

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110921\
 Data File : VL037981.D
 Acq On : 9 Nov 2021 16:08
 Operator : SY/AP
 Sample : M4555-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 10 04:47:41 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Nov 02 05:54:07 2021
 QLast Update : Tue Nov 02 05:54:07 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1276148	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3622751	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3116850	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2241436	9.89	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.90%

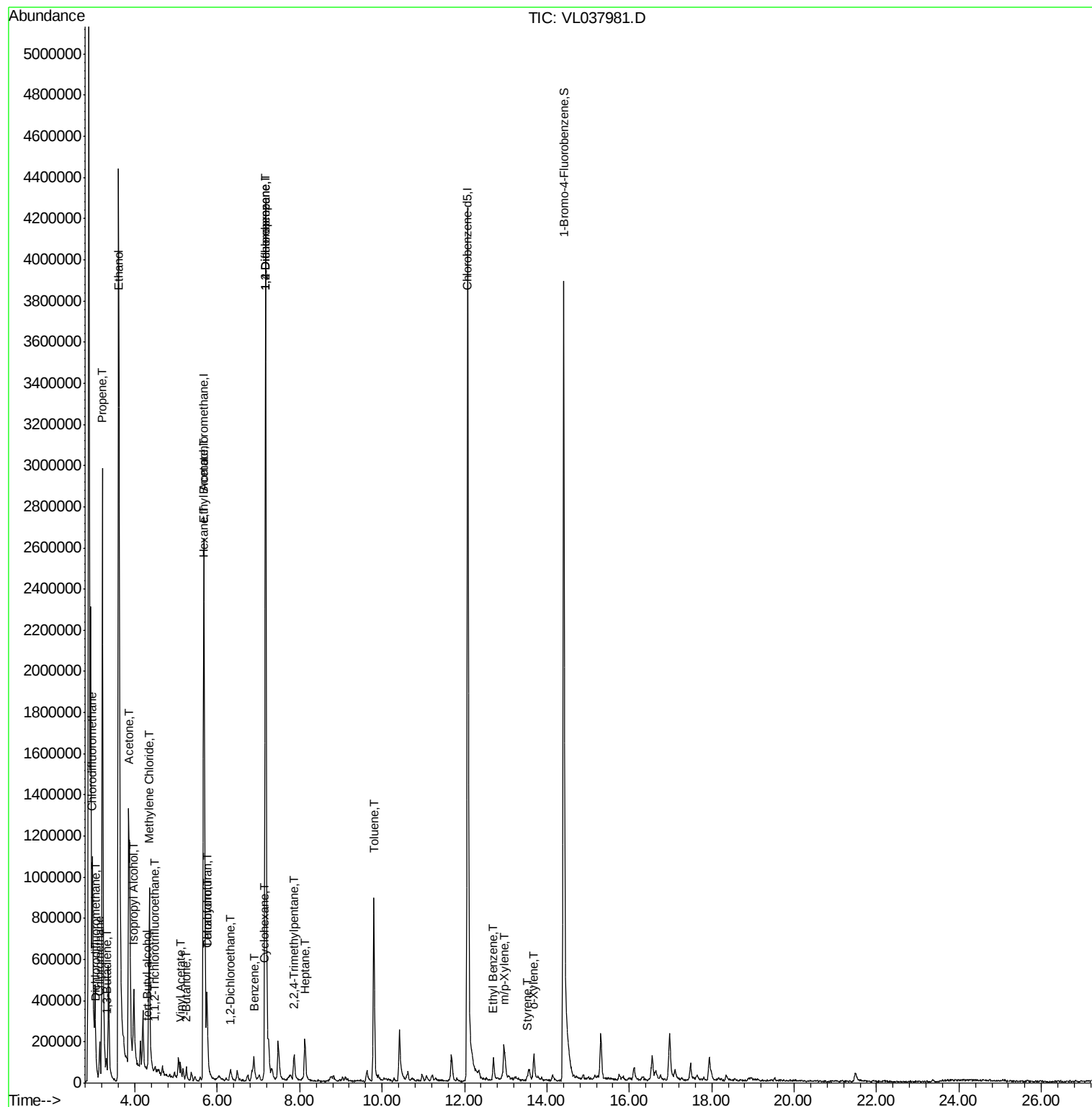
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	18261	0.102	ppbv	97
3) Chlorodifluoromethane	2.97	51	833528	3.509	ppbv #	61
4) Chloromethane	3.14	50	185724	2.057	ppbv	96
9) Propene	3.21	41	1052470	12.356	ppbv	98
10) Heptane	8.12	43	58509	0.295	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.49	101	7336	0.053	ppbv #	78
13) Ethanol	3.60	45	6698646	779.552	ppbv	89
15) Acetone	3.85	43	1776529	16.847	ppbv	96
16) 1,3-Butadiene	3.31	39	8411	0.101	ppbv #	53
17) tert-Butyl alcohol	4.29	59	3505	0.032	ppbv #	71
19) Isopropyl Alcohol	3.97	45	362619	5.377	ppbv	99
20) Methylene Chloride	4.34	84	357808	6.181	ppbv	97
23) Vinyl Acetate	5.09	43	6361	0.040	ppbv #	81
25) Ethyl Acetate	5.68	43	423103	1.351	ppbv #	91
26) Hexane	5.69	57	394531	2.659	ppbv #	61
29) Chloroform	5.75	83	275450	1.245	ppbv	97
30) Cyclohexane	7.13	84	4491	0.035	ppbv #	1
34) 2-Butanone	5.24	43	21714	0.162	ppbv #	1
36) Benzene	6.89	78	58127	0.197	ppbv	93
37) 1,2-Dichloroethane	6.31	62	13575	0.097	ppbv #	81
39) 1,2-Dichloropropane	7.17	63	866250	7.804	ppbv #	27
41) Tetrahydrofuran	5.76	42	2530	0.039	ppbv #	46
44) 2,2,4-Trimethylpentane	7.86	57	58062	0.116	ppbv #	24
53) Toluene	9.80	91	668480	2.114	ppbv	100
58) Ethyl Benzene	12.71	91	51431	0.135	ppbv	97
59) m/p-Xylene	12.98	91	60966	0.180	ppbv #	30
60) o-Xylene	13.68	91	64101	0.201	ppbv	91
61) Styrene	13.53	104	4913	0.033	ppbv #	1

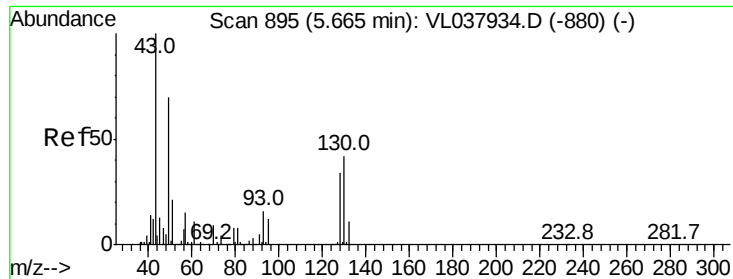
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :
MSVOA_L
ClientSampleId :

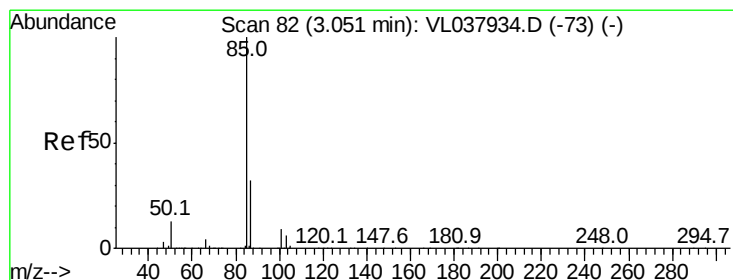
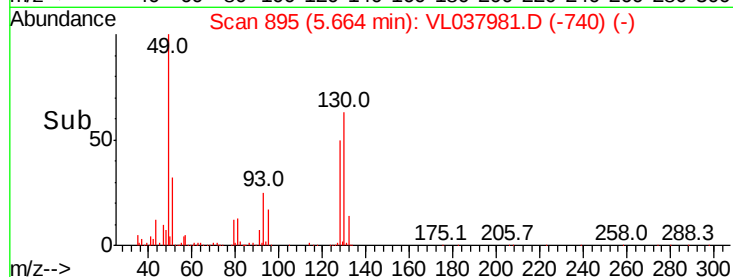
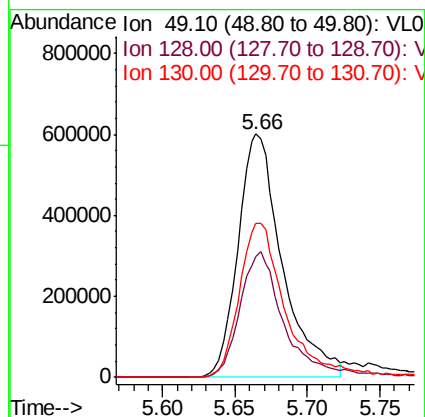
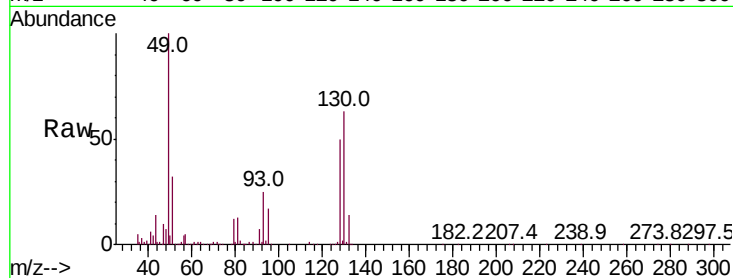
Quant Time: Nov 10 04:47:41 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Nov 02 05:54:07 2021
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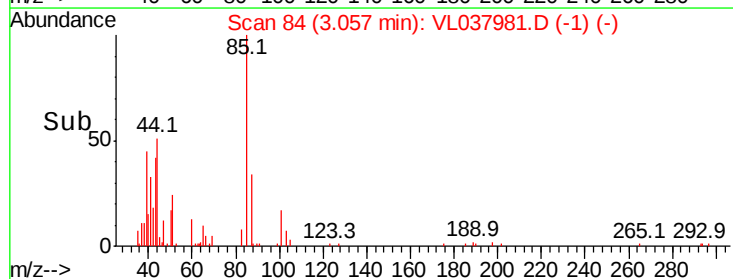
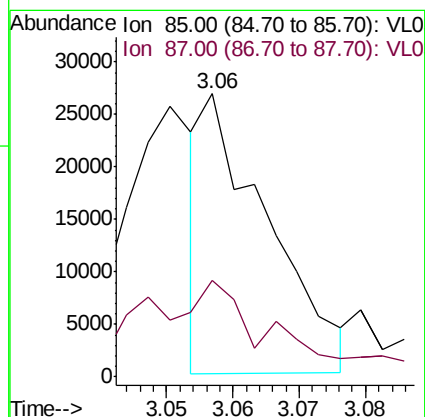
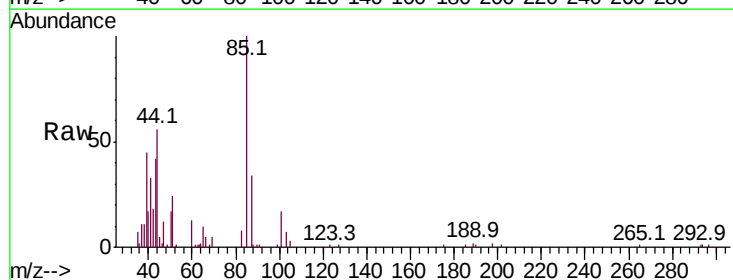
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.66
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 9 Nov 2021 16:08

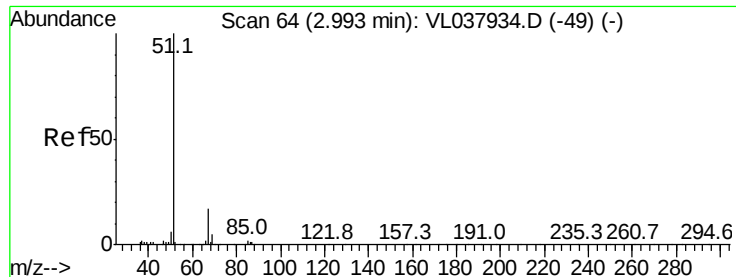
Tot Ion: 49 Resp: 1276148
 Ion Ratio Lower Upper
 49 100
 128 53.5 27.0 81.0
 130 68.3 33.4 100.2



#2
 Dichlorodifluoromethane
 Concen: 0.102 ppbv
 RT: 3.06 min Scan# 84
 Delta R.T.: 0.01 min
 Lab File: VL037981.D
 Acq: 9 Nov 2021 16:08

Tgt Ion: 85 Resp: 18261
 Ion Ratio Lower Upper
 85 100
 87 33.5 25.3 37.9





#3

Chlorodifluoromethane

Concen: 3.509 ppbv

RT: 2.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

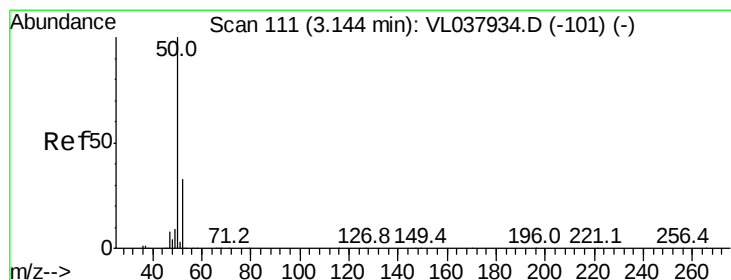
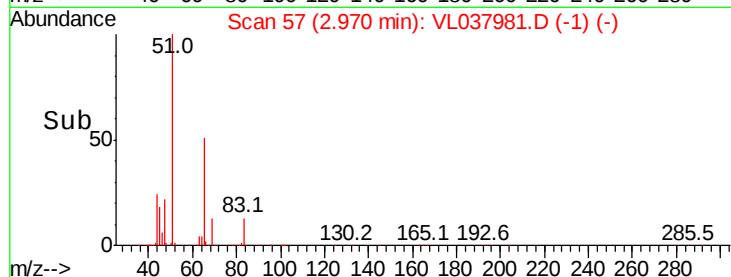
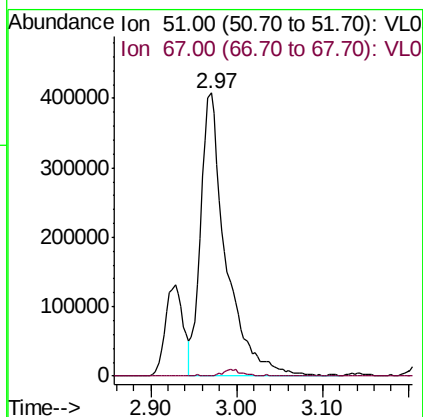
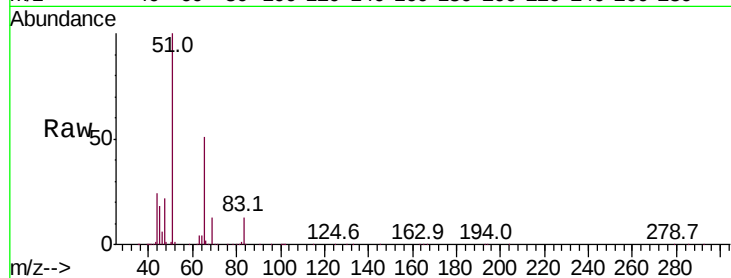
Acq: 9 Nov 2021 16:08

Tot Ion: 51 Resp: 833528

Ion Ratio Lower Upper

51 100

67 0.1 13.4 20.0#



#4

Chloromethane

Concen: 2.057 ppbv

RT: 3.14 min Scan# 111

Delta R.T. -0.00 min

Lab File: VL037981.D

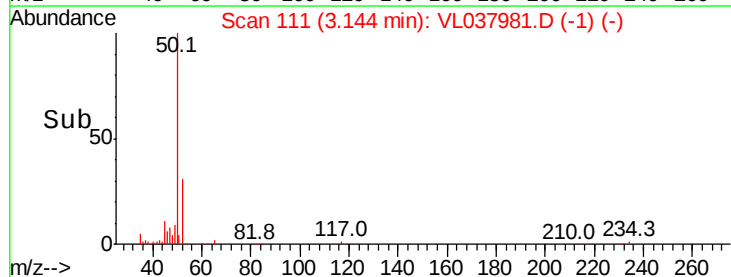
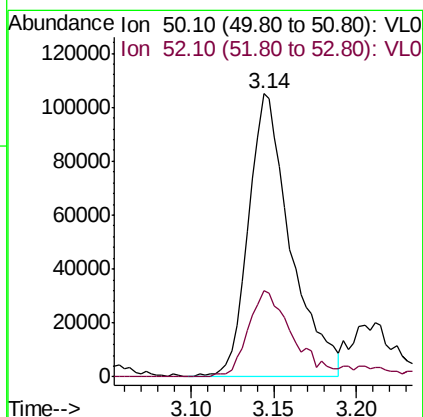
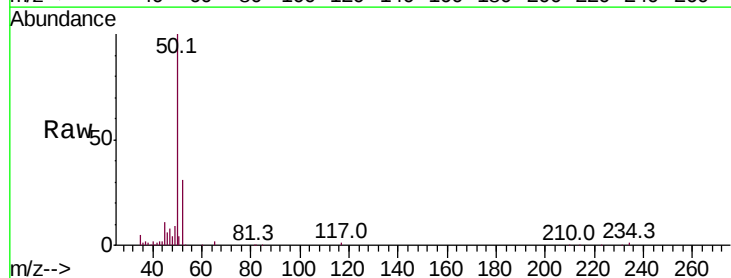
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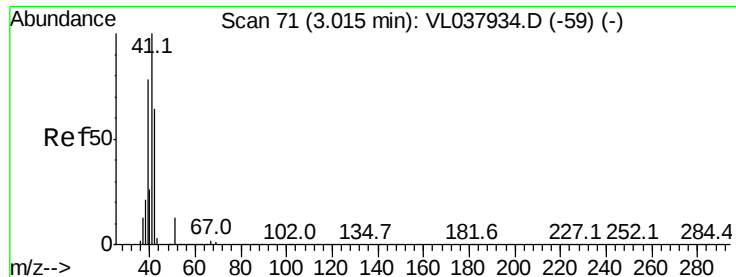
Tgt Ion: 50 Resp: 185724

Ion Ratio Lower Upper

50 100

52 30.6 26.3 39.5





#9

Propene

Concen: 12.356 ppbv

RT: 3.21 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

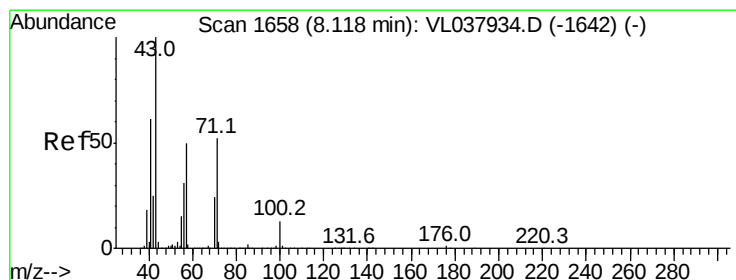
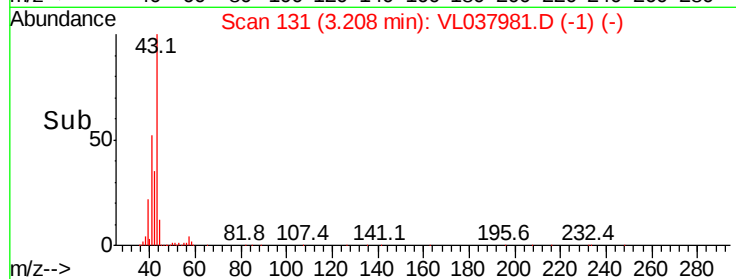
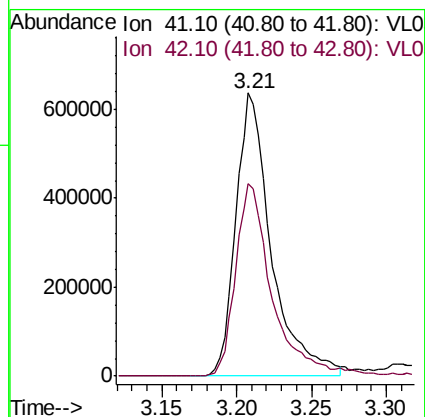
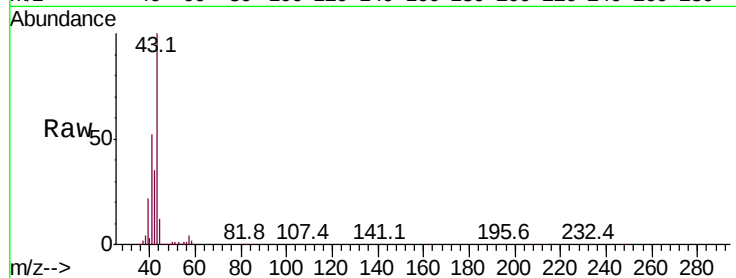
Acq: 9 Nov 2021 16:08

Tot Ion: 41 Resp: 1052470

Ion Ratio Lower Upper

41 100

42 70.7 57.6 86.4



#10

Heptane

Concen: 0.295 ppbv

RT: 8.12 min Scan# 1660

Delta R.T. 0.01 min

Lab File: VL037981.D

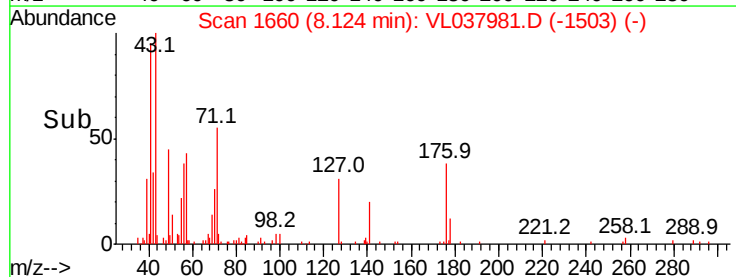
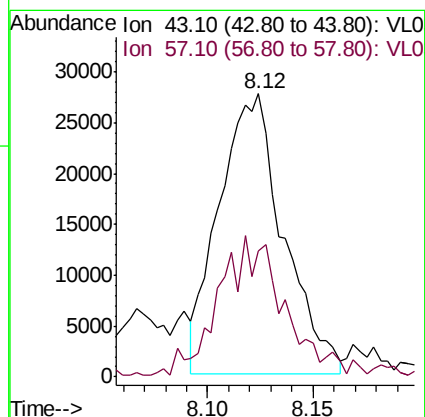
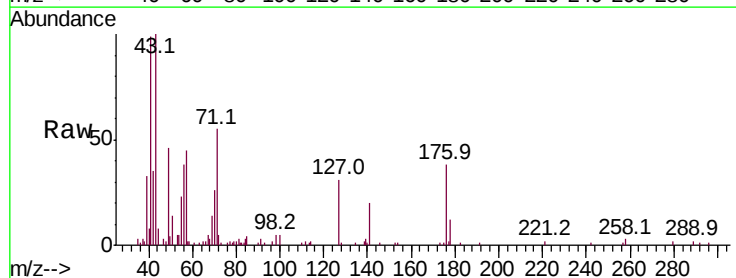
Acq: 9 Nov 2021 16:08

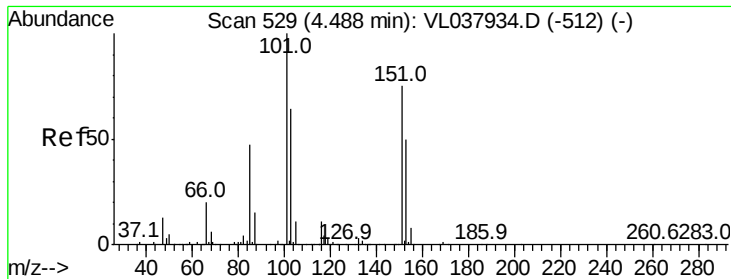
Tgt Ion: 43 Resp: 58509

Ion Ratio Lower Upper

43 100

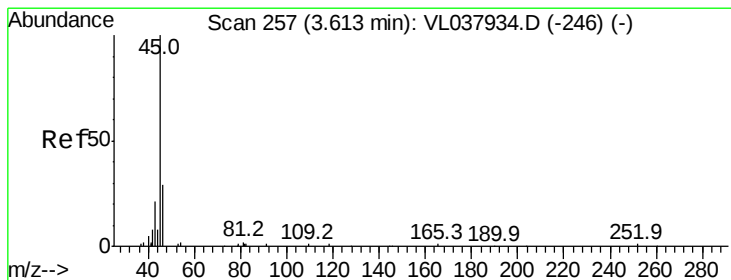
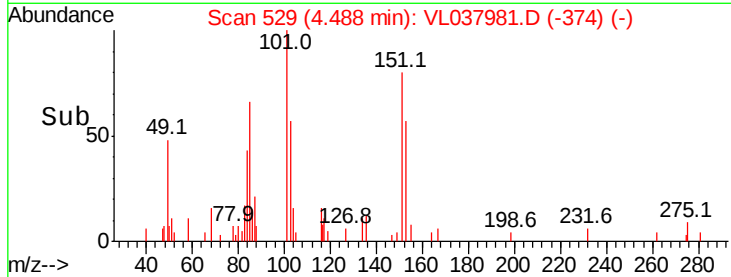
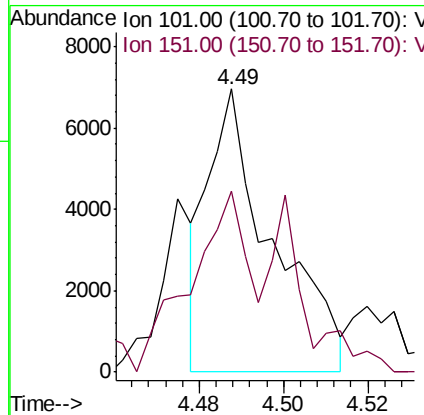
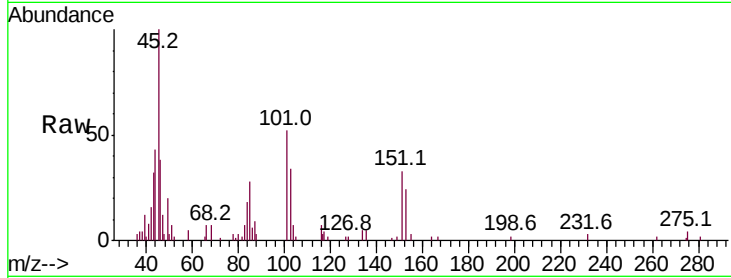
57 51.2 39.8 59.8





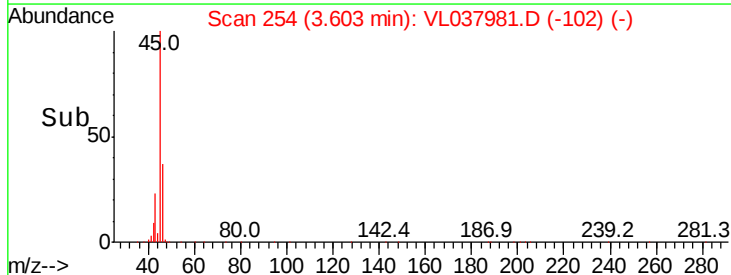
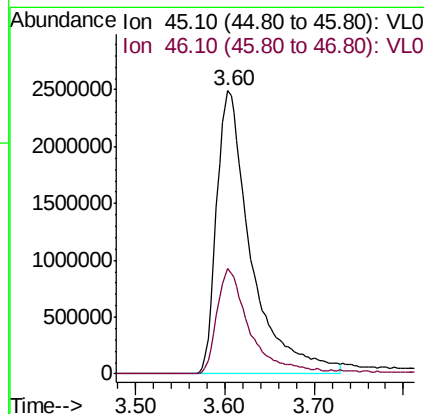
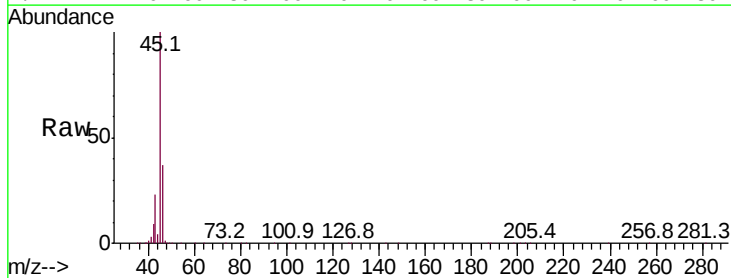
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.053 ppbv
 RT: 4.49
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 9 Nov 2021 16:08

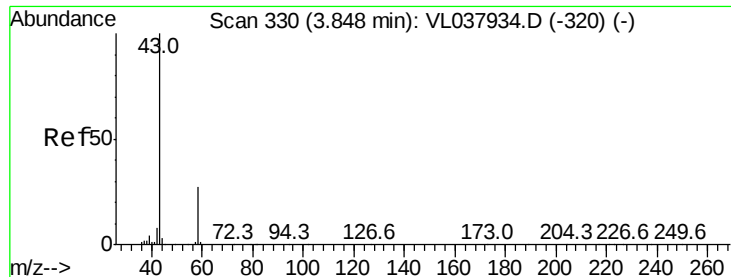
Tot Ion: 101 Resp: 7336
 Ion Ratio Lower Upper
 101 100
 151 96.4 61.8 92.8#



#13
 Ethanol
 Concen: 779.552 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. -0.01 min
 Lab File: VL037981.D
 Acq: 9 Nov 2021 16:08

Tgt Ion: 45 Resp: 6698646
 Ion Ratio Lower Upper
 45 100
 46 36.3 17.4 69.8





#15

Acetone

Concen: 16.847 ppbv

RT: 3.85 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

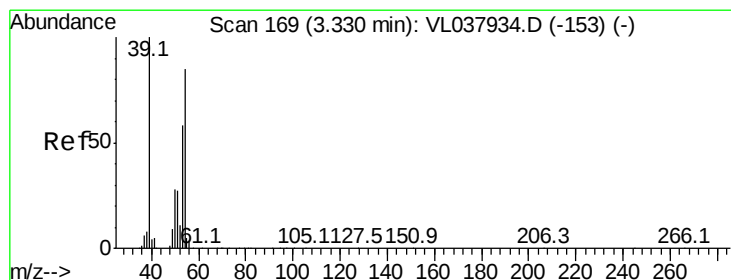
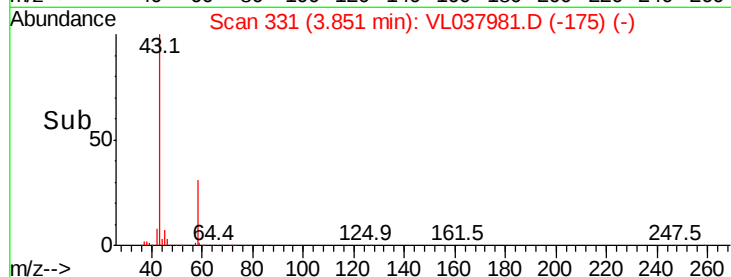
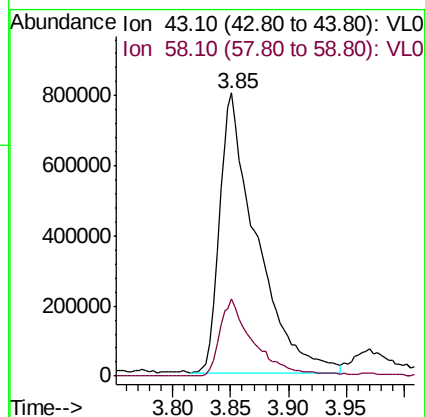
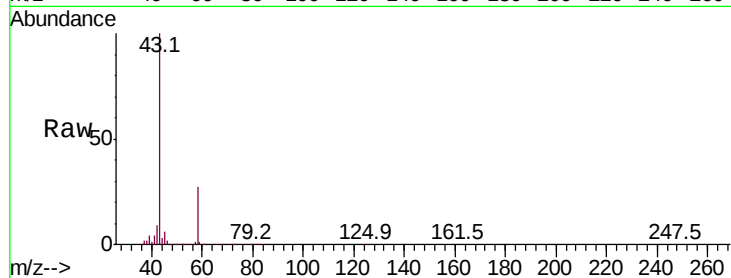
Acq: 9 Nov 2021 16:08

Tot Ion: 43 Resp: 1776529

Ion Ratio Lower Upper

43 100

58 26.8 23.3 34.9



#16

1,3-Butadiene

Concen: 0.101 ppbv

RT: 3.31 min Scan# 162

Delta R.T. -0.02 min

Lab File: VL037981.D

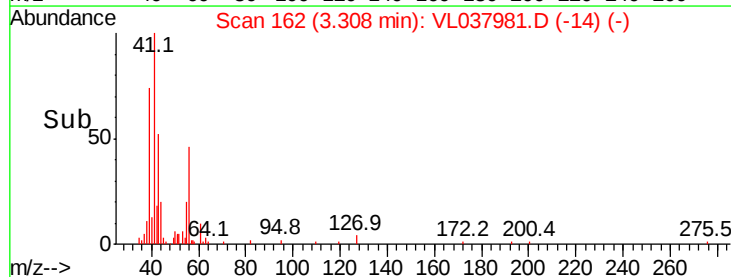
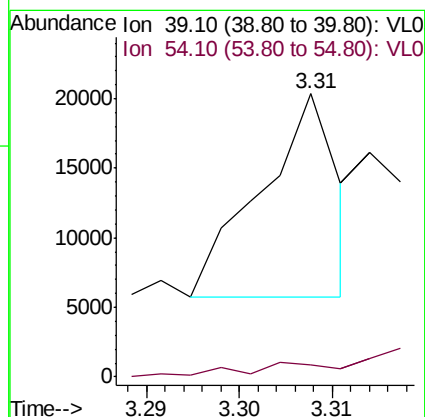
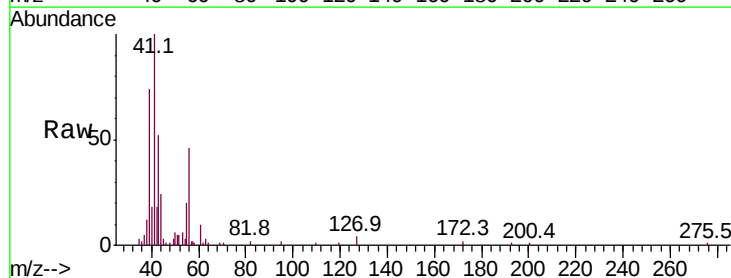
Acq: 9 Nov 2021 16:08

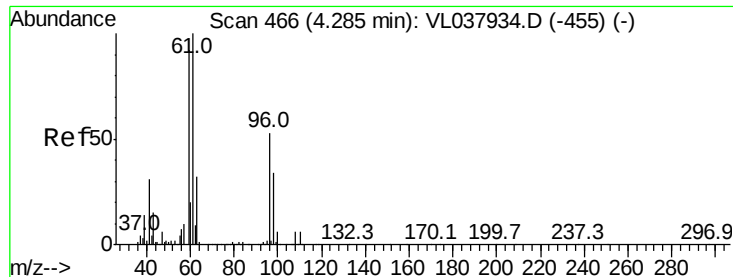
Tgt Ion: 39 Resp: 8411

Ion Ratio Lower Upper

39 100

54 118.9 62.6 93.8#





#17

tert-Butyl alcohol

Concen: 0.032 ppbv

RT: 4.29 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

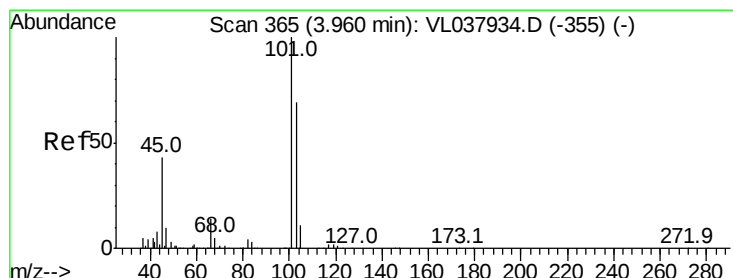
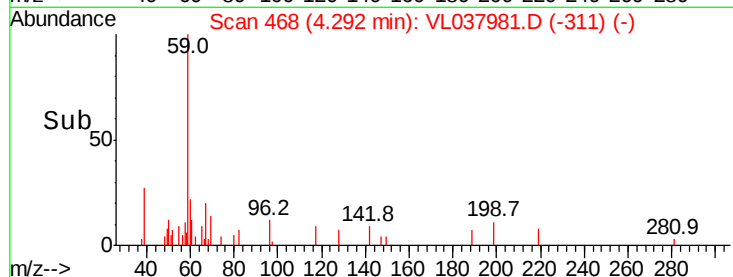
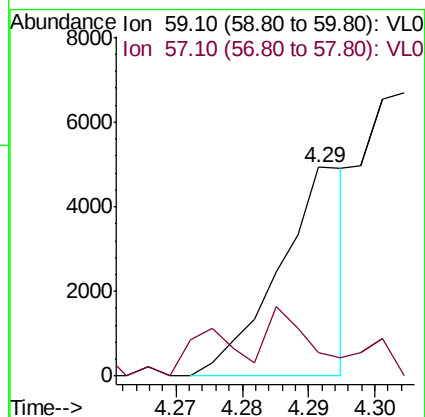
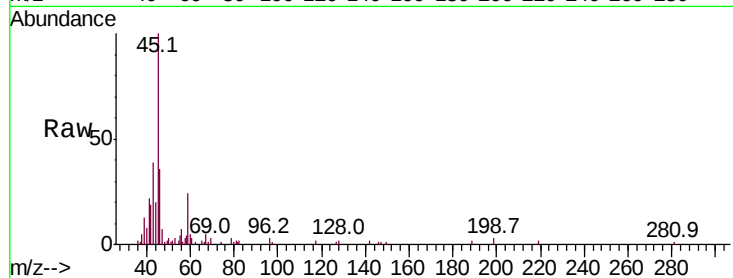
Acq: 9 Nov 2021 16:08

Tot Ion: 59 Resp: 3505

Ion Ratio Lower Upper

59 100

57 0.0 8.9 13.3#



#19

Isopropyl Alcohol

Concen: 5.377 ppbv

RT: 3.97 min Scan# 368

Delta R.T. 0.01 min

Lab File: VL037981.D

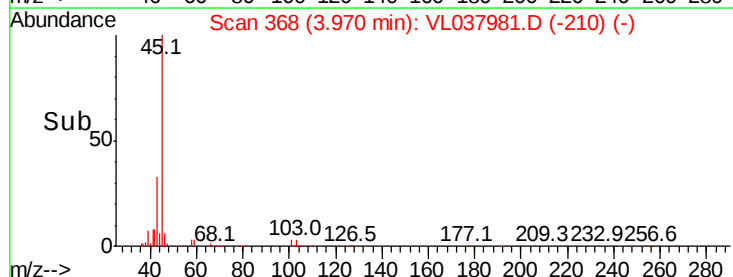
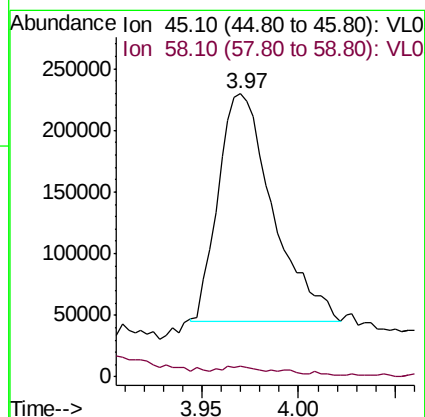
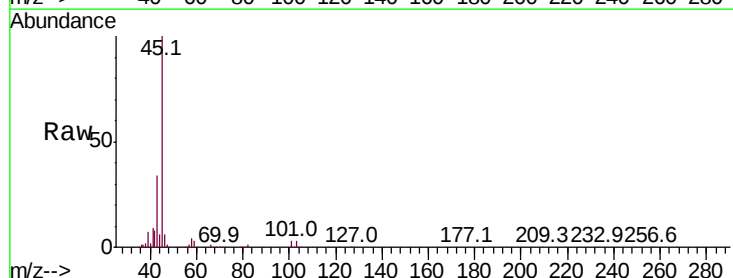
Acq: 9 Nov 2021 16:08

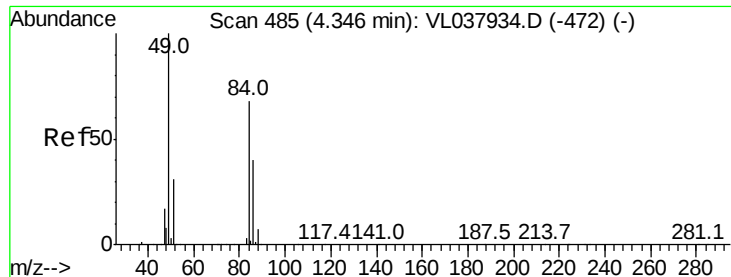
Tgt Ion: 45 Resp: 362619

Ion Ratio Lower Upper

45 100

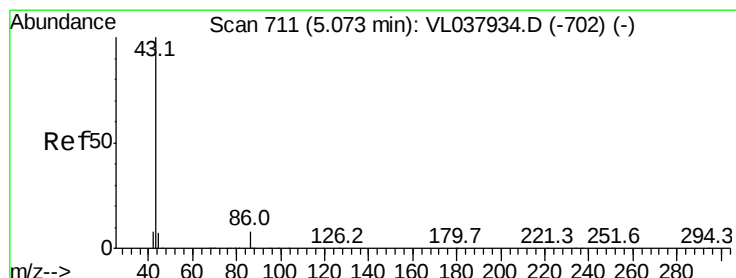
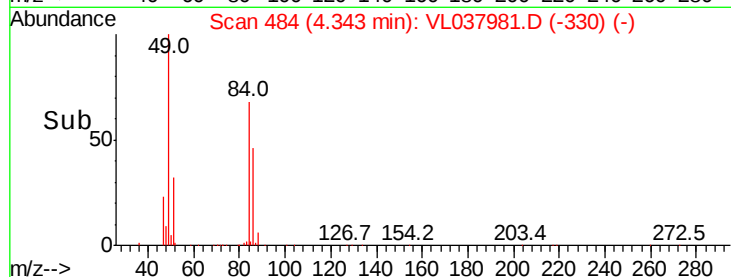
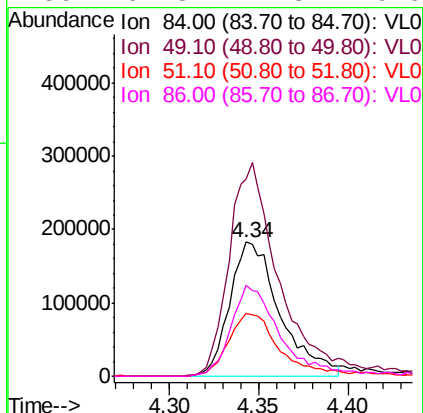
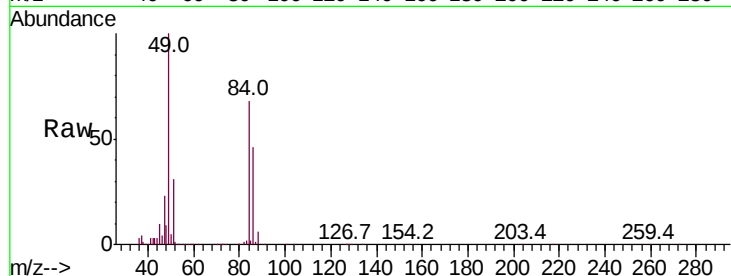
58 5.4 4.0 6.0





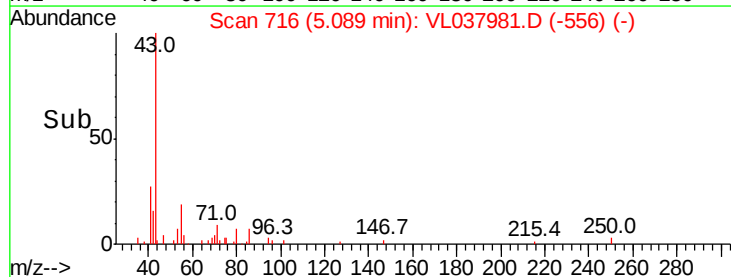
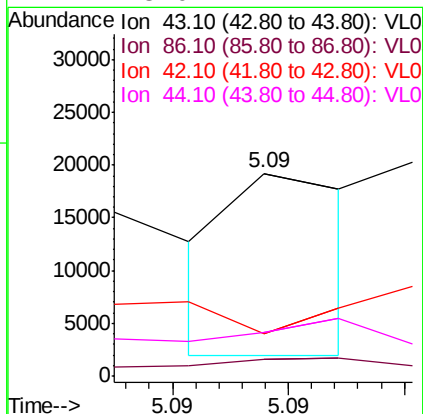
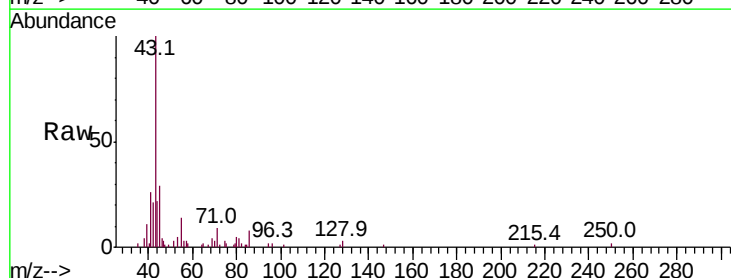
#20
Methvlene Chloride
Concen: 6.181 ppbv
RT: 4.34
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 16:08

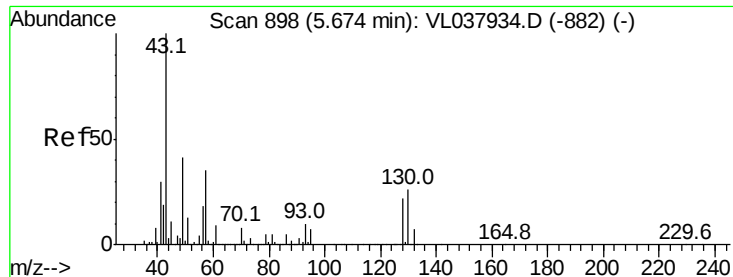
Tot Ion:	84	Resp:	357808
Ion	Ratio	Lower	Upper
84	100		
49	147.0	117.5	176.3
51	46.0	35.9	53.9
86	67.8	47.3	70.9



#23
Vinyl Acetate
Concen: 0.040 ppbv
RT: 5.09 min Scan# 716
Delta R.T. 0.02 min
Lab File: VL037981.D
Acq: 9 Nov 2021 16:08

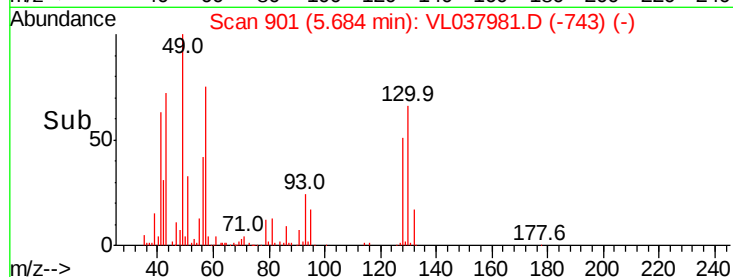
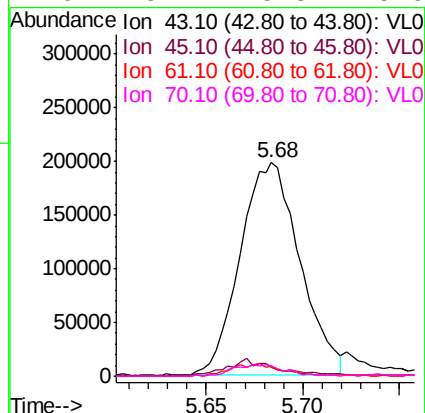
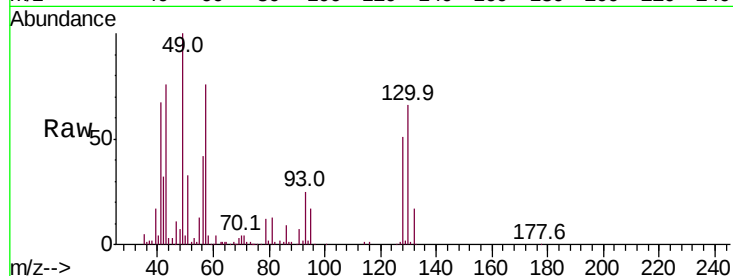
Tgt Ion:	43	Resp:	6361
Ion	Ratio	Lower	Upper
43	100		
86	9.5	5.5	8.3#
42	0.0	7.4	11.2#
44	13.0	4.7	7.1#





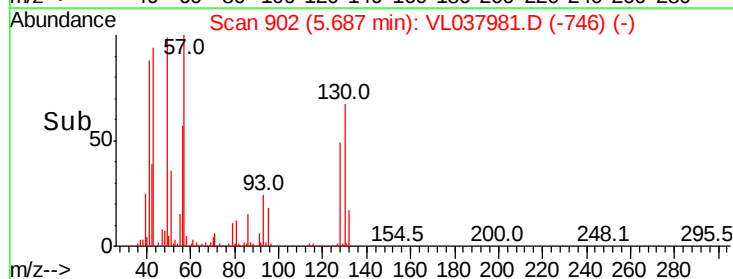
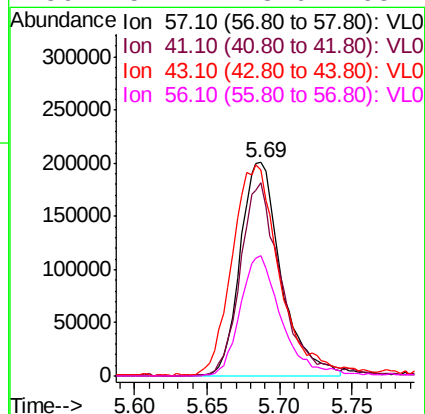
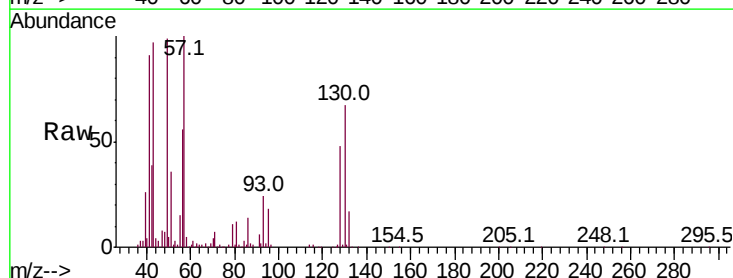
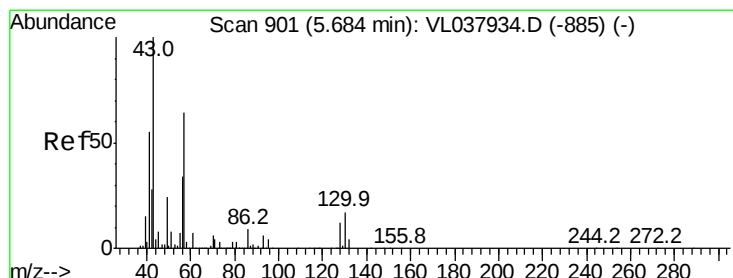
#25
Ethyl Acetate
Concen: 1.351 ppbv
RT: 5.68 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 16:08

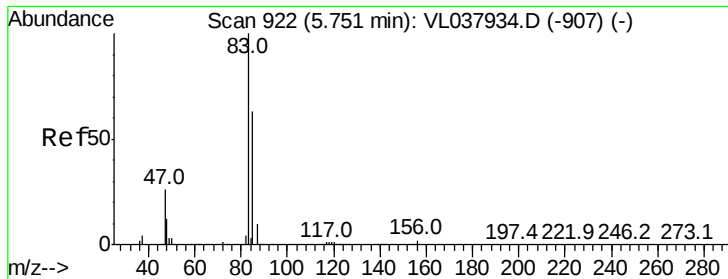
Tot Ion:	43	Resp:	423103
Ion	Ratio	Lower	Upper
43	100		
45	7.0	8.1	12.1#
61	5.8	8.1	12.1#
70	5.1	5.8	8.6#



#26
Hexane
Concen: 2.659 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.00 min
Lab File: VL037981.D
Acq: 9 Nov 2021 16:08

Tgt Ion:	57	Resp:	394531
Ion	Ratio	Lower	Upper
57	100		
41	94.0	71.0	106.6
43	117.9	173.0	259.6#
56	57.7	43.6	65.4





#29

Chloroform

Concen: 1.245 ppbv

RT: 5.75 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

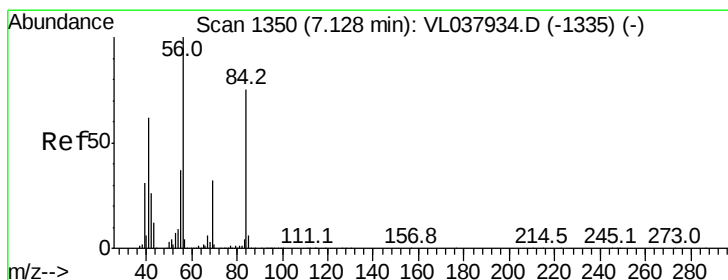
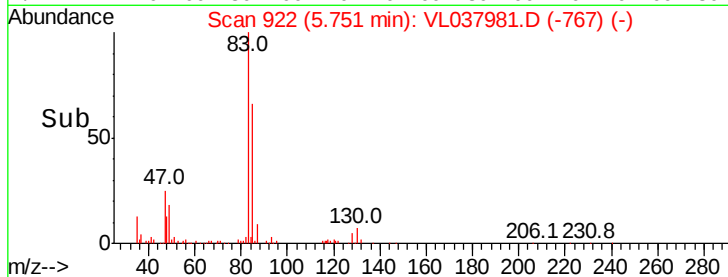
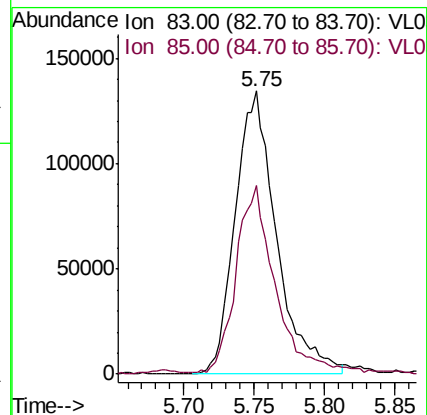
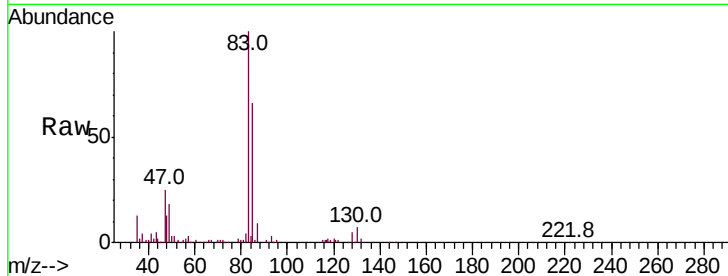
Acq: 9 Nov 2021 16:08

Tot Ion: 83 Resp: 275450

Ion Ratio Lower Upper

83 100

85 65.9 50.6 76.0



#30

Cyclohexane

Concen: 0.035 ppbv

RT: 7.13 min Scan# 1352

Delta R.T. 0.01 min

Lab File: VL037981.D

Acq: 9 Nov 2021 16:08

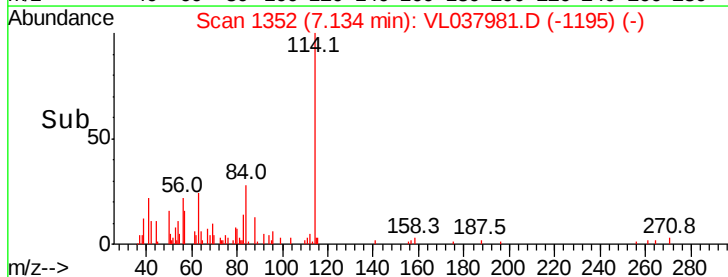
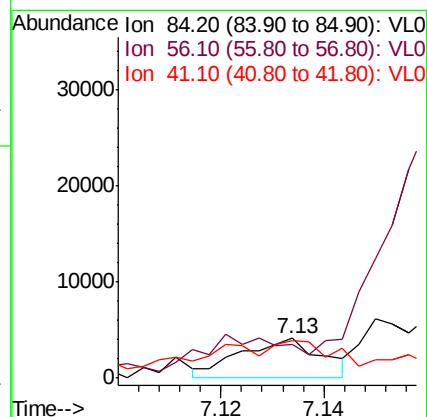
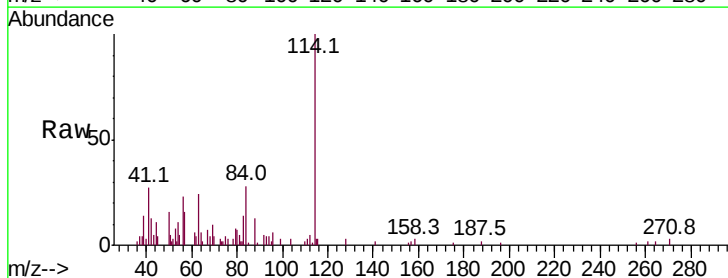
Tgt Ion: 84 Resp: 4491

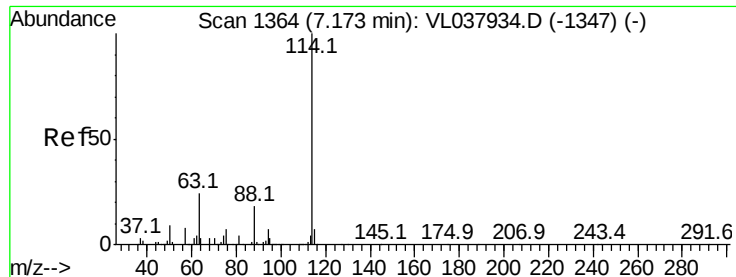
Ion Ratio Lower Upper

84 100

56 0.0 114.0 171.0#

41 278.2 68.3 102.5#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17

Instrument: MSVOA_1

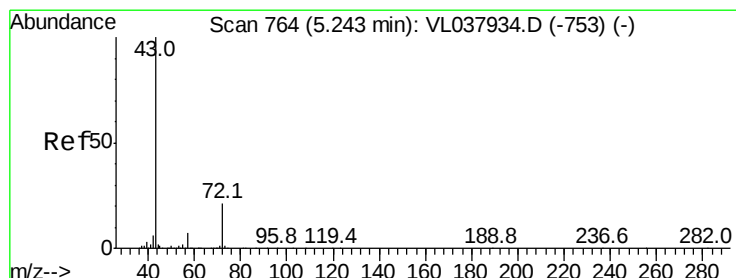
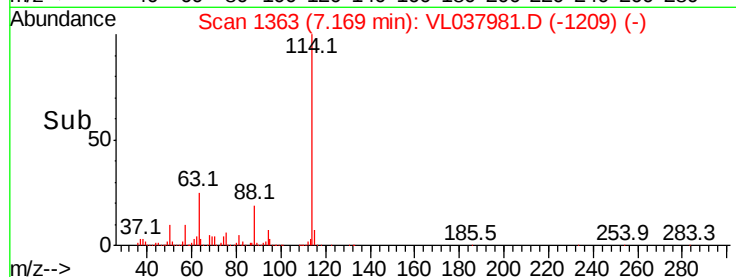
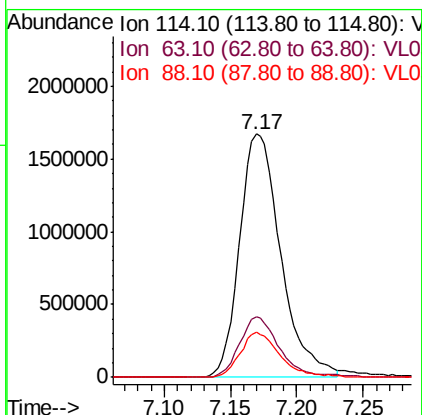
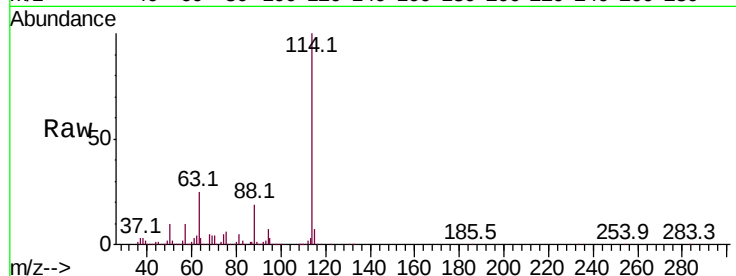
Delta R.T.:

Lab File: ClientSampleId:

Acq: 9 Nov 2021 16:08

Tot Ion:114 Resp: 3622751

Ion	Ratio	Lower	Upper
114	100		
63	24.7	19.4	29.0
88	18.1	14.2	21.4



#34

2-Butanone

Concen: 0.162 ppbv

RT: 5.24 min Scan# 762

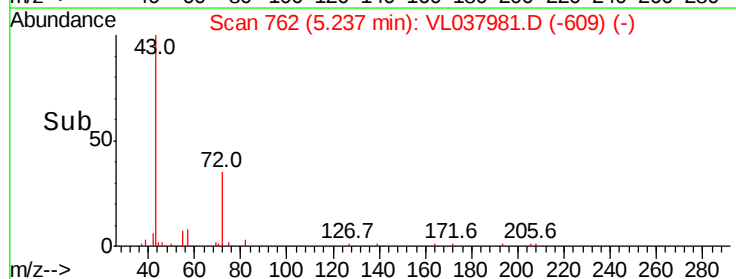
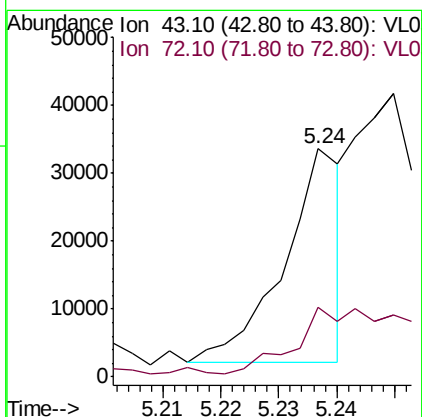
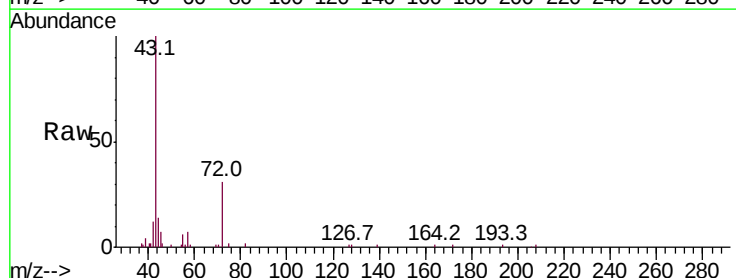
Delta R.T. -0.01 min

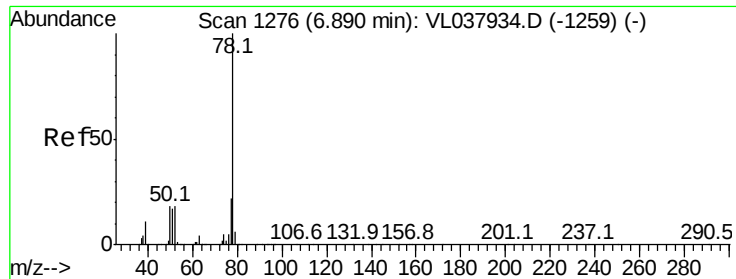
Lab File: VL037981.D

Acq: 9 Nov 2021 16:08

Tgt Ion: 43 Resp: 21714

Ion	Ratio	Lower	Upper
43	100		
72	94.8	18.3	27.5#





#36

Benzene

Concen: 0.197 ppbv

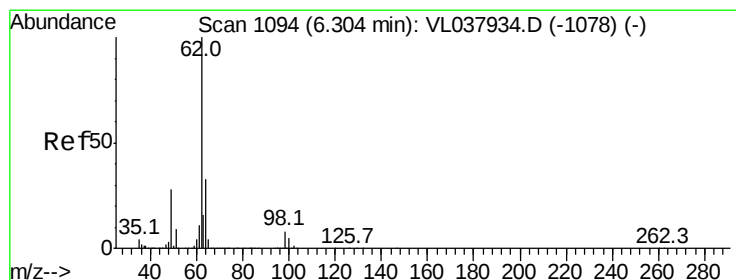
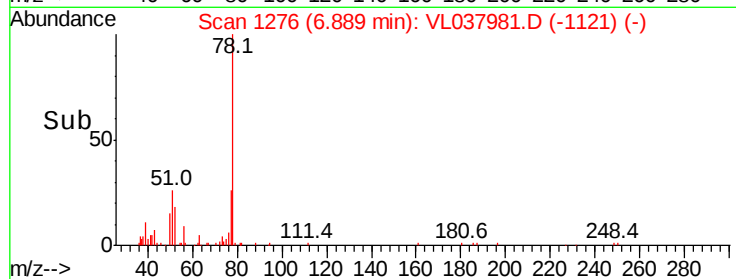
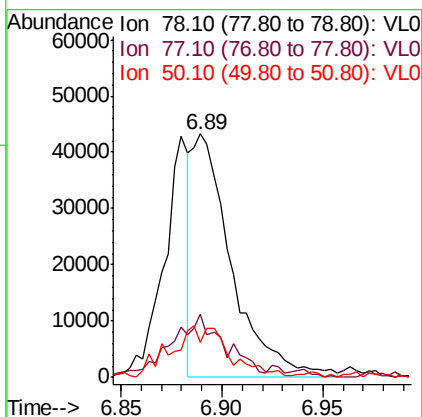
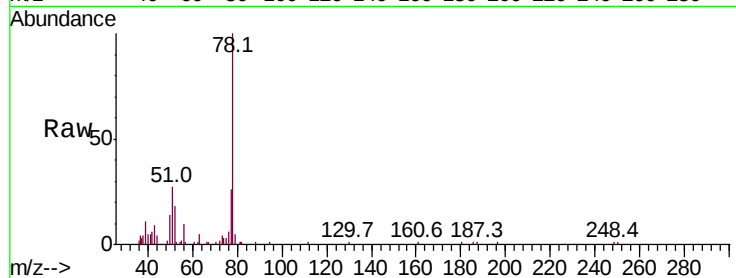
RT: 6.89

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 9 Nov 2021 16:08

Tot Ion	Ratio	Lower	Upper
78	100		
77	25.8	17.9	26.9
50	14.7	14.4	21.6



#37

1,2-Dichloroethane

Concen: 0.097 ppbv

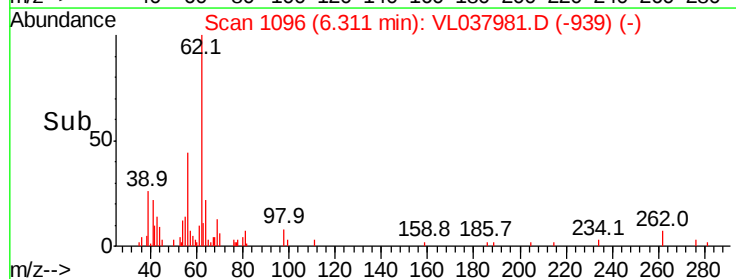
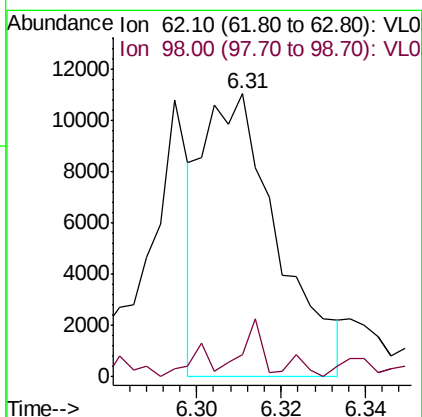
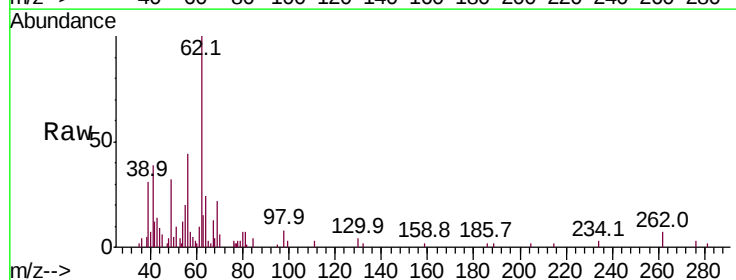
RT: 6.31 min Scan# 1096

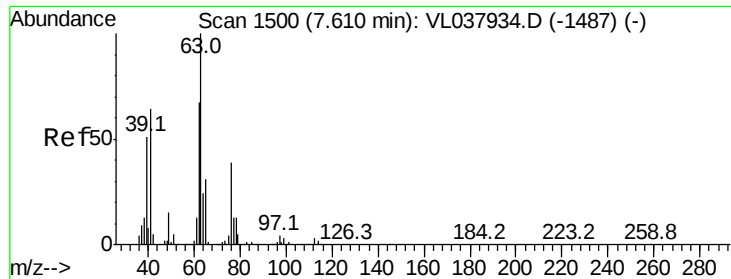
Delta R.T. 0.01 min

Lab File: VL037981.D

Acq: 9 Nov 2021 16:08

Tgt Ion	Ratio	Lower	Upper
62	100		
98	15.0	6.5	9.7#





#39

1,2-Dichloropropane

Concen: 7.804 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 16:08

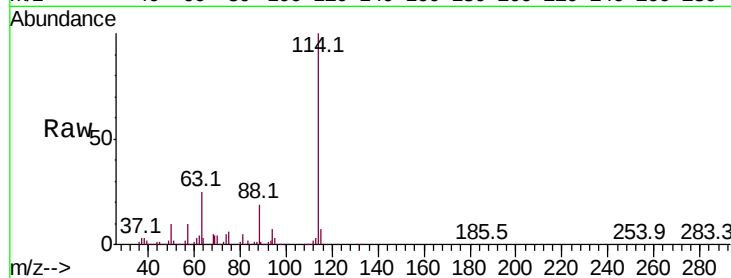
Tot Ion: 63 Resp: 866250

Ion Ratio Lower Upper

63 100

41 0.0 51.6 77.4#

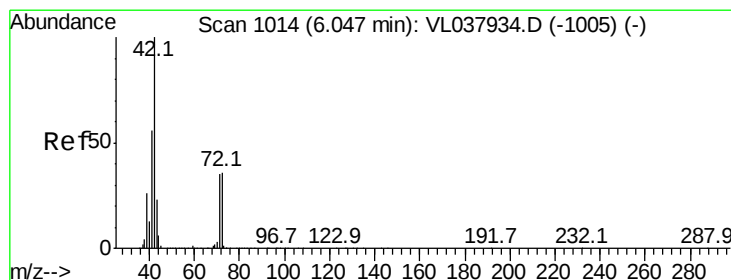
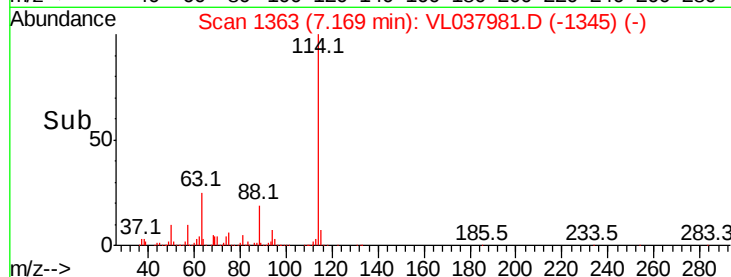
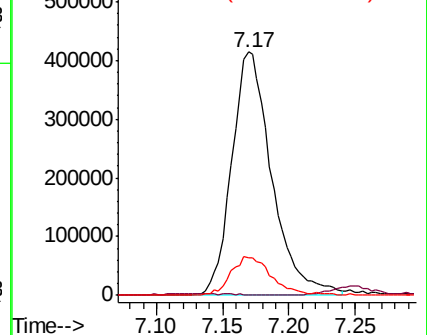
62 15.4 53.5 80.3#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 0.039 ppbv

RT: 5.76 min Scan# 924

Delta R.T. -0.29 min

Lab File: VL037981.D

Acq: 9 Nov 2021 16:08

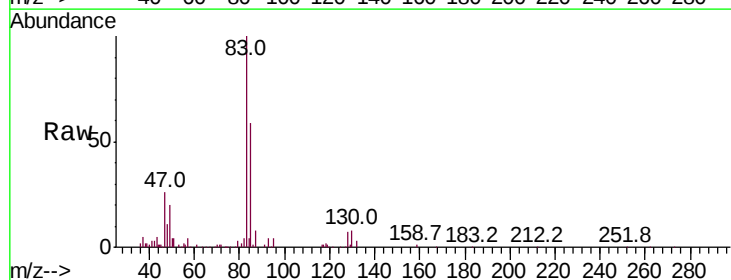
Tgt Ion: 42 Resp: 2530

Ion Ratio Lower Upper

42 100

72 67.5 31.5 47.3#

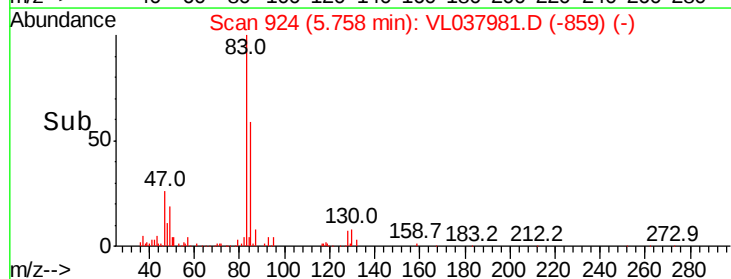
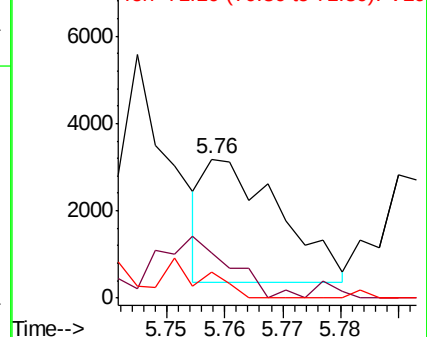
71 0.0 30.5 45.7#

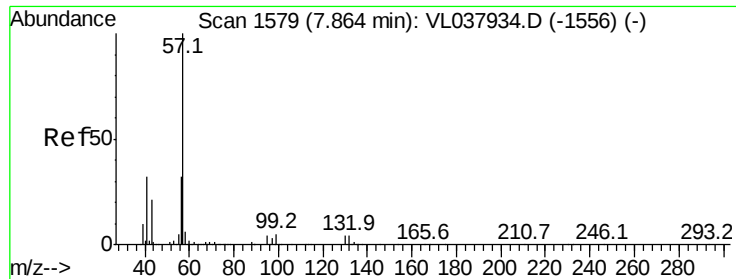


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

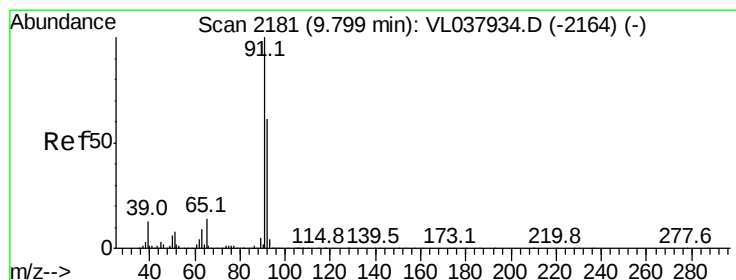
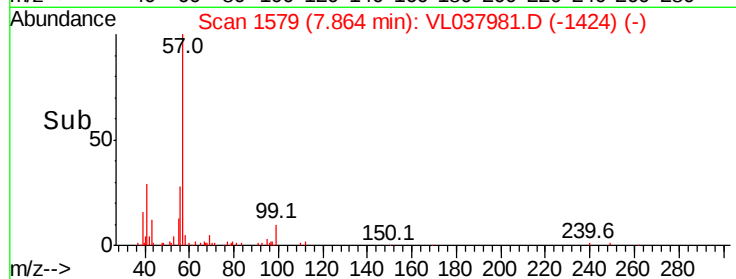
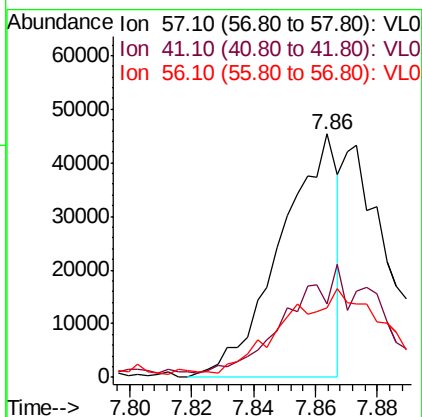
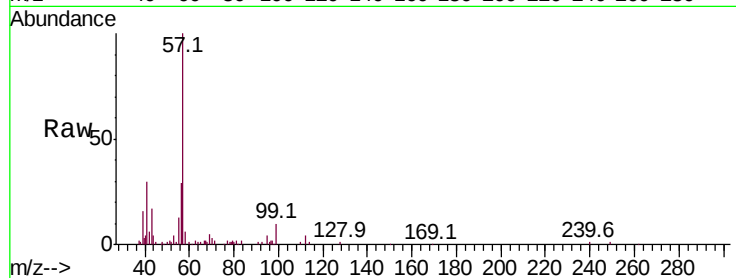
Ion 71.10 (70.80 to 71.80): VL0





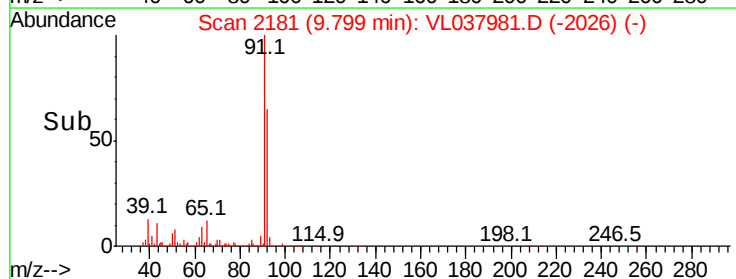
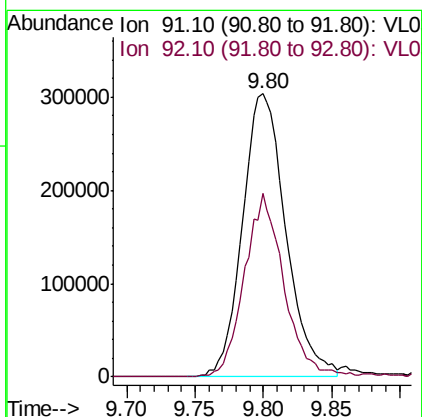
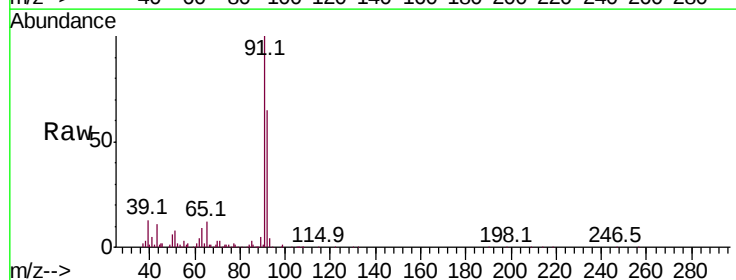
#44
2,2,4-Trimethylpentane
Concen: 0.116 ppbv
RT: 7.86 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId:
Acq: 9 Nov 2021 16:08

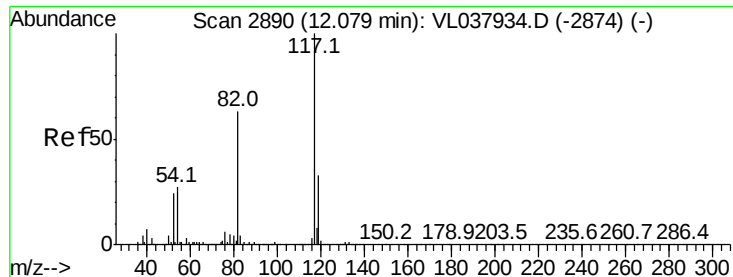
Tot Ion	57	Resp	58062
Ion Ratio	100	Lower	Upper
41	76.3	25.8	38.8#
56	74.0	25.9	38.9#



#53
Toluene
Concen: 2.114 ppbv
RT: 9.80 min Scan# 2181
Delta R.T. -0.00 min
Lab File: VL037981.D
Acq: 9 Nov 2021 16:08

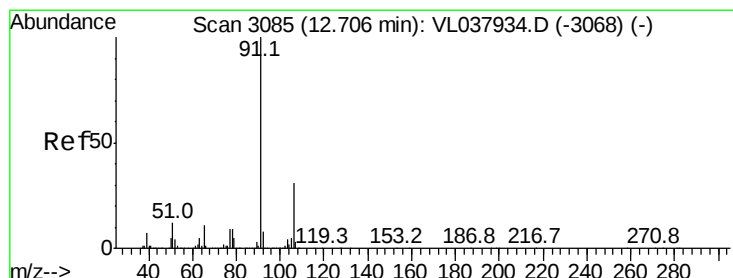
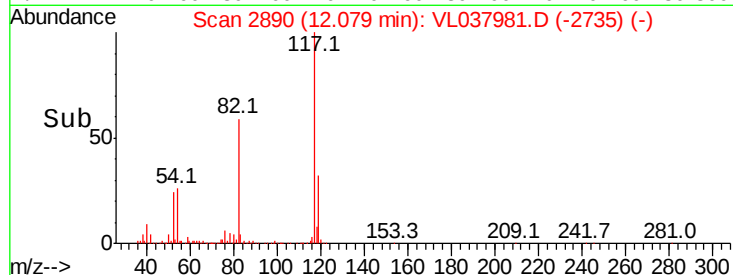
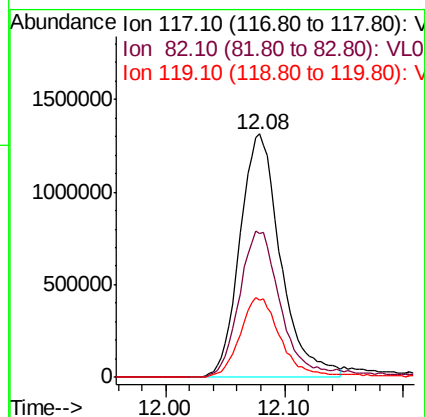
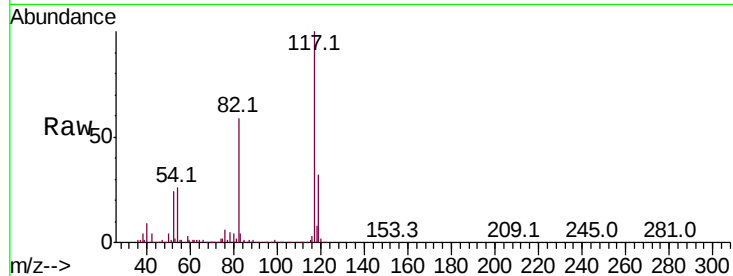
Tgt Ion	91	Resp	668480
Ion Ratio	100	Lower	Upper
92	60.4	48.2	72.4





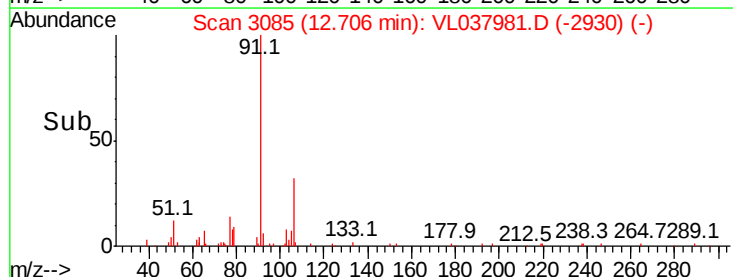
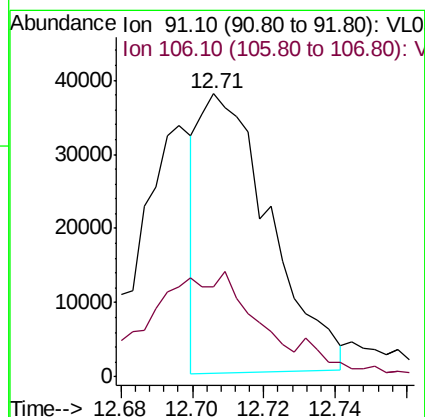
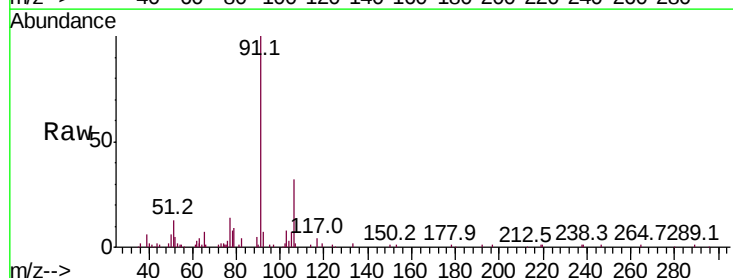
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 9 Nov 2021 16:08

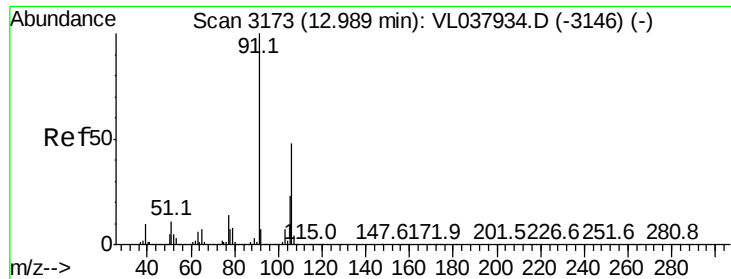
Tot Ion: 117 Resp: 3116850
Ion Ratio Lower Upper
117 100
82 65.4 51.0 76.6
119 33.7 26.9 40.3



#58
Ethyl Benzene
Concen: 0.135 ppbv
RT: 12.71 min Scan# 3085
Delta R.T.: -0.00 min
Lab File: VL037981.D
Acq: 9 Nov 2021 16:08

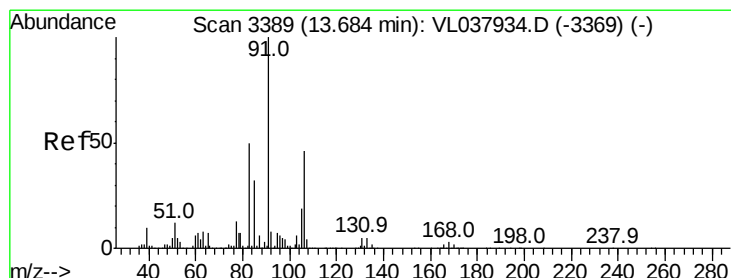
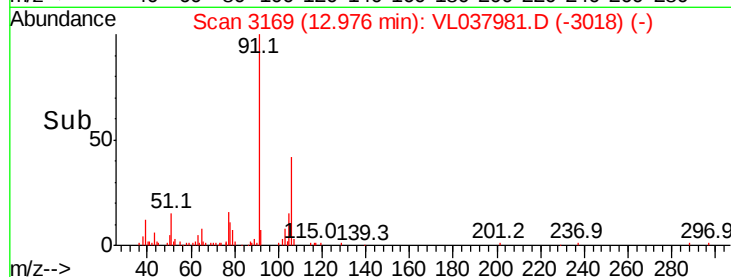
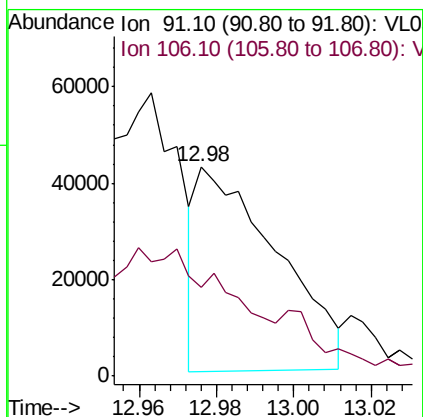
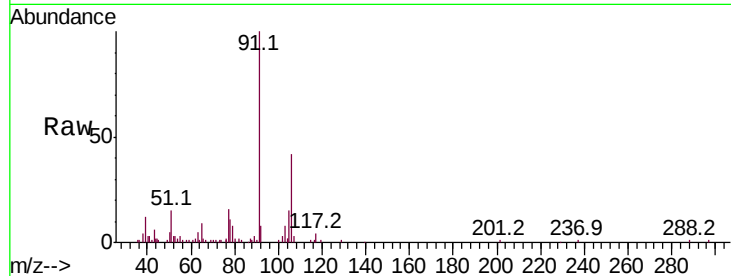
Tgt Ion: 91 Resp: 51431
Ion Ratio Lower Upper
91 100
106 30.0 25.1 37.7





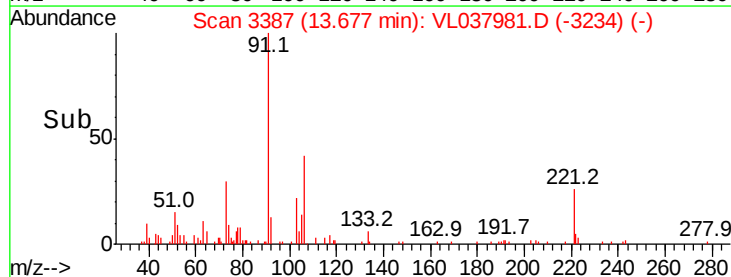
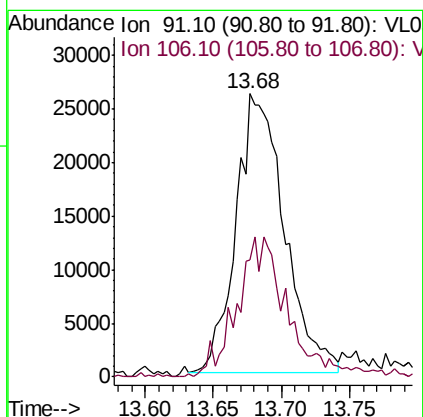
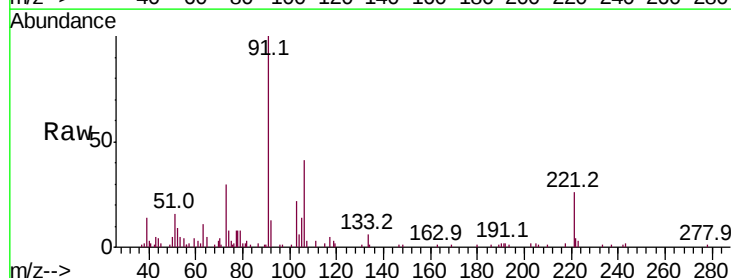
#59
m/p-Xylene
Concen: 0.180 ppbv
RT: 12.98
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 16:08

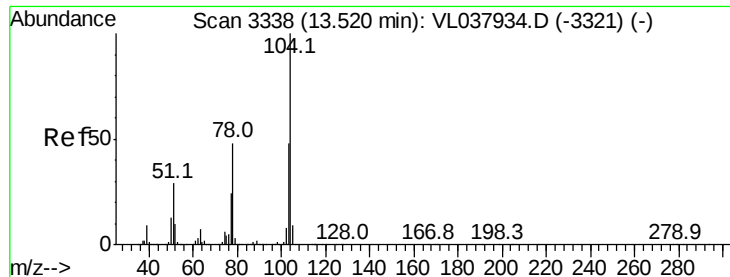
Tot Ion: 91 Resp: 60966
Ion Ratio Lower Upper
91 100
106 0.0 37.1 55.7#



#60
o-Xylene
Concen: 0.201 ppbv
RT: 13.68 min Scan# 3387
Delta R.T. -0.01 min
Lab File: VL037981.D
Acq: 9 Nov 2021 16:08

Tgt Ion: 91 Resp: 64101
Ion Ratio Lower Upper
91 100
106 53.4 23.5 70.6





#61

Stvrene

Concen: 0.033 ppbv

RT: 13.53

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 9 Nov 2021 16:08

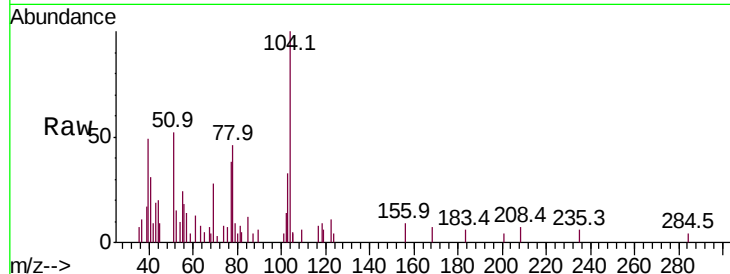
Tot Ion:104 Resp: 4913

Ion Ratio Lower Upper

104 100

78 143.4 39.3 58.9#

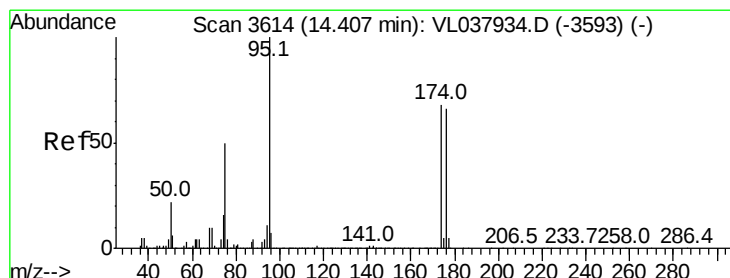
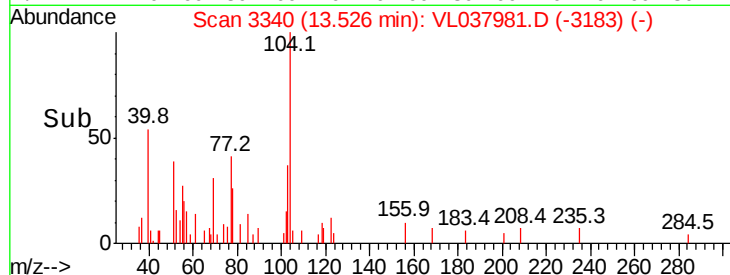
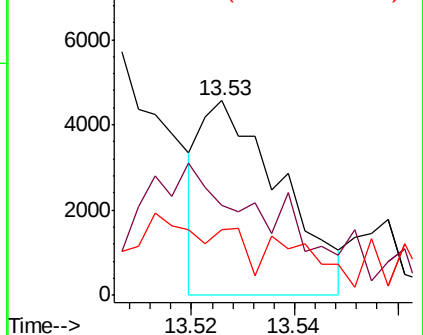
103 111.5 39.6 59.4#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.893 ppbv

RT: 14.40 min Scan# 3613

Delta R.T. -0.00 min

Lab File: VL037981.D

Acq: 9 Nov 2021 16:08

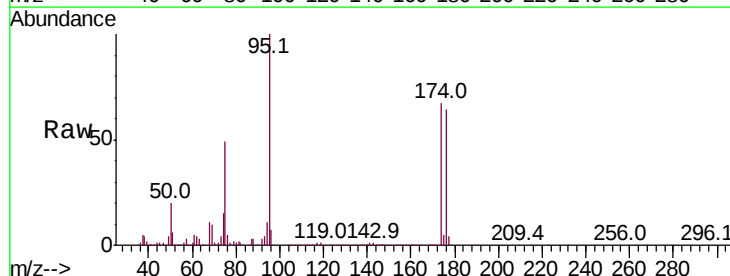
Tgt Ion: 95 Resp: 2241436

Ion Ratio Lower Upper

95 100

174 74.3 58.3 87.5

175 5.5 4.6 6.8



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

