

Data File : VL033174.D
Acq On : 6 Feb 2019 5:02
Operator : SY/AP
Sample : VSTDIC0.03
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

Quant Time: Feb 20 05:10:17 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL020519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 20 05:04:48 2019
QLast Update : Wed Feb 20 05:04:48 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	965834	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2585426	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2576827	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.58 95 2055279 10.23 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 102.30%

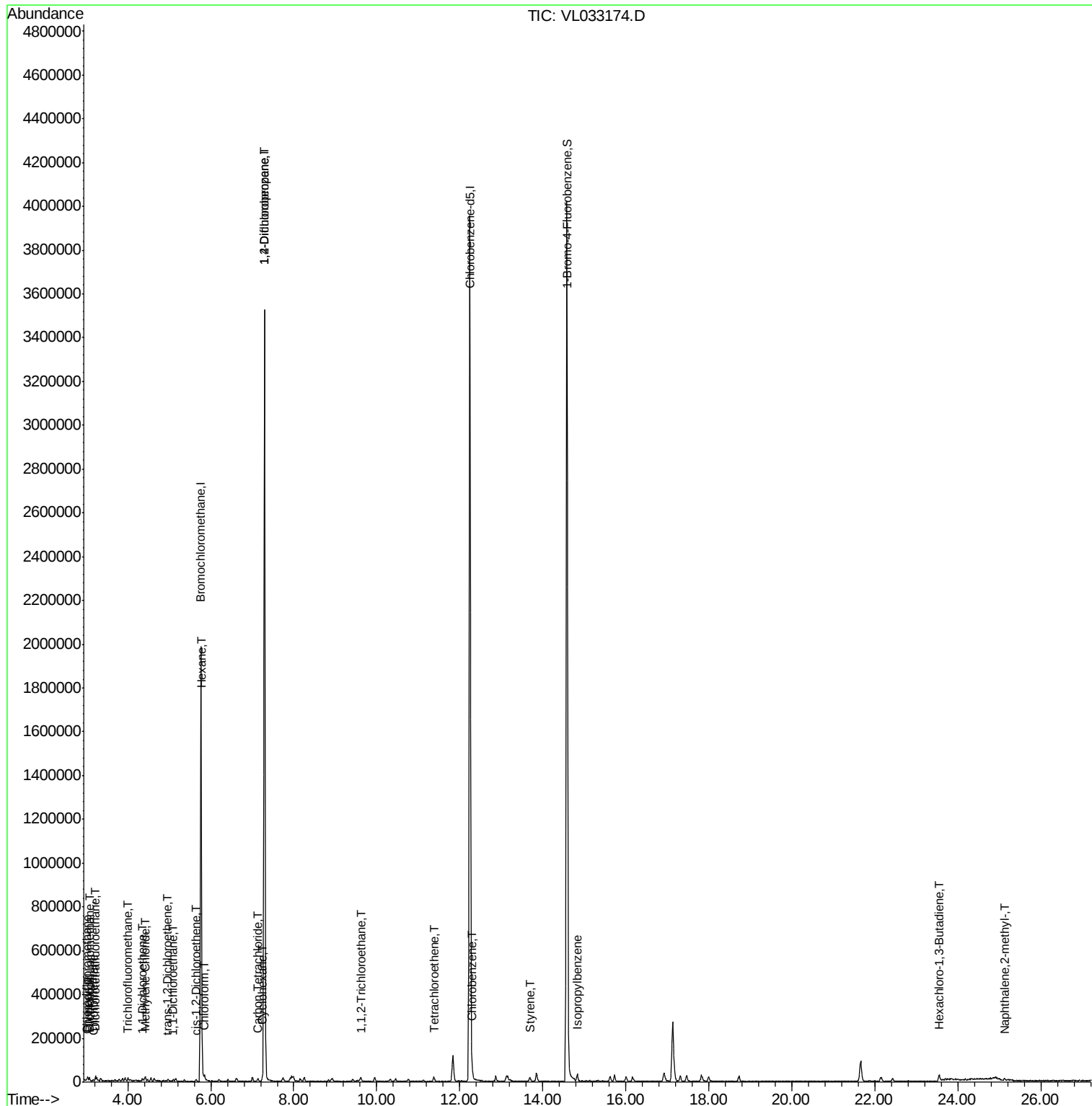
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	3.08	85	11568	0.063	ppbv #	77
3) Chlorodifluoromethane	3.02	51	6361	0.055	ppbv #	90
4) Chloromethane	3.17	50	2927	0.048	ppbv	95
8) Dichlorotetrafluoroethane	3.22	85	7299	0.051	ppbv	87
9) Propene	3.04	41	3613	0.064	ppbv	96
11) Trichlorofluoromethane	4.00	101	7580	0.051	ppbv	93
18) 1,1-Dichloroethene	4.36	96	2731	0.059	ppbv #	75
20) Methylene Chloride	4.41	84	3928	0.091	ppbv #	88
22) trans-1,2-Dichloroethene	4.97	96	1551	0.034	ppbv	97
24) 1,1-Dichloroethane	5.09	63	5957	0.045	ppbv #	95
26) Hexane	5.78	57	5734	0.050	ppbv #	91
29) Chloroform	5.84	83	8720	0.050	ppbv	97
30) Cyclohexane	7.25	84	3262	0.031	ppbv #	5
31) cis-1,2-Dichloroethene	5.64	61	4597	0.040	ppbv #	86
35) Carbon Tetrachloride	7.13	117	6332	0.032	ppbv #	66
39) 1,2-Dichloropropane	7.29	63	669290	6.468	ppbv #	27
47) 1,1,2-Trichloroethane	9.61	97	3889	0.036	ppbv #	46
52) Tetrachloroethene	11.37	164	3681	0.037	ppbv #	66
57) Chlorobenzene	12.30	112	9179	0.040	ppbv #	55
61) Styrene	13.69	104	8541	0.033	ppbv #	83
62) Isopropylbenzene	14.83	105	21561	0.045	ppbv	92
78) Hexachloro-1,3-Butadiene	23.54	225	4146	0.037	ppbv #	65
80) Naphthalene,2-methyl-	25.13	142	7454	0.035	ppbv	90

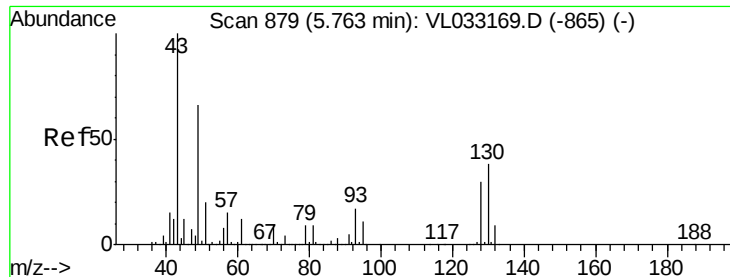
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

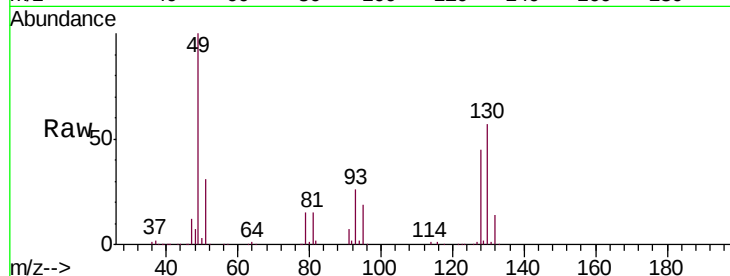
Tgt Ion: 49 Resp: 965834

Ion Ratio Lower Upper

49 100

128 45.9 23.6 71.0

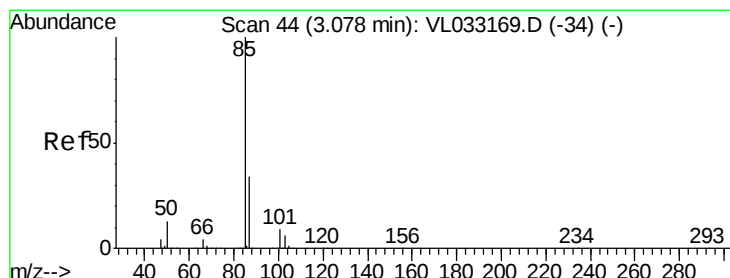
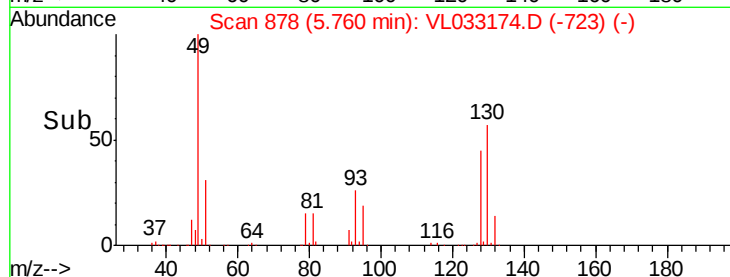
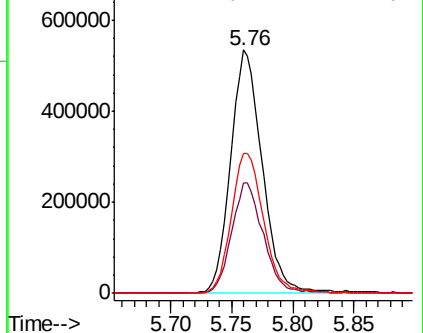
130 59.4 30.3 91.0



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



#2

Dichlorodifluoromethane

Concen: 0.063 ppbv

RT: 3.08 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033174.D

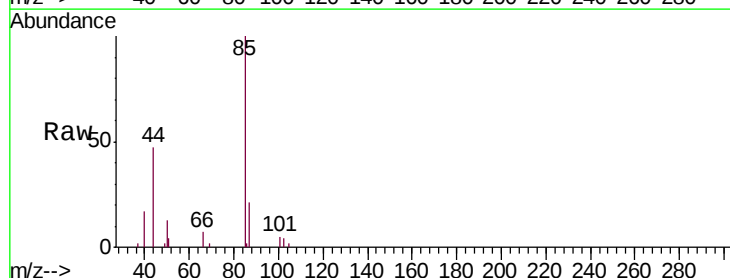
Acq: 6 Feb 2019 5:02

Tgt Ion: 85 Resp: 11568

Ion Ratio Lower Upper

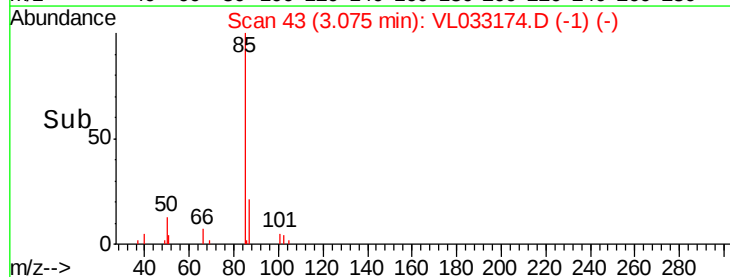
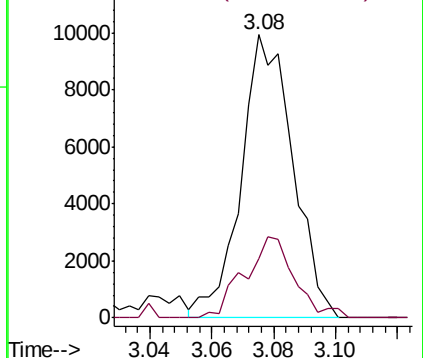
85 100

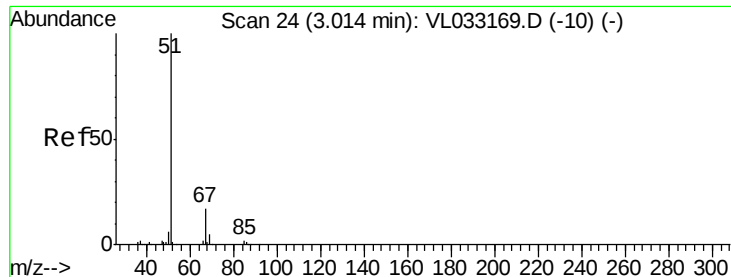
87 21.2 27.4 41.2#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.055 ppbv

RT: 3.02 min Scan# 25

Delta R.T. 0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA_L

ClientSampleId :

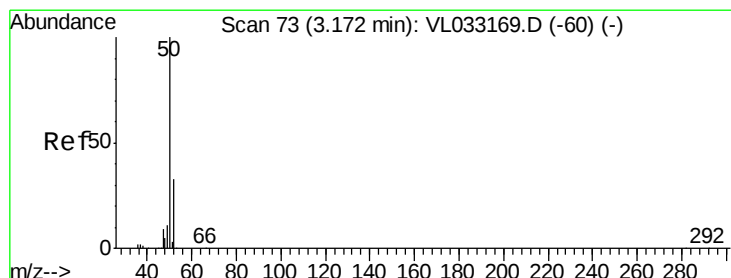
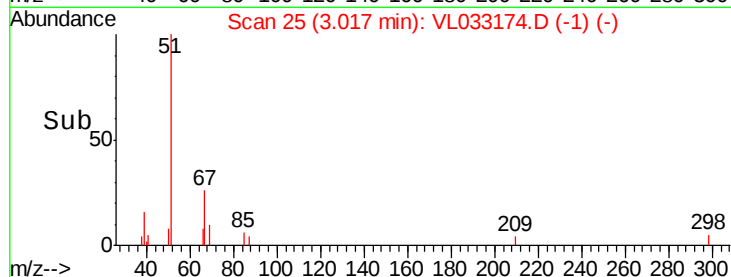
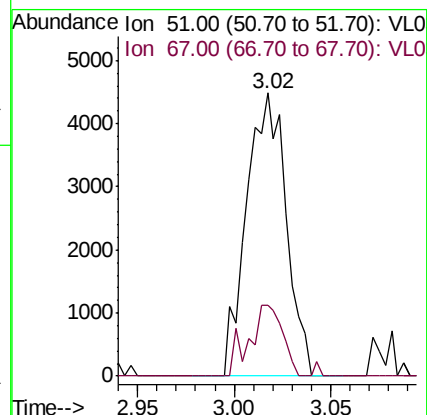
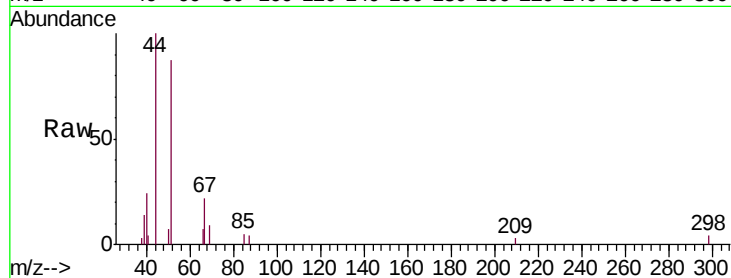
VSTDIC0.03

Tgt Ion: 51 Resp: 6361

Ion Ratio Lower Upper

51 100

67 21.9 14.0 21.0#



#4

Chloromethane

Concen: 0.048 ppbv

RT: 3.17 min Scan# 73

Delta R.T. -0.00 min

Lab File: VL033174.D

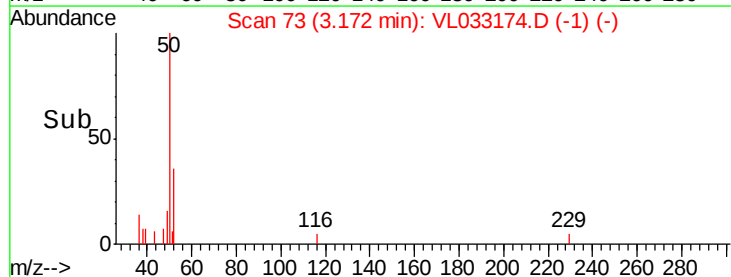
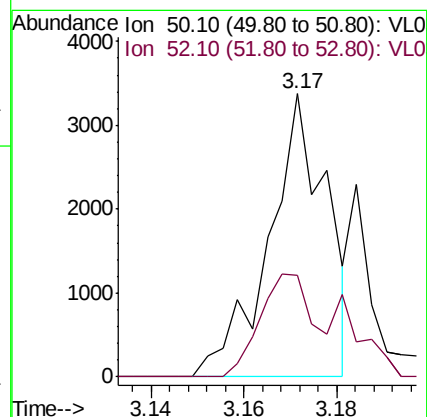
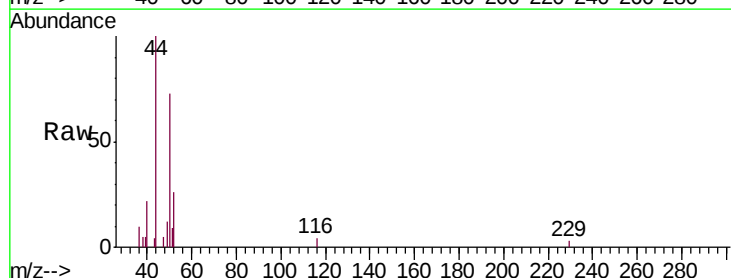
Acq: 6 Feb 2019 5:02

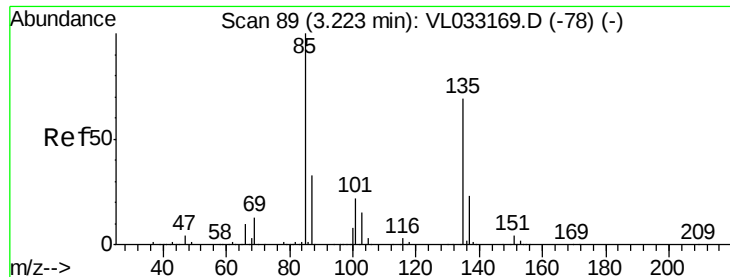
Tgt Ion: 50 Resp: 2927

Ion Ratio Lower Upper

50 100

52 35.8 26.5 39.7





#8

Dichlorotetrafluoroethane

Concen: 0.051 ppbv

RT: 3.22 min Scan# 89

Delta R.T. -0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA_L

ClientSampleId :

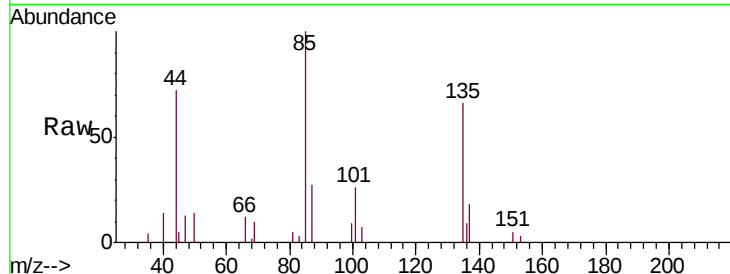
VSTDIC0.03

Tgt Ion: 85 Resp: 7299

Ion Ratio Lower Upper

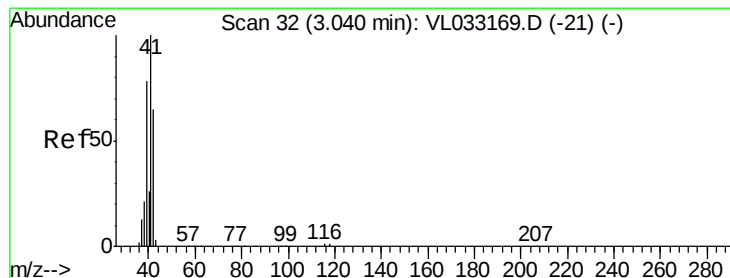
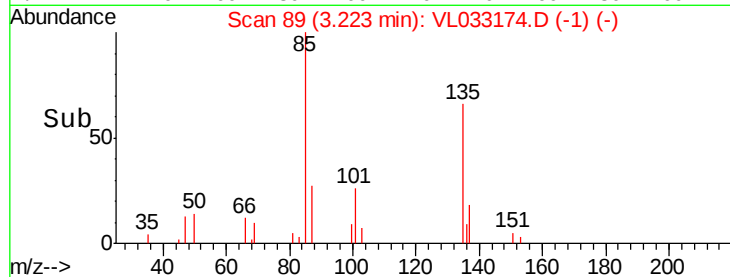
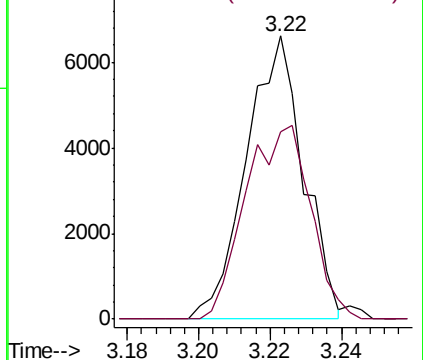
85 100

135 78.0 54.3 81.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): VL0



#9

Propene

Concen: 0.064 ppbv

RT: 3.04 min Scan# 32

Delta R.T. -0.00 min

Lab File: VL033174.D

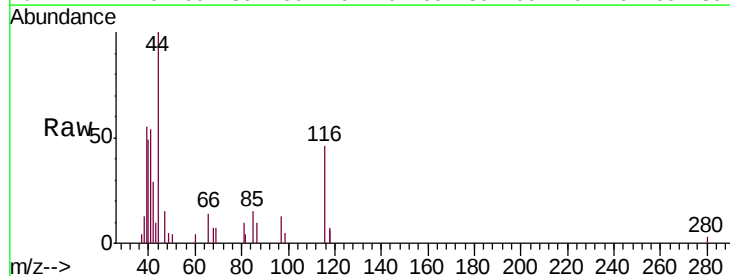
Acq: 6 Feb 2019 5:02

Tgt Ion: 41 Resp: 3613

Ion Ratio Lower Upper

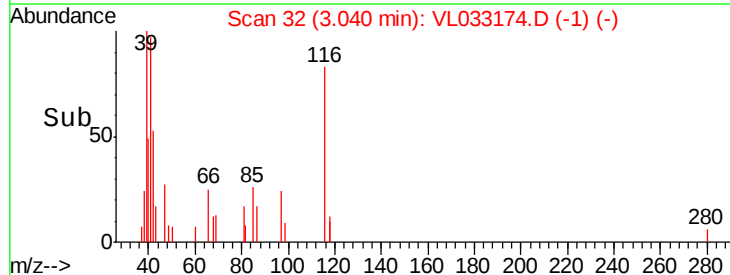
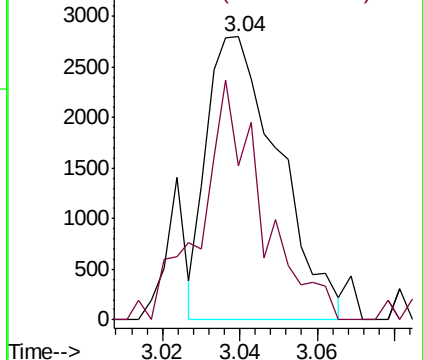
41 100

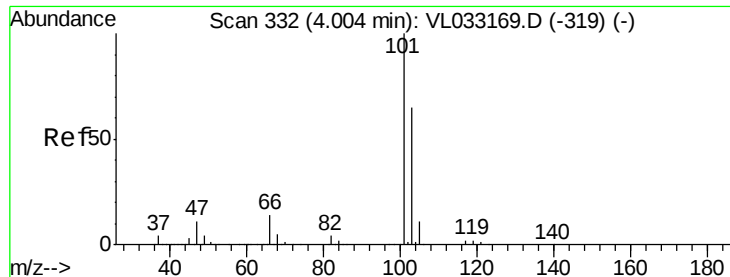
42 72.2 55.0 82.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

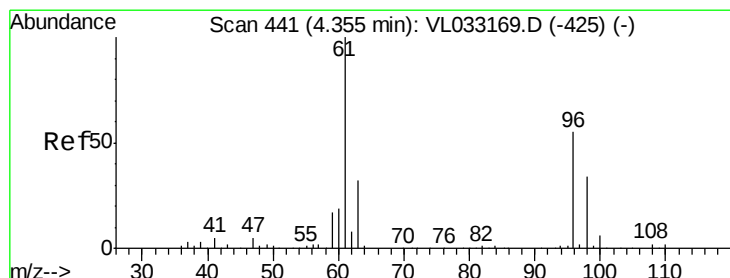
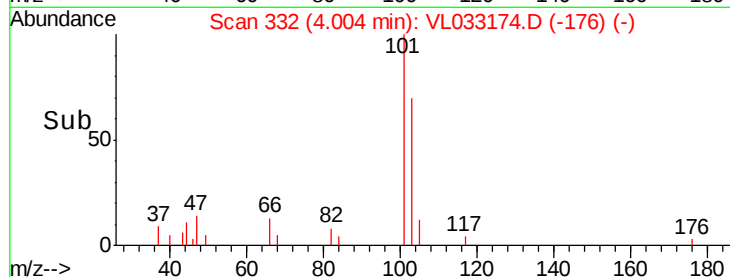
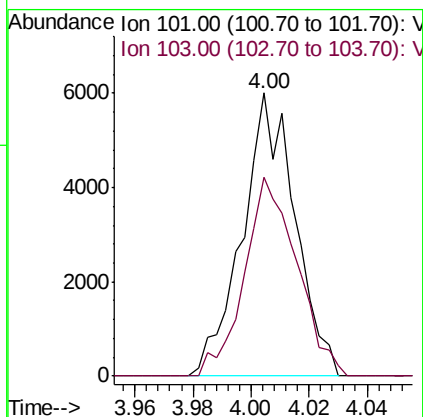
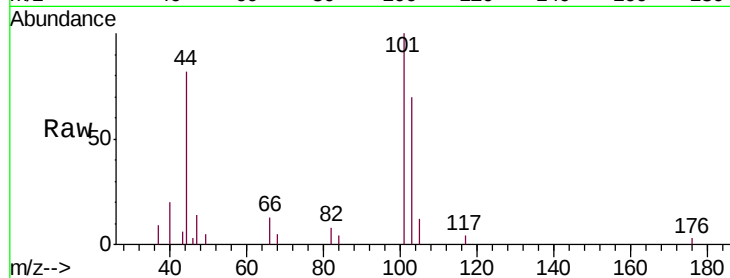




#11
 Trichlorofluoromethane
 Concen: 0.051 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.00 min
 Lab File: VL033174.D
 Acq: 6 Feb 2019 5:02

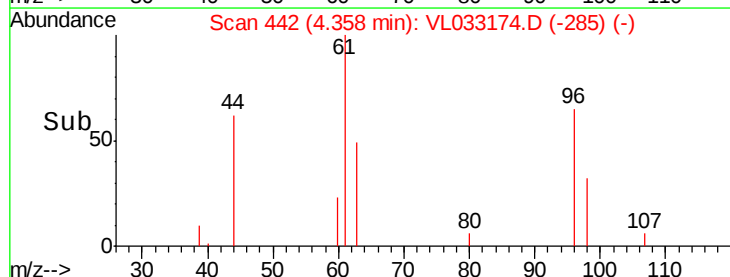
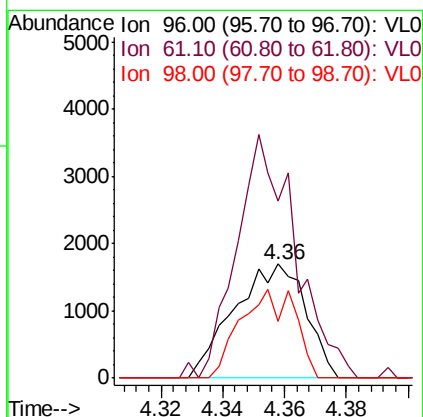
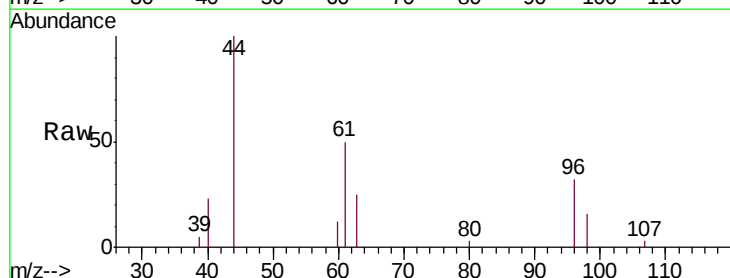
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

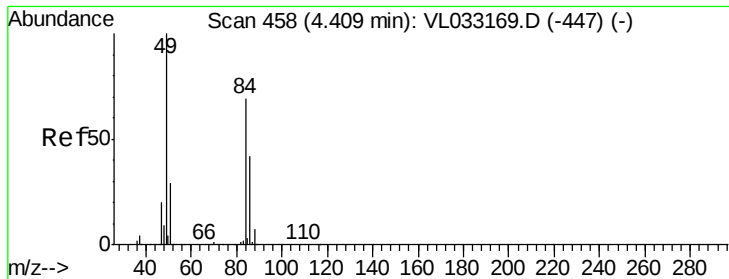
Tgt Ion: 101 Resp: 7580
 Ion Ratio Lower Upper
 101 100
 103 70.4 51.7 77.5



#18
 1,1-Dichloroethene
 Concen: 0.059 ppbv
 RT: 4.36 min Scan# 442
 Delta R.T. 0.00 min
 Lab File: VL033174.D
 Acq: 6 Feb 2019 5:02

Tgt Ion: 96 Resp: 2731
 Ion Ratio Lower Upper
 96 100
 61 141.4 145.0 217.6#
 98 49.7 50.0 75.0#





#20

Methylene Chloride

Concen: 0.091 ppbv

RT: 4.41 min Scan# 459

Delta R.T. 0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

Tgt Ion: 84 Resp: 3928

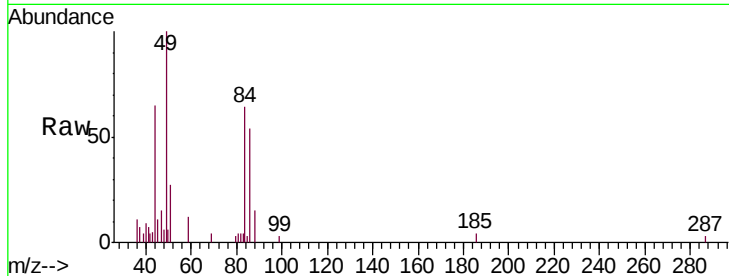
Ion Ratio Lower Upper

84 100

49 155.8 115.8 173.8

51 40.2 33.0 49.6

86 80.0 48.2 72.2#

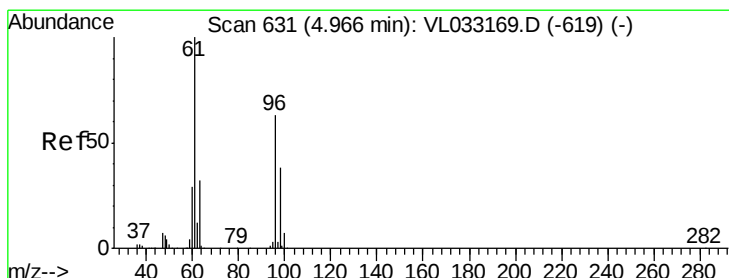
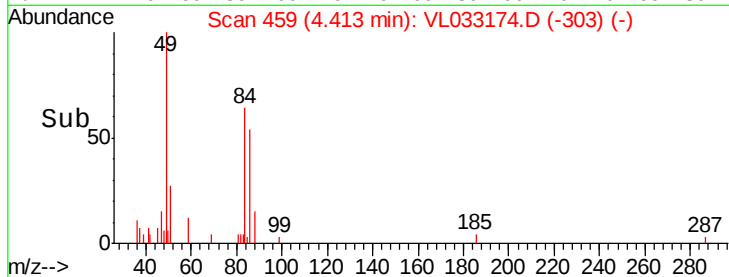
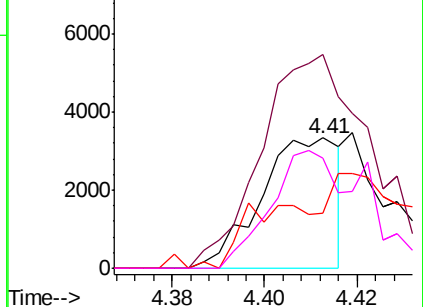


Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#22

trans-1,2-Dichloroethene

Concen: 0.034 ppbv

RT: 4.97 min Scan# 631

Delta R.T. -0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

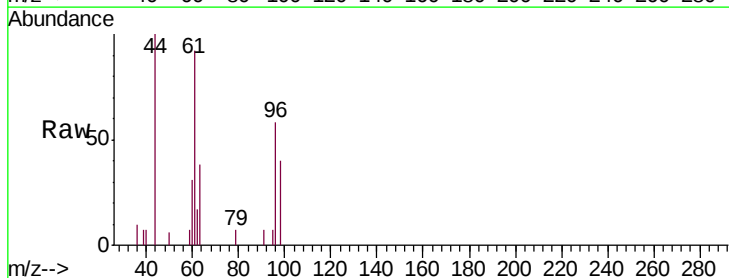
Tgt Ion: 96 Resp: 1551

Ion Ratio Lower Upper

96 100

61 155.7 126.4 189.6

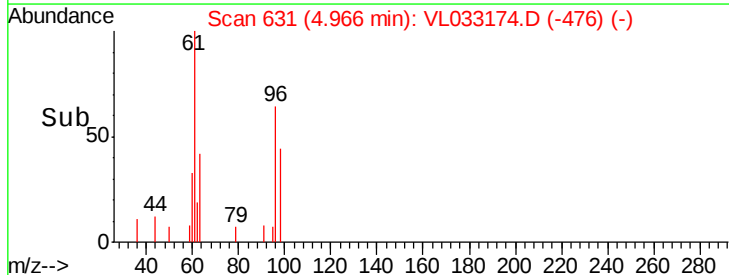
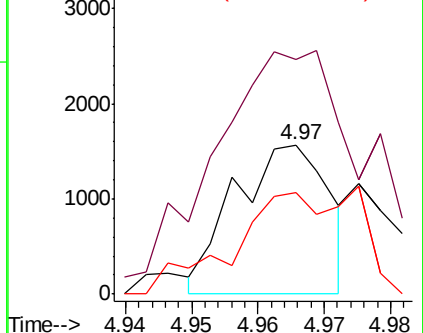
98 57.1 48.4 72.6

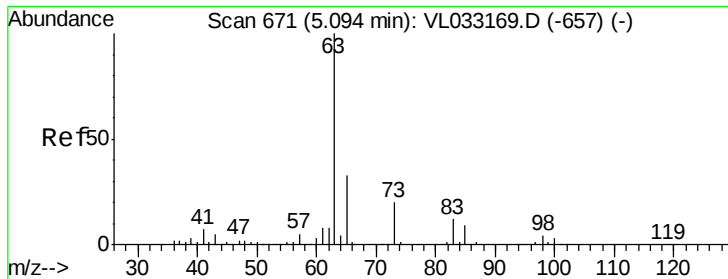


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#24

1,1-Dichloroethane

Concen: 0.045 ppbv

RT: 5.09 min Scan# 671

Delta R.T. -0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

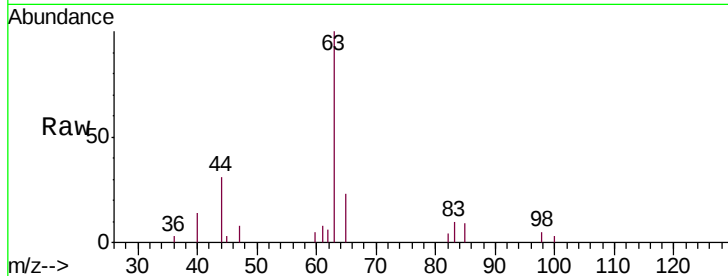
Instrument :

MSVOA_L

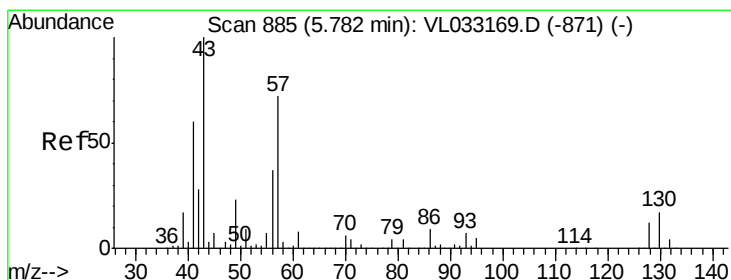
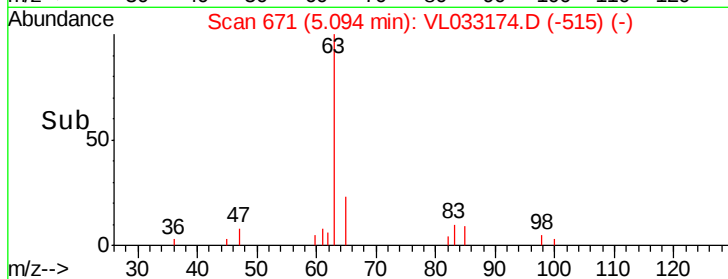
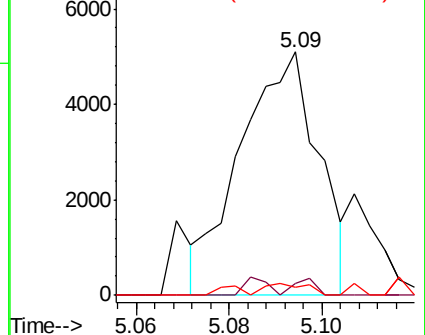
ClientSampleId :

VSTDIC0.03

Tgt Ion:	63	Resp:	5957
Ion	Ratio	Lower	Upper
63	100		
98	6.0	2.1	6.5
100	4.2	1.4	4.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 98.00 (97.70 to 98.70): VL0
Ion 100.00 (99.70 to 100.70): VL0



#26

Hexane

Concen: 0.050 ppbv

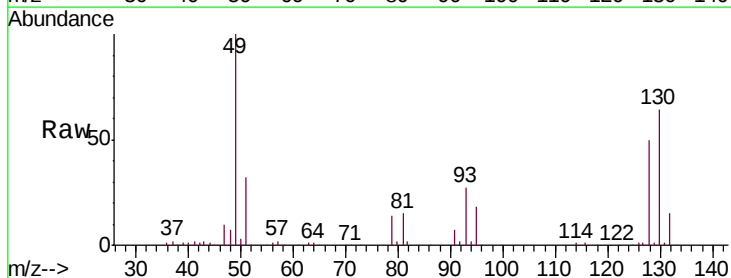
RT: 5.78 min Scan# 884

Delta R.T. -0.00 min

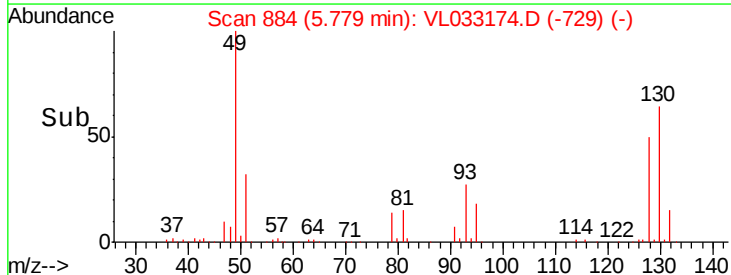
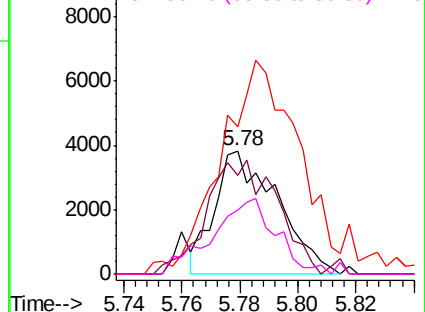
Lab File: VL033174.D

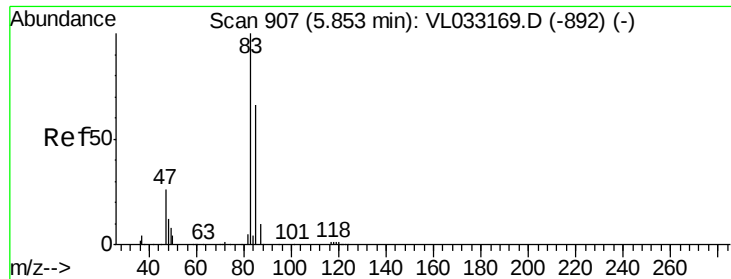
Acq: 6 Feb 2019 5:02

Tgt Ion:	57	Resp:	5734
Ion	Ratio	Lower	Upper
57	100		
41	107.2	69.4	104.2#
43	225.3	176.7	265.1
56	63.6	41.4	62.0#



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

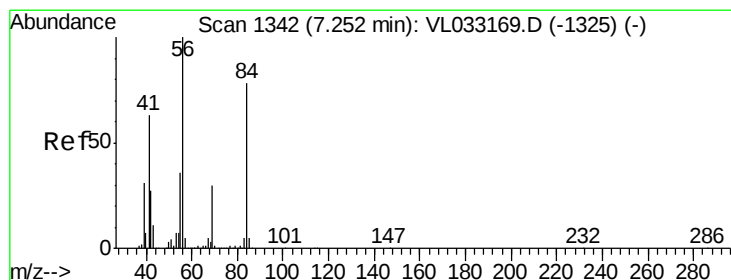
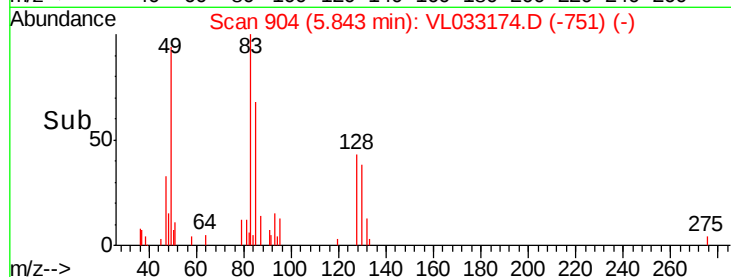
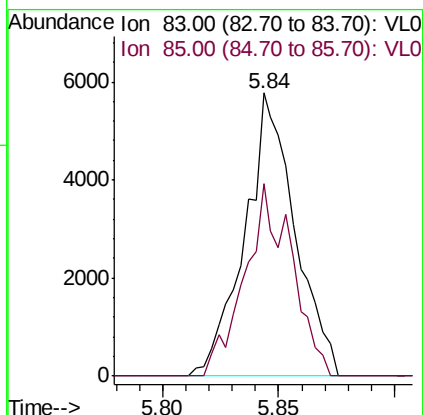
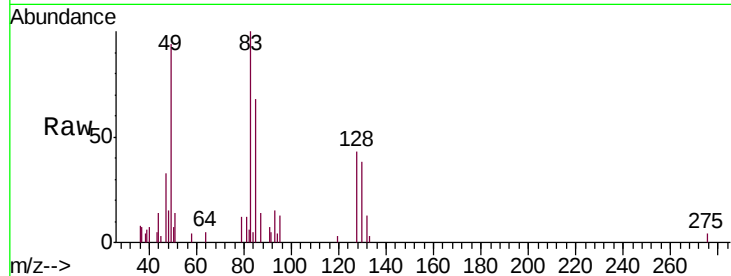




#29
Chloroform
Concen: 0.050 ppbv
RT: 5.84 min Scan# 904
Delta R.T. -0.01 min
Lab File: VL033174.D
Acq: 6 Feb 2019 5:02

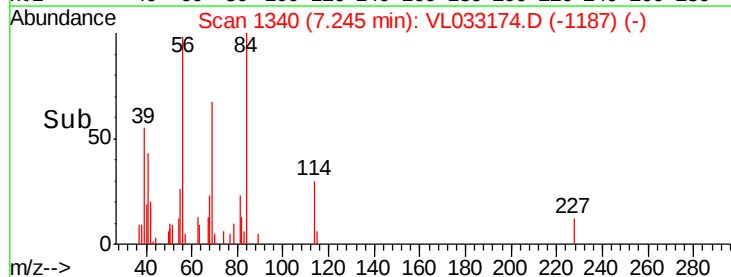
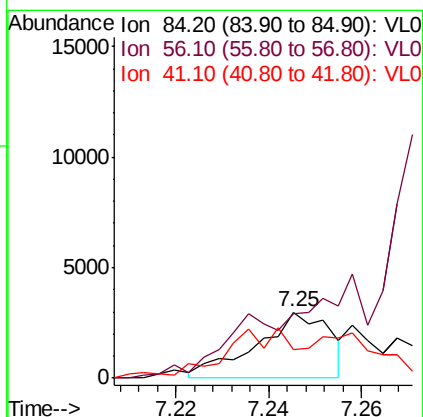
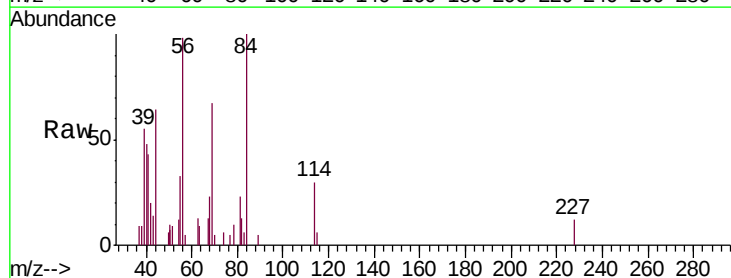
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

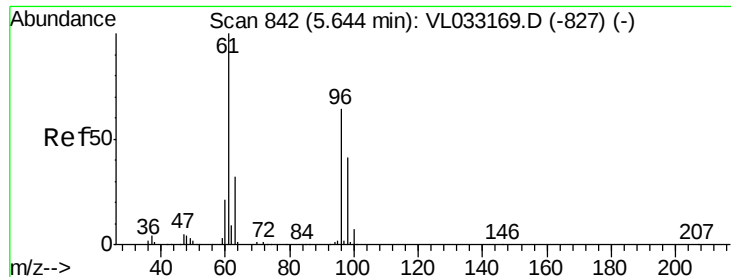
Tgt Ion: 83 Resp: 8720
Ion Ratio Lower Upper
83 100
85 68.2 52.6 78.8



#30
Cyclohexane
Concen: 0.031 ppbv
RT: 7.25 min Scan# 1340
Delta R.T. -0.01 min
Lab File: VL033174.D
Acq: 6 Feb 2019 5:02

Tgt Ion: 84 Resp: 3262
Ion Ratio Lower Upper
84 100
56 0.0 109.5 164.3#
41 140.6 66.6 100.0#





#31

cis-1,2-Dichloroethene

Concen: 0.040 ppbv

RT: 5.64 min Scan# 841

Delta R.T. -0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

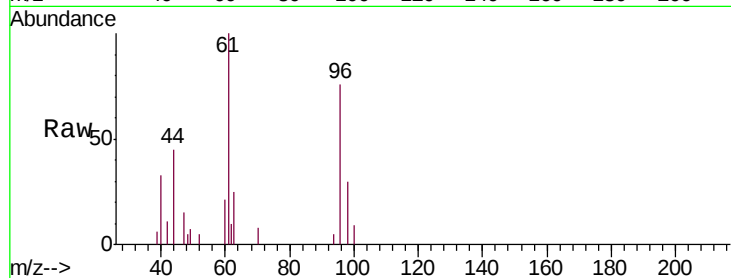
Tgt Ion: 61 Resp: 4597

Ion Ratio Lower Upper

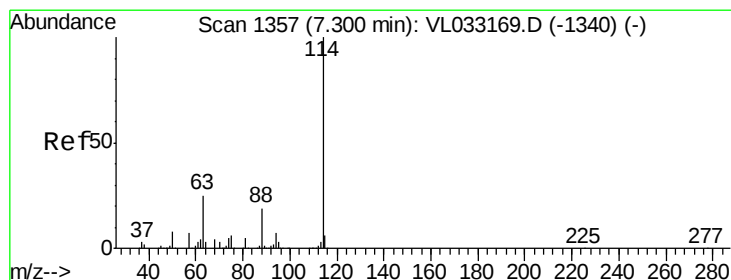
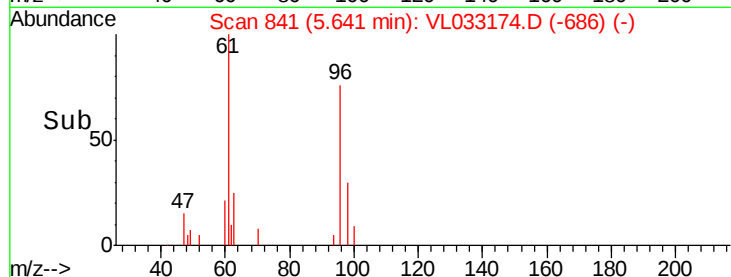
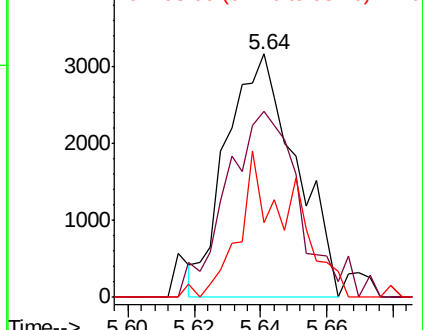
61 100

96 69.9 51.2 76.8

98 25.2 32.8 49.2#



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1354

Delta R.T. -0.01 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

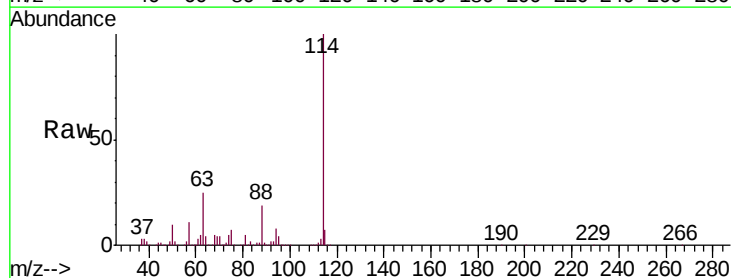
Tgt Ion: 114 Resp: 2585426

Ion Ratio Lower Upper

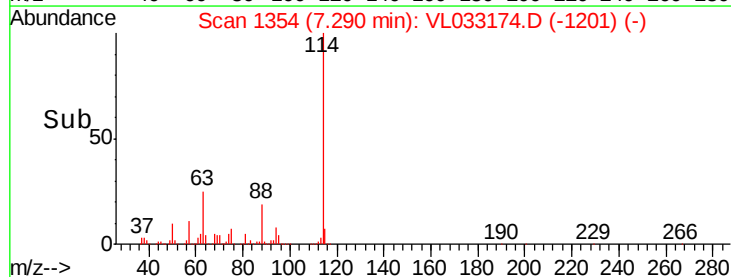
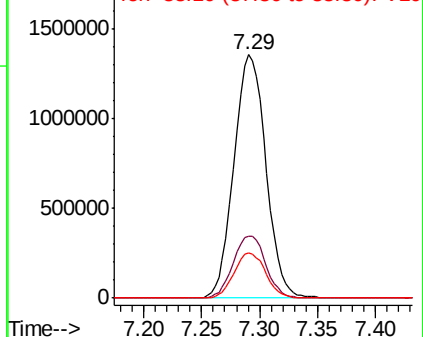
114 100

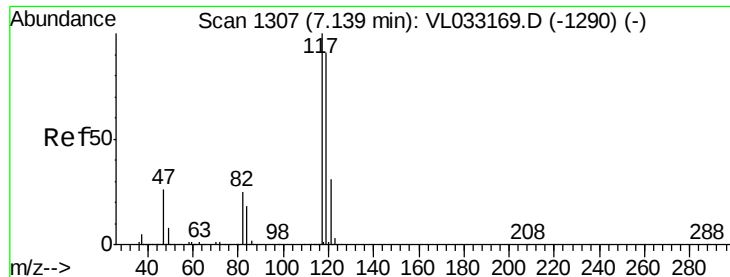
63 26.0 20.8 31.2

88 18.6 14.6 22.0



Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0

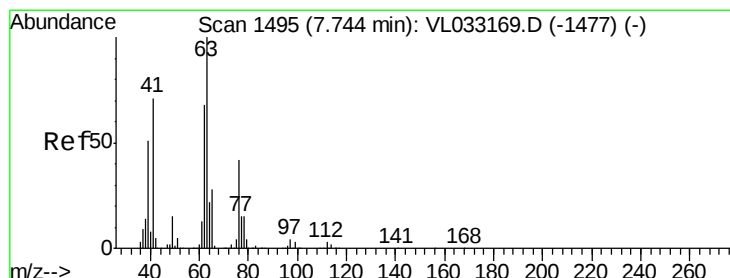
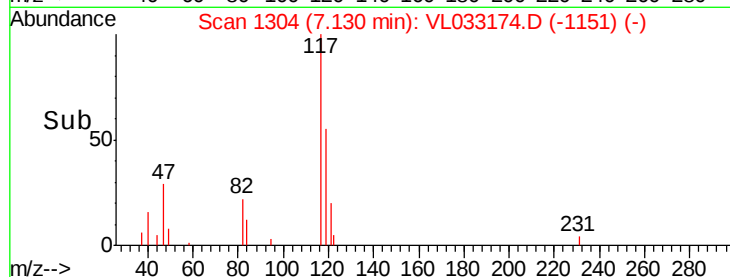
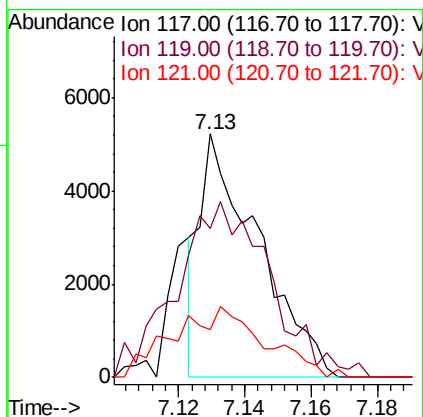
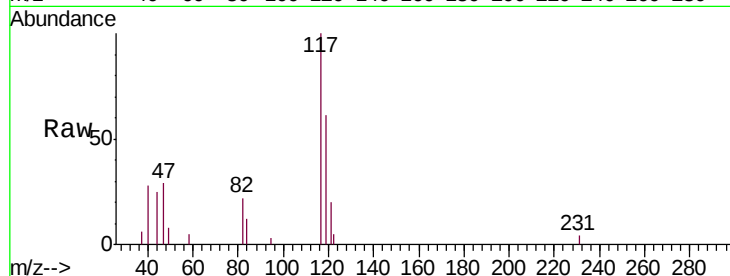




#35
Carbon Tetrachloride
Concen: 0.032 ppbv
RT: 7.13 min Scan# 1304
Delta R.T. -0.01 min
Lab File: VL033174.D
Acq: 6 Feb 2019 5:02

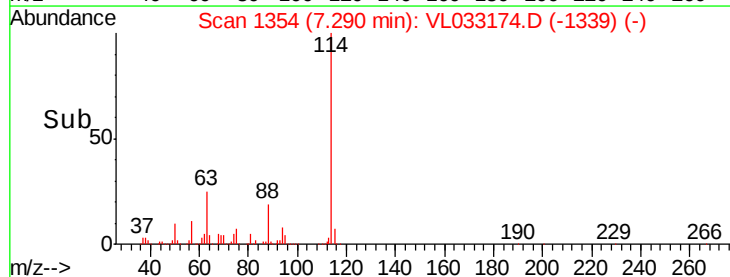
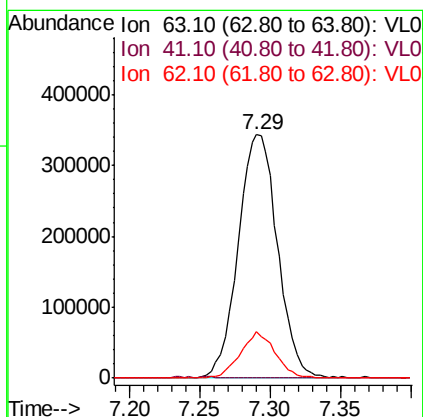
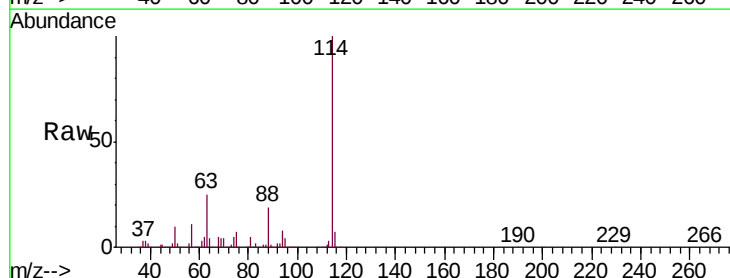
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

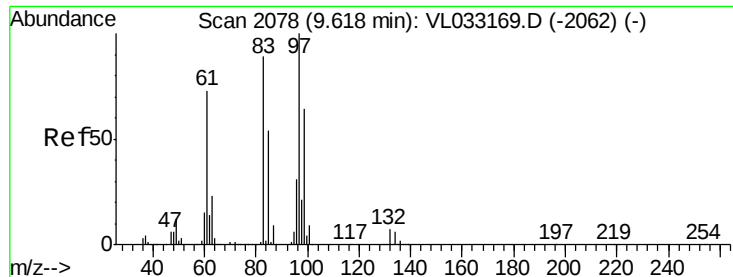
Tgt Ion: 117 Resp: 6332
Ion Ratio Lower Upper
117 100
119 56.9 73.0 109.6#
121 16.2 25.1 37.7#



#39
1,2-Dichloropropane
Concen: 6.468 ppbv
RT: 7.29 min Scan# 1354
Delta R.T. -0.45 min
Lab File: VL033174.D
Acq: 6 Feb 2019 5:02

Tgt Ion: 63 Resp: 669290
Ion Ratio Lower Upper
63 100
41 0.0 56.4 84.6#
62 19.2 54.2 81.4#





#47

1,1,2-Trichloroethane

Concen: 0.036 ppbv

RT: 9.61 min Scan# 2077

Delta R.T. -0.00 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

Tgt Ion: 97 Resp: 3889

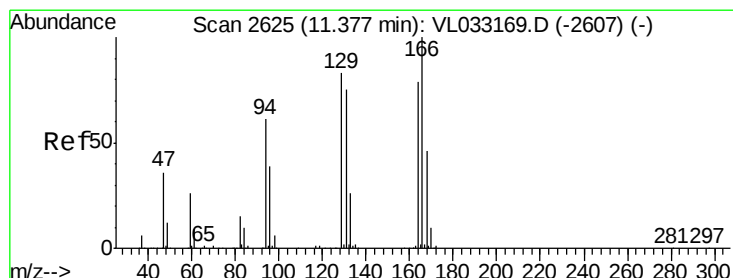
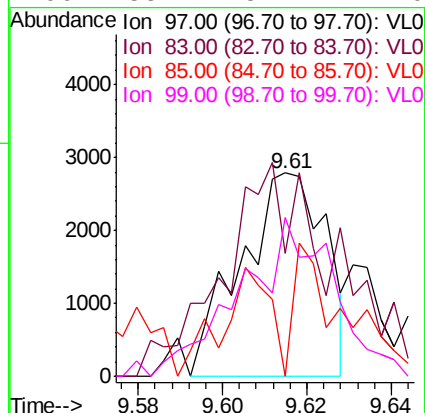
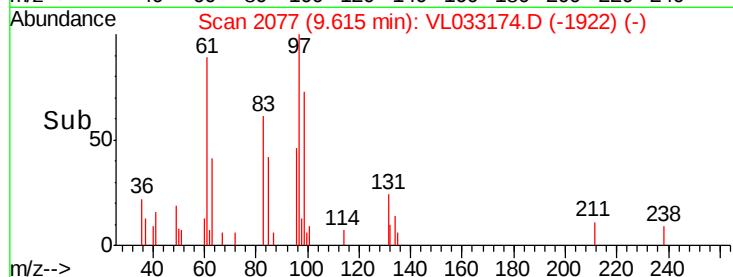
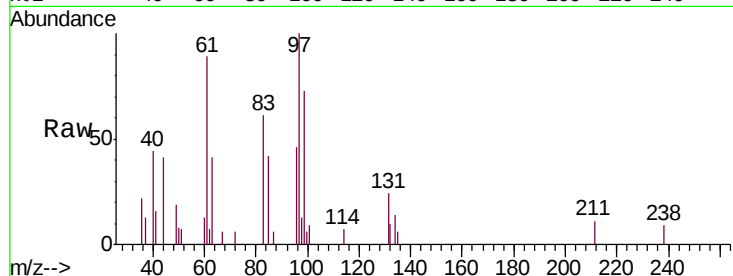
Ion Ratio Lower Upper

97 100

83 22.2 71.4 107.2#

85 0.0 43.5 65.3#

99 55.4 51.4 77.0



#52

Tetrachloroethene

Concen: 0.037 ppbv

RT: 11.37 min Scan# 2623

Delta R.T. -0.01 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Tgt Ion: 164 Resp: 3681

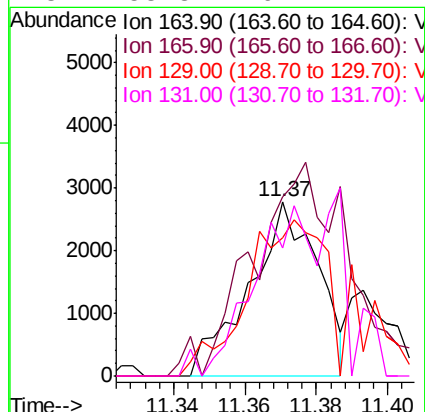
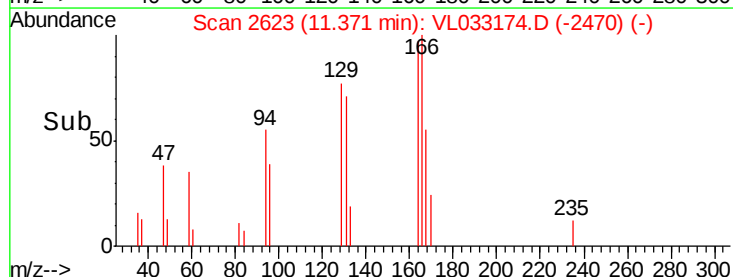
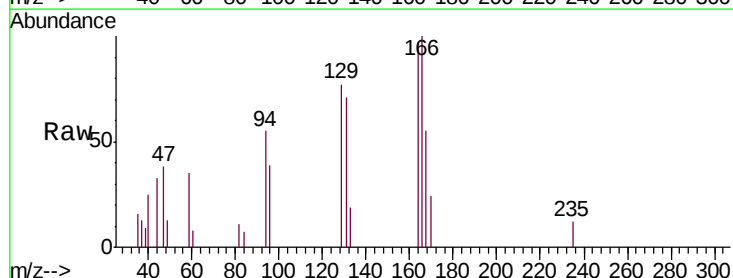
Ion Ratio Lower Upper

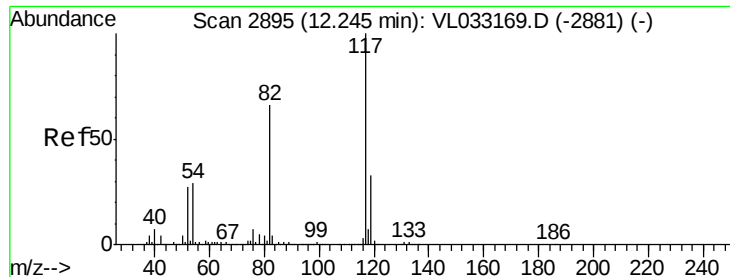
164 100

166 80.6 100.9 151.3#

129 79.2 83.9 125.9#

131 58.3 76.2 114.2#

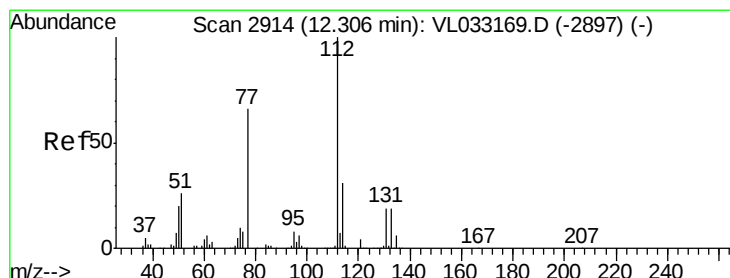
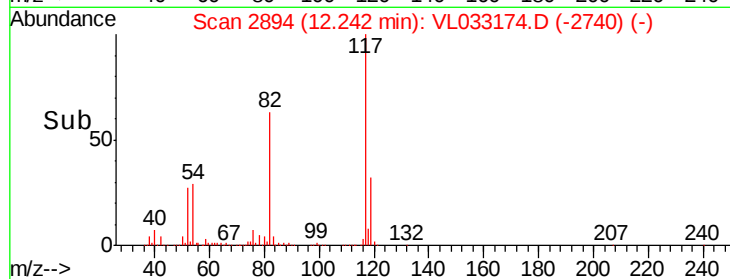
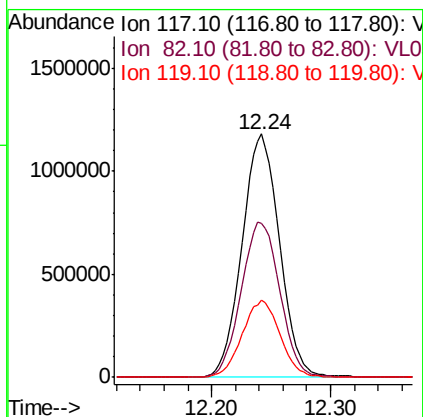
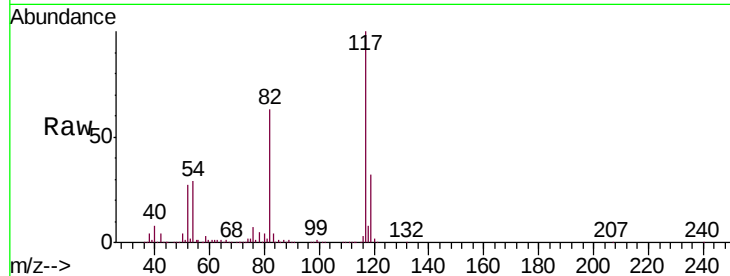




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2894
Delta R.T. -0.00 min
Lab File: VL033174.D
Acq: 6 Feb 2019 5:02

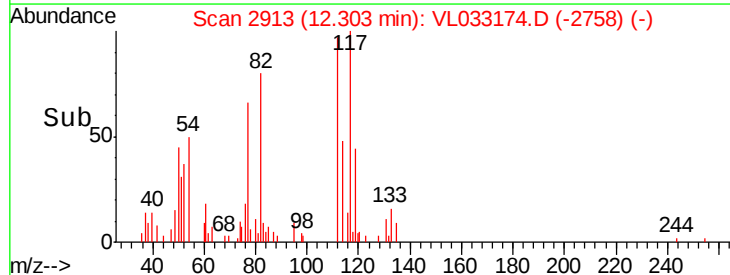
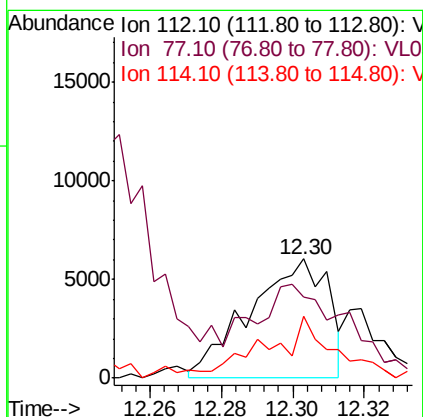
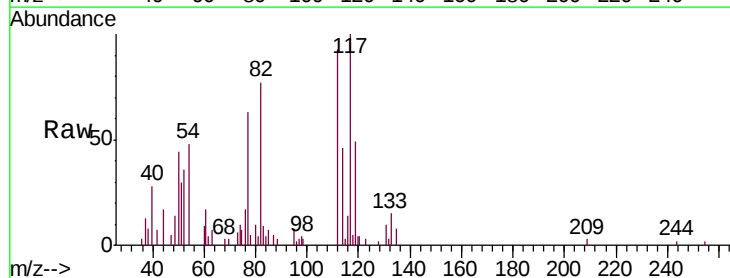
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

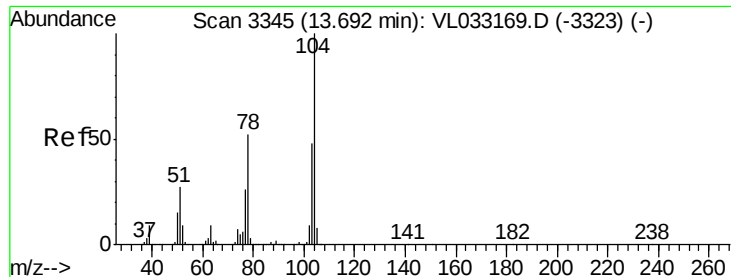
Tgt Ion:117 Resp: 2576827
Ion Ratio Lower Upper
117 100
82 66.3 53.8 80.8
119 32.2 46.9 70.3#



#57
Chlorobenzene
Concen: 0.040 ppbv
RT: 12.30 min Scan# 2913
Delta R.T. -0.00 min
Lab File: VL033174.D
Acq: 6 Feb 2019 5:02

Tgt Ion:112 Resp: 9179
Ion Ratio Lower Upper
112 100
77 26.2 54.0 81.0#
114 47.7 27.9 34.1#

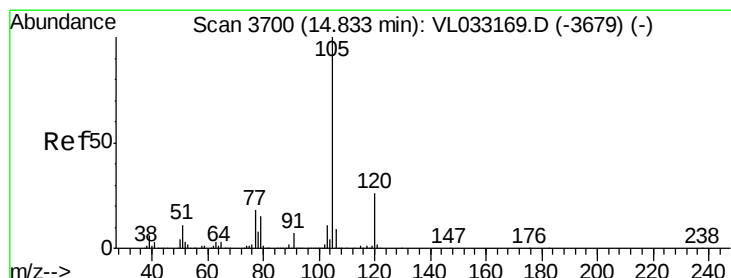
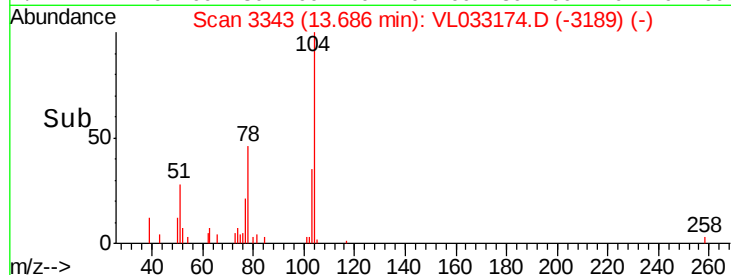
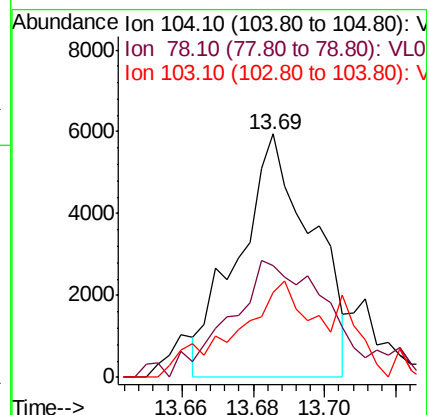
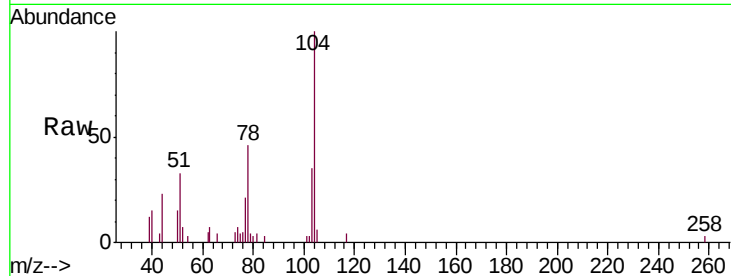




#61
Styrene
Concen: 0.033 ppbv
RT: 13.69 min Scan# 3343
Delta R.T. -0.01 min
Lab File: VL033174.D
Acq: 6 Feb 2019 5:02

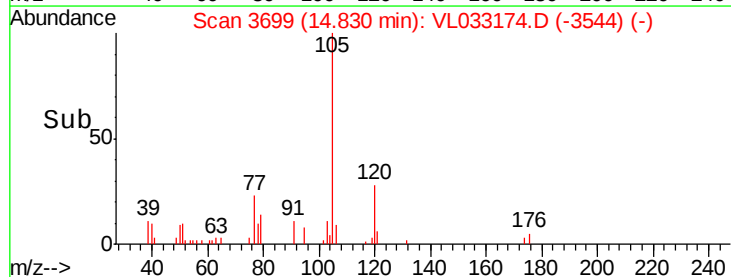
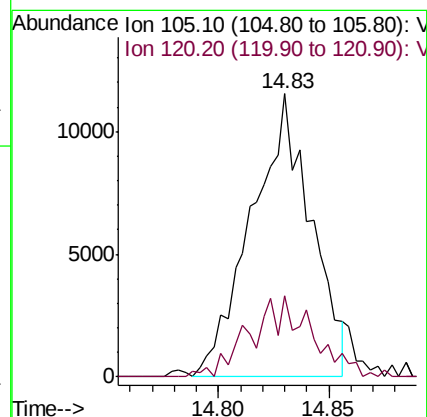
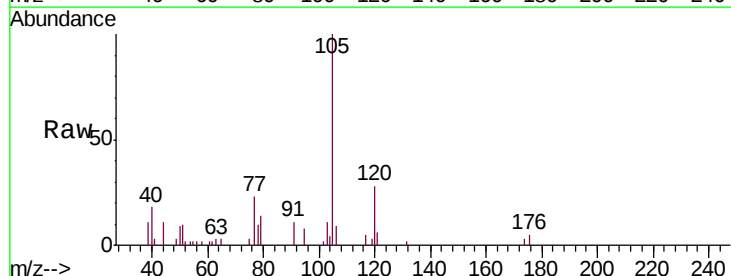
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

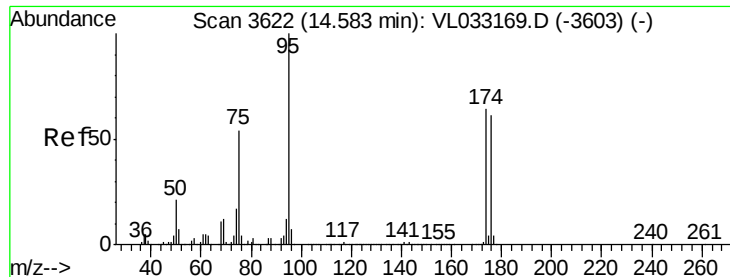
Tgt Ion:104 Resp: 8541
Ion Ratio Lower Upper
104 100
78 69.0 41.9 62.9#
103 53.6 37.9 56.9



#62
Isopropylbenzene
Concen: 0.045 ppbv
RT: 14.83 min Scan# 3699
Delta R.T. -0.00 min
Lab File: VL033174.D
Acq: 6 Feb 2019 5:02

Tgt Ion:105 Resp: 21561
Ion Ratio Lower Upper
105 100
120 29.4 20.3 30.5





#68

1-Bromo-4-Fluorobenzene

Concen: 10.233 ppbv

RT: 14.58 min Scan# 3620

Delta R.T. -0.01 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

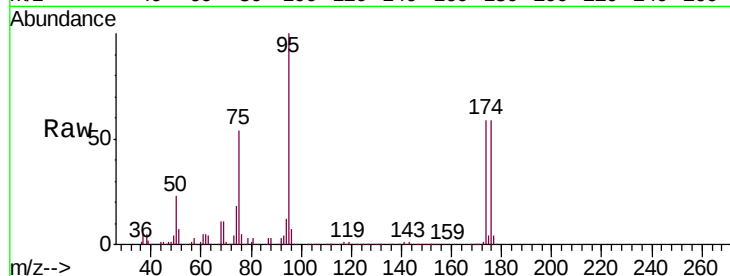
Tgt Ion: 95 Resp: 2055279

Ion Ratio Lower Upper

95 100

174 63.7 51.1 76.7

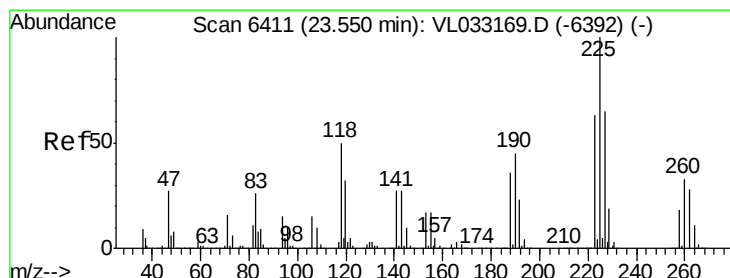
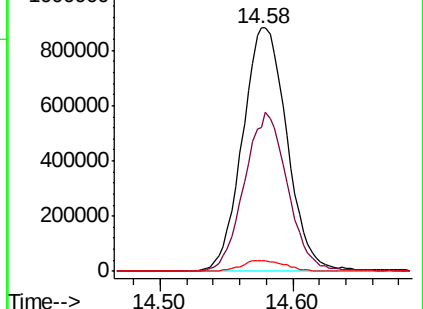
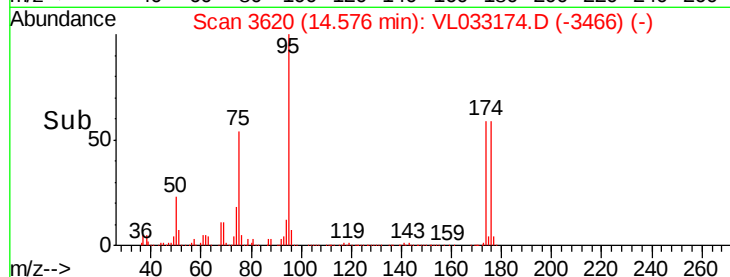
175 4.5 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL033174.D (-3466) (-)

Ion 174.00 (173.70 to 174.70): VL033174.D (-3466) (-)

Ion 175.00 (174.70 to 175.70): VL033174.D (-3466) (-)



#78

Hexachloro-1,3-Butadiene

Concen: 0.037 ppbv

RT: 23.54 min Scan# 6408

Delta R.T. -0.01 min

Lab File: VL033174.D

Acq: 6 Feb 2019 5:02

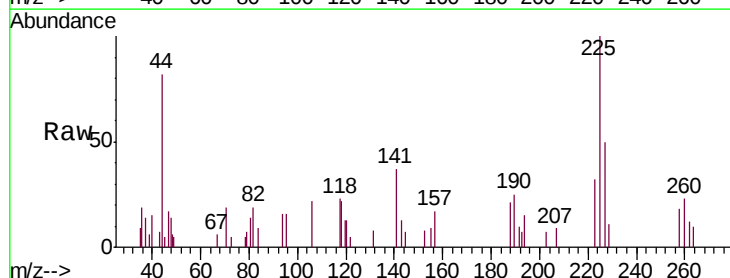
Tgt Ion: 225 Resp: 4146

Ion Ratio Lower Upper

225 100

223 86.8 50.6 75.8#

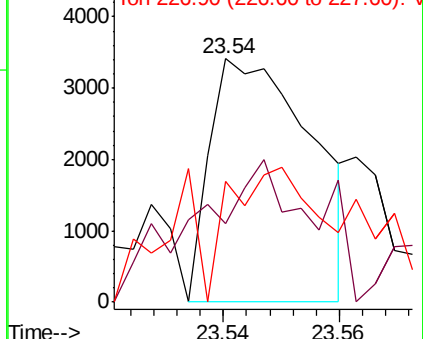
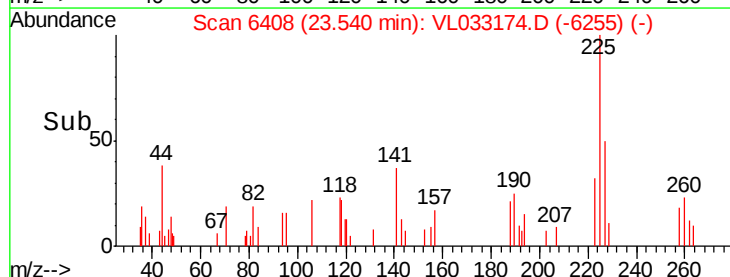
227 95.2 51.4 77.2#

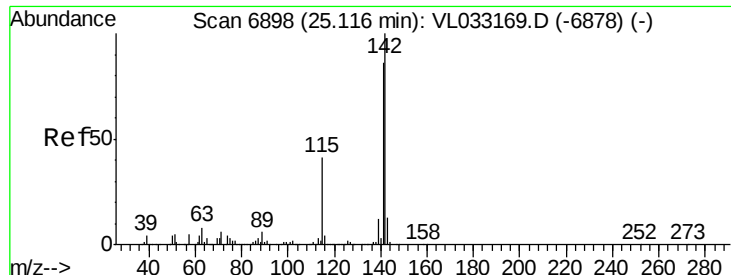


Abundance Ion 224.90 (224.60 to 225.60): VL033174.D (-6255) (-)

Ion 222.90 (222.60 to 223.60): VL033174.D (-6255) (-)

Ion 226.90 (226.60 to 227.60): VL033174.D (-6255) (-)





#80
 Naphthalene, 2-methyl-
 Concen: 0.035 ppbv
 RT: 25.13 min Scan# 6901
 Delta R.T. 0.01 min
 Lab File: VL033174.D
 Acq: 6 Feb 2019 5:02

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

Tgt Ion	Ratio	Lower	Upper
142	100		
141	75.7	67.7	101.5
115	34.3	32.7	49.1

