

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL081219\
 Data File : VL034112.D
 Acq On : 12 Aug 2019 22:16
 Operator : SY/AP
 Sample : K4296-01
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SRS-0807-VI1

Quant Time: Aug 13 04:05:47 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL080519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Aug 05 17:09:48 2019
 QLast Update : Mon Aug 05 17:09:48 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.71	49	1119383	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.24	114	2097735	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.17	117	2163762	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.52	95	1862045	10.61	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.10%

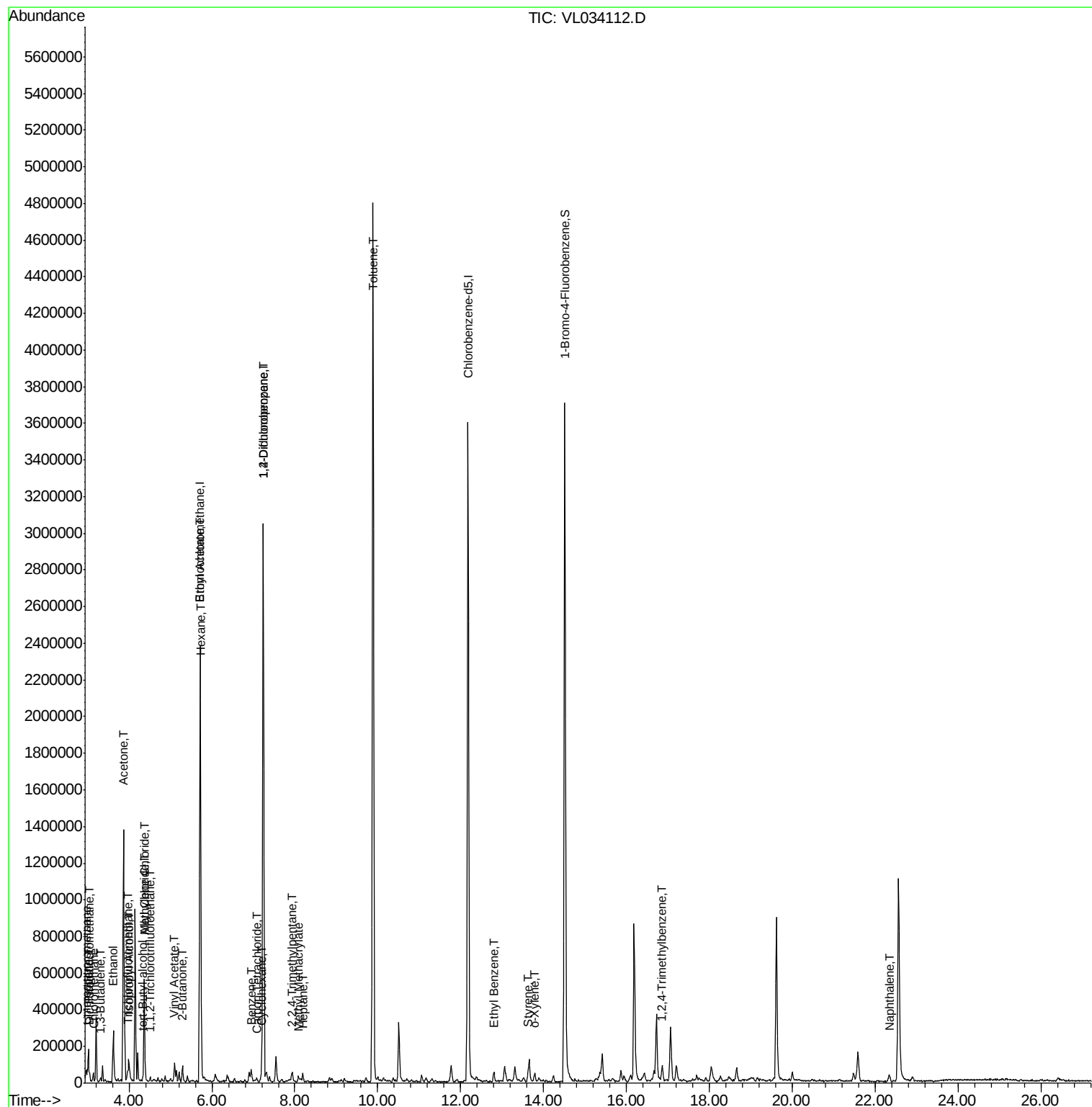
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.05	85	38464	0.279 ppbv	94
3) Chlorodifluoromethane	2.98	51	52649	0.407 ppbv	96
4) Chloromethane	3.14	50	37633	0.451 ppbv #	82
9) Propene	3.02	41	34301	0.449 ppbv #	77
10) Heptane	8.19	43	21346	0.108 ppbv	98
11) Trichlorofluoromethane	3.97	101	36833	0.226 ppbv	88
12) 1,1,2-Trichlorotrifluoroet	4.51	101	6462	0.056 ppbv	96
13) Ethanol	3.62	45	311674	14.492 ppbv	98
15) Acetone	3.86	43	1459107	9.122 ppbv	99
16) 1,3-Butadiene	3.32	39	2386	0.031 ppbv	98
17) tert-Butyl alcohol	4.33	59	4759	0.032 ppbv #	72
19) Isopropyl Alcohol	3.99	45	135162	1.085 ppbv #	1
20) Methylene Chloride	4.37	84	171726	3.580 ppbv	92
21) Allyl Chloride	4.37	41	5966	0.054 ppbv #	84
23) Vinyl Acetate	5.10	43	54414	0.205 ppbv #	53
25) Ethyl Acetate	5.72	43	279722	0.889 ppbv #	92
26) Hexane	5.73	57	229303	1.719 ppbv #	59
30) Cyclohexane	7.19	84	6040	0.057 ppbv #	1
34) 2-Butanone	5.29	43	102401	0.525 ppbv	98
35) Carbon Tetrachloride	7.08	117	8486	0.053 ppbv #	66
36) Benzene	6.95	78	40637	0.170 ppbv #	92
39) 1,2-Dichloropropane	7.24	63	638691	6.639 ppbv #	24
43) Methyl Methacrylate	8.08	69	3244	0.033 ppbv #	1
44) 2,2,4-Trimethylpentane	7.94	57	39676	0.093 ppbv #	75
53) Toluene	9.88	91	3808578	13.842 ppbv	99
58) Ethyl Benzene	12.80	91	22679	0.062 ppbv	100
60) o-Xylene	13.79	91	19532	0.067 ppbv #	50
61) Styrene	13.62	104	14463	0.062 ppbv #	70
74) 1,2,4-Trimethylbenzene	16.86	105	37842	0.110 ppbv #	72
79) Naphthalene	22.33	128	11052	0.031 ppbv #	86

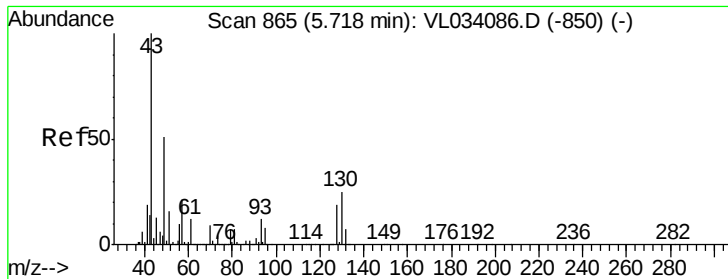
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.71 min Scan# 863

Delta R.T. -0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Instrument :

MSVOA_L

ClientSampleId :

SRS-0807-VI1

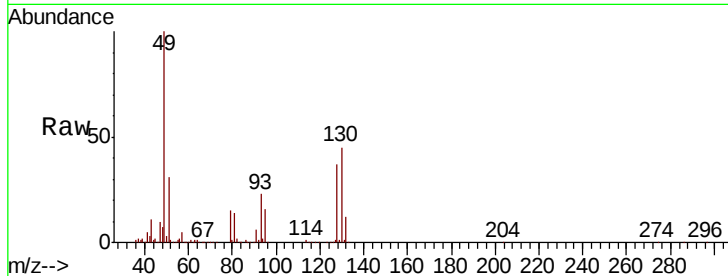
Tgt Ion: 49 Resp: 1119383

Ion Ratio Lower Upper

49 100

128 37.6 19.5 58.5

130 47.8 25.4 76.0



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

800000

600000

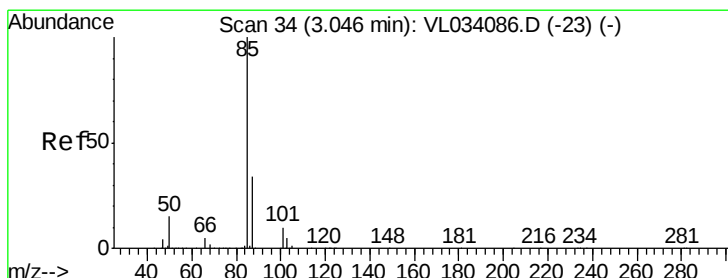
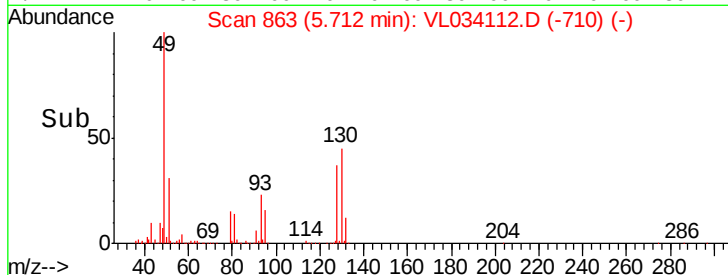
400000

200000

0

5.65 5.70 5.75

Time-->



#2

Dichlorodifluoromethane

Concen: 0.279 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.00 min

Lab File: VL034112.D

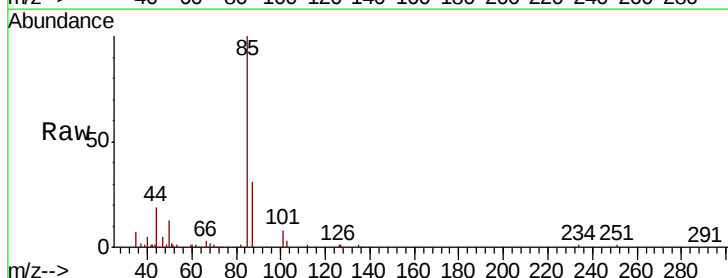
Acq: 12 Aug 2019 22:16

Tgt Ion: 85 Resp: 38464

Ion Ratio Lower Upper

85 100

87 30.7 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

40000

30000

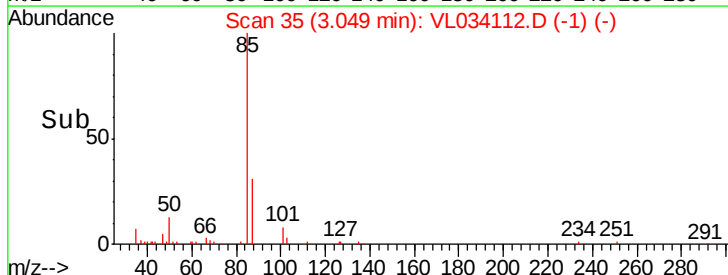
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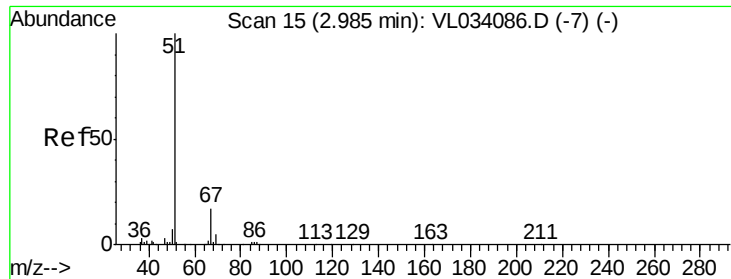
10000

0

3.00 3.05 3.10

Time-->

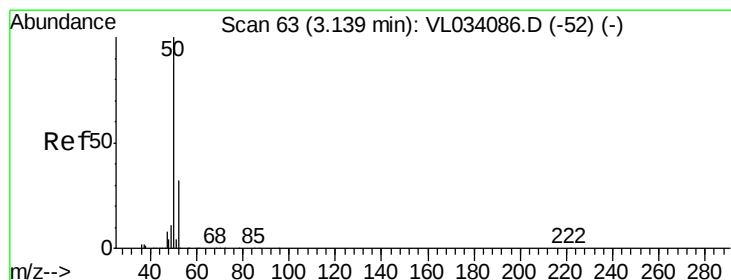
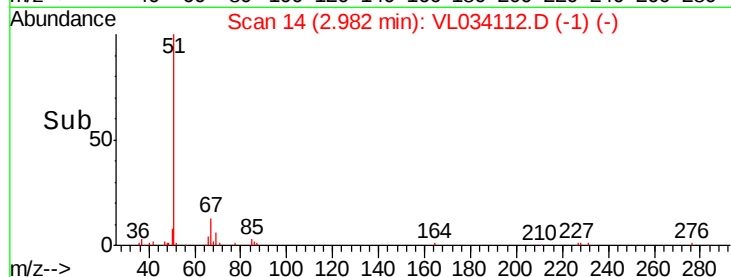
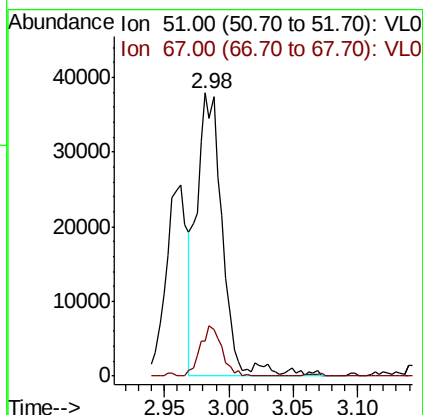
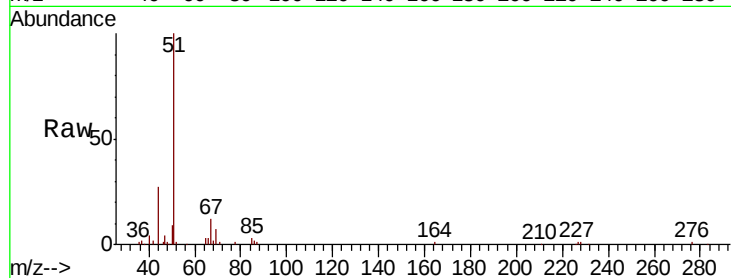




#3
Chlorodifluoromethane
Concen: 0.407 ppbv
RT: 2.98 min Scan# 14
Delta R.T. -0.00 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

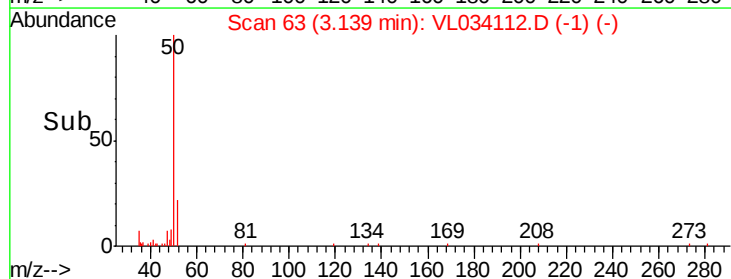
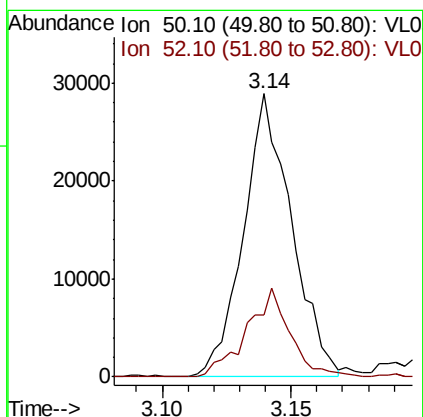
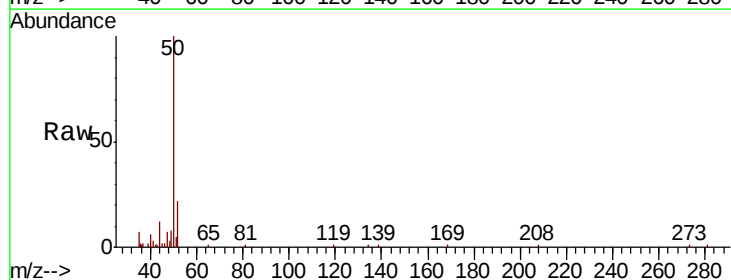
Instrument :
MSVOA_L
ClientSampleId :
SRS-0807-VI1

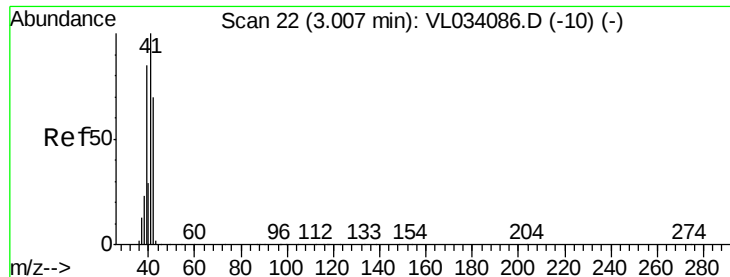
Tgt Ion: 51 Resp: 52649
Ion Ratio Lower Upper
51 100
67 14.9 13.3 19.9



#4
Chloromethane
Concen: 0.451 ppbv
RT: 3.14 min Scan# 63
Delta R.T. -0.00 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

Tgt Ion: 50 Resp: 37633
Ion Ratio Lower Upper
50 100
52 22.1 25.7 38.5#





#9

Propene

Concen: 0.449 ppbv

RT: 3.02 min Scan# 26

Delta R.T. 0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Instrument :

MSVOA_L

ClientSampleId :

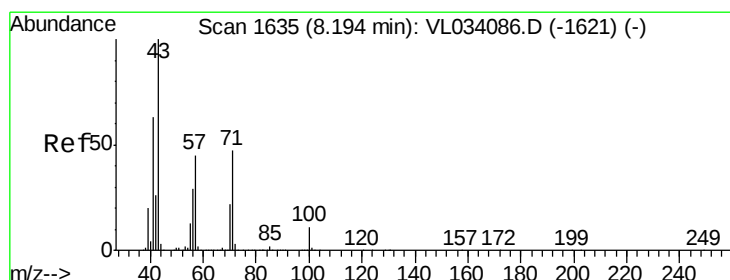
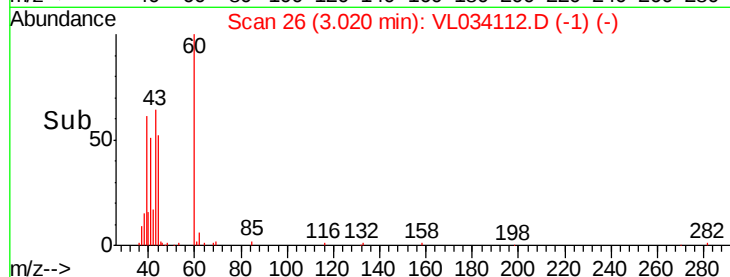
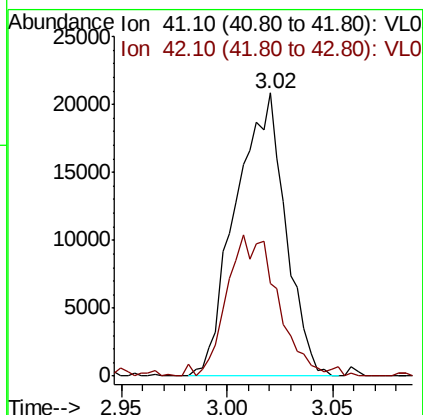
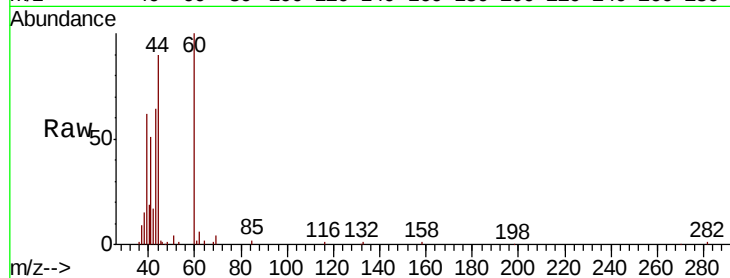
SRS-0807-VI1

Tgt Ion: 41 Resp: 34301

Ion Ratio Lower Upper

41 100

42 51.2 55.8 83.6#



#10

Heptane

Concen: 0.108 ppbv

RT: 8.19 min Scan# 1634

Delta R.T. -0.00 min

Lab File: VL034112.D

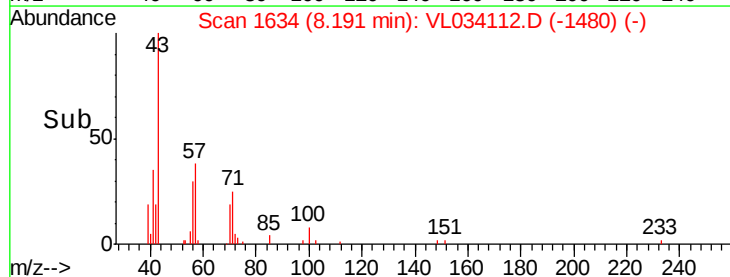
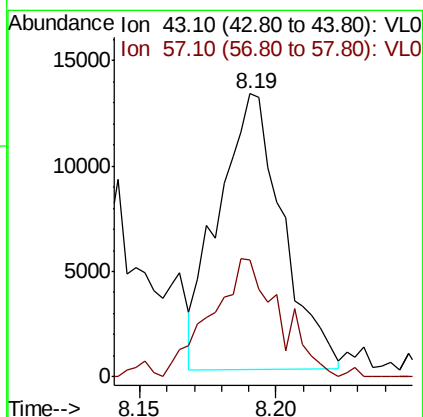
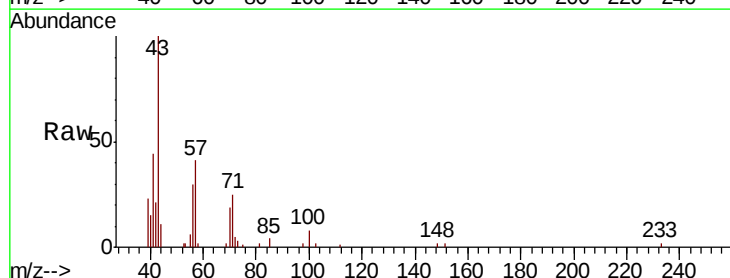
Acq: 12 Aug 2019 22:16

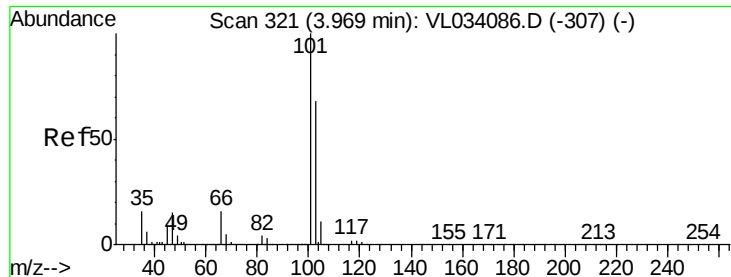
Tgt Ion: 43 Resp: 21346

Ion Ratio Lower Upper

43 100

57 47.5 37.2 55.8

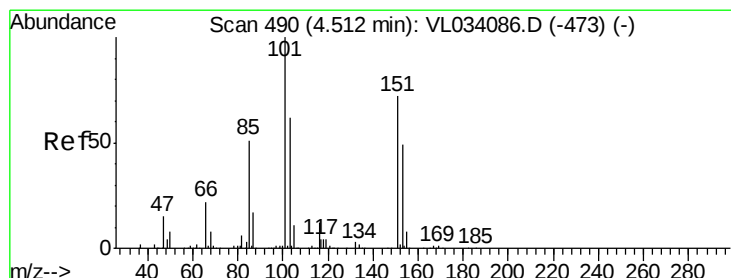
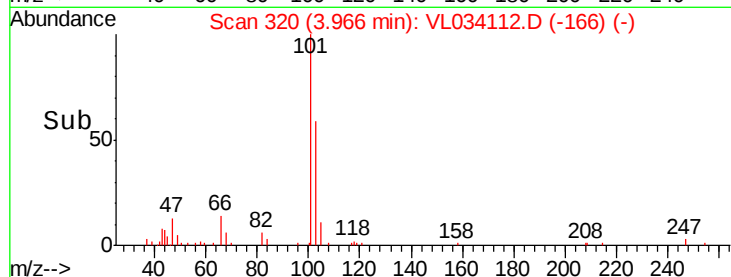
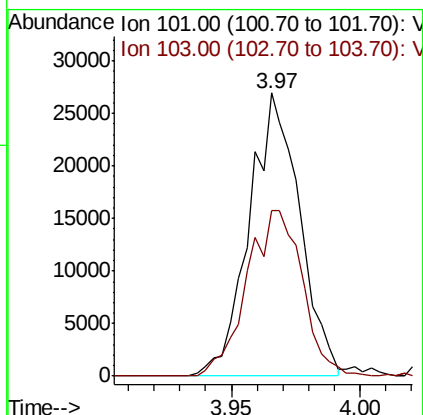
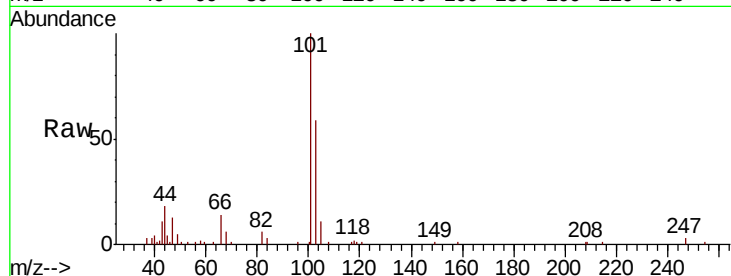




#11
 Trichlorofluoromethane
 Concen: 0.226 ppbv
 RT: 3.97 min Scan# 320
 Delta R.T. -0.00 min
 Lab File: VL034112.D
 Acq: 12 Aug 2019 22:16

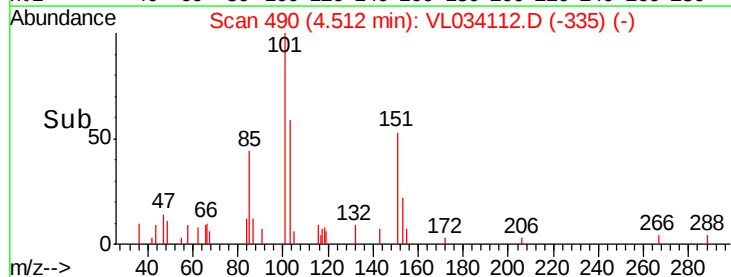
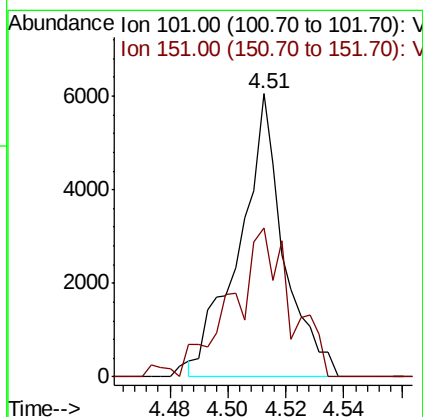
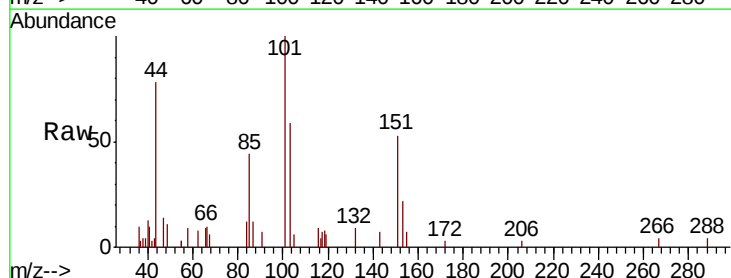
Instrument :
 MSVOA_L
 ClientSampleId :
 SRS-0807-VI1

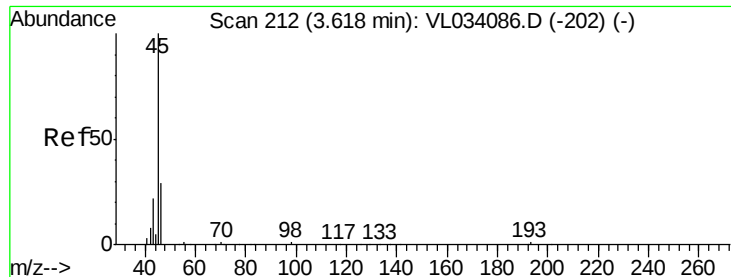
Tgt Ion:101 Resp: 36833
 Ion Ratio Lower Upper
 101 100
 103 58.6 54.3 81.5



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.056 ppbv
 RT: 4.51 min Scan# 490
 Delta R.T. -0.00 min
 Lab File: VL034112.D
 Acq: 12 Aug 2019 22:16

Tgt Ion:101 Resp: 6462
 Ion Ratio Lower Upper
 101 100
 151 70.7 59.4 89.0





#13

Ethanol

Concen: 14.492 ppbv

RT: 3.62 min Scan# 212

Delta R.T. -0.00 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Instrument :

MSVOA_L

ClientSampleId :

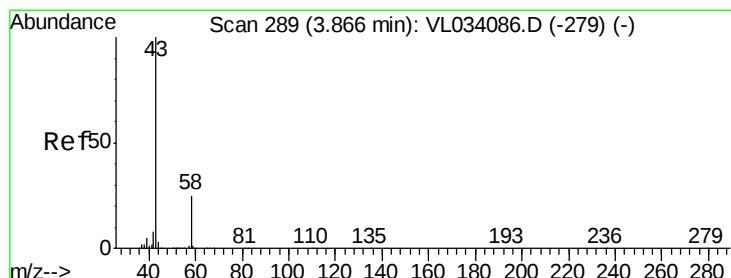
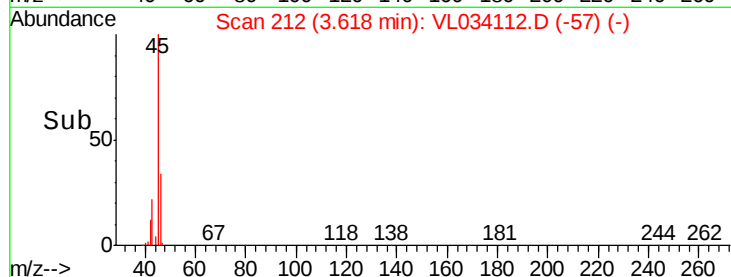
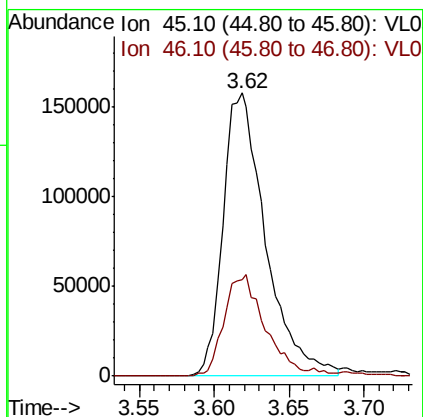
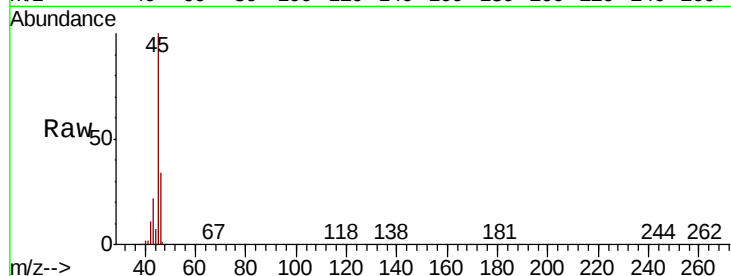
SRS-0807-VI1

Tgt Ion: 45 Resp: 311674

Ion Ratio Lower Upper

45 100

46 36.0 14.9 59.5



#15

Acetone

Concen: 9.122 ppbv

RT: 3.86 min Scan# 287

Delta R.T. -0.01 min

Lab File: VL034112.D

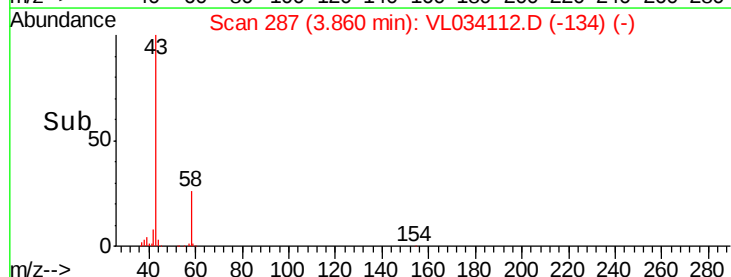
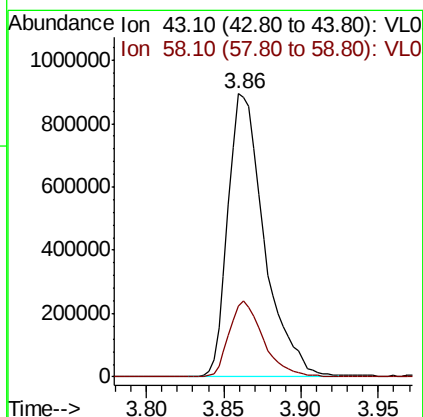
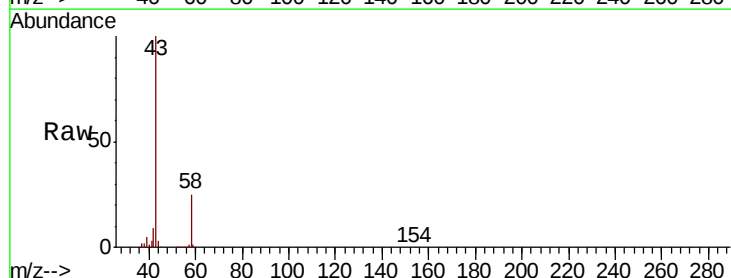
Acq: 12 Aug 2019 22:16

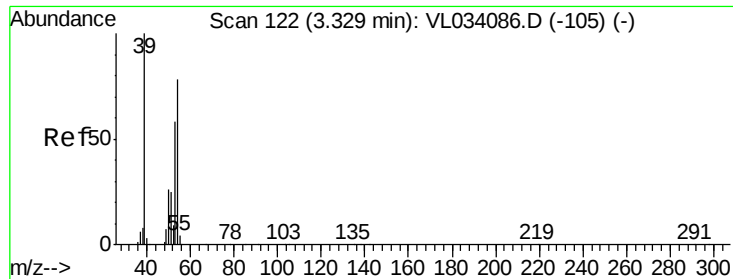
Tgt Ion: 43 Resp: 1459107

Ion Ratio Lower Upper

43 100

58 25.1 20.6 30.8

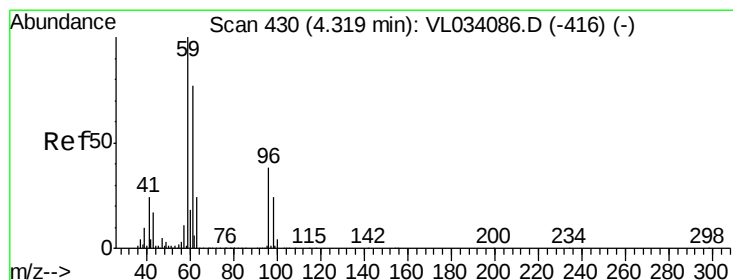
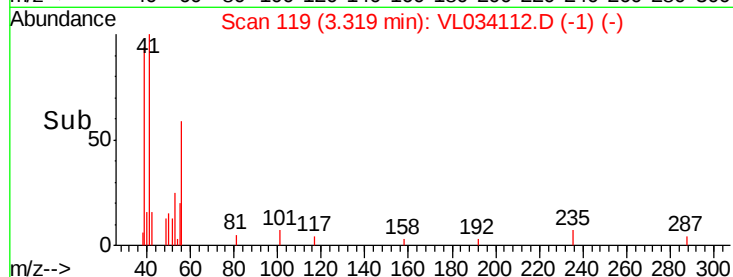
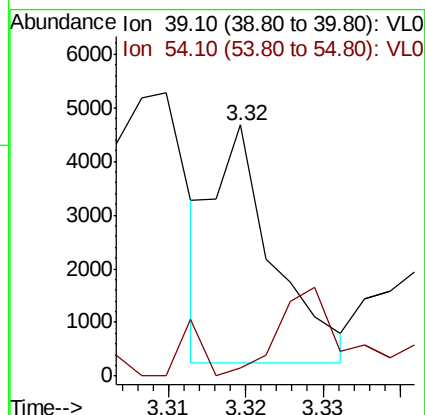
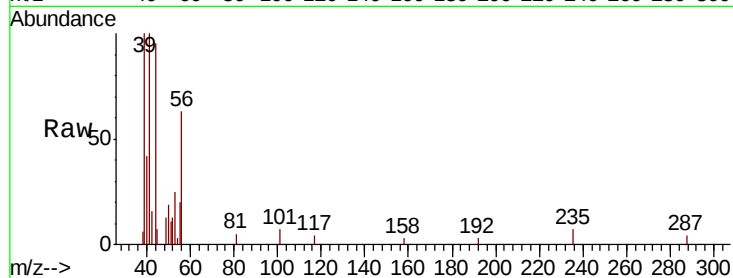




#16
 1,3-Butadiene
 Concen: 0.031 ppbv
 RT: 3.32 min Scan# 119
 Delta R.T. -0.01 min
 Lab File: VL034112.D
 Acq: 12 Aug 2019 22:16

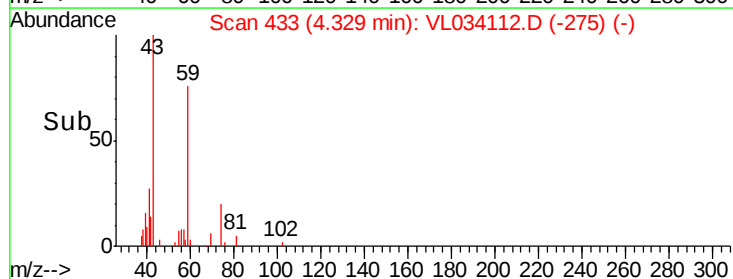
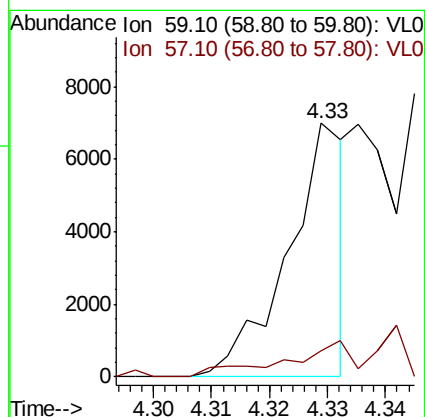
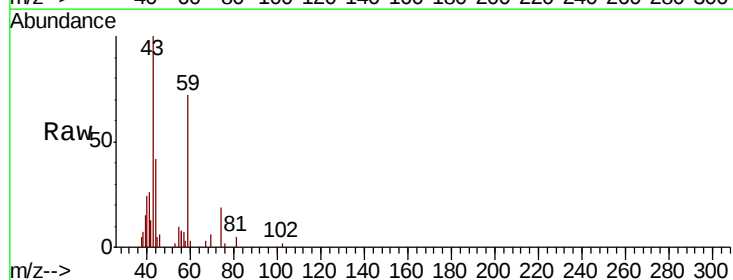
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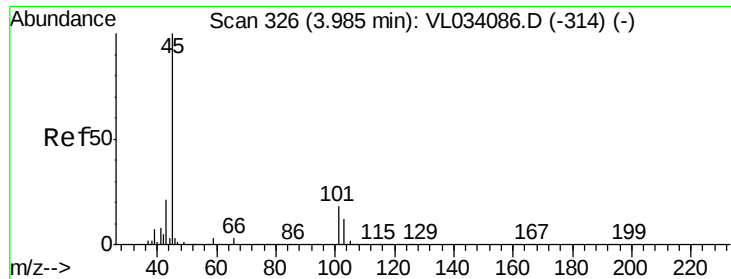
Tgt Ion: 39 Resp: 2386
 Ion Ratio Lower Upper
 39 100
 54 77.1 62.7 94.1



#17
 tert-Butyl alcohol
 Concen: 0.032 ppbv
 RT: 4.33 min Scan# 433
 Delta R.T. 0.01 min
 Lab File: VL034112.D
 Acq: 12 Aug 2019 22:16

Tgt Ion: 59 Resp: 4759
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 1.085 ppbv

RT: 3.99 min Scan# 329

Delta R.T. 0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Instrument :

MSVOA_L

ClientSampleId :

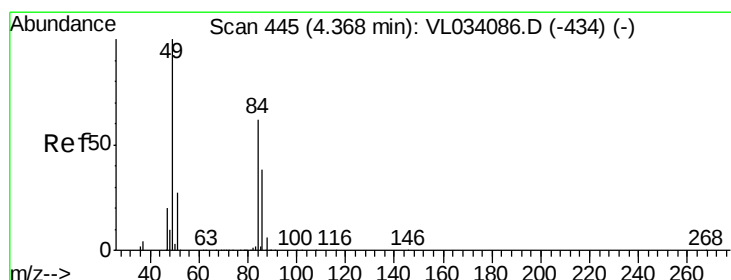
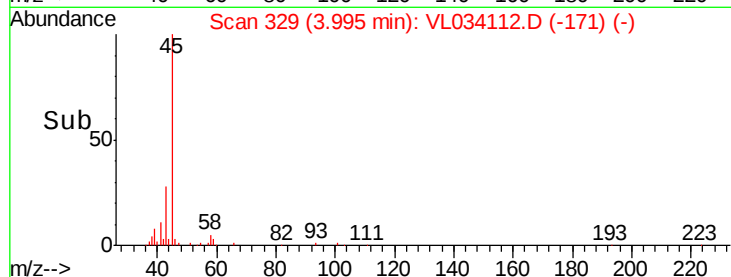
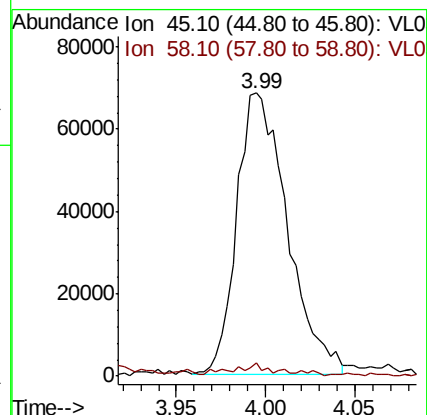
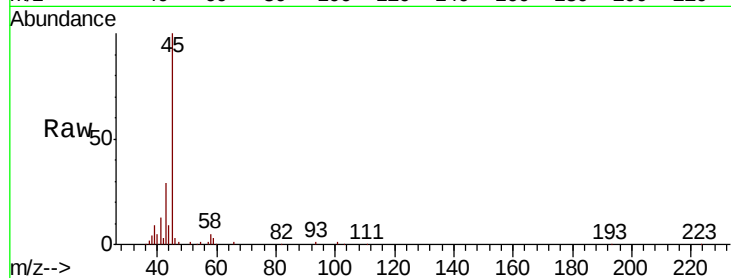
SRS-0807-VI1

Tgt Ion: 45 Resp: 135162

Ion Ratio Lower Upper

45 100

58 272.4 24.6 37.0#



#20

Methylene Chloride

Concen: 3.580 ppbv

RT: 4.37 min Scan# 445

Delta R.T. -0.00 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Tgt Ion: 84 Resp: 171726

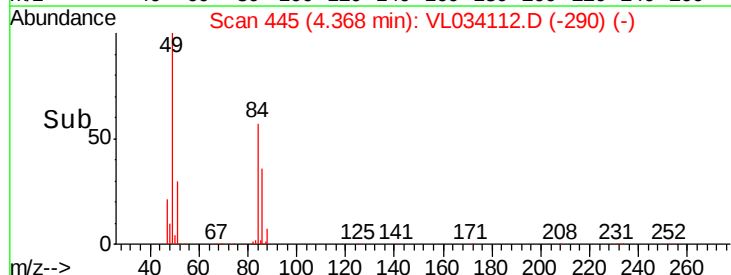
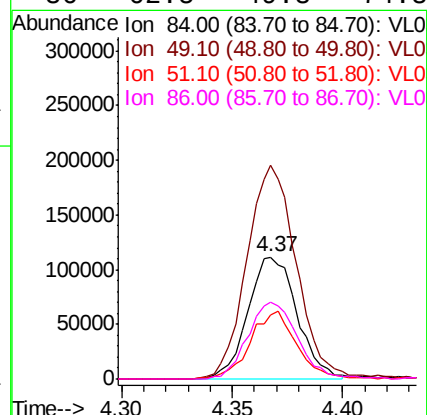
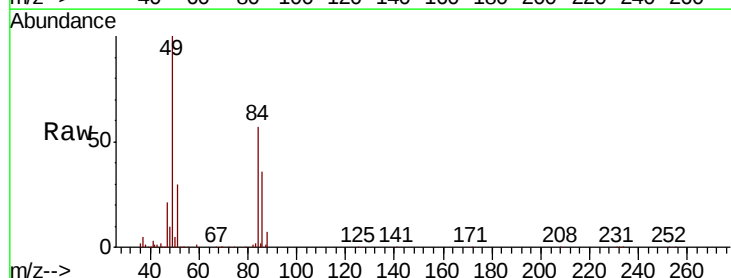
Ion Ratio Lower Upper

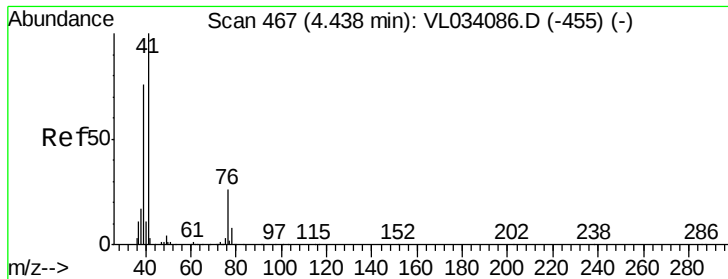
84 100

49 174.5 129.7 194.5

51 52.4 35.8 53.8

86 62.5 49.8 74.8





#21

Allyl Chloride

Concen: 0.054 ppbv

RT: 4.37 min Scan# 446

Delta R.T. -0.07 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

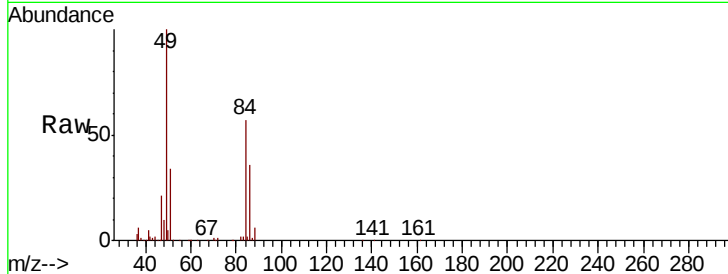
Instrument :

MSVOA_L

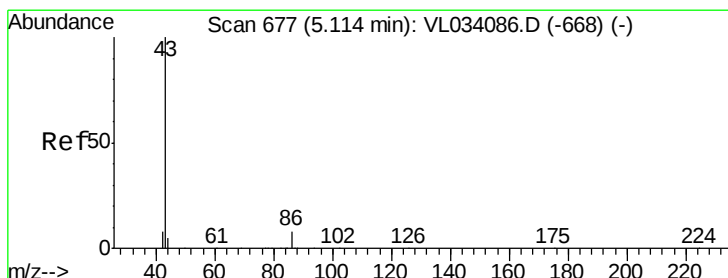
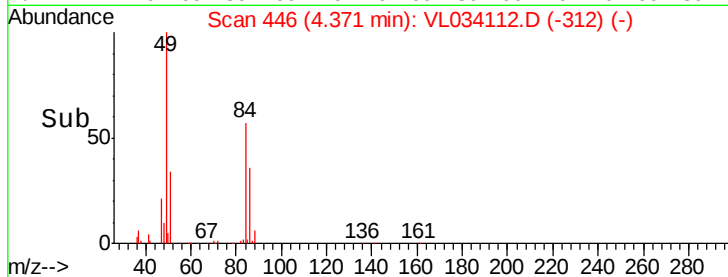
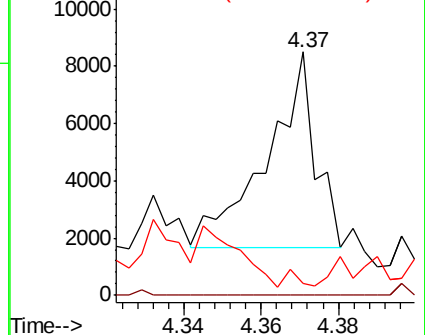
ClientSampleId :

SRS-0807-VI1

Tgt Ion:	41	Resp:	5966
Ion	Ratio	Lower	Upper
41	100		
76	0.0	20.8	31.2#
39	73.4	61.3	91.9



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0



#23

Vinyl Acetate

Concen: 0.205 ppbv

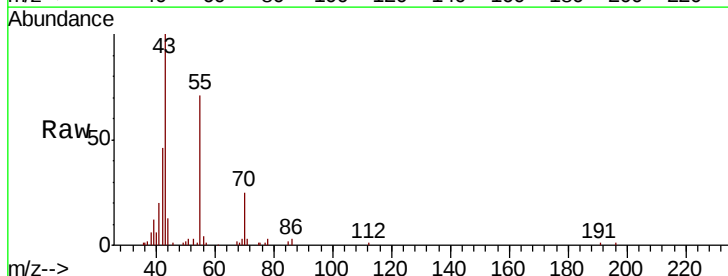
RT: 5.10 min Scan# 672

Delta R.T. -0.02 min

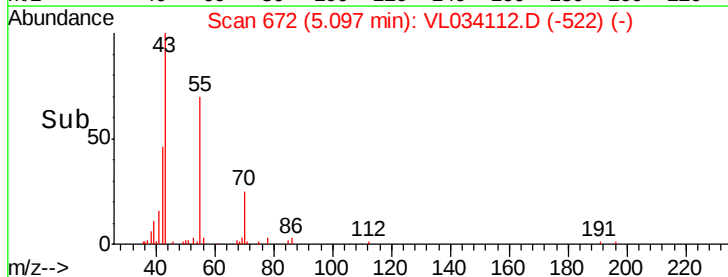
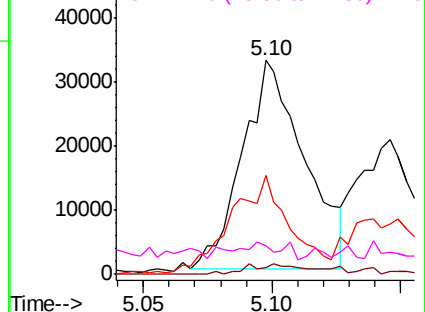
Lab File: VL034112.D

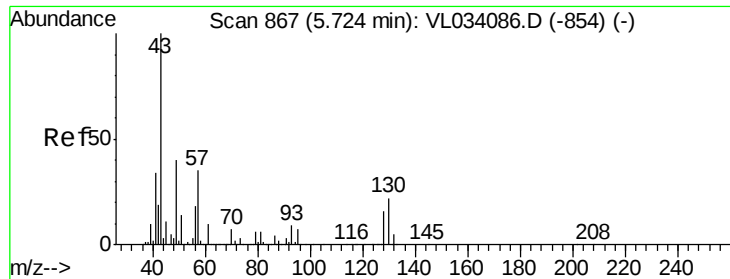
Acq: 12 Aug 2019 22:16

Tgt Ion:	43	Resp:	54414
Ion	Ratio	Lower	Upper
43	100		
86	2.9	5.4	8.0#
42	43.9	7.9	11.9#
44	2.4	4.0	6.0#



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

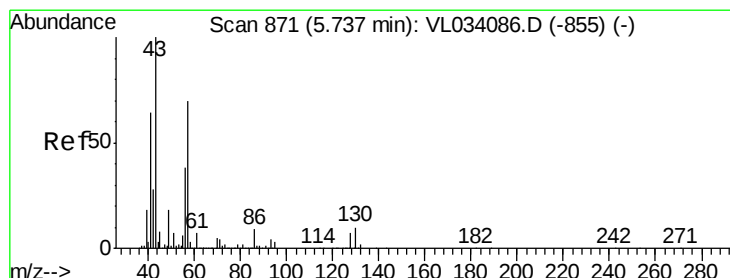
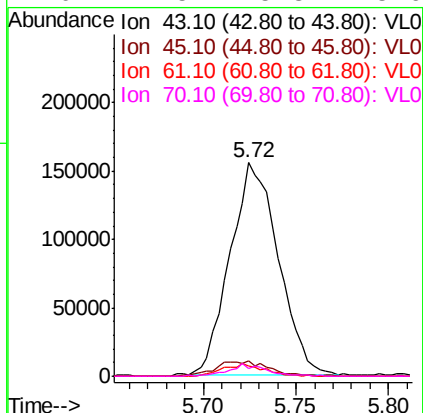
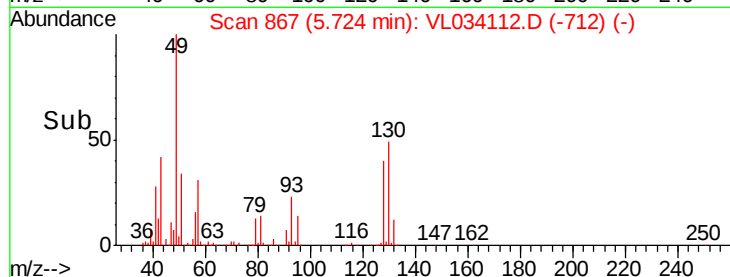
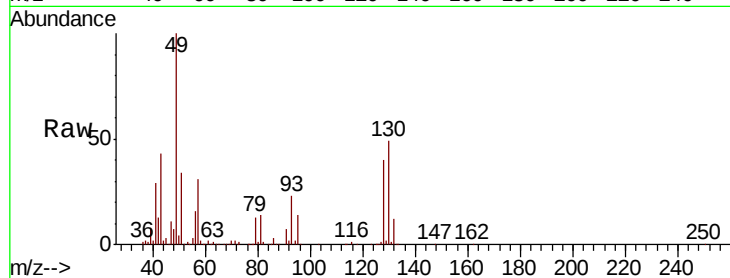




#25
Ethyl Acetate
Concen: 0.889 ppbv
RT: 5.72 min Scan# 867
Delta R.T. -0.00 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

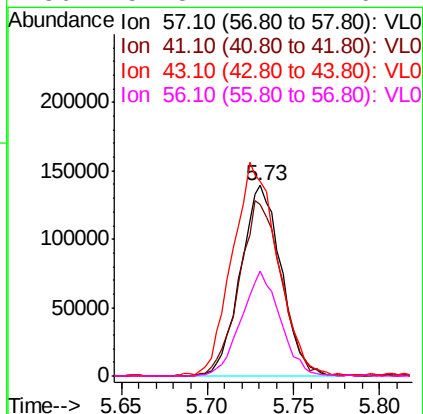
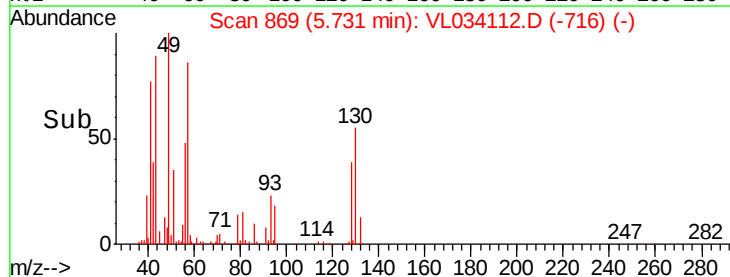
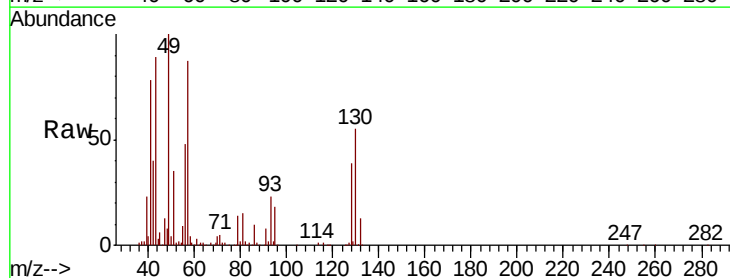
Instrument :
MSVOA_L
ClientSampleId :
SRS-0807-VI1

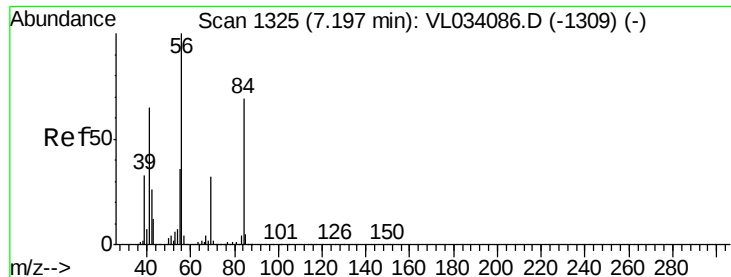
Tgt Ion:	43	Resp:	279722
Ion	Ratio	Lower	Upper
43	100		
45	8.2	8.4	12.6#
61	5.1	7.3	10.9#
70	4.5	5.8	8.6#



#26
Hexane
Concen: 1.719 ppbv
RT: 5.73 min Scan# 869
Delta R.T. -0.01 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

Tgt Ion:	57	Resp:	229303
Ion	Ratio	Lower	Upper
57	100		
41	95.3	75.7	113.5
43	126.0	189.8	284.8#
56	52.8	42.7	64.1

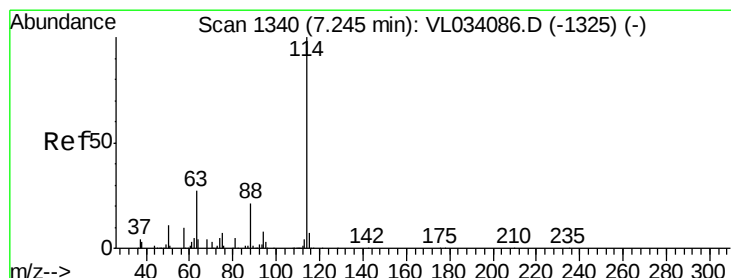
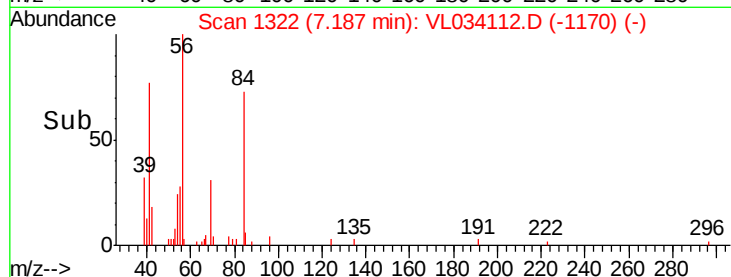
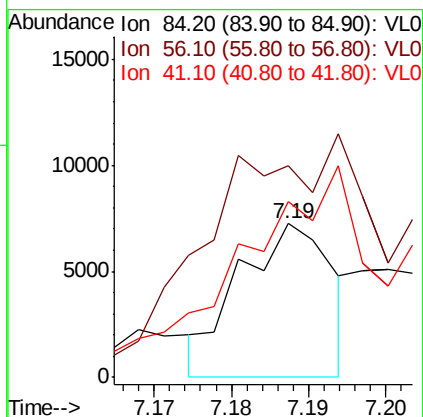
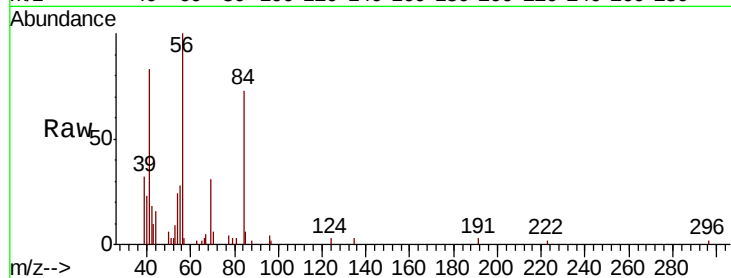




#30
Cyclohexane
Concen: 0.057 ppbv
RT: 7.19 min Scan# 1322
Delta R.T. -0.01 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

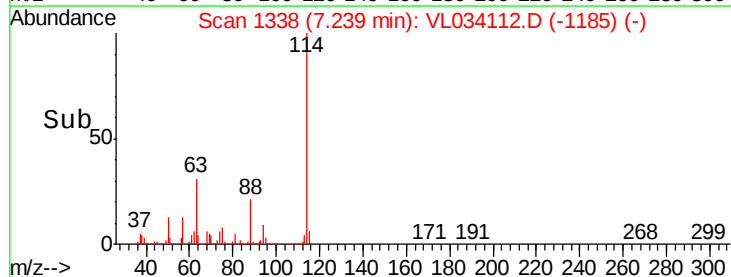
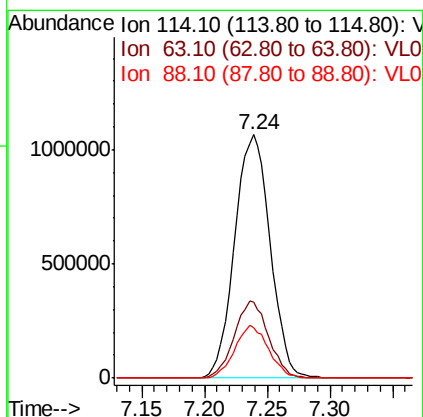
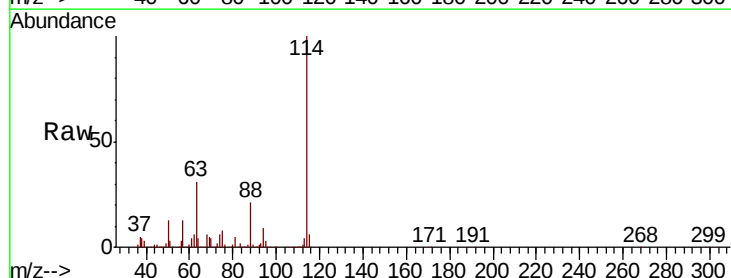
Instrument :
MSVOA_L
ClientSampleId :
SRS-0807-VI1

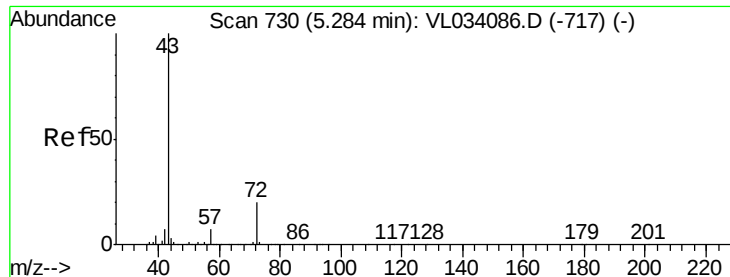
Tgt Ion: 84 Resp: 6040
Ion Ratio Lower Upper
84 100
56 0.0 122.6 184.0#
41 0.0 80.1 120.1#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.24 min Scan# 1338
Delta R.T. -0.01 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

Tgt Ion: 114 Resp: 2097735
Ion Ratio Lower Upper
114 100
63 30.6 22.5 33.7
88 20.6 15.7 23.5

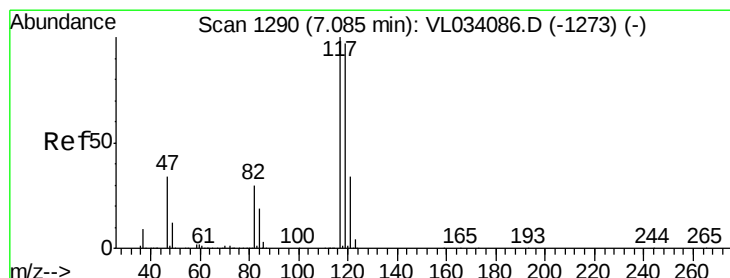
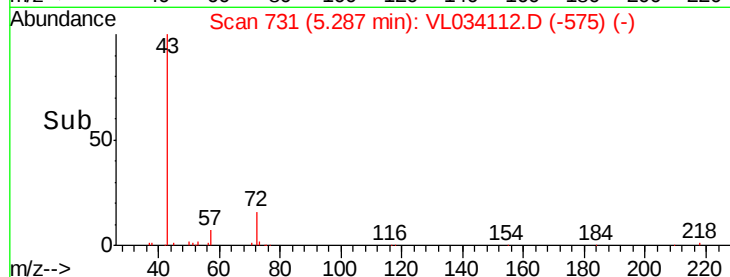
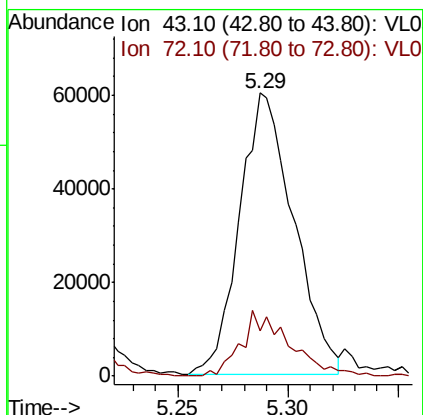
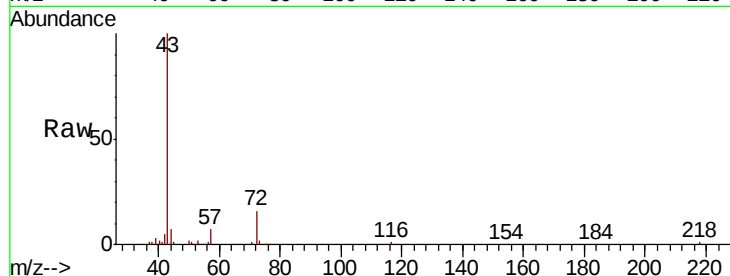




#34
2-Butanone
Concen: 0.525 ppbv
RT: 5.29 min Scan# 731
Delta R.T. 0.00 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

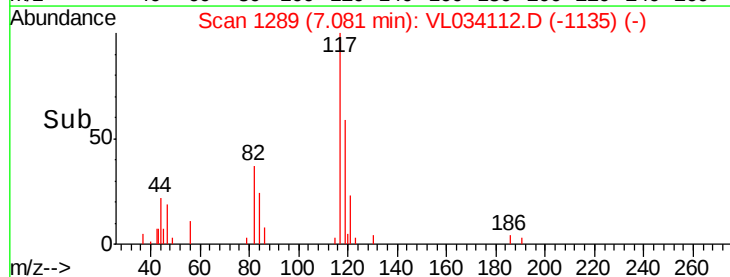
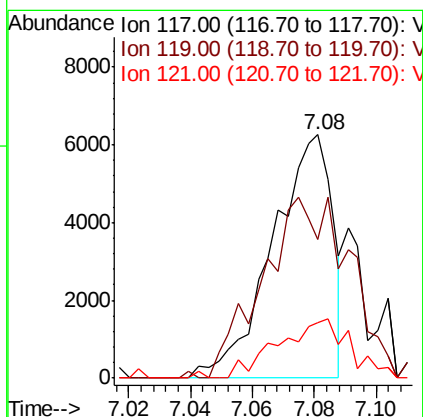
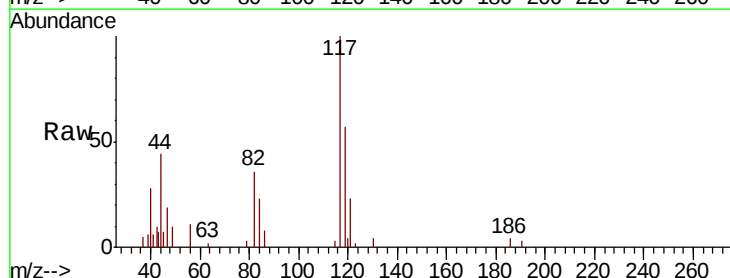
Instrument :
MSVOA_L
ClientSampleId :
SRS-0807-VI1

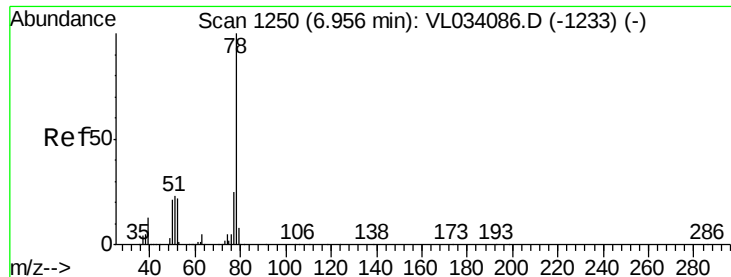
Tgt Ion: 43 Resp: 102401
Ion Ratio Lower Upper
43 100
72 20.9 16.0 24.0



#35
Carbon Tetrachloride
Concen: 0.053 ppbv
RT: 7.08 min Scan# 1289
Delta R.T. -0.00 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

Tgt Ion: 117 Resp: 8486
Ion Ratio Lower Upper
117 100
119 58.8 77.8 116.6#
121 22.7 27.4 41.2#





#36

Benzene

Concen: 0.170 ppbv

RT: 6.95 min Scan# 1248

Delta R.T. -0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Instrument :

MSVOA_L

ClientSampleId :

SRS-0807-VI1

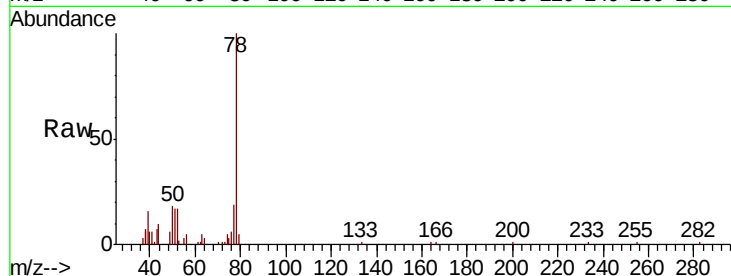
Tgt Ion: 78 Resp: 40637

Ion Ratio Lower Upper

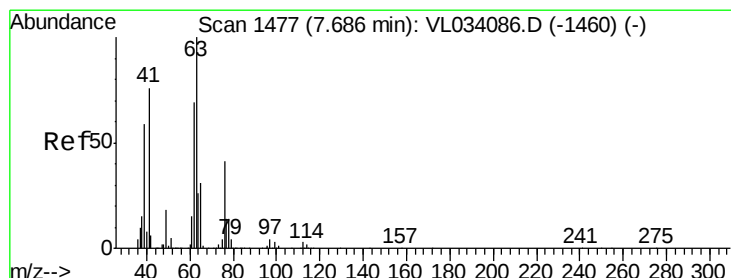
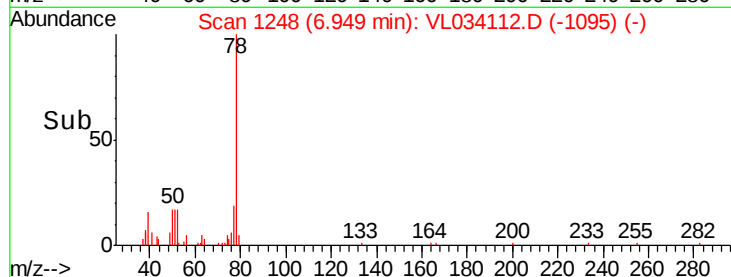
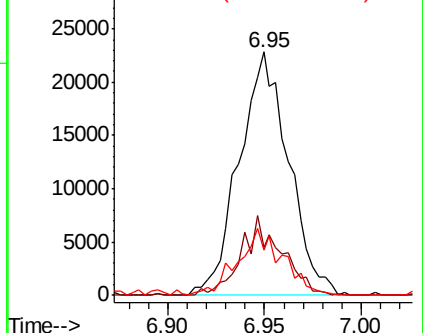
78 100

77 19.4 19.9 29.9#

50 18.3 16.7 25.1



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: 6.639 ppbv

RT: 7.24 min Scan# 1337

Delta R.T. -0.45 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

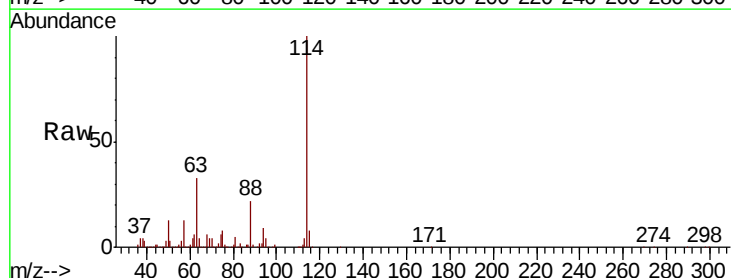
Tgt Ion: 63 Resp: 638691

Ion Ratio Lower Upper

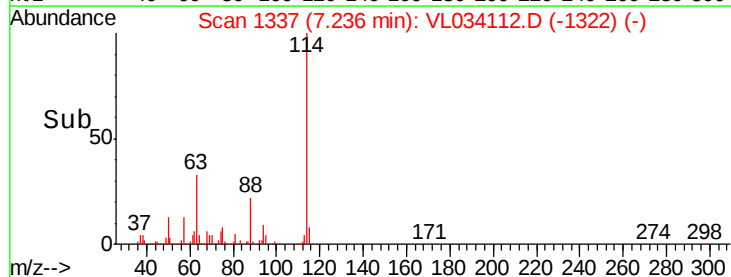
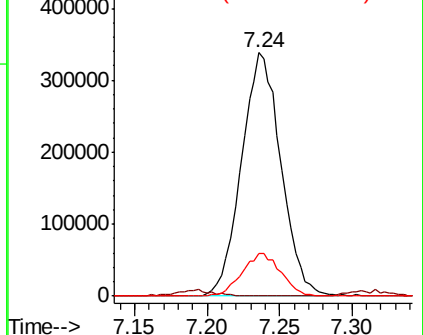
63 100

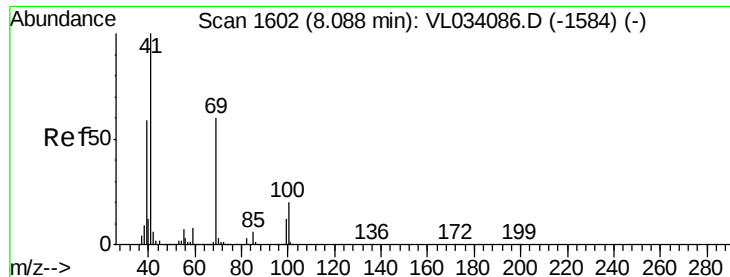
41 0.0 60.6 91.0#

62 17.4 55.0 82.6#



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 62.10 (61.80 to 62.80): VL0

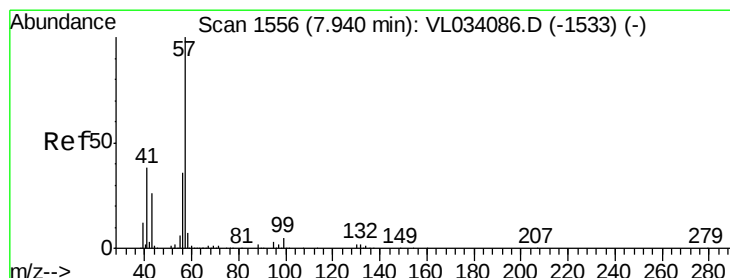
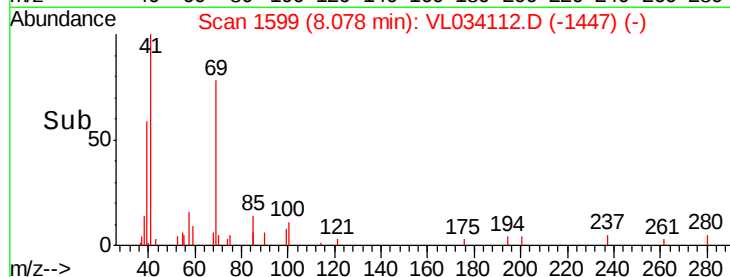
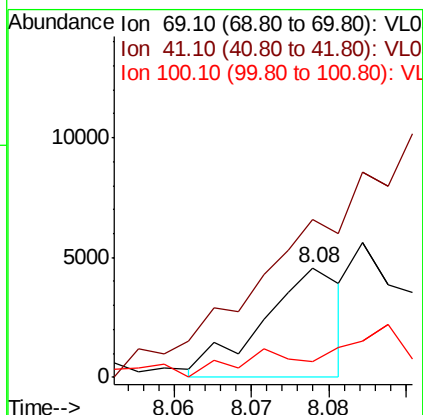
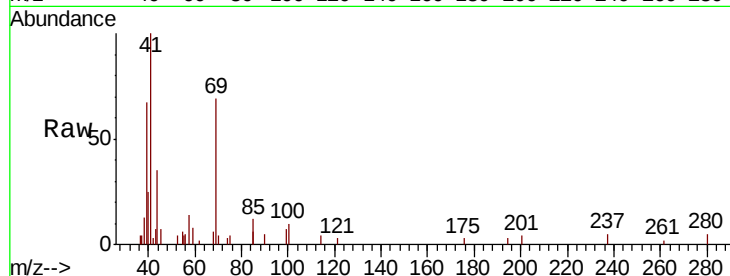




#43
Methyl Methacrylate
Concen: 0.033 ppbv
RT: 8.08 min Scan# 1599
Delta R.T. -0.01 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

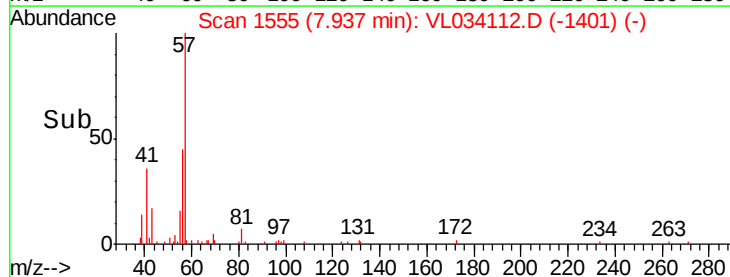
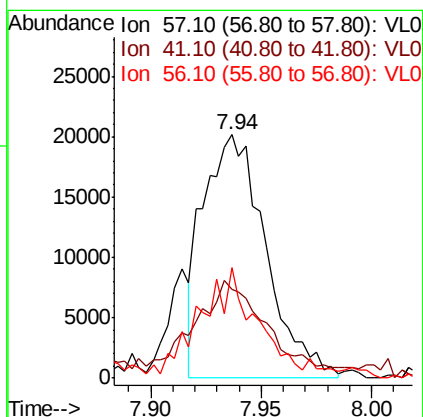
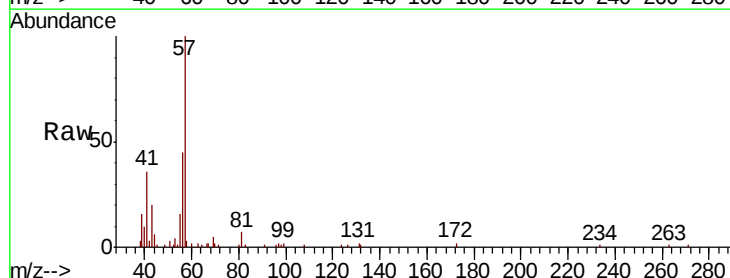
Instrument :
MSVOA_L
ClientSampleId :
SRS-0807-VI1

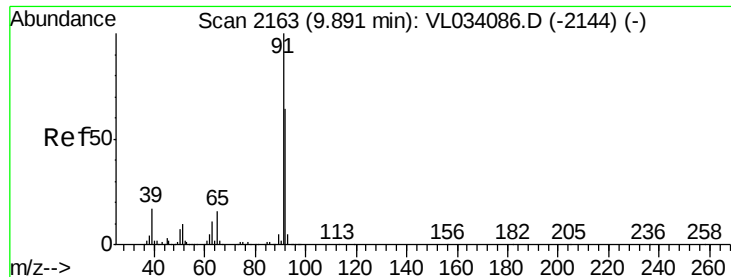
Tgt Ion: 69 Resp: 3244
Ion Ratio Lower Upper
69 100
41 0.0 132.9 199.3#
100 0.0 25.8 38.8#



#44
2,2,4-Trimethylpentane
Concen: 0.093 ppbv
RT: 7.94 min Scan# 1555
Delta R.T. -0.00 min
Lab File: VL034112.D
Acq: 12 Aug 2019 22:16

Tgt Ion: 57 Resp: 39676
Ion Ratio Lower Upper
57 100
41 54.6 29.2 43.8#
56 44.6 26.7 40.1#





#53

Toluene

Concen: 13.842 ppbv

RT: 9.88 min Scan# 2161

Delta R.T. -0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Instrument :

MSVOA_L

ClientSampleId :

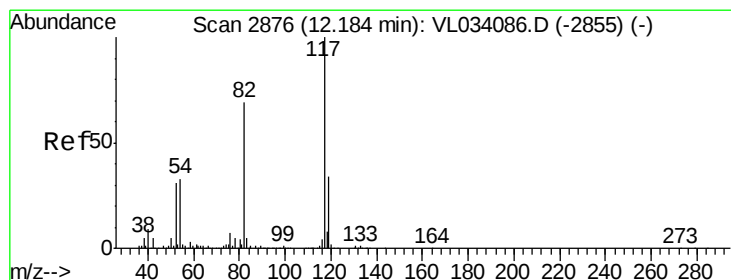
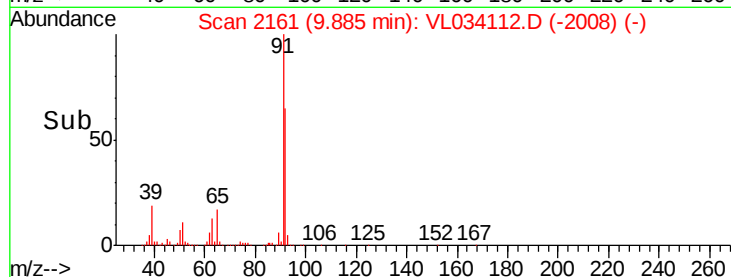
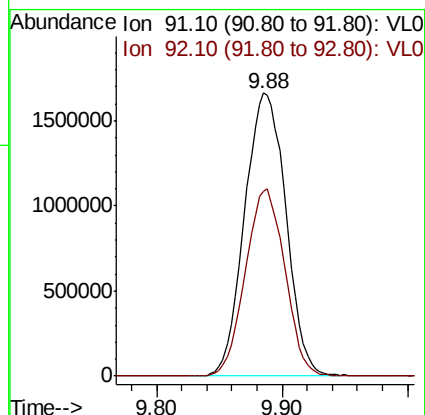
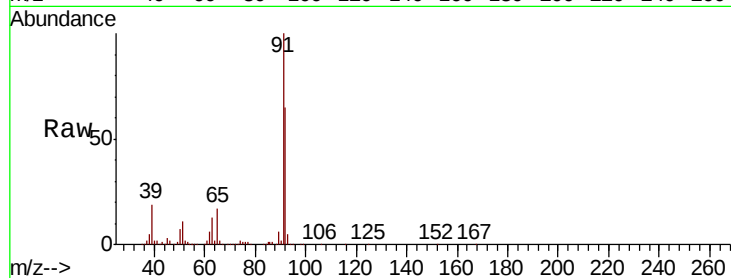
SRS-0807-VI1

Tgt Ion: 91 Resp: 3808578

Ion Ratio Lower Upper

91 100

92 63.4 50.3 75.5



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.17 min Scan# 2873

Delta R.T. -0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

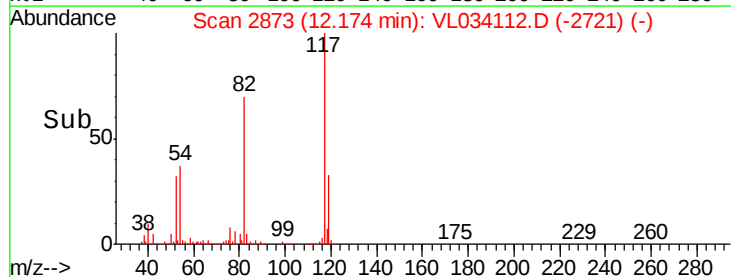
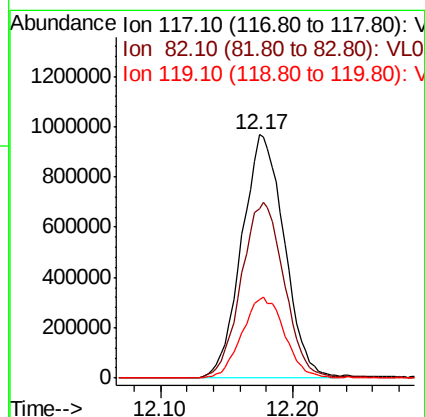
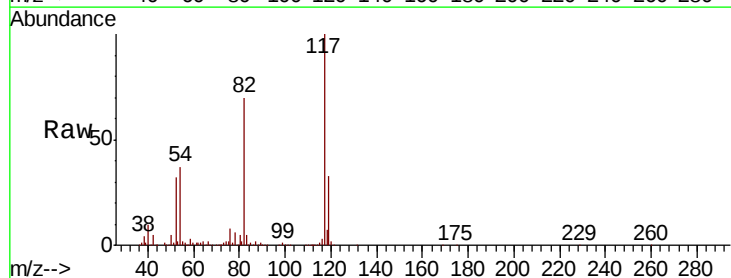
Tgt Ion: 117 Resp: 2163762

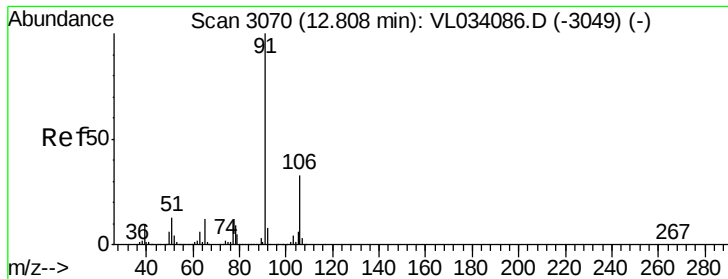
Ion Ratio Lower Upper

117 100

82 73.7 52.2 78.4

119 33.5 44.8 67.2#





#58

Ethyl Benzene

Concen: 0.062 ppbv

RT: 12.80 min Scan# 3067

Delta R.T. -0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Instrument :

MSVOA_L

ClientSampleId :

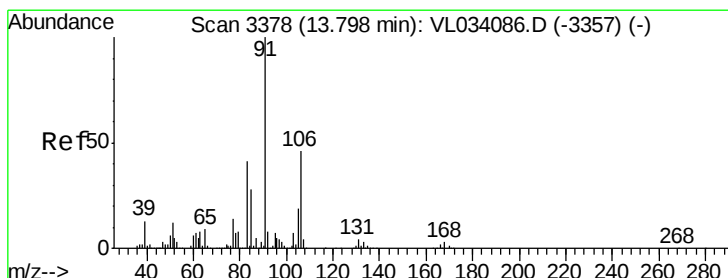
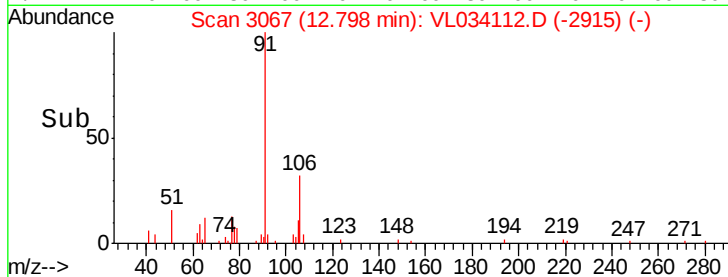
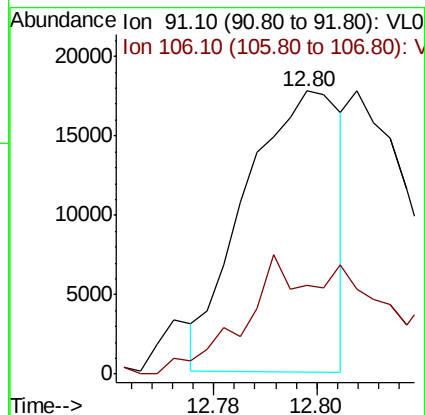
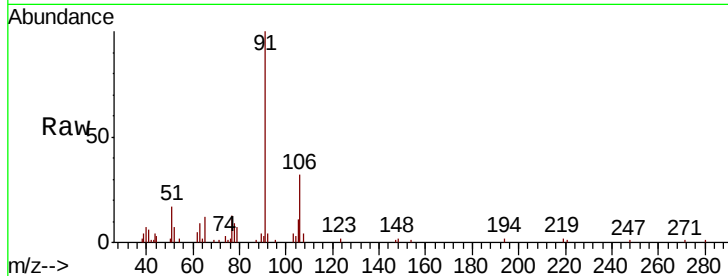
SRS-0807-VI1

Tgt Ion: 91 Resp: 22679

Ion Ratio Lower Upper

91 100

106 32.6 26.0 39.0



#60

o-Xylene

Concen: 0.067 ppbv

RT: 13.79 min Scan# 3375

Delta R.T. -0.01 min

Lab File: VL034112.D

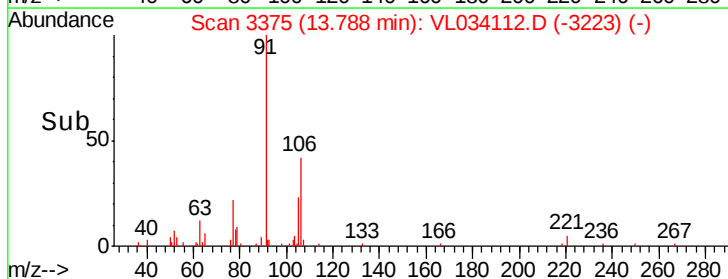
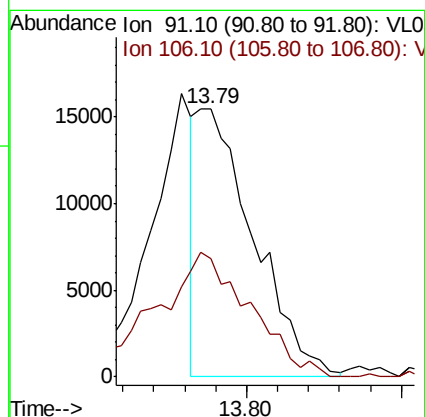
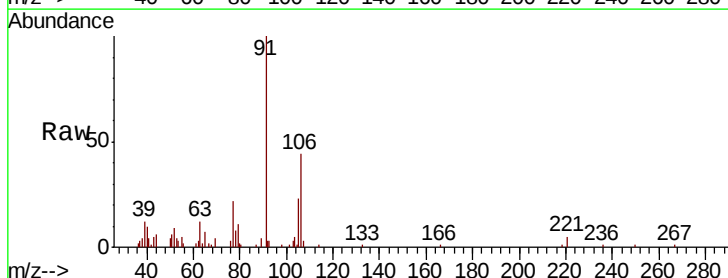
Acq: 12 Aug 2019 22:16

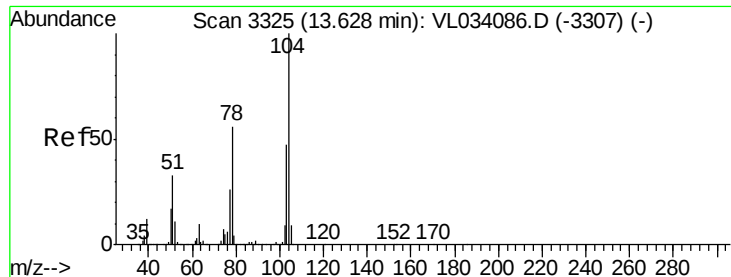
Tgt Ion: 91 Resp: 19532

Ion Ratio Lower Upper

91 100

106 77.7 22.6 67.7#





#61

Styrene

Concen: 0.062 ppbv

RT: 13.62 min Scan# 3322

Delta R.T. -0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Instrument :

MSVOA_L

ClientSampleId :

SRS-0807-VI1

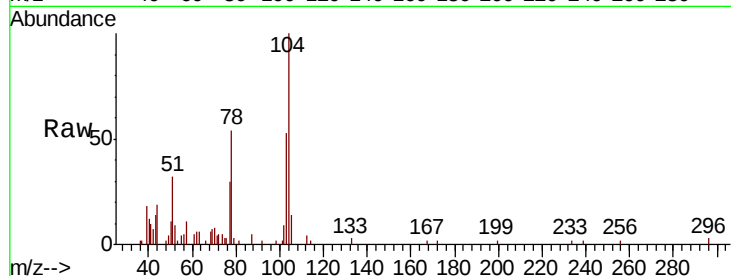
Tgt Ion:104 Resp: 14463

Ion Ratio Lower Upper

104 100

78 80.3 44.2 66.4#

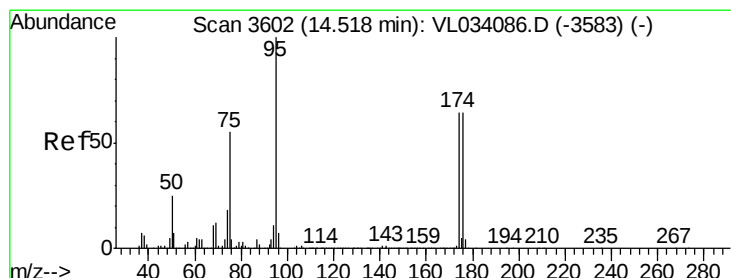
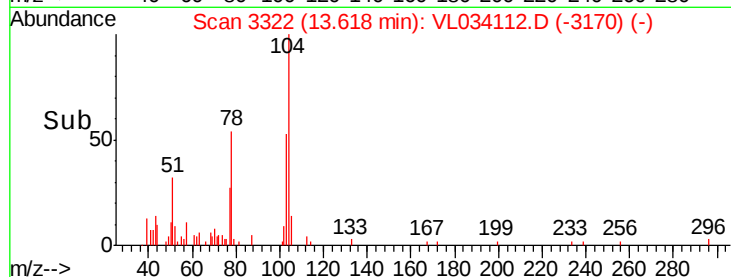
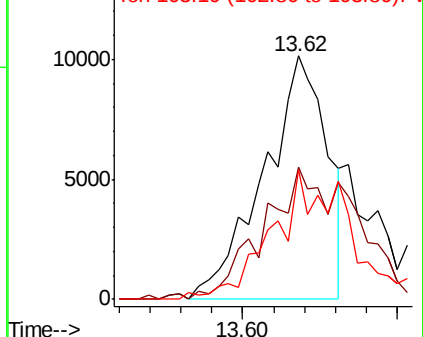
103 64.8 38.3 57.5#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.606 ppbv

RT: 14.52 min Scan# 3601

Delta R.T. -0.00 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

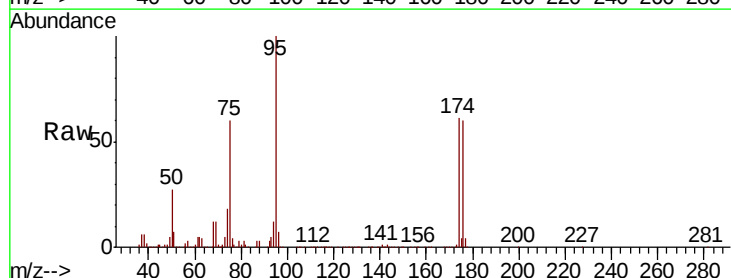
Tgt Ion: 95 Resp: 1862045

Ion Ratio Lower Upper

95 100

174 62.3 53.0 79.6

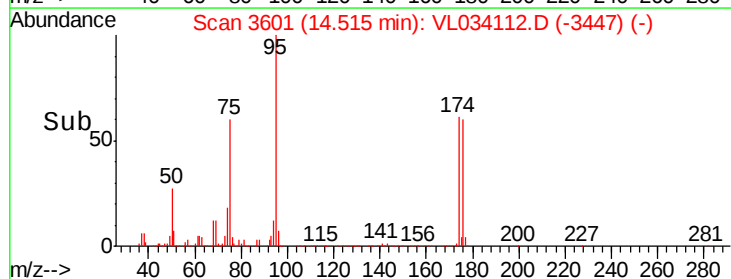
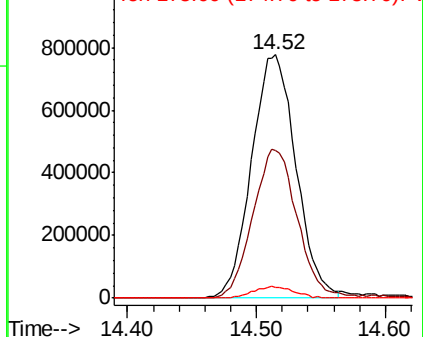
175 4.5 4.2 6.2

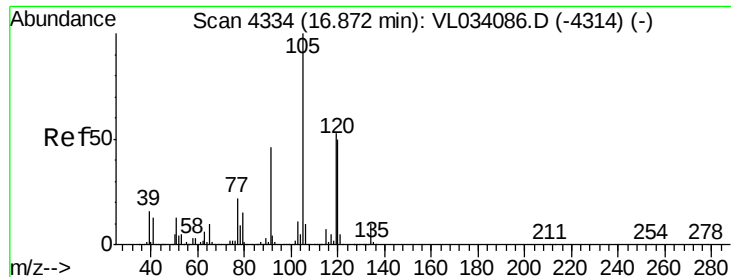


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74

1,2,4-Trimethylbenzene

Concen: 0.110 ppbv

RT: 16.86 min Scan# 4330

Delta R.T. -0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

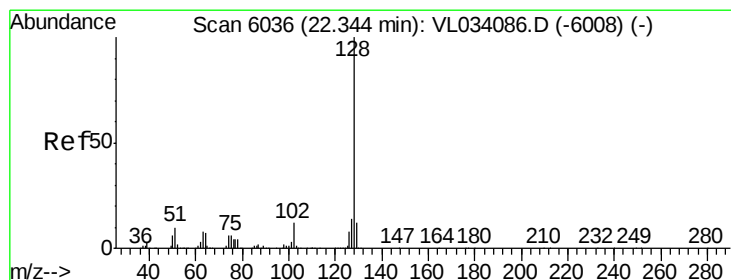
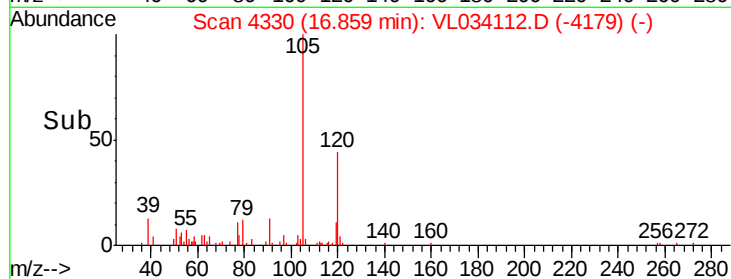
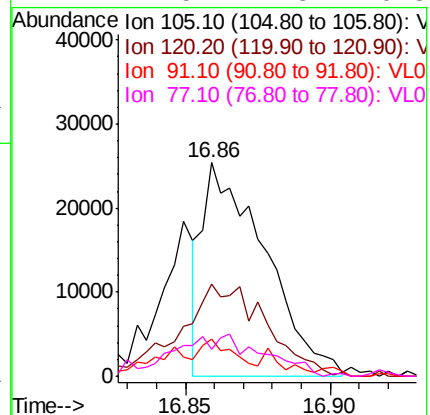
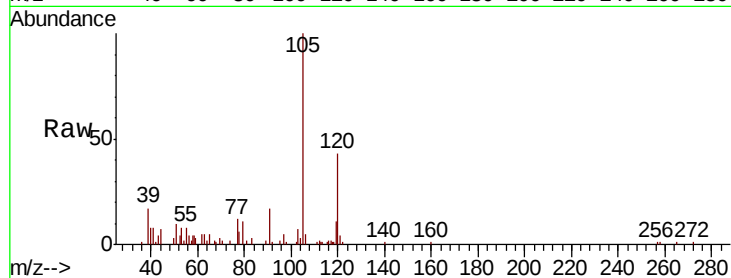
Instrument :

MSVOA_L

ClientSampleId :

SRS-0807-VI1

Tgt Ion:	105	Resp:	37842
Ion	Ratio	Lower	Upper
105	100		
120	42.6	40.2	60.4
91	15.6	38.1	57.1#
77	11.5	17.8	26.8#



#79

Naphthalene

Concen: 0.031 ppbv

RT: 22.33 min Scan# 6032

Delta R.T. -0.01 min

Lab File: VL034112.D

Acq: 12 Aug 2019 22:16

Tgt Ion:	128	Resp:	11052
Ion	Ratio	Lower	Upper
128	100		
127	14.2	11.0	16.6
129	0.0	9.2	13.8#

