

Data File : VL033286.D
Acq On : 12 Mar 2019 17:00
Operator : SY/AP
Sample : K1805-02
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
ST-IA-1

Quant Time: Mar 13 07:54:03 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL031219AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Mar 13 07:17:55 2019
QLast Update : Wed Mar 13 07:17:55 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	798393	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1816337	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1806956	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 1428076 10.23 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 102.30%

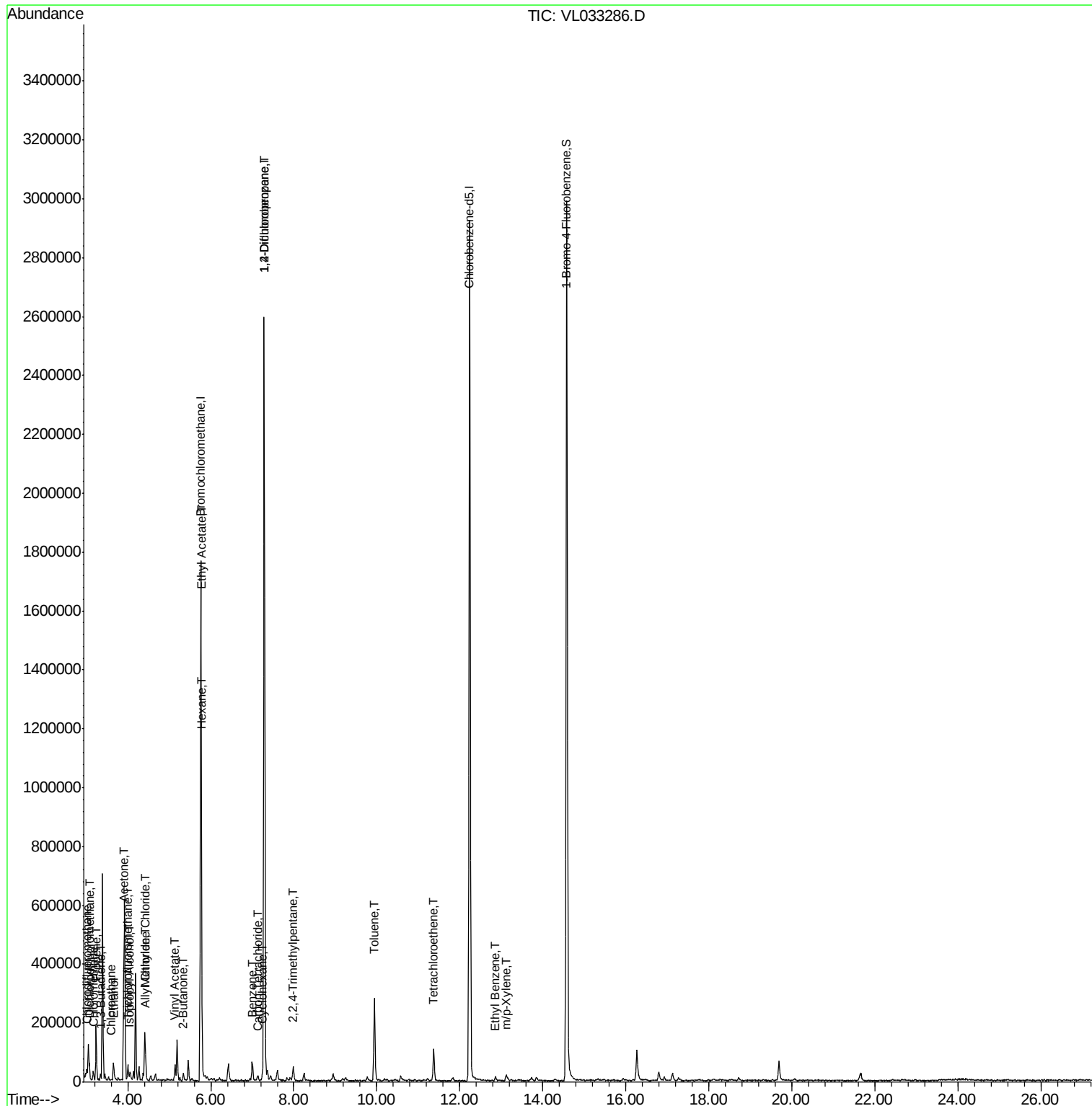
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.08	85	36334	0.225 ppbv	93
3) Chlorodifluoromethane	3.02	51	41159	0.389 ppbv #	90
4) Chloromethane	3.17	50	24783	0.438 ppbv	99
7) Chloroethane	3.60	64	650	0.033 ppbv #	42
9) Propene	3.24	41	46386	0.961 ppbv	94
11) Trichlorofluoromethane	4.00	101	32038	0.201 ppbv	99
13) Ethanol	3.65	45	61750	4.192 ppbv	97
15) Acetone	3.90	43	517584	4.226 ppbv #	84
16) 1,3-Butadiene	3.34	39	4043	0.091 ppbv #	2
19) Isopropyl Alcohol	4.05	45	12221	0.165 ppbv #	95
20) Methylene Chloride	4.41	84	52699	1.294 ppbv	91
21) Allyl Chloride	4.44	41	9918	0.163 ppbv #	41
23) Vinyl Acetate	5.14	43	22800	0.149 ppbv #	1
25) Ethyl Acetate	5.78	43	62933	0.333 ppbv #	80
26) Hexane	5.78	57	81740	0.923 ppbv #	41
30) Cyclohexane	7.24	84	1637	0.024 ppbv #	1
34) 2-Butanone	5.34	43	25280	0.210 ppbv	95
35) Carbon Tetrachloride	7.14	117	2921	0.022 ppbv	87
36) Benzene	7.00	78	46700	0.279 ppbv	97
39) 1,2-Dichloropropane	7.29	63	497812	7.897 ppbv #	24
44) 2,2,4-Trimethylpentane	7.98	57	16964	0.060 ppbv #	14
52) Tetrachloroethene	11.37	164	26302	0.428 ppbv	89
53) Toluene	9.94	91	198288	1.027 ppbv	100
58) Ethyl Benzene	12.86	91	6112	0.025 ppbv	95
59) m/p-Xylene	13.12	91	8674	0.042 ppbv #	7

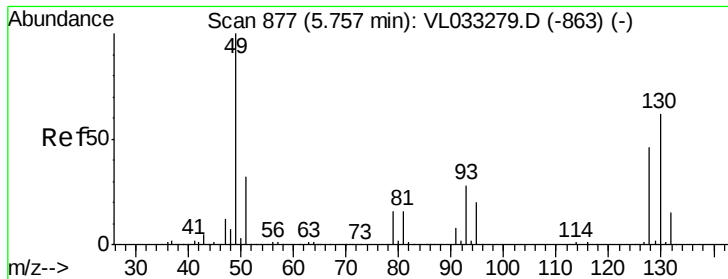
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

ST-IA-1

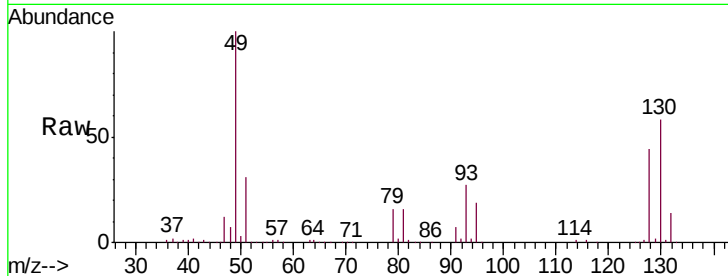
Tgt Ion: 49 Resp: 798393

Ion Ratio Lower Upper

49 100

128 45.9 23.3 69.9

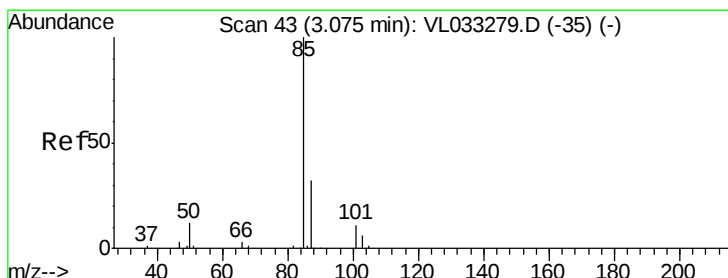
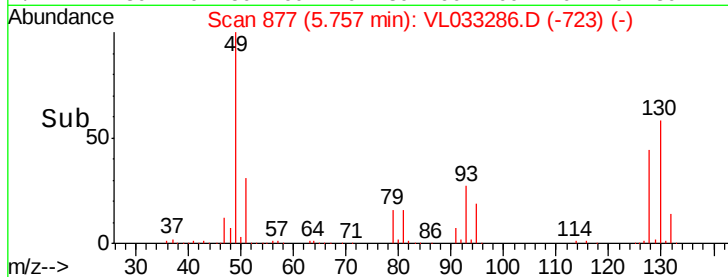
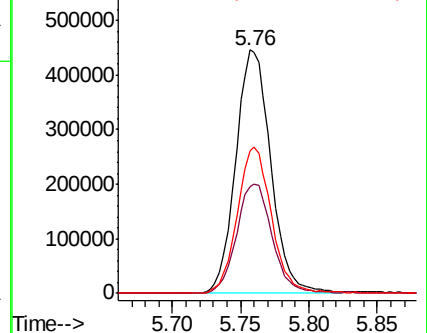
130 58.9 30.0 90.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.225 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033286.D

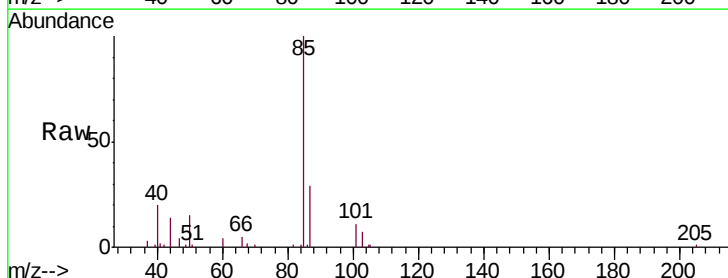
Acq: 12 Mar 2019 17:00

Tgt Ion: 85 Resp: 36334

Ion Ratio Lower Upper

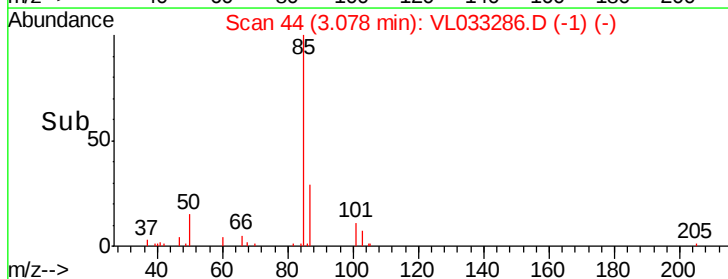
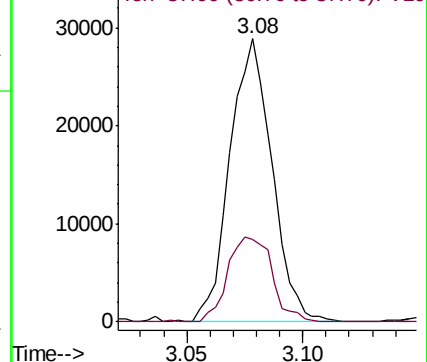
85 100

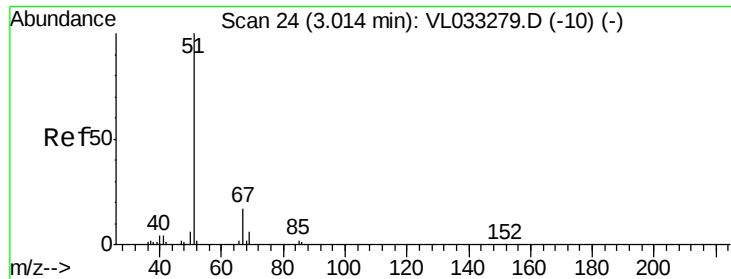
87 29.3 26.4 39.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.389 ppbv

RT: 3.02 min Scan# 25

Delta R.T. 0.00 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

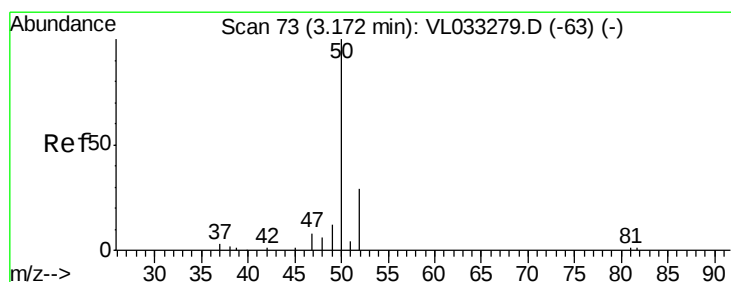
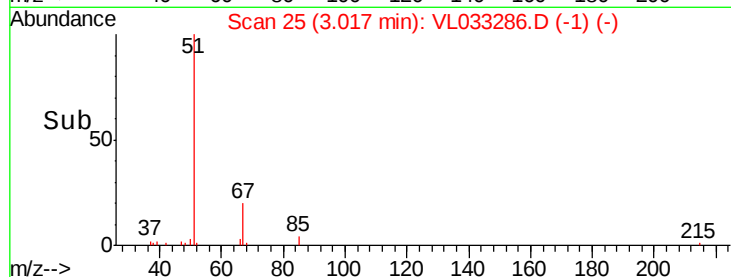
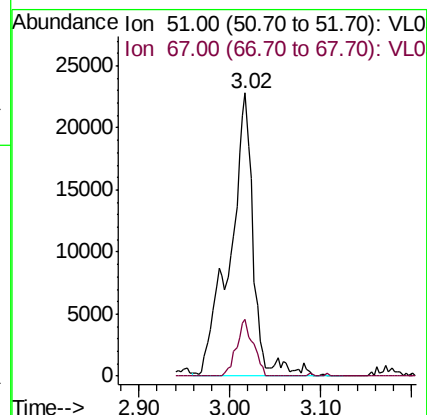
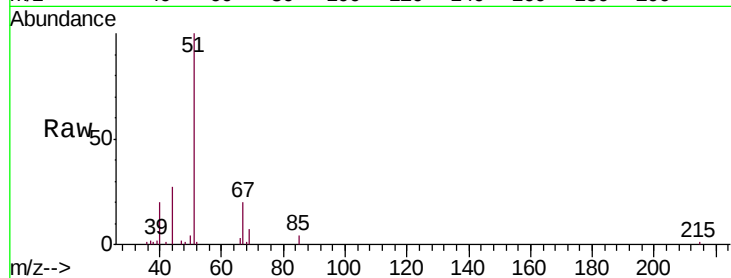
ST-IA-1

Tgt Ion: 51 Resp: 41159

Ion Ratio Lower Upper

51 100

67 14.1 15.0 22.4#



#4

Chloromethane

Concen: 0.438 ppbv

RT: 3.17 min Scan# 73

Delta R.T. -0.00 min

Lab File: VL033286.D

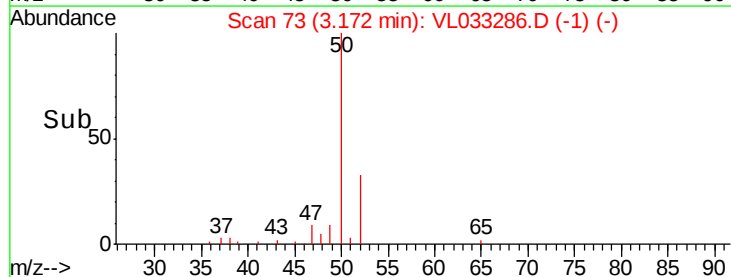
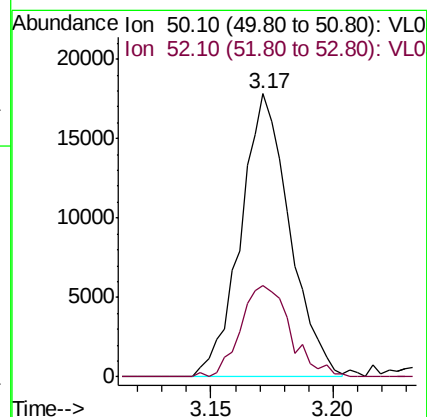
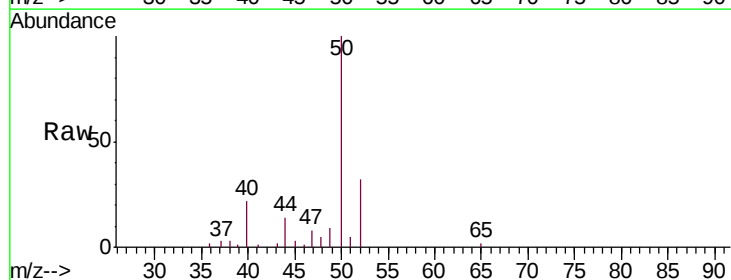
Acq: 12 Mar 2019 17:00

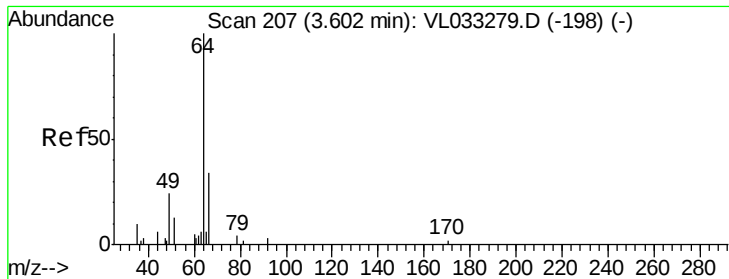
Tgt Ion: 50 Resp: 24783

Ion Ratio Lower Upper

50 100

52 32.5 26.6 39.8





#7

Chloroethane

Concen: 0.033 ppbv

RT: 3.60 min Scan# 205

Delta R.T. -0.01 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

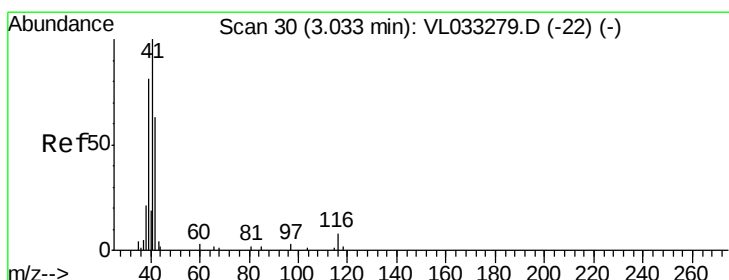
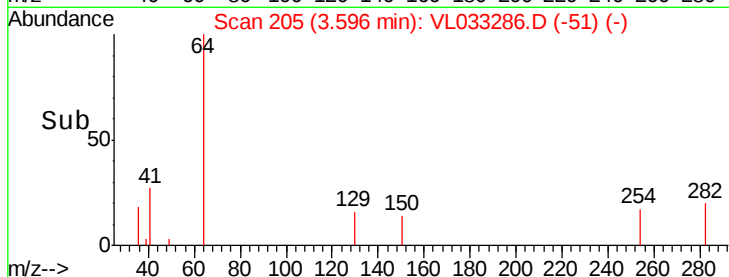
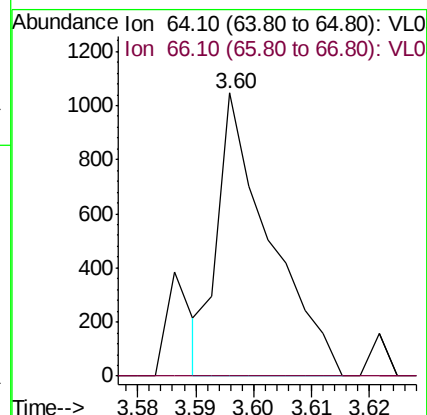
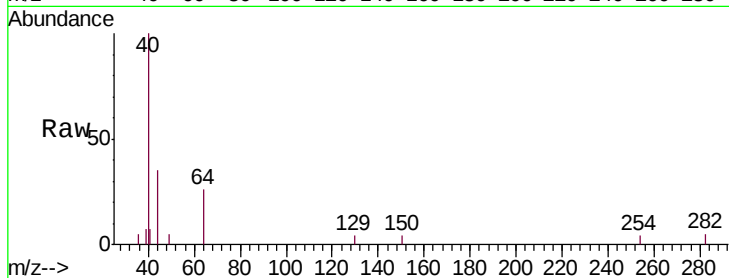
ST-IA-1

Tgt Ion: 64 Resp: 650

Ion Ratio Lower Upper

64 100

66 0.0 26.2 39.2#



#9

Propene

Concen: 0.961 ppbv

RT: 3.24 min Scan# 94

Delta R.T. 0.20 min

Lab File: VL033286.D

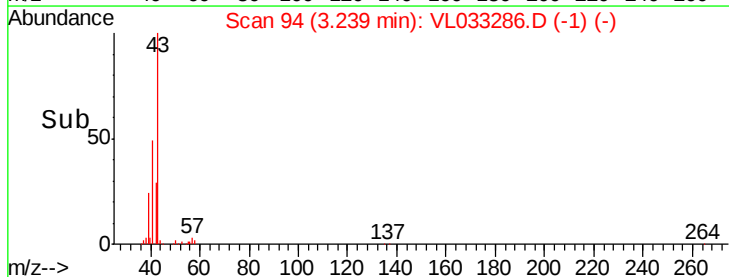
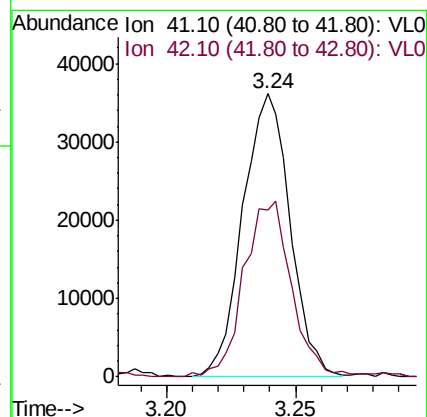
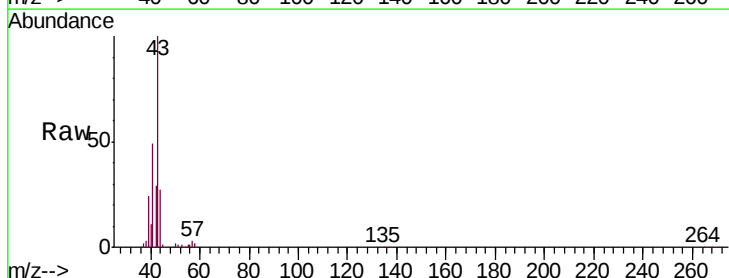
Acq: 12 Mar 2019 17:00

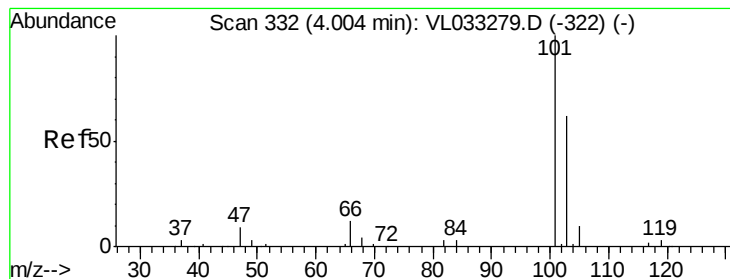
Tgt Ion: 41 Resp: 46386

Ion Ratio Lower Upper

41 100

42 63.3 54.6 82.0





#11

Trichlorofluoromethane

Concen: 0.201 ppbv

RT: 4.00 min Scan# 332

Delta R.T. -0.00 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

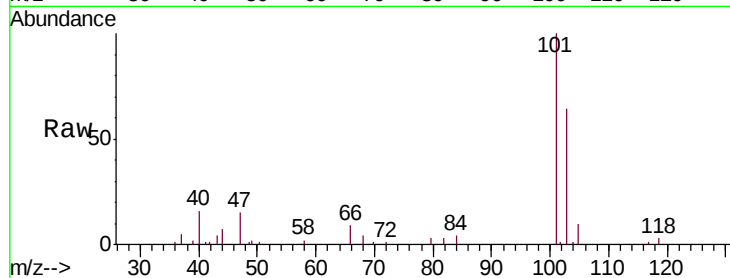
ST-IA-1

Tgt Ion:101 Resp: 32038

Ion Ratio Lower Upper

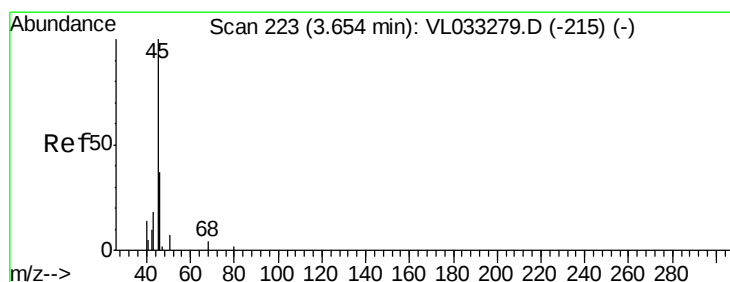
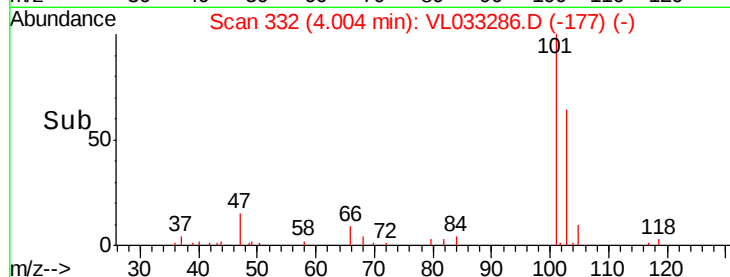
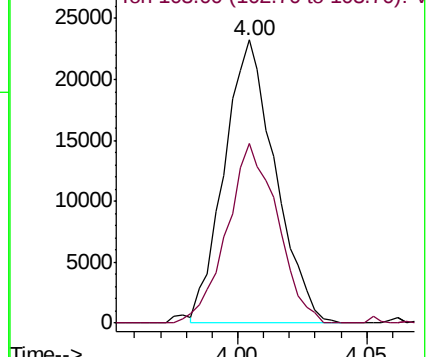
101 100

103 63.7 51.8 77.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 4.192 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL033286.D

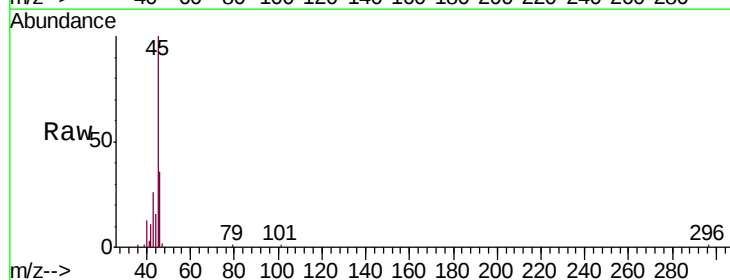
Acq: 12 Mar 2019 17:00

Tgt Ion: 45 Resp: 61750

Ion Ratio Lower Upper

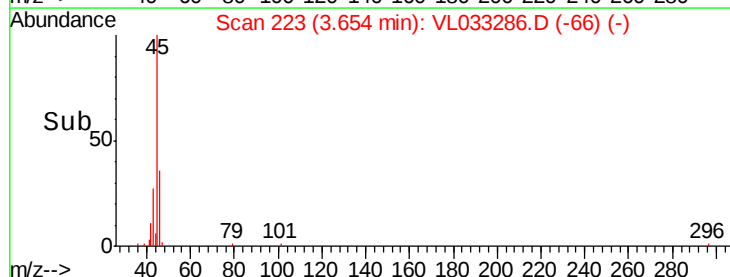
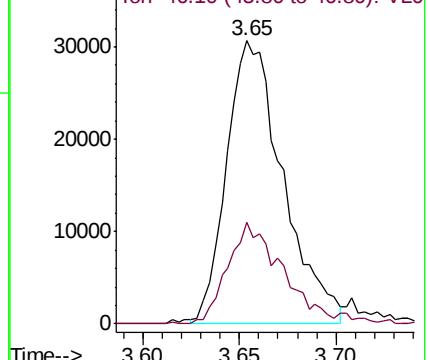
45 100

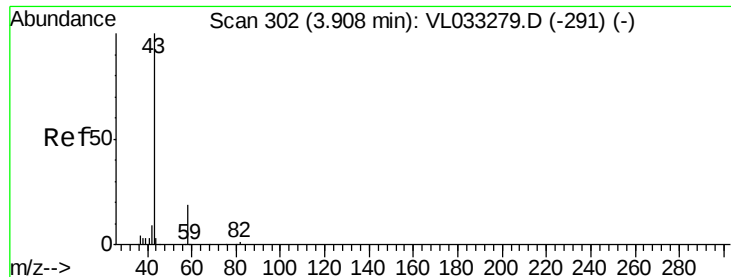
46 36.3 13.9 55.7



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 4.226 ppbv

RT: 3.90 min Scan# 301

Delta R.T. 0.00 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

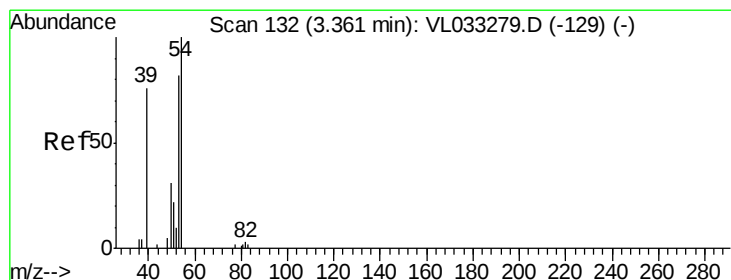
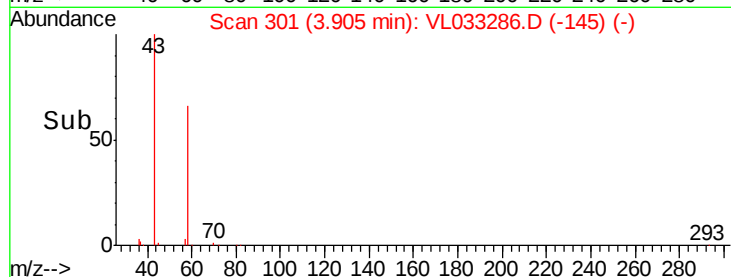
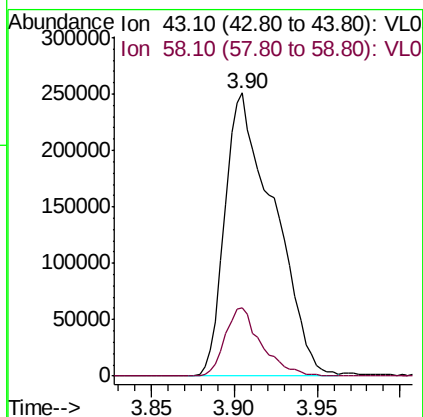
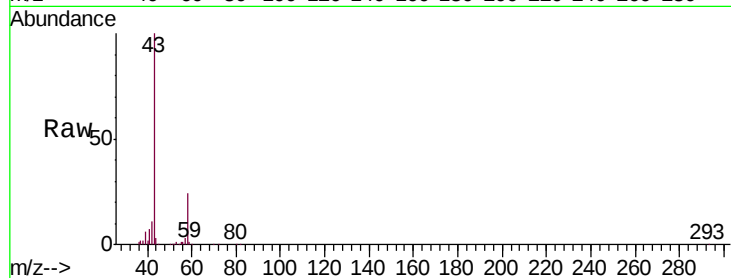
ST-IA-1

Tgt Ion: 43 Resp: 517584

Ion Ratio Lower Upper

43 100

58 18.0 21.1 31.7#



#16

1,3-Butadiene

Concen: 0.091 ppbv

RT: 3.34 min Scan# 126

Delta R.T. -0.02 min

Lab File: VL033286.D

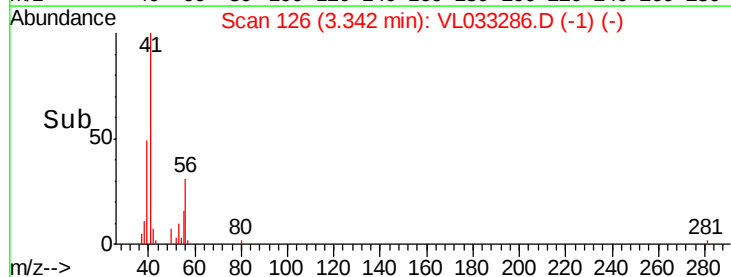
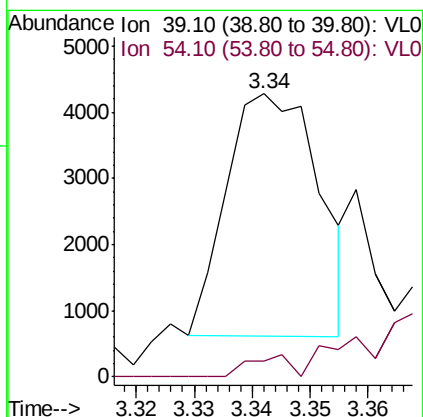
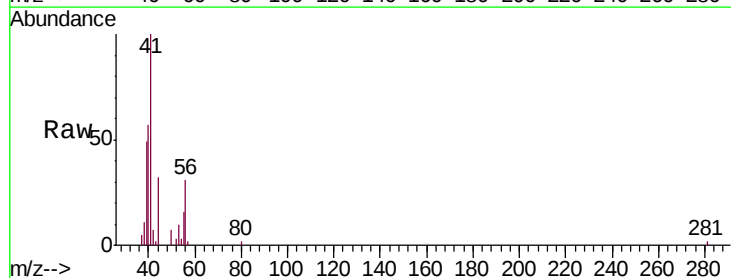
Acq: 12 Mar 2019 17:00

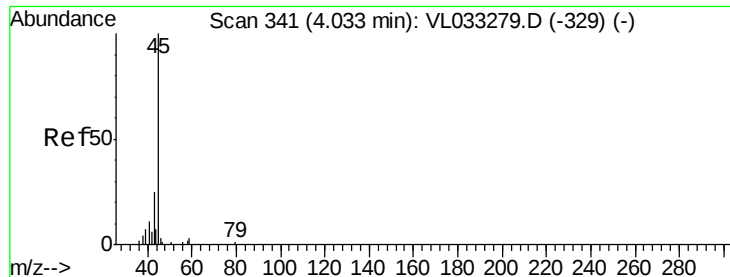
Tgt Ion: 39 Resp: 4043

Ion Ratio Lower Upper

39 100

54 0.0 76.6 114.8#





#19

Isopropyl Alcohol

Concen: 0.165 ppbv

RT: 4.05 min Scan# 345

Delta R.T. 0.02 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

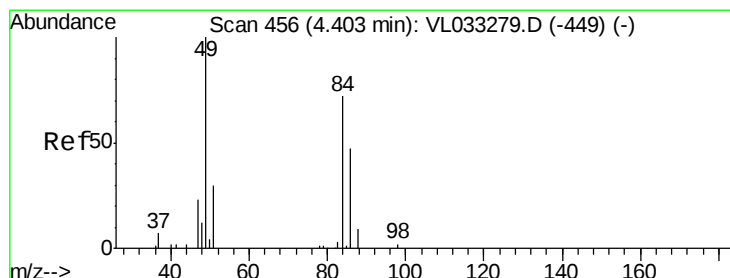
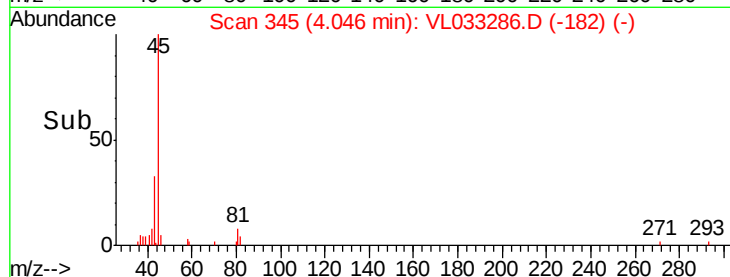
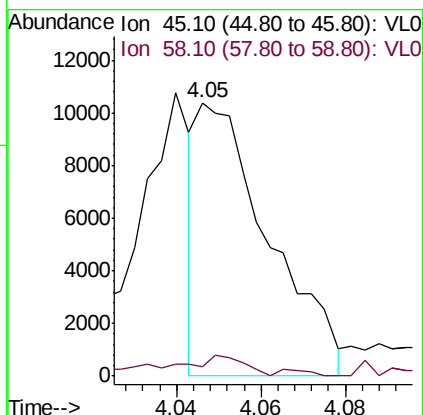
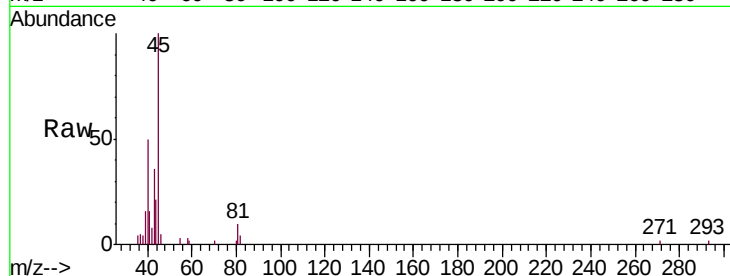
ST-IA-1

Tgt Ion: 45 Resp: 12221

Ion Ratio Lower Upper

45 100

58 0.0 1.4 2.2#



#20

Methylene Chloride

Concen: 1.294 ppbv

RT: 4.41 min Scan# 458

Delta R.T. 0.00 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Tgt Ion: 84 Resp: 52699

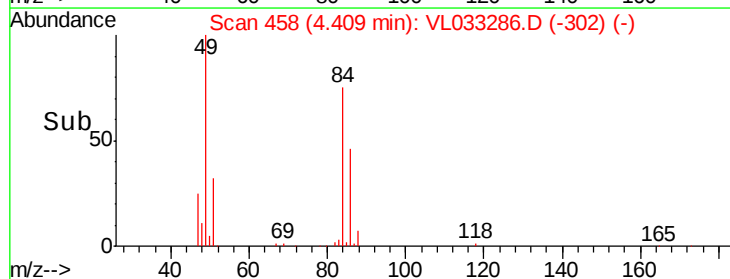
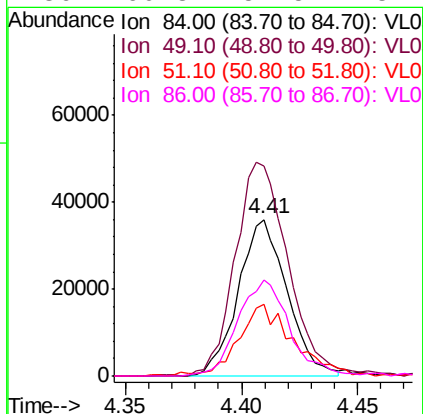
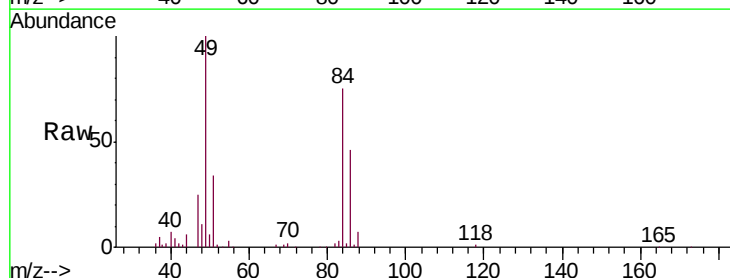
Ion Ratio Lower Upper

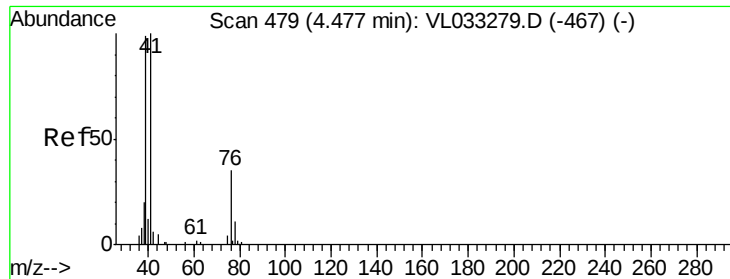
84 100

49 134.1 120.3 180.5

51 43.5 36.2 54.4

86 60.8 52.5 78.7

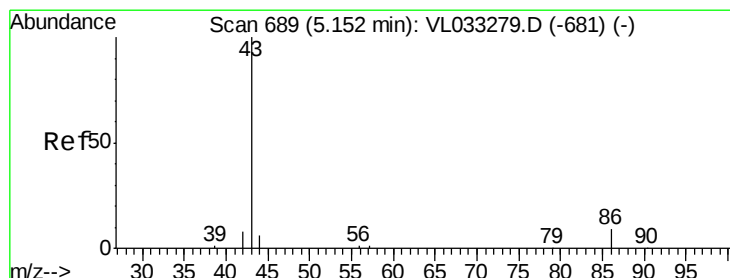
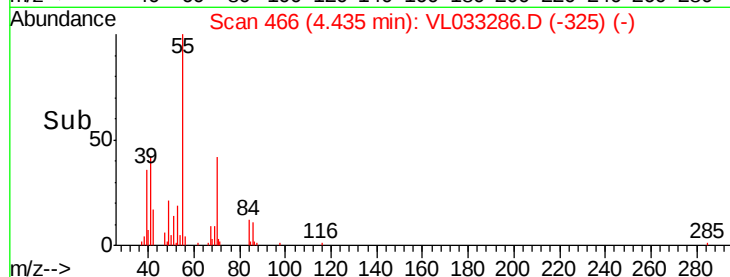
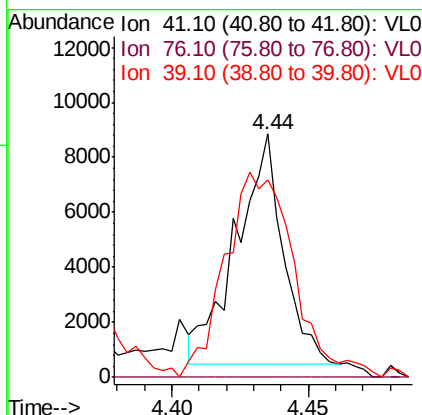
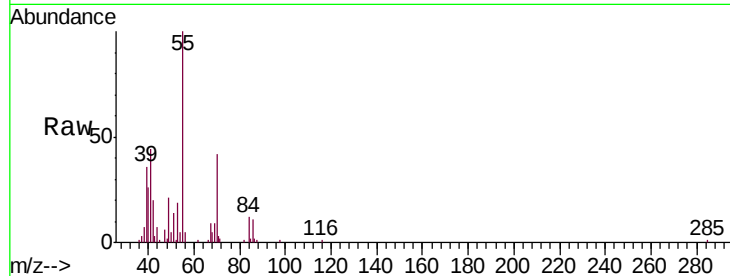




#21
 Allyl Chloride
 Concen: 0.163 ppbv
 RT: 4.44 min Scan# 466
 Delta R.T. -0.05 min
 Lab File: VL033286.D
 Acq: 12 Mar 2019 17:00

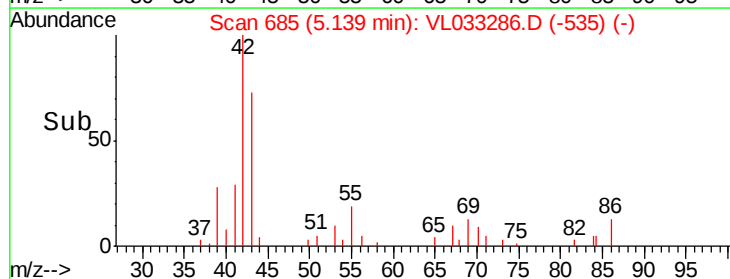
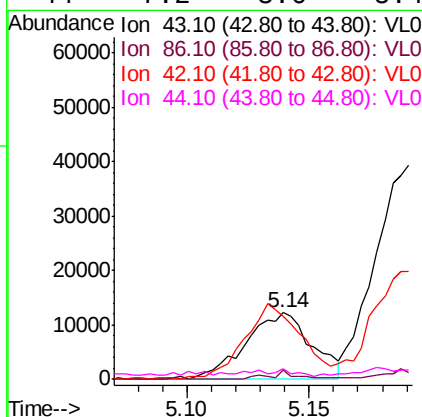
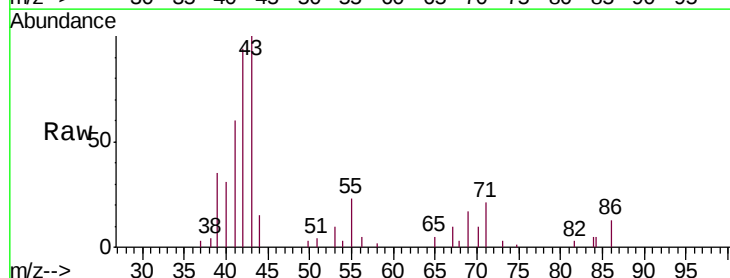
Instrument :
 MSVOA_L
 ClientSampleId :
 ST-IA-1

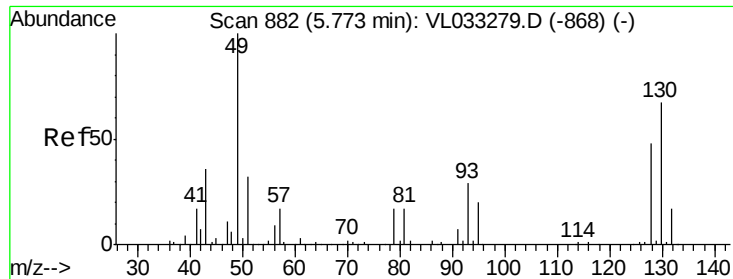
Tgt Ion: 41 Resp: 9918
 Ion Ratio Lower Upper
 41 100
 76 0.0 25.0 37.4#
 39 133.1 64.2 96.4#



#23
 Vinyl Acetate
 Concen: 0.149 ppbv
 RT: 5.14 min Scan# 685
 Delta R.T. -0.02 min
 Lab File: VL033286.D
 Acq: 12 Mar 2019 17:00

Tgt Ion: 43 Resp: 22800
 Ion Ratio Lower Upper
 43 100
 86 12.6 5.5 8.3#
 42 91.4 7.8 11.6#
 44 7.2 3.6 5.4#





#25

Ethyl Acetate

Concen: 0.333 ppbv

RT: 5.78 min Scan# 883

Delta R.T. 0.00 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

ST-IA-1

Tgt Ion: 43 Resp: 62933

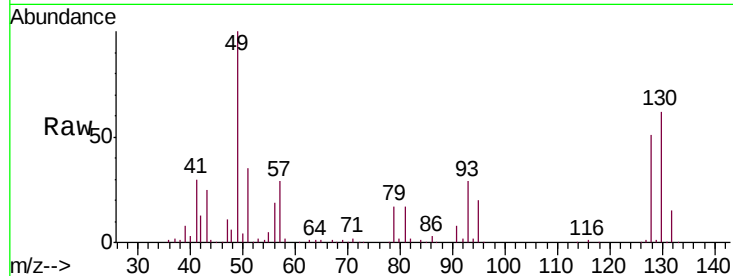
Ion Ratio Lower Upper

43 100

45 2.1 7.8 11.6#

61 0.8 7.3 10.9#

70 2.4 5.8 8.6#



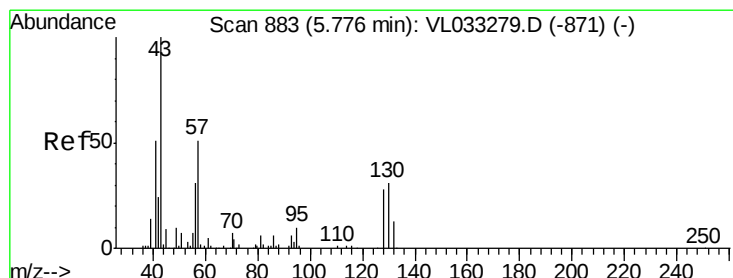
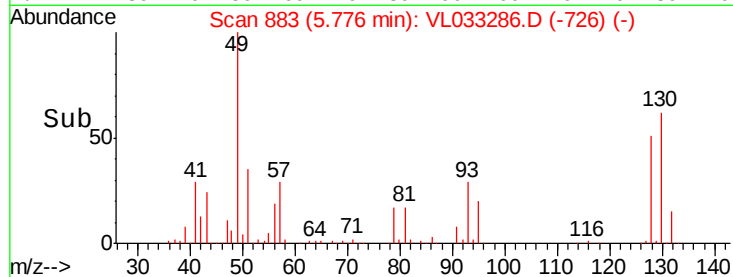
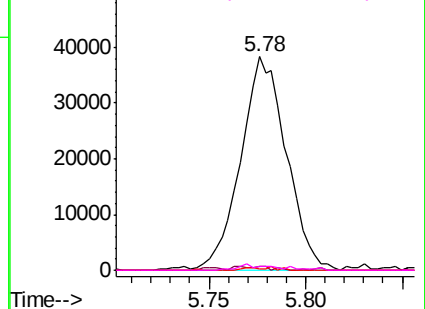
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 0.923 ppbv

RT: 5.78 min Scan# 885

Delta R.T. 0.00 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Tgt Ion: 57 Resp: 81740

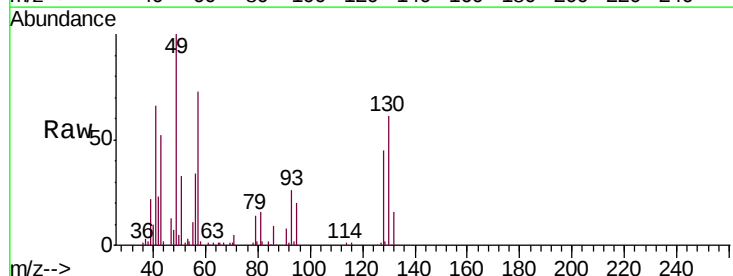
Ion Ratio Lower Upper

57 100

41 100.0 70.7 106.1

43 78.2 178.6 267.8#

56 56.9 41.3 61.9



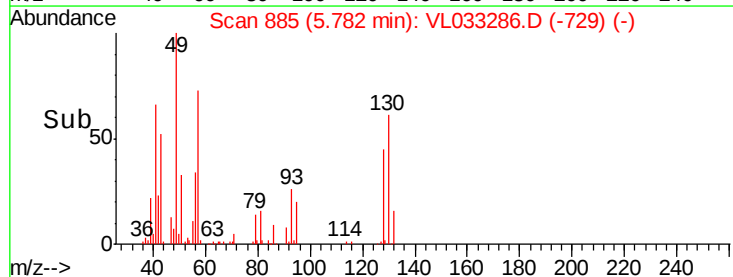
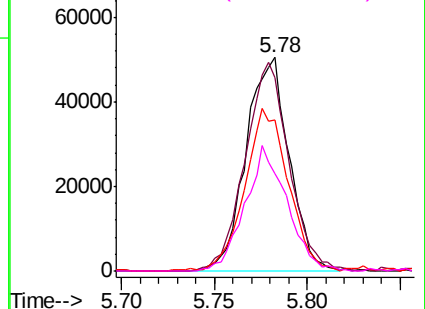
Abundance

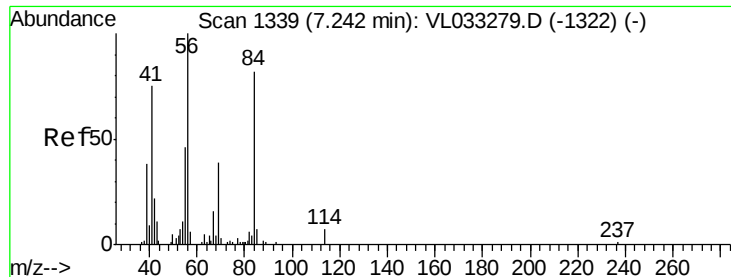
Ion 57.10 (56.80 to 57.80): VL0

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

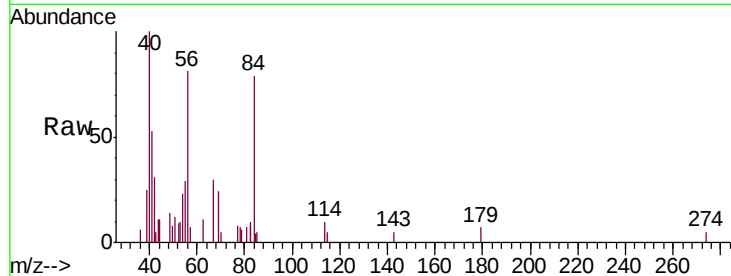




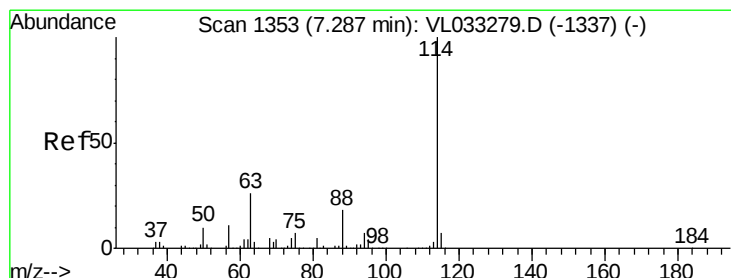
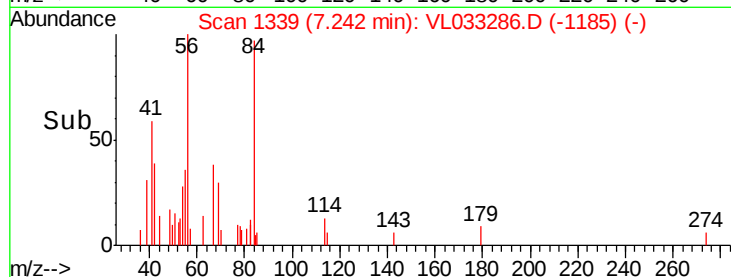
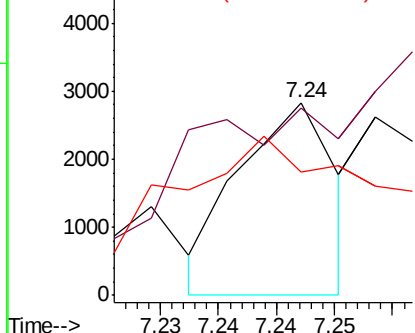
#30
Cyclohexane
Concen: 0.024 ppbv
RT: 7.24 min Scan# 1339
Delta R.T. -0.01 min
Lab File: VL033286.D
Acq: 12 Mar 2019 17:00

Instrument :
MSVOA_L
ClientSampleId :
ST-IA-1

Tgt Ion: 84 Resp: 1637
Ion Ratio Lower Upper
84 100
56 0.0 112.0 168.0#
41 313.3 69.9 104.9#

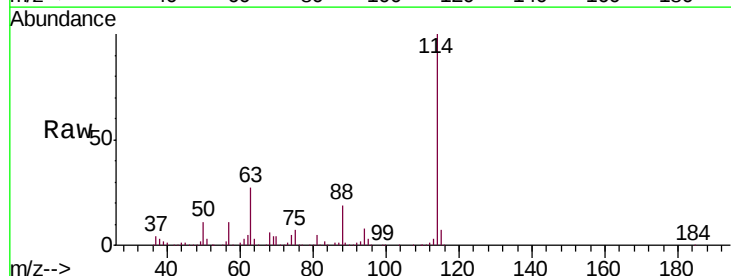


Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0

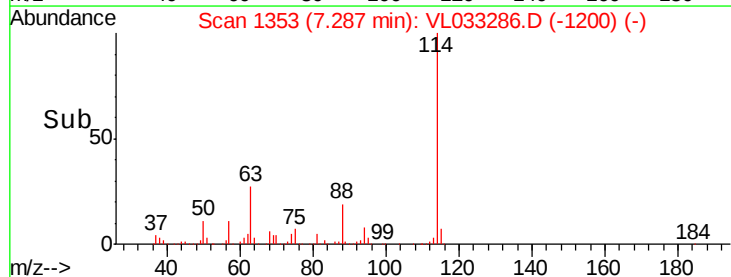
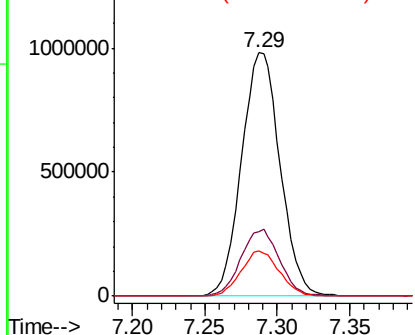


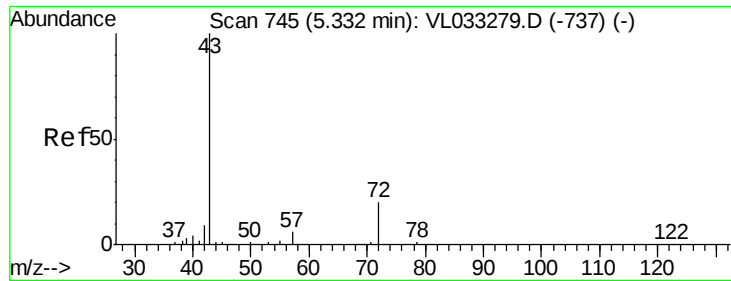
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1353
Delta R.T. -0.01 min
Lab File: VL033286.D
Acq: 12 Mar 2019 17:00

Tgt Ion: 114 Resp: 1816337
Ion Ratio Lower Upper
114 100
63 27.6 21.5 32.3
88 18.4 14.6 22.0



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

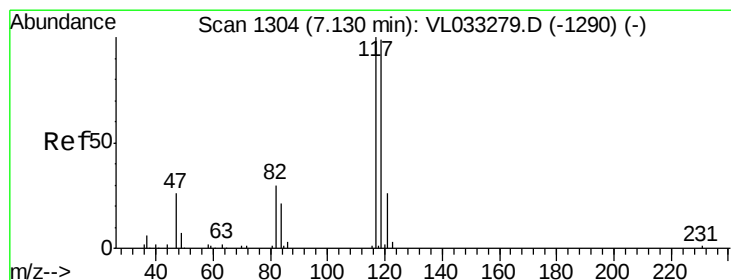
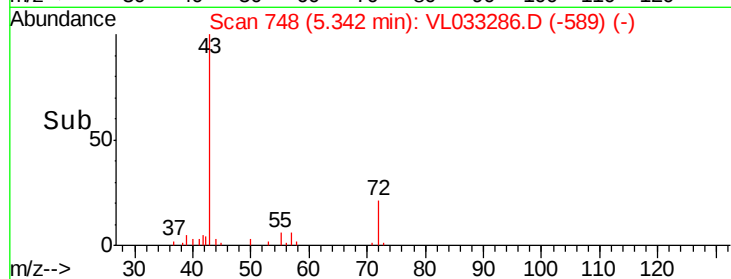
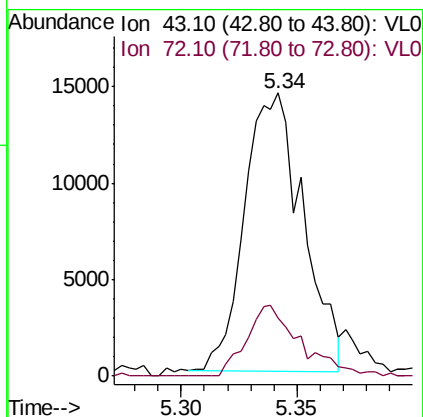
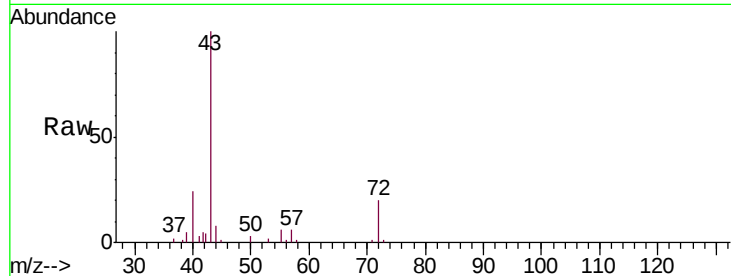




#34
2-Butanone
Concen: 0.210 ppbv
RT: 5.34 min Scan# 748
Delta R.T. 0.01 min
Lab File: VL033286.D
Acq: 12 Mar 2019 17:00

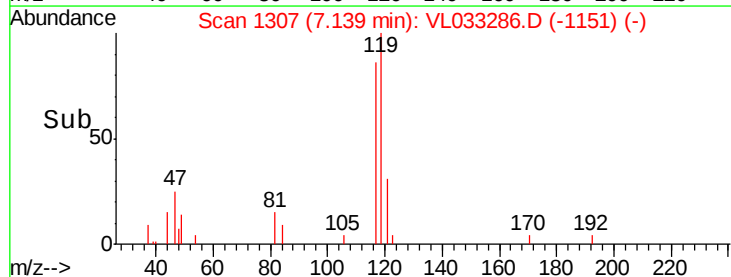
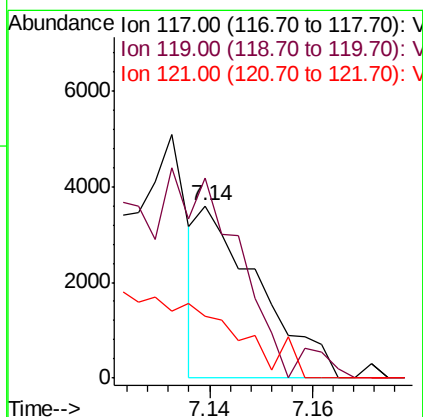
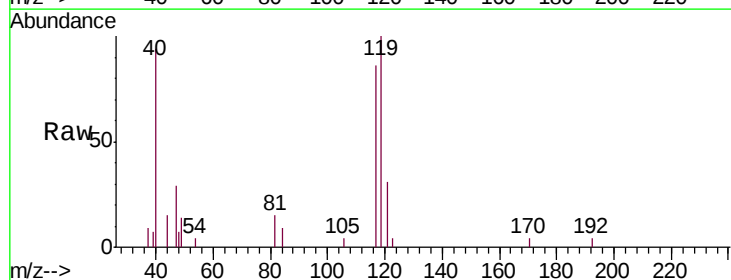
Instrument :
MSVOA_L
ClientSampleId :
ST-IA-1

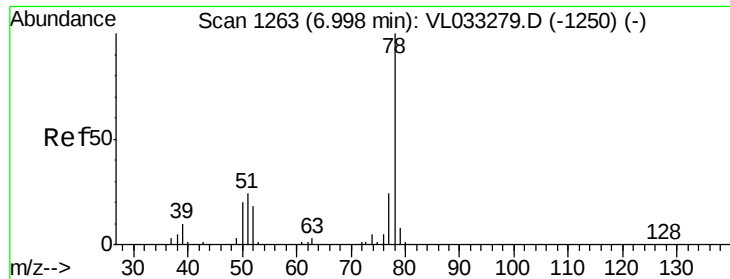
Tgt Ion: 43 Resp: 25280
Ion Ratio Lower Upper
43 100
72 23.7 17.0 25.6



#35
Carbon Tetrachloride
Concen: 0.022 ppbv
RT: 7.14 min Scan# 1307
Delta R.T. 0.00 min
Lab File: VL033286.D
Acq: 12 Mar 2019 17:00

Tgt Ion: 117 Resp: 2921
Ion Ratio Lower Upper
117 100
119 110.6 77.4 116.0
121 35.9 24.9 37.3

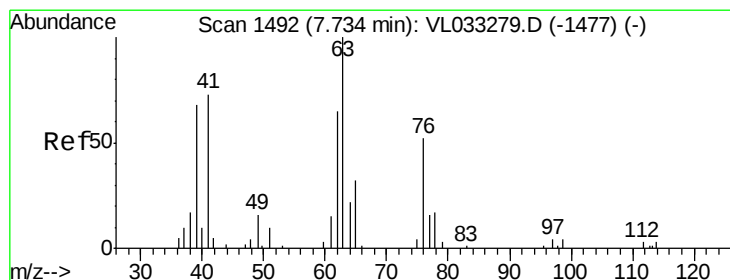
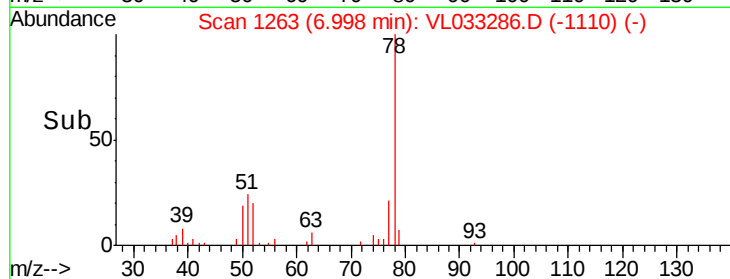
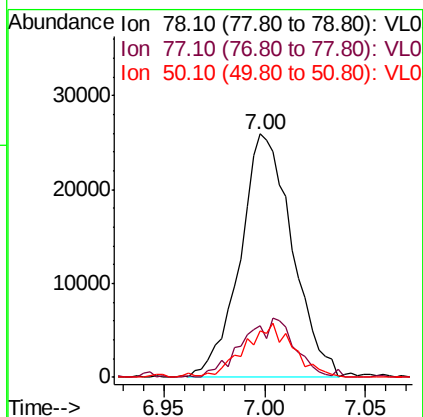
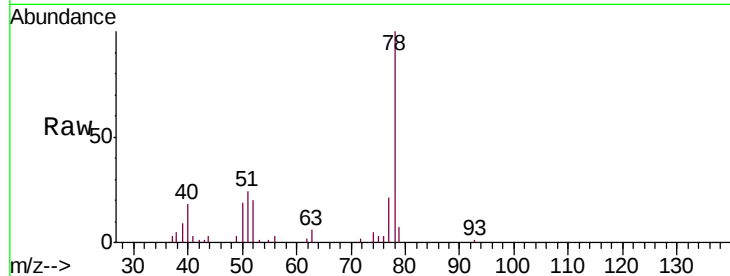




#36
Benzene
Concen: 0.279 ppbv
RT: 7.00 min Scan# 1263
Delta R.T. -0.01 min
Lab File: VL033286.D
Acq: 12 Mar 2019 17:00

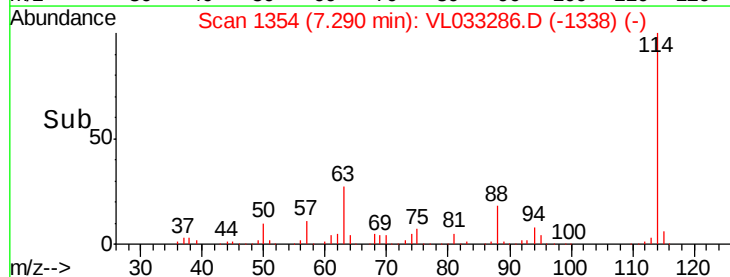
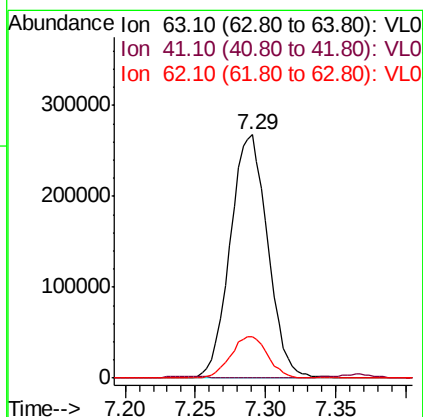
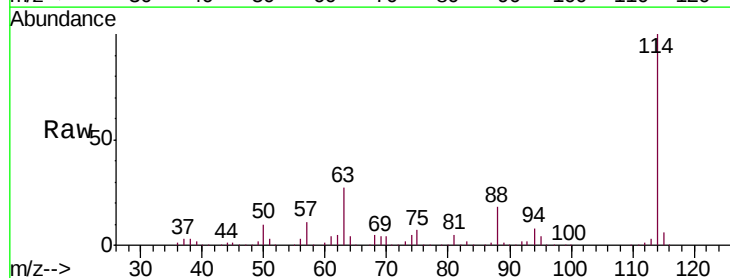
Instrument :
MSVOA_L
ClientSampleId :
ST-IA-1

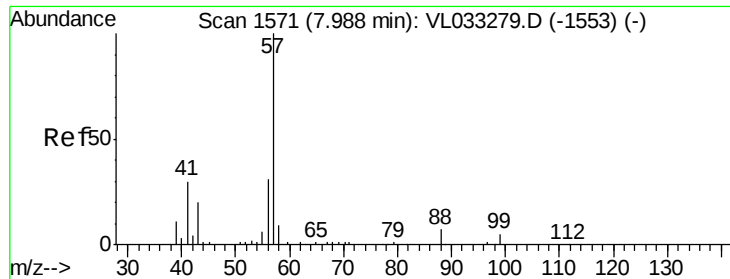
Tgt Ion: 78 Resp: 46700
Ion Ratio Lower Upper
78 100
77 20.5 17.7 26.5
50 18.4 15.7 23.5



#39
1,2-Dichloropropane
Concen: 7.897 ppbv
RT: 7.29 min Scan# 1354
Delta R.T. -0.45 min
Lab File: VL033286.D
Acq: 12 Mar 2019 17:00

Tgt Ion: 63 Resp: 497812
Ion Ratio Lower Upper
63 100
41 0.0 58.3 87.5#
62 16.9 55.3 82.9#

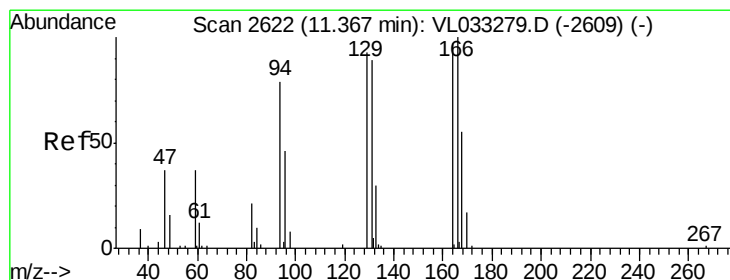
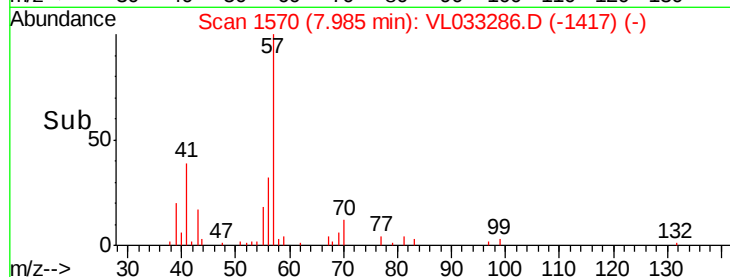
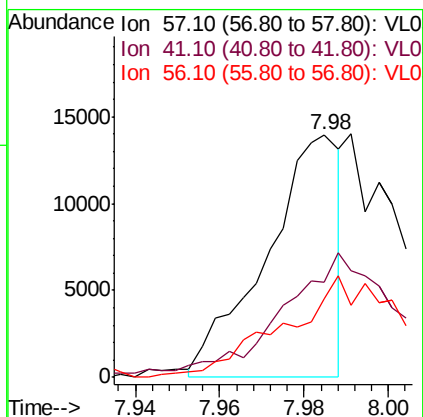
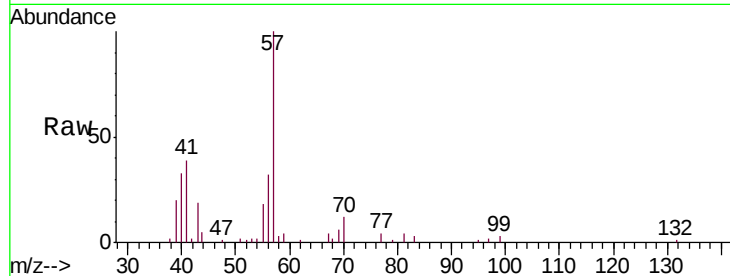




#44
 2,2,4-Trimethylpentane
 Concen: 0.060 ppbv
 RT: 7.98 min Scan# 1570
 Delta R.T. -0.01 min
 Lab File: VL033286.D
 Acq: 12 Mar 2019 17:00

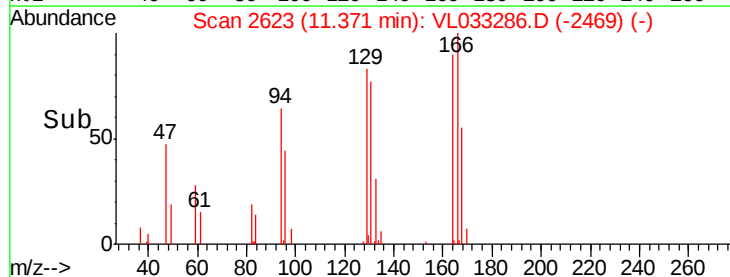
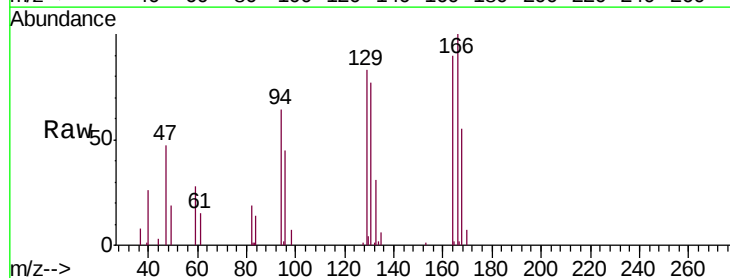
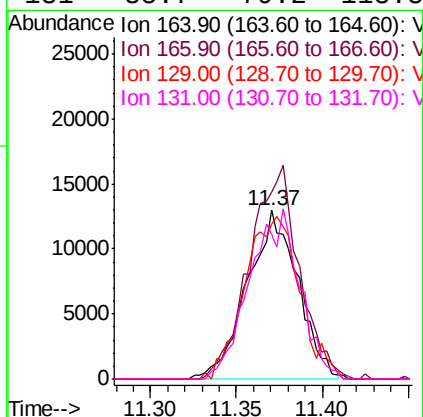
Instrument :
 MSVOA_L
 ClientSampleId :
 ST-IA-1

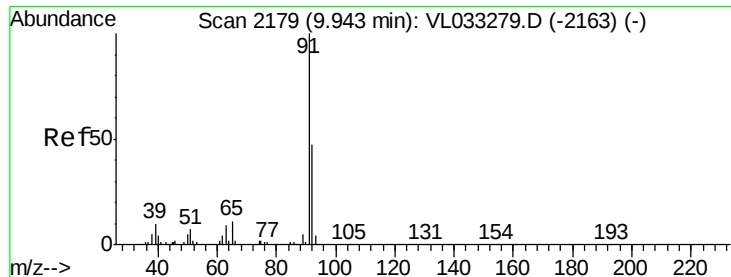
Tgt Ion: 57 Resp: 16964
 Ion Ratio Lower Upper
 57 100
 41 88.4 26.2 39.2#
 56 71.1 24.8 37.2#



#52
 Tetrachloroethene
 Concen: 0.428 ppbv
 RT: 11.37 min Scan# 2623
 Delta R.T. -0.01 min
 Lab File: VL033286.D
 Acq: 12 Mar 2019 17:00

Tgt Ion: 164 Resp: 26302
 Ion Ratio Lower Upper
 164 100
 166 110.9 100.8 151.2
 129 96.2 80.6 121.0
 131 85.7 79.2 118.8





#53

Toluene

Concen: 1.027 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.01 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

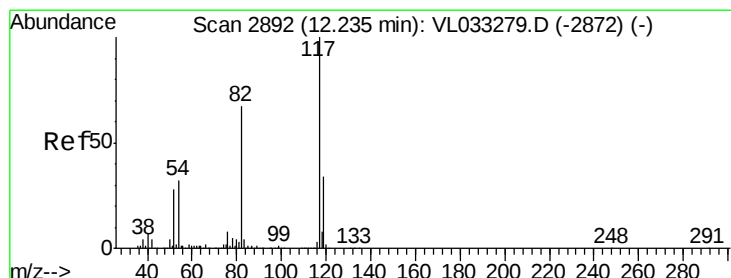
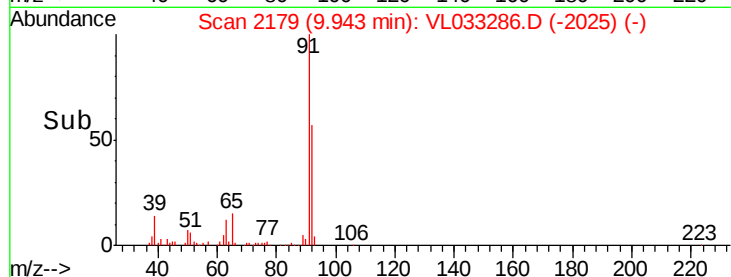
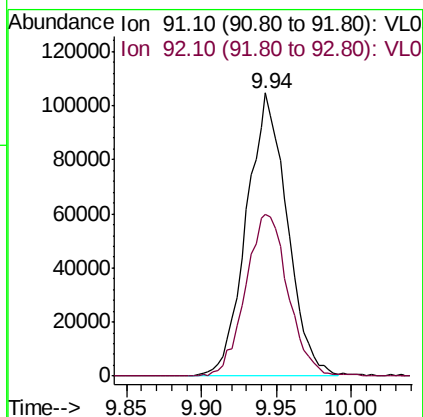
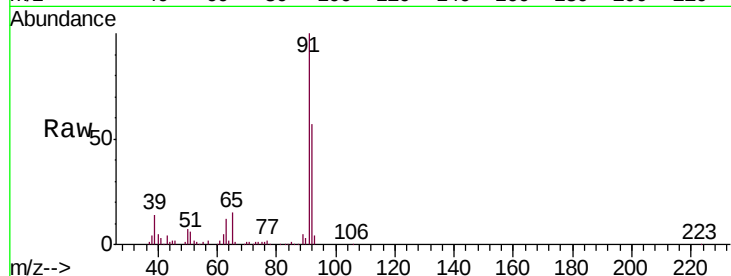
ST-IA-1

Tgt Ion: 91 Resp: 198288

Ion Ratio Lower Upper

91 100

92 59.6 47.8 71.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

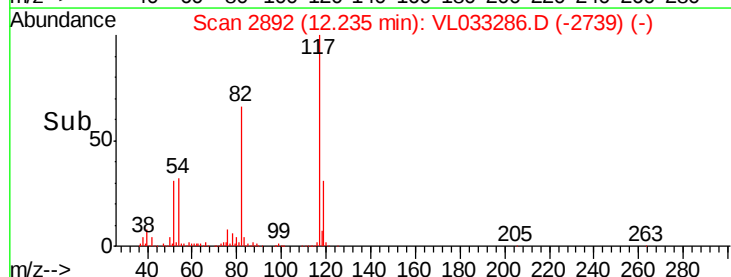
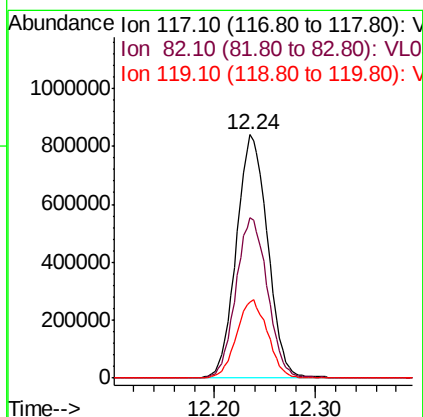
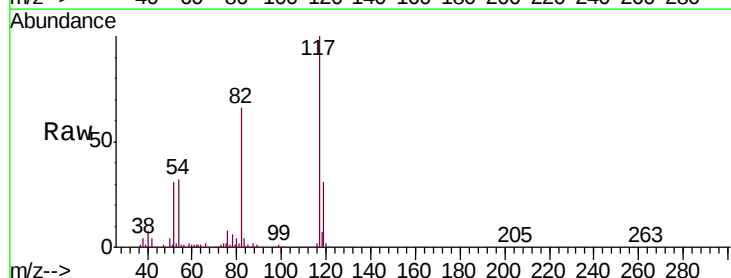
Tgt Ion: 117 Resp: 1806956

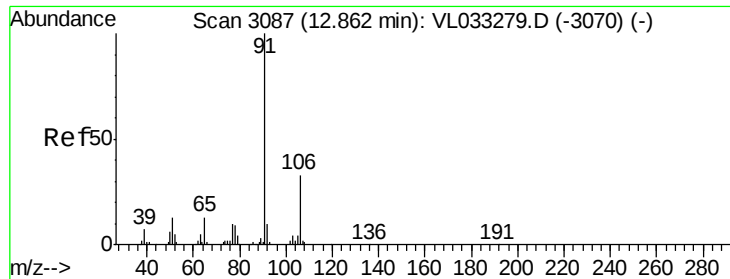
Ion Ratio Lower Upper

117 100

82 66.9 51.1 76.7

119 32.2 43.6 65.4#





#58

Ethyl Benzene

Concen: 0.025 ppbv

RT: 12.86 min Scan# 3087

Delta R.T. -0.01 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

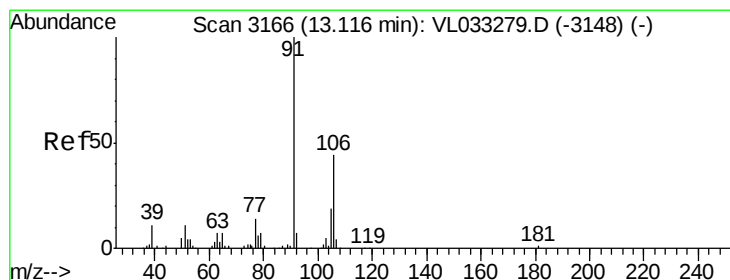
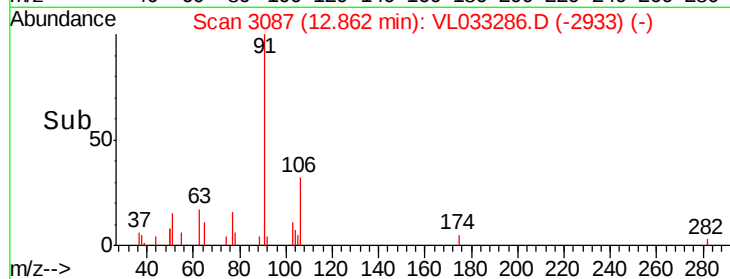
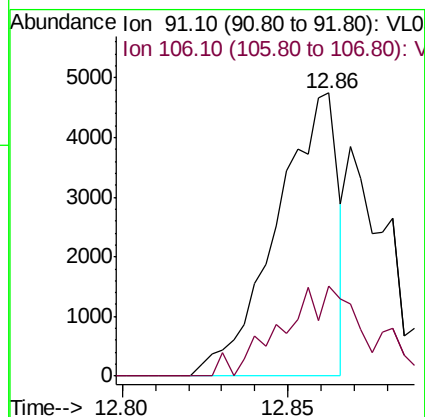
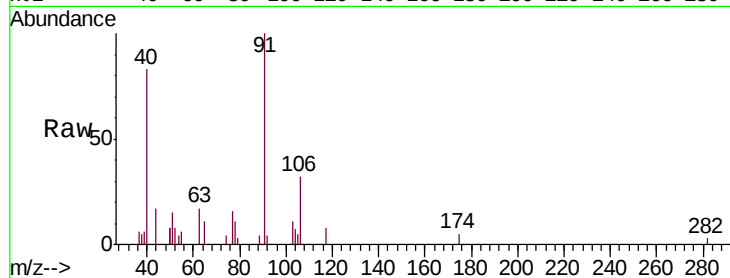
ST-IA-1

Tgt Ion: 91 Resp: 6112

Ion Ratio Lower Upper

91 100

106 30.5 22.5 33.7



#59

m/p-Xylene

Concen: 0.042 ppbv

RT: 13.12 min Scan# 3166

Delta R.T. -0.01 min

Lab File: VL033286.D

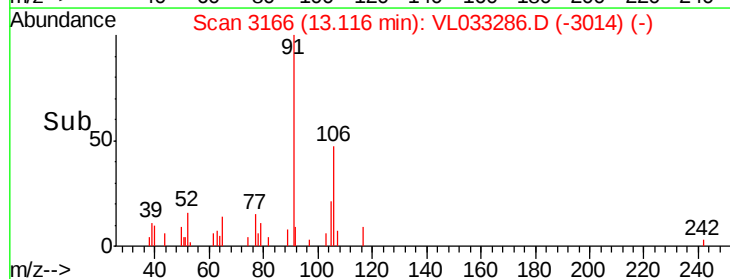
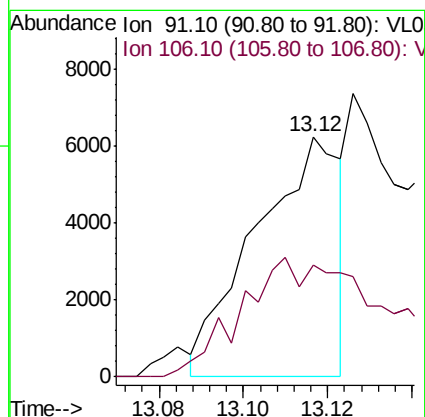
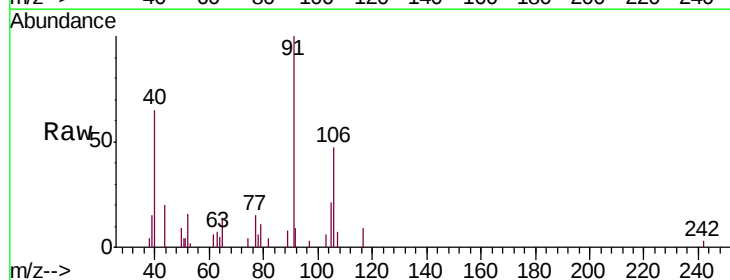
Acq: 12 Mar 2019 17:00

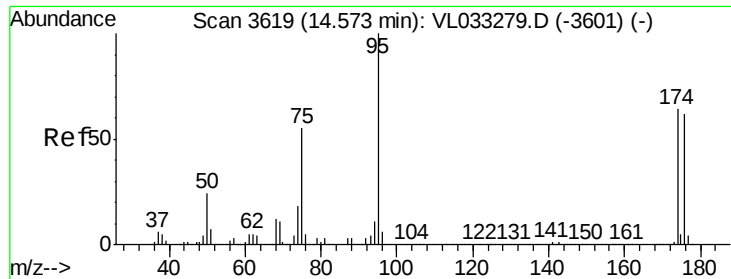
Tgt Ion: 91 Resp: 8674

Ion Ratio Lower Upper

91 100

106 104.8 35.5 53.3#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.234 ppbv

RT: 14.57 min Scan# 3619

Delta R.T. -0.01 min

Lab File: VL033286.D

Acq: 12 Mar 2019 17:00

Instrument :

MSVOA_L

ClientSampleId :

ST-IA-1

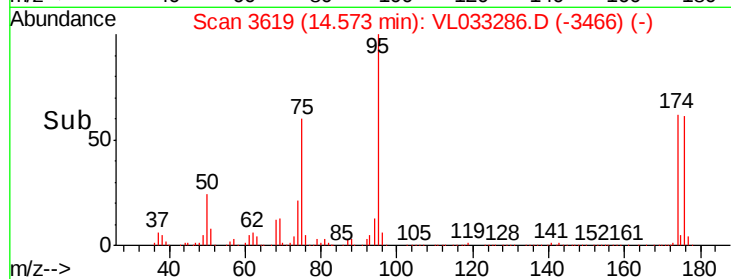
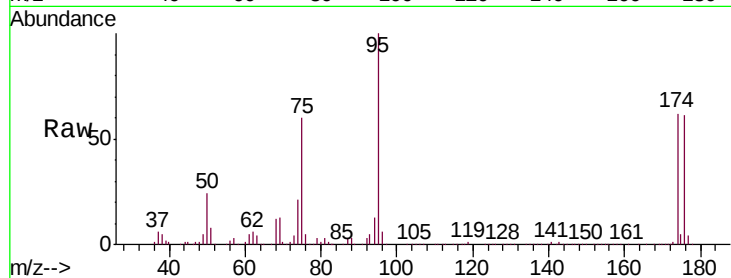
Tgt Ion: 95 Resp: 1428076

Ion Ratio Lower Upper

95 100

174 64.3 51.7 77.5

175 4.5 3.7 5.5



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

Time-->