

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120919\
 Data File : VL034484.D
 Acq On : 10 Dec 2019 4:07
 Operator : SY/AP
 Sample : K6181-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 1A-3

Manual Integrations
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Quant Time: Dec 11 12:08:41 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

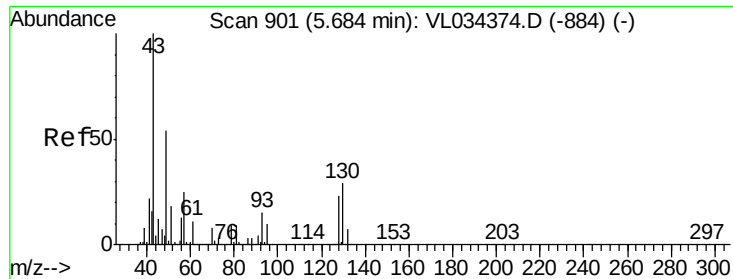
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	821157	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1668919	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.13	117	1691136	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.47	95	1454546	10.22	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	30594	0.206	ppbv #	82
3) Chlorodifluoromethane	2.96	51	43636m	0.426	ppbv	
4) Chloromethane	3.11	50	27944	0.462	ppbv	89
9) Propene	2.98	41	185770	4.084	ppbv	93
10) Heptane	8.15	43	119547	1.018	ppbv	98
11) Trichlorofluoromethane	3.93	101	48229	0.326	ppbv	93
13) Ethanol	3.59	45	586557	46.292	ppbv	95
15) Acetone	3.83	43	904240	7.690	ppbv	94
19) Isopropyl Alcohol	3.96	45	193096	2.562	ppbv #	93
20) Methylene Chloride	4.33	84	166007	3.981	ppbv	90
26) Hexane	5.70	57	257741	2.859	ppbv #	42
30) Cyclohexane	7.16	84	42151	0.618	ppbv	87
34) 2-Butanone	5.25	43	178896	1.302	ppbv	98
35) Carbon Tetrachloride	7.04	117	9711m	0.068	ppbv	
36) Benzene	6.91	78	505335	3.029	ppbv	96
38) Trichloroethene	7.86	130	38973	0.569	ppbv	89
41) Tetrahydrofuran	6.07	42	24727m	0.321	ppbv	
44) 2,2,4-Trimethylpentane	7.90	57	372238	1.221	ppbv #	85
52) Tetrachloroethene	11.27	164	14042m	0.195	ppbv	
53) Toluene	9.84	91	1186955	6.264	ppbv	99
58) Ethyl Benzene	12.76	91	343316	1.308	ppbv	95
59) m/p-Xylene	13.01	91	953243	4.202	ppbv	99
60) o-Xylene	13.74	91	267435	1.192	ppbv	100
72) 4-Ethyltoluene	15.90	105	58181m	0.224	ppbv	
73) 1,3,5-Trimethylbenzene	16.05	105	64812m	0.255	ppbv	
74) 1,2,4-Trimethylbenzene	16.82	105	220142m	0.817	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.01 min

Lab File: VL034484.D

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Instrument :

MSVOA_L

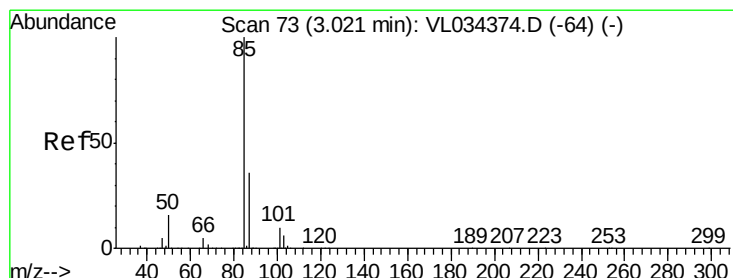
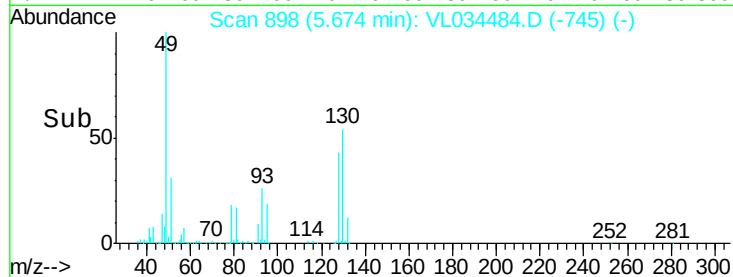
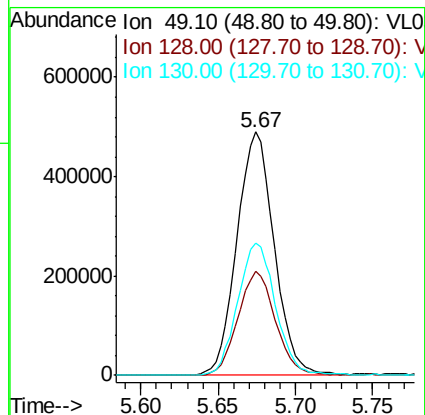
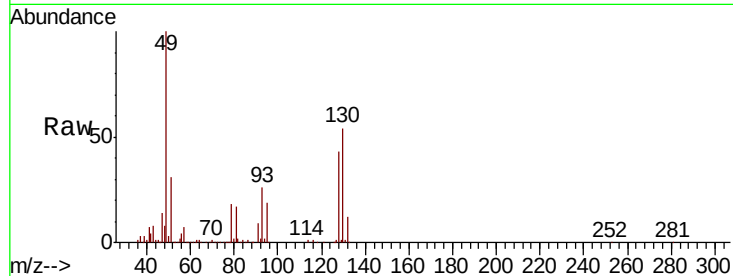
ClientSampled :

1A-3

Tot Ion:	49	Resp:	821157
Ion	Ratio	Lower	Upper
49	100		
128	43.4	21.8	65.3
130	55.4	28.0	84.0

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#2

Dichlorodifluoromethane

Concen: 0.206 ppbv

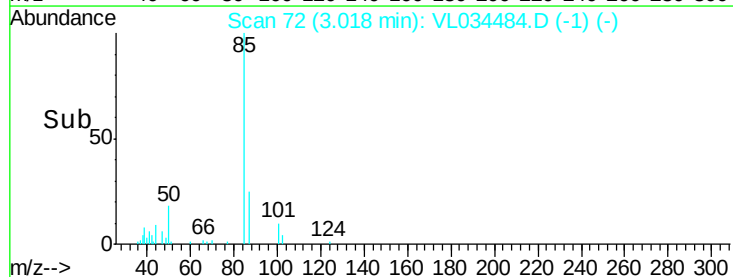
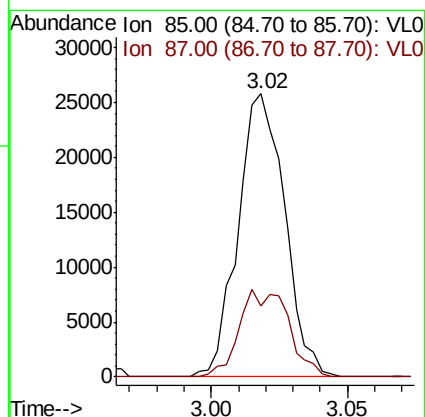
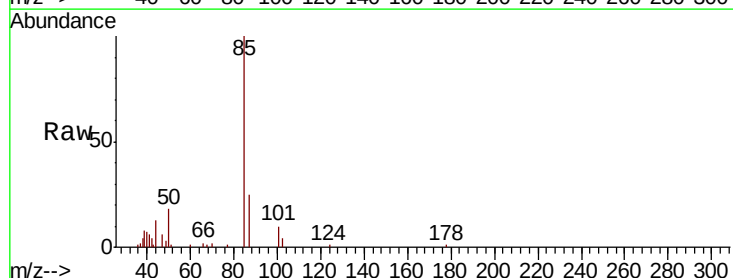
RT: 3.02 min Scan# 72

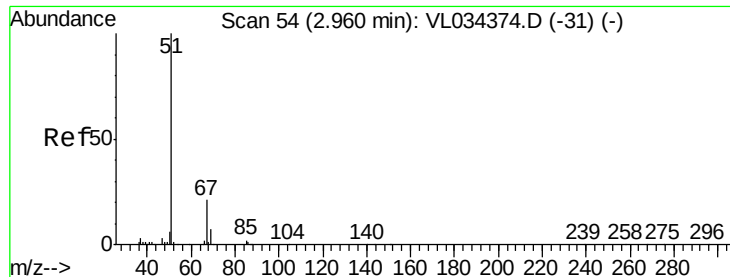
Delta R.T. -0.00 min

Lab File: VL034484.D

Acq: 10 Dec 2019 4:07

Tgt Ion:	85	Resp:	30594
Ion	Ratio	Lower	Upper
85	100		
87	25.1	28.5	42.7#





#3

Chlorodifluoromethane

Concen: 0.426 ppbv

RT: 2.96 min Scan# 54

Delta R.T. 0.00 min

Lab File: VL034484.D

Acq: 10 Dec 2019 4:07

Instrument :

MSVOA_L

ClientSampled :

1A-3

Tot Ion: 51 Resp: 43636

Ion Ratio Lower Upper

51 100

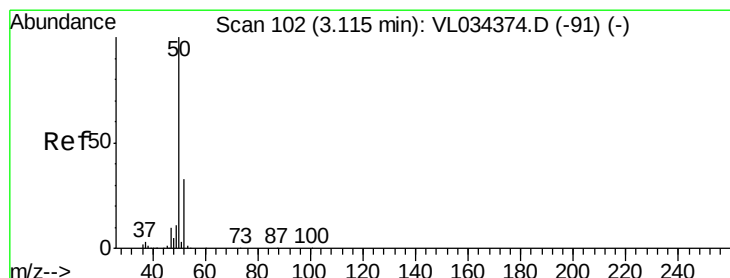
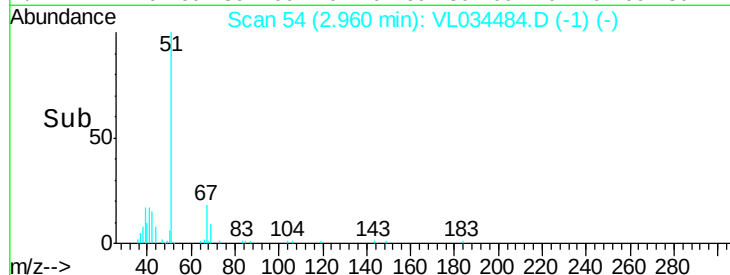
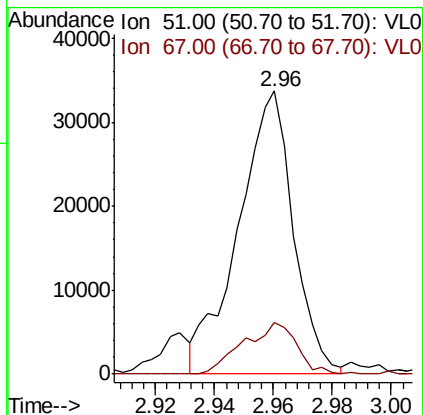
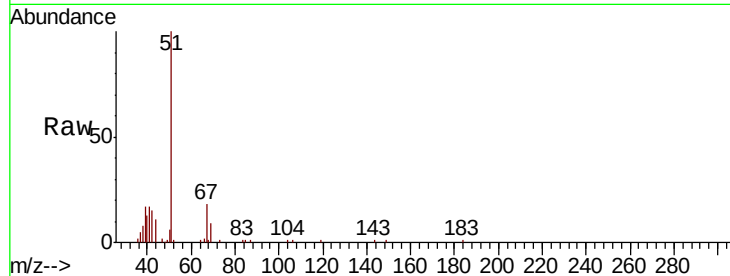
67 17.9 16.2 24.2

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#4

Chloromethane

Concen: 0.462 ppbv

RT: 3.11 min Scan# 102

Delta R.T. 0.00 min

Lab File: VL034484.D

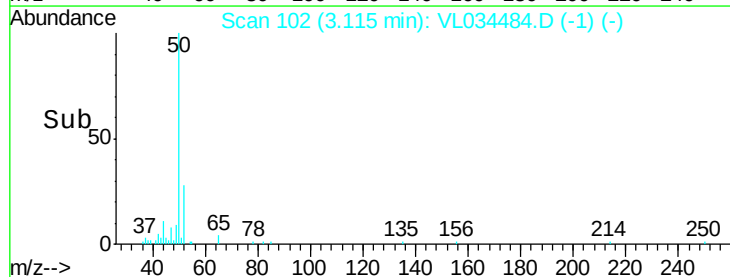
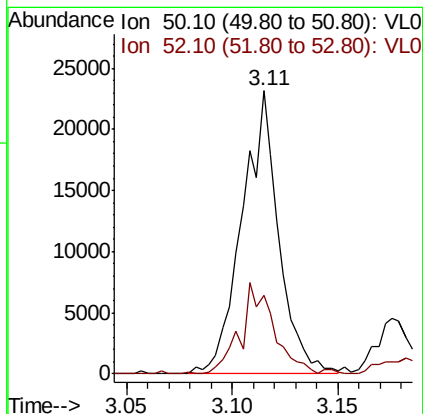
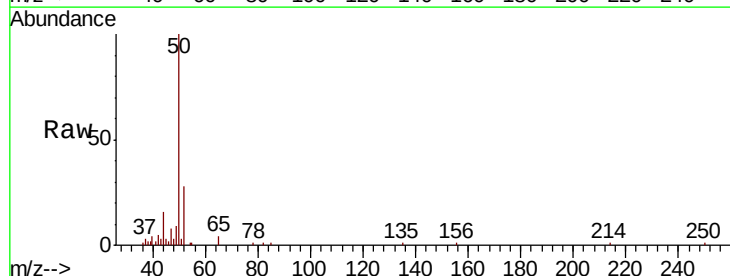
Acq: 10 Dec 2019 4:07

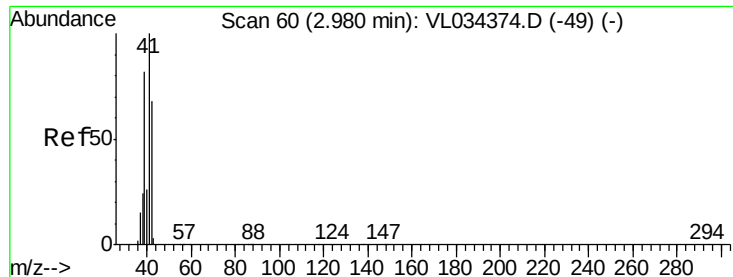
Tgt Ion: 50 Resp: 27944

Ion Ratio Lower Upper

50 100

52 27.2 26.8 40.2





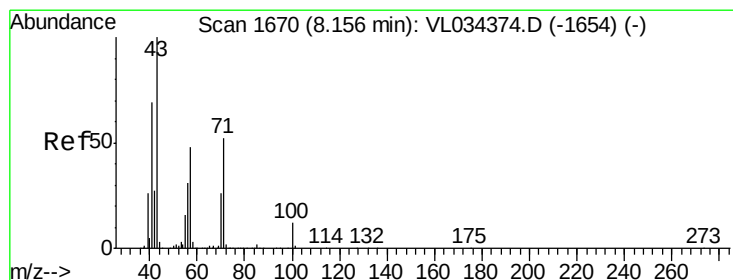
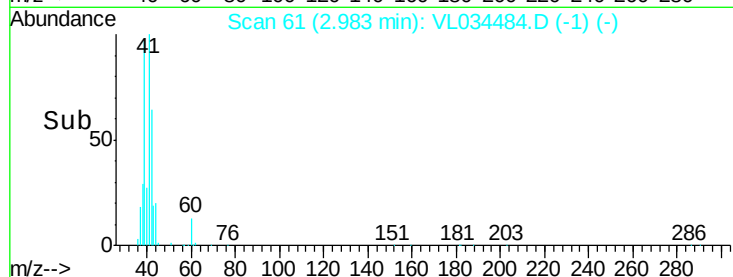
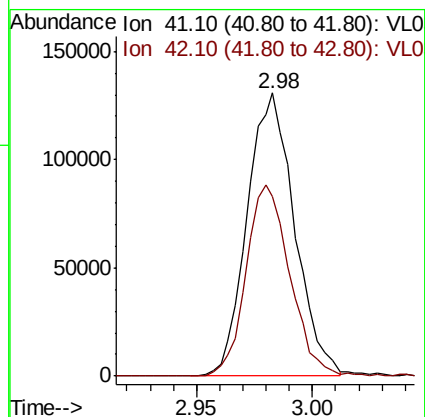
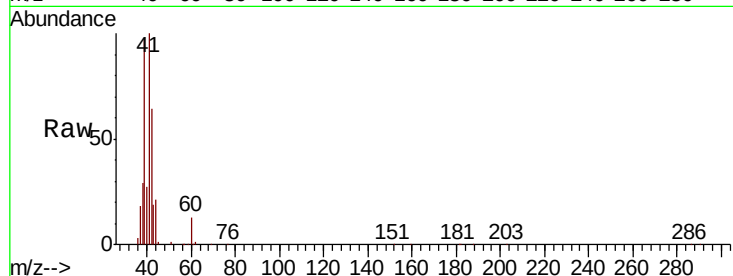
#9
Propene
Concen: 4.084 ppbv
RT: 2.98 min Scan# 61
Delta R.T. 0.00 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Instrument :
MSVOA_L
ClientSampled :
1A-3

Tot Ion: 41 Resp: 185770
Ion Ratio Lower Upper
41 100
42 62.8 54.6 82.0

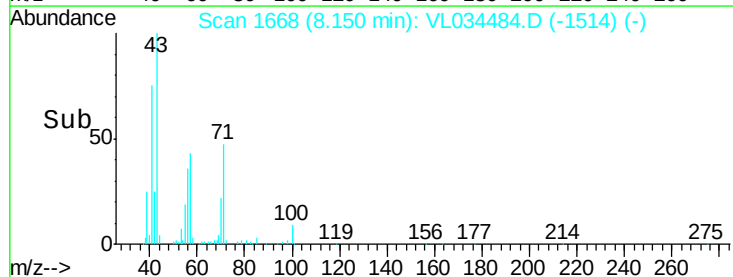
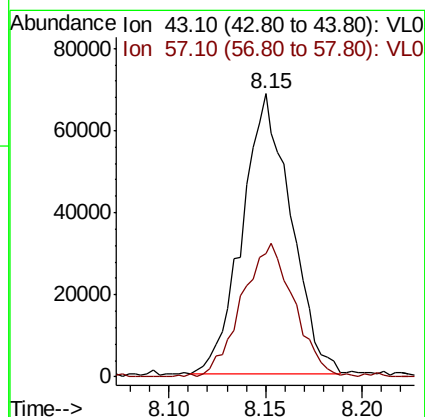
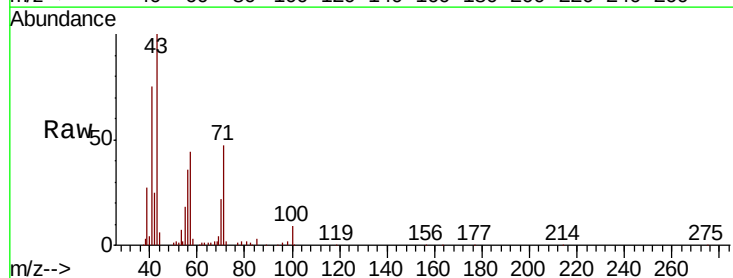
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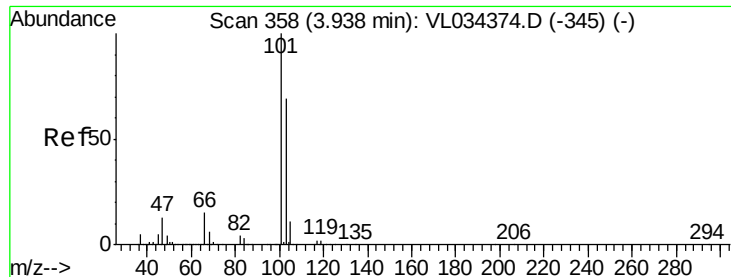
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#10
Heptane
Concen: 1.018 ppbv
RT: 8.15 min Scan# 1668
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Tgt Ion: 43 Resp: 119547
Ion Ratio Lower Upper
43 100
57 51.7 40.2 60.2





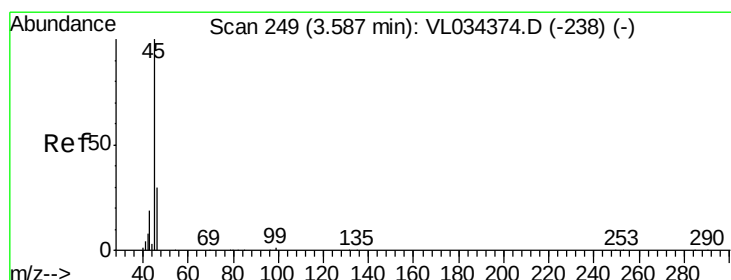
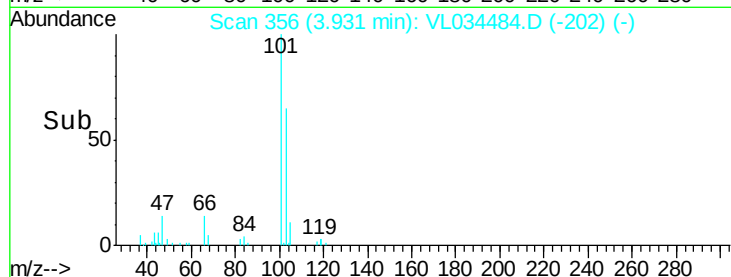
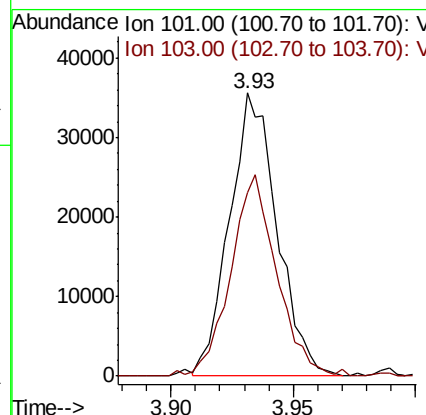
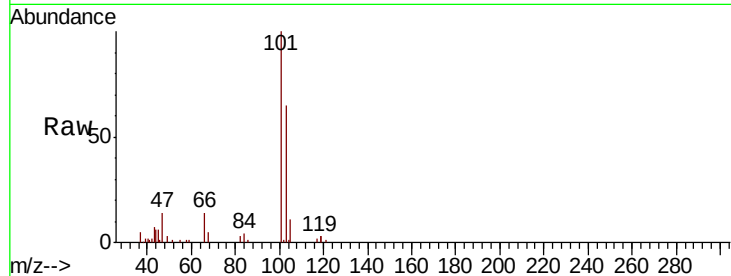
#11
Trichlorofluoromethane
Concen: 0.326 ppbv
RT: 3.93 min Scan# 356
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Instrument :
MSVOA_L
ClientSampled :
1A-3

Tot Ion	Ratio	Lower	Upper
101	100		
103	63.3	55.4	83.0

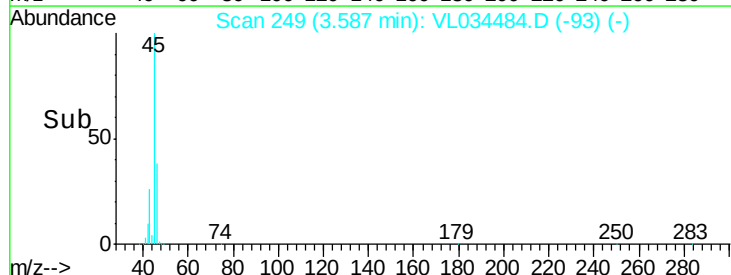
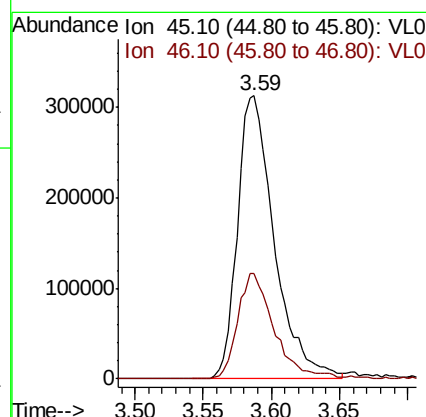
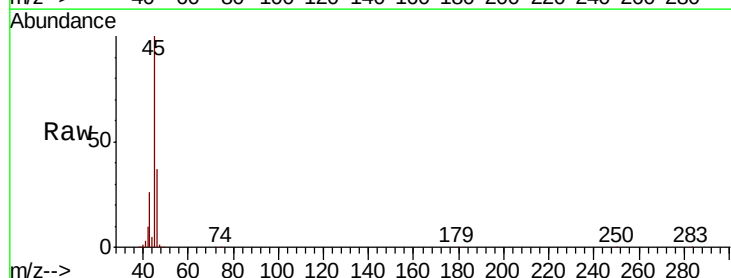
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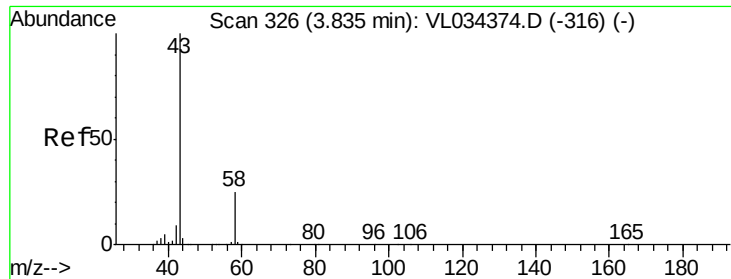
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#13
Ethanol
Concen: 46.292 ppbv
RT: 3.59 min Scan# 249
Delta R.T. 0.00 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Tgt Ion	Ratio	Lower	Upper
45	100		
46	37.5	13.8	55.4





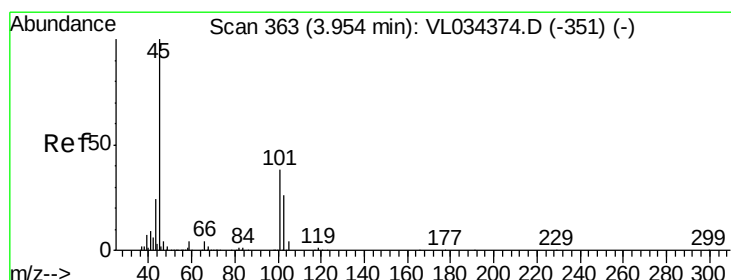
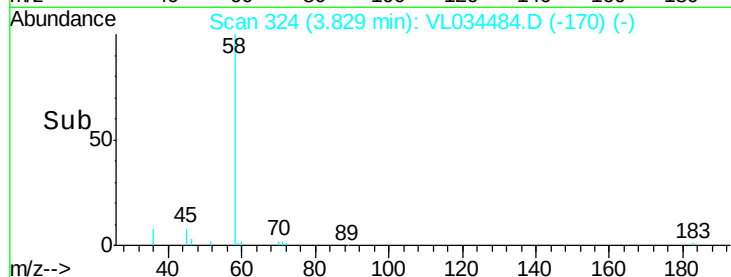
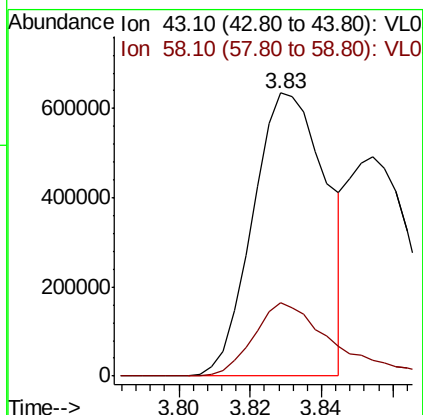
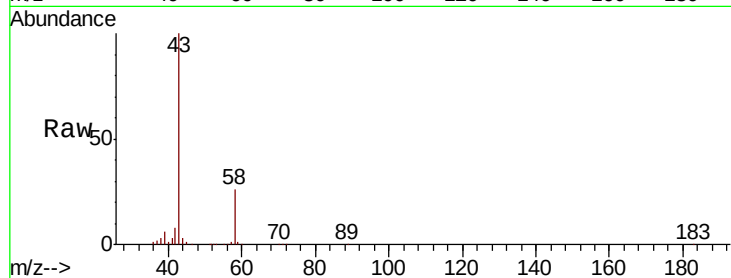
#15
Acetone
Concen: 7.690 ppbv
RT: 3.83 min Scan# 324
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Instrument :
MSVOA_L
ClientSampled :
1A-3

Tot Ion: 43 Resp: 904240
Ion Ratio Lower Upper
43 100
58 28.4 20.2 30.4

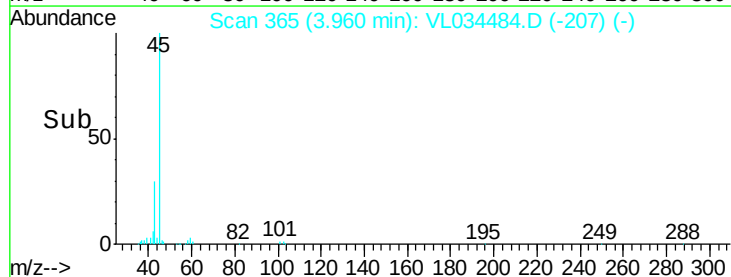
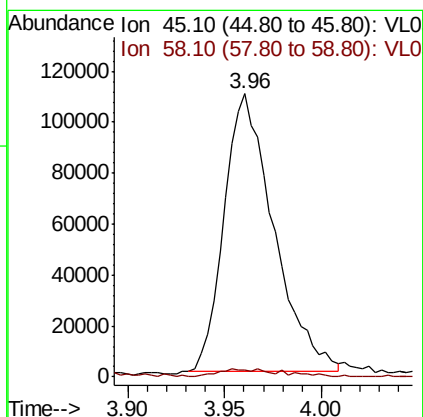
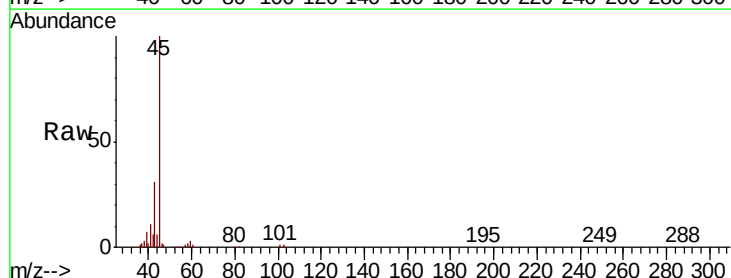
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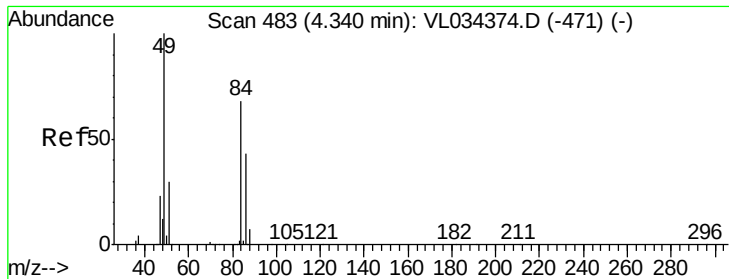
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#19
Isopropyl Alcohol
Concen: 2.562 ppbv
RT: 3.96 min Scan# 365
Delta R.T. 0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Tgt Ion: 45 Resp: 193096
Ion Ratio Lower Upper
45 100
58 4.3 1.3 1.9#





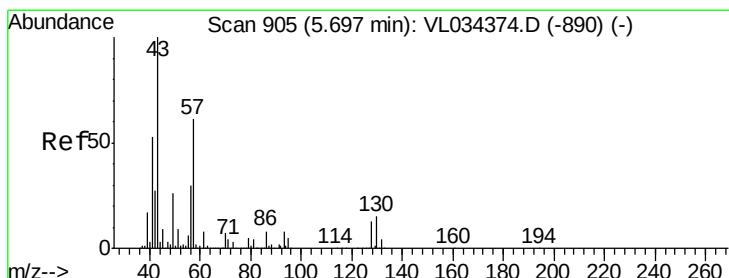
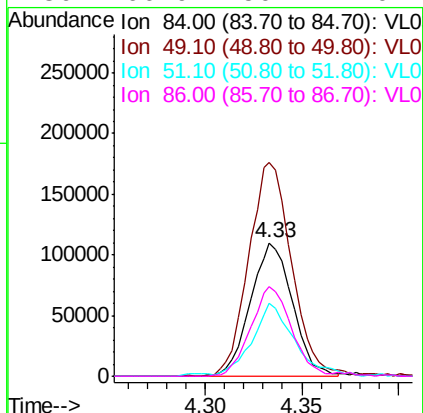
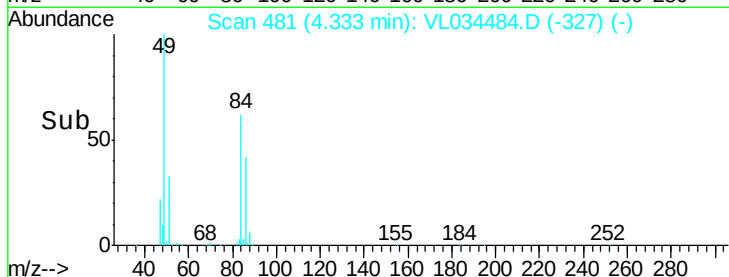
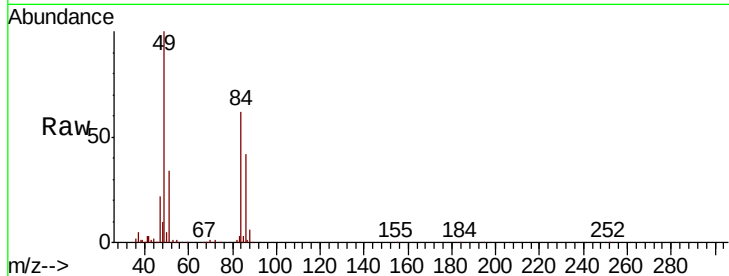
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Methylene Chloride
Concen: 3.981 ppbv
RT: 4.33 min Scan# 481
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Instrument :
MSVOA_L
ClientSampled :
1A-3

Tot Ion:	84	Resp:	166007
Ion	Ratio	Lower	Upper
84	100		
49	159.7	116.8	175.2
51	52.6	35.6	53.4
86	66.9	50.7	76.1

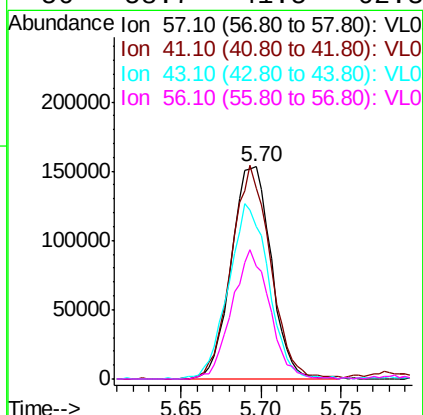
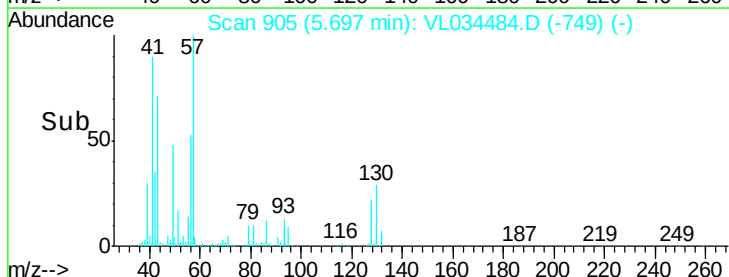
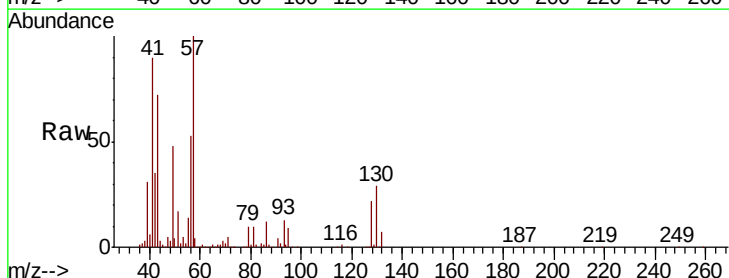
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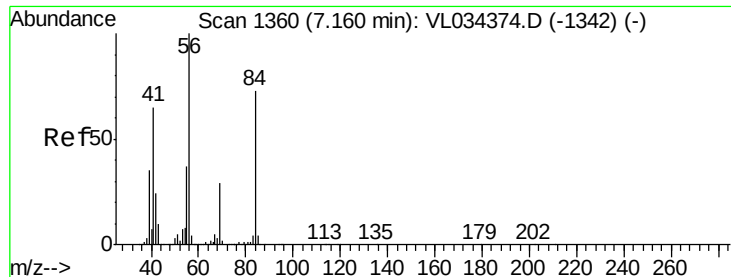
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#26
Hexane
Concen: 2.859 ppbv
RT: 5.70 min Scan# 905
Delta R.T. 0.00 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Tgt Ion:	57	Resp:	257741
Ion	Ratio	Lower	Upper
57	100		
41	99.8	75.0	112.4
43	84.2	186.6	279.8
56	58.7	41.5	62.3





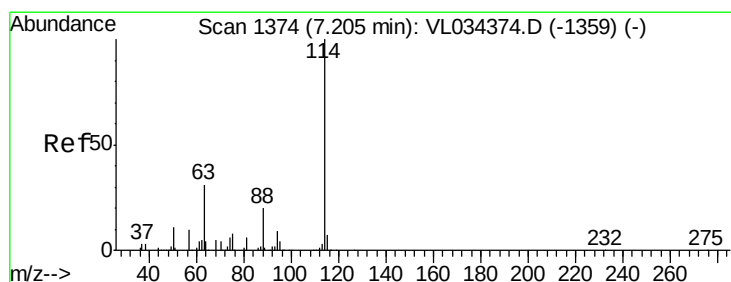
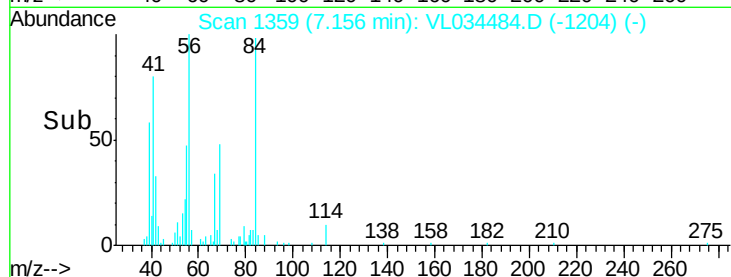
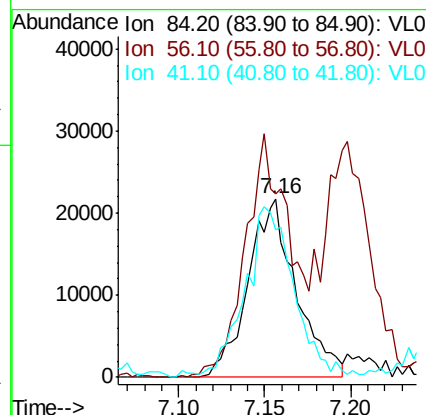
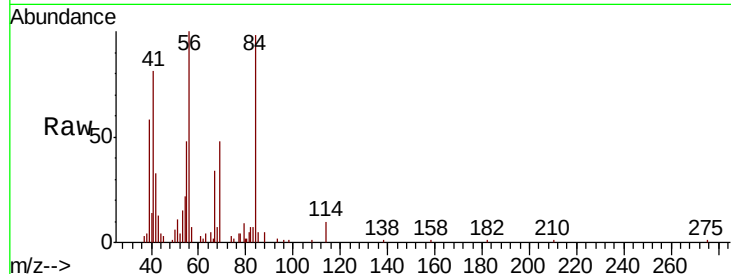
#30
Cyclohexane
Concen: 0.618 ppbv
RT: 7.16 min Scan# 1359
Delta R.T. -0.00 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Instrument :
MSVOA_L
ClientSampled :
1A-3

Tot Ion	Ratio	Lower	Upper
84	100		
56	115.4	112.6	169.0
41	93.0	73.4	110.2

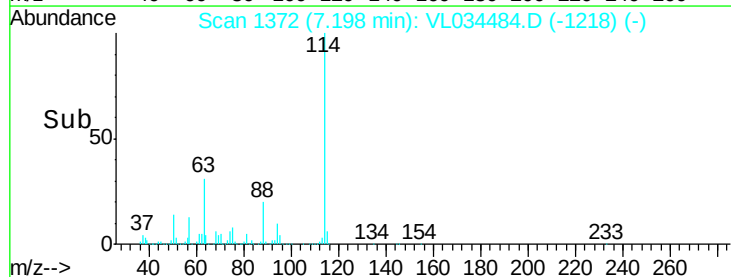
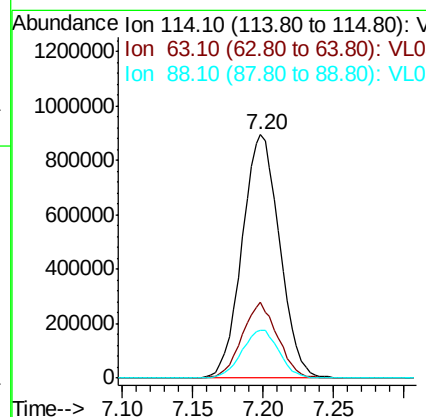
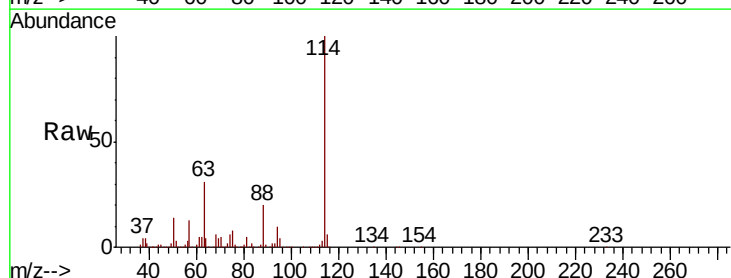
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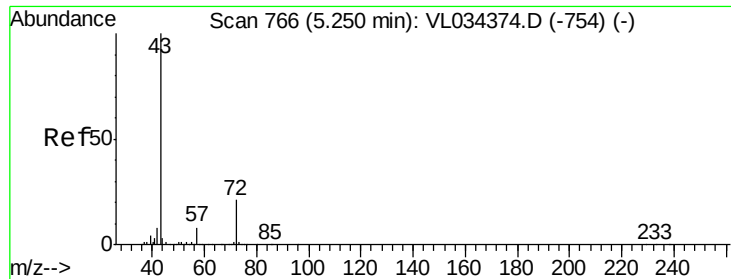
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.20 min Scan# 1372
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Tgt Ion	Ratio	Lower	Upper
114	100		
63	29.5	24.2	36.4
88	19.6	15.9	23.9





#34

2-Butanone

Concen: 1.302 ppbv

RT: 5.25 min Scan# 766

Delta R.T. 0.00 min

Lab File: VL034484.D

Acq: 10 Dec 2019 4:07

Instrument :

MSVOA_L

ClientSampled :

1A-3

Tot Ion: 43 Resp: 178896

Ion Ratio Lower Upper

43 100

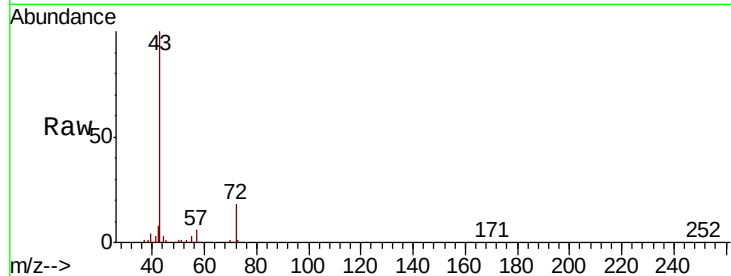
72 20.2 17.0 25.6

Manual Integrations

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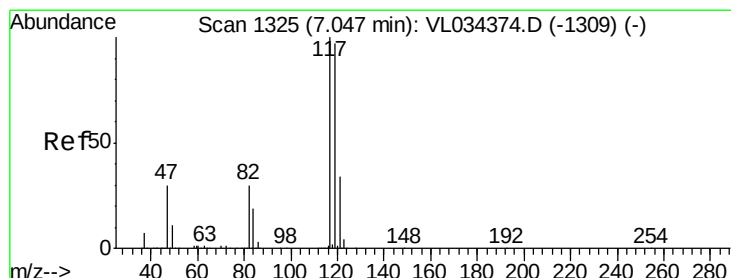
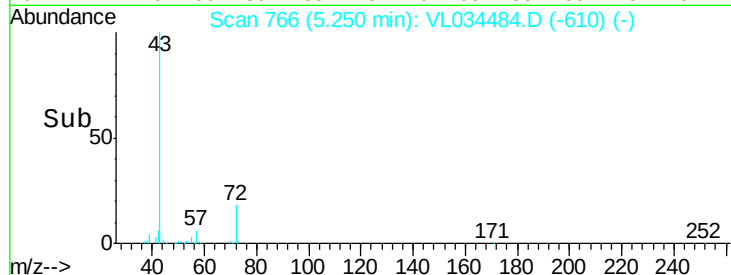
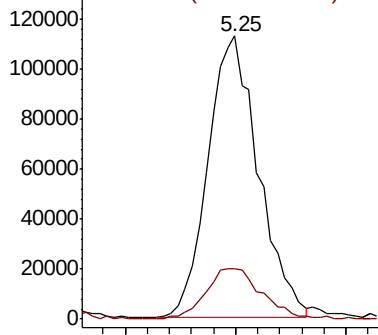
apatel

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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#35

Carbon Tetrachloride

Concen: 0.068 ppbv m

RT: 7.04 min Scan# 1324

Delta R.T. -0.00 min

Lab File: VL034484.D

Acq: 10 Dec 2019 4:07

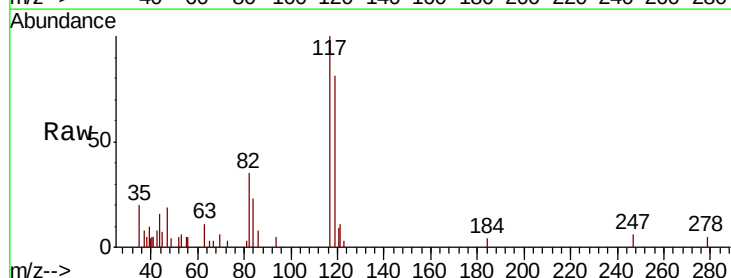
Tgt Ion: 117 Resp: 9711

Ion Ratio Lower Upper

117 100

119 81.2 77.3 115.9

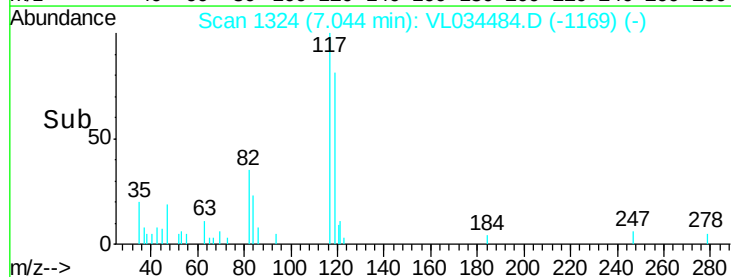
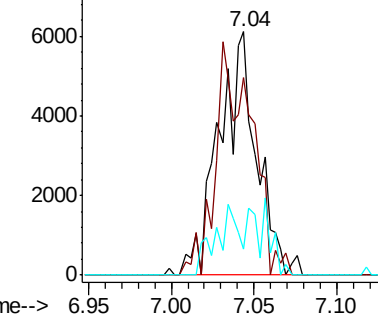
121 10.9 27.4 41.2#

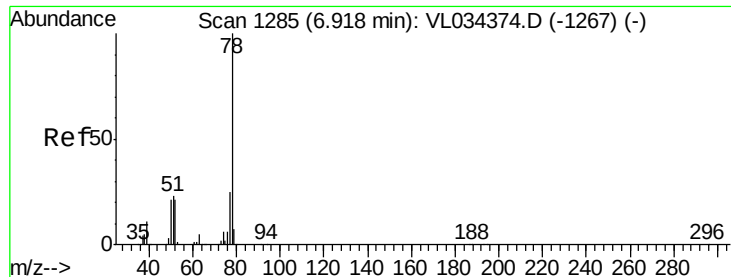


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





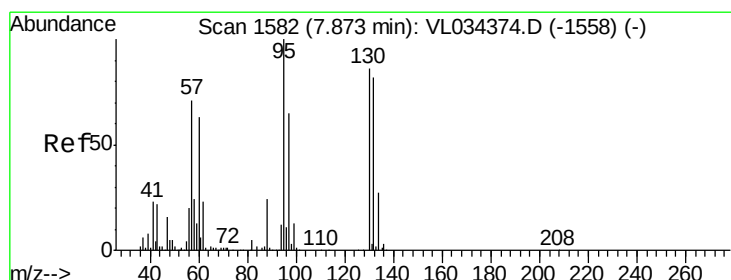
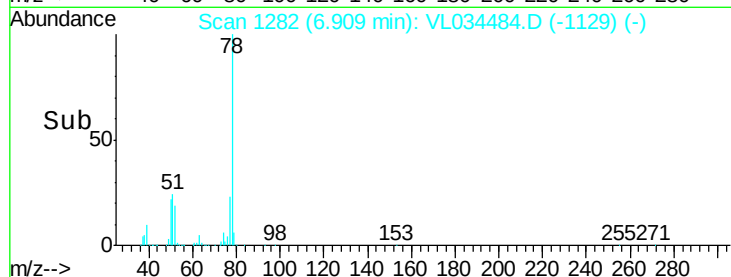
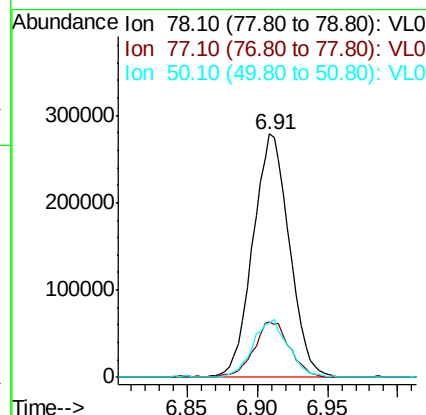
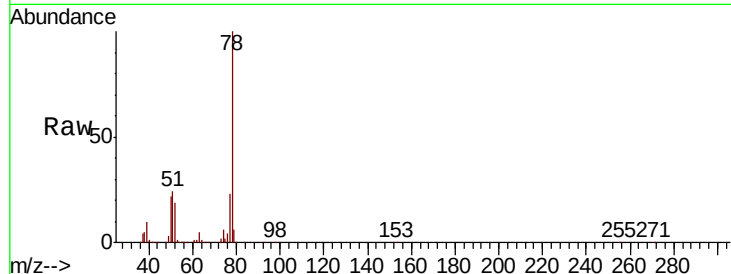
#36
Benzene
Concen: 3.029 ppbv
RT: 6.91 min Scan# 1282
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Instrument :
MSVOA_L
ClientSampled :
1A-3

Tot Ion	Ratio	Lower	Upper
78	100		
77	22.5	20.2	30.4
50	22.4	17.1	25.7

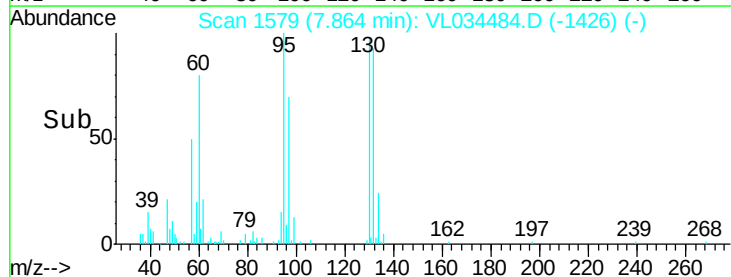
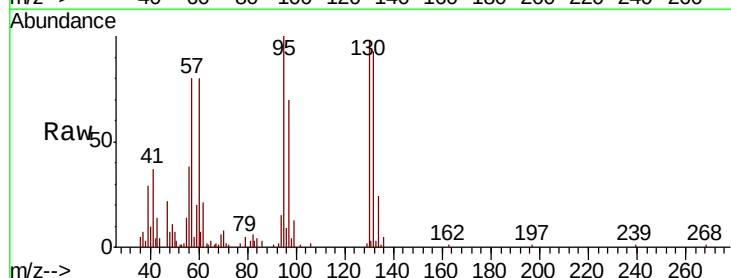
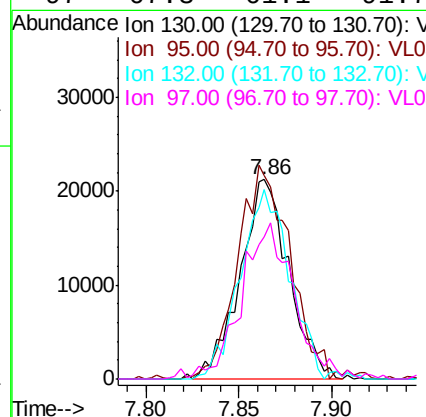
Manual Integrations
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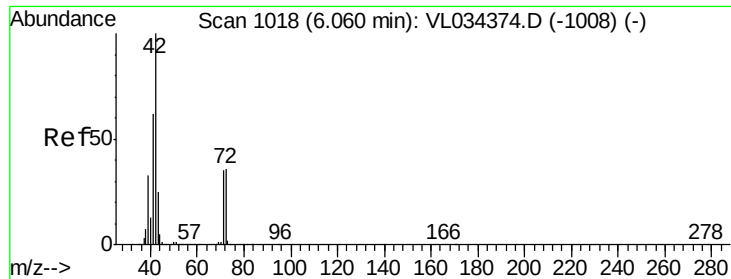
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#38
Trichloroethene
Concen: 0.569 ppbv
RT: 7.86 min Scan# 1579
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Tgt Ion	Ratio	Lower	Upper
130	100		
95	97.8	93.4	140.0
132	91.7	76.4	114.6
97	67.3	61.1	91.7





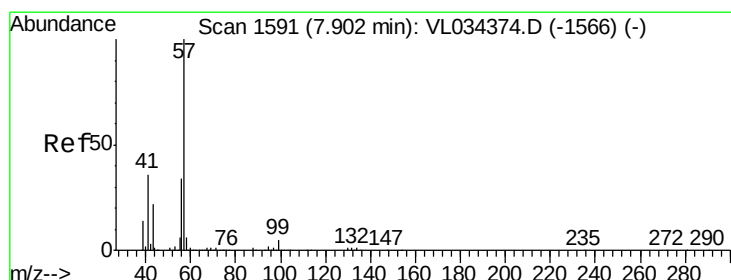
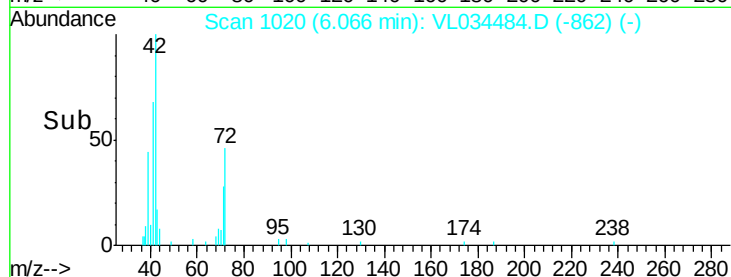
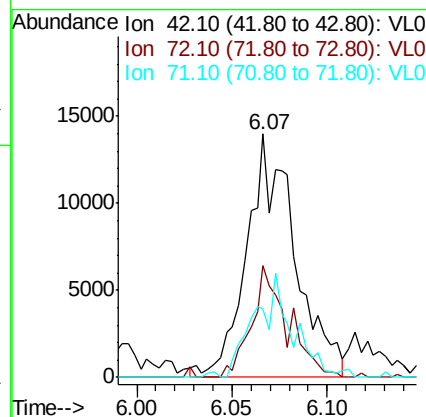
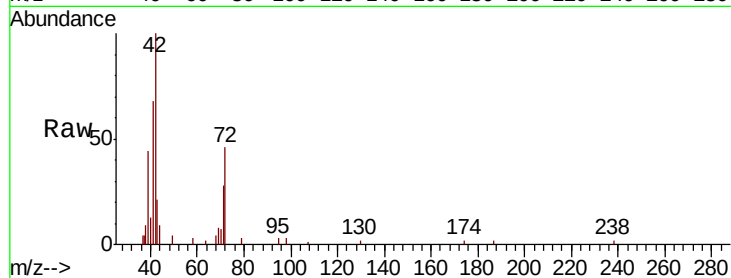
#41
Tetrahydrofuran
Concen: 0.321 ppbv m
RT: 6.07 min Scan# 1020
Delta R.T. 0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Instrument :
MSVOA_L
ClientSampled :
1A-3

Tot Ion	Ratio	Lower	Upper
42	100		
72	34.8	30.2	45.4
71	0.0	29.4	44.2#

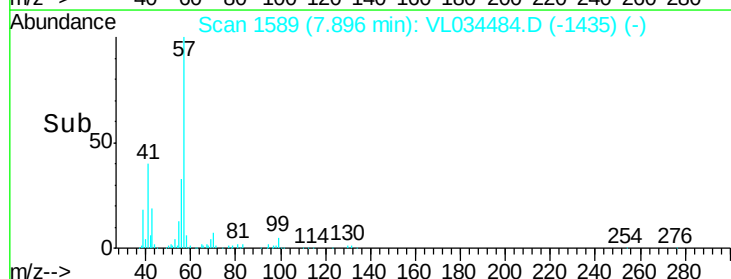
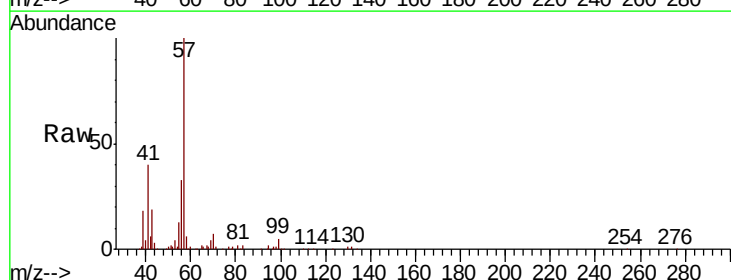
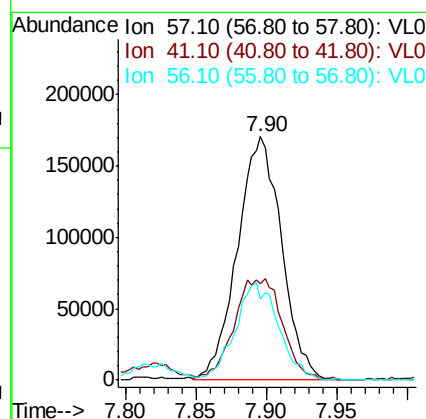
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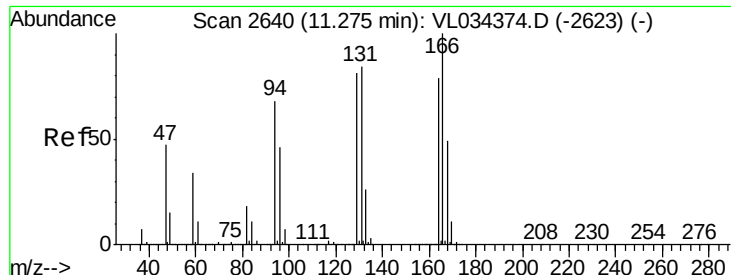
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#44
2,2,4-Trimethylpentane
Concen: 1.221 ppbv
RT: 7.90 min Scan# 1589
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Tgt Ion	Ratio	Lower	Upper
57	100		
41	45.0	28.6	42.8#
56	39.6	25.3	37.9#





#52

Tetrachloroethene

Concen: 0.195 ppbv m

RT: 11.27 min Scan# 2637

Delta R.T. -0.01 min

Lab File: VL034484.D

Acq: 10 Dec 2019 4:07

Instrument :

MSVOA_L

ClientSampled :

1A-3

Tot Ion:164 Resp: 14042

Ion Ratio Lower Upper

164 100

166 102.8 101.7 152.5

129 107.6 82.6 123.8

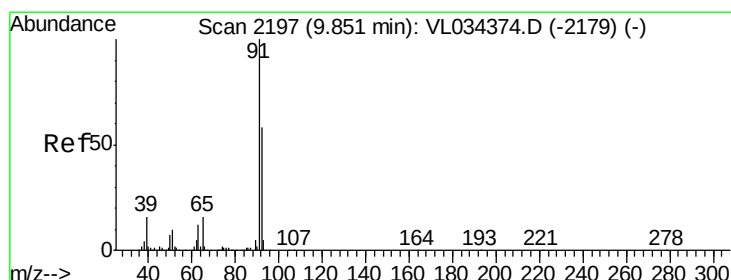
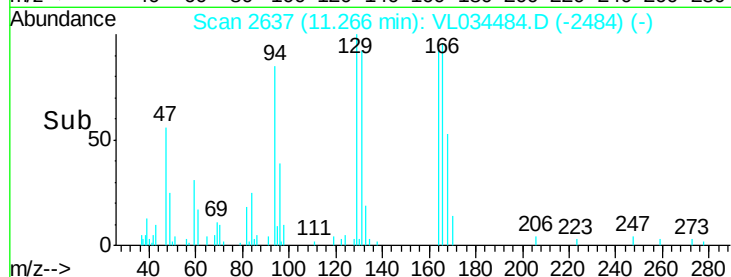
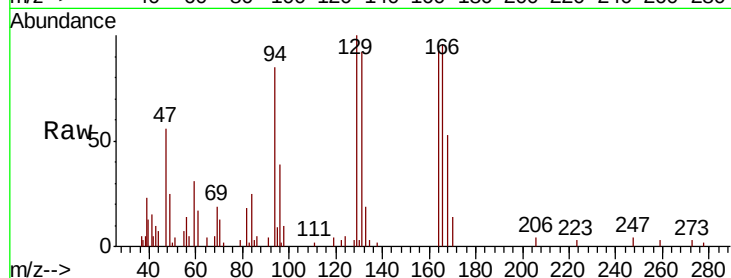
131 99.1 85.2 127.8

Manual Integrations

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#53

Toluene

Concen: 6.264 ppbv

RT: 9.84 min Scan# 2195

Delta R.T. -0.01 min

Lab File: VL034484.D

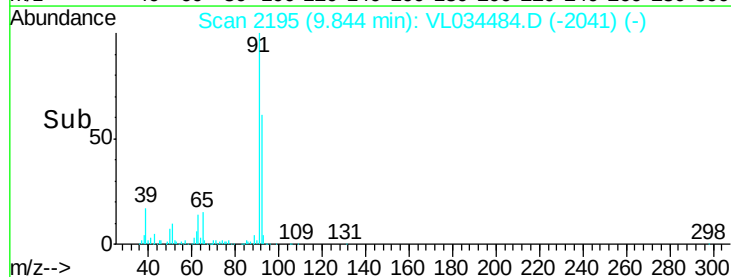
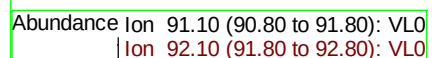
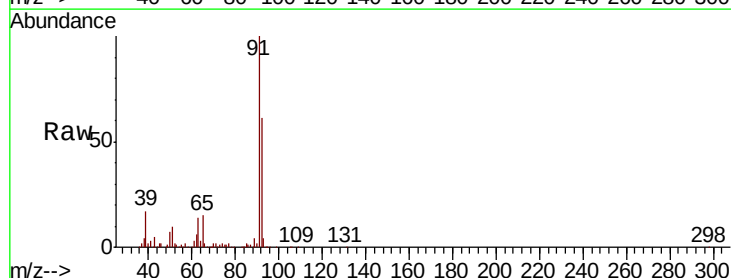
Acq: 10 Dec 2019 4:07

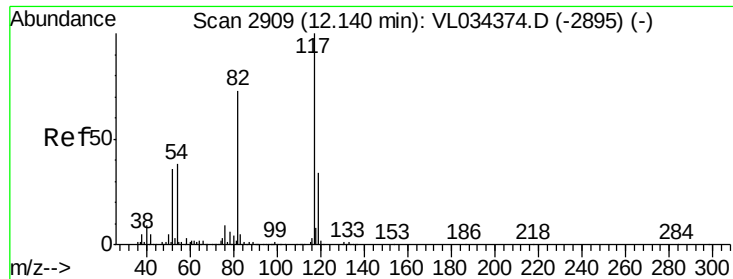
Tgt Ion: 91 Resp: 1186955

Ion Ratio Lower Upper

91 100

92 59.2 47.9 71.9





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.13 min Scan# 2907

Delta R.T. -0.01 min

Lab File: VL034484.D

Acq: 10 Dec 2019 4:07

Instrument :

MSVOA_L

ClientSampleId :

1A-3

Tot Ion:117 Resp: 1691136

Ion Ratio Lower Upper

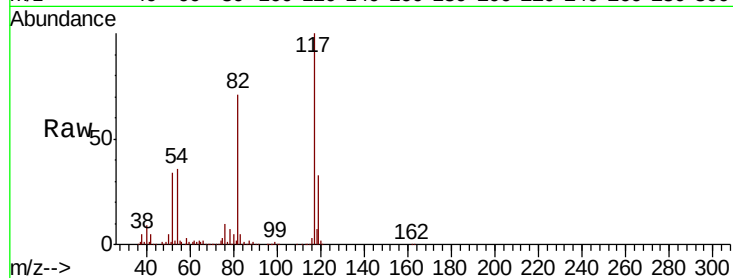
117 100

82 71.3 57.5 86.3

119 33.2 25.4 38.2

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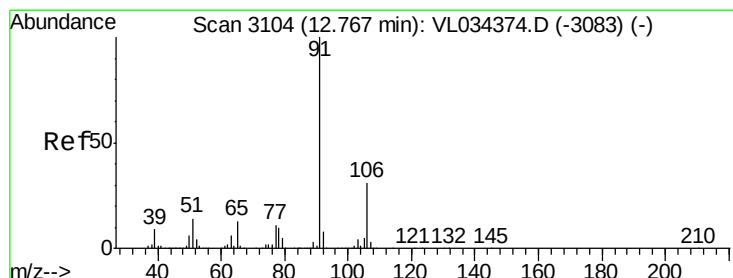
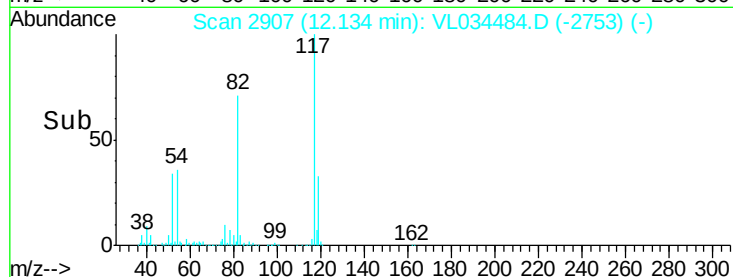
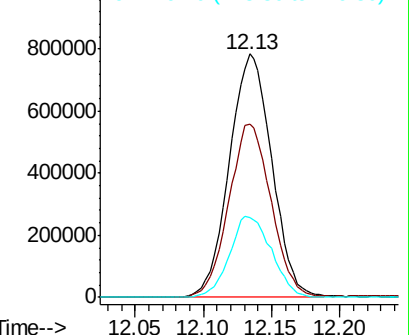
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Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 1.308 ppbv

RT: 12.76 min Scan# 3102

Delta R.T. -0.01 min

Lab File: VL034484.D

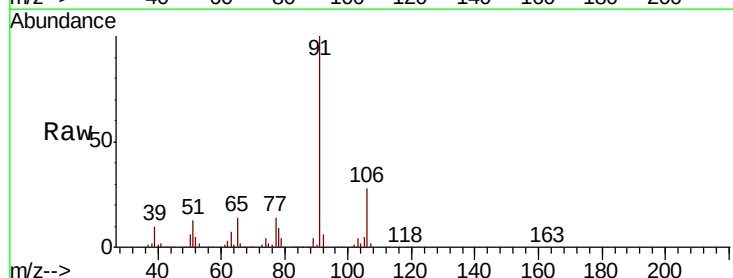
Acq: 10 Dec 2019 4:07

Tgt Ion: 91 Resp: 343316

Ion Ratio Lower Upper

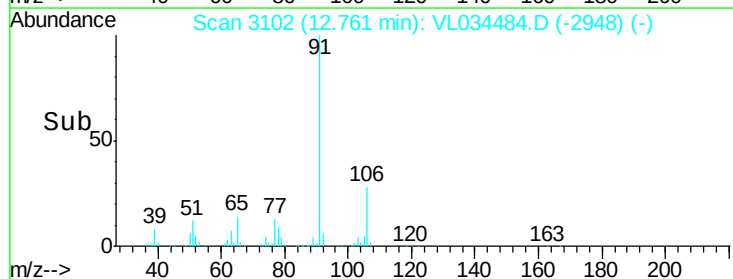
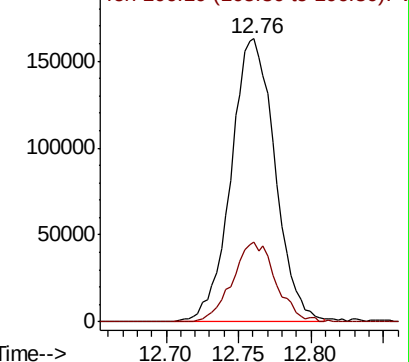
91 100

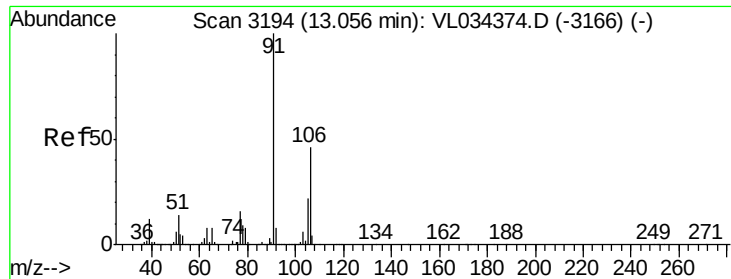
106 28.1 24.8 37.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





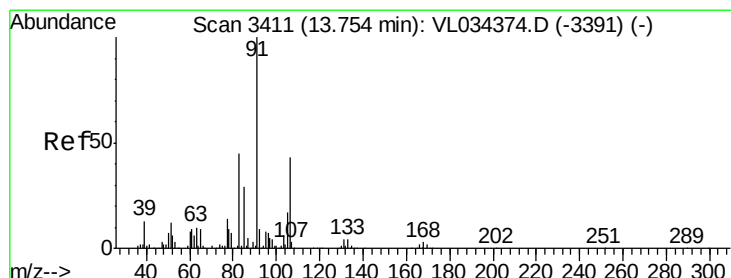
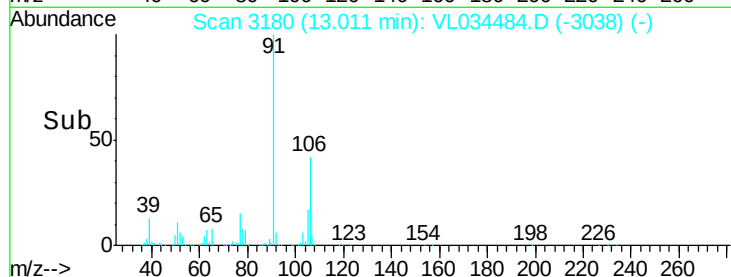
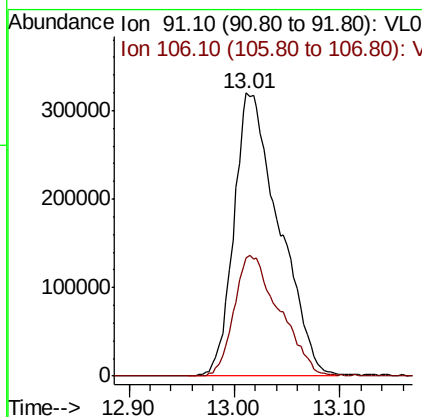
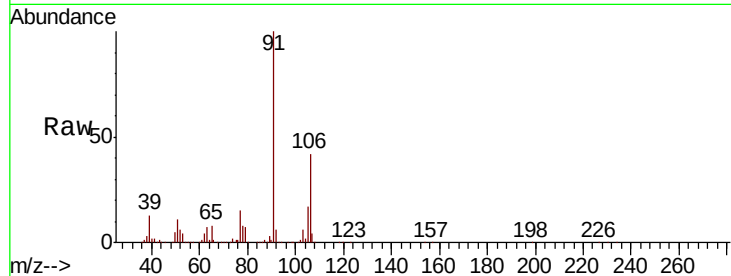
#59
m/p-Xylene
Concen: 4.202 ppbv
RT: 13.01 min Scan# 3180
Delta R.T. -0.05 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Instrument :
MSVOA_L
ClientSampled :
1A-3

Tot Ion: 91 Resp: 953243
Ion Ratio Lower Upper
91 100
106 42.9 34.6 51.8

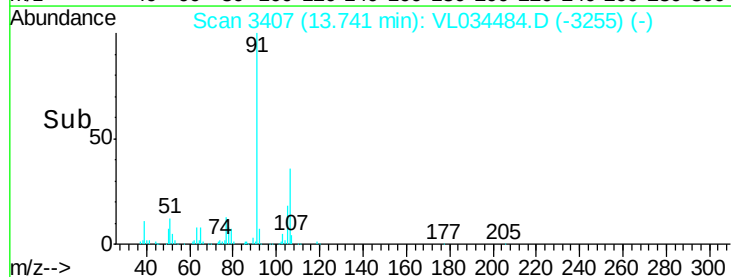
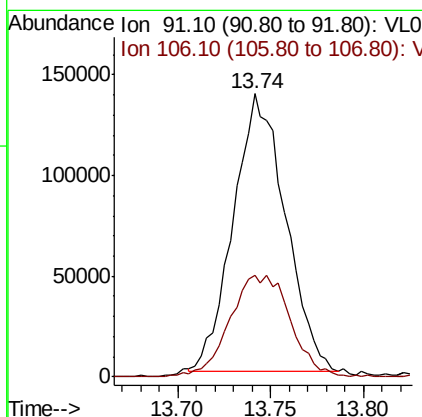
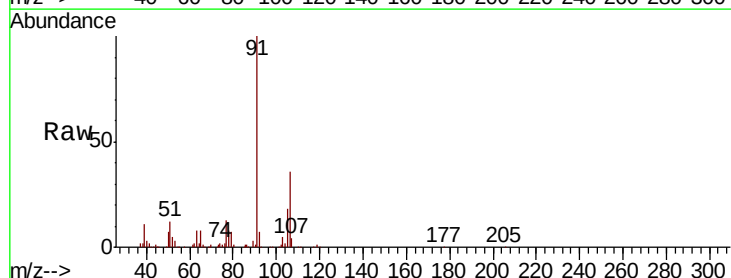
Manual Integrations
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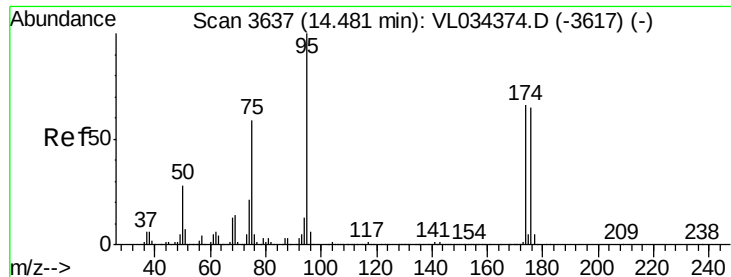
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#60
o-Xylene
Concen: 1.192 ppbv
RT: 13.74 min Scan# 3407
Delta R.T. -0.01 min
Lab File: VL034484.D
Acq: 10 Dec 2019 4:07

Tgt Ion: 91 Resp: 267435
Ion Ratio Lower Upper
91 100
106 42.7 21.3 64.0





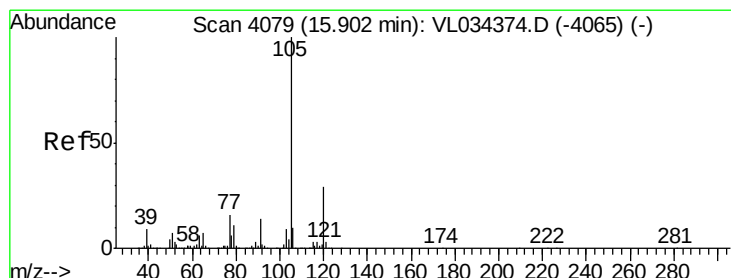
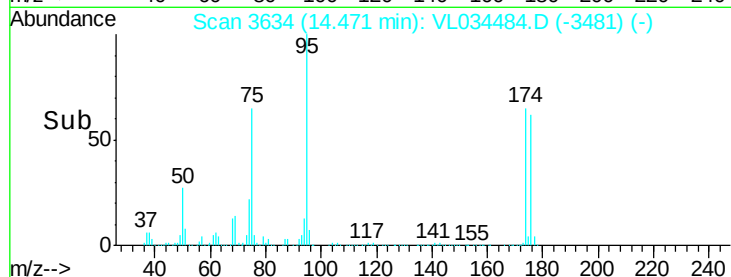
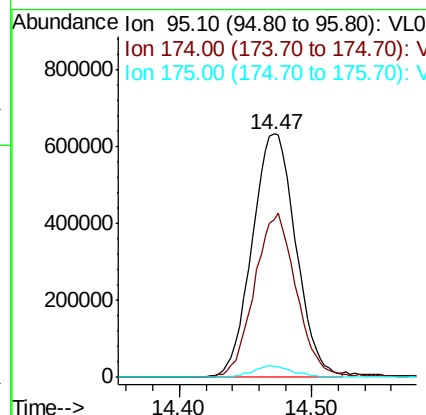
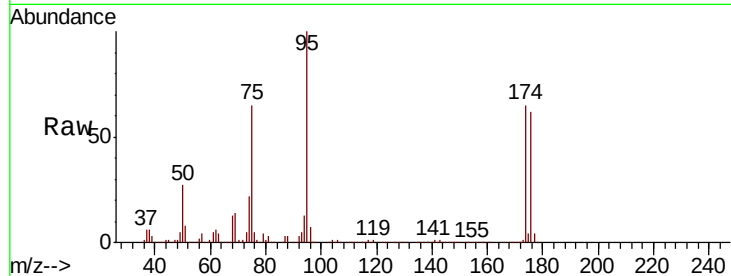
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.224 ppbv
 RT: 14.47 min Scan# 3634
 Delta R.T. -0.01 min
 Lab File: VL034484.D
 Acq: 10 Dec 2019 4:07

Instrument :
 MSVOA_L
 ClientSampleId :
 1A-3

Tot Ion: 95 Resp: 1454546
 Ion Ratio Lower Upper
 95 100
 174 65.2 52.2 78.2
 175 4.4 3.8 5.8

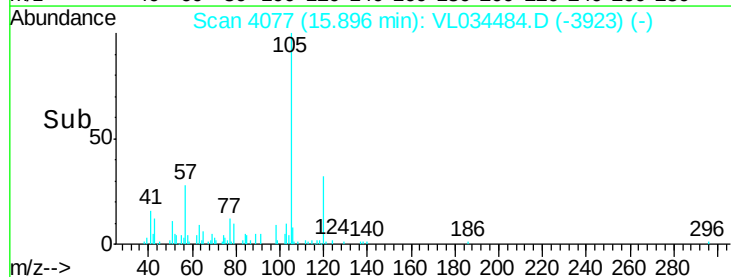
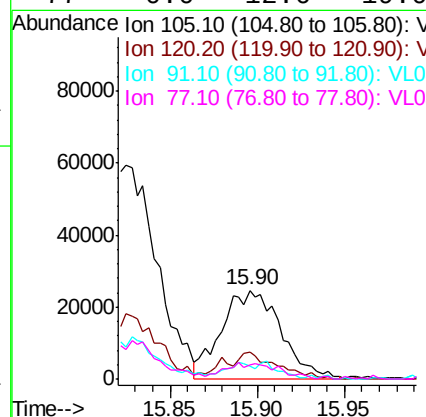
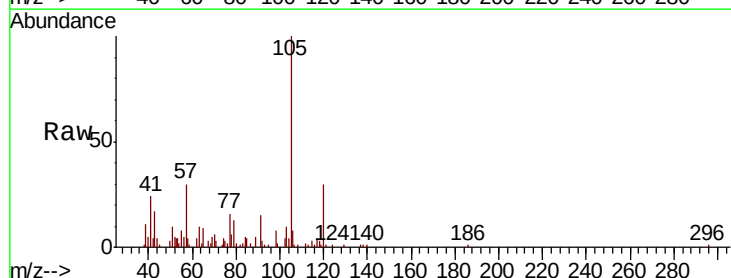
Manual Integrations
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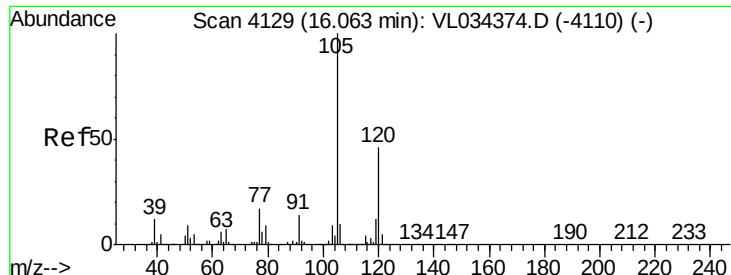
apatel
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#72
 4-Ethyltoluene
 Concen: 0.224 ppbv m
 RT: 15.90 min Scan# 4077
 Delta R.T. -0.01 min
 Lab File: VL034484.D
 Acq: 10 Dec 2019 4:07

Tgt Ion: 105 Resp: 58181
 Ion Ratio Lower Upper
 105 100
 120 26.5 23.5 35.3
 91 15.9 11.4 17.0
 77 0.0 12.6 19.0#





#73

1,3,5-Trimethylbenzene

Concen: 0.255 ppbv m

RT: 16.05 min Scan# 4126

Delta R.T. -0.01 min

Lab File: VL034484.D

Acq: 10 Dec 2019 4:07

Instrument :

MSVOA_L

ClientSampled :

1A-3

Tot Ion:105 Resp: 64812

Ion Ratio Lower Upper

105 100

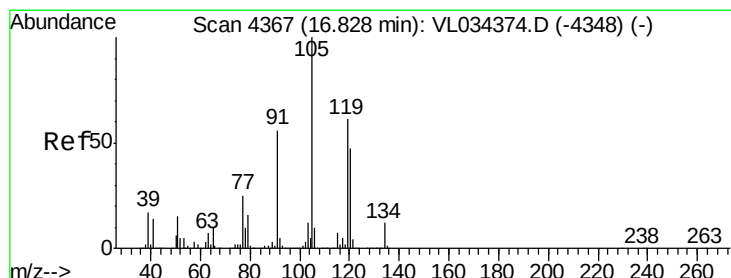
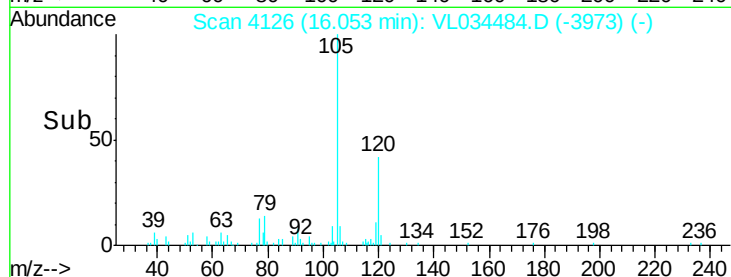
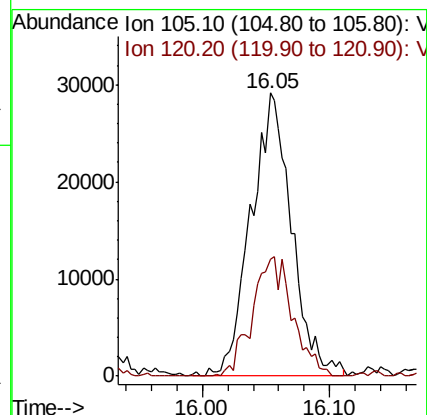
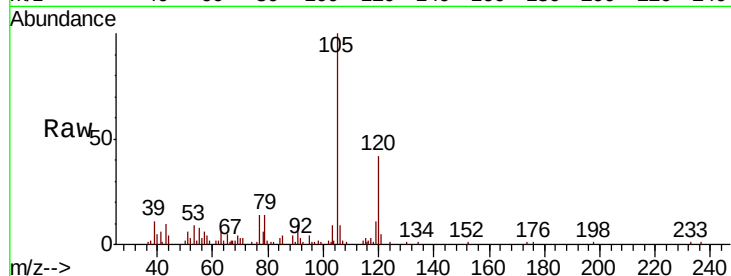
120 41.5 37.1 55.7

Manual Integrations

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#74

1,2,4-Trimethylbenzene

Concen: 0.817 ppbv m

RT: 16.82 min Scan# 4363

Delta R.T. -0.01 min

Lab File: VL034484.D

Acq: 10 Dec 2019 4:07

Tgt Ion:105 Resp: 220142

Ion Ratio Lower Upper

105 100

120 32.2 37.4 56.0#

91 14.6 46.3 69.5#

77 12.4 20.6 30.8#

