

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL010419\
 Data File : VL033076.D
 Acq On : 4 Jan 2019 20:25
 Operator : SY/AP
 Sample : J6594-02
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SVI-OA1-2018-12-19

Quant Time: Jan 05 01:51:56 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL010419AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jan 04 16:09:05 2019
 QLast Update : Fri Jan 04 16:09:05 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	940069	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2188501	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2120797	10.00	ppbv	0.00

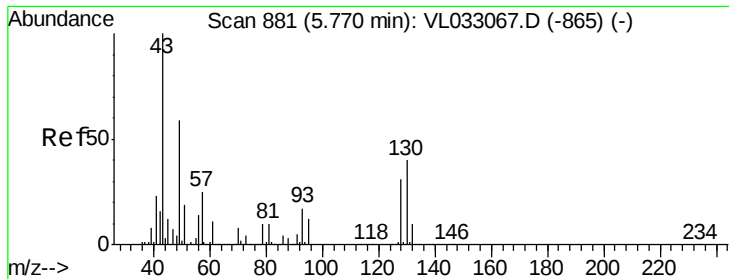
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1639696	10.09	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.90%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.08	85	105854	0.605	ppbv	93
3) Chlorodifluoromethane	3.02	51	79330	0.745	ppbv	93
4) Chloromethane	3.17	50	42204	0.692	ppbv	97
9) Propene	3.05	41	86208	2.169	ppbv	85
10) Heptane	8.25	43	9873	0.087	ppbv #	59
11) Trichlorofluoromethane	4.01	101	53186	0.275	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.56	101	9727	0.080	ppbv	86
13) Ethanol	3.65	45	215473	13.592	ppbv	97
15) Acetone	3.90	43	657073	5.050	ppbv	90
16) 1,3-Butadiene	3.35	39	29498	0.601	ppbv #	37
19) Isopropyl Alcohol	4.04	45	56183	0.627	ppbv #	75
20) Methylene Chloride	4.41	84	224091	4.131	ppbv	97
21) Allyl Chloride	4.44	41	2514	0.031	ppbv #	1
23) Vinyl Acetate	5.15	43	24080	0.145	ppbv #	8
25) Ethyl Acetate	5.78	43	118038	0.537	ppbv #	84
26) Hexane	5.78	57	139288	1.345	ppbv #	46
34) 2-Butanone	5.35	43	28922	0.227	ppbv	97
36) Benzene	7.01	78	36235	0.202	ppbv	96
39) 1,2-Dichloropropane	7.29	63	558417	8.292	ppbv #	22
44) 2,2,4-Trimethylpentane	7.99	57	9641	0.032	ppbv #	43
53) Toluene	9.95	91	1093719	5.693	ppbv	99
58) Ethyl Benzene	12.87	91	24173	0.090	ppbv	90
59) m/p-Xylene	13.12	91	34667	0.140	ppbv #	100
60) o-Xylene	13.85	91	15840	0.065	ppbv #	32
74) 1,2,4-Trimethylbenzene	16.93	105	17492	0.060	ppbv #	69

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

```
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Acq On    : 4 Jan 2019 20:25  
Operator  : SY/AP  
Sample    : J6594-02  
Misc      : 400ml/MSVOA_L  
ALS Vial  : 1 Sample Multiplier: 1
```



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 880

Delta R.T. 0.00 min

Lab File: VL033076.D

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Instrument :

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ClientSampleId :

SVI-OA1-2018-12-19

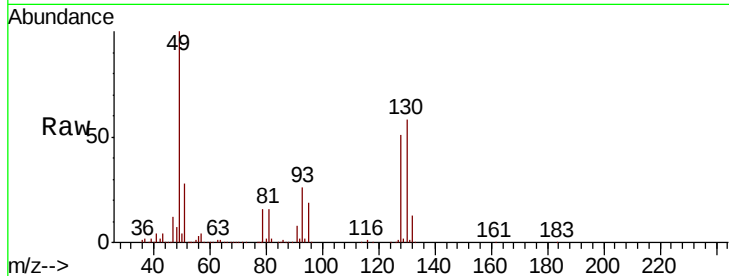
Tgt Ion: 49 Resp: 940069

Ion Ratio Lower Upper

49 100

128 51.9 26.2 78.5

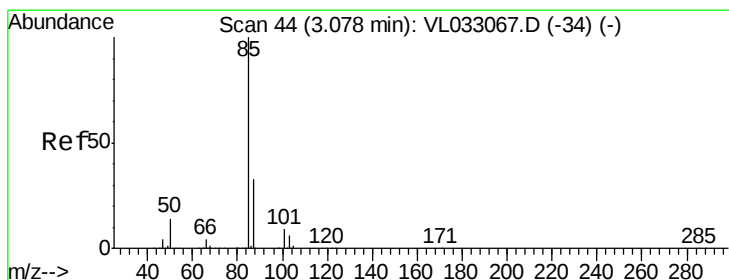
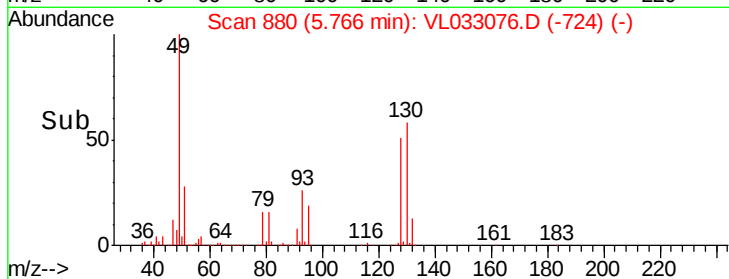
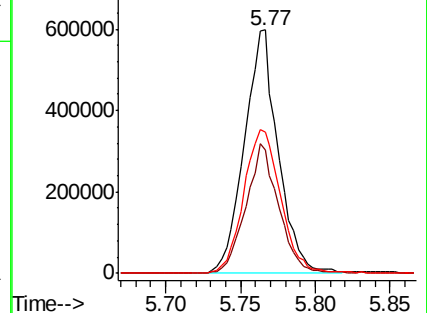
130 64.9 33.6 100.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.605 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033076.D

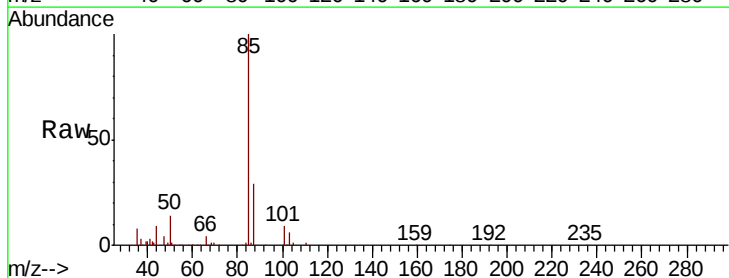
Acq: 4 Jan 2019 20:25

Tgt Ion: 85 Resp: 105854

Ion Ratio Lower Upper

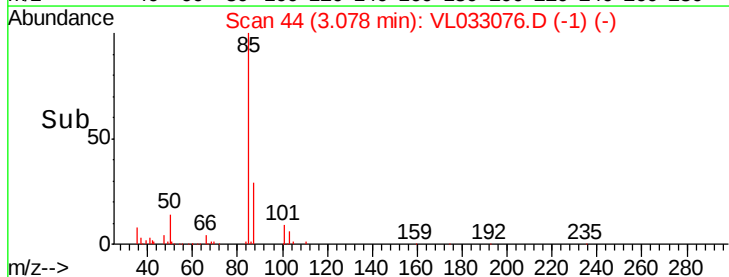
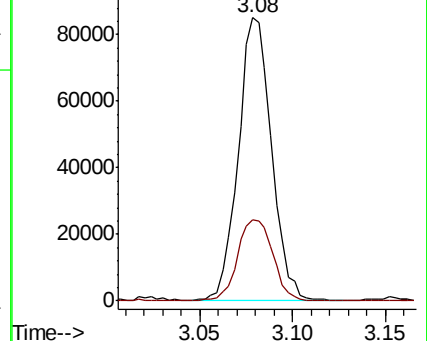
85 100

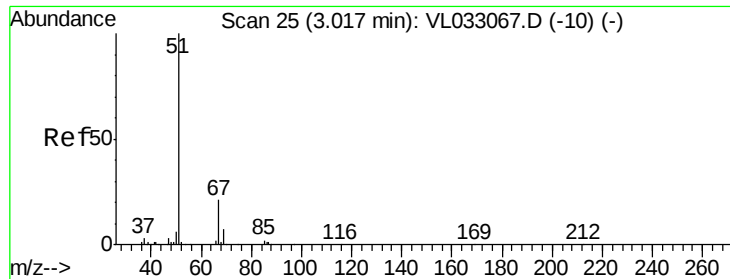
87 28.8 26.3 39.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.745 ppbv

RT: 3.02 min Scan# 25

Delta R.T. 0.00 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

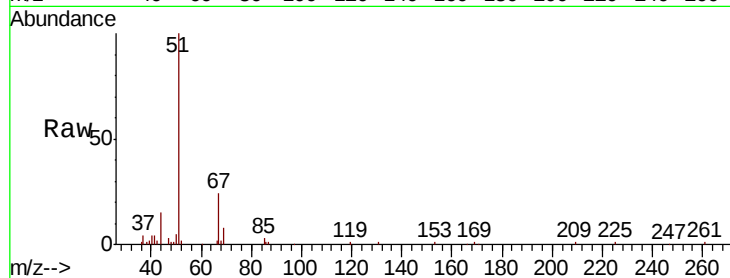
SVI-OA1-2018-12-19

Tgt Ion: 51 Resp: 79330

Ion Ratio Lower Upper

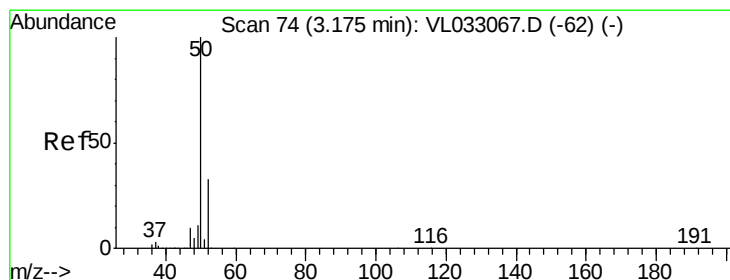
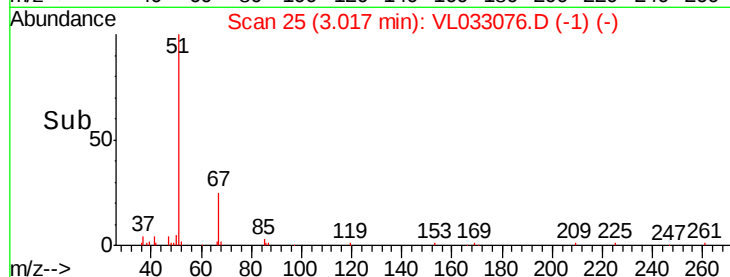
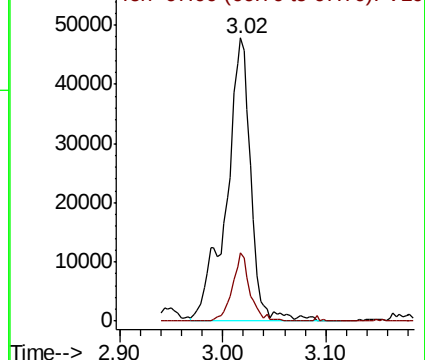
51 100

67 17.1 16.3 24.5



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.692 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL033076.D

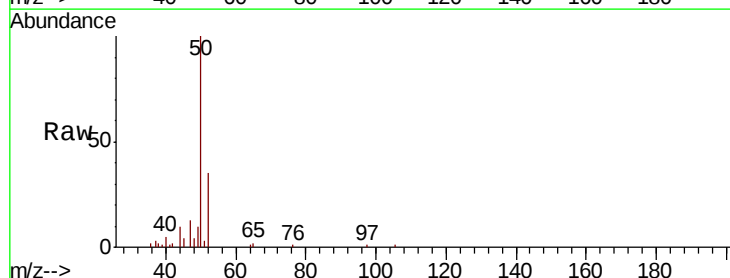
Acq: 4 Jan 2019 20:25

Tgt Ion: 50 Resp: 42204

Ion Ratio Lower Upper

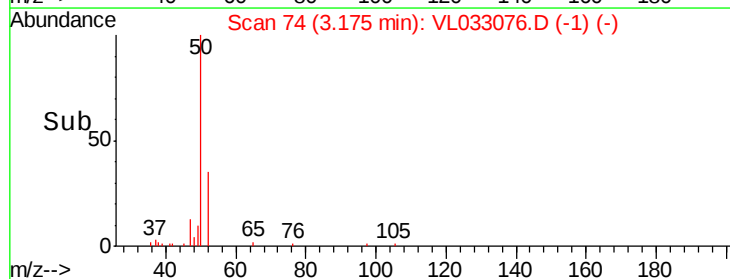
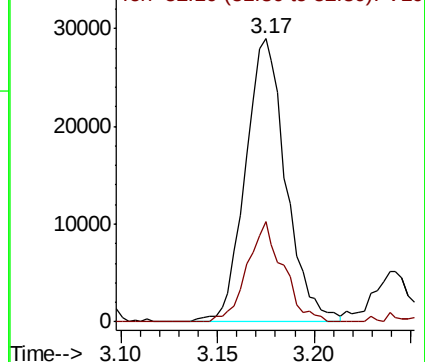
50 100

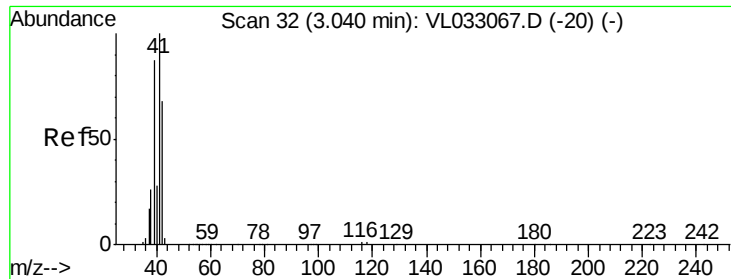
52 35.4 26.9 40.3



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

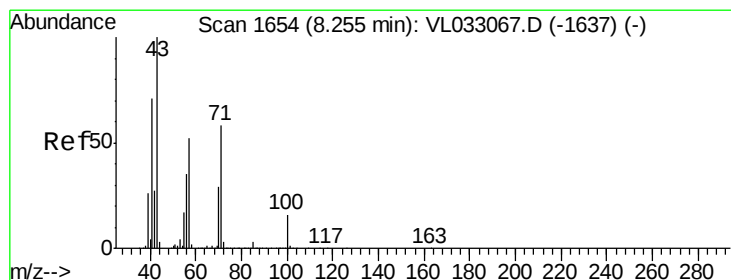
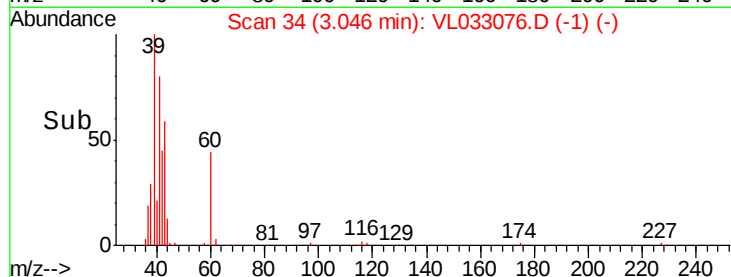
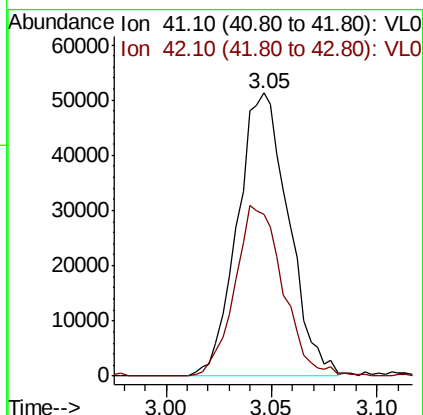
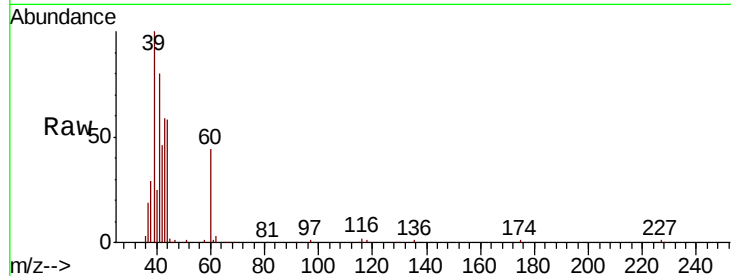




#9
 Propene
 Concen: 2.169 ppbv
 RT: 3.05 min Scan# 34
 Delta R.T. 0.01 min
 Lab File: VL033076.D
 Acq: 4 Jan 2019 20:25

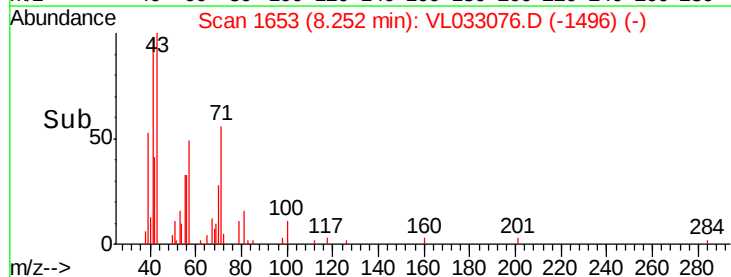
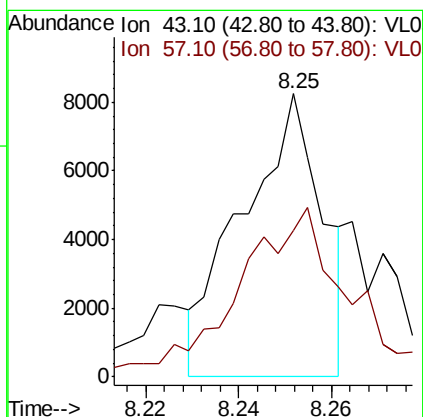
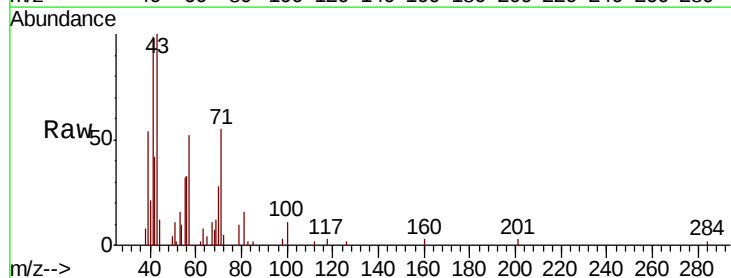
Instrument :
 MSVOA_L
 ClientSampleId :
 SVI-OA1-2018-12-19

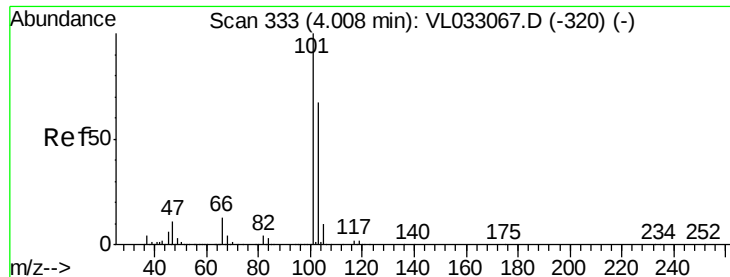
Tgt Ion: 41 Resp: 86208
 Ion Ratio Lower Upper
 41 100
 42 57.1 55.3 82.9



#10
 Heptane
 Concen: 0.087 ppbv
 RT: 8.25 min Scan# 1653
 Delta R.T. 0.00 min
 Lab File: VL033076.D
 Acq: 4 Jan 2019 20:25

Tgt Ion: 43 Resp: 9873
 Ion Ratio Lower Upper
 43 100
 57 81.1 41.9 62.9#





#11

Trichlorofluoromethane

Concen: 0.275 ppbv

RT: 4.01 min Scan# 333

Delta R.T. 0.00 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

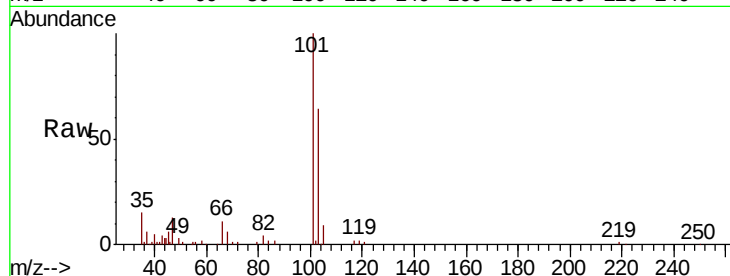
SVI-OA1-2018-12-19

Tgt Ion:101 Resp: 53186

Ion Ratio Lower Upper

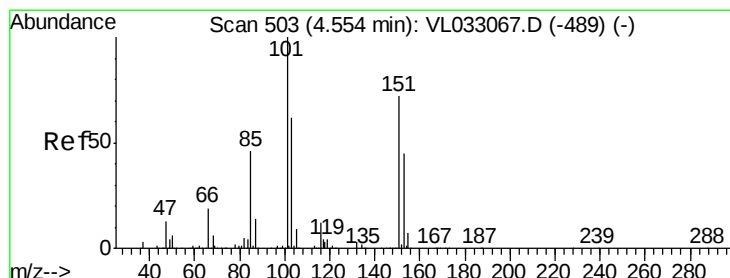
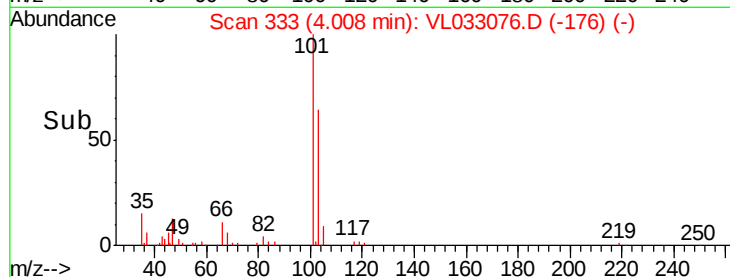
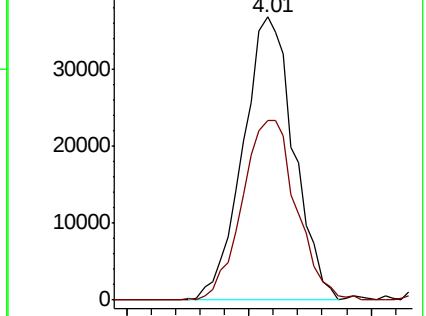
101 100

103 63.2 51.7 77.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.080 ppbv

RT: 4.56 min Scan# 505

Delta R.T. 0.01 min

Lab File: VL033076.D

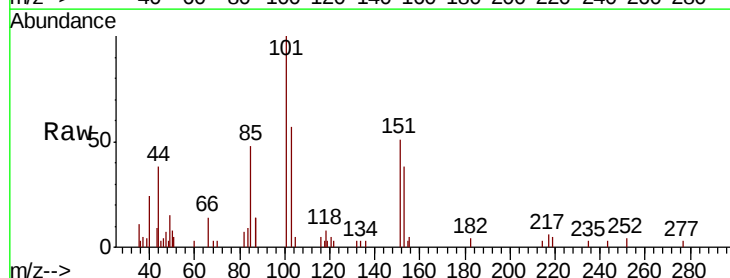
Acq: 4 Jan 2019 20:25

Tgt Ion:101 Resp: 9727

Ion Ratio Lower Upper

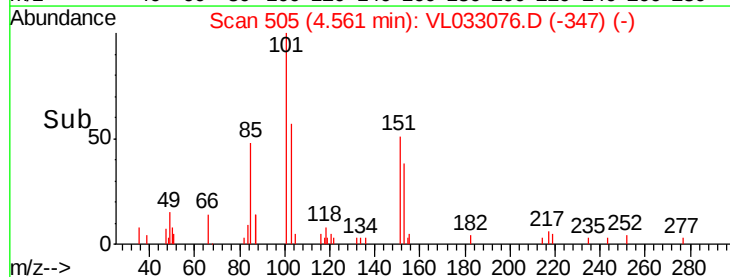
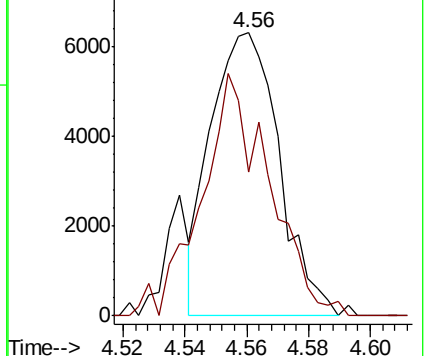
101 100

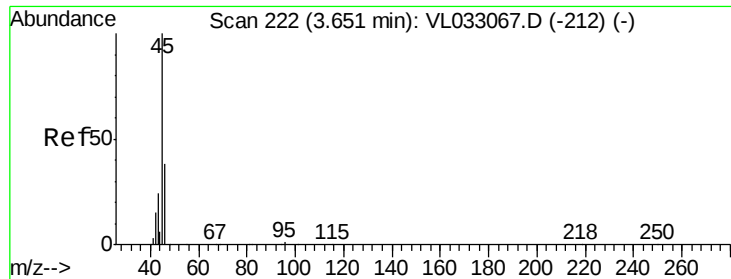
151 85.0 58.3 87.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 13.592 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

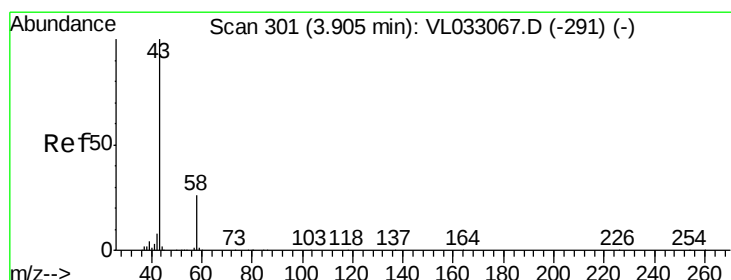
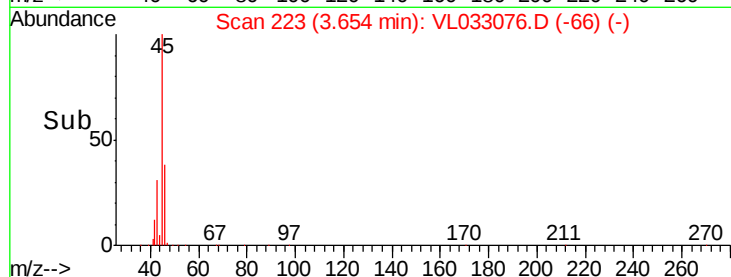
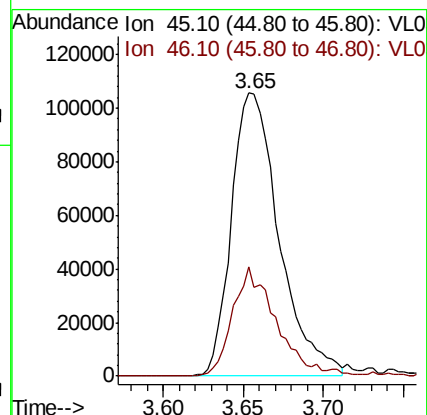
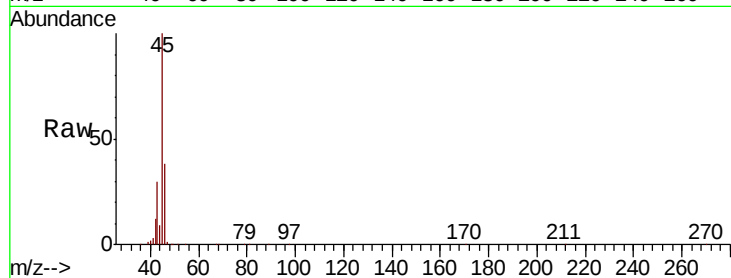
SVI-OA1-2018-12-19

Tgt Ion: 45 Resp: 215473

Ion Ratio Lower Upper

45 100

46 36.2 13.8 55.2



#15

Acetone

Concen: 5.050 ppbv

RT: 3.90 min Scan# 301

Delta R.T. 0.00 min

Lab File: VL033076.D

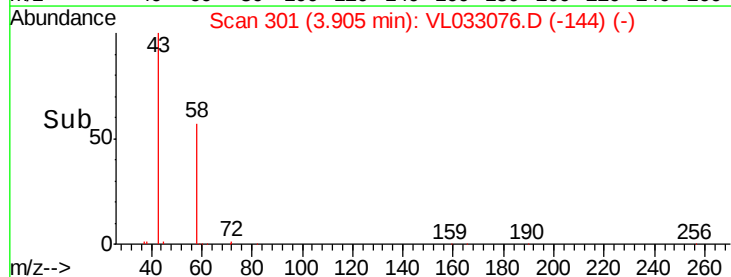
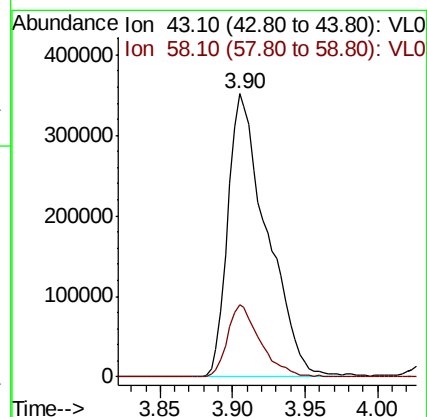
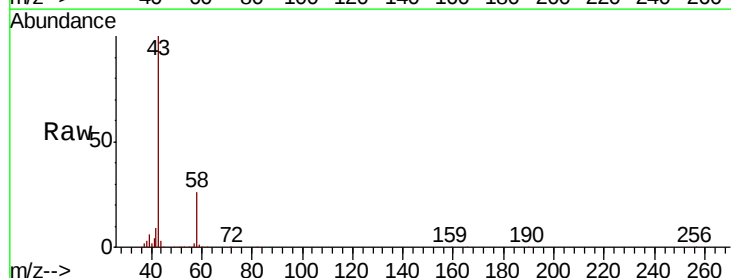
Acq: 4 Jan 2019 20:25

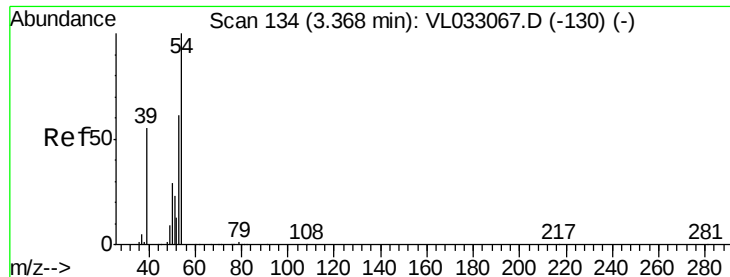
Tgt Ion: 43 Resp: 657073

Ion Ratio Lower Upper

43 100

58 21.5 21.1 31.7

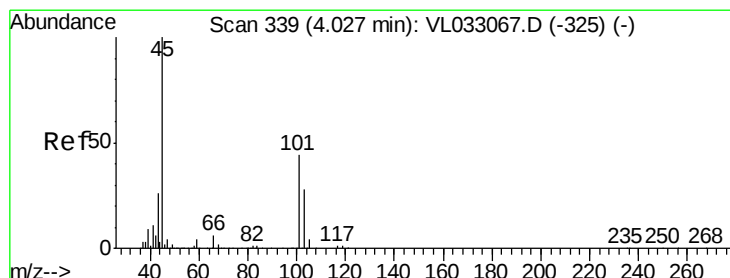
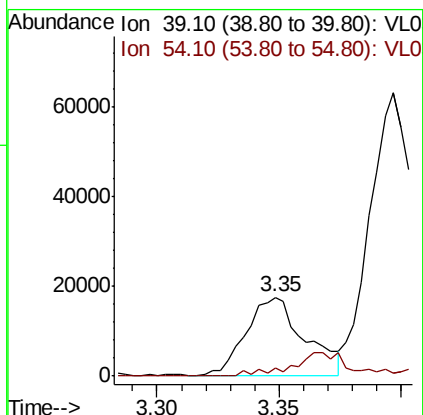
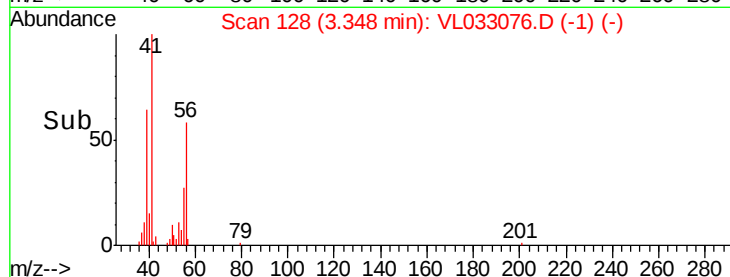
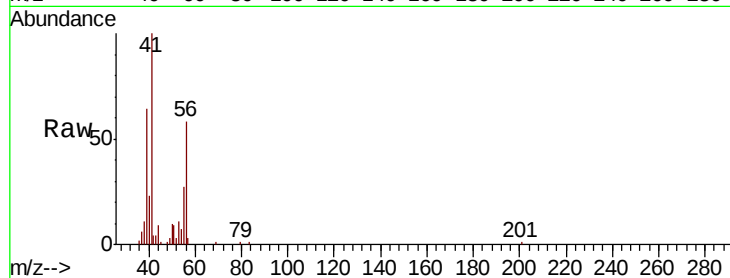




#16
1,3-Butadiene
Concen: 0.601 ppbv
RT: 3.35 min Scan# 128
Delta R.T. -0.02 min
Lab File: VL033076.D
Acq: 4 Jan 2019 20:25

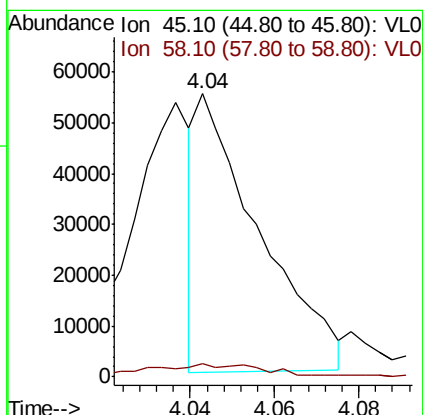
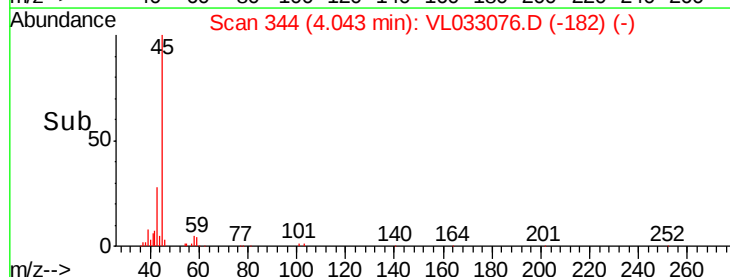
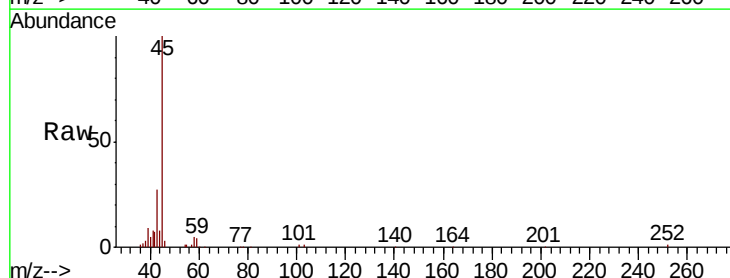
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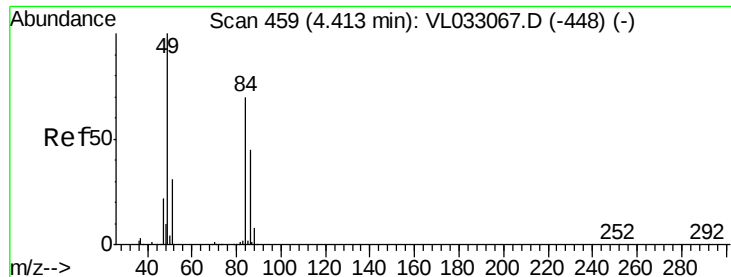
Tgt Ion: 39 Resp: 29498
Ion Ratio Lower Upper
39 100
54 32.0 73.7 110.5#



#19
Isopropyl Alcohol
Concen: 0.627 ppbv
RT: 4.04 min Scan# 344
Delta R.T. 0.02 min
Lab File: VL033076.D
Acq: 4 Jan 2019 20:25

Tgt Ion: 45 Resp: 56183
Ion Ratio Lower Upper
45 100
58 10.9 1.4 2.2#

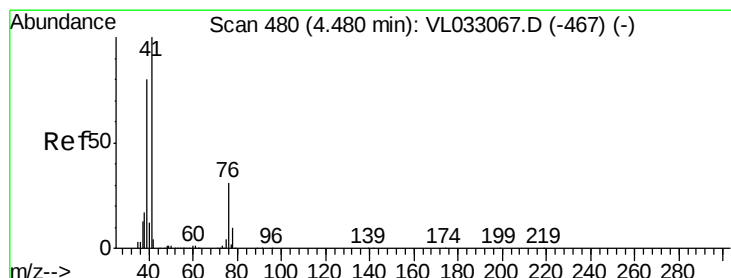
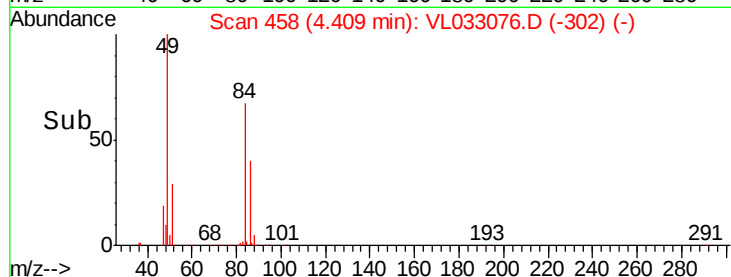
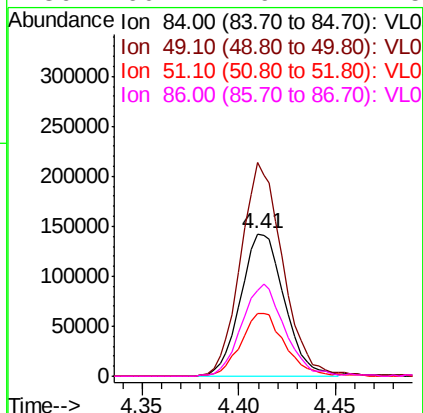
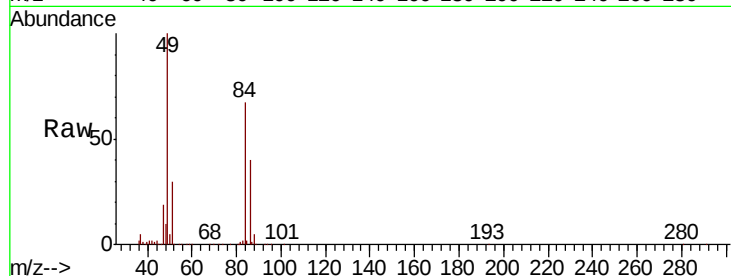




#20
Methylene Chloride
Concen: 4.131 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.00 min
Lab File: VL033076.D
Acq: 4 Jan 2019 20:25

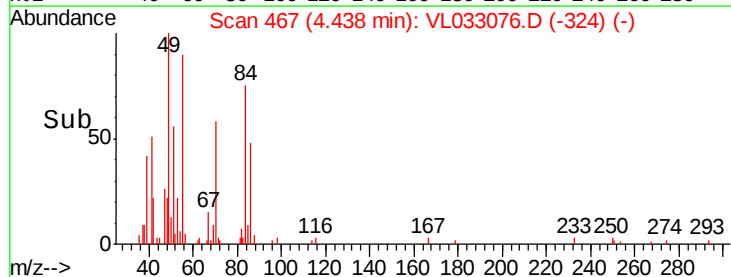
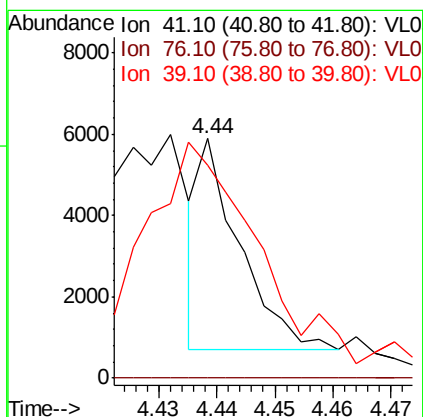
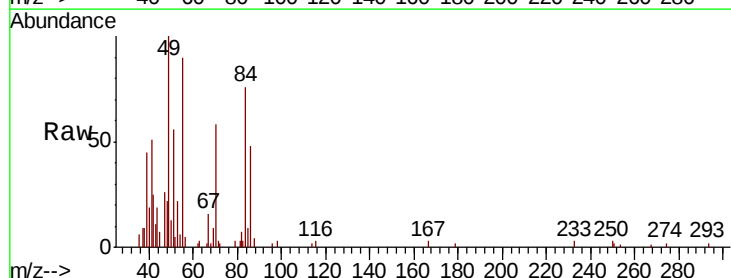
Instrument :
MSVOA_L
ClientSampleId :
SVI-OA1-2018-12-19

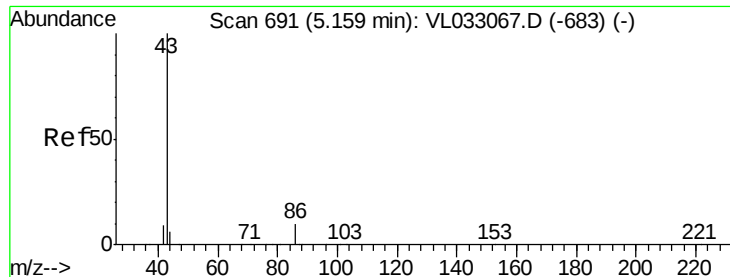
Tgt Ion: 84 Resp: 224091
Ion Ratio Lower Upper
84 100
49 149.9 115.8 173.6
51 44.0 35.7 53.5
86 60.4 49.7 74.5



#21
Allyl Chloride
Concen: 0.031 ppbv
RT: 4.44 min Scan# 467
Delta R.T. -0.04 min
Lab File: VL033076.D
Acq: 4 Jan 2019 20:25

Tgt Ion: 41 Resp: 2514
Ion Ratio Lower Upper
41 100
76 91.3 24.6 36.8#
39 400.5 62.8 94.2#

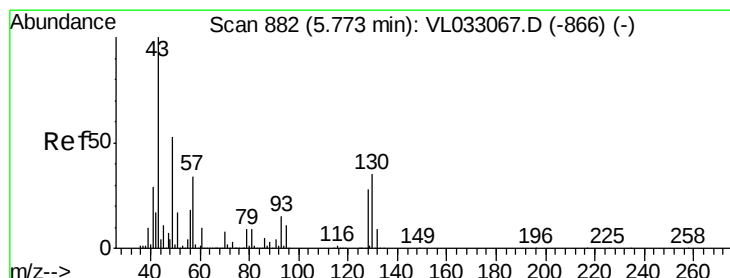
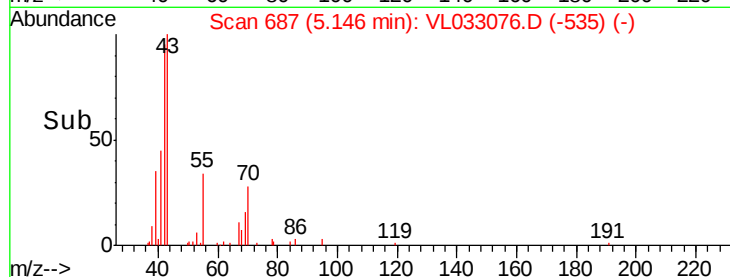
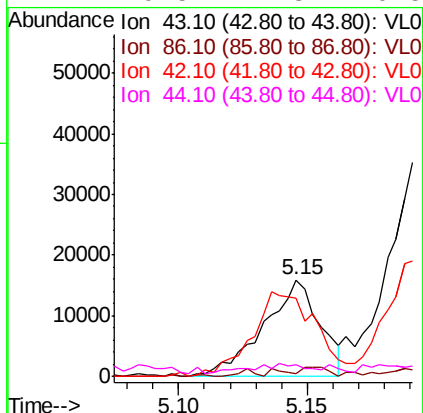
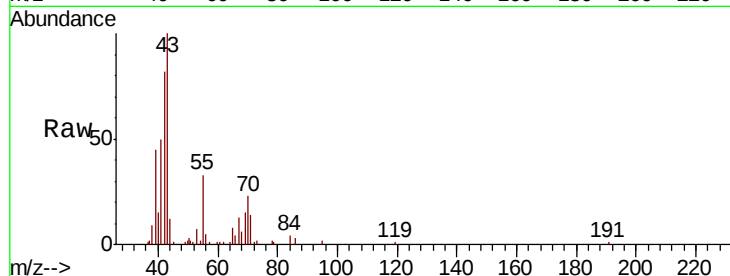




#23
 Vinyl Acetate
 Concen: 0.145 ppbv
 RT: 5.15 min Scan# 687
 Delta R.T. -0.01 min
 Lab File: VL033076.D
 Acq: 4 Jan 2019 20:25

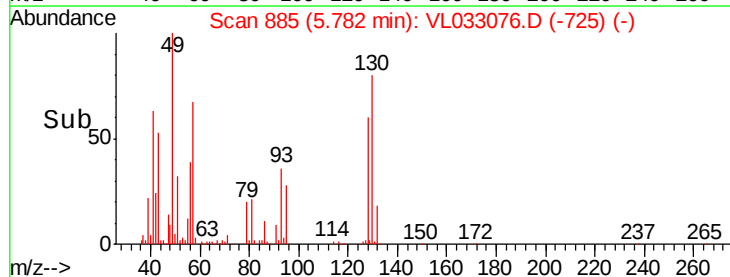
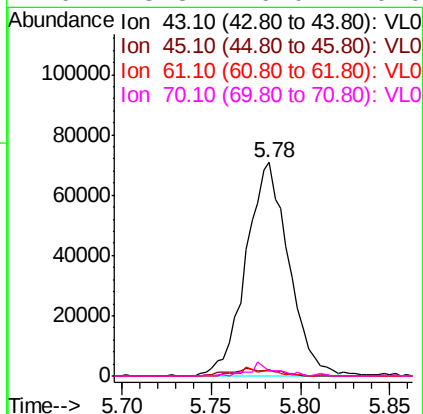
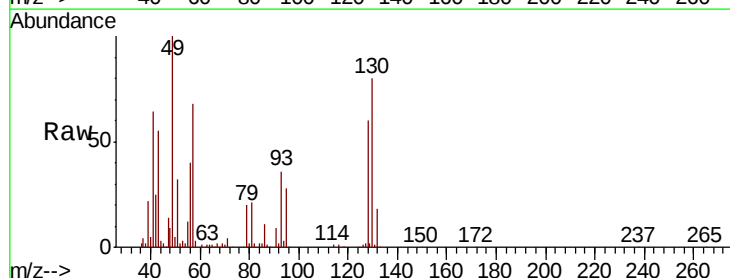
Instrument :
 MSVOA_L
 ClientSampleId :
 SVI-OA1-2018-12-19

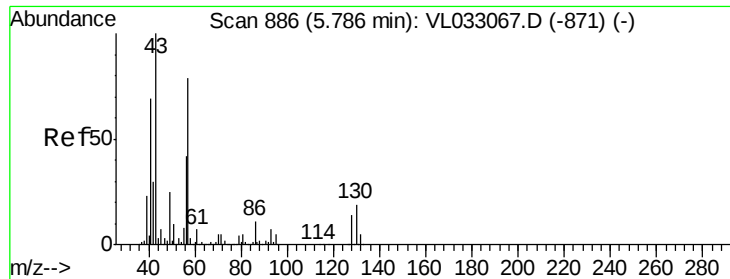
Tgt Ion:	43	Resp:	24080
Ion	Ratio	Lower	Upper
43	100		
86	2.9	6.2	9.4#
42	82.0	8.1	12.1#
44	9.5	4.3	6.5#



#25
 Ethyl Acetate
 Concen: 0.537 ppbv
 RT: 5.78 min Scan# 885
 Delta R.T. 0.01 min
 Lab File: VL033076.D
 Acq: 4 Jan 2019 20:25

Tgt Ion:	43	Resp:	118038
Ion	Ratio	Lower	Upper
43	100		
45	3.6	7.9	11.9#
61	3.0	7.8	11.8#
70	3.8	6.0	9.0#





#26

Hexane

Concen: 1.345 ppbv

RT: 5.78 min Scan# 884

Delta R.T. -0.00 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

SVI-OA1-2018-12-19

Tgt Ion: 57 Resp: 139288

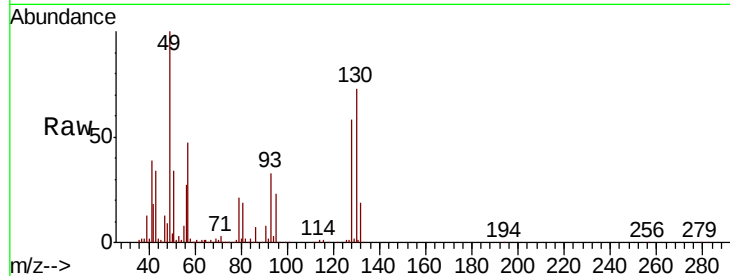
Ion Ratio Lower Upper

57 100

41 101.6 70.8 106.2

43 85.9 171.8 257.6#

56 60.1 41.9 62.9



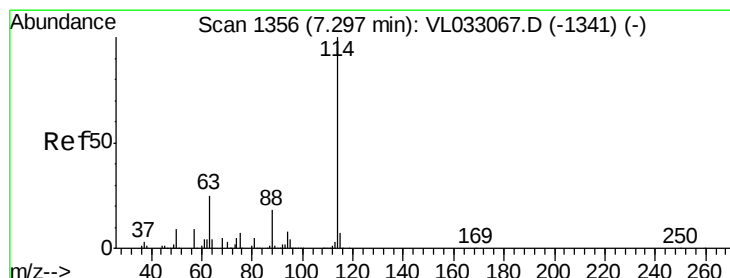
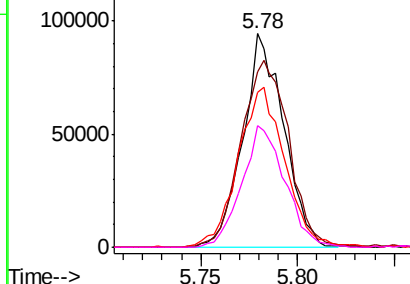
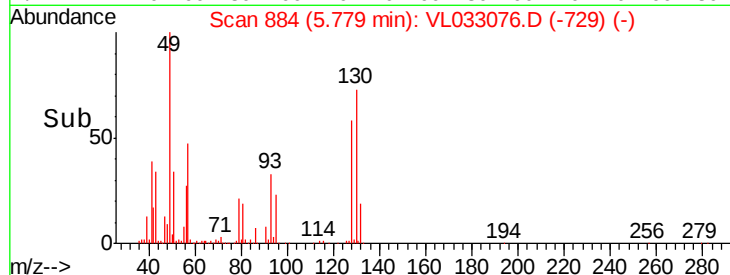
Abundance

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



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1355

Delta R.T. -0.00 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

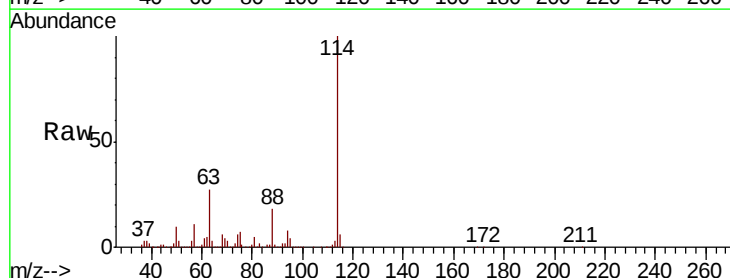
Tgt Ion: 114 Resp: 2188501

Ion Ratio Lower Upper

114 100

63 25.7 20.1 30.1

88 17.9 14.0 21.0

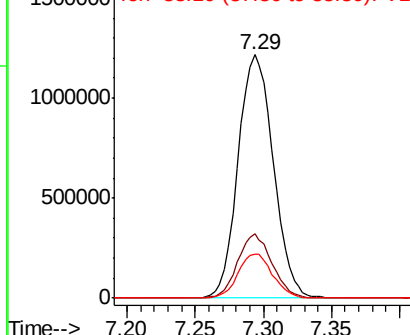
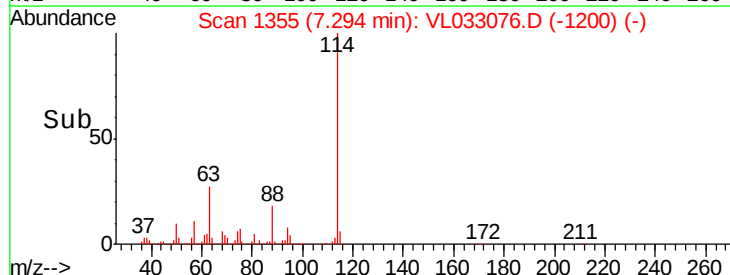


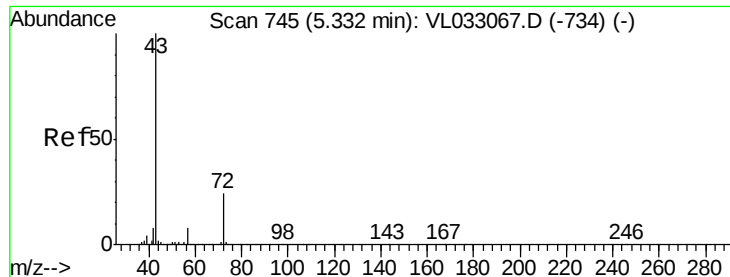
Abundance

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: 0.227 ppbv

RT: 5.35 min Scan# 749

Delta R.T. 0.01 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

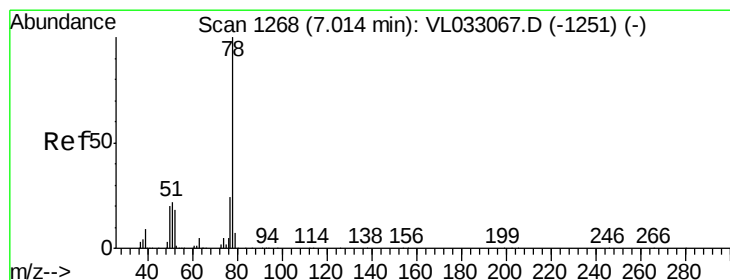
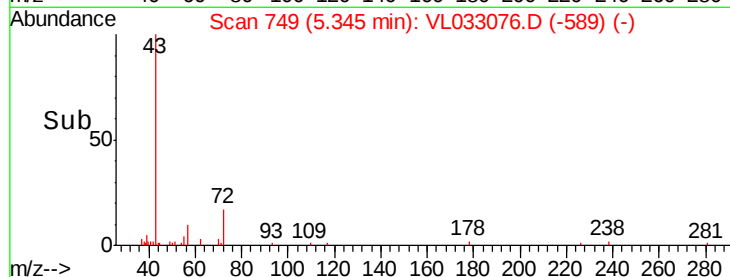
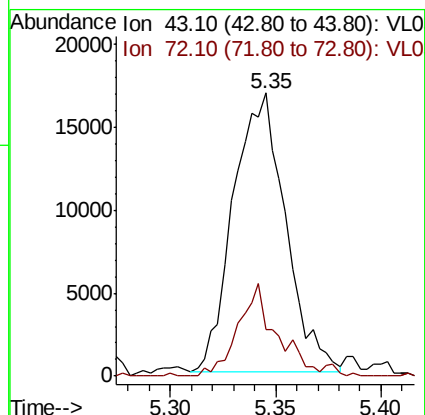
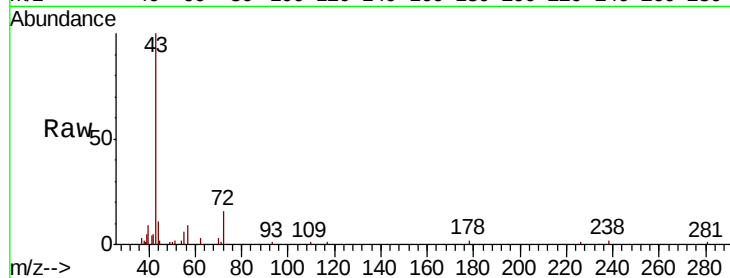
SVI-OA1-2018-12-19

Tgt Ion: 43 Resp: 28922

Ion Ratio Lower Upper

43 100

72 25.3 18.9 28.3



#36

Benzene

Concen: 0.202 ppbv

RT: 7.01 min Scan# 1267

Delta R.T. 0.00 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

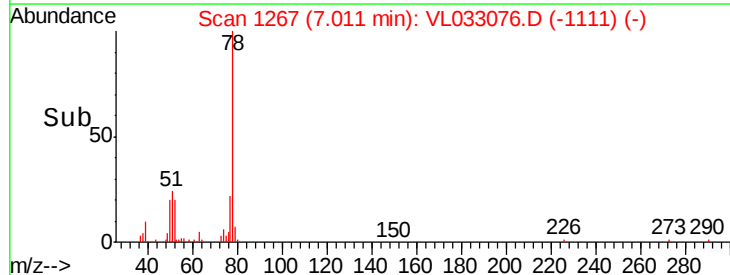
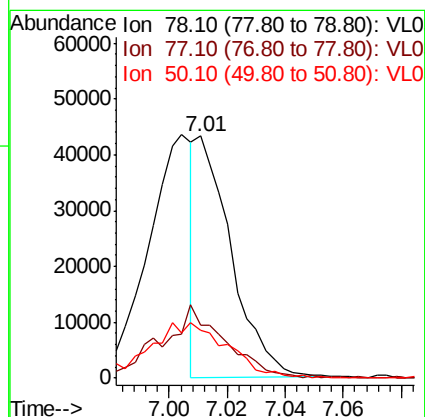
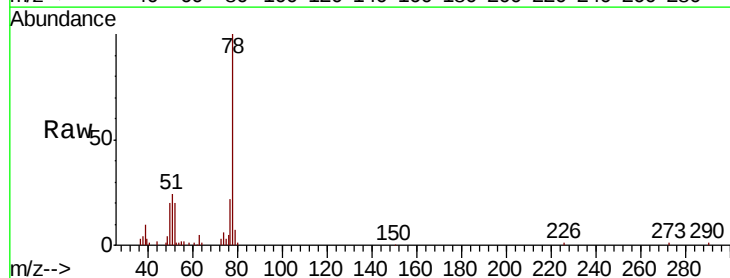
Tgt Ion: 78 Resp: 36235

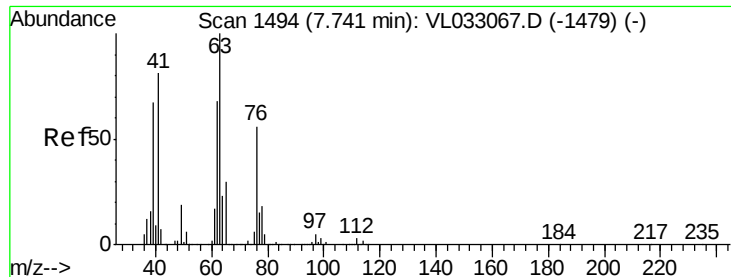
Ion Ratio Lower Upper

78 100

77 21.2 18.5 27.7

50 18.0 15.7 23.5





#39

1,2-Dichloropropane

Concen: 8.292 ppbv

RT: 7.29 min Scan# 1355

Delta R.T. -0.45 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

SVI-OA1-2018-12-19

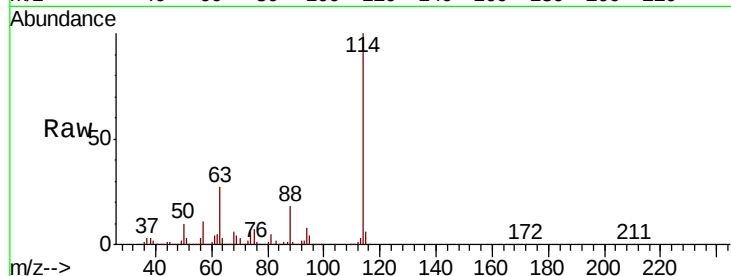
Tgt Ion: 63 Resp: 558417

Ion Ratio Lower Upper

63 100

41 0.0 61.9 92.9#

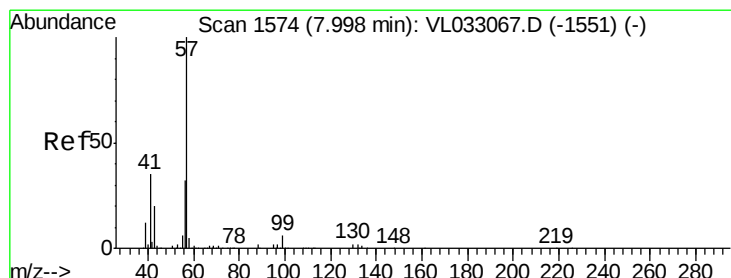
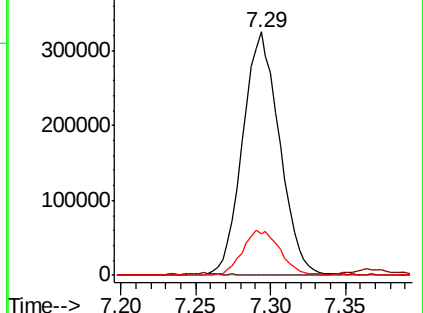
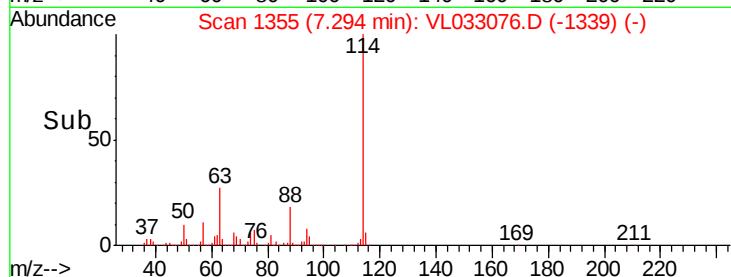
62 16.9 55.8 83.6#



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



#44

2,2,4-Trimethylpentane

Concen: 0.032 ppbv

RT: 7.99 min Scan# 1572

Delta R.T. -0.00 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

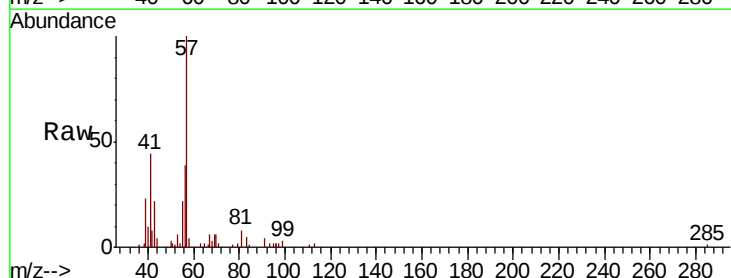
Tgt Ion: 57 Resp: 9641

Ion Ratio Lower Upper

57 100

41 0.0 26.2 39.2#

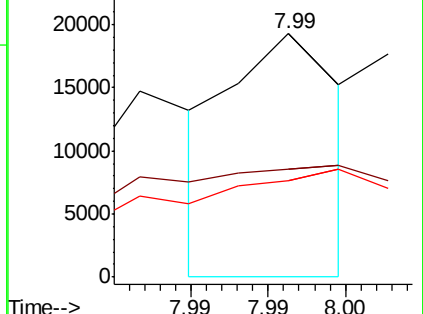
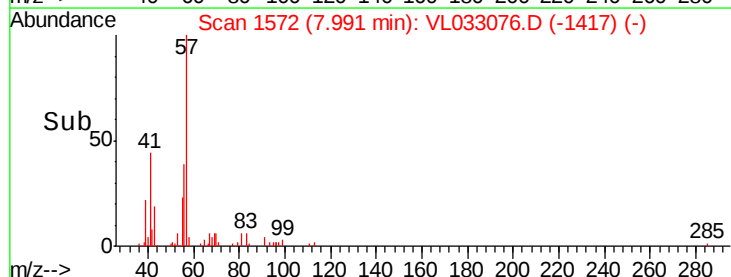
56 0.0 24.9 37.3#

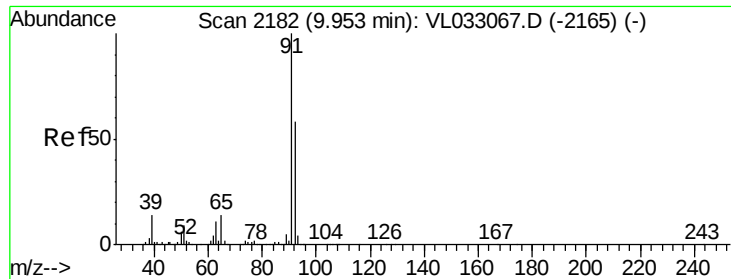


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 5.693 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.00 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

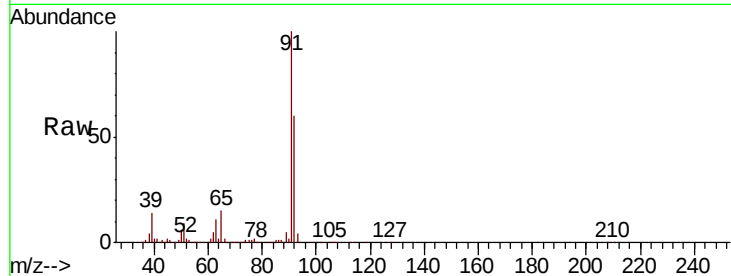
SVI-OA1-2018-12-19

Tgt Ion: 91 Resp: 1093719

Ion Ratio Lower Upper

91 100

92 58.7 47.7 71.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.95

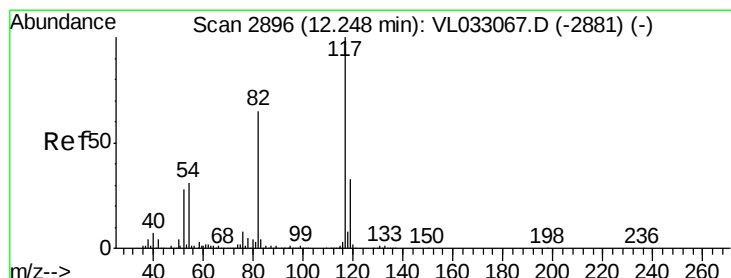
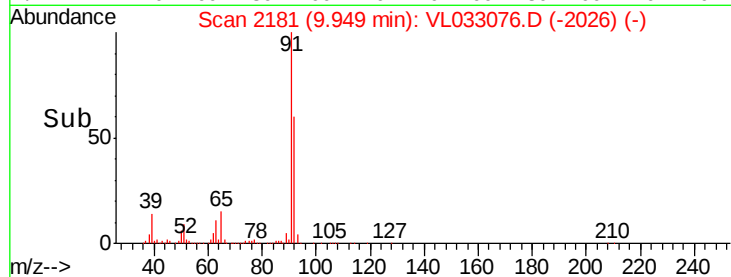
600000

400000

200000

0

Time--> 9.85 9.90 9.95 10.00



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2894

Delta R.T. -0.01 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

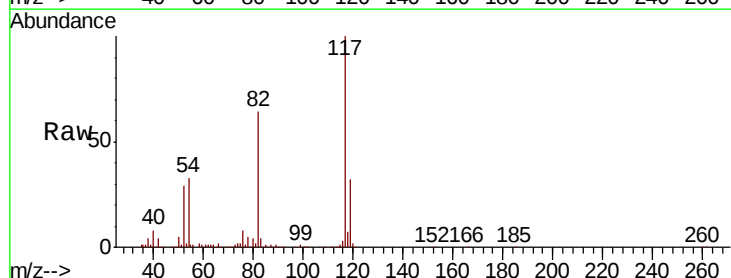
Tgt Ion: 117 Resp: 2120797

Ion Ratio Lower Upper

117 100

82 64.5 48.9 73.3

119 32.1 24.6 37.0



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

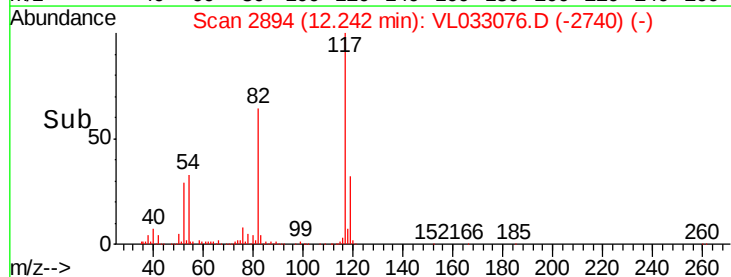
12.24

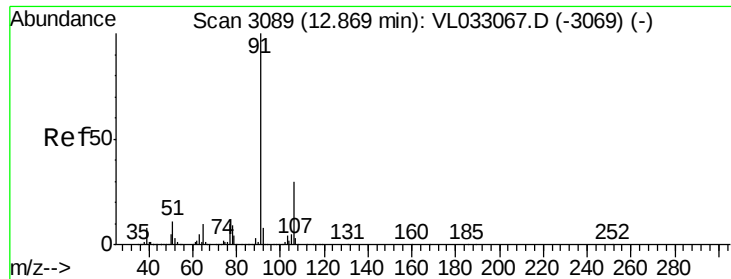
1000000

500000

0

Time--> 12.20 12.30





#58

Ethyl Benzene

Concen: 0.090 ppbv

RT: 12.87 min Scan# 3088

Delta R.T. -0.01 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

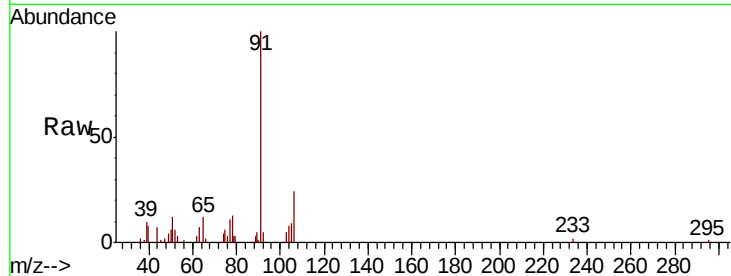
SVI-OA1-2018-12-19

Tgt Ion: 91 Resp: 24173

Ion Ratio Lower Upper

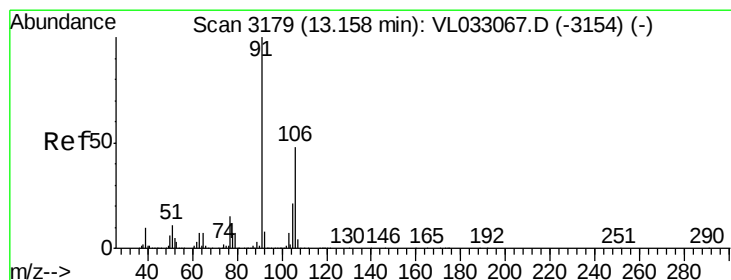
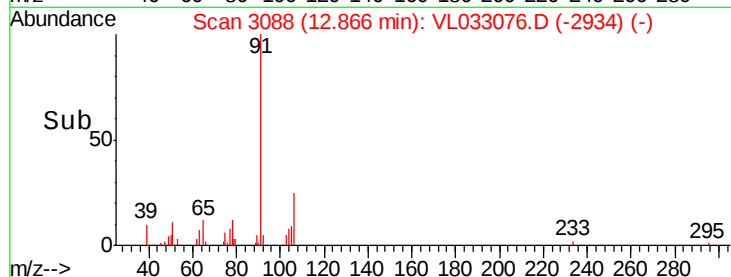
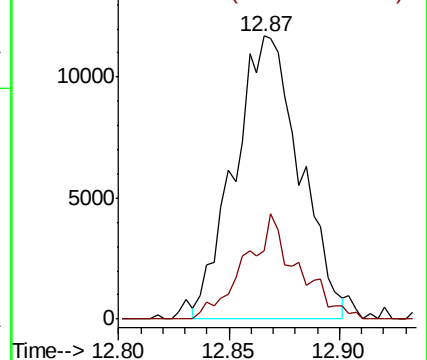
91 100

106 24.9 24.3 36.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.140 ppbv

RT: 13.12 min Scan# 3167

Delta R.T. -0.01 min

Lab File: VL033076.D

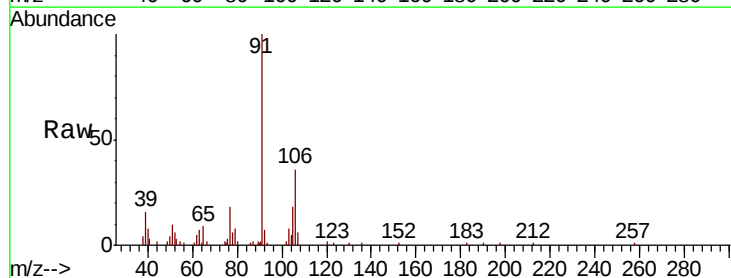
Acq: 4 Jan 2019 20:25

Tgt Ion: 91 Resp: 34667

Ion Ratio Lower Upper

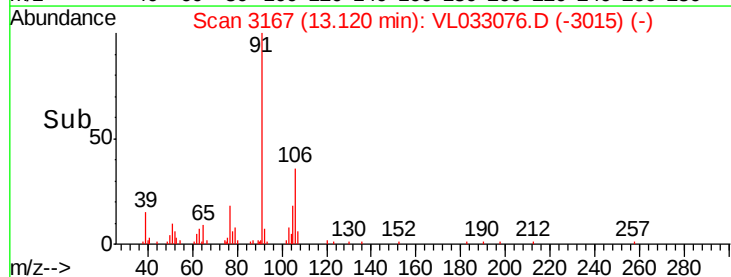
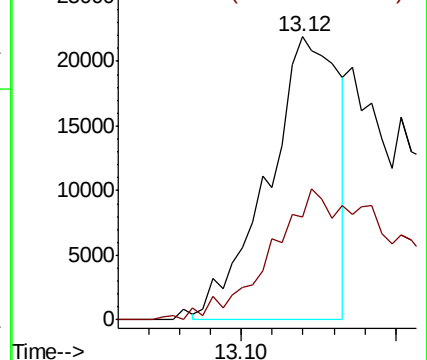
91 100

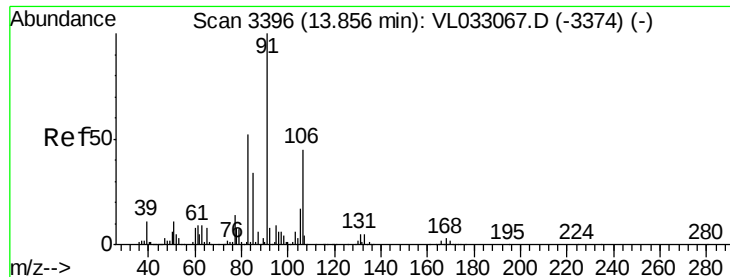
106 90.0 0.0 0.0#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

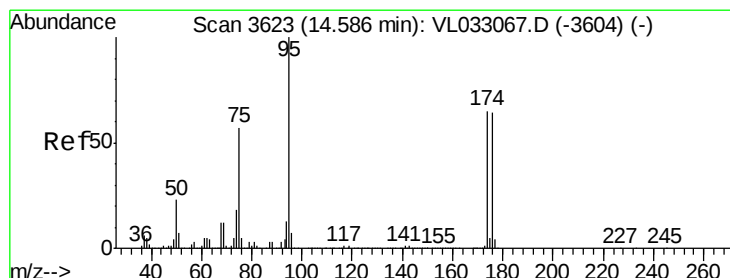
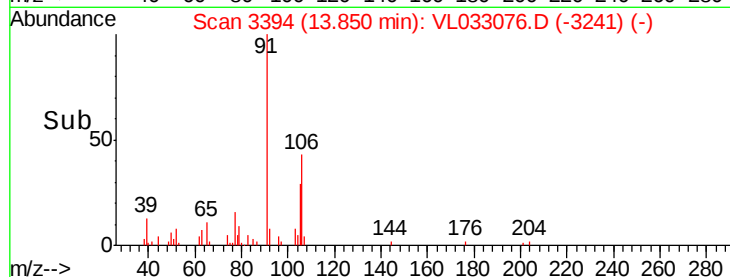
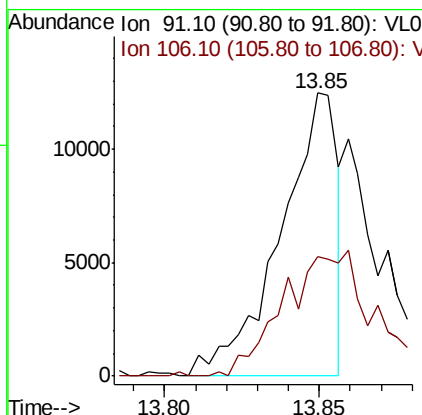
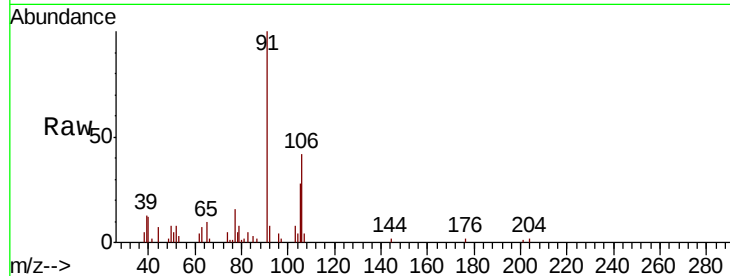




#60
o-Xylene
Concen: 0.065 ppbv
RT: 13.85 min Scan# 3394
Delta R.T. -0.01 min
Lab File: VL033076.D
Acq: 4 Jan 2019 20:25

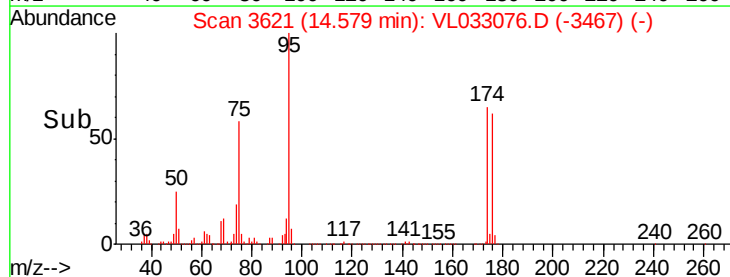
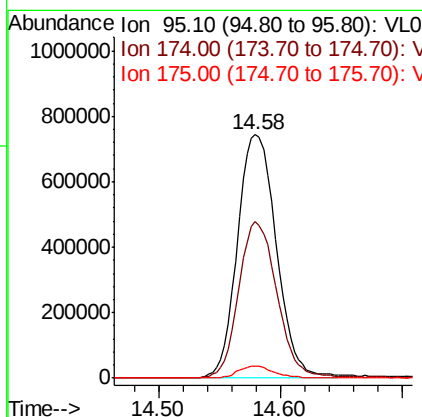
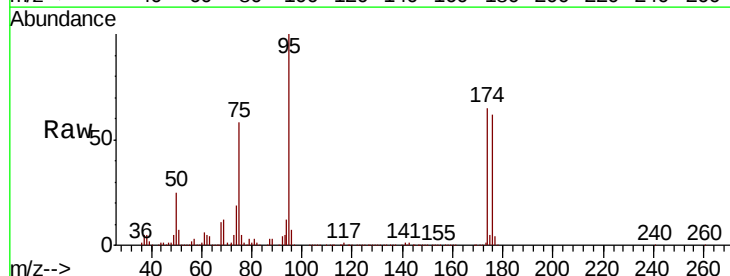
Instrument :
MSVOA_L
ClientSampleId :
SVI-OA1-2018-12-19

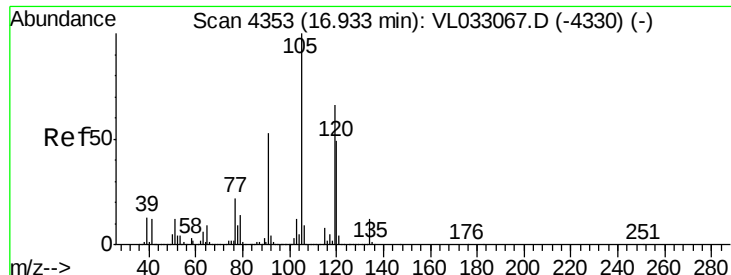
Tgt Ion: 91 Resp: 15840
Ion Ratio Lower Upper
91 100
106 0.0 22.1 66.5#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.086 ppbv
RT: 14.58 min Scan# 3621
Delta R.T. -0.01 min
Lab File: VL033076.D
Acq: 4 Jan 2019 20:25

Tgt Ion: 95 Resp: 1639696
Ion Ratio Lower Upper
95 100
174 63.7 51.9 77.9
175 4.7 3.9 5.9





#74

1,2,4-Trimethylbenzene

Concen: 0.060 ppbv

RT: 16.93 min Scan# 4352

Delta R.T. -0.01 min

Lab File: VL033076.D

Acq: 4 Jan 2019 20:25

Instrument :

MSVOA_L

ClientSampleId :

SVI-OA1-2018-12-19

Tgt Ion:105 Resp: 17492

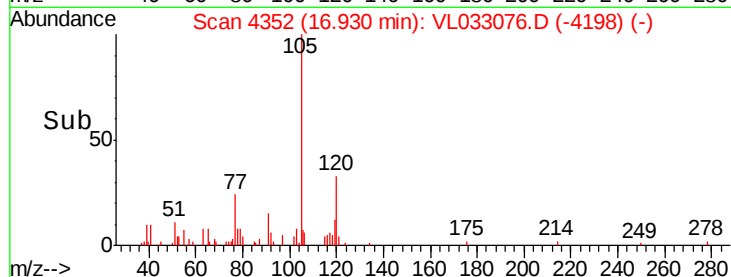
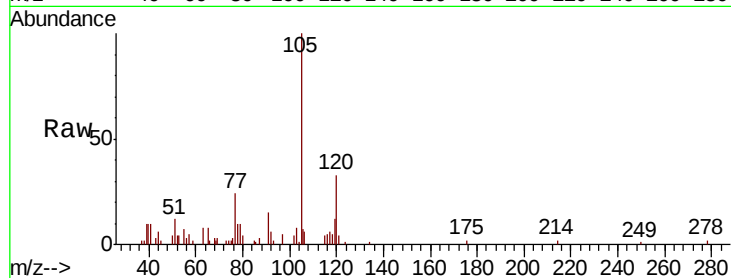
Ion Ratio Lower Upper

105 100

120 33.0 37.0 55.4#

91 9.1 35.4 53.0#

77 24.0 17.1 25.7



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

