

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL091824\
 Data File : VL041606.D
 Acq On : 18 Sep 2024 14:23
 Operator : SY/MD
 Sample : P4028-02DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

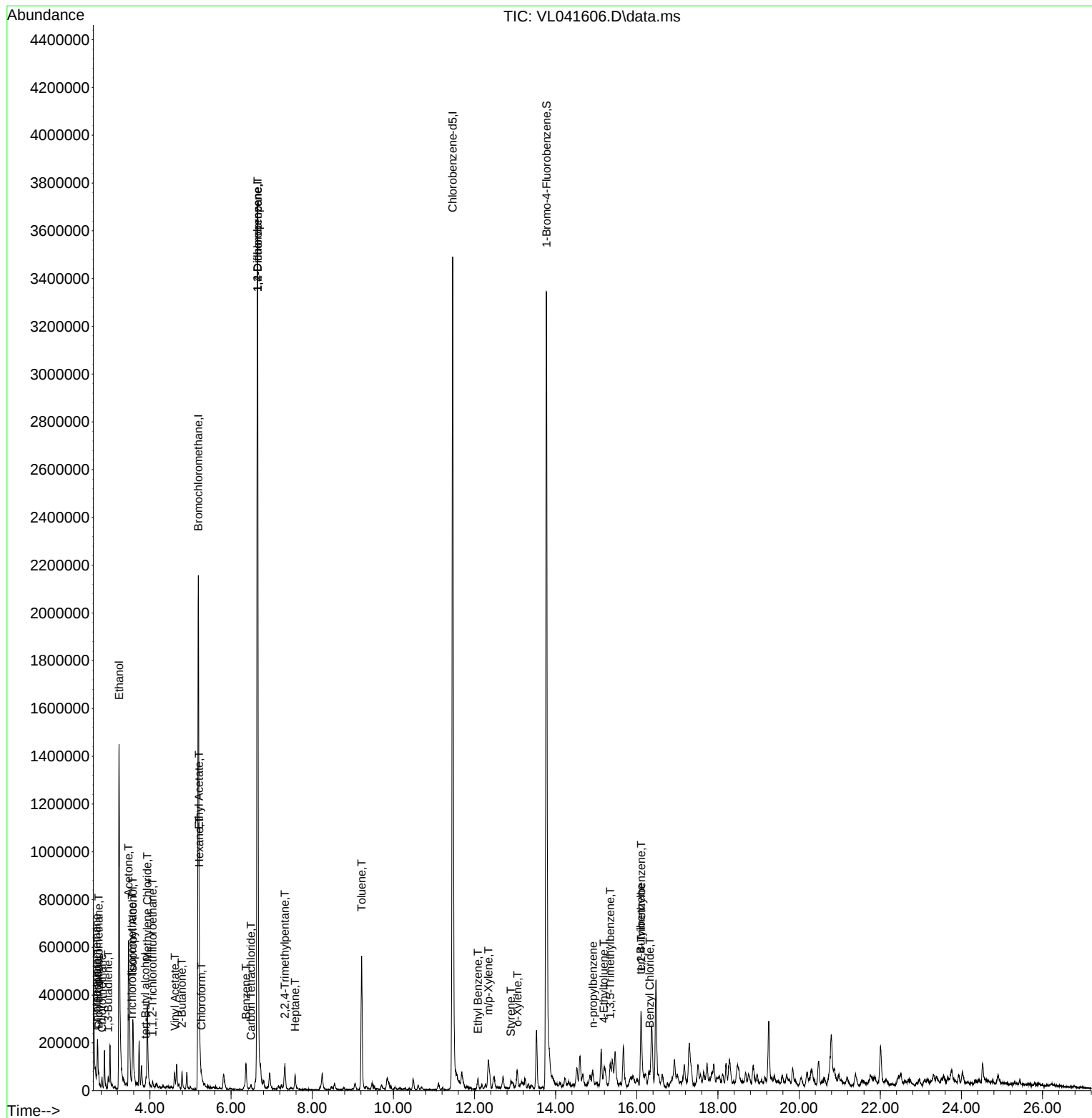
Instrument :
 MSVOA_L
 ClientSampleId :

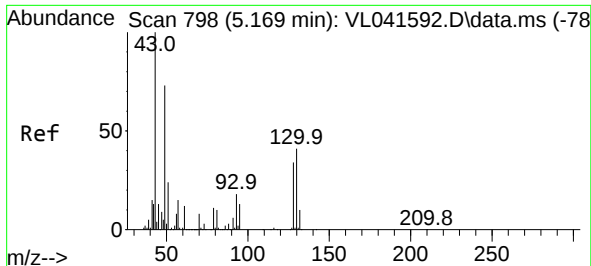
Quant Time: Sep 19 01:33:12 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL091624AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Sep 17 09:12:21 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	5.192	49	1043004	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	6.651	114	2822374	10.000	ppbv	0.02
55) Chlorobenzene-d5	11.462	117	2293493	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.773	95	1683058	9.969	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.700%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.738	85	32050	0.213	ppbv	89
3) Chlorodifluoromethane	2.684	51	61633	0.487	ppbv #	85
4) Chloromethane	2.819	50	33774	0.485	ppbv	100
9) Propene	2.703	41	64942	1.217	ppbv	88
10) Heptane	7.581	43	19261	0.154	ppbv #	84
11) Trichlorofluoromethane	3.562	101	16998	0.106	ppbv	89
12) 1,1,2-Trichlorotrifluo...	4.066	101	4643	0.040	ppbv #	12
13) Ethanol	3.240	45	1577092	393.119	ppbv	95
15) Acetone	3.472	43	698929	5.338	ppbv	95
16) 1,3-Butadiene	2.970	39	12050	0.189	ppbv #	10
17) tert-Butyl alcohol	3.890	59	4815	0.042	ppbv #	71
19) Isopropyl Alcohol	3.578	45	264623	3.948	ppbv #	98
20) Methylene Chloride	3.935	84	109729	2.231	ppbv	99
23) Vinyl Acetate	4.616	43	13428	0.186	ppbv #	4
25) Ethyl Acetate	5.211	43	50999	0.217	ppbv #	77
26) Hexane	5.214	57	90515	0.923	ppbv #	57
29) Chloroform	5.272	83	7543	0.047	ppbv	85
34) 2-Butanone	4.790	43	79658	0.592	ppbv	94
35) Carbon Tetrachloride	6.487	117	6985	0.050	ppbv #	84
36) Benzene	6.365	78	86709	0.442	ppbv #	89
39) 1,2-Dichloropropane	6.651	63	696714	8.737	ppbv #	23
44) 2,2,4-Trimethylpentane	7.327	57	42108	0.124	ppbv #	11
53) Toluene	9.217	91	406933	1.956	ppbv	99
58) Ethyl Benzene	12.085	91	34289	0.140	ppbv	93
59) m/p-Xylene	12.343	91	73782	0.338	ppbv #	30
60) o-Xylene	13.056	91	32647	0.156	ppbv #	49
61) Styrene	12.892	104	3842	0.044	ppbv #	1
64) n-propylbenzene	14.921	120	4442	0.054	ppbv #	1
65) tert-Butylbenzene	16.098	119	10517	0.036	ppbv #	20
66) Benzyl Chloride	16.323	91	520	0.034	ppbv #	63
72) 4-Ethyltoluene	15.188	105	47859	0.195	ppbv #	85
73) 1,3,5-Trimethylbenzene	15.346	105	46456	0.215	ppbv	95
74) 1,2,4-Trimethylbenzene	16.111	105	71810	0.284	ppbv #	63

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

Quant Time: Sep 19 01:33:12 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL091624AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Tue Sep 17 09:12:21 2024
Response via : Initial Calibration

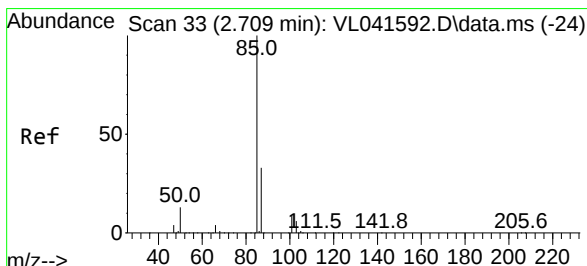
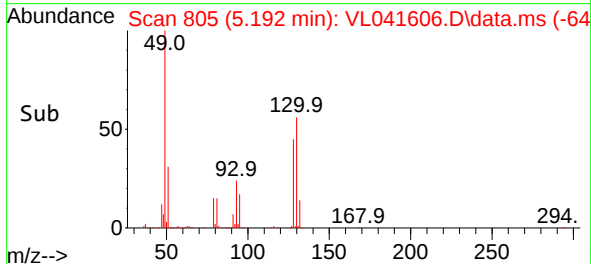
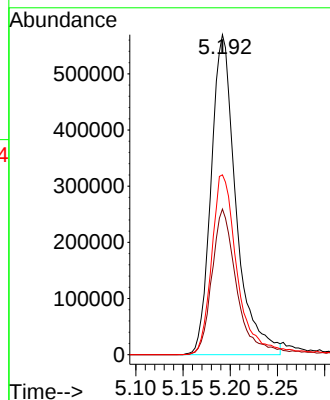
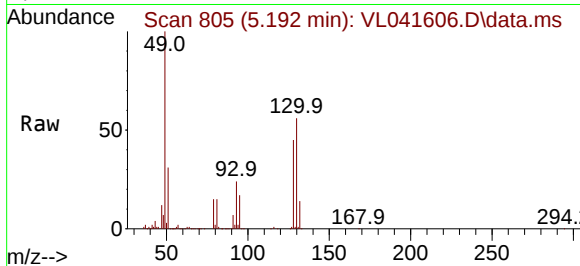




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.192 min Scan# 80
Delta R.T. 0.023 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

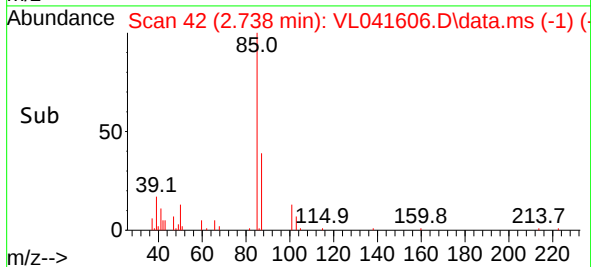
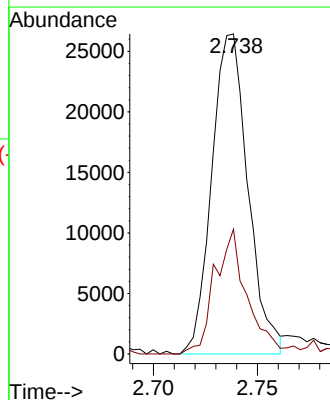
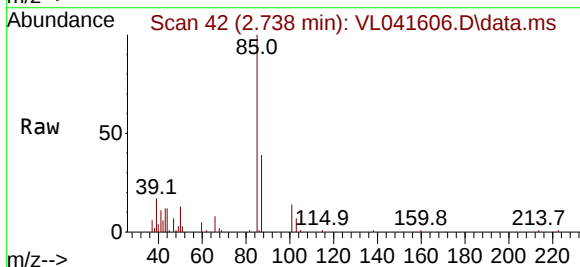
Instrument :
MSVOA_L
ClientSampleId :

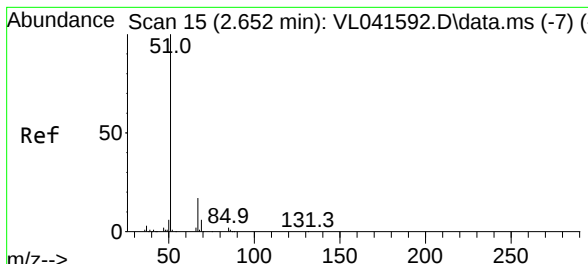
Tgt Ion: 49 Resp: 1043004
Ion Ratio Lower Upper
49 100
128 47.1 23.8 71.5
130 59.8 30.4 91.3



#2
Dichlorodifluoromethane
Concen: 0.213 ppbv
RT: 2.738 min Scan# 42
Delta R.T. 0.029 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Tgt Ion: 85 Resp: 32050
Ion Ratio Lower Upper
85 100
87 39.0 26.3 39.5

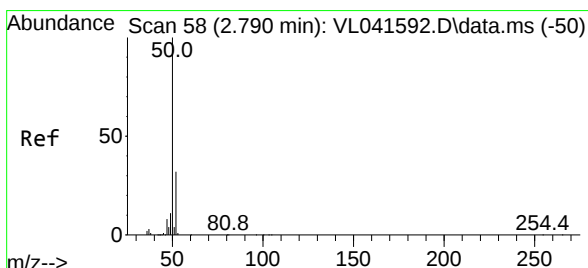
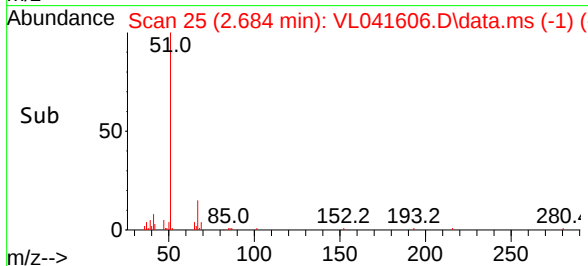
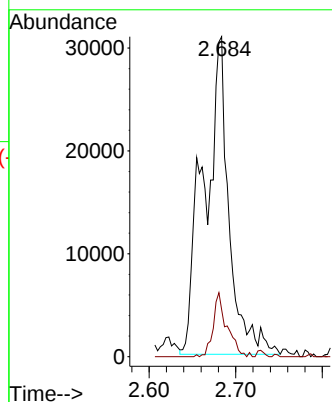
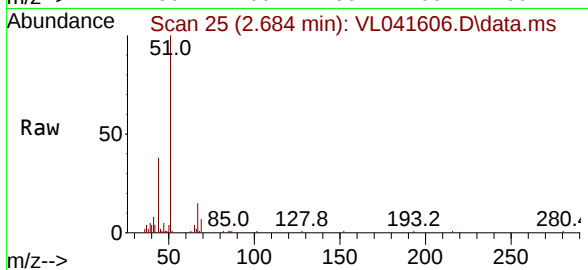




#3
 Chlorodifluoromethane
 Concen: 0.487 ppbv
 RT: 2.684 min Scan# 21
 Delta R.T. 0.032 min
 Lab File: VL041606.D
 Acq: 18 Sep 2024 14:23

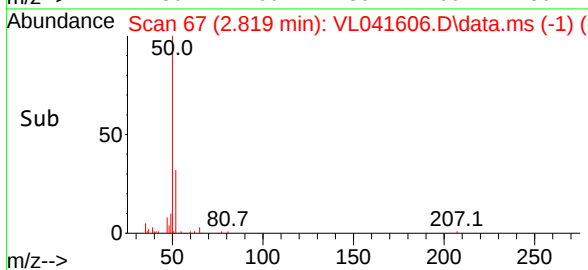
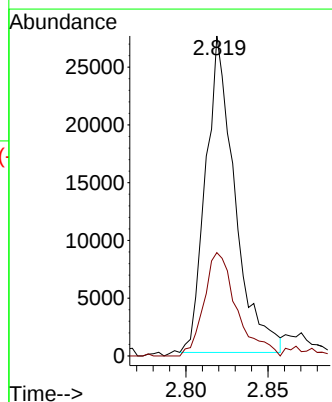
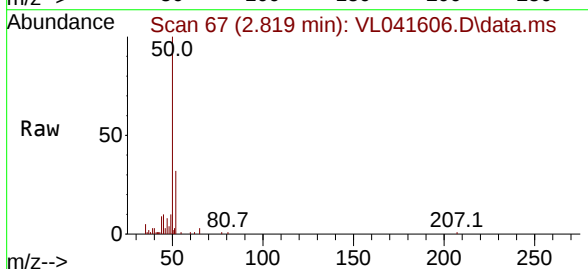
Instrument :
 MSVOA_L
 ClientSampleId :

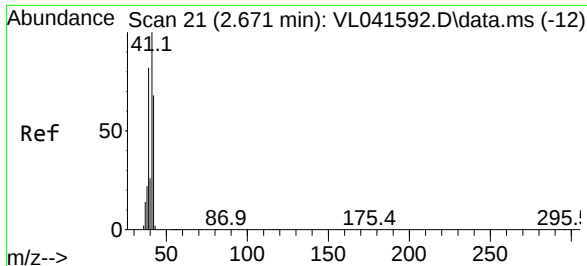
Tgt Ion: 51 Resp: 61633
 Ion Ratio Lower Upper
 51 100
 67 11.2 14.1 21.1#



#4
 Chloromethane
 Concen: 0.485 ppbv
 RT: 2.819 min Scan# 67
 Delta R.T. 0.029 min
 Lab File: VL041606.D
 Acq: 18 Sep 2024 14:23

Tgt Ion: 50 Resp: 33774
 Ion Ratio Lower Upper
 50 100
 52 31.9 25.4 38.2





#9

Propene

Concen: 1.217 ppbv

RT: 2.703 min Scan# 31

Delta R.T. 0.032 min

Lab File: VL041606.D

Acq: 18 Sep 2024 14:23

Instrument :

MSVOA_L

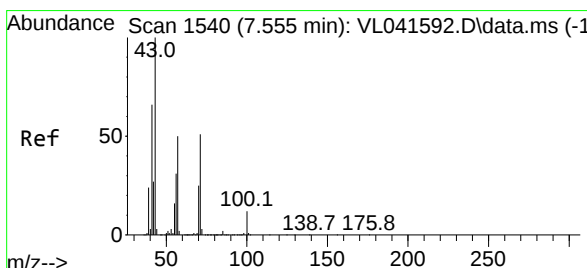
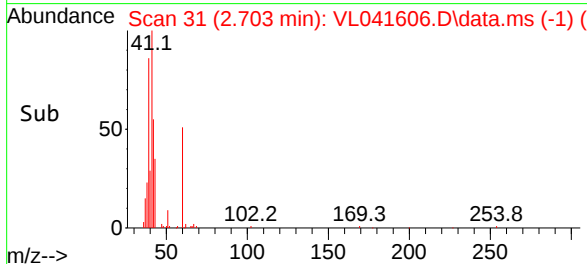
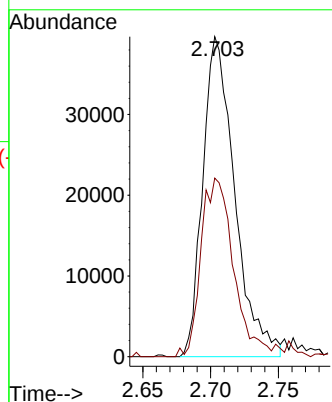
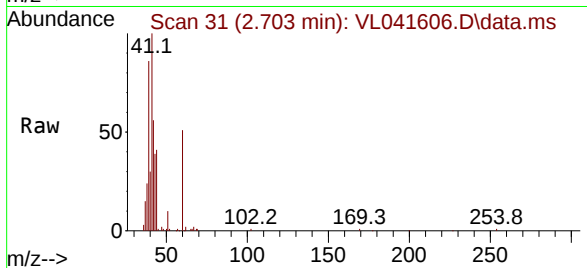
ClientSampleId :

Tgt Ion: 41 Resp: 64942

Ion Ratio Lower Upper

41 100

42 59.2 55.2 82.8



#10

Heptane

Concen: 0.154 ppbv

RT: 7.581 min Scan# 1548

Delta R.T. 0.026 min

Lab File: VL041606.D

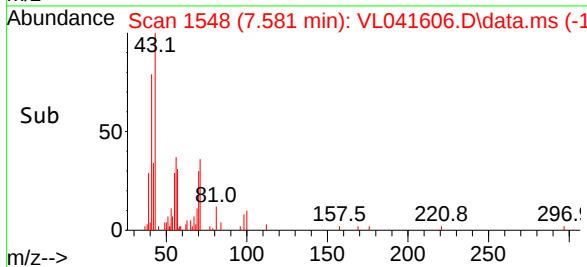
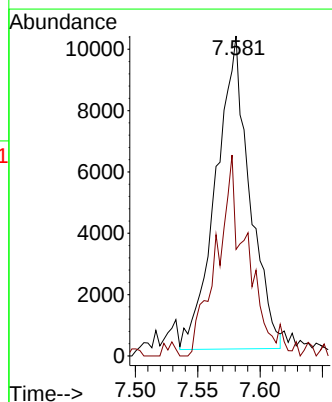
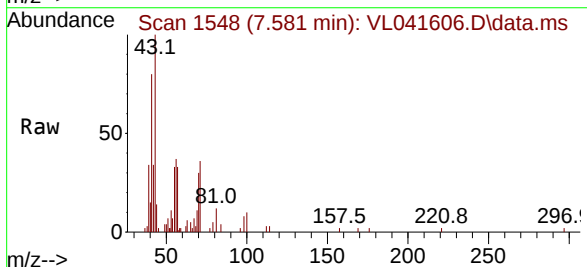
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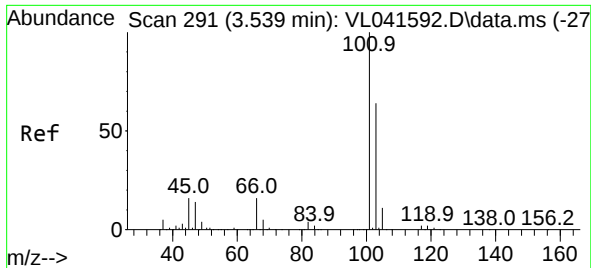
Tgt Ion: 43 Resp: 19261

Ion Ratio Lower Upper

43 100

57 60.9 39.8 59.8#





#11

Trichlorofluoromethane

Concen: 0.106 ppbv

RT: 3.562 min Scan# 291

Delta R.T. 0.023 min

Lab File: VL041606.D

Acq: 18 Sep 2024 14:23

Instrument :

MSVOA_L

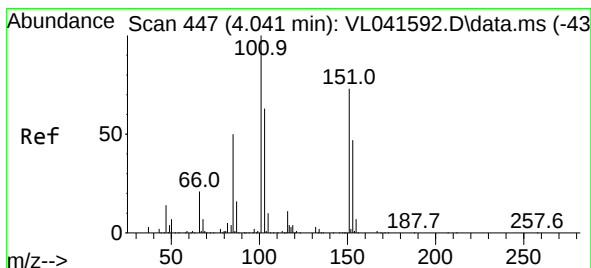
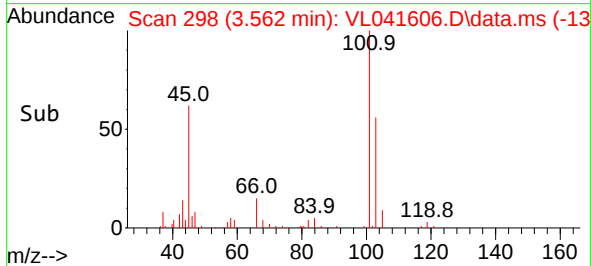
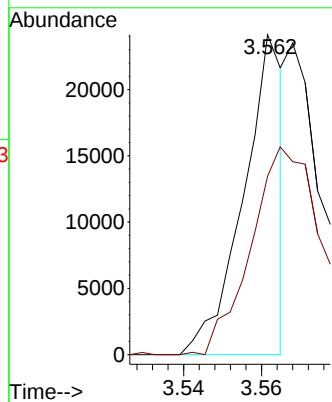
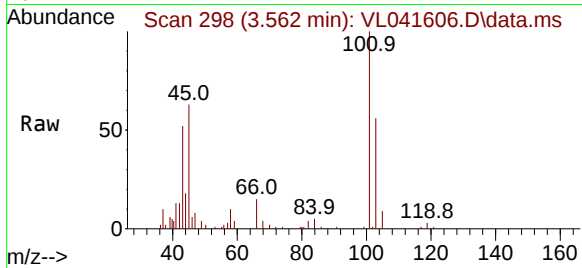
ClientSampleId :

Tgt Ion:101 Resp: 16998

Ion Ratio Lower Upper

101 100

103 55.8 51.2 76.8



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.040 ppbv

RT: 4.066 min Scan# 455

Delta R.T. 0.026 min

Lab File: VL041606.D

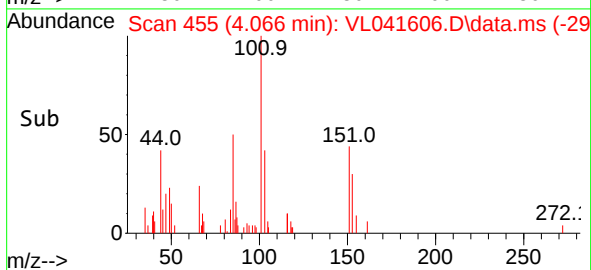
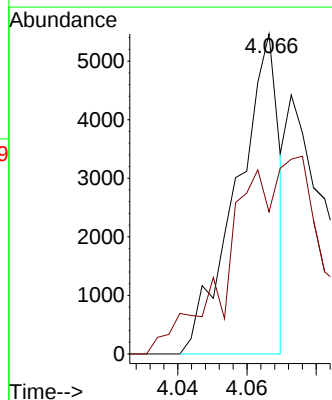
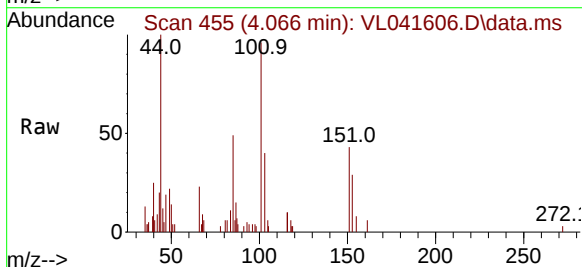
Acq: 18 Sep 2024 14:23

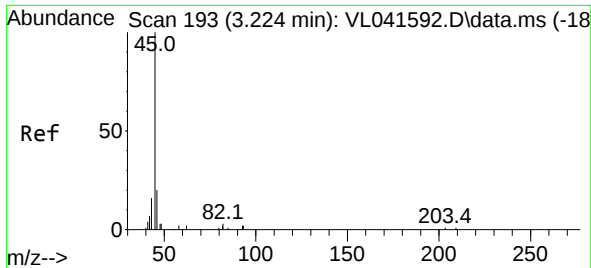
Tgt Ion:101 Resp: 4643

Ion Ratio Lower Upper

101 100

151 0.0 59.4 89.2#

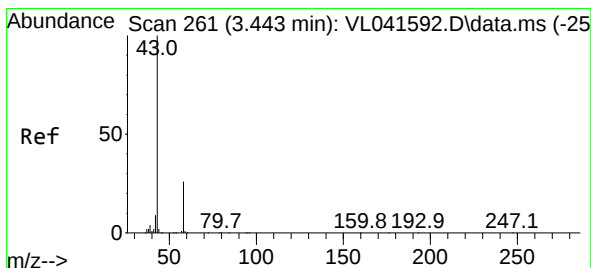
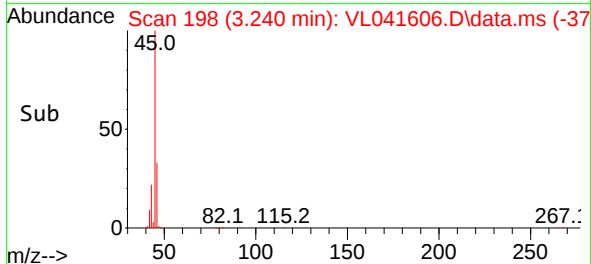
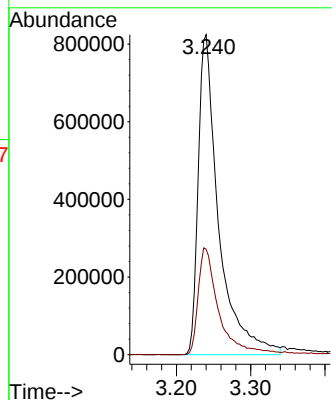
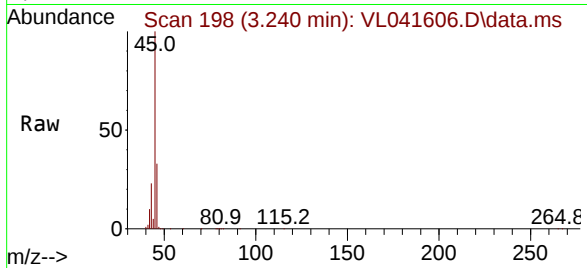




#13
 Ethanol
 Concen: 393.119 ppbv
 RT: 3.240 min Scan# 19
 Delta R.T. 0.016 min
 Lab File: VL041606.D
 Acq: 18 Sep 2024 14:23

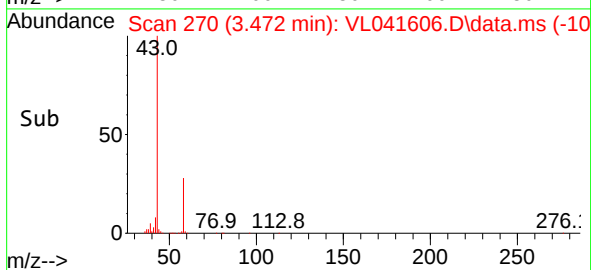
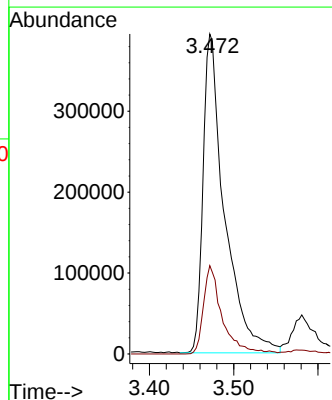
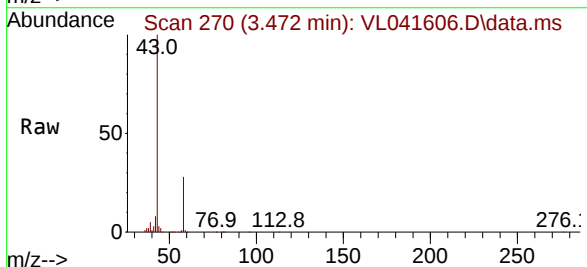
Instrument :
 MSVOA_L
 ClientSampleId :

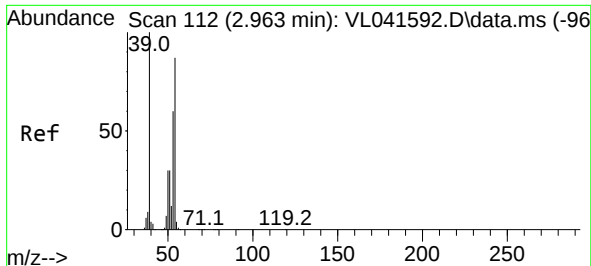
Tgt Ion: 45 Resp: 1577092
 Ion Ratio Lower Upper
 45 100
 46 35.1 15.2 60.8



#15
 Acetone
 Concen: 5.338 ppbv
 RT: 3.472 min Scan# 270
 Delta R.T. 0.029 min
 Lab File: VL041606.D
 Acq: 18 Sep 2024 14:23

Tgt Ion: 43 Resp: 698929
 Ion Ratio Lower Upper
 43 100
 58 24.3 21.5 32.3

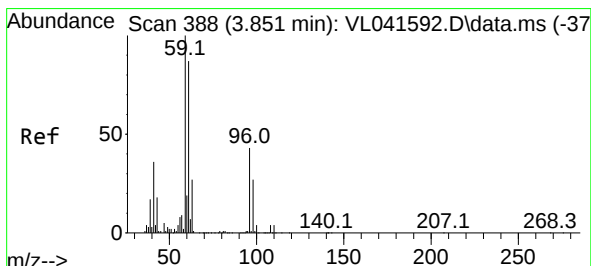
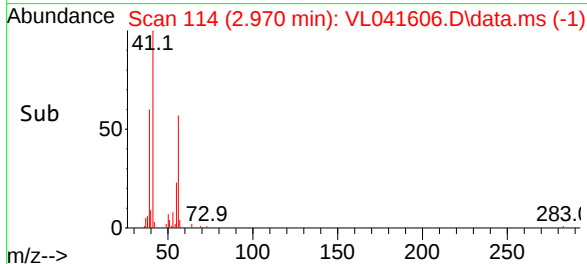
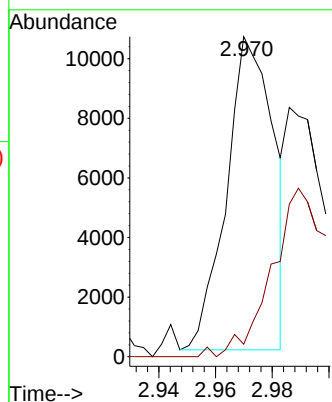
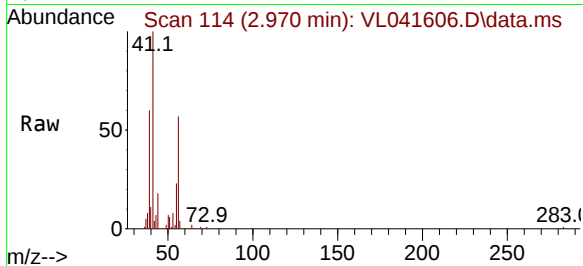




#16
1,3-Butadiene
Concen: 0.189 ppbv
RT: 2.970 min Scan# 11
Delta R.T. 0.006 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

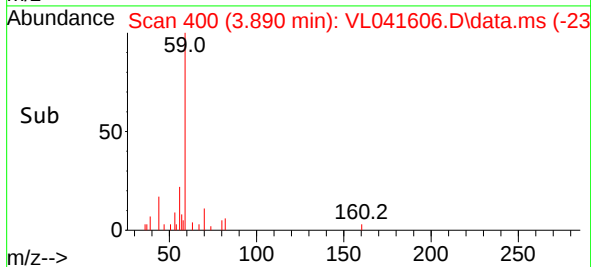
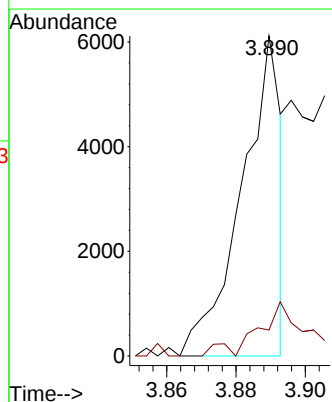
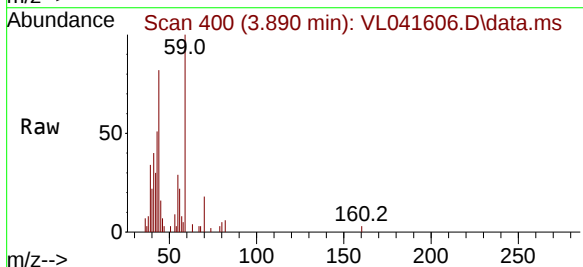
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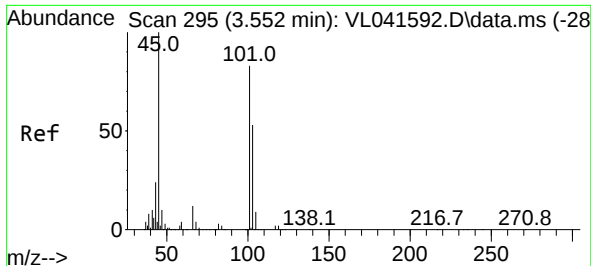
Tgt Ion: 39 Resp: 12050
Ion Ratio Lower Upper
39 100
54 0.0 62.9 94.3#



#17
tert-Butyl alcohol
Concen: 0.042 ppbv
RT: 3.890 min Scan# 400
Delta R.T. 0.039 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

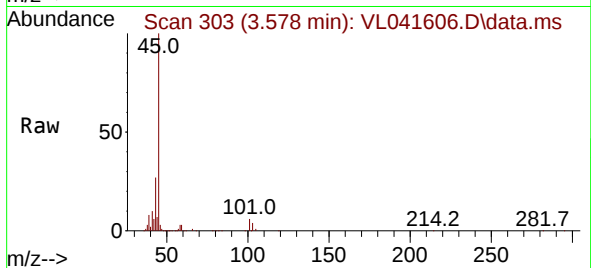
Tgt Ion: 59 Resp: 4815
Ion Ratio Lower Upper
59 100
57 0.0 8.7 13.1#



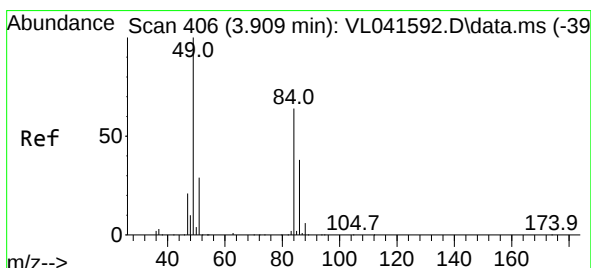
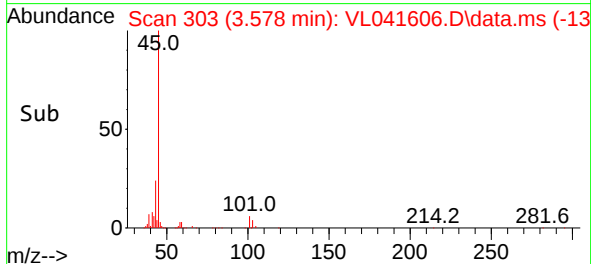
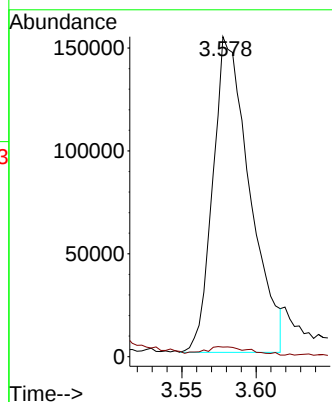


#19
Isopropyl Alcohol
Concen: 3.948 ppbv
RT: 3.578 min Scan# 303
Delta R.T. 0.026 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Instrument :
MSVOA_L
ClientSampleId :

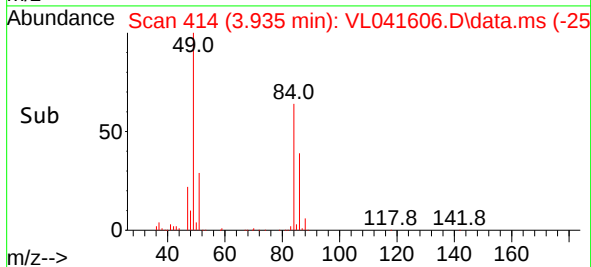
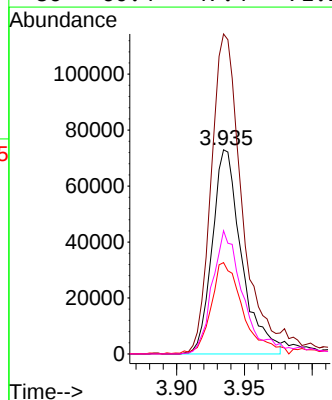
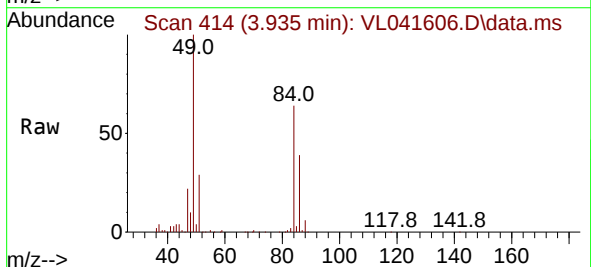


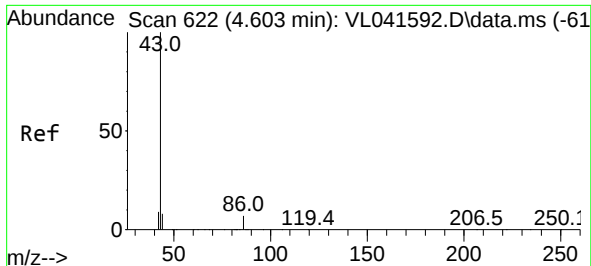
Tgt Ion: 45 Resp: 264623
Ion Ratio Lower Upper
45 100
58 3.3 2.1 3.1#



#20
Methylene Chloride
Concen: 2.231 ppbv
RT: 3.935 min Scan# 414
Delta R.T. 0.026 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

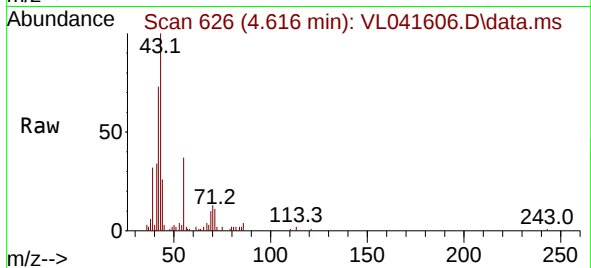
Tgt Ion: 84 Resp: 109729
Ion Ratio Lower Upper
84 100
49 156.8 124.3 186.5
51 44.3 36.3 54.5
86 60.4 47.4 71.2



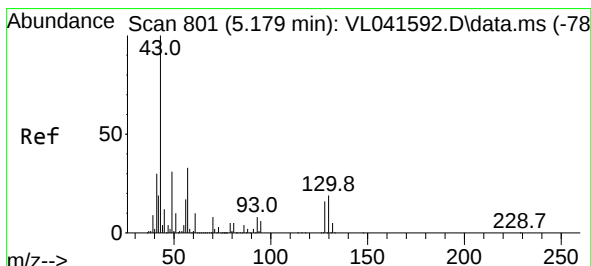
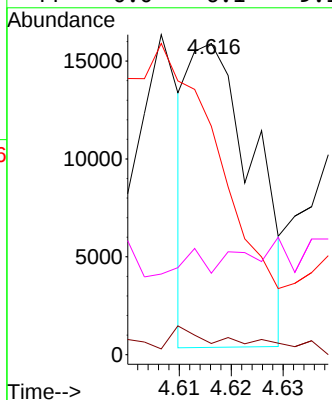
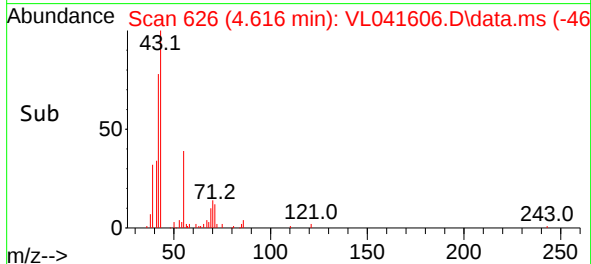


#23
Vinyl Acetate
Concen: 0.186 ppbv
RT: 4.616 min Scan# 61
Delta R.T. 0.013 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

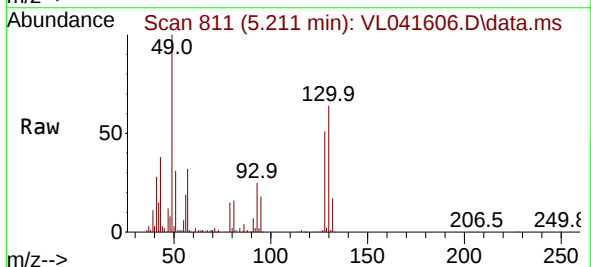
Instrument :
MSVOA_L
ClientSampleId :



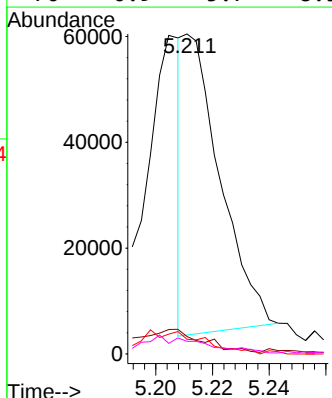
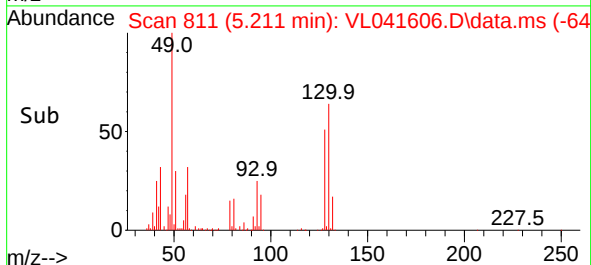
Tgt Ion: 43 Resp: 13428
Ion Ratio Lower Upper
43 100
86 0.0 4.9 7.3#
42 84.3 8.0 12.0#
44 0.0 6.1 9.1#

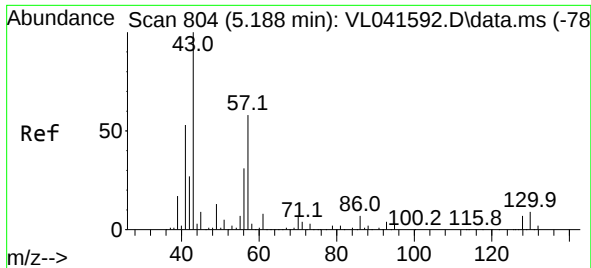


#25
Ethyl Acetate
Concen: 0.217 ppbv
RT: 5.211 min Scan# 811
Delta R.T. 0.032 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23



Tgt Ion: 43 Resp: 50999
Ion Ratio Lower Upper
43 100
45 18.8 8.2 12.2#
61 0.0 8.0 12.0#
70 0.9 5.7 8.5#



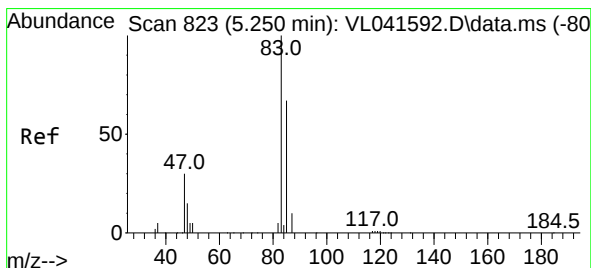
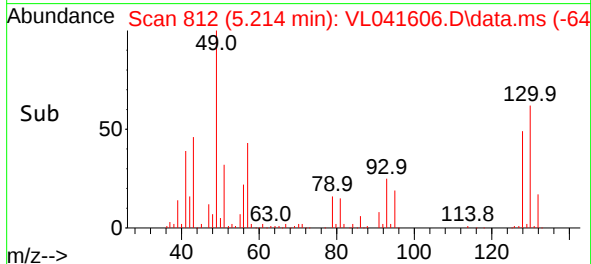
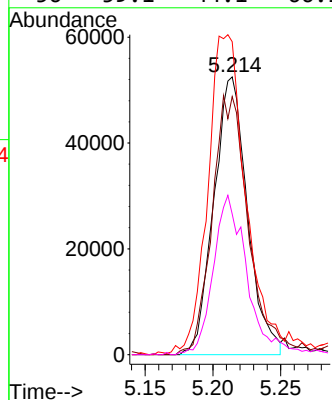
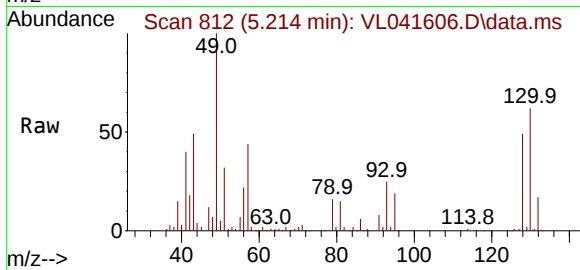


#26
Hexane
Concen: 0.923 ppbv
RT: 5.214 min Scan# 812
Delta R.T. 0.026 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Instrument :
MSVOA_L
ClientSampleId :

Tgt Ion: 57 Resp: 90515

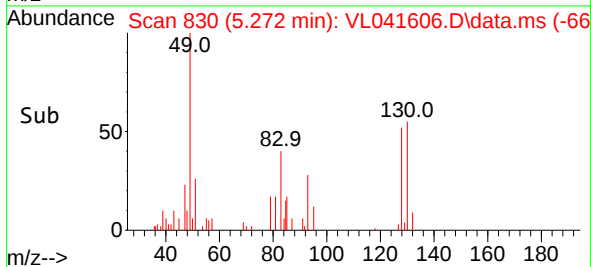
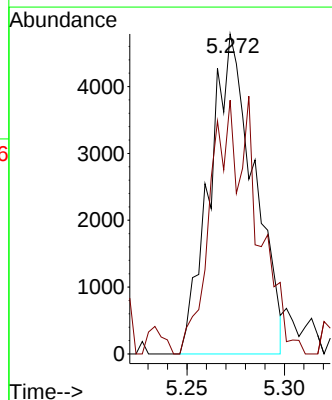
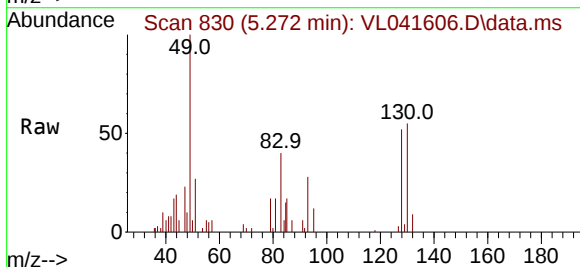
Ion	Ratio	Lower	Upper
57	100		
41	101.8	75.7	113.5
43	135.5	198.5	297.7#
56	59.1	44.1	66.1

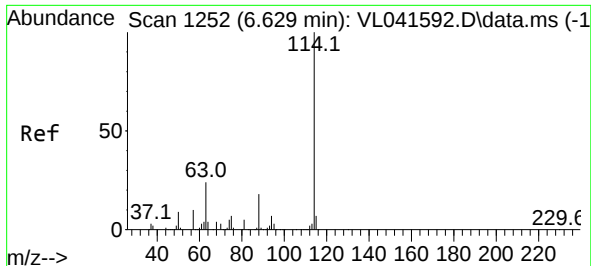


#29
Chloroform
Concen: 0.047 ppbv
RT: 5.272 min Scan# 830
Delta R.T. 0.023 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Tgt Ion: 83 Resp: 7543

Ion	Ratio	Lower	Upper
83	100		
85	79.3	53.8	80.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.651 min Scan# 114

Delta R.T. 0.023 min

Lab File: VL041606.D

Acq: 18 Sep 2024 14:23

Instrument :

MSVOA_L

ClientSampleId :

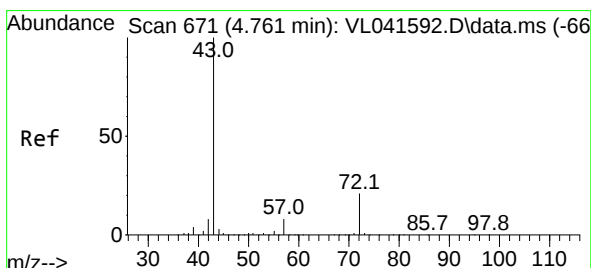
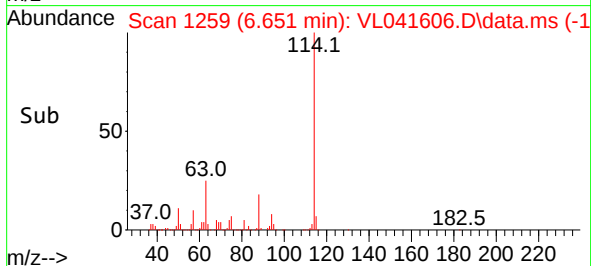
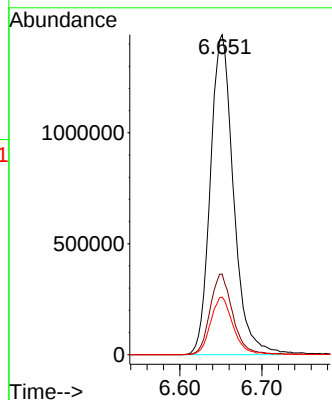
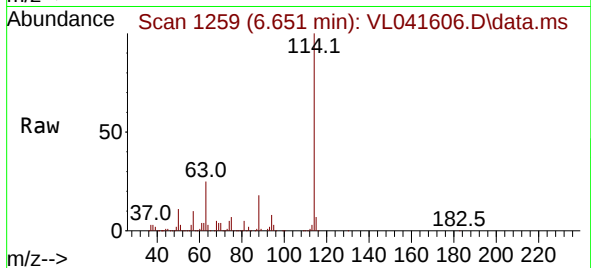
Tgt Ion:114 Resp: 2822374

Ion Ratio Lower Upper

114 100

63 24.9 20.2 30.2

88 17.8 14.2 21.4



#34

2-Butanone

Concen: 0.592 ppbv

RT: 4.790 min Scan# 680

Delta R.T. 0.029 min

Lab File: VL041606.D

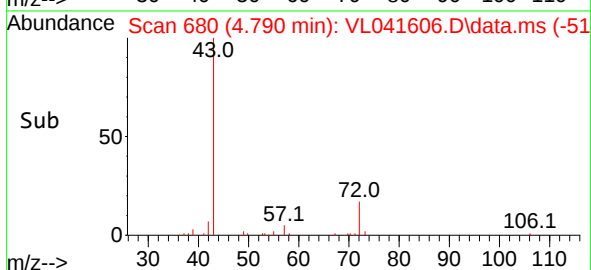
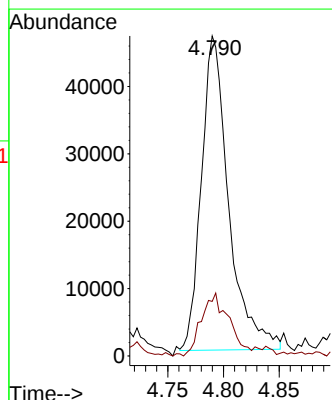
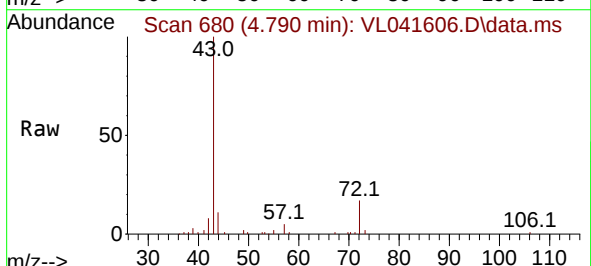
Acq: 18 Sep 2024 14:23

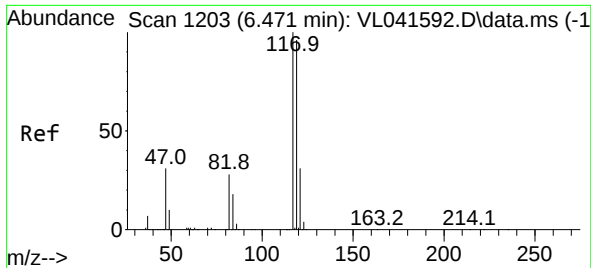
Tgt Ion: 43 Resp: 79658

Ion Ratio Lower Upper

43 100

72 23.6 16.8 25.2

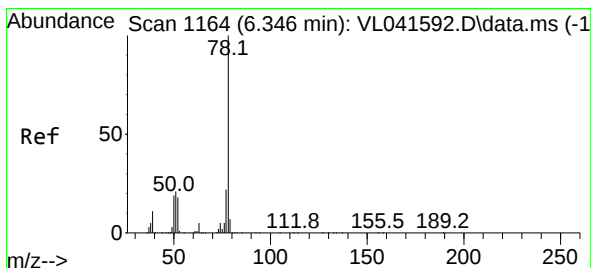
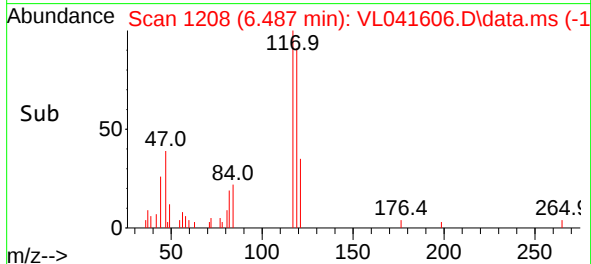
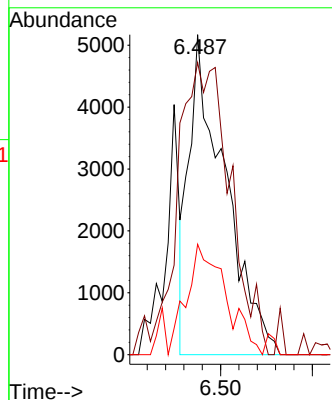
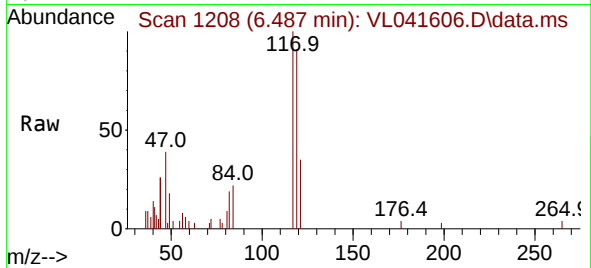




#35
Carbon Tetrachloride
Concen: 0.050 ppbv
RT: 6.487 min Scan# 1170
Delta R.T. 0.016 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

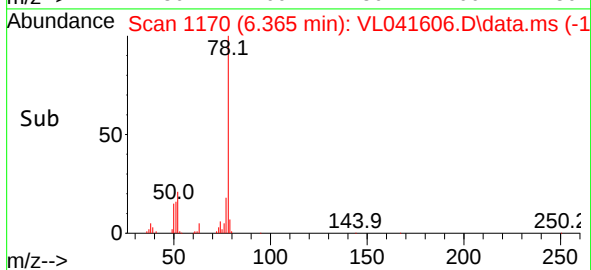
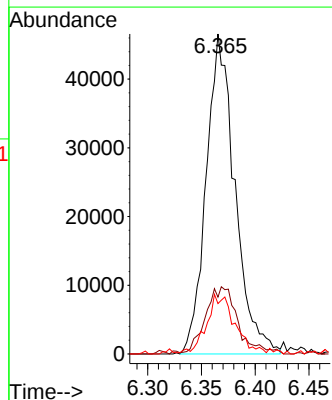
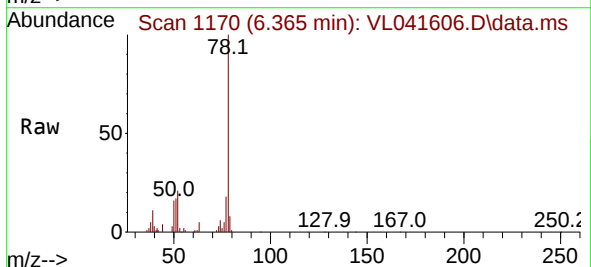
Instrument :
MSVOA_L
ClientSampleId :

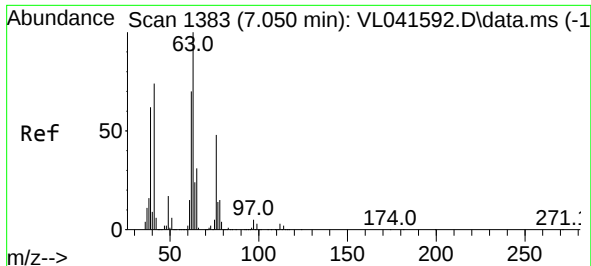
Tgt Ion:117 Resp: 6985
Ion Ratio Lower Upper
117 100
119 76.8 76.8 115.2#
121 34.5 25.0 37.6



#36
Benzene
Concen: 0.442 ppbv
RT: 6.365 min Scan# 1170
Delta R.T. 0.019 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Tgt Ion: 78 Resp: 86709
Ion Ratio Lower Upper
78 100
77 17.4 17.8 26.6#
50 14.1 15.4 23.0#





#39

1,2-Dichloropropane

Concen: 8.737 ppbv

RT: 6.651 min Scan# 11

Delta R.T. -0.399 min

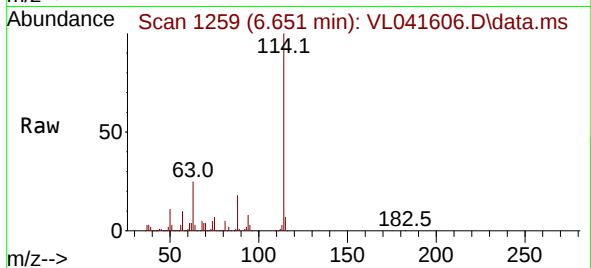
Lab File: VL041606.D

Acq: 18 Sep 2024 14:23

Instrument :

MSVOA_L

ClientSampleId :



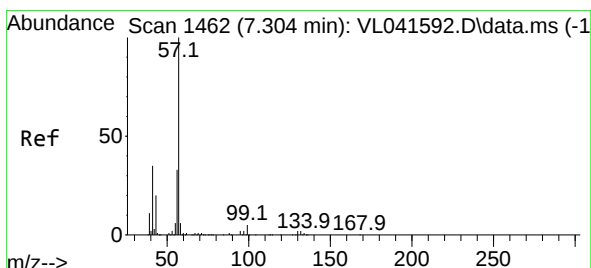
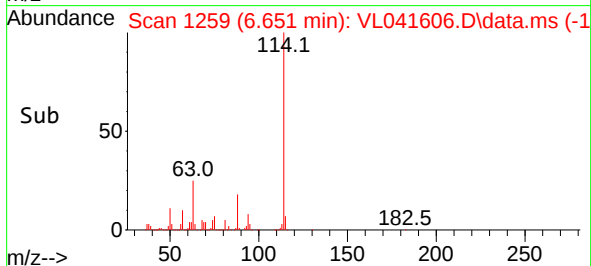
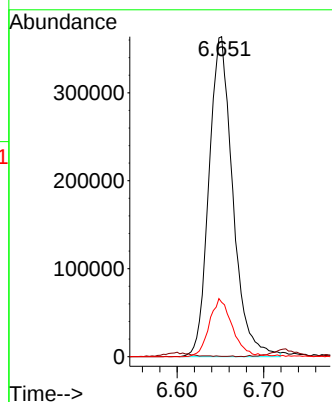
Tgt Ion: 63 Resp: 696714

Ion Ratio Lower Upper

63 100

41 0.0 59.5 89.3#

62 17.0 56.2 84.2#



#44

2,2,4-Trimethylpentane

Concen: 0.124 ppbv

RT: 7.327 min Scan# 1469

Delta R.T. 0.023 min

Lab File: VL041606.D

Acq: 18 Sep 2024 14:23

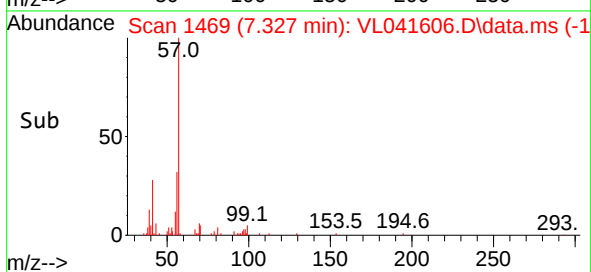
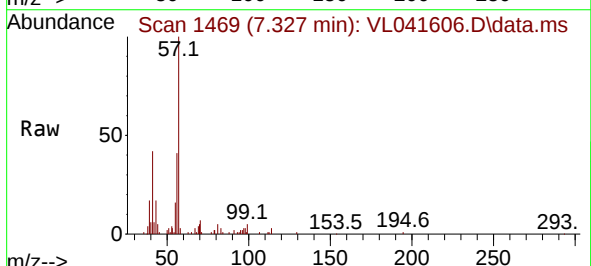
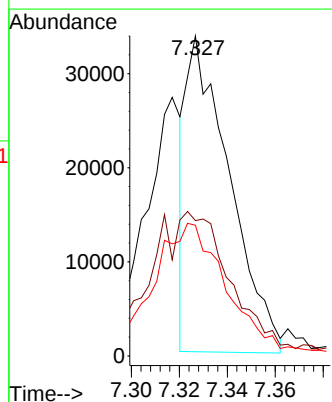
Tgt Ion: 57 Resp: 42108

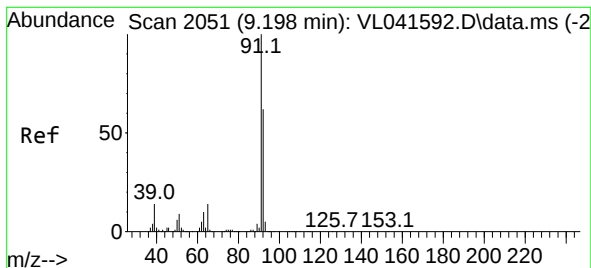
Ion Ratio Lower Upper

57 100

41 90.0 27.0 40.6#

56 76.3 25.5 38.3#





#53

Toluene

Concen: 1.956 ppbv

RT: 9.217 min Scan# 2051

Delta R.T. 0.019 min

Lab File: VL041606.D

Acq: 18 Sep 2024 14:23

Instrument :

MSVOA_L

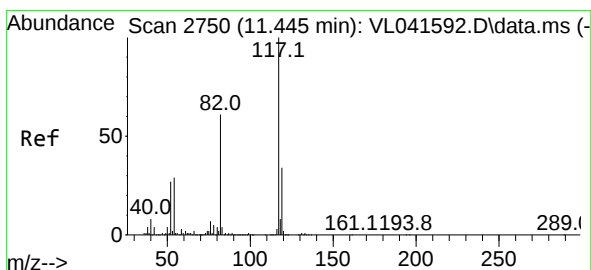
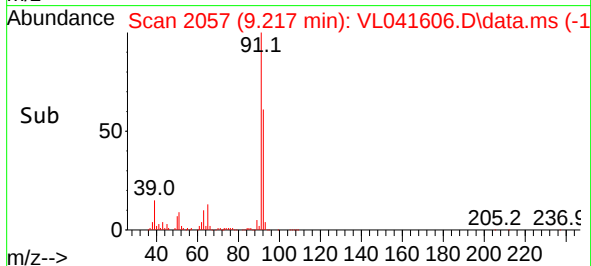
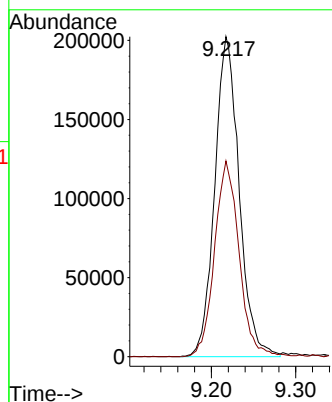
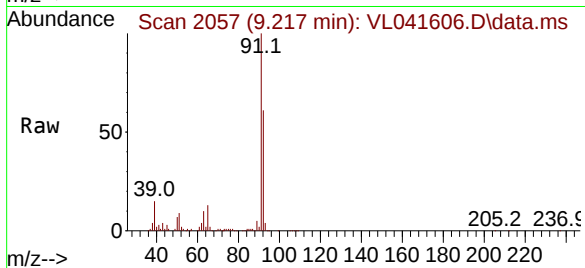
ClientSampleId :

Tgt Ion: 91 Resp: 406933

Ion Ratio Lower Upper

91 100

92 62.0 48.9 73.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.462 min Scan# 2755

Delta R.T. 0.016 min

Lab File: VL041606.D

Acq: 18 Sep 2024 14:23

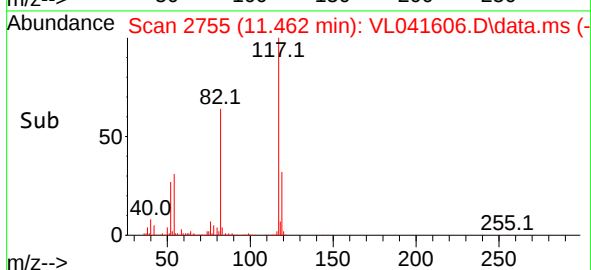
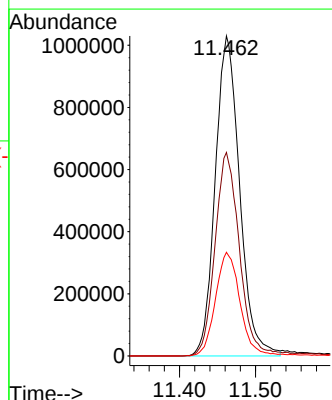
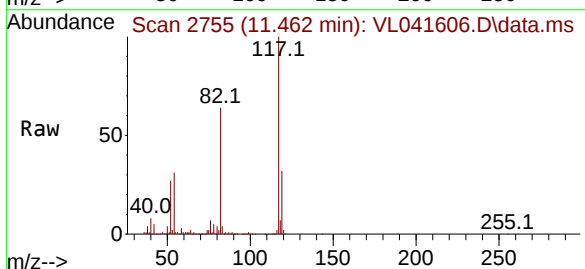
Tgt Ion: 117 Resp: 2293493

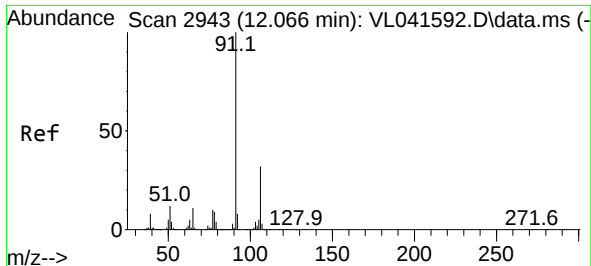
Ion Ratio Lower Upper

117 100

82 65.1 49.4 74.2

119 33.0 24.4 36.6

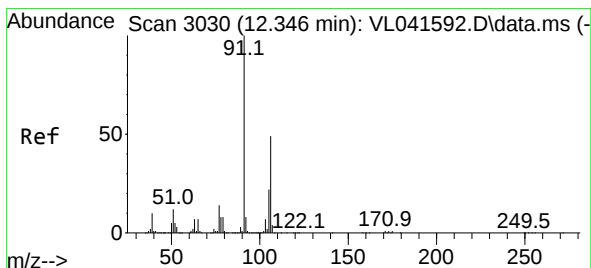
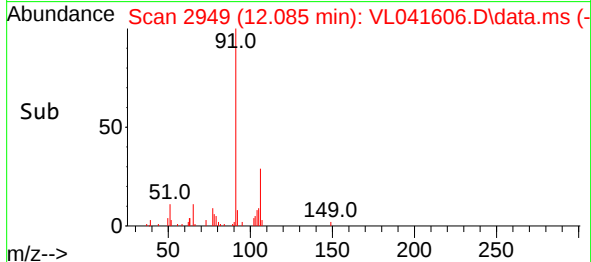
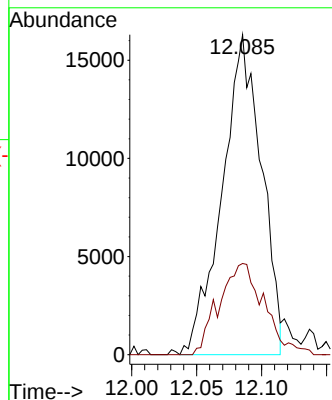
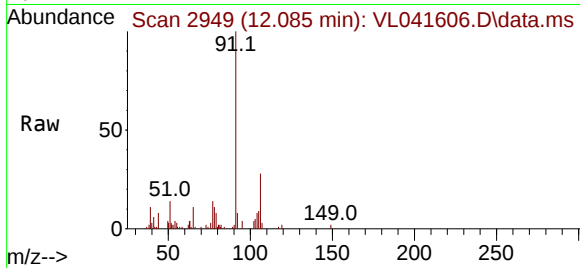




#58
Ethyl Benzene
Concen: 0.140 ppbv
RT: 12.085 min Scan# 2949
Delta R.T. 0.019 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

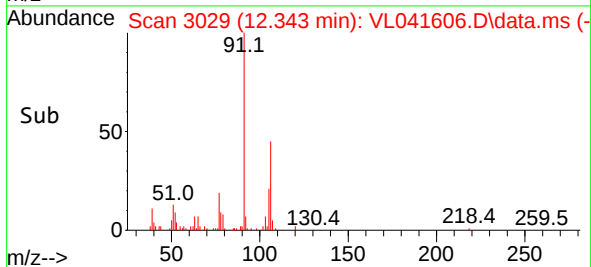
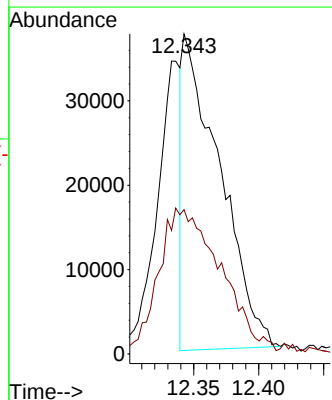
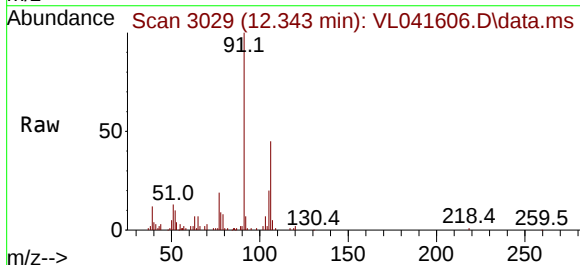
Instrument :
MSVOA_L
ClientSampleId :

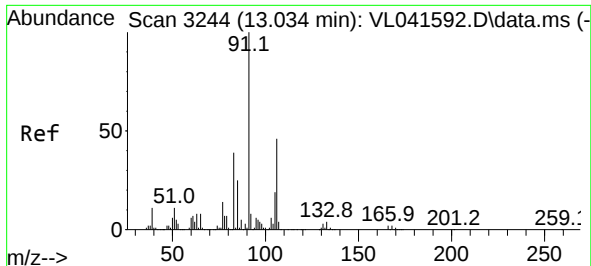
Tgt Ion: 91 Resp: 34289
Ion Ratio Lower Upper
91 100
106 28.5 25.8 38.6



#59
m/p-Xylene
Concen: 0.338 ppbv
RT: 12.343 min Scan# 3029
Delta R.T. -0.003 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Tgt Ion: 91 Resp: 73782
Ion Ratio Lower Upper
91 100
106 0.0 36.8 55.2#

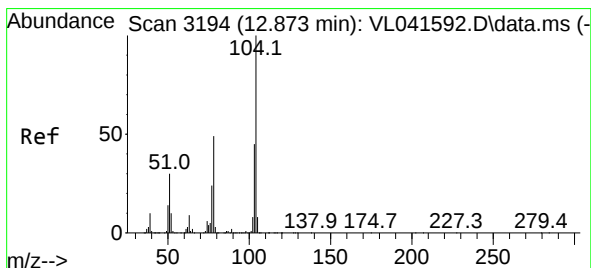
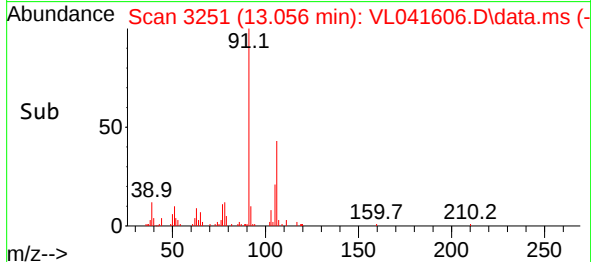
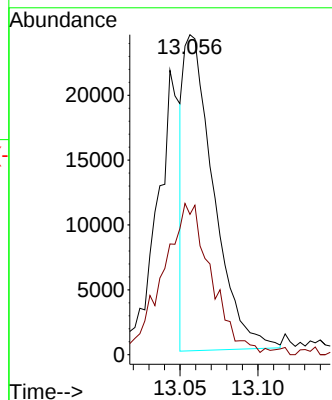
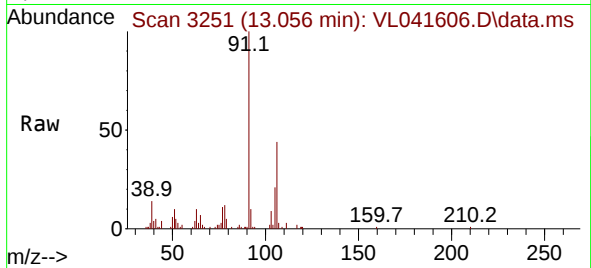




#60
o-Xylene
Concen: 0.156 ppbv
RT: 13.056 min Scan# 31
Delta R.T. 0.023 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

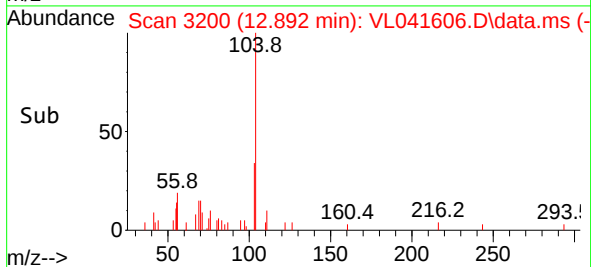
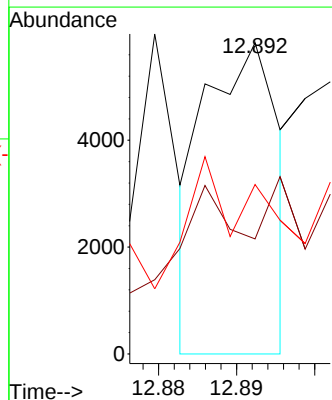
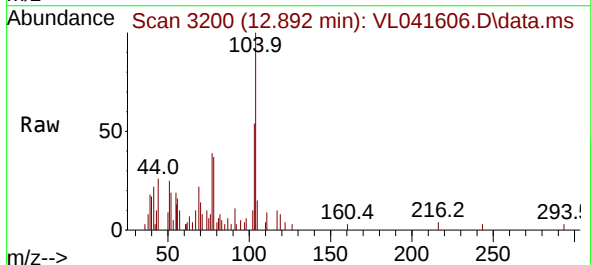
Instrument :
MSVOA_L
ClientSampleId :

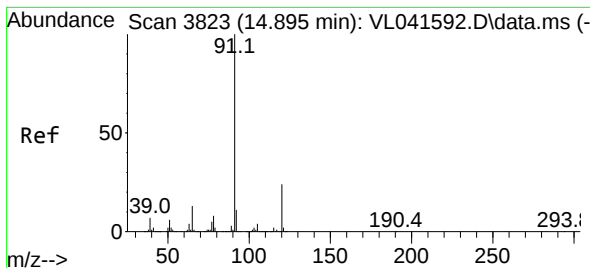
Tgt Ion: 91 Resp: 32647
Ion Ratio Lower Upper
91 100
106 80.1 23.1 69.3#



#61
Styrene
Concen: 0.044 ppbv
RT: 12.892 min Scan# 3200
Delta R.T. 0.019 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Tgt Ion:104 Resp: 3842
Ion Ratio Lower Upper
104 100
78 195.4 39.8 59.6#
103 189.0 37.4 56.0#

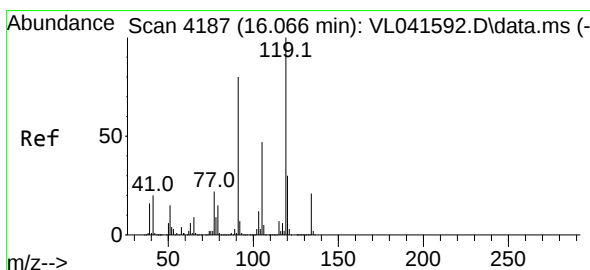
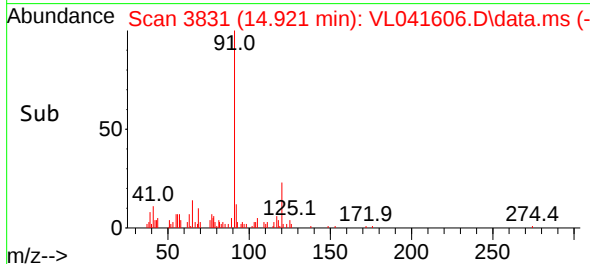
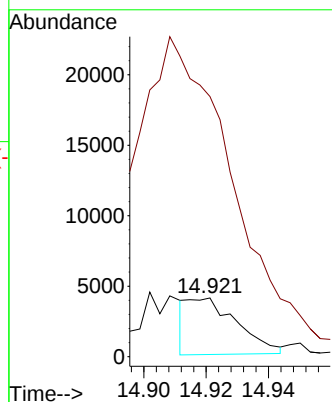
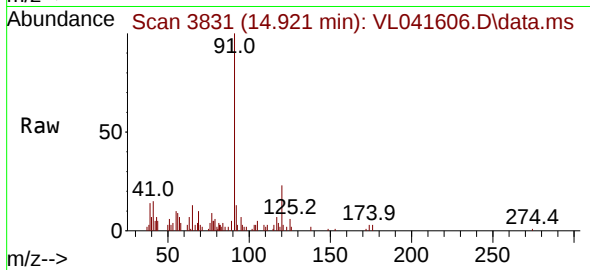




#64
n-propylbenzene
Concen: 0.054 ppbv
RT: 14.921 min Scan# 3831
Delta R.T. 0.026 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

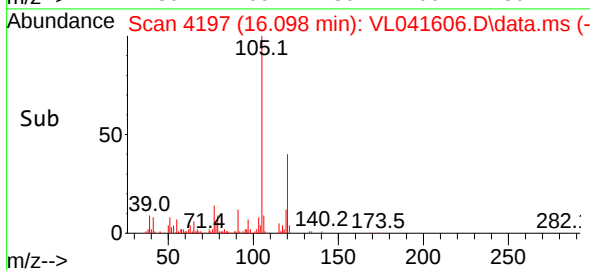
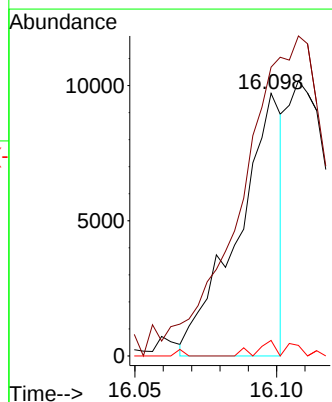
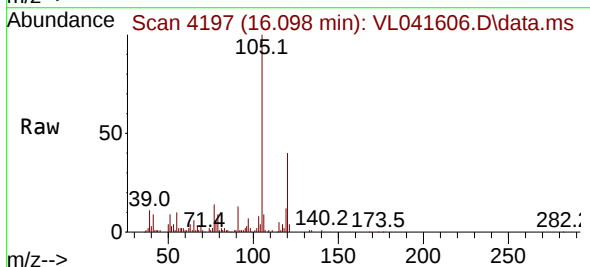
Instrument :
MSVOA_L
ClientSampleId :

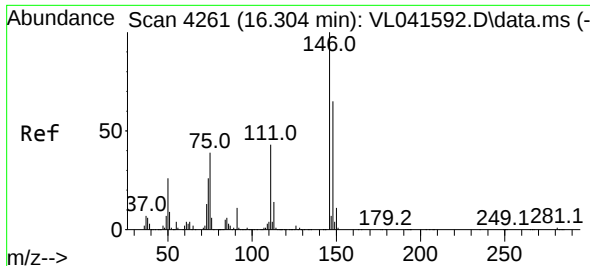
Tgt Ion:120 Resp: 4442
Ion Ratio Lower Upper
120 100
91 0.0 366.4 549.6#



#65
tert-Butylbenzene
Concen: 0.036 ppbv
RT: 16.098 min Scan# 4197
Delta R.T. 0.032 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Tgt Ion:119 Resp: 10517
Ion Ratio Lower Upper
119 100
91 0.0 64.6 96.8#
134 4.2 15.8 23.8#

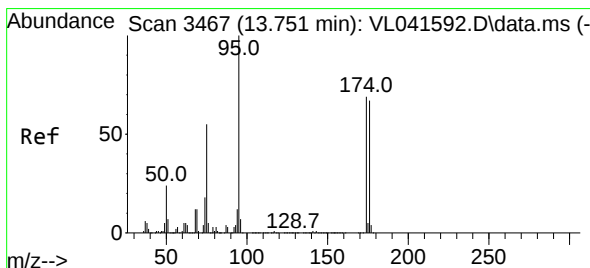
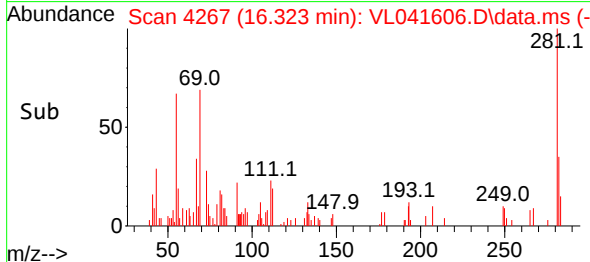
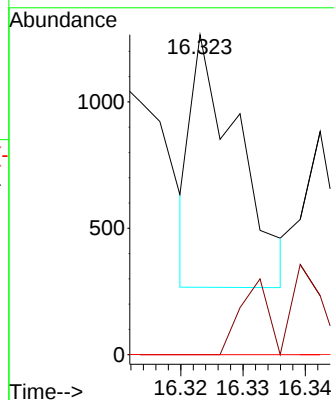
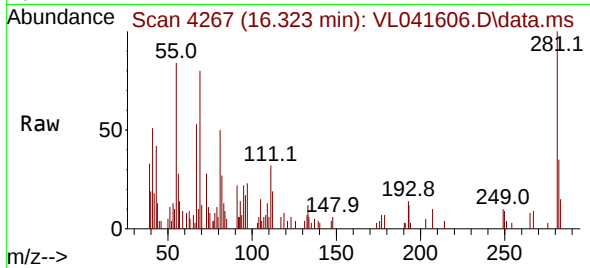




#66
Benzyl Chloride
Concen: 0.034 ppbv
RT: 16.323 min Scan# 41
Delta R.T. 0.019 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

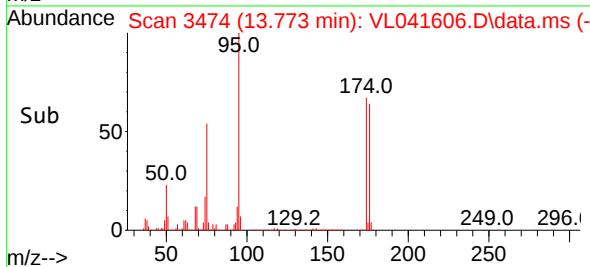
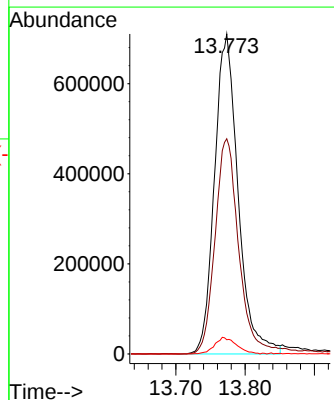
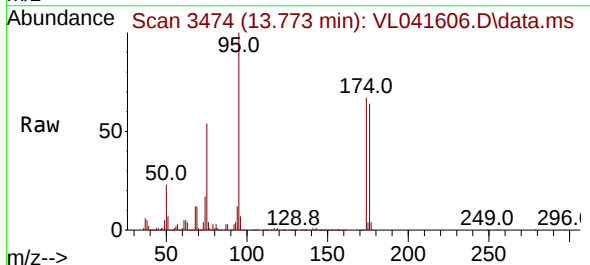
Instrument :
MSVOA_L
ClientSampleId :

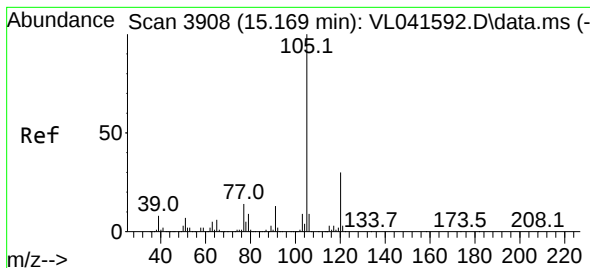
Tgt Ion: 91 Resp: 520
Ion Ratio Lower Upper
91 100
126 0.0 15.4 23.2#
128 0.0 4.8 7.2#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.969 ppbv
RT: 13.773 min Scan# 3474
Delta R.T. 0.023 min
Lab File: VL041606.D
Acq: 18 Sep 2024 14:23

Tgt Ion: 95 Resp: 1683058
Ion Ratio Lower Upper
95 100
174 69.9 55.8 83.8
175 5.0 4.1 6.1





#72

4-Ethyltoluene

Concen: 0.195 ppbv

RT: 15.188 min Scan# 3914

Delta R.T. 0.019 min

Lab File: VL041606.D

Acq: 18 Sep 2024 14:23

Instrument :

MSVOA_L

ClientSampleId :

Tgt Ion:105 Resp: 47859

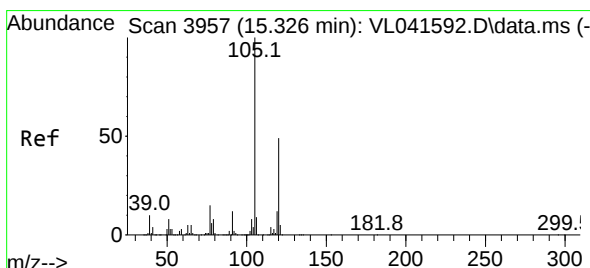
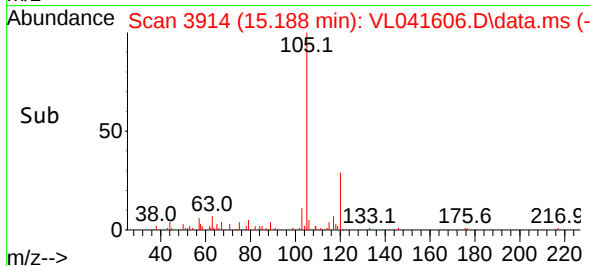
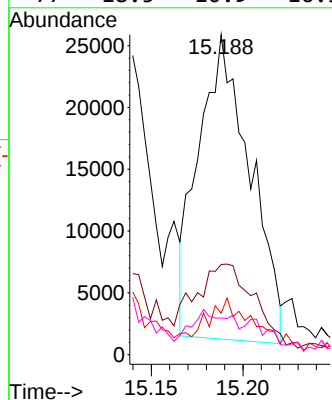
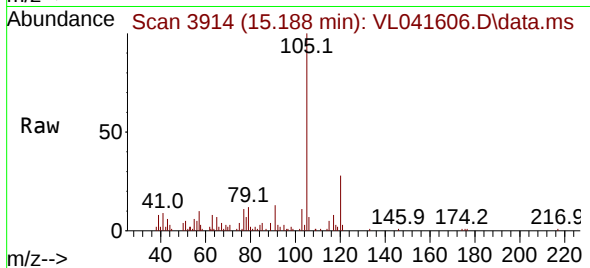
Ion Ratio Lower Upper

105 100

120 39.0 24.1 36.1#

91 19.1 10.2 15.2#

77 18.5 10.9 16.3#



#73

1,3,5-Trimethylbenzene

Concen: 0.215 ppbv

RT: 15.346 min Scan# 3963

Delta R.T. 0.019 min

Lab File: VL041606.D

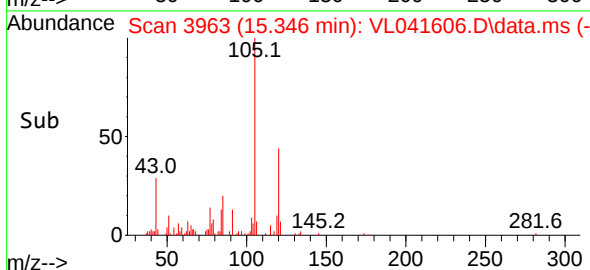
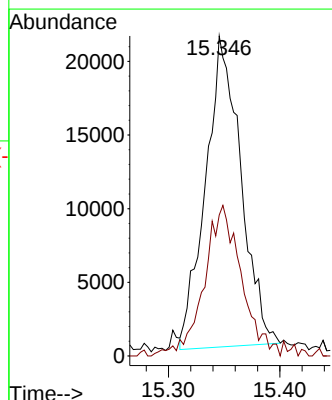
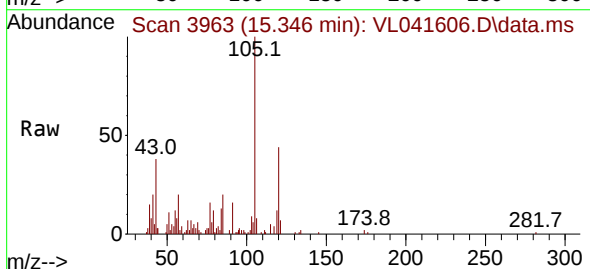
Acq: 18 Sep 2024 14:23

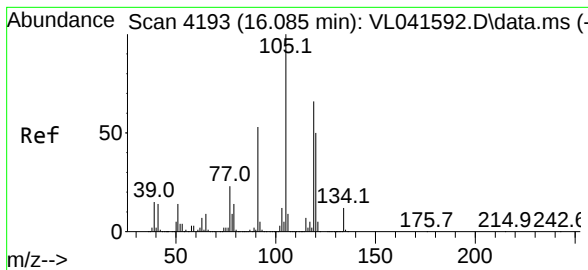
Tgt Ion:105 Resp: 46456

Ion Ratio Lower Upper

105 100

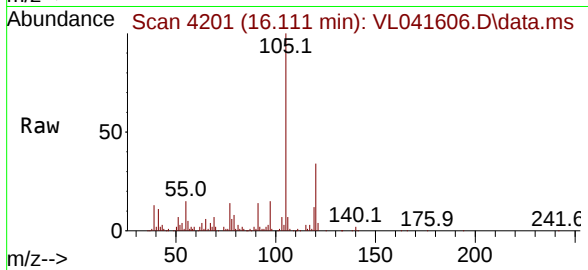
120 45.9 39.4 59.0





#74
 1,2,4-Trimethylbenzene
 Concen: 0.284 ppbv
 RT: 16.111 min Scan# 4193
 Delta R.T. 0.026 min
 Lab File: VL041606.D
 Acq: 18 Sep 2024 14:23

Instrument :
 MSVOA_L
 ClientSampleId :



Tgt Ion:	105	Resp:	71810
Ion	Ratio	Lower	Upper
105	100		
120	33.8	39.9	59.9#
91	12.9	42.6	63.8#
77	12.7	18.2	27.2#

