

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051921\
 Data File : VL036998.D
 Acq On : 19 May 2021 19:05
 Operator : SY/AP
 Sample : M2424-05 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-04DL

Quant Time: May 20 06:31:27 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1222988	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.15	114	3738961	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.06	117	3495136	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	2644840	10.07	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%

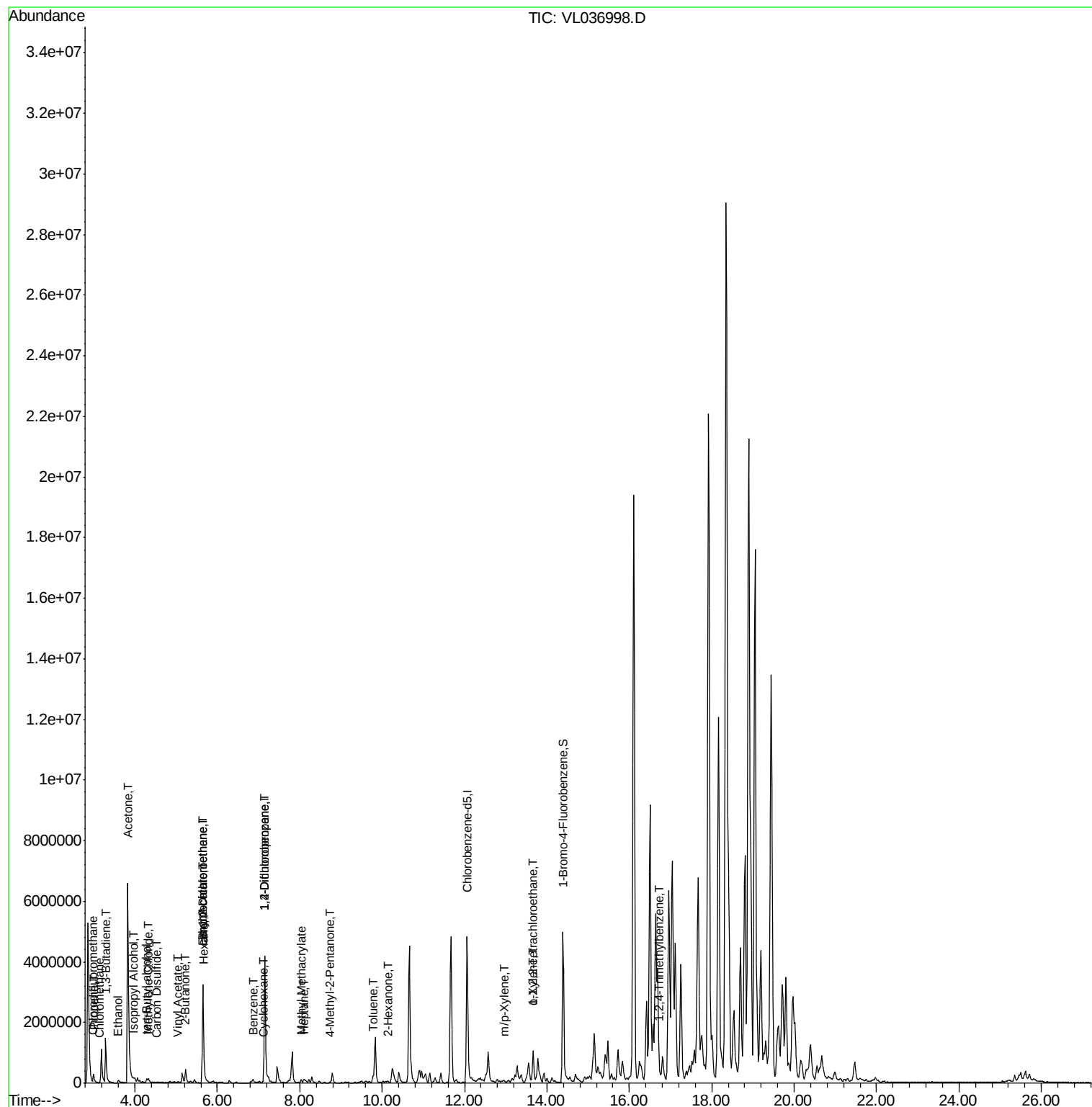
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.97	51	7556	0.034	ppbv	95
4) Chloromethane	3.12	50	6880	0.090	ppbv	96
9) Propene	2.99	41	141428	1.763	ppbv	97
10) Heptane	8.10	43	47451	0.237	ppbv	85
13) Ethanol	3.59	45	50490	4.717	ppbv #	26
15) Acetone	3.83	43	9697522	77.415	ppbv	99
16) 1,3-Butadiene	3.29	39	485182	6.234	ppbv #	16
17) tert-Butyl alcohol	4.29	59	99309	0.865	ppbv #	91
19) Isopropyl Alcohol	3.96	45	96232	1.429	ppbv #	30
20) Methylene Chloride	4.32	84	16295	0.243	ppbv	94
23) Vinyl Acetate	5.05	43	14227	0.072	ppbv #	86
25) Ethyl Acetate	5.66	43	223669	0.743	ppbv #	92
26) Hexane	5.67	57	125776	0.818	ppbv #	1
27) Carbon Disulfide	4.53	76	16805	0.108	ppbv #	1
30) Cyclohexane	7.10	84	4401	0.034	ppbv #	1
31) cis-1,2-Dichloroethene	5.66	61	14588	0.106	ppbv #	29
34) 2-Butanone	5.23	43	583908	4.289	ppbv	94
36) Benzene	6.87	78	95016	0.295	ppbv #	92
39) 1,2-Dichloropropane	7.15	63	881753	7.107	ppbv #	24
43) Methyl Methacrylate	8.03	69	22791	0.205	ppbv #	39
50) 4-Methyl-2-Pentanone	8.73	43	10052	0.045	ppbv #	38
51) 2-Hexanone	10.13	43	38638	0.325	ppbv #	69
53) Toluene	9.78	91	146534	0.382	ppbv	95
59) m/p-Xylene	12.97	91	12603	0.031	ppbv #	30
60) o-Xylene	13.67	91	16220	0.042	ppbv	99
63) 1,1,2,2-Tetrachloroethane	13.67	83	15557	0.054	ppbv #	25
74) 1,2,4-Trimethylbenzene	16.74	105	65282	0.146	ppbv #	73

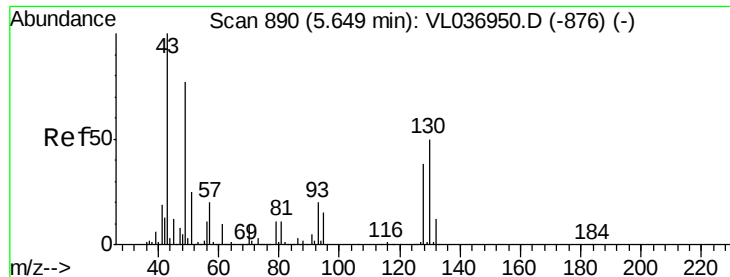
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue May 18 12:00:15 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 889

Delta R.T. -0.00 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampleId :

KSV-04DL

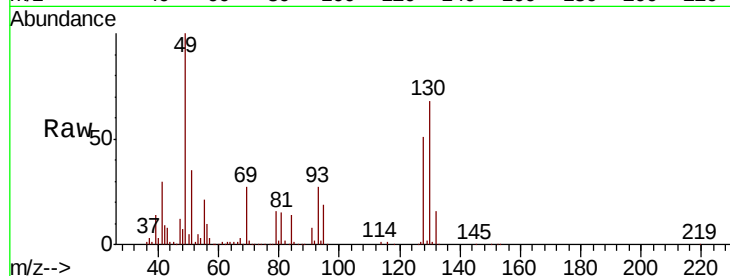
Tot Ion: 49 Resp: 1222988

Ion Ratio Lower Upper

49 100

128 54.3 26.9 80.7

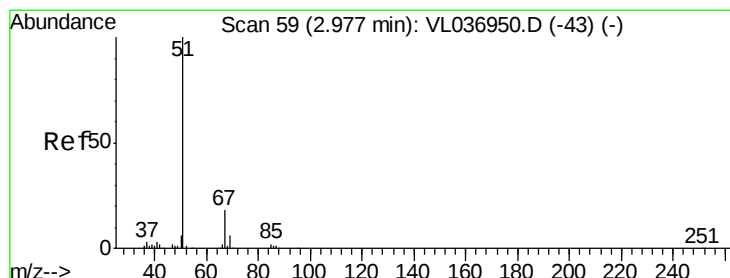
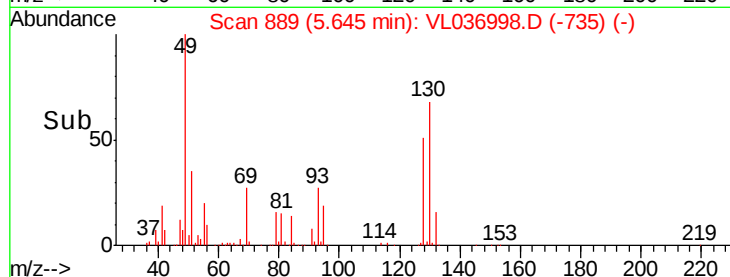
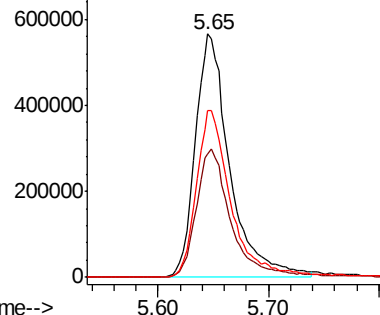
130 70.5 33.8 101.4



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



#3

Chlorodifluoromethane

Concen: 0.034 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.01 min

Lab File: VL036998.D

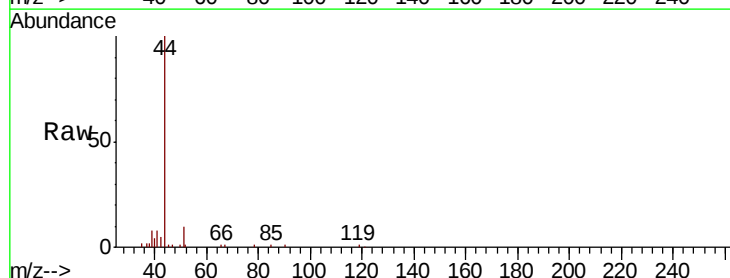
Acq: 19 May 2021 19:05

Tgt Ion: 51 Resp: 7556

Ion Ratio Lower Upper

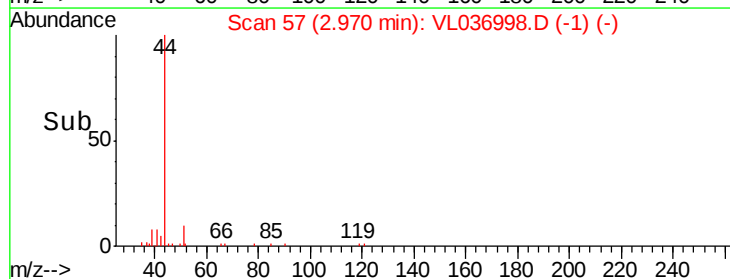
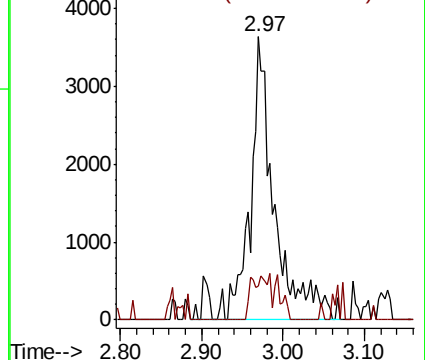
51 100

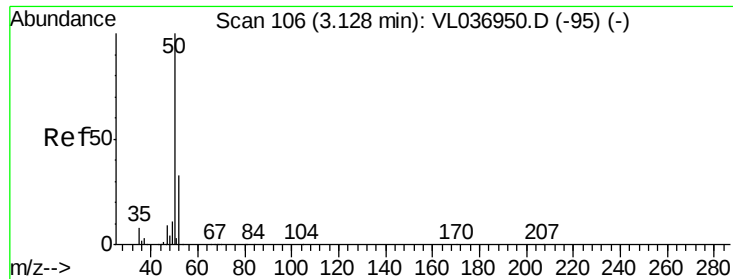
67 16.2 14.6 21.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.090 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.01 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampleId :

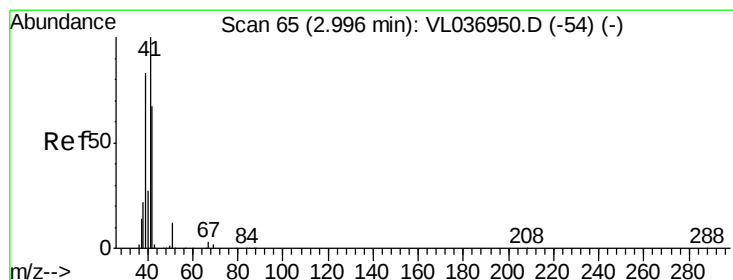
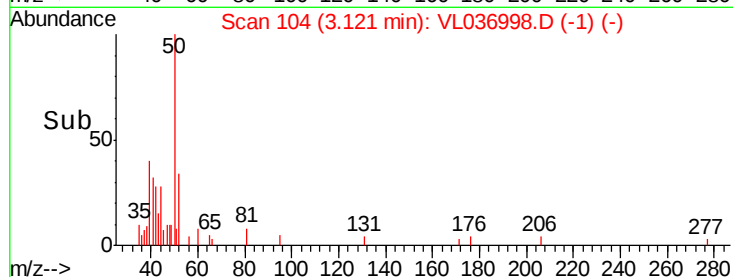
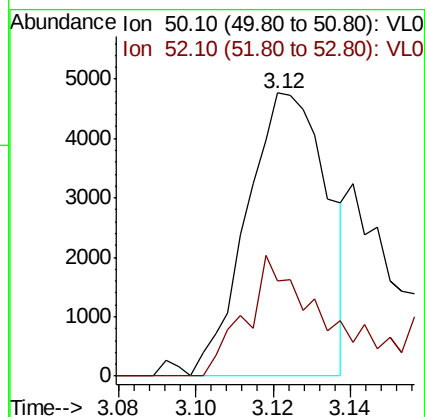
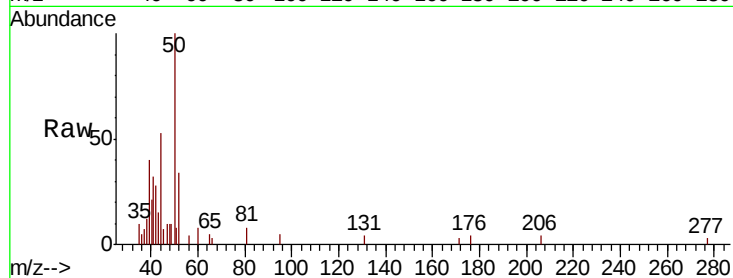
KSV-04DL

Tot Ion: 50 Resp: 6880

Ion Ratio Lower Upper

50 100

52 34.9 26.1 39.1



#9

Propene

Concen: 1.763 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.00 min

Lab File: VL036998.D

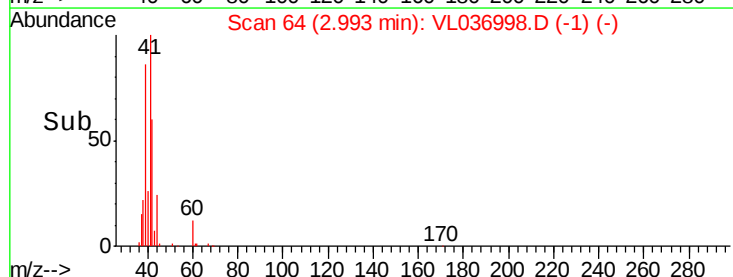
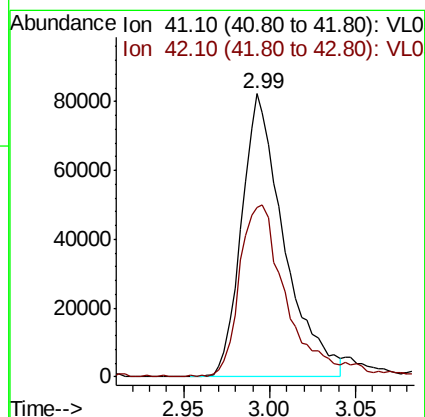
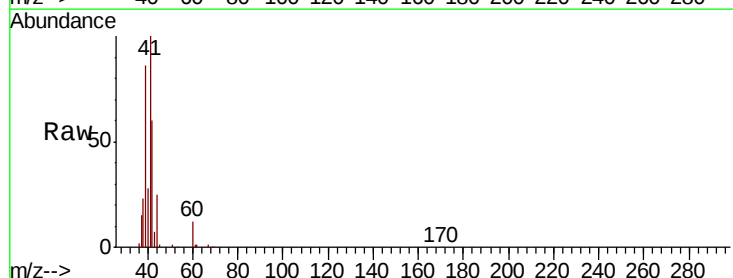
Acq: 19 May 2021 19:05

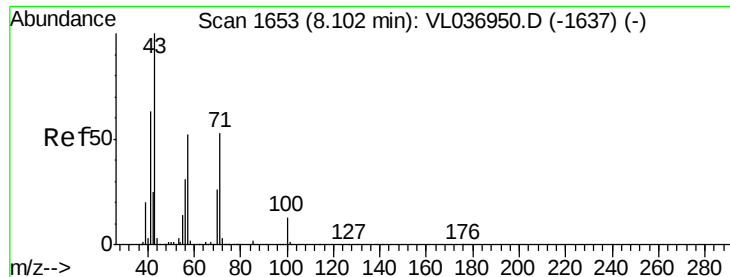
Tgt Ion: 41 Resp: 141428

Ion Ratio Lower Upper

41 100

42 69.6 53.9 80.9

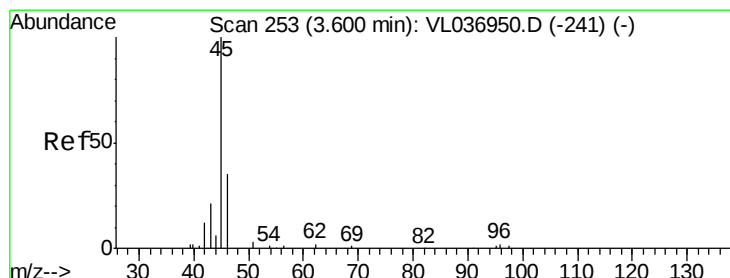
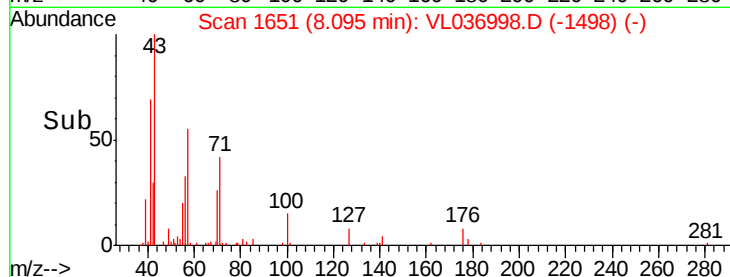
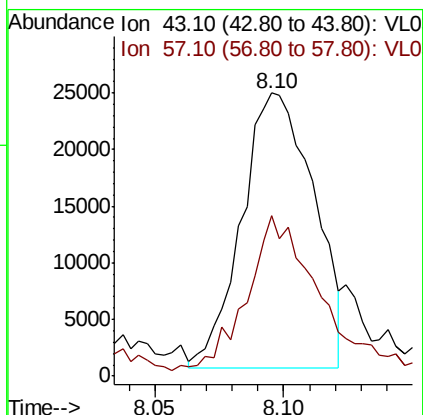
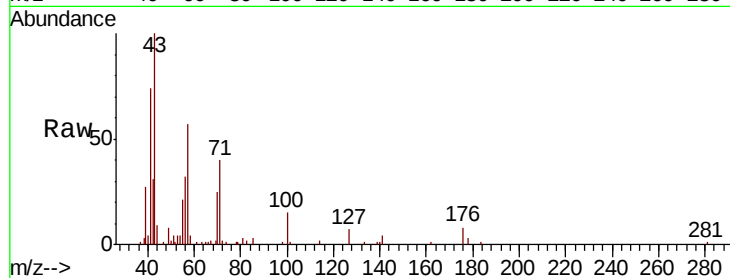




#10
Heptane
Concen: 0.237 ppbv
RT: 8.10 min Scan# 1651
Delta R.T. -0.01 min
Lab File: VL036998.D
Acq: 19 May 2021 19:05

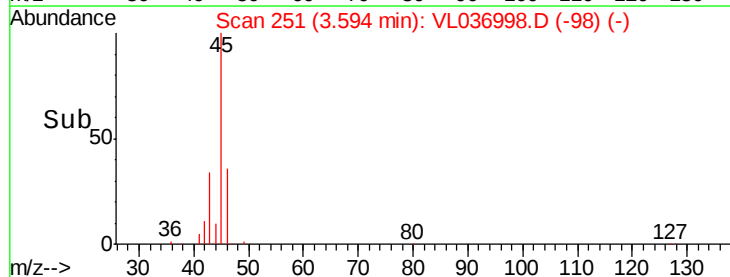
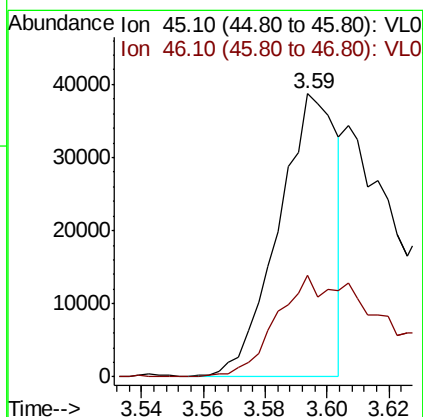
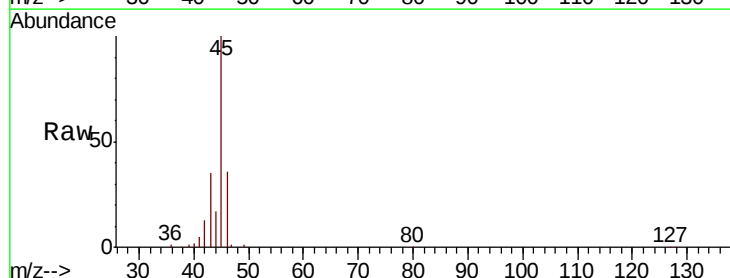
Instrument :
MSVOA_L
ClientSampleId :
KSV-04DL

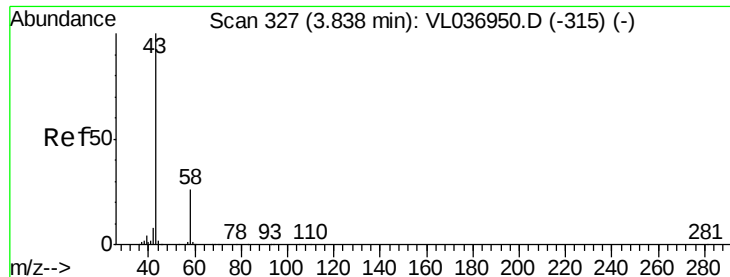
Tot Ion: 43 Resp: 47451
Ion Ratio Lower Upper
43 100
57 61.5 41.0 61.6



#13
Ethanol
Concen: 4.717 ppbv
RT: 3.59 min Scan# 251
Delta R.T. -0.01 min
Lab File: VL036998.D
Acq: 19 May 2021 19:05

Tgt Ion: 45 Resp: 50490
Ion Ratio Lower Upper
45 100
46 87.2 16.3 65.3#





#15

Acetone

Concen: 77.415 ppbv

RT: 3.83 min Scan# 323

Delta R.T. -0.01 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampleId :

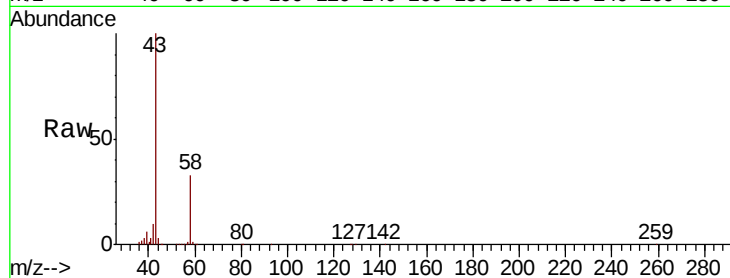
KSV-04DL

Tot Ion: 43 Resp: 9697522

Ion Ratio Lower Upper

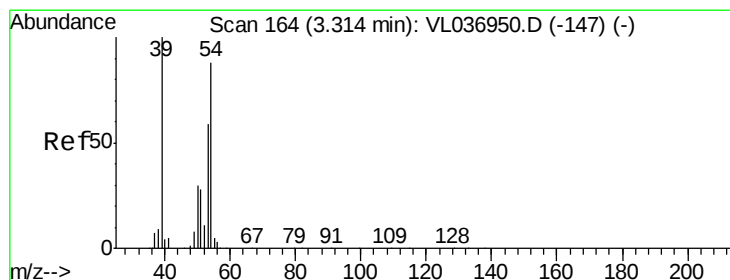
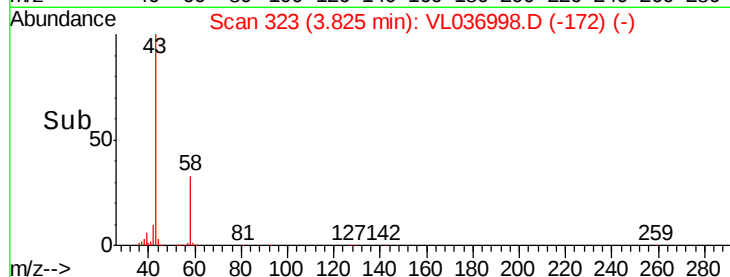
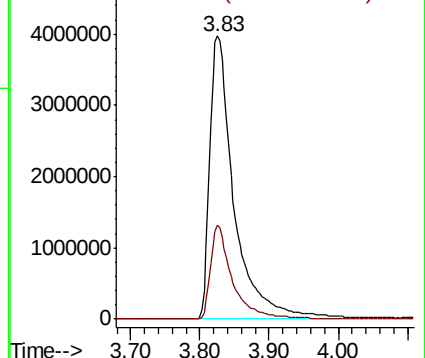
43 100

58 30.6 24.0 36.0



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 6.234 ppbv

RT: 3.29 min Scan# 157

Delta R.T. -0.02 min

Lab File: VL036998.D

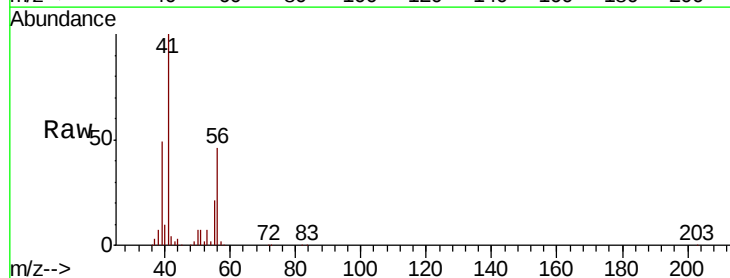
Acq: 19 May 2021 19:05

Tgt Ion: 39 Resp: 485182

Ion Ratio Lower Upper

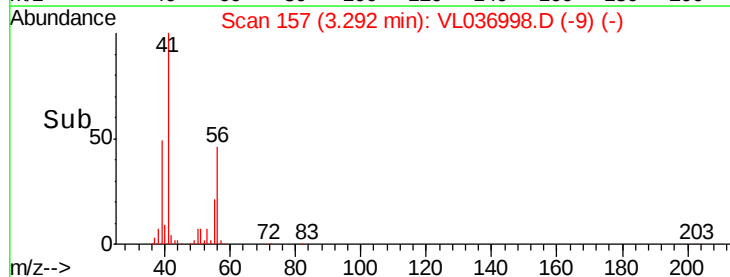
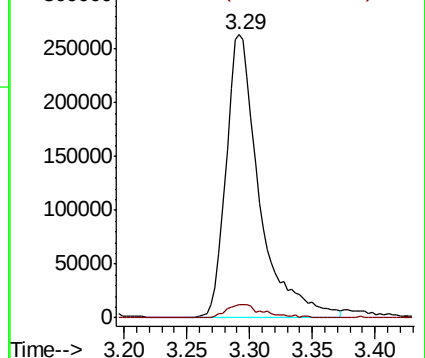
39 100

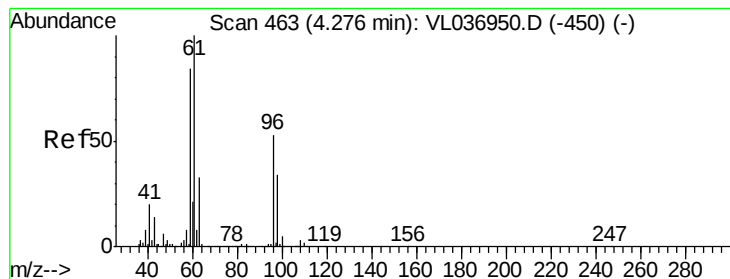
54 5.6 63.2 94.8#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0



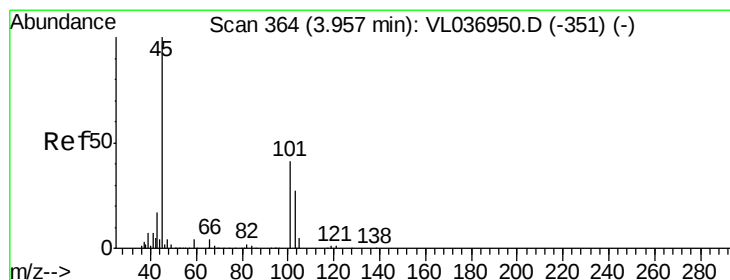
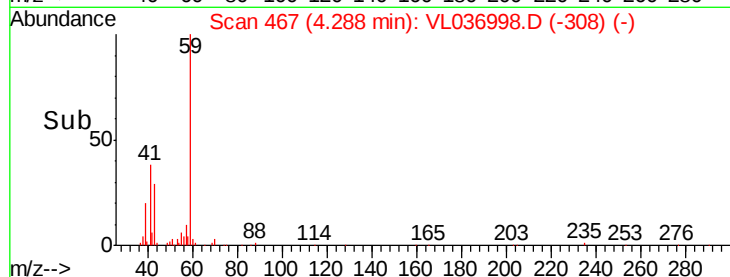
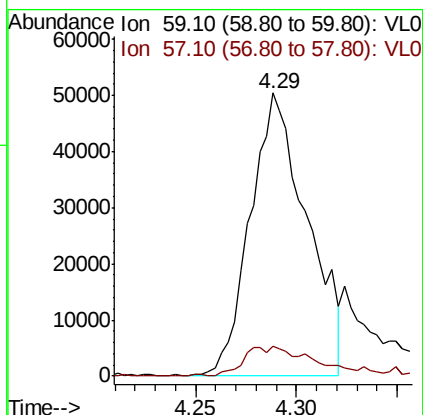
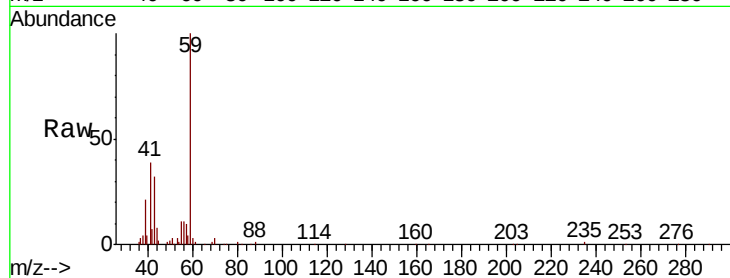


#17

tert-Butyl alcohol
Concen: 0.865 ppbv
RT: 4.29 min Scan# 467
Delta R.T. 0.01 min
Lab File: VL036998.D
Acq: 19 May 2021 19:05

Instrument :
MSVOA_L
ClientSampleID :
KSV-04DL

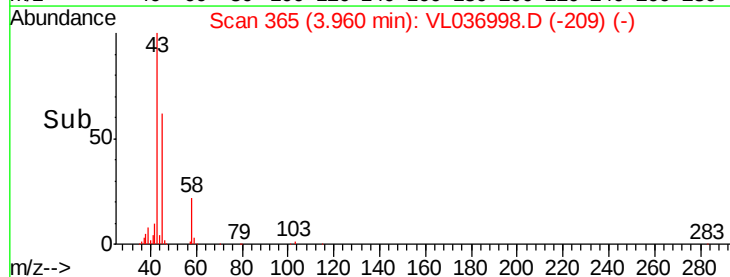
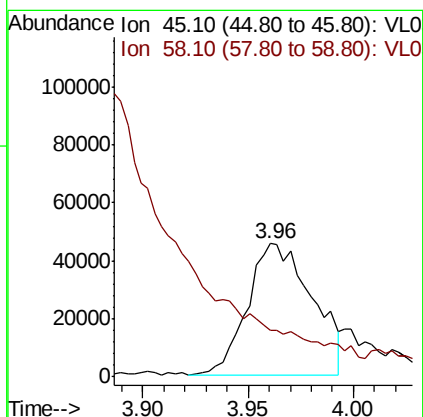
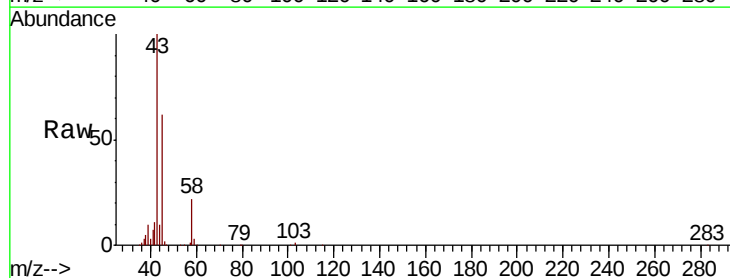
Tot Ion: 59 Resp: 99309
Ion Ratio Lower Upper
59 100
57 13.9 8.3 12.5#

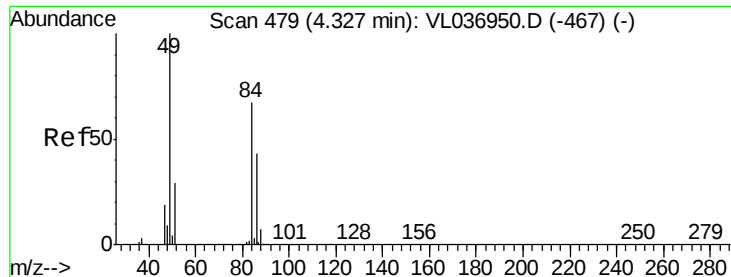


#19

Isopropyl Alcohol
Concen: 1.429 ppbv
RT: 3.96 min Scan# 365
Delta R.T. 0.00 min
Lab File: VL036998.D
Acq: 19 May 2021 19:05

Tgt Ion: 45 Resp: 96232
Ion Ratio Lower Upper
45 100
58 0.0 37.2 55.8#

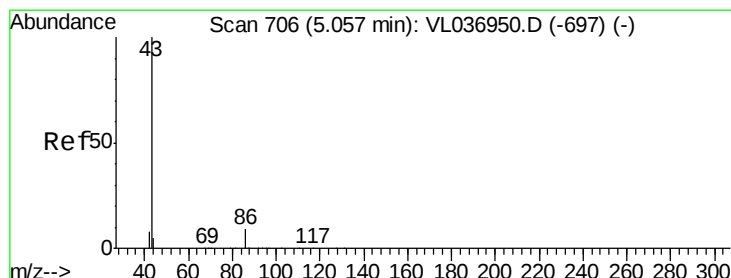
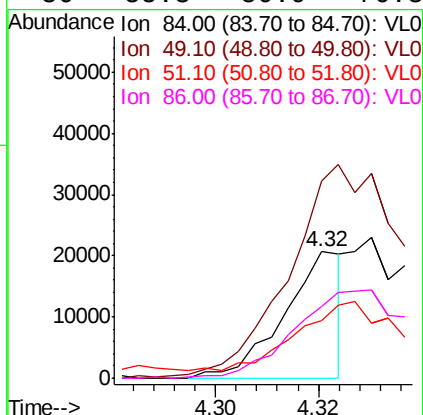
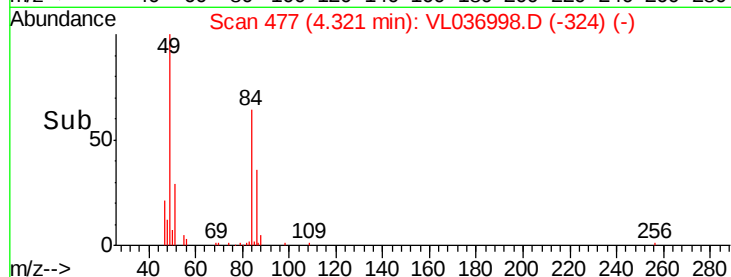
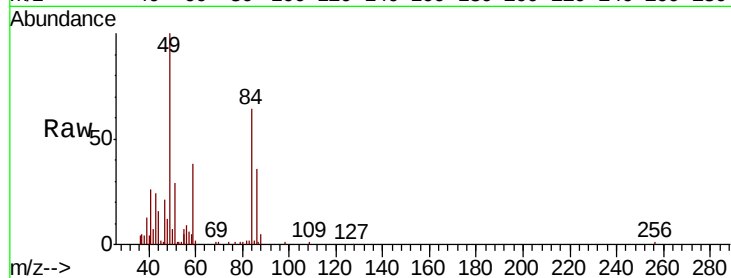




#20
Methvlene Chloride
Concen: 0.243 ppbv
RT: 4.32 min Scan# 477
Delta R.T. -0.01 min
Lab File: VL036998.D
Acq: 19 May 2021 19:05

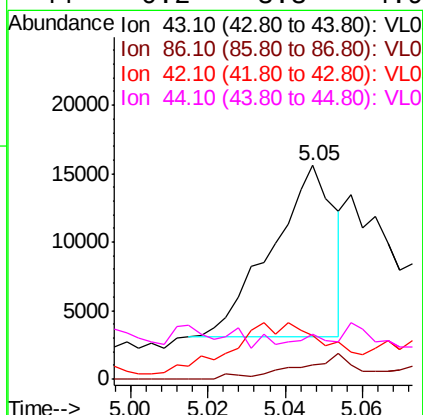
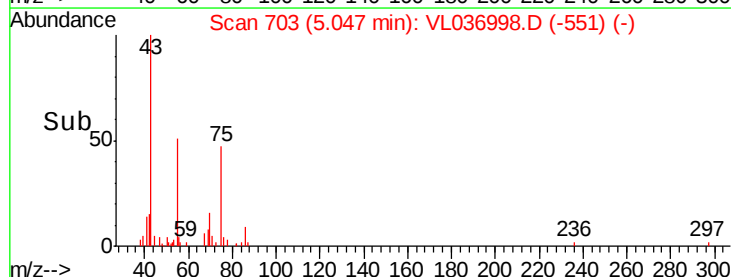
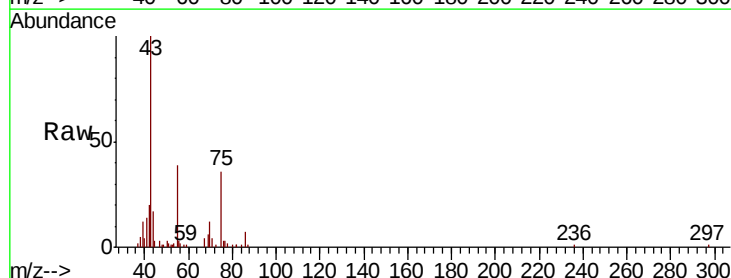
Instrument :
MSVOA_L
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KSV-04DL

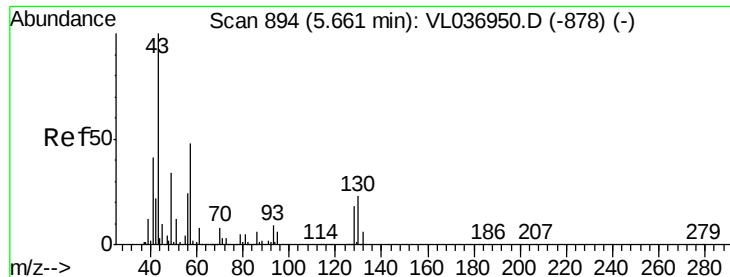
Tot Ion:	84	Resp:	16295
Ion	Ratio	Lower	Upper
84	100		
49	153.2	119.8	179.6
51	38.4	35.1	52.7
86	55.3	50.9	76.3



#23
Vinyl Acetate
Concen: 0.072 ppbv
RT: 5.05 min Scan# 703
Delta R.T. -0.01 min
Lab File: VL036998.D
Acq: 19 May 2021 19:05

Tgt Ion:	43	Resp:	14227
Ion	Ratio	Lower	Upper
43	100		
86	8.2	5.8	8.8
42	18.0	7.4	11.2#
44	0.2	3.3	4.9#





#25

Ethyl Acetate

Concen: 0.743 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.00 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

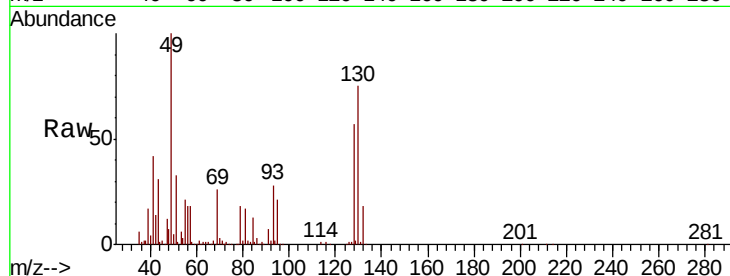
ClientSampleID :

KSV-04DL

Tot Ion: 43 Resp: 223669

Ion Ratio Lower Upper

43	100		
45	9.4	7.8	11.8
61	7.9	7.8	11.8
70	14.4	5.6	8.4#



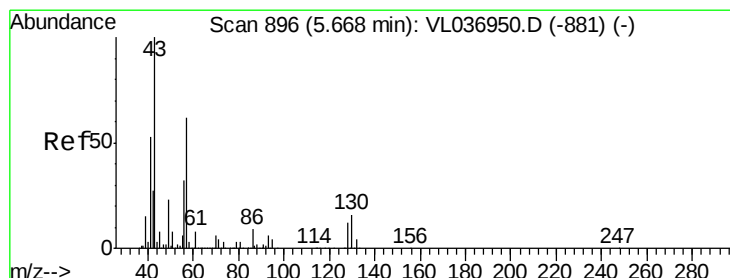
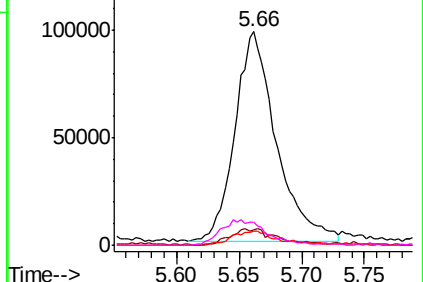
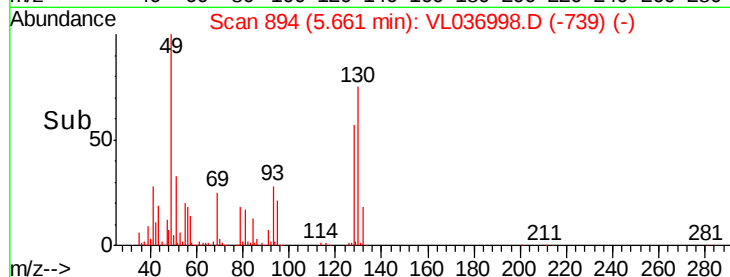
Abundance

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: 0.818 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.00 min

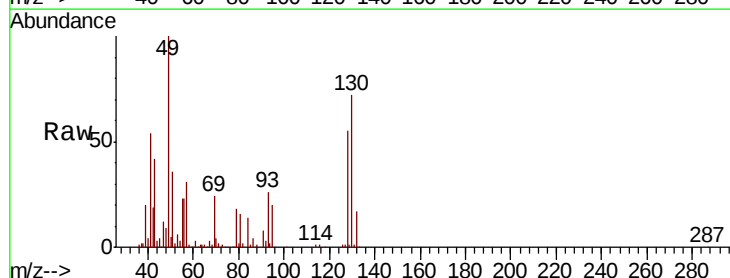
Lab File: VL036998.D

Acq: 19 May 2021 19:05

Tgt Ion: 57 Resp: 125776

Ion Ratio Lower Upper

57	100		
41	359.2	70.5	105.7#
43	189.7	165.8	248.8
56	143.5	42.2	63.4#



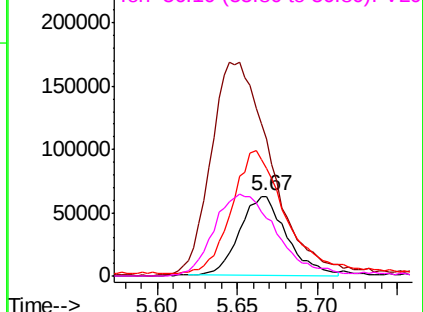
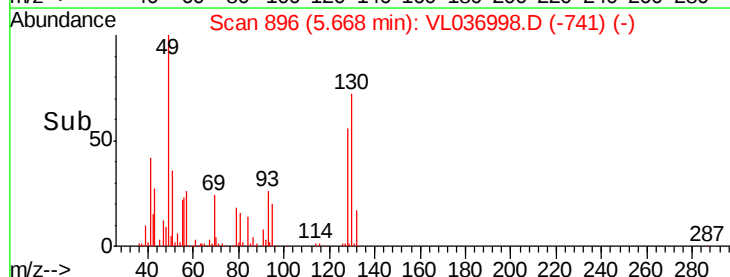
Abundance

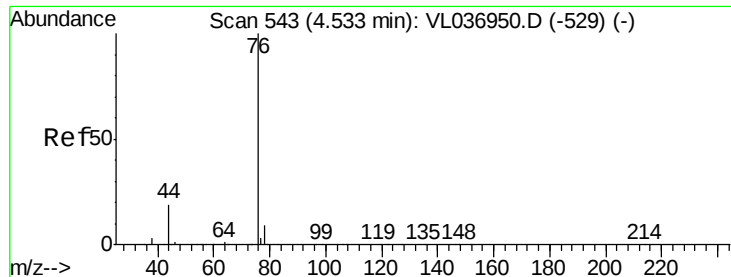
Ion 57.10 (56.80 to 57.80): VL0

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: 0.108 ppbv

RT: 4.53 min Scan# 543

Delta R.T. -0.00 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampled :

KSV-04DL

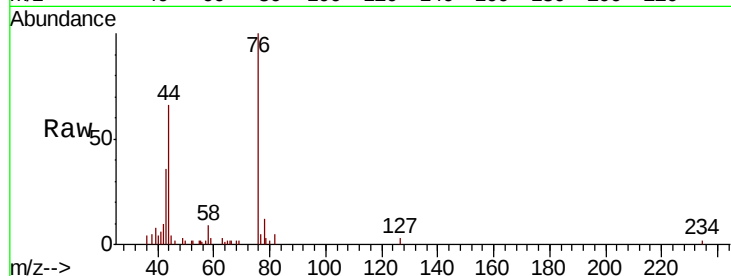
Tot Ion: 76 Resp: 16805

Ion Ratio Lower Upper

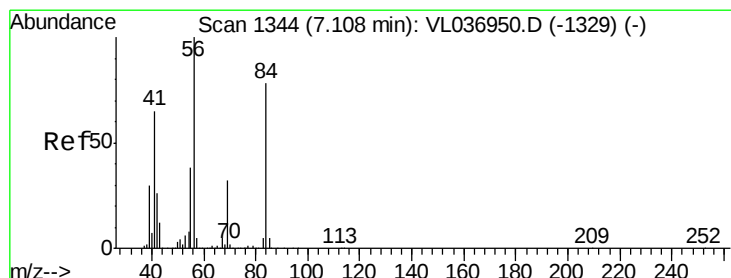
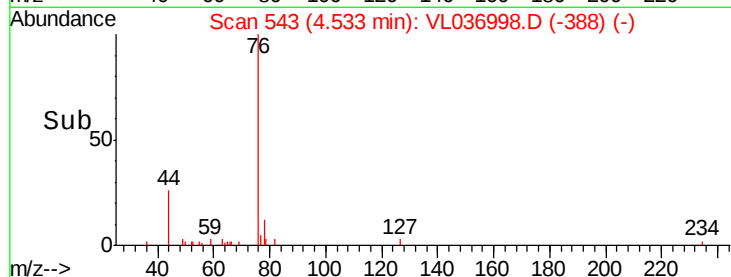
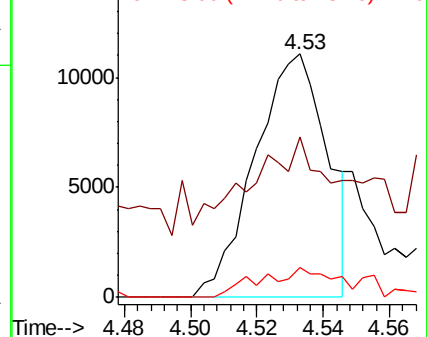
76 100

44 90.6 15.5 23.3#

78 15.8 7.8 11.6#



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



#30

Cyclohexane

Concen: 0.034 ppbv

RT: 7.10 min Scan# 1342

Delta R.T. -0.01 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

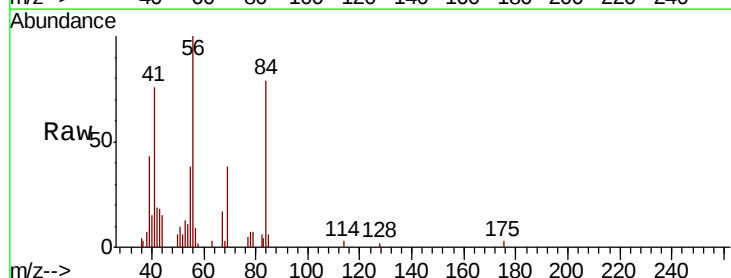
Tgt Ion: 84 Resp: 4401

Ion Ratio Lower Upper

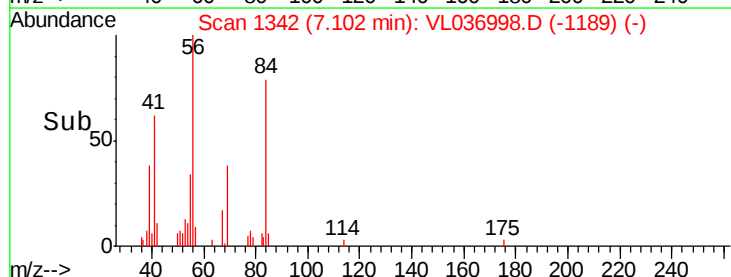
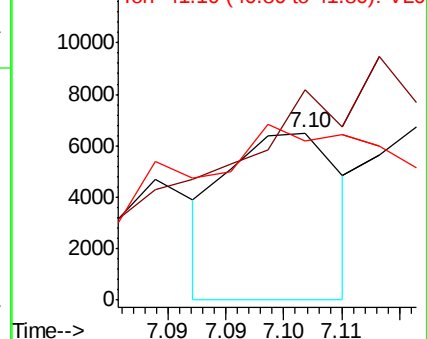
84 100

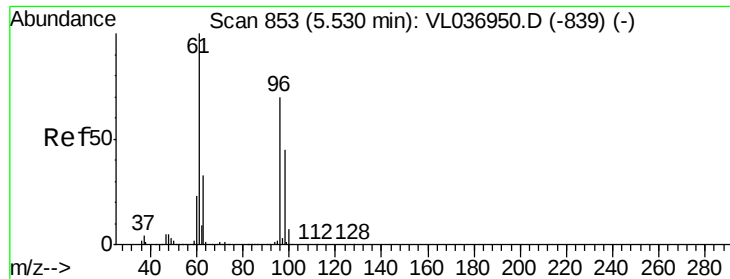
56 0.0 107.9 161.9#

41 303.0 65.5 98.3#



Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0



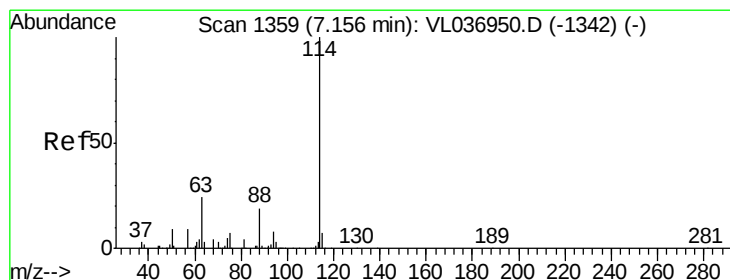
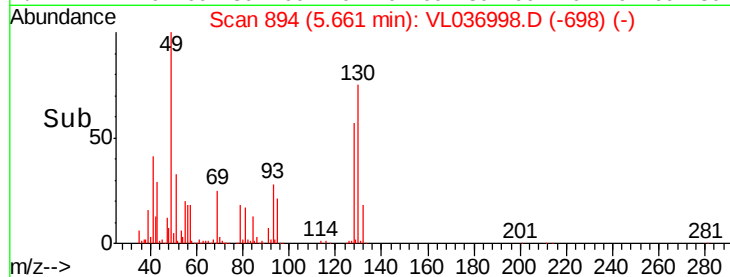
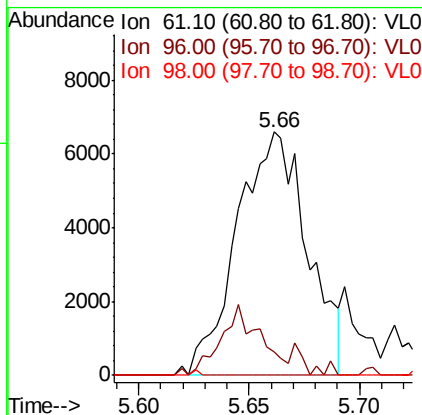
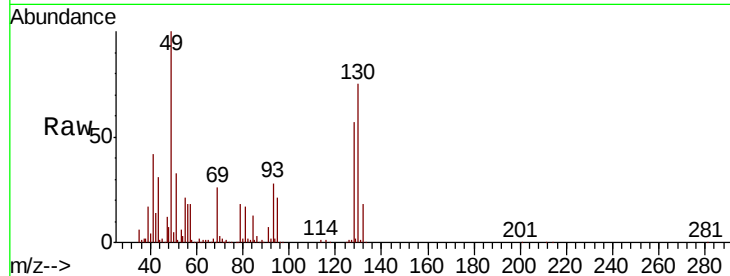


#31

cis-1,2-Dichloroethene
 Concen: 0.106 ppbv
 RT: 5.66 min Scan# 894
 Delta R.T. 0.13 min
 Lab File: VL036998.D
 Acq: 19 May 2021 19:05

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-04DL

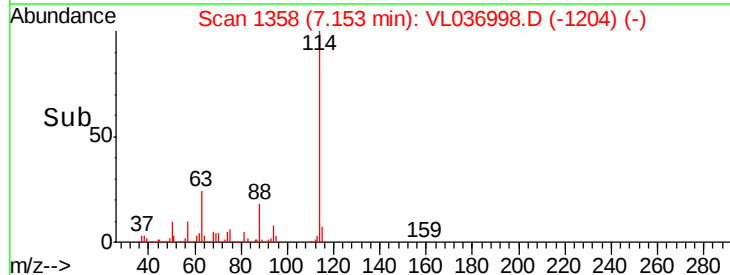
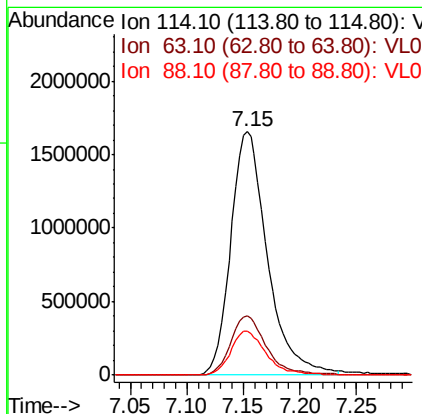
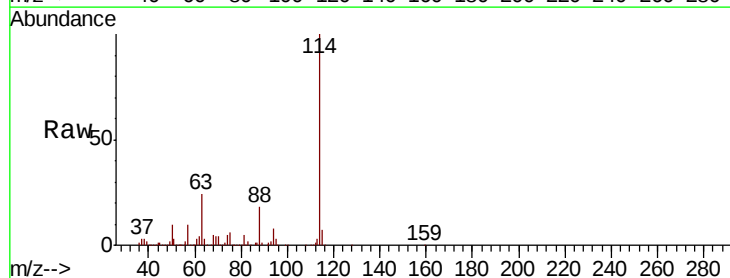
Tot Ion	Ratio	Lower	Upper
61	100		
96	10.5	55.9	83.9#
98	0.0	35.6	53.4#

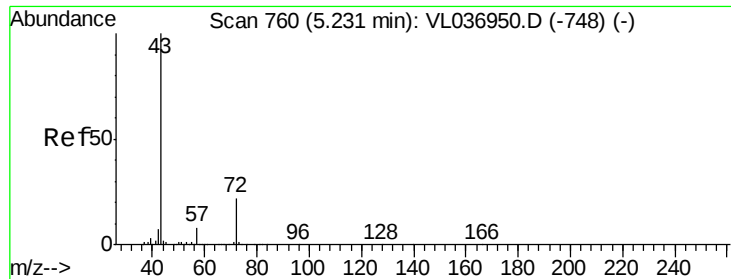


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.15 min Scan# 1358
 Delta R.T. -0.00 min
 Lab File: VL036998.D
 Acq: 19 May 2021 19:05

Tgt Ion	Ratio	Lower	Upper
114	100		
63	24.1	19.6	29.4
88	17.8	14.6	21.8

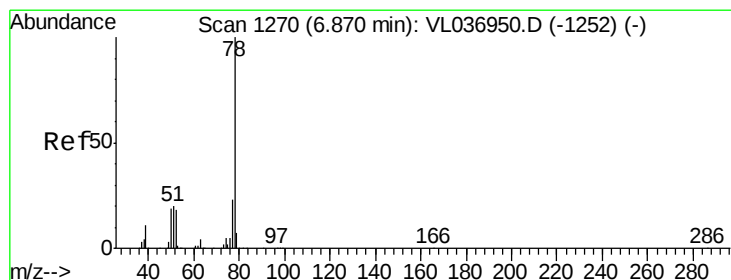
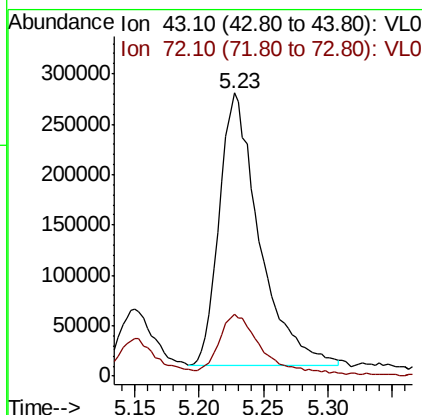
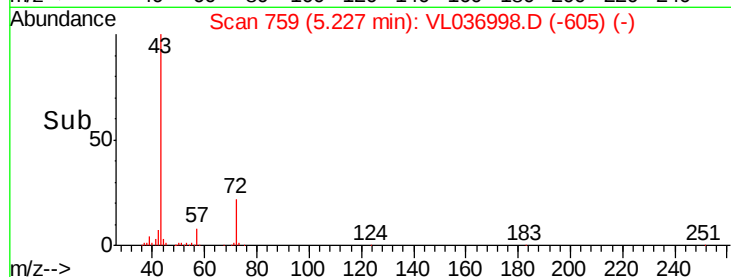
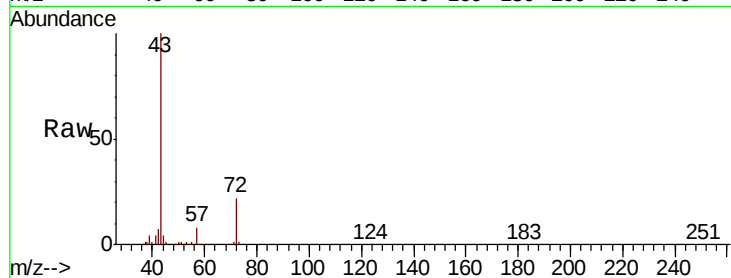




#34
 2-Butanone
 Concen: 4.289 ppbv
 RT: 5.23 min Scan# 759
 Delta R.T. -0.00 min
 Lab File: VL036998.D
 Acq: 19 May 2021 19:05

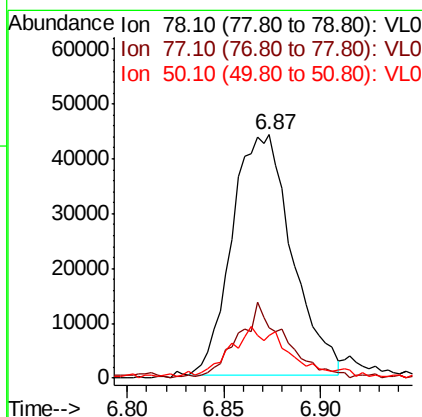
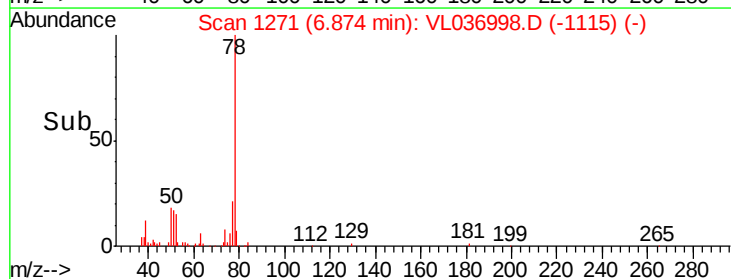
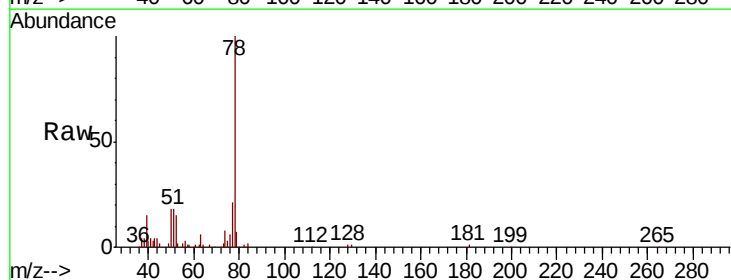
Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-04DL

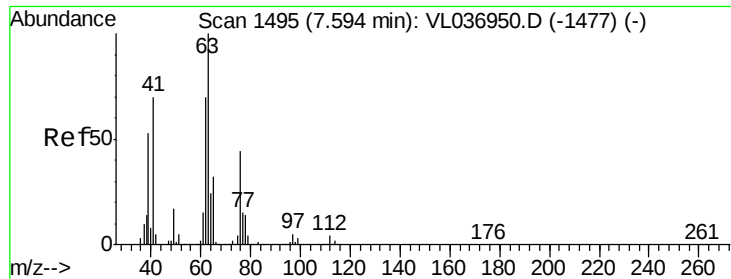
Tot Ion: 43 Resp: 583908
 Ion Ratio Lower Upper
 43 100
 72 26.4 19.0 28.4



#36
 Benzene
 Concen: 0.295 ppbv
 RT: 6.87 min Scan# 1271
 Delta R.T. 0.00 min
 Lab File: VL036998.D
 Acq: 19 May 2021 19:05

Tgt Ion: 78 Resp: 95016
 Ion Ratio Lower Upper
 78 100
 77 19.6 18.6 28.0
 50 14.9 15.0 22.4#

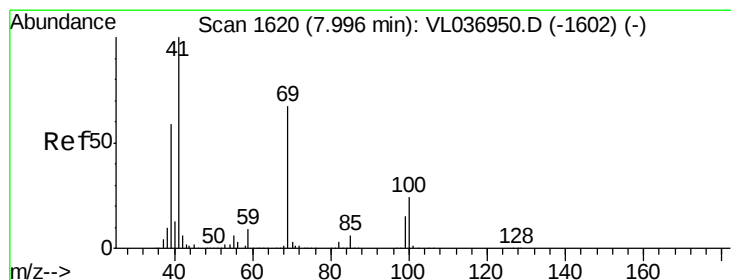
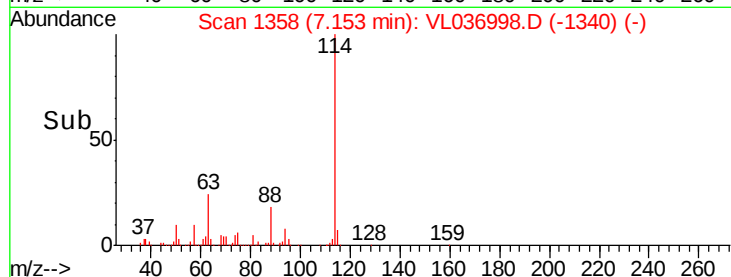
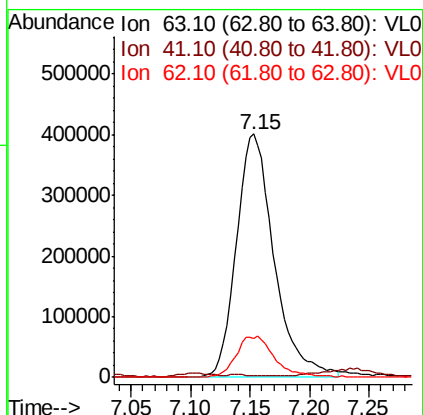
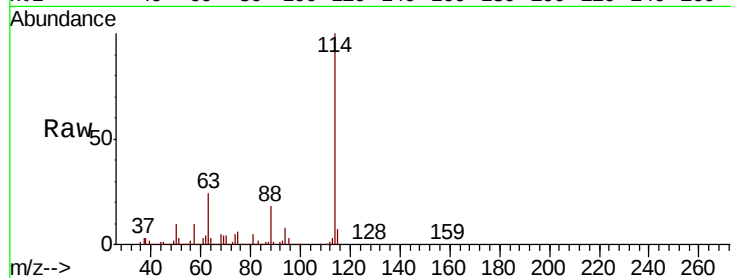




#39
 1,2-Dichloropropane
 Concen: 7.107 ppbv
 RT: 7.15 min Scan# 1358
 Delta R.T. -0.44 min
 Lab File: VL036998.D
 Acq: 19 May 2021 19:05

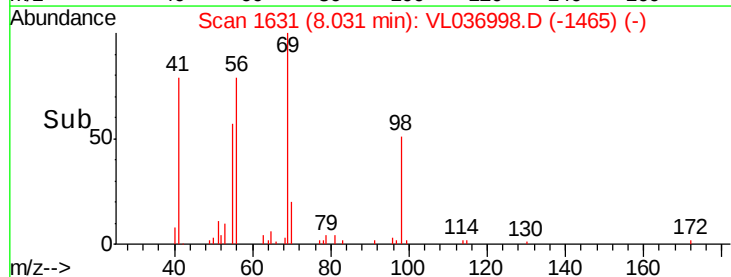
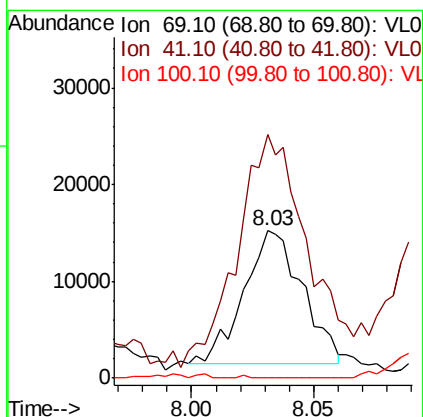
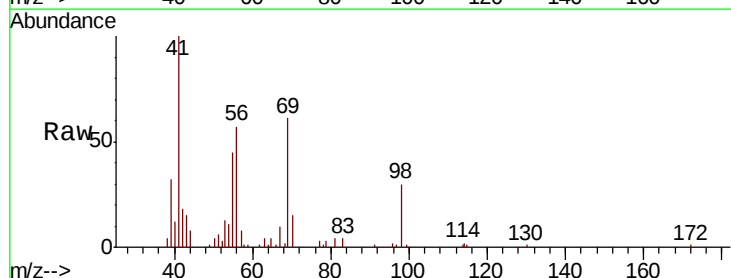
Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-04DL

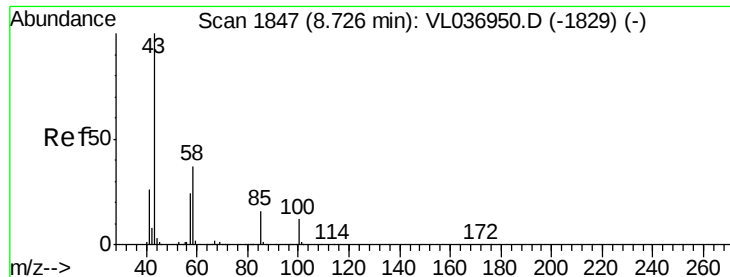
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	55.7	83.5#
62	15.8	56.2	84.4#



#43
 Methyl Methacrylate
 Concen: 0.205 ppbv
 RT: 8.03 min Scan# 1631
 Delta R.T. 0.04 min
 Lab File: VL036998.D
 Acq: 19 May 2021 19:05

Tgt Ion	Ratio	Lower	Upper
69	100		
41	225.7	118.6	178.0#
100	2.0	28.2	42.4#





#50

4-Methyl-2-Pentanone

Concen: 0.045 ppbv

RT: 8.73 min Scan# 1849

Delta R.T. 0.01 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampleID :

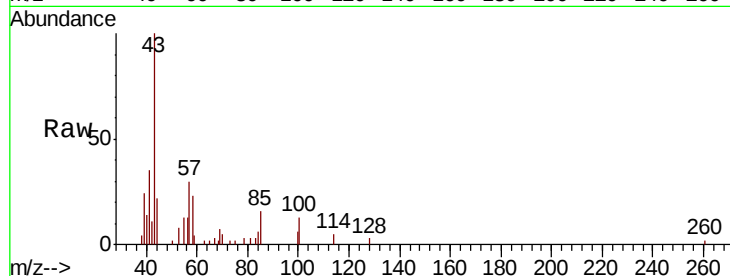
KSV-04DL

Tot Ion: 43 Resp: 10052

Ion Ratio Lower Upper

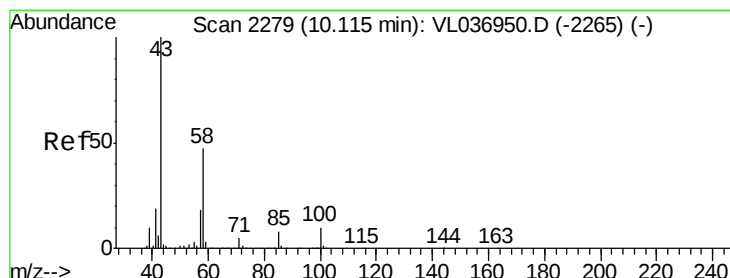
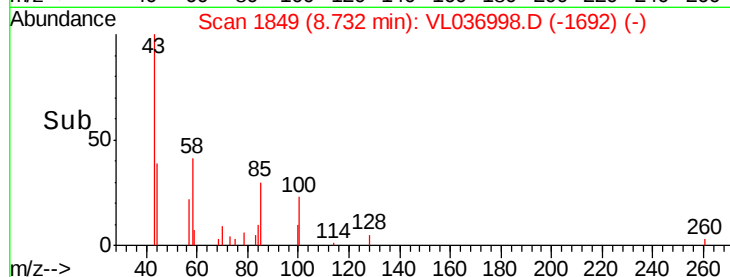
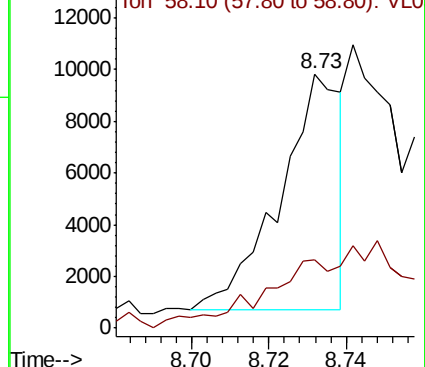
43 100

58 0.0 29.4 44.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#51

2-Hexanone

Concen: 0.325 ppbv

RT: 10.13 min Scan# 2285

Delta R.T. 0.02 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

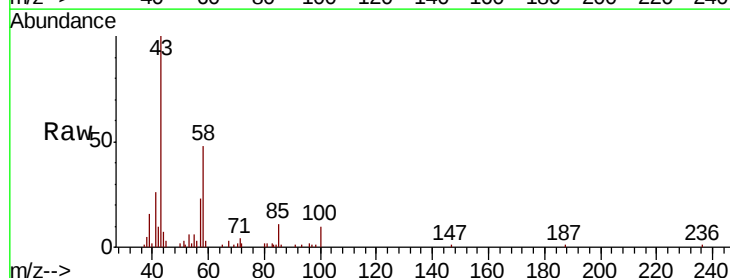
Tgt Ion: 43 Resp: 38638

Ion Ratio Lower Upper

43 100

58 73.4 41.1 61.7#

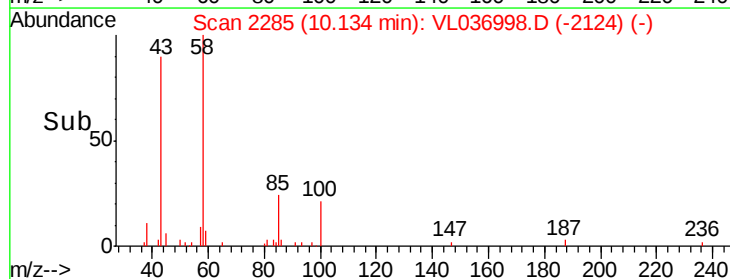
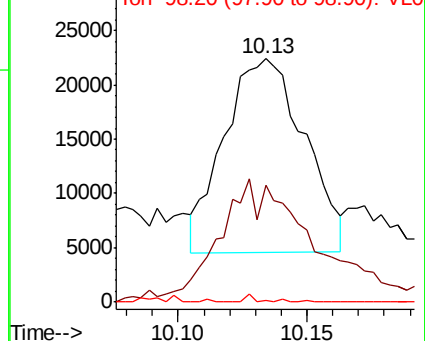
98 0.3 0.1 0.1#

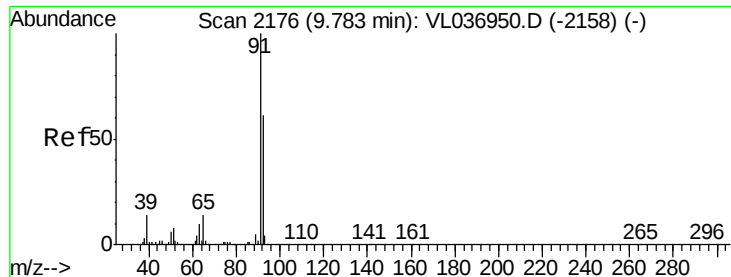


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 98.20 (97.90 to 98.90): VL0





#53

Toluene

Concen: 0.382 ppbv

RT: 9.78 min Scan# 2175

Delta R.T. -0.00 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampleId :

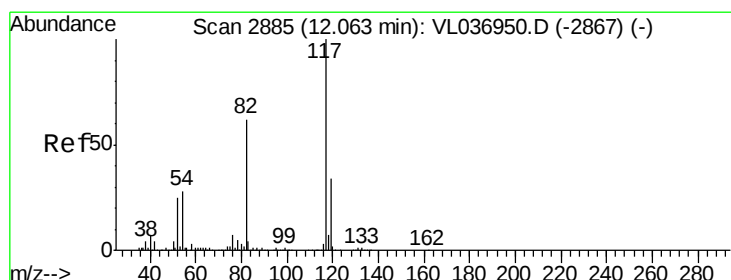
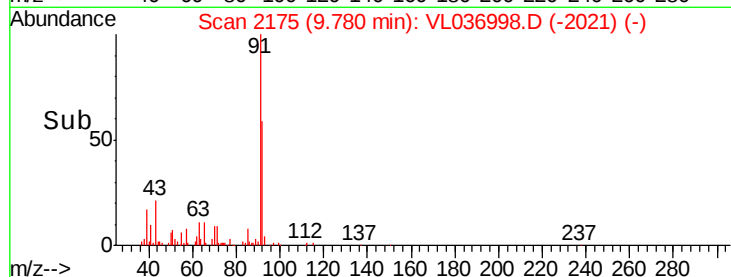
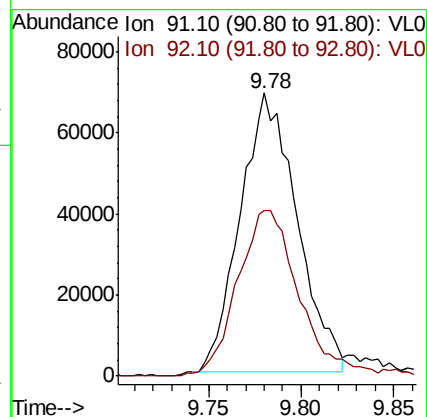
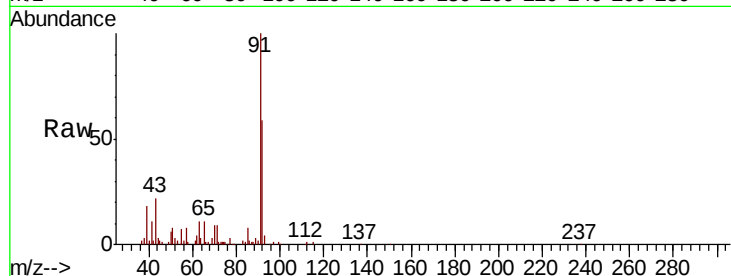
KSV-04DL

Tot Ion: 91 Resp: 146534

Ion Ratio Lower Upper

91 100

92 65.6 49.5 74.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2884

Delta R.T. -0.00 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

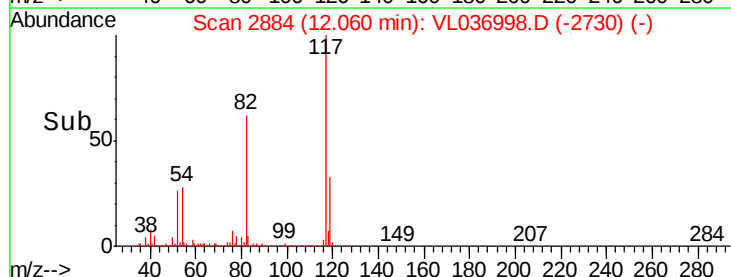
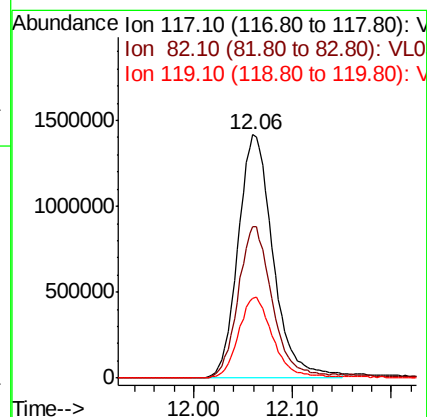
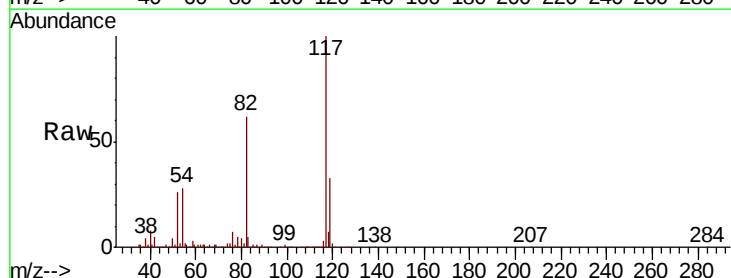
Tgt Ion: 117 Resp: 3495136

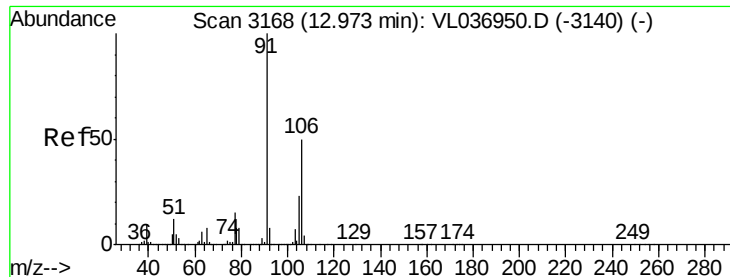
Ion Ratio Lower Upper

117 100

82 64.0 52.6 79.0

119 33.6 46.6 70.0#





#59

m/p-Xylene

Concen: 0.031 ppbv

RT: 12.97 min Scan# 3166

Delta R.T. -0.01 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampleId :

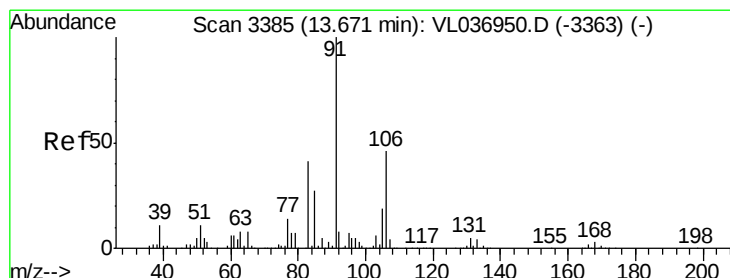
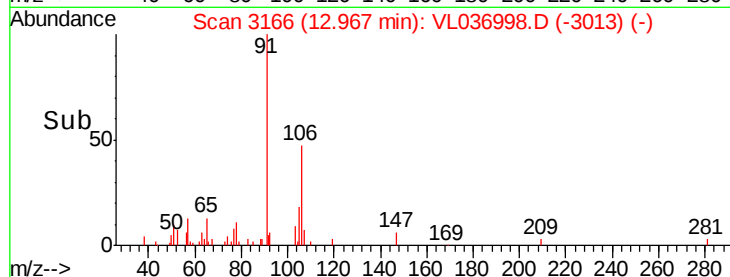
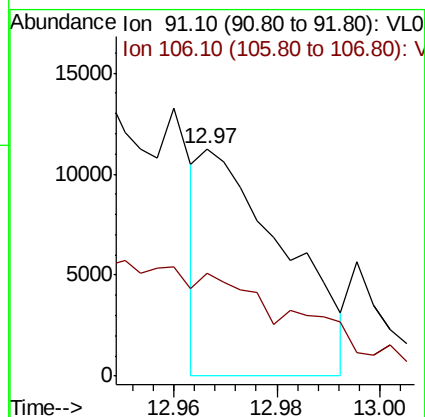
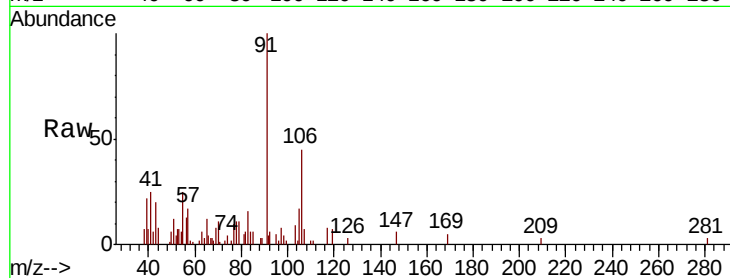
KSV-04DL

Tot Ion: 91 Resp: 12603

Ion Ratio Lower Upper

91 100

106 0.0 37.4 56.2#



#60

o-Xylene

Concen: 0.042 ppbv

RT: 13.67 min Scan# 3385

Delta R.T. -0.00 min

Lab File: VL036998.D

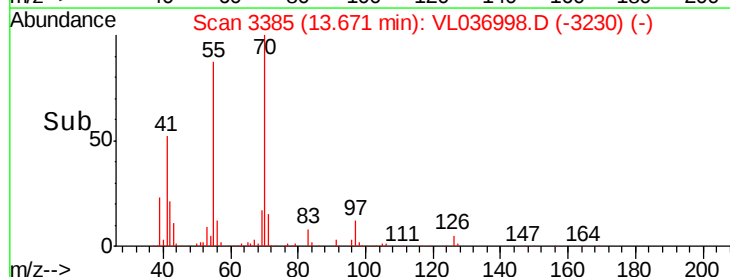
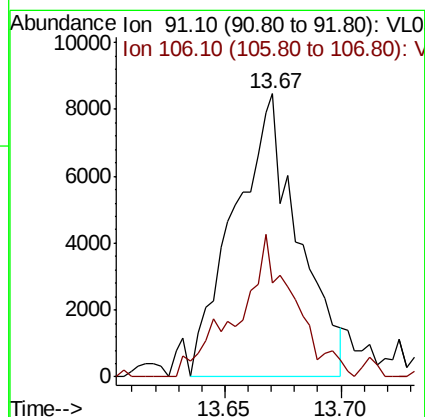
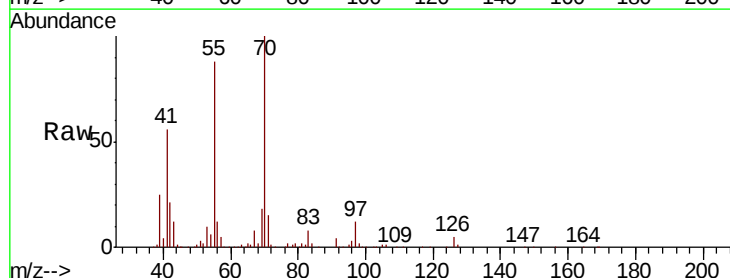
Acq: 19 May 2021 19:05

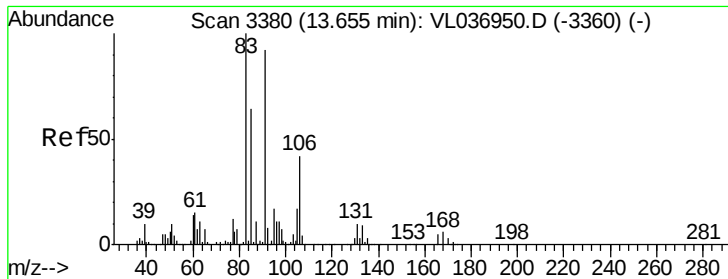
Tgt Ion: 91 Resp: 16220

Ion Ratio Lower Upper

91 100

106 46.1 23.4 70.3





#63

1,1,2,2-Tetrachloroethane

Concen: 0.054 ppbv

RT: 13.67 min Scan# 3385

Delta R.T. 0.02 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampleId :

KSV-04DL

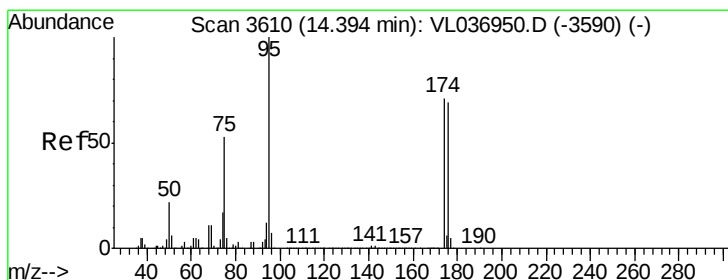
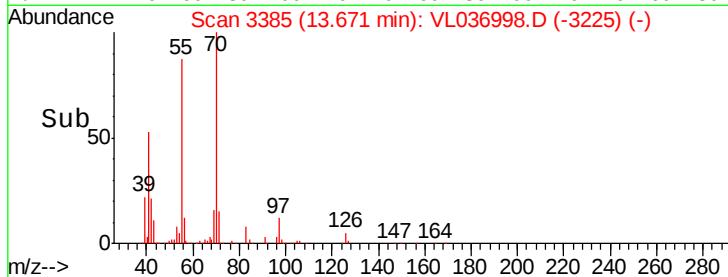
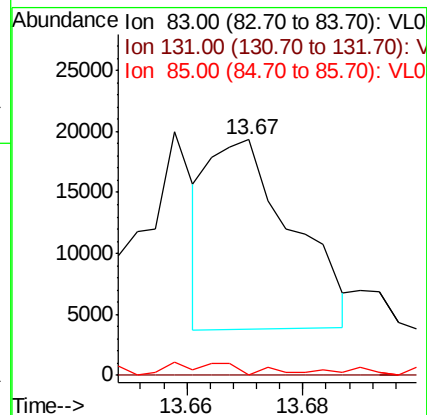
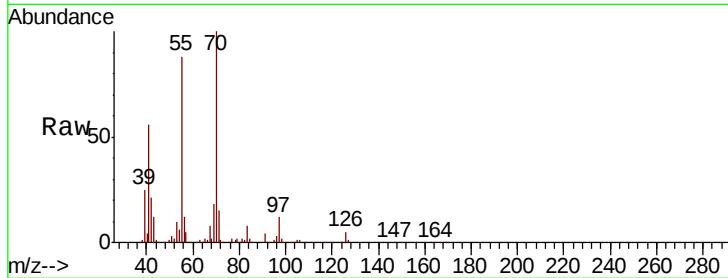
Tot Ion: 83 Resp: 15557

Ion Ratio Lower Upper

83 100

131 0.0 5.0 15.0#

85 0.0 32.9 98.6#



#68

1-Bromo-4-Fluorobenzene

Concen: 10.073 ppbv

RT: 14.39 min Scan# 3609

Delta R.T. -0.00 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

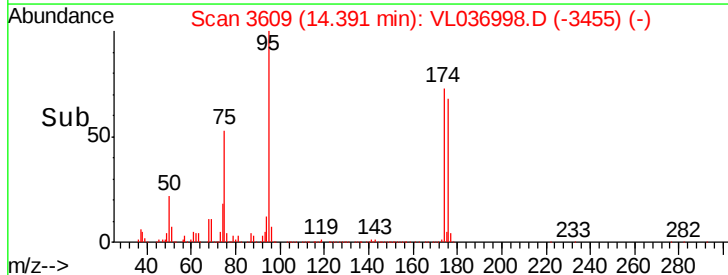
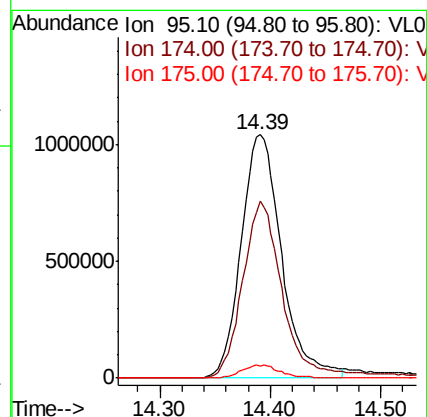
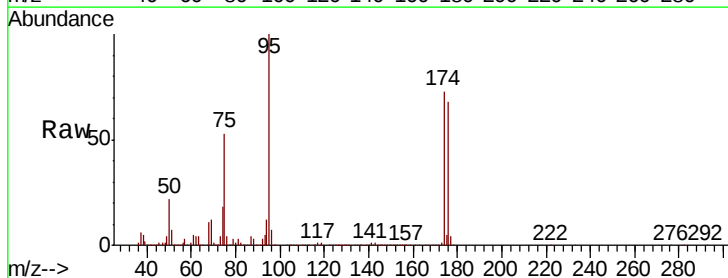
Tgt Ion: 95 Resp: 2644840

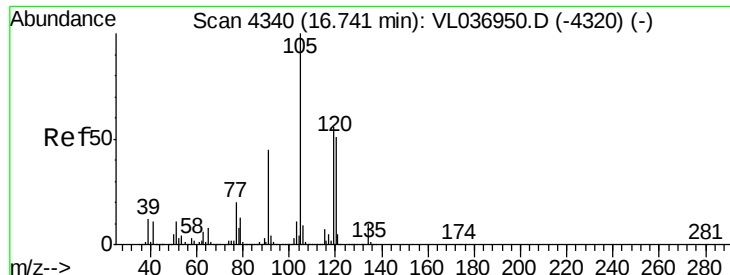
Ion Ratio Lower Upper

95 100

174 74.4 58.4 87.6

175 5.6 4.4 6.6





#74

1,2,4-Trimethylbenzene

Concen: 0.146 ppbv

RT: 16.74 min Scan# 4339

Delta R.T. -0.00 min

Lab File: VL036998.D

Acq: 19 May 2021 19:05

Instrument :

MSVOA_L

ClientSampleId :

KSV-04DL

Tot Ion:105 Resp: 65282

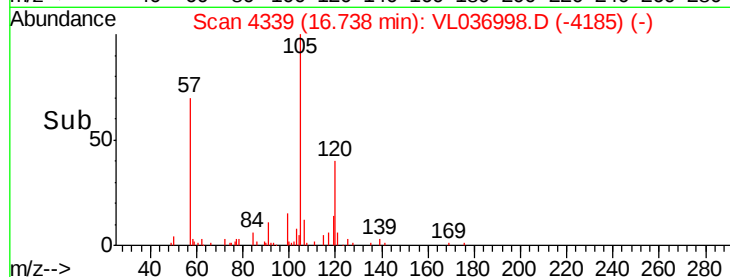
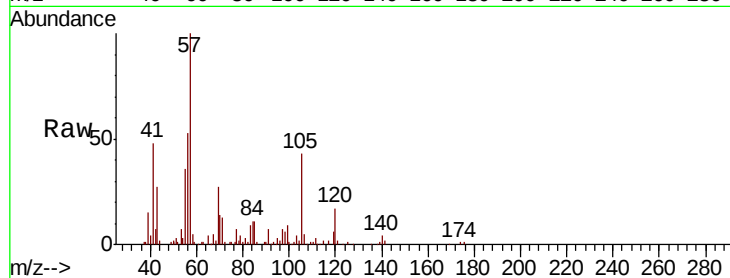
Ion Ratio Lower Upper

105 100

120 45.1 40.6 61.0

91 14.4 37.4 56.0#

77 10.1 16.2 24.4#



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

