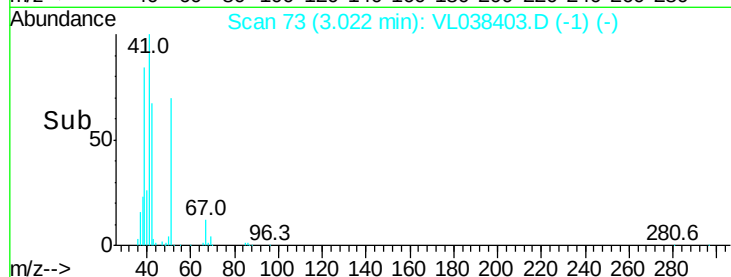
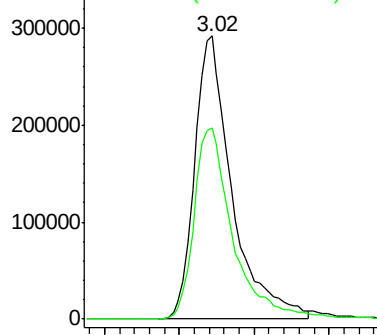
41 100

42 70.8 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: 10.32 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. 0.03 min

Lab File: VL038403.D

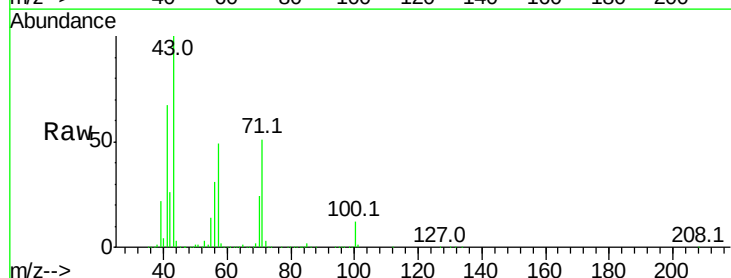
Acq: 23 Feb 2022 00:43

Tgt Ion: 43 Resp: 1293273

Ion Ratio Lower Upper

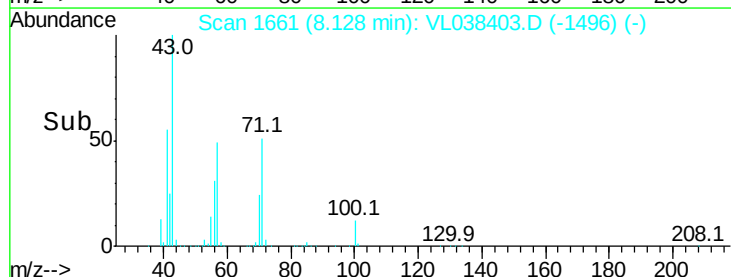
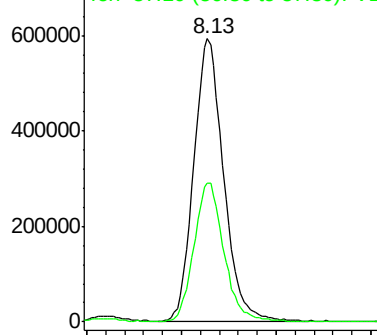
43 100

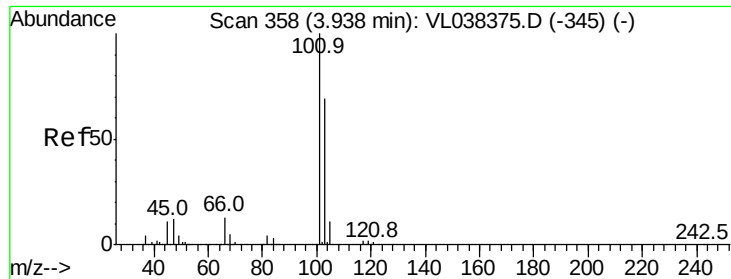
57 49.6 39.8 59.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

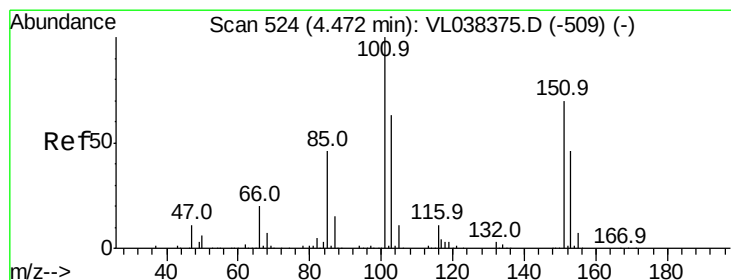
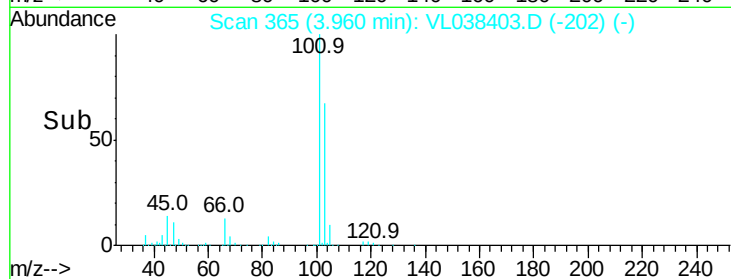
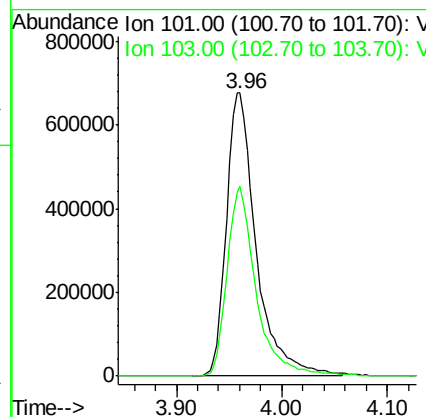
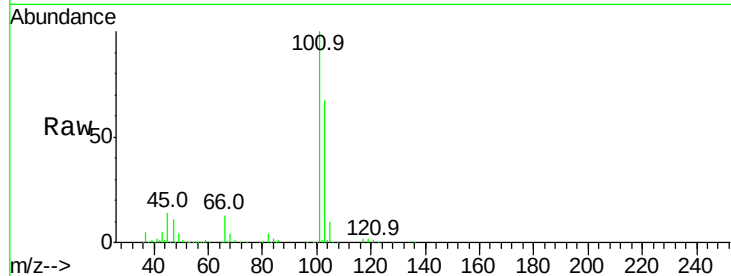
Ion 57.10 (56.80 to 57.80): VL0





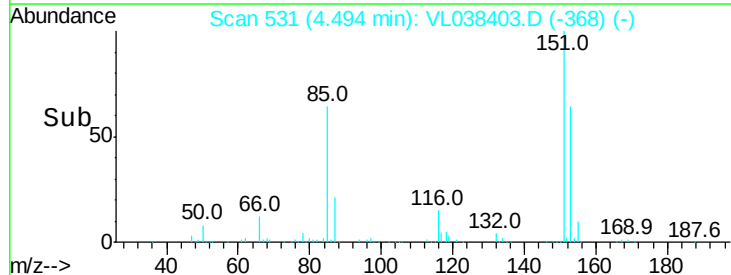
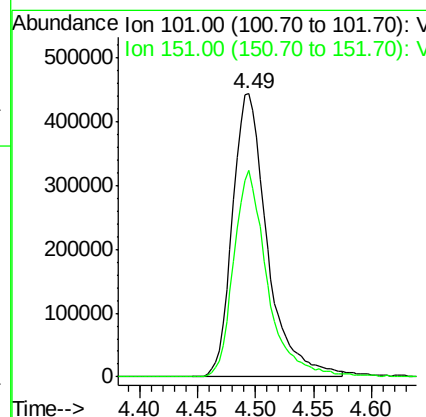
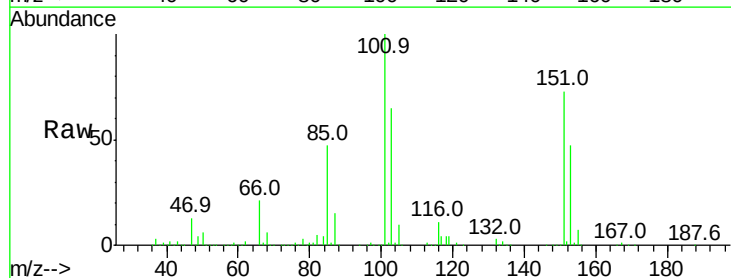
#11
 Trichlorofluoromethane
 Concen: 9.87 ppbv
 RT: 3.96
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 VSTDCCC010EC
 Acq: 23 Feb 2022 00:43

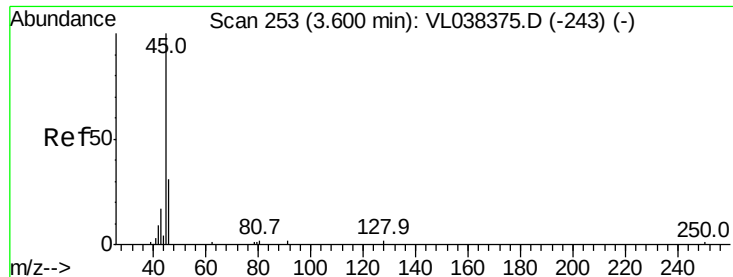
Tgt Ion:101 Resp: 1321877
 Ion Ratio Lower Upper
 101 100
 103 66.9 55.0 82.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 9.43 ppbv
 RT: 4.49 min Scan# 531
 Delta R.T. 0.02 min
 Lab File: VL038403.D
 Acq: 23 Feb 2022 00:43

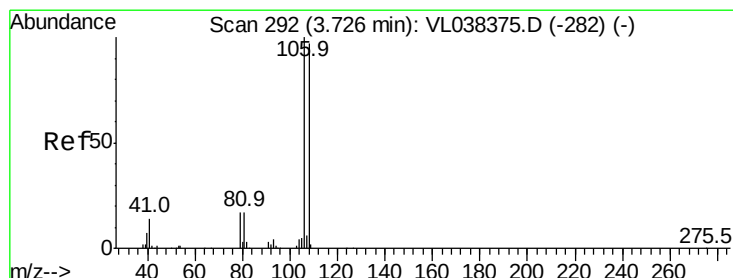
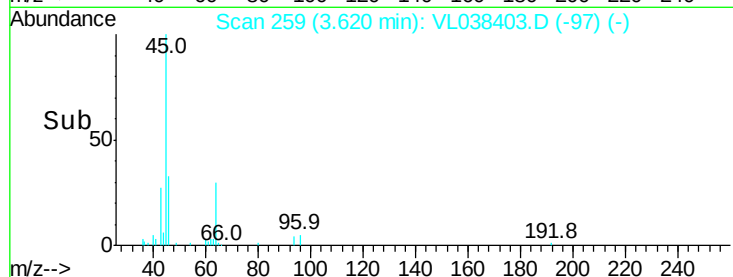
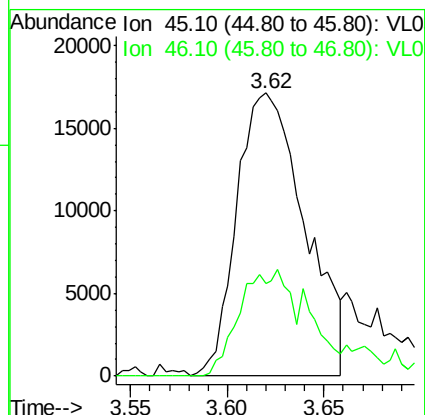
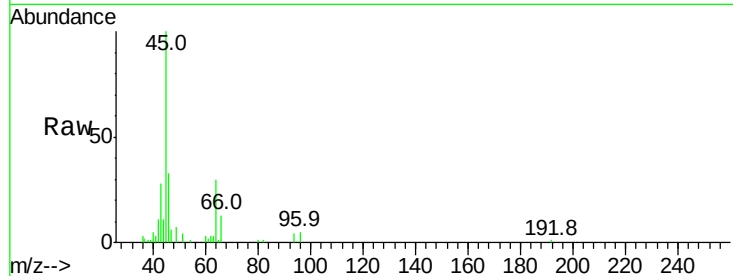
Tgt Ion:101 Resp: 925779
 Ion Ratio Lower Upper
 101 100
 151 70.9 55.9 83.9





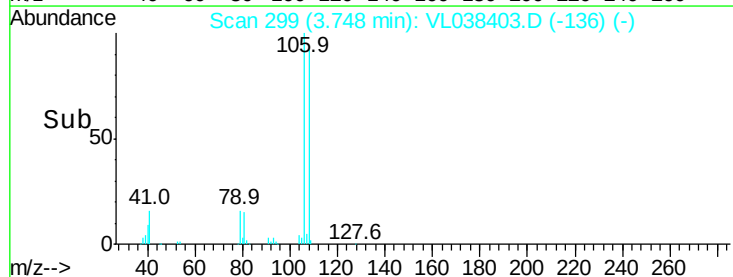
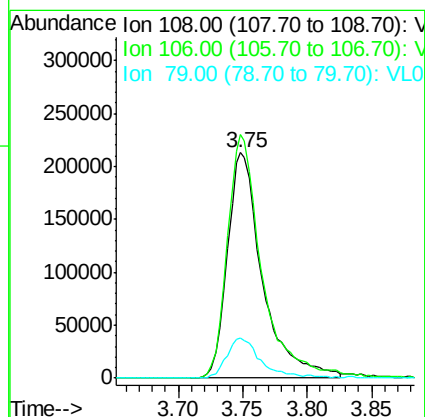
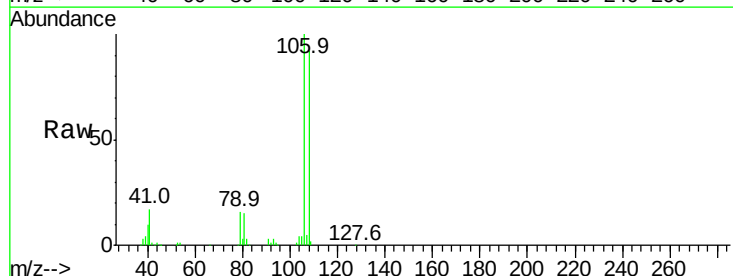
#13
Ethanol
Concen: 8.18 ppbv
RT: 3.62
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 23 Feb 2022 00:43
VSTDCCC010EC

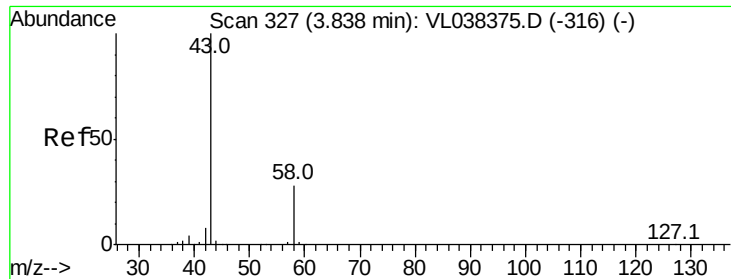
Tgt Ion: 45 Resp: 42055
Ion Ratio Lower Upper
45 100
46 44.3 18.2 72.8



#14
Bromoethene
Concen: 10.24 ppbv
RT: 3.75 min Scan# 299
Delta R.T. 0.02 min
Lab File: VL038403.D
Acq: 23 Feb 2022 00:43

Tgt Ion: 108 Resp: 400706
Ion Ratio Lower Upper
108 100
106 108.3 88.4 132.6
79 18.0 15.0 22.6





#15

Acetone

Concen: 8.41 ppbv

RT: 3.86 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

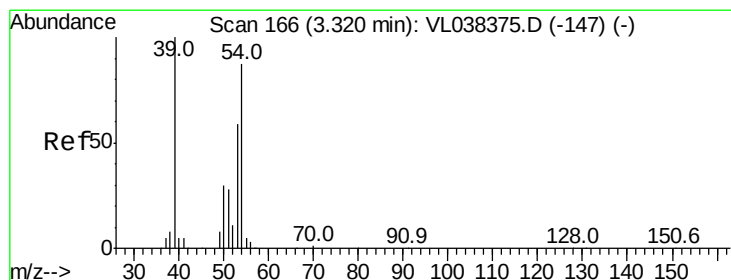
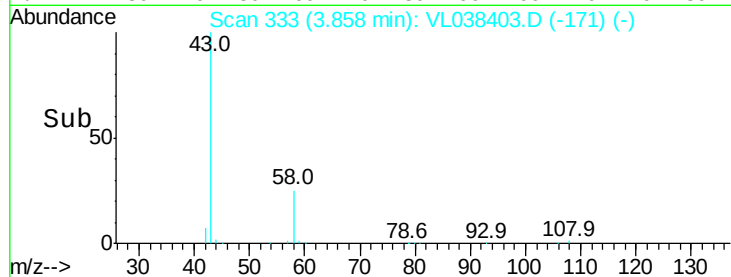
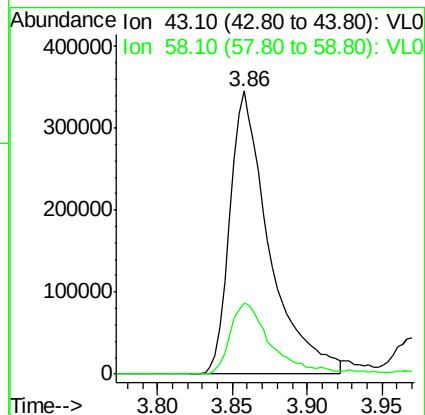
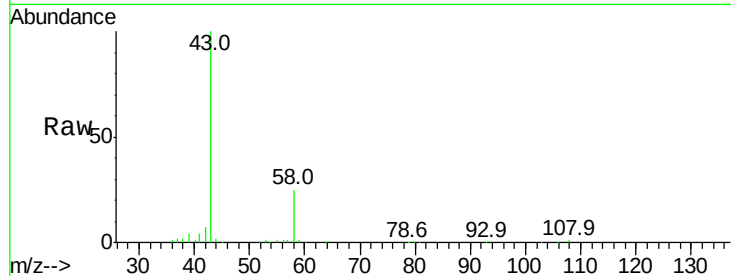
Acq: 23 Feb 2022 00:43 VSTDCCC010EC

Tgt Ion: 43 Resp: 631866

Ion Ratio Lower Upper

43 100

58 26.5 21.7 32.5



#16

1,3-Butadiene

Concen: 10.38 ppbv

RT: 3.34 min Scan# 172

Delta R.T. 0.02 min

Lab File: VL038403.D

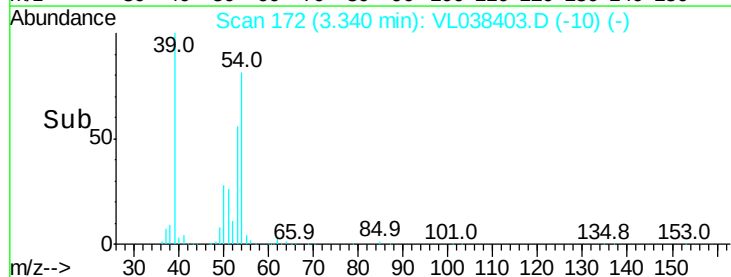
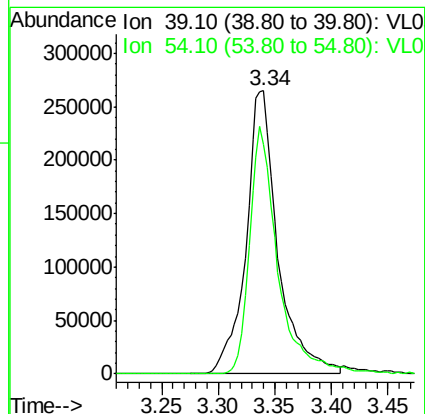
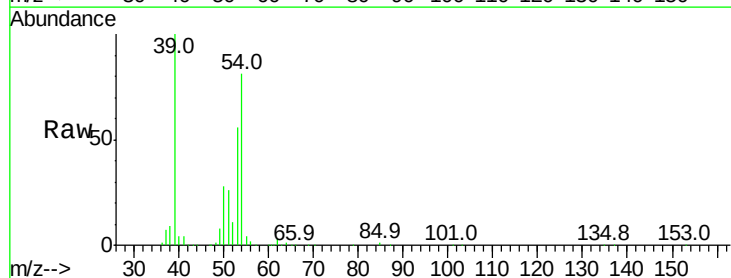
Acq: 23 Feb 2022 00:43

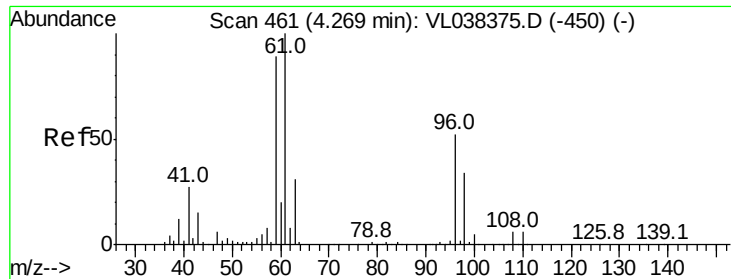
Tgt Ion: 39 Resp: 520674

Ion Ratio Lower Upper

39 100

54 77.9 60.3 90.5





#17

tert-Butyl alcohol

Concen: 9.74 ppbv

RT: 4.29 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

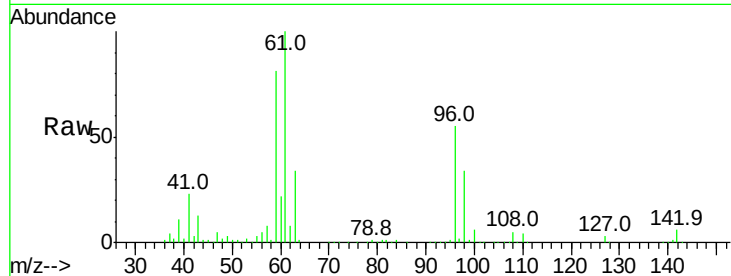
Acq: 23 Feb 2022 00:43 VSTDCCC010EC

Tgt Ion: 59 Resp: 729990

Ion Ratio Lower Upper

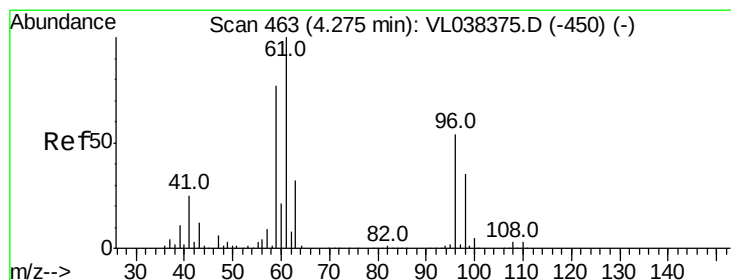
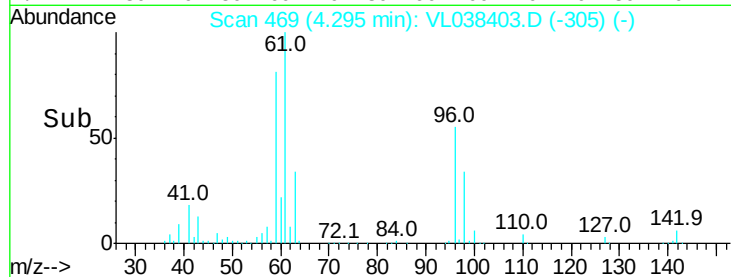
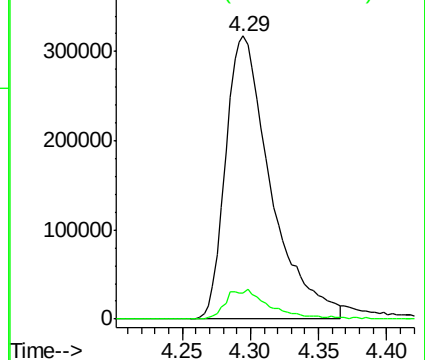
59 100

57 10.6 8.4 12.6



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#18

1,1-Dichloroethene

Concen: 9.52 ppbv

RT: 4.30 min Scan# 470

Delta R.T. 0.02 min

Lab File: VL038403.D

Acq: 23 Feb 2022 00:43

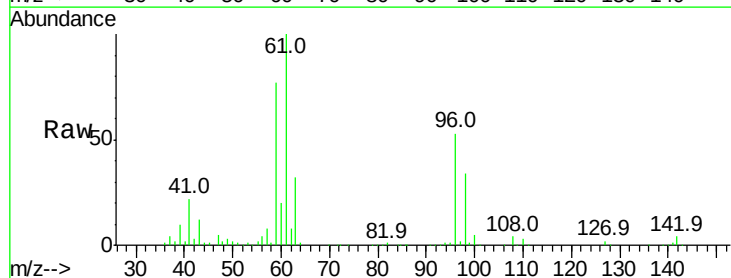
Tgt Ion: 96 Resp: 410636

Ion Ratio Lower Upper

96 100

61 187.8 146.8 220.2

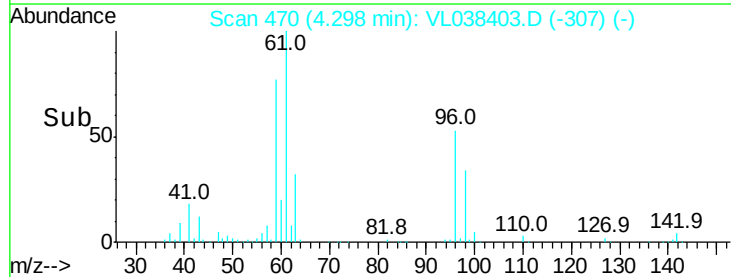
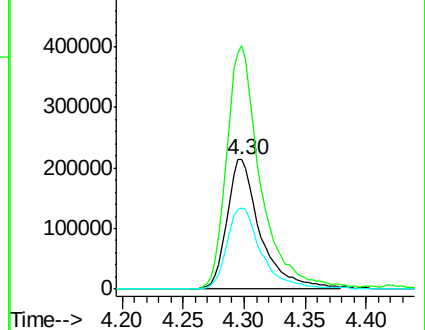
98 63.1 51.5 77.3

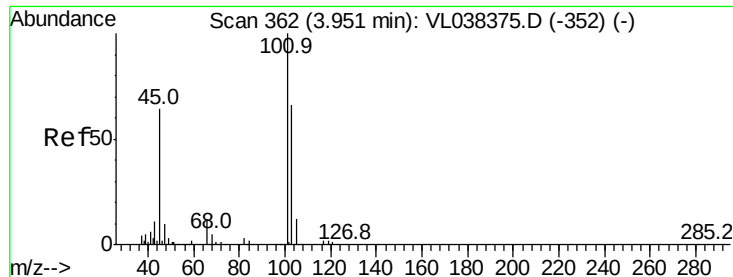


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#19

Isopropyl Alcohol

Concen: 9.43 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

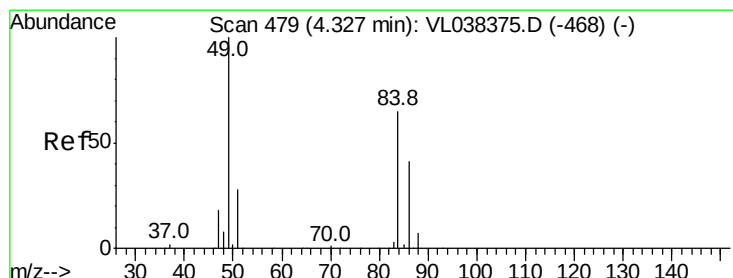
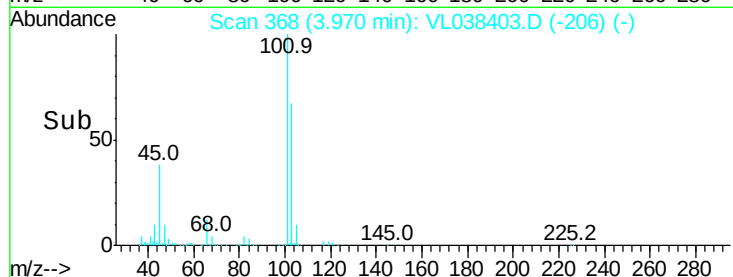
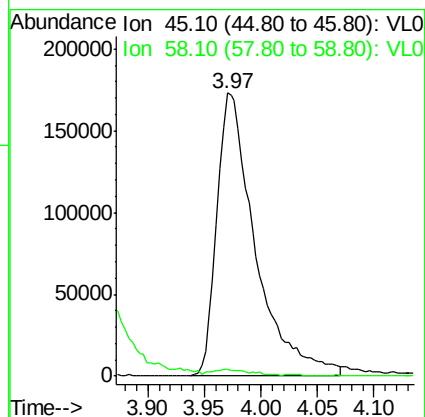
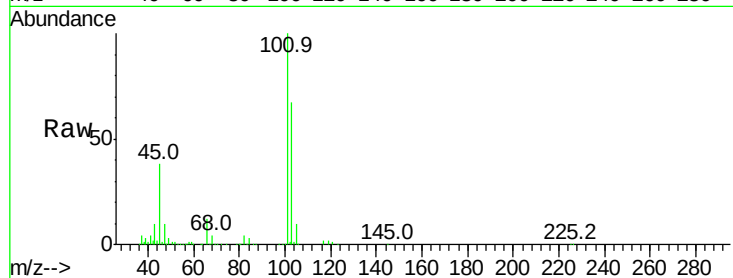
Acq: 23 Feb 2022 00:43 VSTDCCC010EC

Tgt Ion: 45 Resp: 410406

Ion Ratio Lower Upper

45 100

58 3.3 1.8 2.8#



#20

Methylene Chloride

Concen: 8.80 ppbv

RT: 4.35 min Scan# 487

Delta R.T. 0.03 min

Lab File: VL038403.D

Acq: 23 Feb 2022 00:43

Tgt Ion: 84 Resp: 327525

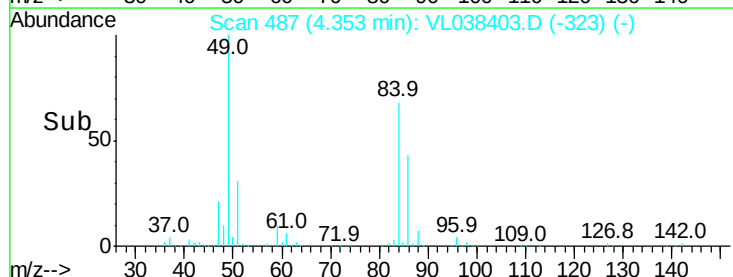
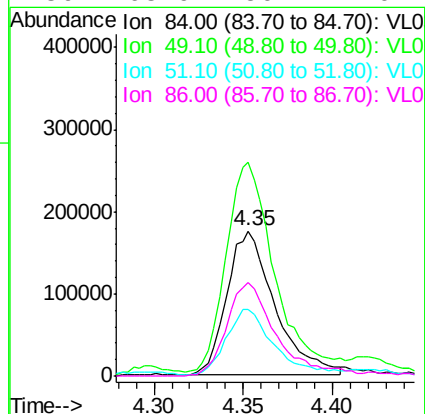
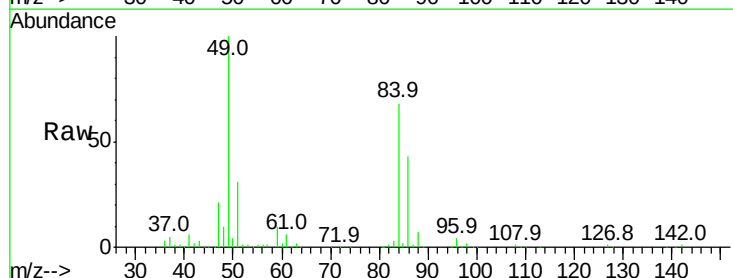
Ion Ratio Lower Upper

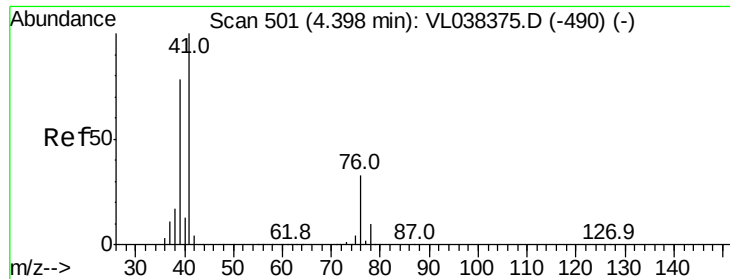
84 100

49 145.0 122.4 183.6

51 44.7 33.3 49.9

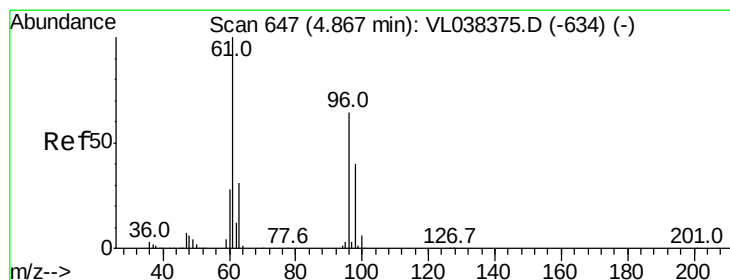
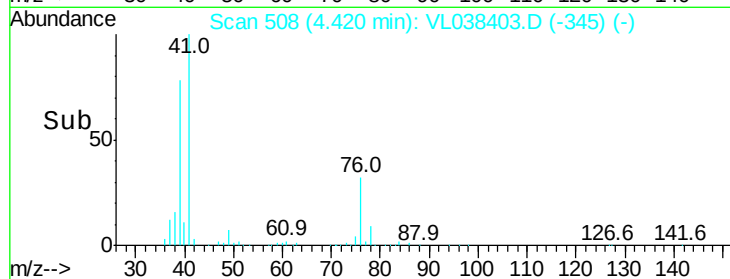
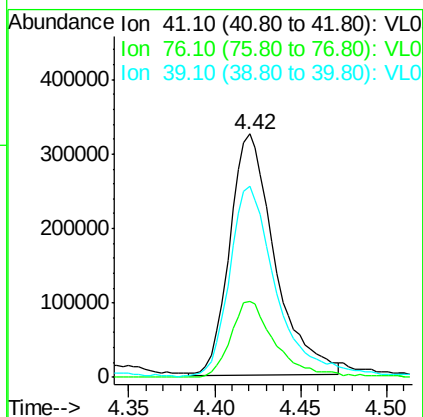
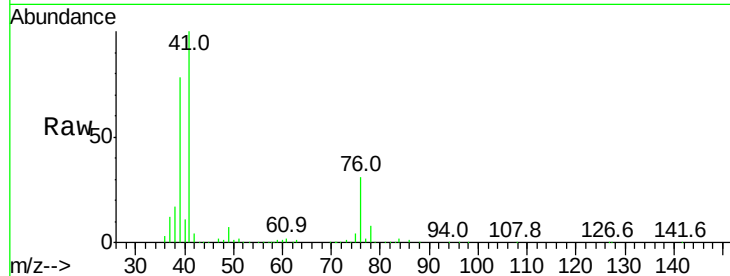
86 63.9 50.7 76.1





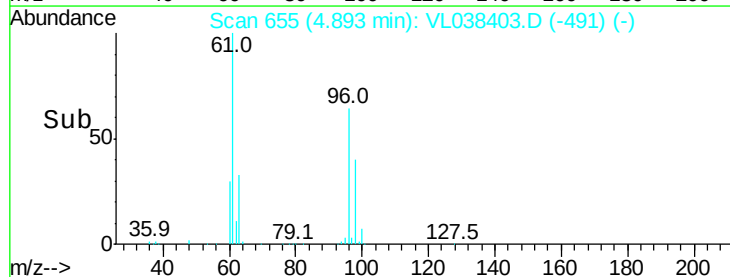
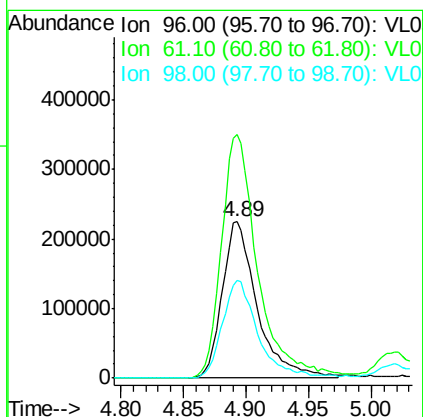
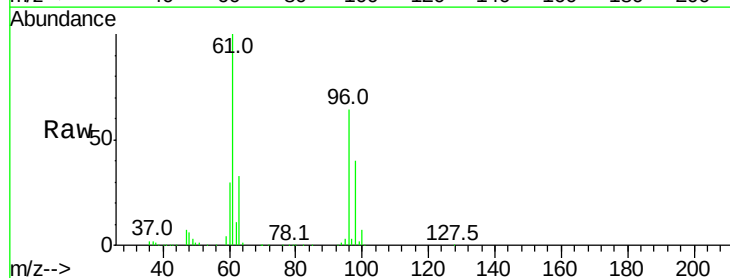
#21
 Allyl Chloride
 Concen: 9.31 ppbv
 RT: 4.42
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 VSTDCCC010EC
 Acq: 23 Feb 2022 00:43

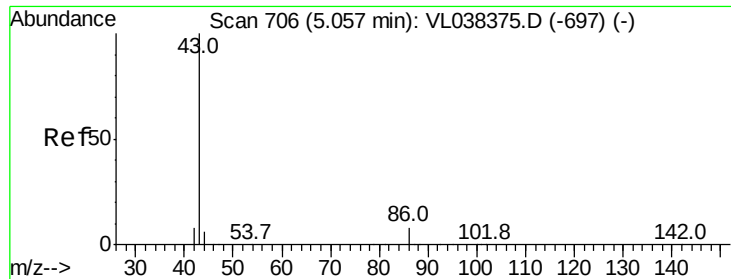
Tgt Ion: 41 Resp: 590671
 Ion Ratio Lower Upper
 41 100
 76 31.9 25.4 38.0
 39 82.6 63.0 94.6



#22
 trans-1,2-Dichloroethene
 Concen: 10.00 ppbv
 RT: 4.89 min Scan# 655
 Delta R.T. 0.03 min
 Lab File: VL038403.D
 Acq: 23 Feb 2022 00:43

Tgt Ion: 96 Resp: 434879
 Ion Ratio Lower Upper
 96 100
 61 155.8 124.2 186.4
 98 62.2 49.1 73.7





#23

Vinyl Acetate

Concen: 9.63 ppbv

RT: 5.08 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 23 Feb 2022 00:43 VSTDCCC010EC

Tgt Ion: 43 Resp: 958661

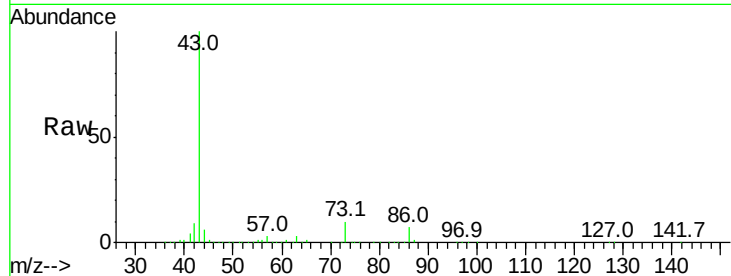
Ion Ratio Lower Upper

43 100

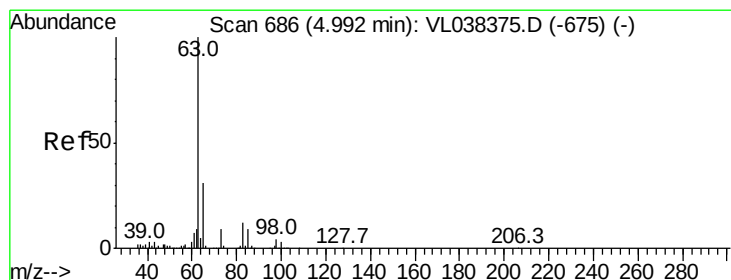
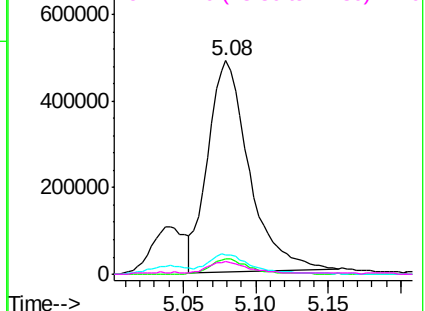
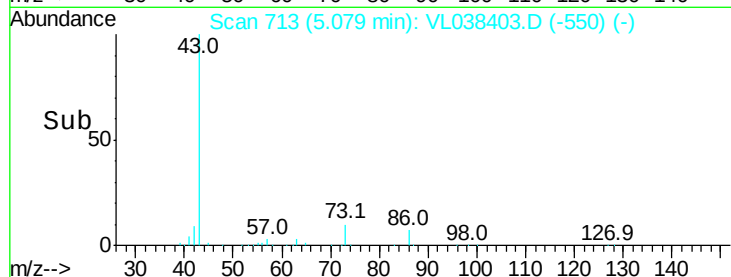
86 7.1 5.8 8.6

42 8.9 7.4 11.0

44 5.5 4.2 6.2



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: 9.54 ppbv

RT: 5.02 min Scan# 694

Delta R.T. 0.03 min

Lab File: VL038403.D

Acq: 23 Feb 2022 00:43

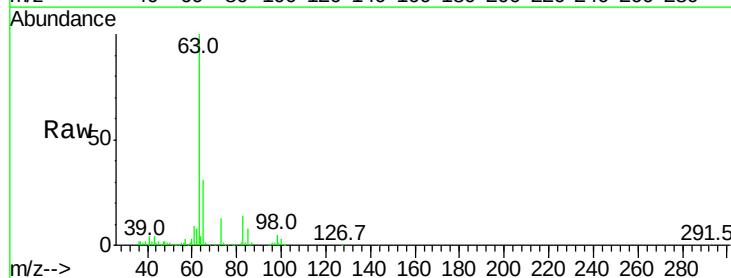
Tgt Ion: 63 Resp: 853993

Ion Ratio Lower Upper

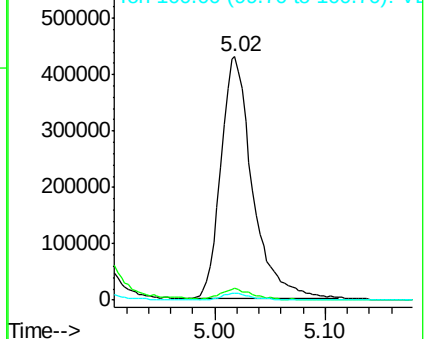
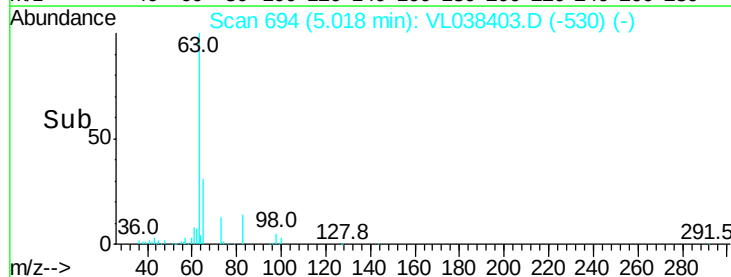
63 100

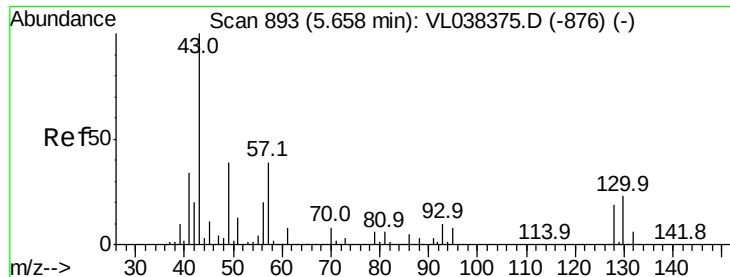
98 4.9 2.1 6.5

100 2.8 1.4 4.2



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

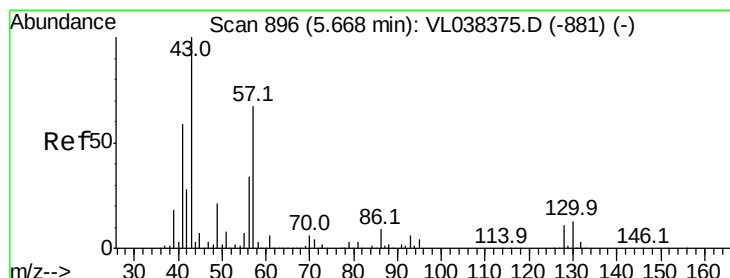
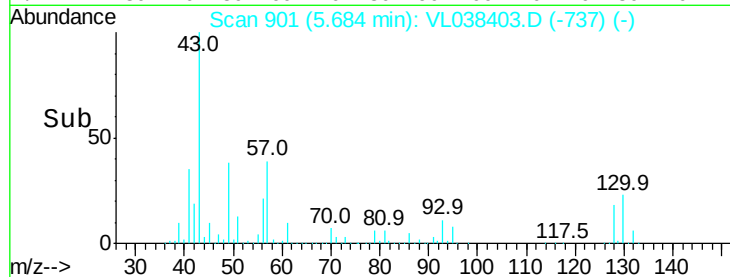
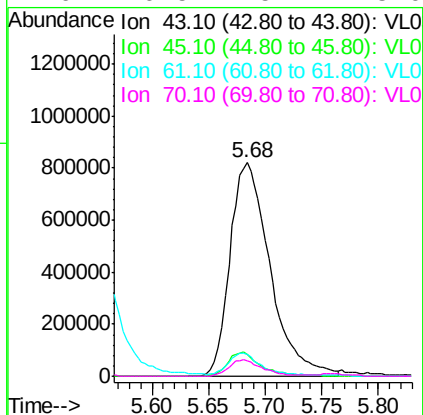
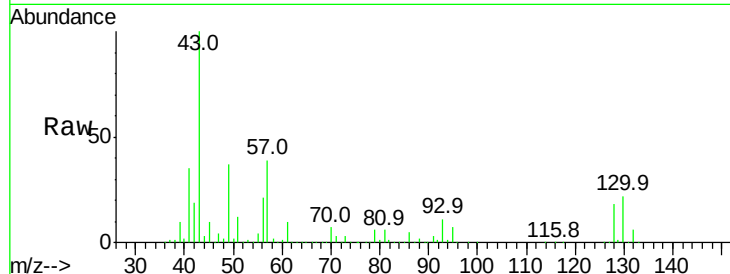




#25
Ethyl Acetate
Concen: 10.00 ppbv
RT: 5.68
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
VSTDCCC010EC
Acq: 23 Feb 2022 00:43

Tgt Ion: 43 Resp: 2017909

Ion	Ratio	Lower	Upper
43	100		
45	9.7	7.8	11.6
61	9.8	7.5	11.3
70	6.5	5.4	8.0



#26
Hexane
Concen: 10.15 ppbv
RT: 5.70 min Scan# 905
Delta R.T.: 0.03 min
Lab File: VL038403.D
Acq: 23 Feb 2022 00:43

Tgt Ion: 57 Resp: 927555

Ion	Ratio	Lower	Upper
57	100		
41	90.8	73.1	109.7
43	222.3	181.0	271.4
56	53.6	43.4	65.0

