

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL050219\
 Data File : VL033636.D
 Acq On : 2 May 2019 20:25
 Operator : SY/AP
 Sample : K2628-06
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-6

Quant Time: May 03 02:29:57 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL050119AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 02 06:29:02 2019
 QLast Update : Thu May 02 06:29:02 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	889801	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2096727	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2078578	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1694597	10.71	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.10%

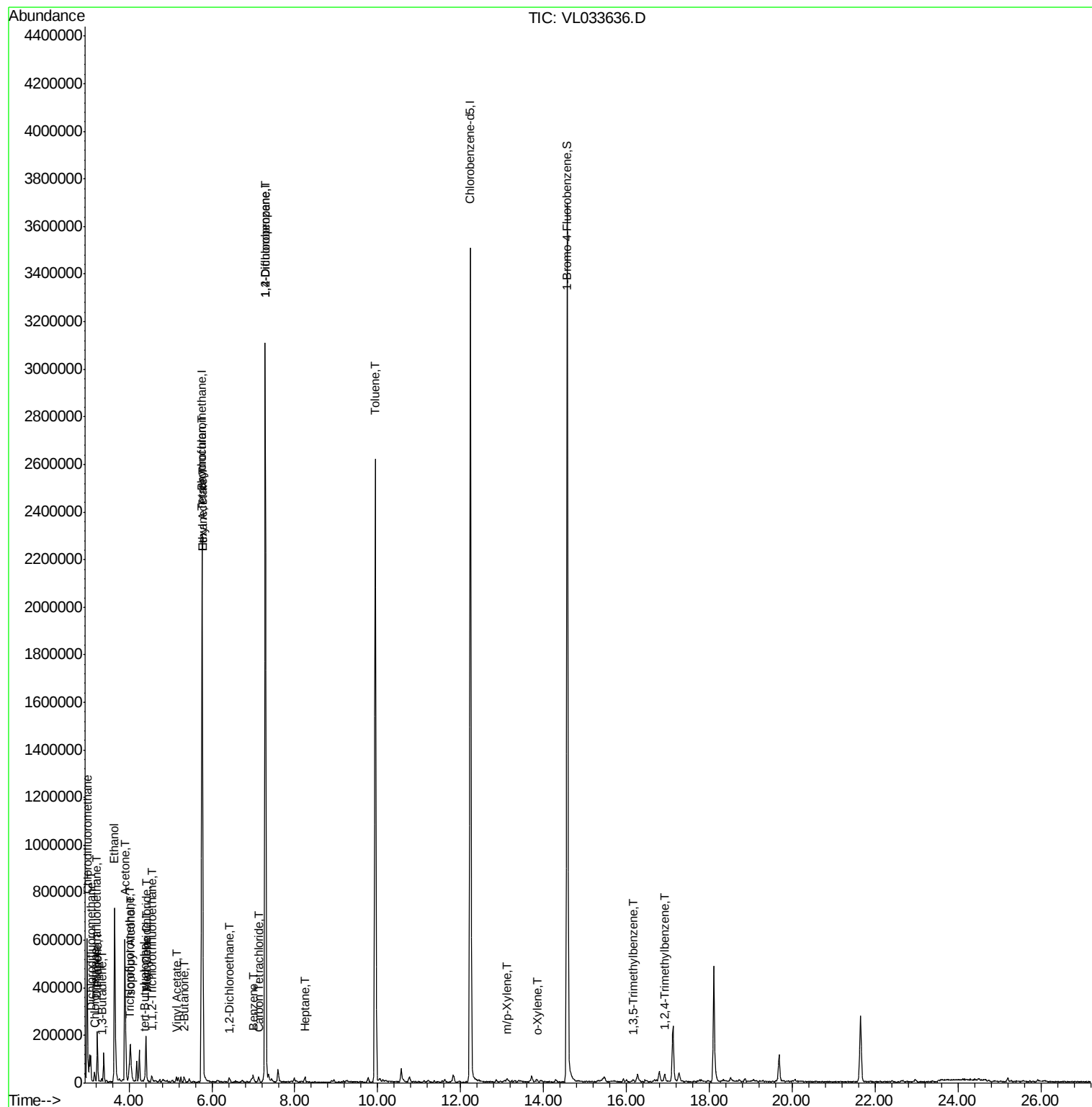
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	73621	0.549	ppbv	98
3) Chlorodifluoromethane	2.99	51	385658	3.625	ppbv #	64
4) Chloromethane	3.17	50	28310	0.489	ppbv	98
8) Dichlorotetrafluoroethane	3.22	85	2744	0.019	ppbv #	65
9) Propene	3.24	41	41815	1.373	ppbv	94
10) Heptane	8.24	43	3310	0.029	ppbv #	39
11) Trichlorofluoromethane	4.00	101	42554	0.267	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.55	101	5688	0.052	ppbv #	12
13) Ethanol	3.65	45	770088	55.756	ppbv	99
15) Acetone	3.90	43	596859	5.510	ppbv	97
16) 1,3-Butadiene	3.36	39	513	0.011	ppbv	95
17) tert-Butyl alcohol	4.37	59	1896	0.020	ppbv #	72
19) Isopropyl Alcohol	4.03	45	165522	2.226	ppbv #	89
20) Methylene Chloride	4.41	84	64761	1.534	ppbv	92
21) Allyl Chloride	4.41	41	2175	0.032	ppbv #	60
23) Vinyl Acetate	5.14	43	9761	0.061	ppbv #	61
25) Ethyl Acetate	5.78	43	225998	1.099	ppbv #	82
26) Hexane	5.78	57	285187	3.294	ppbv #	41
34) 2-Butanone	5.33	43	24600	0.191	ppbv	95
35) Carbon Tetrachloride	7.13	117	6166	0.037	ppbv	93
36) Benzene	7.00	78	10649	0.060	ppbv #	89
37) 1,2-Dichloroethane	6.41	62	1618	0.014	ppbv #	84
39) 1,2-Dichloropropane	7.29	63	554736	8.234	ppbv #	23
41) Tetrahydrofuran	5.77	42	112180	1.632	ppbv #	48
53) Toluene	9.94	91	1951211	8.655	ppbv	99
59) m/p-Xylene	13.13	91	3006	0.015	ppbv #	100
60) o-Xylene	13.84	91	4191	0.020	ppbv #	32
73) 1,3,5-Trimethylbenzene	16.15	105	2449	0.011	ppbv #	31
74) 1,2,4-Trimethylbenzene	16.92	105	11182	0.043	ppbv #	64

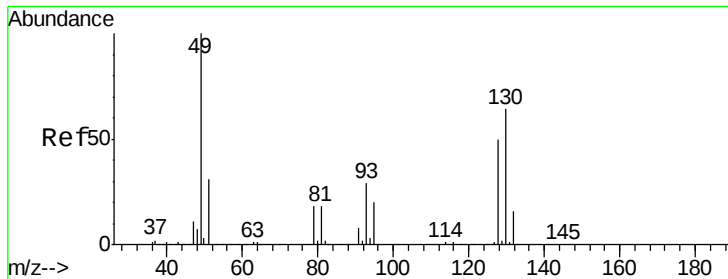
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu May 02 06:29:02 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. 0.00 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

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MSVOA_L

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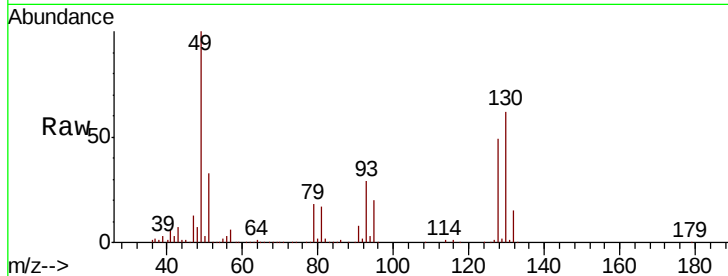
Tgt Ion: 49 Resp: 889801

Ion Ratio Lower Upper

49 100

128 48.5 25.0 75.0

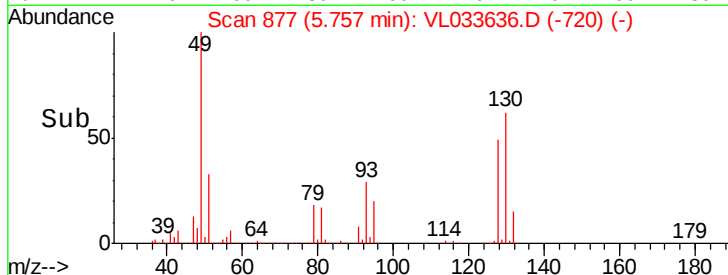
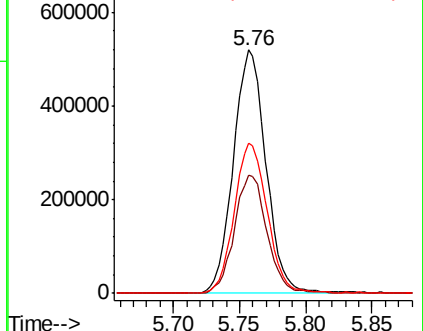
130 62.4 31.9 95.9



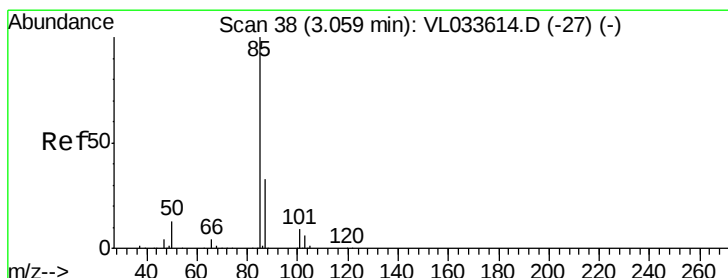
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



Scan 877 (5.757 min): VL033636.D (-720) (-)



#2

Dichlorodifluoromethane

Concen: 0.549 ppbv

RT: 3.08 min Scan# 43

Delta R.T. 0.02 min

Lab File: VL033636.D

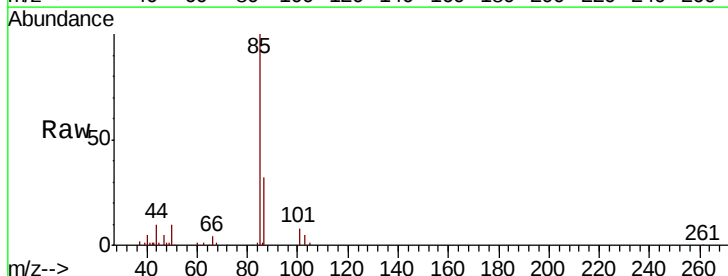
Acq: 2 May 2019 20:25

Tgt Ion: 85 Resp: 73621

Ion Ratio Lower Upper

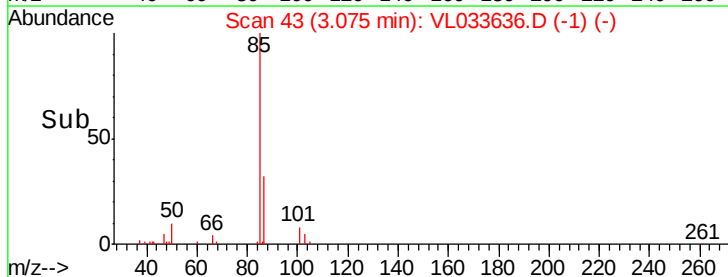
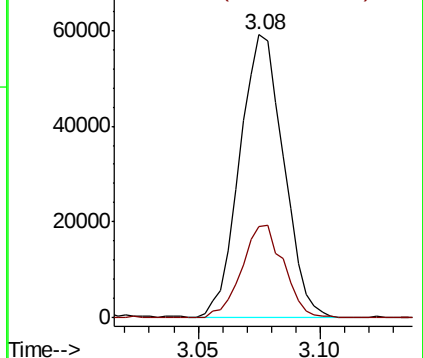
85 100

87 32.3 26.8 40.2

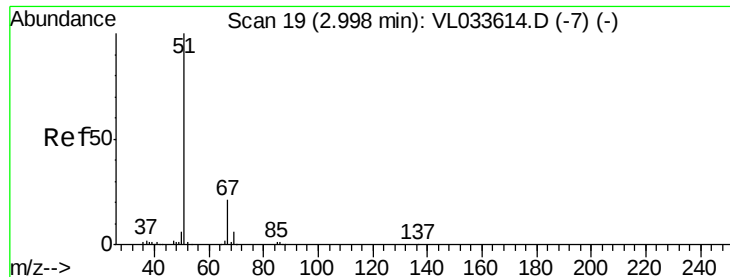


Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0



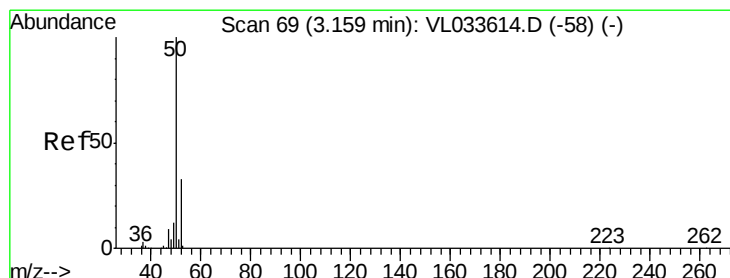
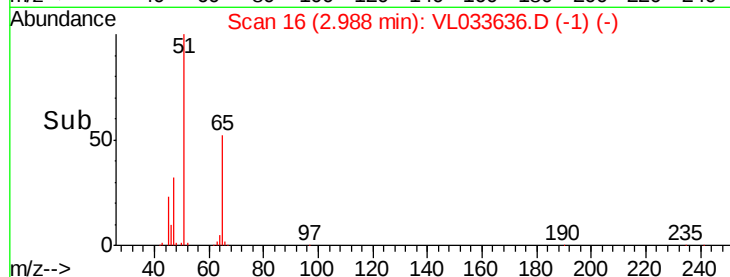
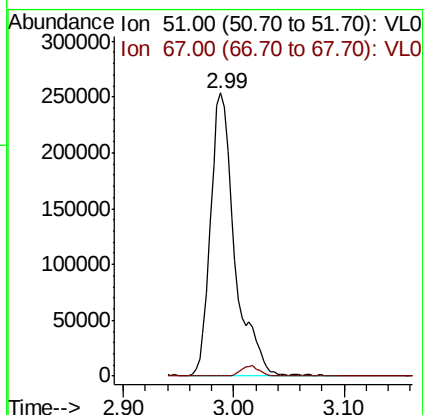
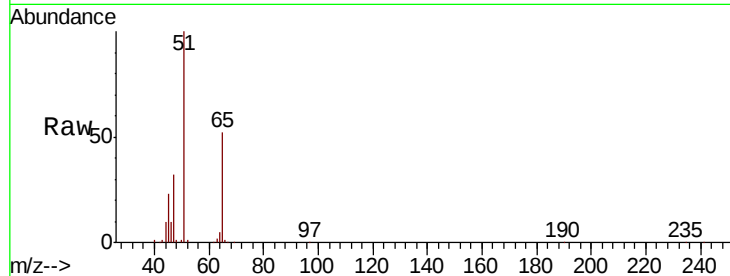
Scan 43 (3.075 min): VL033636.D (-1) (-)



#3
 Chlorodifluoromethane
 Concen: 3.625 ppbv
 RT: 2.99 min Scan# 16
 Delta R.T. -0.01 min
 Lab File: VL033636.D
 Acq: 2 May 2019 20:25

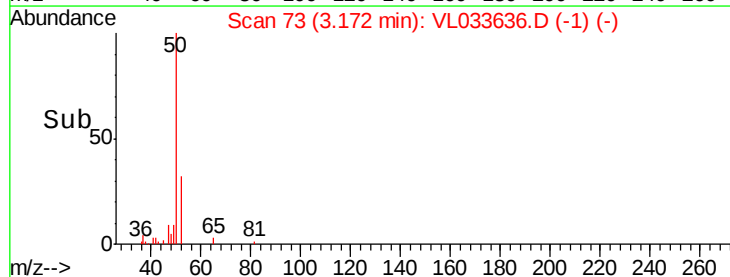
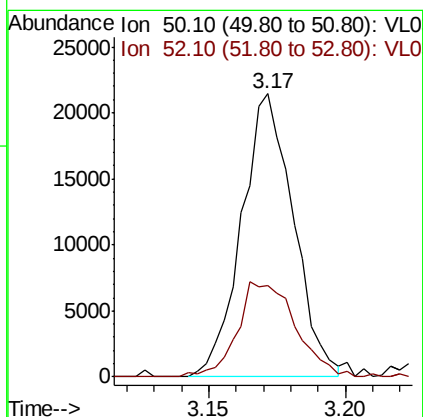
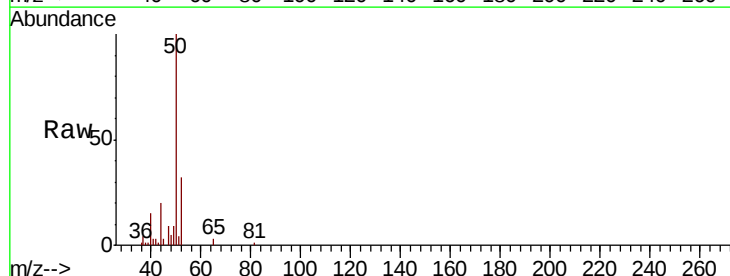
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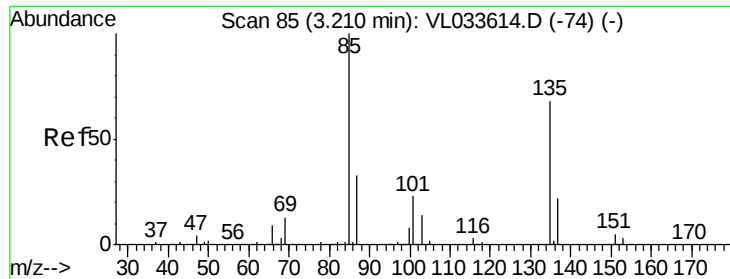
Tgt Ion: 51 Resp: 385658
 Ion Ratio Lower Upper
 51 100
 67 3.0 15.6 23.4#



#4
 Chloromethane
 Concen: 0.489 ppbv
 RT: 3.17 min Scan# 73
 Delta R.T. 0.01 min
 Lab File: VL033636.D
 Acq: 2 May 2019 20:25

Tgt Ion: 50 Resp: 28310
 Ion Ratio Lower Upper
 50 100
 52 31.3 26.0 39.0





#8

Dichlorotetrafluoroethane

Concen: 0.019 ppbv

RT: 3.22 min Scan# 88

Delta R.T. 0.01 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

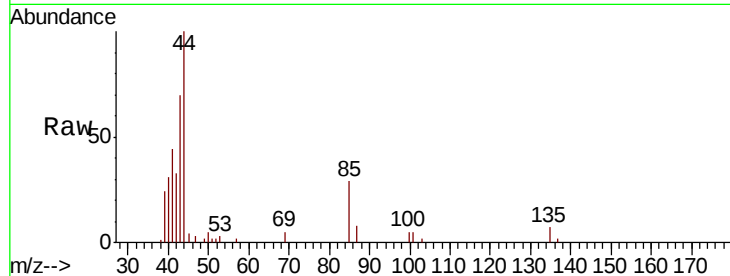
A-6

Tgt Ion: 85 Resp: 2744

Ion Ratio Lower Upper

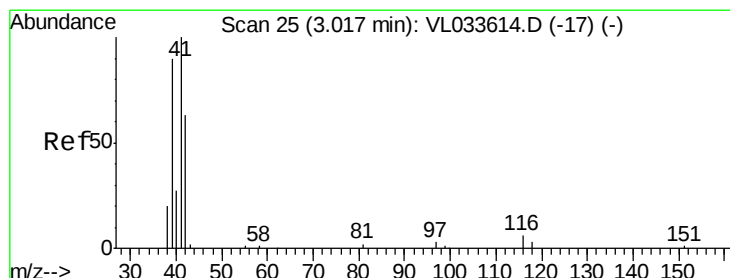
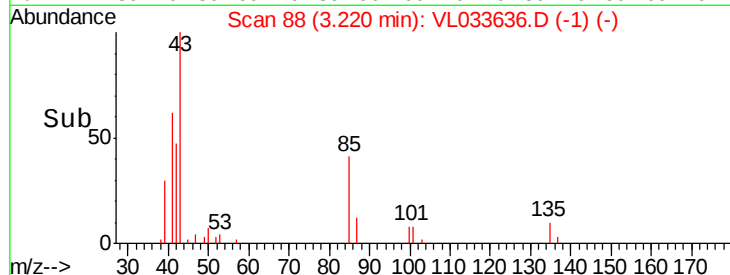
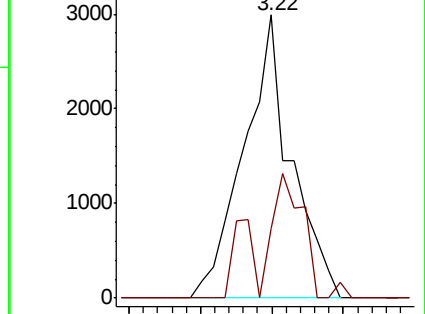
85 100

135 40.7 55.0 82.6#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



#9

Propene

Concen: 1.373 ppbv

RT: 3.24 min Scan# 93

Delta R.T. 0.22 min

Lab File: VL033636.D

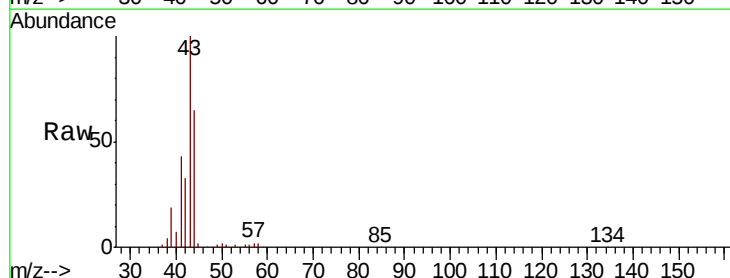
Acq: 2 May 2019 20:25

Tgt Ion: 41 Resp: 41815

Ion Ratio Lower Upper

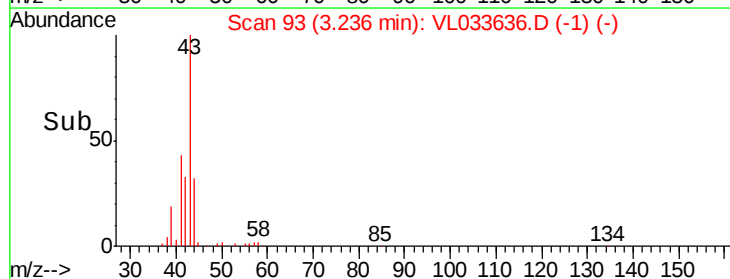
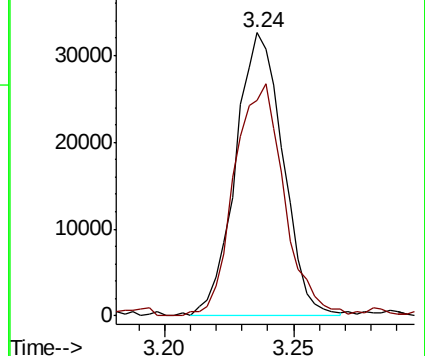
41 100

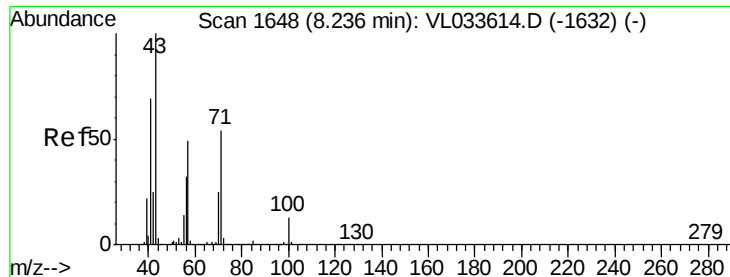
42 88.2 66.0 99.0



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.029 ppbv

RT: 8.24 min Scan# 1649

Delta R.T. 0.00 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

Instrument :

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ClientSampleId :

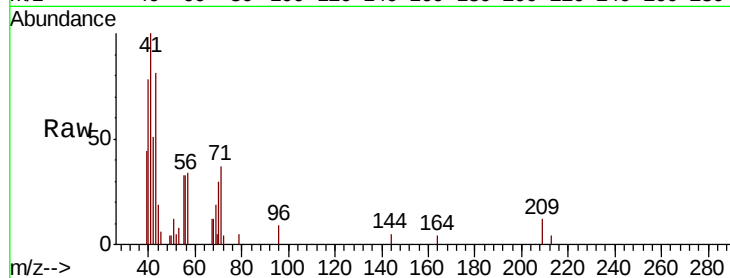
A-6

Tgt Ion: 43 Resp: 3310

Ion Ratio Lower Upper

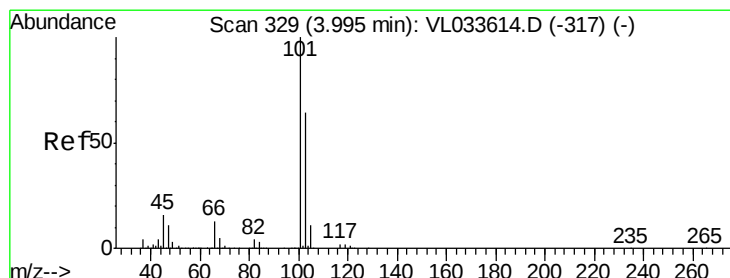
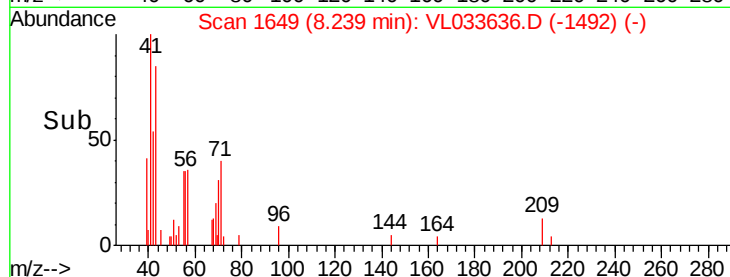
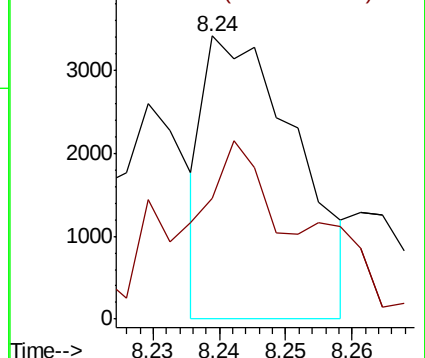
43 100

57 92.6 40.3 60.5#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 0.267 ppbv

RT: 4.00 min Scan# 332

Delta R.T. 0.01 min

Lab File: VL033636.D

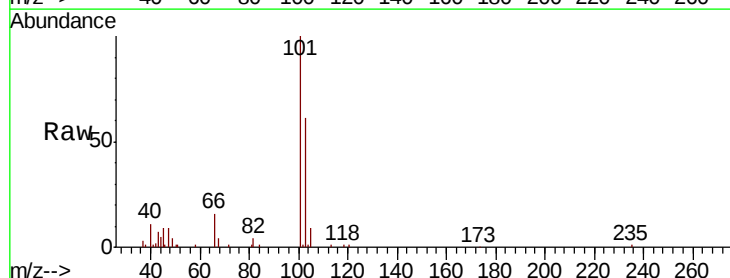
Acq: 2 May 2019 20:25

Tgt Ion: 101 Resp: 42554

Ion Ratio Lower Upper

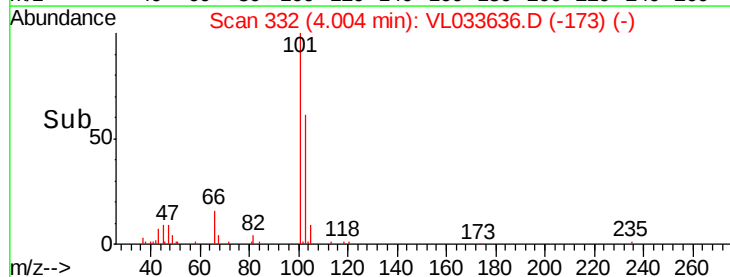
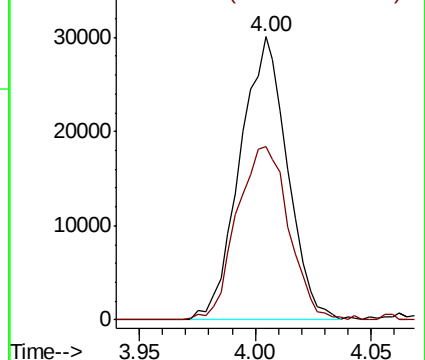
101 100

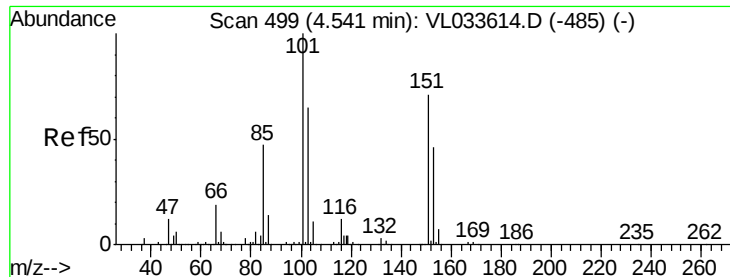
103 62.1 51.2 76.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.052 ppbv

RT: 4.55 min Scan# 502

Delta R.T. 0.01 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

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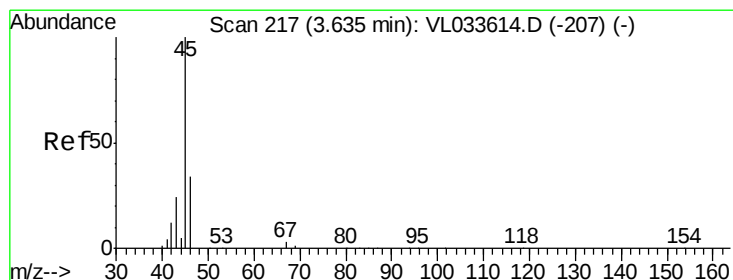
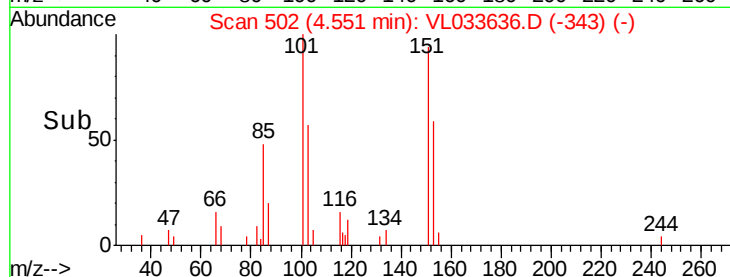
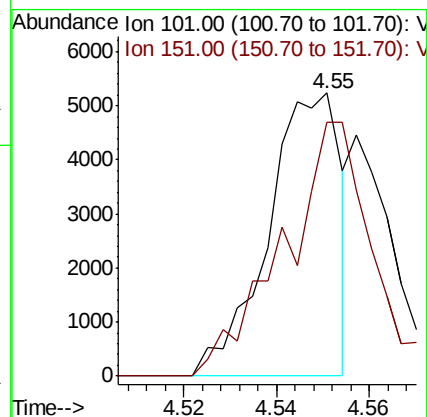
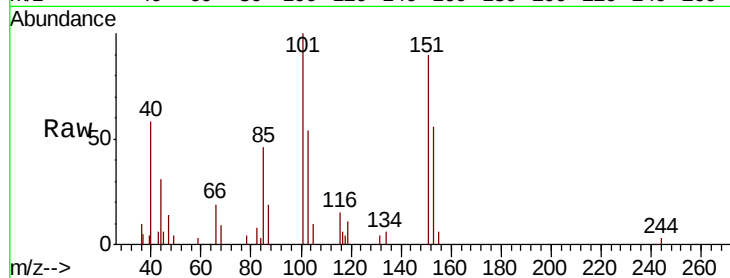
A-6

Tgt Ion: 101 Resp: 5688

Ion Ratio Lower Upper

101 100

151 0.0 59.2 88.8#



#13

Ethanol

Concen: 55.756 ppbv

RT: 3.65 min Scan# 222

Delta R.T. 0.02 min

Lab File: VL033636.D

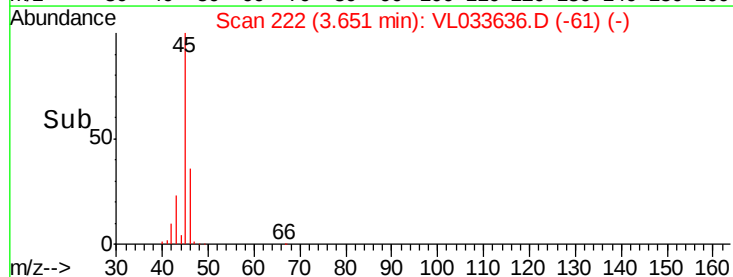
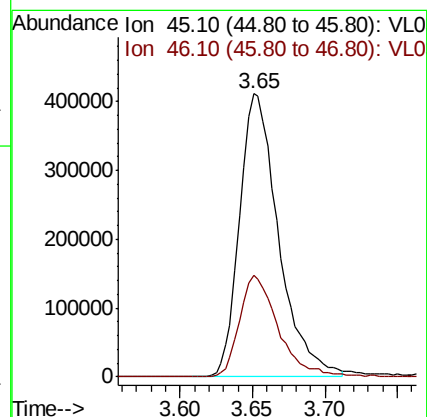
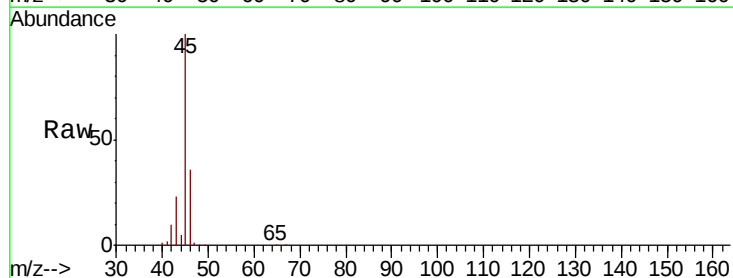
Acq: 2 May 2019 20:25

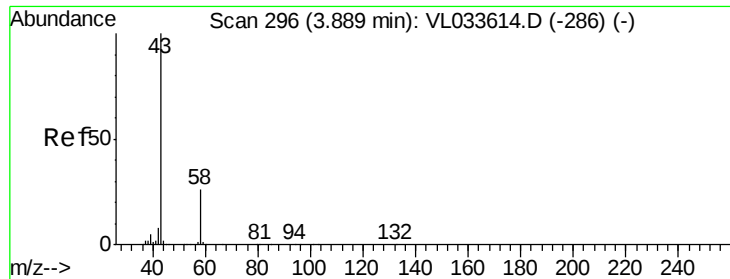
Tgt Ion: 45 Resp: 770088

Ion Ratio Lower Upper

45 100

46 35.9 14.6 58.2

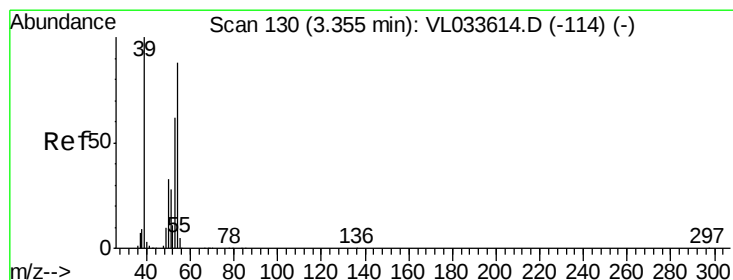
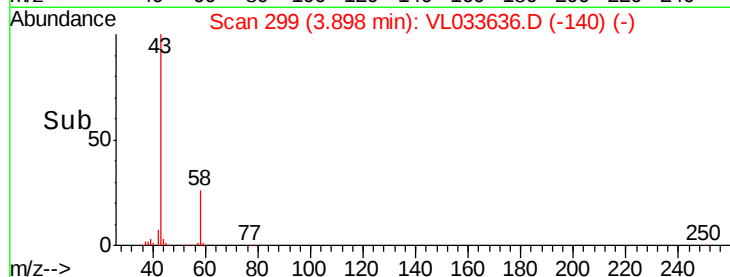
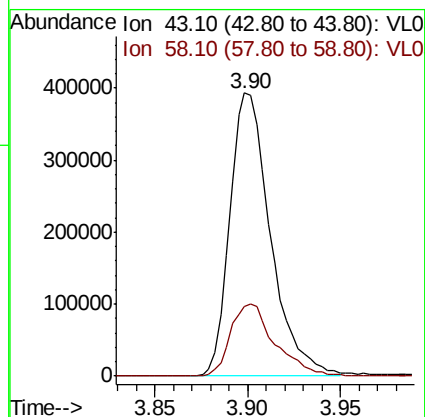
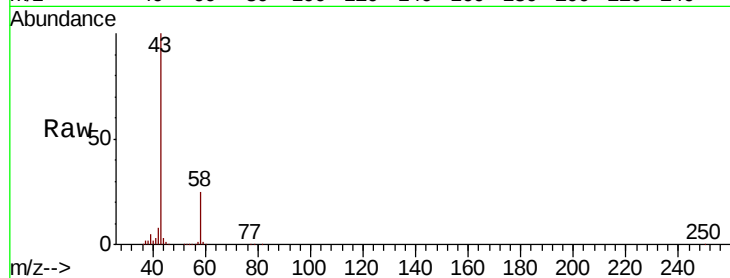




#15
Acetone
Concen: 5.510 ppbv
RT: 3.90 min Scan# 299
Delta R.T. 0.01 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

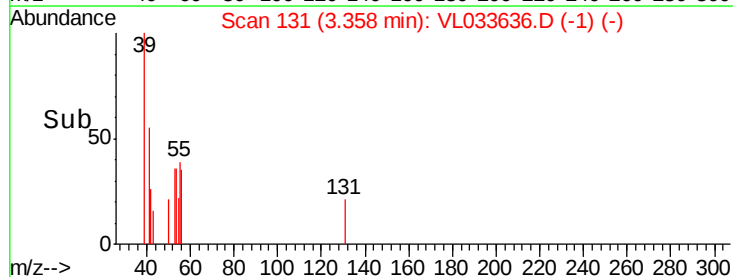
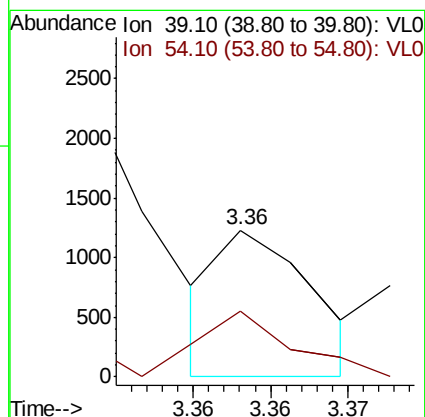
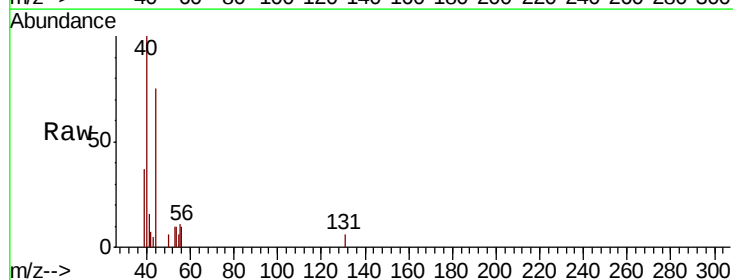
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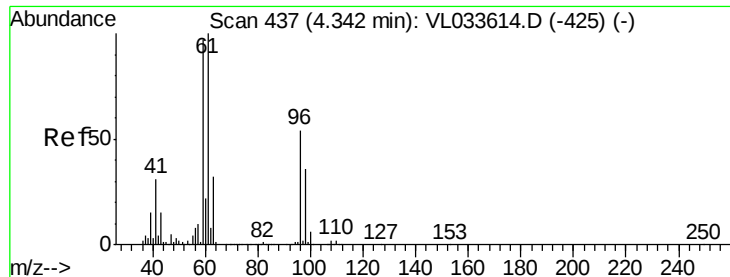
Tgt Ion: 43 Resp: 596859
Ion Ratio Lower Upper
43 100
58 28.0 21.2 31.8



#16
1,3-Butadiene
Concen: 0.011 ppbv
RT: 3.36 min Scan# 131
Delta R.T. 0.00 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

Tgt Ion: 39 Resp: 513
Ion Ratio Lower Upper
39 100
54 90.1 68.4 102.6

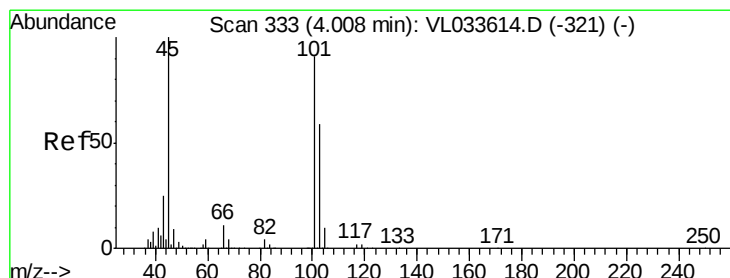
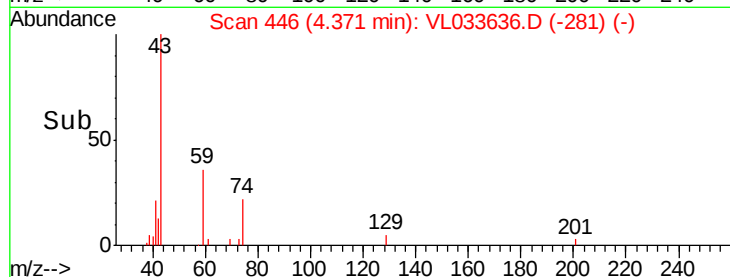
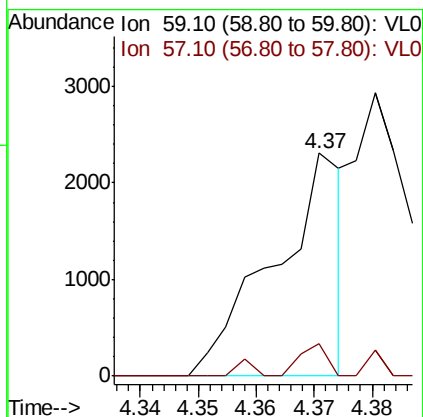
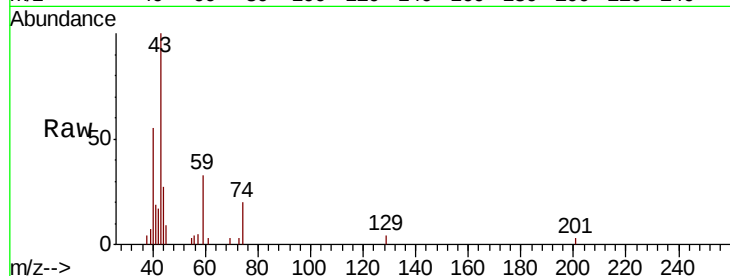




#17
tert-Butyl alcohol
Concen: 0.020 ppbv
RT: 4.37 min Scan# 446
Delta R.T. 0.03 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

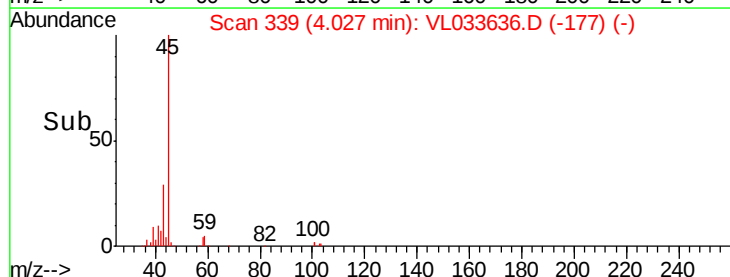
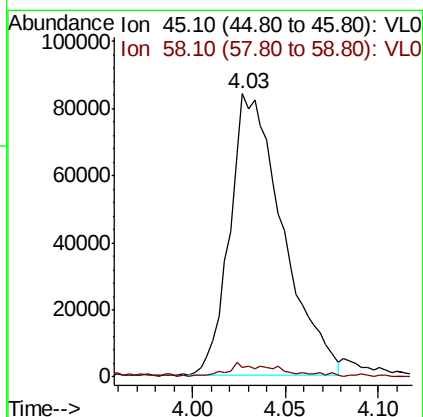
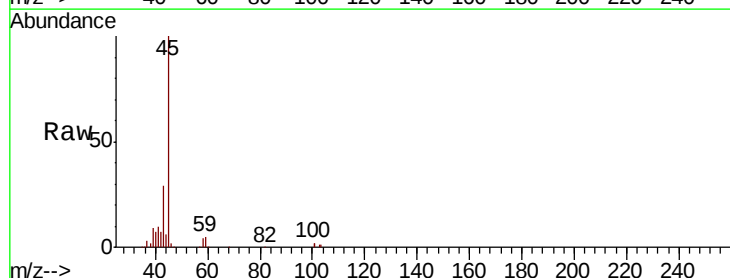
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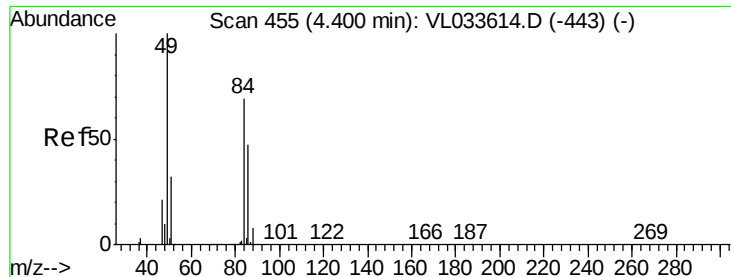
Tgt Ion: 59 Resp: 1896
Ion Ratio Lower Upper
59 100
57 0.0 8.4 12.6#



#19
Isopropyl Alcohol
Concen: 2.226 ppbv
RT: 4.03 min Scan# 339
Delta R.T. 0.02 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

Tgt Ion: 45 Resp: 165522
Ion Ratio Lower Upper
45 100
58 5.9 1.8 2.6#

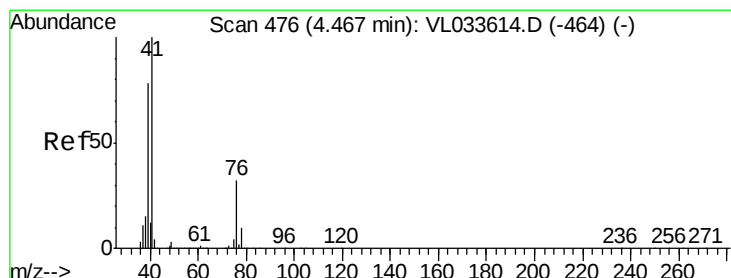
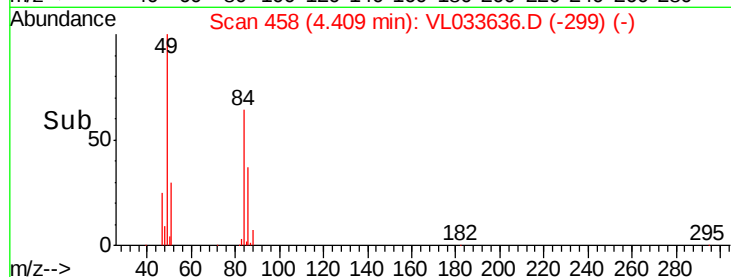
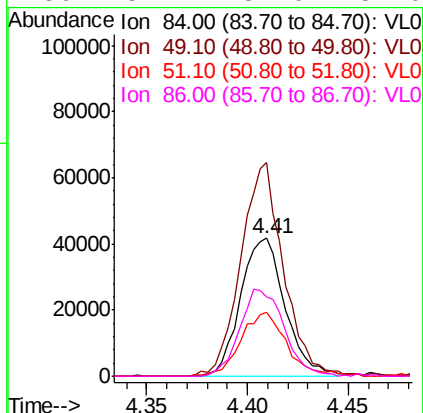
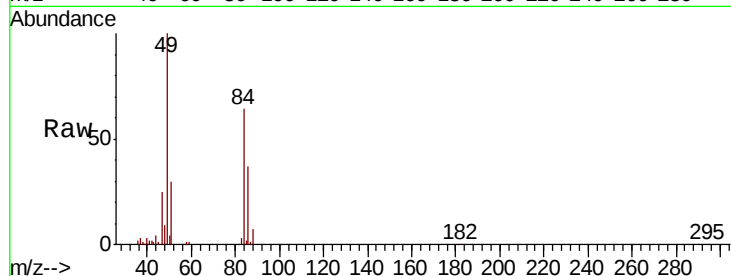




#20
Methylene Chloride
Concen: 1.534 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.01 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

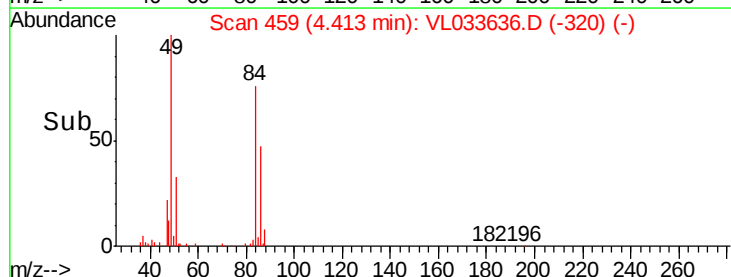
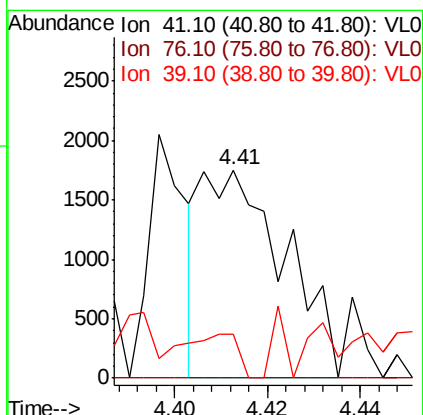
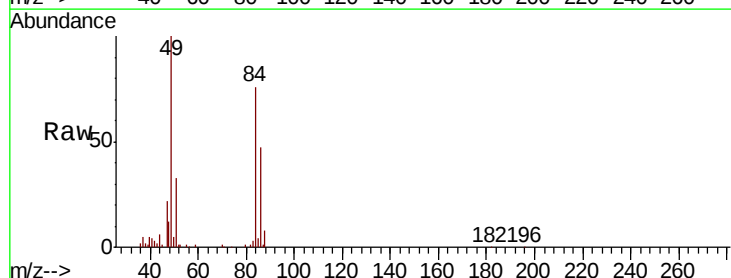
Instrument :
MSVOA_L
ClientSampleId :
A-6

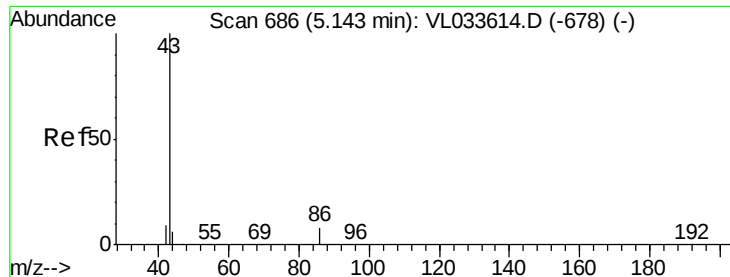
Tgt Ion:	84	Resp:	64761
Ion	Ratio	Lower	Upper
84	100		
49	155.1	116.2	174.2
51	46.7	37.0	55.6
86	57.7	54.0	81.0



#21
Allyl Chloride
Concen: 0.032 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.05 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

Tgt Ion:	41	Resp:	2175
Ion	Ratio	Lower	Upper
41	100		
76	0.0	25.0	37.6#
39	50.4	64.6	96.8#





#23

Vinyl Acetate

Concen: 0.061 ppbv

RT: 5.14 min Scan# 685

Delta R.T. -0.00 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

A-6

Tgt Ion: 43 Resp: 9761

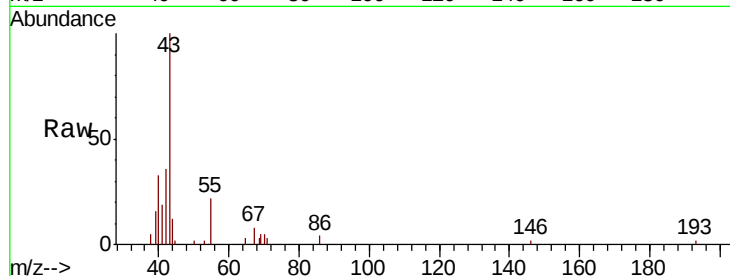
Ion Ratio Lower Upper

43 100

86 6.4 5.8 8.8

42 39.6 7.8 11.8#

44 0.4 4.6 7.0#

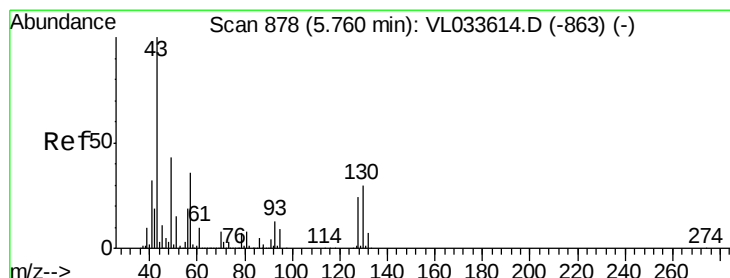
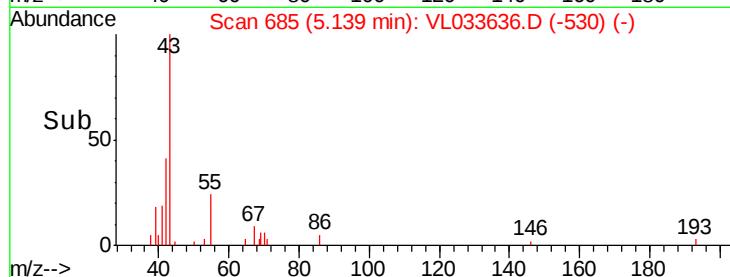
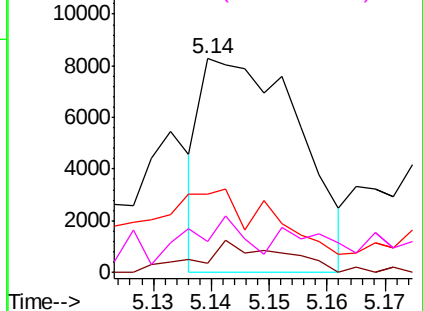


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 1.099 ppbv

RT: 5.78 min Scan# 883

Delta R.T. 0.02 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

Tgt Ion: 43 Resp: 225998

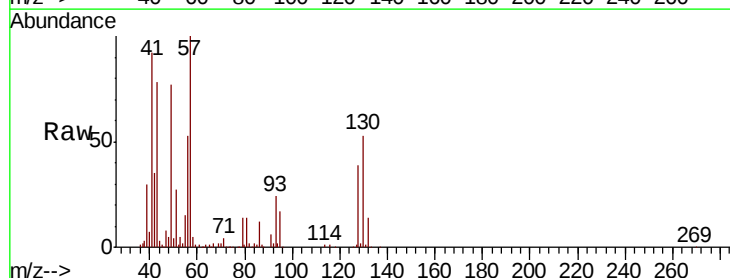
Ion Ratio Lower Upper

43 100

45 2.6 8.1 12.1#

61 1.8 7.5 11.3#

70 2.9 5.8 8.6#

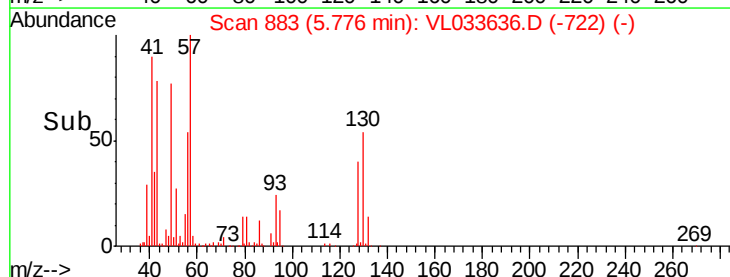
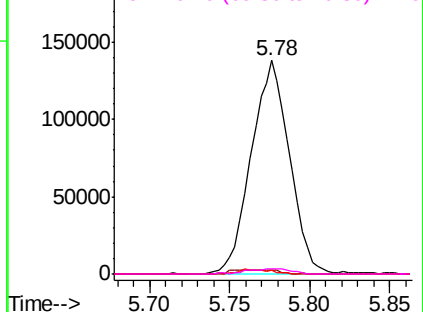


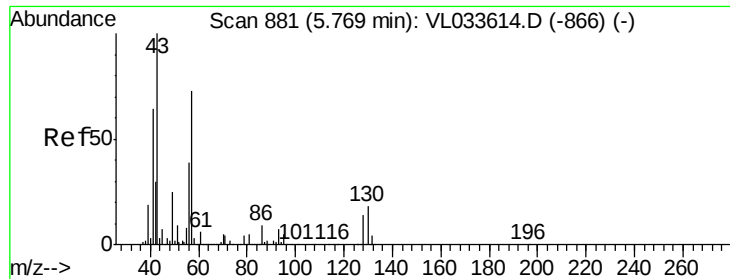
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

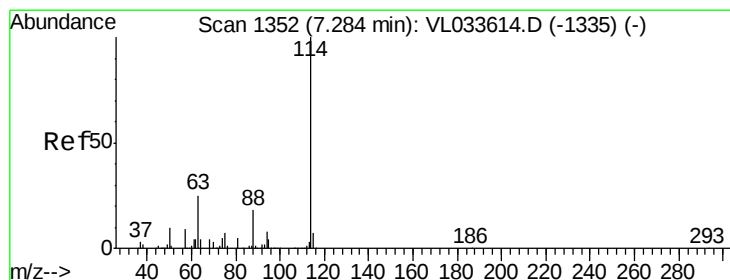
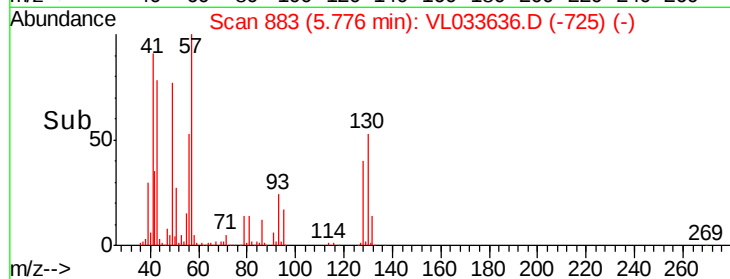
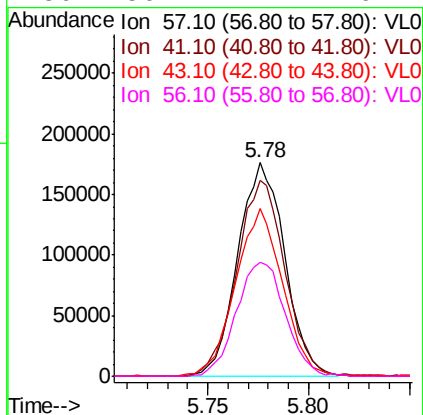
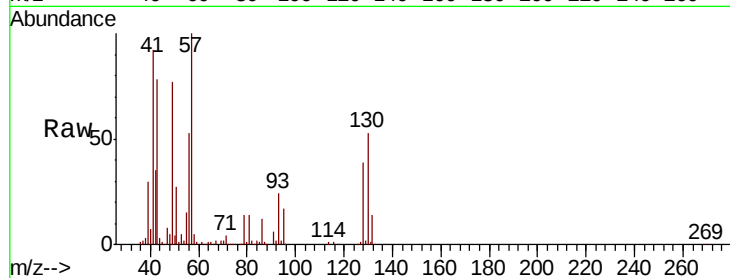




#26
Hexane
Concen: 3.294 ppbv
RT: 5.78 min Scan# 883
Delta R.T. 0.01 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

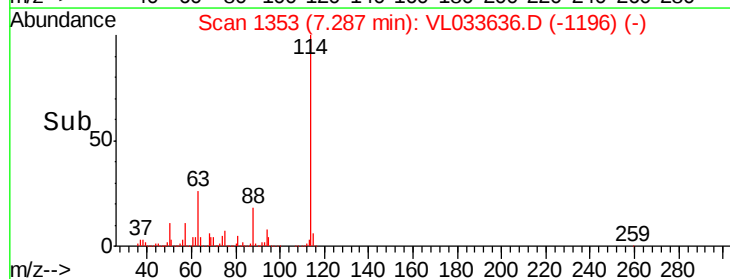
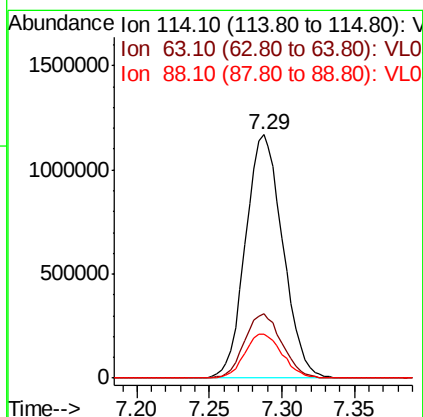
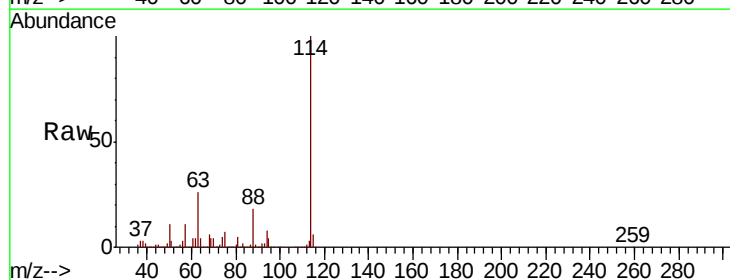
Instrument :
MSVOA_L
ClientSampleId :
A-6

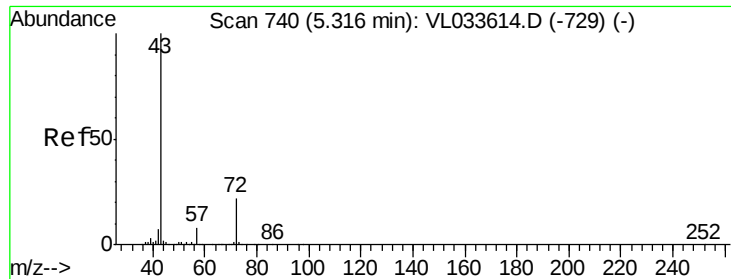
Tgt Ion:	57	Resp:	285187
Ion	Ratio	Lower	Upper
57	100		
41	95.2	70.6	106.0
43	80.1	186.0	279.0#
56	56.1	42.7	64.1



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1353
Delta R.T. 0.00 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

Tgt Ion:	114	Resp:	2096727
Ion	Ratio	Lower	Upper
114	100		
63	26.7	21.1	31.7
88	18.3	14.2	21.4

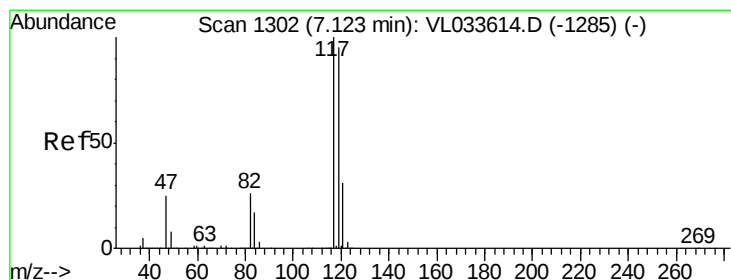
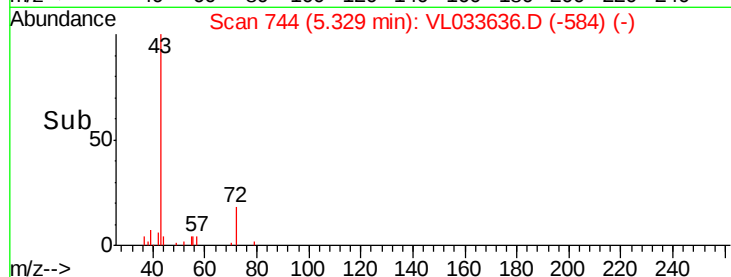
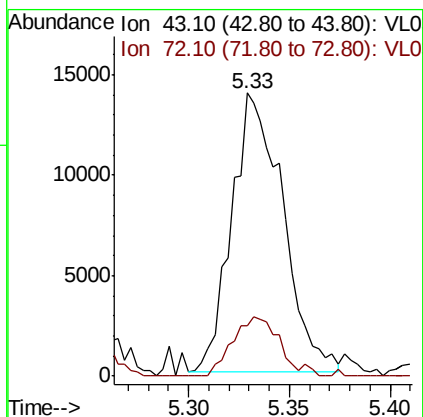
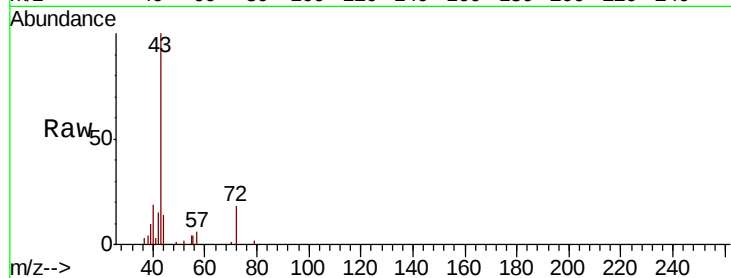




#34
2-Butanone
Concen: 0.191 ppbv
RT: 5.33 min Scan# 744
Delta R.T. 0.01 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

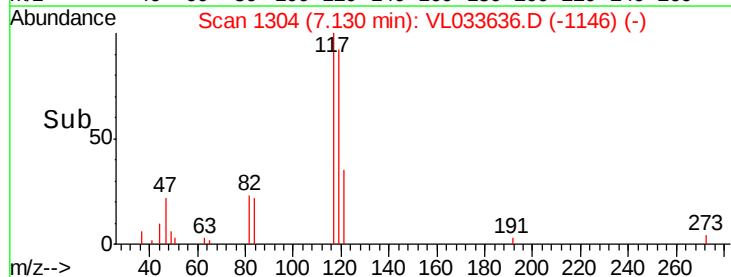
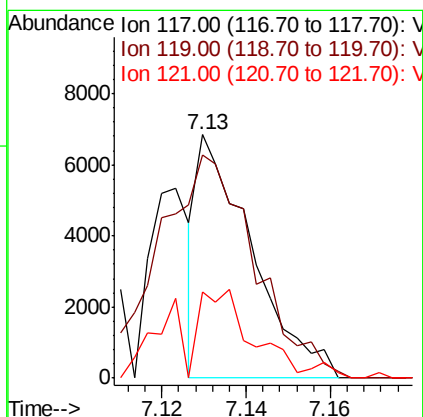
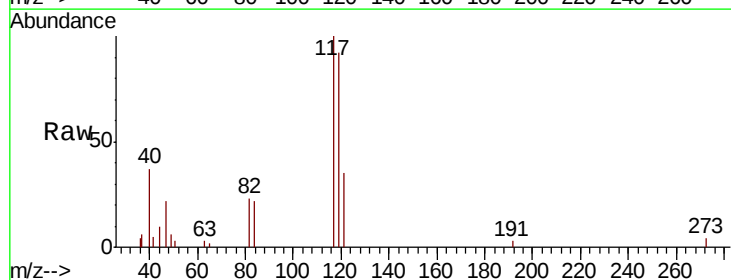
Instrument :
MSVOA_L
ClientSampleId :
A-6

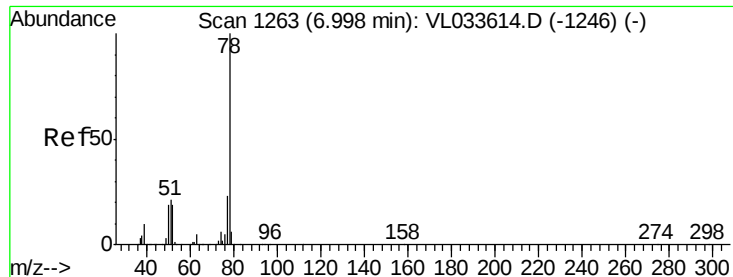
Tgt Ion: 43 Resp: 24600
Ion Ratio Lower Upper
43 100
72 19.9 17.8 26.8



#35
Carbon Tetrachloride
Concen: 0.037 ppbv
RT: 7.13 min Scan# 1304
Delta R.T. 0.01 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

Tgt Ion: 117 Resp: 6166
Ion Ratio Lower Upper
117 100
119 89.0 76.2 114.4
121 35.4 24.9 37.3

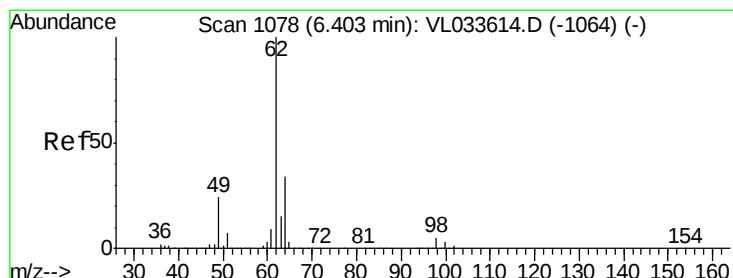
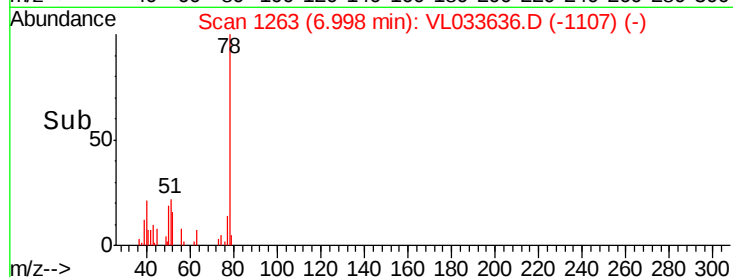
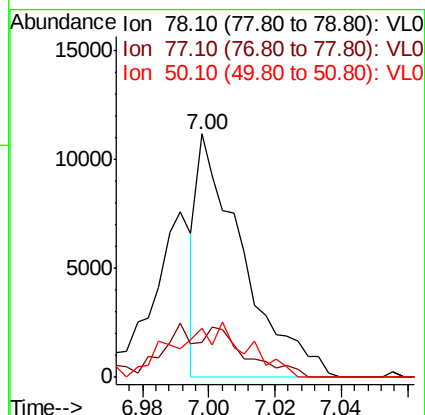
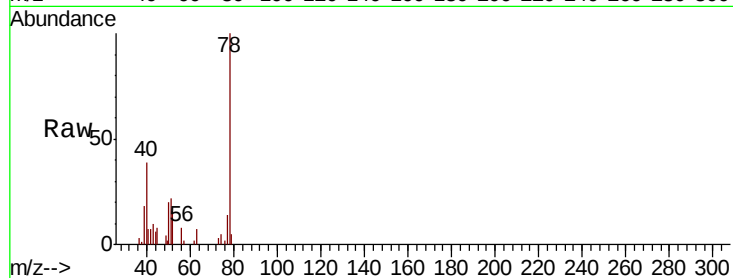




#36
Benzene
Concen: 0.060 ppbv
RT: 7.00 min Scan# 1263
Delta R.T. 0.00 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

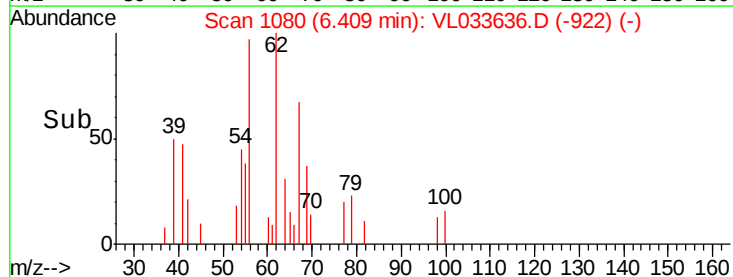
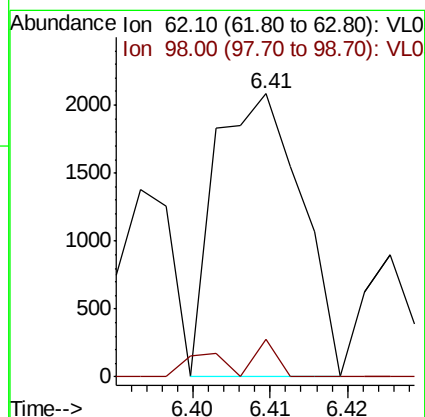
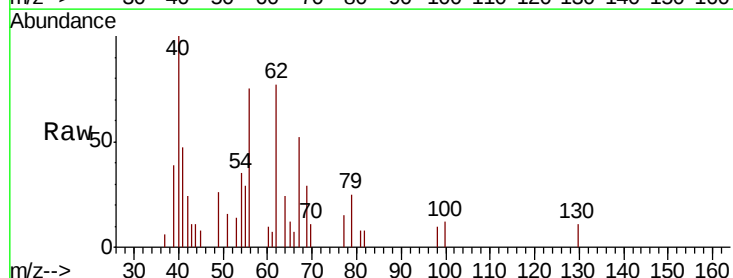
Instrument :
MSVOA_L
ClientSampled :
A-6

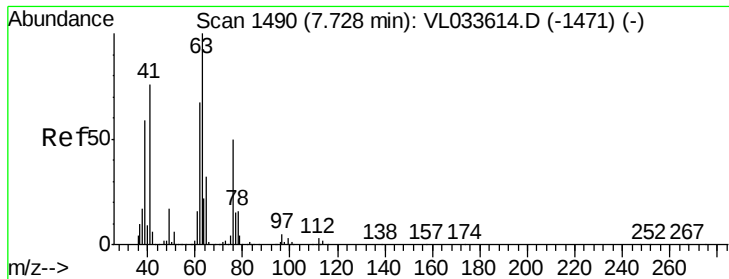
Tgt Ion: 78 Resp: 10649
Ion Ratio Lower Upper
78 100
77 14.3 18.1 27.1#
50 20.0 15.1 22.7



#37
1,2-Dichloroethane
Concen: 0.014 ppbv
RT: 6.41 min Scan# 1080
Delta R.T. 0.01 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

Tgt Ion: 62 Resp: 1618
Ion Ratio Lower Upper
62 100
98 0.0 4.4 6.6#





#39

1,2-Dichloropropane

Concen: 8.234 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.44 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

A-6

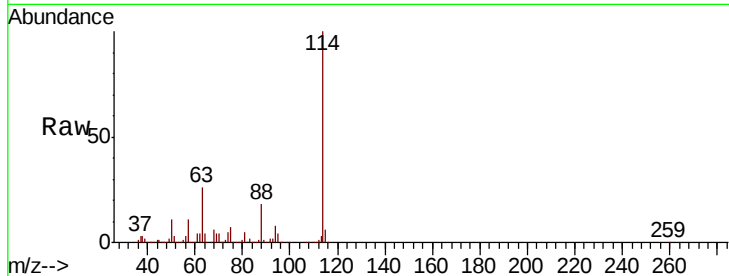
Tgt Ion: 63 Resp: 554736

Ion Ratio Lower Upper

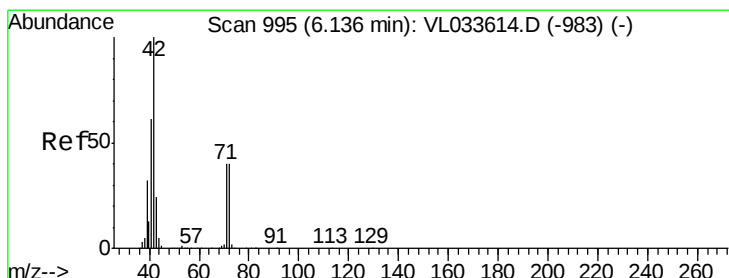
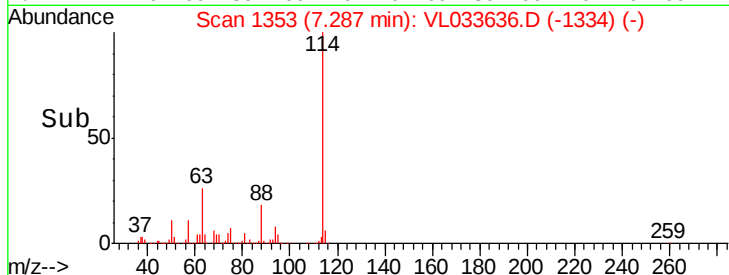
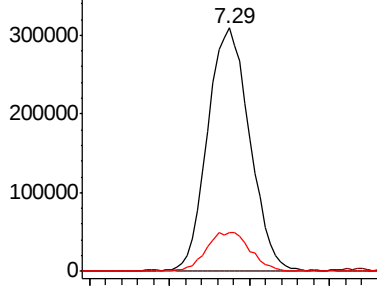
63 100

41 0.2 60.9 91.3#

62 15.9 53.3 79.9#



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: 1.632 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.36 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

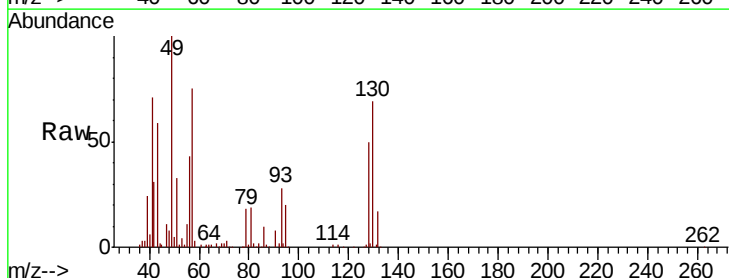
Tgt Ion: 42 Resp: 112180

Ion Ratio Lower Upper

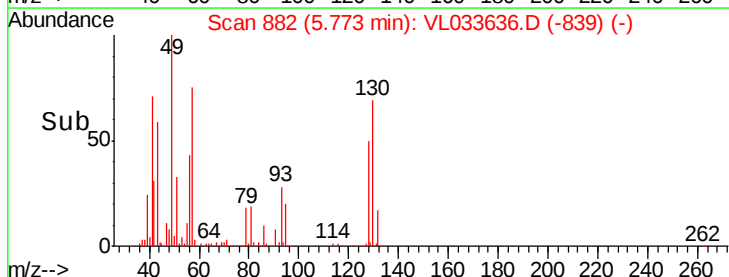
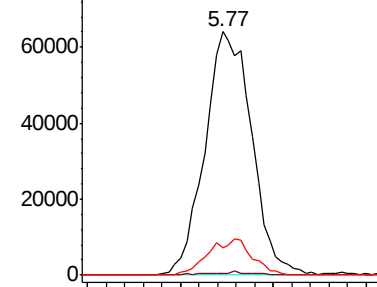
42 100

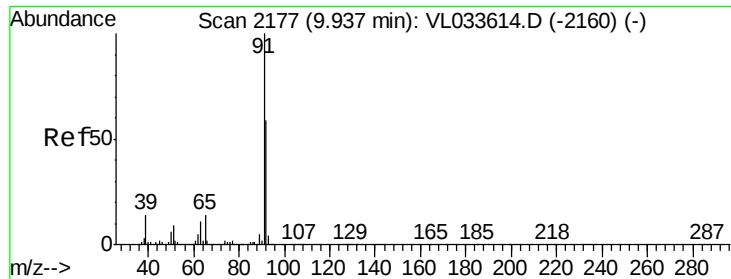
72 1.0 31.8 47.6#

71 13.8 31.0 46.4#



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





#53

Toluene

Concen: 8.655 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. 0.00 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

Instrument :

MSVOA_L

ClientSampled :

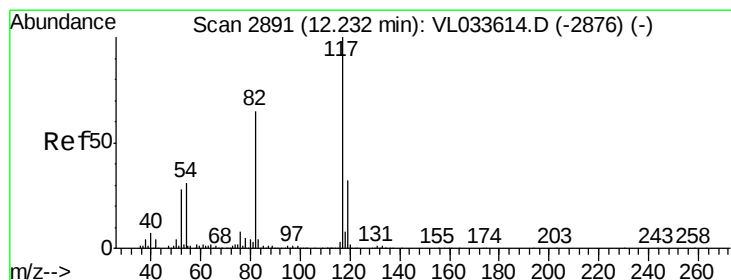
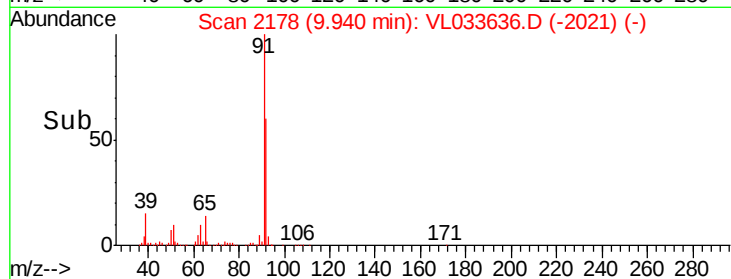
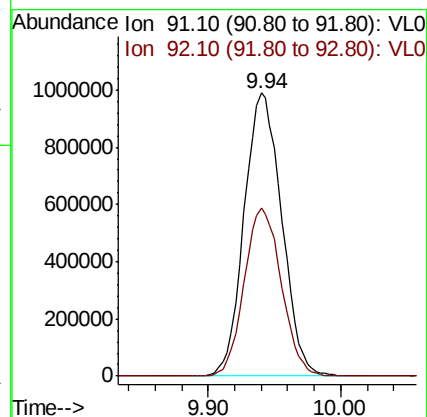
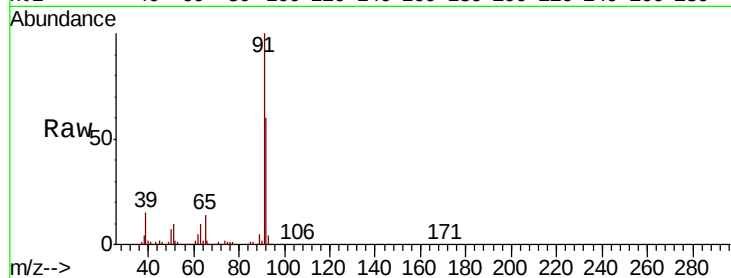
A-6

Tgt Ion: 91 Resp: 1951211

Ion Ratio Lower Upper

91 100

92 58.9 47.8 71.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2891

Delta R.T. 0.00 min

Lab File: VL033636.D

Acq: 2 May 2019 20:25

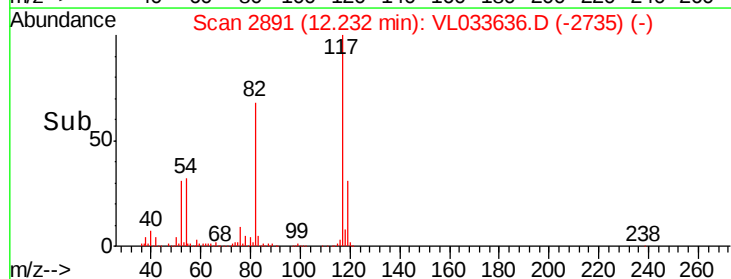
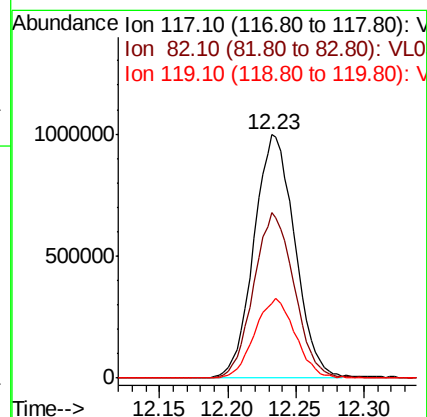
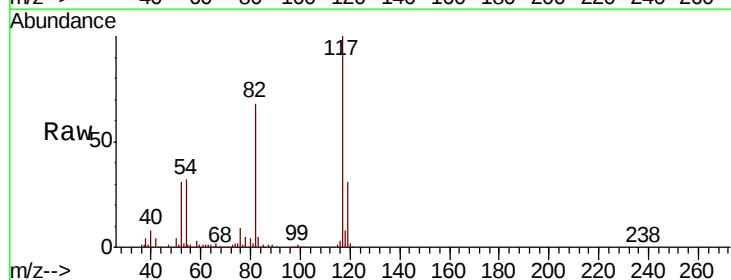
Tgt Ion: 117 Resp: 2078578

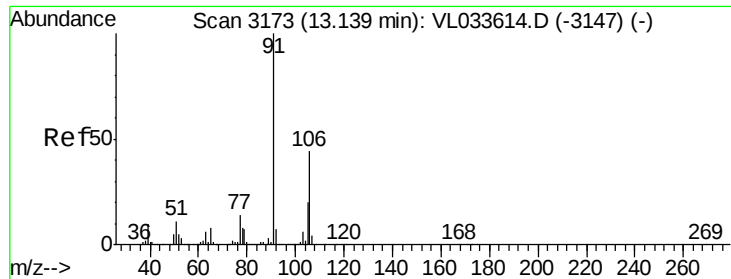
Ion Ratio Lower Upper

117 100

82 67.9 52.6 78.8

119 32.7 28.3 42.5

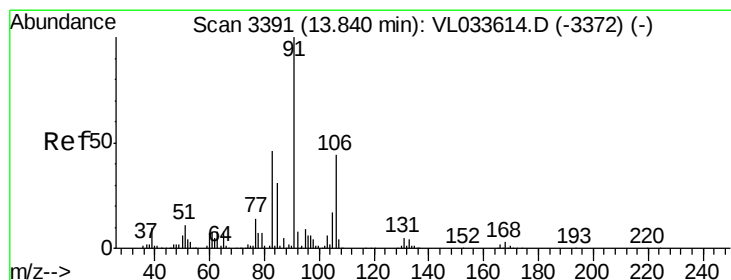
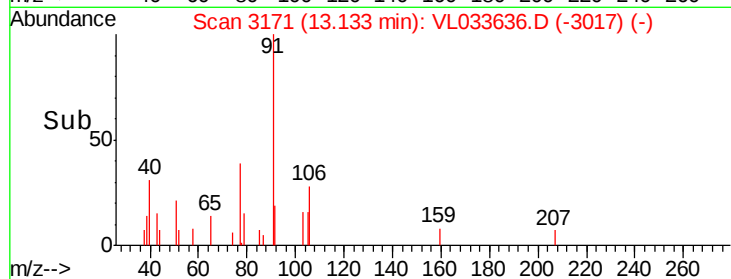
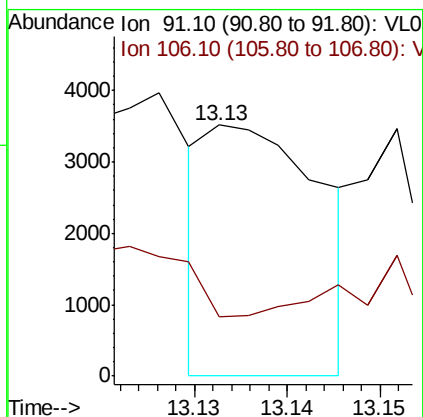
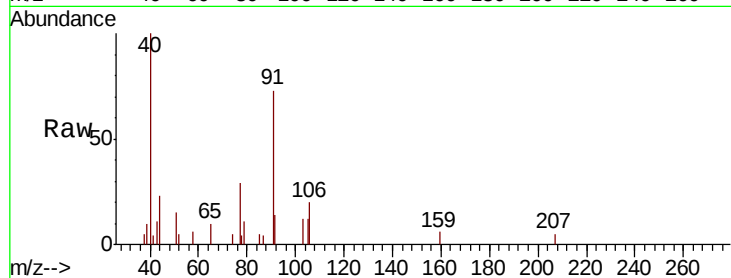




#59
m/p-Xylene
Concen: 0.015 ppbv
RT: 13.13 min Scan# 3171
Delta R.T. -0.01 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

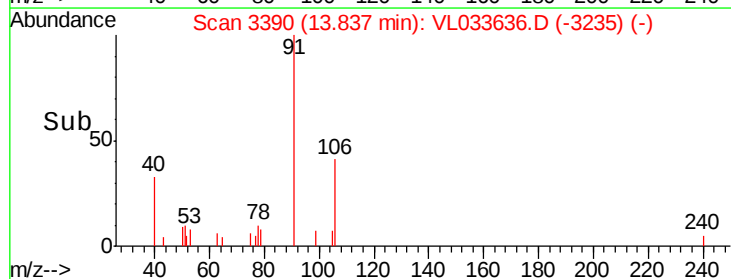
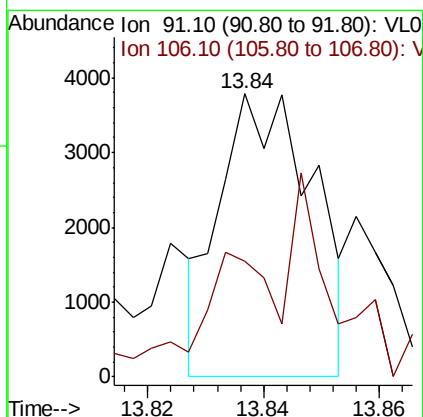
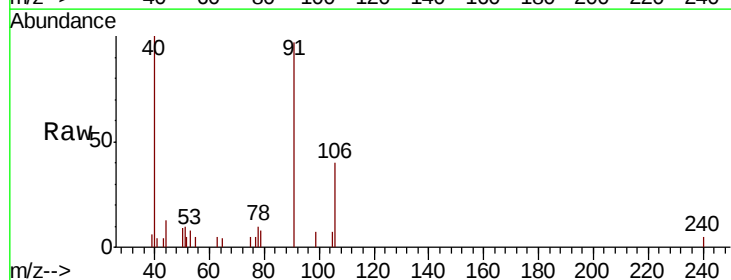
Instrument :
MSVOA_L
ClientSampleId :
A-6

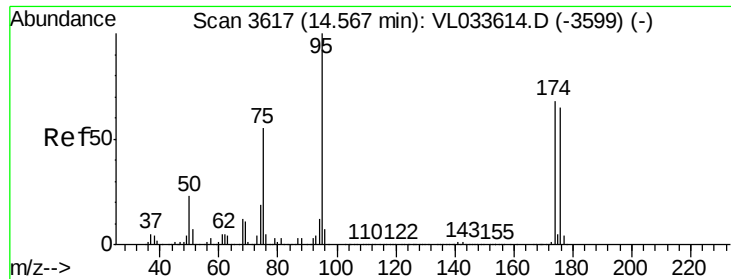
Tgt Ion: 91 Resp: 3006
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0



#60
o-Xylene
Concen: 0.020 ppbv
RT: 13.84 min Scan# 3390
Delta R.T. -0.00 min
Lab File: VL033636.D
Acq: 2 May 2019 20:25

Tgt Ion: 91 Resp: 4191
Ion Ratio Lower Upper
91 100
106 0.0 21.8 65.4#

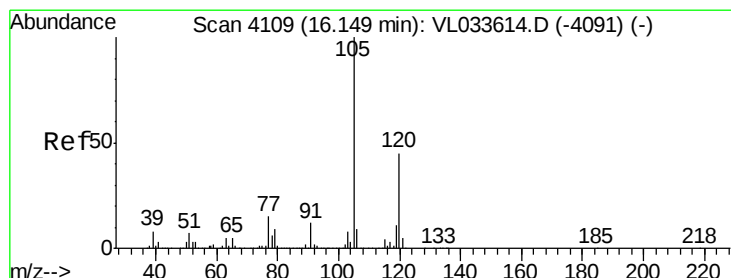
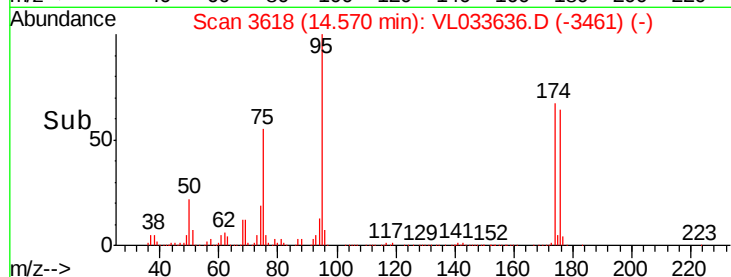
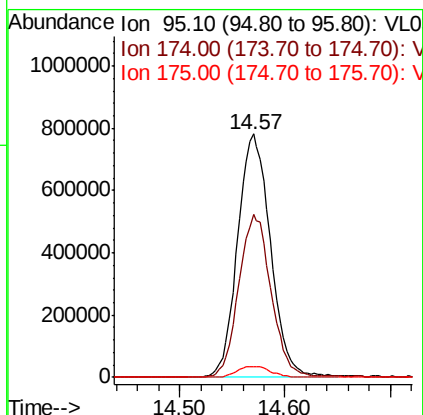
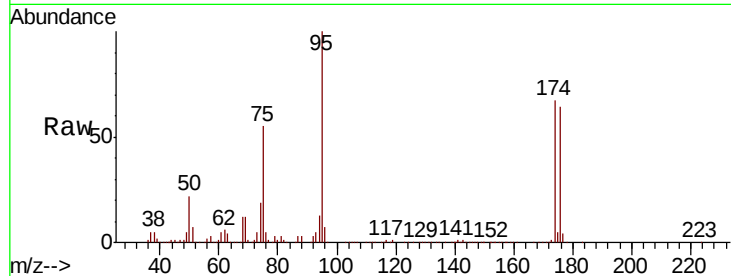




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.709 ppbv
 RT: 14.57 min Scan# 3618
 Delta R.T. 0.00 min
 Lab File: VL033636.D
 Acq: 2 May 2019 20:25

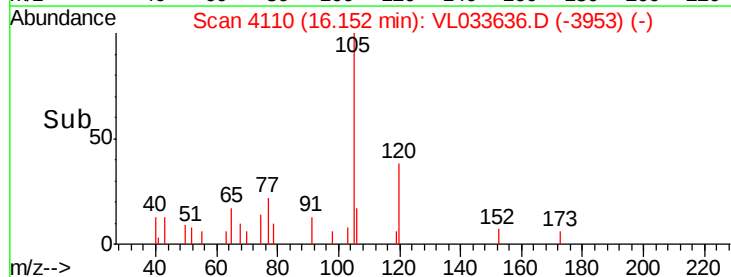
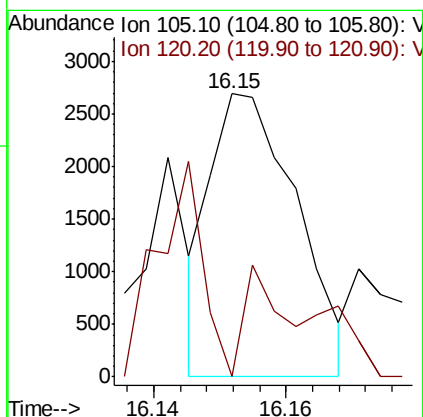
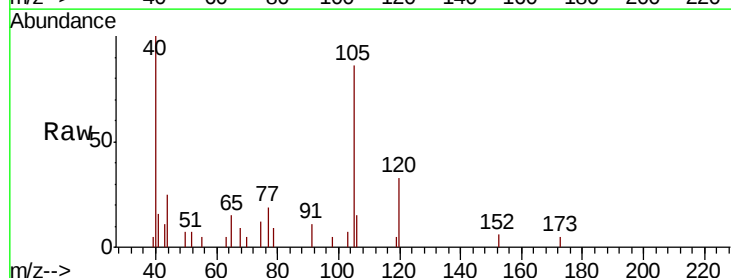
Instrument :
 MSVOA_L
 ClientSampleId :
 A-6

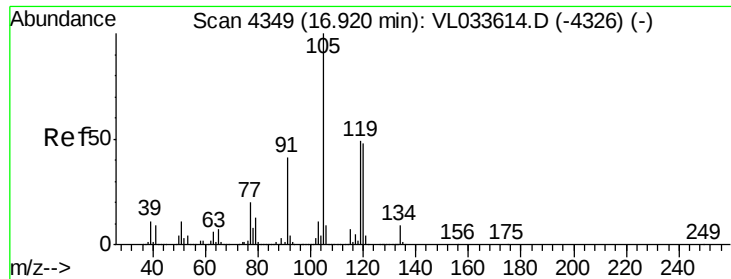
Tgt Ion: 95 Resp: 1694597
 Ion Ratio Lower Upper
 95 100
 174 66.2 53.9 80.9
 175 4.7 4.0 6.0



#73
 1,3,5-Trimethylbenzene
 Concen: 0.011 ppbv
 RT: 16.15 min Scan# 4110
 Delta R.T. 0.00 min
 Lab File: VL033636.D
 Acq: 2 May 2019 20:25

Tgt Ion: 105 Resp: 2449
 Ion Ratio Lower Upper
 105 100
 120 0.0 36.2 54.2#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.043 ppbv
 RT: 16.92 min Scan# 4349
 Delta R.T. 0.00 min
 Lab File: VL033636.D
 Acq: 2 May 2019 20:25

Instrument :
 MSVOA_L
 ClientSampleId :
 A-6

Tgt Ion:	105	Resp:	11182
Ion	Ratio	Lower	Upper
105	100		
120	36.5	38.4	57.6#
91	5.3	33.0	49.4#
77	3.9	16.2	24.2#

