

Data File : VL034217.D
Acq On : 2 Oct 2019 19:11
Operator : SY/AP
Sample : K5106-04DL 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SV-4DL

Quant Time: Oct 03 05:43:49 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL091719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Sep 18 12:53:31 2019
QLast Update : Wed Sep 18 12:53:31 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	894792	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.22	114	1695568	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.16	117	1708456	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.49	95	1470736	9.91	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.10%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.03	85	9135	0.069	ppbv	97
4) Chloromethane	3.12	50	7756	0.126	ppbv #	79
9) Propene	2.99	41	730022	14.103	ppbv	92
10) Heptane	8.17	43	373134	2.766	ppbv	99
13) Ethanol	3.61	45	36188	2.887	ppbv	88
15) Acetone	3.85	43	1200188	10.008	ppbv	95
16) 1,3-Butadiene	3.30	39	323194	6.175	ppbv #	28
17) tert-Butyl alcohol	4.31	59	109487	1.441	ppbv	98
19) Isopropyl Alcohol	3.98	45	10887	0.148	ppbv #	95
20) Methylene Chloride	4.35	84	20551	0.594	ppbv #	79
21) Allyl Chloride	4.41	41	6164	0.091	ppbv #	1
23) Vinyl Acetate	5.08	43	14337	0.081	ppbv #	46
25) Ethyl Acetate	5.71	43	59429	0.262	ppbv #	82
26) Hexane	5.72	57	72563	0.769	ppbv #	42
27) Carbon Disulfide	4.56	76	41227	0.474	ppbv #	58
29) Chloroform	5.78	83	264422	1.962	ppbv	97
30) Cyclohexane	7.18	84	10087	0.148	ppbv #	1
34) 2-Butanone	5.27	43	323127	1.866	ppbv	97
36) Benzene	6.93	78	105449	0.563	ppbv #	89
39) 1,2-Dichloropropane	7.22	63	506760	6.023	ppbv #	19
43) Methyl Methacrylate	8.06	69	3039	0.039	ppbv #	1
44) 2,2,4-Trimethylpentane	7.91	57	70067	0.194	ppbv #	26
52) Tetrachloroethene	11.29	164	147433	2.383	ppbv	92
53) Toluene	9.86	91	303600	1.483	ppbv	100
58) Ethyl Benzene	12.78	91	27415	0.099	ppbv	99
59) m/p-Xylene	13.07	91	15717	0.069	ppbv #	32
60) o-Xylene	13.77	91	17332	0.076	ppbv #	33
74) 1,2,4-Trimethylbenzene	16.84	105	19231	0.073	ppbv #	70

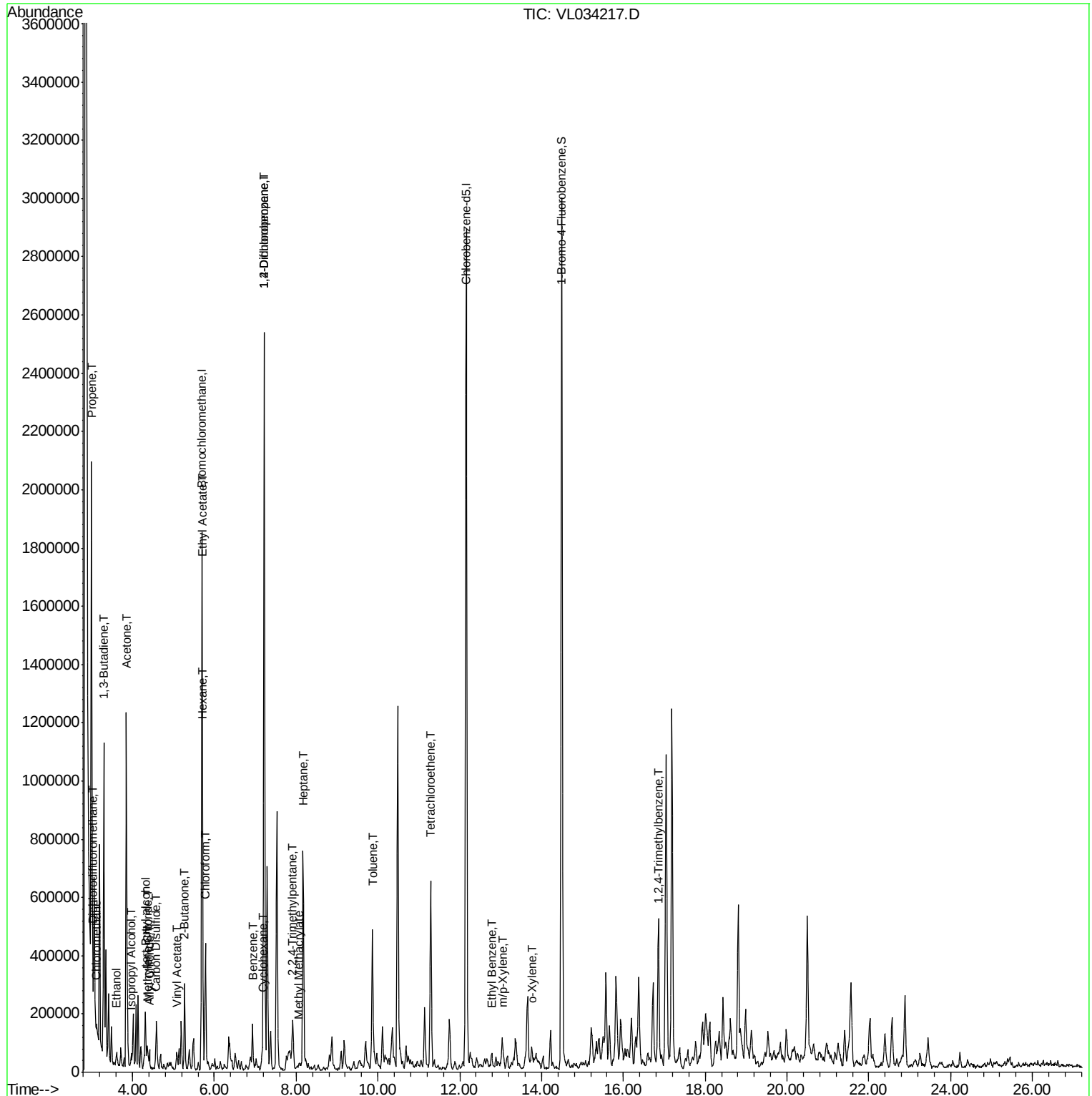
(#) = qualifier out of range (m) = manual integration (+) = signals summed

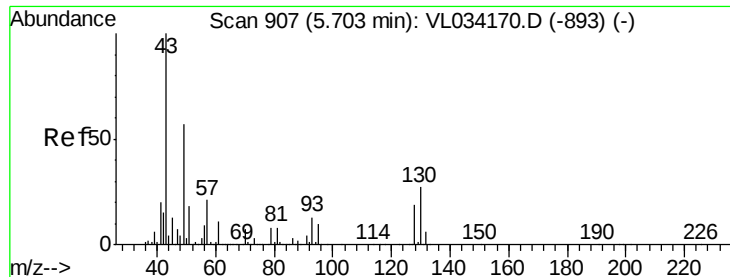
Data File : VL034217.D

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QLast Update : Wed Sep 18 12:53:31 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 904

Delta R.T. -0.01 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

SV-4DL

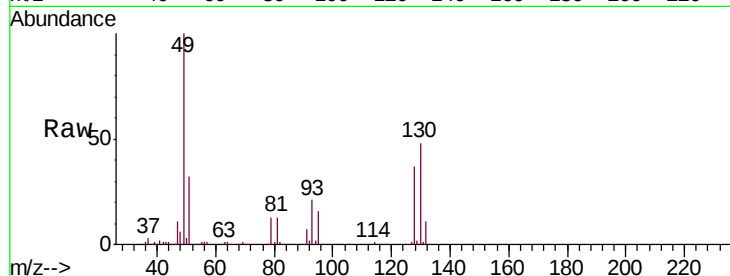
Tgt Ion: 49 Resp: 894792

Ion Ratio Lower Upper

49 100

128 38.1 17.6 52.9

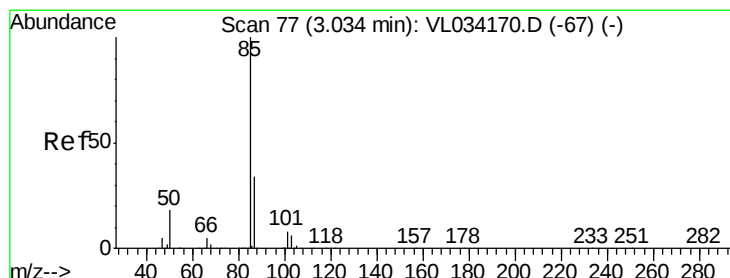
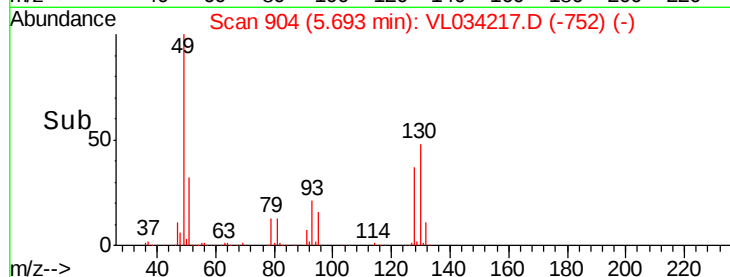
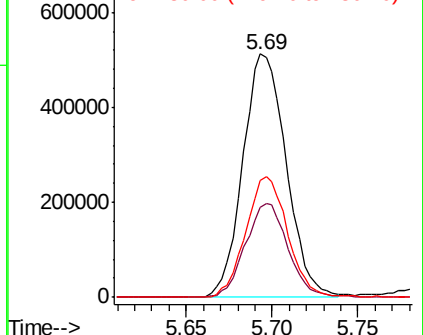
130 48.6 22.3 66.9



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: 0.069 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.00 min

Lab File: VL034217.D

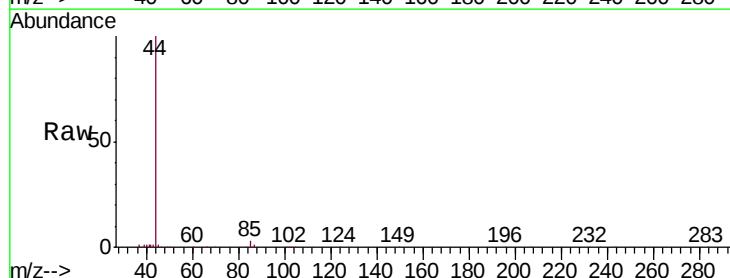
Acq: 2 Oct 2019 19:11

Tgt Ion: 85 Resp: 9135

Ion Ratio Lower Upper

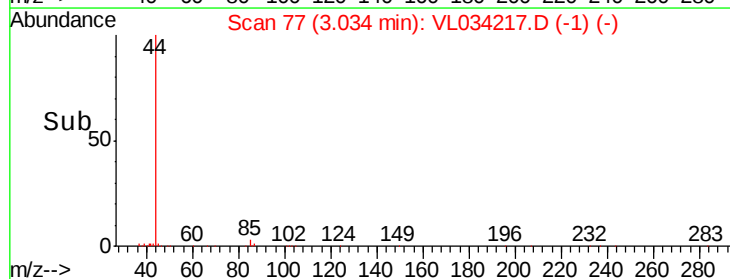
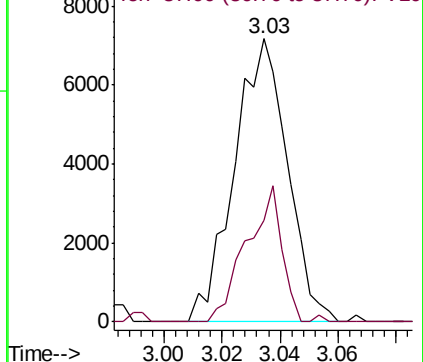
85 100

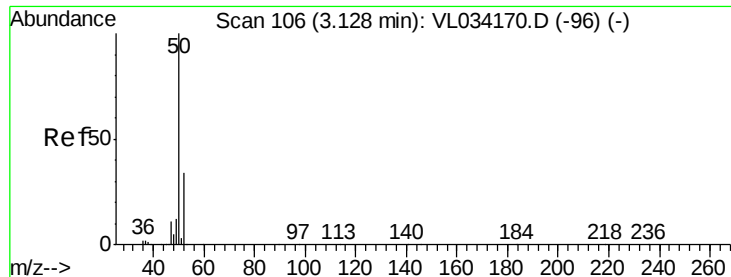
87 36.0 27.2 40.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.126 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.00 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

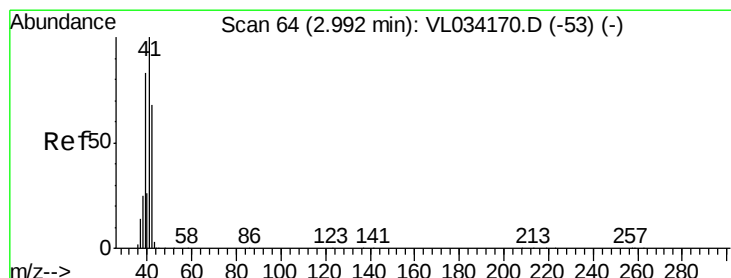
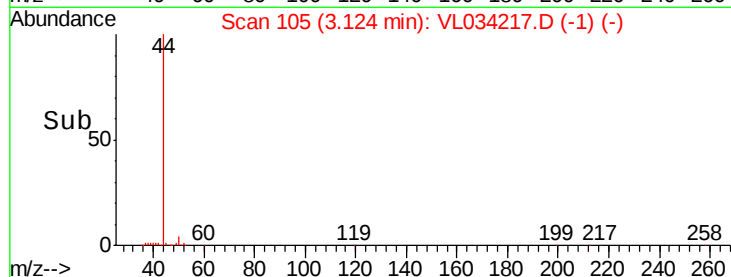
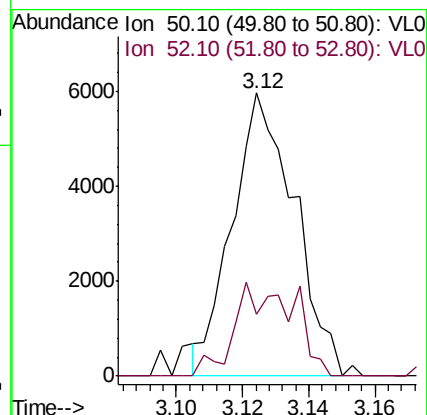
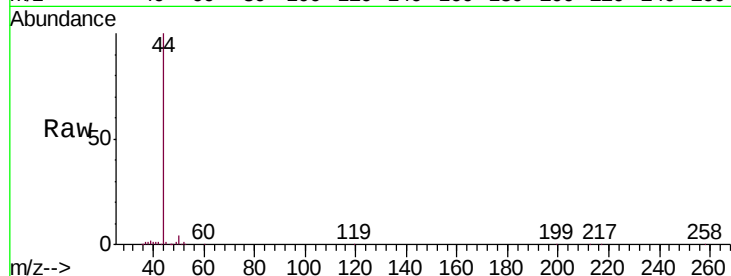
SV-4DL

Tgt Ion: 50 Resp: 7756

Ion Ratio Lower Upper

50 100

52 21.9 27.1 40.7#



#9

Propene

Concen: 14.103 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.00 min

Lab File: VL034217.D

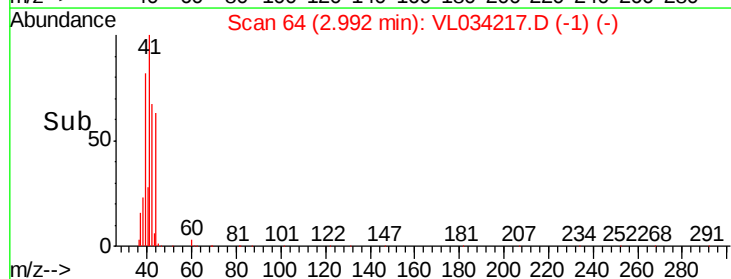
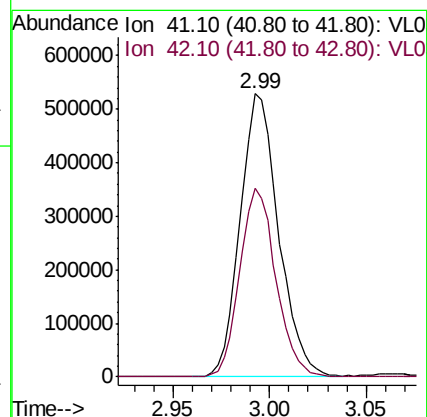
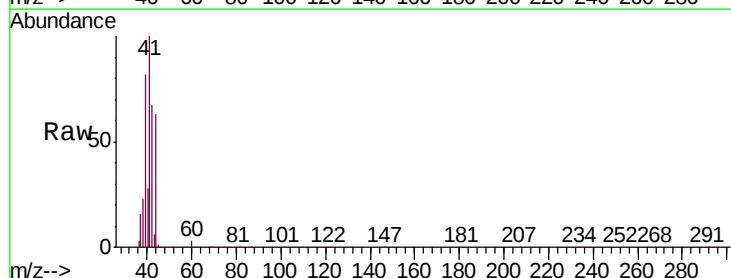
Acq: 2 Oct 2019 19:11

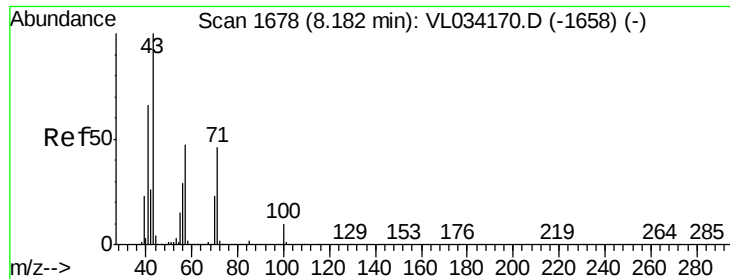
Tgt Ion: 41 Resp: 730022

Ion Ratio Lower Upper

41 100

42 62.8 55.8 83.6

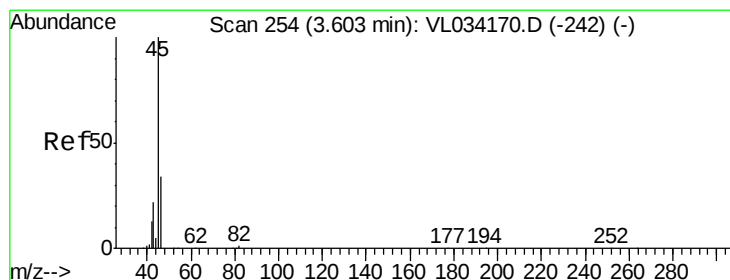
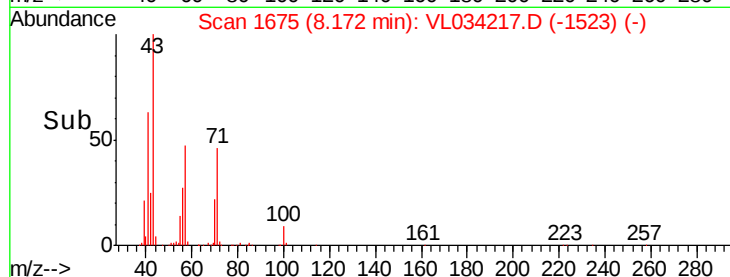
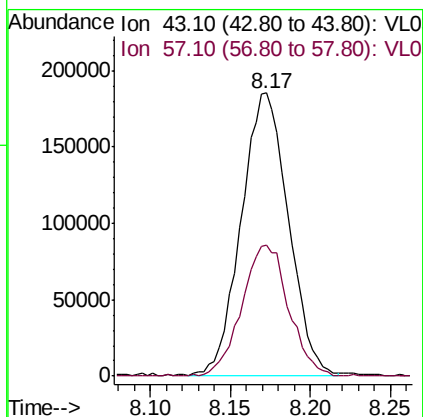
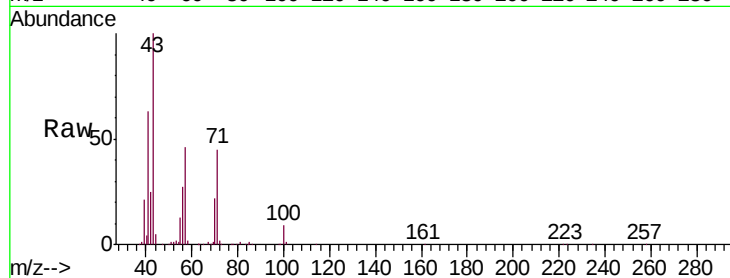




#10
Heptane
Concen: 2.766 ppbv
RT: 8.17 min Scan# 1675
Delta R.T. -0.01 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

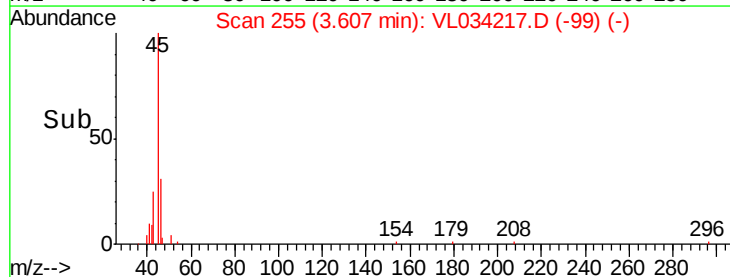
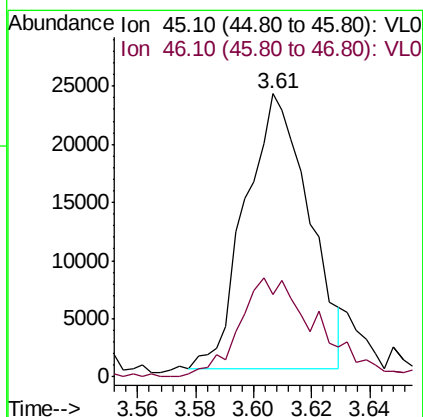
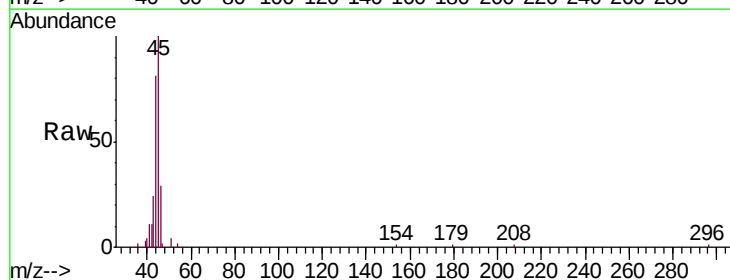
Instrument :
MSVOA_L
ClientSampleId :
SV-4DL

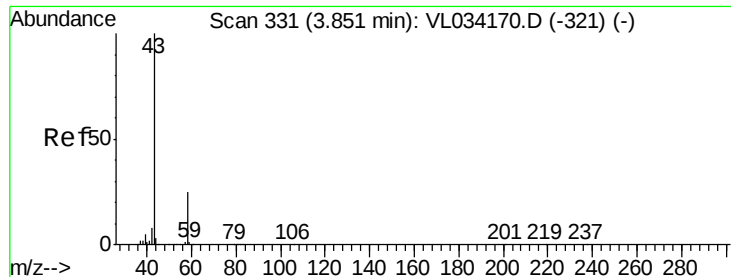
Tgt Ion: 43 Resp: 373134
Ion Ratio Lower Upper
43 100
57 46.6 37.5 56.3



#13
Ethanol
Concen: 2.887 ppbv
RT: 3.61 min Scan# 255
Delta R.T. 0.00 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

Tgt Ion: 45 Resp: 36188
Ion Ratio Lower Upper
45 100
46 45.8 15.5 61.9





#15

Acetone

Concen: 10.008 ppbv

RT: 3.85 min Scan# 330

Delta R.T. -0.00 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

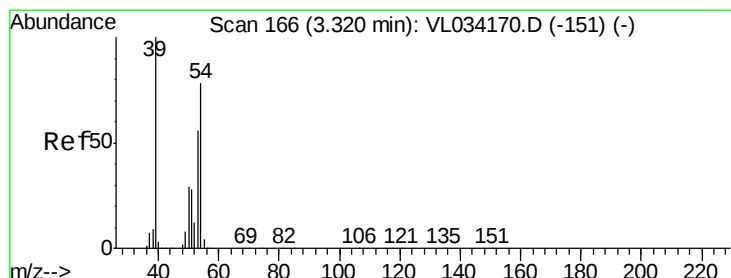
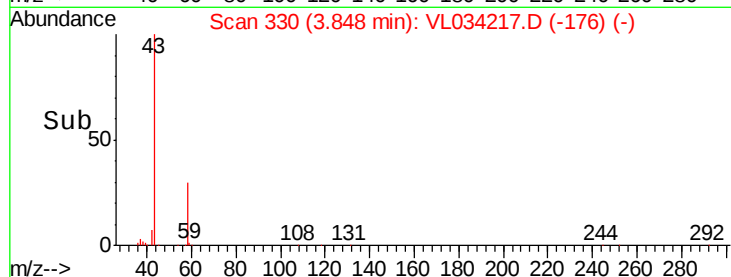
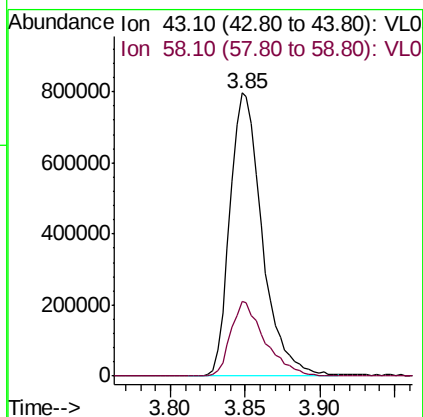
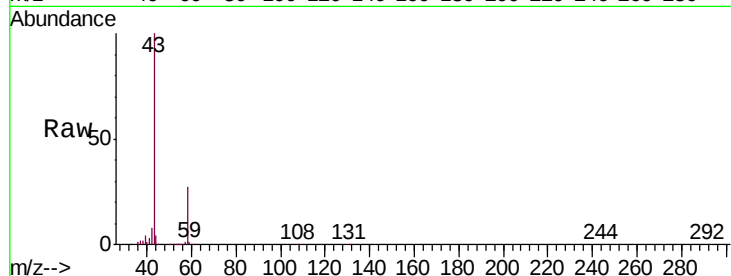
SV-4DL

Tgt Ion: 43 Resp: 1200188

Ion Ratio Lower Upper

43 100

58 28.1 20.5 30.7



#16

1,3-Butadiene

Concen: 6.175 ppbv

RT: 3.30 min Scan# 159

Delta R.T. -0.02 min

Lab File: VL034217.D

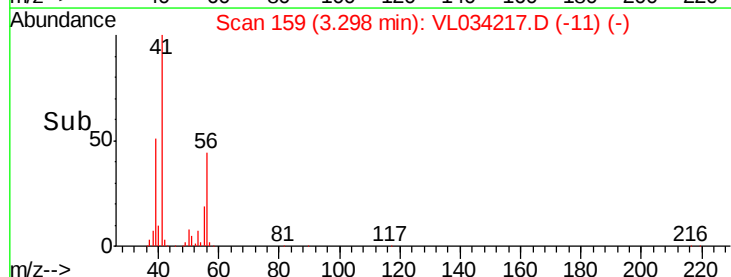
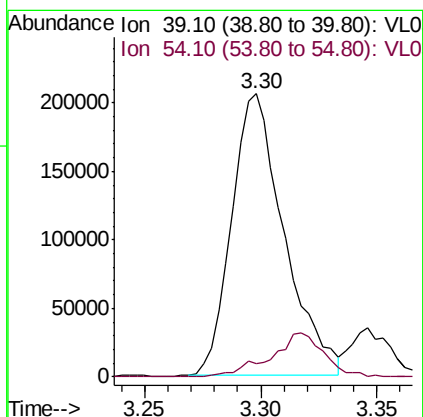
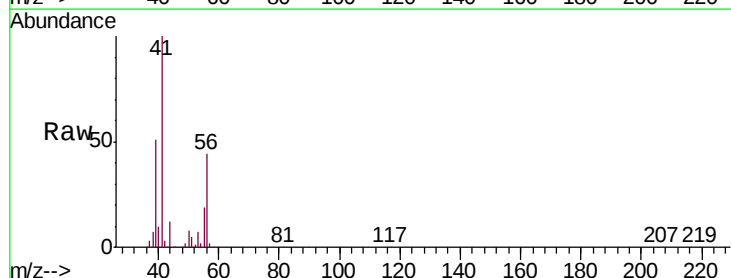
Acq: 2 Oct 2019 19:11

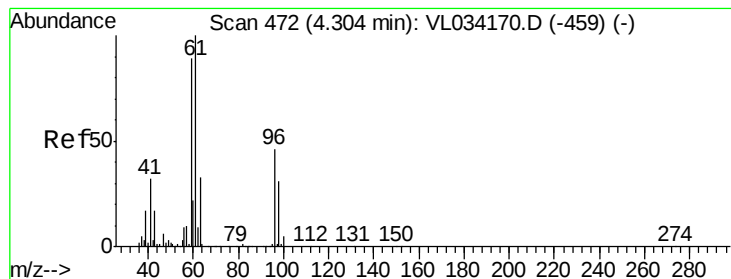
Tgt Ion: 39 Resp: 323194

Ion Ratio Lower Upper

39 100

54 15.9 63.4 95.0#





#17

tert-Butyl alcohol

Concen: 1.441 ppbv

RT: 4.31 min Scan# 474

Delta R.T. 0.01 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

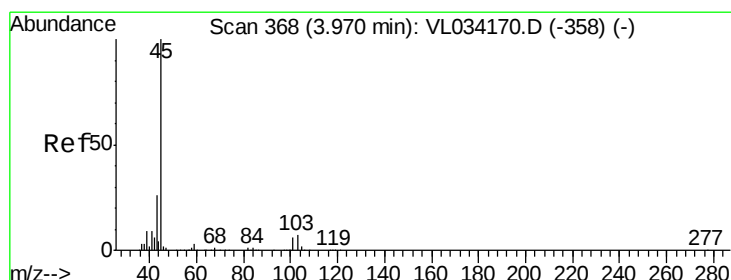
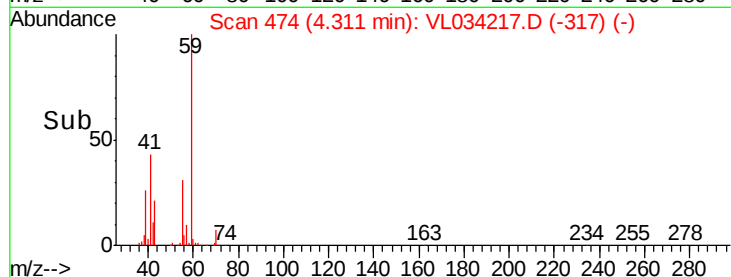
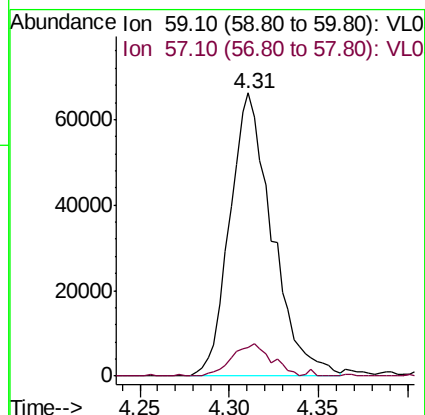
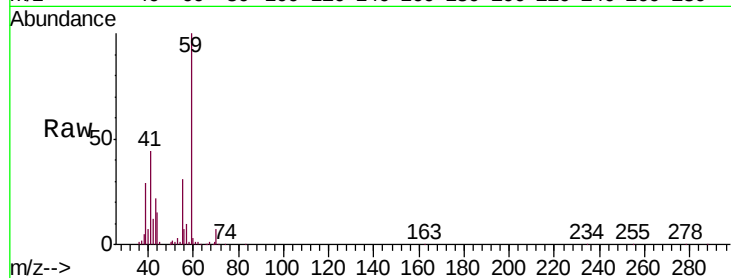
SV-4DL

Tgt Ion: 59 Resp: 109487

Ion Ratio Lower Upper

59 100

57 11.5 8.7 13.1



#19

Isopropyl Alcohol

Concen: 0.148 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.01 min

Lab File: VL034217.D

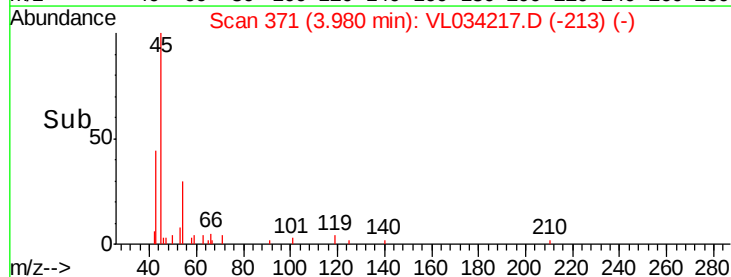
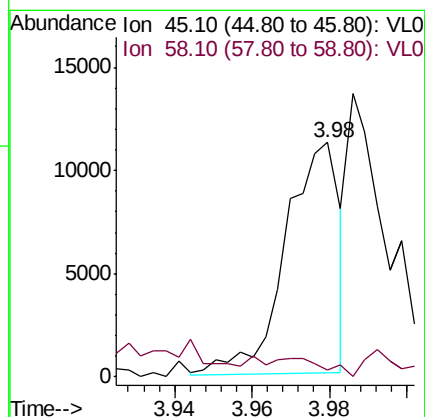
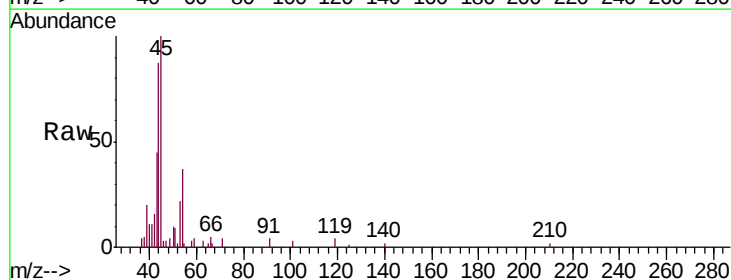
Acq: 2 Oct 2019 19:11

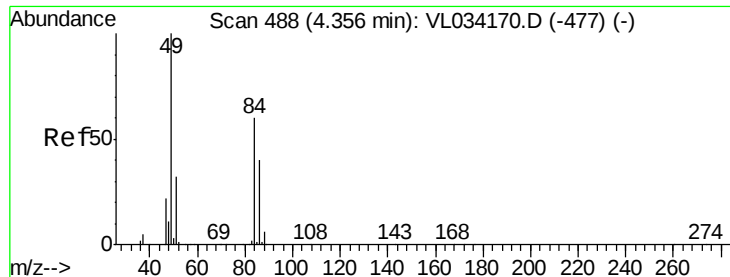
Tgt Ion: 45 Resp: 10887

Ion Ratio Lower Upper

45 100

58 0.0 1.4 2.0#

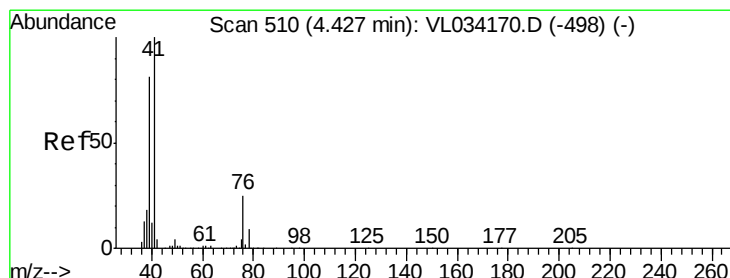
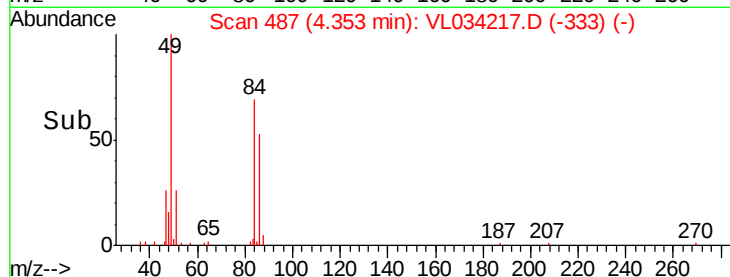
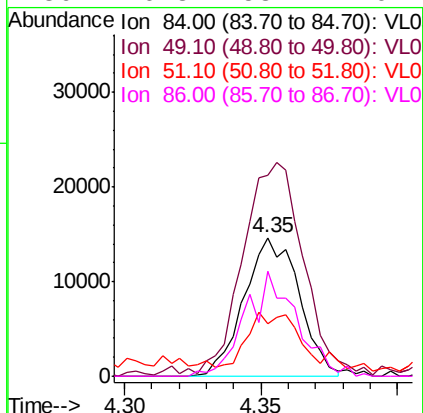
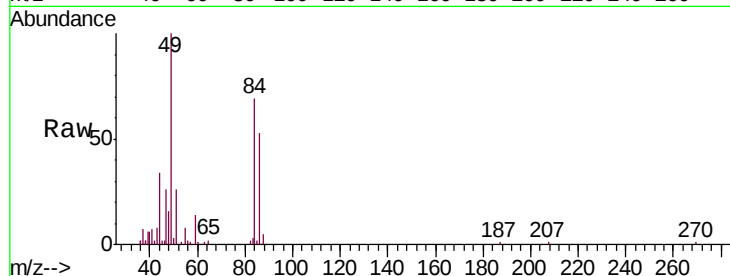




#20
Methylene Chloride
Concen: 0.594 ppbv
RT: 4.35 min Scan# 487
Delta R.T. -0.00 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

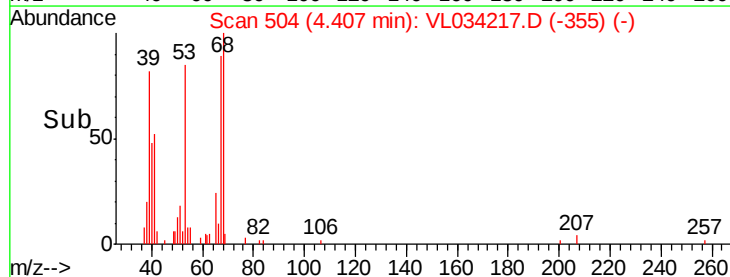
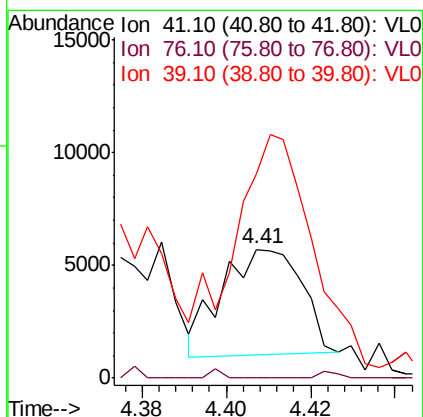
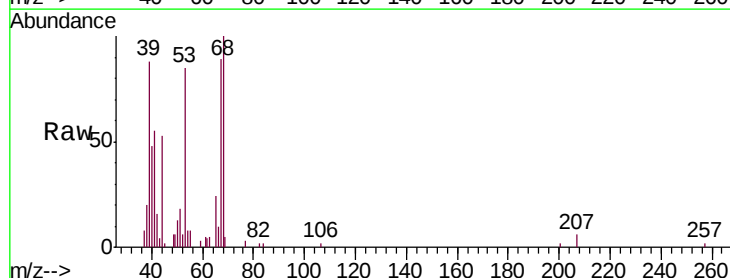
Instrument :
MSVOA_L
ClientSampleId :
SV-4DL

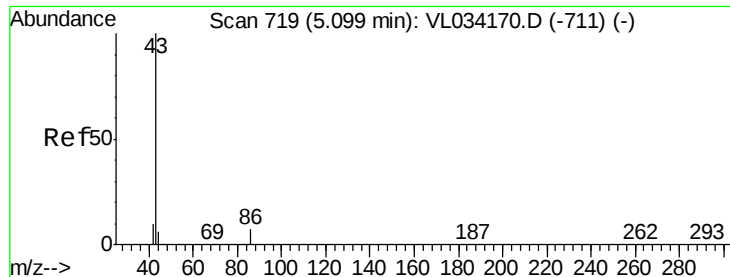
Tgt Ion:	84	Resp:	20551
Ion	Ratio	Lower	Upper
84	100		
49	139.3	133.8	200.8
51	30.6	43.6	65.4#
86	76.3	53.1	79.7



#21
Allyl Chloride
Concen: 0.091 ppbv
RT: 4.41 min Scan# 504
Delta R.T. -0.02 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

Tgt Ion:	41	Resp:	6164
Ion	Ratio	Lower	Upper
41	100		
76	0.0	21.8	32.6#
39	209.8	64.8	97.2#





#23

Vinyl Acetate

Concen: 0.081 ppbv

RT: 5.08 min Scan# 714

Delta R.T. -0.02 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

SV-4DL

Tgt Ion: 43 Resp: 14337

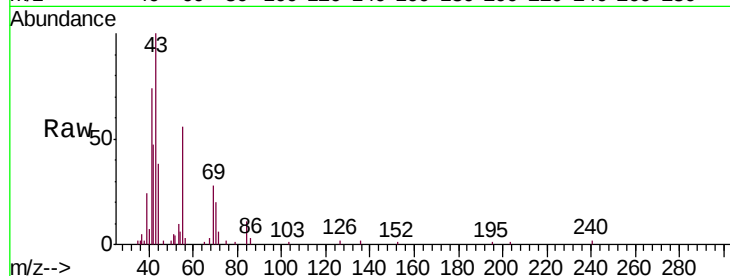
Ion Ratio Lower Upper

43 100

86 1.9 5.1 7.7#

42 50.9 8.6 12.8#

44 5.5 4.7 7.1

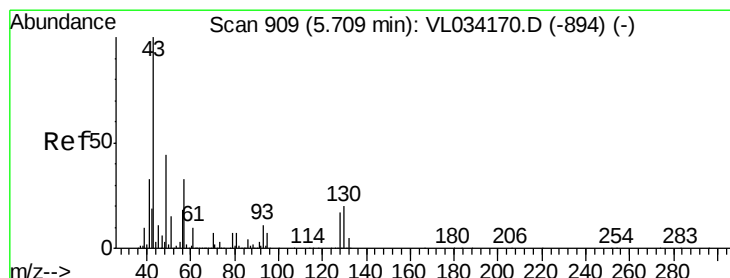
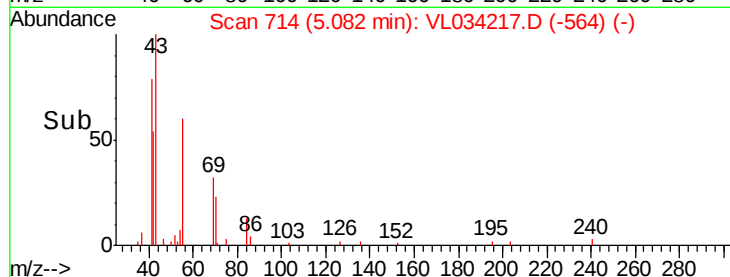
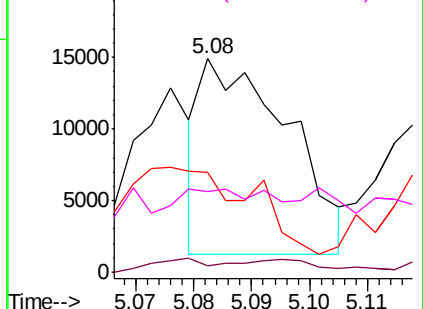


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.262 ppbv

RT: 5.71 min Scan# 910

Delta R.T. 0.00 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Tgt Ion: 43 Resp: 59429

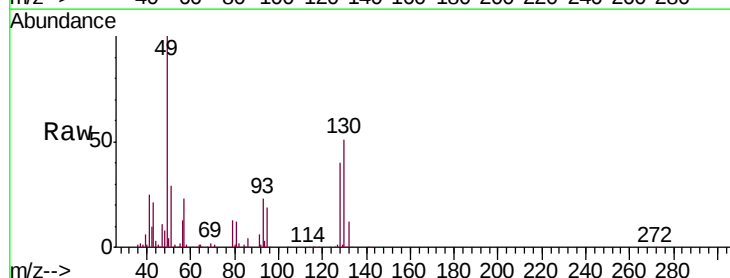
Ion Ratio Lower Upper

43 100

45 2.9 8.4 12.6#

61 1.1 7.2 10.8#

70 3.2 5.3 7.9#

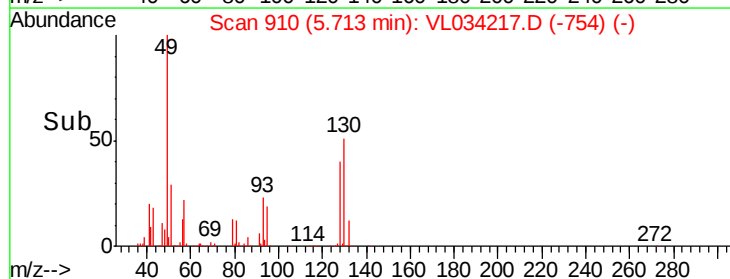
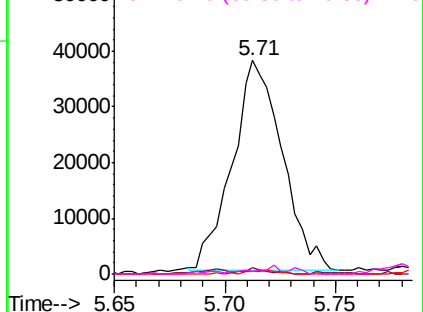


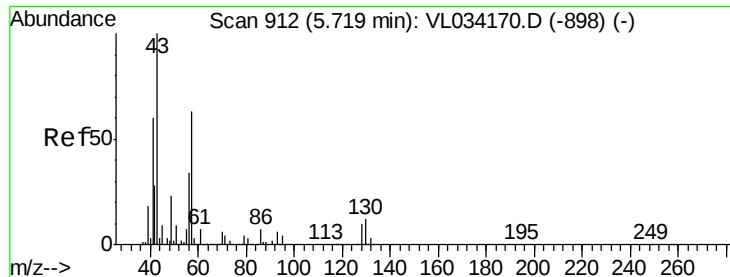
Abundance Ion 43.10 (42.80 to 43.80): VL0

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

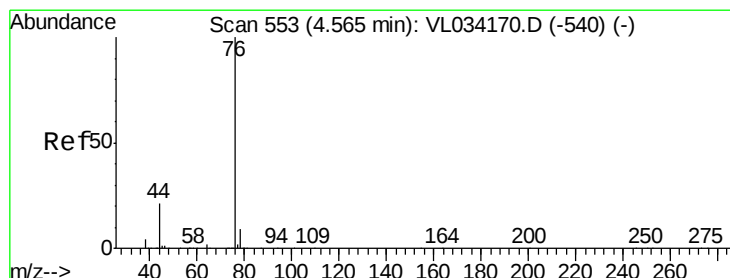
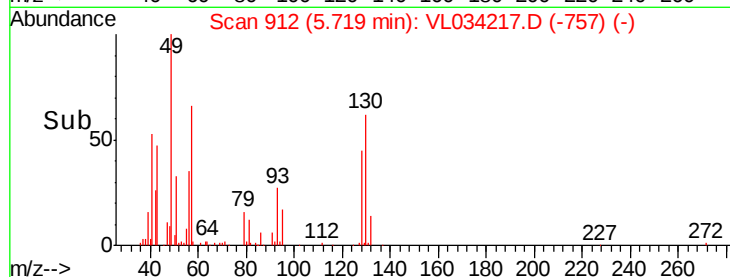
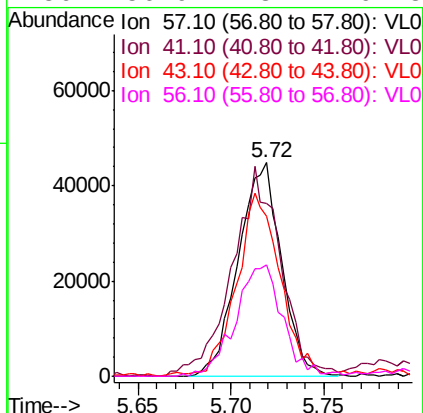
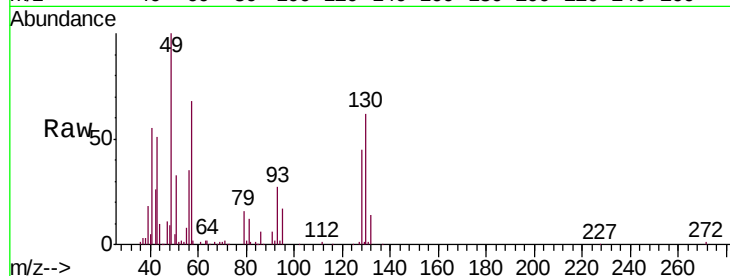




#26
Hexane
Concen: 0.769 ppbv
RT: 5.72 min Scan# 912
Delta R.T. -0.00 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

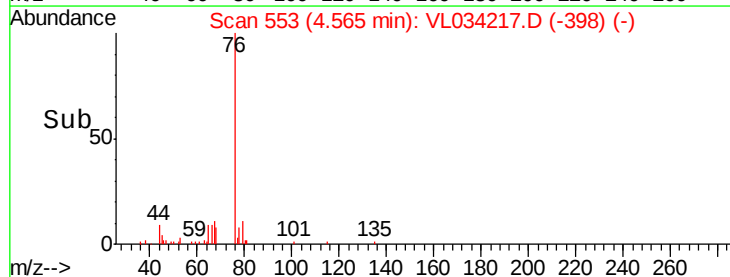
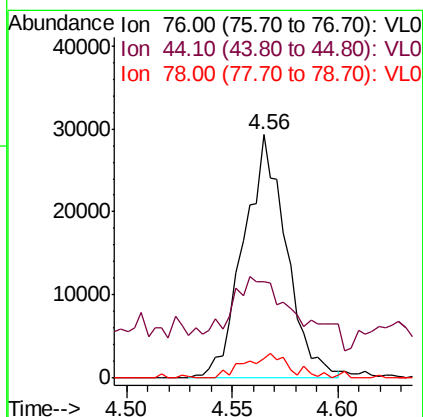
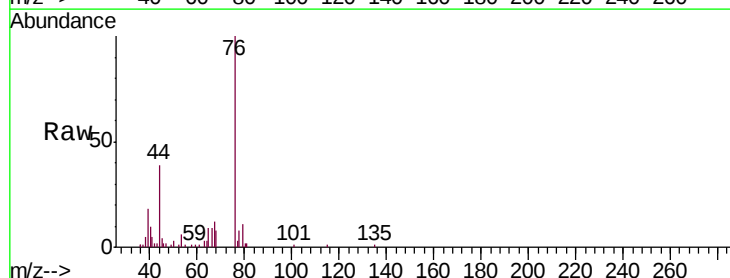
Instrument :
MSVOA_L
ClientSampleId :
SV-4DL

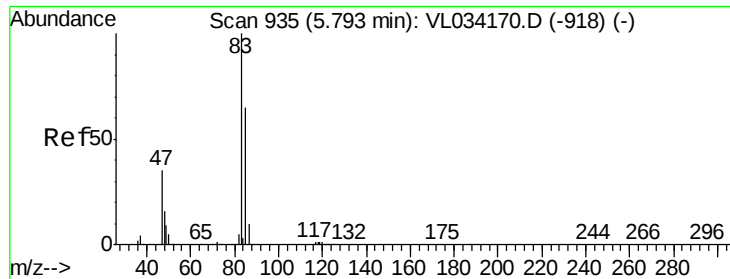
Tgt Ion:	57	Resp:	72563
Ion	Ratio	Lower	Upper
57	100		
41	110.3	78.5	117.7
43	85.6	189.5	284.3#
56	56.9	43.2	64.8



#27
Carbon Disulfide
Concen: 0.474 ppbv
RT: 4.56 min Scan# 553
Delta R.T. -0.00 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

Tgt Ion:	76	Resp:	41227
Ion	Ratio	Lower	Upper
76	100		
44	49.1	17.6	26.4#
78	11.7	7.6	11.4#





#29

Chloroform

Concen: 1.962 ppbv

RT: 5.78 min Scan# 931

Delta R.T. -0.01 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

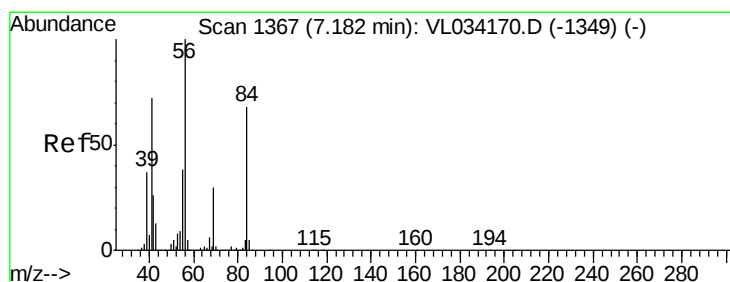
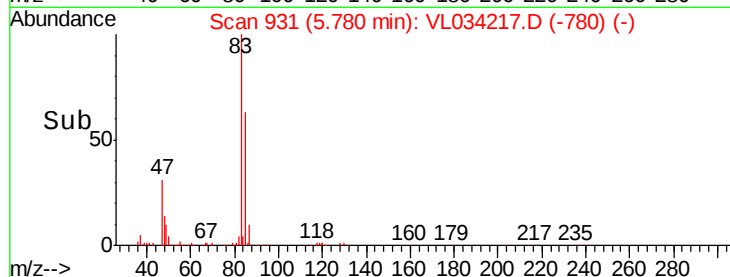
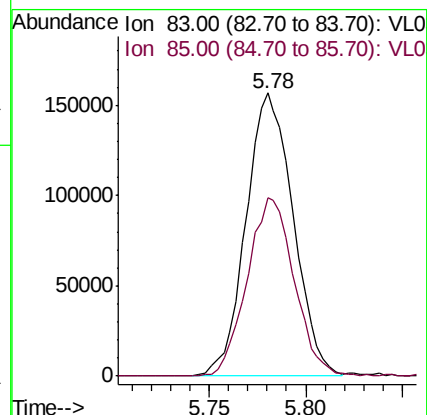
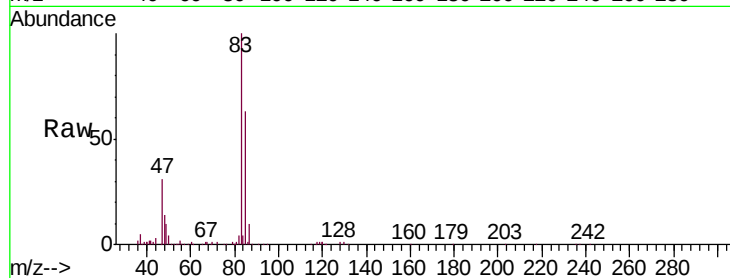
SV-4DL

Tgt Ion: 83 Resp: 264422

Ion Ratio Lower Upper

83 100

85 63.3 52.3 78.5



#30

Cyclohexane

Concen: 0.148 ppbv

RT: 7.18 min Scan# 1365

Delta R.T. -0.01 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

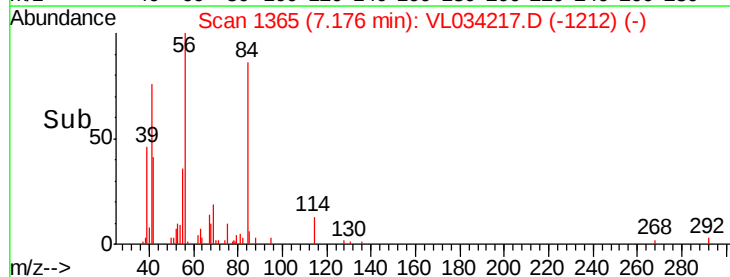
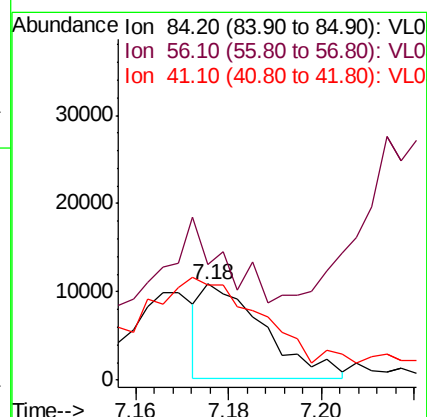
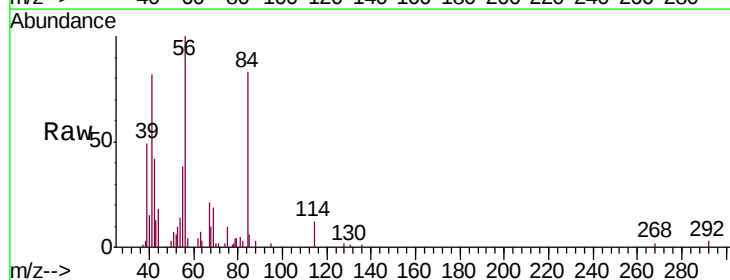
Tgt Ion: 84 Resp: 10087

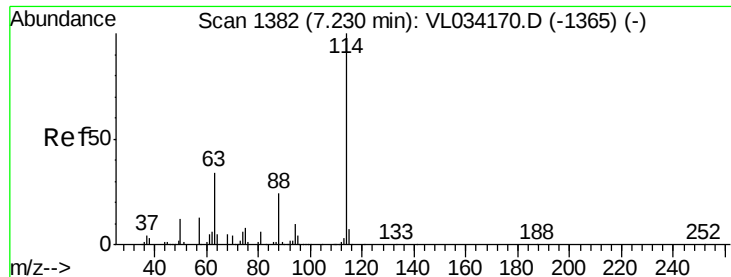
Ion Ratio Lower Upper

84 100

56 302.8 126.2 189.2#

41 260.0 85.8 128.8#

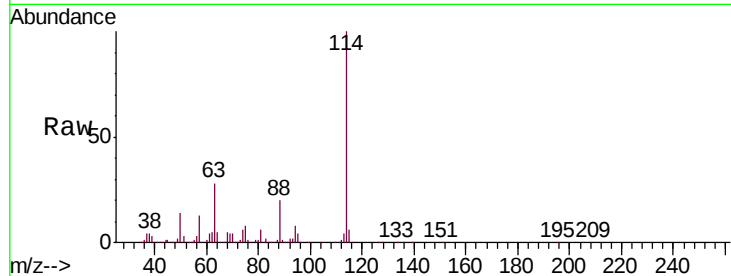




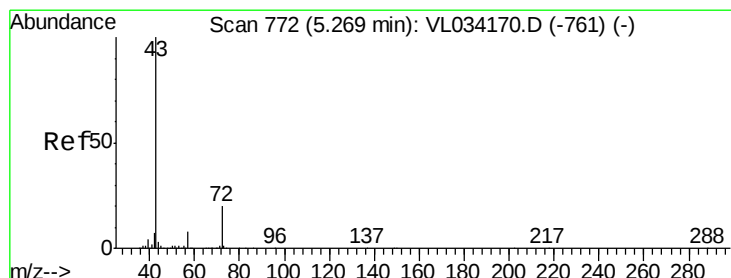
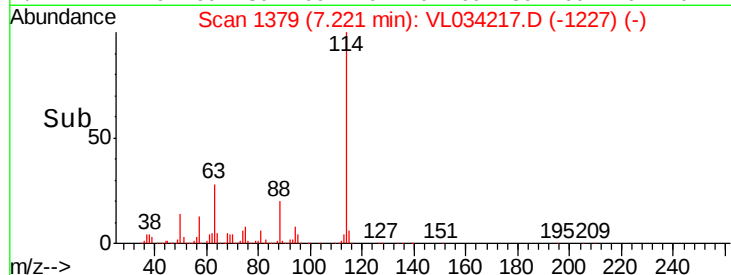
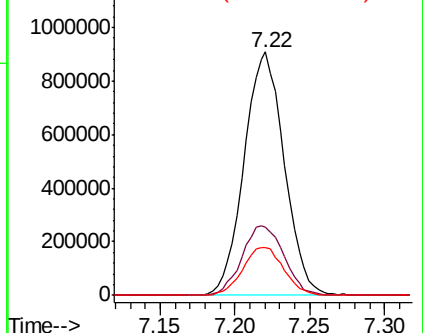
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.22 min Scan# 1379
 Delta R.T. -0.01 min
 Lab File: VL034217.D
 Acq: 2 Oct 2019 19:11

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-4DL

Tgt Ion:114 Resp: 1695568
 Ion Ratio Lower Upper
 114 100
 63 30.1 27.8 41.6
 88 20.2 17.1 25.7

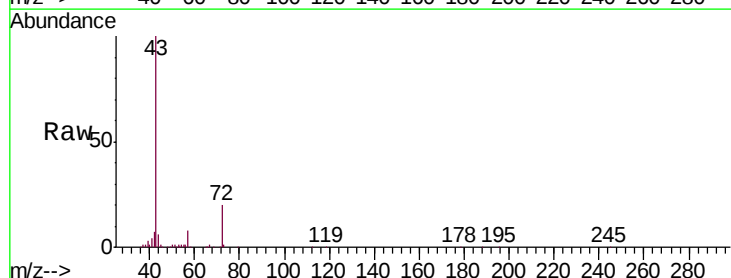


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

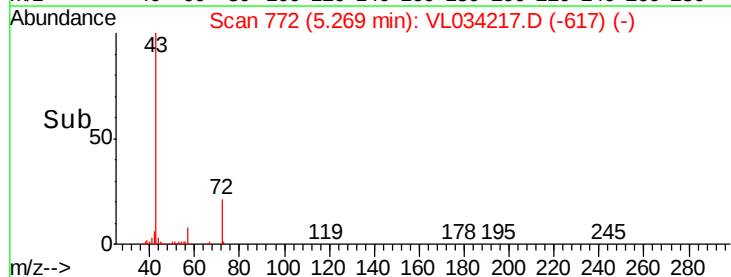
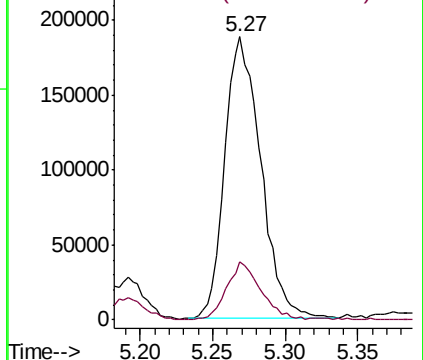


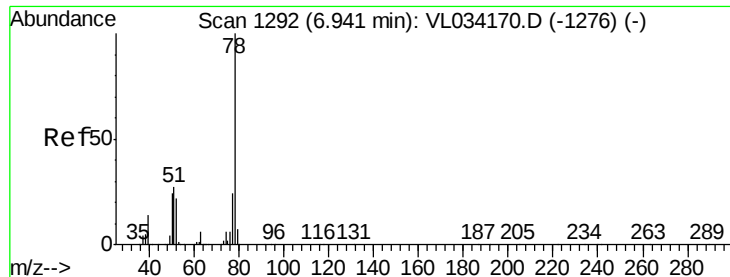
#34
 2-Butanone
 Concen: 1.866 ppbv
 RT: 5.27 min Scan# 772
 Delta R.T. -0.00 min
 Lab File: VL034217.D
 Acq: 2 Oct 2019 19:11

Tgt Ion: 43 Resp: 323127
 Ion Ratio Lower Upper
 43 100
 72 19.9 15.0 22.6



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.563 ppbv

RT: 6.93 min Scan# 1289

Delta R.T. -0.01 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

SV-4DL

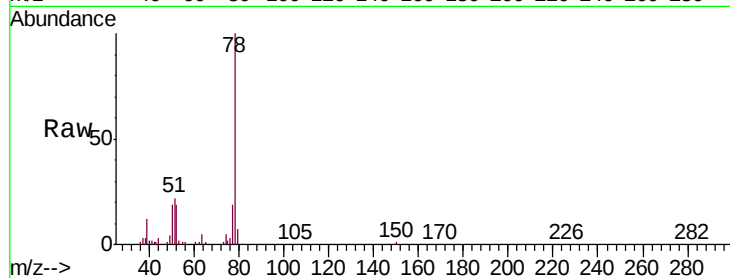
Tgt Ion: 78 Resp: 105449

Ion Ratio Lower Upper

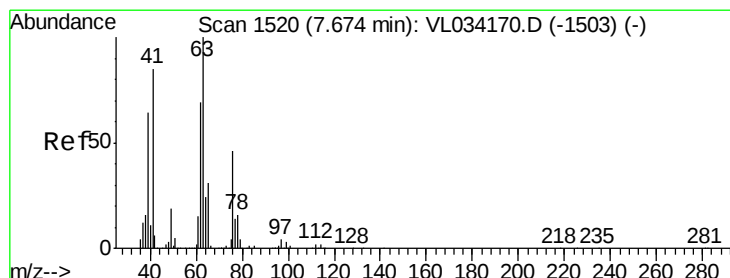
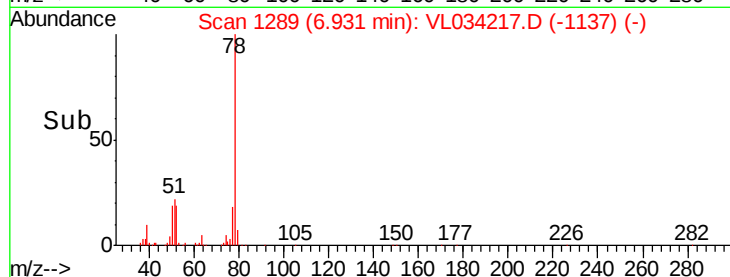
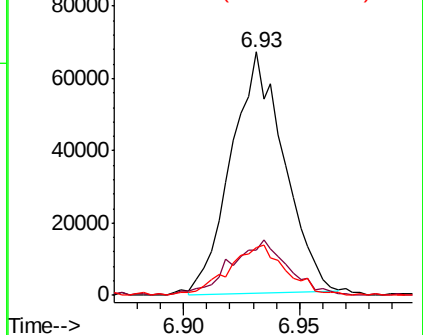
78 100

77 18.2 19.0 28.4#

50 18.4 18.9 28.3#



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 6.023 ppbv

RT: 7.22 min Scan# 1378

Delta R.T. -0.46 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

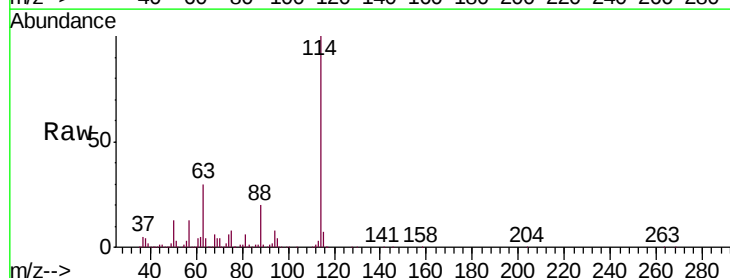
Tgt Ion: 63 Resp: 506760

Ion Ratio Lower Upper

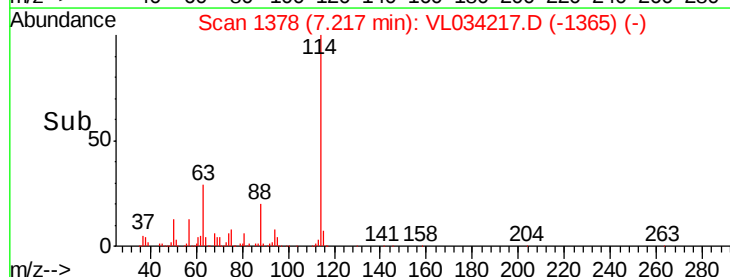
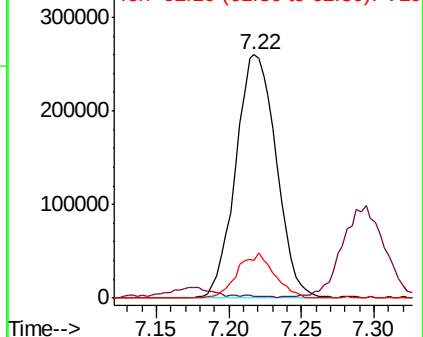
63 100

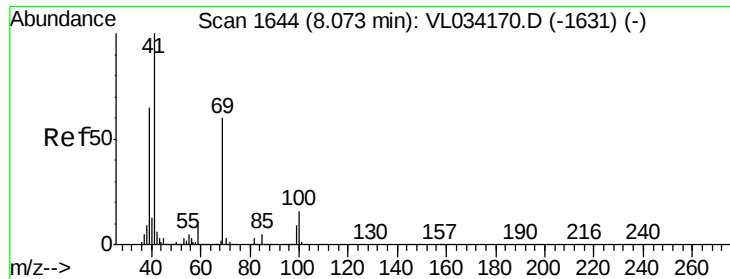
41 0.0 68.4 102.6#

62 15.5 55.4 83.2#



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

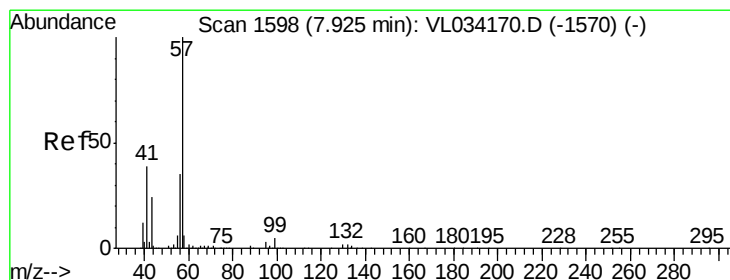
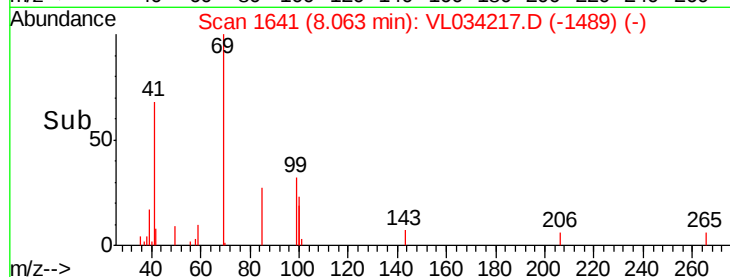
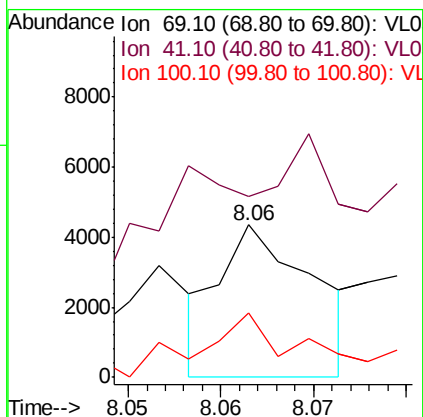
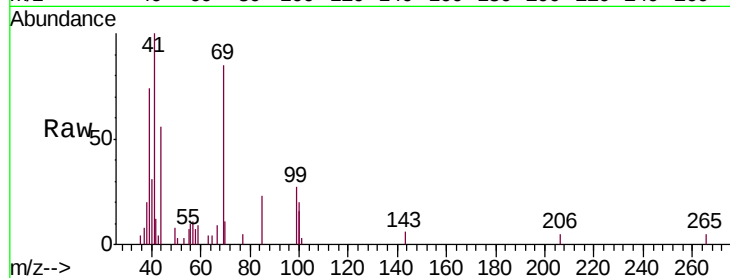




#43
Methyl Methacrylate
Concen: 0.039 ppbv
RT: 8.06 min Scan# 1641
Delta R.T. -0.01 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

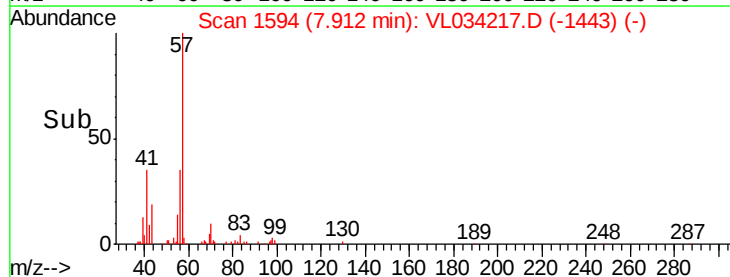
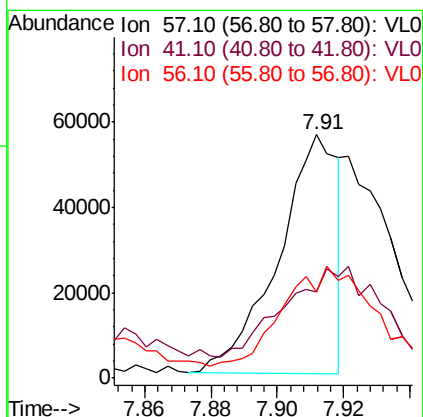
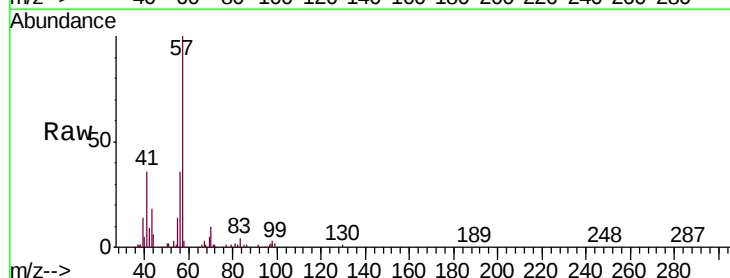
Instrument :
MSVOA_L
ClientSampleId :
SV-4DL

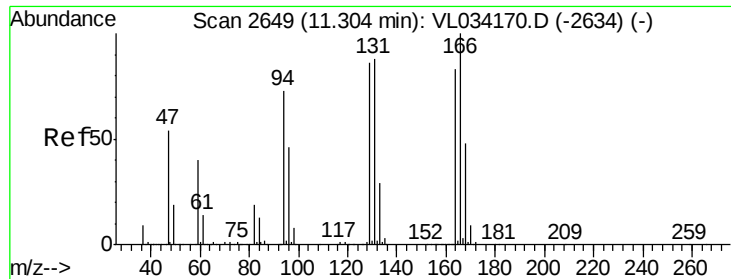
Tgt Ion: 69 Resp: 3039
Ion Ratio Lower Upper
69 100
41 379.0 140.4 210.6#
100 67.5 21.9 32.9#



#44
2,2,4-Trimethylpentane
Concen: 0.194 ppbv
RT: 7.91 min Scan# 1594
Delta R.T. -0.01 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

Tgt Ion: 57 Resp: 70067
Ion Ratio Lower Upper
57 100
41 0.0 29.8 44.6#
56 81.1 25.9 38.9#





#52

Tetrachloroethene

Concen: 2.383 ppbv

RT: 11.29 min Scan# 2645

Delta R.T. -0.01 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

SV-4DL

Tgt Ion:164 Resp: 147433

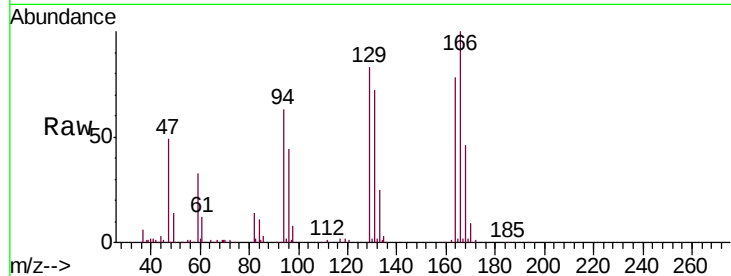
Ion Ratio Lower Upper

164 100

166 127.7 96.7 145.1

129 106.5 82.8 124.2

131 91.5 85.0 127.6

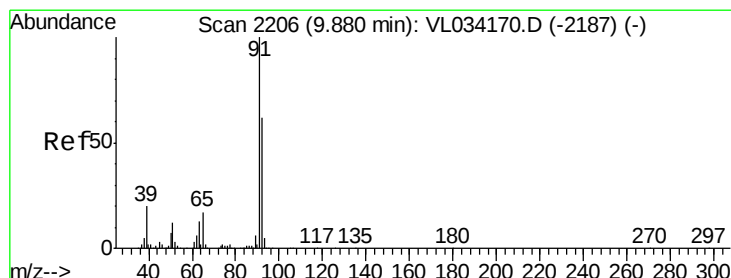
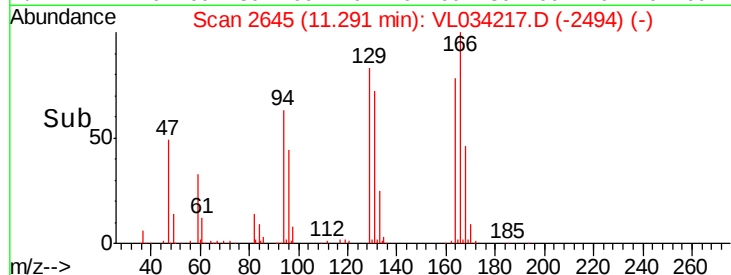
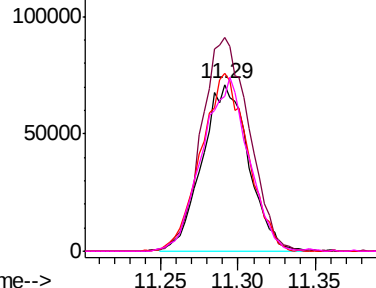


Abundance Ion 163.90 (163.60 to 164.60): V

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: 1.483 ppbv

RT: 9.86 min Scan# 2201

Delta R.T. -0.02 min

Lab File: VL034217.D

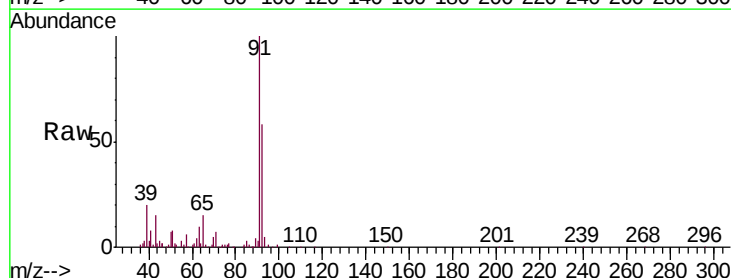
Acq: 2 Oct 2019 19:11

Tgt Ion: 91 Resp: 303600

Ion Ratio Lower Upper

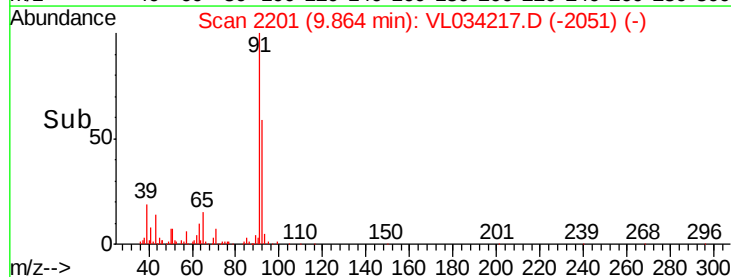
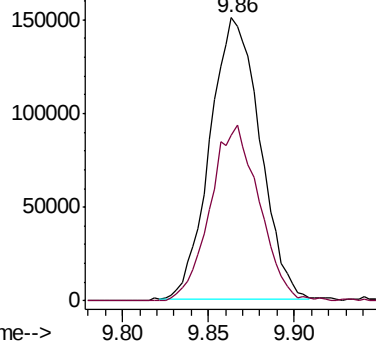
91 100

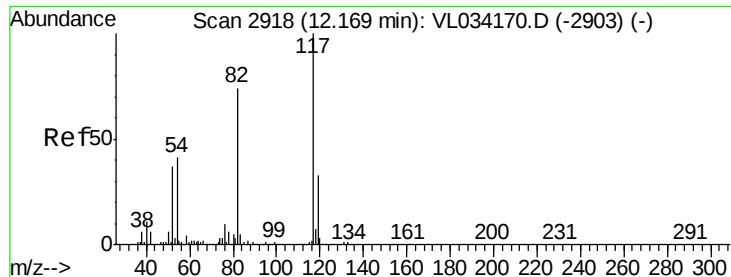
92 61.4 49.0 73.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

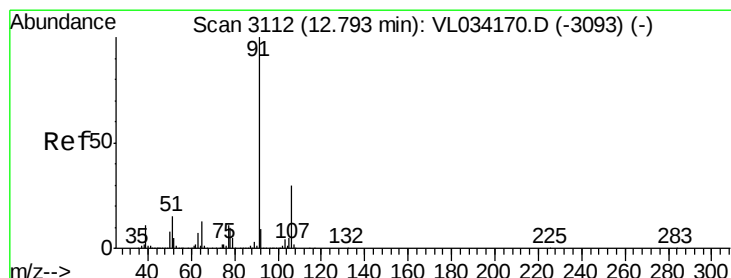
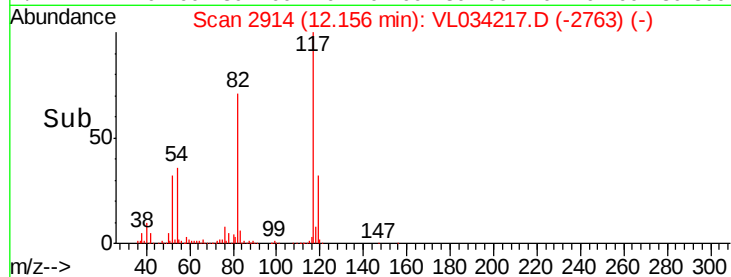
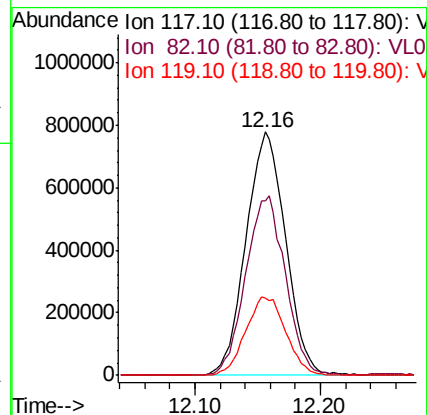
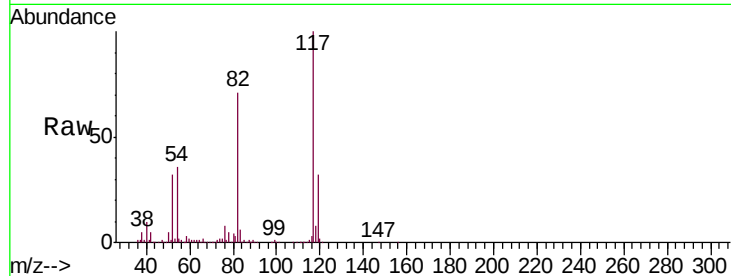




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.16 min Scan# 2914
Delta R.T. -0.01 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

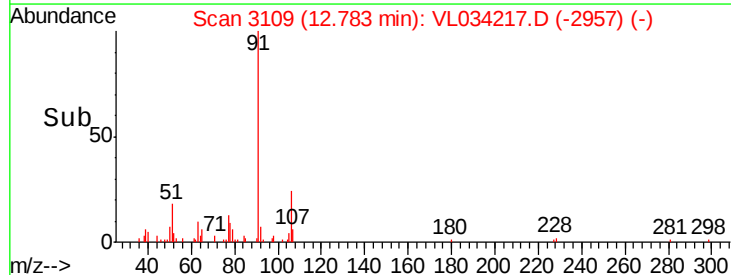
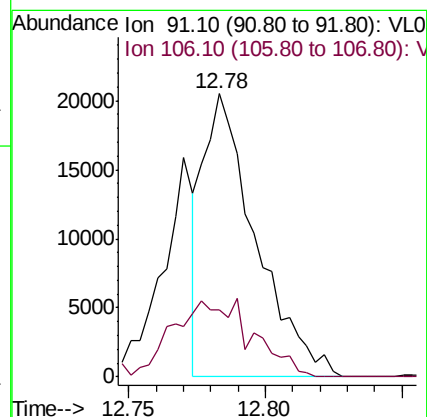
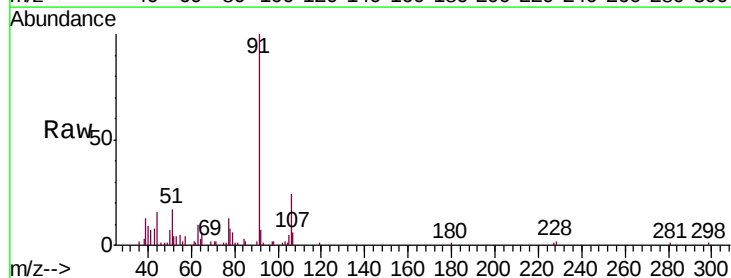
Instrument :
MSVOA_L
ClientSampleId :
SV-4DL

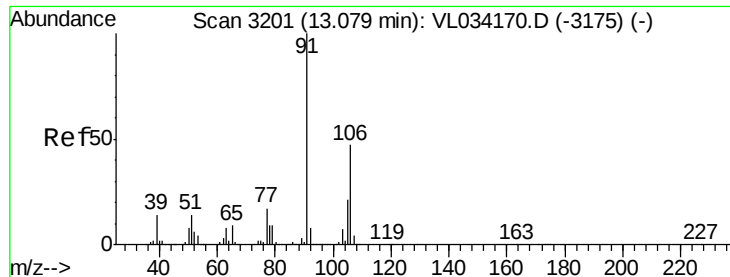
Tgt Ion:117 Resp: 1708456
Ion Ratio Lower Upper
117 100
82 74.0 58.2 87.4
119 33.0 23.7 35.5



#58
Ethyl Benzene
Concen: 0.099 ppbv
RT: 12.78 min Scan# 3109
Delta R.T. -0.01 min
Lab File: VL034217.D
Acq: 2 Oct 2019 19:11

Tgt Ion: 91 Resp: 27415
Ion Ratio Lower Upper
91 100
106 29.7 24.2 36.4





#59

m/p-Xylene

Concen: 0.069 ppbv

RT: 13.07 min Scan# 3198

Delta R.T. -0.01 min

Lab File: VL034217.D

Acq: 2 Oct 2019 19:11

Instrument :

MSVOA_L

ClientSampleId :

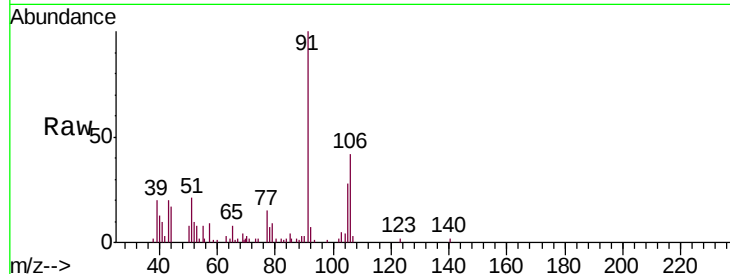
SV-4DL

Tgt Ion: 91 Resp: 15717

Ion Ratio Lower Upper

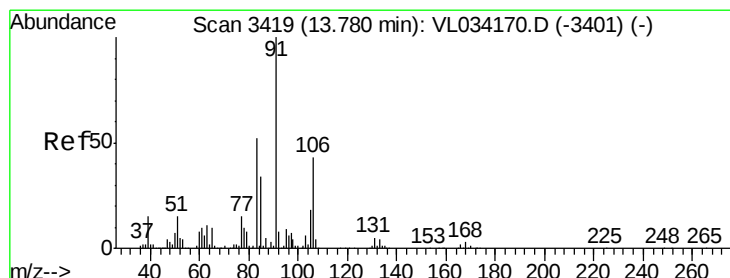
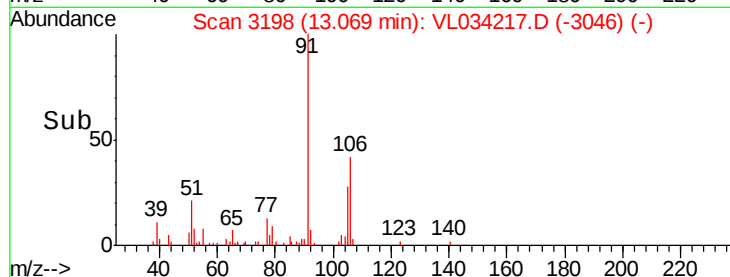
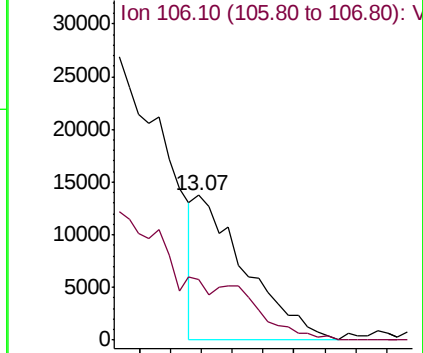
91 100

106 0.0 35.5 53.3#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.076 ppbv

RT: 13.77 min Scan# 3416

Delta R.T. -0.01 min

Lab File: VL034217.D

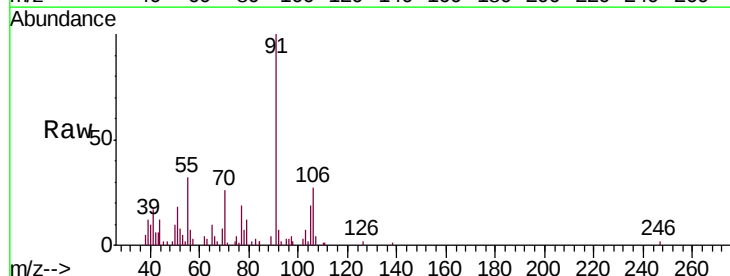
Acq: 2 Oct 2019 19:11

Tgt Ion: 91 Resp: 17332

Ion Ratio Lower Upper

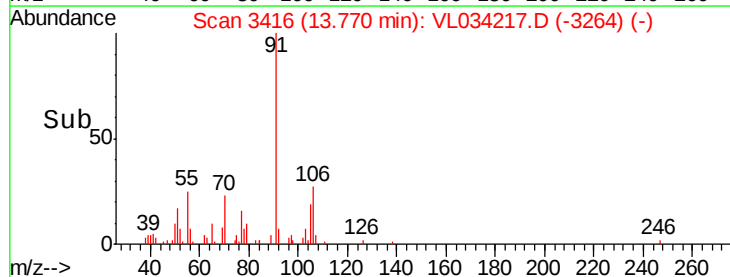
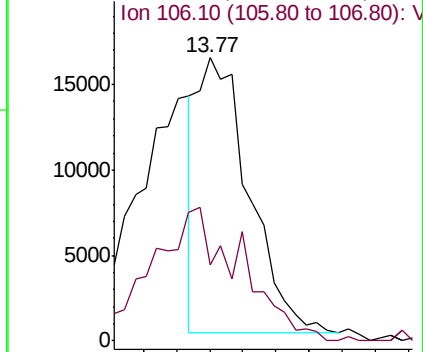
91 100

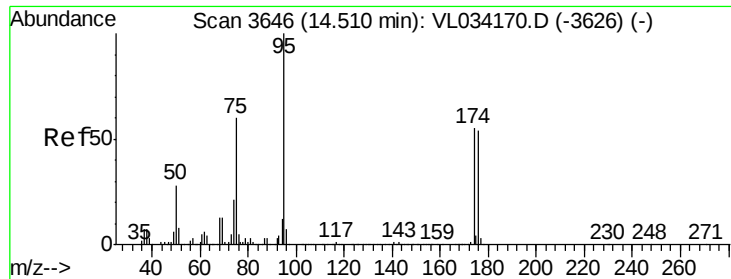
106 85.2 21.2 63.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

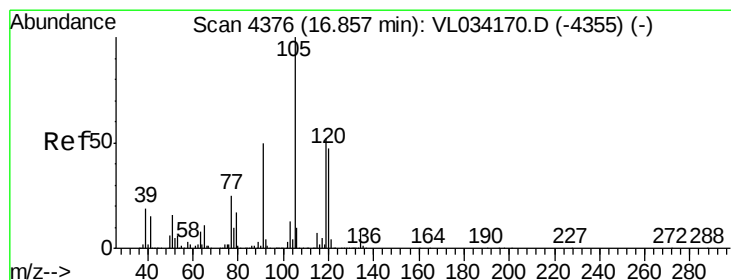
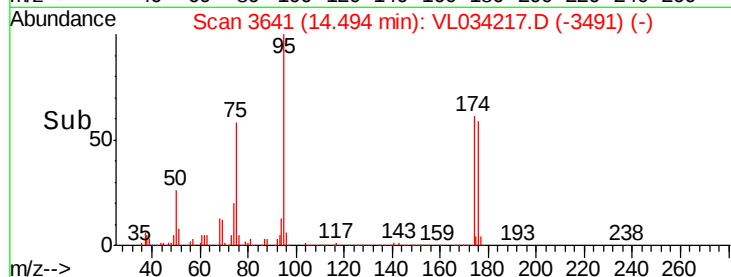
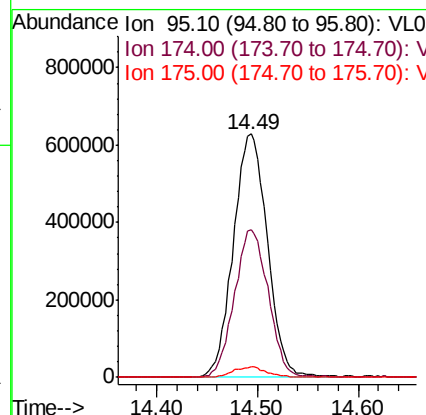
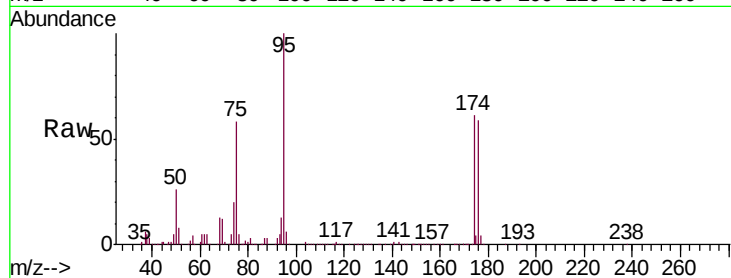




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.907 ppbv
 RT: 14.49 min Scan# 3641
 Delta R.T. -0.02 min
 Lab File: VL034217.D
 Acq: 2 Oct 2019 19:11

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-4DL

Tgt Ion: 95 Resp: 1470736
 Ion Ratio Lower Upper
 95 100
 174 60.9 45.1 67.7
 175 4.2 3.3 4.9



#74
 1,2,4-Trimethylbenzene
 Concen: 0.073 ppbv
 RT: 16.84 min Scan# 4370
 Delta R.T. -0.02 min
 Lab File: VL034217.D
 Acq: 2 Oct 2019 19:11

Tgt Ion: 105 Resp: 19231
 Ion Ratio Lower Upper
 105 100
 120 44.4 37.5 56.3
 91 8.2 41.1 61.7#
 77 17.3 19.9 29.9#

