

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091620\
 Data File : VL035645.D
 Acq On : 17 Sep 2020 2:20
 Operator : SY/AP
 Sample : L3983-06
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-11

Quant Time: Sep 17 07:10:51 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Sep 14 15:19:50 2020
 QLast Update : Mon Sep 14 15:19:50 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1072562	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4187693	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	4050138	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	3036378	10.56	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.60%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	63097	0.339 ppbv	97
3) Chlorodifluoromethane	2.98	51	86332	0.728 ppbv #	86
4) Chloromethane	3.13	50	53977	0.849 ppbv	92
7) Chloroethane	3.55	64	1452	0.052 ppbv	94
9) Propene	3.01	41	33963	0.743 ppbv	85
11) Trichlorofluoromethane	3.94	101	67826	0.250 ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.48	101	14704	0.072 ppbv	91
13) Ethanol	3.60	45	126776	11.181 ppbv	98
15) Acetone	3.84	43	816378	6.901 ppbv #	85
16) 1,3-Butadiene	3.30	39	14683	0.333 ppbv #	22
17) tert-Butyl alcohol	4.31	59	13329	0.093 ppbv #	72
19) Isopropyl Alcohol	3.97	45	73482	1.041 ppbv #	93
20) Methylene Chloride	4.34	84	496750	5.638 ppbv	95
23) Vinyl Acetate	5.06	43	14687	0.097 ppbv #	11
25) Ethyl Acetate	5.69	43	74424	0.356 ppbv #	78
26) Hexane	5.69	57	115474	0.975 ppbv #	49
29) Chloroform	5.75	83	13393	0.056 ppbv	88
31) cis-1,2-Dichloroethene	5.55	61	4727	0.039 ppbv #	78
34) 2-Butanone	5.25	43	110989	0.893 ppbv	96
35) Carbon Tetrachloride	7.01	117	11060	0.053 ppbv	92
39) 1,2-Dichloropropane	7.18	63	800437	8.741 ppbv #	32
44) 2,2,4-Trimethylpentane	7.87	57	18777	0.053 ppbv #	36
52) Tetrachloroethene	11.23	164	22475	0.142 ppbv	91

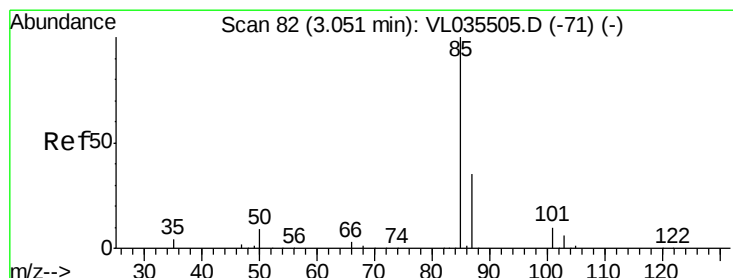
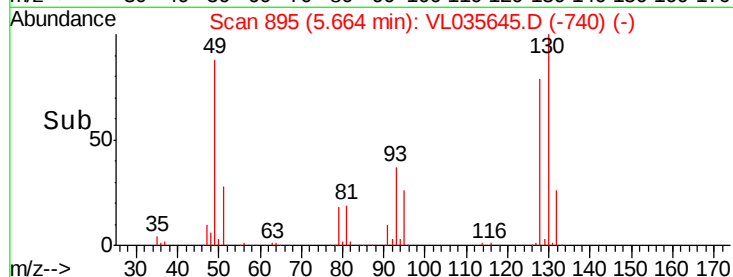
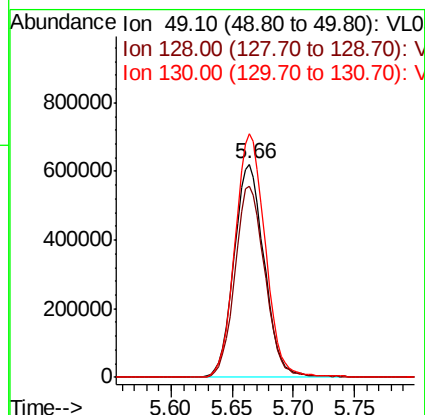
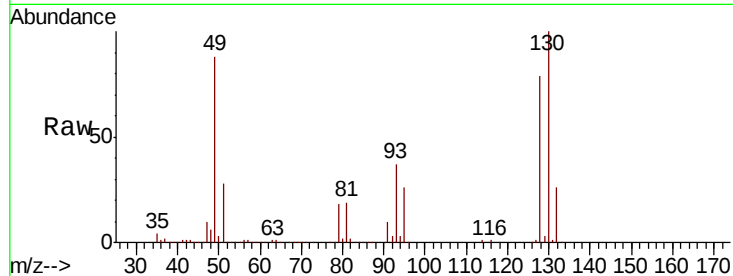
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.00 min
Lab File: VL035645.D
Acq: 17 Sep 2020 2:20

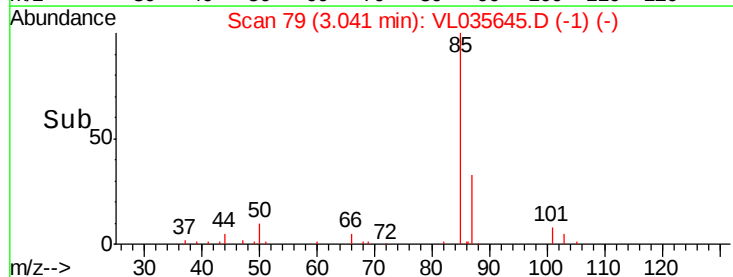
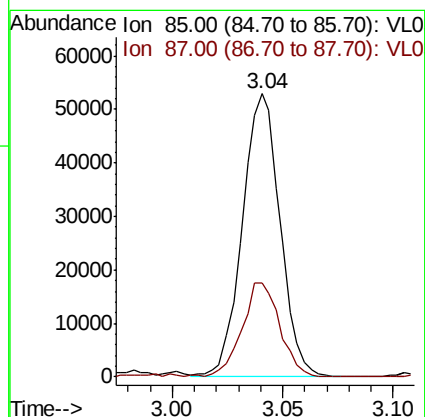
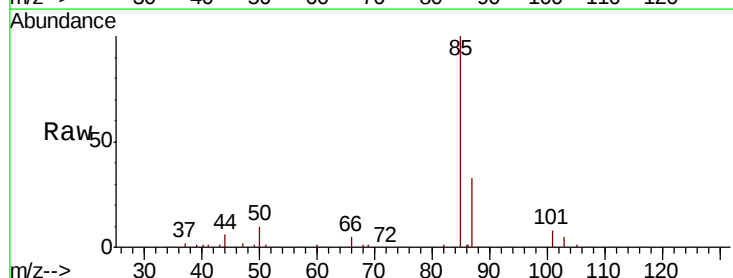
Instrument :
MSVOA_L
ClientSampleId :
SV-11

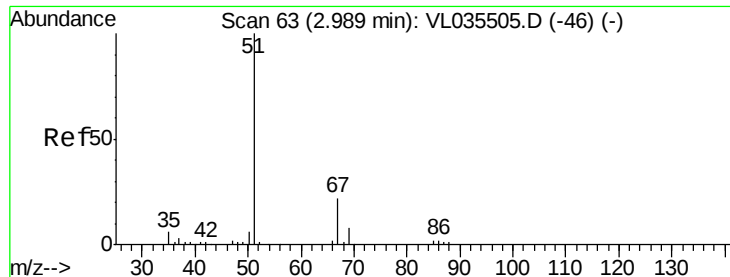
Tot Ion: 49 Resp: 1072562
Ion Ratio Lower Upper
49 100
128 89.4 50.0 150.1
130 114.1 64.4 193.2



#2
Dichlorodifluoromethane
Concen: 0.339 ppbv
RT: 3.04 min Scan# 79
Delta R.T. 0.01 min
Lab File: VL035645.D
Acq: 17 Sep 2020 2:20

Tgt Ion: 85 Resp: 63097
Ion Ratio Lower Upper
85 100
87 33.0 28.0 42.0





#3

Chlorodifluoromethane

Concen: 0.728 ppbv

RT: 2.98 min Scan# 60

Delta R.T. 0.01 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampled :

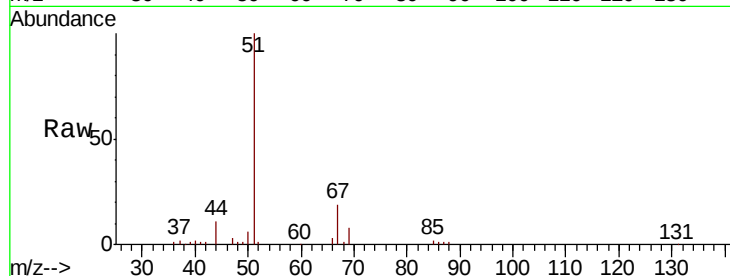
SV-11

Tot Ion: 51 Resp: 86332

Ion Ratio Lower Upper

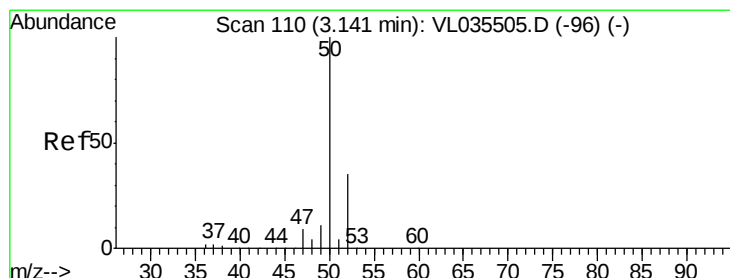
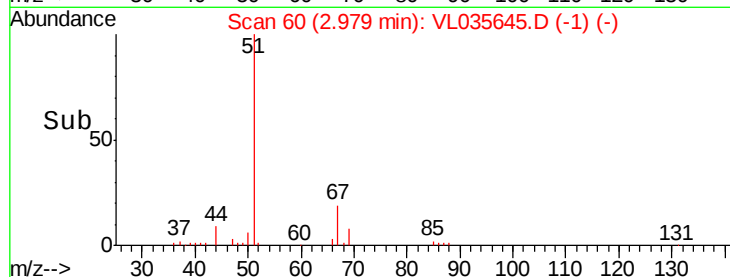
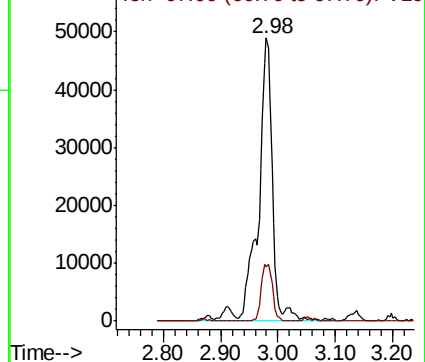
51 100

67 15.5 17.8 26.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.849 ppbv

RT: 3.13 min Scan# 108

Delta R.T. 0.01 min

Lab File: VL035645.D

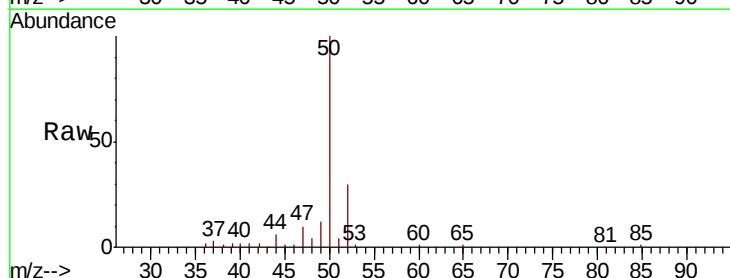
Acq: 17 Sep 2020 2:20

Tgt Ion: 50 Resp: 53977

Ion Ratio Lower Upper

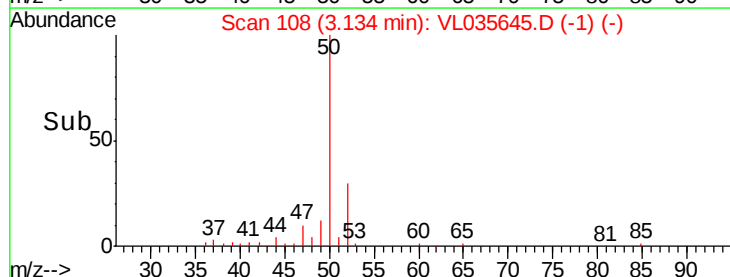
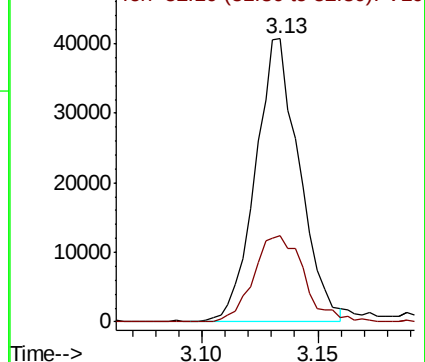
50 100

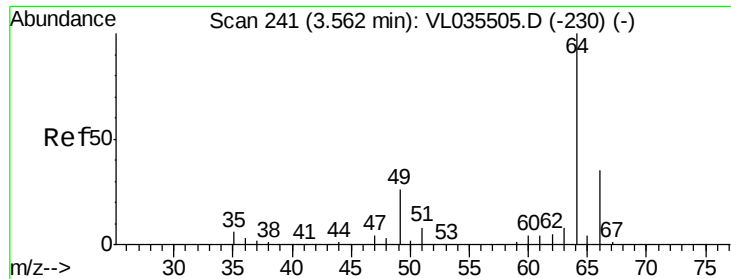
52 30.3 27.7 41.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#7

Chloroethane

Concen: 0.052 ppbv

RT: 3.55 min Scan# 238

Delta R.T. 0.01 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

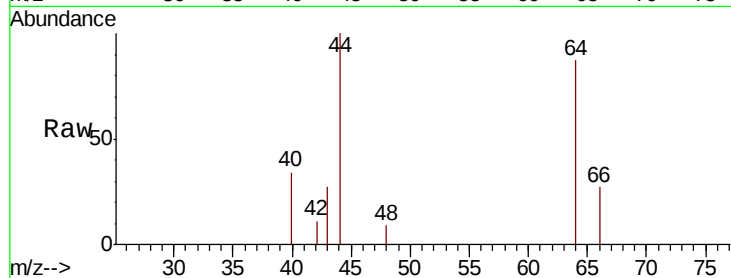
SV-11

Tot Ion: 64 Resp: 1452

Ion Ratio Lower Upper

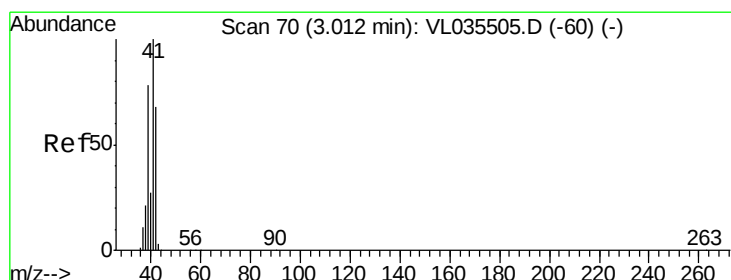
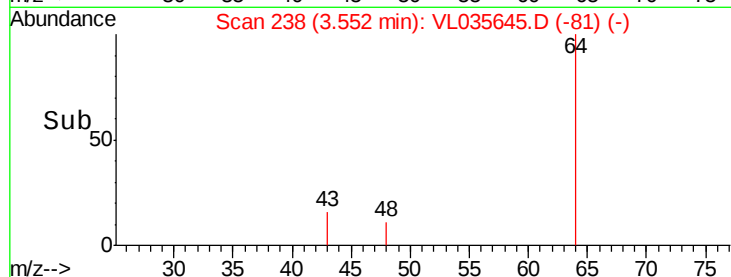
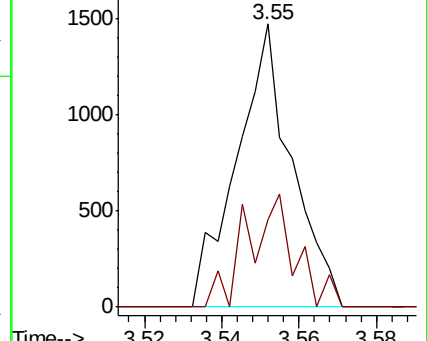
64 100

66 31.1 27.7 41.5



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#9

Propene

Concen: 0.743 ppbv

RT: 3.01 min Scan# 69

Delta R.T. 0.01 min

Lab File: VL035645.D

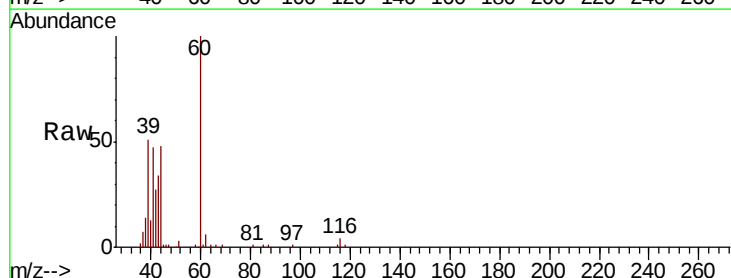
Acq: 17 Sep 2020 2:20

Tgt Ion: 41 Resp: 33963

Ion Ratio Lower Upper

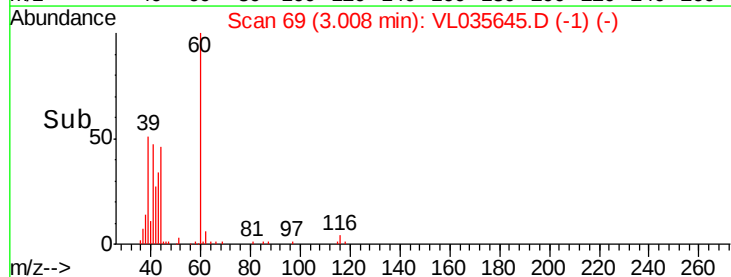
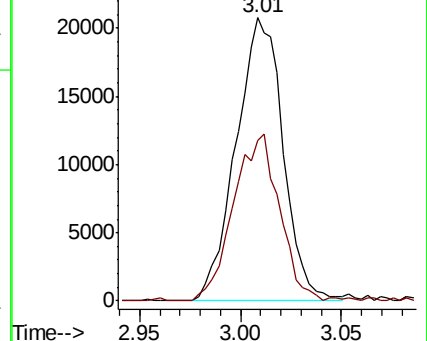
41 100

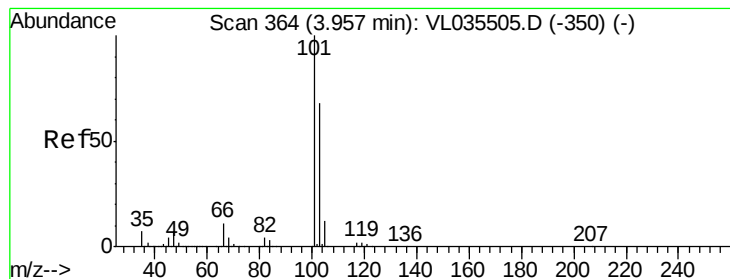
42 58.2 56.3 84.5



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#11

Trichlorofluoromethane

Concen: 0.250 ppbv

RT: 3.94 min Scan# 360

Delta R.T. 0.00 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

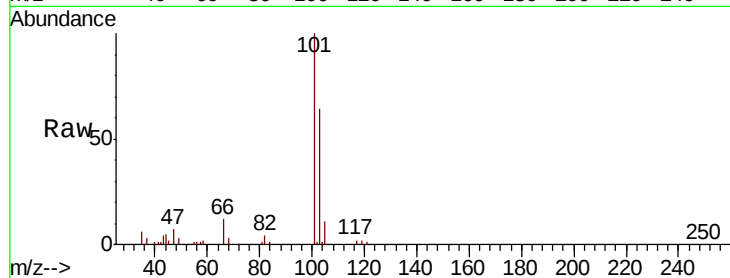
SV-11

Tot Ion:101 Resp: 67826

Ion Ratio Lower Upper

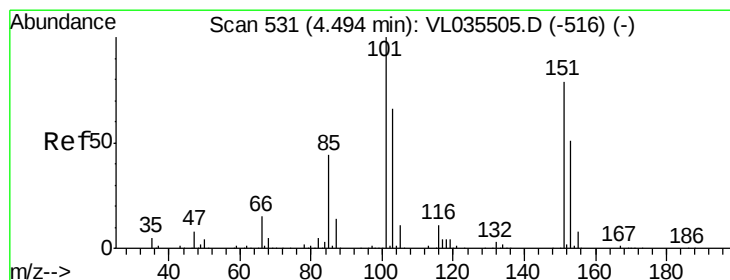
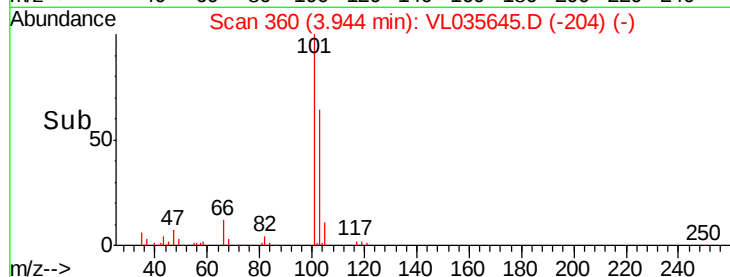
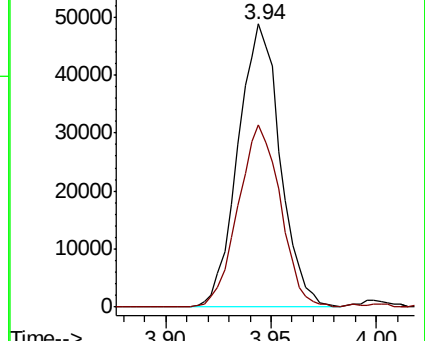
101 100

103 64.5 54.5 81.7



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.072 ppbv

RT: 4.48 min Scan# 527

Delta R.T. 0.00 min

Lab File: VL035645.D

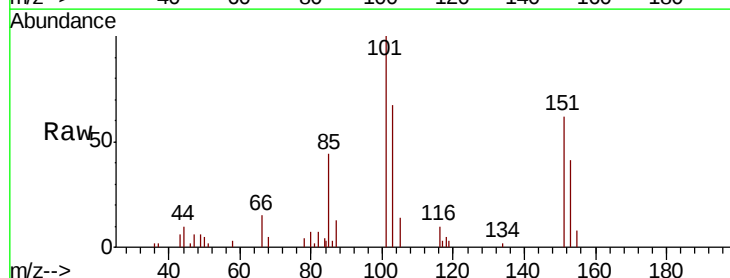
Acq: 17 Sep 2020 2:20

Tgt Ion:101 Resp: 14704

Ion Ratio Lower Upper

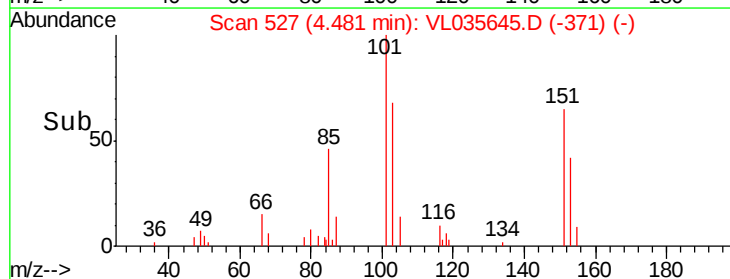
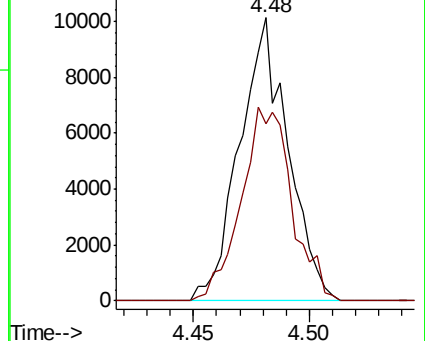
101 100

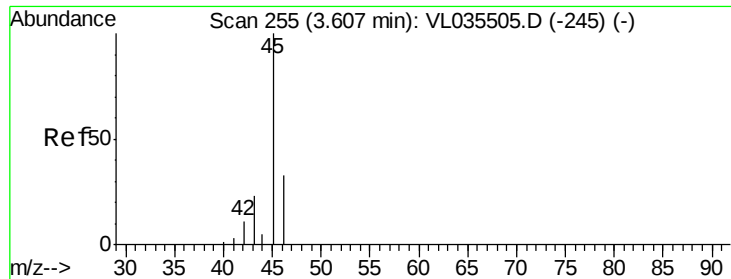
151 71.4 63.5 95.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 11.181 ppbv

RT: 3.60 min Scan# 254

Delta R.T. 0.01 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

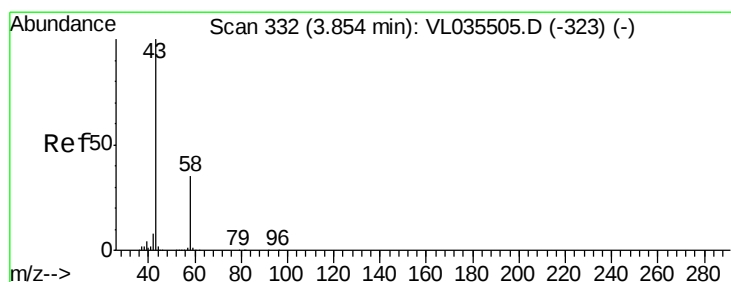
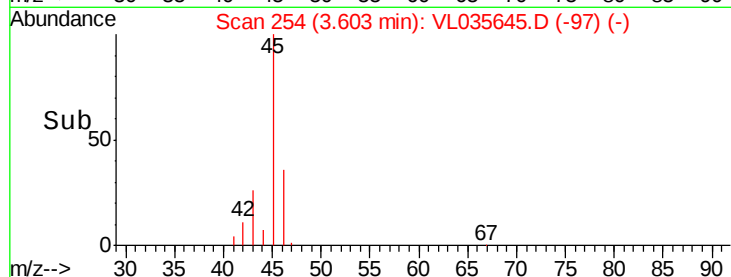
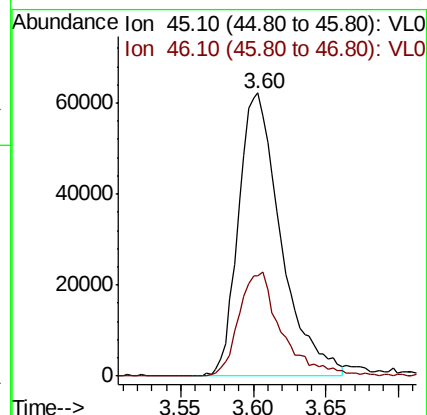
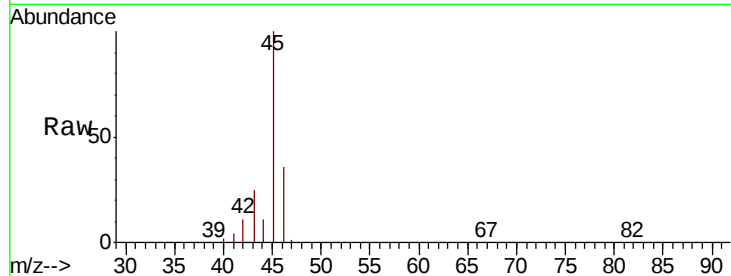
SV-11

Tot Ion: 45 Resp: 126776

Ion Ratio Lower Upper

45 100

46 37.0 15.2 60.6



#15

Acetone

Concen: 6.901 ppbv

RT: 3.84 min Scan# 329

Delta R.T. 0.01 min

Lab File: VL035645.D

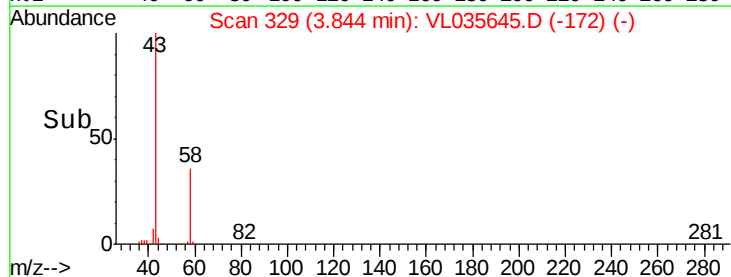
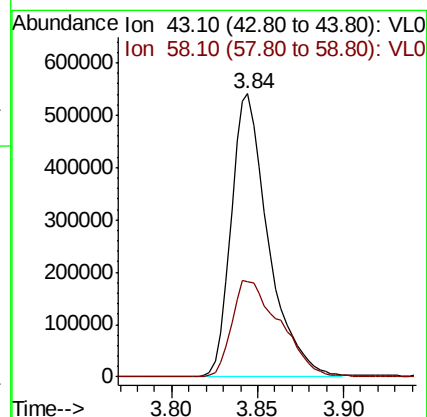
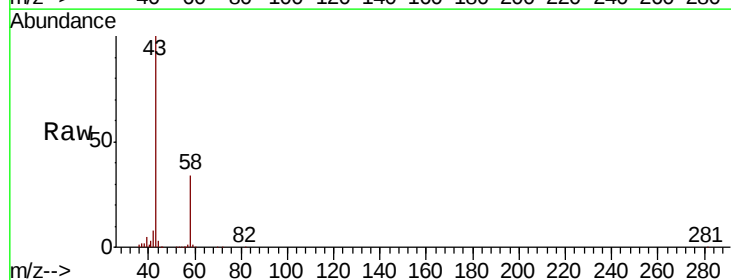
Acq: 17 Sep 2020 2:20

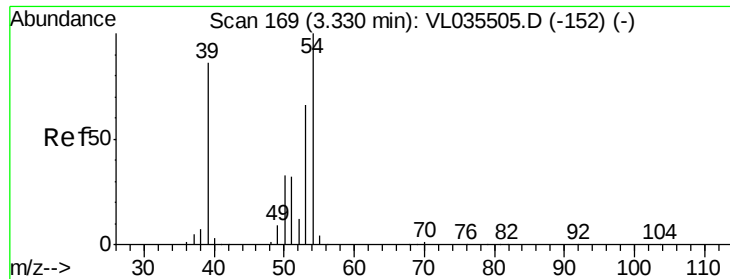
Tgt Ion: 43 Resp: 816378

Ion Ratio Lower Upper

43 100

58 44.2 28.4 42.6#





#16

1,3-Butadiene

Concen: 0.333 ppbv

RT: 3.30 min Scan# 159

Delta R.T. -0.02 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

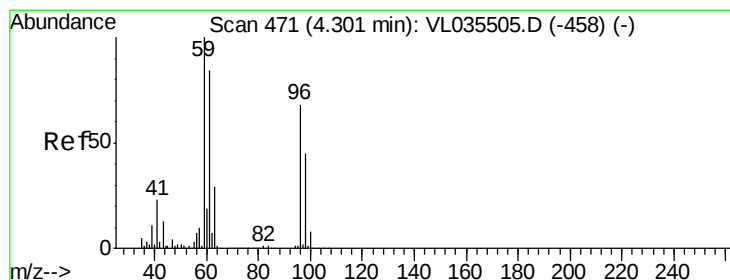
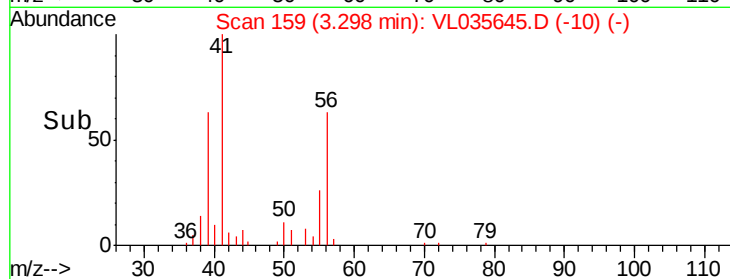
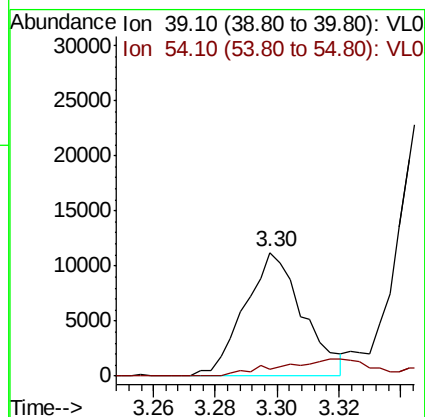
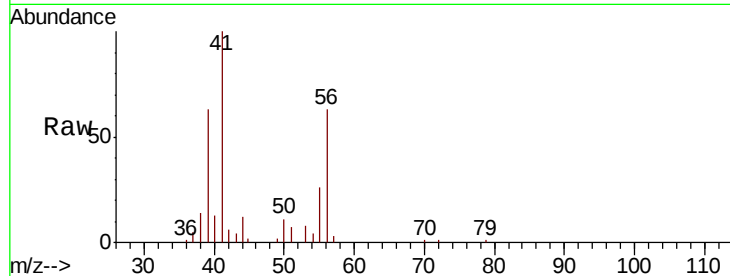
SV-11

Tot Ion: 39 Resp: 14683

Ion Ratio Lower Upper

39 100

54 27.6 88.4 132.6#



#17

tert-Butyl alcohol

Concen: 0.093 ppbv

RT: 4.31 min Scan# 475

Delta R.T. 0.03 min

Lab File: VL035645.D

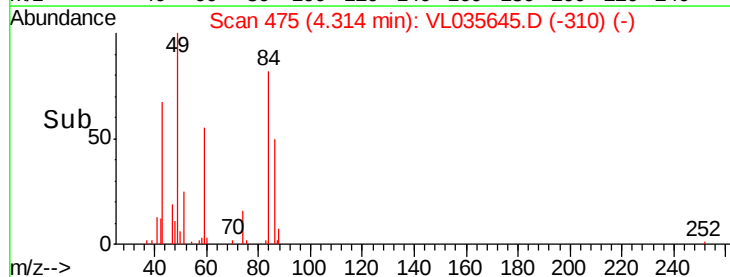
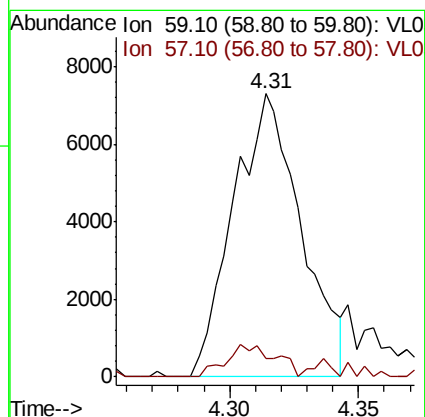
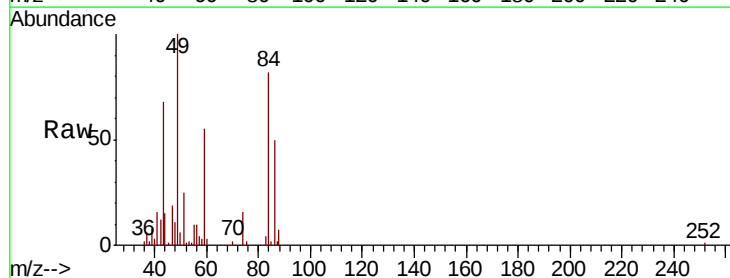
Acq: 17 Sep 2020 2:20

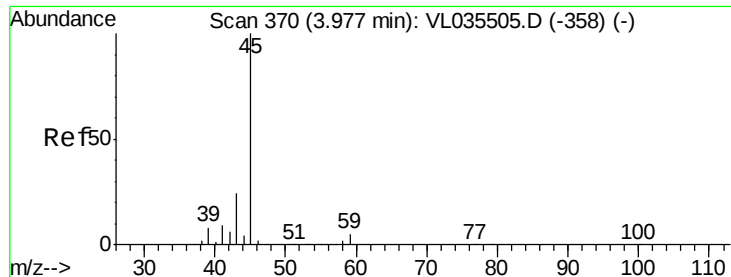
Tgt Ion: 59 Resp: 13329

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 1.041 ppbv

RT: 3.97 min Scan# 369

Delta R.T. 0.02 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

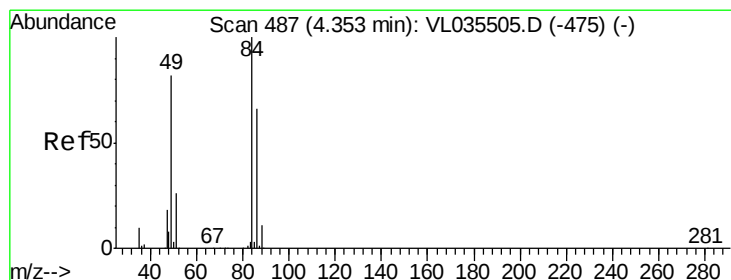
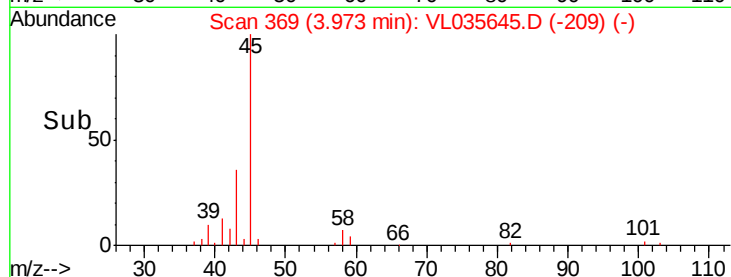
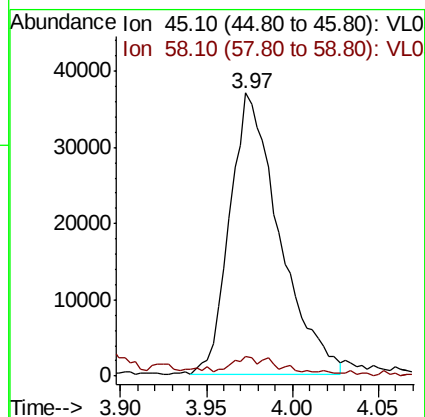
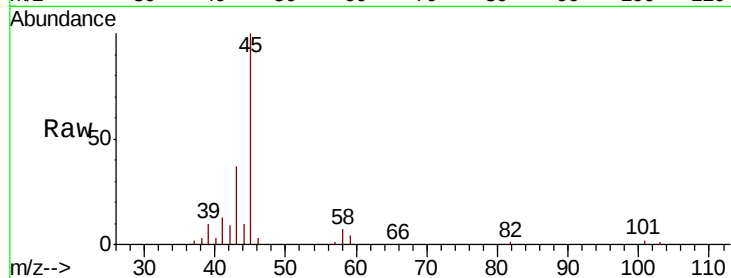
SV-11

Tot Ion: 45 Resp: 73482

Ion Ratio Lower Upper

45 100

58 0.0 2.0 3.0#



#20

Methylene Chloride

Concen: 5.638 ppbv

RT: 4.34 min Scan# 483

Delta R.T. 0.00 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Tgt Ion: 84 Resp: 496750

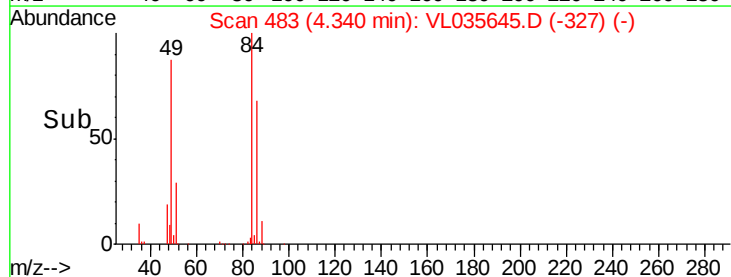
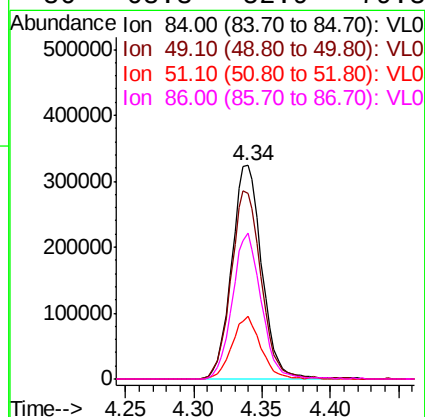
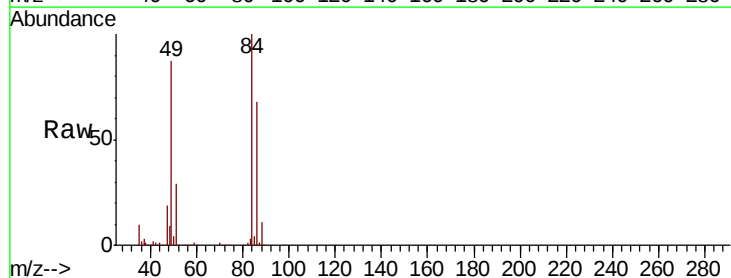
Ion Ratio Lower Upper

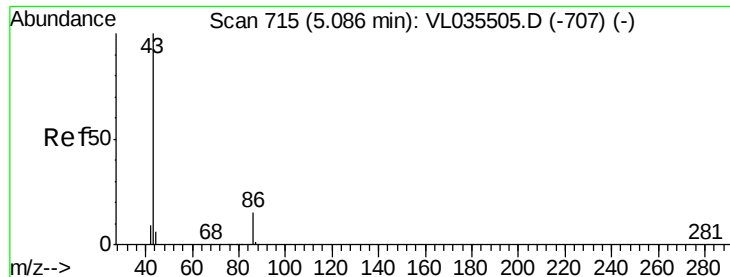
84 100

49 87.2 65.4 98.0

51 29.1 21.5 32.3

86 68.3 52.9 79.3





#23

Vinyl Acetate

Concen: 0.097 ppbv

RT: 5.06 min Scan# 706

Delta R.T. -0.01 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

SV-11

Tot Ion: 43 Resp: 14687

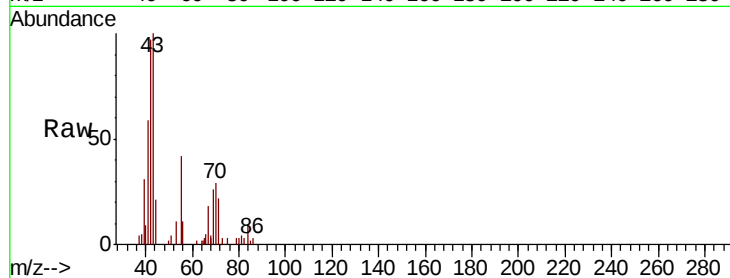
Ion Ratio Lower Upper

43 100

86 3.4 10.6 16.0#

42 91.1 7.5 11.3#

44 10.7 4.4 6.6#

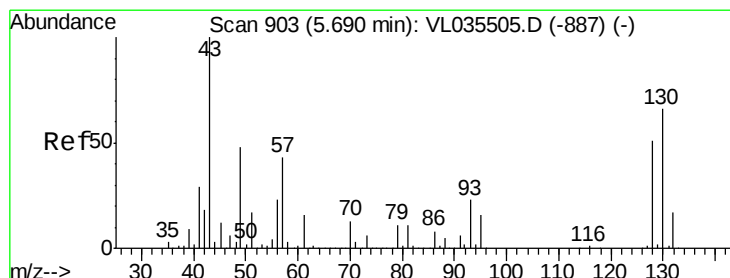
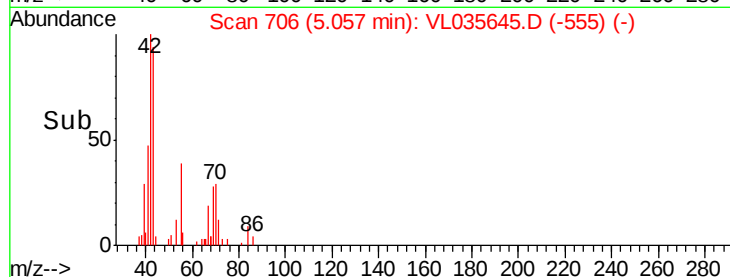
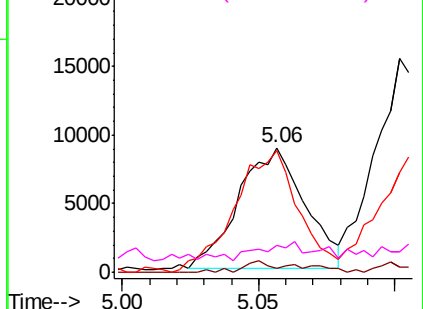


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.356 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.01 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Tgt Ion: 43 Resp: 74424

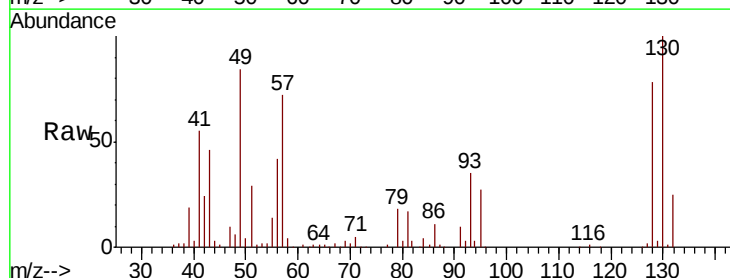
Ion Ratio Lower Upper

43 100

45 3.3 8.4 12.6#

61 2.5 10.6 16.0#

70 4.2 9.4 14.2#

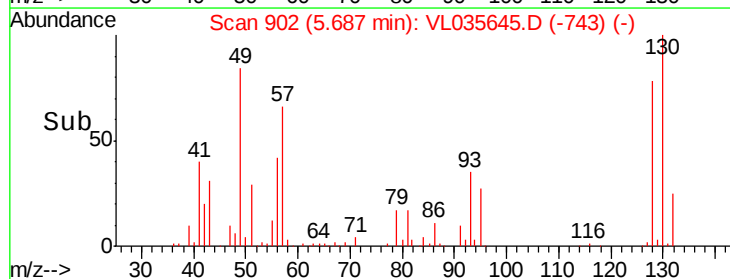
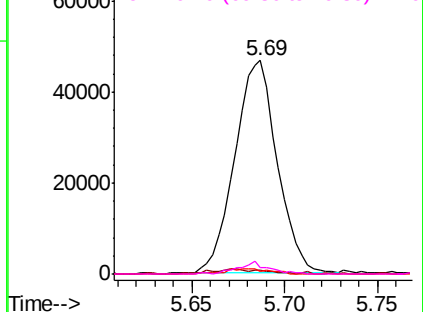


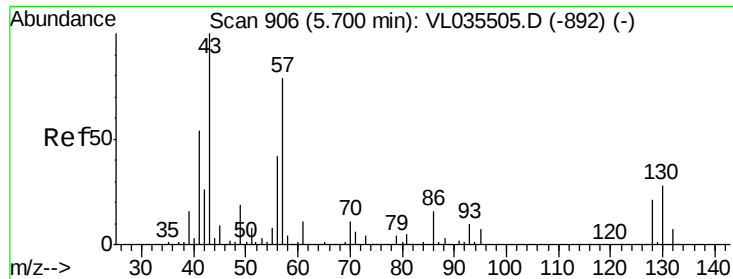
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 0.975 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.00 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

SV-11

Tot Ion: 57 Resp: 115474

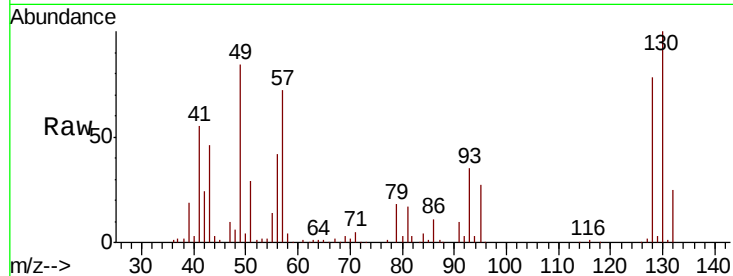
Ion Ratio Lower Upper

57 100

41 78.2 55.9 83.9

43 66.4 141.8 212.8#

56 59.9 41.8 62.8



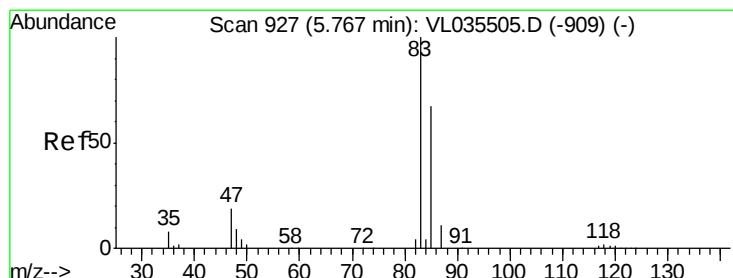
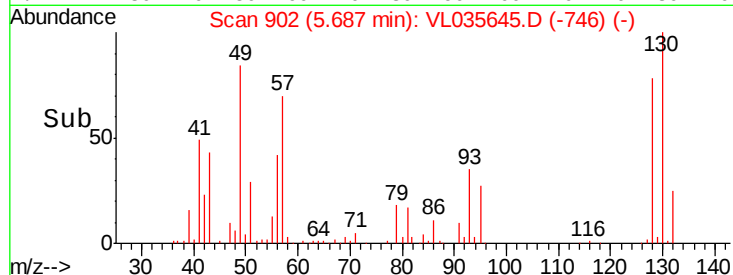
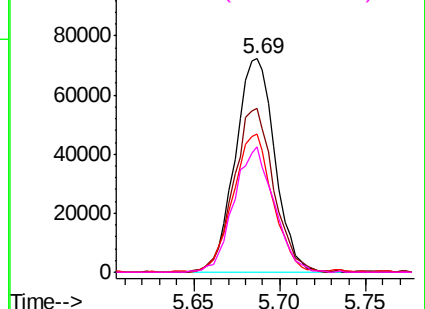
Abundance

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: 0.056 ppbv

RT: 5.75 min Scan# 922

Delta R.T. 0.00 min

Lab File: VL035645.D

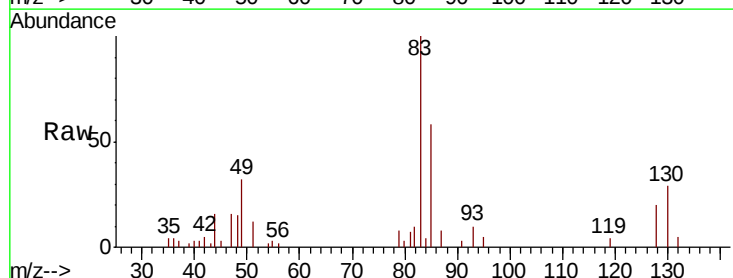
Acq: 17 Sep 2020 2:20

Tgt Ion: 83 Resp: 13393

Ion Ratio Lower Upper

83 100

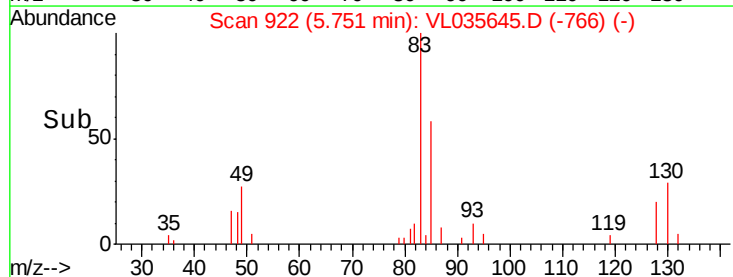
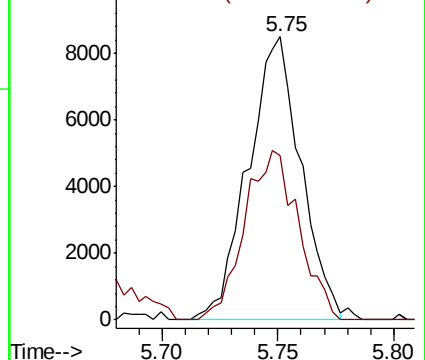
85 58.1 53.9 80.9

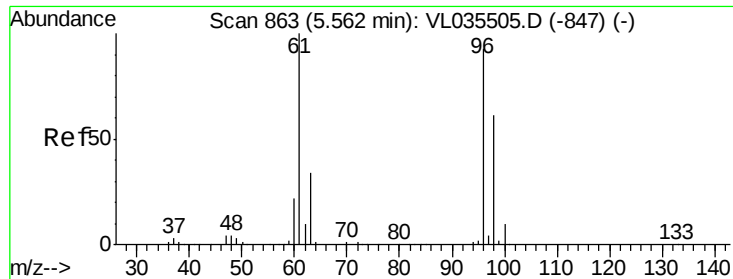


Abundance

Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



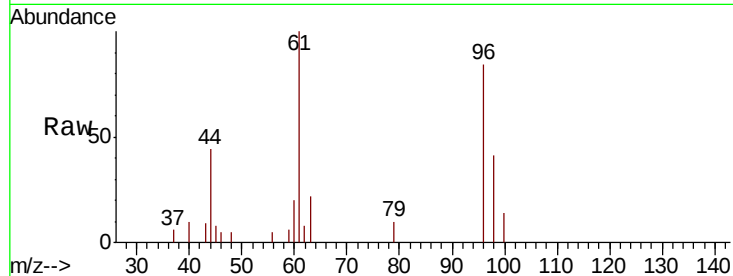


#31

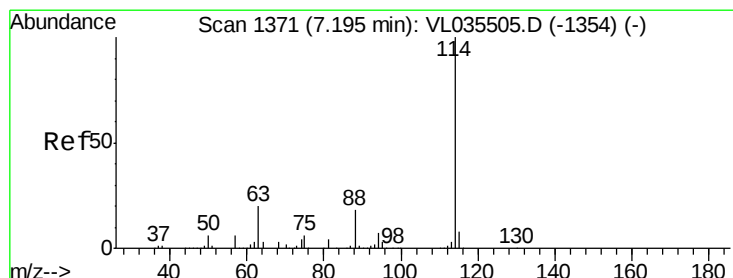
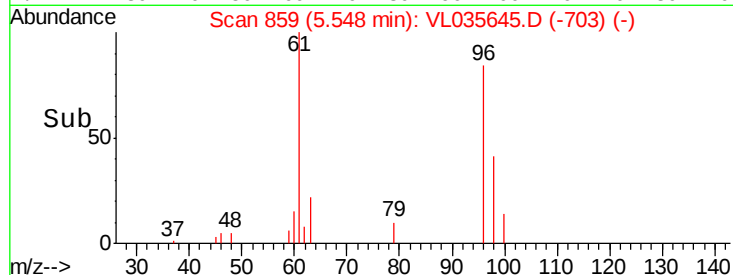
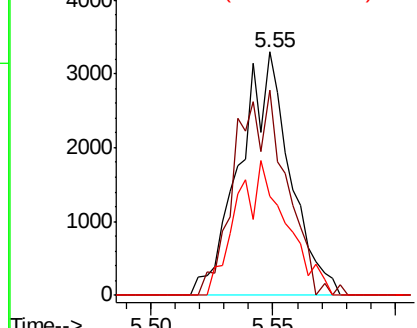
cis-1,2-Dichloroethene
Concen: 0.039 ppbv
RT: 5.55 min Scan# 859
Delta R.T. 0.00 min
Lab File: VL035645.D
Acq: 17 Sep 2020 2:20

Instrument :
MSVOA_L
ClientSampled :
SV-11

Tot Ion: 61 Resp: 4727
Ion Ratio Lower Upper
61 100
96 78.4 74.4 111.6
98 37.6 49.2 73.8#



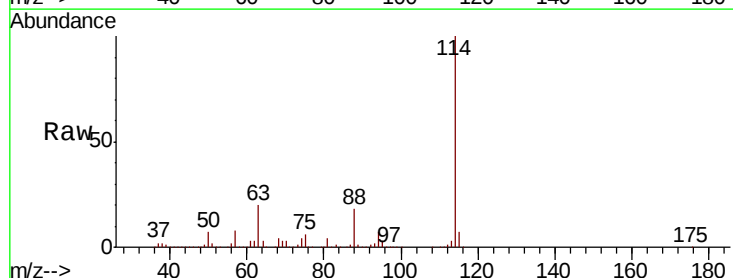
Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



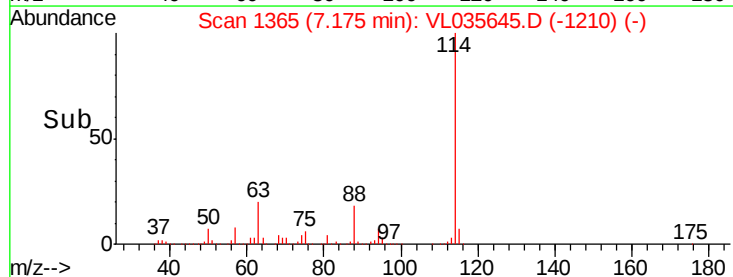
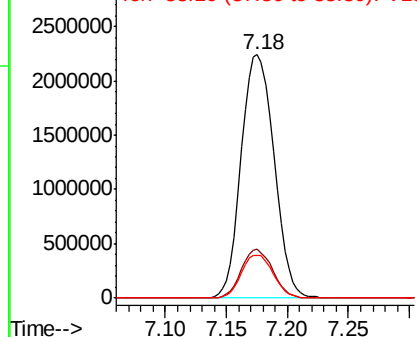
#33

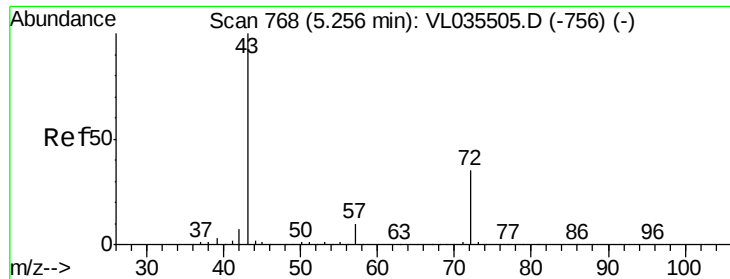
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T. -0.00 min
Lab File: VL035645.D
Acq: 17 Sep 2020 2:20

Tgt Ion: 114 Resp: 4187693
Ion Ratio Lower Upper
114 100
63 19.2 14.7 22.1
88 17.2 13.4 20.2



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





#34

2-Butanone

Concen: 0.893 ppbv

RT: 5.25 min Scan# 766

Delta R.T. 0.01 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampled :

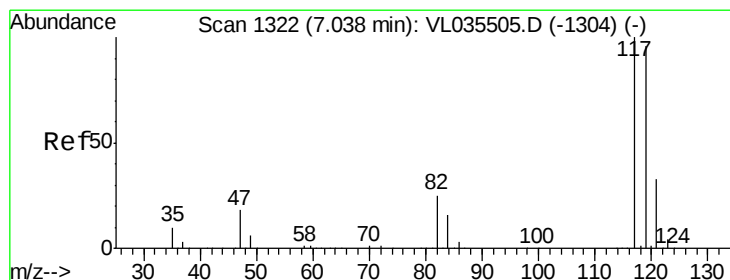
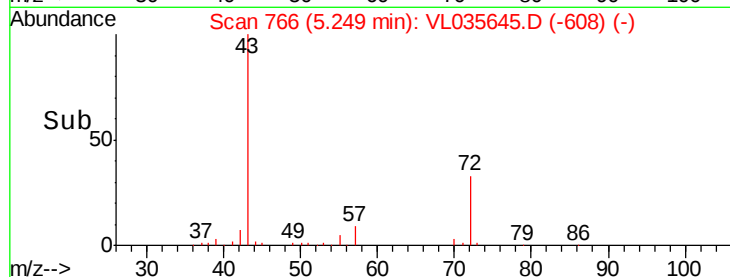
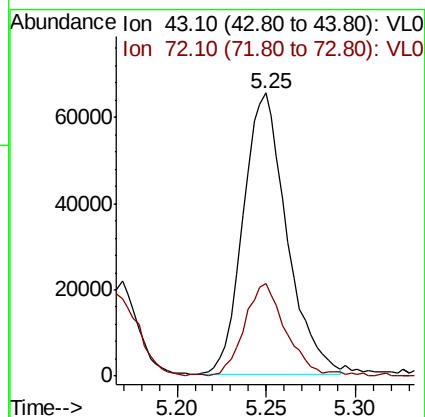
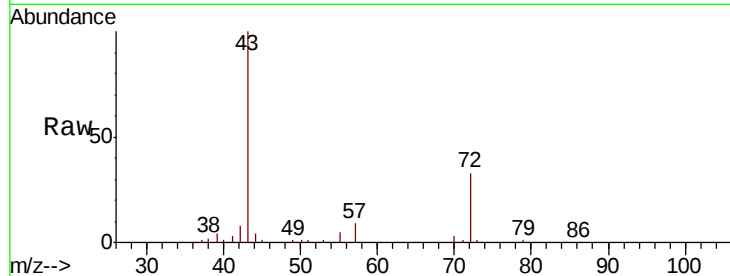
SV-11

Tot Ion: 43 Resp: 110989

Ion Ratio Lower Upper

43 100

72 32.3 27.7 41.5



#35

Carbon Tetrachloride

Concen: 0.053 ppbv

RT: 7.01 min Scan# 1315

Delta R.T. -0.00 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

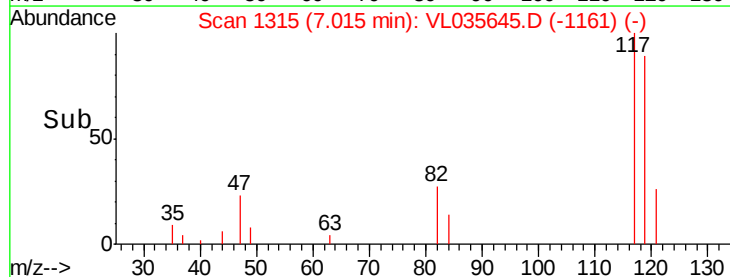
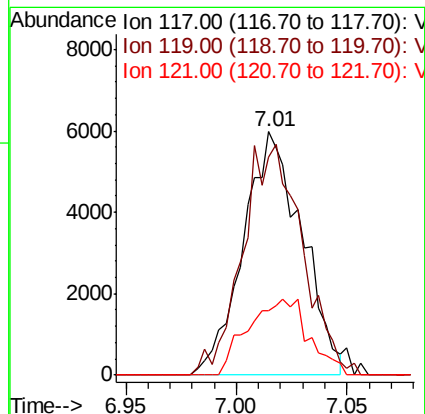
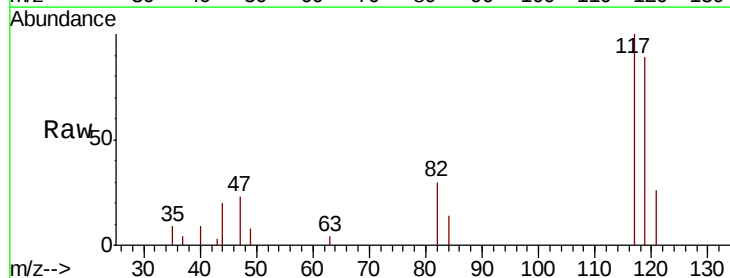
Tgt Ion: 117 Resp: 11060

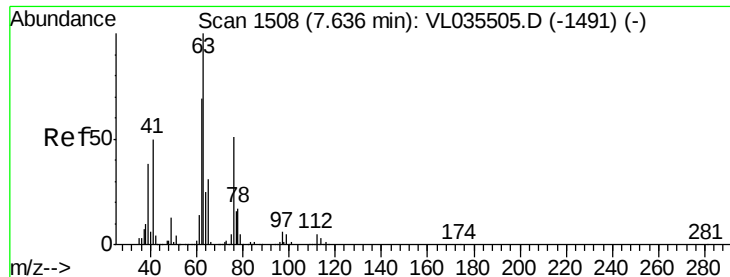
Ion Ratio Lower Upper

117 100

119 89.4 77.2 115.8

121 26.3 26.1 39.1





#39

1,2-Dichloropropane

Concen: 8.741 ppbv

RT: 7.18 min Scan# 1365

Delta R.T. -0.44 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

SV-11

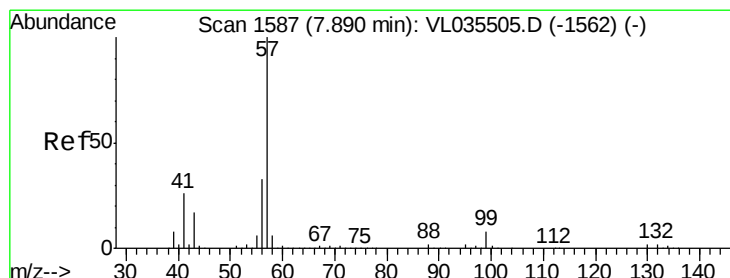
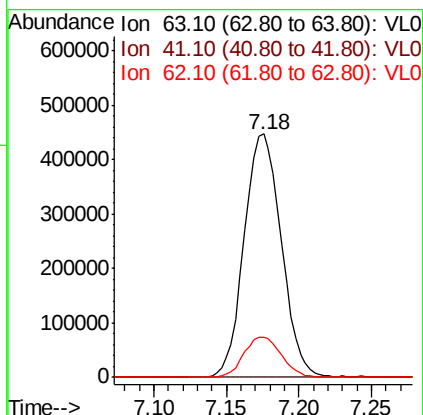
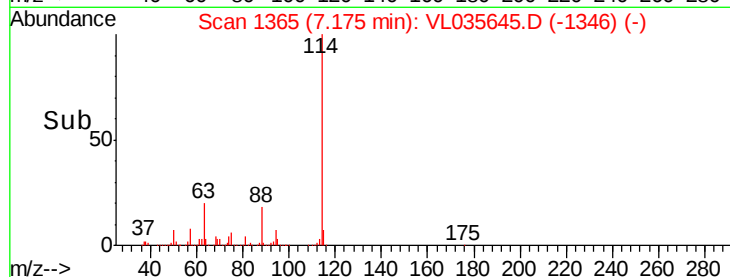
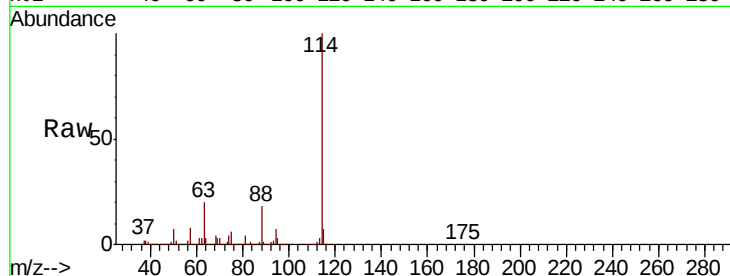
Tot Ion: 63 Resp: 800437

Ion Ratio Lower Upper

63 100

41 0.0 40.0 60.0#

62 16.2 55.4 83.0#



#44

2,2,4-Trimethylpentane

Concen: 0.053 ppbv

RT: 7.87 min Scan# 1580

Delta R.T. -0.00 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

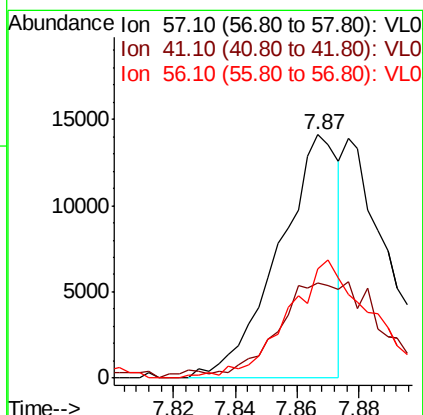
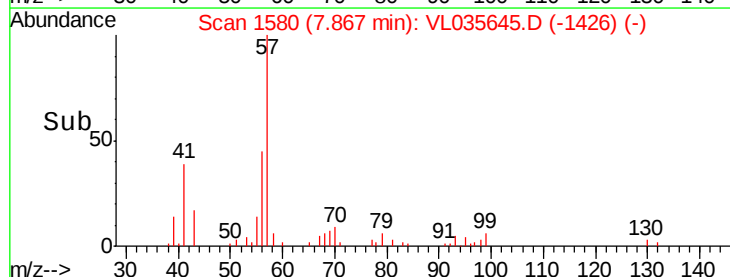
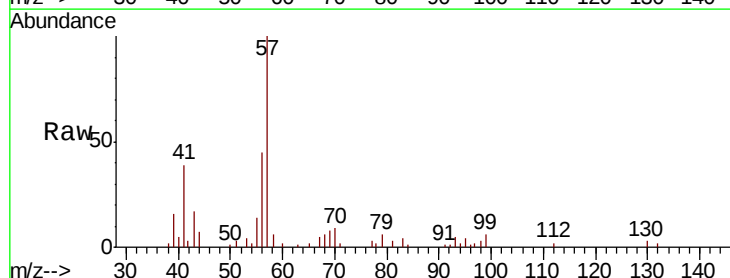
Tgt Ion: 57 Resp: 18777

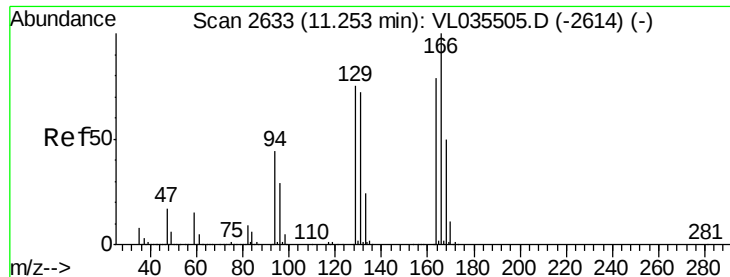
Ion Ratio Lower Upper

57 100

41 0.0 20.5 30.7#

56 72.8 25.3 37.9#





#52

Tetrachloroethene

Concen: 0.142 ppbv

RT: 11.23 min Scan# 2627

Delta R.T. 0.00 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

Instrument :

MSVOA_L

ClientSampleId :

SV-11

Tot Ion:164 Resp: 22475

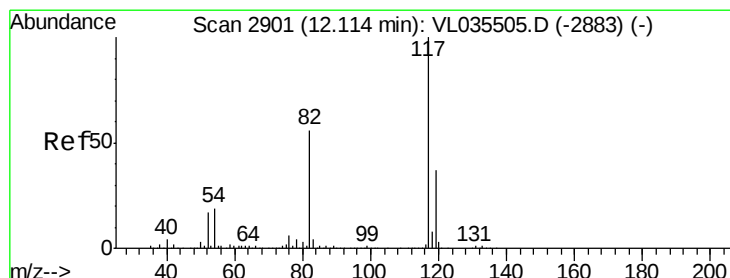
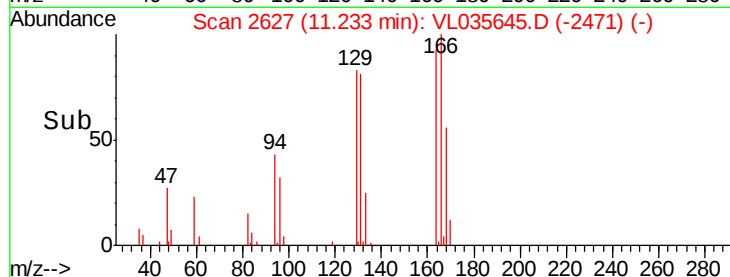
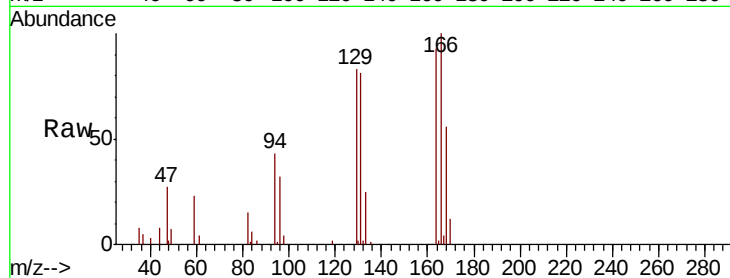
Ion Ratio Lower Upper

164 100

166 108.1 100.9 151.3

129 89.4 75.3 112.9

131 87.2 73.0 109.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2895

Delta R.T. -0.00 min

Lab File: VL035645.D

Acq: 17 Sep 2020 2:20

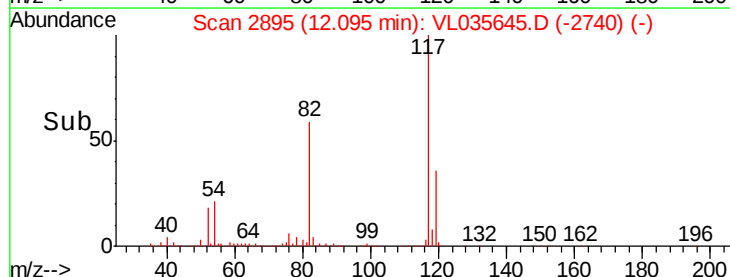
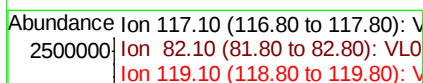
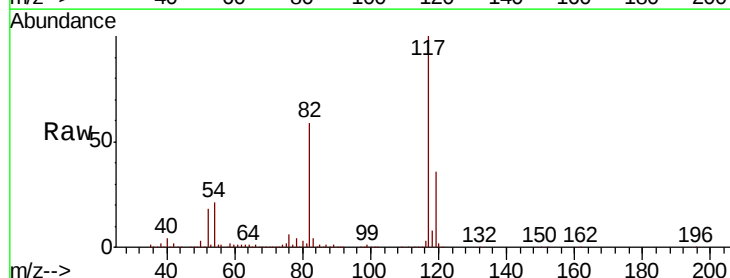
Tgt Ion:117 Resp: 4050138

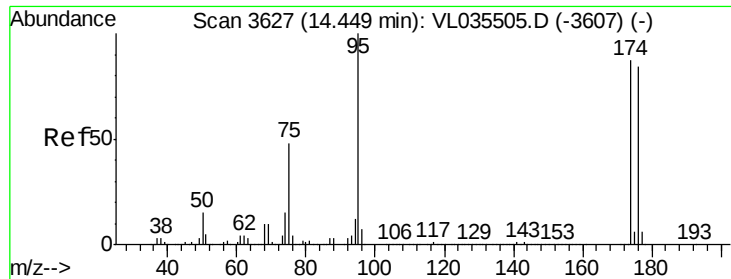
Ion Ratio Lower Upper

117 100

82 57.5 41.6 62.4

119 34.5 29.3 43.9

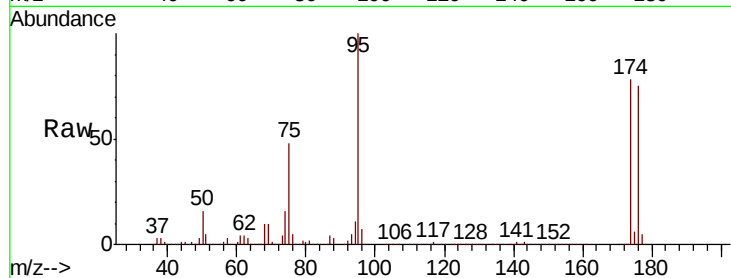




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.557 ppbv
 RT: 14.43 min Scan# 3620
 Delta R.T. -0.00 min
 Lab File: VL035645.D
 Acq: 17 Sep 2020 2:20

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-11

Tot Ion: 95 Resp: 3036378
 Ion Ratio Lower Upper
 95 100
 174 78.3 69.6 104.4
 175 5.6 5.1 7.7



Abundance Ion 95.10 (94.80 to 95.80): VL0
 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V

