

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX092019\
 Data File : VX012576.D
 Acq On : 20 Sep 2019 23:22
 Operator : JC/SP
 Sample : K4930-01
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 35 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 TB-01-190916

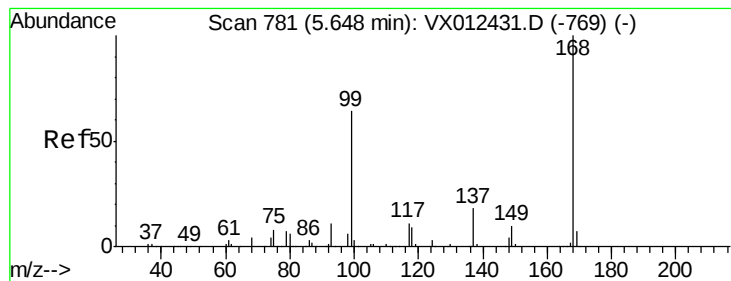
Quant Time: Sep 21 01:40:46 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X091719W.M
 Quant Title : SW846 8260
 QLast Update : Tue Sep 17 15:27:10 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	175714	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	278461	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	233806	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	90729	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	6.05	65	115470	45.85	ug/l	0.00
Spiked Amount			Recovery	=	91.70%	
35) Dibromofluoromethane	5.48	113	83734	49.68	ug/l	0.00
Spiked Amount			Recovery	=	99.36%	
50) Toluene-d8	8.71	98	321665	51.56	ug/l	0.00
Spiked Amount			Recovery	=	103.12%	
62) 4-Bromofluorobenzene	11.14	95	112157	43.30	ug/l	0.00
Spiked Amount			Recovery	=	86.60%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.19	85	166	0.532	ug/l #	43
3) Chloromethane	1.31	50	427	0.442	ug/l #	41
4) Vinyl Chloride	1.40	62	213	0.204	ug/l #	85
5) Bromomethane	1.64	94	619	1.509	ug/l #	63
6) Chloroethane	1.69	64	355	0.434	ug/l	90
10) Methyl Iodide	2.50	142	681	4.964	ug/l #	72
11) Tert butyl alcohol	3.00	59	3520	Below Cal	#	83
13) Acrolein	2.27	56	297	Below Cal	#	79
15) Acrylonitrile	3.14	53	313	0.287	ug/l #	58
16) Acetone	2.43	43	471	Below Cal	#	73
17) Carbon Disulfide	2.56	76	636	2.199	ug/l #	33
21) trans-1,2-Dichloroethene	3.16	96	247	0.215	ug/l #	79
36) 1,1-Dichloropropene	5.65	75	14923	8.818	ug/l #	53
38) Carbon Tetrachloride	5.65	117	18994	9.024	ug/l #	17
44) Trichloroethene	7.21	130	289	0.204	ug/l	47
49) 1,4-Dioxane	7.86	88	22	0.411	ug/l #	1
60) Dibromochloromethane	9.34	129	426	0.234	ug/l #	11
76) 1,2,3-Trichloropropane	11.14	75	58602	28.118	ug/l #	38
81) trans-1,4-Dichloro-2-buten	11.14	75	58602	75.512	ug/l #	8
93) 1,2,4-Trichlorobenzene	13.64	180	462	0.263	ug/l	84
95) Naphthalene	13.83	128	1379	0.220	ug/l #	90
96) 1,2,3-Trichlorobenzene	14.02	180	490	0.273	ug/l	98

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 782

Delta R.T. 0.01 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

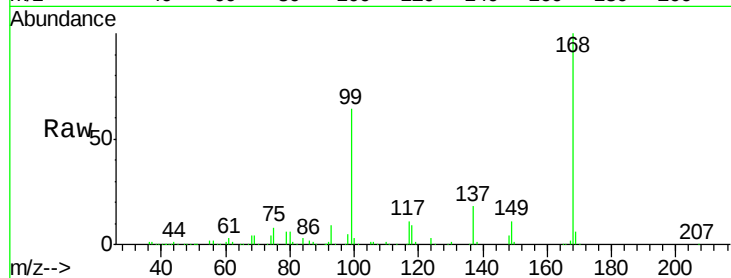
TB-01-190916

Tot Ion:168 Resp: 175714

Ion Ratio Lower Upper

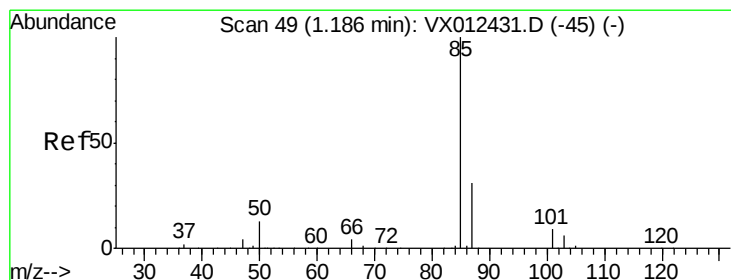
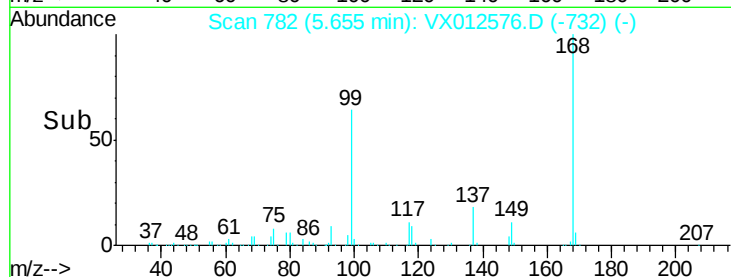
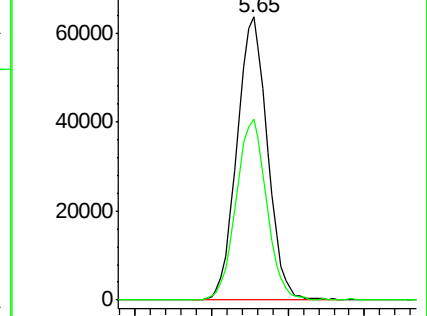
168 100

99 63.9 51.4 77.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#2

Dichlorodifluoromethane

Concen: 0.532 ug/l

RT: 1.19 min Scan# 49

Delta R.T. 0.00 min

Lab File: VX012576.D

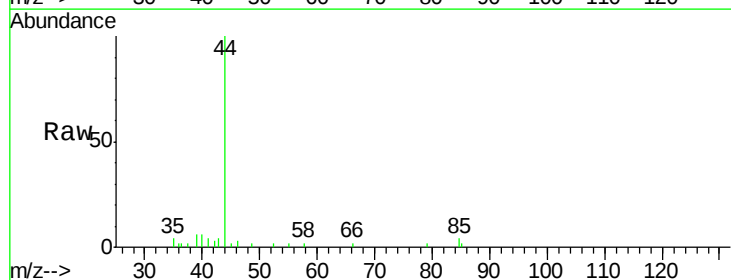
Acq: 20 Sep 2019 23:22

Tgt Ion: 85 Resp: 166

Ion Ratio Lower Upper

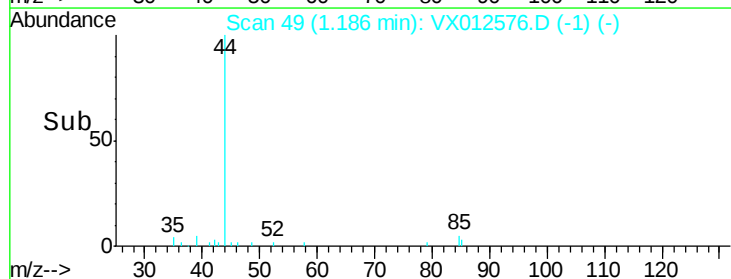
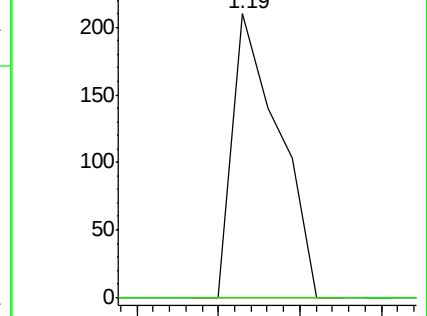
85 100

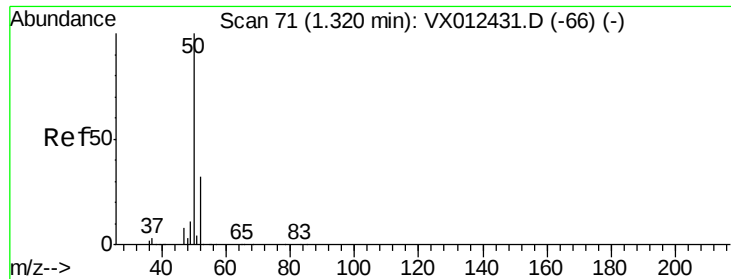
87 0.0 15.6 46.8#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0





#3

Chloromethane

Concen: 0.442 ug/l

RT: 1.31 min Scan# 70

Delta R.T. -0.01 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

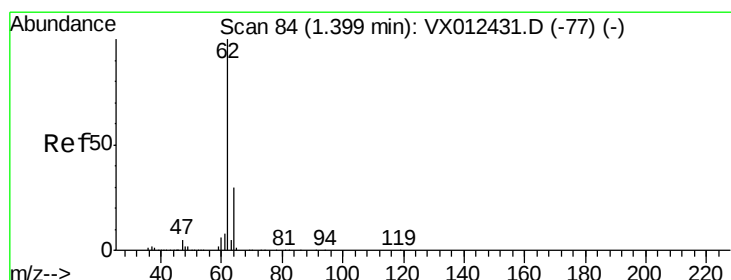
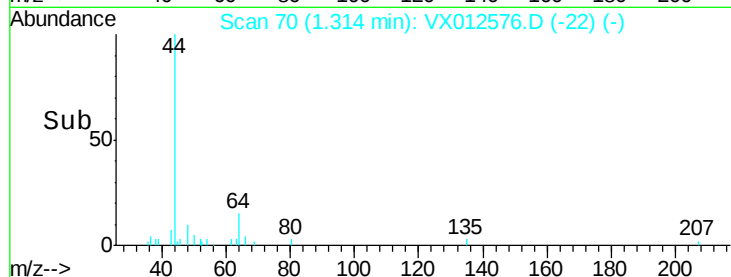
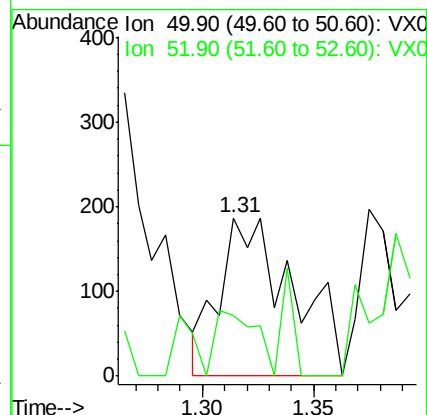
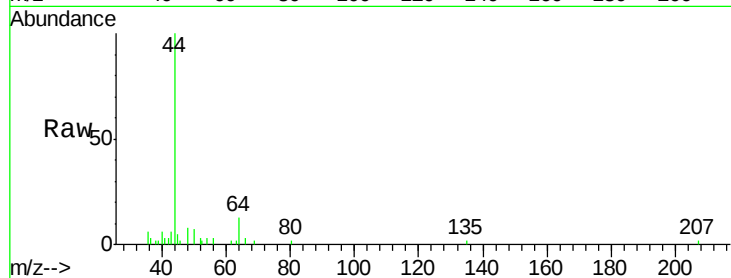
TB-01-190916

Tot Ion: 50 Resp: 427

Ion Ratio Lower Upper

50 100

52 65.2 25.7 38.5#



#4

Vinyl Chloride

Concen: 0.204 ug/l

RT: 1.40 min Scan# 84

Delta R.T. 0.00 min

Lab File: VX012576.D

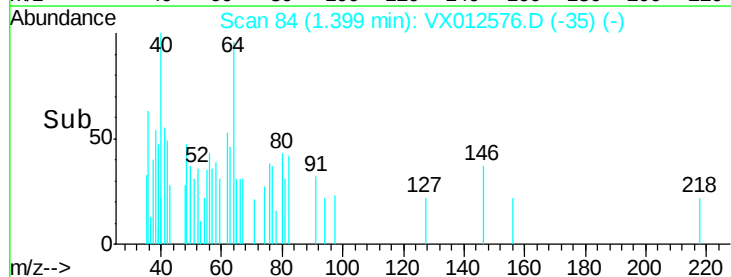
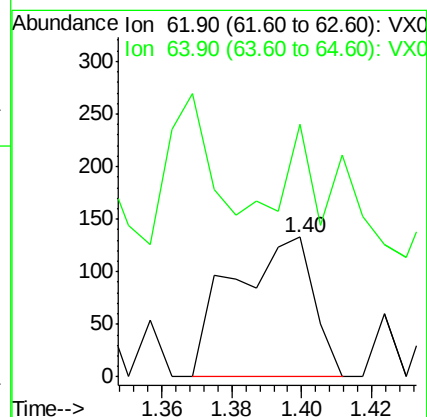
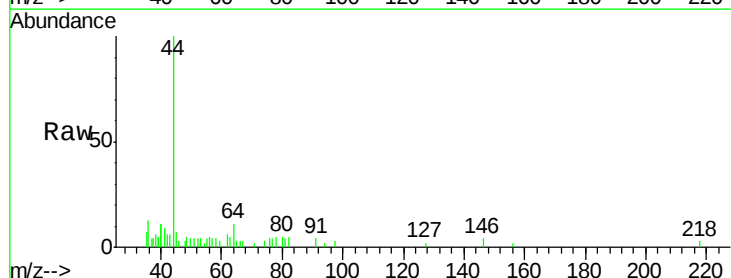
Acq: 20 Sep 2019 23:22

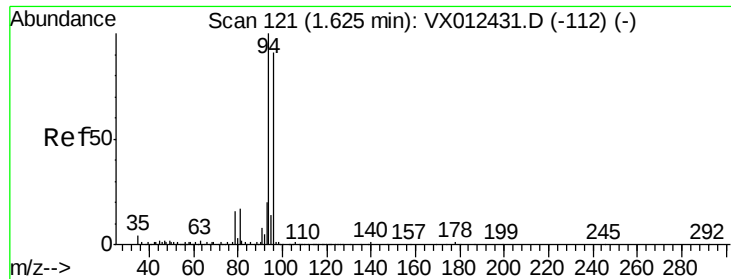
Tgt Ion: 62 Resp: 213

Ion Ratio Lower Upper

62 100

64 21.8 24.2 36.2#





#5

Bromomethane

Concen: 1.509 ug/l

RT: 1.64 min Scan# 124

Delta R.T. 0.02 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

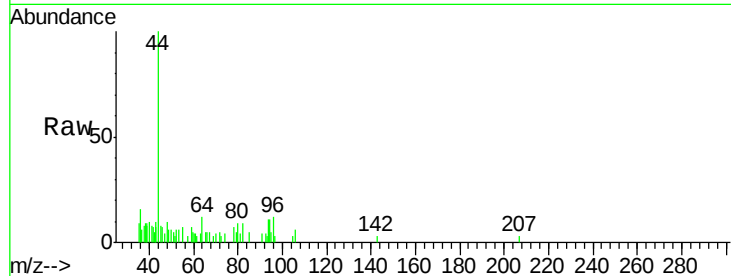
TB-01-190916

Tot Ion: 94 Resp: 619

Ion Ratio Lower Upper

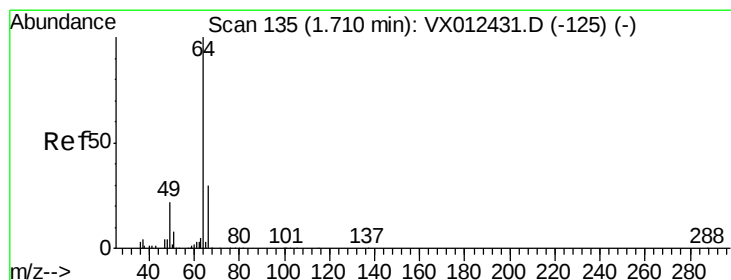
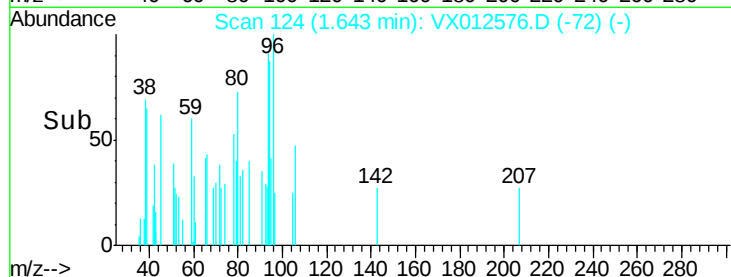
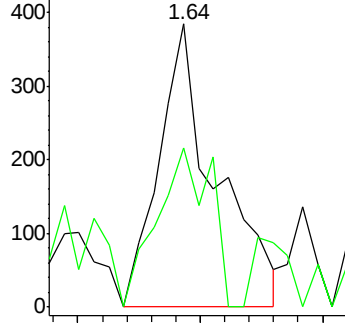
94 100

96 56.0 72.8 109.2#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0



#6

Chloroethane

Concen: 0.434 ug/l

RT: 1.69 min Scan# 132

Delta R.T. -0.02 min

Lab File: VX012576.D

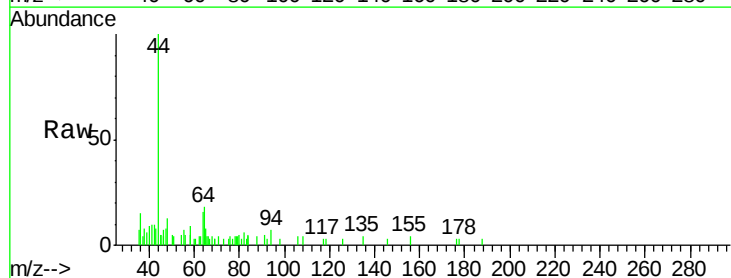
Acq: 20 Sep 2019 23:22

Tgt Ion: 64 Resp: 355

Ion Ratio Lower Upper

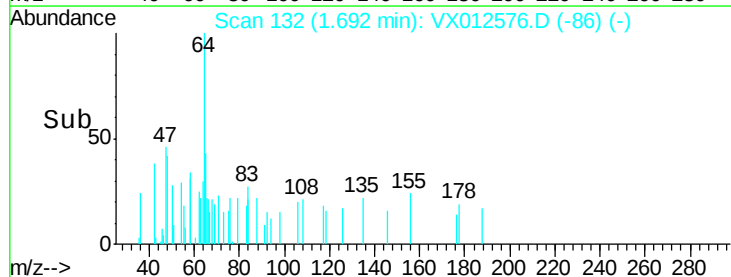
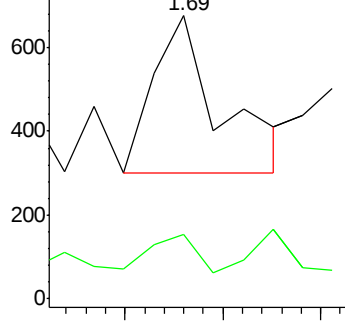
64 100

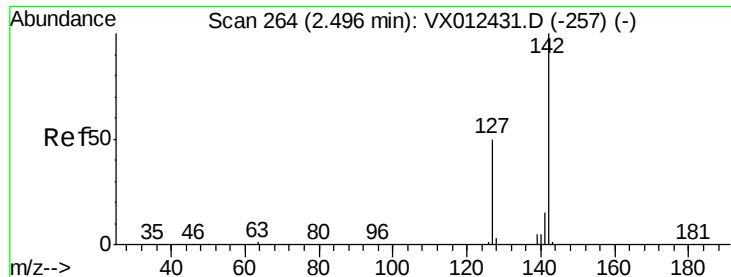
66 35.7 24.0 36.0



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

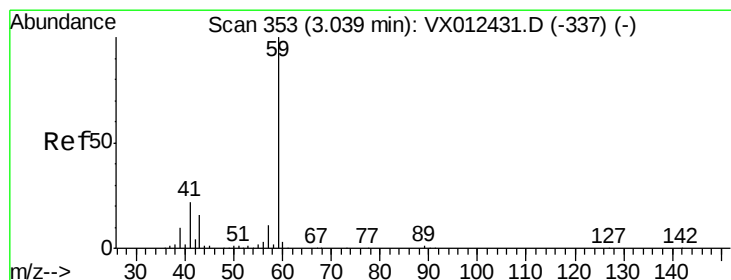
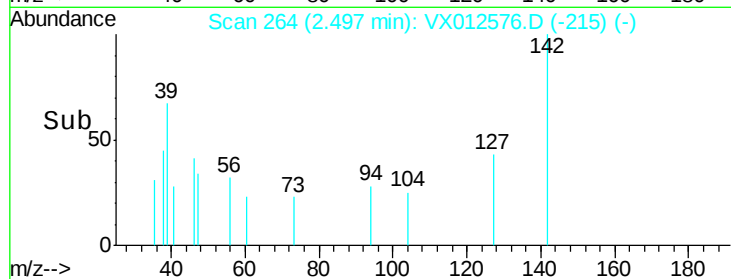
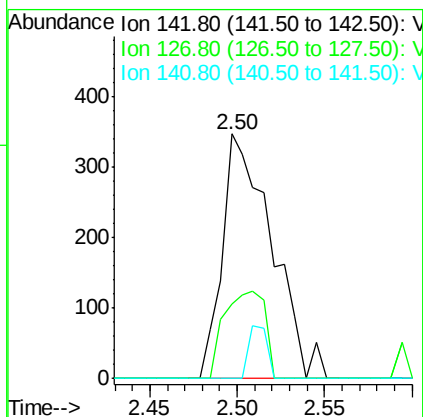
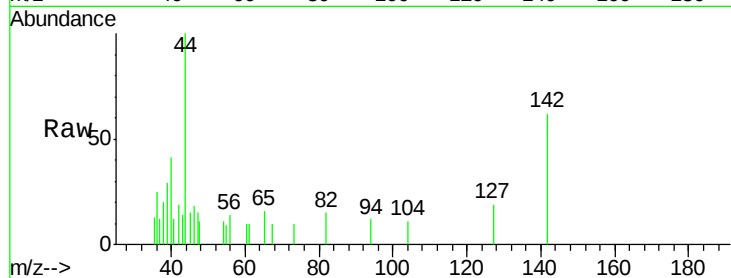




#10
Methvl Iodide
Concen: 4.964 ug/l
RT: 2.50 min Scan# 264
Delta R.T. 0.00 min
Lab File: VX012576.D
Acq: 20 Sep 2019 23:22

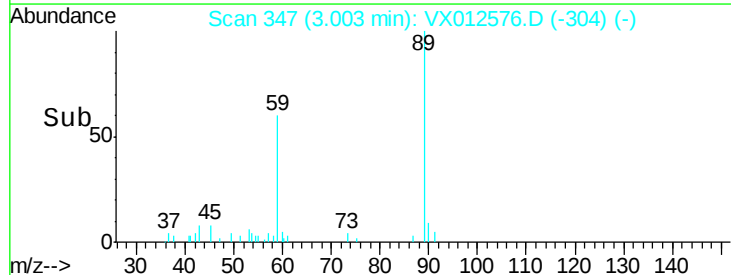
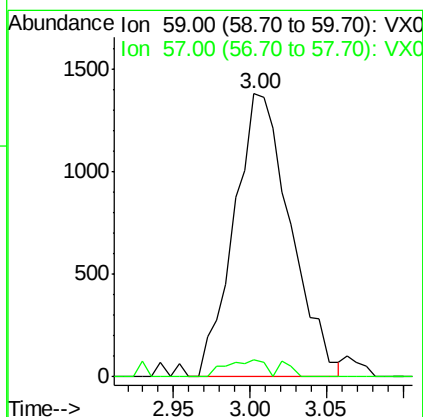
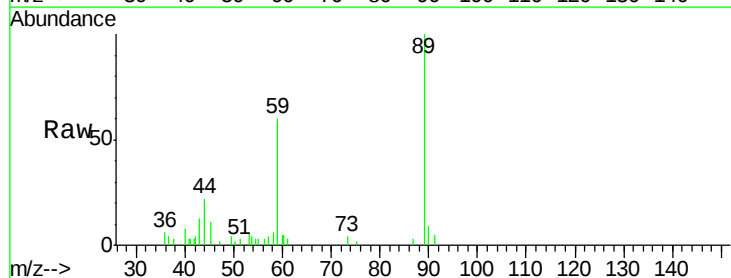
Instrument :
MSVOA_X
ClientSampleId :
TB-01-190916

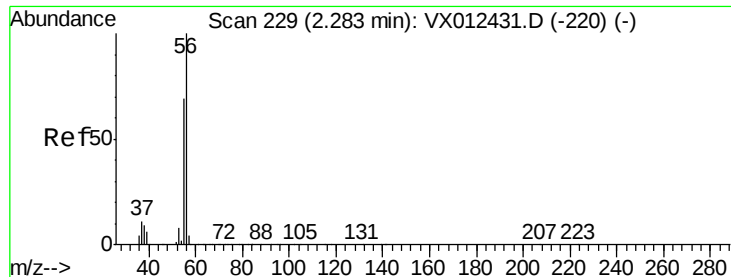
Tot Ion:142 Resp: 681
Ion Ratio Lower Upper
142 100
127 29.1 40.8 61.2#
141 7.8 12.1 18.1#



#11
Tert butyl alcohol
Concen: Below Cal
RT: 3.00 min Scan# 347
Delta R.T. -0.04 min
Lab File: VX012576.D
Acq: 20 Sep 2019 23:22

Tgt Ion: 59 Resp: 3520
Ion Ratio Lower Upper
59 100
57 4.1 8.3 12.5#





#13

Acrolein

Concen: Below Cal

RT: 2.27 min Scan# 226

Delta R.T. -0.02 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampled :

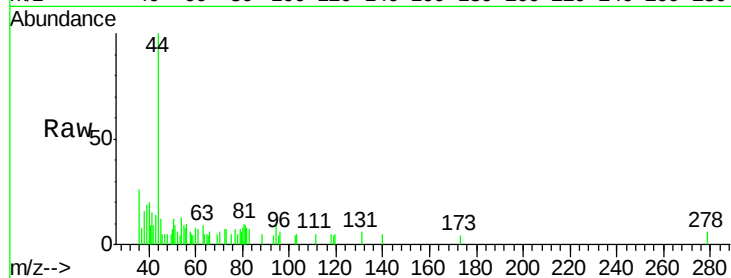
TB-01-190916

Tot Ion: 56 Resp: 297

Ion Ratio Lower Upper

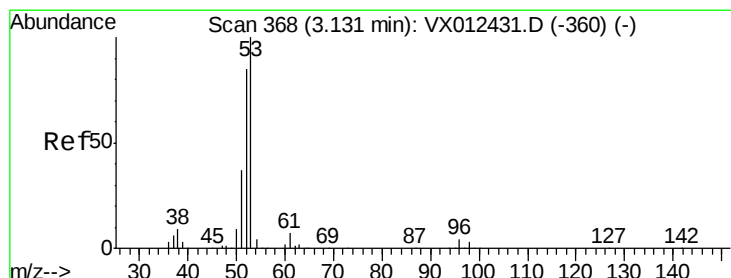
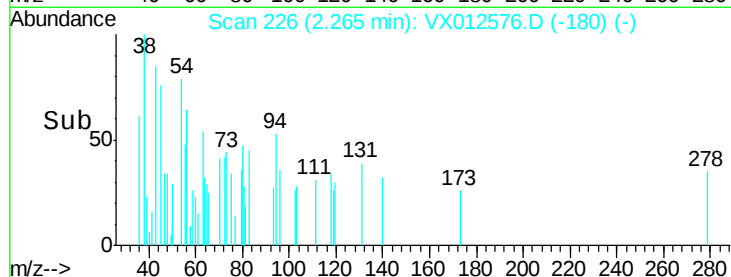
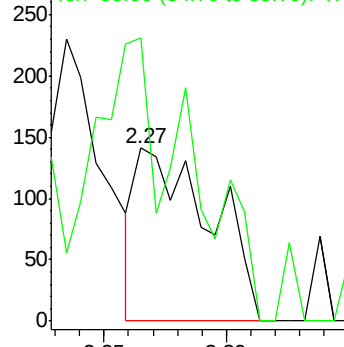
56 100

55 86.9 55.8 83.8#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#15

Acrylonitrile

Concen: 0.287 ug/l

RT: 3.14 min Scan# 369

Delta R.T. 0.01 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

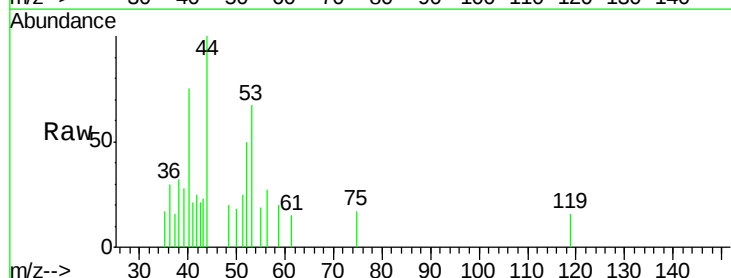
Tgt Ion: 53 Resp: 313

Ion Ratio Lower Upper

53 100

52 110.9 67.0 100.4#

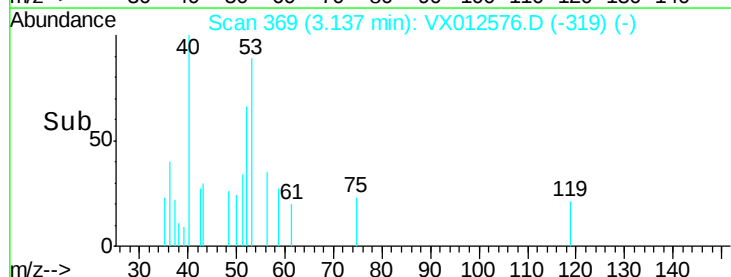
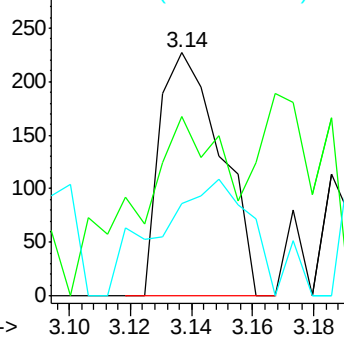
51 78.0 29.6 44.4#

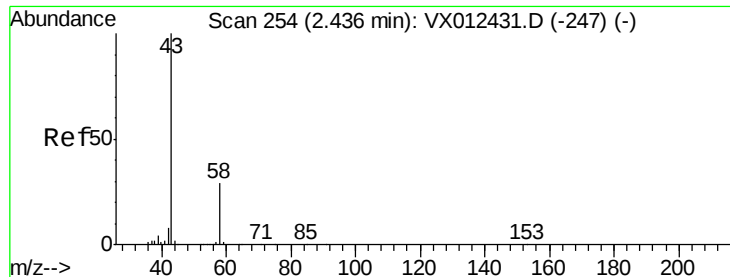


Abundance Ion 53.00 (52.70 to 53.70): VX0

Ion 52.00 (51.70 to 52.70): VX0

Ion 51.00 (50.70 to 51.70): VX0





#16

Acetone

Concen: Below Cal

RT: 2.43 min Scan# 253

Delta R.T. -0.01 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampled :

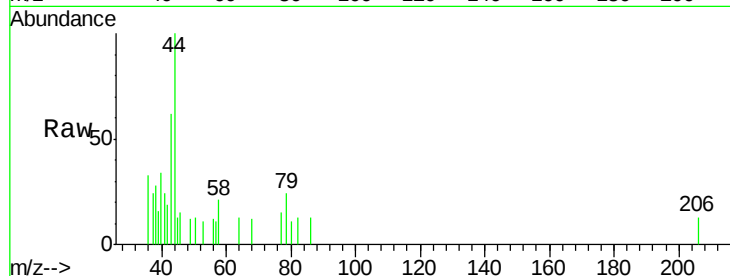
TB-01-190916

Tot Ion: 43 Resp: 471

Ion Ratio Lower Upper

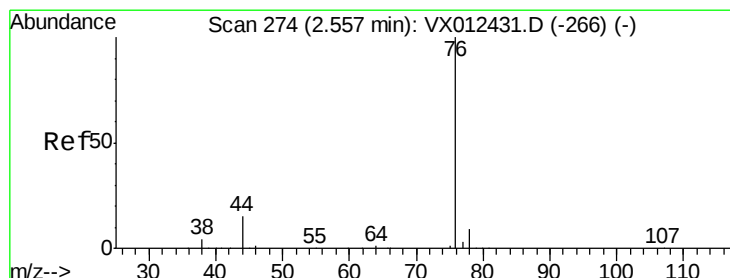
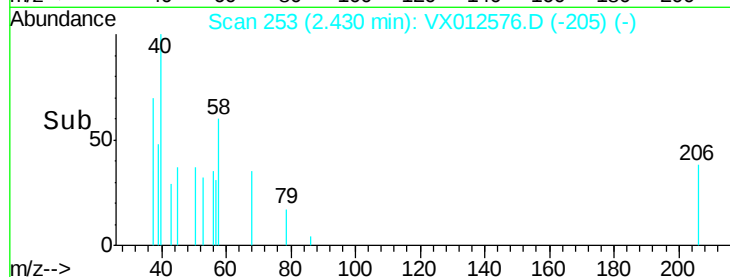
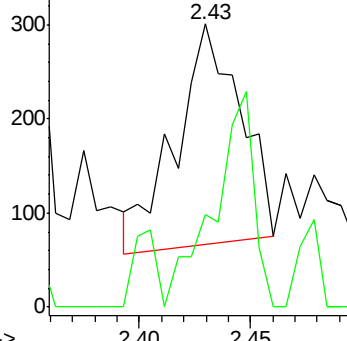
43 100

58 43.8 23.3 34.9#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#17

Carbon Disulfide

Concen: 2.199 ug/l

RT: 2.56 min Scan# 274

Delta R.T. 0.00 min

Lab File: VX012576.D

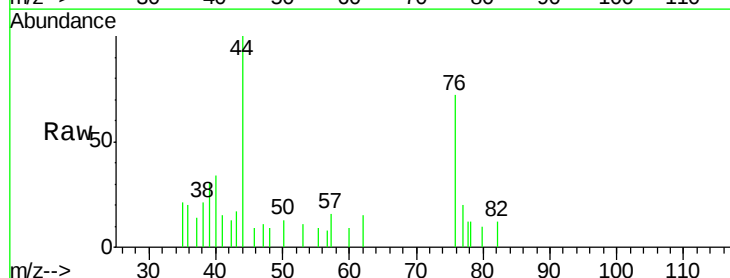
Acq: 20 Sep 2019 23:22

Tgt Ion: 76 Resp: 636

Ion Ratio Lower Upper

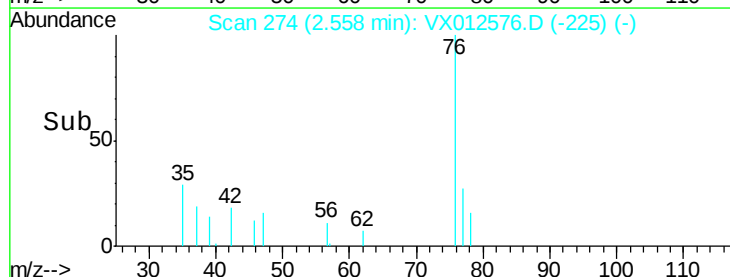
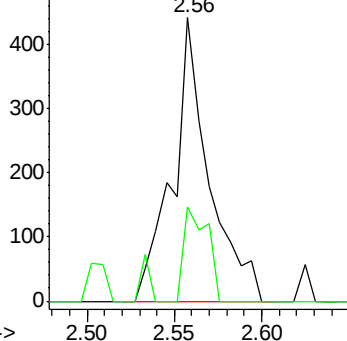
76 100

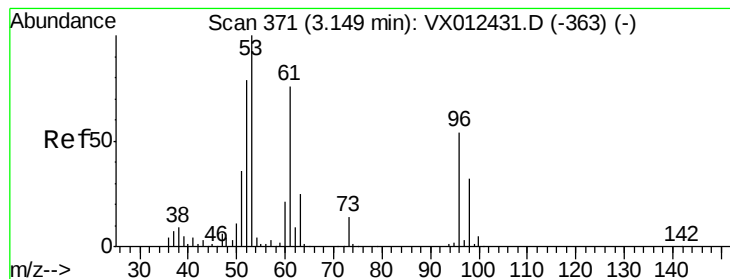
78 33.3 7.3 10.9#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0





#21

trans-1,2-Dichloroethene

Concen: 0.215 ug/l

RT: 3.16 min Scan# 373

Delta R.T. 0.01 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampled :

TB-01-190916

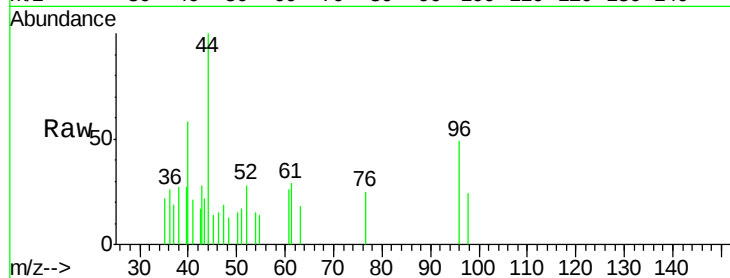
Tot Ion: 96 Resp: 247

Ion Ratio Lower Upper

96 100

61 110.7 112.0 168.0#

98 49.5 47.8 71.8



Abundance Ion 95.90 (95.60 to 96.60): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 97.90 (97.60 to 98.60): VX0

300

250

200

150

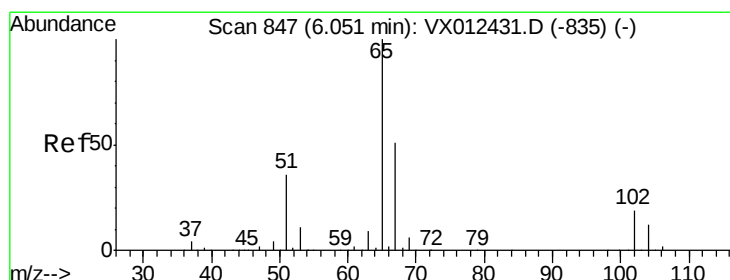
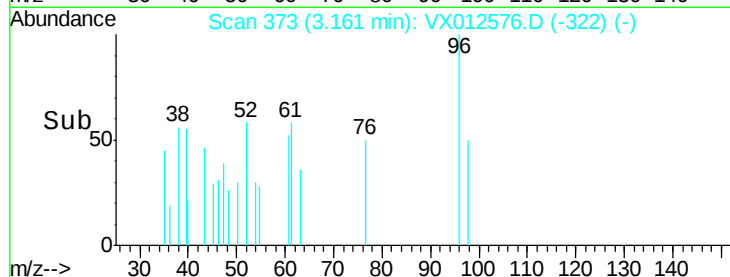
100

50

0

3.12 3.14 3.16 3.18 3.20

Time-->



#33

1,2-Dichloroethane-d4

Concen: 45.852 ug/l

RT: 6.05 min Scan# 847

Delta R.T. 0.00 min

Lab File: VX012576.D

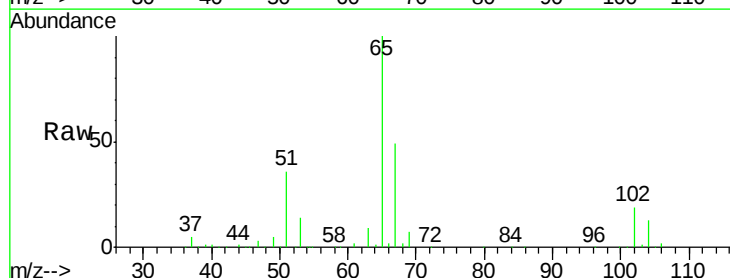
Acq: 20 Sep 2019 23:22

Tgt Ion: 65 Resp: 115470

Ion Ratio Lower Upper

65 100

67 50.8 0.0 101.2



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0

50000

40000

30000

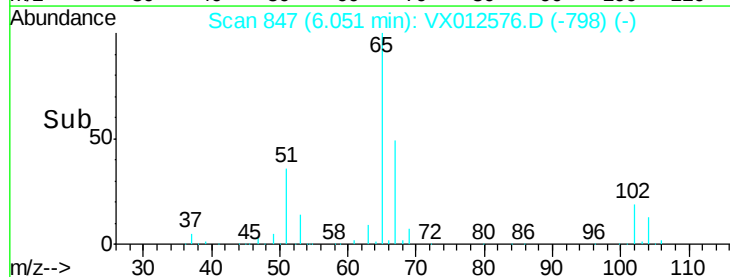
20000

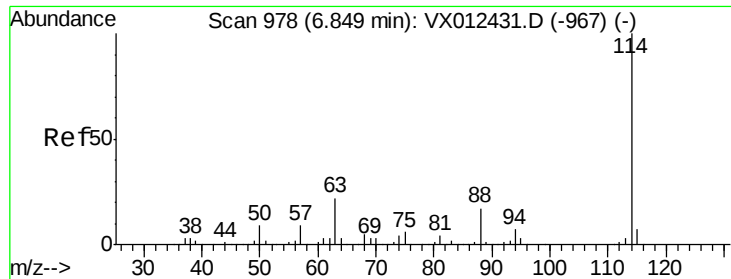
10000

0

5.90 6.00 6.10 6.20

Time-->





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.85 min Scan# 978

Delta R.T. 0.00 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

TB-01-190916

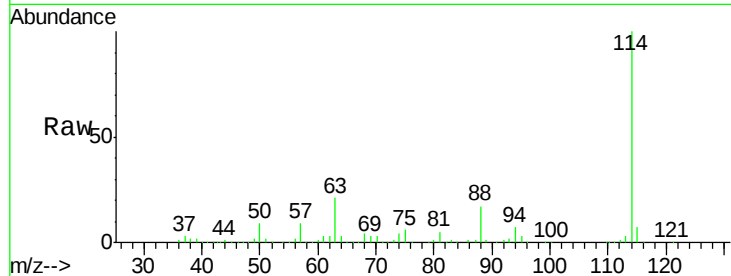
Tot Ion:114 Resp: 278461

Ion Ratio Lower Upper

114 100

63 20.7 0.0 43.2

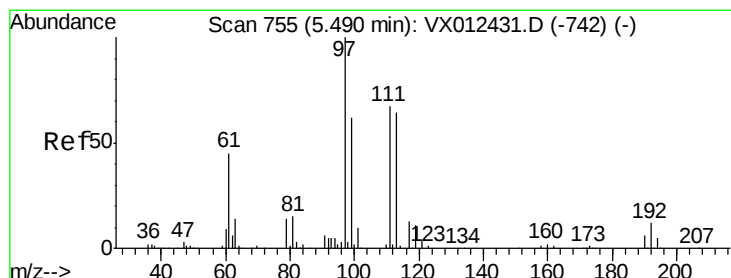
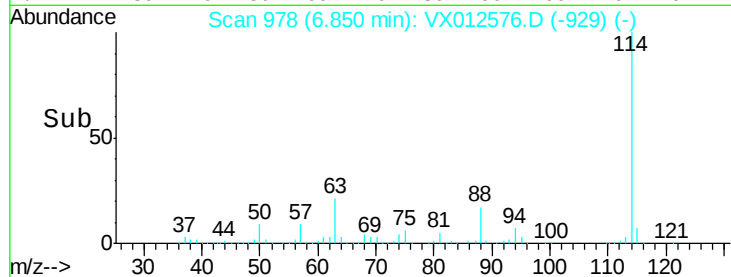
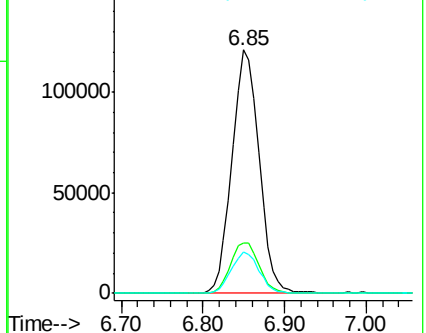
88 17.0 0.0 33.2



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 49.682 ug/l

RT: 5.48 min Scan# 754

Delta R.T. -0.01 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

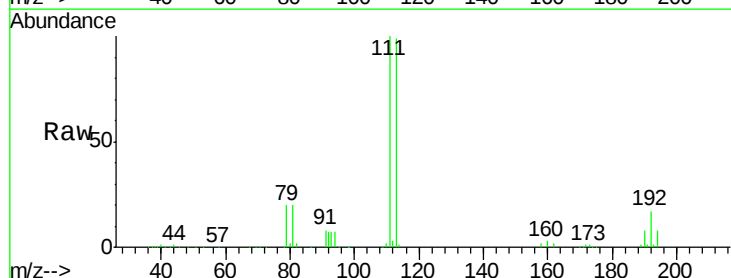
Tgt Ion:113 Resp: 83734

Ion Ratio Lower Upper

113 100

111 103.0 83.4 125.2

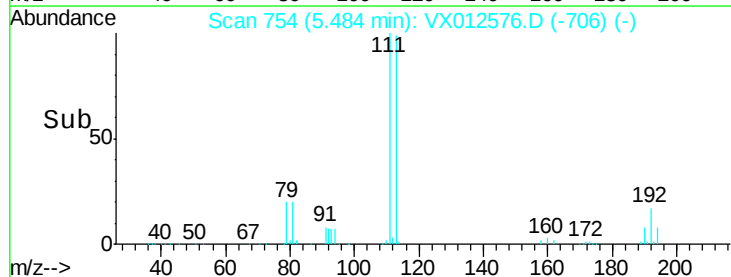
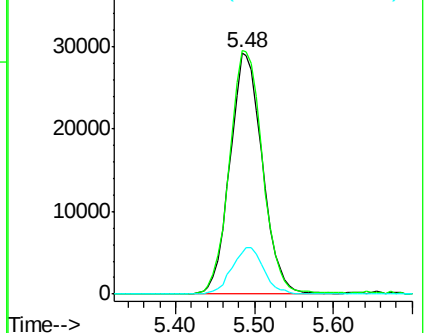
192 19.0 14.4 21.6

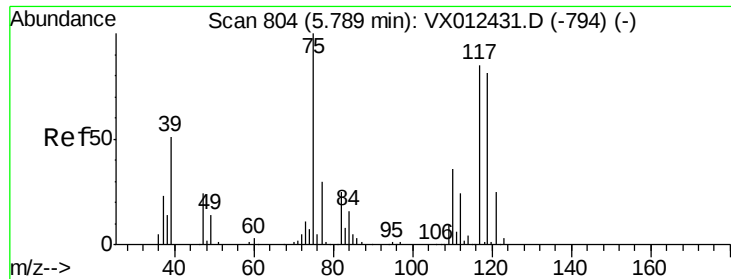


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 8.818 ug/l

RT: 5.65 min Scan# 781

Delta R.T. -0.14 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

TB-01-190916

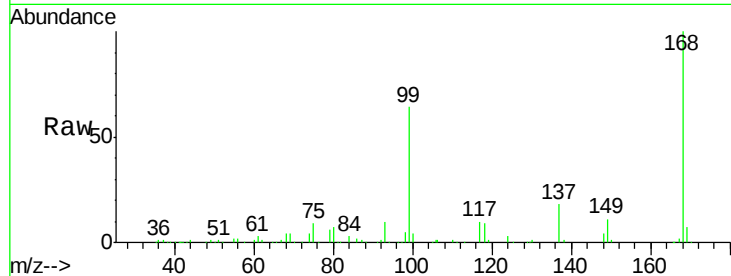
Tot Ion: 75 Resp: 14923

Ion Ratio Lower Upper

75 100

110 10.7 16.7 50.0#

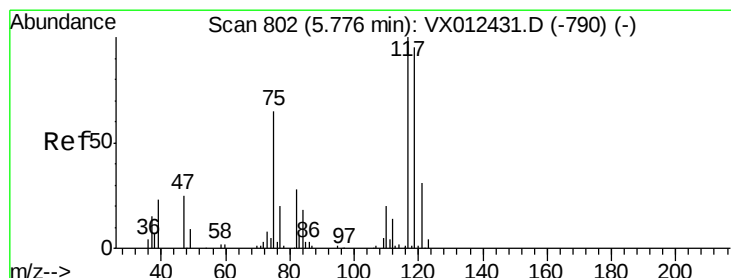
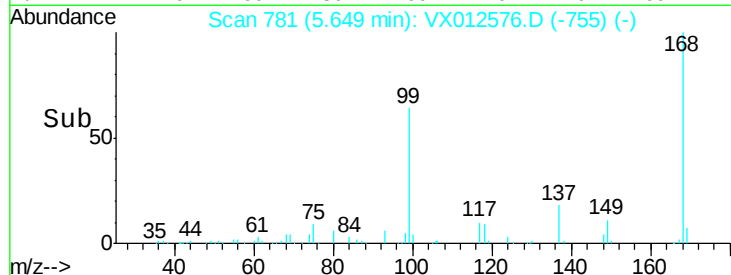
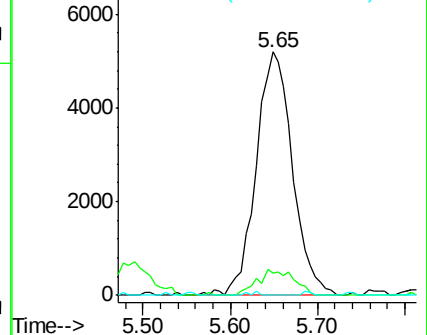
77 0.4 24.2 36.2#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0



#38

Carbon Tetrachloride

Concen: 9.024 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.12 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

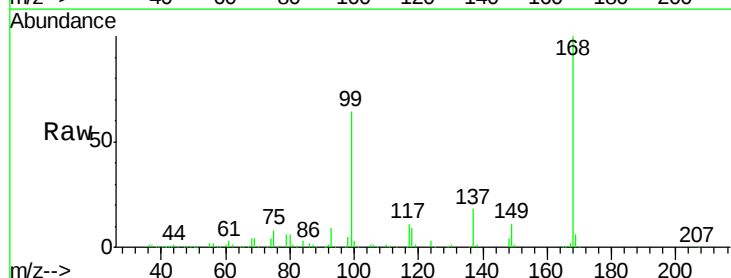
Tgt Ion: 117 Resp: 18994

Ion Ratio Lower Upper

117 100

119 5.3 75.7 113.5#

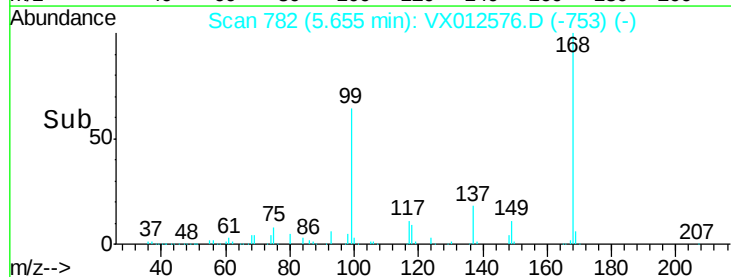
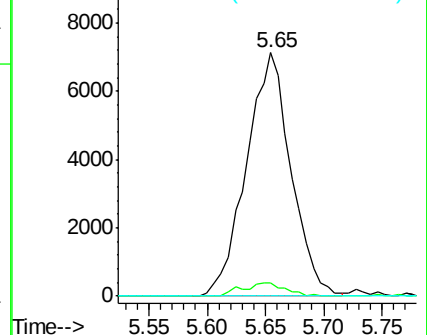
121 0.0 24.2 36.4#

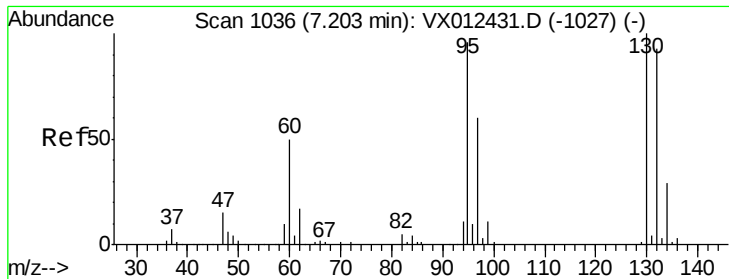


Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V





#44

Trichloroethene

Concen: 0.204 ug/l

RT: 7.21 min Scan# 1037

Delta R.T. 0.01 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampled :

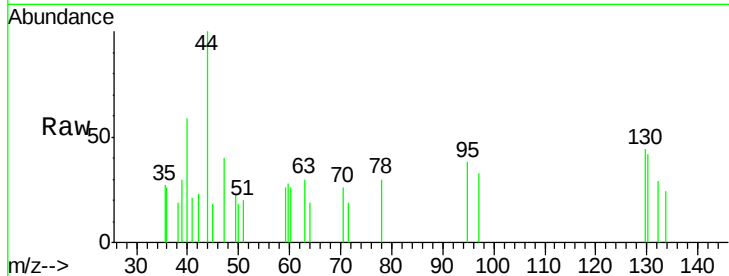
TB-01-190916

Tot Ion:130 Resp: 289

Ion Ratio Lower Upper

130 100

95 45.0 0.0 193.0



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

7.21

250

200

150

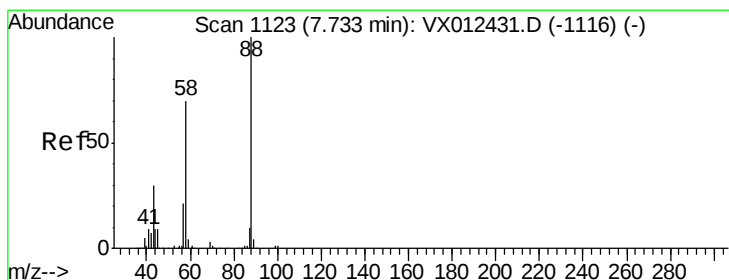
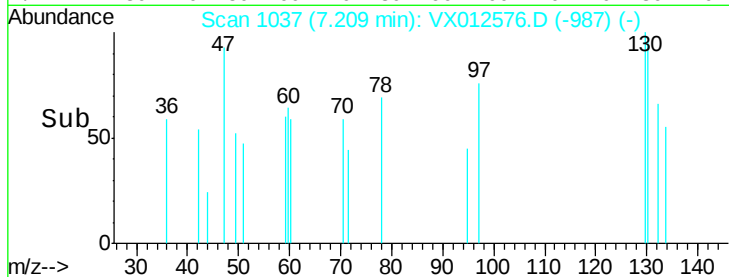
100

50

0

7.20 7.25

Time-->



#49

1,4-Dioxane

Concen: 0.411 ug/l

RT: 7.86 min Scan# 1144

Delta R.T. 0.13 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

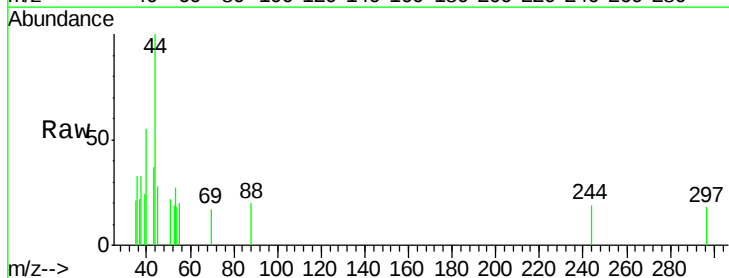
Tgt Ion: 88 Resp: 22

Ion Ratio Lower Upper

88 100

43 1309.1 29.4 44.0#

58 350.0 57.5 86.3#



Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

7.86

150

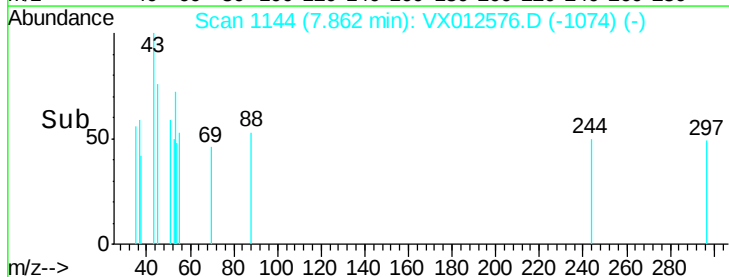
100

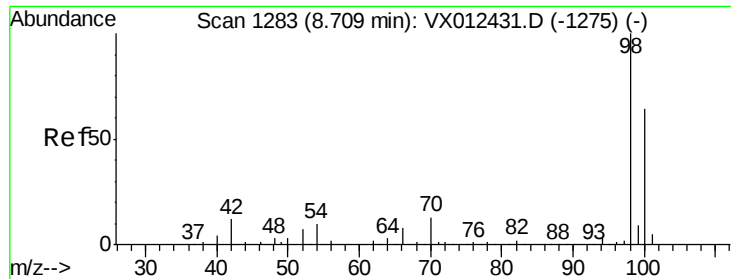
50

0

7.84 7.85 7.86 7.87 7.88

Time-->





#50

Toluene-d8

Concen: 51.562 ug/l

RT: 8.71 min Scan# 1283

Delta R.T. 0.00 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

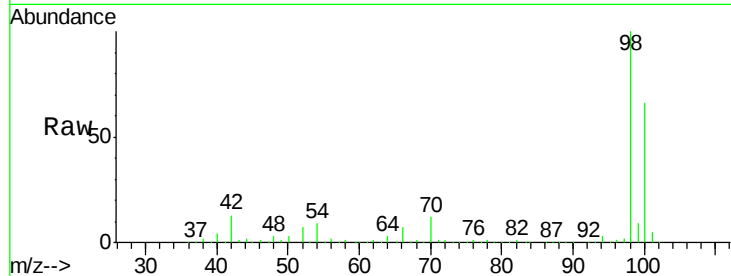
TB-01-190916

Tot Ion: 98 Resp: 321665

Ion Ratio Lower Upper

98 100

100 67.8 53.4 80.2



Abundance Ion 98.00 (97.70 to 98.70): VX012431.D (-1275) (-)

Ion 100.00 (99.70 to 100.70): VX012576.D (-1234) (-)

8.71

250000

200000

150000

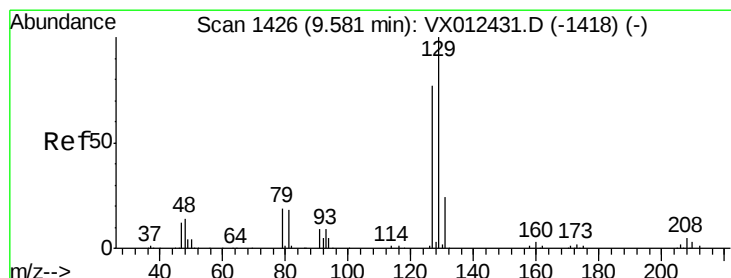
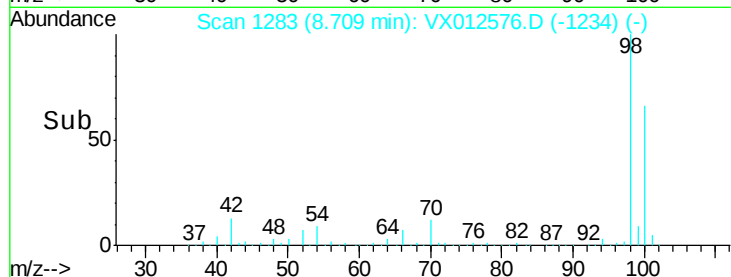
100000

50000

0

Time-->

8.60 8.70 8.80



#60

Dibromochloromethane

Concen: 0.234 ug/l

RT: 9.34 min Scan# 1387

Delta R.T. -0.24 min

Lab File: VX012576.D

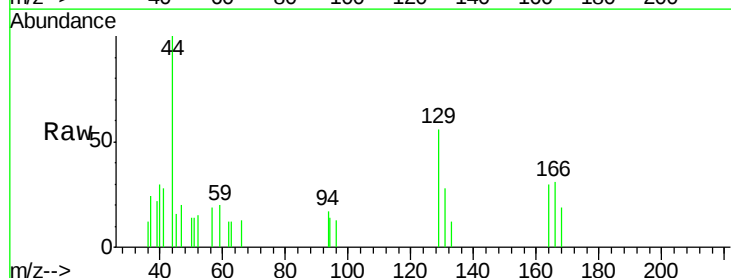
Acq: 20 Sep 2019 23:22

Tgt Ion: 129 Resp: 426

Ion Ratio Lower Upper

129 100

127 0.0 38.9 116.6#



Abundance Ion 128.80 (128.50 to 129.50): VX012431.D (-1418) (-)

Ion 126.80 (126.50 to 127.50): VX012576.D (-1377) (-)

9.34

300

250

200

150

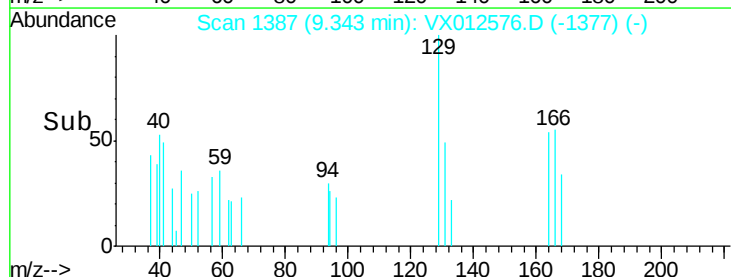
100

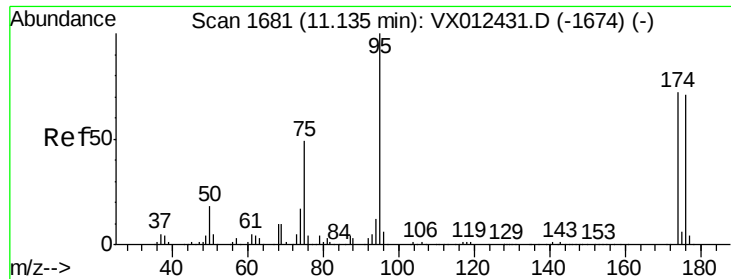
50

0

Time-->

9.30 9.35





#62

4-Bromofluorobenzene

Concen: 43.300 ug/l

RT: 11.14 min Scan# 1681

Delta R.T. 0.00 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

TB-01-190916

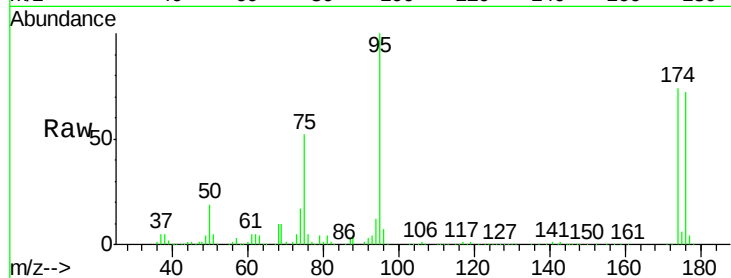
Tot Ion: 95 Resp: 112157

Ion Ratio Lower Upper

95 100

174 72.6 0.0 140.0

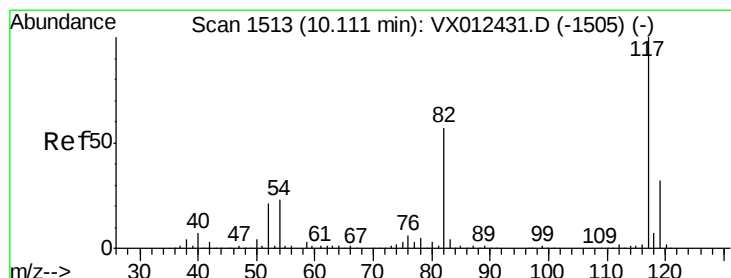
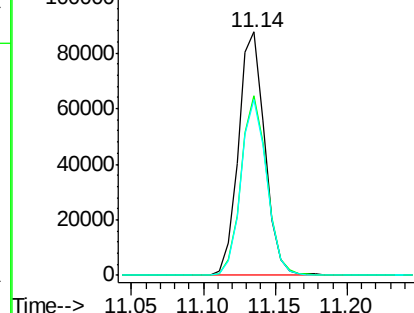
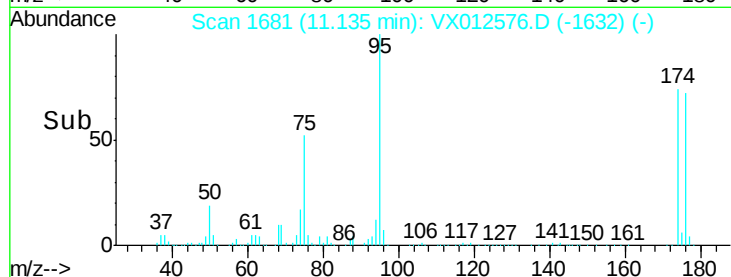
176 71.2 0.0 135.4



Abundance Ion 94.90 (94.60 to 95.60): VX012576.D (-1632) (-)

Ion 173.80 (173.50 to 174.50): VX012576.D (-1632) (-)

Ion 175.80 (175.50 to 176.50): VX012576.D (-1632) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.11 min Scan# 1513

Delta R.T. 0.00 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

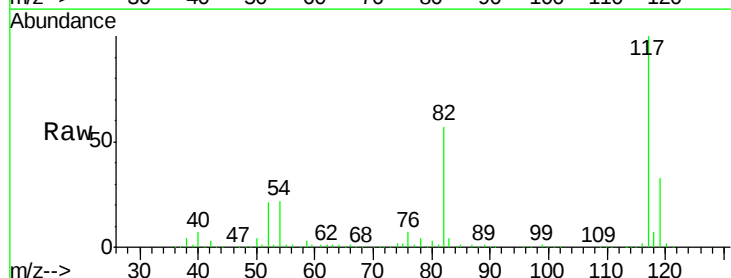
Tgt Ion: 117 Resp: 233806

Ion Ratio Lower Upper

117 100

82 57.2 45.9 68.9

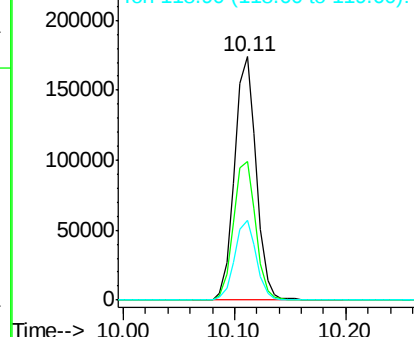
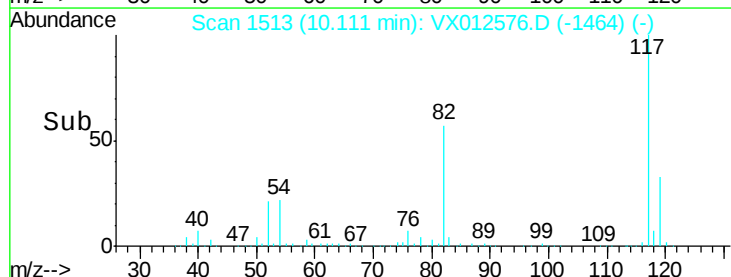
119 32.8 25.3 37.9

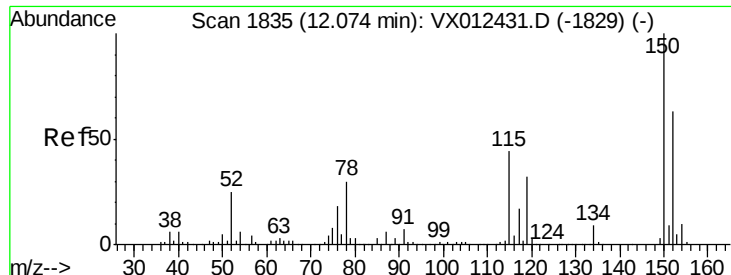


Abundance Ion 116.90 (116.60 to 117.60): VX012576.D (-1464) (-)

Ion 82.00 (81.70 to 82.70): VX012576.D (-1464) (-)

Ion 118.90 (118.60 to 119.60): VX012576.D (-1464) (-)





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.07 min Scan# 1835

Delta R.T. 0.00 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

TB-01-190916

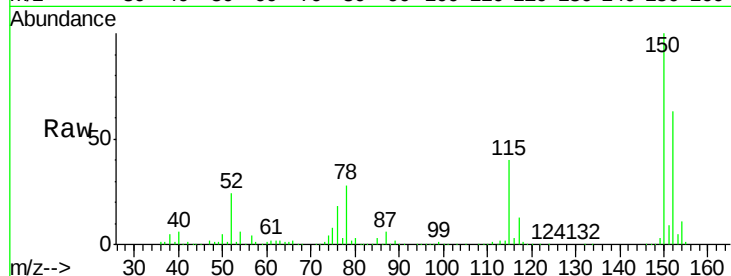
Tot Ion:152 Resp: 90729

Ion Ratio Lower Upper

152 100

115 64.5 44.1 132.3

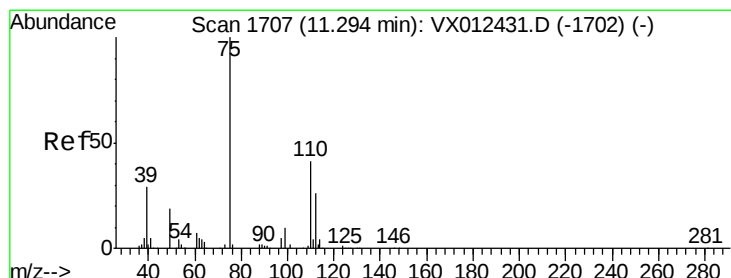
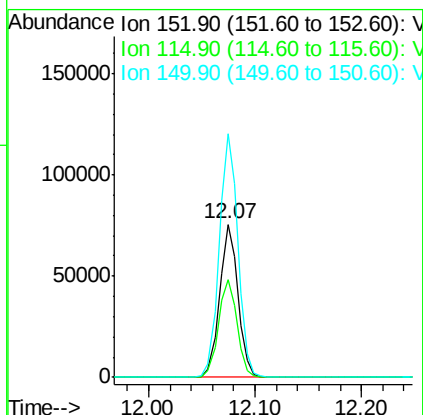
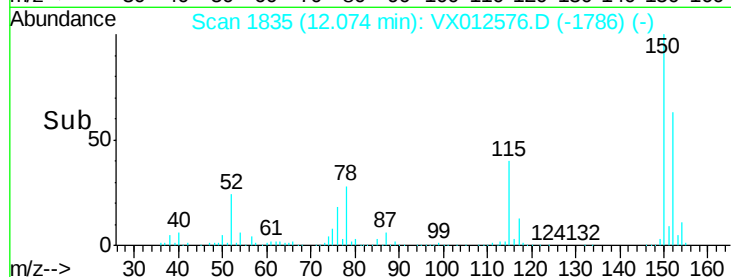
150 161.4 0.0 343.8



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 28.118 ug/l

RT: 11.14 min Scan# 1681

Delta R.T. -0.16 min

Lab File: VX012576.D

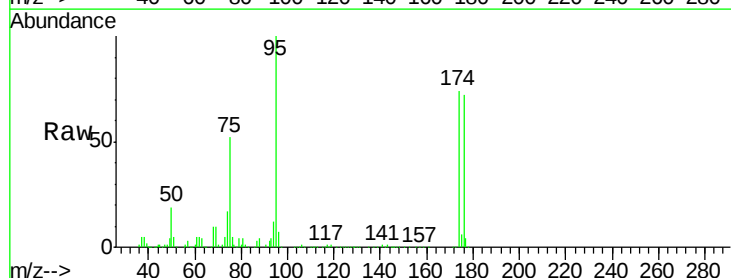
Acq: 20 Sep 2019 23:22

Tgt Ion: 75 Resp: 58602

Ion Ratio Lower Upper

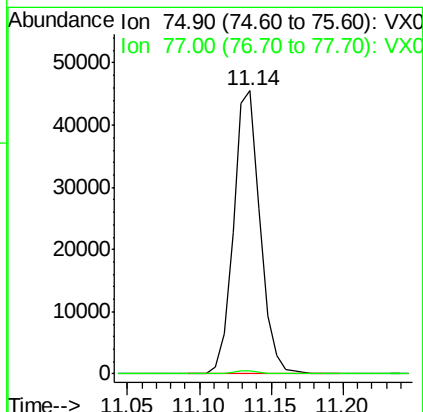
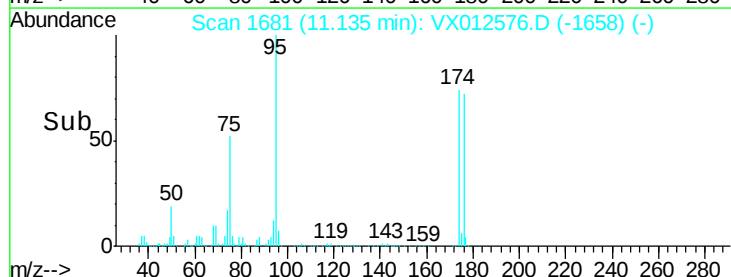
75 100

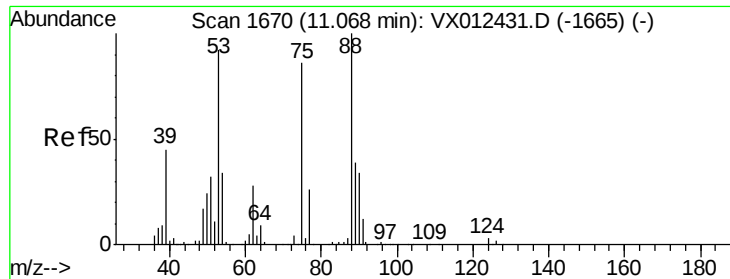
77 1.2 19.7 59.0#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#81

trans-1,4-Dichloro-2-butene

Concen: 75.512 ug/l

RT: 11.14 min Scan# 1681

Delta R.T. 0.07 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

Instrument :

MSVOA_X

ClientSampleId :

TB-01-190916

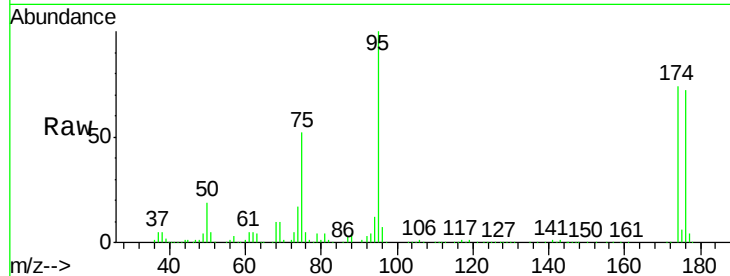
Tot Ion: 75 Resp: 58602

Ion Ratio Lower Upper

75 100

53 0.1 83.6 125.4#

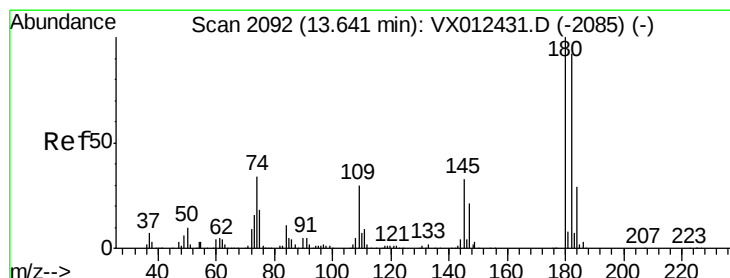
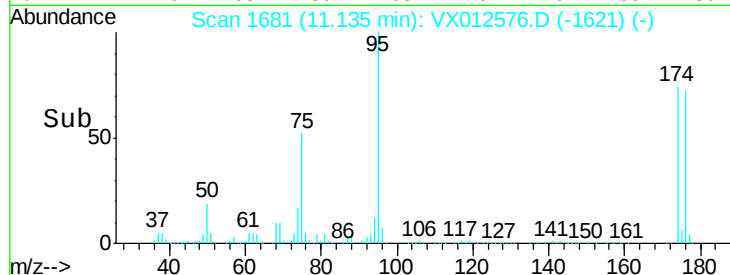
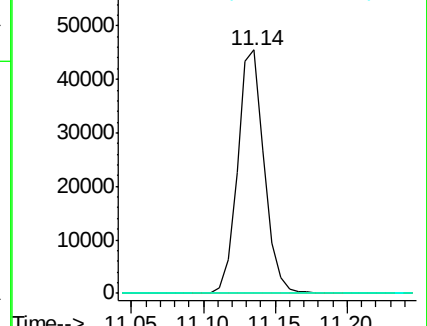
89 0.0 36.3 54.5#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0



#93

1,2,4-Trichlorobenzene

Concen: 0.263 ug/l

RT: 13.64 min Scan# 2092

Delta R.T. 0.00 min

Lab File: VX012576.D

Acq: 20 Sep 2019 23:22

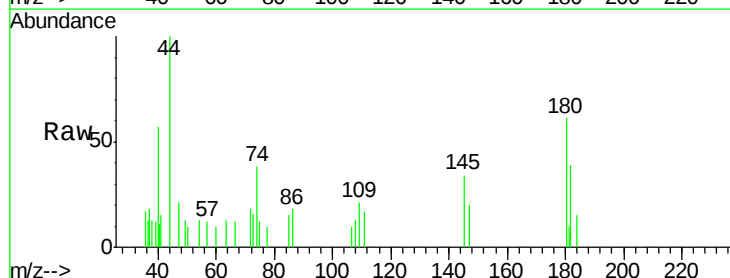
Tgt Ion: 180 Resp: 462

Ion Ratio Lower Upper

180 100

182 112.8 47.0 141.0

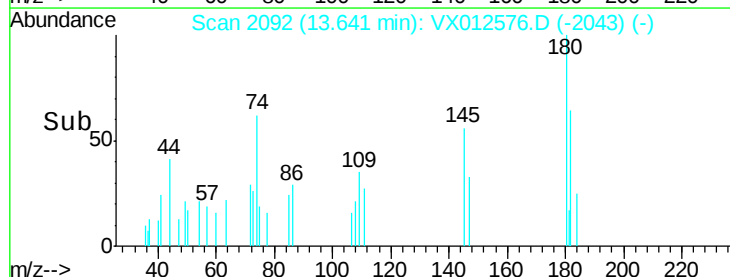
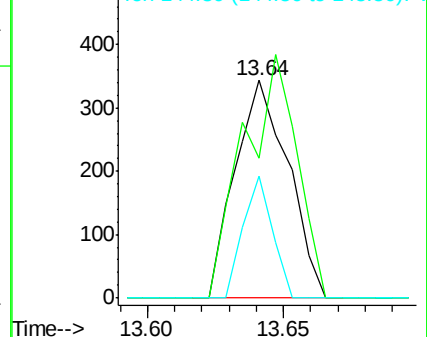
145 31.0 16.8 50.4

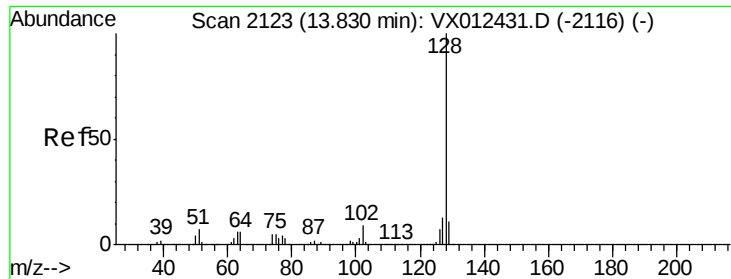


Abundance Ion 179.80 (179.50 to 180.50): V

Ion 181.80 (181.50 to 182.50): V

Ion 144.80 (144.50 to 145.50): V

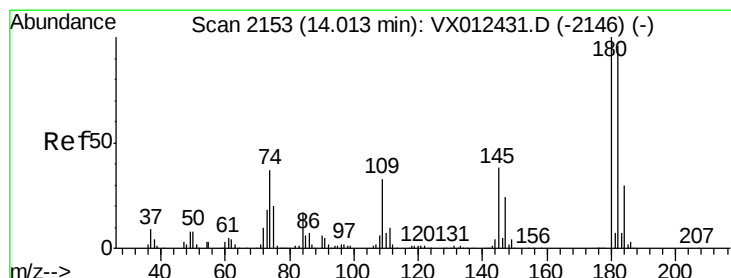
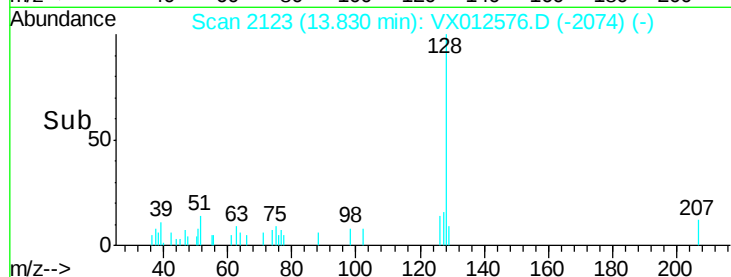
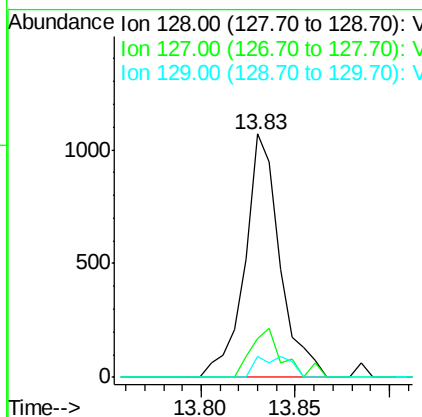
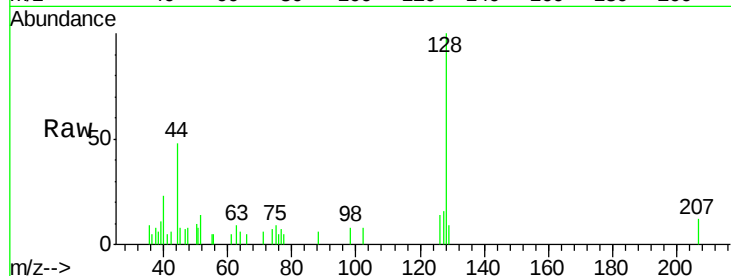




#95
Naphthalene
Concen: 0.220 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX012576.D
Acq: 20 Sep 2019 23:22

Instrument :
MSVOA_X
ClientSampled :
TB-01-190916

Tot Ion:128 Resp: 1379
Ion Ratio Lower Upper
128 100
127 18.0 10.2 15.4#
129 8.3 8.8 13.2#



#96
1,2,3-Trichlorobenzene
Concen: 0.273 ug/l
RT: 14.02 min Scan# 2154
Delta R.T. 0.01 min
Lab File: VX012576.D
Acq: 20 Sep 2019 23:22

Tgt Ion:180 Resp: 490
Ion Ratio Lower Upper
180 100
182 95.1 47.1 141.3
145 38.6 18.0 54.0

