

Data File : VL033154.D
Acq On : 4 Feb 2019 12:34
Operator : SY/AP
Sample : VSTDIC0.1
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.1

Quant Time: Feb 04 14:22:20 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL020419AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Feb 01 22:01:04 2019
QLast Update : Fri Feb 01 22:01:04 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1208137	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	3461942	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	3239141	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	2574689	10.53	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.22	85	19571	0.108	ppbv	89
3) Chlorodifluoromethane	3.02	51	17320	0.089	ppbv	100
4) Chloromethane	3.17	50	9448	0.084	ppbv	89
5) Vinyl Chloride	3.30	62	7911	0.065	ppbv #	68
6) Bromomethane	3.52	94	3251	0.060	ppbv #	71
7) Chloroethane	3.60	64	3079	0.093	ppbv #	85
8) Dichlorotetrafluoroethane	3.22	85	19571	0.087	ppbv	94
9) Propene	3.04	41	9157	0.092	ppbv	93
10) Heptane	8.24	43	10037	0.054	ppbv #	28
11) Trichlorofluoromethane	4.00	101	9182	0.048	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.56	101	11437	0.094	ppbv	91
14) Bromoethene	3.79	108	5135	0.084	ppbv #	84
16) 1,3-Butadiene	3.36	39	4607	0.063	ppbv #	61
18) 1,1-Dichloroethene	4.35	96	4430	0.076	ppbv #	65
20) Methylene Chloride	4.41	84	10553	0.178	ppbv #	75
21) Allyl Chloride	4.48	41	9780	0.099	ppbv	95
22) trans-1,2-Dichloroethene	4.96	96	2498	0.046	ppbv #	61
23) Vinyl Acetate	5.16	43	17257	0.065	ppbv #	90
24) 1,1-Dichloroethane	5.09	63	16657	0.094	ppbv	96
26) Hexane	5.78	57	11785	0.073	ppbv #	62
27) Carbon Disulfide	4.62	76	10246	0.079	ppbv #	36
28) Methyl tert-Butyl Ether	5.14	73	16384	0.071	ppbv #	84
29) Chloroform	5.85	83	9835	0.045	ppbv	97
30) Cyclohexane	7.25	84	9138	0.073	ppbv #	1
31) cis-1,2-Dichloroethene	5.64	61	13707	0.093	ppbv #	85
32) 1,1,1-Trichloroethane	6.62	97	8658	0.039	ppbv #	37
34) 2-Butanone	5.35	43	21369	0.081	ppbv	95
35) Carbon Tetrachloride	7.13	117	9030	0.035	ppbv	86
36) Benzene	7.00	78	34998	0.090	ppbv #	89
37) 1,2-Dichloroethane	6.41	62	6794	0.034	ppbv #	72
39) 1,2-Dichloropropane	7.73	63	14728	0.104	ppbv	85
41) Tetrahydrofuran	6.19	42	10945	0.069	ppbv	89
42) Bromodichloromethane	7.92	83	22958	0.081	ppbv #	92
44) 2,2,4-Trimethylpentane	7.99	57	58975	0.094	ppbv	96
46) cis-1,3-Dichloropropene	8.83	75	6983	0.035	ppbv #	75
47) 1,1,2-Trichloroethane	9.61	97	8046	0.062	ppbv	91
48) Dibromochloromethane	10.45	129	7328	0.034	ppbv #	1
52) Tetrachloroethene	11.37	164	6170	0.042	ppbv #	90
53) Toluene	9.95	91	37192	0.084	ppbv	99
56) 1,1,1,2-Tetrachloroethane	12.28	131	6206	0.043	ppbv #	9
57) Chlorobenzene	12.31	112	17377	0.061	ppbv #	82

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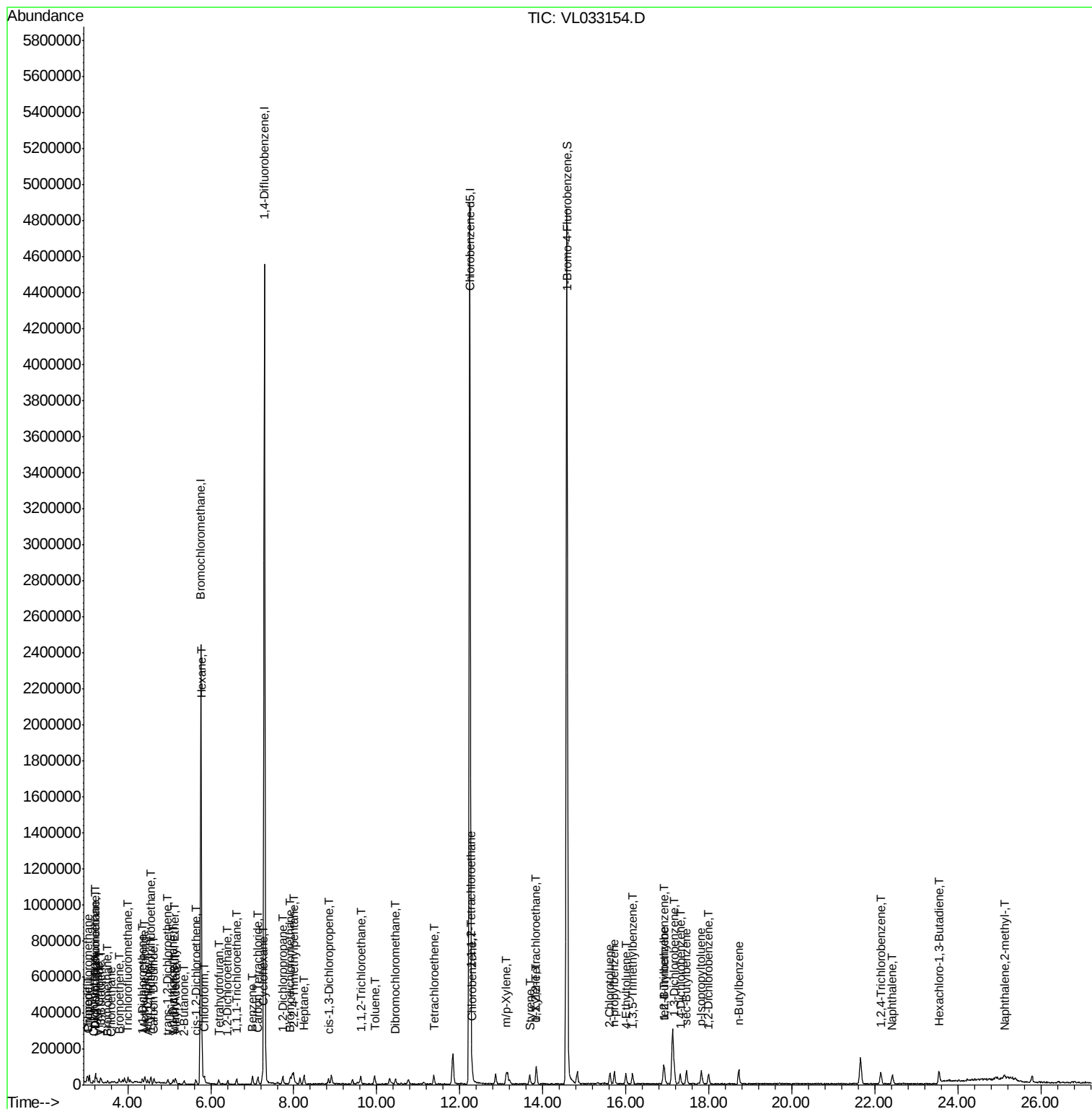
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)	
59) m/p-Xylene	13.13	91	18933	0.044	ppbv	#	1
60) o-Xylene	13.85	91	41478	0.099	ppbv		97
61) Styrene	13.69	104	13833	0.043	ppbv	#	14
63) 1,1,2,2-Tetrachloroethane	13.84	83	24865	0.079	ppbv	#	84
64) n-propylbenzene	15.72	120	6678	0.044	ppbv	#	1
65) tert-Butylbenzene	16.90	119	28009	0.056	ppbv	#	19
67) sec-Butylbenzene	17.46	105	48813	0.069	ppbv	#	84
69) p-Isopropyltoluene	17.82	119	52845	0.094	ppbv	#	89
70) n-Butylbenzene	18.72	91	53955	0.094	ppbv	#	86
71) 2-Chlorotoluene	15.61	91	24271	0.054	ppbv	#	54
72) 4-Ethyltoluene	16.00	105	46307	0.099	ppbv	#	96
73) 1,3,5-Trimethylbenzene	16.17	105	43326	0.102	ppbv	#	79
74) 1,2,4-Trimethylbenzene	16.93	105	44271	0.106	ppbv		98
75) 1,3-Dichlorobenzene	17.17	146	14155	0.057	ppbv	#	13
76) 1,4-Dichlorobenzene	17.32	146	17694	0.071	ppbv	#	54
77) 1,2-Dichlorobenzene	17.99	146	21255	0.089	ppbv		78
78) Hexachloro-1,3-Butadiene	23.54	225	7453	0.067	ppbv	#	21
79) Naphthalene	22.42	128	33322	0.122	ppbv		95
80) Naphthalene,2-methyl-	25.12	142	11564	0.143	ppbv	#	95
81) 1,2,4-Trichlorobenzene	22.14	180	11637	0.081	ppbv	#	12

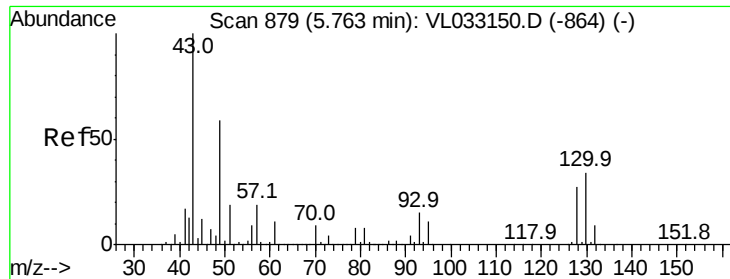
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. 0.00 min

Lab File: VL033154.D

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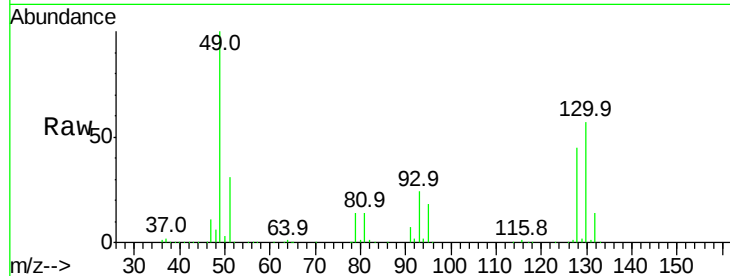
Tgt Ion: 49 Resp: 1208137

Ion Ratio Lower Upper

49 100

128 45.2 23.2 69.5

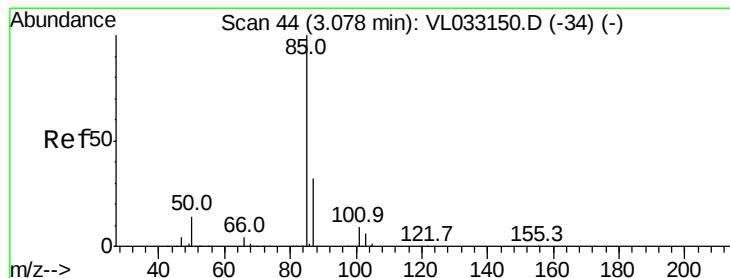
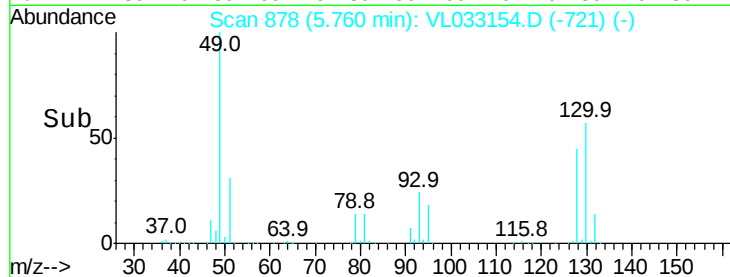
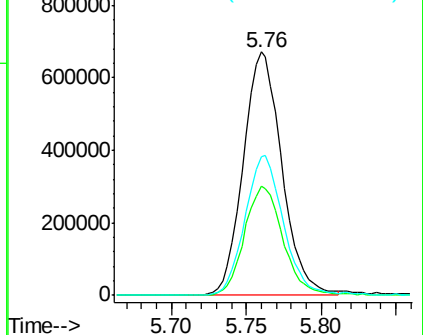
130 57.4 29.5 88.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.108 ppbv

RT: 3.22 min Scan# 89

Delta R.T. 0.15 min

Lab File: VL033154.D

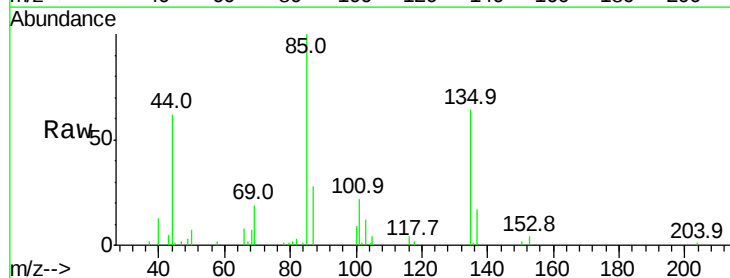
Acq: 4 Feb 2019 12:34

Tgt Ion: 85 Resp: 19571

Ion Ratio Lower Upper

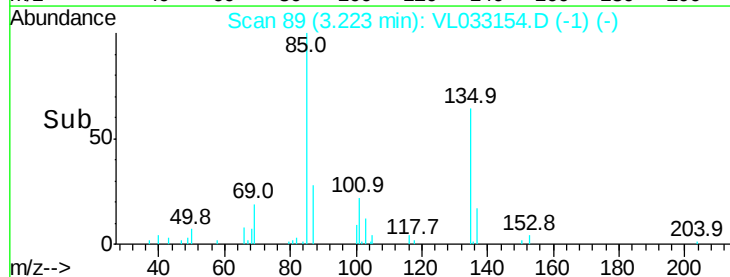
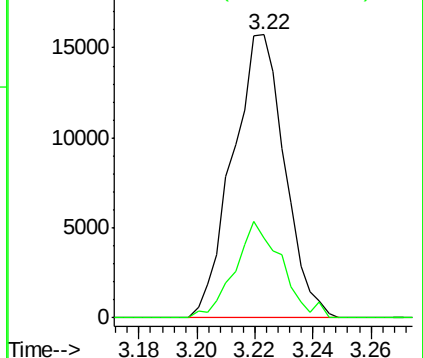
85 100

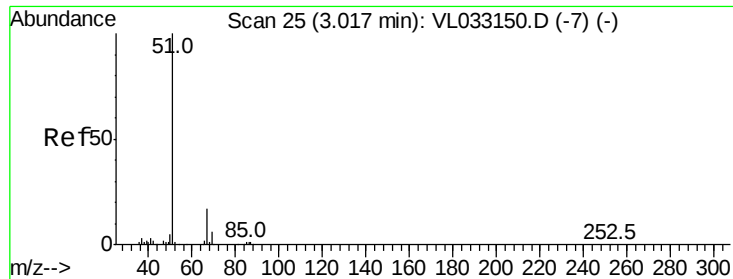
87 28.0 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

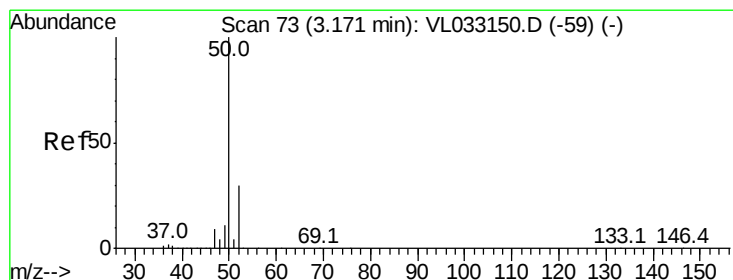
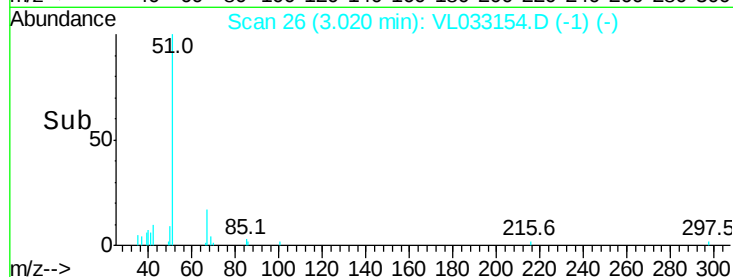
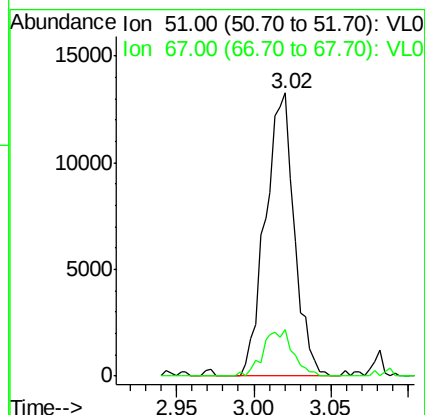
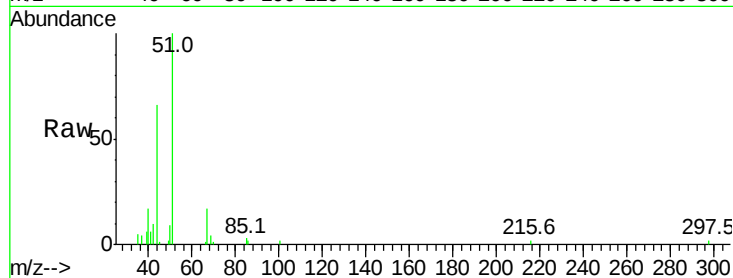




#3
Chlorodifluoromethane
Concen: 0.089 ppbv
RT: 3.02 min Scan# 26
Delta R.T. 0.01 min
Lab File: VL033154.D
Acq: 4 Feb 2019 12:34

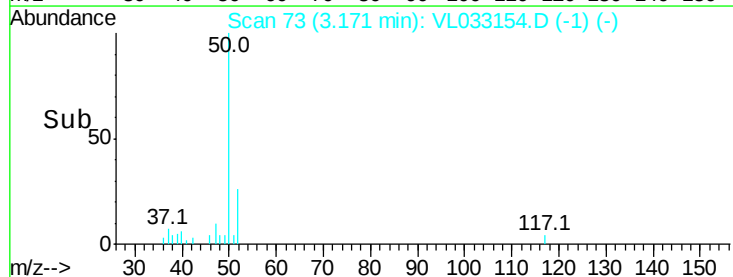
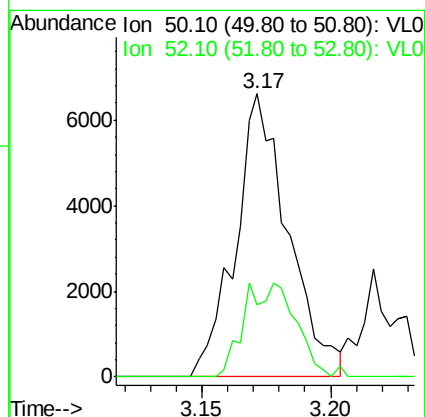
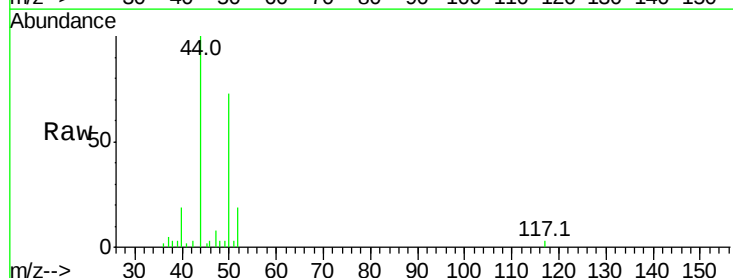
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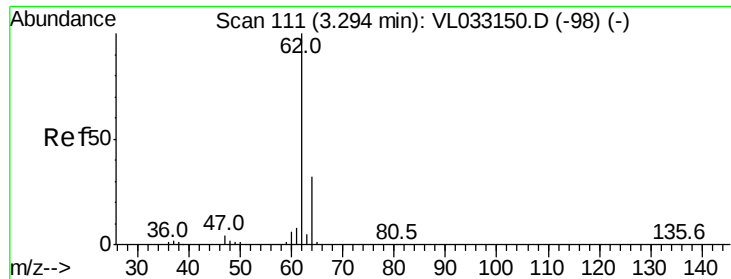
Tgt Ion: 51 Resp: 17320
Ion Ratio Lower Upper
51 100
67 16.8 13.4 20.2



#4
Chloromethane
Concen: 0.084 ppbv
RT: 3.17 min Scan# 73
Delta R.T. 0.00 min
Lab File: VL033154.D
Acq: 4 Feb 2019 12:34

Tgt Ion: 50 Resp: 9448
Ion Ratio Lower Upper
50 100
52 25.7 25.7 38.5





#5

Vinyl Chloride

Concen: 0.065 ppbv

RT: 3.30 min Scan# 112

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

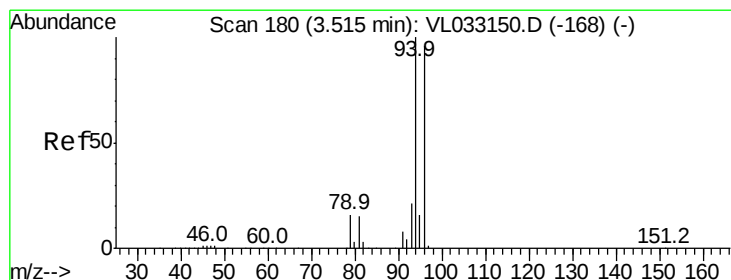
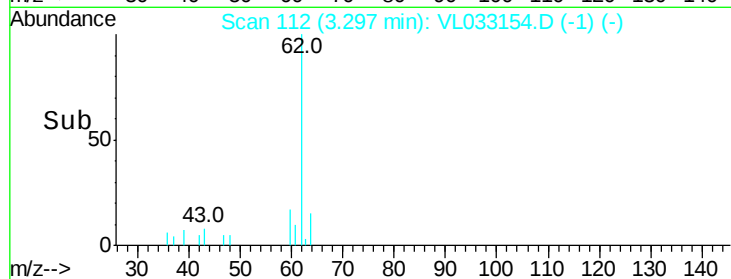
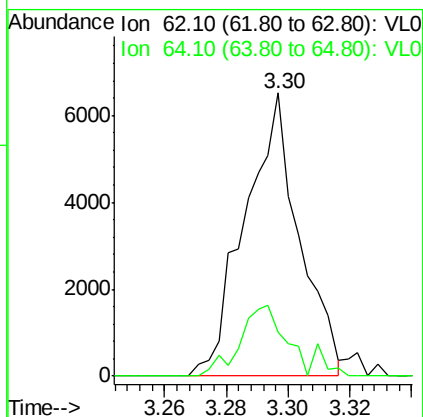
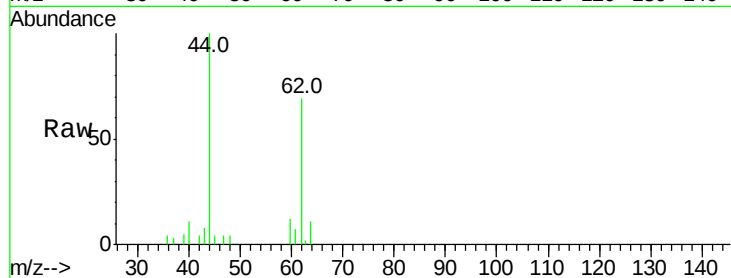
VSTDIC0.1

Tgt Ion: 62 Resp: 7911

Ion Ratio Lower Upper

62 100

64 15.0 26.3 39.5#



#6

Bromomethane

Concen: 0.060 ppbv

RT: 3.52 min Scan# 181

Delta R.T. 0.01 min

Lab File: VL033154.D

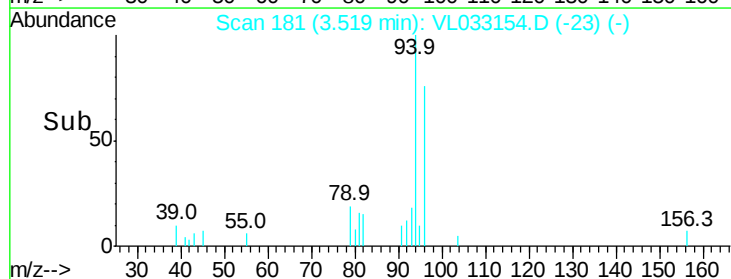
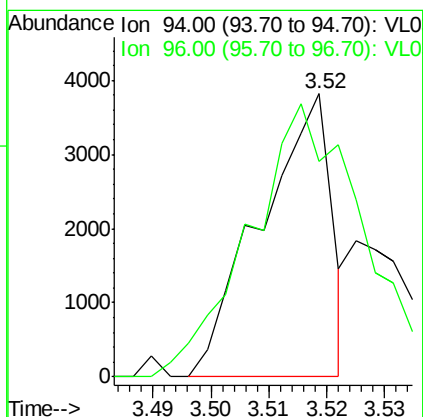
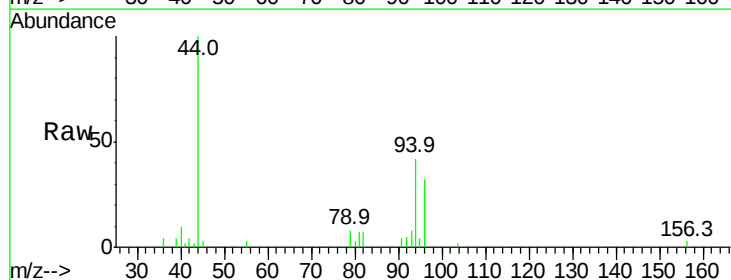
Acq: 4 Feb 2019 12:34

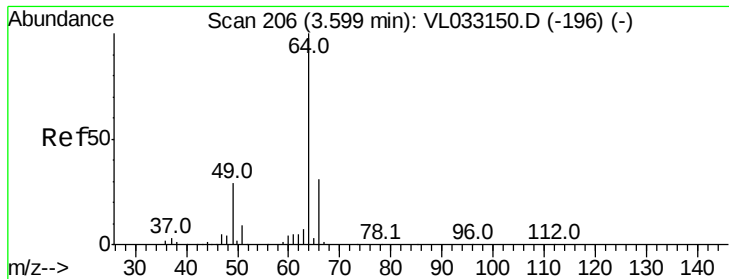
Tgt Ion: 94 Resp: 3251

Ion Ratio Lower Upper

94 100

96 64.5 74.0 111.0#





#7

Chloroethane

Concen: 0.093 ppbv

RT: 3.60 min Scan# 207

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

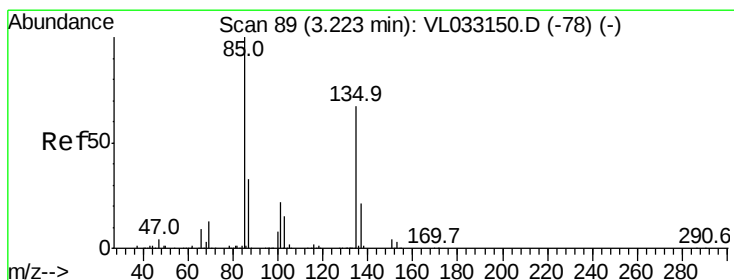
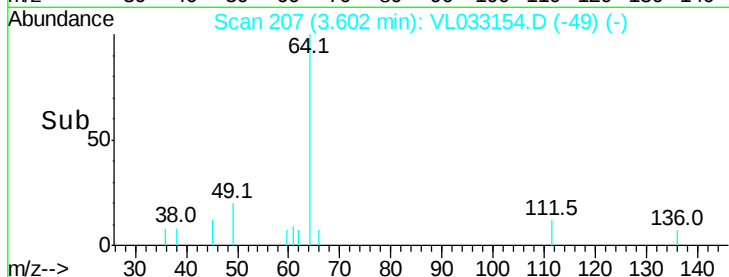
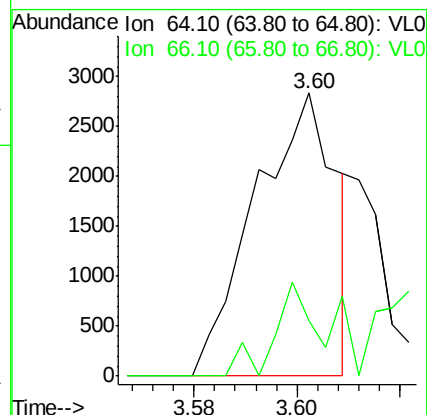
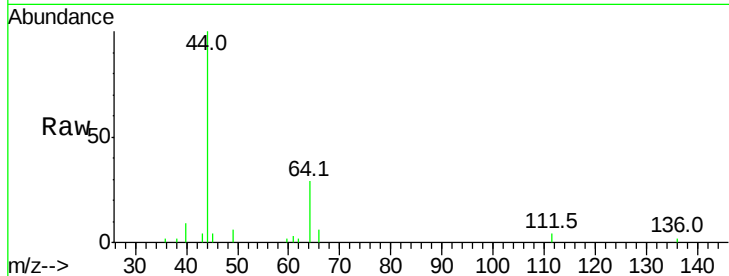
VSTDIC0.1

Tgt Ion: 64 Resp: 3079

Ion Ratio Lower Upper

64 100

66 19.8 22.3 33.5#



#8

Dichlorotetrafluoroethane

Concen: 0.087 ppbv

RT: 3.22 min Scan# 89

Delta R.T. 0.01 min

Lab File: VL033154.D

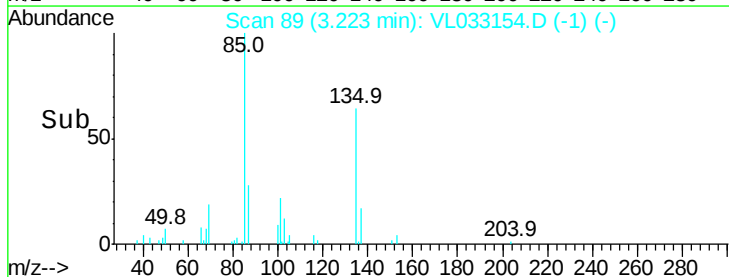
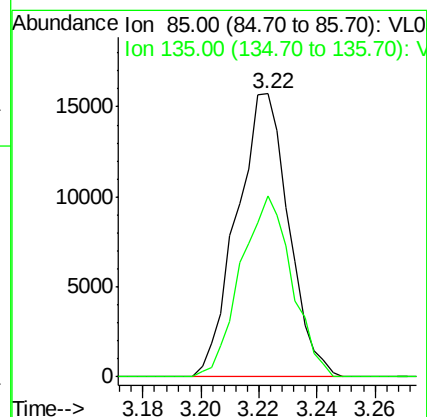
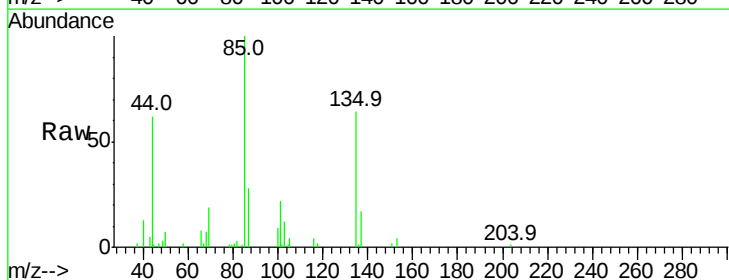
Acq: 4 Feb 2019 12:34

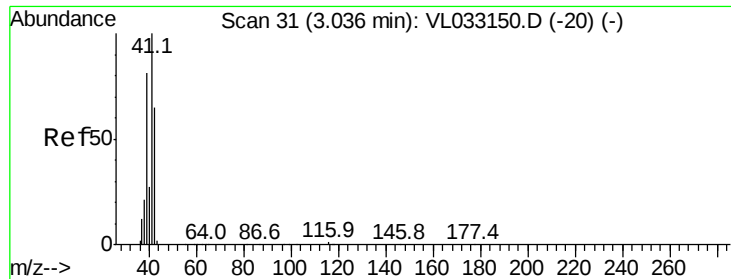
Tgt Ion: 85 Resp: 19571

Ion Ratio Lower Upper

85 100

135 63.0 54.0 81.0





#9

Propene

Concen: 0.092 ppbv

RT: 3.04 min Scan# 31

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

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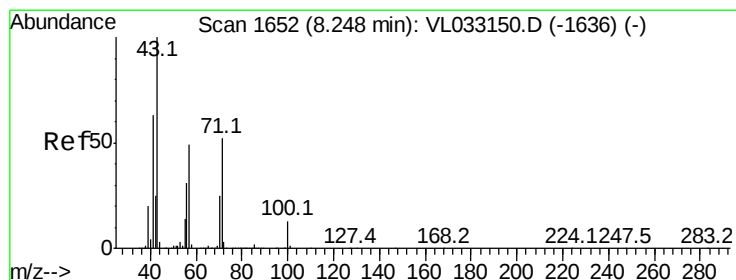
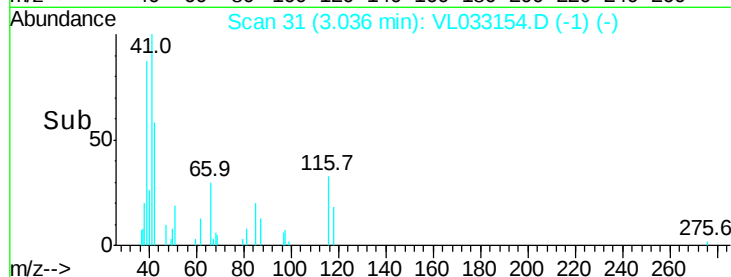
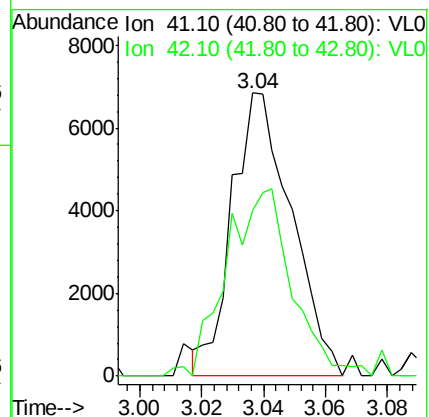
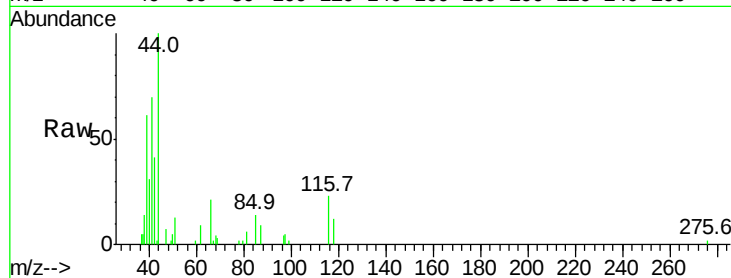
VSTDIC0.1

Tgt Ion: 41 Resp: 9157

Ion Ratio Lower Upper

41 100

42 74.8 55.1 82.7



#10

Heptane

Concen: 0.054 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. 0.00 min

Lab File: VL033154.D

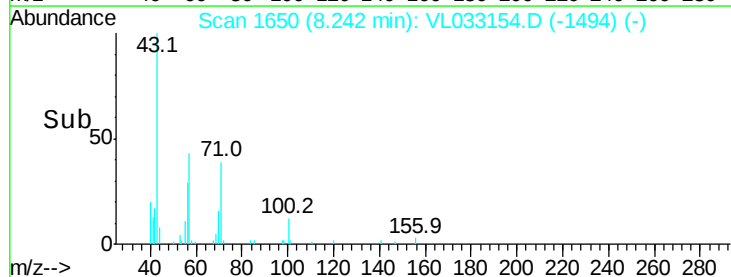
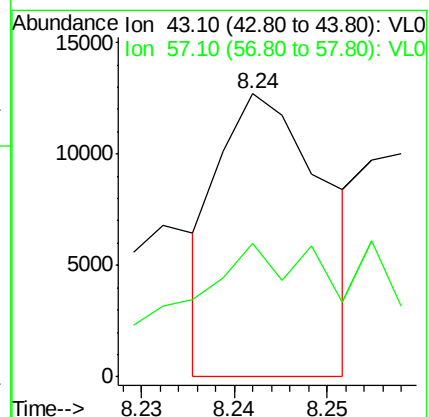
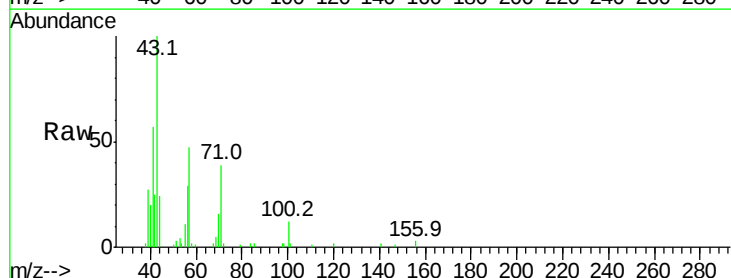
Acq: 4 Feb 2019 12:34

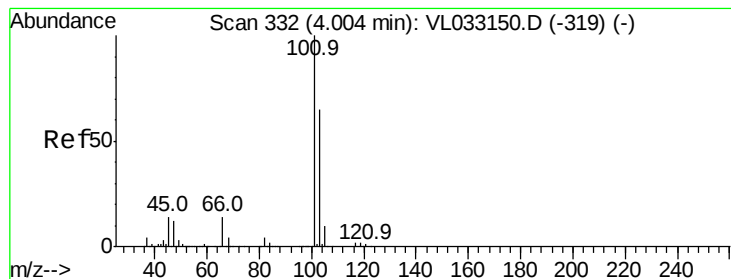
Tgt Ion: 43 Resp: 10037

Ion Ratio Lower Upper

43 100

57 0.0 39.3 58.9#





#11

Trichlorofluoromethane

Concen: 0.048 ppbv

RT: 4.00 min Scan# 331

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

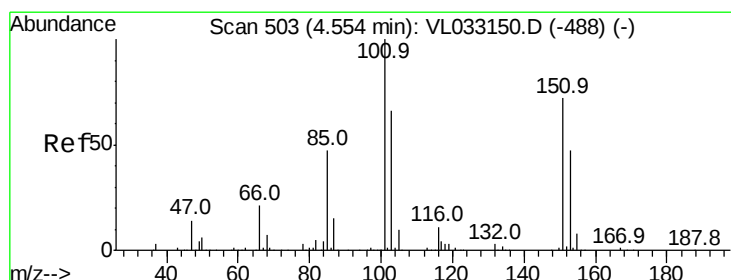
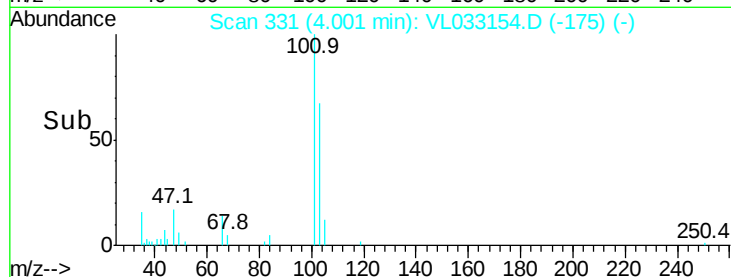
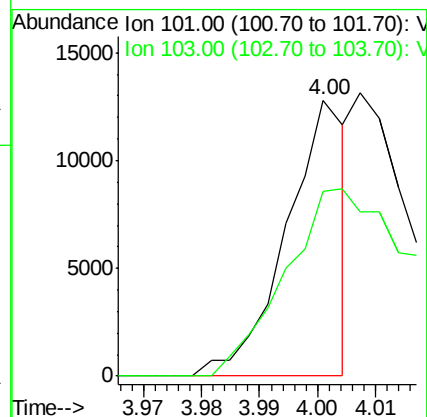
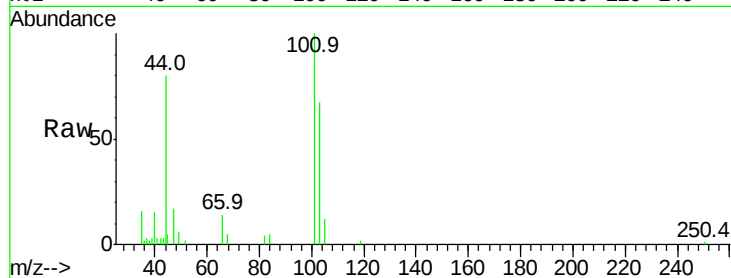
VSTDIC0.1

Tgt Ion:101 Resp: 9182

Ion Ratio Lower Upper

101 100

103 66.8 51.3 76.9



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.094 ppbv

RT: 4.56 min Scan# 504

Delta R.T. 0.01 min

Lab File: VL033154.D

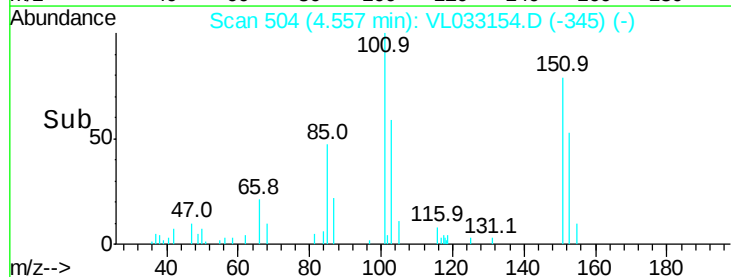
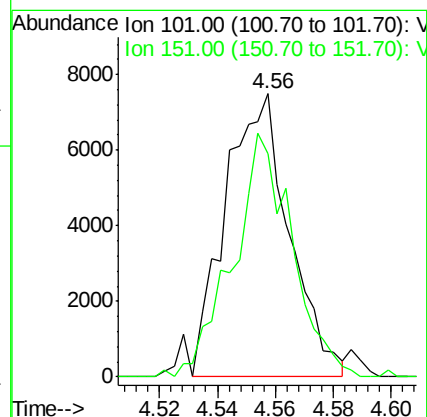
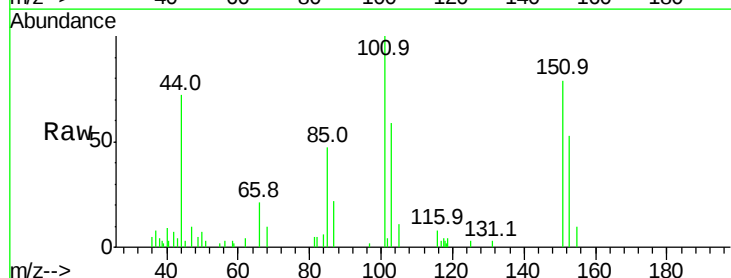
Acq: 4 Feb 2019 12:34

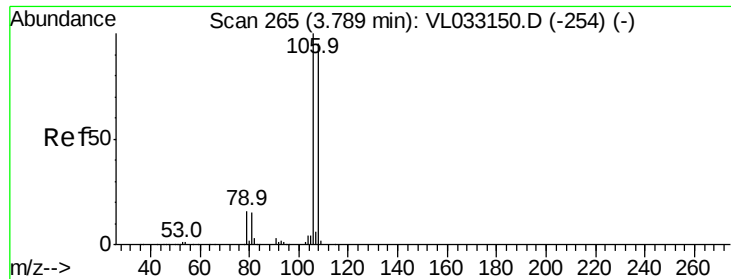
Tgt Ion:101 Resp: 11437

Ion Ratio Lower Upper

101 100

151 80.1 57.9 86.9





#14

Bromoethene

Concen: 0.084 ppbv

RT: 3.79 min Scan# 266

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

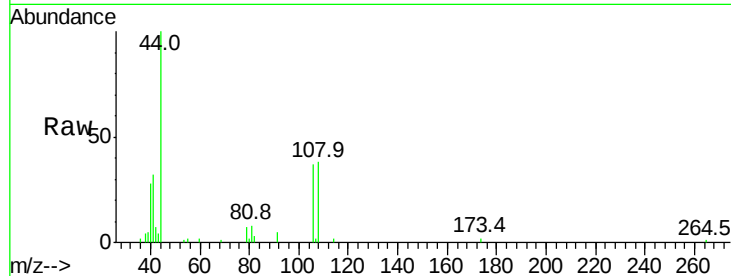
Tgt Ion:108 Resp: 5135

Ion Ratio Lower Upper

108 100

106 123.6 85.6 128.4

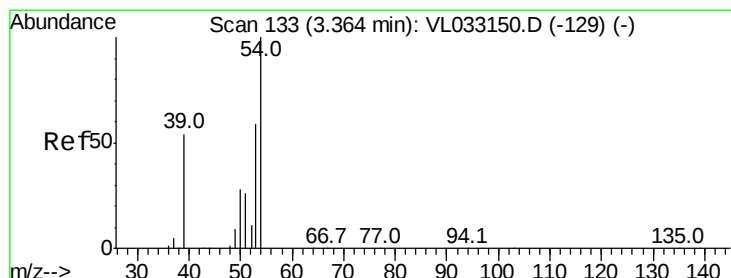
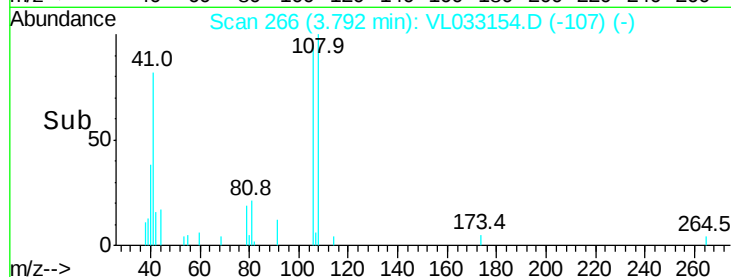
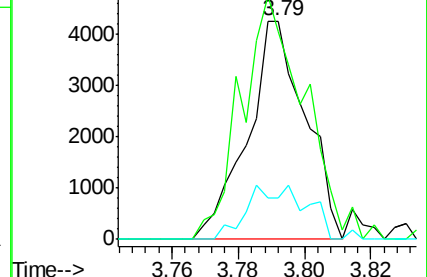
79 25.7 14.2 21.4#



Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VL0



#16

1,3-Butadiene

Concen: 0.063 ppbv

RT: 3.36 min Scan# 133

Delta R.T. 0.00 min

Lab File: VL033154.D

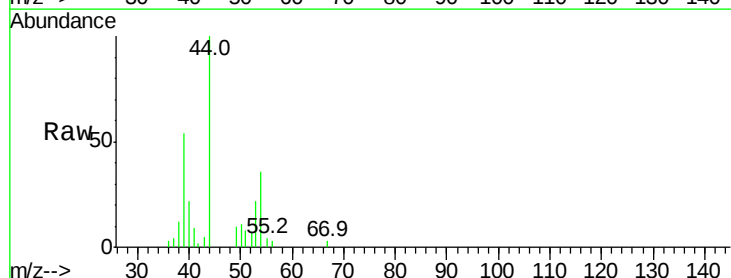
Acq: 4 Feb 2019 12:34

Tgt Ion: 39 Resp: 4607

Ion Ratio Lower Upper

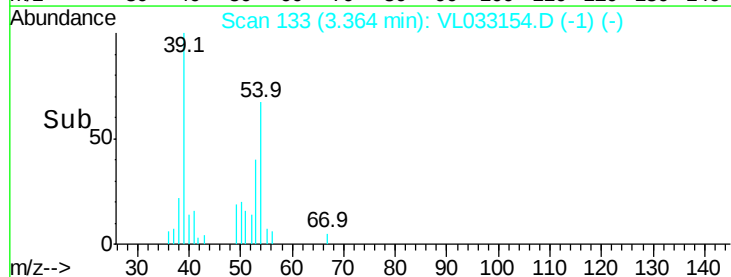
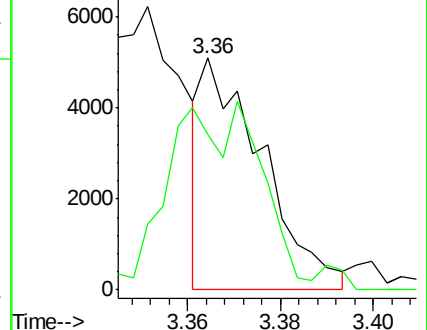
39 100

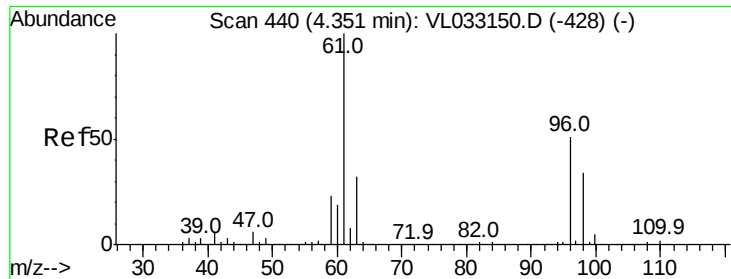
54 131.6 75.0 112.6#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#18

1,1-Dichloroethene

Concen: 0.076 ppbv

RT: 4.35 min Scan# 440

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

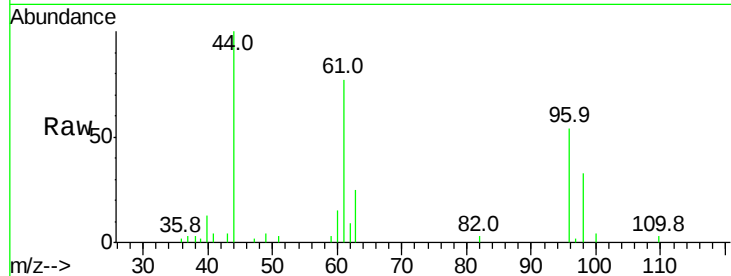
Tgt Ion: 96 Resp: 4430

Ion Ratio Lower Upper

96 100

61 131.8 158.5 237.7#

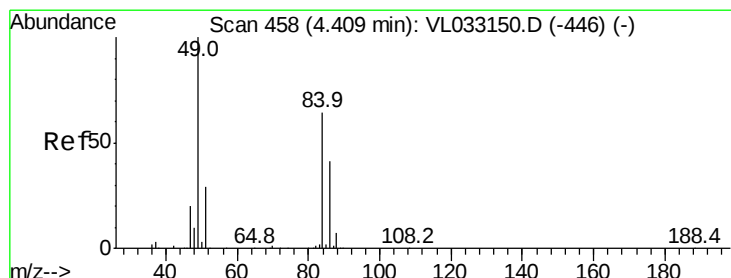
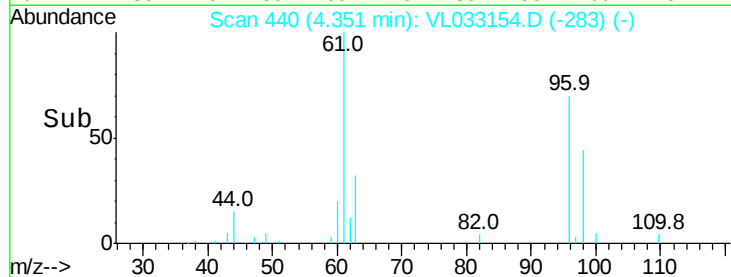
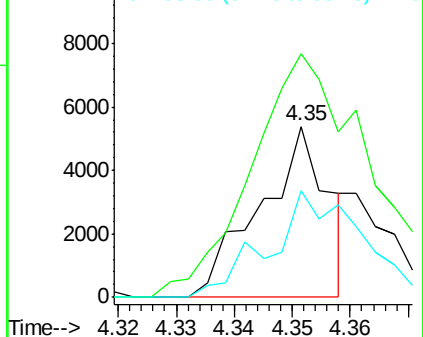
98 62.1 47.8 71.6



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



#20

Methylene Chloride

Concen: 0.178 ppbv

RT: 4.41 min Scan# 459

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Tgt Ion: 84 Resp: 10553

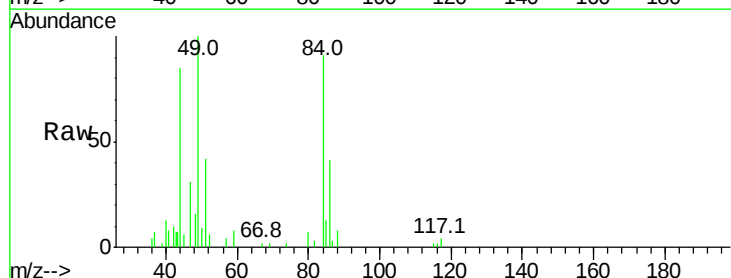
Ion Ratio Lower Upper

84 100

49 110.1 121.1 181.7#

51 43.5 37.5 56.3

86 44.9 51.0 76.4#

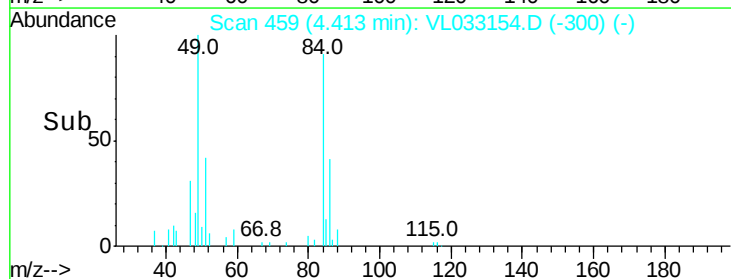
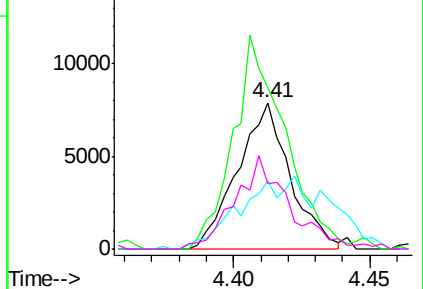


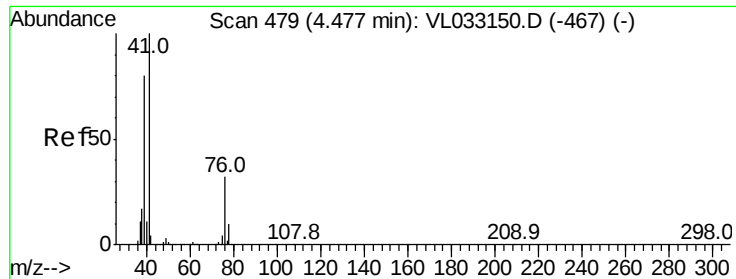
Abundance Ion 84.00 (83.70 to 84.70): VL0

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





#21

Allyl Chloride

Concen: 0.099 ppbv

RT: 4.48 min Scan# 480

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

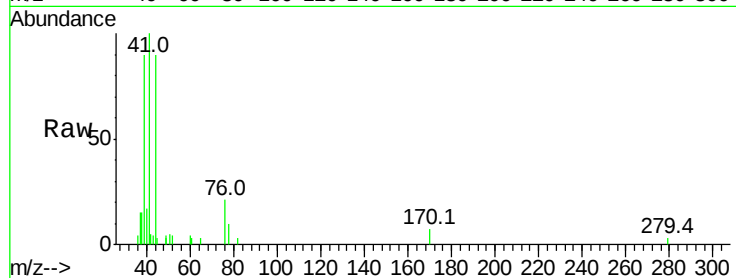
Tgt Ion: 41 Resp: 9780

Ion Ratio Lower Upper

41 100

76 29.0 23.2 34.8

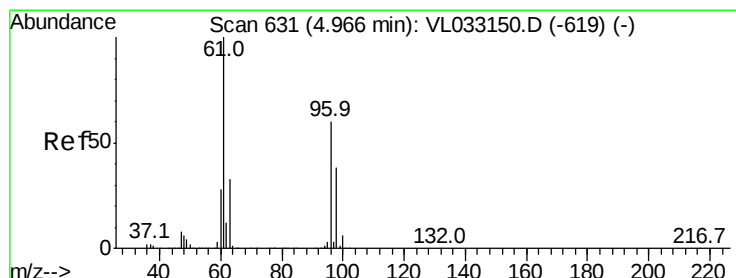
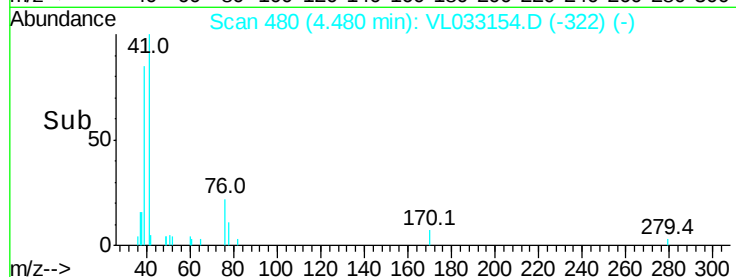
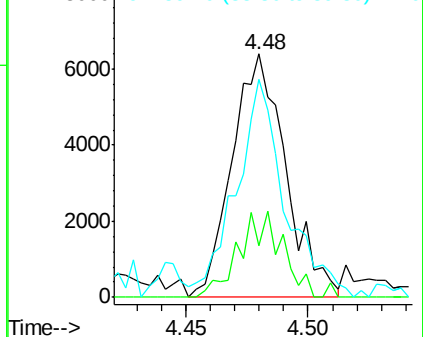
39 82.6 61.8 92.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0



#22

trans-1,2-Dichloroethene

Concen: 0.046 ppbv

RT: 4.96 min Scan# 629

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

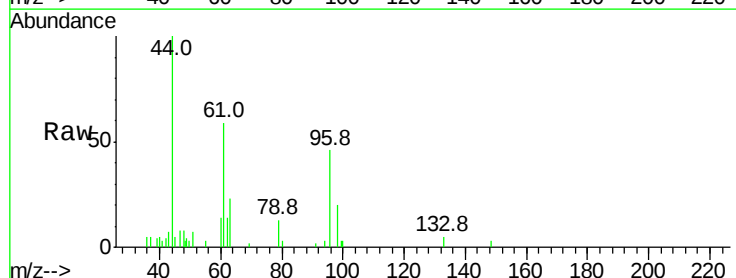
Tgt Ion: 96 Resp: 2498

Ion Ratio Lower Upper

96 100

61 108.5 134.5 201.7#

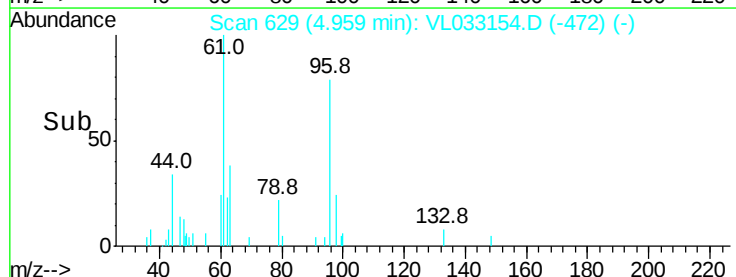
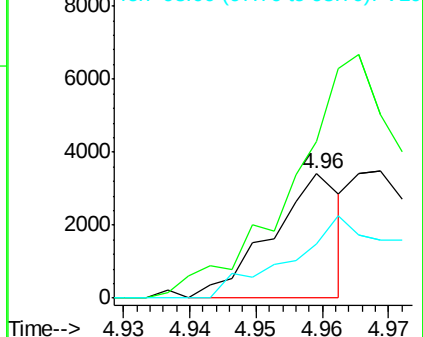
98 43.2 50.2 75.2#

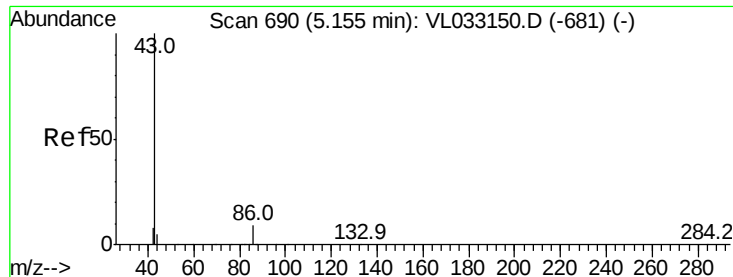


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#23

Vinyl Acetate

Concen: 0.065 ppbv

RT: 5.16 min Scan# 692

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

Tgt Ion: 43 Resp: 17257

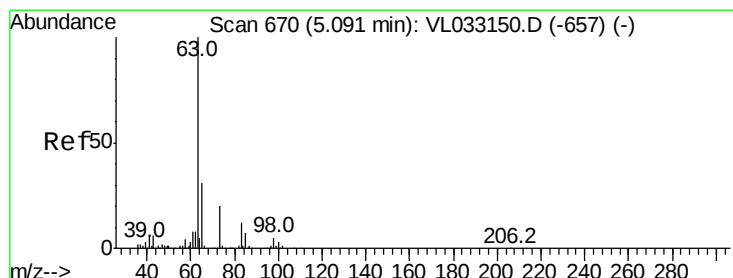
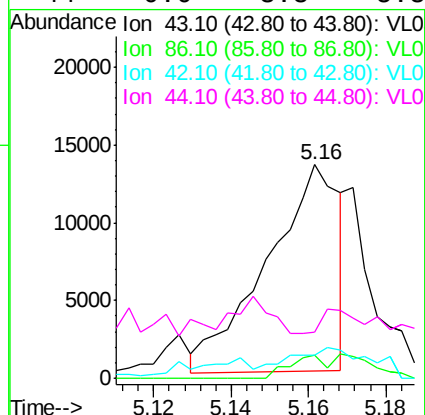
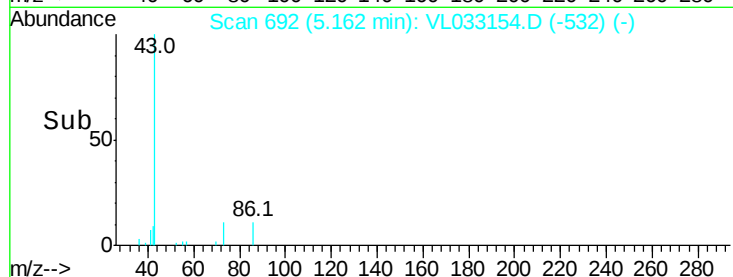
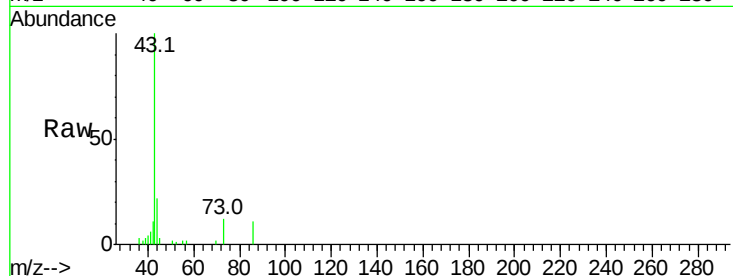
Ion Ratio Lower Upper

43 100

86 12.2 6.2 9.4#

42 7.2 7.7 11.5#

44 0.0 3.8 5.8#



#24

1,1-Dichloroethane

Concen: 0.094 ppbv

RT: 5.09 min Scan# 671

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

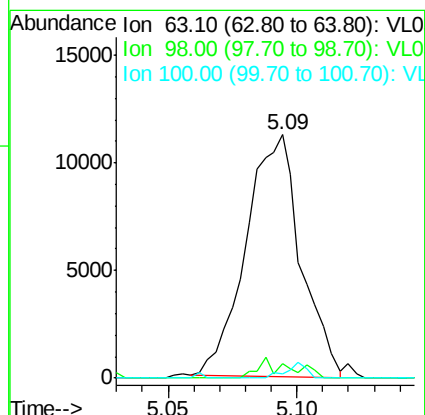
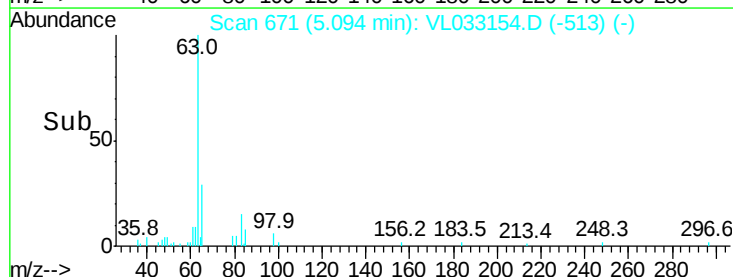
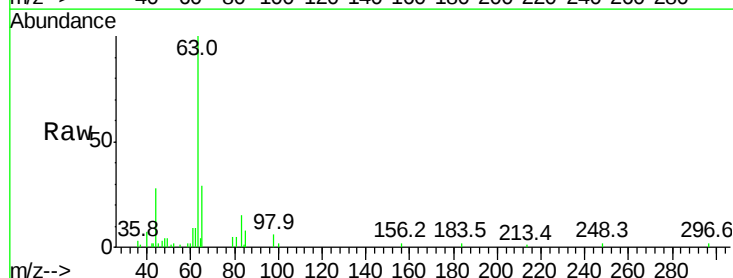
Tgt Ion: 63 Resp: 16657

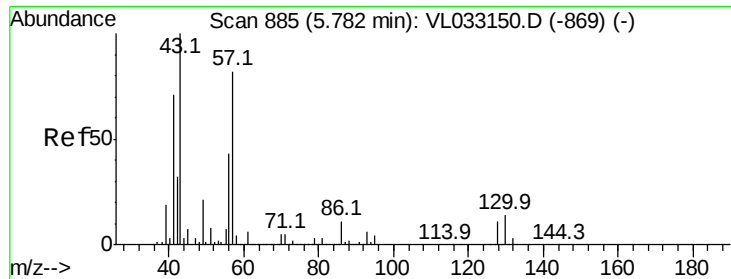
Ion Ratio Lower Upper

63 100

98 5.9 2.3 6.9

100 1.5 1.3 3.9





#26

Hexane

Concen: 0.073 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

Tgt Ion: 57 Resp: 11785

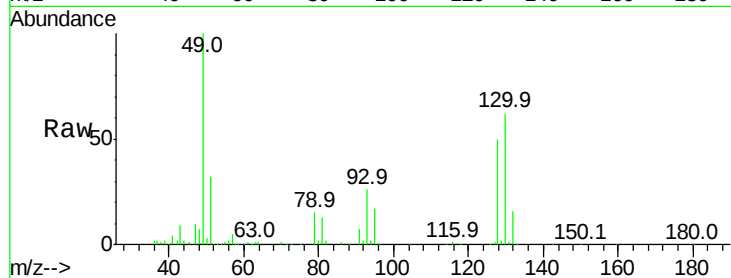
Ion Ratio Lower Upper

57 100

41 119.9 69.5 104.3#

43 288.2 175.5 263.3#

56 67.3 41.6 62.4#

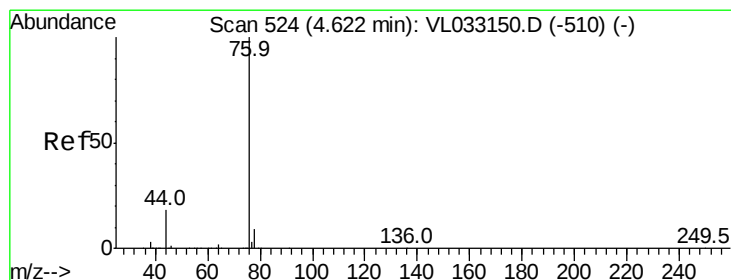
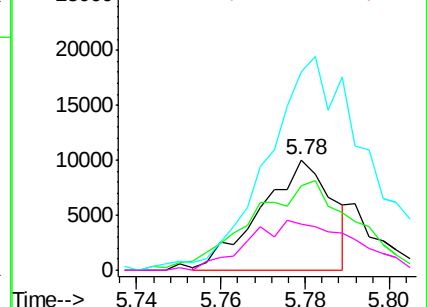
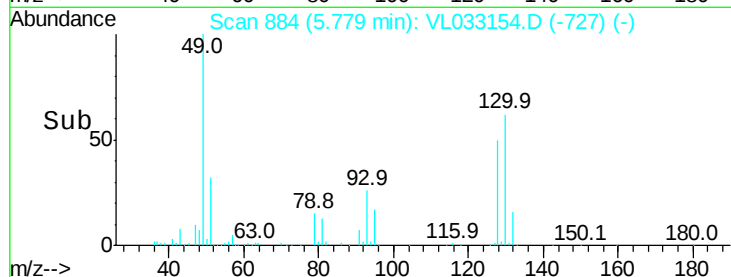


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#27

Carbon Disulfide

Concen: 0.079 ppbv

RT: 4.62 min Scan# 524

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

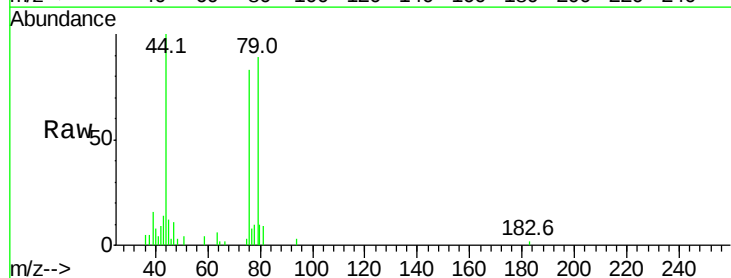
Tgt Ion: 76 Resp: 10246

Ion Ratio Lower Upper

76 100

44 57.7 17.1 25.7#

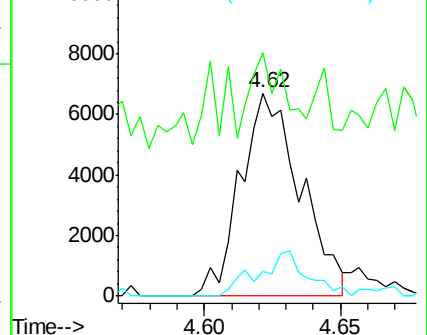
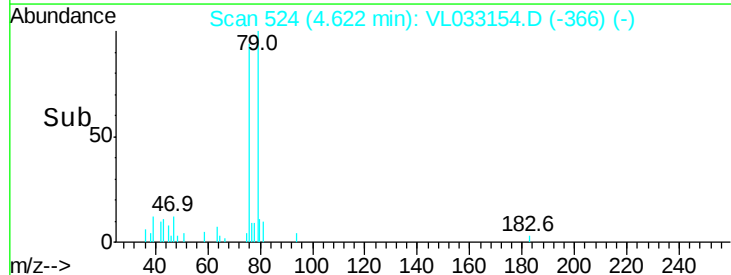
78 20.6 7.2 10.8#

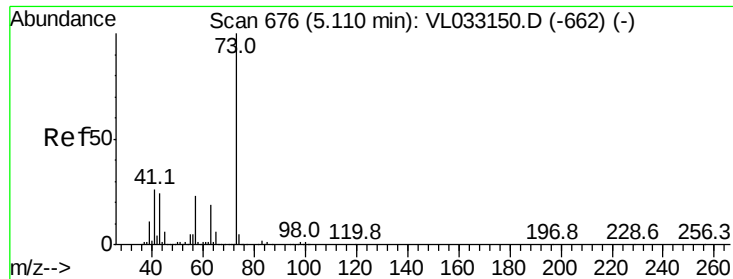


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#28

Methyl tert-Butyl Ether

Concen: 0.071 ppbv

RT: 5.14 min Scan# 685

Delta R.T. 0.04 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

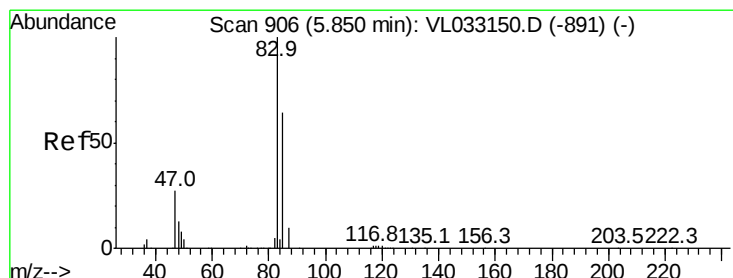
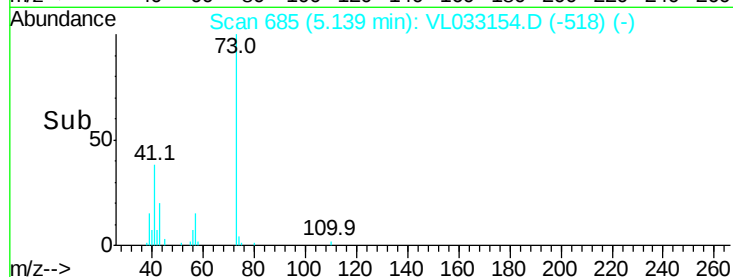
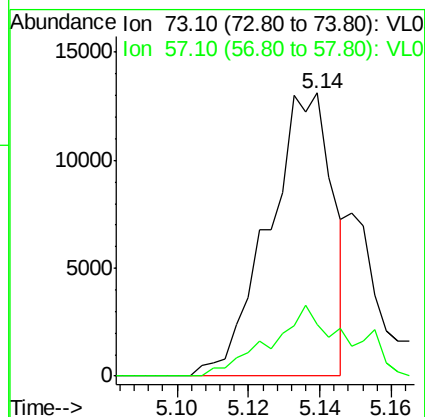
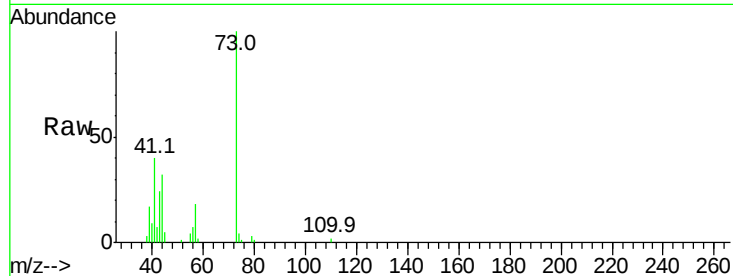
VSTDIC0.1

Tgt Ion: 73 Resp: 16384

Ion Ratio Lower Upper

73 100

57 30.7 18.3 27.5#



#29

Chloroform

Concen: 0.045 ppbv

RT: 5.85 min Scan# 906

Delta R.T. 0.01 min

Lab File: VL033154.D

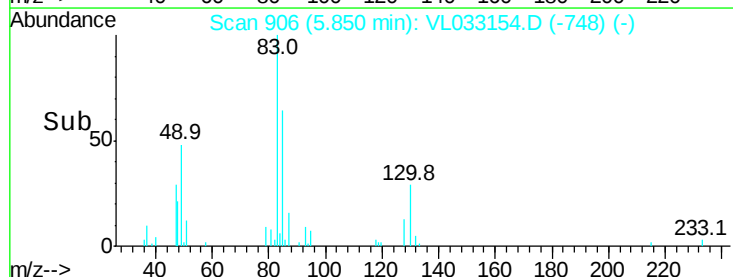
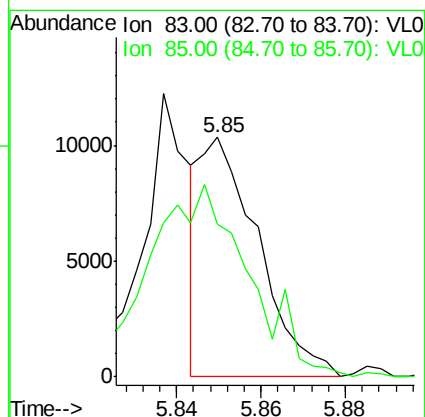
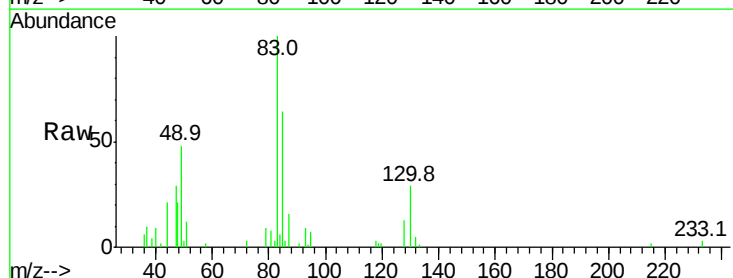
Acq: 4 Feb 2019 12:34

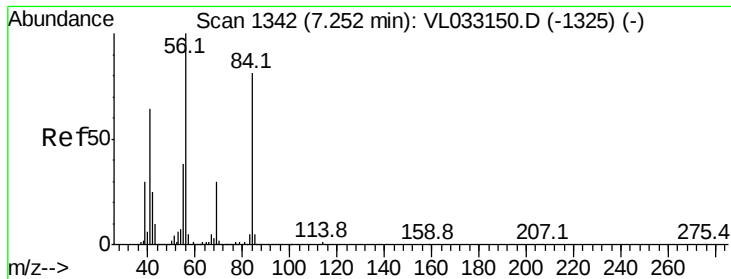
Tgt Ion: 83 Resp: 9835

Ion Ratio Lower Upper

83 100

85 62.3 51.6 77.4

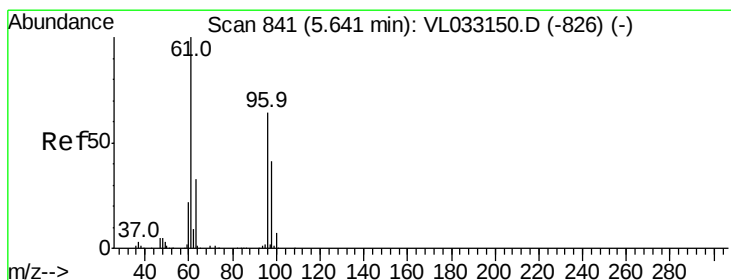
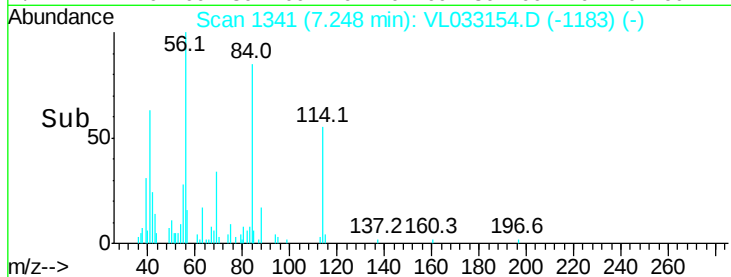
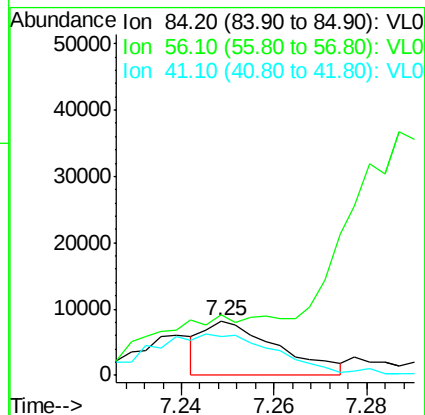
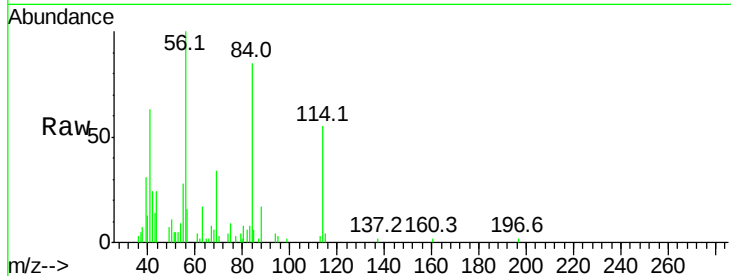




#30
Cyclohexane
Concen: 0.073 ppbv
RT: 7.25 min Scan# 1341
Delta R.T. 0.01 min
Lab File: VL033154.D
Acq: 4 Feb 2019 12:34

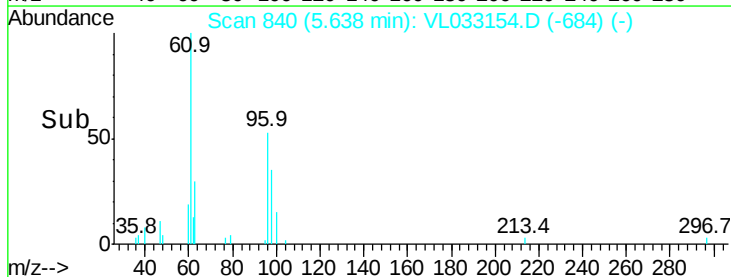
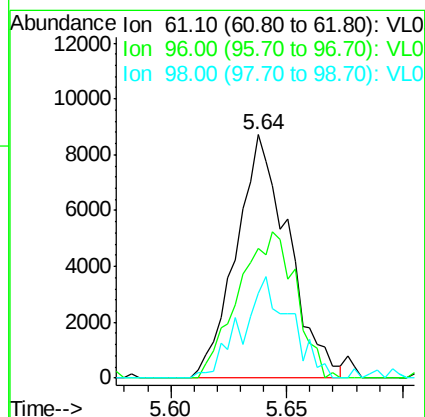
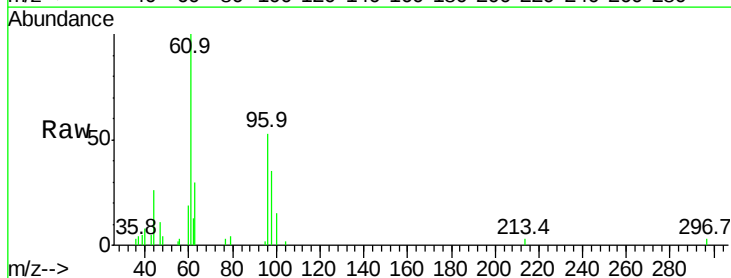
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.1

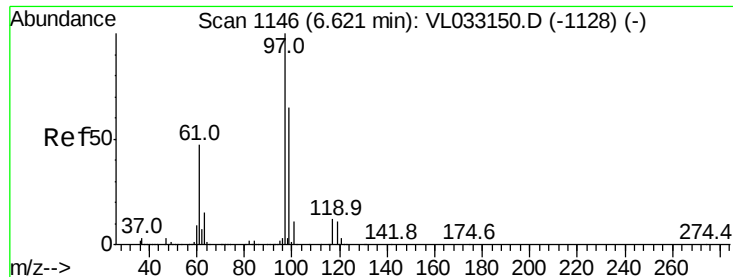
Tgt Ion: 84 Resp: 9138
Ion Ratio Lower Upper
84 100
56 0.0 109.0 163.4#
41 147.1 65.3 97.9#



#31
cis-1,2-Dichloroethene
Concen: 0.093 ppbv
RT: 5.64 min Scan# 840
Delta R.T. 0.00 min
Lab File: VL033154.D
Acq: 4 Feb 2019 12:34

Tgt Ion: 61 Resp: 13707
Ion Ratio Lower Upper
61 100
96 53.1 53.3 79.9#
98 34.9 33.7 50.5





#32

1,1,1-Trichloroethane

Concen: 0.039 ppbv

RT: 6.62 min Scan# 1146

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

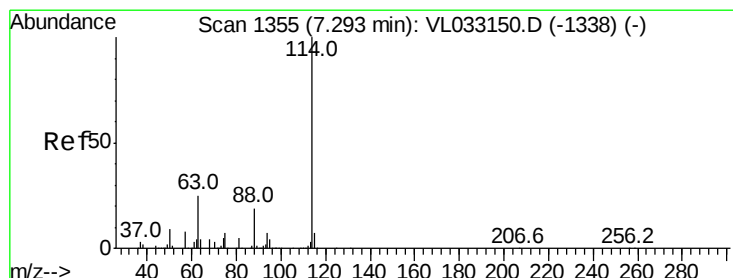
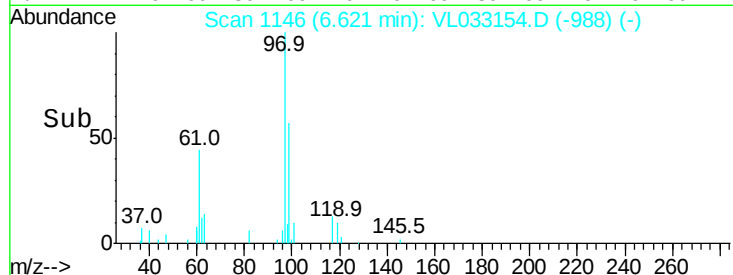
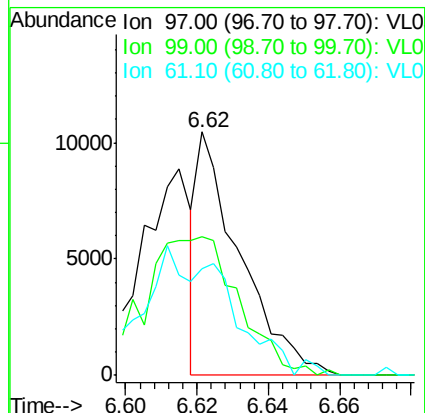
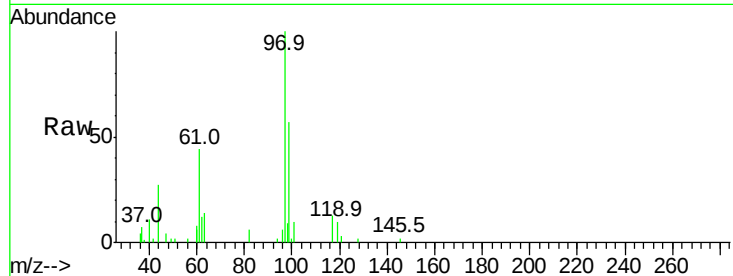
Tgt Ion: 97 Resp: 8658

Ion Ratio Lower Upper

97 100

99 127.6 65.1 97.7#

61 0.0 47.7 71.5#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1354

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

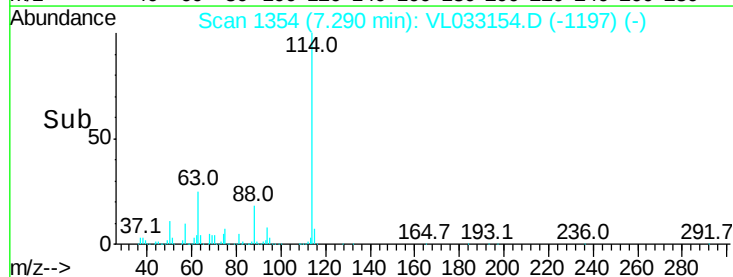
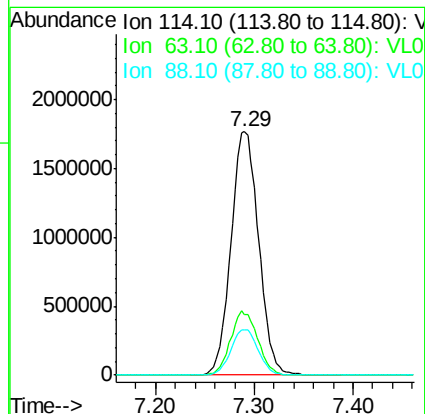
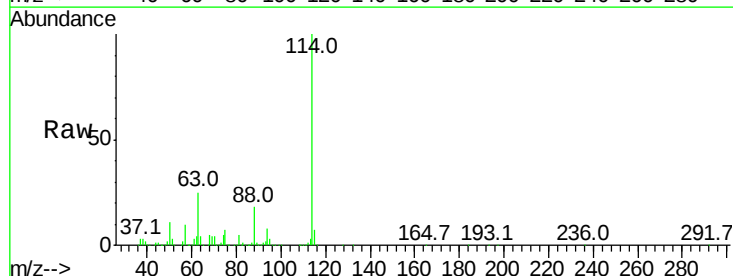
Tgt Ion: 114 Resp: 3461942

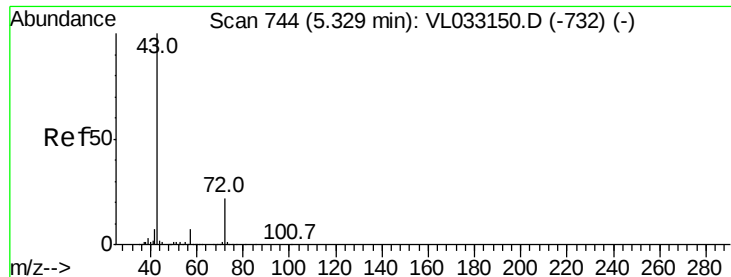
Ion Ratio Lower Upper

114 100

63 25.8 20.0 30.0

88 18.6 14.4 21.6





#34

2-Butanone

Concen: 0.081 ppbv

RT: 5.35 min Scan# 750

Delta R.T. 0.03 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

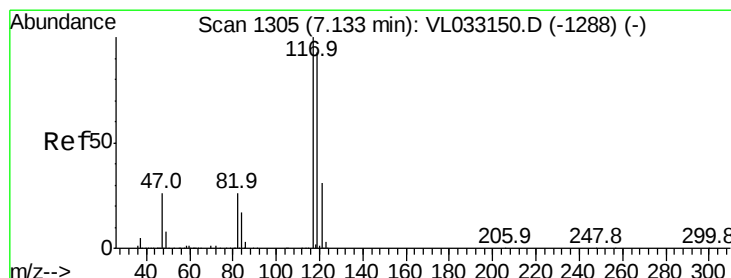
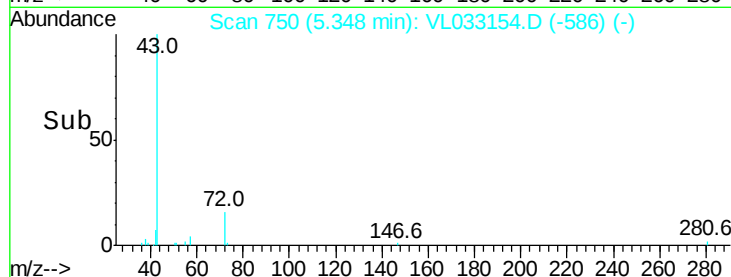
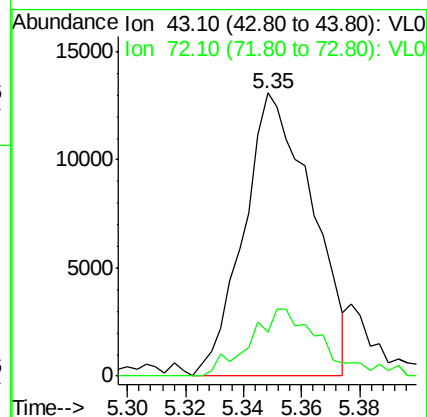
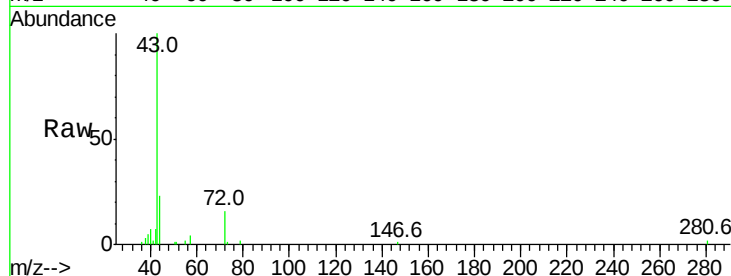
VSTDIC0.1

Tgt Ion: 43 Resp: 21369

Ion Ratio Lower Upper

43 100

72 25.0 17.9 26.9



#35

Carbon Tetrachloride

Concen: 0.035 ppbv

RT: 7.13 min Scan# 1303

Delta R.T. -0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

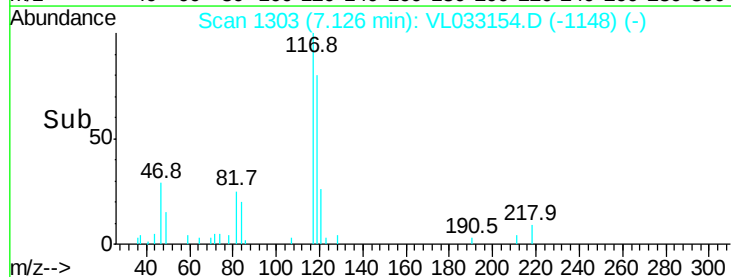
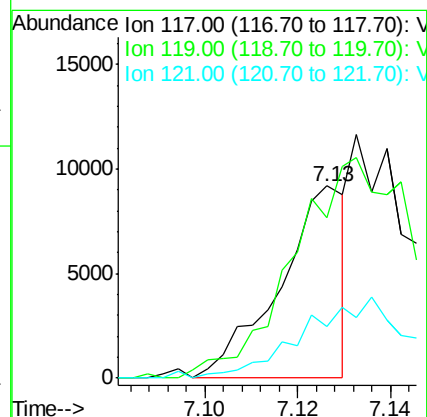
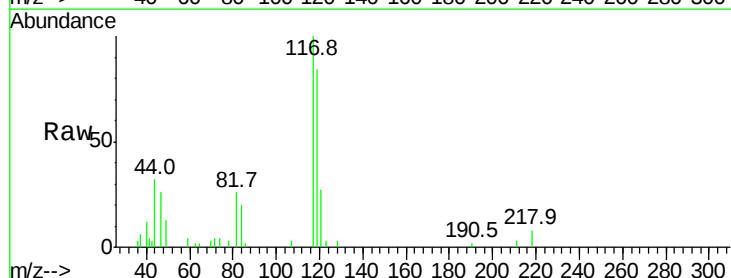
Tgt Ion: 117 Resp: 9030

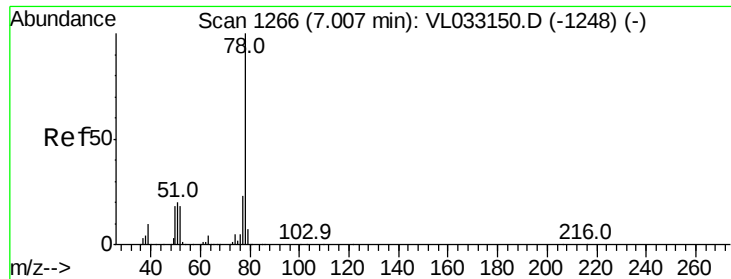
Ion Ratio Lower Upper

117 100

119 79.5 76.6 114.8

121 26.8 25.0 37.4





#36

Benzene

Concen: 0.090 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

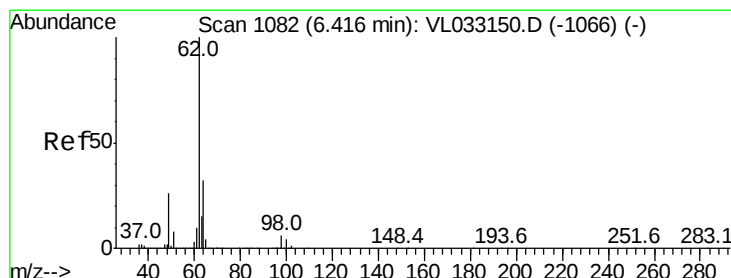
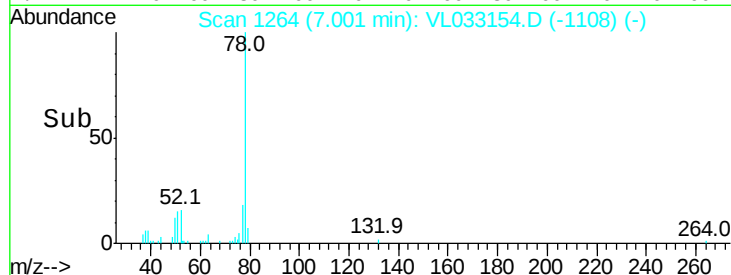
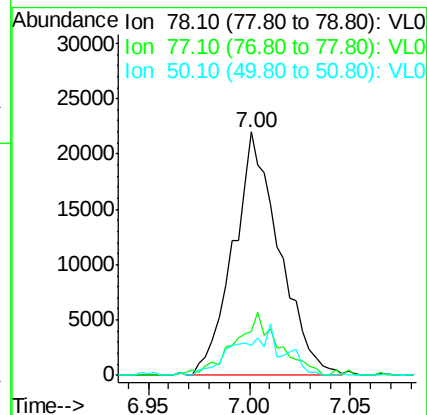
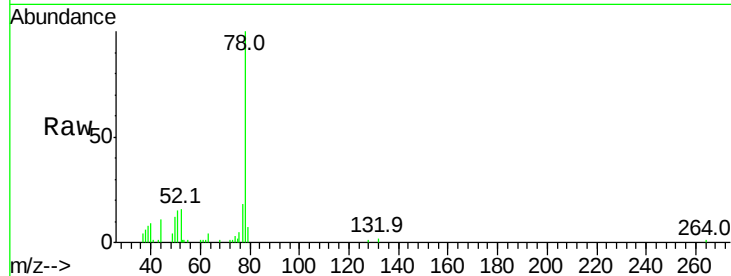
Tgt Ion: 78 Resp: 34998

Ion Ratio Lower Upper

78 100

77 17.9 17.8 26.6

50 12.0 14.7 22.1#



#37

1,2-Dichloroethane

Concen: 0.034 ppbv

RT: 6.41 min Scan# 1081

Delta R.T. 0.01 min

Lab File: VL033154.D

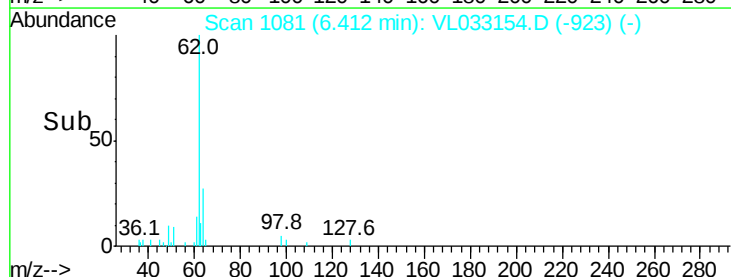
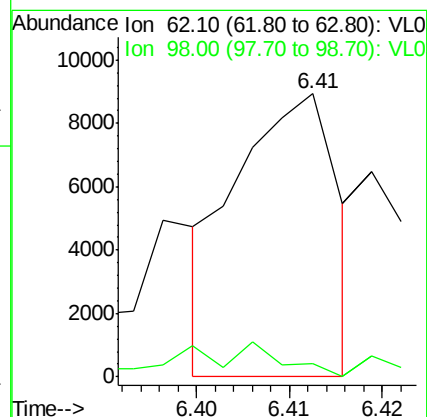
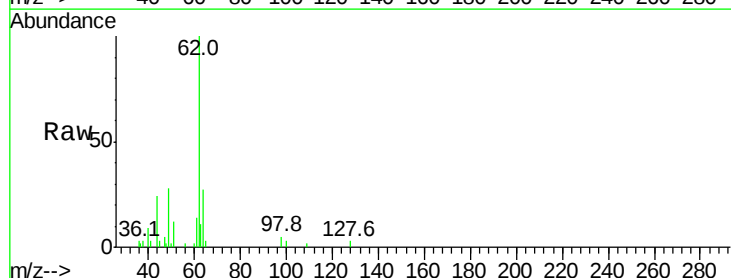
Acq: 4 Feb 2019 12:34

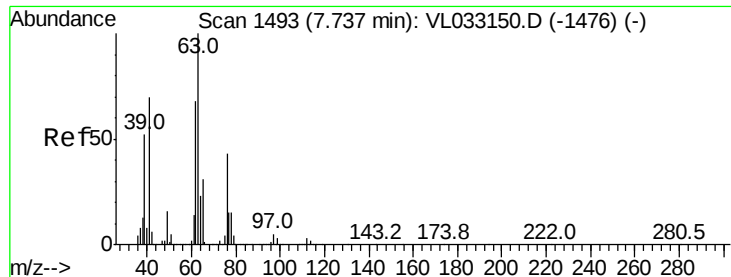
Tgt Ion: 62 Resp: 6794

Ion Ratio Lower Upper

62 100

98 16.2 5.3 7.9#





#39

1,2-Dichloropropane

Concen: 0.104 ppbv

RT: 7.73 min Scan# 1492

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

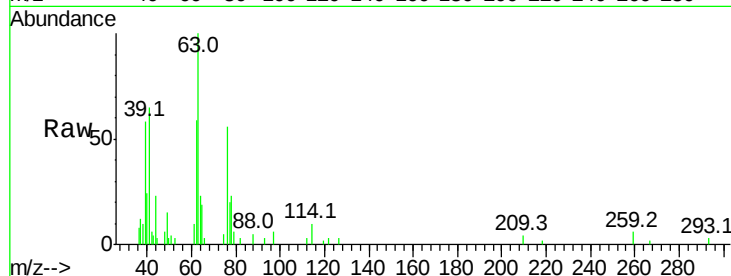
Tgt Ion: 63 Resp: 14728

Ion Ratio Lower Upper

63 100

41 54.8 53.2 79.8

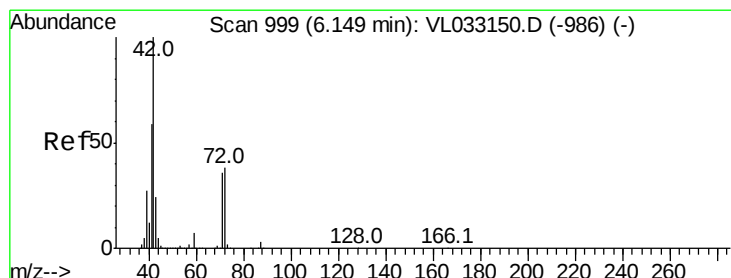
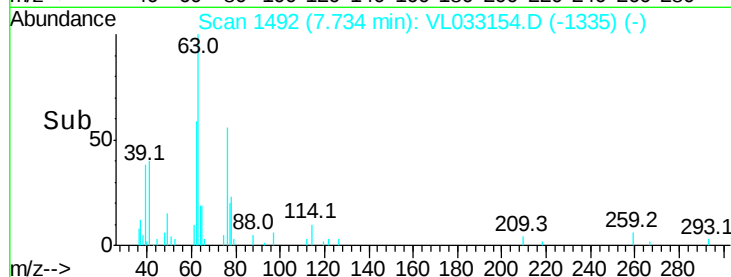
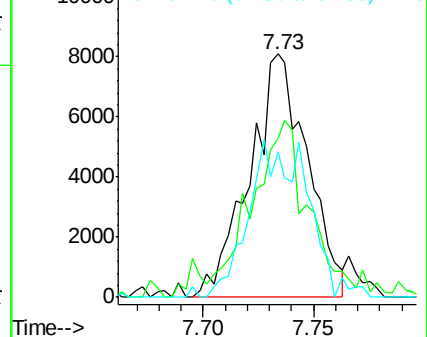
62 55.1 54.4 81.6



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 0.069 ppbv

RT: 6.19 min Scan# 1012

Delta R.T. 0.05 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

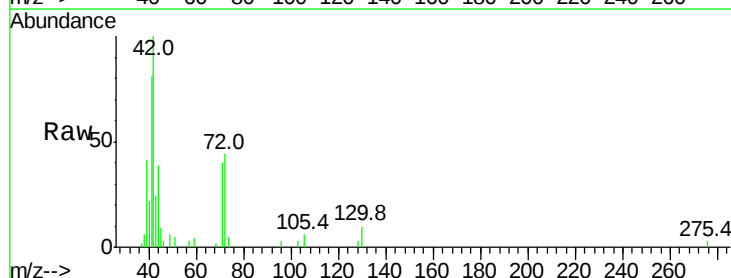
Tgt Ion: 42 Resp: 10945

Ion Ratio Lower Upper

42 100

72 45.3 30.2 45.4

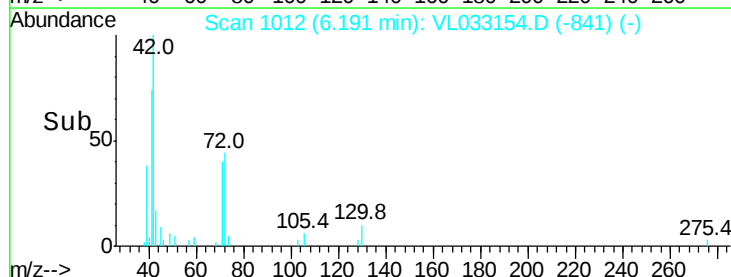
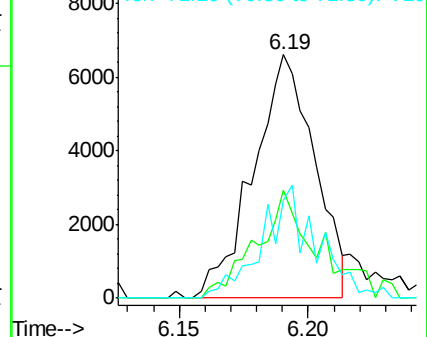
71 41.5 28.8 43.2

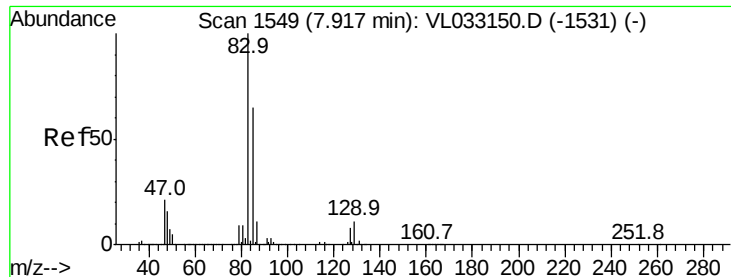


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#42

Bromodichloromethane

Concen: 0.081 ppbv

RT: 7.92 min Scan# 1550

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

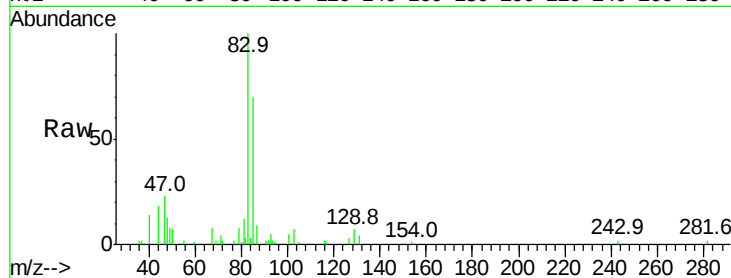
Tgt Ion: 83 Resp: 22958

Ion Ratio Lower Upper

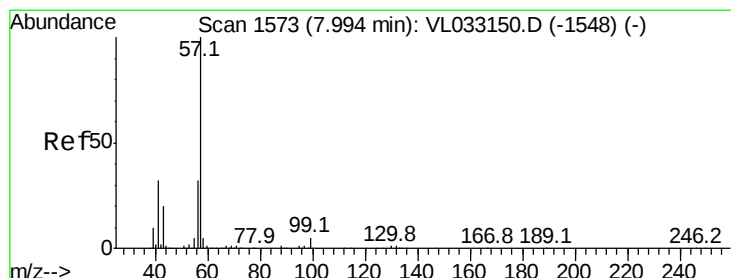
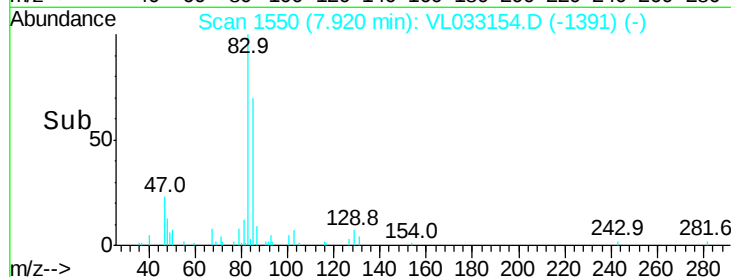
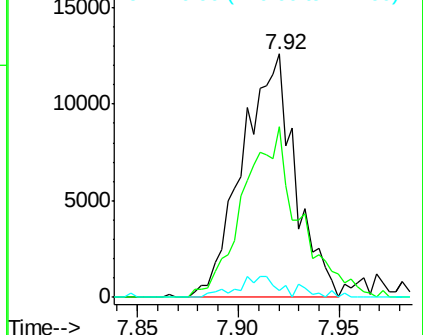
83 100

85 70.1 51.3 76.9

127 2.8 6.1 9.1#



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0
Ion 126.90 (126.60 to 127.60): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.094 ppbv

RT: 7.99 min Scan# 1572

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

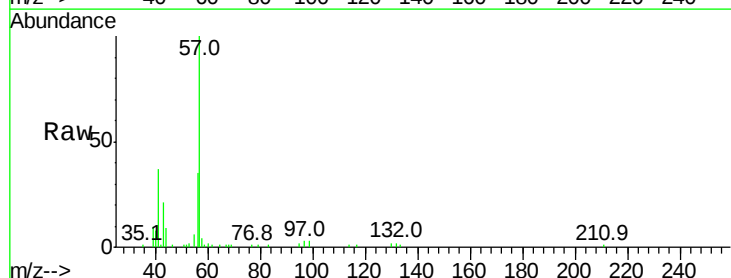
Tgt Ion: 57 Resp: 58975

Ion Ratio Lower Upper

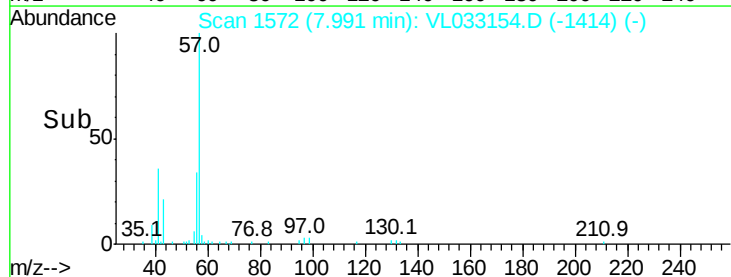
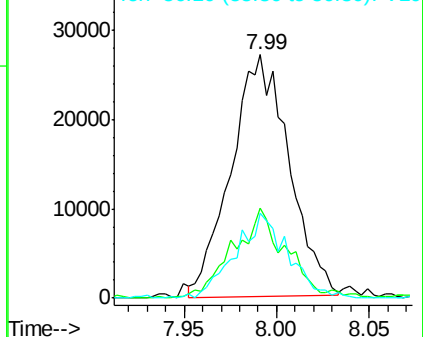
57 100

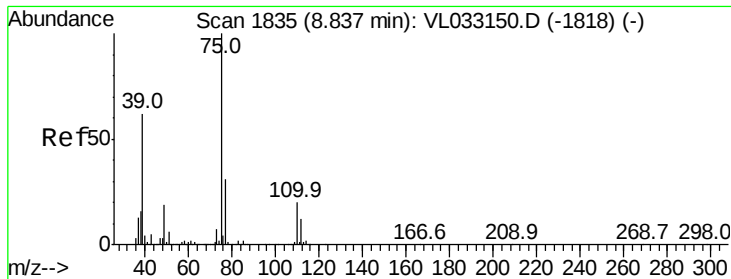
41 34.3 24.6 36.8

56 31.8 24.9 37.3



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

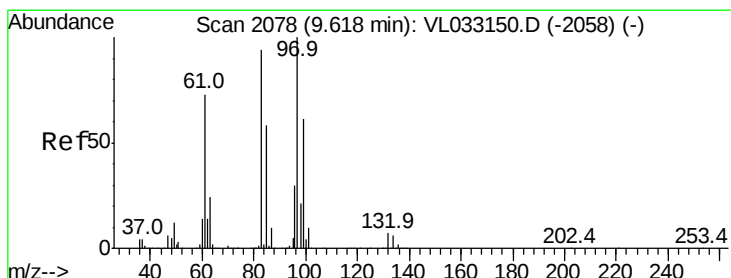
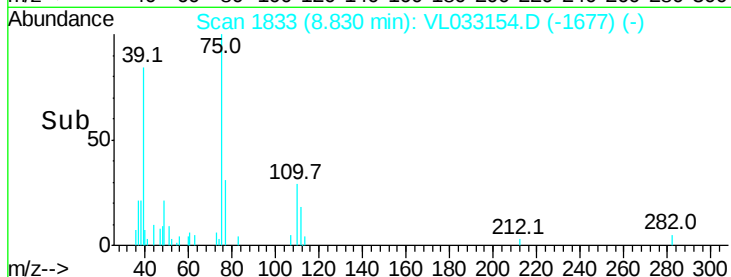
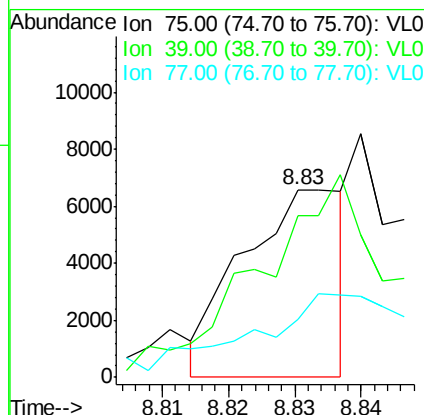
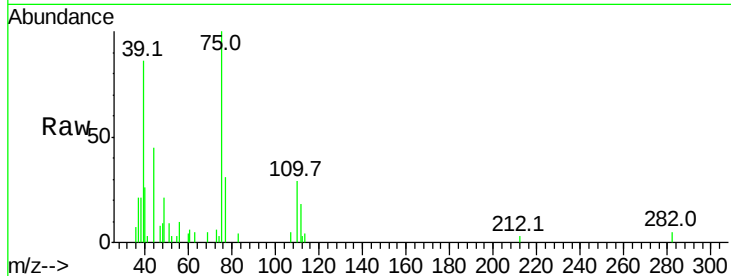




#46
 cis-1,3-Dichloropropene
 Concen: 0.035 ppbv
 RT: 8.83 min Scan# 1833
 Delta R.T. 0.00 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

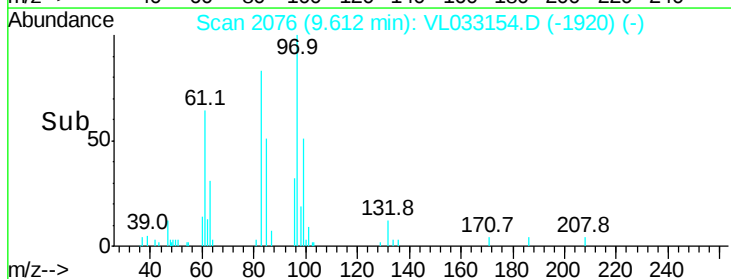
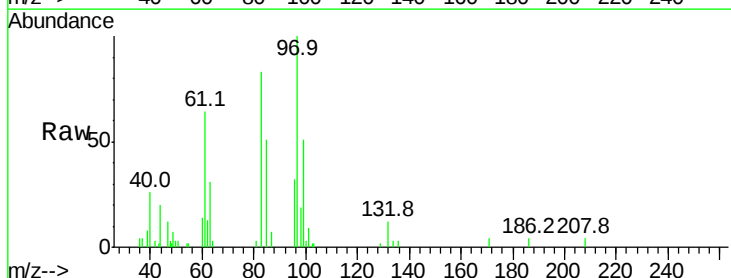
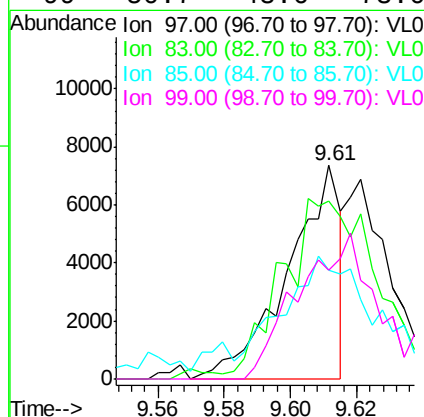
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.1

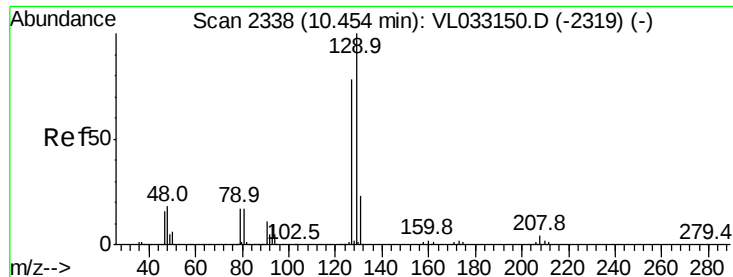
Tgt Ion: 75 Resp: 6983
 Ion Ratio Lower Upper
 75 100
 39 84.4 51.4 77.2#
 77 18.7 25.4 38.0#



#47
 1,1,2-Trichloroethane
 Concen: 0.062 ppbv
 RT: 9.61 min Scan# 2076
 Delta R.T. 0.00 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

Tgt Ion: 97 Resp: 8046
 Ion Ratio Lower Upper
 97 100
 83 78.5 65.8 98.8
 85 47.4 44.7 67.1
 99 50.7 48.6 73.0





#48

Dibromochloromethane

Concen: 0.034 ppbv

RT: 10.45 min Scan# 2337

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

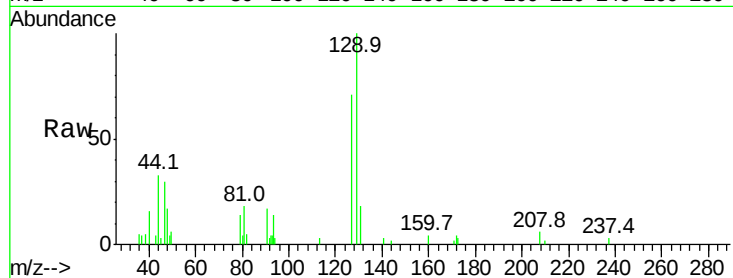
VSTDIC0.1

Tgt Ion:129 Resp: 7328

Ion Ratio Lower Upper

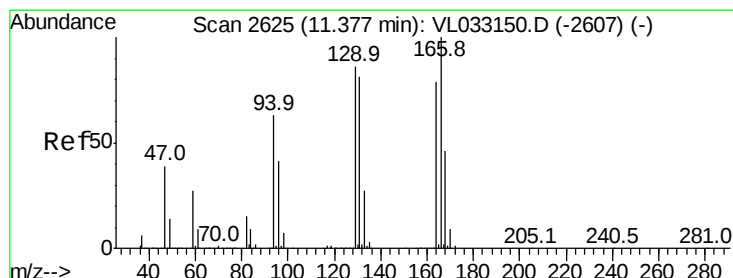
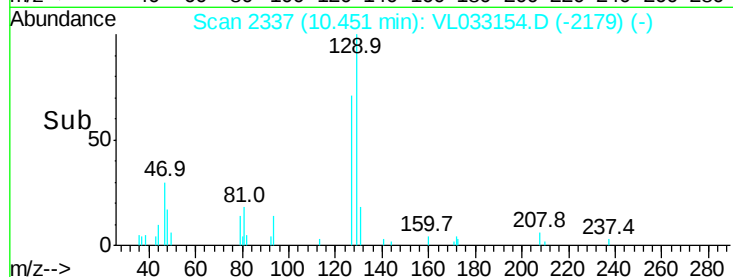
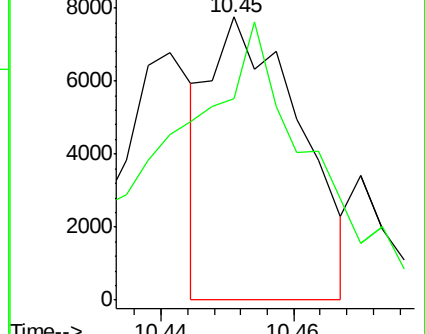
129 100

127 170.3 39.3 117.9#



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#52

Tetrachloroethene

Concen: 0.042 ppbv

RT: 11.37 min Scan# 2623

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Tgt Ion:164 Resp: 6170

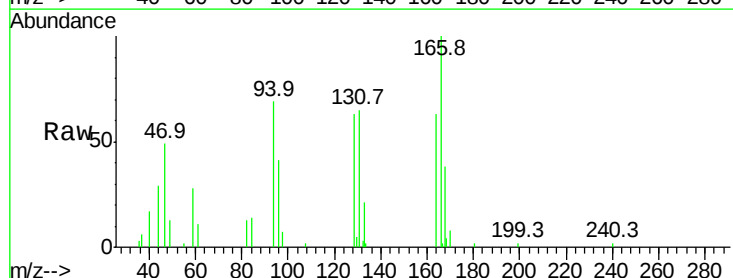
Ion Ratio Lower Upper

164 100

166 152.3 98.6 148.0#

129 107.2 86.3 129.5

131 102.0 83.7 125.5

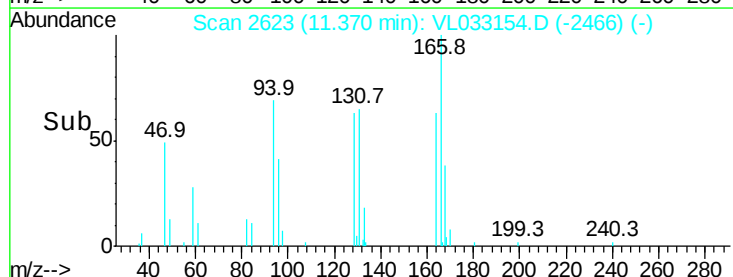
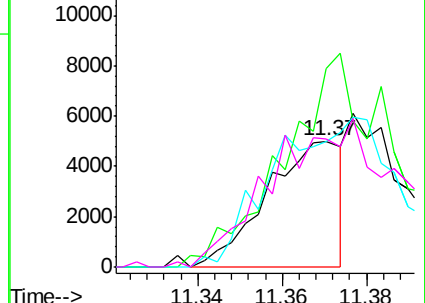


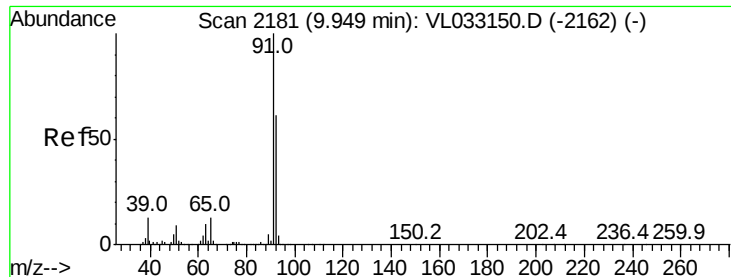
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 0.084 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

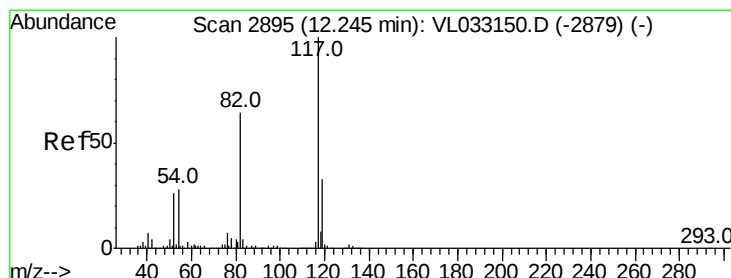
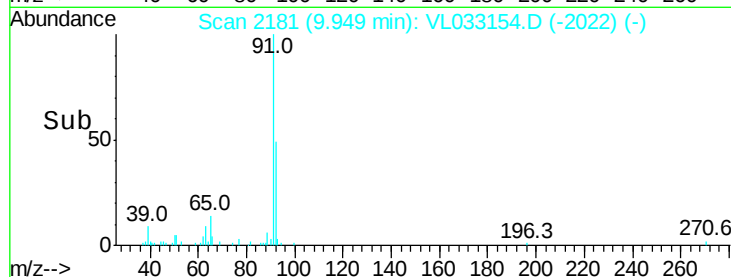
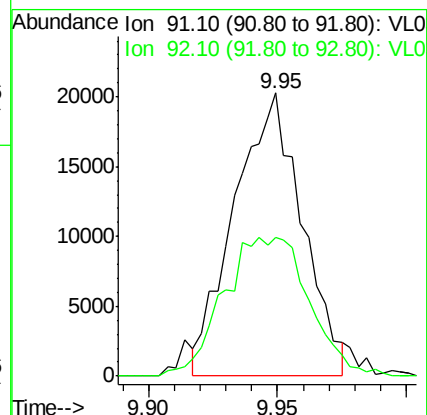
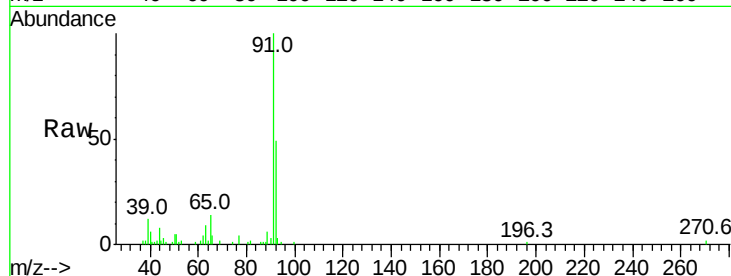
VSTDIC0.1

Tgt Ion: 91 Resp: 37192

Ion Ratio Lower Upper

91 100

92 61.7 48.9 73.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2893

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

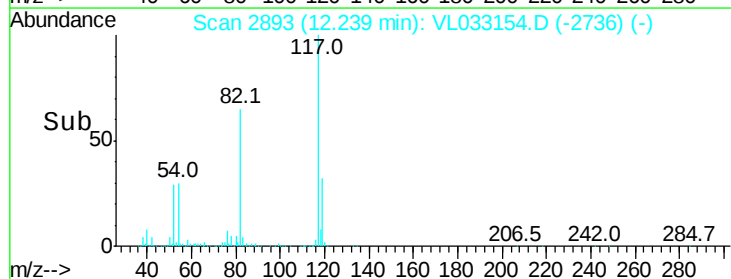
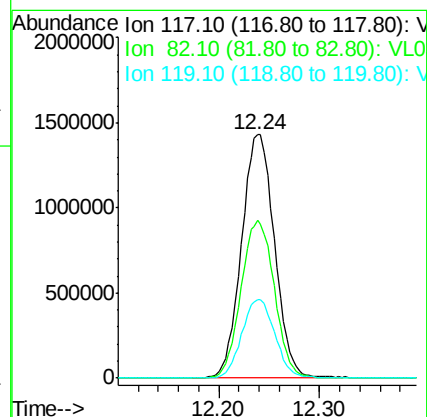
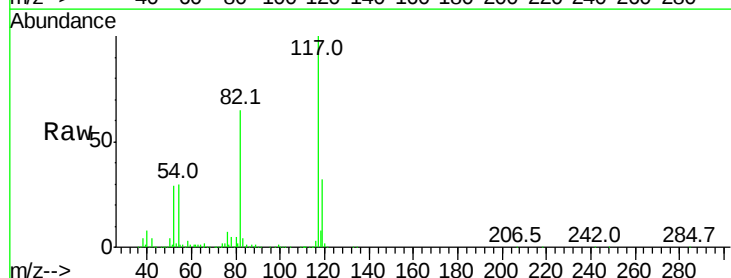
Tgt Ion: 117 Resp: 3239141

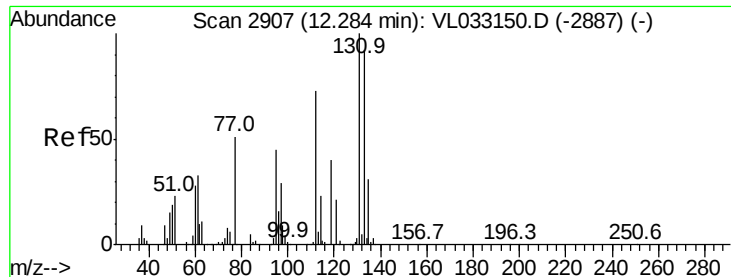
Ion Ratio Lower Upper

117 100

82 65.9 49.3 73.9

119 32.6 27.1 40.7





#56

1,1,1,2-Tetrachloroethane

Concen: 0.043 ppbv

RT: 12.28 min Scan# 2907

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

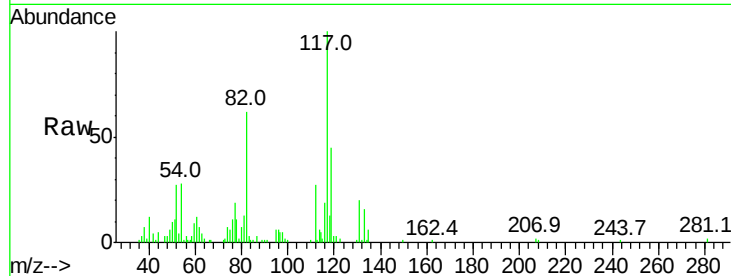
Tgt Ion:131 Resp: 6206

Ion Ratio Lower Upper

131 100

133 0.0 76.2 114.4#

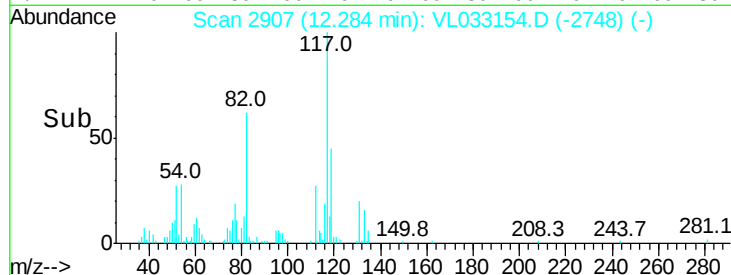
119 0.0 46.9 70.3#



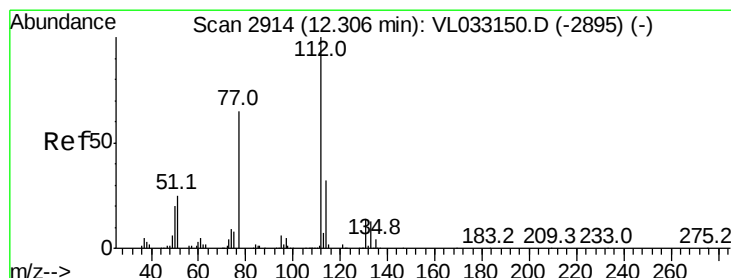
Abundance Ion 131.00 (130.70 to 131.70): V

Ion 133.00 (132.70 to 133.70): V

Ion 119.00 (118.70 to 119.70): V



Time-->



#57

Chlorobenzene

Concen: 0.061 ppbv

RT: 12.31 min Scan# 2914

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

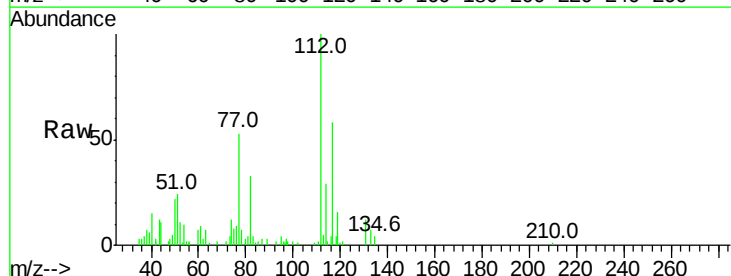
Tgt Ion:112 Resp: 17377

Ion Ratio Lower Upper

112 100

77 47.4 52.8 79.2#

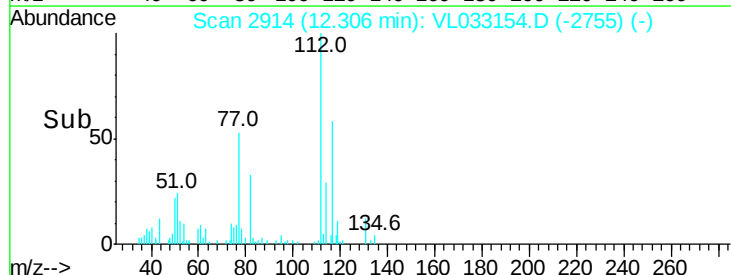
114 29.3 29.7 36.3#



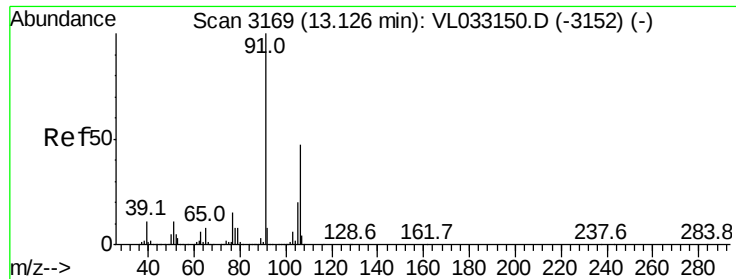
Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): V

Ion 114.10 (113.80 to 114.80): V



Time-->



#59

m/p-Xylene

Concen: 0.044 ppbv

RT: 13.13 min Scan# 3169

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

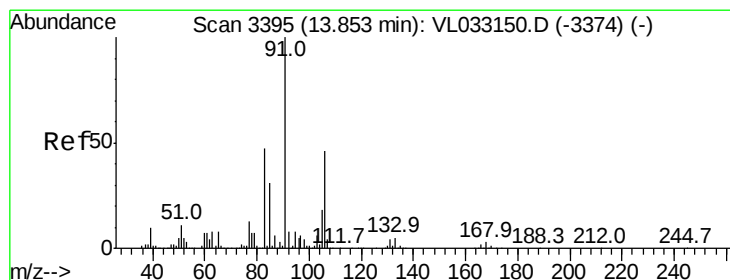
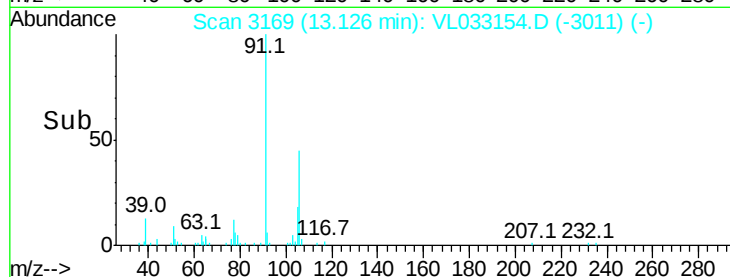
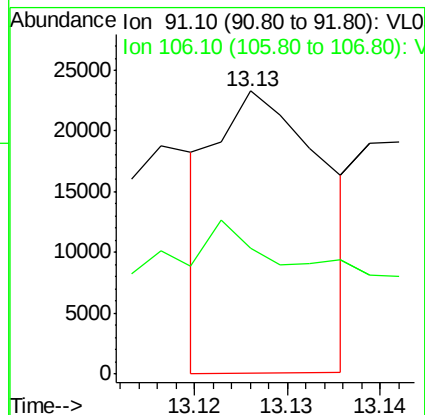
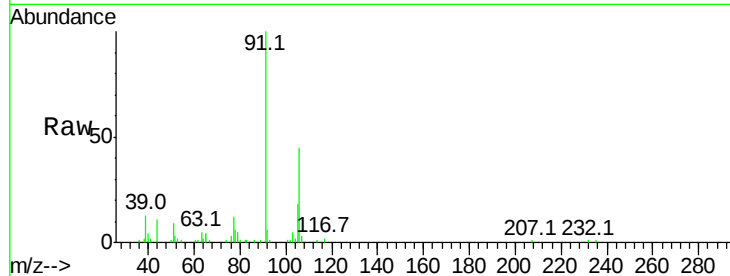
VSTDIC0.1

Tgt Ion: 91 Resp: 18933

Ion Ratio Lower Upper

91 100

106 202.8 37.6 56.4#



#60

o-Xylene

Concen: 0.099 ppbv

RT: 13.85 min Scan# 3393

Delta R.T. 0.00 min

Lab File: VL033154.D

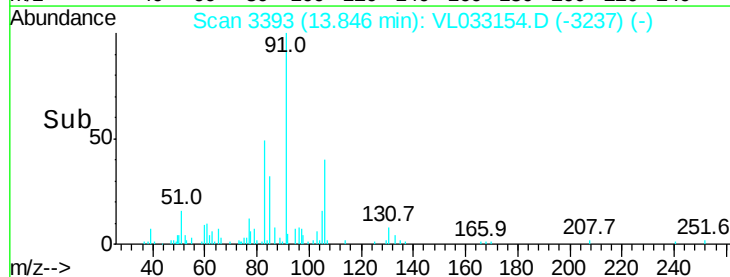
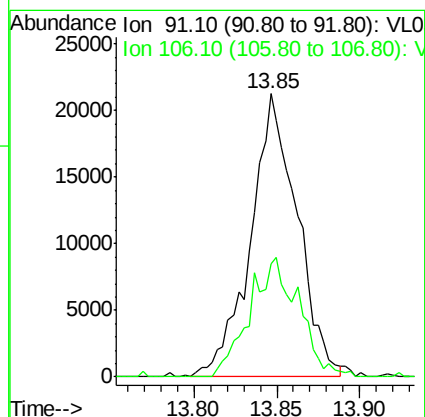
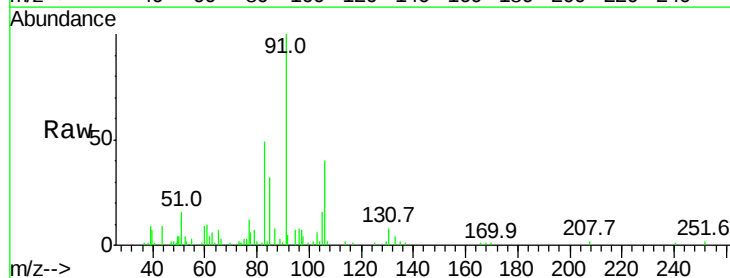
Acq: 4 Feb 2019 12:34

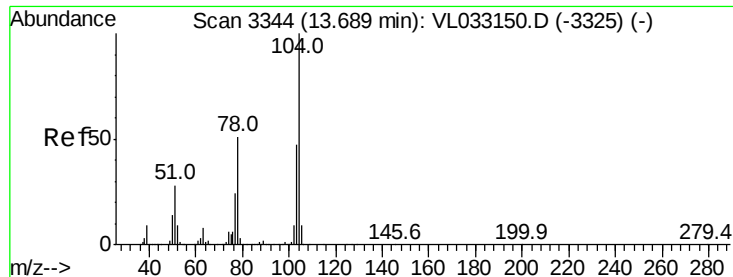
Tgt Ion: 91 Resp: 41478

Ion Ratio Lower Upper

91 100

106 44.5 23.2 69.5





#61

Styrene

Concen: 0.043 ppbv

RT: 13.69 min Scan# 3343

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

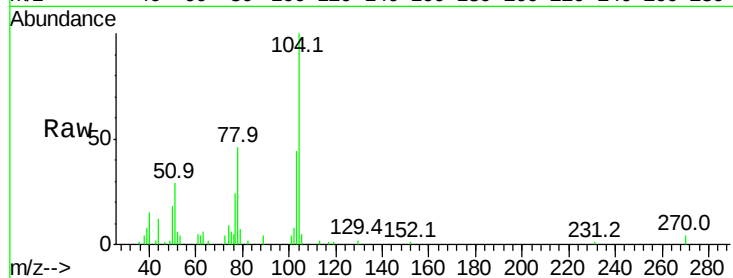
Tgt Ion:104 Resp: 13833

Ion Ratio Lower Upper

104 100

78 115.1 39.7 59.5#

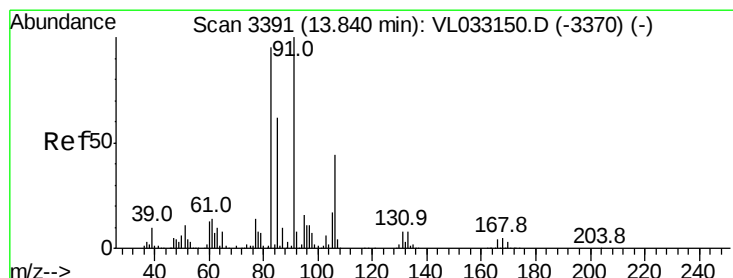
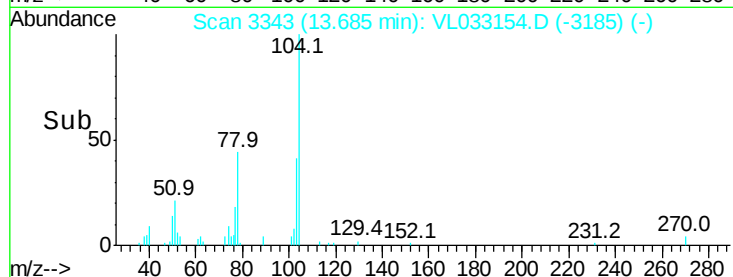
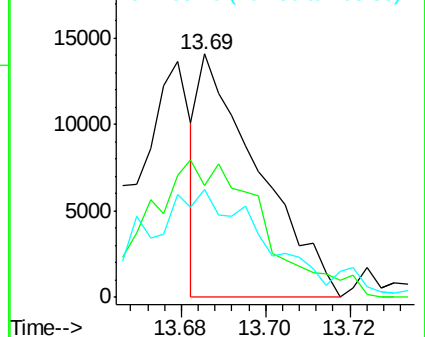
103 97.8 37.7 56.5#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#63

1,1,2,2-Tetrachloroethane

Concen: 0.079 ppbv

RT: 13.84 min Scan# 3391

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

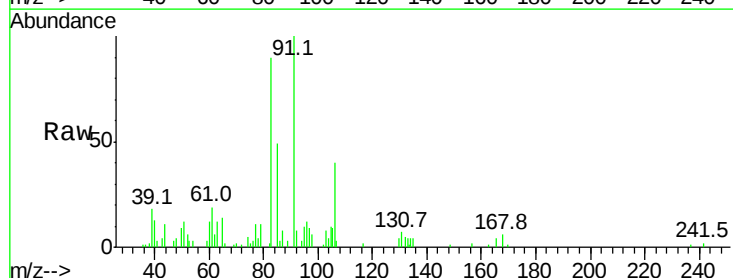
Tgt Ion: 83 Resp: 24865

Ion Ratio Lower Upper

83 100

131 0.0 4.5 13.7#

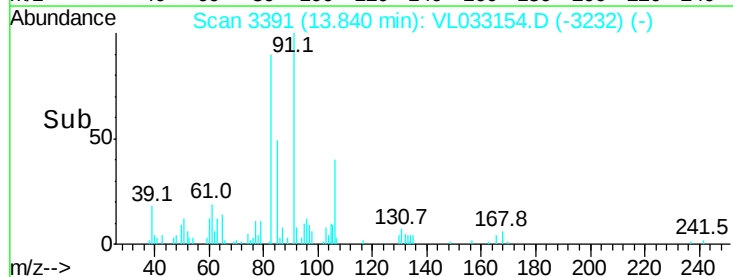
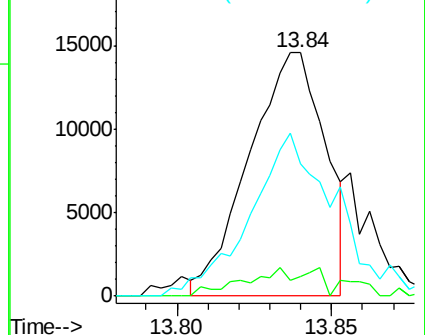
85 76.8 32.5 97.4

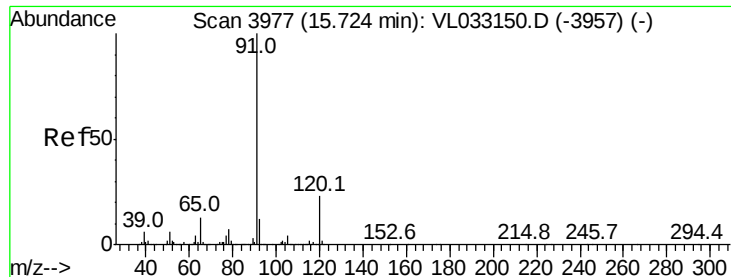


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 131.00 (130.70 to 131.70): V

Ion 85.00 (84.70 to 85.70): VL0

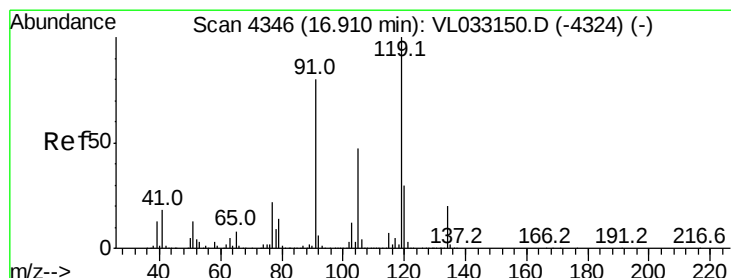
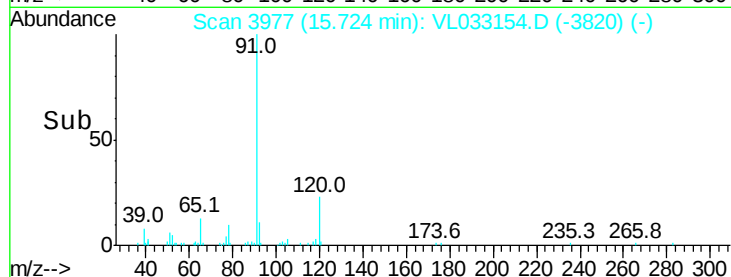
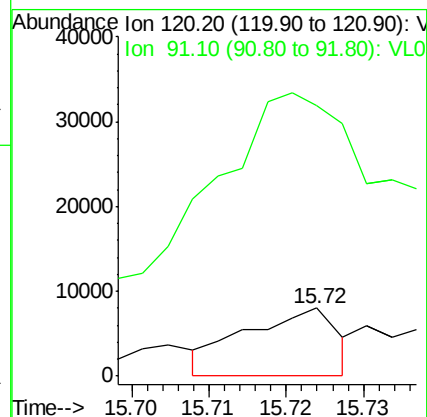
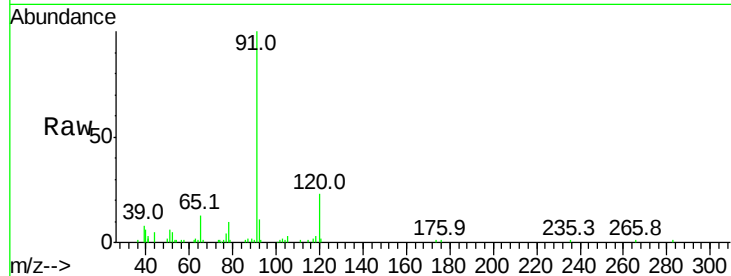




#64
n-propylbenzene
Concen: 0.044 ppbv
RT: 15.72 min Scan# 3977
Delta R.T. 0.00 min
Lab File: VL033154.D
Acq: 4 Feb 2019 12:34

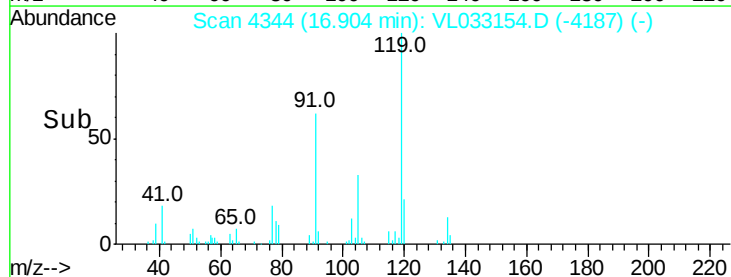
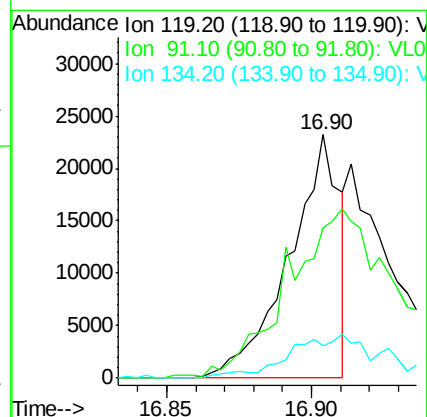
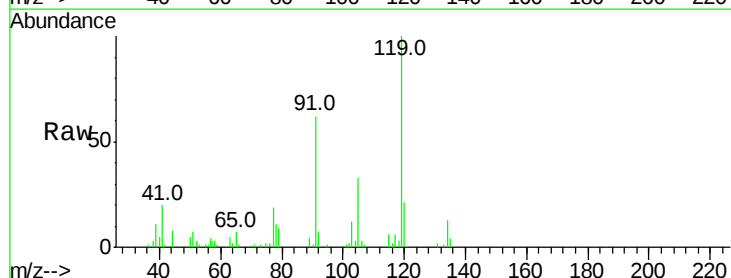
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.1

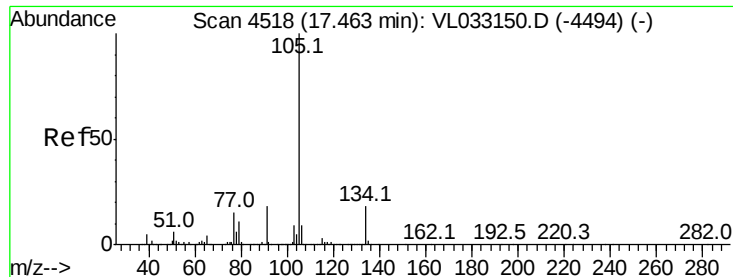
Tgt Ion:120 Resp: 6678
Ion Ratio Lower Upper
120 100
91 1103.4 370.2 555.2#



#65
tert-Butylbenzene
Concen: 0.056 ppbv
RT: 16.90 min Scan# 4344
Delta R.T. 0.00 min
Lab File: VL033154.D
Acq: 4 Feb 2019 12:34

Tgt Ion:119 Resp: 28009
Ion Ratio Lower Upper
119 100
91 0.0 63.0 94.6#
134 0.0 15.5 23.3#

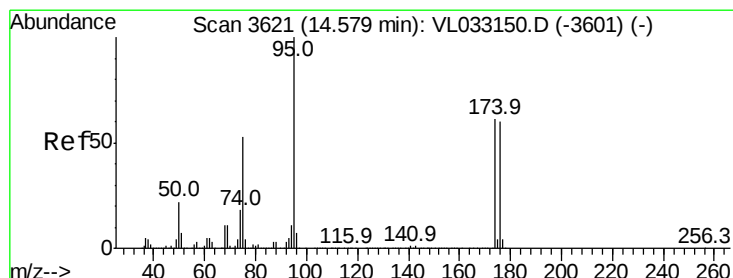
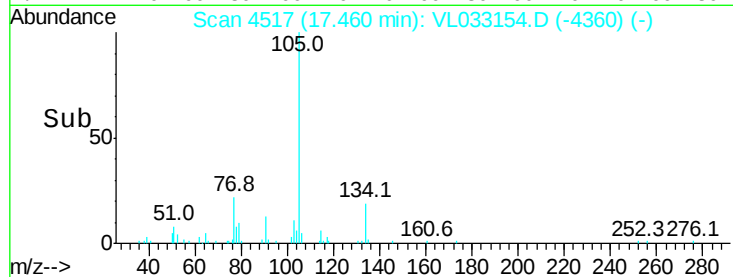
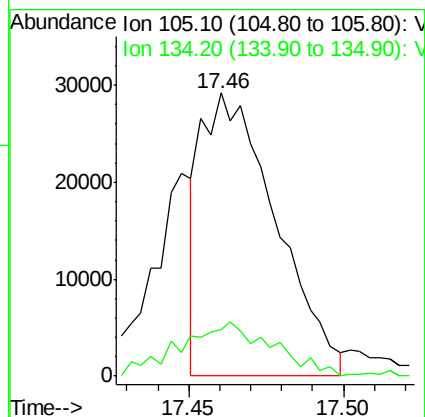
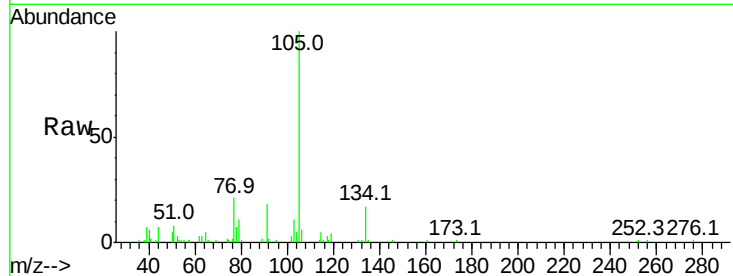




#67
 sec-Butylbenzene
 Concen: 0.069 ppbv
 RT: 17.46 min Scan# 4517
 Delta R.T. 0.00 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

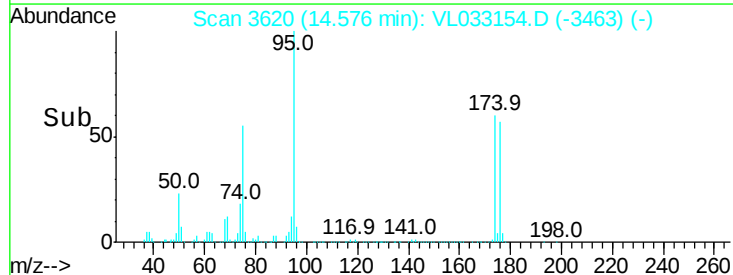
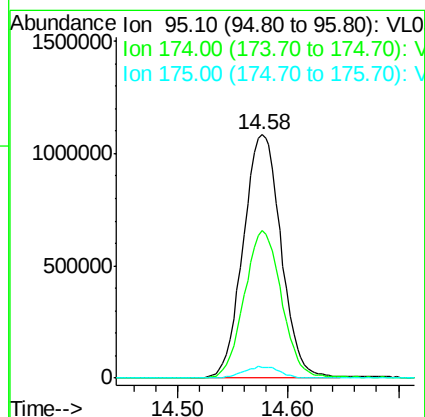
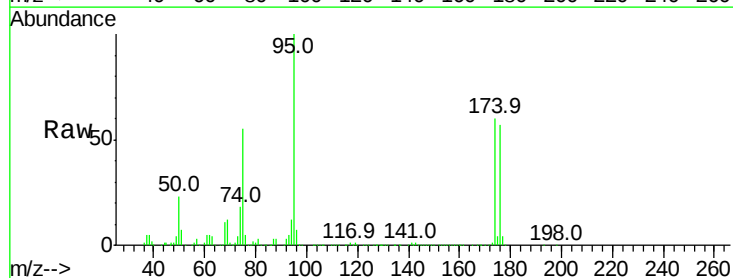
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.1

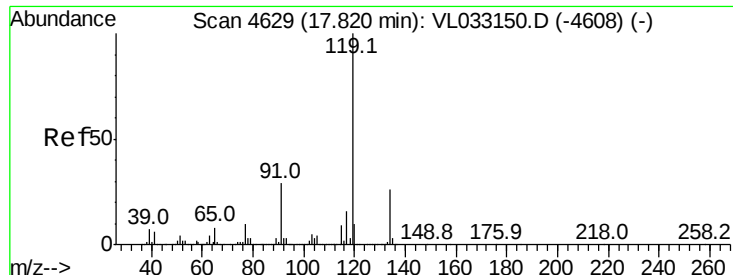
Tgt Ion: 105 Resp: 48813
 Ion Ratio Lower Upper
 105 100
 134 24.9 14.4 21.6#



#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.528 ppbv
 RT: 14.58 min Scan# 3620
 Delta R.T. 0.00 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

Tgt Ion: 95 Resp: 2574689
 Ion Ratio Lower Upper
 95 100
 174 59.9 49.2 73.8
 175 4.5 3.7 5.5

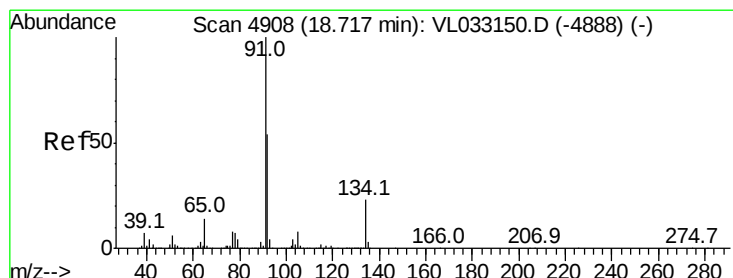
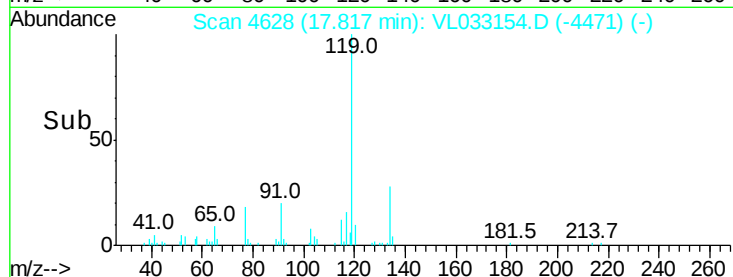
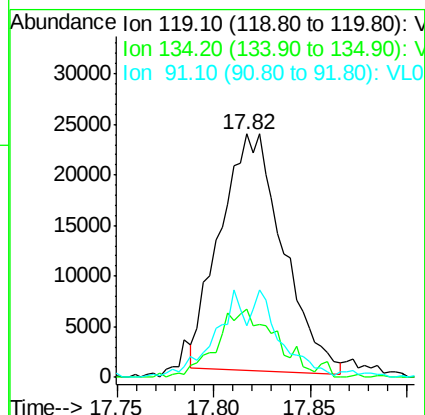
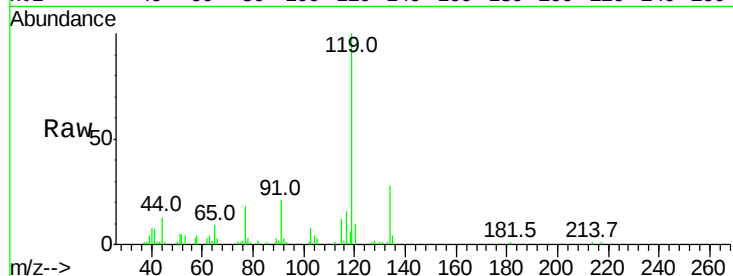




#69
 p-Isopropyltoluene
 Concen: 0.094 ppbv
 RT: 17.82 min Scan# 4628
 Delta R.T. 0.00 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

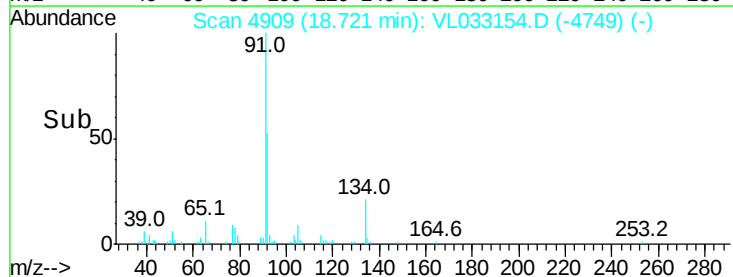
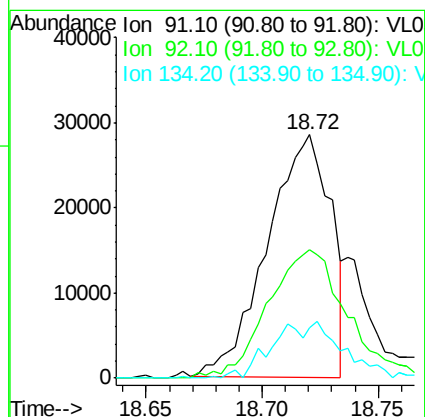
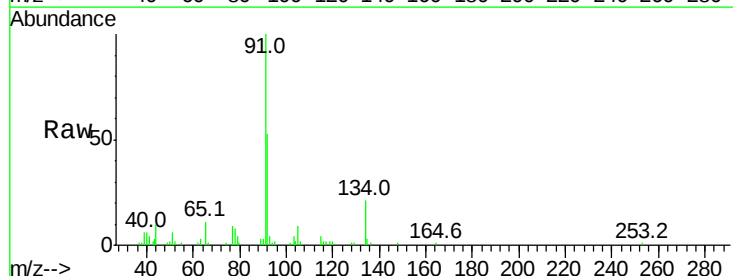
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.1

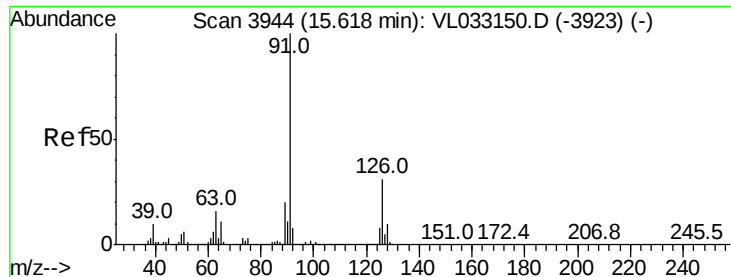
Tgt Ion: 119 Resp: 52845
 Ion Ratio Lower Upper
 119 100
 134 28.4 20.3 30.5
 91 36.0 22.6 33.8#



#70
 n-Butylbenzene
 Concen: 0.094 ppbv
 RT: 18.72 min Scan# 4909
 Delta R.T. 0.01 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

Tgt Ion: 91 Resp: 53955
 Ion Ratio Lower Upper
 91 100
 92 66.6 43.7 65.5#
 134 26.6 18.4 27.6





#71

2-Chlorotoluene

Concen: 0.054 ppbv

RT: 15.61 min Scan# 3942

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

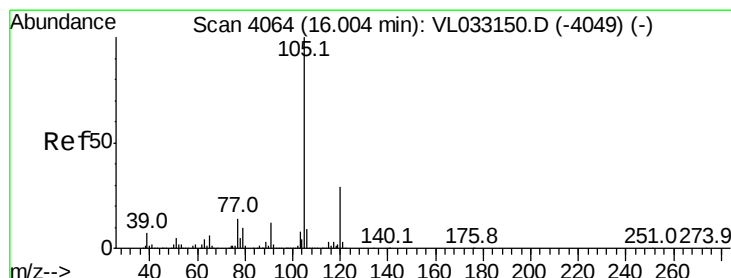
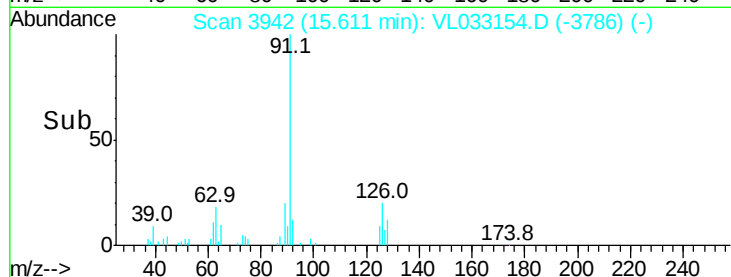
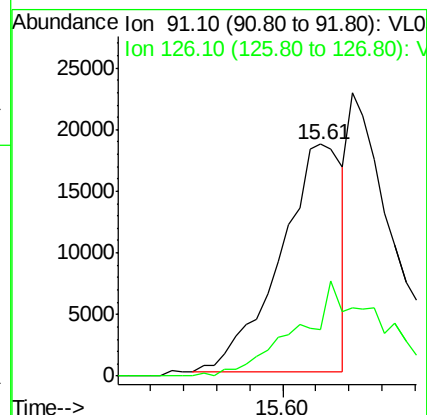
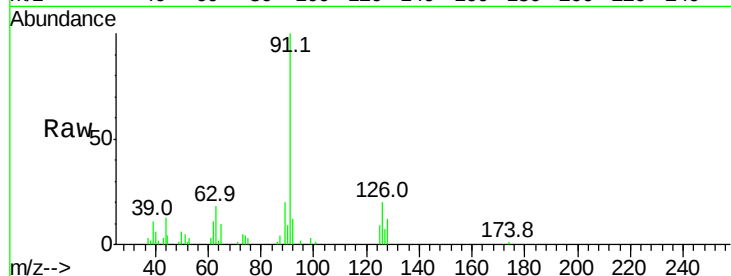
VSTDIC0.1

Tgt Ion: 91 Resp: 24271

Ion Ratio Lower Upper

91 100

126 55.7 12.3 49.1#



#72

4-Ethyltoluene

Concen: 0.099 ppbv

RT: 16.00 min Scan# 4063

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Tgt Ion: 105 Resp: 46307

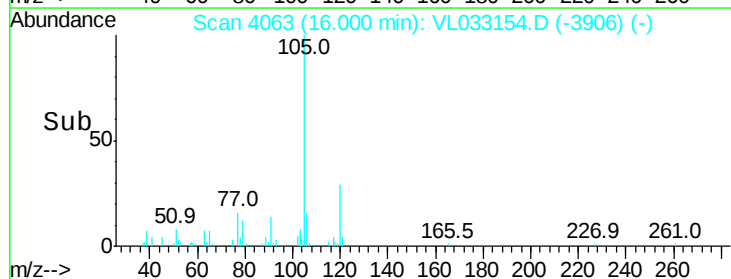
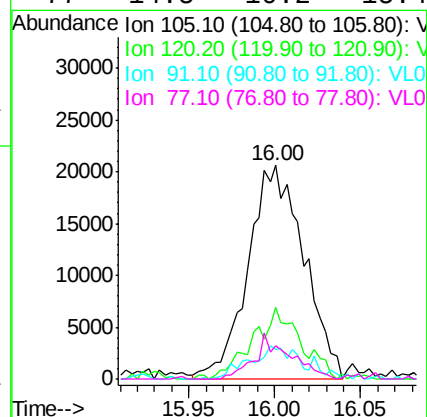
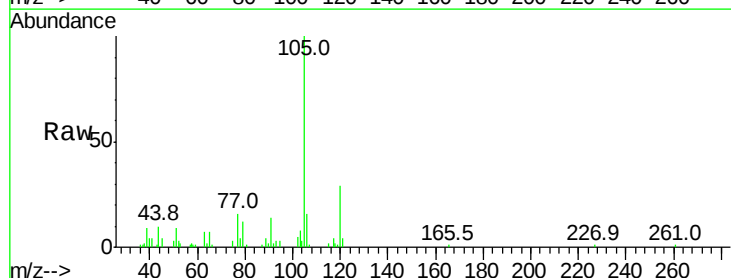
Ion Ratio Lower Upper

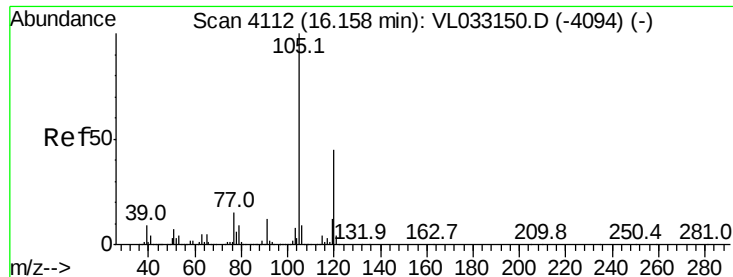
105 100

120 29.6 23.2 34.8

91 15.6 9.5 14.3#

77 14.5 10.2 15.4





#73

1,3,5-Trimethylbenzene

Concen: 0.102 ppbv

RT: 16.17 min Scan# 4115

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

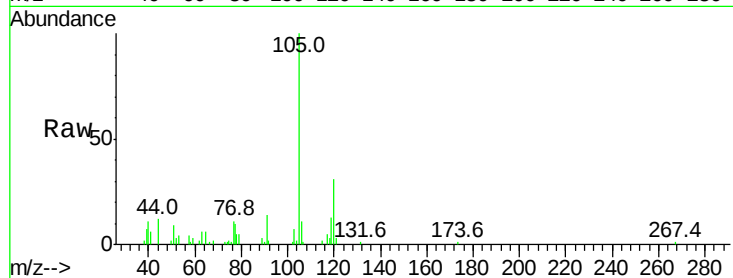
VSTDIC0.1

Tgt Ion:105 Resp: 43326

Ion Ratio Lower Upper

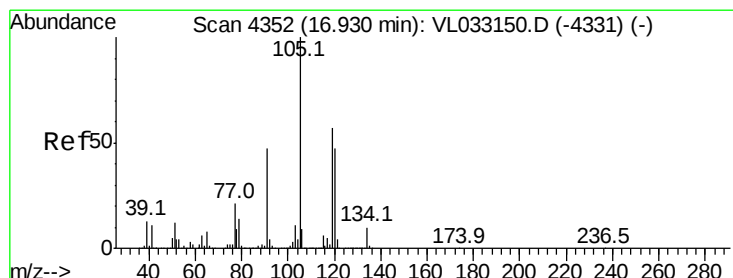
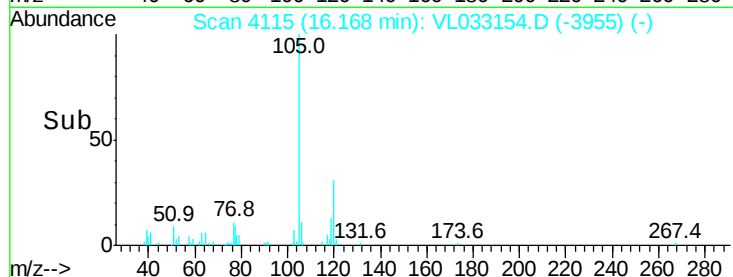
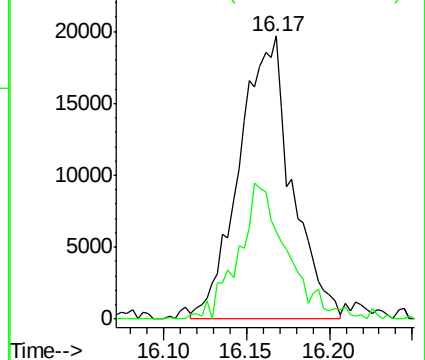
105 100

120 33.1 38.0 57.0#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.106 ppbv

RT: 16.93 min Scan# 4351

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Tgt Ion:105 Resp: 44271

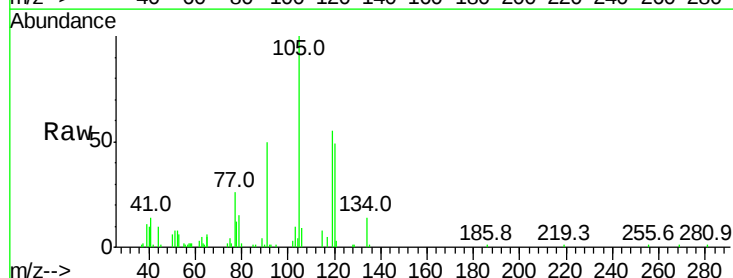
Ion Ratio Lower Upper

105 100

120 47.5 38.2 57.4

91 44.7 35.0 52.4

77 22.0 15.8 23.6

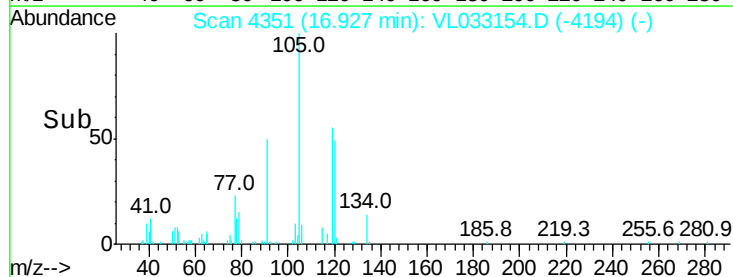
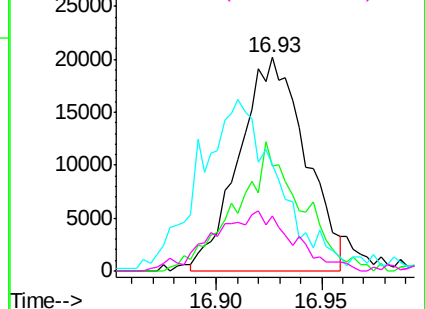


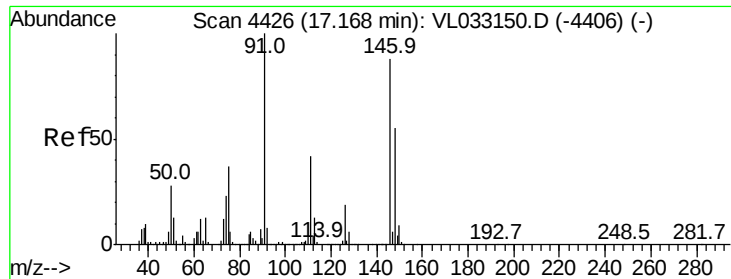
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

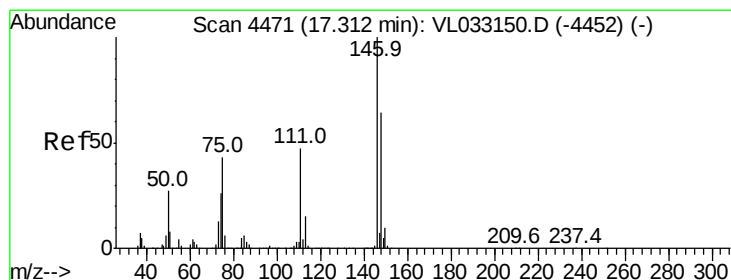
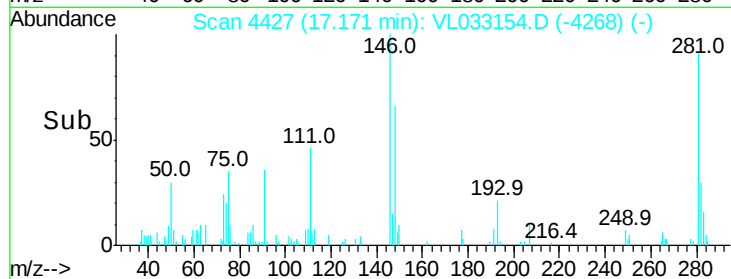
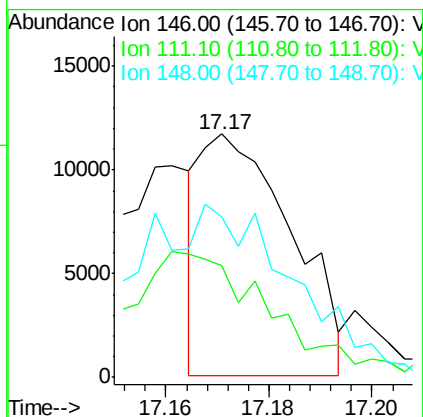
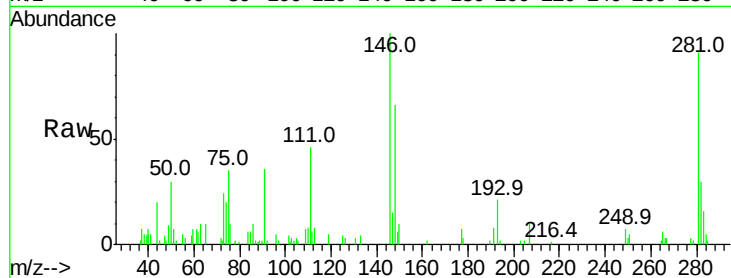




#75
 1,3-Dichlorobenzene
 Concen: 0.057 ppbv
 RT: 17.17 min Scan# 4427
 Delta R.T. 0.01 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

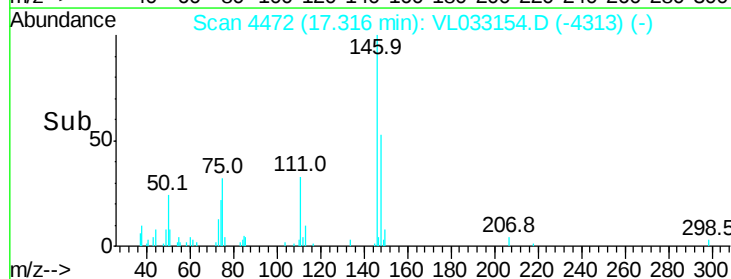
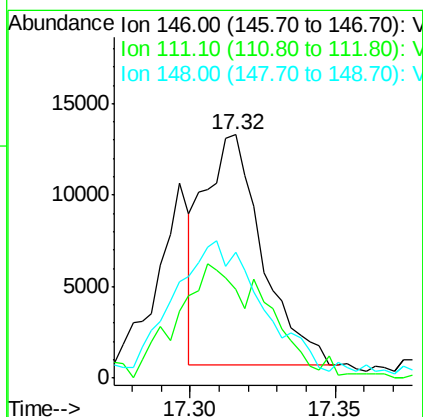
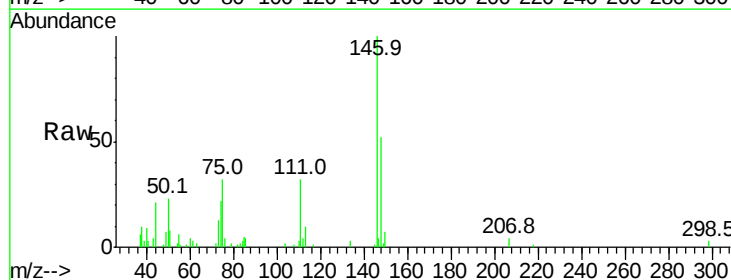
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.1

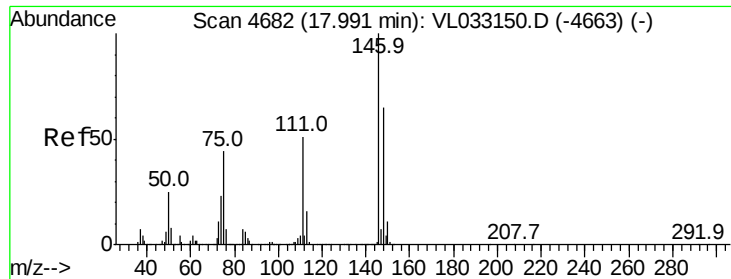
Tgt Ion:146 Resp: 14155
 Ion Ratio Lower Upper
 146 100
 111 0.0 24.0 72.0#
 148 141.5 31.9 95.7#



#76
 1,4-Dichlorobenzene
 Concen: 0.071 ppbv
 RT: 17.32 min Scan# 4472
 Delta R.T. 0.01 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

Tgt Ion:146 Resp: 17694
 Ion Ratio Lower Upper
 146 100
 111 80.7 23.4 70.0#
 148 97.1 31.9 95.9#





#77

1,2-Dichlorobenzene

Concen: 0.089 ppbv

RT: 17.99 min Scan# 4682

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

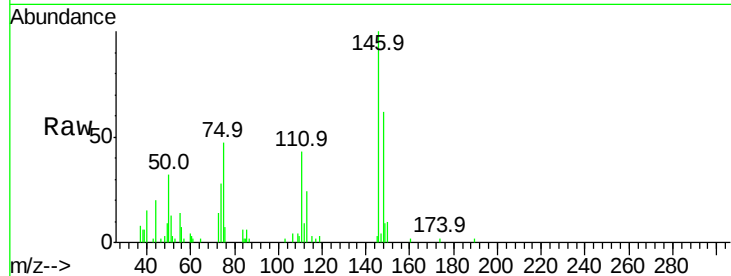
Tgt Ion:146 Resp: 21255

Ion Ratio Lower Upper

146 100

111 67.1 25.1 75.3

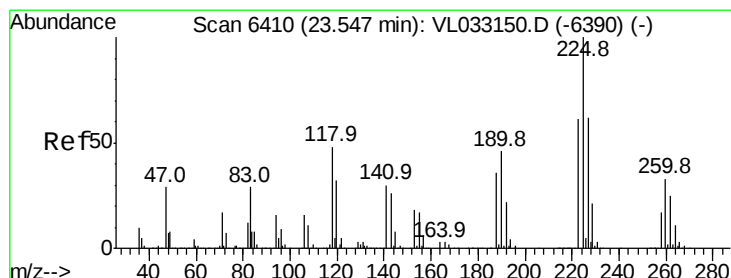
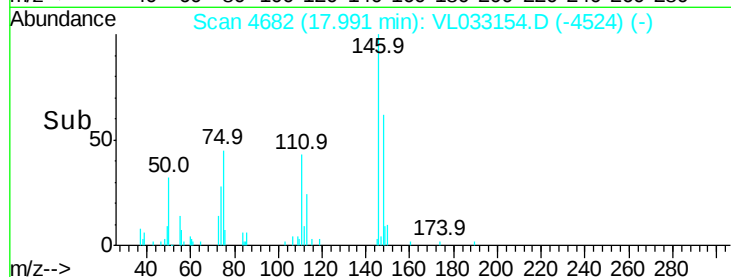
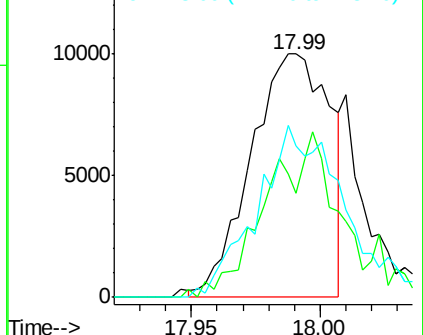
148 79.2 32.0 96.2



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#78

Hexachloro-1,3-Butadiene

Concen: 0.067 ppbv

RT: 23.54 min Scan# 6409

Delta R.T. 0.00 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

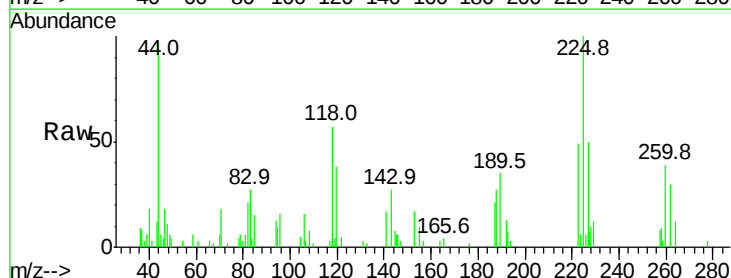
Tgt Ion:225 Resp: 7453

Ion Ratio Lower Upper

225 100

223 121.7 50.2 75.4#

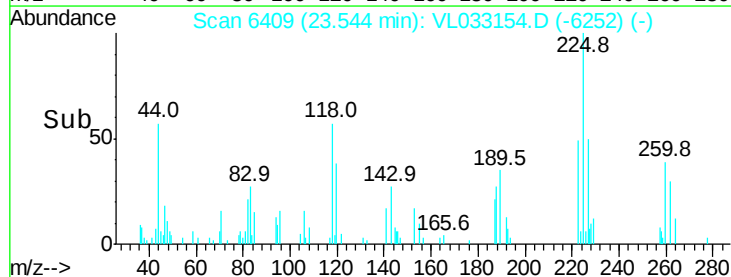
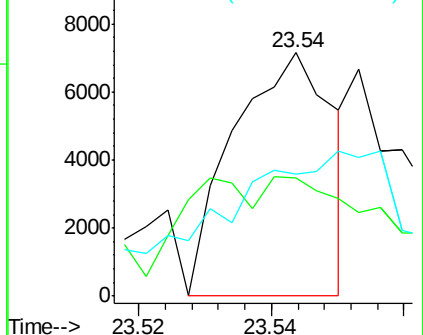
227 0.0 51.1 76.7#

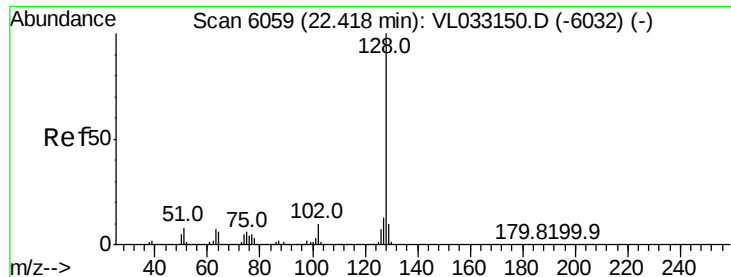


Abundance Ion 224.90 (224.60 to 225.60): V

Ion 222.90 (222.60 to 223.60): V

Ion 226.90 (226.60 to 227.60): V





#79

Naphthalene

Concen: 0.122 ppbv

RT: 22.42 min Scan# 6059

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

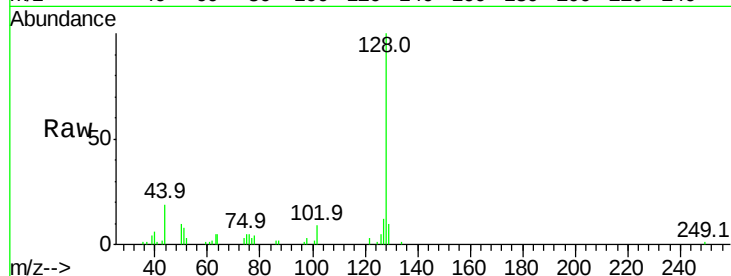
Tgt Ion:128 Resp: 33322

Ion Ratio Lower Upper

128 100

127 10.8 10.6 16.0

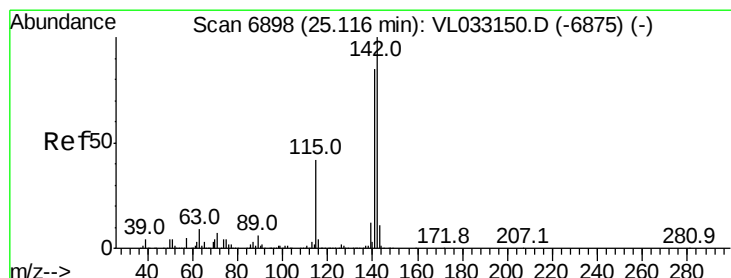
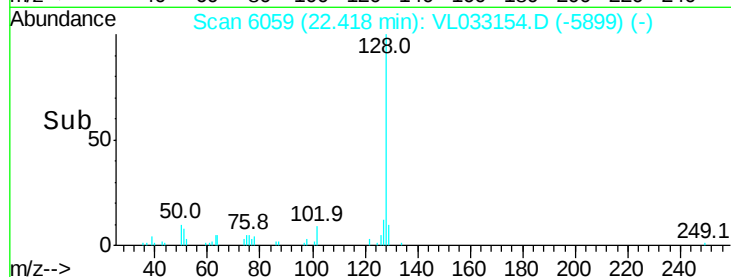
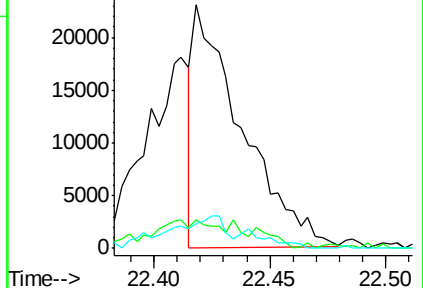
129 10.2 9.0 13.4



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 0.143 ppbv

RT: 25.12 min Scan# 6898

Delta R.T. 0.01 min

Lab File: VL033154.D

Acq: 4 Feb 2019 12:34

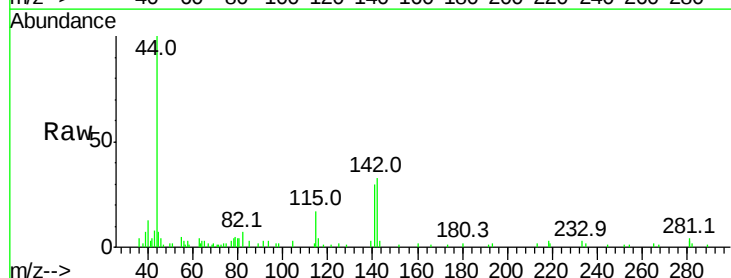
Tgt Ion:142 Resp: 11564

Ion Ratio Lower Upper

142 100

141 82.5 66.5 99.7

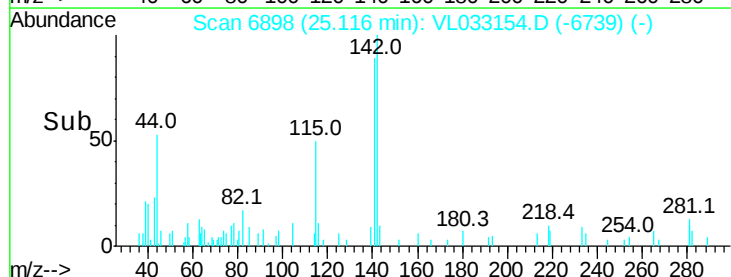
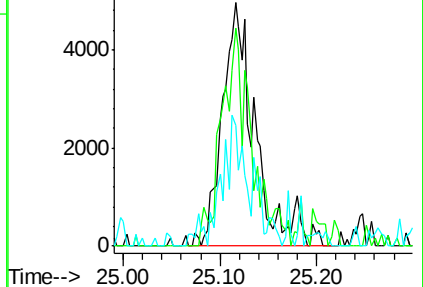
115 48.3 31.3 46.9#

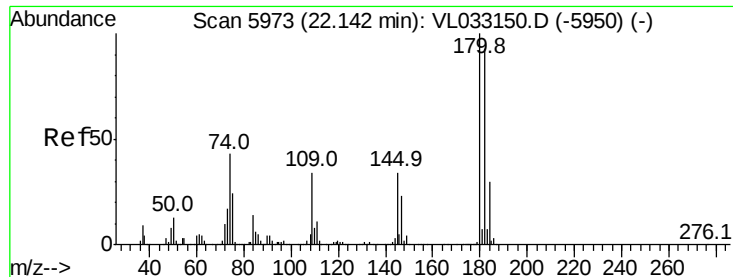


Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V





#81
 1,2,4-Trichlorobenzene
 Concen: 0.081 ppbv
 RT: 22.14 min Scan# 5971
 Delta R.T. 0.01 min
 Lab File: VL033154.D
 Acq: 4 Feb 2019 12:34

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.1

Tgt Ion:180 Resp: 11637
 Ion Ratio Lower Upper
 180 100
 182 0.0 76.2 114.4#
 184 0.0 24.6 36.8#

