

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL060524\
 Data File : VL041335.D
 Acq On : 5 Jun 2024 20:13
 Operator : SY/MD
 Sample : P2716-02 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

Quant Time: Jun 06 04:43:05 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL060424AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Jun 05 04:42:10 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

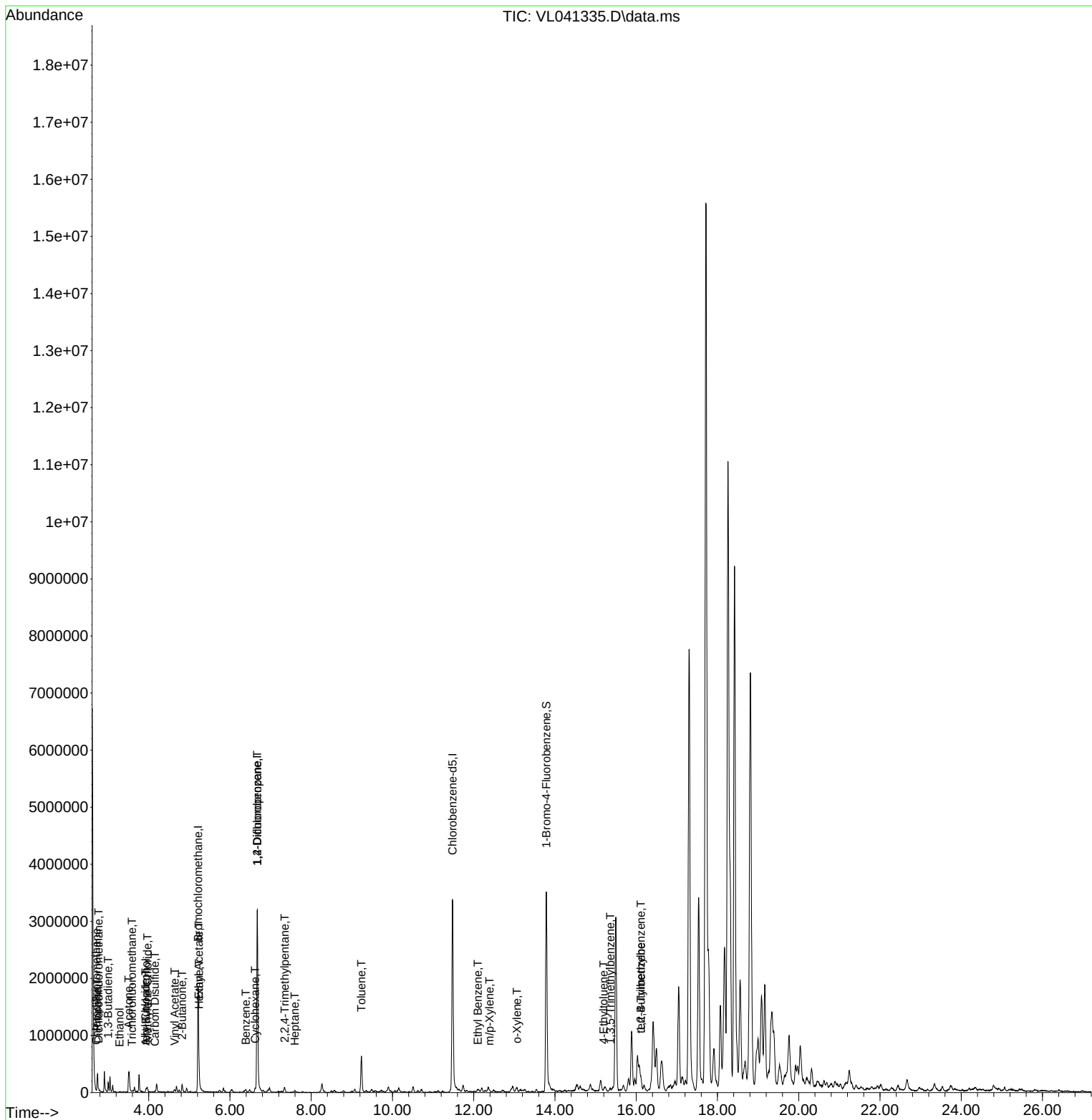
Internal Standards						
1) Bromochloromethane	5.218	49	923007	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.674	114	2412203	10.000	ppbv	0.02
55) Chlorobenzene-d5	11.478	117	2224014	10.000	ppbv	0.02

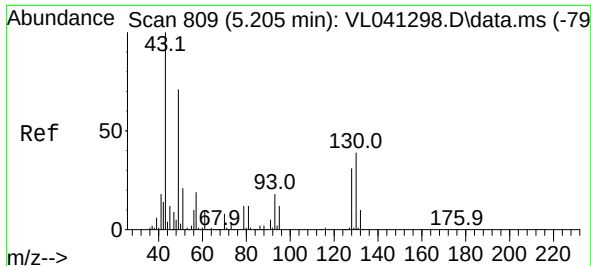
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.790	95	1733659	10.096	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.000%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.767	85	21952	0.149	ppbv	91
3) Chlorodifluoromethane	2.710	51	14725	0.101	ppbv #	92
9) Propene	2.735	41	96554	1.858	ppbv	87
10) Heptane	7.597	43	15699	0.127	ppbv	99
11) Trichlorofluoromethane	3.591	101	7479	0.055	ppbv #	57
13) Ethanol	3.285	45	10555	0.781	ppbv	81
15) Acetone	3.507	43	415180	3.940	ppbv	98
16) 1,3-Butadiene	3.002	39	41760	0.788	ppbv #	25
17) tert-Butyl alcohol	3.928	59	8273	0.085	ppbv #	71
20) Methylene Chloride	3.967	84	24454	0.638	ppbv #	92
21) Allyl Chloride	3.925	41	2859	0.043	ppbv #	37
23) Vinyl Acetate	4.642	43	6732	0.062	ppbv #	1
25) Ethyl Acetate	5.234	43	39690	0.190	ppbv #	80
26) Hexane	5.237	57	56797	0.606	ppbv #	41
27) Carbon Disulfide	4.153	76	12869	0.124	ppbv #	32
30) Cyclohexane	6.623	84	8097	0.107	ppbv #	1
34) 2-Butanone	4.822	43	159676	1.382	ppbv	96
36) Benzene	6.394	78	20039	0.107	ppbv #	89
39) 1,2-Dichloropropane	6.671	63	622163	8.357	ppbv #	24
44) 2,2,4-Trimethylpentane	7.346	57	59178	0.184	ppbv #	76
53) Toluene	9.237	91	482428	2.243	ppbv	97
58) Ethyl Benzene	12.105	91	27355	0.096	ppbv	92
59) m/p-Xylene	12.388	91	8749	0.036	ppbv #	31
60) o-Xylene	13.066	91	24112	0.104	ppbv #	40
65) tert-Butylbenzene	16.117	119	10971	0.035	ppbv #	1
72) 4-Ethyltoluene	15.201	105	16339	0.060	ppbv #	57
73) 1,3,5-Trimethylbenzene	15.365	105	18574	0.079	ppbv #	81
74) 1,2,4-Trimethylbenzene	16.114	105	148459	0.558	ppbv #	74

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

Quant Time: Jun 06 04:43:05 2024
Quant Method : Z:\voasrv\HPCHEM1\MSV0A_L\methods\VL060424AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSV0A_LFri Aug 26 06:05:16 2022
QLast Update : Wed Jun 05 04:42:10 2024
Response via : Initial Calibration

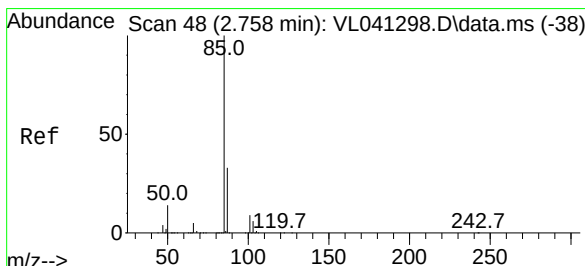
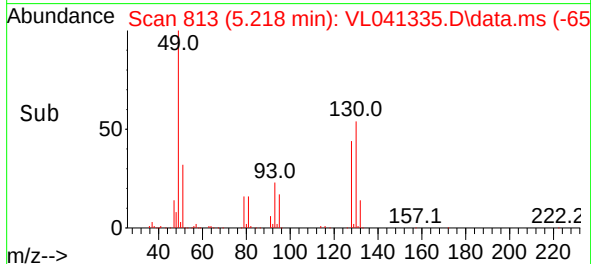
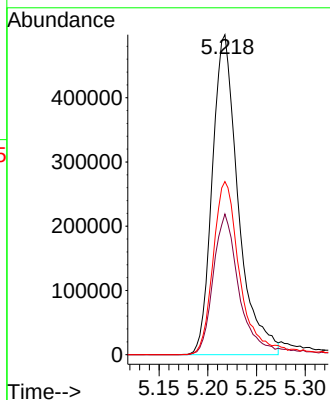
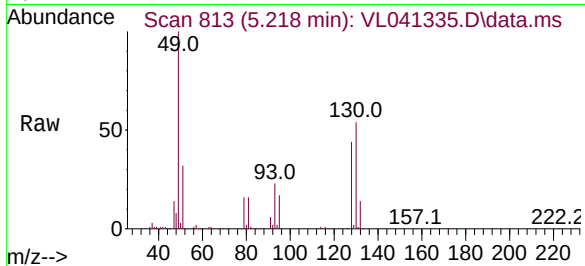




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.218 min Scan# 81
 Delta R.T. 0.013 min
 Lab File: VL041335.D
 Acq: 5 Jun 2024 20:13

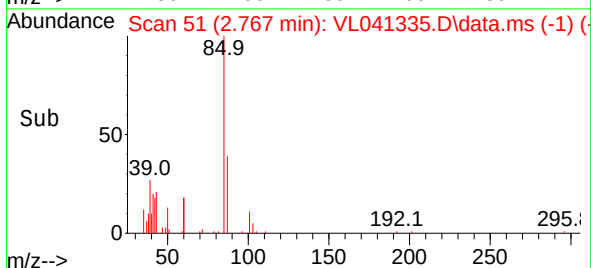
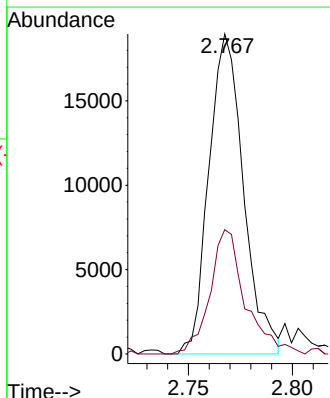
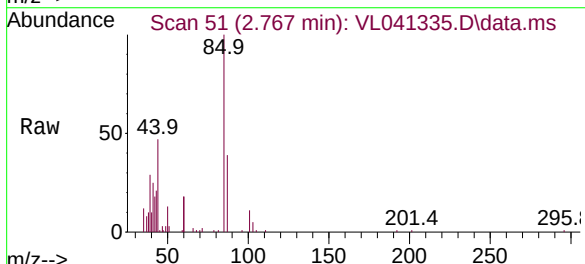
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

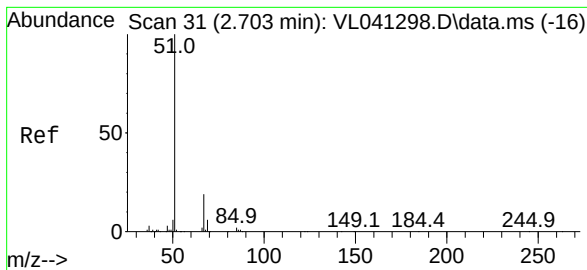
Tgt Ion: 49 Resp: 923007
 Ion Ratio Lower Upper
 49 100
 128 45.7 22.8 68.3
 130 57.9 28.4 85.3



#2
 Dichlorodifluoromethane
 Concen: 0.149 ppbv
 RT: 2.767 min Scan# 51
 Delta R.T. 0.010 min
 Lab File: VL041335.D
 Acq: 5 Jun 2024 20:13

Tgt Ion: 85 Resp: 21952
 Ion Ratio Lower Upper
 85 100
 87 38.0 26.5 39.7





#3

Chlorodifluoromethane

Concen: 0.101 ppbv

RT: 2.710 min Scan# 31

Delta R.T. 0.006 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

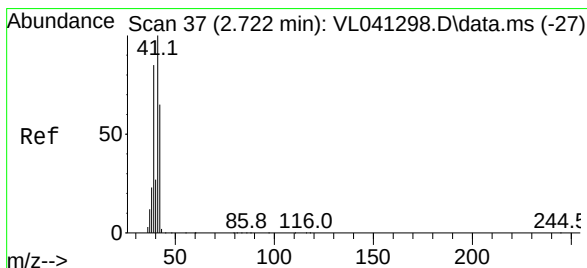
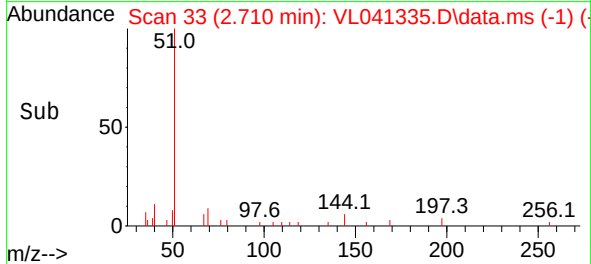
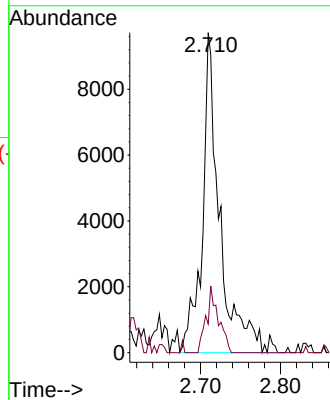
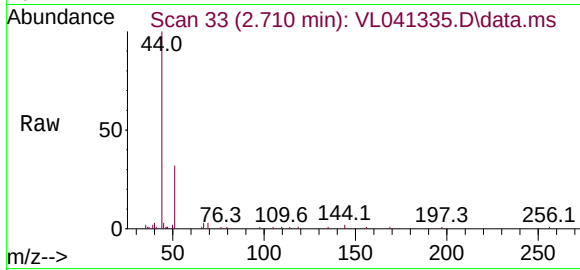
SV2

Tgt Ion: 51 Resp: 14725

Ion Ratio Lower Upper

51 100

67 14.6 14.7 22.1#



#9

Propene

Concen: 1.858 ppbv

RT: 2.735 min Scan# 41

Delta R.T. 0.013 min

Lab File: VL041335.D

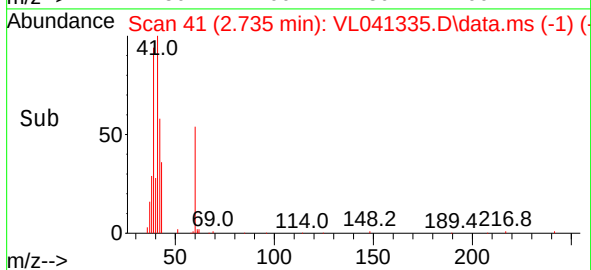
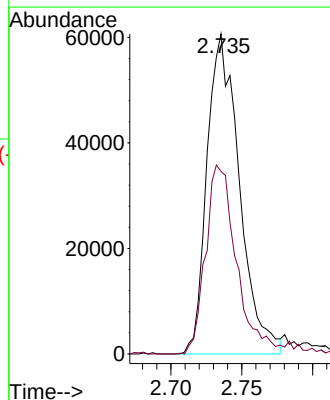
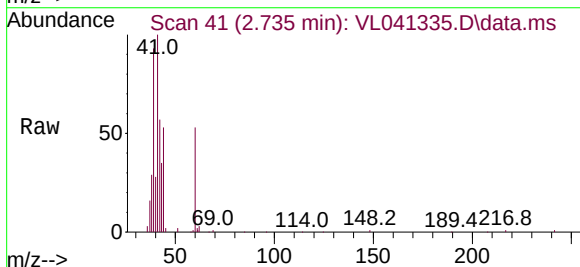
Acq: 5 Jun 2024 20:13

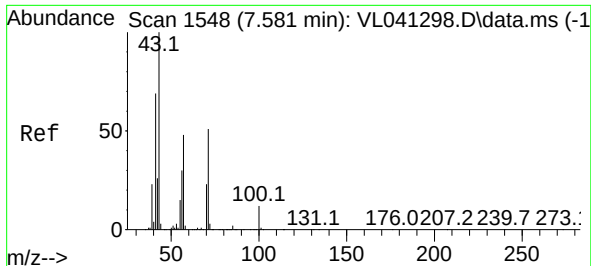
Tgt Ion: 41 Resp: 96554

Ion Ratio Lower Upper

41 100

42 58.4 55.2 82.8





#10

Heptane

Concen: 0.127 ppbv

RT: 7.597 min Scan# 1

Delta R.T. 0.016 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

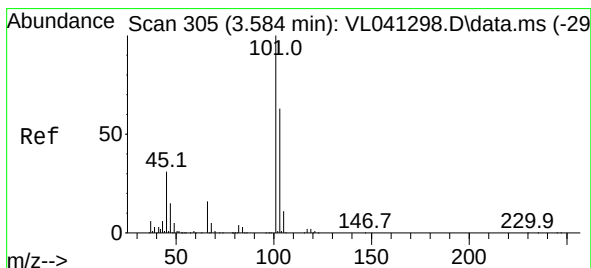
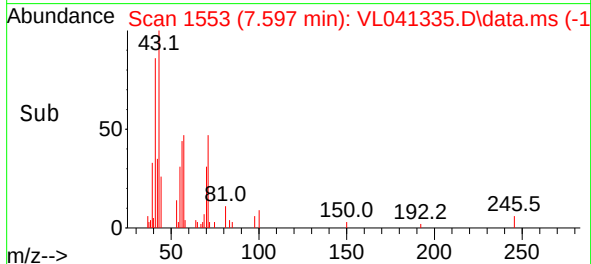
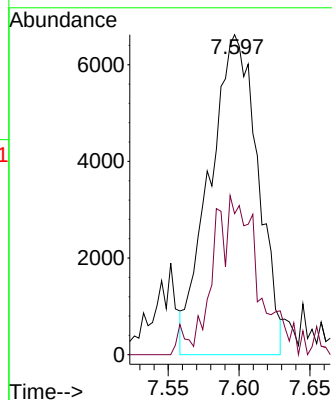
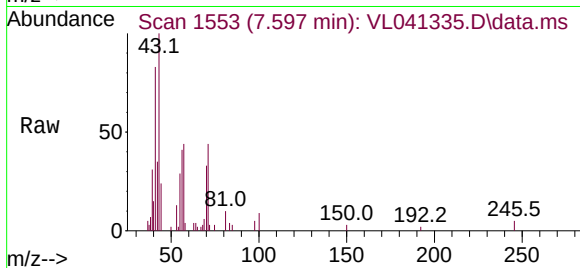
SV2

Tgt Ion: 43 Resp: 15699

Ion Ratio Lower Upper

43 100

57 49.3 39.0 58.4



#11

Trichlorofluoromethane

Concen: 0.055 ppbv

RT: 3.591 min Scan# 307

Delta R.T. 0.006 min

Lab File: VL041335.D

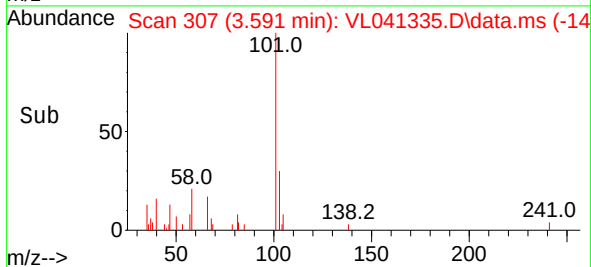
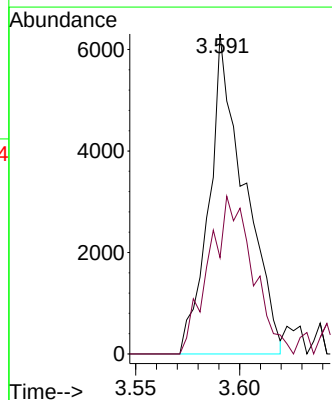
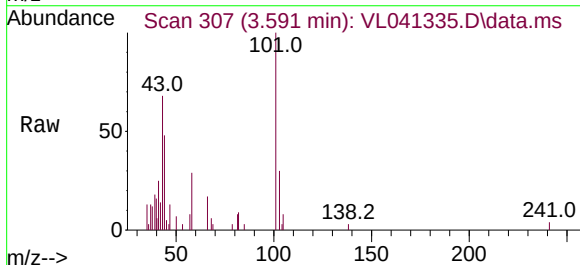
Acq: 5 Jun 2024 20:13

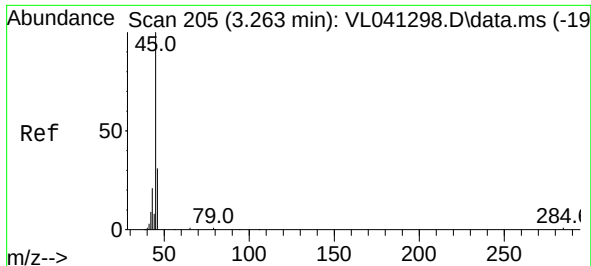
Tgt Ion:101 Resp: 7479

Ion Ratio Lower Upper

101 100

103 30.1 50.6 76.0#





#13

Ethanol

Concen: 0.781 ppbv

RT: 3.285 min Scan# 212

Delta R.T. 0.022 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

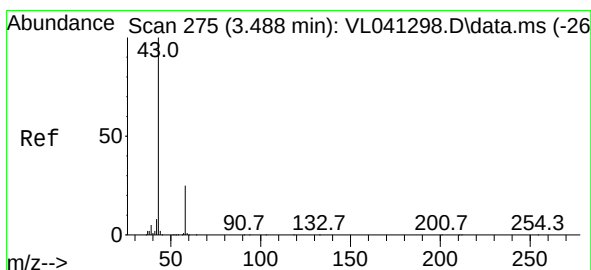
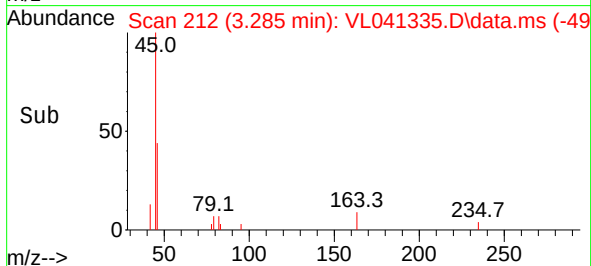
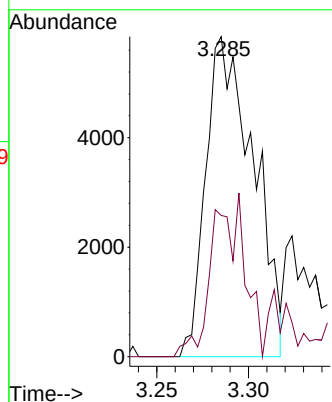
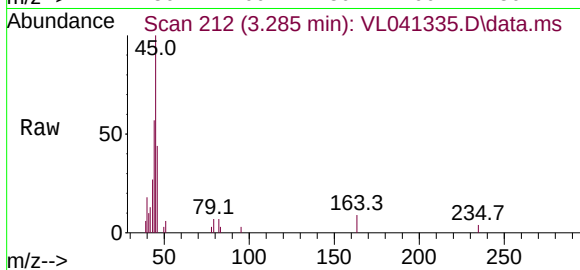
SV2

Tgt Ion: 45 Resp: 10555

Ion Ratio Lower Upper

45 100

46 46.8 14.2 56.6



#15

Acetone

Concen: 3.940 ppbv

RT: 3.507 min Scan# 281

Delta R.T. 0.019 min

Lab File: VL041335.D

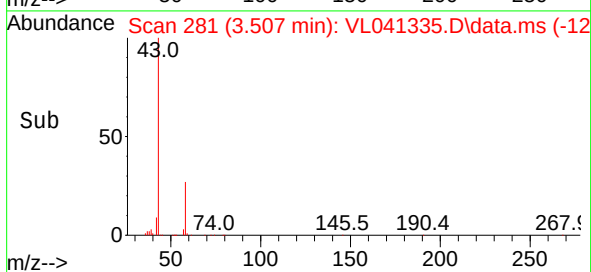
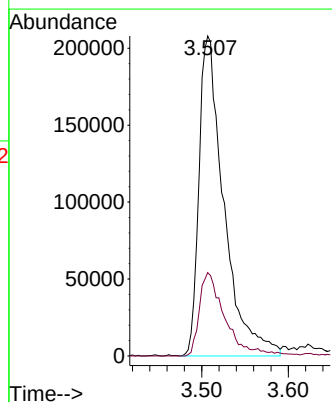
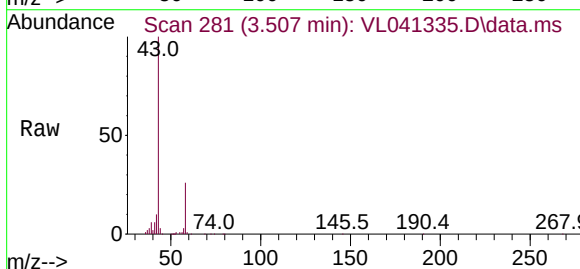
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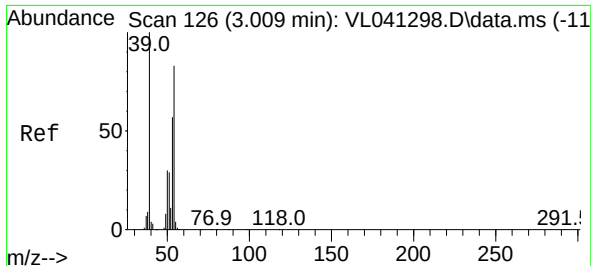
Tgt Ion: 43 Resp: 415180

Ion Ratio Lower Upper

43 100

58 27.0 20.6 31.0





#16

1,3-Butadiene

Concen: 0.788 ppbv

RT: 3.002 min Scan# 11

Delta R.T. -0.006 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

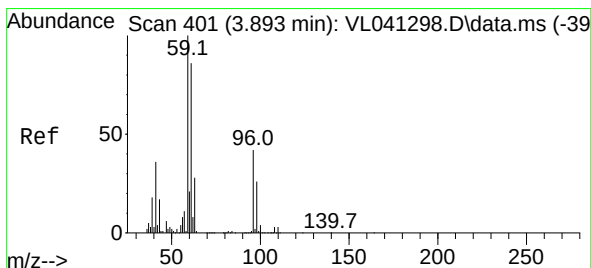
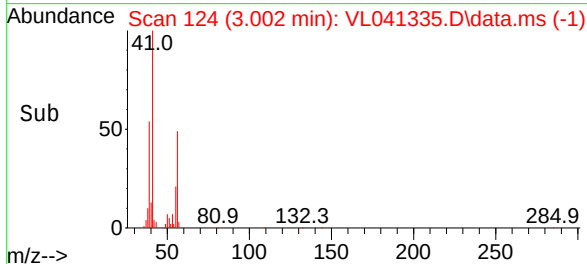
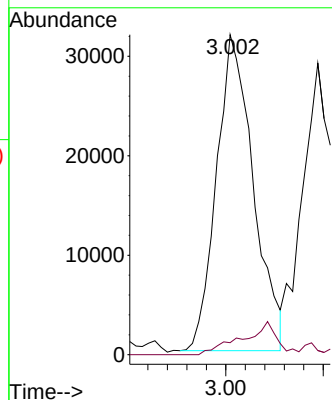
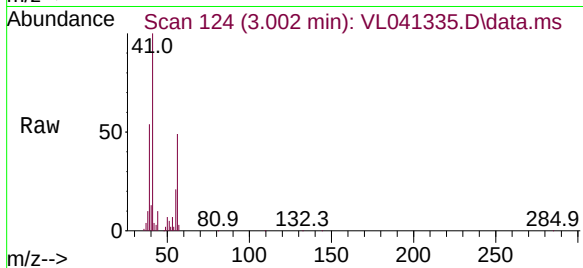
SV2

Tgt Ion: 39 Resp: 41760

Ion Ratio Lower Upper

39 100

54 11.7 60.5 90.7#



#17

tert-Butyl alcohol

Concen: 0.085 ppbv

RT: 3.928 min Scan# 412

Delta R.T. 0.035 min

Lab File: VL041335.D

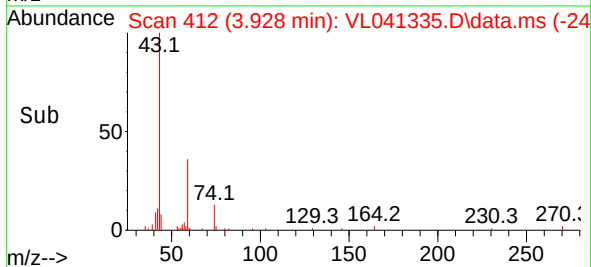
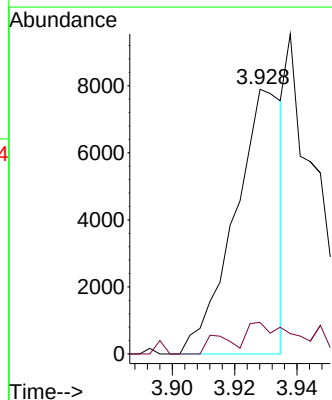
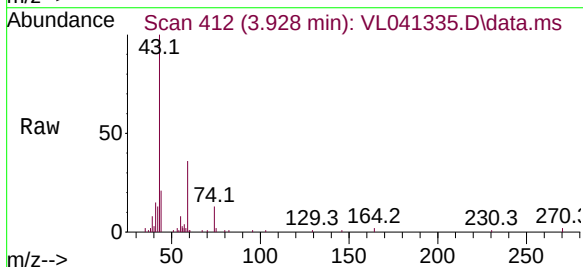
Acq: 5 Jun 2024 20:13

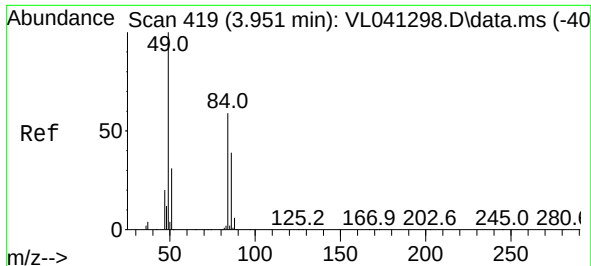
Tgt Ion: 59 Resp: 8273

Ion Ratio Lower Upper

59 100

57 0.0 9.0 13.4#





#20

Methylene Chloride

Concen: 0.638 ppbv

RT: 3.967 min Scan# 411

Delta R.T. 0.016 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

SV2

Tgt Ion: 84 Resp: 24454

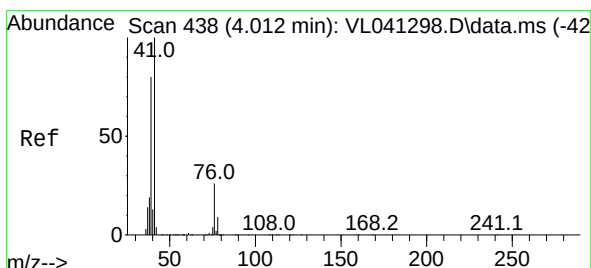
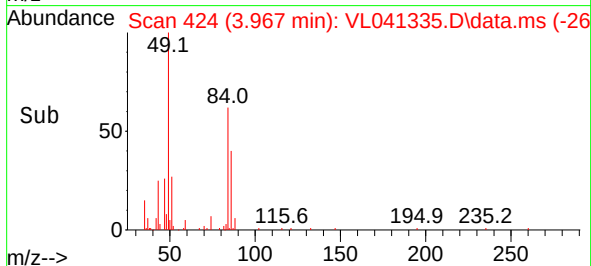
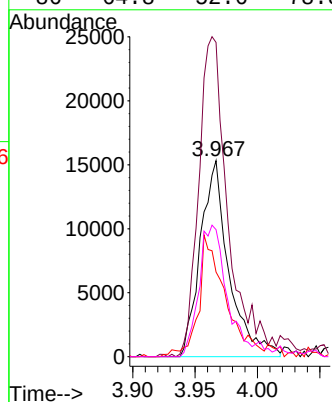
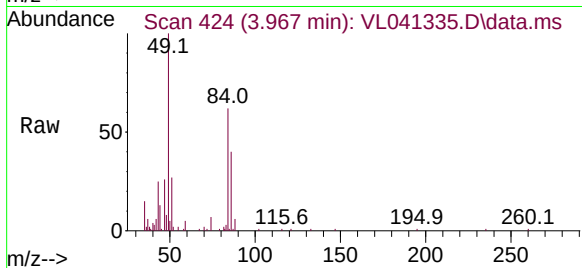
Ion Ratio Lower Upper

84 100

49 159.0 136.2 204.2

51 40.3 41.9 62.9#

86 64.8 52.6 78.8



#21

Allyl Chloride

Concen: 0.043 ppbv

RT: 3.925 min Scan# 411

Delta R.T. -0.087 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

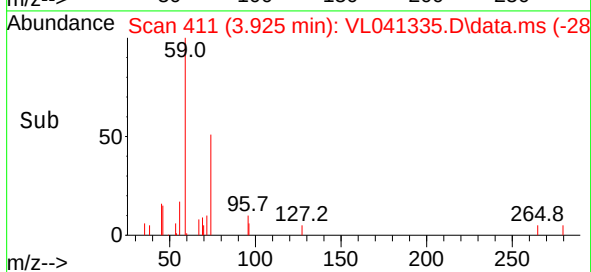
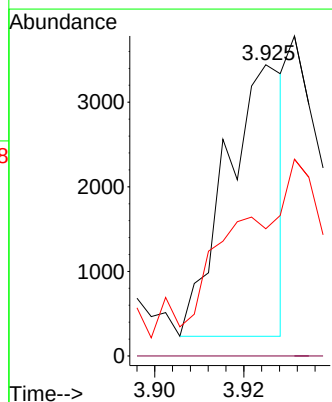
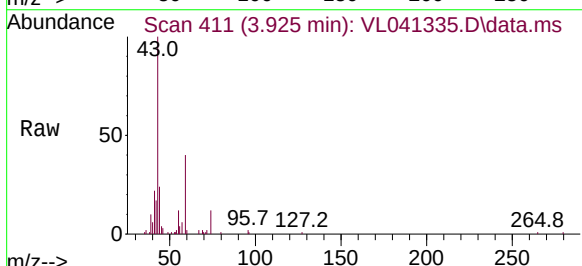
Tgt Ion: 41 Resp: 2859

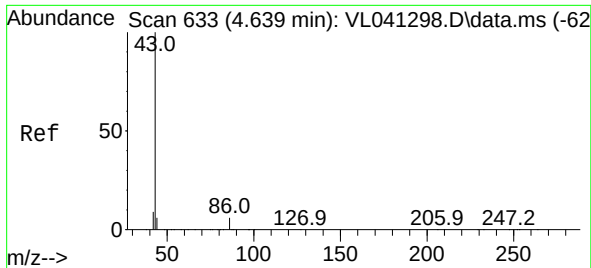
Ion Ratio Lower Upper

41 100

76 0.0 22.3 33.5#

39 142.6 66.3 99.5#





#23

Vinyl Acetate

Concen: 0.062 ppbv

RT: 4.642 min Scan# 61

Delta R.T. 0.003 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

SV2

Tgt Ion: 43 Resp: 6732

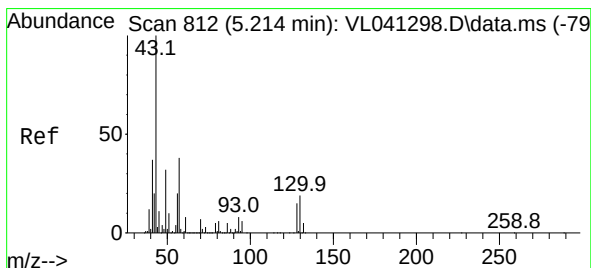
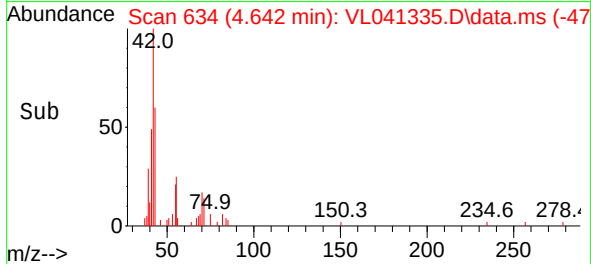
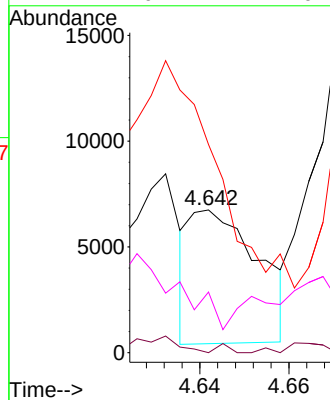
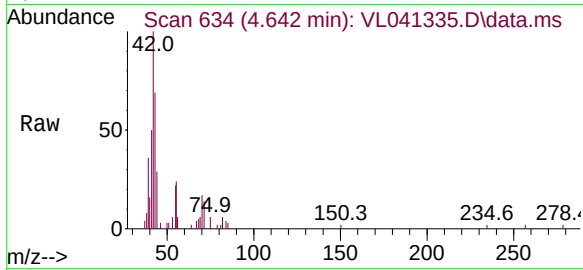
Ion Ratio Lower Upper

43 100

86 0.0 4.7 7.1#

42 182.8 8.0 12.0#

44 21.0 4.2 6.4#



#25

Ethyl Acetate

Concen: 0.190 ppbv

RT: 5.234 min Scan# 818

Delta R.T. 0.019 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Tgt Ion: 43 Resp: 39690

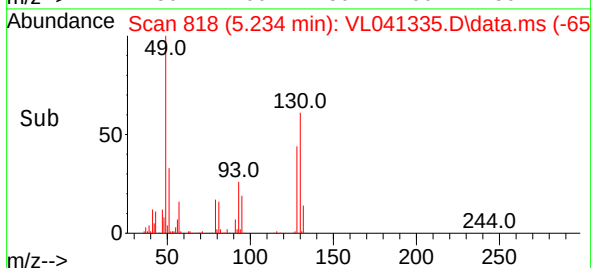
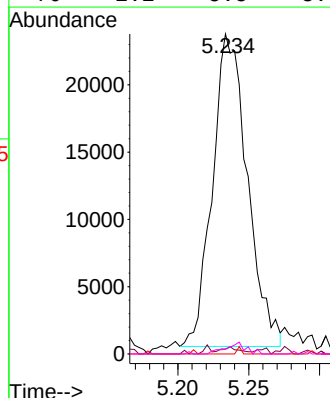
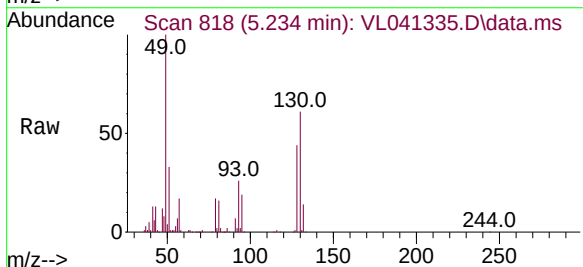
Ion Ratio Lower Upper

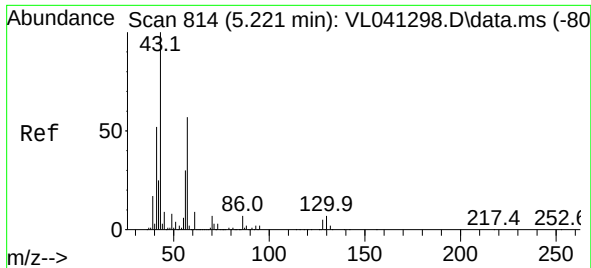
43 100

45 2.4 8.1 12.1#

61 0.0 7.4 11.0#

70 2.2 5.5 8.3#

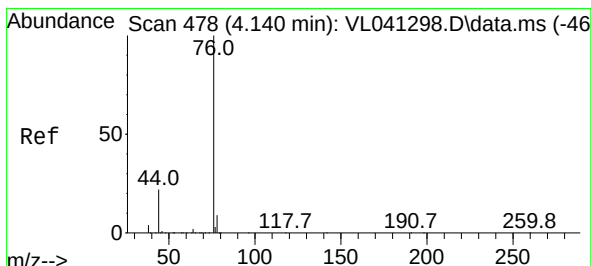
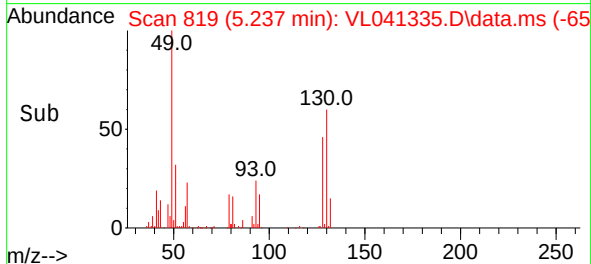
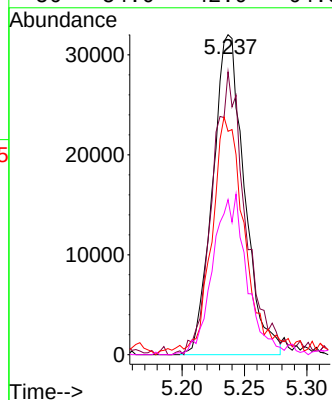
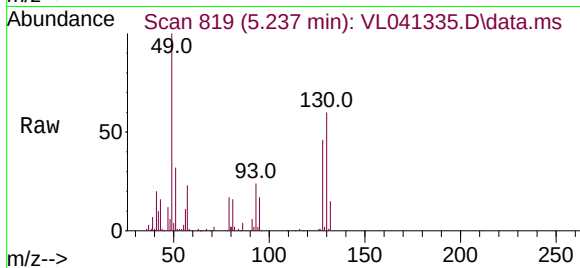




#26
Hexane
Concen: 0.606 ppbv
RT: 5.237 min Scan# 814
Delta R.T. 0.016 min
Lab File: VL041335.D
Acq: 5 Jun 2024 20:13

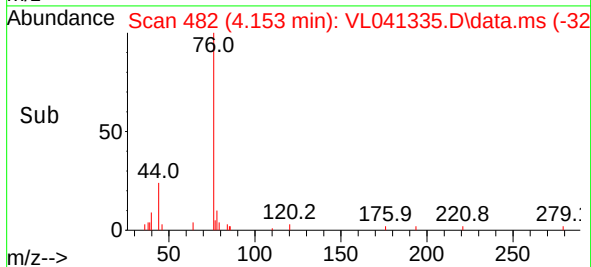
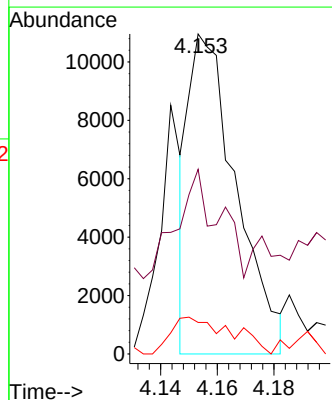
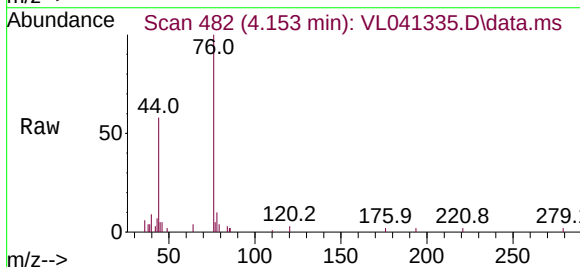
Instrument :
MSVOA_L
ClientSampleId :
SV2

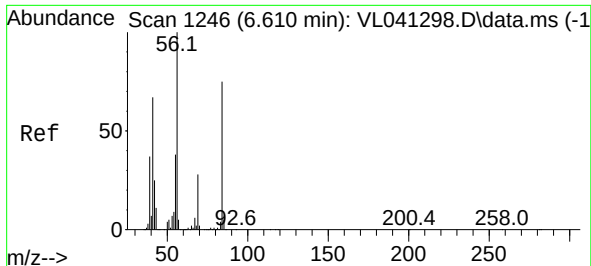
Tgt Ion:	57	Resp:	56797
Ion Ratio	Lower	Upper	
57	100		
41	91.4	77.1	115.7
43	73.5	186.1	279.1#
56	54.0	42.9	64.3



#27
Carbon Disulfide
Concen: 0.124 ppbv
RT: 4.153 min Scan# 482
Delta R.T. 0.013 min
Lab File: VL041335.D
Acq: 5 Jun 2024 20:13

Tgt Ion:	76	Resp:	12869
Ion Ratio	Lower	Upper	
76	100		
44	63.4	17.7	26.5#
78	19.0	7.8	11.6#





#30

Cyclohexane

Concen: 0.107 ppbv

RT: 6.623 min Scan# 1250

Delta R.T. 0.013 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

SV2

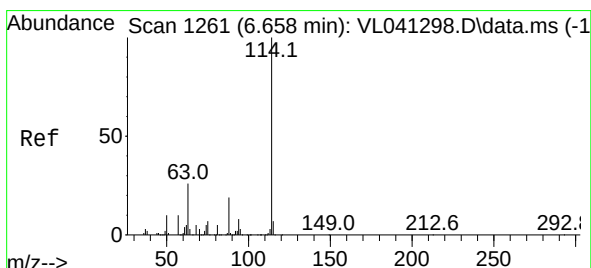
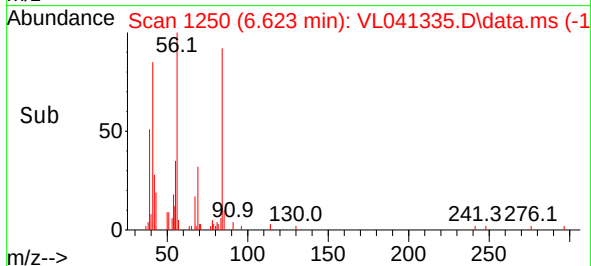
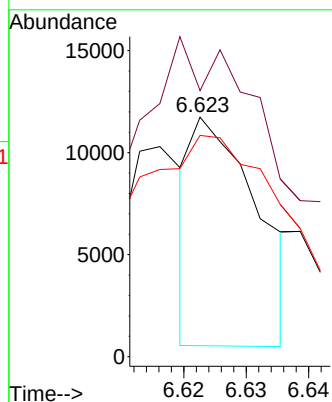
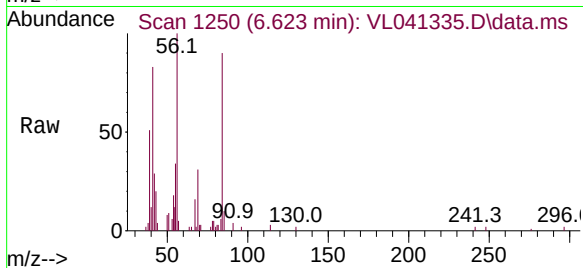
Tgt Ion: 84 Resp: 8097

Ion Ratio Lower Upper

84 100

56 373.2 114.9 172.3#

41 313.4 74.4 111.6#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.674 min Scan# 1266

Delta R.T. 0.016 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

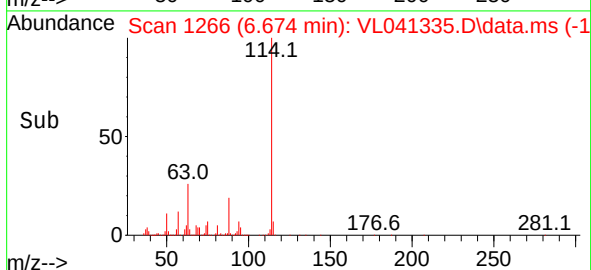
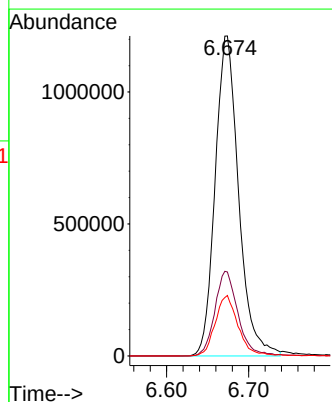
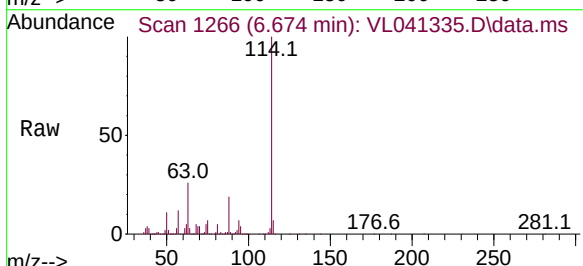
Tgt Ion:114 Resp: 2412203

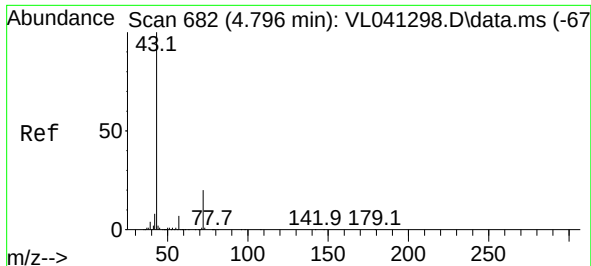
Ion Ratio Lower Upper

114 100

63 26.4 20.6 30.8

88 18.7 14.5 21.7





#34

2-Butanone

Concen: 1.382 ppbv

RT: 4.822 min Scan# 61

Delta R.T. 0.026 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

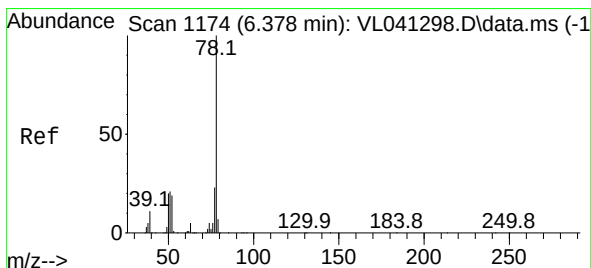
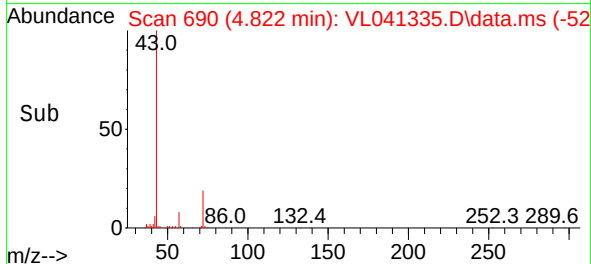
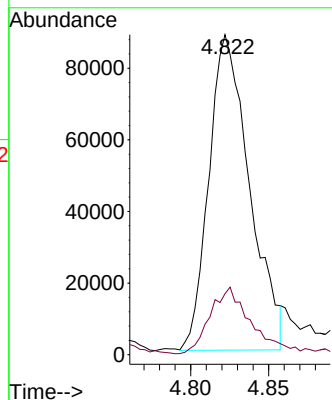
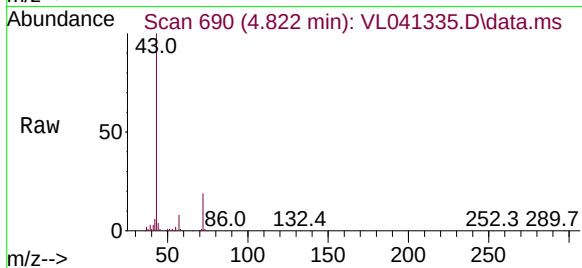
SV2

Tgt Ion: 43 Resp: 159676

Ion Ratio Lower Upper

43 100

72 23.7 17.4 26.0



#36

Benzene

Concen: 0.107 ppbv

RT: 6.394 min Scan# 1179

Delta R.T. 0.016 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

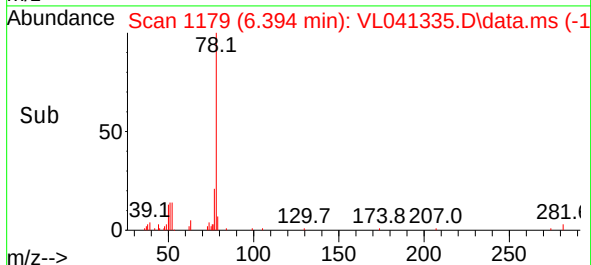
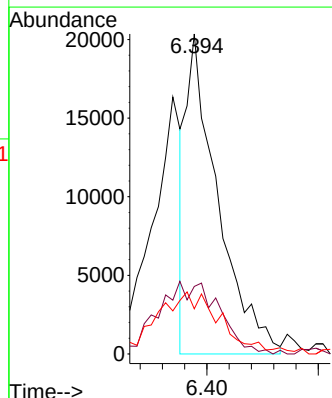
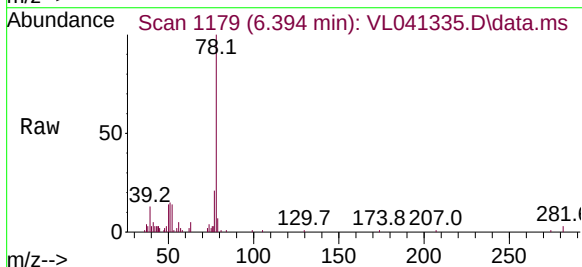
Tgt Ion: 78 Resp: 20039

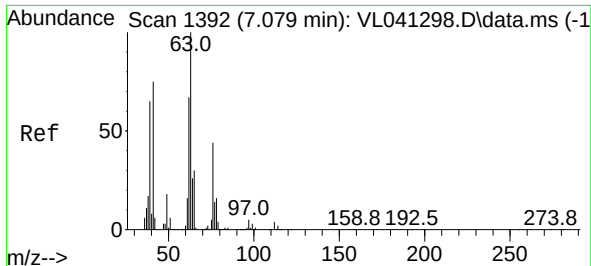
Ion Ratio Lower Upper

78 100

77 20.4 18.6 28.0

50 12.5 16.0 24.0#





#39

1,2-Dichloropropane

Concen: 8.357 ppbv

RT: 6.671 min Scan# 1475

Delta R.T. -0.408 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

SV2

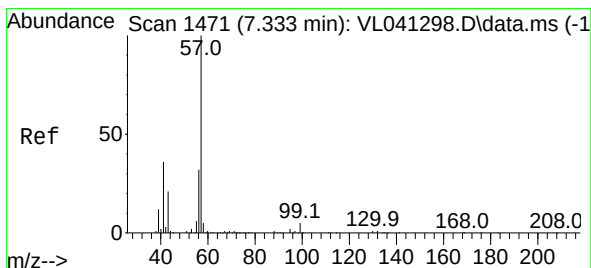
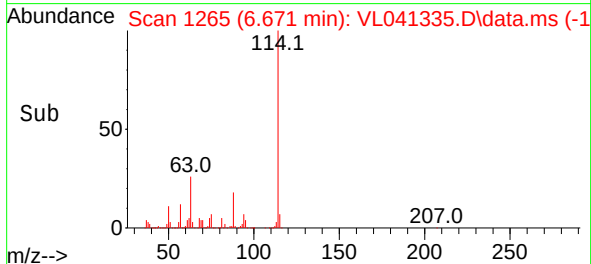
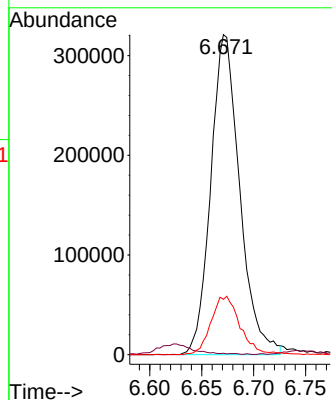
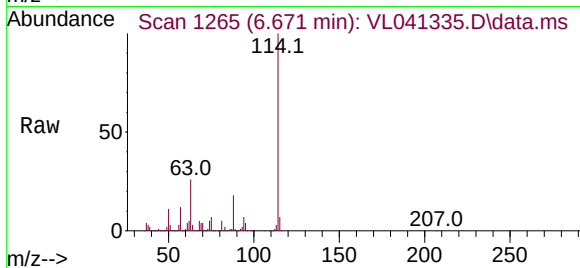
Tgt Ion: 63 Resp: 622163

Ion Ratio Lower Upper

63 100

41 0.1 59.9 89.9#

62 17.2 53.8 80.6#



#44

2,2,4-Trimethylpentane

Concen: 0.184 ppbv

RT: 7.346 min Scan# 1475

Delta R.T. 0.013 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

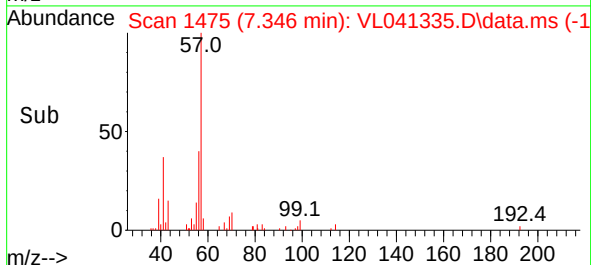
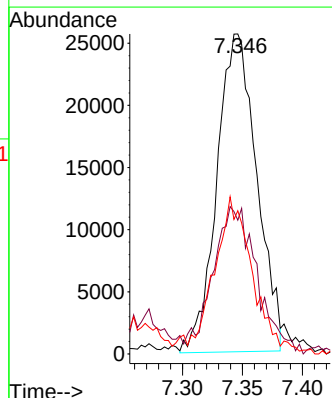
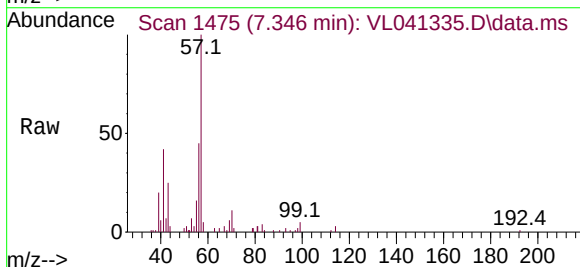
Tgt Ion: 57 Resp: 59178

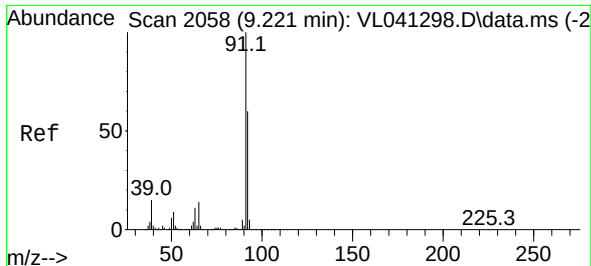
Ion Ratio Lower Upper

57 100

41 48.2 29.4 44.2#

56 47.2 25.0 37.4#





#53

Toluene

Concen: 2.243 ppbv

RT: 9.237 min Scan# 2058

Delta R.T. 0.016 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

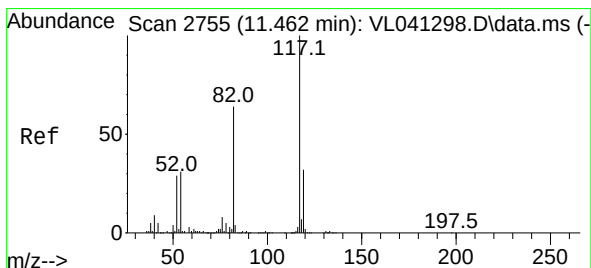
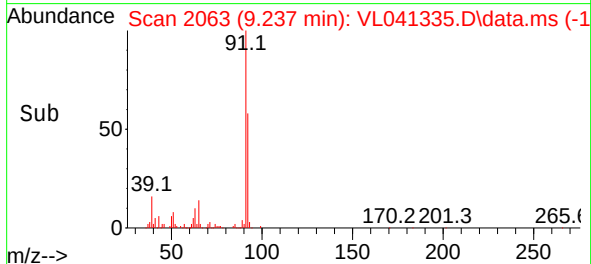
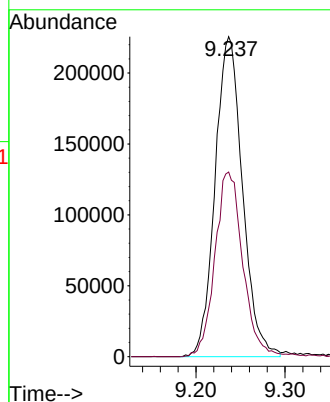
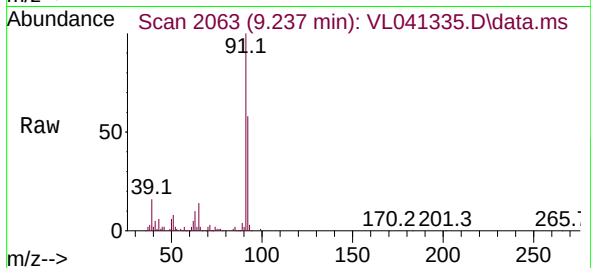
SV2

Tgt Ion: 91 Resp: 482428

Ion Ratio Lower Upper

91 100

92 59.0 49.2 73.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.478 min Scan# 2760

Delta R.T. 0.016 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

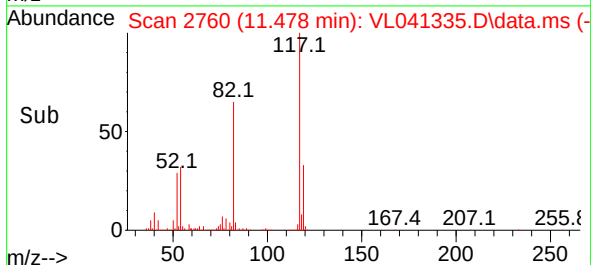
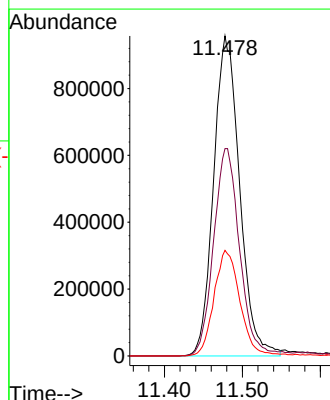
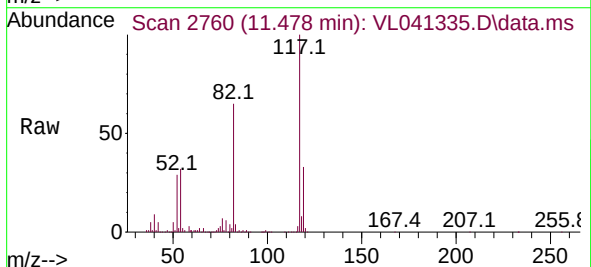
Tgt Ion: 117 Resp: 2224014

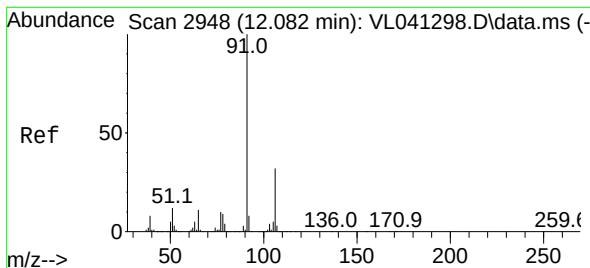
Ion Ratio Lower Upper

117 100

82 66.7 52.3 78.5

119 33.3 26.2 39.2





#58

Ethyl Benzene

Concen: 0.096 ppbv

RT: 12.105 min Scan# 20

Delta R.T. 0.023 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

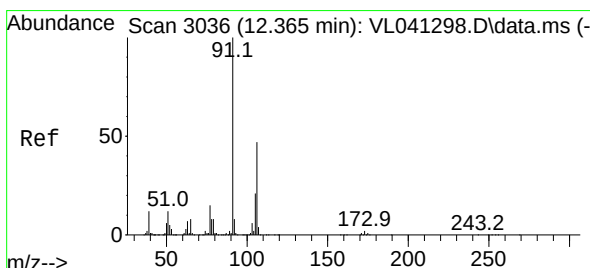
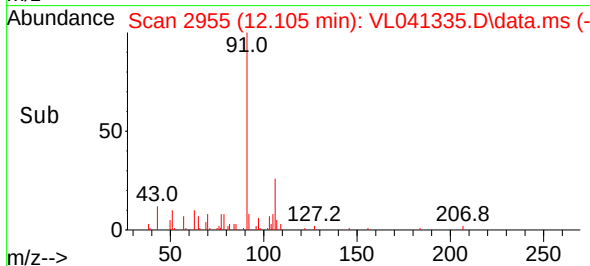
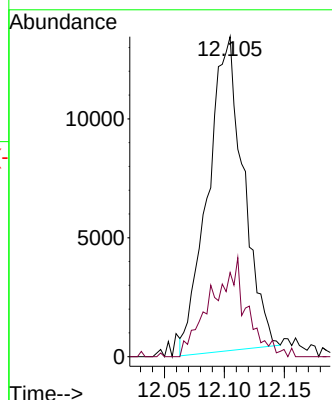
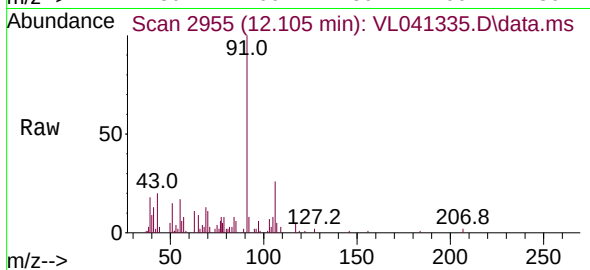
SV2

Tgt Ion: 91 Resp: 27355

Ion Ratio Lower Upper

91 100

106 27.3 25.5 38.3



#59

m/p-Xylene

Concen: 0.036 ppbv

RT: 12.388 min Scan# 3043

Delta R.T. 0.022 min

Lab File: VL041335.D

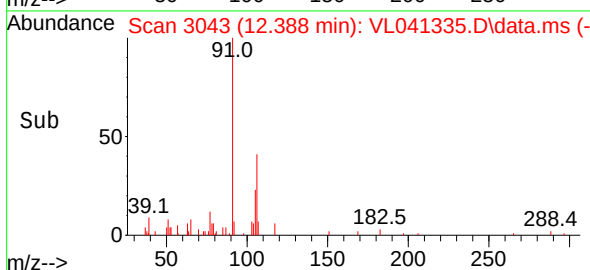
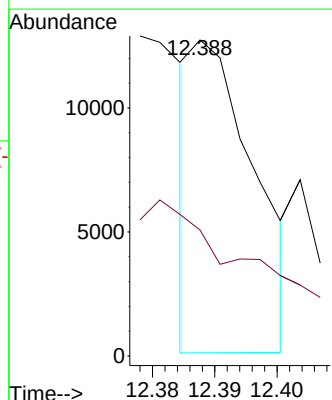
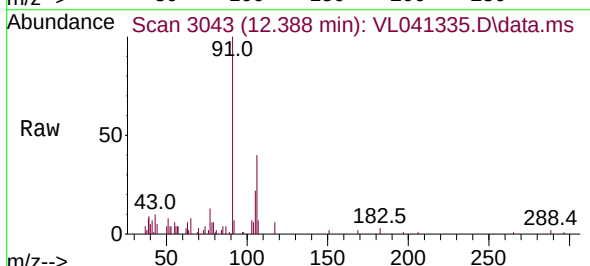
Acq: 5 Jun 2024 20:13

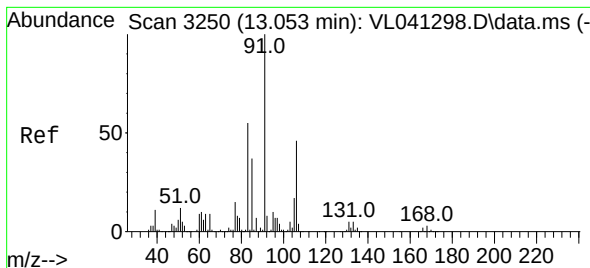
Tgt Ion: 91 Resp: 8749

Ion Ratio Lower Upper

91 100

106 0.0 35.7 53.5#





#60

o-Xylene

Concen: 0.104 ppbv

RT: 13.066 min Scan# 31

Delta R.T. 0.013 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

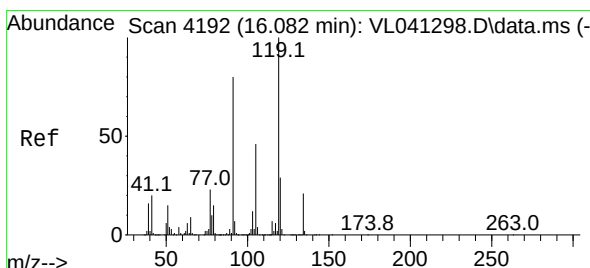
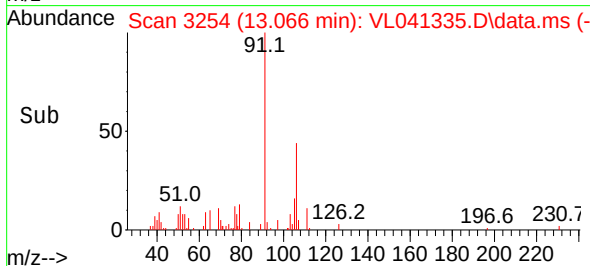
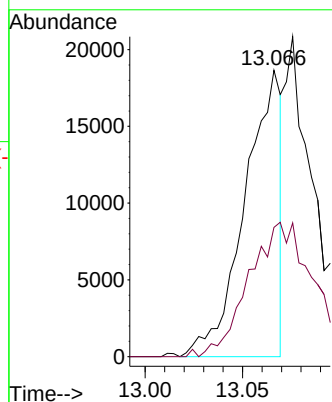
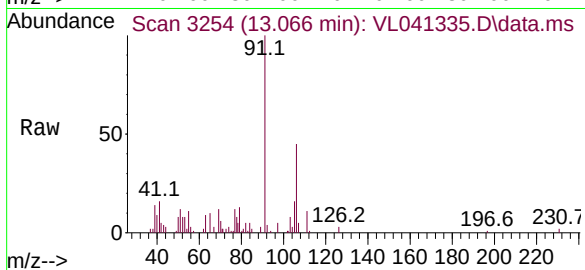
SV2

Tgt Ion: 91 Resp: 24112

Ion Ratio Lower Upper

91 100

106 85.3 22.8 68.4#



#65

tert-Butylbenzene

Concen: 0.035 ppbv

RT: 16.117 min Scan# 4203

Delta R.T. 0.035 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

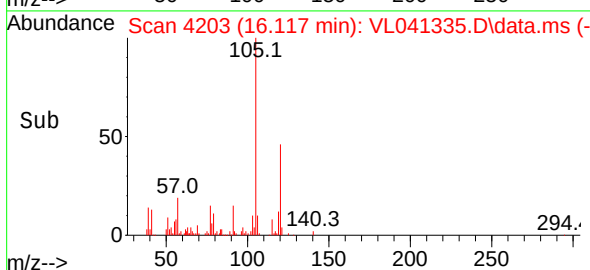
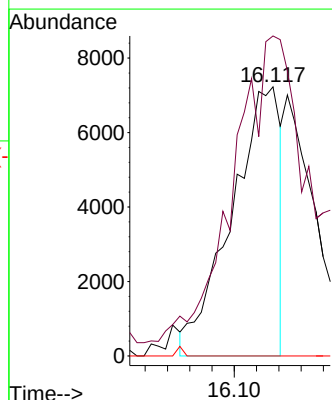
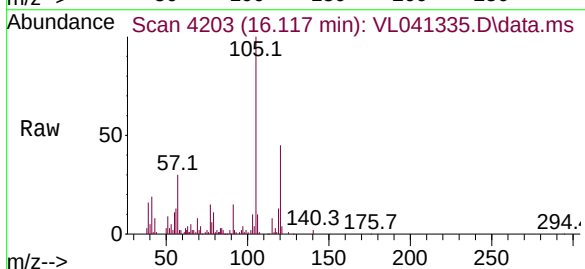
Tgt Ion: 119 Resp: 10971

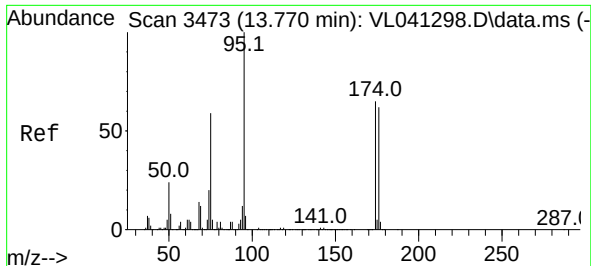
Ion Ratio Lower Upper

119 100

91 218.9 66.5 99.7#

134 0.0 15.7 23.5#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.096 ppbv

RT: 13.790 min Scan# 3473

Delta R.T. 0.019 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_L

ClientSampleId :

SV2

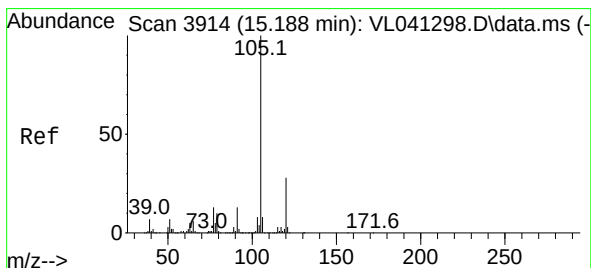
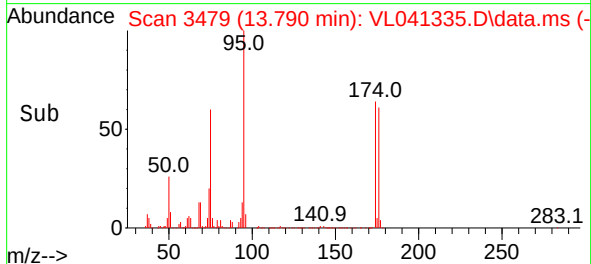
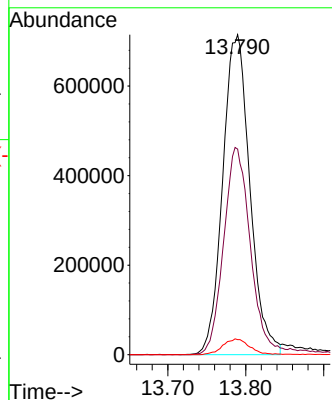
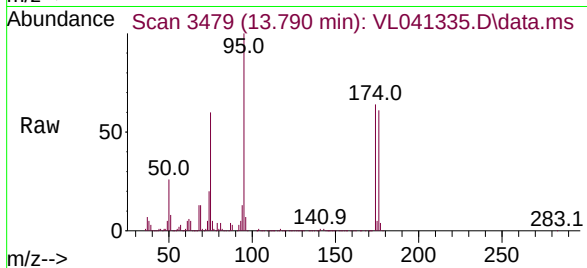
Tgt Ion: 95 Resp: 1733659

Ion Ratio Lower Upper

95 100

174 66.6 52.2 78.2

175 4.9 4.1 6.1



#72

4-Ethyltoluene

Concen: 0.060 ppbv

RT: 15.201 min Scan# 3918

Delta R.T. 0.013 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Tgt Ion: 105 Resp: 16339

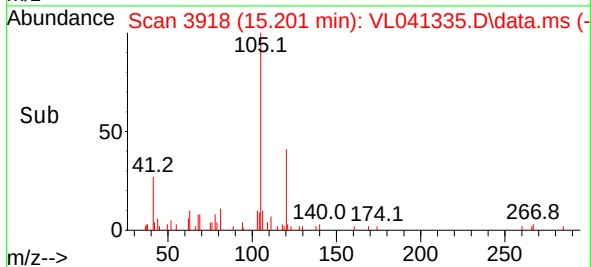
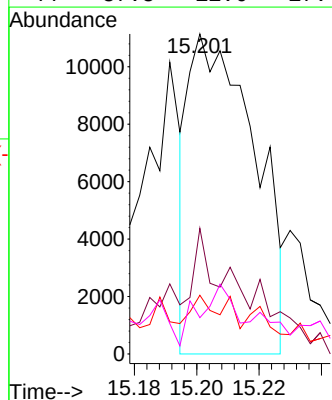
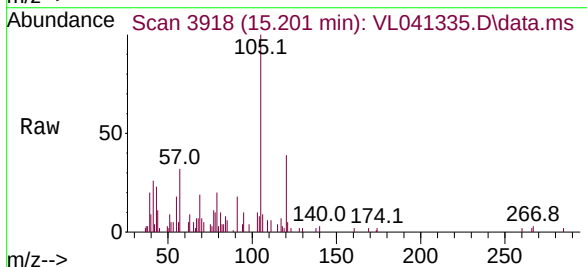
Ion Ratio Lower Upper

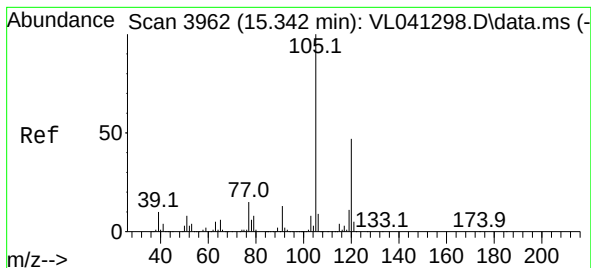
105 100

120 46.0 23.7 35.5#

91 35.8 10.6 16.0#

77 37.8 11.6 17.4#





#73

1,3,5-Trimethylbenzene

Concen: 0.079 ppbv

RT: 15.365 min Scan# 3969

Delta R.T. 0.023 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Instrument :

MSVOA_1

ClientSampleId :

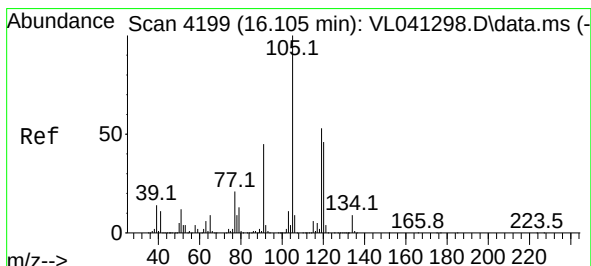
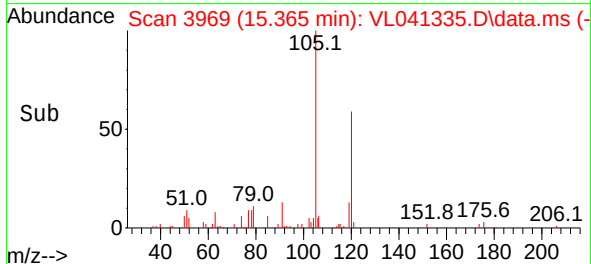
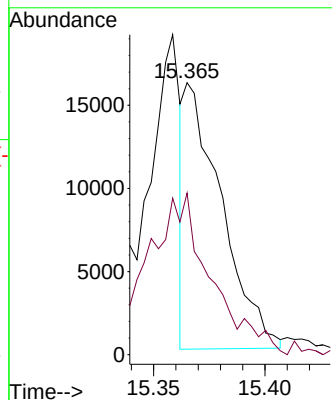
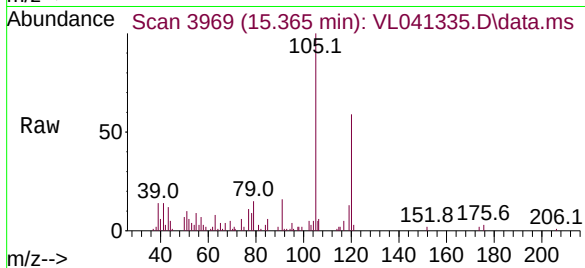
SV2

Tgt Ion:105 Resp: 18574

Ion Ratio Lower Upper

105 100

120 60.1 37.8 56.8#



#74

1,2,4-Trimethylbenzene

Concen: 0.558 ppbv

RT: 16.114 min Scan# 4202

Delta R.T. 0.010 min

Lab File: VL041335.D

Acq: 5 Jun 2024 20:13

Tgt Ion:105 Resp: 148459

Ion Ratio Lower Upper

105 100

120 40.7 37.0 55.6

91 12.9 36.2 54.4#

77 13.8 16.6 24.8#

