

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112519\
 Data File : VL034404.D
 Acq On : 25 Nov 2019 13:43
 Operator : SY/AP
 Sample : K5971-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 1

Manual Integrations
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apatel
 12/2/2019 9:19:42 AM

Quant Time: Nov 29 11:56:31 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Nov 19 14:15:35 2019
 QLast Update : Tue Nov 19 14:15:35 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	972385	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1907304	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.14	117	1886615	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.48	95	1610221	10.15	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	112638	0.640	ppbv	99
4) Chloromethane	3.11	50	48743	0.681	ppbv	95
9) Propene	3.00	41	89212m	1.656	ppbv	
10) Heptane	8.15	43	138279	0.995	ppbv	99
11) Trichlorofluoromethane	3.94	101	39741	0.227	ppbv	84
13) Ethanol	3.62	45	10080979	671.875	ppbv	86
15) Acetone	3.83	43	2710093	19.464	ppbv	98
19) Isopropyl Alcohol	4.00	45	3097346m	34.704	ppbv	
20) Methylene Chloride	4.34	84	84604	1.713	ppbv	96
26) Hexane	5.69	57	91129	0.854	ppbv #	1
29) Chloroform	5.76	83	50105	0.290	ppbv	95
30) Cyclohexane	7.15	84	19348	0.240	ppbv #	85
34) 2-Butanone	5.25	43	80882	0.515	ppbv	97
35) Carbon Tetrachloride	7.05	117	11639m	0.071	ppbv	
36) Benzene	6.91	78	53524	0.281	ppbv #	84
44) 2,2,4-Trimethylpentane	7.90	57	53213	0.153	ppbv #	73
52) Tetrachloroethene	11.27	164	8928m	0.108	ppbv	
53) Toluene	9.85	91	745191	3.441	ppbv	97
58) Ethyl Benzene	12.76	91	35459	0.121	ppbv #	82
59) m/p-Xylene	13.02	91	94704m	0.374	ppbv	
60) o-Xylene	13.75	91	36397m	0.145	ppbv	
74) 1,2,4-Trimethylbenzene	16.83	105	37356m	0.124	ppbv	
76) 1,4-Dichlorobenzene	17.21	146	146454m	0.873	ppbv	
79) Naphthalene	22.29	128	32515m	0.125	ppbv	

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



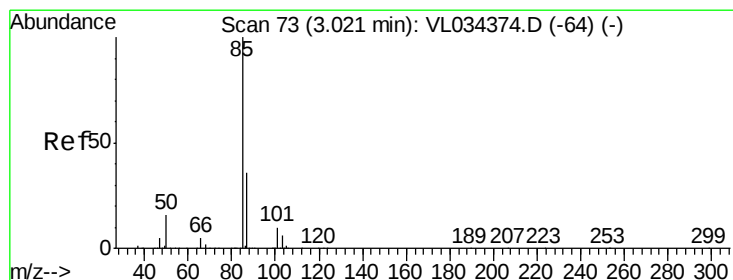
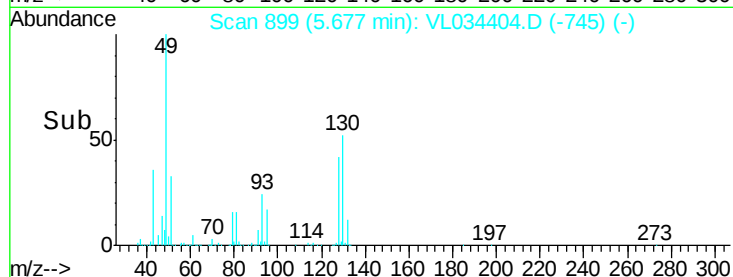
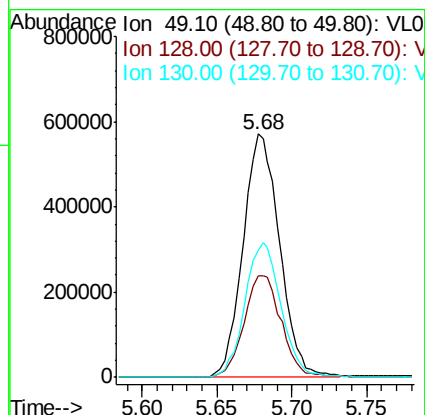
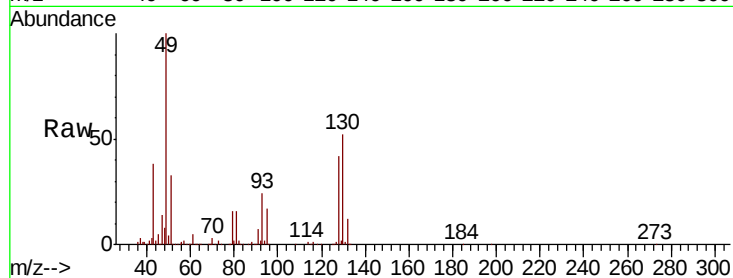
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.68 min Scan# 899
 Delta R.T. -0.01 min
 Lab File: VL034404.D
 Acq: 25 Nov 2019 13:43

Instrument :
 MSVOA_L
 ClientSampled :
 1

Tot Ion	Ratio	Lower	Upper
49	100		
128	42.9	21.8	65.3
130	55.4	28.0	84.0

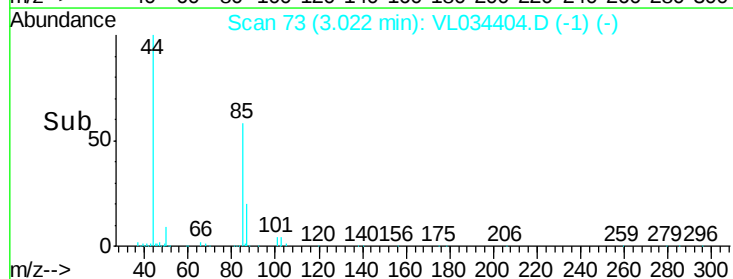
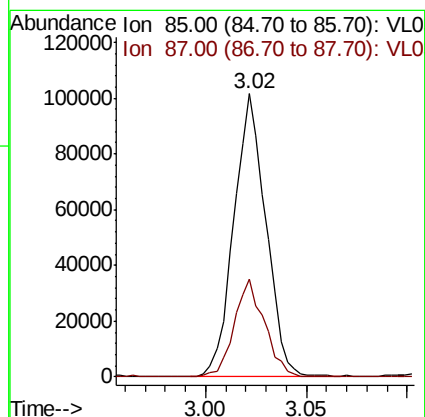
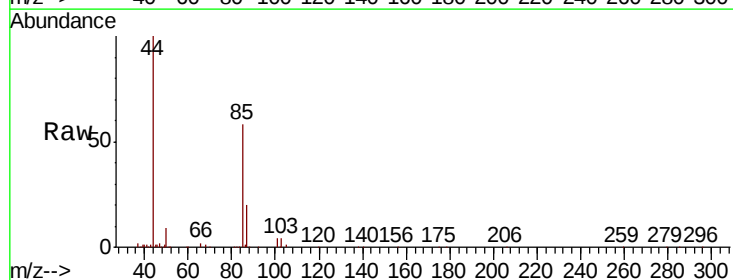
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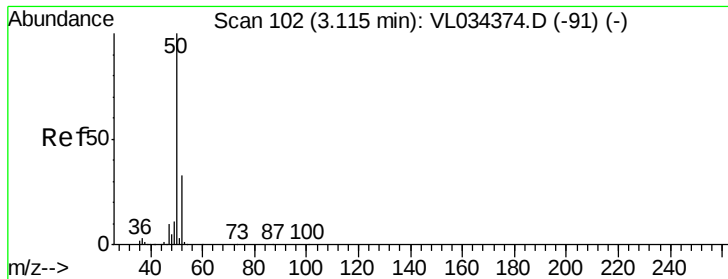
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#2
 Dichlorodifluoromethane
 Concen: 0.640 ppbv
 RT: 3.02 min Scan# 73
 Delta R.T. 0.00 min
 Lab File: VL034404.D
 Acq: 25 Nov 2019 13:43

Tgt Ion	Ratio	Lower	Upper
85	100		
87	34.7	28.5	42.7





#4

Chloromethane

Concen: 0.681 ppbv

RT: 3.11 min Scan# 102

Delta R.T. 0.00 min

Lab File: VL034404.D

Acq: 25 Nov 2019 13:43

Instrument :

MSVOA_L

ClientSampled :

1

Tot Ion: 50 Resp: 48743

Ion Ratio Lower Upper

50 100

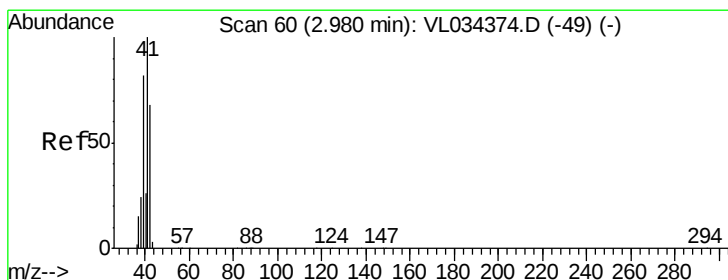
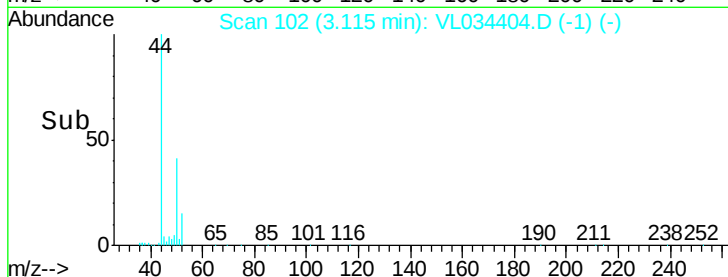
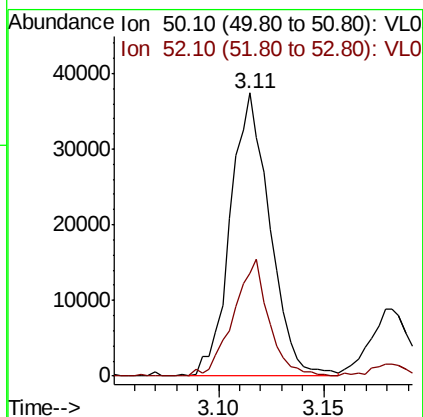
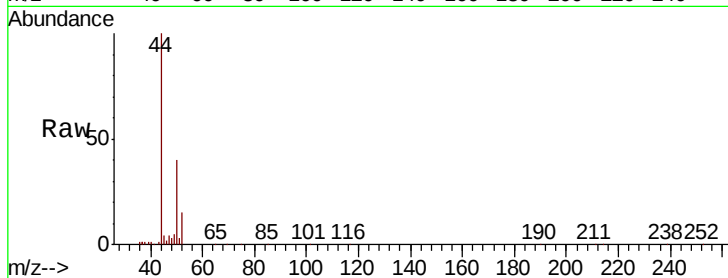
52 36.5 26.8 40.2

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#9

Propene

Concen: 1.656 ppbv m

RT: 3.00 min Scan# 65

Delta R.T. 0.02 min

Lab File: VL034404.D

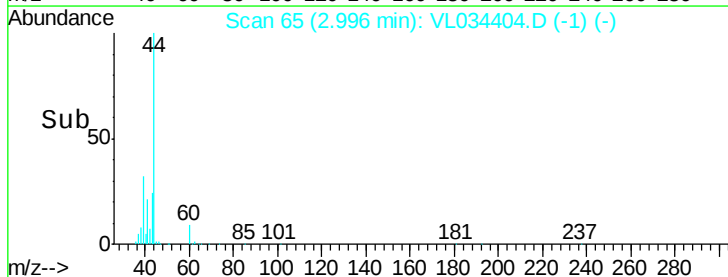
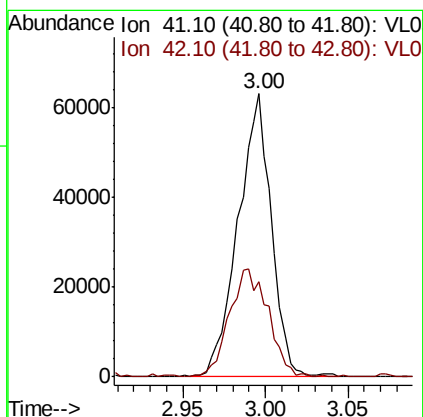
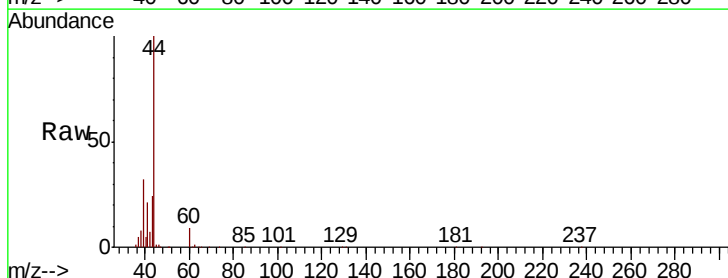
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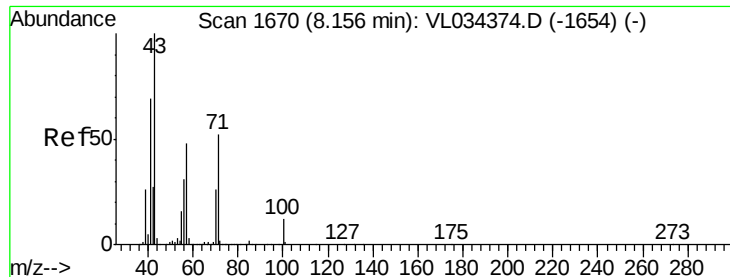
Tgt Ion: 41 Resp: 89212

Ion Ratio Lower Upper

41 100

42 290.3 54.6 82.0#





#10

Heptane

Concen: 0.995 ppbv

RT: 8.15 min Scan# 1669

Delta R.T. -0.00 min

Lab File: VL034404.D

Acq: 25 Nov 2019 13:43

Instrument :

MSVOA_L

ClientSampled :

1

Tot Ion: 43 Resp: 138279

Ion Ratio Lower Upper

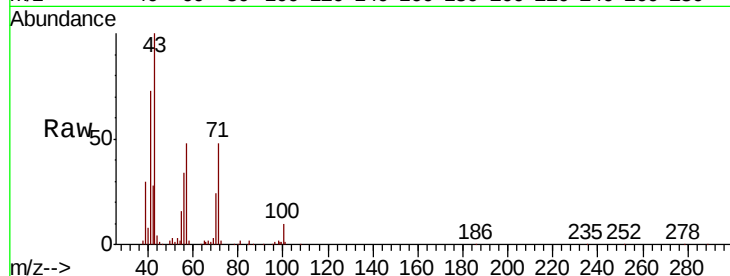
43 100

57 49.4 40.2 60.2

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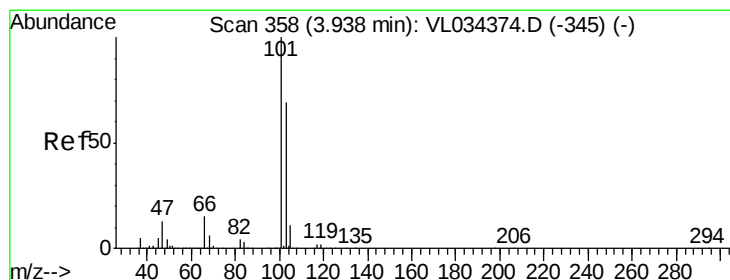
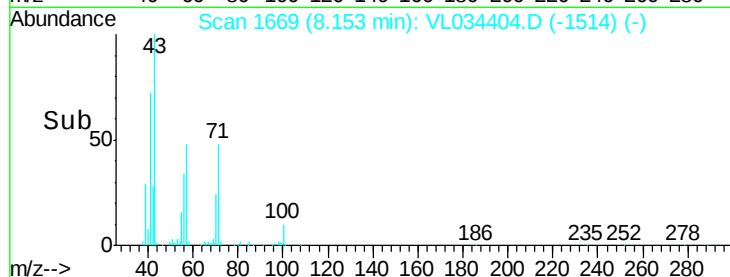
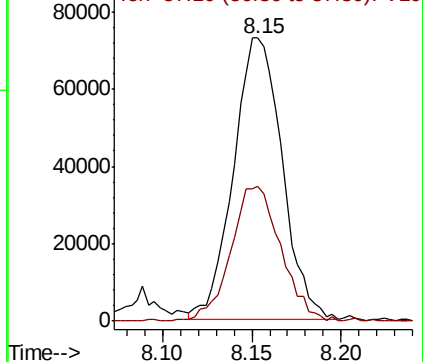
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 0.227 ppbv

RT: 3.94 min Scan# 359

Delta R.T. 0.00 min

Lab File: VL034404.D

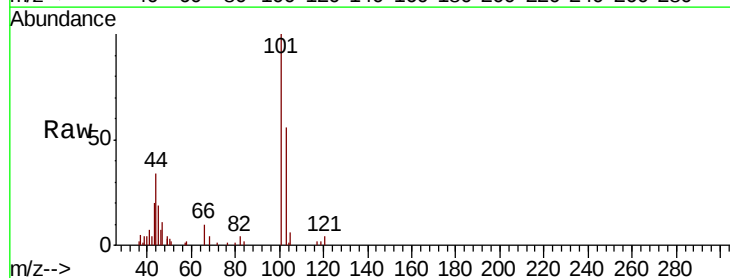
Acq: 25 Nov 2019 13:43

Tgt Ion: 101 Resp: 39741

Ion Ratio Lower Upper

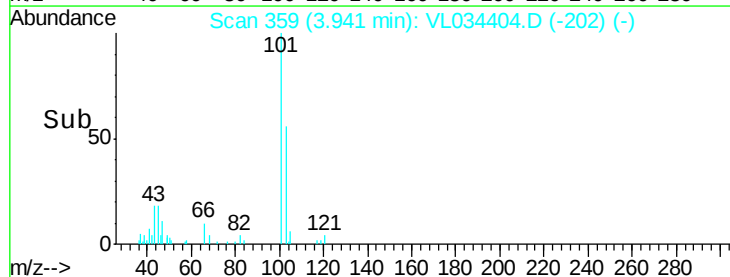
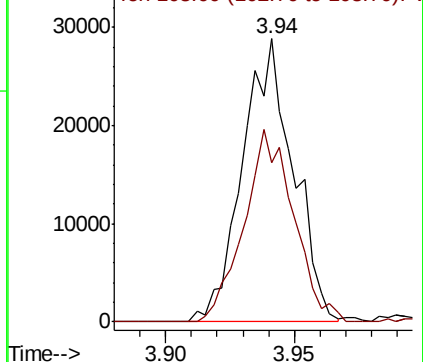
101 100

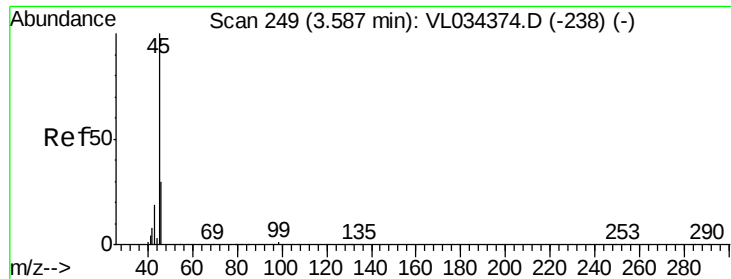
103 56.4 55.4 83.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





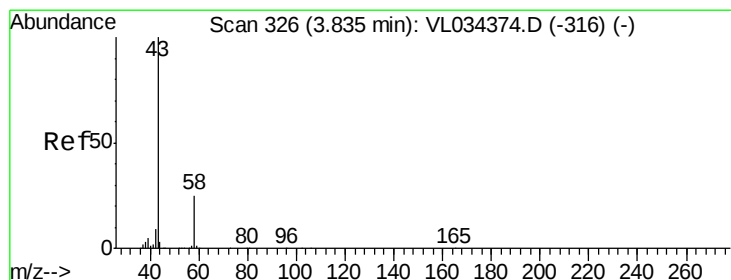
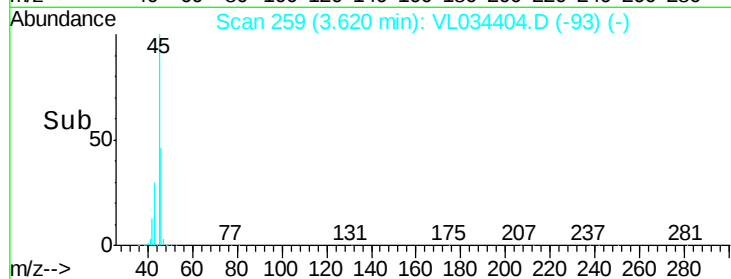
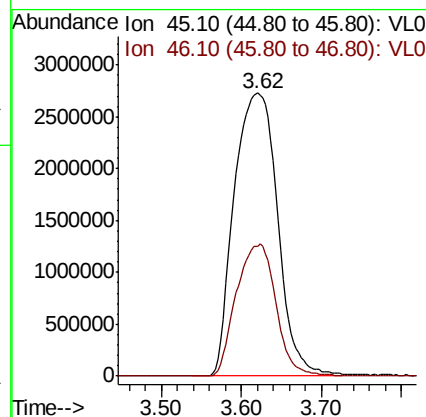
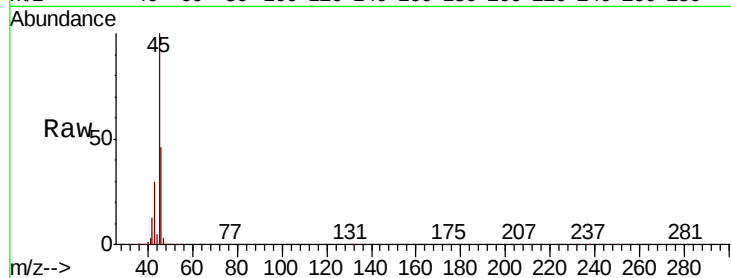
#13
Ethanol
Concen: 671.875 ppbv
RT: 3.62 min Scan# 259
Delta R.T. 0.03 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Instrument :
MSVOA_L
ClientSampleId :
1

Tot Ion: 45 Resp:10080979
Ion Ratio Lower Upper
45 100
46 42.6 13.8 55.4

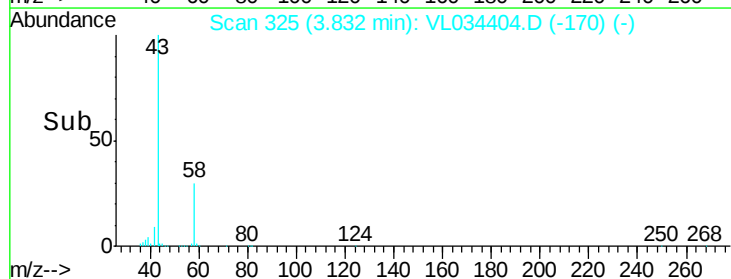
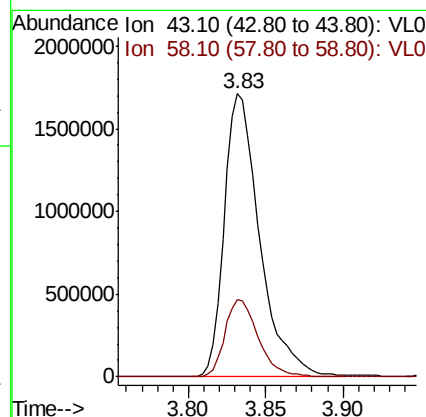
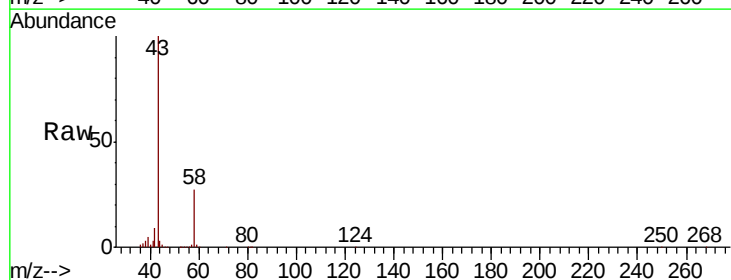
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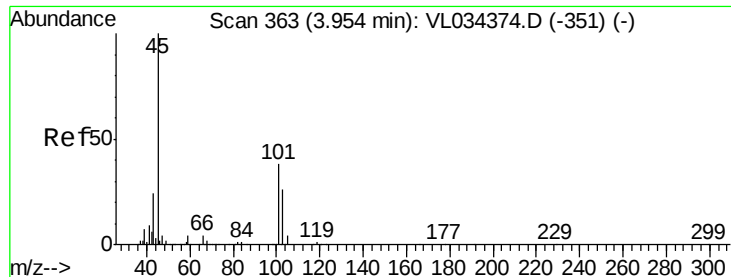
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#15
Acetone
Concen: 19.464 ppbv
RT: 3.83 min Scan# 325
Delta R.T. -0.00 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Tgt Ion: 43 Resp: 2710093
Ion Ratio Lower Upper
43 100
58 26.1 20.2 30.4





#19

Isopropyl Alcohol

Concen: 34.704 ppbv m

RT: 4.00 min Scan# 376

Delta R.T. 0.04 min

Lab File: VL034404.D

Acq: 25 Nov 2019 13:43

Instrument :

MSVOA_L

ClientSampled :

1

Tot Ion: 45 Resp: 3097346

Ion Ratio Lower Upper

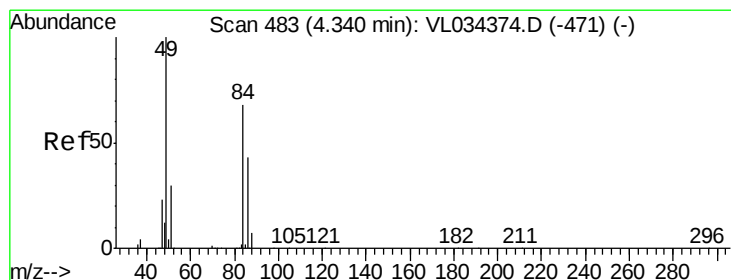
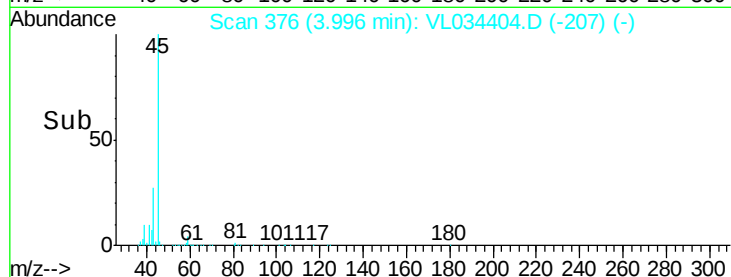
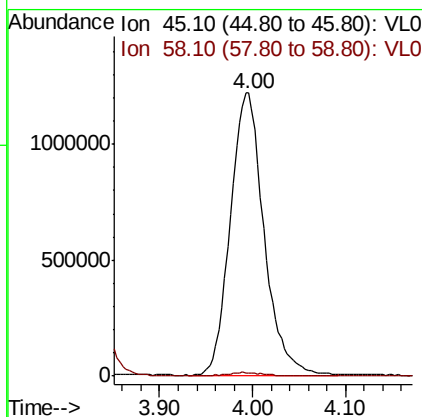
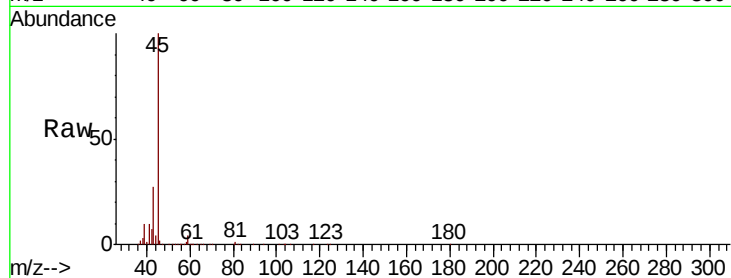
45 100

58 0.0 1.3 1.9#

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#20

Methylene Chloride

Concen: 1.713 ppbv

RT: 4.34 min Scan# 484

Delta R.T. 0.00 min

Lab File: VL034404.D

Acq: 25 Nov 2019 13:43

Tgt Ion: 84 Resp: 84604

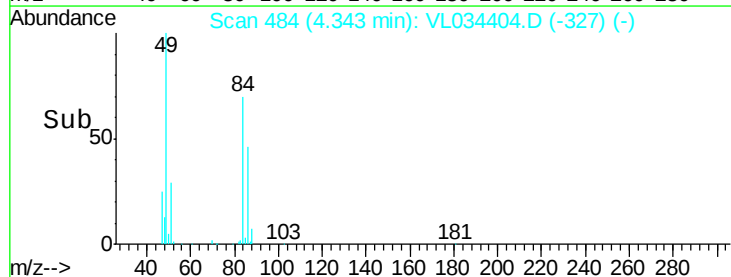
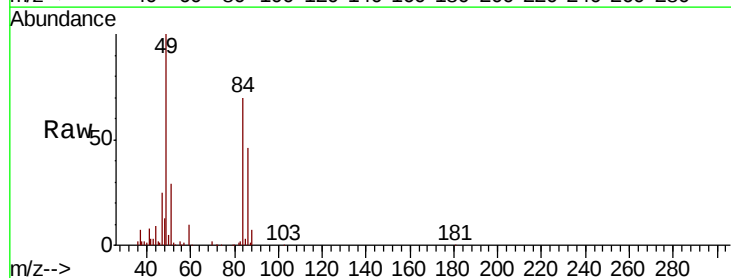
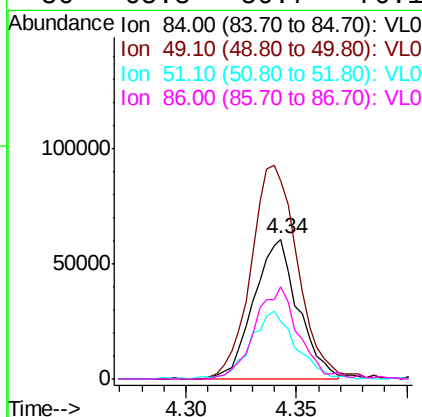
Ion Ratio Lower Upper

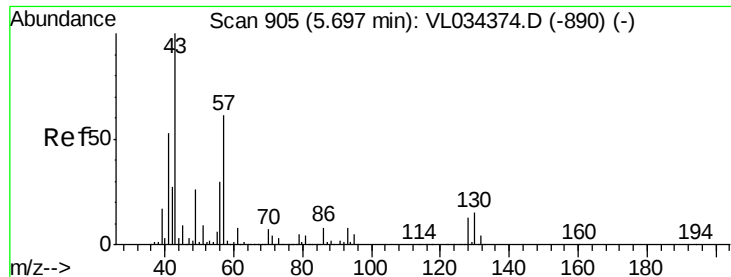
84 100

49 142.1 116.8 175.2

51 40.9 35.6 53.4

86 65.8 50.7 76.1





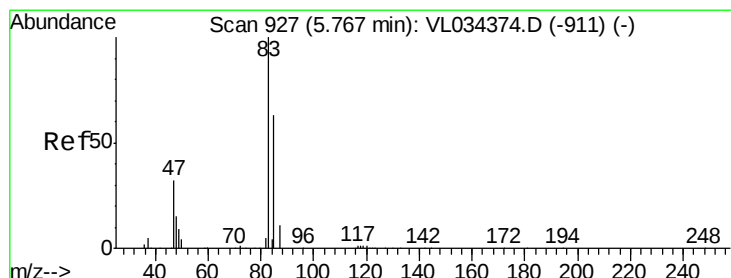
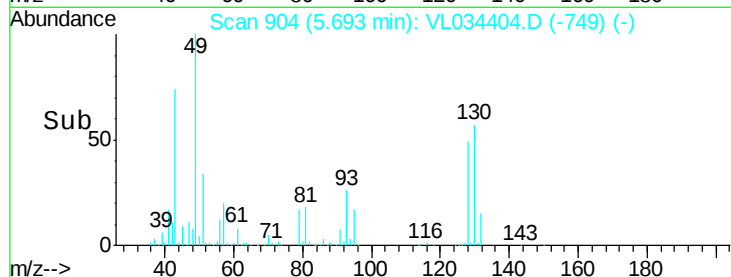
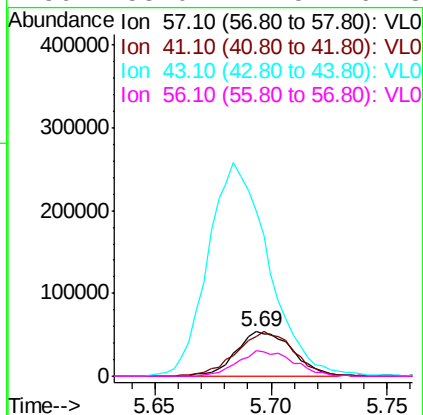
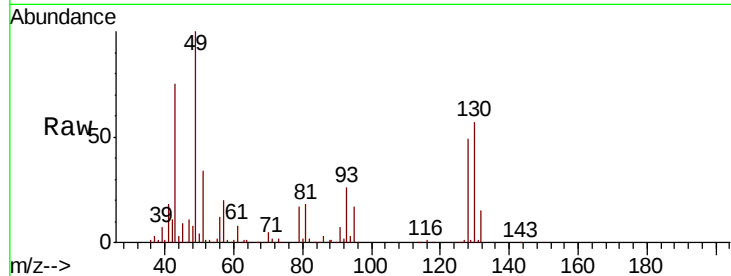
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Hexane
Concen: 0.854 ppbv
RT: 5.69 min Scan# 904
Delta R.T. -0.00 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Instrument :
MSVOA_L
ClientSampleId :
1

Tot Ion	Ratio	Lower	Upper
57	100		
41	105.8	75.0	112.4
43	519.4	186.6	279.8
56	58.0	41.5	62.3

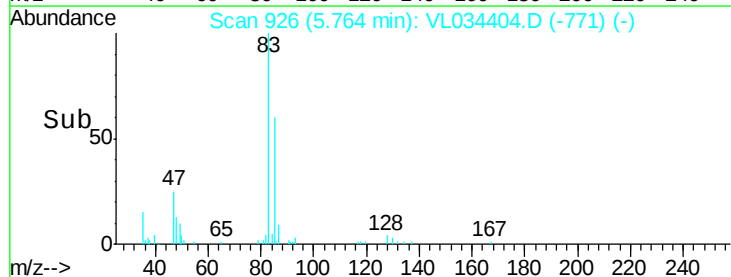
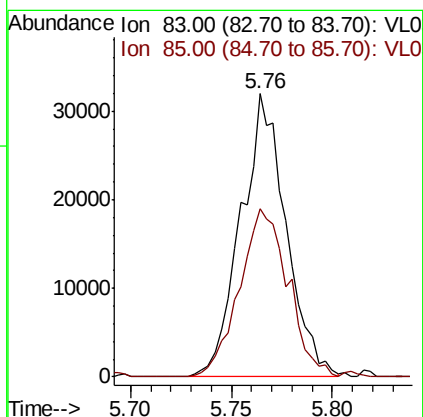
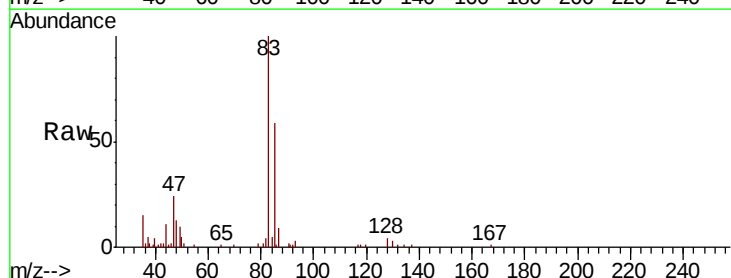
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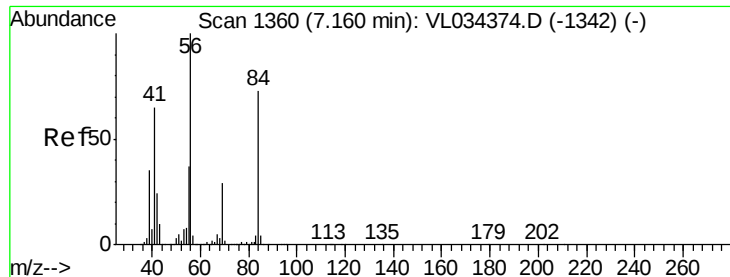
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#29
Chloroform
Concen: 0.290 ppbv
RT: 5.76 min Scan# 926
Delta R.T. -0.00 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Tgt Ion	Ratio	Lower	Upper
83	100		
85	59.2	50.4	75.6





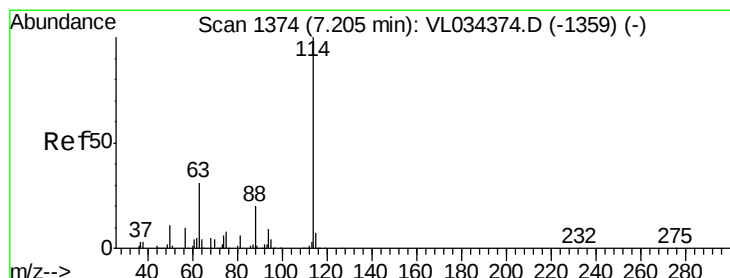
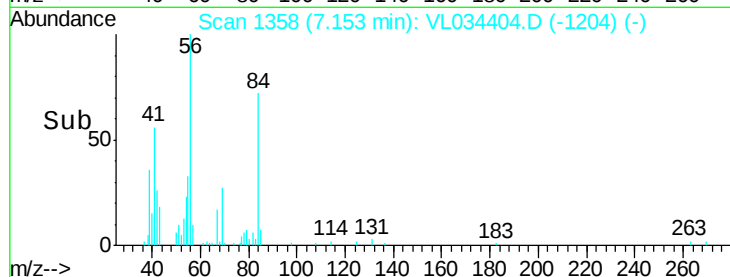
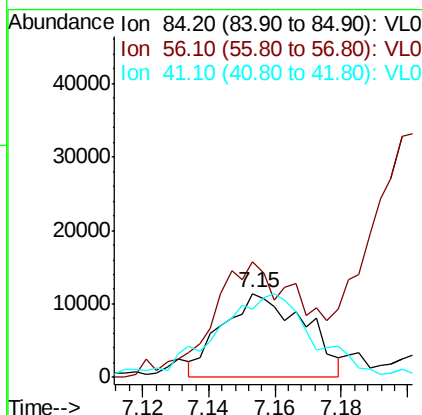
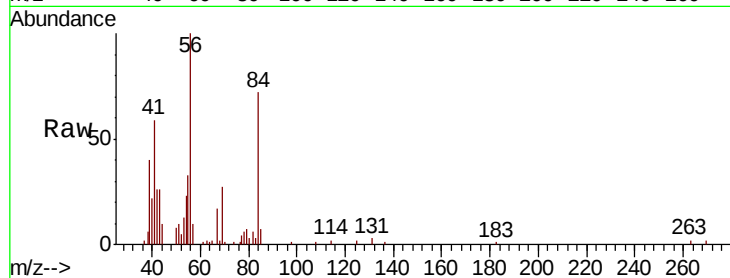
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Cyclohexane
Concen: 0.240 ppbv
RT: 7.15 min Scan# 1358
Delta R.T. -0.01 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Instrument :
MSVOA_L
ClientSampleId :
1

Tot Ion	Ratio	Lower	Upper
84	100		
56	145.4	112.6	169.0
41	123.2	73.4	110.2

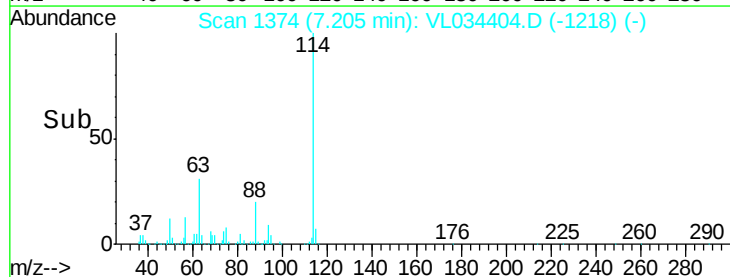
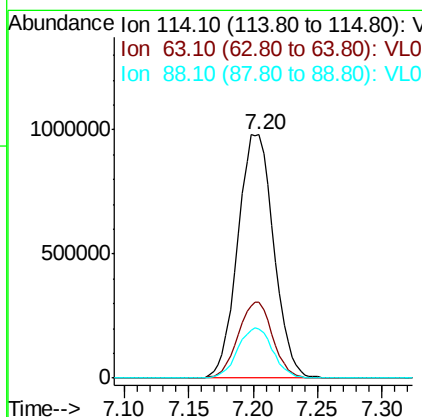
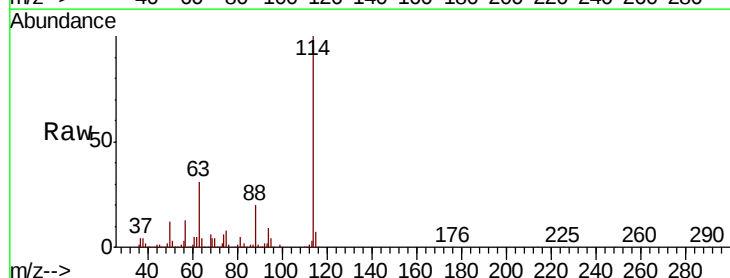
Manual Integrations
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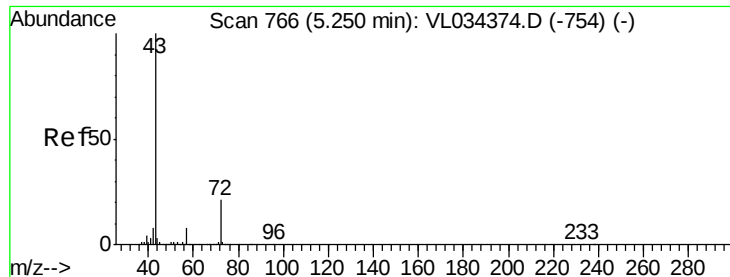
apatel
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.20 min Scan# 1374
Delta R.T. 0.00 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Tgt Ion	Ratio	Lower	Upper
114	100		
63	30.0	24.2	36.4
88	20.1	15.9	23.9





#34

2-Butanone

Concen: 0.515 ppbv

RT: 5.25 min Scan# 767

Delta R.T. 0.00 min

Lab File: VL034404.D

Acq: 25 Nov 2019 13:43

Instrument :

MSVOA_L

ClientSampled :

1

Tot Ion: 43 Resp: 80882

Ion Ratio Lower Upper

43 100

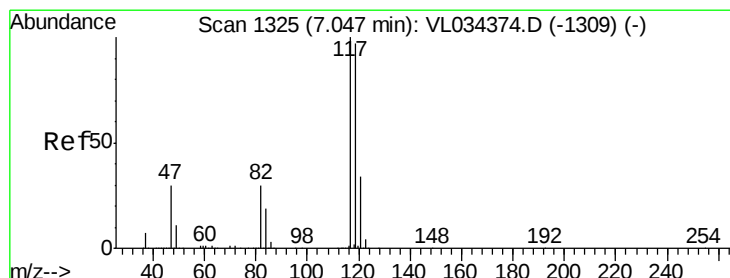
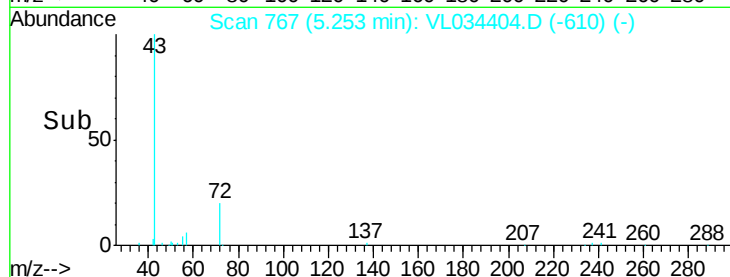
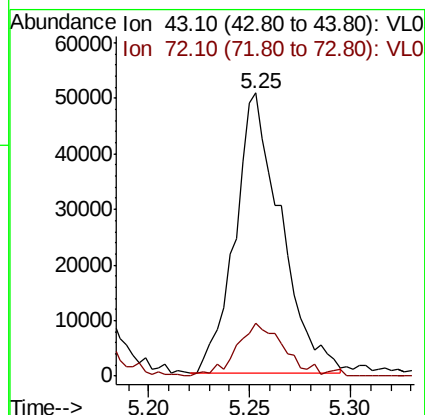
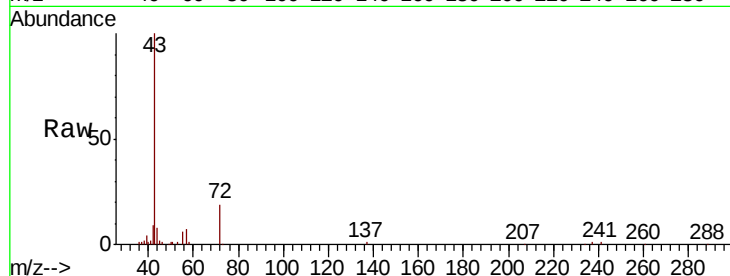
72 20.0 17.0 25.6

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#35

Carbon Tetrachloride

Concen: 0.071 ppbv m

RT: 7.05 min Scan# 1325

Delta R.T. 0.00 min

Lab File: VL034404.D

Acq: 25 Nov 2019 13:43

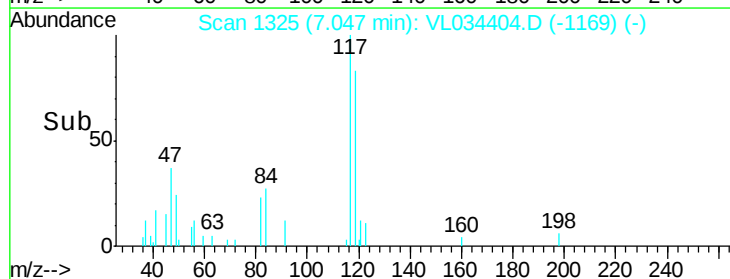
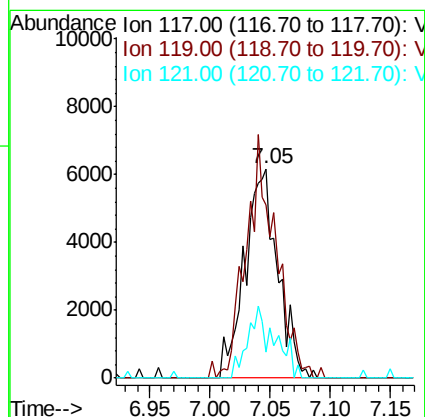
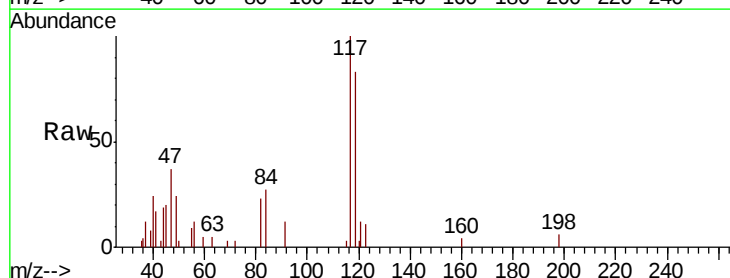
Tgt Ion: 117 Resp: 11639

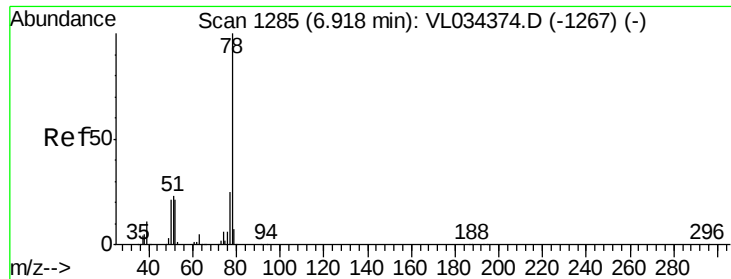
Ion Ratio Lower Upper

117 100

119 82.6 77.3 115.9

121 12.2 27.4 41.2#





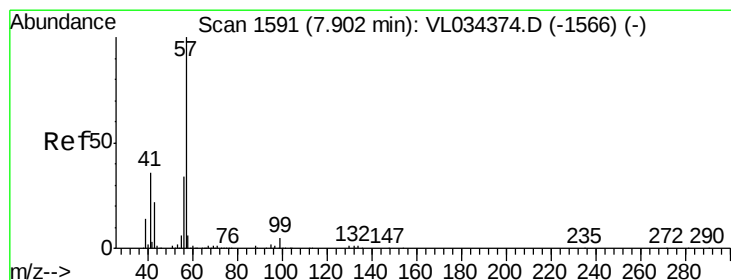
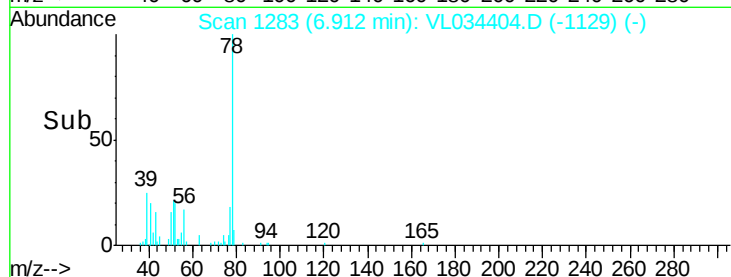
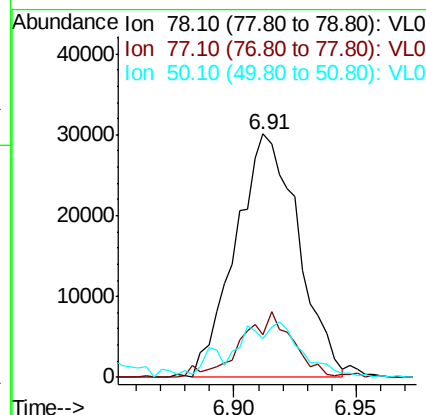
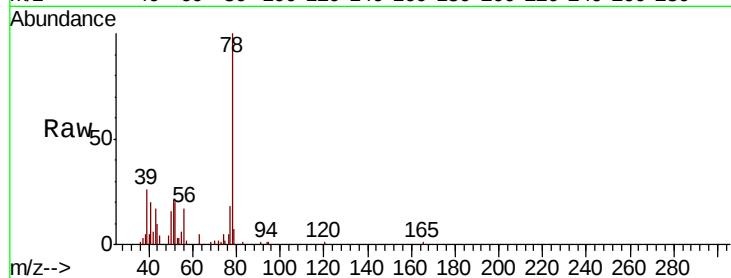
#36
Benzene
Concen: 0.281 ppbv
RT: 6.91 min Scan# 1283
Delta R.T. -0.01 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Instrument :
MSVOA_L
ClientSampleId :
1

Tot Ion	Ratio	Lower	Upper
78	100		
77	16.4	20.2	30.4#
50	14.9	17.1	25.7#

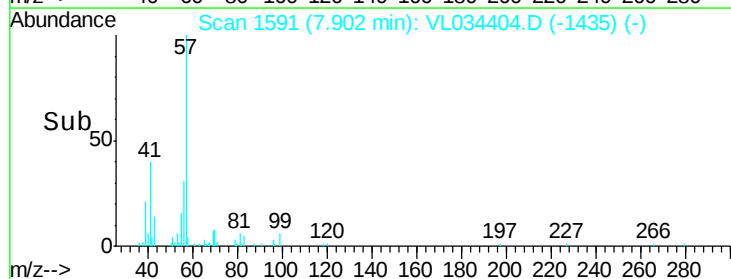
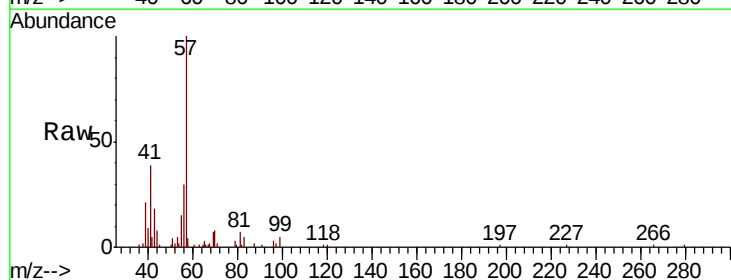
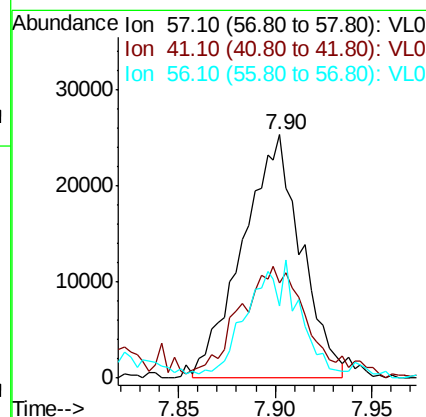
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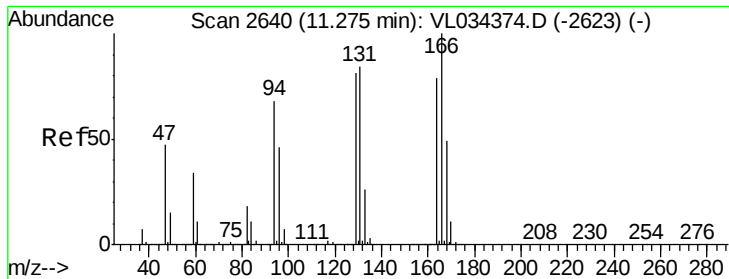
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#44
2,2,4-Trimethylpentane
Concen: 0.153 ppbv
RT: 7.90 min Scan# 1591
Delta R.T. 0.00 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Tgt Ion	Ratio	Lower	Upper
57	100		
41	52.9	28.6	42.8#
56	45.5	25.3	37.9#





#52

Tetrachloroethene

Concen: 0.108 ppbv m

RT: 11.27 min Scan# 2639

Delta R.T. -0.00 min

Lab File: VL034404.D

Acq: 25 Nov 2019 13:43

Instrument :

MSVOA_L

ClientSampled :

1

Tot Ion:164 Resp: 8928

Ion Ratio Lower Upper

164 100

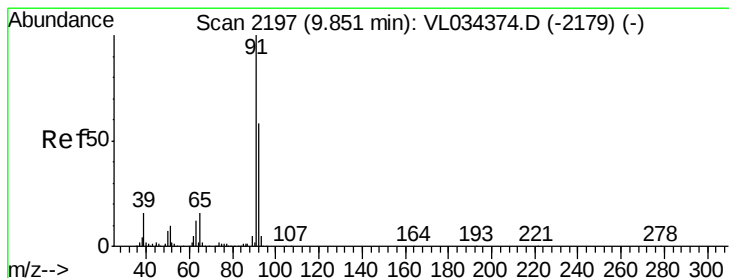
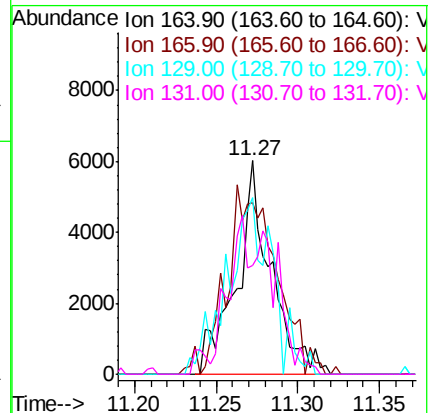
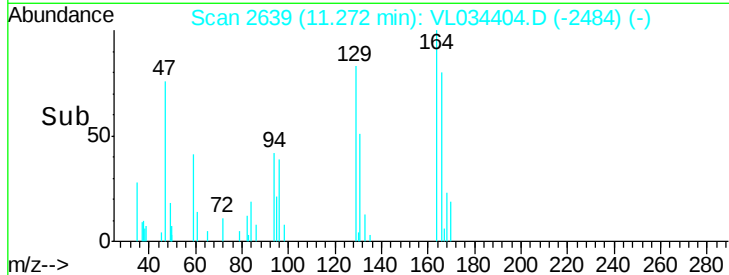
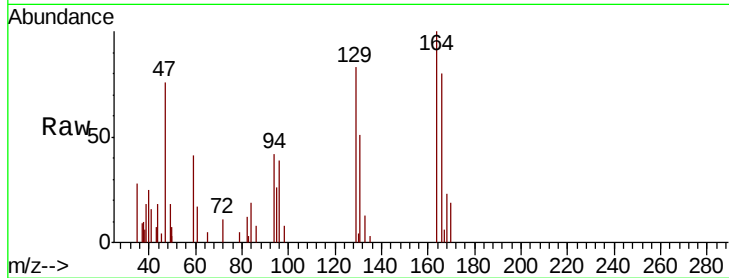
166 80.4 101.7 152.5#

129 82.6 82.6 123.8

131 51.1 85.2 127.8#

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#53

Toluene

Concen: 3.441 ppbv

RT: 9.85 min Scan# 2197

Delta R.T. 0.00 min

Lab File: VL034404.D

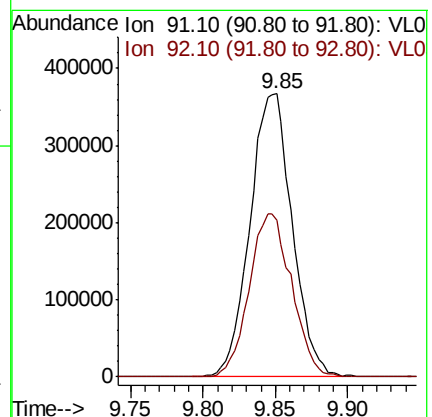
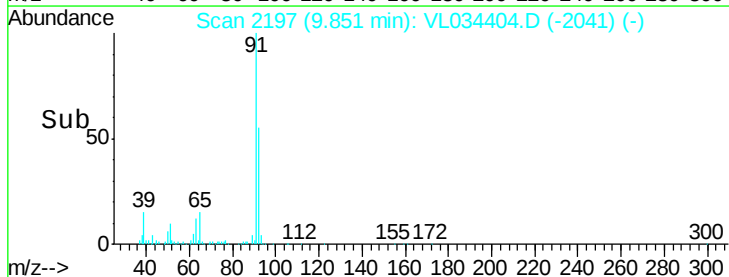
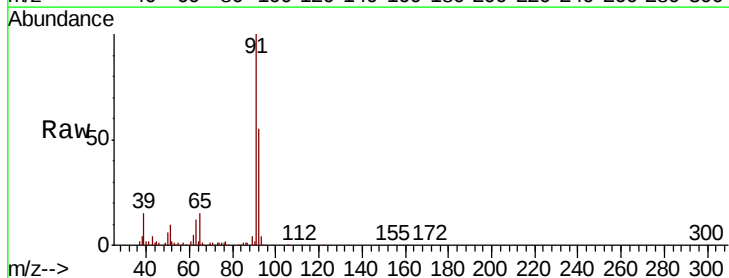
Acq: 25 Nov 2019 13:43

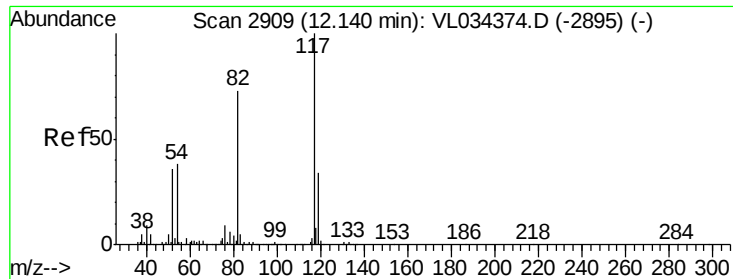
Tgt Ion: 91 Resp: 745191

Ion Ratio Lower Upper

91 100

92 57.9 47.9 71.9





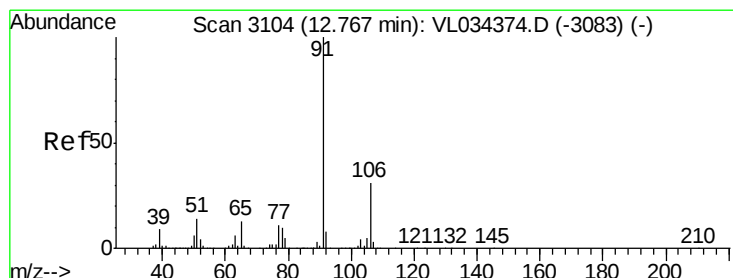
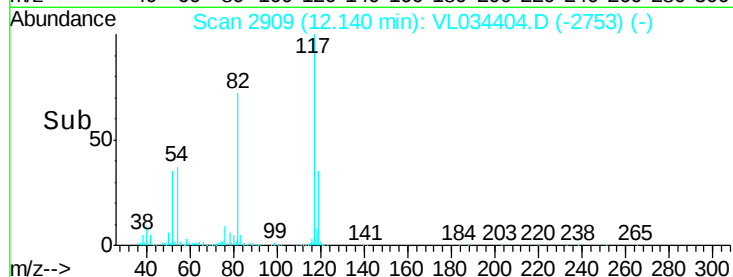
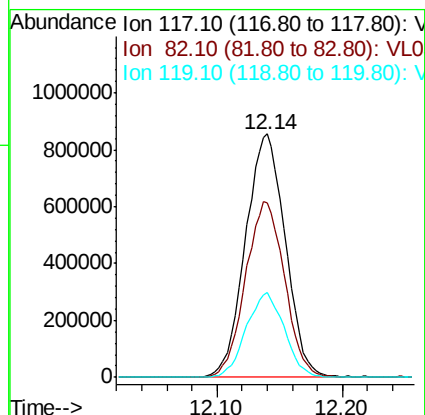
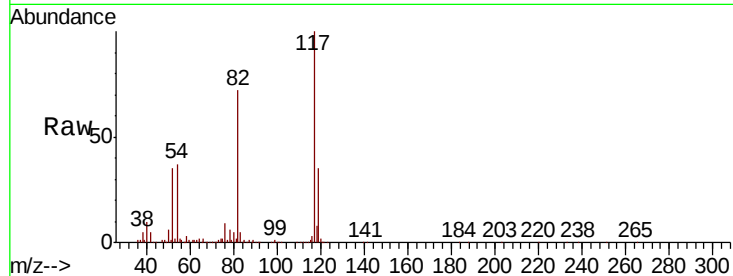
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.14 min Scan# 2909
Delta R.T. 0.00 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Instrument :
MSVOA_L
ClientSampled :
1

Tot Ion	Ratio	Lower	Upper
117	100		
82	71.0	57.5	86.3
119	33.5	25.4	38.2

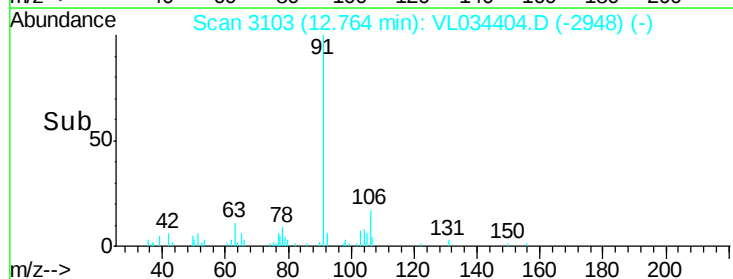
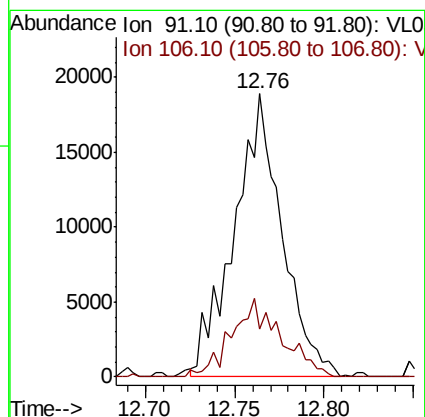
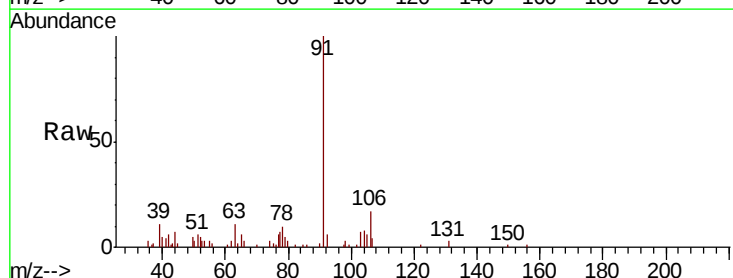
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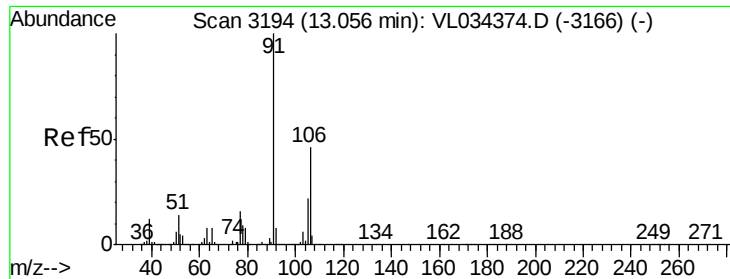
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#58
Ethyl Benzene
Concen: 0.121 ppbv
RT: 12.76 min Scan# 3103
Delta R.T. -0.00 min
Lab File: VL034404.D
Acq: 25 Nov 2019 13:43

Tgt Ion	Ratio	Lower	Upper
91	100		
106	21.3	24.8	37.2#





#59

m/p-Xylene

Concen: 0.374 ppbv m

RT: 13.02 min Scan# 3183

Delta R.T. -0.04 min

Lab File: VL034404.D

Acq: 25 Nov 2019 13:43

Instrument :

MSVOA_L

ClientSampled :

1

Tot Ion: 91 Resp: 94704

Ion Ratio Lower Upper

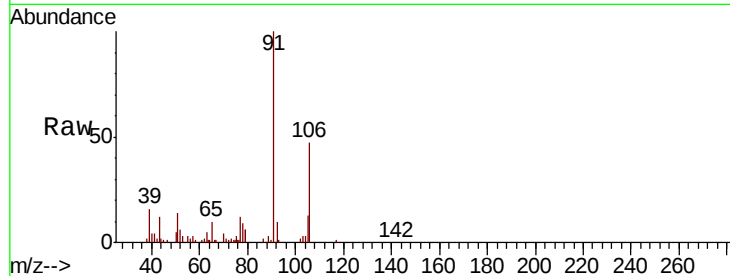
91 100

106 0.0 34.6 51.8#

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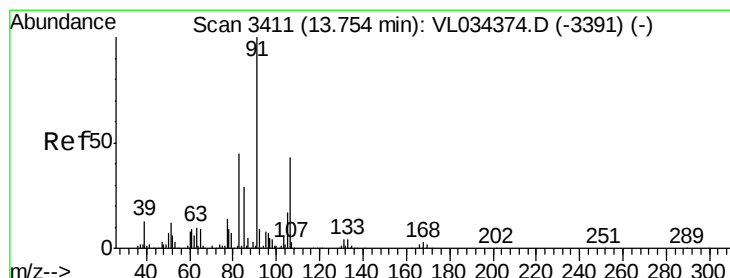
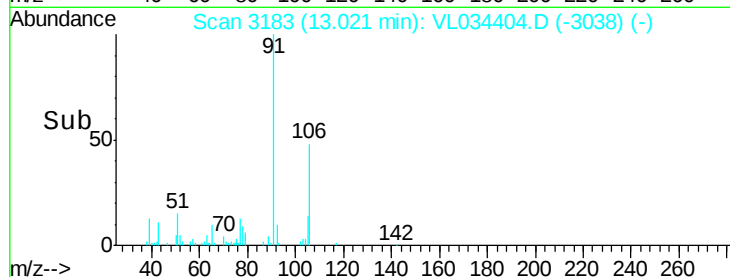
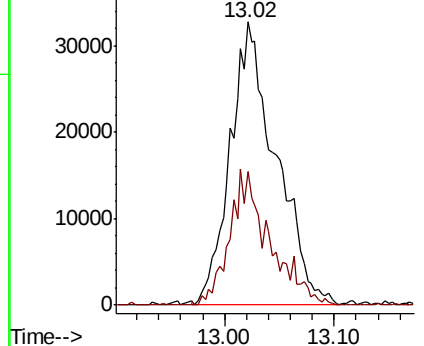
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.145 ppbv m

RT: 13.75 min Scan# 3410

Delta R.T. -0.00 min

Lab File: VL034404.D

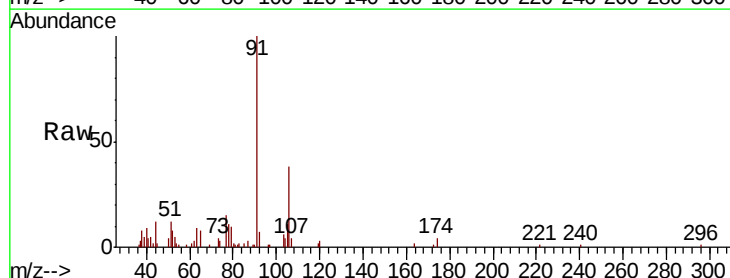
Acq: 25 Nov 2019 13:43

Tgt Ion: 91 Resp: 36397

Ion Ratio Lower Upper

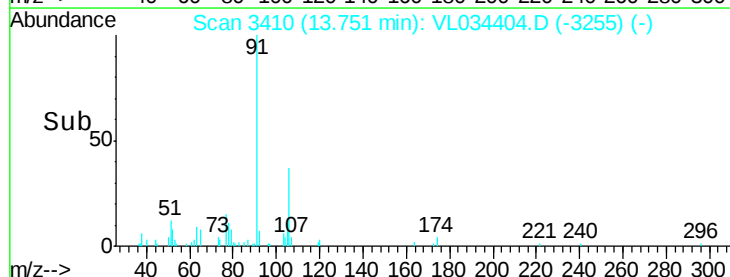
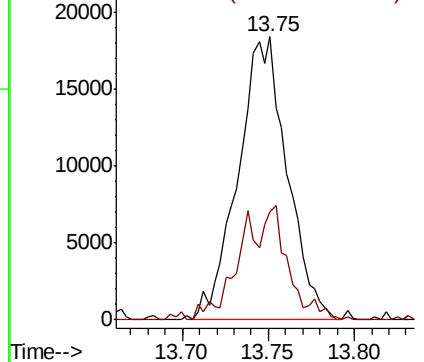
91 100

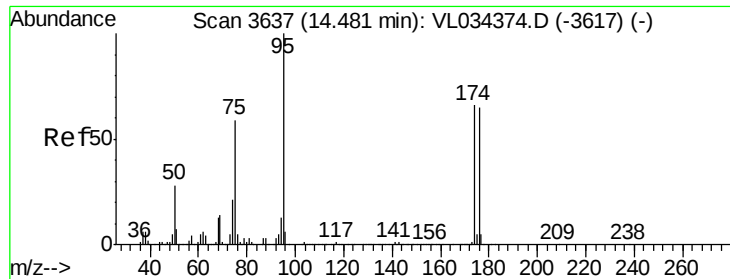
106 39.5 21.3 64.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





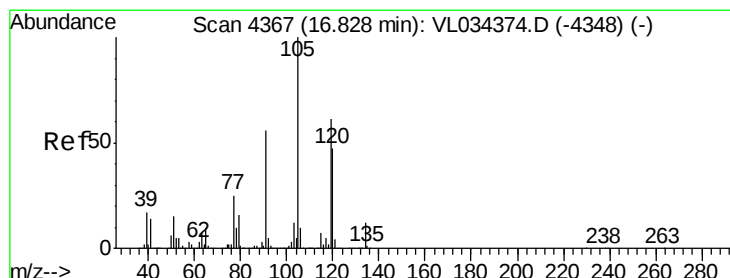
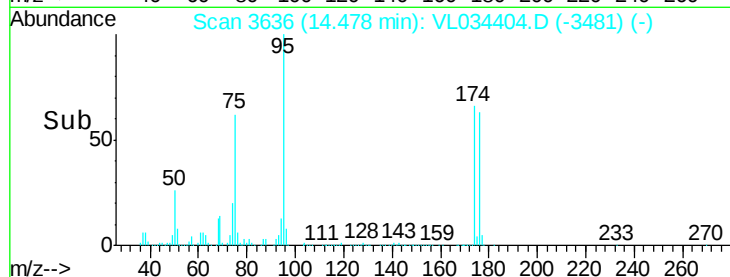
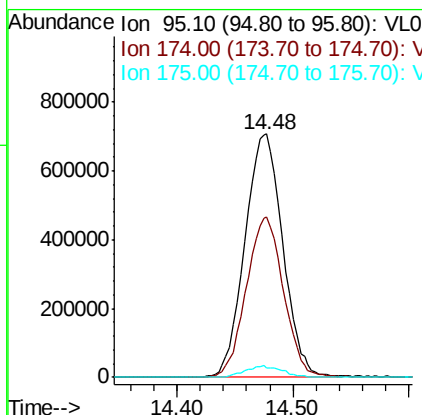
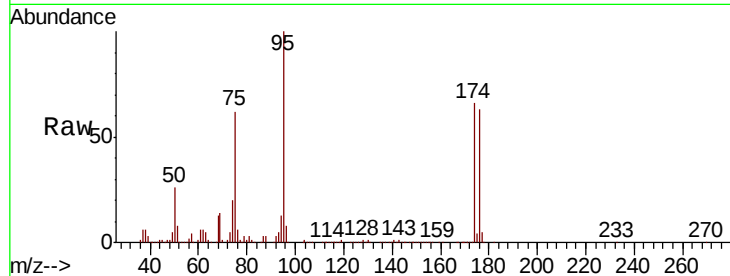
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.145 ppbv
 RT: 14.48 min Scan# 3636
 Delta R.T. -0.00 min
 Lab File: VL034404.D
 Acq: 25 Nov 2019 13:43

Instrument :
 MSVOA_L
 ClientSampled :
 1

Tot Ion: 95 Resp: 1610221
 Ion Ratio Lower Upper
 95 100
 174 65.0 52.2 78.2
 175 4.7 3.8 5.8

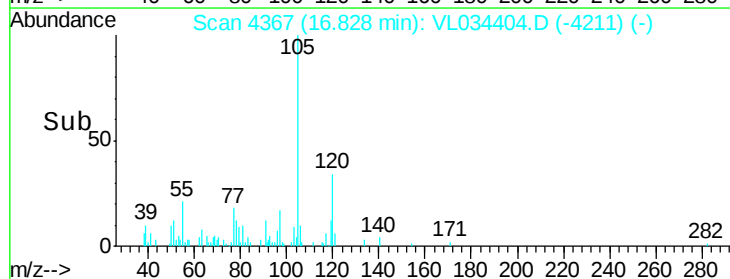
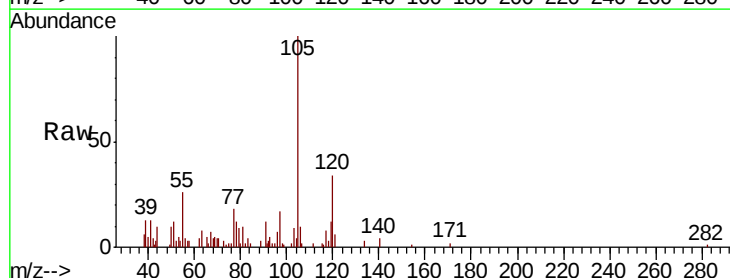
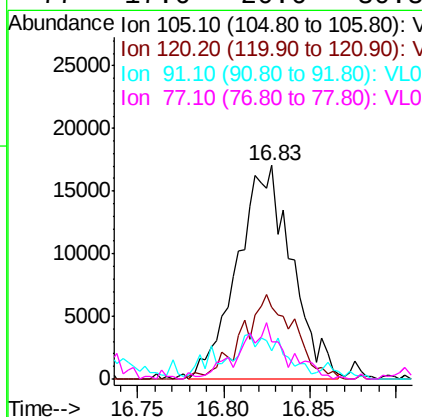
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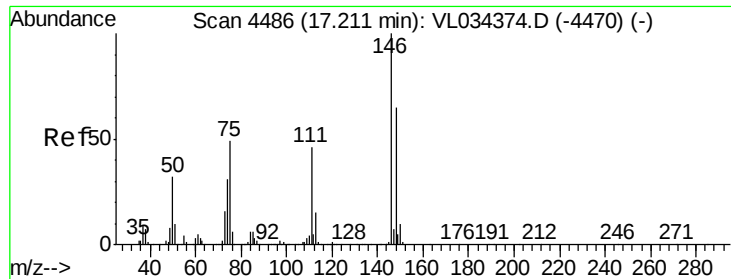
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#74
 1,2,4-Trimethylbenzene
 Concen: 0.124 ppbv m
 RT: 16.83 min Scan# 4367
 Delta R.T. 0.00 min
 Lab File: VL034404.D
 Acq: 25 Nov 2019 13:43

Tgt Ion: 105 Resp: 37356
 Ion Ratio Lower Upper
 105 100
 120 33.5 37.4 56.0#
 91 11.7 46.3 69.5#
 77 17.6 20.6 30.8#





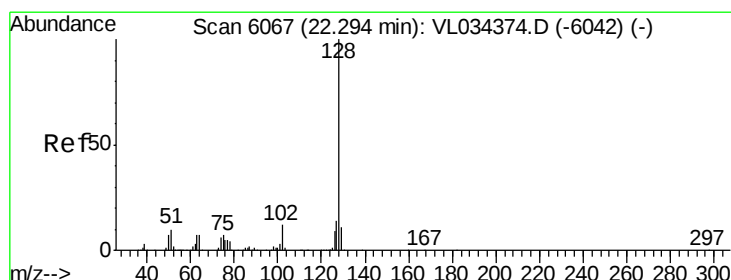
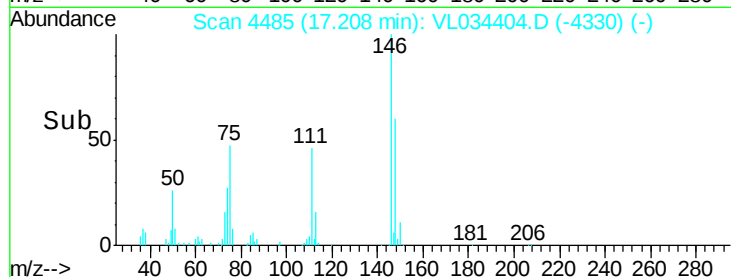
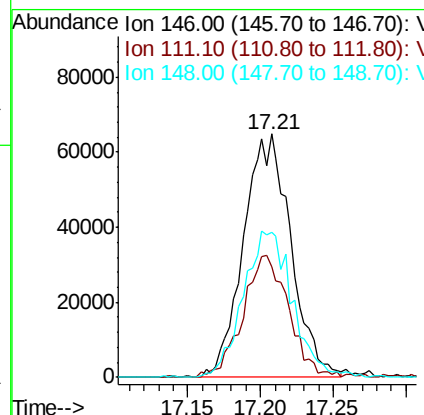
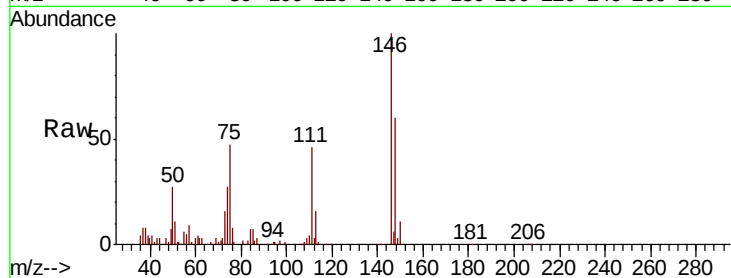
#76
 1,4-Dichlorobenzene
 Concen: 0.873 ppbv m
 RT: 17.21 min Scan# 4485
 Delta R.T. -0.00 min
 Lab File: VL034404.D
 Acq: 25 Nov 2019 13:43

Instrument :
 MSVOA_L
 ClientSampleId :
 1

Tot Ion	Ratio	Lower	Upper
146	100		
111	48.9	24.1	72.3
148	0.0	32.9	98.6#

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#79
 Naphthalene
 Concen: 0.125 ppbv m
 RT: 22.29 min Scan# 6067
 Delta R.T. 0.00 min
 Lab File: VL034404.D
 Acq: 25 Nov 2019 13:43

Tgt Ion	Ratio	Lower	Upper
128	100		
127	16.7	11.0	16.6#
129	6.4	8.9	13.3#

