

Data File : VL037940.D

Acq On : 1 Nov 2021 13:10

Operator : SY/AP

Sample : VSTDICC015

Misc : 400mL/MSVOA_L

ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_L

ClientSampleId :

VSTDICC015

Quant Time: Nov 01 14:04:17 2021

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL110121AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Nov 01 11:08:47 2021

QLast Update : Mon Nov 01 11:08:47 2021

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1594513	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4674890	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	4397768	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	3184554	10.35	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.50%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.05	85	2498599	9.810	ppbv	98
3) Chlorodifluoromethane	2.99	51	3852891	12.576	ppbv	99
4) Chloromethane	3.14	50	1528118	13.618	ppbv	100
5) Vinyl Chloride	3.26	62	1505759	14.638	ppbv	97
6) Bromomethane	3.47	94	842462	15.140	ppbv	95
7) Chloroethane	3.56	64	528529	13.974	ppbv	95
8) Dichlorotetrafluoroethane	3.19	85	3233253	12.844	ppbv	99
9) Propene	3.02	41	1467166	13.015	ppbv	94
10) Heptane	8.12	43	3654078	14.273	ppbv	100
11) Trichlorofluoromethane	3.95	101	3061543	13.473	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.49	101	2295477	13.333	ppbv	99
13) Ethanol	3.61	45	116381	12.624	ppbv	94
14) Bromoethene	3.74	108	1060373	14.007	ppbv	98
15) Acetone	3.85	43	1719545	12.013	ppbv	99
16) 1,3-Butadiene	3.33	39	1419097	13.626	ppbv	98
17) tert-Butyl alcohol	4.29	59	1753872	11.897	ppbv	98
18) 1,1-Dichloroethene	4.29	96	1075922	13.751	ppbv	98
19) Isopropyl Alcohol	3.96	45	1078412	12.110	ppbv	# 95
20) Methylene Chloride	4.34	84	909625	12.577	ppbv	94
21) Allyl Chloride	4.41	41	1754574	13.837	ppbv	99
22) trans-1,2-Dichloroethene	4.88	96	1113334	14.153	ppbv	97
23) Vinyl Acetate	5.07	43	2851863	13.295	ppbv	99
24) 1,1-Dichloroethane	5.01	63	2177886	13.948	ppbv	99
25) Ethyl Acetate	5.68	43	5532597	13.774	ppbv	100
26) Hexane	5.68	57	2596583	13.128	ppbv	100
27) Carbon Disulfide	4.55	76	2762117	15.758	ppbv	98
28) Methyl tert-Butyl Ether	5.03	73	2117969	12.862	ppbv	98
29) Chloroform	5.75	83	3728458	13.188	ppbv	97
30) Cyclohexane	7.13	84	2242720	13.372	ppbv	97
31) cis-1,2-Dichloroethene	5.55	61	2461886	13.711	ppbv	97
32) 1,1,1-Trichloroethane	6.51	97	3487750	13.012	ppbv	99
34) 2-Butanone	5.24	43	2484700	13.165	ppbv	99
35) Carbon Tetrachloride	7.01	117	3692447	13.908	ppbv	97
36) Benzene	6.89	78	5394399	13.510	ppbv	98
37) 1,2-Dichloroethane	6.30	62	2598443	13.820	ppbv	98
38) Trichloroethene	7.83	130	2145161	13.598	ppbv	96
39) 1,2-Dichloropropane	7.61	63	2091205	13.923	ppbv	97
40) 1,4-Dioxane	7.83	88	453861	12.076	ppbv	# 1
41) Tetrahydrofuran	6.05	42	1305807	14.130	ppbv	99
42) Bromodichloromethane	7.79	83	3882257	14.058	ppbv	98
43) Methyl Methacrylate	8.01	69	1984445	15.216	ppbv	99

Data File : VL037940.D

Acq On : 1 Nov 2021 13:10

Operator : SY/AP

Sample : VSTDIC015

Misc : 400mL/MSVOA_L

ALS Vial : 1 Sample Multiplier: 1

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC015

Quant Time: Nov 01 14:04:17 2021

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL110121AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Nov 01 11:08:47 2021

QLast Update : Mon Nov 01 11:08:47 2021

Response via : Initial Calibration

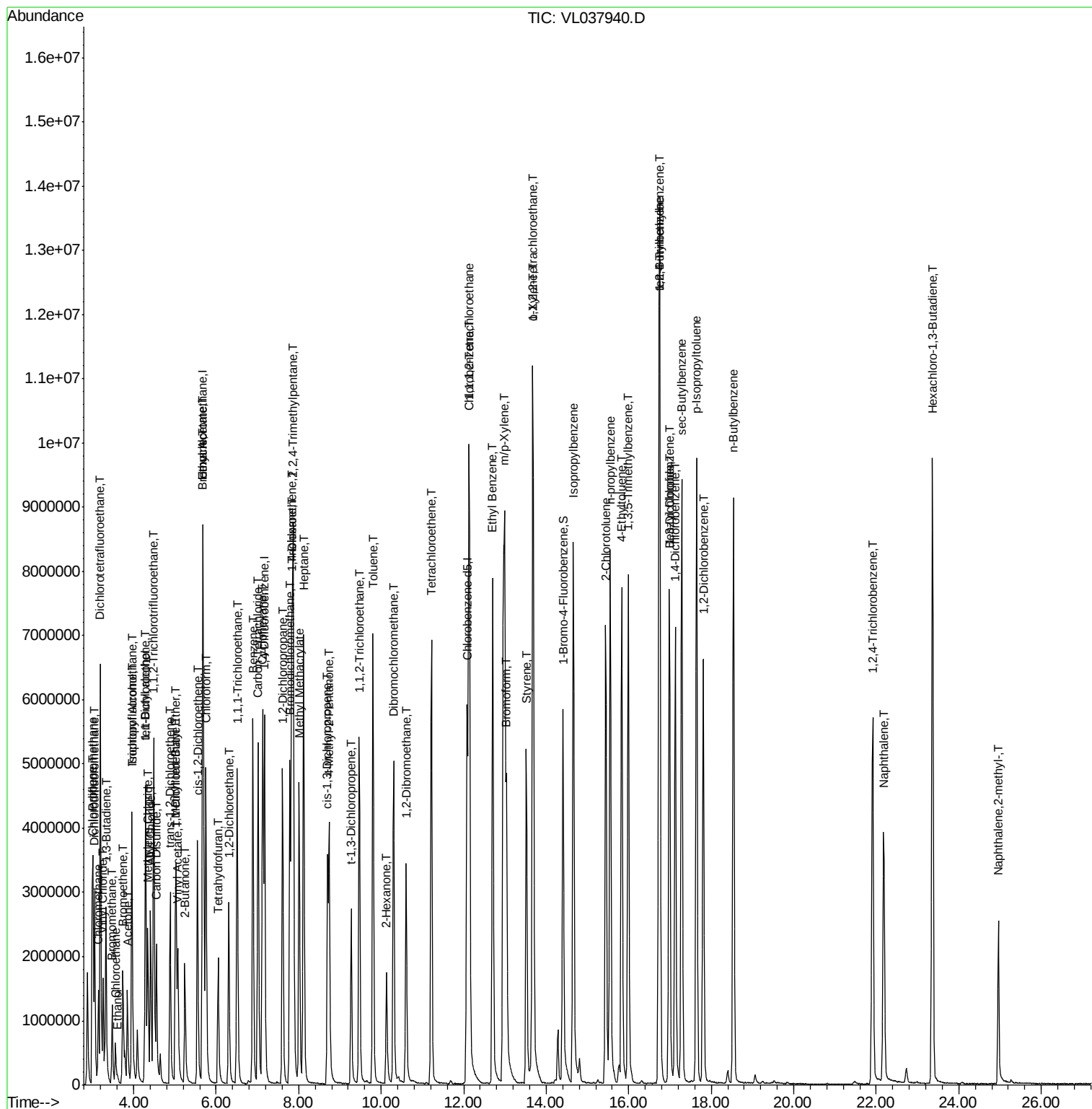
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,2,4-Trimethylpentane	7.87	57	8818099	13.144	ppbv	99
45) t-1,3-Dichloropropene	9.27	75	1705545	19.006	ppbv	98
46) cis-1,3-Dichloropropene	8.70	75	2179068	17.519	ppbv	99
47) 1,1,2-Trichloroethane	9.47	97	2209883	13.535	ppbv	98
48) Dibromochloromethane	10.30	129	3493116	15.007	ppbv	99
49) Bromoform	13.03	173	2848378	15.993	ppbv	97
50) 4-Methyl-2-Pentanone	8.74	43	3518802	14.322	ppbv	98
51) 2-Hexanone	10.13	43	1667372	15.202	ppbv #	99
52) Tetrachloroethene	11.22	164	1959810	12.615	ppbv	97
53) Toluene	9.80	91	6210681	14.035	ppbv	99
54) 1,2-Dibromoethane	10.61	107	3096427	14.040	ppbv	100
56) 1,1,1,2-Tetrachloroethane	12.12	131	2349356	12.905	ppbv #	58
57) Chlorobenzene	12.14	112	4485136	12.432	ppbv	99
58) Ethyl Benzene	12.70	91	7824698	13.250	ppbv	96
59) m/p-Xylene	12.99	91	6591239	13.003	ppbv #	29
60) o-Xylene	13.69	91	6057499	12.469	ppbv	98
61) Styrene	13.52	104	3516506	14.965	ppbv	99
62) Isopropylbenzene	14.66	105	8326096	12.288	ppbv	98
63) 1,1,2,2-Tetrachloroethane	13.67	83	4453192	11.879	ppbv	99
64) n-propylbenzene	15.55	120	2319545	13.727	ppbv	96
65) tert-Butylbenzene	16.74	119	7257639	12.171	ppbv	100
66) Benzyl Chloride	16.98	91	522931	17.770	ppbv	97
67) sec-Butylbenzene	17.29	105	10013718	12.279	ppbv	99
69) p-Isopropyltoluene	17.64	119	8304036	12.595	ppbv	99
70) n-Butylbenzene	18.54	91	8068479	12.882	ppbv	99
71) 2-Chlorotoluene	15.44	91	6200663	12.959	ppbv	98
72) 4-Ethyltoluene	15.83	105	7181026	13.018	ppbv	99
73) 1,3,5-Trimethylbenzene	15.99	105	6592844	13.158	ppbv	96
74) 1,2,4-Trimethylbenzene	16.76	105	6575358	12.497	ppbv	98
75) 1,3-Dichlorobenzene	16.99	146	4111960	12.614	ppbv	99
76) 1,4-Dichlorobenzene	17.13	146	4056579	13.045	ppbv	99
77) 1,2-Dichlorobenzene	17.81	146	3871423	12.363	ppbv	100
78) Hexachloro-1,3-Butadiene	23.36	225	2850408	11.148	ppbv	98
79) Naphthalene	22.18	128	5421938	16.826	ppbv	99
80) Naphthalene,2-methyl-	24.96	142	1640928	18.965	ppbv	99
81) 1,2,4-Trichlorobenzene	21.91	180	3020885	14.658	ppbv	98

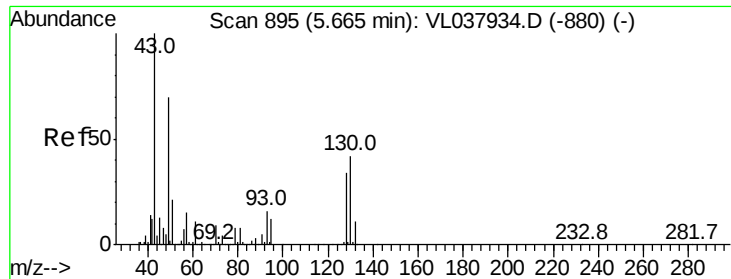
(#)=qualifier out of range (m)=manual integration (+)=signals summed

ALS Vial : 1 Sample Multiplier: 1

VSTDICC015

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: VSTDIC015

Acq: 1 Nov 2021 13:10

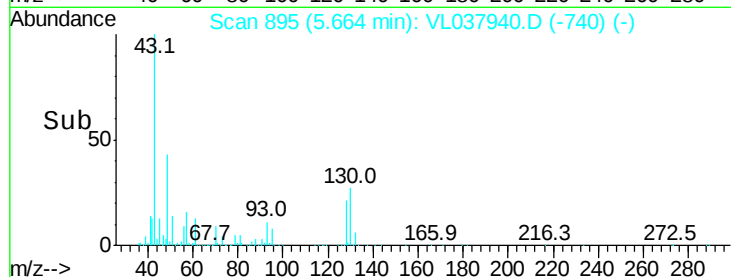
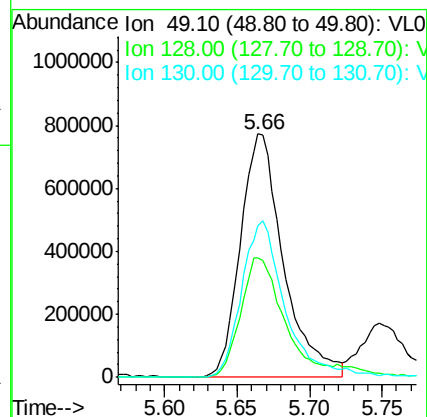
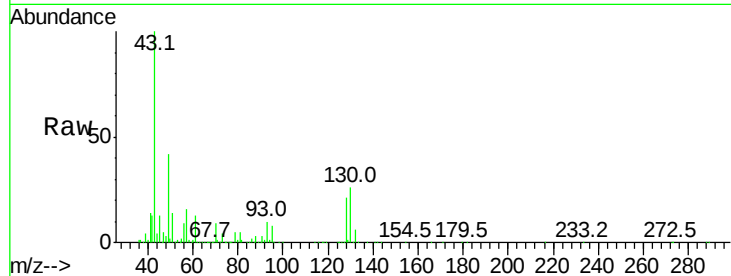
Tgt Ion: 49 Resp: 1594513

Ion Ratio Lower Upper

49 100

128 54.1 27.0 81.0

130 66.0 33.4 100.2



#2

Dichlorodifluoromethane

Concen: 9.810 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.00 min

Lab File: VL037940.D

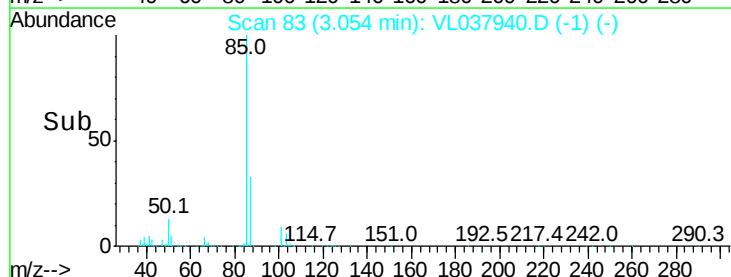
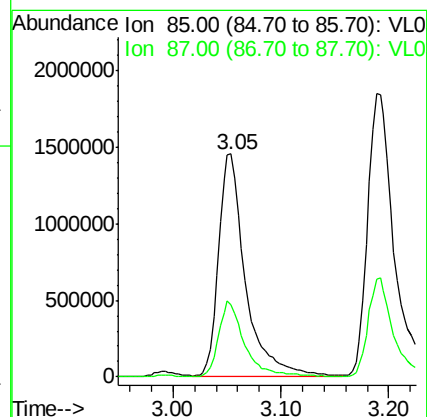
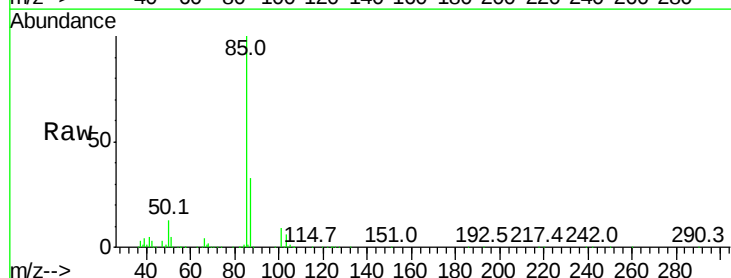
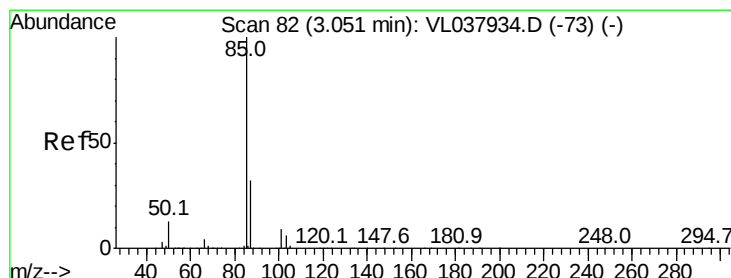
Acq: 1 Nov 2021 13:10

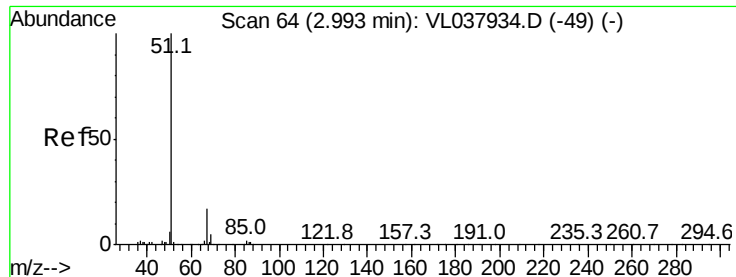
Tgt Ion: 85 Resp: 2498599

Ion Ratio Lower Upper

85 100

87 32.5 25.3 37.9





#3

Chlorodifluoromethane

Concen: 12.576 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

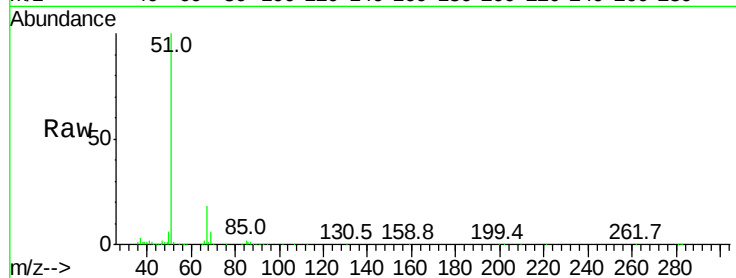
Acq: 1 Nov 2021 13:10 VSTDIC015

Tgt Ion: 51 Resp: 3852891

Ion Ratio Lower Upper

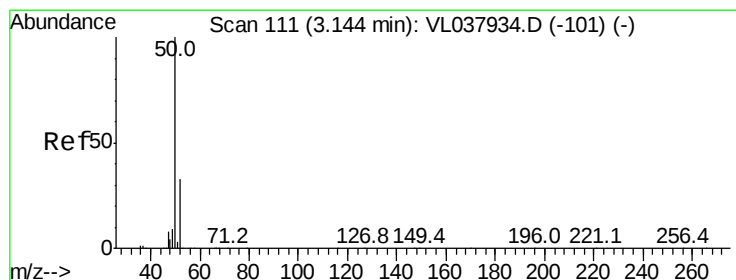
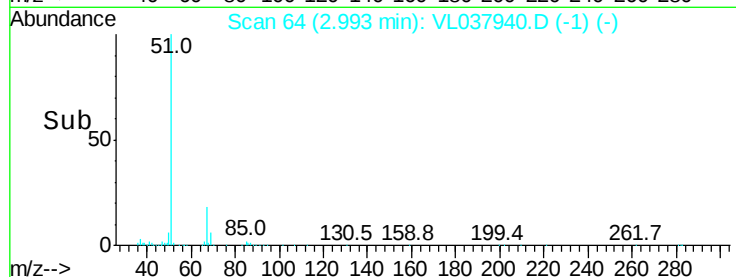
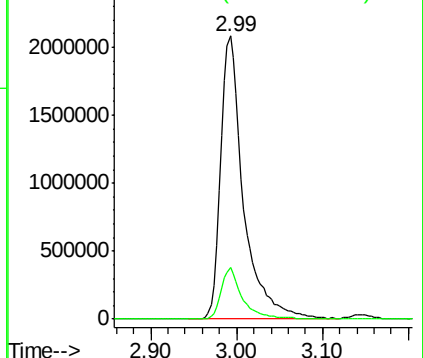
51 100

67 17.1 13.4 20.0



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 13.618 ppbv

RT: 3.14 min Scan# 111

Delta R.T. -0.00 min

Lab File: VL037940.D

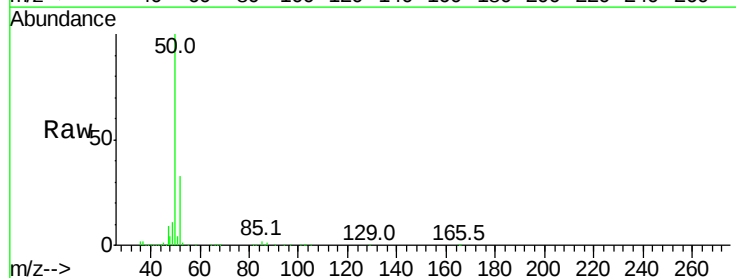
Acq: 1 Nov 2021 13:10

Tgt Ion: 50 Resp: 1528118

Ion Ratio Lower Upper

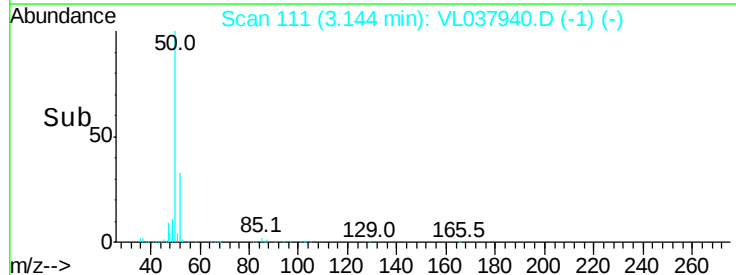
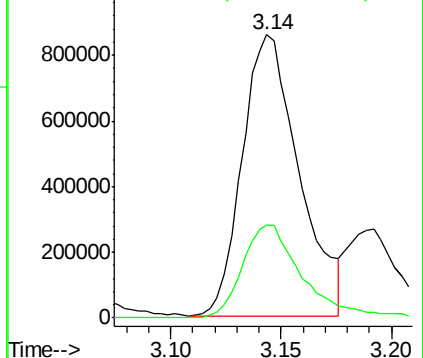
50 100

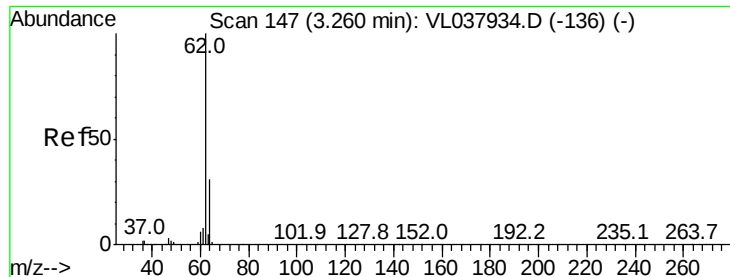
52 33.0 26.3 39.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 14.638 ppbv

RT: 3.26 Instrument: MSVOA_1

Delta R.T. -0.00 min

Lab File: ClientSampleId: VSTDIC015

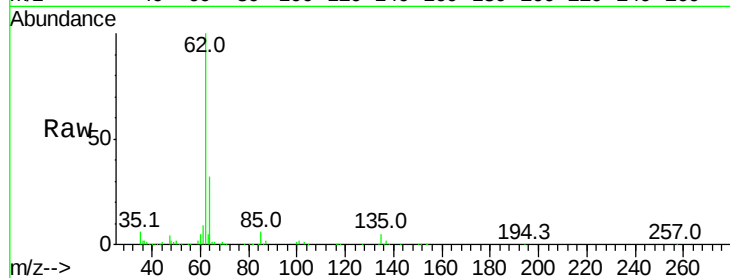
Acq: 1 Nov 2021 13:10

Tgt Ion: 62 Resp: 1505759

Ion Ratio Lower Upper

62 100

64 32.4 24.7 37.1



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0

1000000

800000

600000

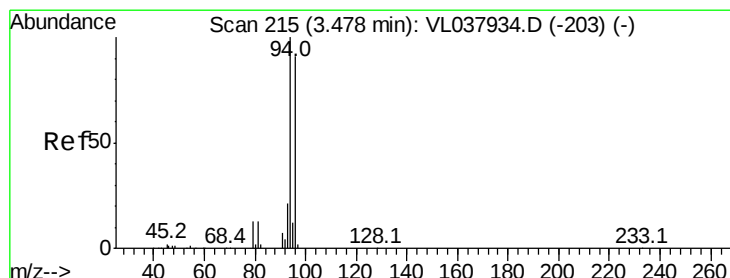
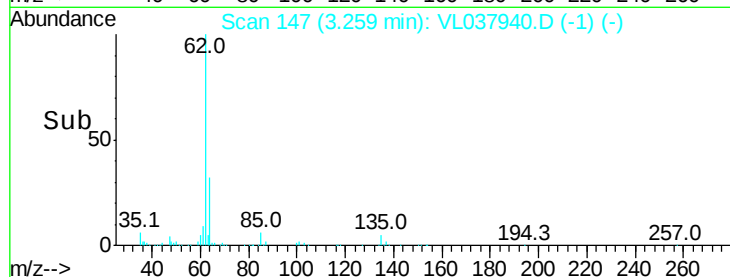
400000

200000

0

3.20 3.25 3.30 3.35

Time-->



#6

Bromomethane

Concen: 15.140 ppbv

RT: 3.47 min Scan# 214

Delta R.T. -0.00 min

Lab File: VL037940.D

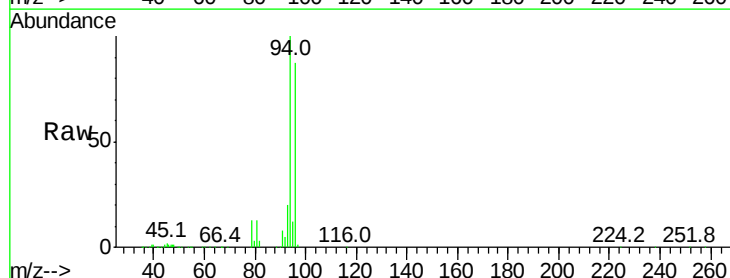
Acq: 1 Nov 2021 13:10

Tgt Ion: 94 Resp: 842462

Ion Ratio Lower Upper

94 100

96 86.8 73.0 109.4



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0

500000

400000

300000

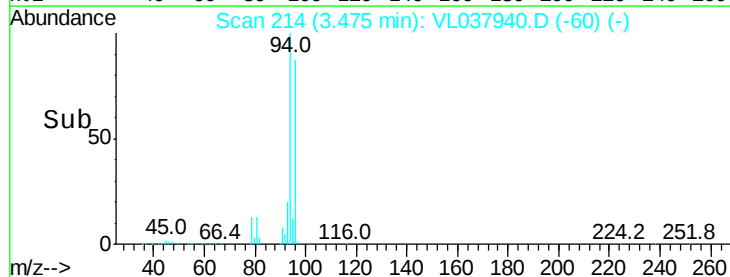
200000

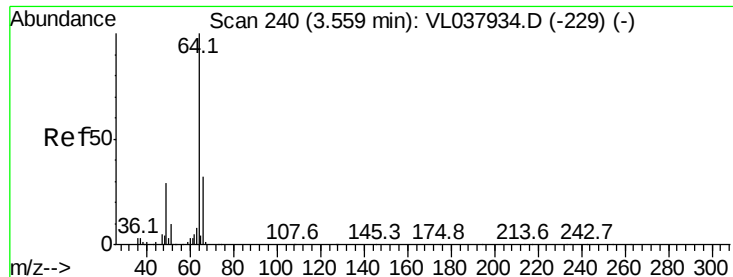
100000

0

3.40 3.45 3.50 3.55

Time-->





#7

Chloroethane

Concen: 13.974 ppbv

RT: 3.56 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: VSTDIC015

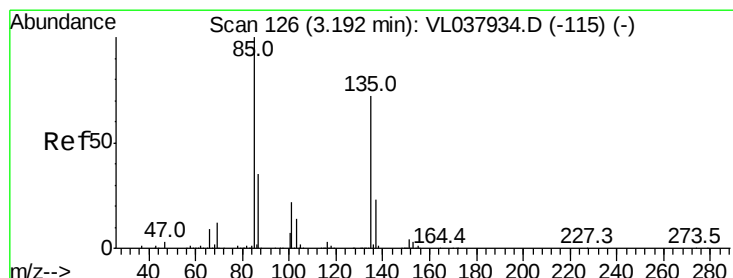
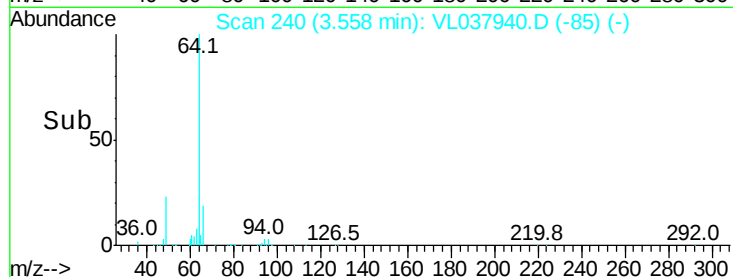
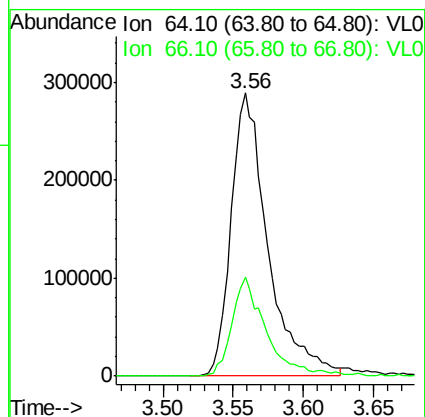
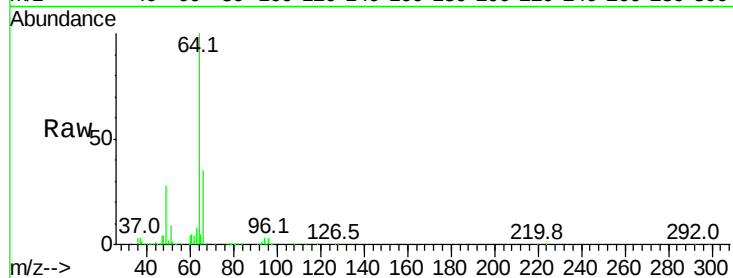
Acq: 1 Nov 2021 13:10

Tgt Ion: 64 Resp: 528529

Ion Ratio Lower Upper

64 100

66 34.8 25.5 38.3



#8

Dichlorotetrafluoroethane

Concen: 12.844 ppbv

RT: 3.19 min Scan# 125

Delta R.T. -0.00 min

Lab File: VL037940.D

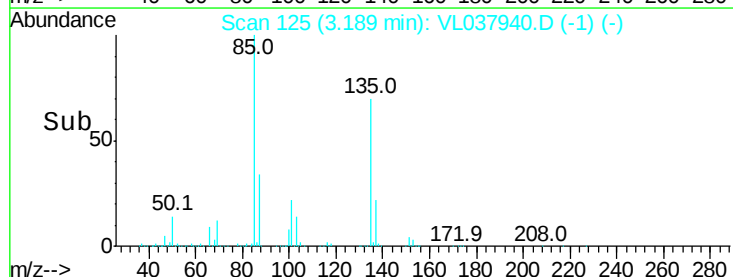
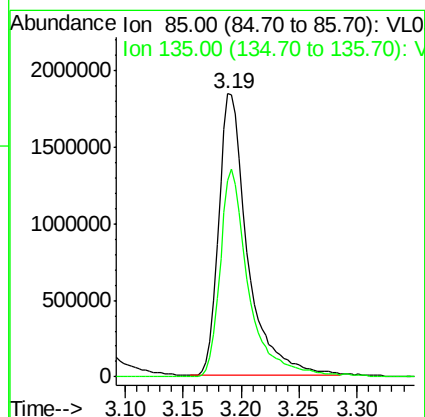
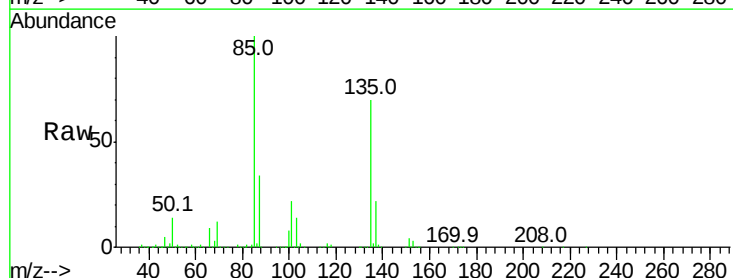
Acq: 1 Nov 2021 13:10

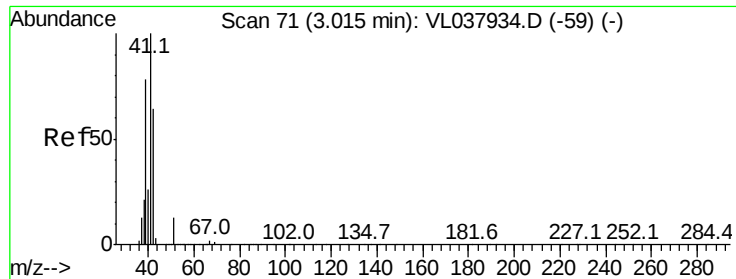
Tgt Ion: 85 Resp: 3233253

Ion Ratio Lower Upper

85 100

135 72.9 58.8 88.2





#9

Propene

Concen: 13.015 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

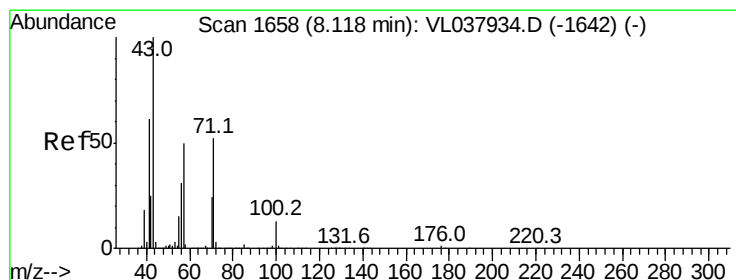
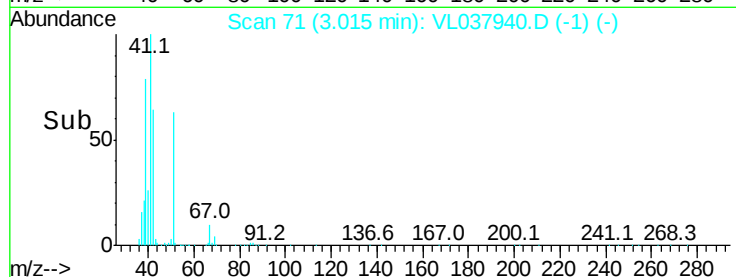
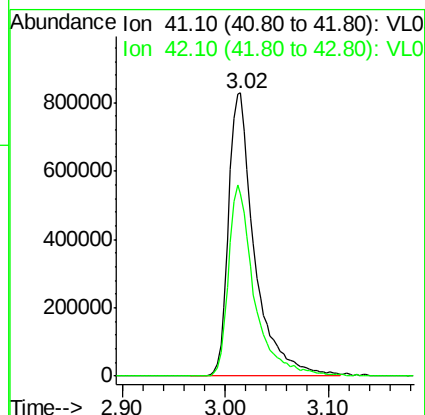
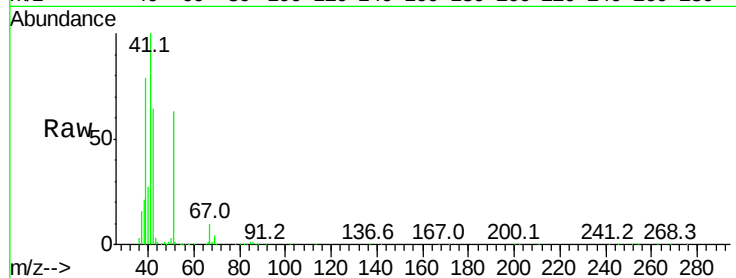
Acq: 1 Nov 2021 13:10 VSTDIC015

Tgt Ion: 41 Resp: 1467166

Ion Ratio Lower Upper

41 100

42 66.7 57.6 86.4



#10

Heptane

Concen: 14.273 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.00 min

Lab File: VL037940.D

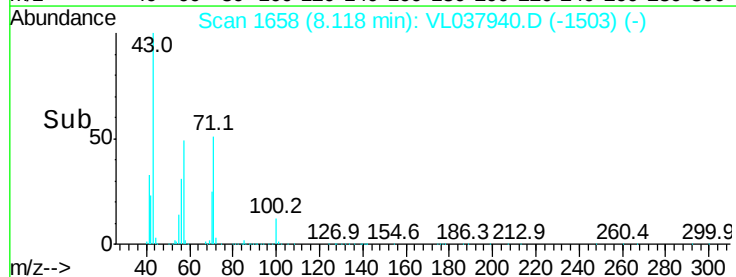
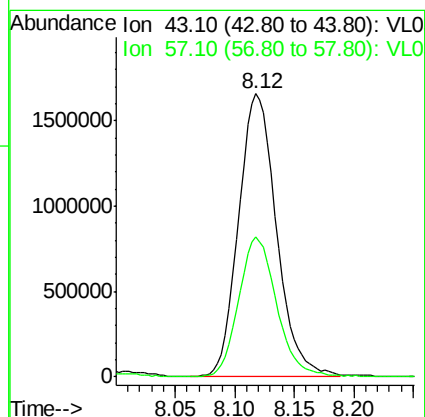
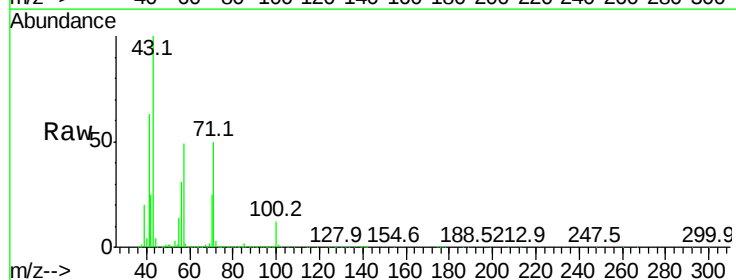
Acq: 1 Nov 2021 13:10

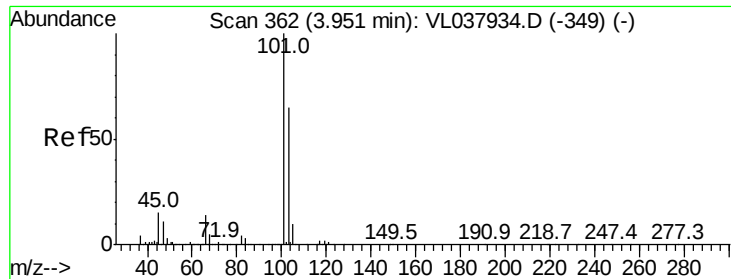
Tgt Ion: 43 Resp: 3654078

Ion Ratio Lower Upper

43 100

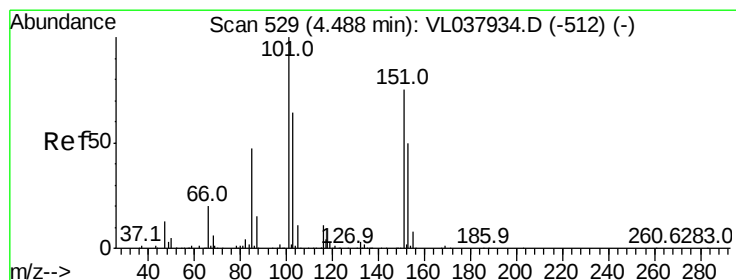
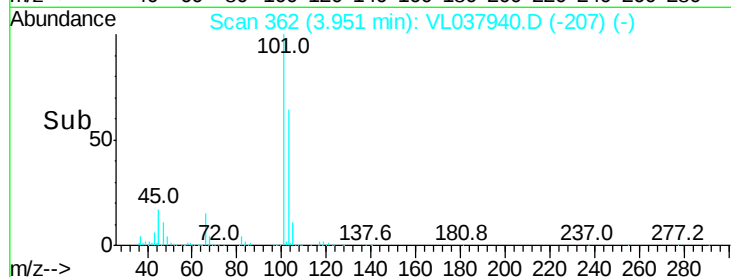
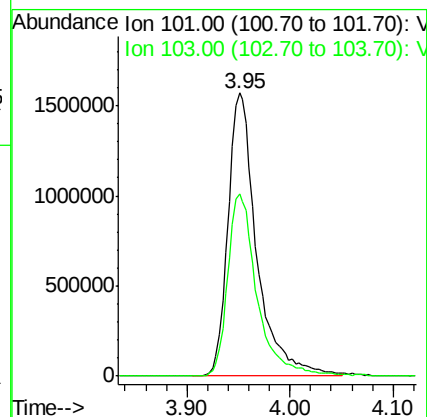
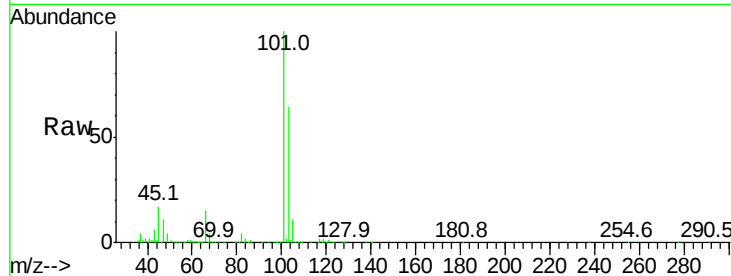
57 49.7 39.8 59.8





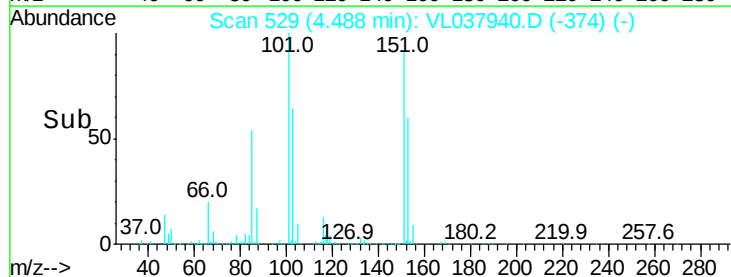
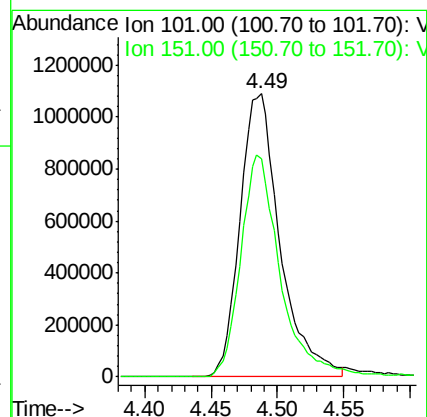
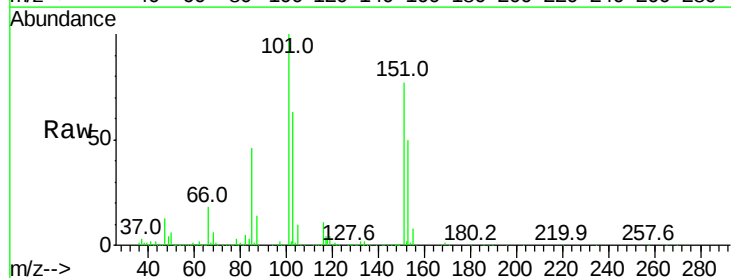
#11
 Trichlorofluoromethane
 Concen: 13.473 ppbv
 RT: 3.95
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 VSTDIC015
 Acq: 1 Nov 2021 13:10

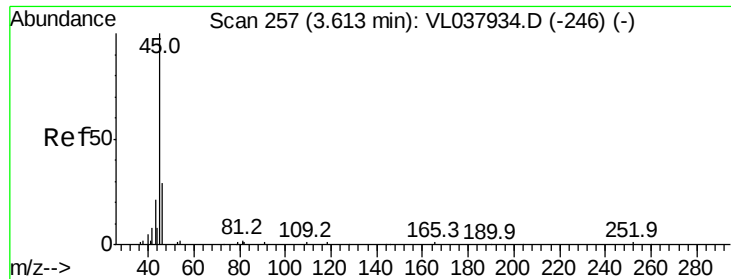
Tgt Ion:101 Resp: 3061543
 Ion Ratio Lower Upper
 101 100
 103 64.5 52.0 78.0



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 13.333 ppbv
 RT: 4.49 min Scan# 529
 Delta R.T.: -0.00 min
 Lab File: VL037940.D
 Acq: 1 Nov 2021 13:10

Tgt Ion:101 Resp: 2295477
 Ion Ratio Lower Upper
 101 100
 151 78.1 61.8 92.8





#13

Ethanol

Concen: 12.624 ppbv

RT: 3.61 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

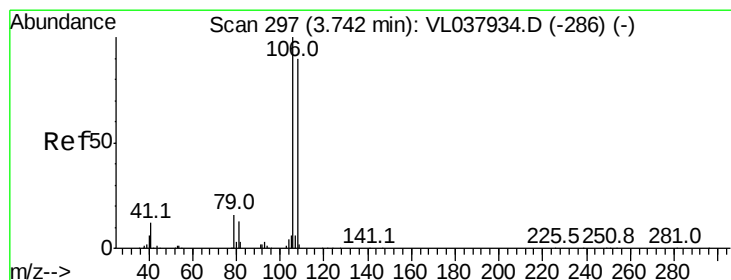
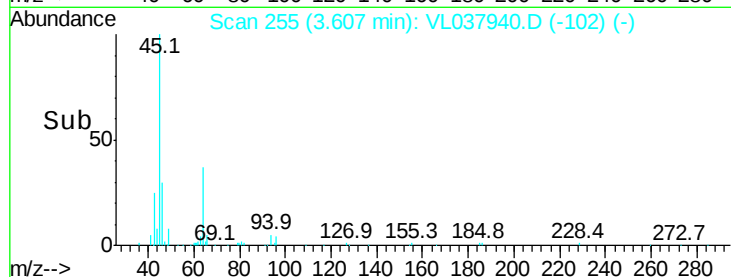
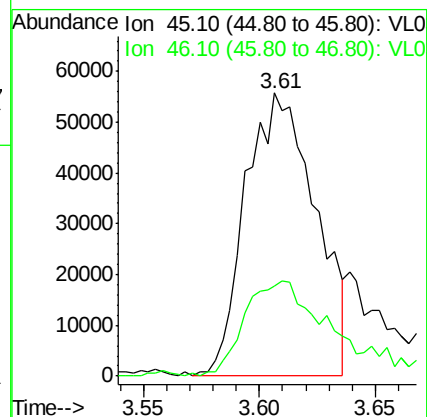
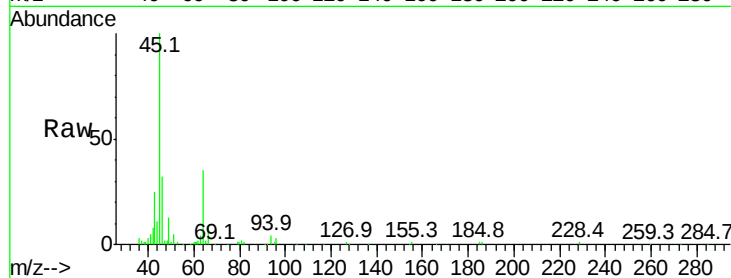
Acq: 1 Nov 2021 13:10 VSTDIC015

Tgt Ion: 45 Resp: 116381

Ion Ratio Lower Upper

45 100

46 47.6 17.4 69.8



#14

Bromoethene

Concen: 14.007 ppbv

RT: 3.74 min Scan# 296

Delta R.T. -0.00 min

Lab File: VL037940.D

Acq: 1 Nov 2021 13:10

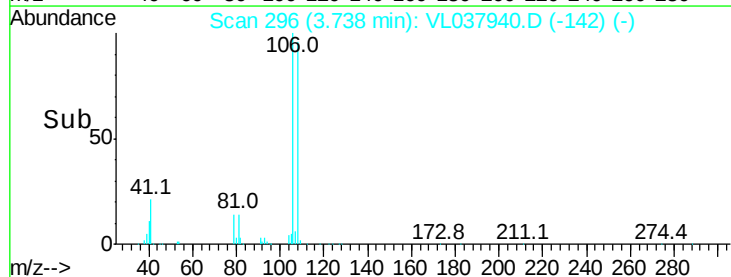
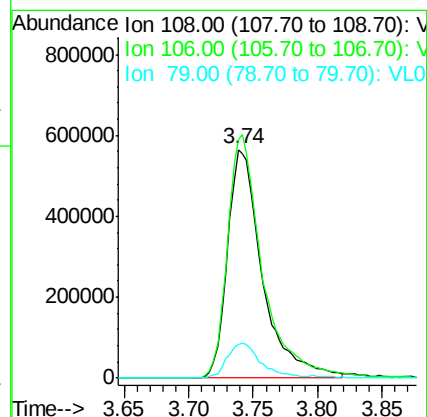
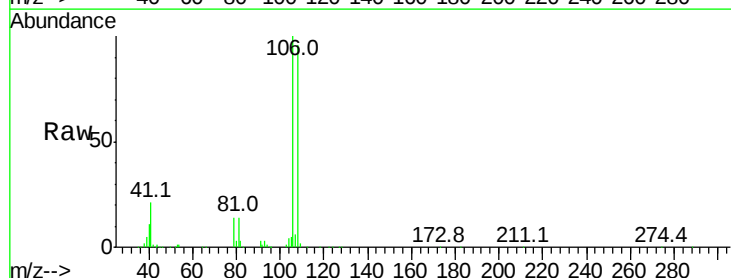
Tgt Ion: 108 Resp: 1060373

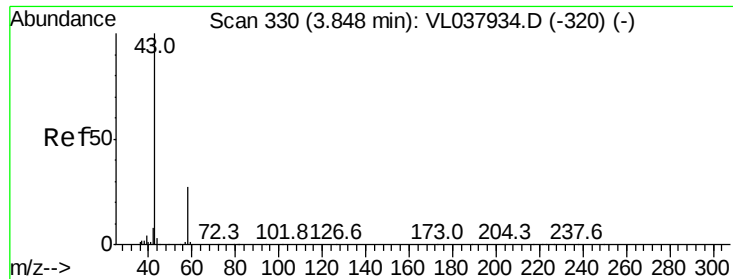
Ion Ratio Lower Upper

108 100

106 108.2 88.4 132.6

79 15.6 12.4 18.6





#15

Acetone

Concen: 12.013 ppbv

RT: 3.85 Instrument :

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

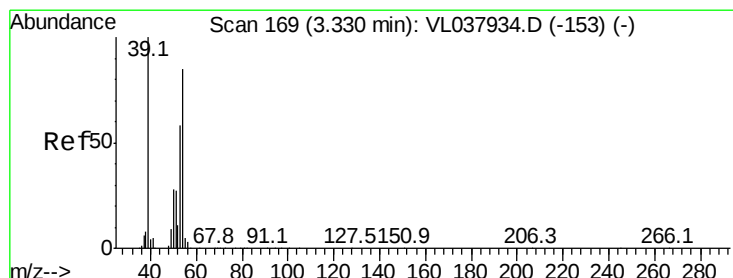
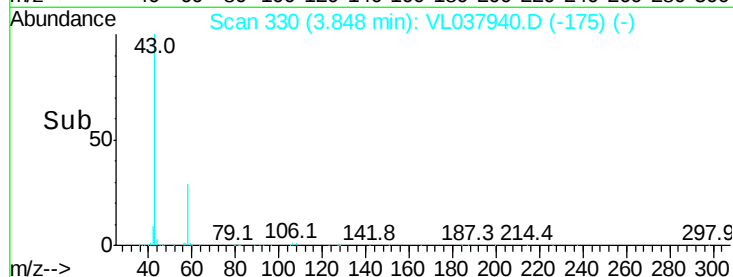
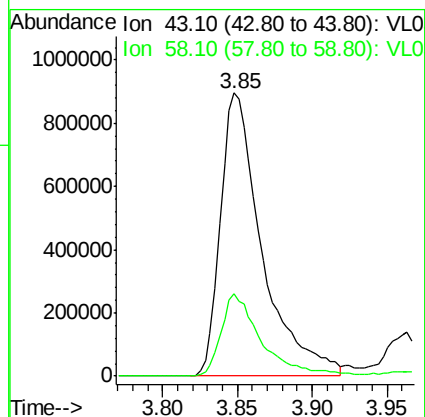
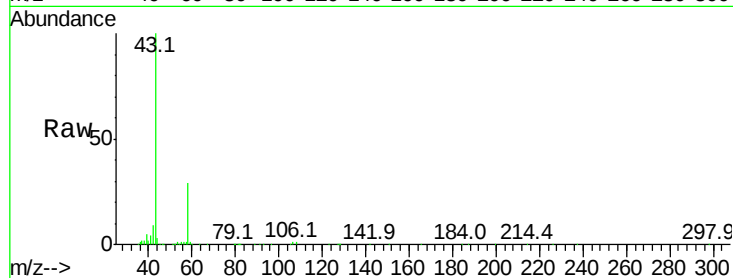
Acq: 1 Nov 2021 13:10 VSTDIC015

Tgt Ion: 43 Resp: 1719545

Ion Ratio Lower Upper

43 100

58 28.7 23.3 34.9



#16

1,3-Butadiene

Concen: 13.626 ppbv

RT: 3.33 min Scan# 169

Delta R.T. -0.00 min

Lab File: VL037940.D

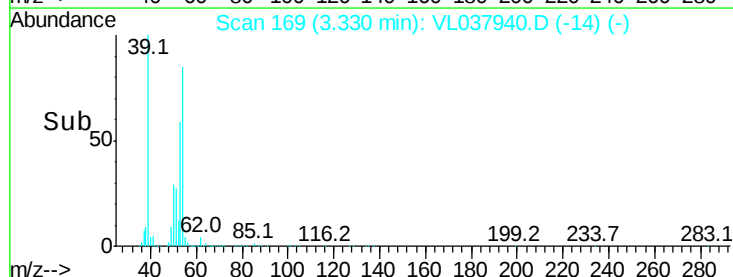
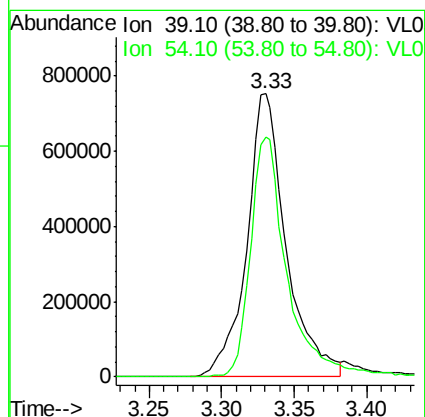
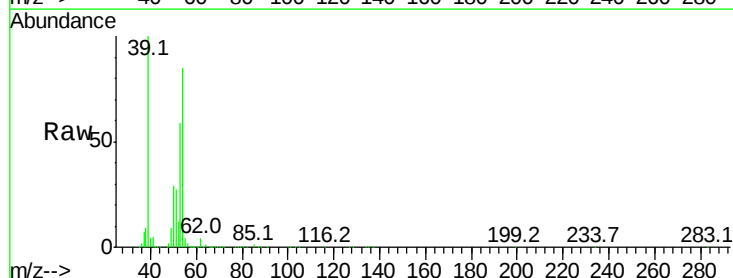
Acq: 1 Nov 2021 13:10

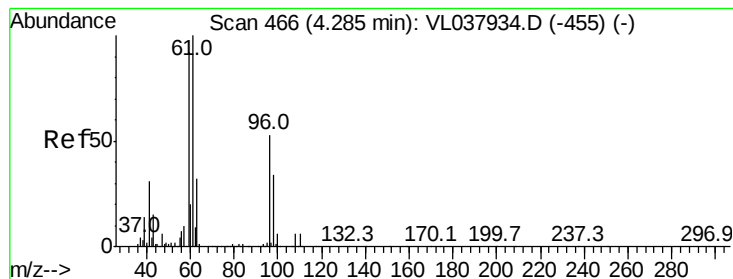
Tgt Ion: 39 Resp: 1419097

Ion Ratio Lower Upper

39 100

54 80.0 62.6 93.8





#17

tert-Butyl alcohol

Concen: 11.897 ppbv

RT: 4.29 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

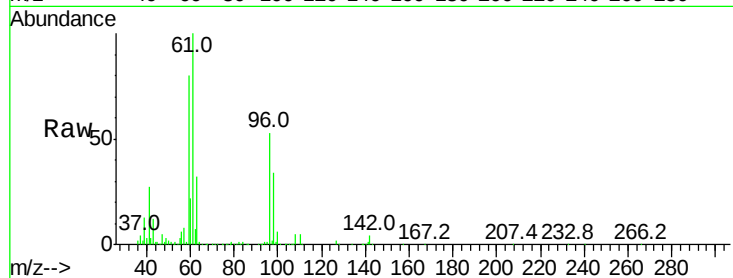
Acq: 1 Nov 2021 13:10 VSTDIC015

Tgt Ion: 59 Resp: 1753872

Ion Ratio Lower Upper

59 100

57 10.4 8.9 13.3



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

4.29

800000

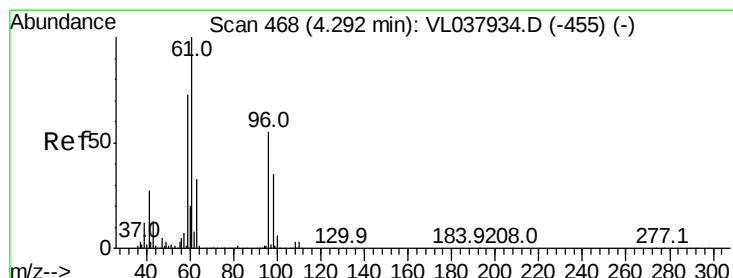
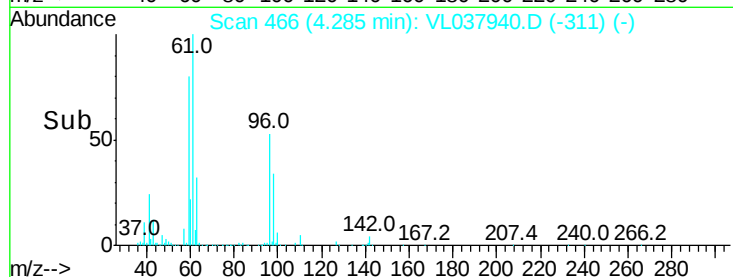
600000

400000

200000

0

Time-->



#18

1,1-Dichloroethene

Concen: 13.751 ppbv

RT: 4.29 min Scan# 467

Delta R.T. -0.00 min

Lab File: VL037940.D

Acq: 1 Nov 2021 13:10

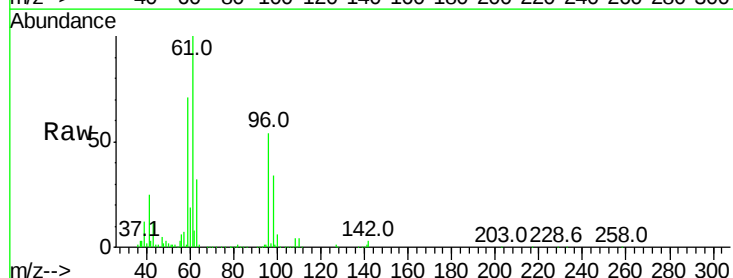
Tgt Ion: 96 Resp: 1075922

Ion Ratio Lower Upper

96 100

61 184.4 144.3 216.5

98 62.1 50.5 75.7



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

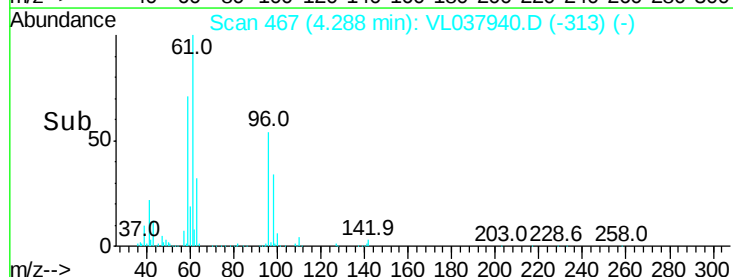
4.29

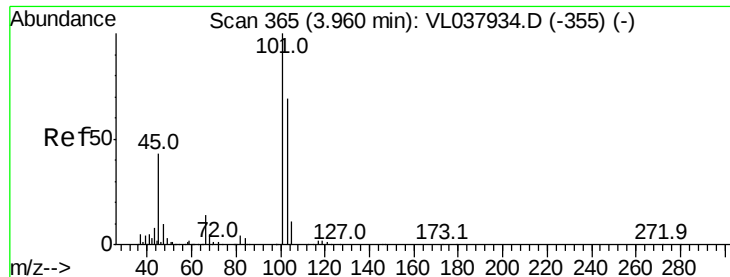
1000000

500000

0

Time-->





#19

Isopropyl Alcohol

Concen: 12.110 ppbv

RT: 3.96 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

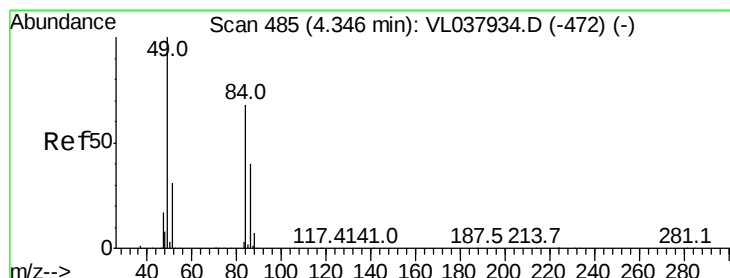
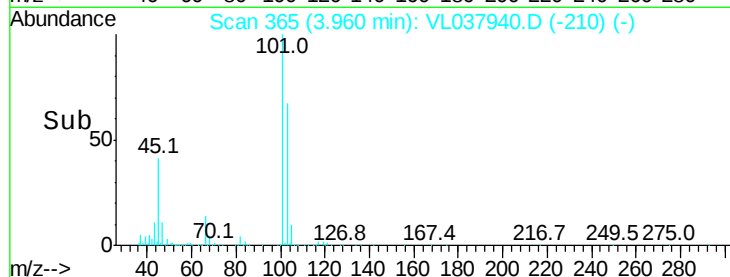
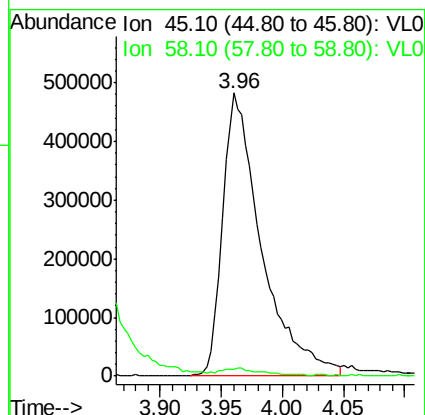
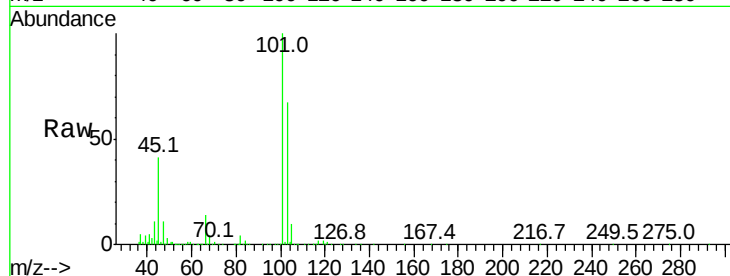
Acq: 1 Nov 2021 13:10 VSTDIC015

Tgt Ion: 45 Resp: 1078412

Ion Ratio Lower Upper

45 100

58 3.4 4.0 6.0#



#20

Methylene Chloride

Concen: 12.577 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.00 min

Lab File: VL037940.D

Acq: 1 Nov 2021 13:10

Tgt Ion: 84 Resp: 909625

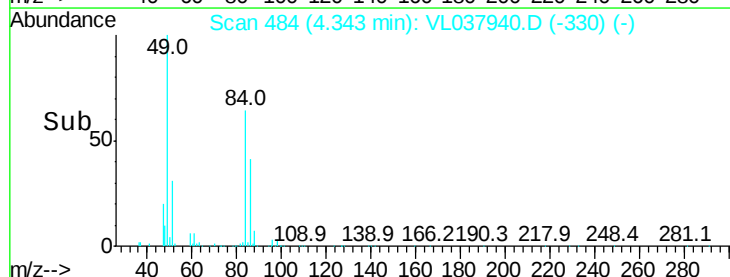
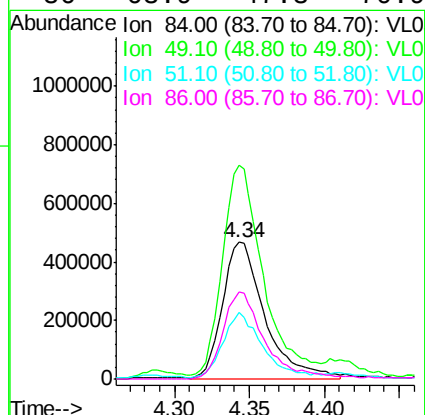
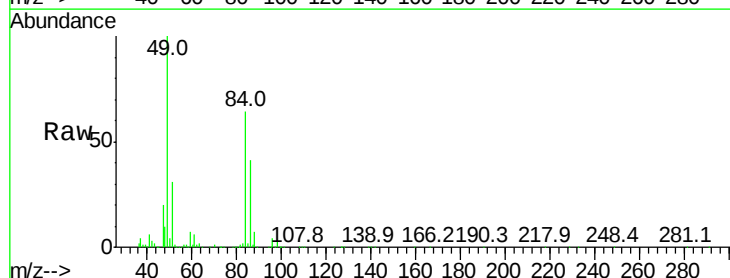
Ion Ratio Lower Upper

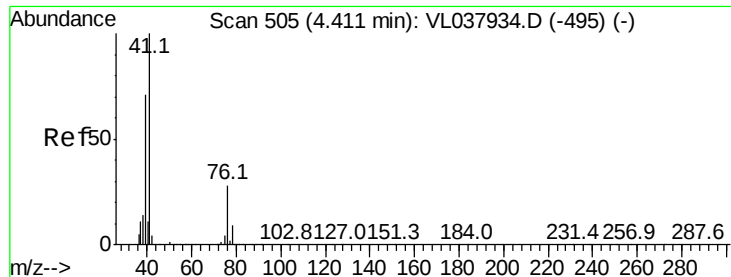
84 100

49 154.4 117.5 176.3

51 47.4 35.9 53.9

86 63.9 47.3 70.9

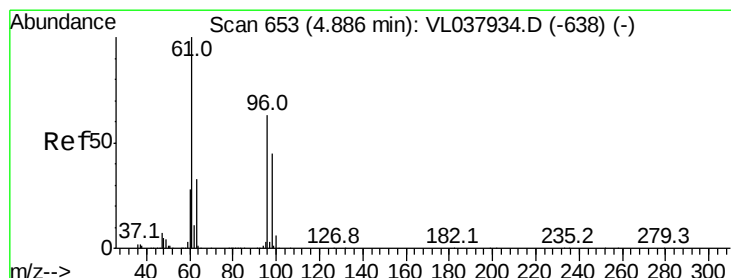
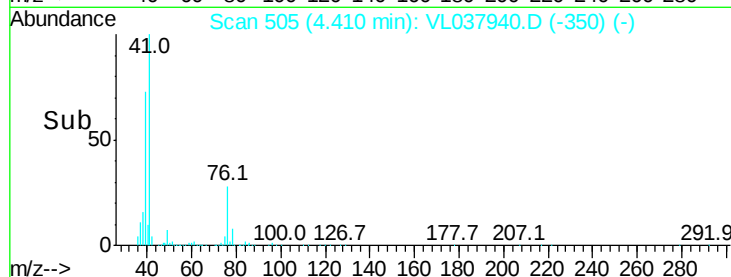
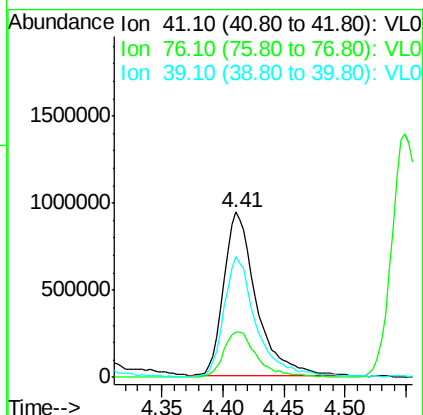
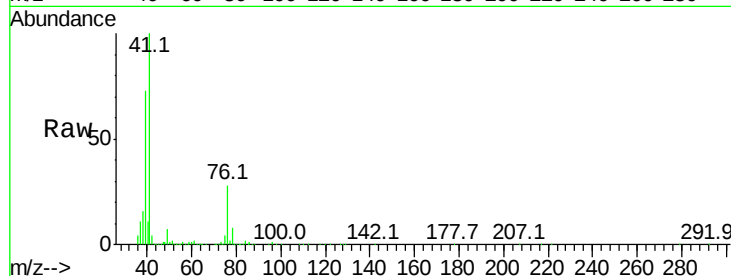




#21
 Allyl Chloride
 Concen: 13.837 ppbv
 RT: 4.41
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 VSTDIC015
 Acq: 1 Nov 2021 13:10

Tgt Ion: 41 Resp: 1754574

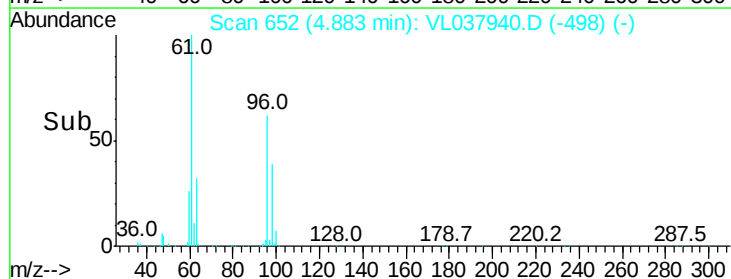
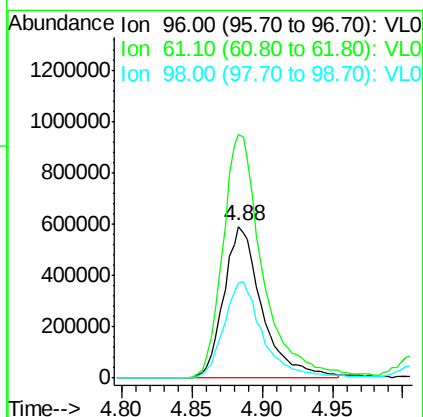
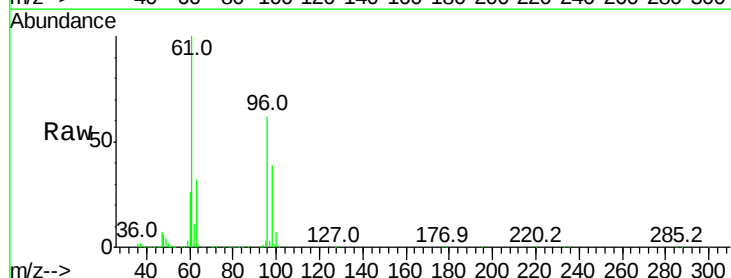
Ion	Ratio	Lower	Upper
41	100		
76	29.1	23.6	35.4
39	73.2	59.7	89.5

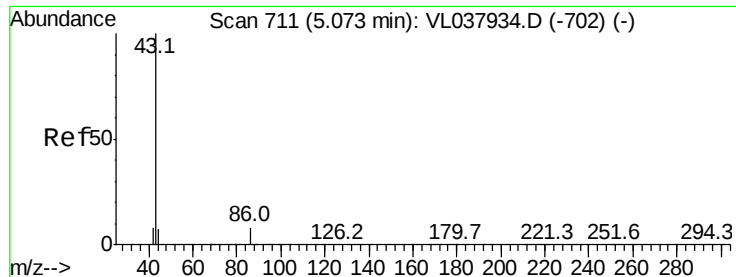


#22
 trans-1,2-Dichloroethene
 Concen: 14.153 ppbv
 RT: 4.88 min Scan# 652
 Delta R.T. -0.00 min
 Lab File: VL037940.D
 Acq: 1 Nov 2021 13:10

Tgt Ion: 96 Resp: 1113334

Ion	Ratio	Lower	Upper
96	100		
61	159.9	127.8	191.6
98	62.8	56.9	85.3





#23

Vinyl Acetate

Concen: 13.295 ppbv

RT: 5.07 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: VSTDIC015

Acq: 1 Nov 2021 13:10

Tgt Ion: 43 Resp: 2851863

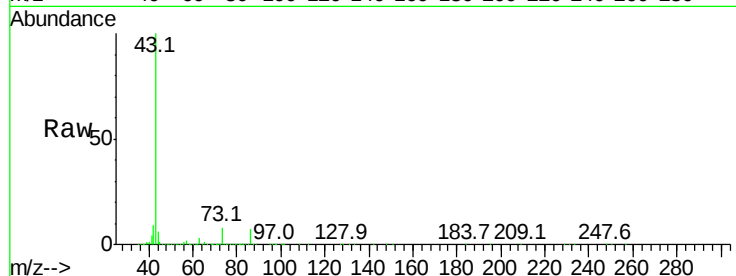
Ion Ratio Lower Upper

43 100

86 7.2 5.5 8.3

42 9.4 7.4 11.2

44 5.1 4.7 7.1

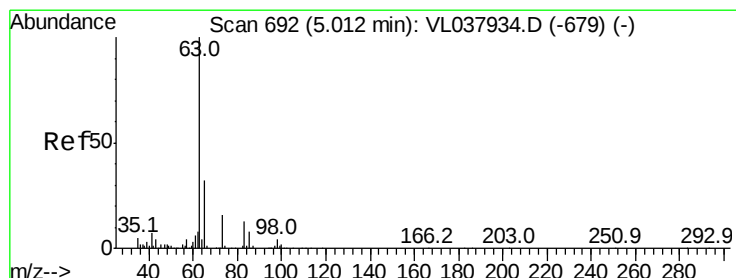
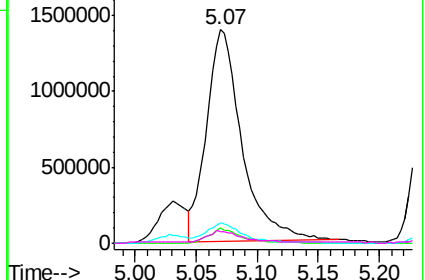
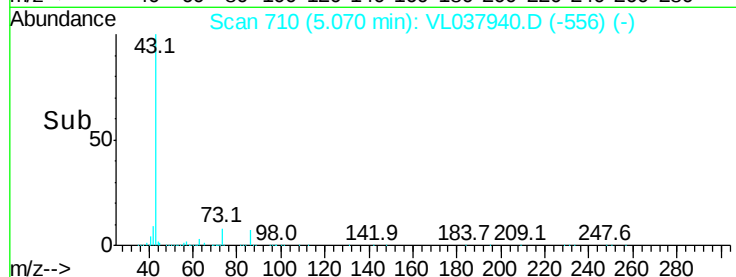


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 13.948 ppbv

RT: 5.01 min Scan# 692

Delta R.T. -0.00 min

Lab File: VL037940.D

Acq: 1 Nov 2021 13:10

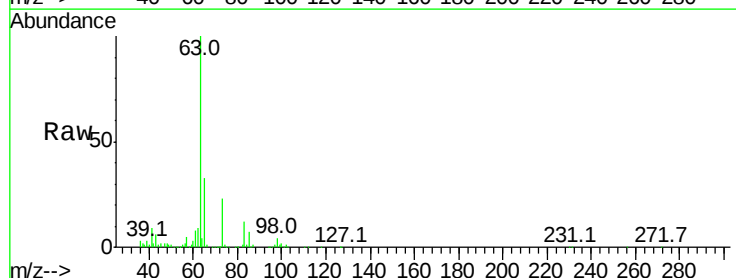
Tgt Ion: 63 Resp: 2177886

Ion Ratio Lower Upper

63 100

98 4.2 2.3 6.9

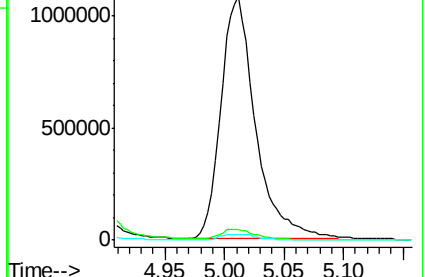
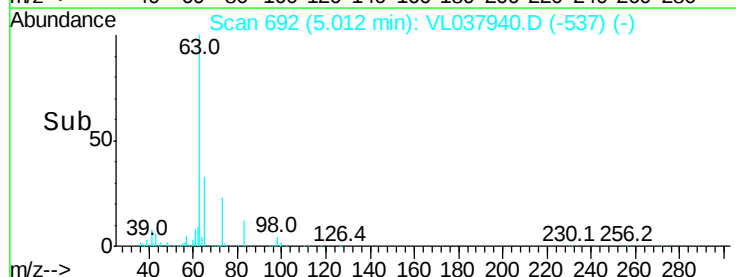
100 2.3 1.2 3.6

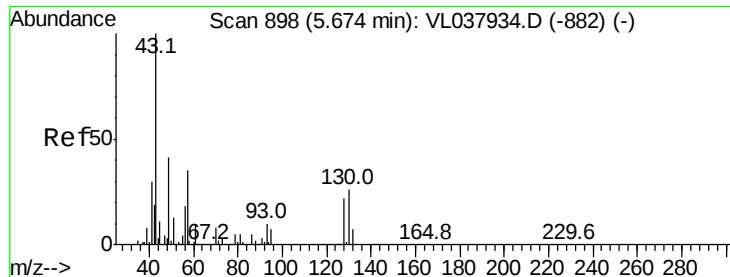


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0

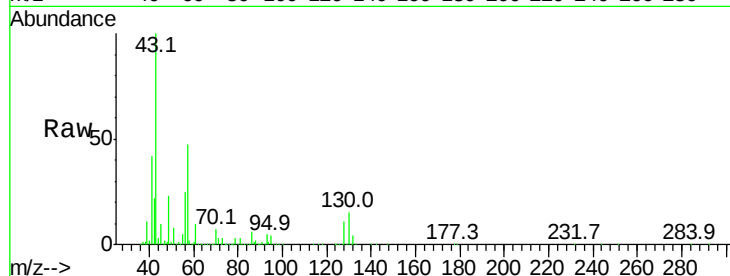




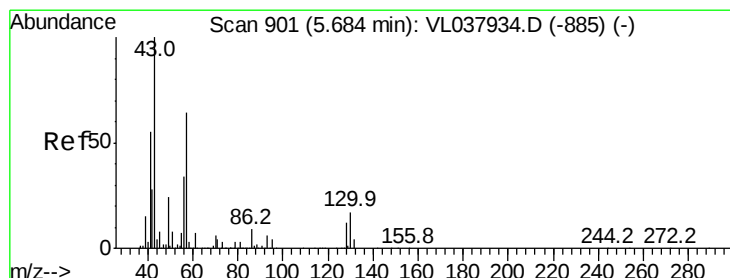
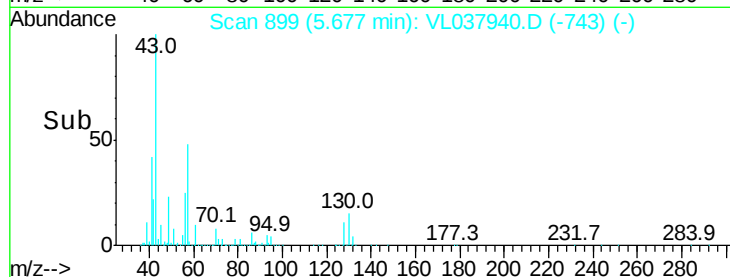
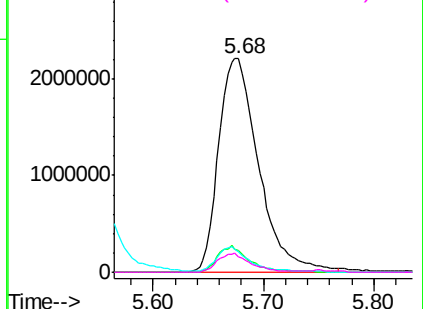
#25
Ethyl Acetate
Concen: 13.774 ppbv
RT: 5.68
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 1 Nov 2021 13:10

Tgt Ion: 43 Resp: 5532597

Ion	Ratio	Lower	Upper
43	100		
45	10.1	8.1	12.1
61	10.2	8.1	12.1
70	7.2	5.8	8.6



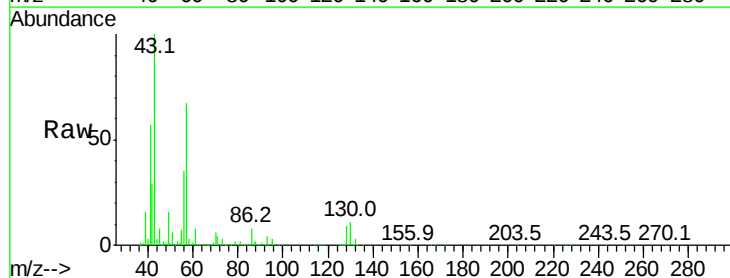
Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0



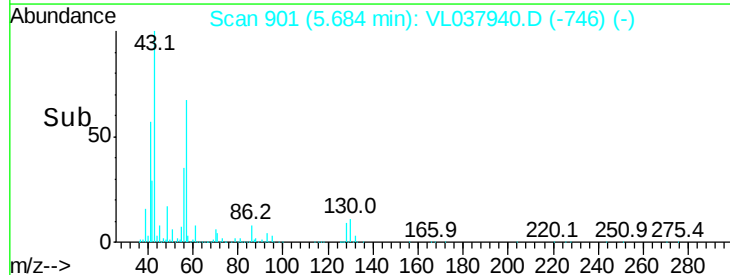
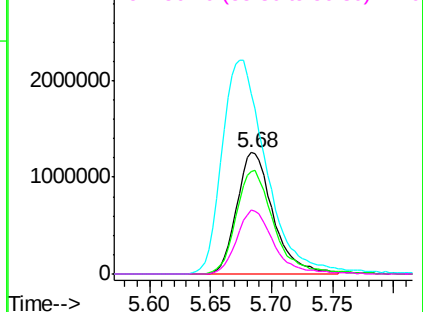
#26
Hexane
Concen: 13.128 ppbv
RT: 5.68 min Scan# 901
Delta R.T.: -0.00 min
Lab File: VL037940.D
Acq: 1 Nov 2021 13:10

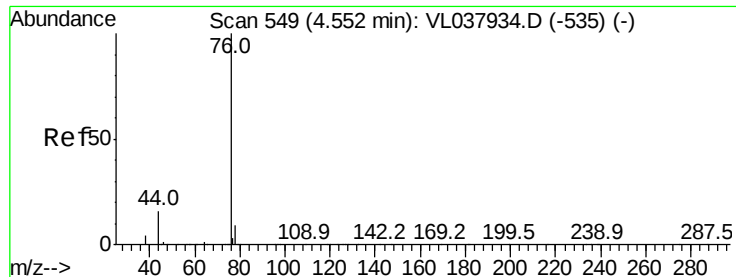
Tgt Ion: 57 Resp: 2596583

Ion	Ratio	Lower	Upper
57	100		
41	88.8	71.0	106.6
43	215.8	173.0	259.6
56	53.9	43.6	65.4



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





#27

Carbon Disulfide

Concen: 15.758 ppbv

RT: 4.55 Instrument: MSVOA_1

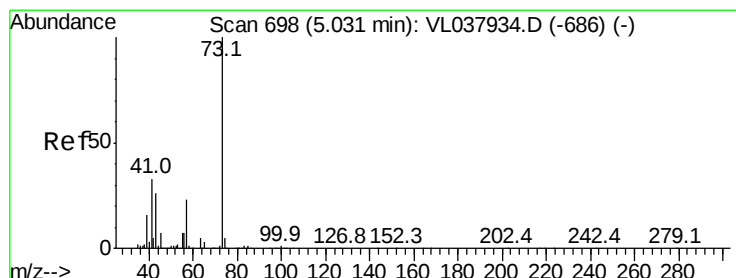
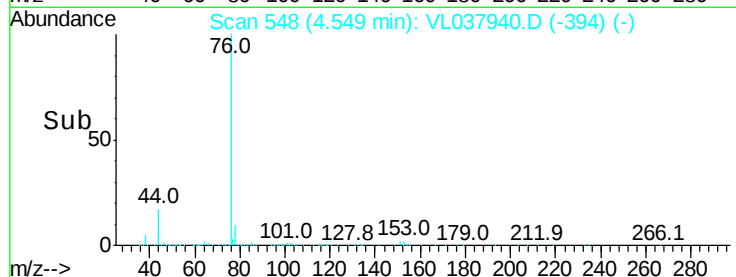
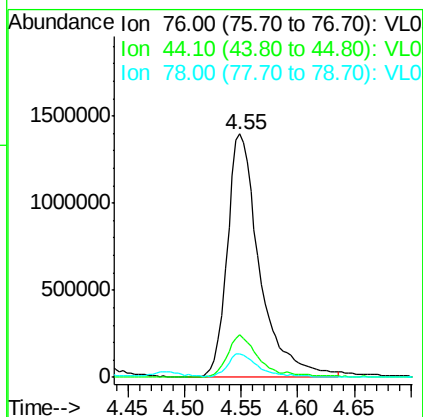
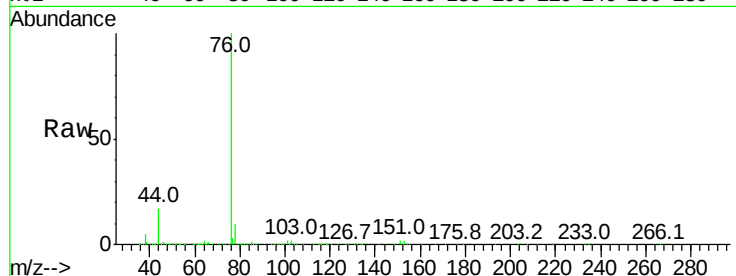
Delta R.T.

Lab File: ClientSampleId:

Acq: 1 Nov 2021 13:10 VSTDIC015

Tgt Ion: 76 Resp: 2762117

Ion	Ratio	Lower	Upper
76	100		
44	17.4	13.2	19.8
78	9.8	7.2	10.8



#28

Methyl tert-Butyl Ether

Concen: 12.862 ppbv

RT: 5.03 min Scan# 698

Delta R.T. -0.00 min

Lab File: VL037940.D

Acq: 1 Nov 2021 13:10

Tgt Ion: 73 Resp: 2117969

Ion	Ratio	Lower	Upper
73	100		
57	25.9	20.1	30.1

