

Data File : VL033581.D
Acq On : 11 Apr 2019 2:17
Operator : SY/AP
Sample : K2312-04
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
BFB

Quant Time: Apr 11 05:11:33 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 26 16:00:50 2019
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	794693	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1888583	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1869849	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 1516040 10.34 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 103.40%

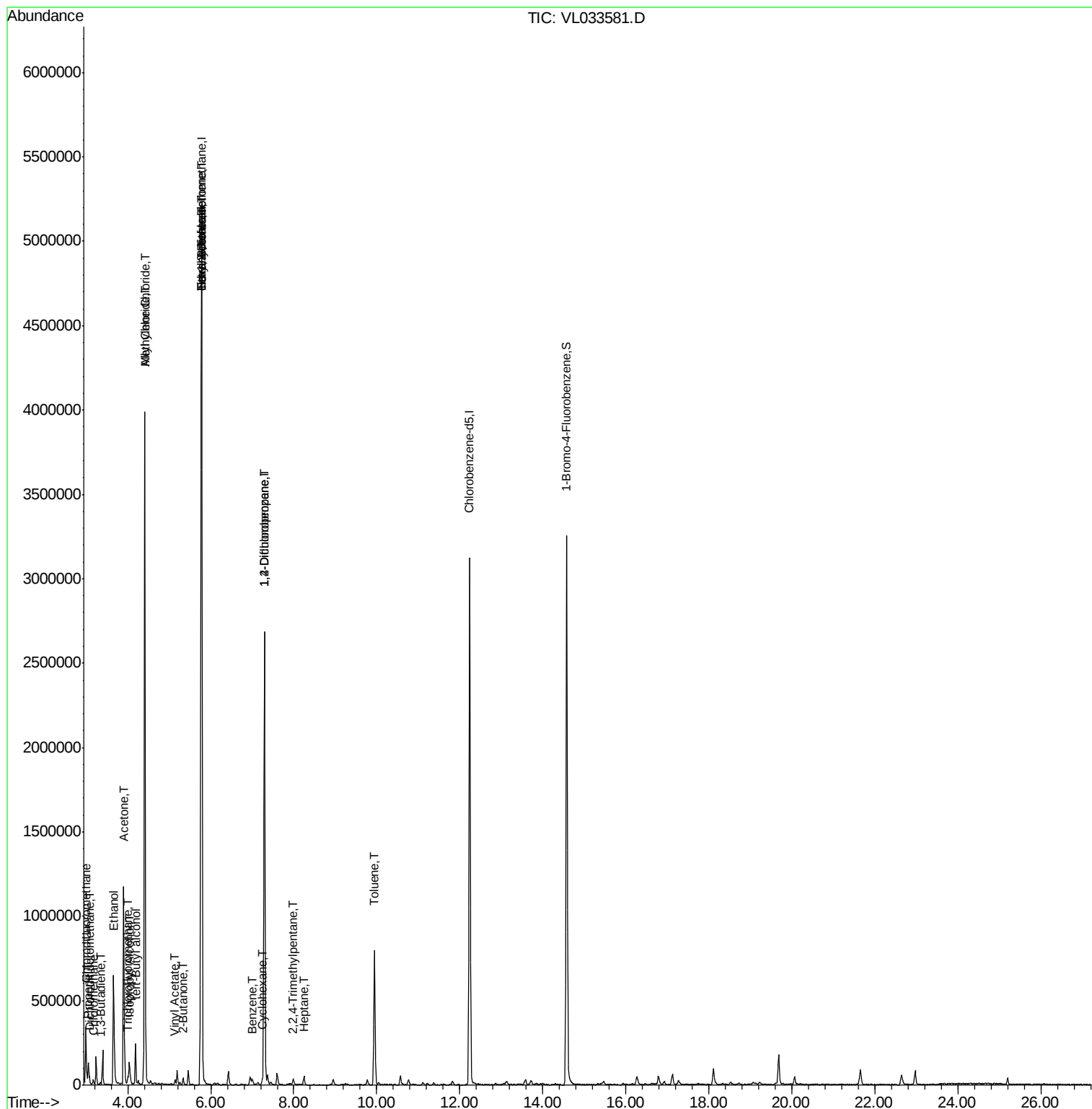
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	36584	0.316	ppbv	98
3) Chlorodifluoromethane	2.99	51	242259	2.648	ppbv #	66
4) Chloromethane	3.17	50	21393	0.442	ppbv	95
9) Propene	3.05	41	23553	0.613	ppbv #	78
10) Heptane	8.25	43	11516	0.112	ppbv #	83
11) Trichlorofluoromethane	4.01	101	30175	0.211	ppbv	88
13) Ethanol	3.66	45	709675	71.378	ppbv	64
15) Acetone	3.90	43	1145442	11.987	ppbv	98
16) 1,3-Butadiene	3.35	39	3091	0.082	ppbv #	53
17) tert-Butyl alcohol	4.18	59	63549	3.617	ppbv	97
19) Isopropyl Alcohol	4.04	45	137168	2.270	ppbv #	1
20) Methylene Chloride	4.41	84	1433201	35.334	ppbv	93
21) Allyl Chloride	4.41	41	46142	0.764	ppbv #	23
23) Vinyl Acetate	5.15	43	7405	0.054	ppbv #	52
25) Ethyl Acetate	5.78	43	1529204	8.626	ppbv #	83
26) Hexane	5.78	57	1875417	23.791	ppbv #	44
30) Cyclohexane	7.25	84	7437	0.119	ppbv #	6
31) cis-1,2-Dichloroethene	5.77	61	34458	0.440	ppbv #	29
34) 2-Butanone	5.34	43	46278	0.408	ppbv	95
36) Benzene	7.00	78	20845	0.132	ppbv #	94
39) 1,2-Dichloropropane	7.29	63	499856	8.052	ppbv #	23
41) Tetrahydrofuran	5.78	42	699067	11.201	ppbv #	51
44) 2,2,4-Trimethylpentane	7.99	57	13700	0.049	ppbv #	1
53) Toluene	9.94	91	552649	3.001	ppbv	98

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Instrument :

MSVOA_L

ClientSampleId :

BFB

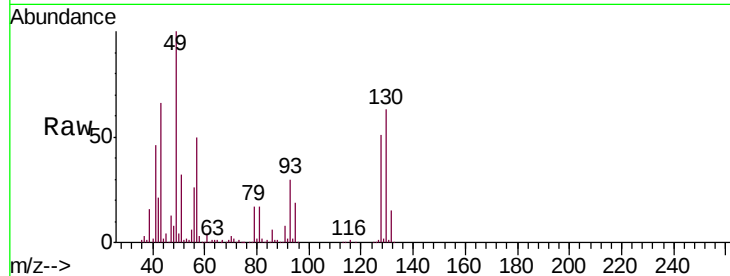
Tgt Ion: 49 Resp: 794693

Ion Ratio Lower Upper

49 100

128 49.9 24.0 72.0

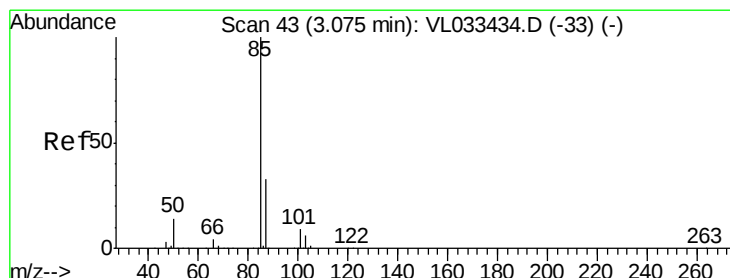
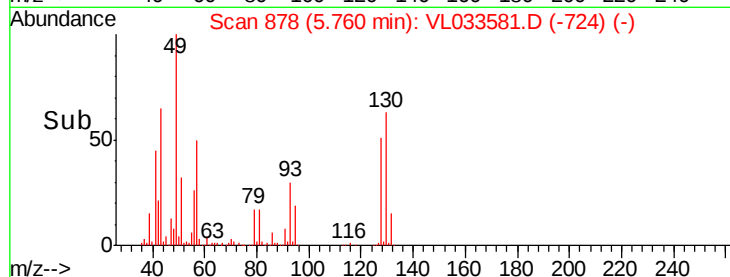
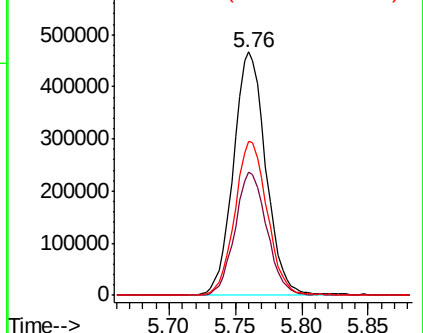
130 63.6 31.2 93.6



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: 0.316 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033581.D

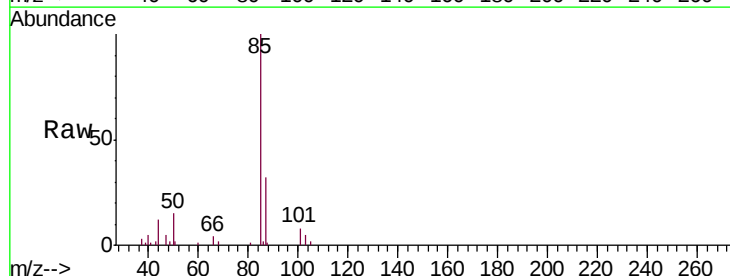
Acq: 11 Apr 2019 2:17

Tgt Ion: 85 Resp: 36584

Ion Ratio Lower Upper

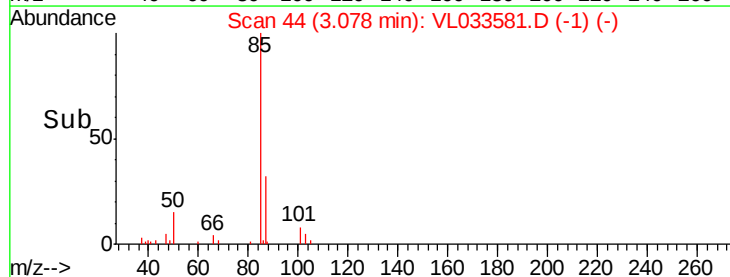
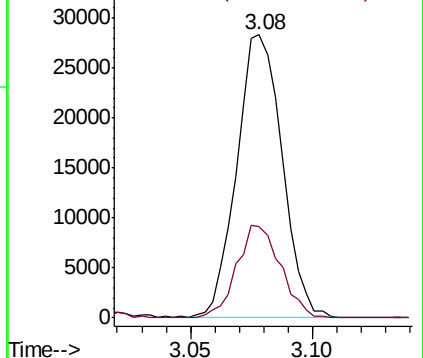
85 100

87 32.4 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

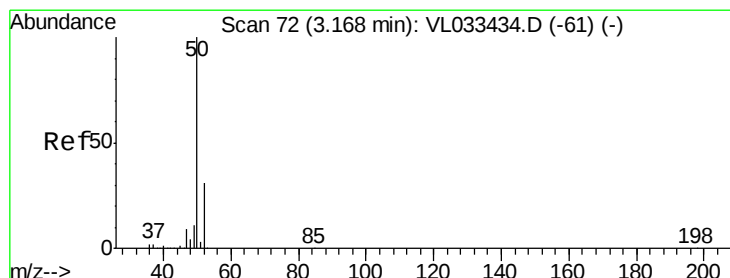
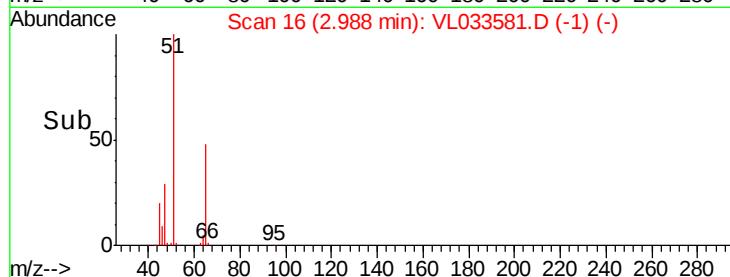
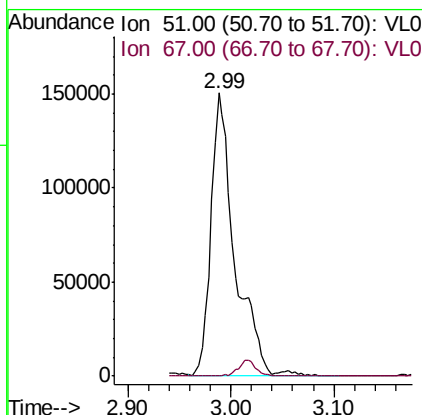
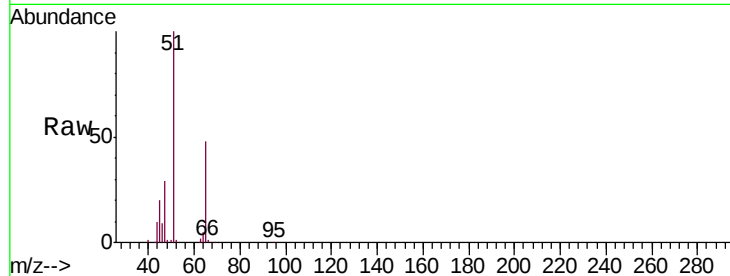




#3
Chlorodifluoromethane
Concen: 2.648 ppbv
RT: 2.99 min Scan# 16
Delta R.T. -0.03 min
Lab File: VL033581.D
Acq: 11 Apr 2019 2:17

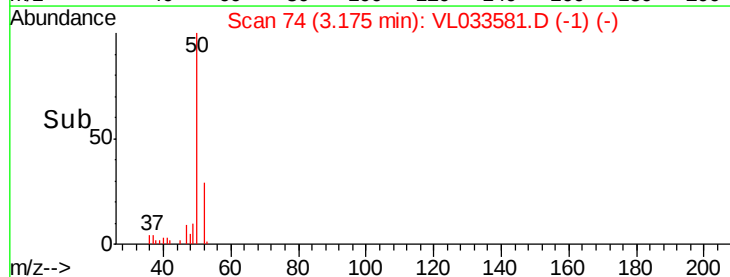
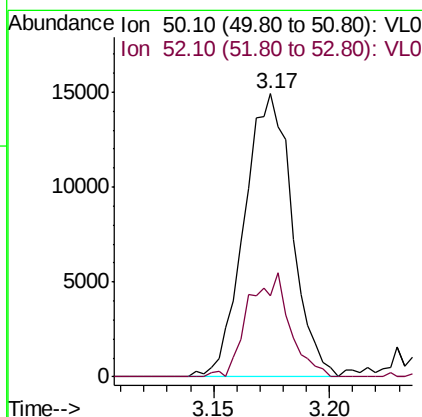
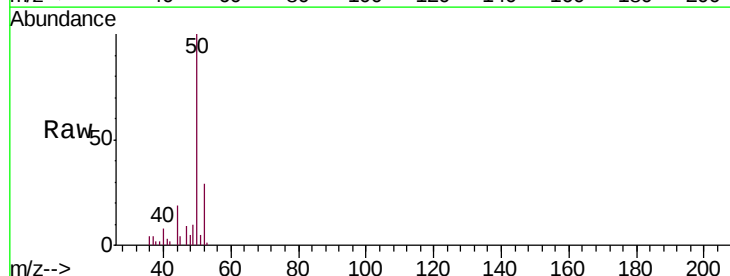
Instrument :
MSVOA_L
ClientSampleId :
BFB

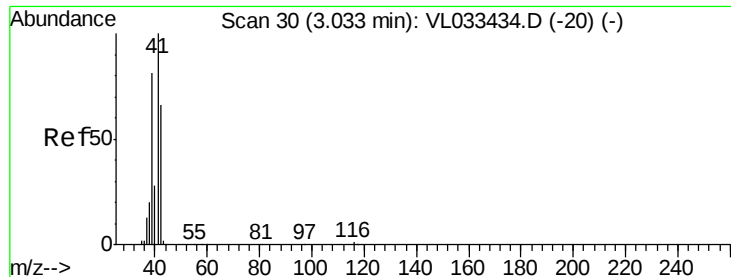
Tgt Ion: 51 Resp: 242259
Ion Ratio Lower Upper
51 100
67 4.1 15.7 23.5#



#4
Chloromethane
Concen: 0.442 ppbv
RT: 3.17 min Scan# 74
Delta R.T. 0.01 min
Lab File: VL033581.D
Acq: 11 Apr 2019 2:17

Tgt Ion: 50 Resp: 21393
Ion Ratio Lower Upper
50 100
52 28.7 25.0 37.6





#9

Propene

Concen: 0.613 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.02 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Instrument :

MSVOA_L

ClientSampleId :

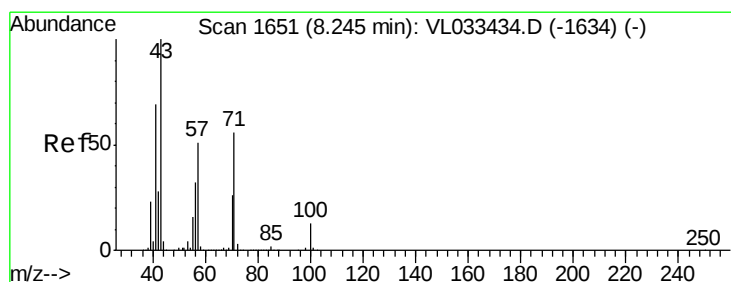
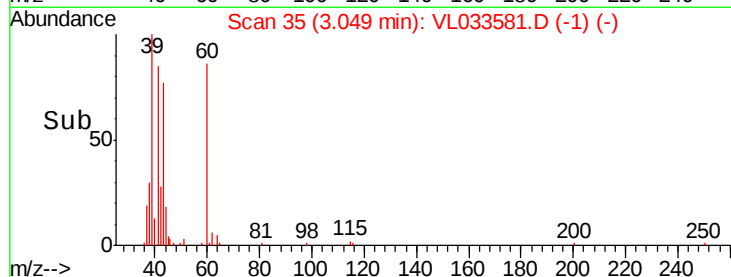
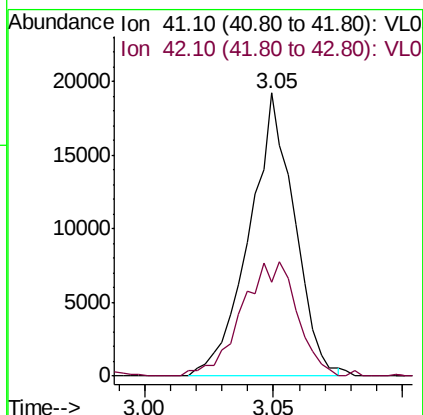
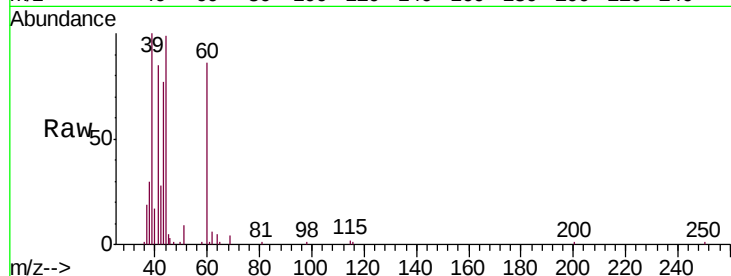
BFB

Tgt Ion: 41 Resp: 23553

Ion Ratio Lower Upper

41 100

42 49.8 53.9 80.9#



#10

Heptane

Concen: 0.112 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. -0.00 min

Lab File: VL033581.D

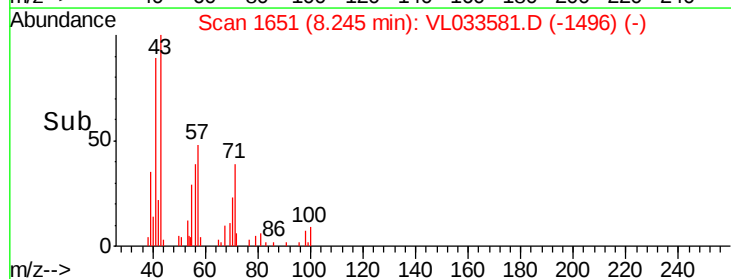
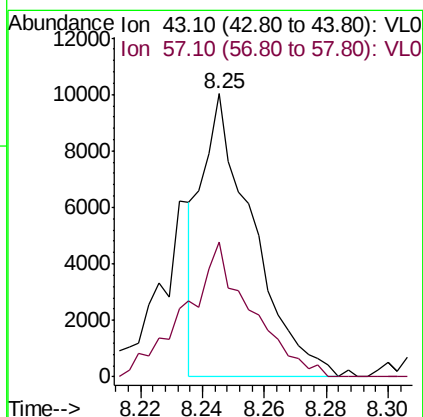
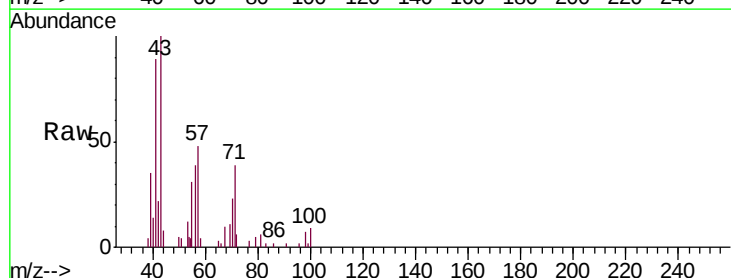
Acq: 11 Apr 2019 2:17

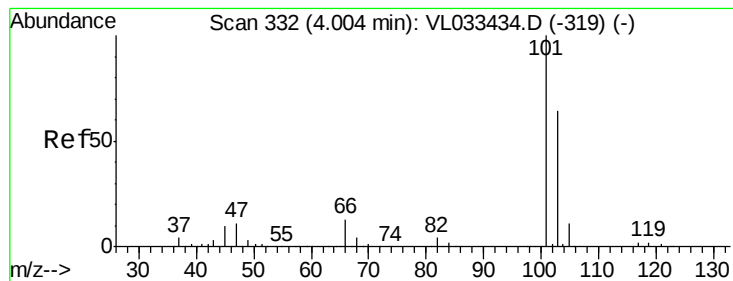
Tgt Ion: 43 Resp: 11516

Ion Ratio Lower Upper

43 100

57 62.5 40.6 60.8#





#11

Trichlorofluoromethane

Concen: 0.211 ppbv

RT: 4.01 min Scan# 333

Delta R.T. 0.00 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Instrument :

MSVOA_L

ClientSampleId :

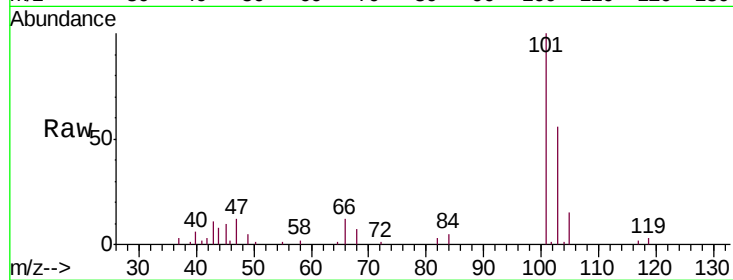
BFB

Tgt Ion: 101 Resp: 30175

Ion Ratio Lower Upper

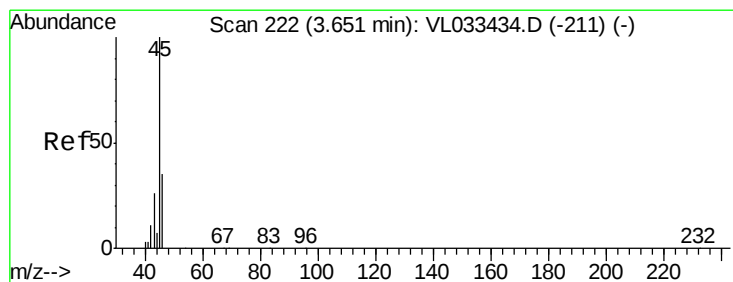
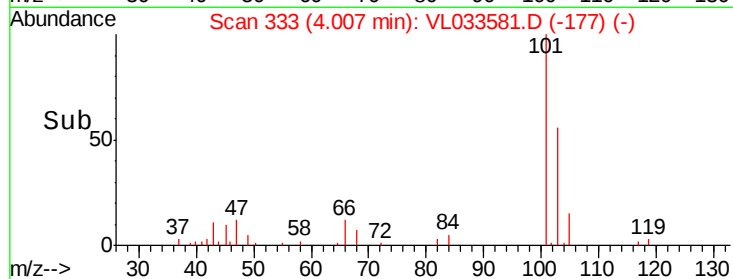
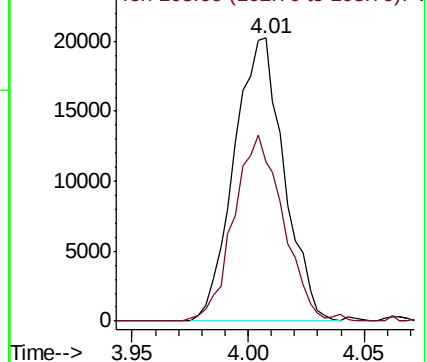
101 100

103 55.0 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 71.378 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.01 min

Lab File: VL033581.D

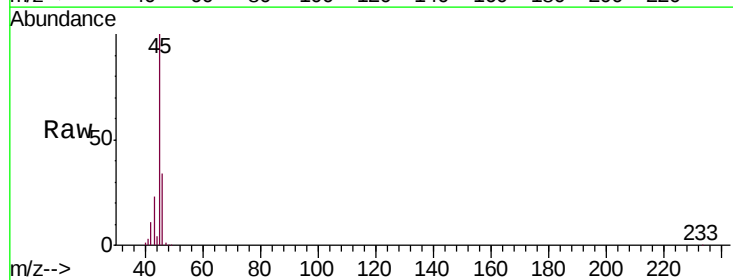
Acq: 11 Apr 2019 2:17

Tgt Ion: 45 Resp: 709675

Ion Ratio Lower Upper

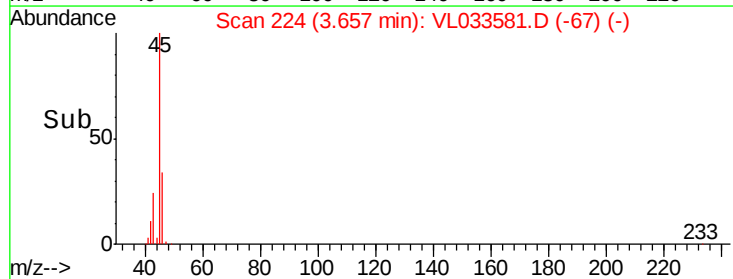
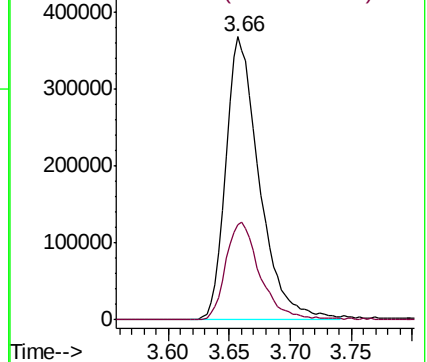
45 100

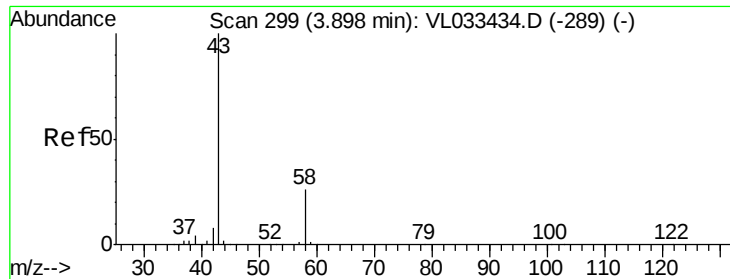
46 35.7 25.4 101.8



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 11.987 ppbv

RT: 3.90 min Scan# 299

Delta R.T. -0.00 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Instrument :

MSVOA_L

ClientSampled :

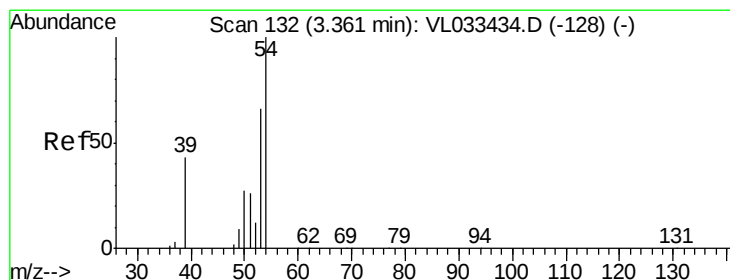
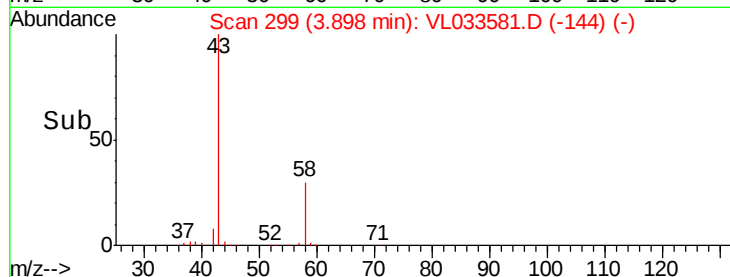
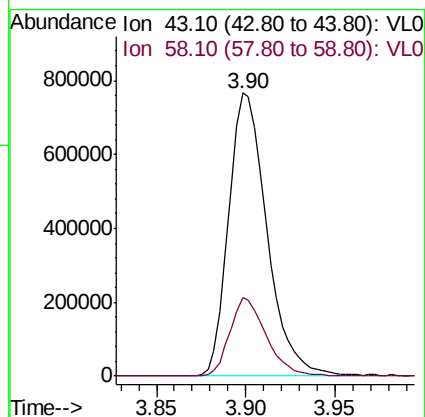
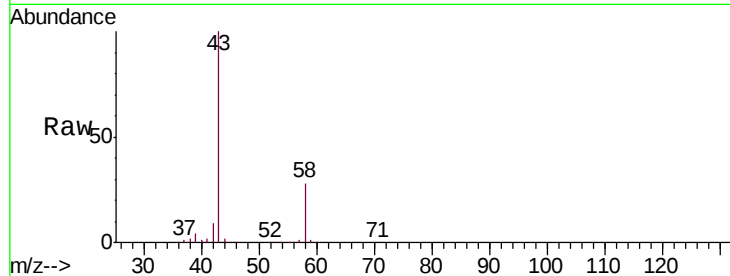
BFB

Tgt Ion: 43 Resp: 1145442

Ion Ratio Lower Upper

43 100

58 26.6 20.5 30.7



#16

1,3-Butadiene

Concen: 0.082 ppbv

RT: 3.35 min Scan# 127

Delta R.T. -0.02 min

Lab File: VL033581.D

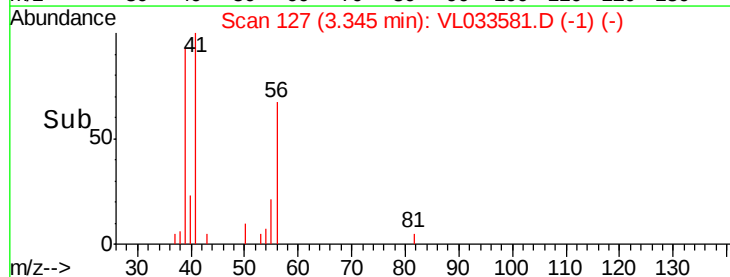
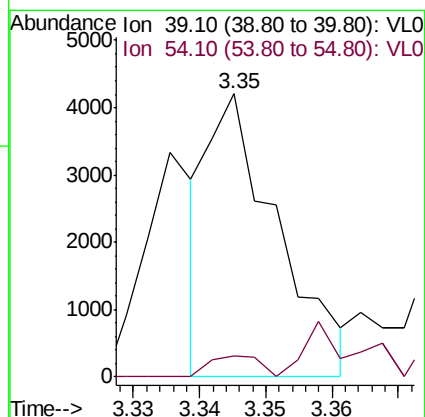
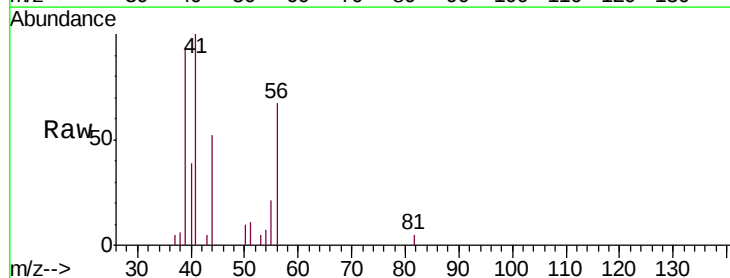
Acq: 11 Apr 2019 2:17

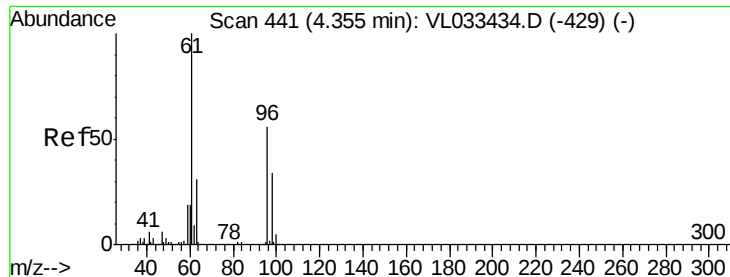
Tgt Ion: 39 Resp: 3091

Ion Ratio Lower Upper

39 100

54 43.1 69.4 104.2#





#17

tert-Butyl alcohol

Concen: 3.617 ppbv

RT: 4.18 min Scan# 388

Delta R.T. -0.17 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Instrument :

MSVOA_L

ClientSampleId :

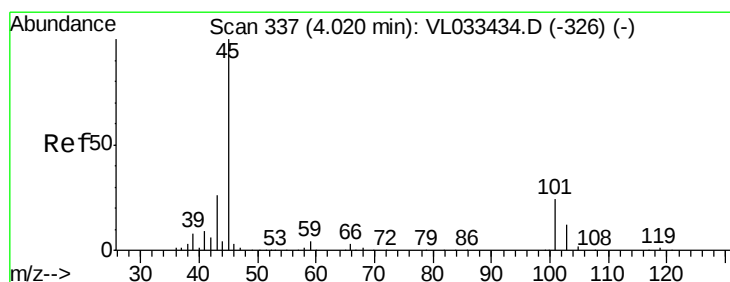
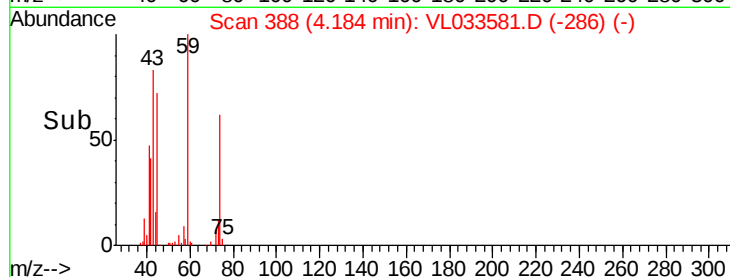
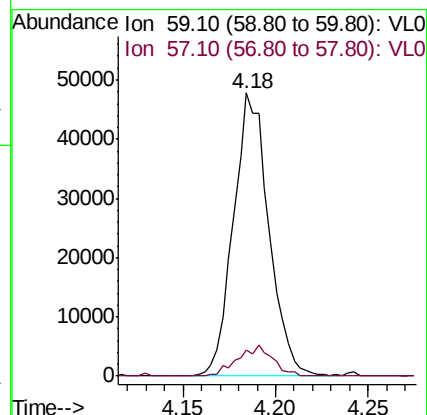
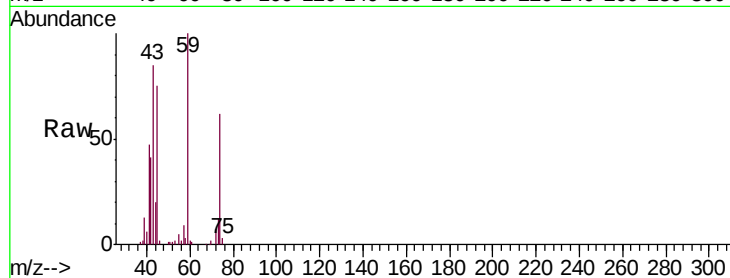
BFB

Tgt Ion: 59 Resp: 63549

Ion Ratio Lower Upper

59 100

57 10.8 7.8 11.8



#19

Isopropyl Alcohol

Concen: 2.270 ppbv

RT: 4.04 min Scan# 343

Delta R.T. 0.02 min

Lab File: VL033581.D

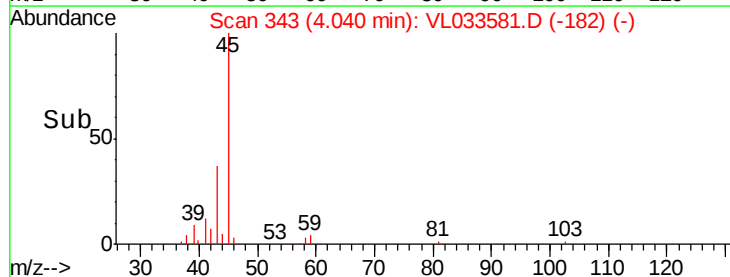
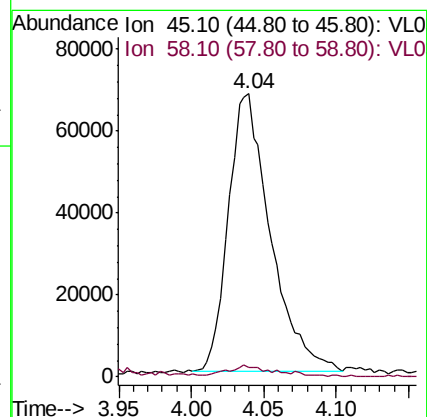
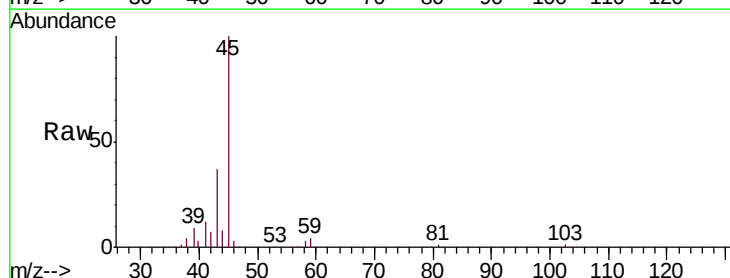
Acq: 11 Apr 2019 2:17

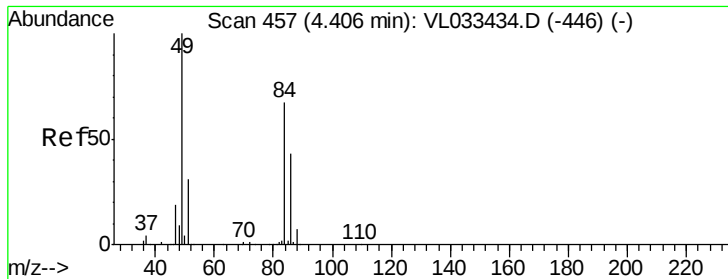
Tgt Ion: 45 Resp: 137168

Ion Ratio Lower Upper

45 100

58 222.8 1.4 2.2#

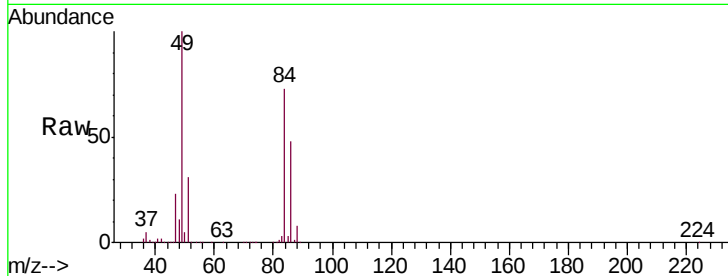




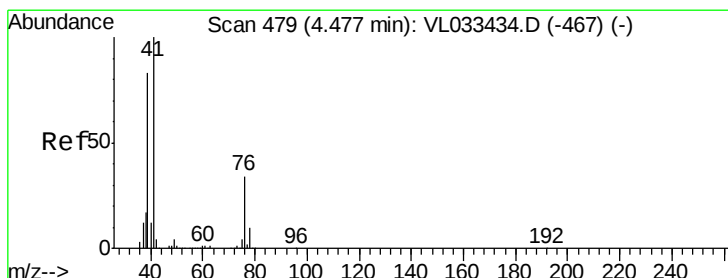
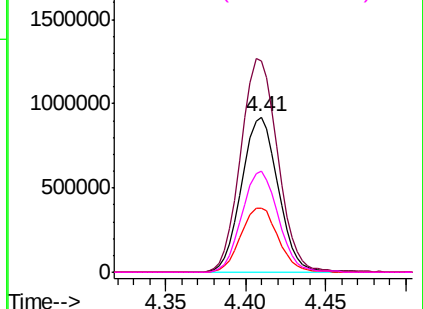
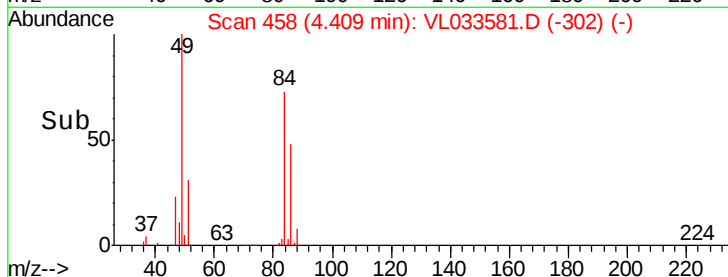
#20
Methylene Chloride
Concen: 35.334 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.00 min
Lab File: VL033581.D
Acq: 11 Apr 2019 2:17

Instrument :
MSVOA_L
ClientSampleId :
BFB

Tgt Ion: 84 Resp: 1433201
Ion Ratio Lower Upper
84 100
49 136.4 120.0 180.0
51 41.7 36.7 55.1
86 65.1 51.9 77.9

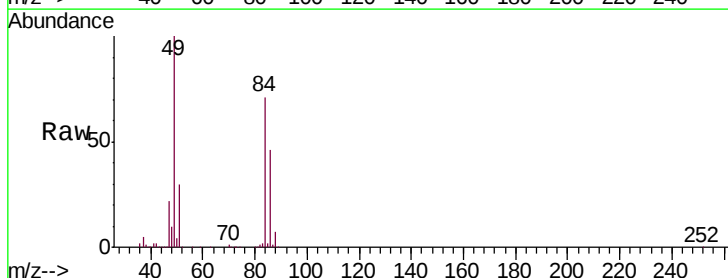


Abundance Ion 84.00 (83.70 to 84.70): VL0
2000000
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

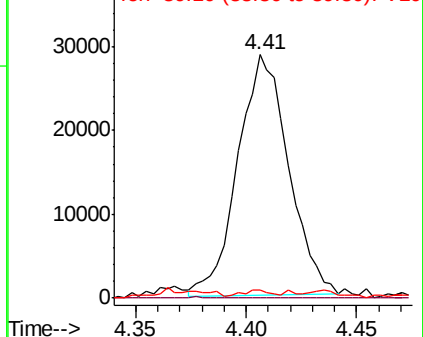
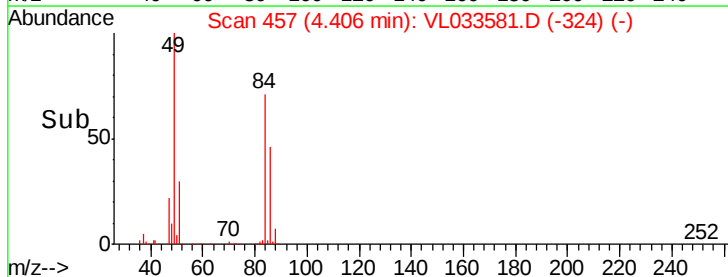


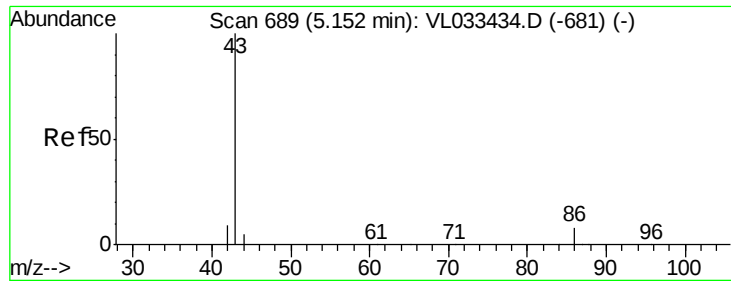
#21
Allyl Chloride
Concen: 0.764 ppbv
RT: 4.41 min Scan# 457
Delta R.T. -0.07 min
Lab File: VL033581.D
Acq: 11 Apr 2019 2:17

Tgt Ion: 41 Resp: 46142
Ion Ratio Lower Upper
41 100
76 0.0 25.4 38.2#
39 6.0 65.3 97.9#



Abundance Ion 41.10 (40.80 to 41.80): VL0
40000
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.054 ppbv

RT: 5.15 min Scan# 689

Delta R.T. -0.00 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Instrument :

MSVOA_L

ClientSampleId :

BFB

Tgt Ion: 43 Resp: 7405

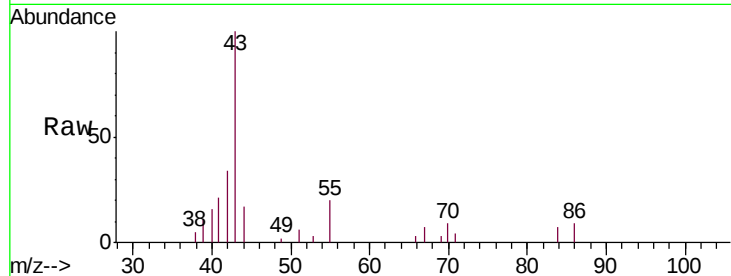
Ion Ratio Lower Upper

43 100

86 18.9 5.6 8.4#

42 30.6 8.0 12.0#

44 22.0 3.9 5.9#

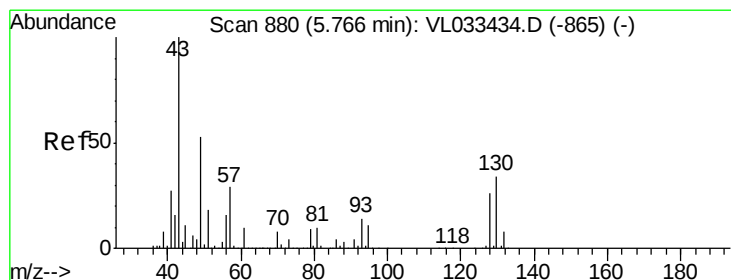
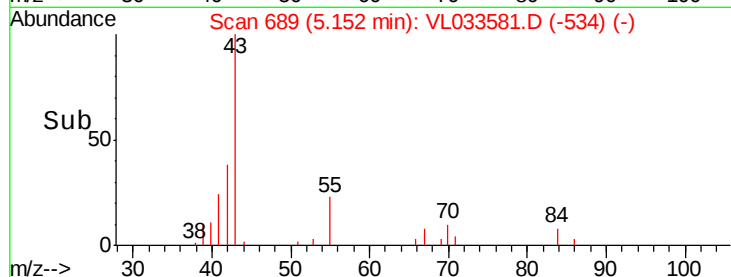
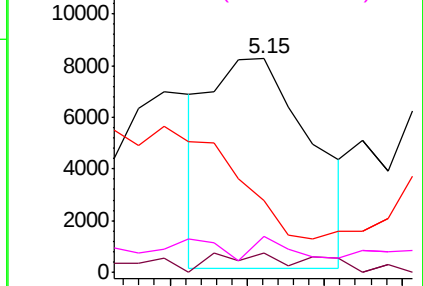


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 8.626 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.01 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Tgt Ion: 43 Resp: 1529204

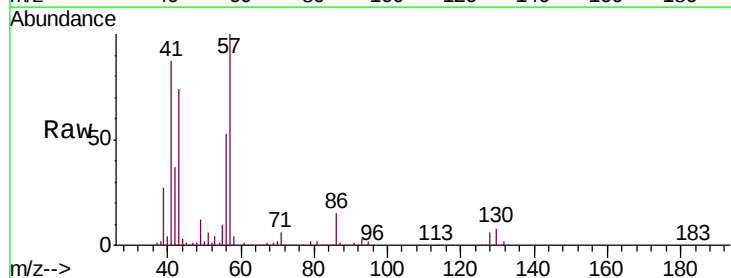
Ion Ratio Lower Upper

43 100

45 2.4 7.8 11.6#

61 2.3 7.3 10.9#

70 2.8 5.6 8.4#

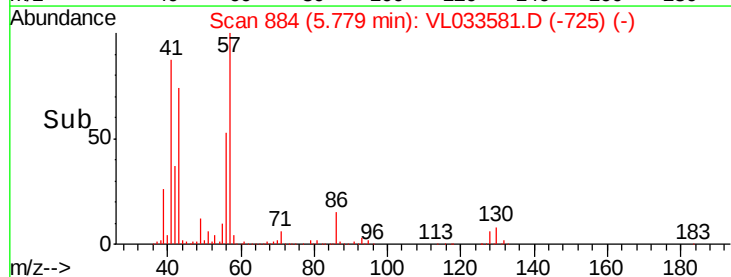
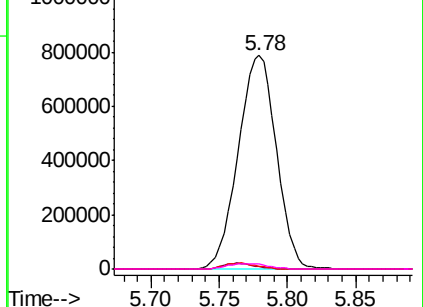


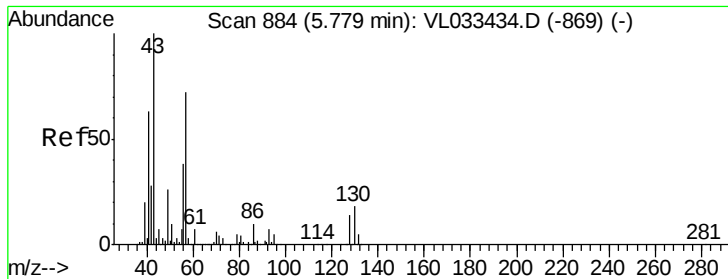
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 23.791 ppbv

RT: 5.78 min Scan# 884

Delta R.T. -0.00 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Instrument :

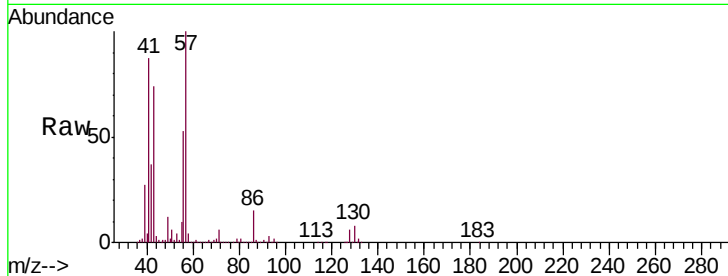
MSVOA_L

ClientSampleId :

BFB

Tgt Ion: 57 Resp: 1875417

Ion	Ratio	Lower	Upper
57	100		
41	86.8	70.7	106.1
43	81.7	182.6	274.0#
56	52.5	42.0	63.0

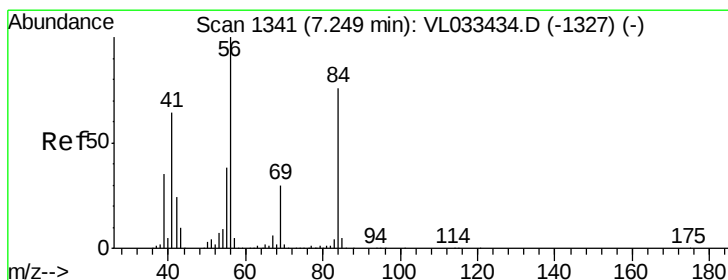
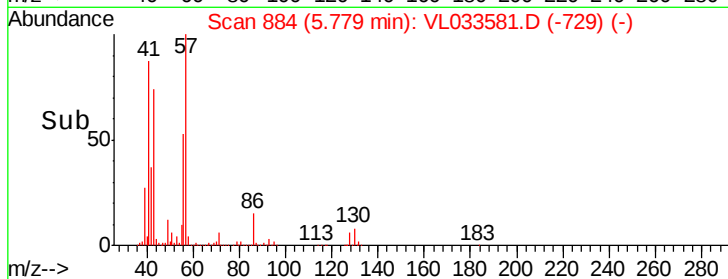
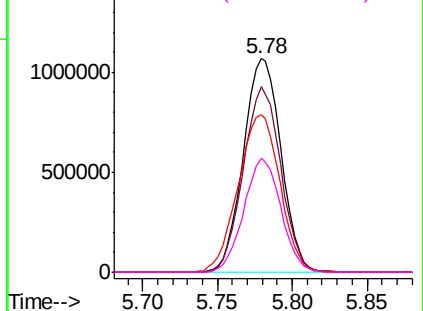


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#30

Cyclohexane

Concen: 0.119 ppbv

RT: 7.25 min Scan# 1340

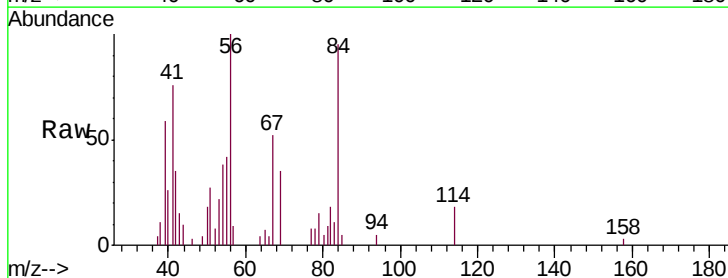
Delta R.T. -0.00 min

Lab File: VL033581.D

Acq: 11 Apr 2019 2:17

Tgt Ion: 84 Resp: 7437

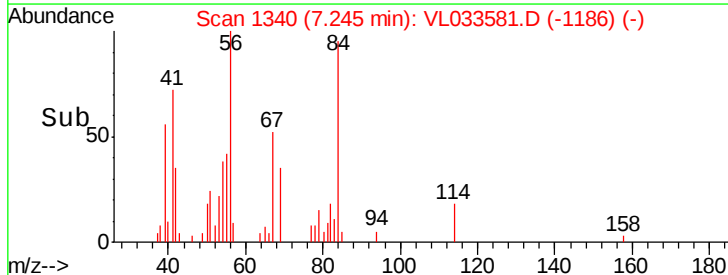
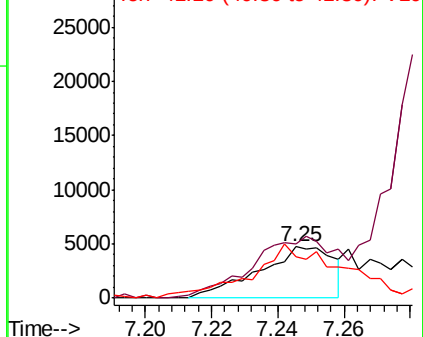
Ion	Ratio	Lower	Upper
84	100		
56	0.0	109.7	164.5#
41	140.8	68.2	102.2#

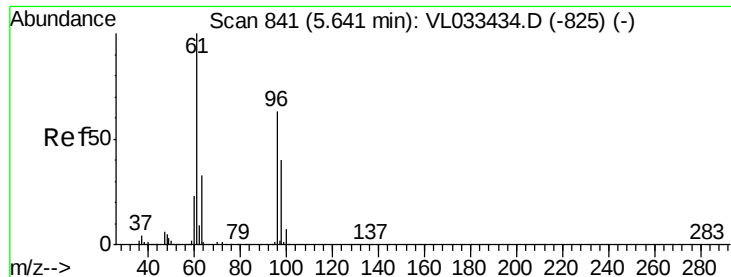


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0



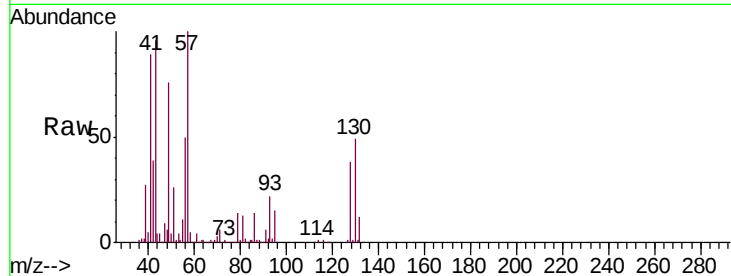


#31

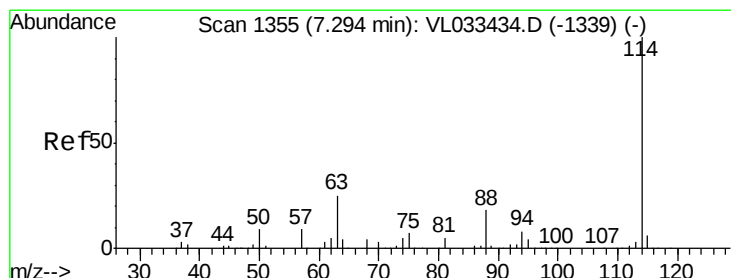
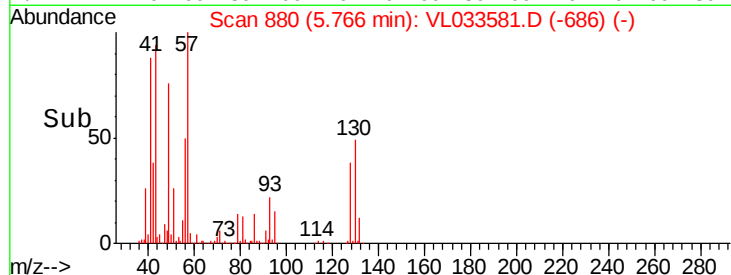
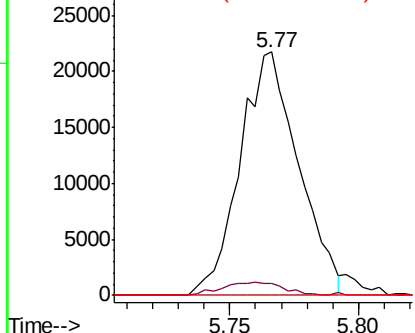
cis-1,2-Dichloroethene
 Concen: 0.440 ppbv
 RT: 5.77 min Scan# 880
 Delta R.T. 0.13 min
 Lab File: VL033581.D
 Acq: 11 Apr 2019 2:17

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Tgt Ion: 61 Resp: 34458
 Ion Ratio Lower Upper
 61 100
 96 4.7 50.6 76.0#
 98 0.0 32.2 48.2#



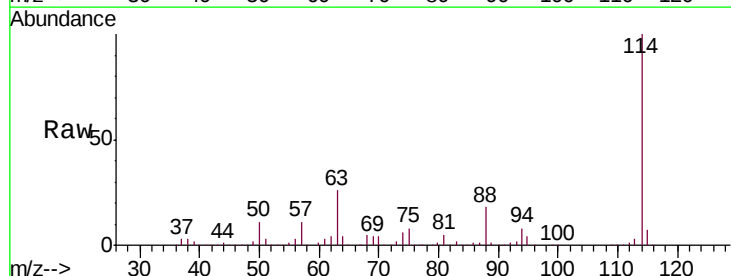
Abundance Ion 61.10 (60.80 to 61.80): VL0
 Ion 96.00 (95.70 to 96.70): VL0
 Ion 98.00 (97.70 to 98.70): VL0



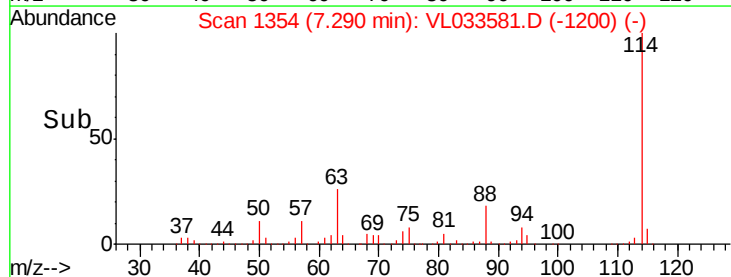
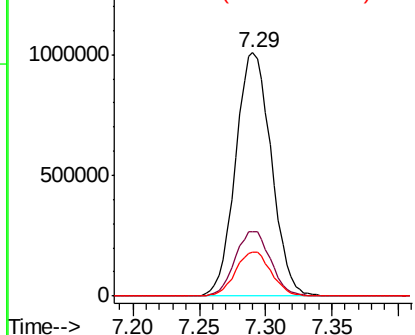
#33

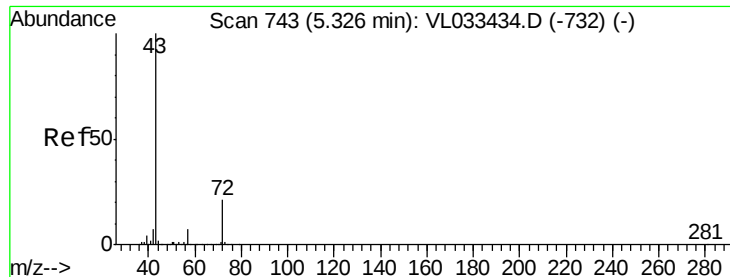
1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1354
 Delta R.T. -0.00 min
 Lab File: VL033581.D
 Acq: 11 Apr 2019 2:17

Tgt Ion: 114 Resp: 1888583
 Ion Ratio Lower Upper
 114 100
 63 26.6 21.5 32.3
 88 18.0 14.5 21.7



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

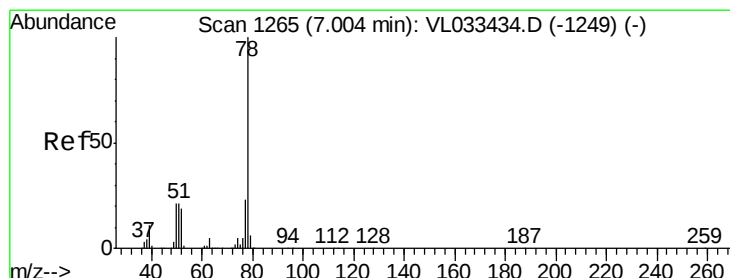
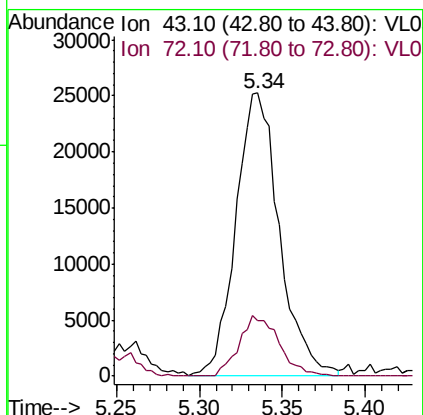
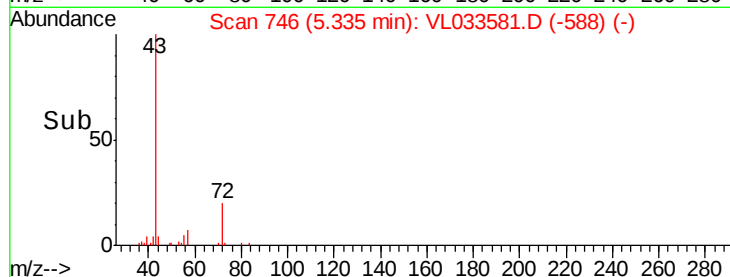
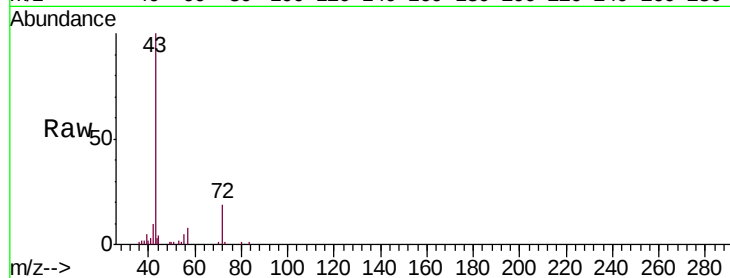




#34
2-Butanone
Concen: 0.408 ppbv
RT: 5.34 min Scan# 746
Delta R.T. 0.01 min
Lab File: VL033581.D
Acq: 11 Apr 2019 2:17

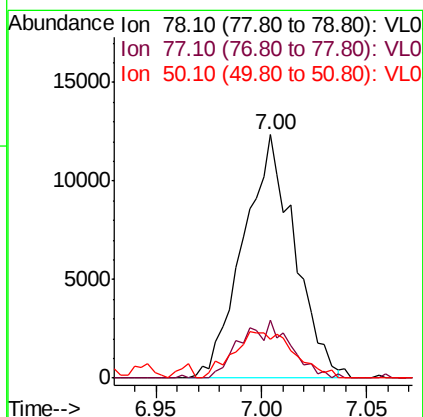
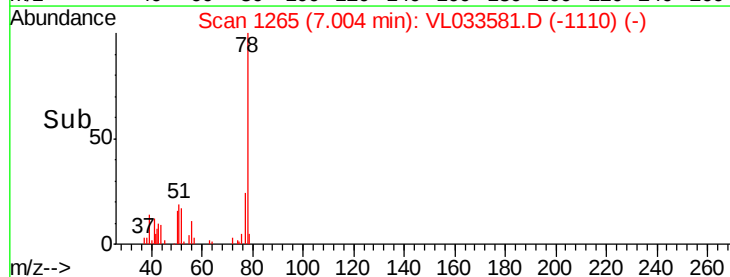
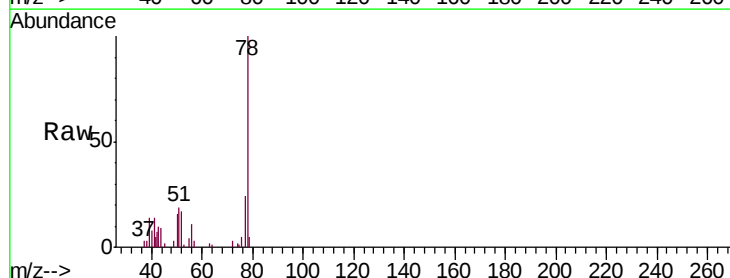
Instrument :
MSVOA_L
ClientSampleId :
BFB

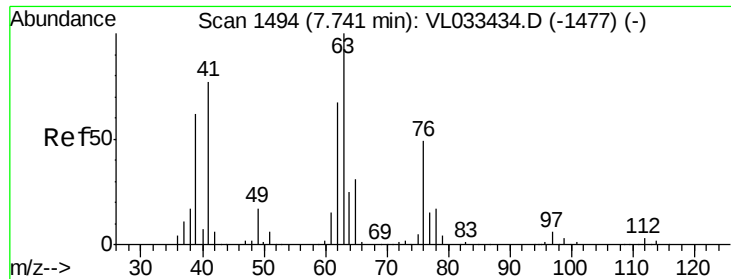
Tgt Ion: 43 Resp: 46278
Ion Ratio Lower Upper
43 100
72 19.4 17.4 26.2



#36
Benzene
Concen: 0.132 ppbv
RT: 7.00 min Scan# 1265
Delta R.T. -0.00 min
Lab File: VL033581.D
Acq: 11 Apr 2019 2:17

Tgt Ion: 78 Resp: 20845
Ion Ratio Lower Upper
78 100
77 22.8 18.1 27.1
50 15.0 16.7 25.1#

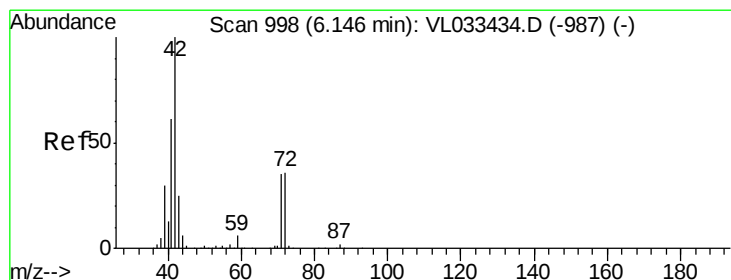
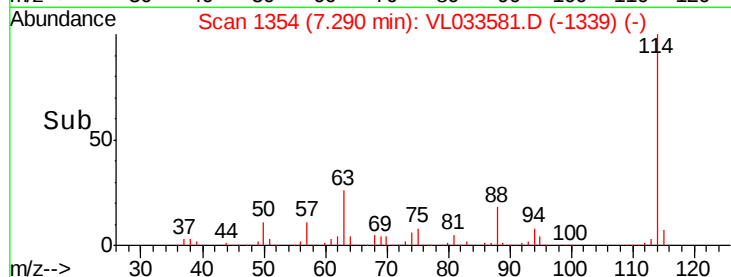
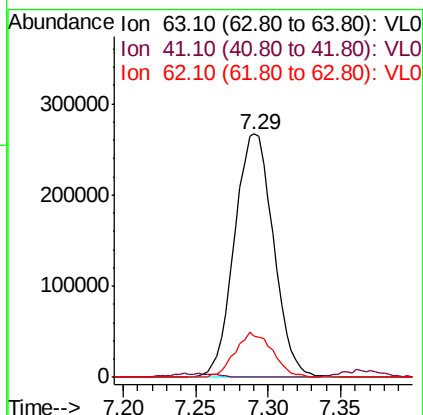
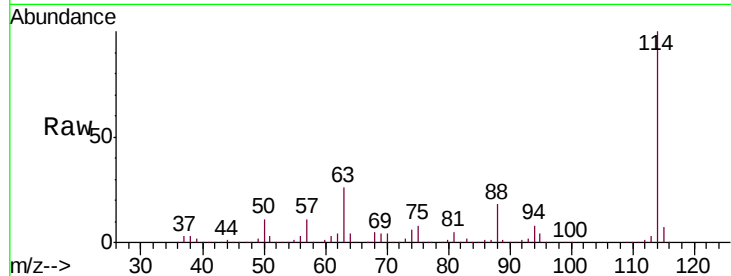




#39
 1,2-Dichloropropane
 Concen: 8.052 ppbv
 RT: 7.29 min Scan# 1354
 Delta R.T. -0.45 min
 Lab File: VL033581.D
 Acq: 11 Apr 2019 2:17

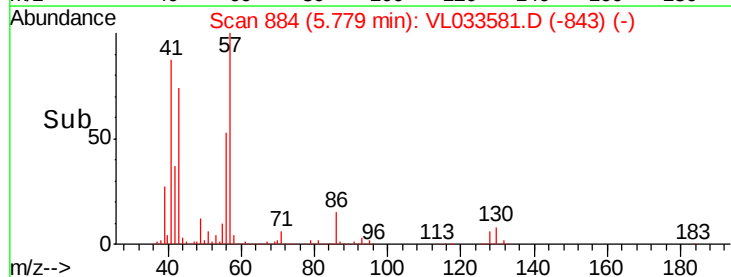
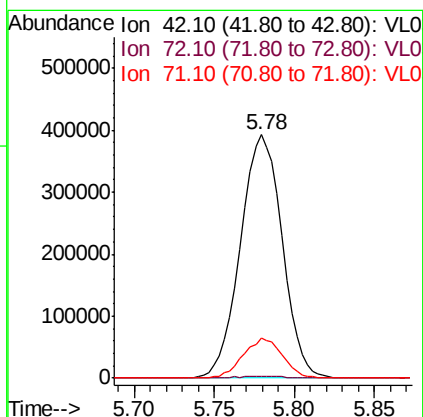
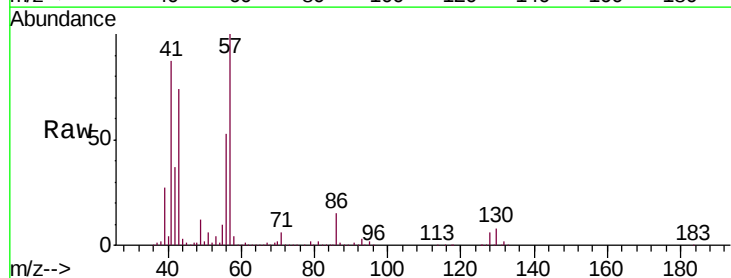
Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

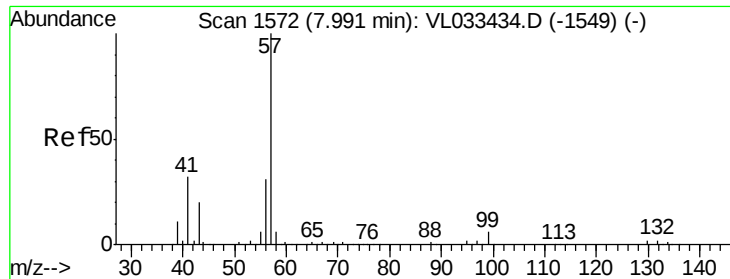
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	61.2	91.8#
62	16.9	54.0	81.0#



#41
 Tetrahydrofuran
 Concen: 11.201 ppbv
 RT: 5.78 min Scan# 884
 Delta R.T. -0.37 min
 Lab File: VL033581.D
 Acq: 11 Apr 2019 2:17

Tgt Ion	Ratio	Lower	Upper
42	100		
72	0.9	30.2	45.2#
71	15.5	29.4	44.2#

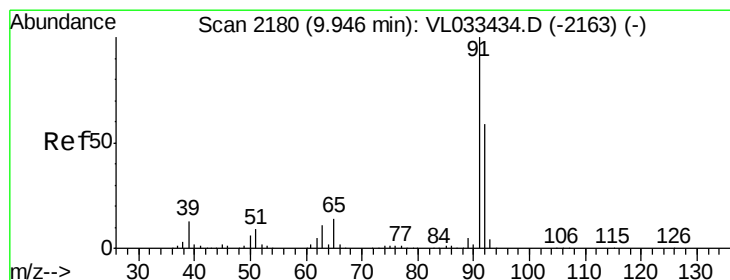
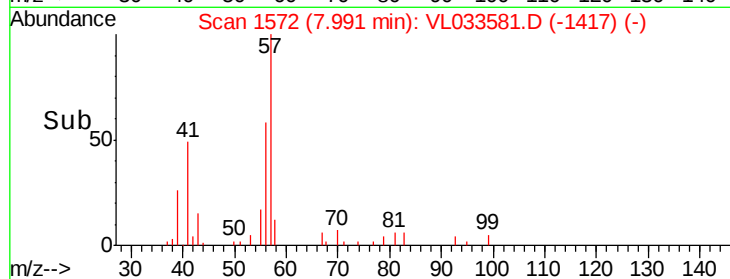
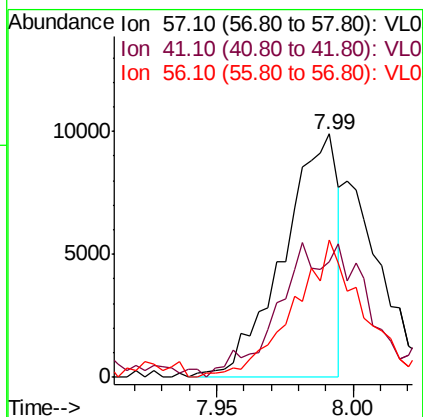
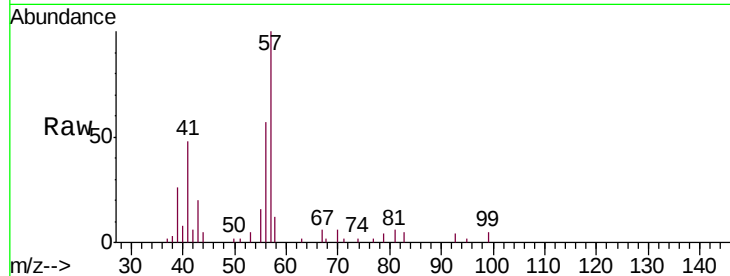




#44
 2,2,4-Trimethylpentane
 Concen: 0.049 ppbv
 RT: 7.99 min Scan# 1572
 Delta R.T. -0.00 min
 Lab File: VL033581.D
 Acq: 11 Apr 2019 2:17

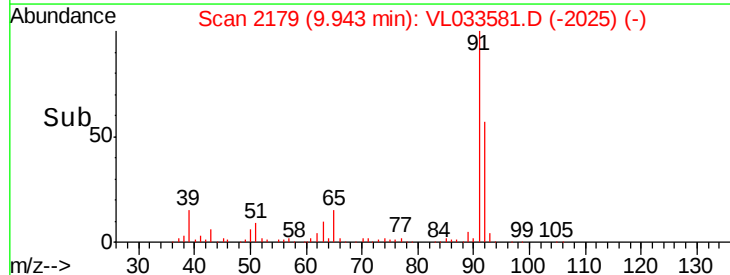
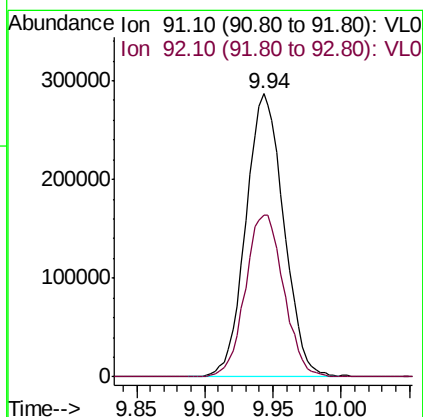
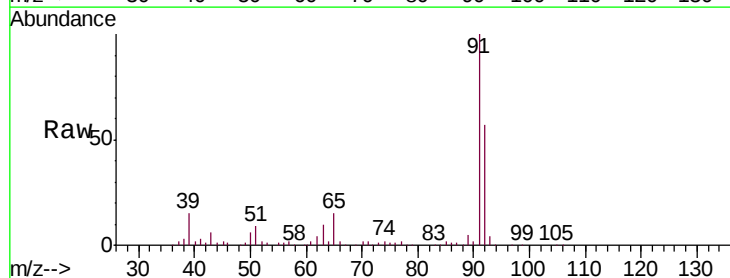
Instrument :
 MSVOA_L
 ClientSampleID :
 BFB

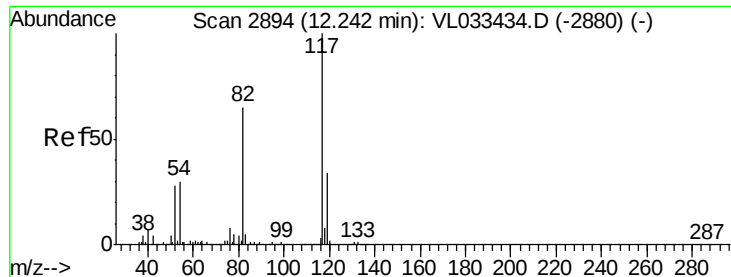
Tgt Ion: 57 Resp: 13700
 Ion Ratio Lower Upper
 57 100
 41 100.7 26.0 39.0#
 56 77.3 24.6 37.0#



#53
 Toluene
 Concen: 3.001 ppbv
 RT: 9.94 min Scan# 2179
 Delta R.T. -0.00 min
 Lab File: VL033581.D
 Acq: 11 Apr 2019 2:17

Tgt Ion: 91 Resp: 552649
 Ion Ratio Lower Upper
 91 100
 92 57.9 47.4 71.0

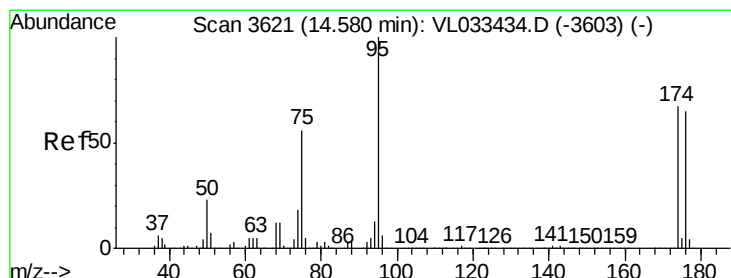
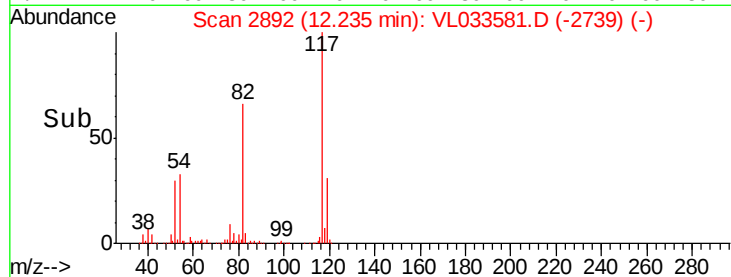
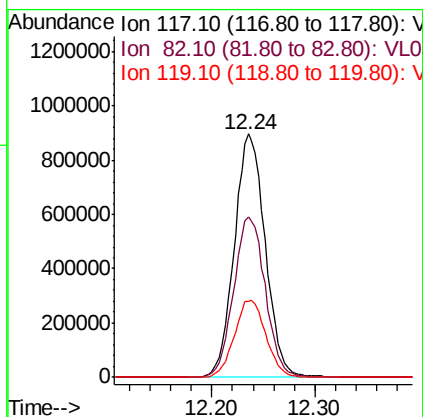
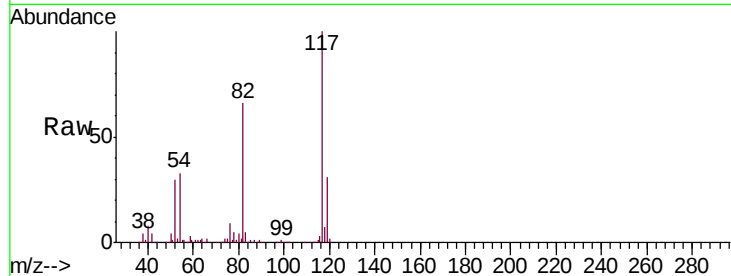




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2892
Delta R.T. -0.01 min
Lab File: VL033581.D
Acq: 11 Apr 2019 2:17

Instrument :
MSVOA_L
ClientSampleId :
BFB

Tgt Ion: 117 Resp: 1869849
Ion Ratio Lower Upper
117 100
82 67.6 51.5 77.3
119 32.3 25.5 38.3



#68
1-Bromo-4-Fluorobenzene
Concen: 10.342 ppbv
RT: 14.57 min Scan# 3619
Delta R.T. -0.01 min
Lab File: VL033581.D
Acq: 11 Apr 2019 2:17

Tgt Ion: 95 Resp: 1516040
Ion Ratio Lower Upper
95 100
174 66.2 52.9 79.3
175 4.7 3.8 5.6

