

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD080519\
 Data File : VD063389.D
 Acq On : 5 Aug 2019 19:06
 Operator : VA/AP
 Sample : K4156-01RE
 Misc : 5.82g/5ml/MSVOA D/SOIL
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 MSVOA_D
 ClientSampleId :
 RT1494RE

Quant Time: Aug 06 07:52:06 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_D\METHOD\82D072919S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jul 30 03:04:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.04	168	9549	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.21	114	17384	50.00	ug/l	0.00
63) Chlorobenzene-d5	12.36	117	13907	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	14.52	152	6809	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	7.44	65	9474	89.42	ug/l	0.00
Spiked Amount			Recovery	=	178.84%	
35) Dibromofluoromethane	6.91	113	6681	45.01	ug/l	0.00
Spiked Amount			Recovery	=	90.02%	
50) Toluene-d8	10.41	98	17558	52.86	ug/l	0.00
Spiked Amount			Recovery	=	105.72%	
62) 4-Bromofluorobenzene	13.55	95	8264	54.60	ug/l	0.00
Spiked Amount			Recovery	=	109.20%	

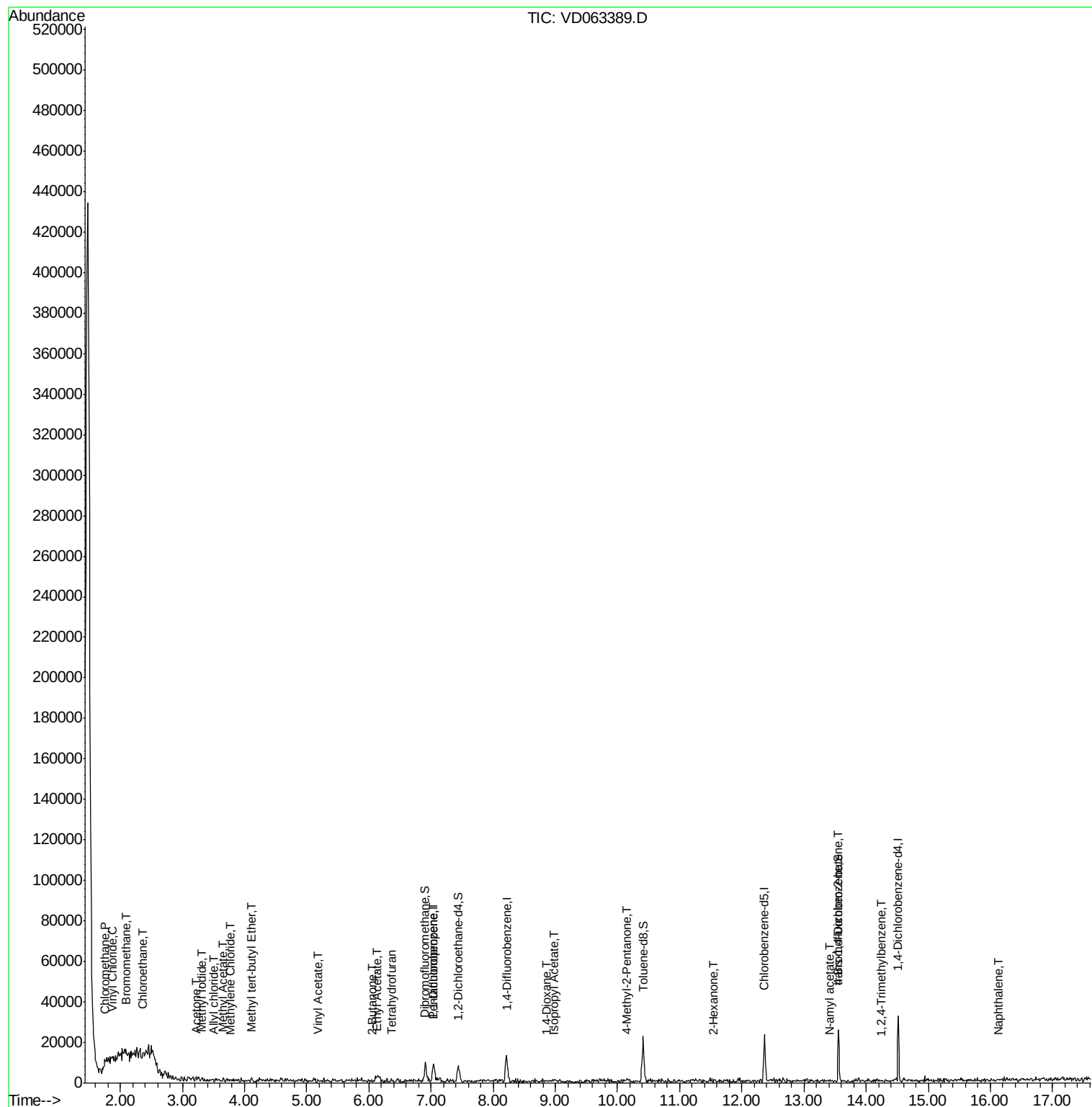
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	1.75	50	202	2.227	ug/l #	46
4) Vinyl Chloride	1.87	62	211	2.248	ug/l #	45
5) Bromomethane	2.10	94	742	15.671	ug/l #	12
6) Chloroethane	2.35	64	263	6.068	ug/l #	1
10) Methyl Iodide	3.32	142	240	1.647	ug/l #	27
14) Allyl chloride	3.49	41	197	1.670	ug/l #	11
16) Acetone	3.21	43	210	10.172	ug/l #	62
18) Methyl Acetate	3.66	43	209	5.271	ug/l #	60
19) Methyl tert-butyl Ether	4.12	73	190	1.136	ug/l #	60
20) Methylene Chloride	3.78	84	227	2.720	ug/l #	51
23) Vinyl Acetate	5.17	43	349	2.408	ug/l #	82
25) 2-Butanone	6.04	43	210	10.136	ug/l #	56
29) Tetrahydrofuran	6.37	42	188	19.166	ug/l #	33
36) 1,1-Dichloropropene	7.04	75	194	1.223	ug/l #	44
37) Ethyl Acetate	6.13	43	365	5.121	ug/l #	70
43) Isopropyl Acetate	8.98	43	457	5.019	ug/l #	49
49) 1,4-Dioxane	8.87	88	188	373.257	ug/l #	22
51) 4-Methyl-2-Pentanone	10.16	43	185	2.988	ug/l #	42
59) 2-Hexanone	11.54	43	248	5.558	ug/l #	31
74) N-amyl acetate	13.41	43	196	1.735	ug/l #	53
81) trans-1,4-Dichloro-2-buten	13.55	75	2852	125.583	ug/l #	3
84) 1,2,4-Trimethylbenzene	14.24	105	453	1.188	ug/l #	34
95) Naphthalene	16.12	128	267	1.268	ug/l #	70

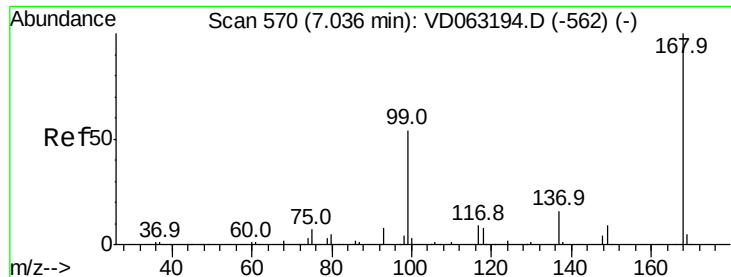
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260
QLast Update : Tue Jul 30 03:04:50 2019
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.04 min Scan# 570

Delta R.T. -0.00 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

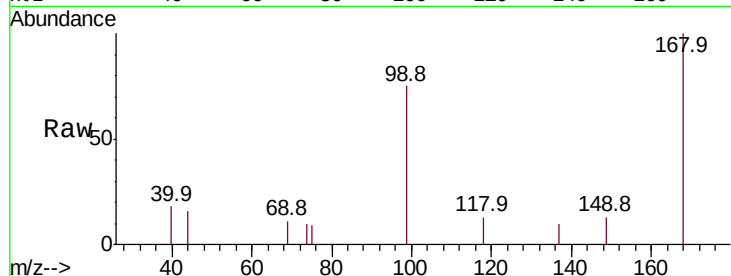
RT1494RE

Tot Ion:168 Resp: 9549

Ion Ratio Lower Upper

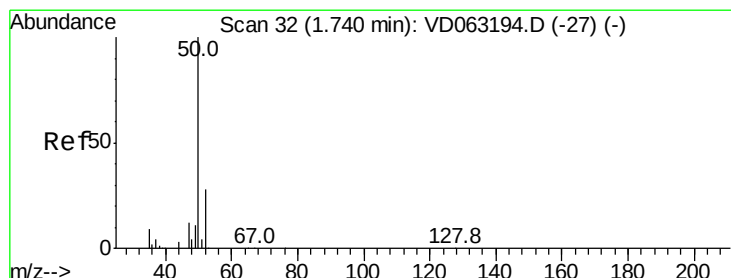
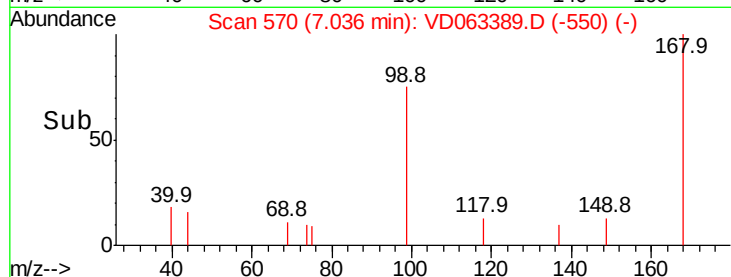
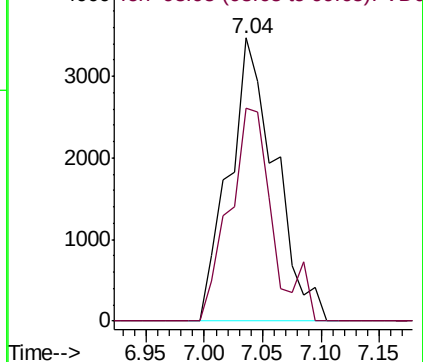
168 100

99 75.4 43.7 65.5#



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#3

Chloromethane

Concen: 2.227 ug/l

RT: 1.75 min Scan# 33

Delta R.T. 0.01 min

Lab File: VD063389.D

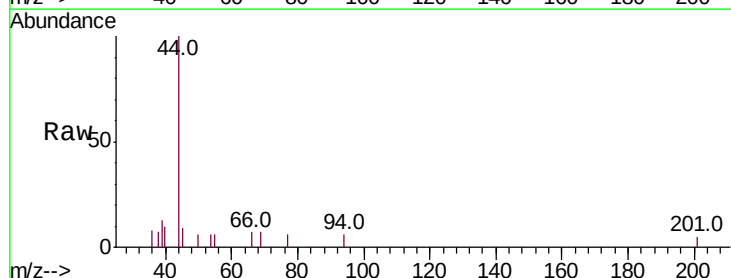
Acq: 5 Aug 2019 19:06

Tgt Ion: 50 Resp: 202

Ion Ratio Lower Upper

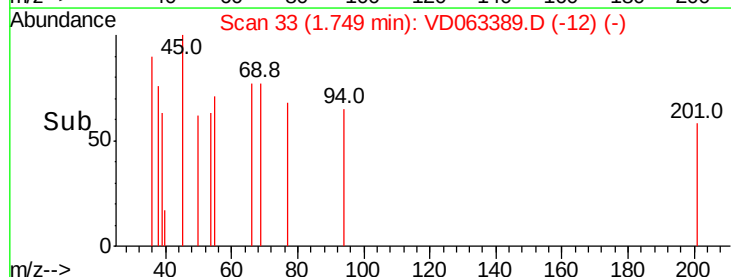
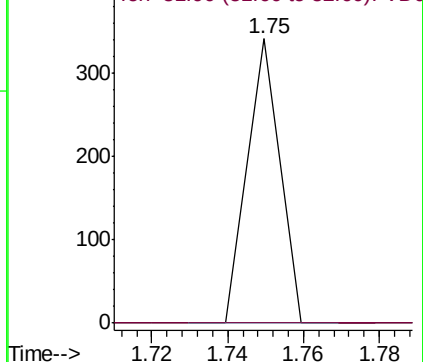
50 100

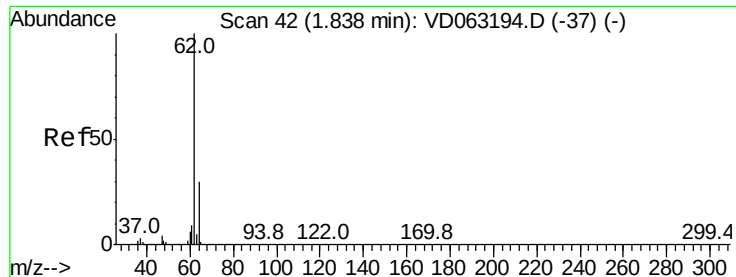
52 0.0 22.6 34.0#



Abundance Ion 49.90 (49.60 to 50.60): VDC

Ion 51.90 (51.60 to 52.60): VDC





#4

Vinyl Chloride

Concen: 2.248 ug/l

RT: 1.87 min Scan# 45

Delta R.T. 0.03 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

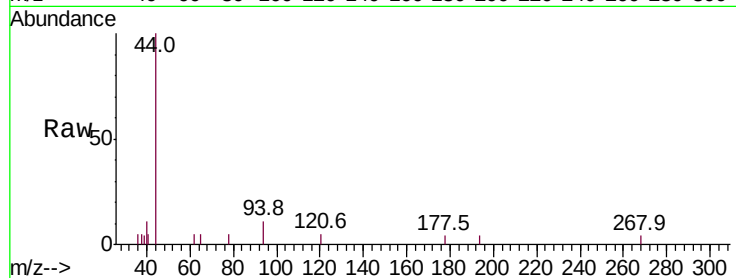
RT1494RE

Tot Ion: 62 Resp: 211

Ion Ratio Lower Upper

62 100

64 0.0 24.1 36.1#



Abundance Ion 61.95 (61.65 to 62.65): VDC

Ion 63.95 (63.65 to 64.65): VDC

1.87

400

300

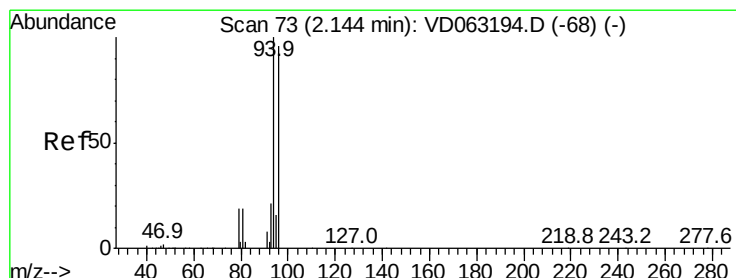
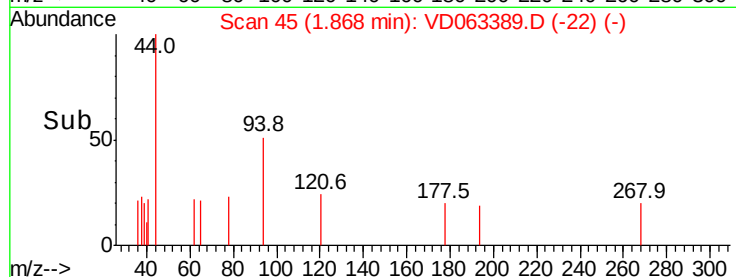
200

100

0

1.84 1.86 1.88 1.90

Time-->



#5

Bromomethane

Concen: 15.671 ug/l

RT: 2.10 min Scan# 69

Delta R.T. -0.04 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

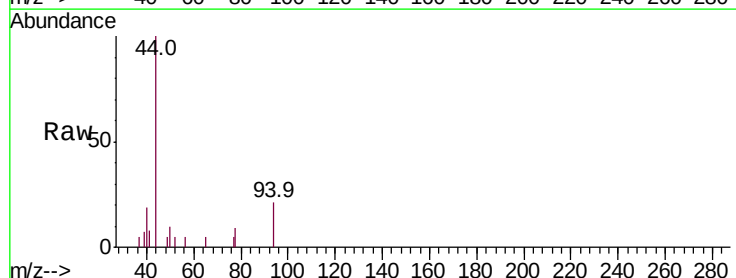
Tgt Ion: 94 Resp: 742

Ion Ratio Lower Upper

94 100

96 0.0 76.4 114.6#

93 0.0 17.3 25.9#



Abundance Ion 94.00 (93.70 to 94.70): VDC

Ion 96.00 (95.70 to 96.70): VDC

Ion 93.00 (92.70 to 93.70): VDC

2000

1500

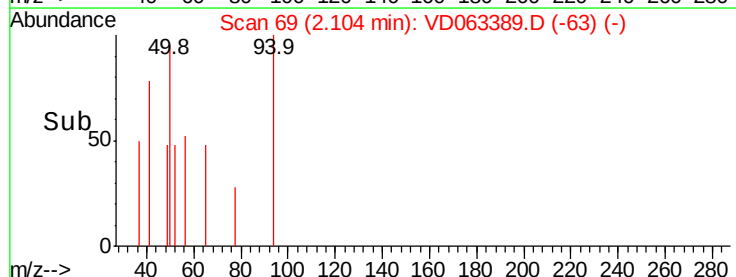
1000

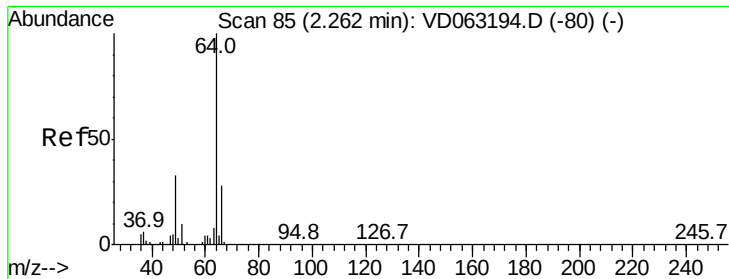
500

0

2.08 2.10 2.12

Time-->





#6

Chloroethane

Concen: 6.068 ug/l

RT: 2.35 min Scan# 94

Delta R.T. 0.09 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

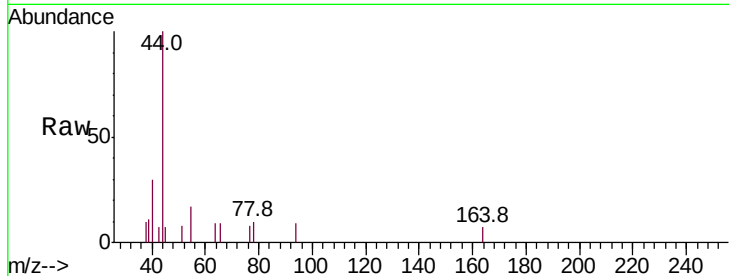
RT1494RE

Tot Ion: 64 Resp: 263

Ion Ratio Lower Upper

64 100

66 105.6 22.2 33.2#



Abundance Ion 63.95 (63.65 to 64.65): VDC

Ion 65.90 (65.60 to 66.60): VDC

800

600

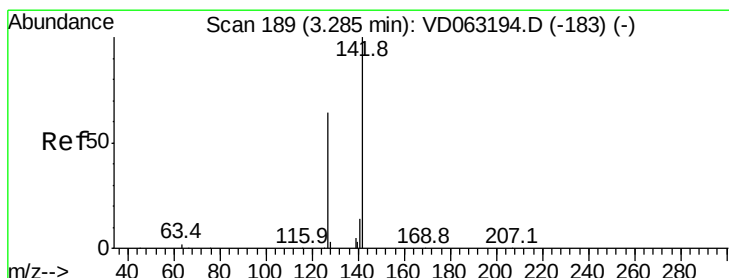
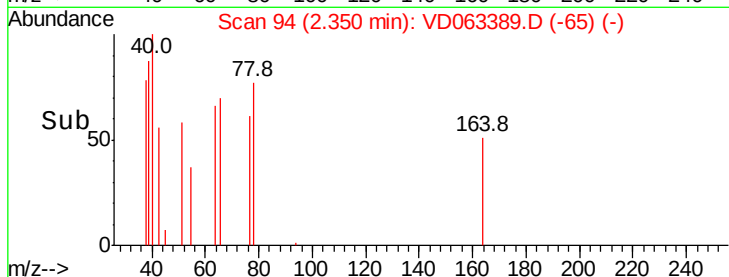
400

200

0

2.32 2.34 2.36 2.38

Time-->



#10

Methyl Iodide

Concen: 1.647 ug/l

RT: 3.32 min Scan# 193

Delta R.T. 0.04 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

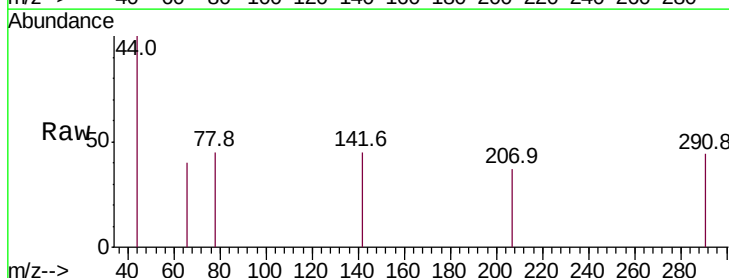
Tgt Ion: 142 Resp: 240

Ion Ratio Lower Upper

142 100

127 0.0 50.8 76.2#

141 0.0 11.4 17.2#



Abundance Ion 141.85 (141.55 to 142.55): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.85 (140.55 to 141.55): V

500

400

300

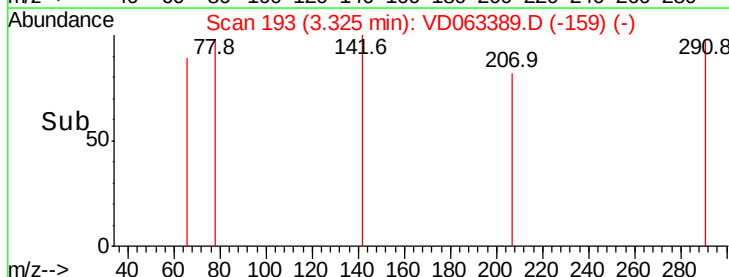
200

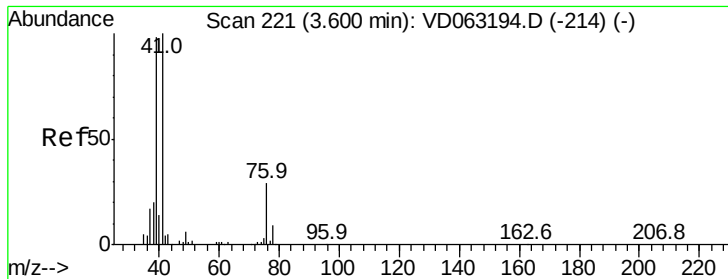
100

0

3.30 3.32 3.34

Time-->





#14

Allvl chloride

Concen: 1.670 ug/l

RT: 3.49 min Scan# 210

Delta R.T. -0.11 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

RT1494RE

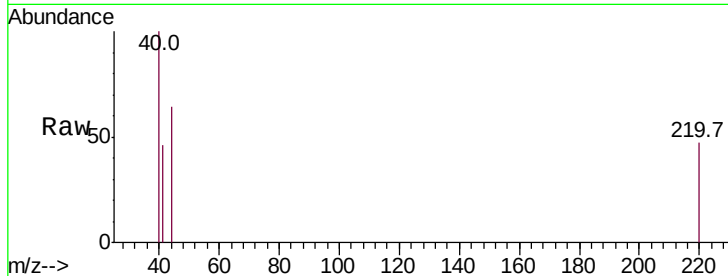
Tot Ion: 41 Resp: 197

Ion Ratio Lower Upper

41 100

39 0.0 78.6 117.8#

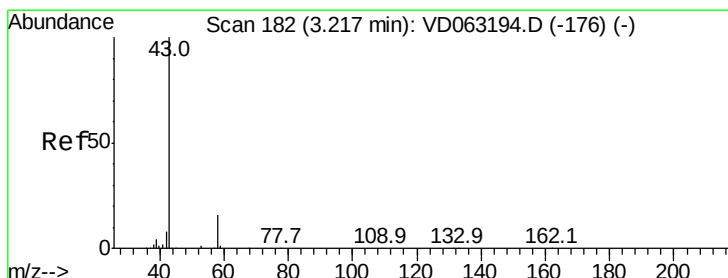
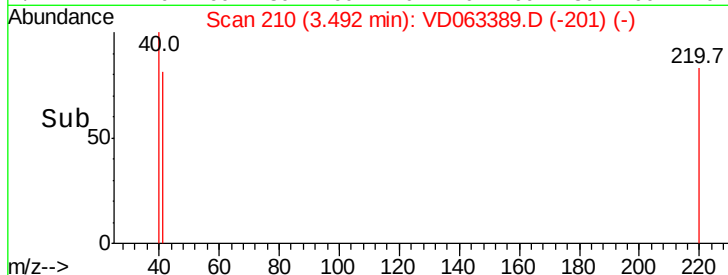
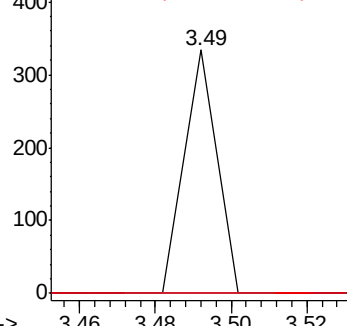
76 0.0 24.5 36.7#



Abundance Ion 41.05 (40.75 to 41.75): VDC

Ion 38.95 (38.65 to 39.65): VDC

Ion 75.95 (75.65 to 76.65): VDC



#16

Acetone

Concen: 10.172 ug/l

RT: 3.21 min Scan# 181

Delta R.T. -0.01 min

Lab File: VD063389.D

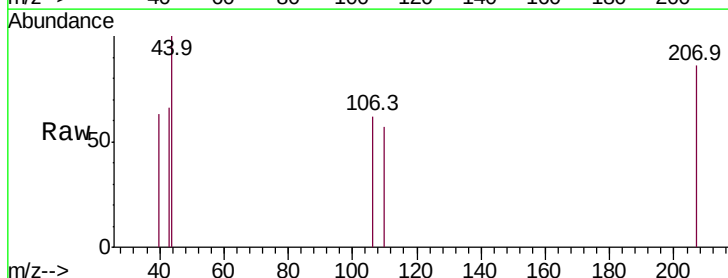
Acq: 5 Aug 2019 19:06

Tgt Ion: 43 Resp: 210

Ion Ratio Lower Upper

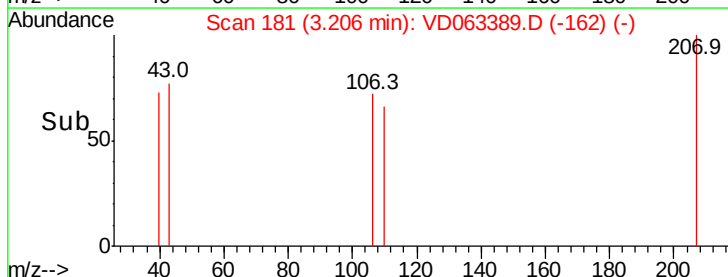
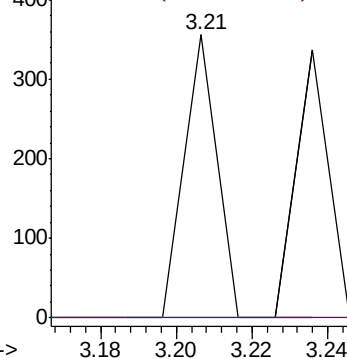
43 100

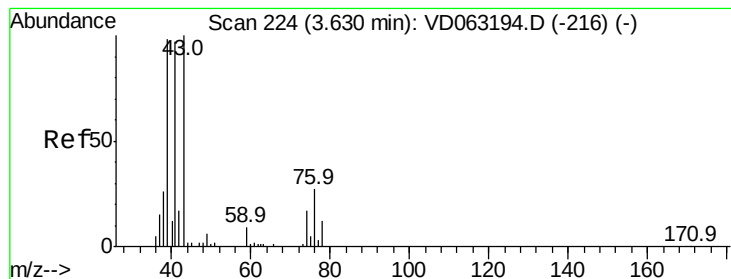
58 0.0 13.0 19.4#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC





#18

Methyl Acetate

Concen: 5.271 ug/l

RT: 3.66 min Scan# 227

Delta R.T. 0.03 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

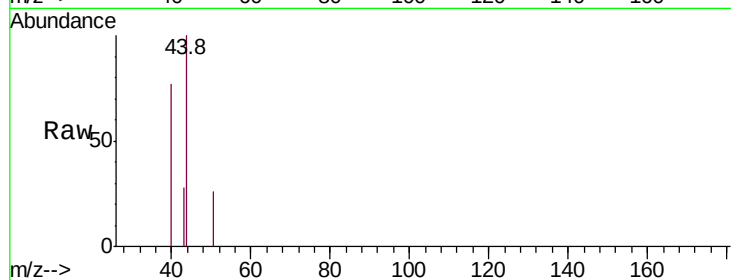
RT1494RE

Tot Ion: 43 Resp: 209

Ion Ratio Lower Upper

43 100

74 0.0 13.8 20.8#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 74.00 (73.70 to 74.70): VDC

3.66

400

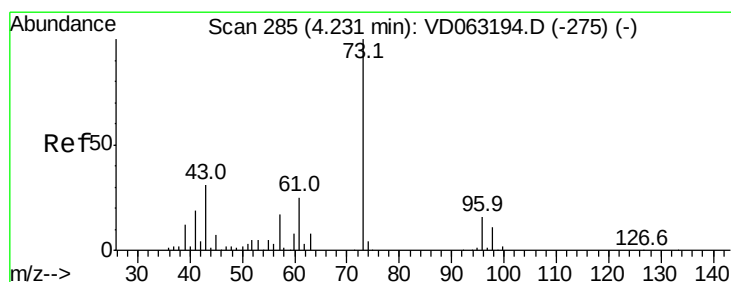
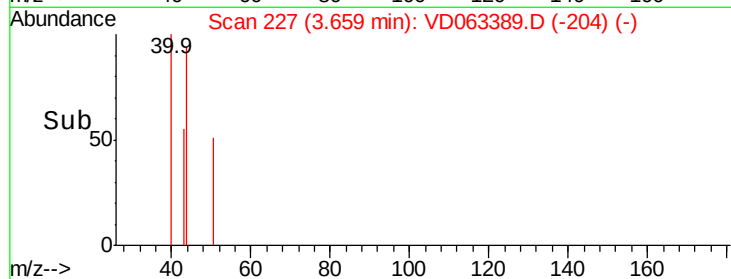
300

200

100

0

Time--> 3.62 3.64 3.66 3.68



#19

Methyl tert-butyl Ether

Concen: 1.136 ug/l

RT: 4.12 min Scan# 274

Delta R.T. -0.11 min

Lab File: VD063389.D

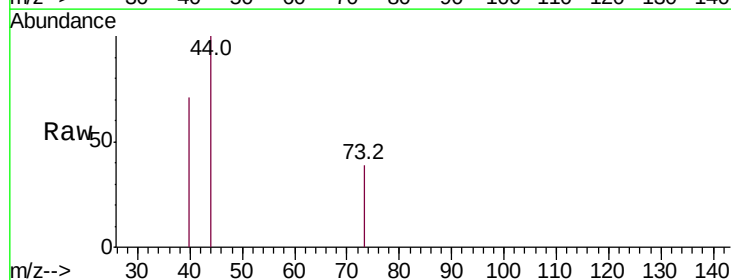
Acq: 5 Aug 2019 19:06

Tgt Ion: 73 Resp: 190

Ion Ratio Lower Upper

73 100

57 0.0 13.8 20.6#



Abundance Ion 73.00 (72.70 to 73.70): VDC

Ion 57.05 (56.75 to 57.75): VDC

4.12

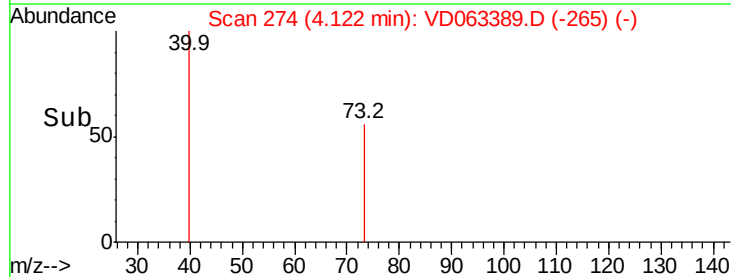
300

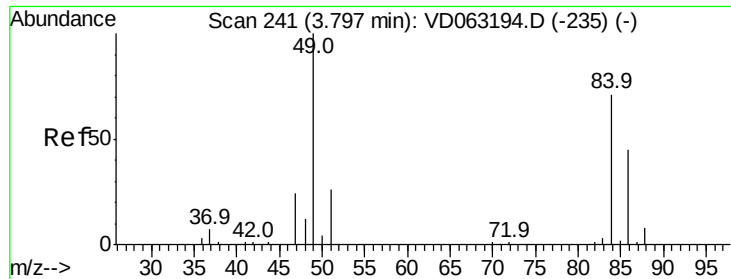
200

100

0

Time--> 4.10 4.12 4.14

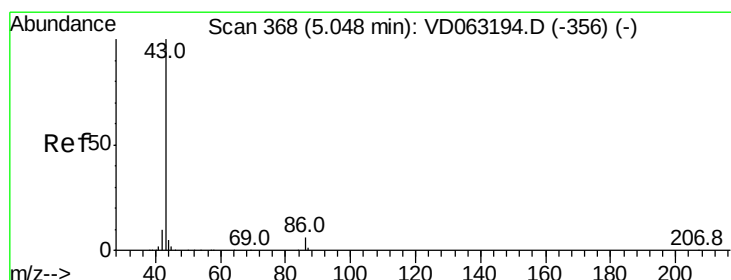
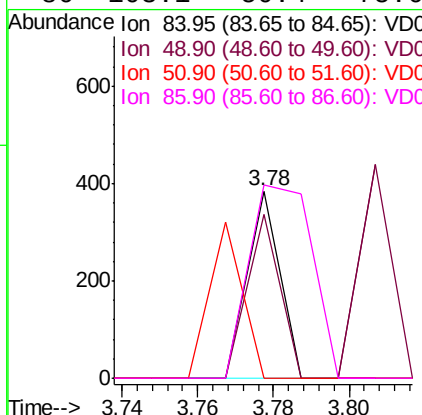
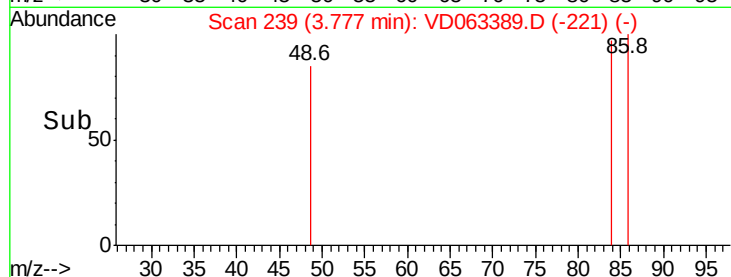
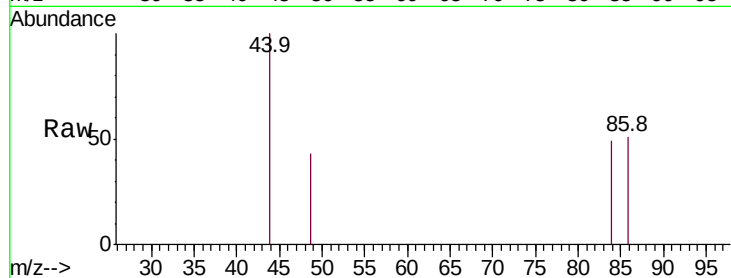




#20
Methvlene Chloride
Concen: 2.720 ug/l
RT: 3.78 min Scan# 239
Delta R.T. -0.02 min
Lab File: VD063389.D
Acq: 5 Aug 2019 19:06

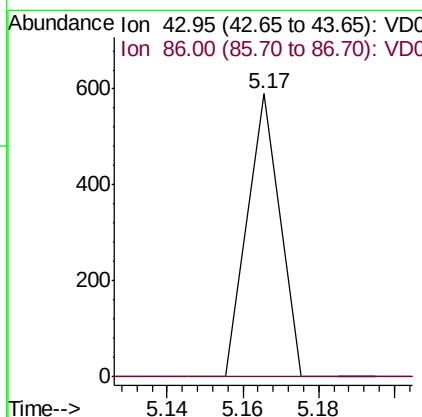
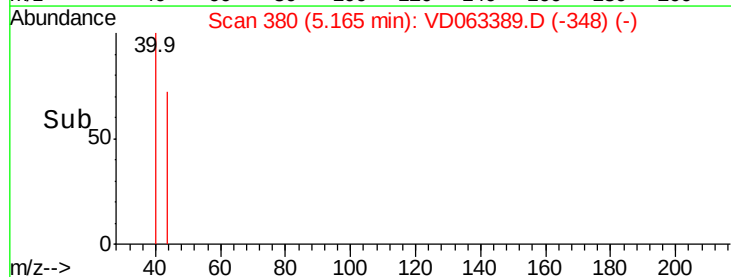
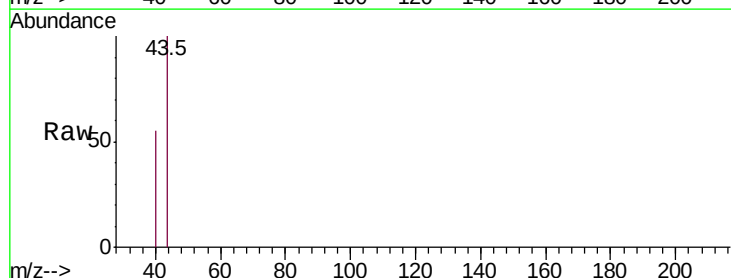
Instrument :
MSVOA_D
ClientSampleId :
RT1494RE

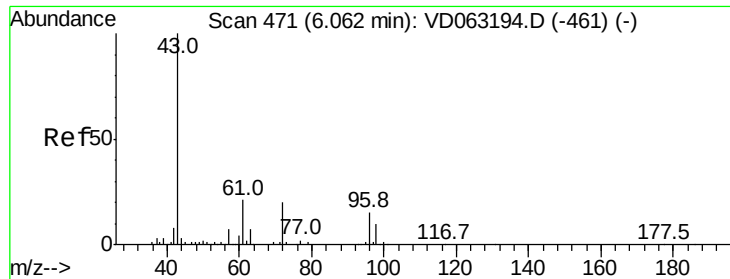
Tot Ion: 84 Resp: 227
Ion Ratio Lower Upper
84 100
49 87.3 112.5 168.7#
51 0.0 29.6 44.4#
86 103.1 50.4 75.6#



#23
Vinyl Acetate
Concen: 2.408 ug/l
RT: 5.17 min Scan# 380
Delta R.T. 0.12 min
Lab File: VD063389.D
Acq: 5 Aug 2019 19:06

Tgt Ion: 43 Resp: 349
Ion Ratio Lower Upper
43 100
86 0.0 4.9 7.3#





#25

2-Butanone

Concen: 10.136 ug/l

RT: 6.04 min Scan# 469

Delta R.T. -0.02 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

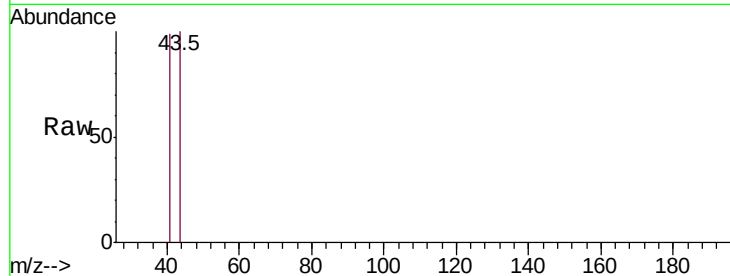
RT1494RE

Tot Ion: 43 Resp: 210

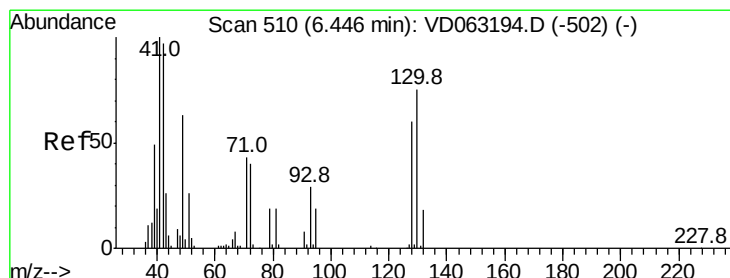
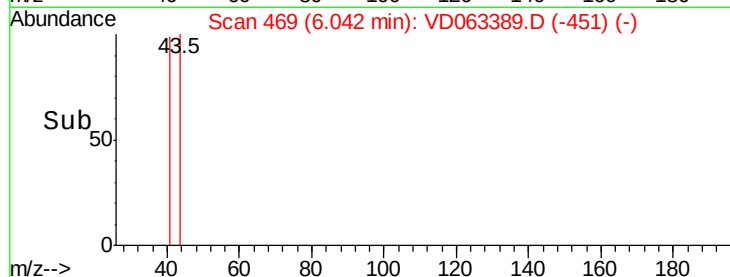
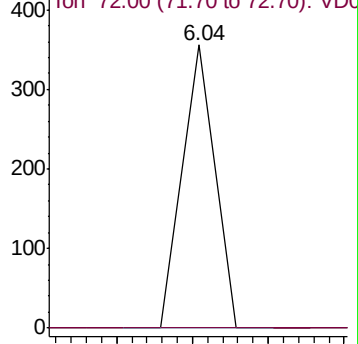
Ion Ratio Lower Upper

43 100

72 0.0 16.3 24.5#



Abundance Ion 42.95 (42.65 to 43.65): VDC



#29

Tetrahydrofuran

Concen: 19.166 ug/l

RT: 6.37 min Scan# 502

Delta R.T. -0.08 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

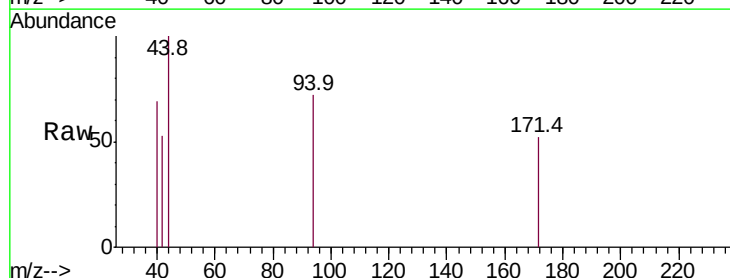
Tgt Ion: 42 Resp: 188

Ion Ratio Lower Upper

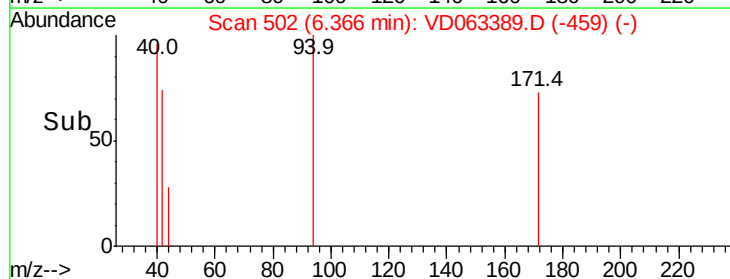
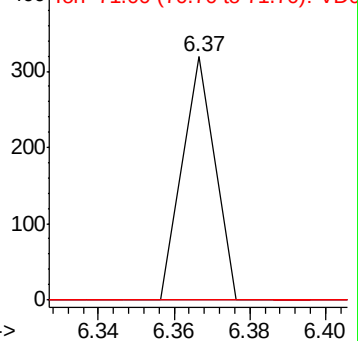
42 100

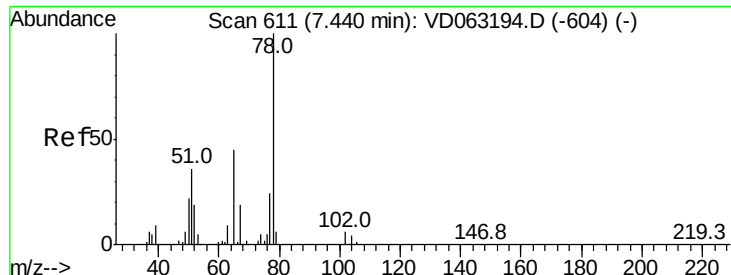
72 0.0 33.4 50.2#

71 0.0 35.7 53.5#



Abundance Ion 42.00 (41.70 to 42.70): VDC

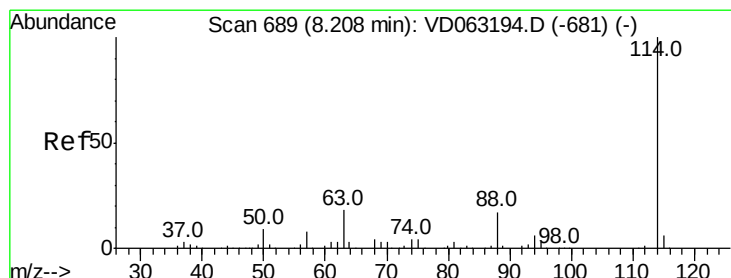
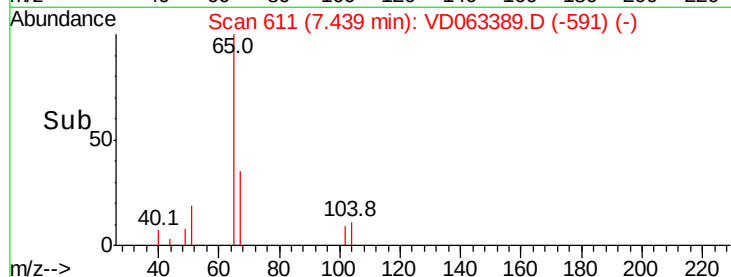
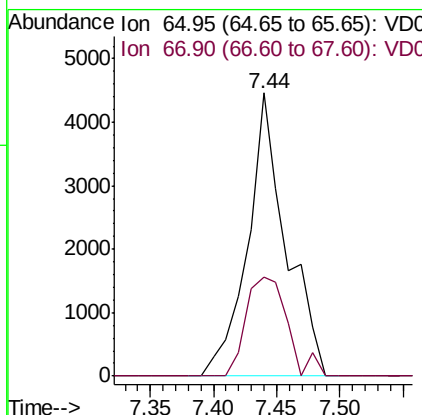
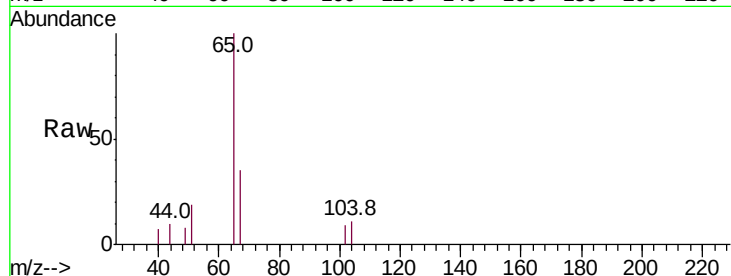




#33
 1,2-Dichloroethane-d4
 Concen: 89.415 ug/l
 RT: 7.44 min Scan# 611
 Delta R.T. -0.00 min
 Lab File: VD063389.D
 Acq: 5 Aug 2019 19:06

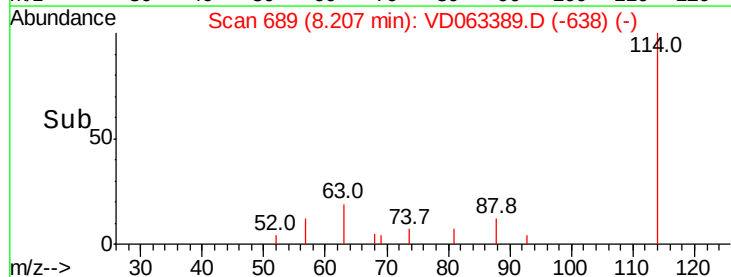
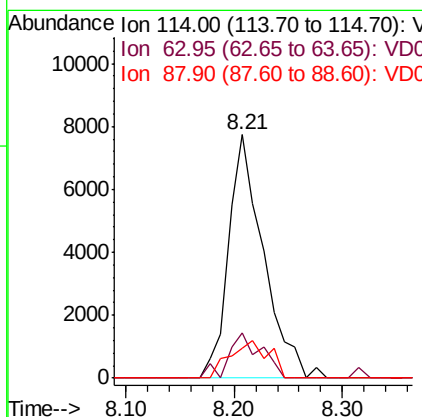
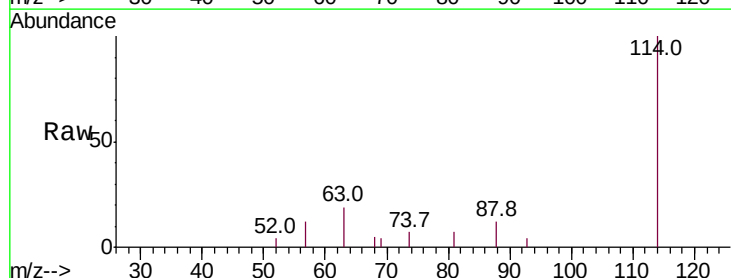
Instrument :
 MSVOA_D
 ClientSampleId :
 RT1494RE

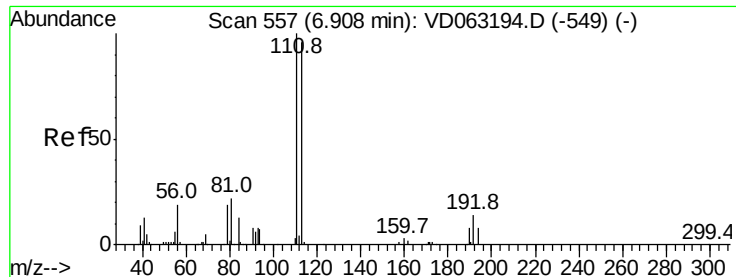
Tot Ion: 65 Resp: 9474
 Ion Ratio Lower Upper
 65 100
 67 35.0 0.0 85.8



#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 8.21 min Scan# 689
 Delta R.T. -0.00 min
 Lab File: VD063389.D
 Acq: 5 Aug 2019 19:06

Tgt Ion: 114 Resp: 17384
 Ion Ratio Lower Upper
 114 100
 63 18.8 0.0 35.2
 88 12.4 0.0 34.6





#35

Dibromofluoromethane

Concen: 45.013 ug/l

RT: 6.91 min Scan# 557

Delta R.T. -0.00 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

RT1494RE

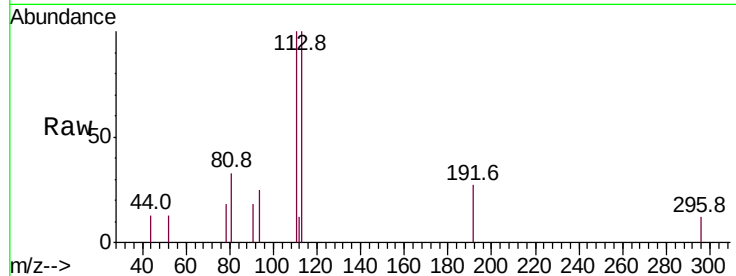
Tot Ion:113 Resp: 6681

Ion Ratio Lower Upper

113 100

111 99.5 83.2 124.8

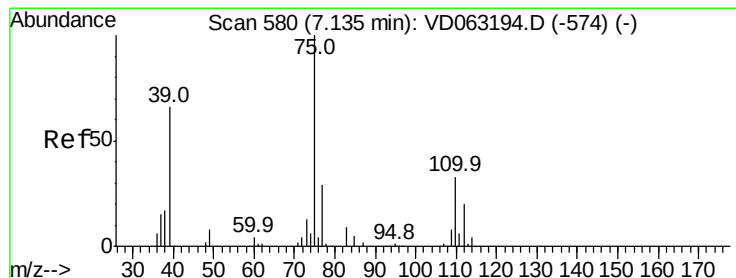
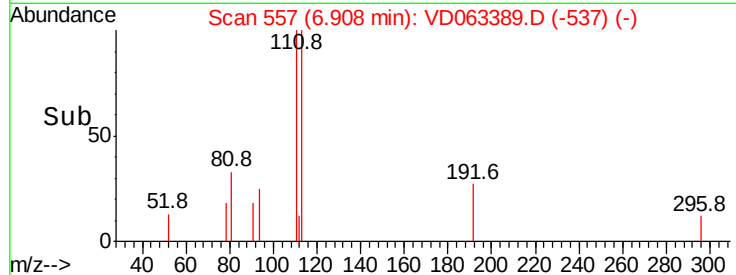
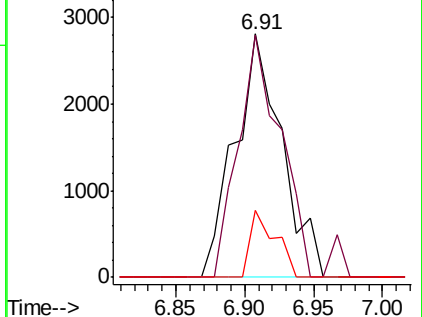
192 27.3 11.8 17.8#



Abundance Ion 112.90 (112.60 to 113.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 191.80 (191.50 to 192.50): V



#36

1,1-Dichloropropene

Concen: 1.223 ug/l

RT: 7.04 min Scan# 570

Delta R.T. -0.10 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

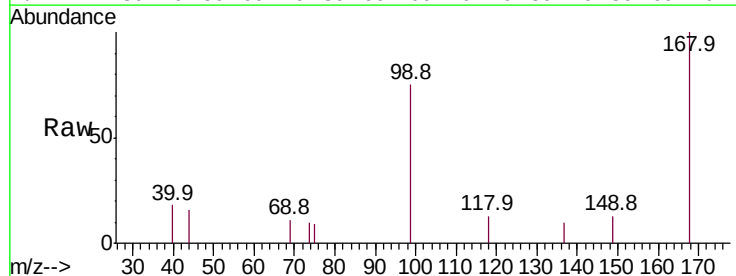
Tgt Ion: 75 Resp: 194

Ion Ratio Lower Upper

75 100

110 0.0 16.1 48.2#

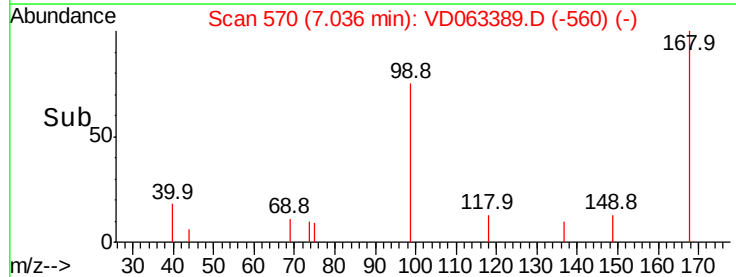
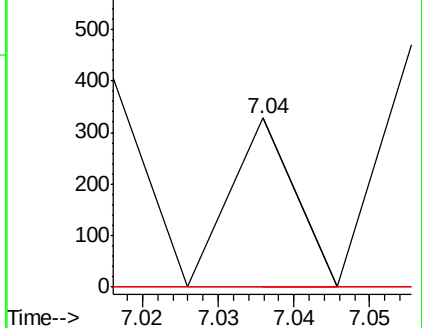
77 0.0 22.7 34.1#

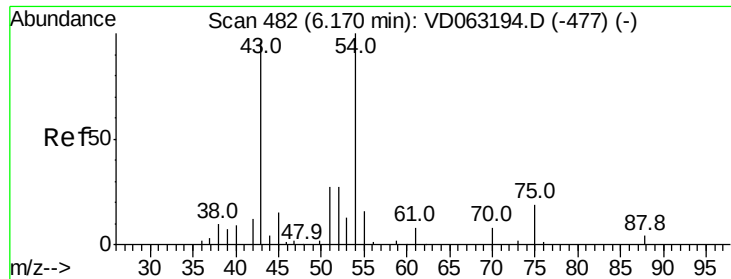


Abundance Ion 75.00 (74.70 to 75.70): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.95 (76.65 to 77.65): V

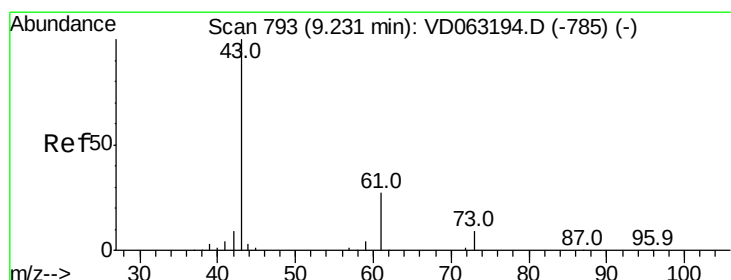
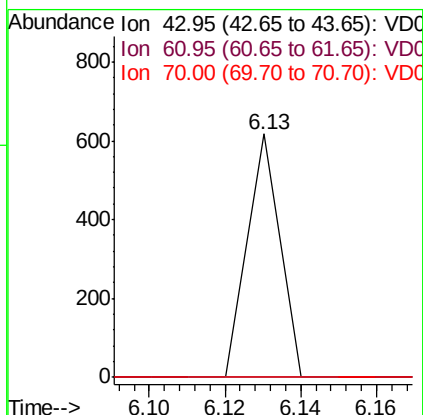
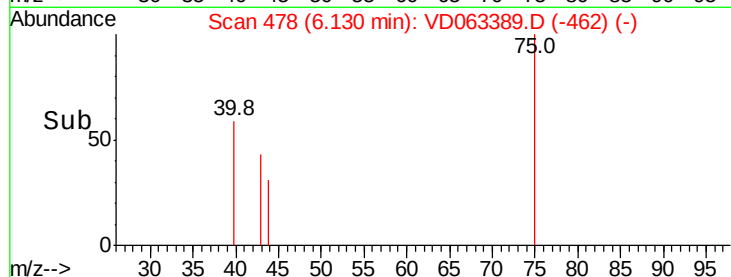
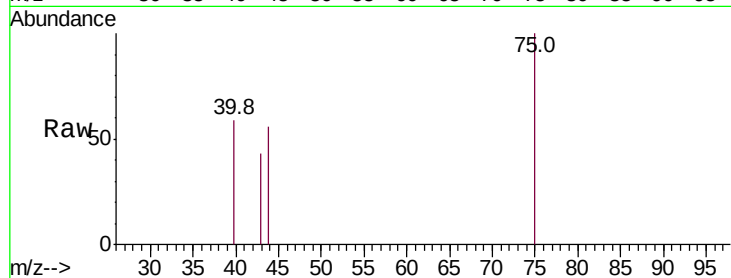




#37
Ethyl Acetate
Concen: 5.121 ug/l
RT: 6.13 min Scan# 478
Delta R.T. -0.04 min
Lab File: VD063389.D
Acq: 5 Aug 2019 19:06

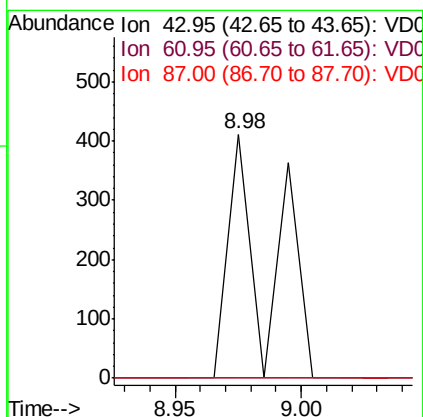
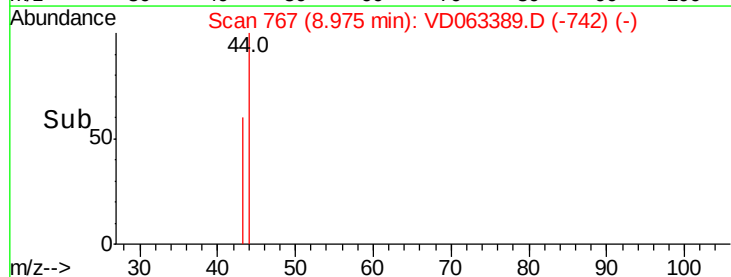
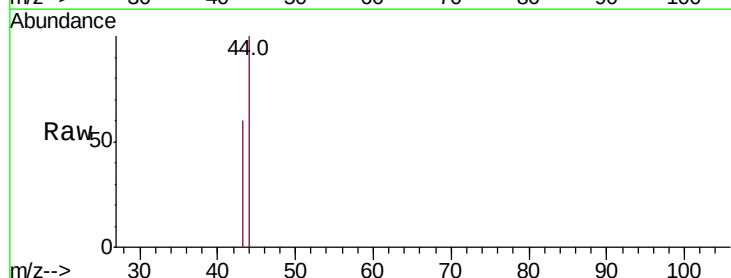
Instrument :
MSVOA_D
ClientSampleId :
RT1494RE

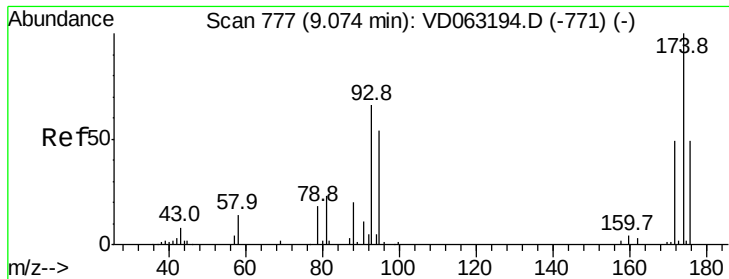
Tot Ion: 43 Resp: 365
Ion Ratio Lower Upper
43 100
61 0.0 11.3 16.9#
70 0.0 5.1 7.7#



#43
Isopropyl Acetate
Concen: 5.019 ug/l
RT: 8.98 min Scan# 767
Delta R.T. -0.26 min
Lab File: VD063389.D
Acq: 5 Aug 2019 19:06

Tgt Ion: 43 Resp: 457
Ion Ratio Lower Upper
43 100
61 0.0 21.4 32.0#
87 0.0 0.2 0.4#





#49

1,4-Dioxane

Concen: 373.257 ug/l

RT: 8.87 min Scan# 756

Delta R.T. -0.21 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

RT1494RE

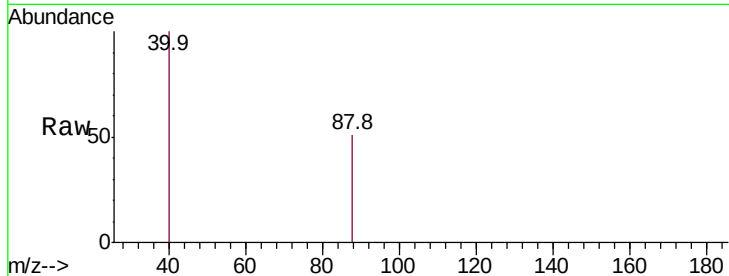
Tot Ion: 88 Resp: 188

Ion Ratio Lower Upper

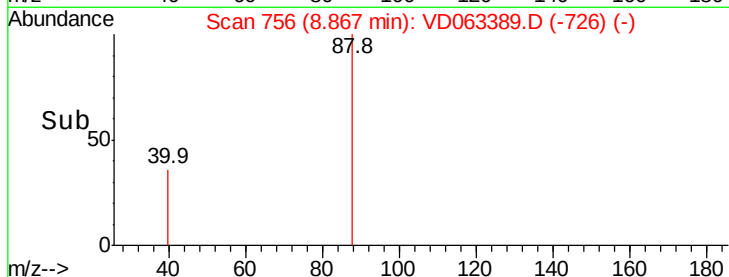
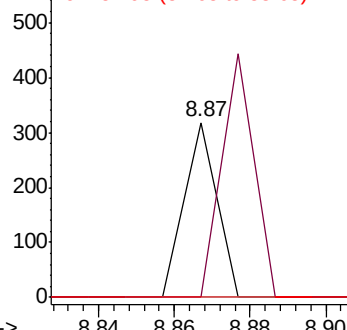
88 100

43 0.0 30.7 46.1#

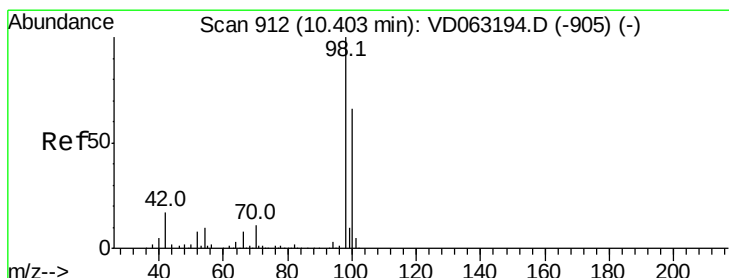
58 0.0 56.5 84.7#



Abundance Ion 88.00 (87.70 to 88.70): VDC
Ion 43.05 (42.75 to 43.75): VDC
Ion 57.95 (57.65 to 58.65): VDC



Time-->



#50

Toluene-d8

Concen: 52.859 ug/l

RT: 10.41 min Scan# 913

Delta R.T. 0.01 min

Lab File: VD063389.D

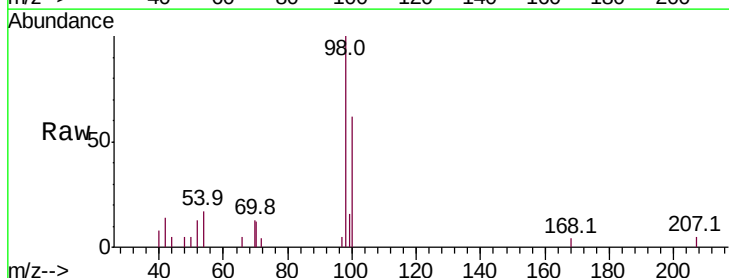
Acq: 5 Aug 2019 19:06

Tgt Ion: 98 Resp: 17558

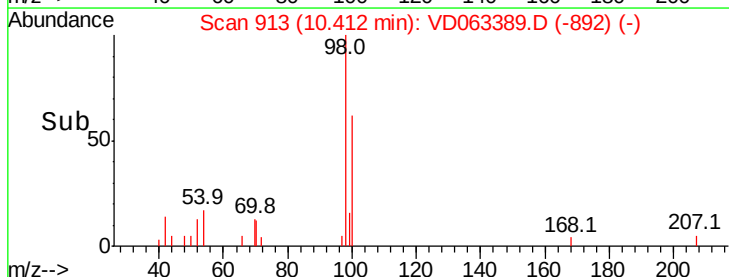
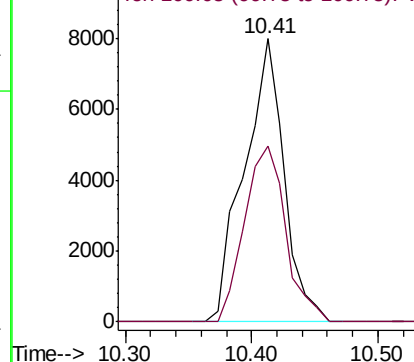
Ion Ratio Lower Upper

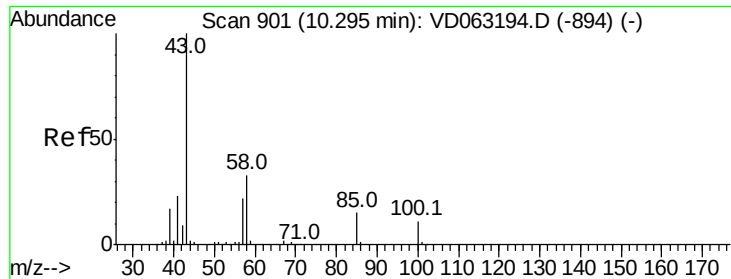
98 100

100 62.0 53.2 79.8



Abundance Ion 98.05 (97.75 to 98.75): VDC
Ion 100.05 (99.75 to 100.75): VDC

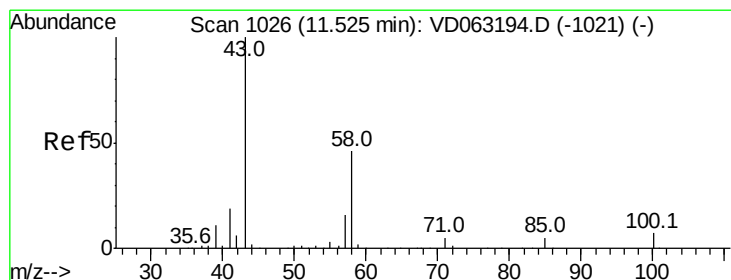
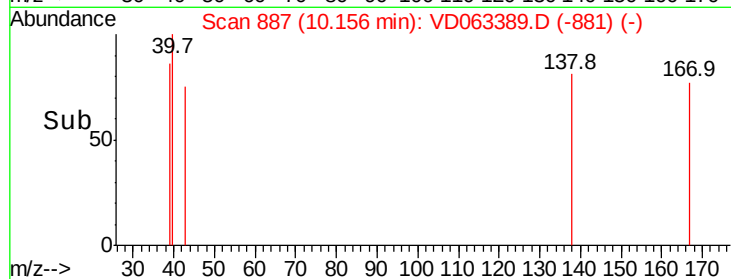
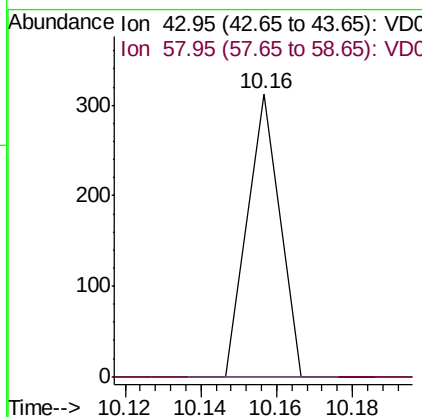
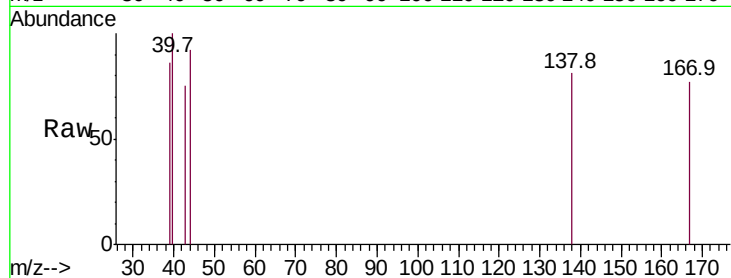




#51
 4-Methyl-2-Pentanone
 Concen: 2.988 ug/l
 RT: 10.16 min Scan# 887
 Delta R.T. -0.14 min
 Lab File: VD063389.D
 Acq: 5 Aug 2019 19:06

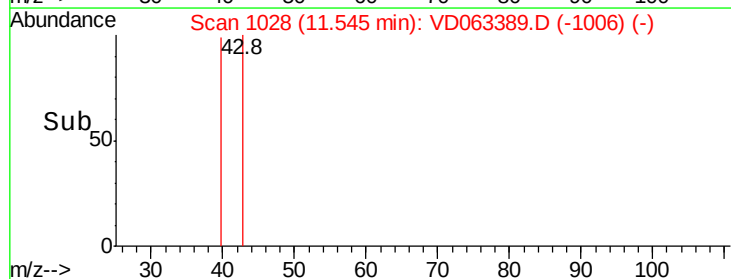
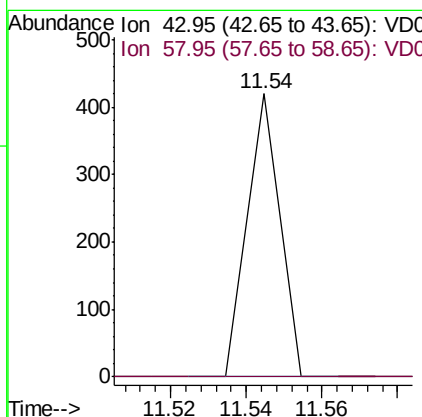
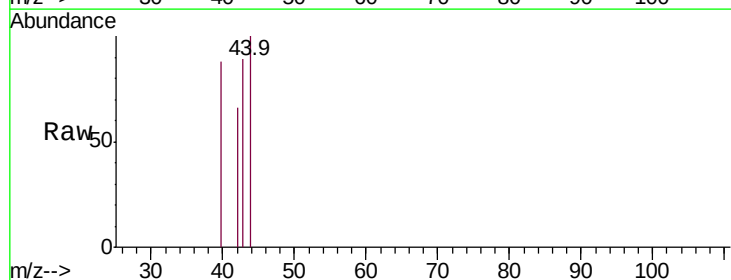
Instrument :
 MSVOA_D
 ClientSampleID :
 RT1494RE

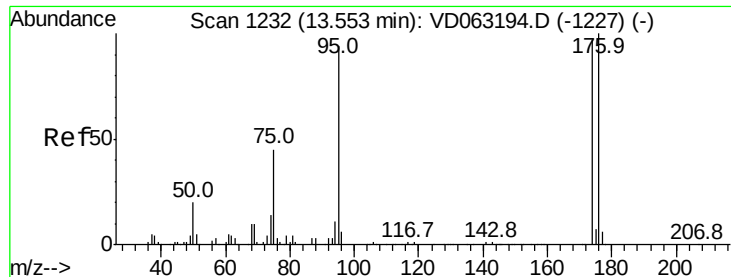
Tot Ion: 43 Resp: 185
 Ion Ratio Lower Upper
 43 100
 58 0.0 26.2 39.2#



#59
 2-Hexanone
 Concen: 5.558 ug/l
 RT: 11.54 min Scan# 1028
 Delta R.T. 0.02 min
 Lab File: VD063389.D
 Acq: 5 Aug 2019 19:06

Tgt Ion: 43 Resp: 248
 Ion Ratio Lower Upper
 43 100
 58 0.0 22.9 68.5#

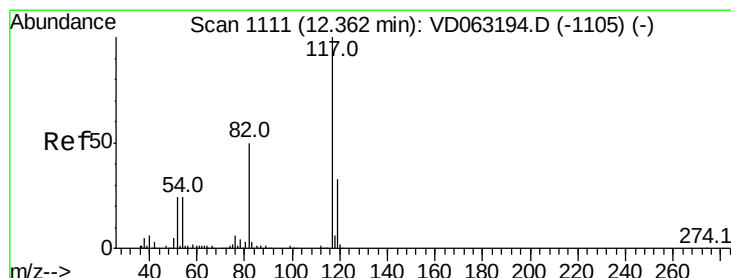
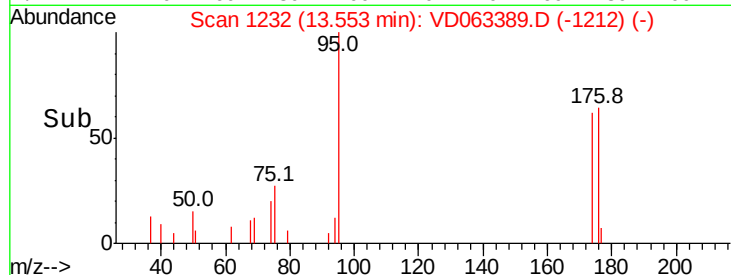
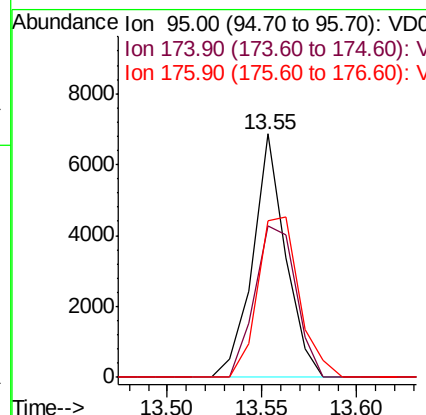
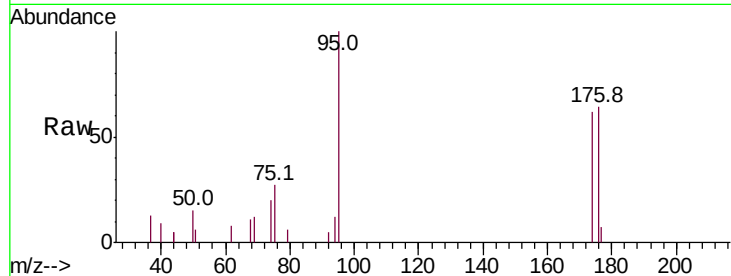




#62
4-Bromofluorobenzene
Concen: 54.596 ug/l
RT: 13.55 min Scan# 1232
Delta R.T. -0.00 min
Lab File: VD063389.D
Acq: 5 Aug 2019 19:06

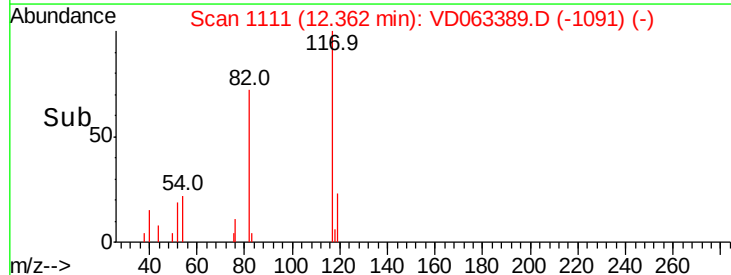
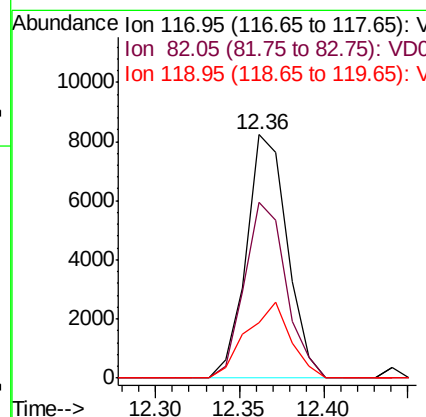
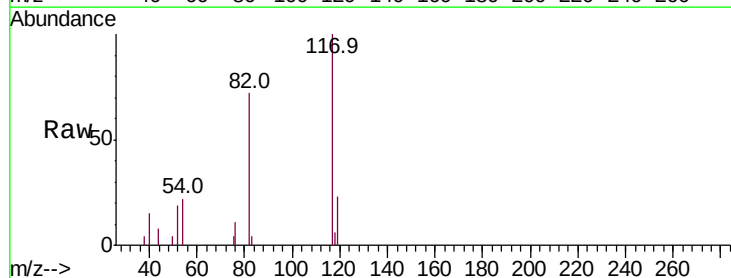
Instrument :
MSVOA_D
ClientSampleId :
RT1494RE

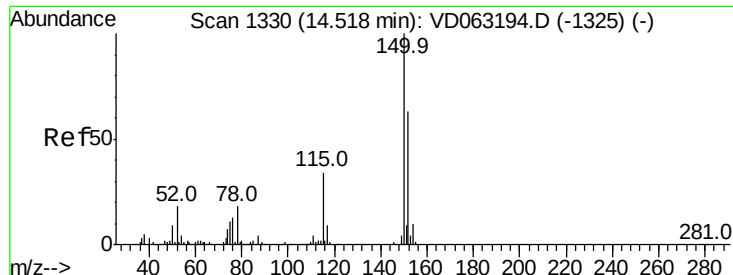
Tot Ion: 95 Resp: 8264
Ion Ratio Lower Upper
95 100
174 62.1 0.0 205.4
176 64.5 0.0 211.8



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 12.36 min Scan# 1111
Delta R.T. -0.00 min
Lab File: VD063389.D
Acq: 5 Aug 2019 19:06

Tgt Ion: 117 Resp: 13907
Ion Ratio Lower Upper
117 100
82 72.4 40.1 60.1#
119 22.9 26.5 39.7#





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 14.52 min Scan# 1330

Delta R.T. -0.00 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampled :

RT1494RE

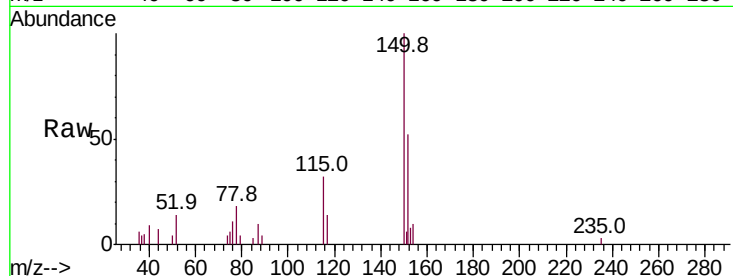
Tot Ion:152 Resp: 6809

Ion Ratio Lower Upper

152 100

115 61.8 27.5 82.4

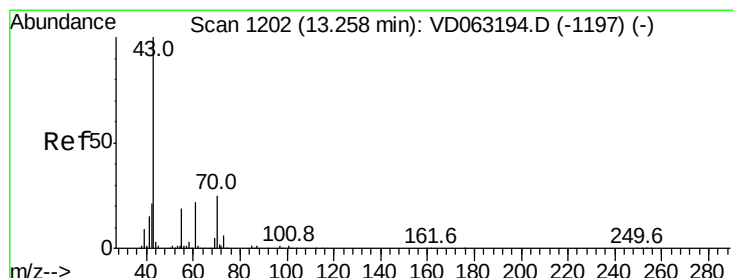
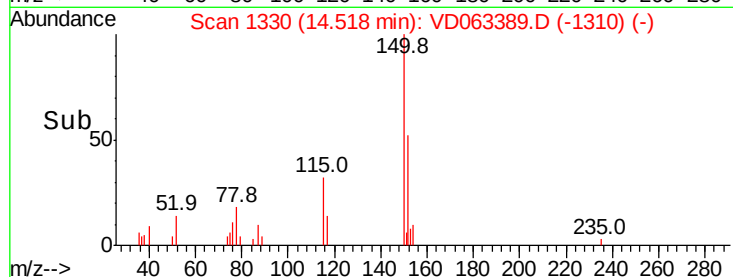
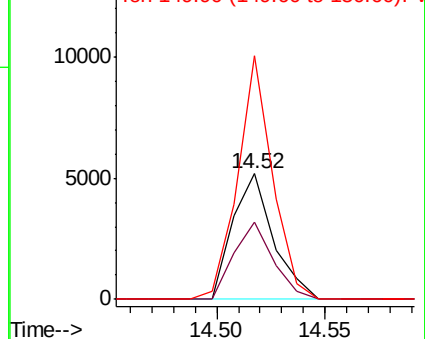
150 193.6 0.0 320.6



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 115.00 (114.70 to 115.70): V

Ion 149.90 (149.60 to 150.60): V



#74

N-amyl acetate

Concen: 1.735 ug/l

RT: 13.41 min Scan# 1218

Delta R.T. 0.16 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Tgt Ion: 43 Resp: 196

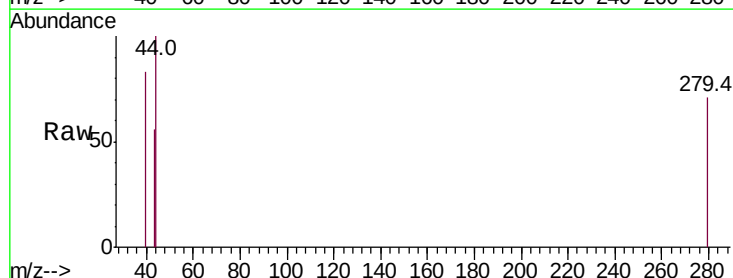
Ion Ratio Lower Upper

43 100

70 0.0 20.2 30.4#

55 0.0 14.9 22.3#

61 0.0 17.9 26.9#

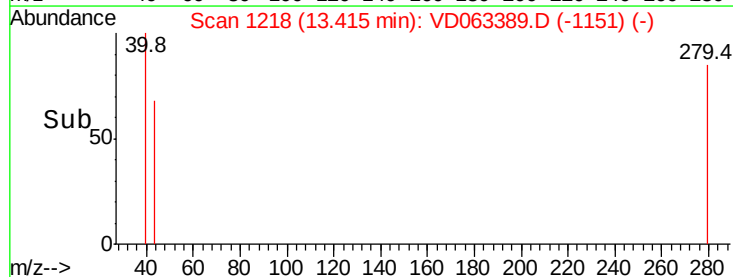
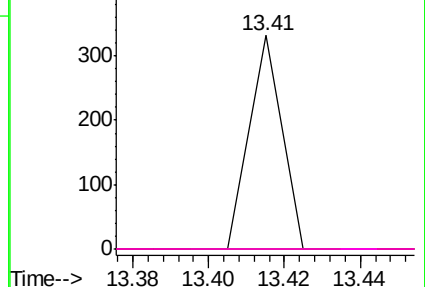


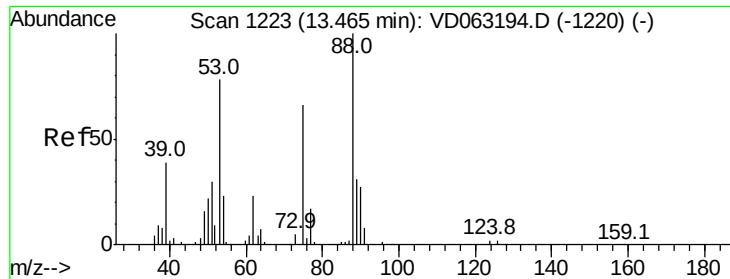
Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 70.00 (69.70 to 70.70): VDC

Ion 55.00 (54.70 to 55.70): VDC

Ion 60.95 (60.65 to 61.65): VDC





#81

trans-1,4-Dichloro-2-butene

Concen: 125.583 ug/l

RT: 13.55 min Scan# 1232

Delta R.T. 0.09 min

Lab File: VD063389.D

Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

RT1494RE

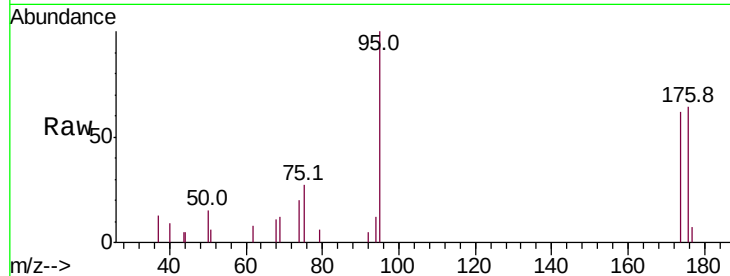
Tot Ion: 75 Resp: 2852

Ion Ratio Lower Upper

75 100

53 0.0 94.9 142.3#

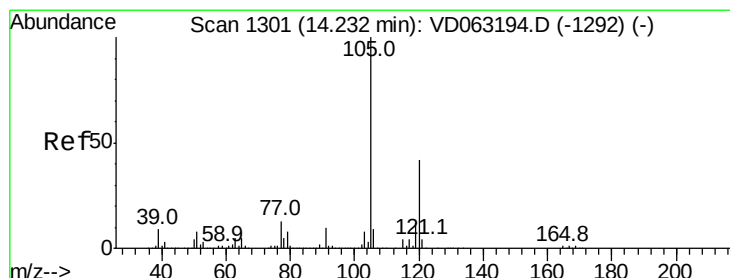
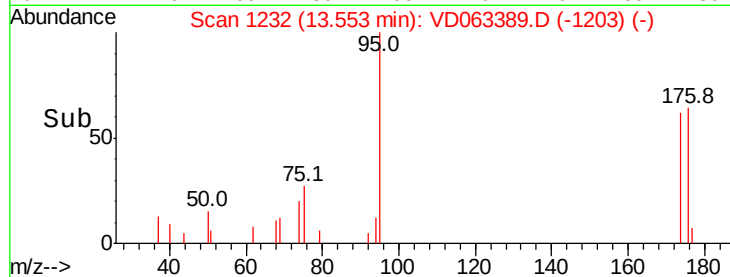
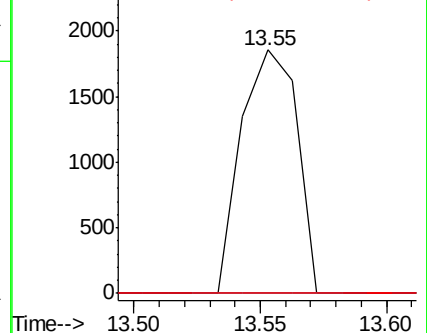
89 0.0 37.4 56.0#



Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 89.00 (88.70 to 89.70): VDC



#84

1,2,4-Trimethylbenzene

Concen: 1.188 ug/l

RT: 14.24 min Scan# 1302

Delta R.T. 0.01 min

Lab File: VD063389.D

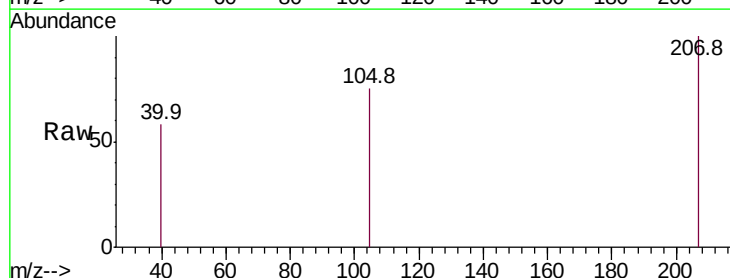
Acq: 5 Aug 2019 19:06

Tgt Ion:105 Resp: 453

Ion Ratio Lower Upper

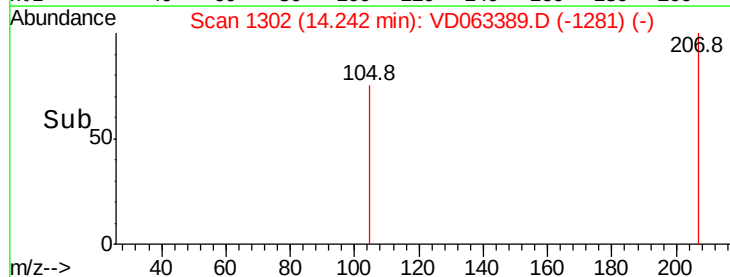
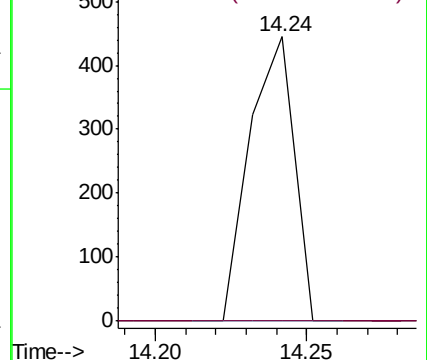
105 100

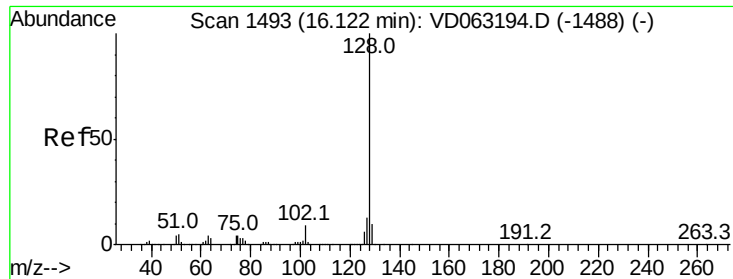
120 0.0 20.9 62.7#



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.05 (119.75 to 120.75): V





#95

Naphthalene

Concen: 1.268 ug/l

RT: 16.12 min Scan# 1493

Delta R.T. -0.00 min

Lab File: VD063389.D

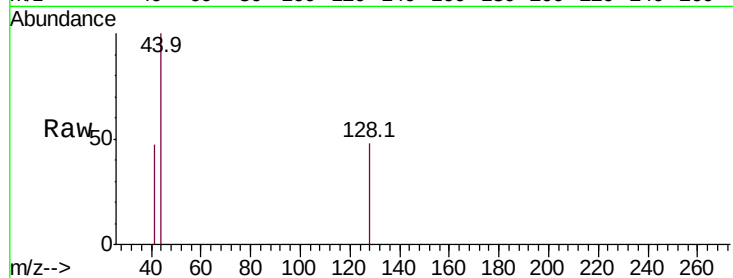
Acq: 5 Aug 2019 19:06

Instrument :

MSVOA_D

ClientSampleId :

RT1494RE



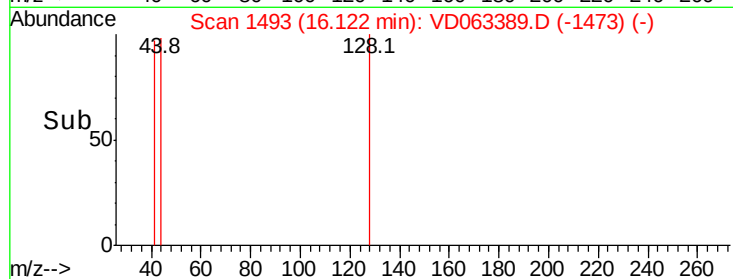
Tot Ion:128 Resp: 267

Ion Ratio Lower Upper

128 100

127 0.0 10.2 15.4#

129 0.0 7.8 11.8#



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

16.12

400

300

200

100

0

Time-->

16.10 16.12 16.14