

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL022421\
 Data File : VL036373.D
 Acq On : 25 Feb 2021 6:06
 Operator : SY/AP
 Sample : M1463-12
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-4

Manual Integrations
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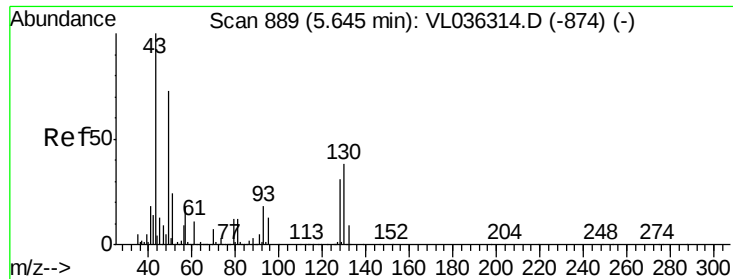
Quant Time: Feb 26 14:38:45 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL021021AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 10
 QLast Update : Wed Feb 10 16:04:02 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1630931	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.18	114	3563505	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.09	117	3305690	10.00	ppbv	0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2596687	9.55	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	45253	0.186	ppbv	89
3) Chlorodifluoromethane	2.98	51	86711	0.428	ppbv #	85
4) Chloromethane	3.14	50	62015	0.633	ppbv #	82
9) Propene	3.01	41	84729	1.121	ppbv	87
10) Heptane	8.12	43	217797	0.978	ppbv	96
11) Trichlorofluoromethane	3.95	101	46853	0.197	ppbv	88
13) Ethanol	3.62	45	4770150	336.136	ppbv	88
15) Acetone	3.85	43	2555490	12.818	ppbv	99
17) tert-Butyl alcohol	4.31	59	68873m	0.445	ppbv	
19) Isopropyl Alcohol	3.99	45	4877438	44.159	ppbv #	98
20) Methylene Chloride	4.34	84	2668461	41.488	ppbv	96
26) Hexane	5.69	57	935533	5.916	ppbv #	41
30) Cyclohexane	7.14	84	43460m	0.330	ppbv	
34) 2-Butanone	5.25	43	139480	0.589	ppbv	99
35) Carbon Tetrachloride	7.01	117	13792m	0.058	ppbv	
36) Benzene	6.89	78	146481	0.484	ppbv	94
44) 2,2,4-Trimethylpentane	7.87	57	1361411	2.473	ppbv #	88
52) Tetrachloroethene	11.22	164	6411m	0.058	ppbv	
53) Toluene	9.81	91	1850176	5.643	ppbv	100
58) Ethyl Benzene	12.72	91	460845	1.018	ppbv	97
59) m/p-Xylene	12.97	91	1204808	3.030	ppbv	97
60) o-Xylene	13.70	91	435232	1.145	ppbv	100
64) n-propylbenzene	15.56	120	37382	0.267	ppbv	75
72) 4-Ethyltoluene	15.84	105	143382m	0.339	ppbv	
73) 1,3,5-Trimethylbenzene	16.00	105	88699m	0.216	ppbv	
74) 1,2,4-Trimethylbenzene	16.76	105	424942m	1.015	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. 0.02 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Instrument :

MSVOA_L

ClientSampled :

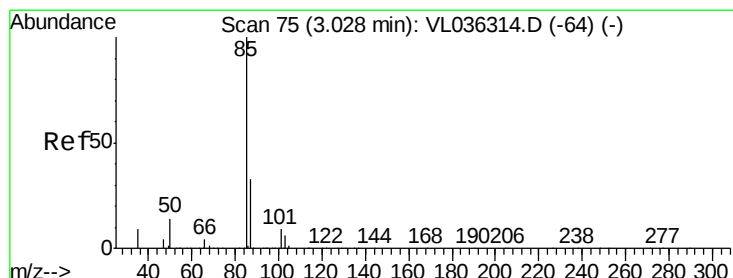
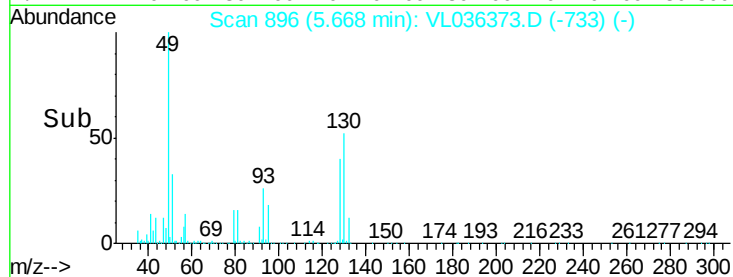
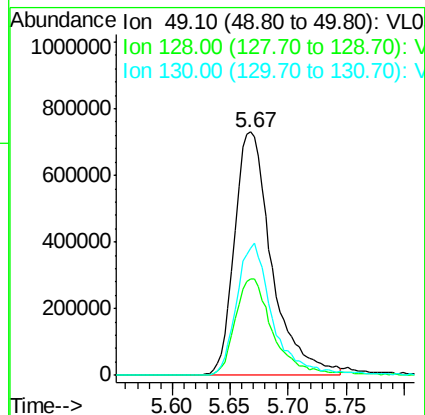
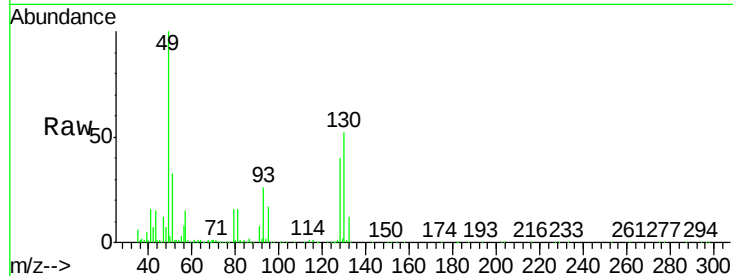
NS-4

Tot Ion: 49 Resp: 1630931

Ion	Ratio	Lower	Upper
49	100		
128	41.0	20.8	62.5
130	53.0	26.7	80.1

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#2

Dichlorodifluoromethane

Concen: 0.186 ppbv

RT: 3.04 min Scan# 80

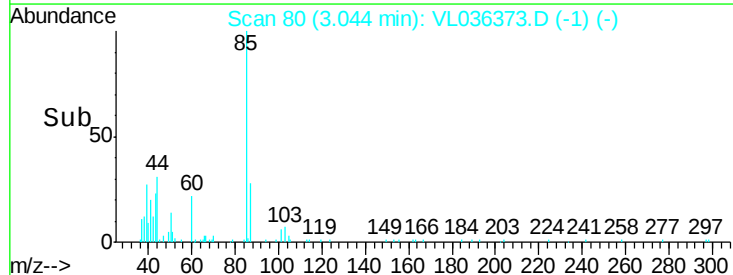
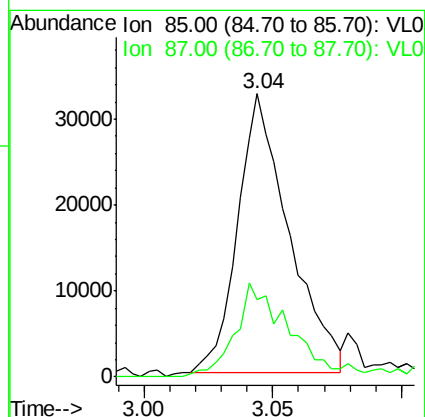
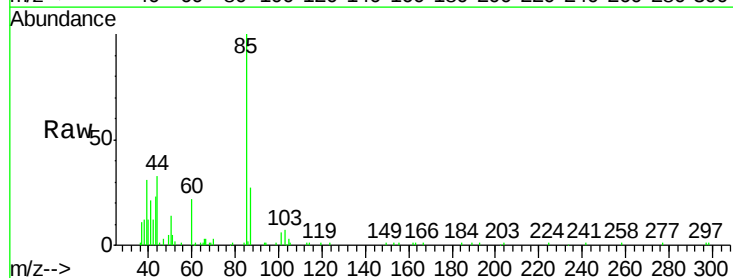
Delta R.T. 0.02 min

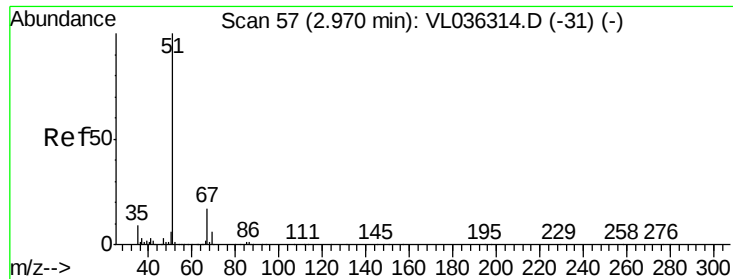
Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Tgt Ion: 85 Resp: 45253

Ion	Ratio	Lower	Upper
85	100		
87	26.8	26.5	39.7





#3

Chlorodifluoromethane

Concen: 0.428 ppbv

RT: 2.98 min Scan# 61

Delta R.T. 0.01 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Instrument :

MSVOA_L

ClientSampled :

NS-4

Tot Ion: 51 Resp: 86711

Ion Ratio Lower Upper

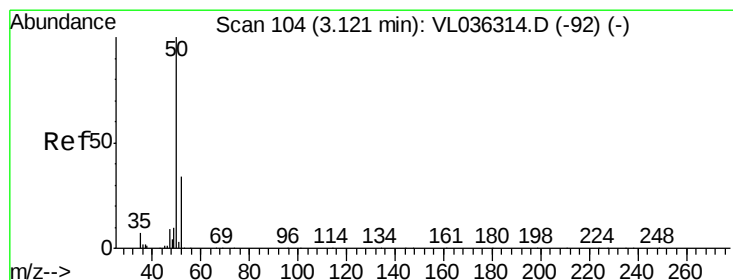
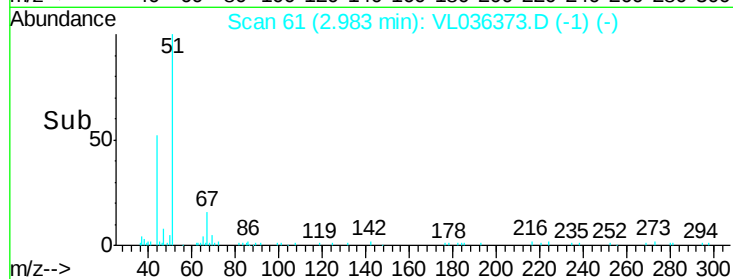
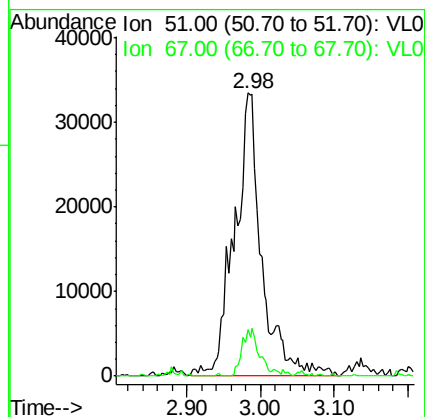
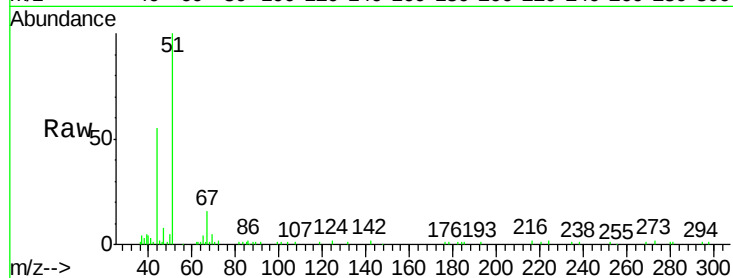
51 100

67 11.9 14.7 22.1#

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#4

Chloromethane

Concen: 0.633 ppbv

RT: 3.14 min Scan# 109

Delta R.T. 0.02 min

Lab File: VL036373.D

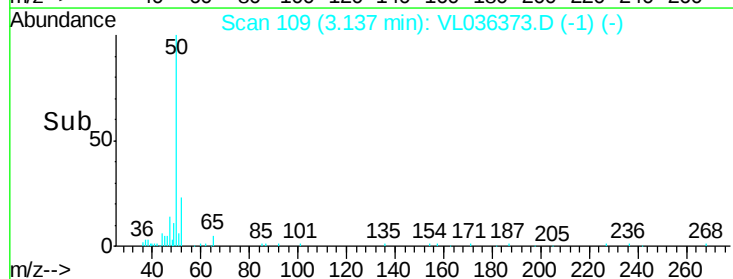
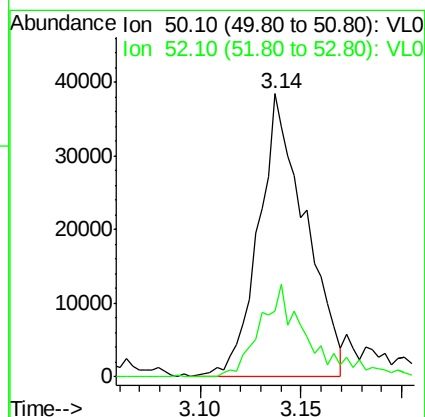
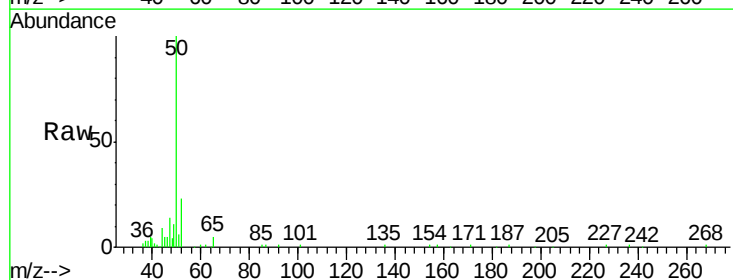
Acq: 25 Feb 2021 6:06

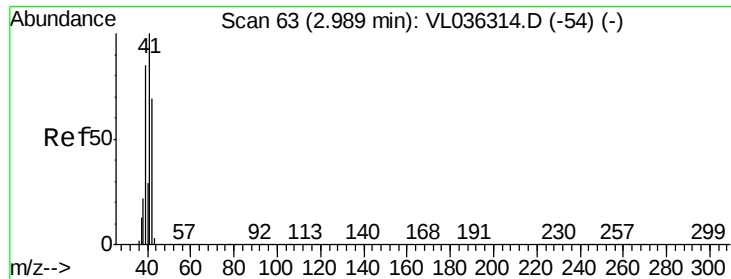
Tgt Ion: 50 Resp: 62015

Ion Ratio Lower Upper

50 100

52 23.5 27.0 40.4#





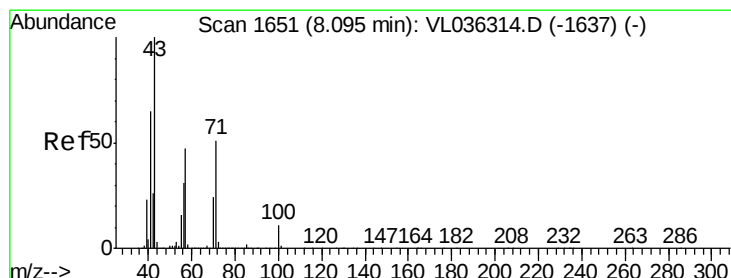
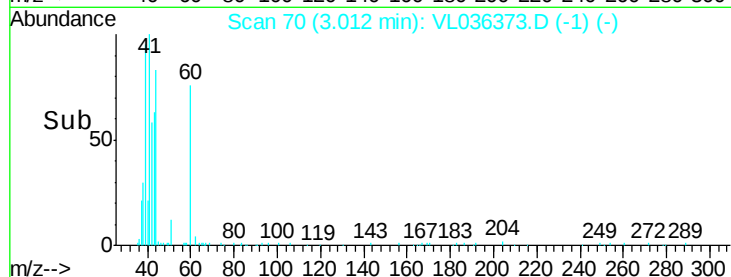
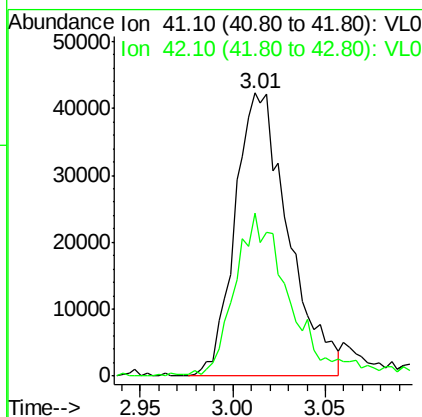
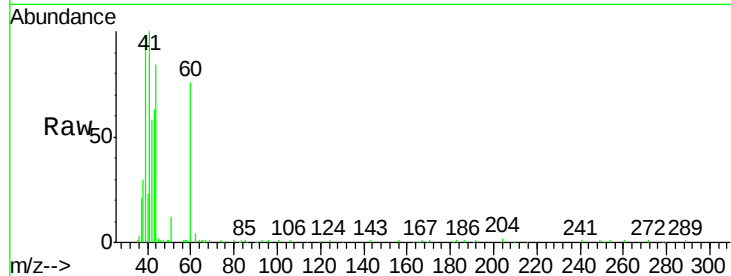
#9
 Propene
 Concen: 1.121 ppbv
 RT: 3.01 min Scan# 70
 Delta R.T. 0.02 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-4

Tot Ion: 41 Resp: 84729
 Ion Ratio Lower Upper
 41 100
 42 59.8 56.2 84.2

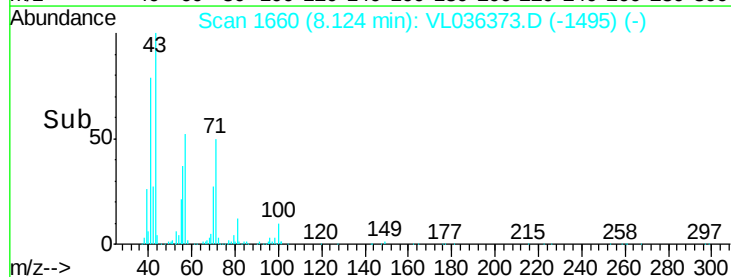
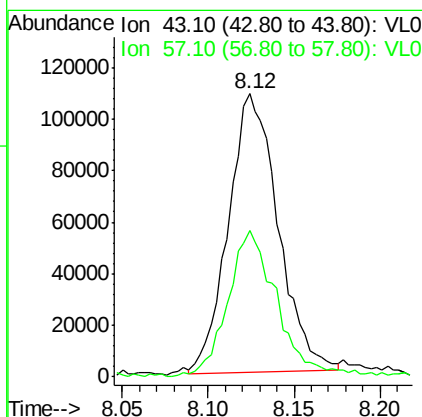
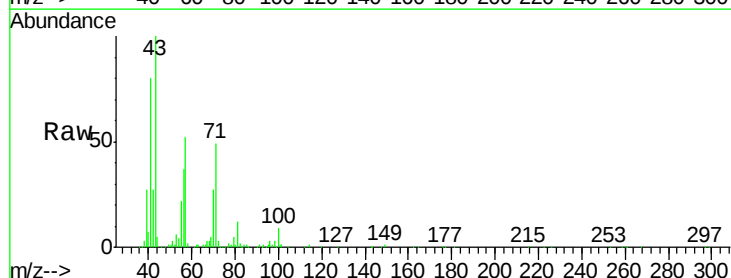
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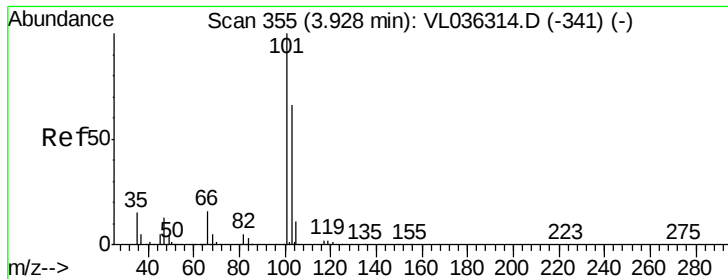
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#10
 Heptane
 Concen: 0.978 ppbv
 RT: 8.12 min Scan# 1660
 Delta R.T. 0.03 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Tgt Ion: 43 Resp: 217797
 Ion Ratio Lower Upper
 43 100
 57 52.0 39.4 59.2





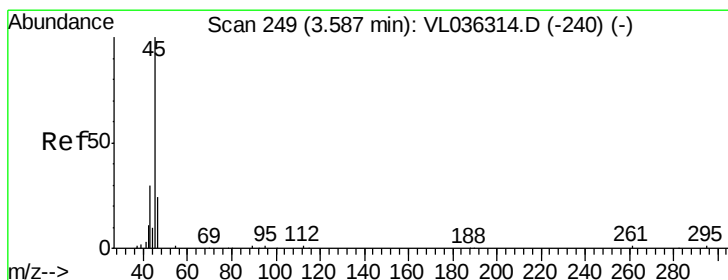
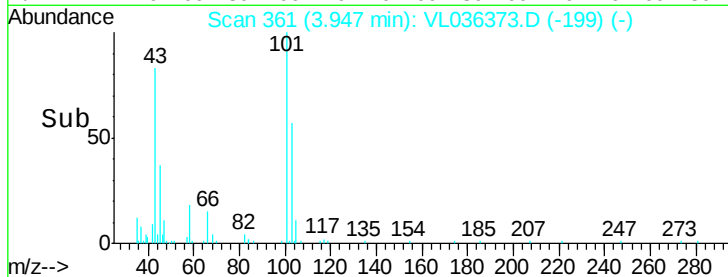
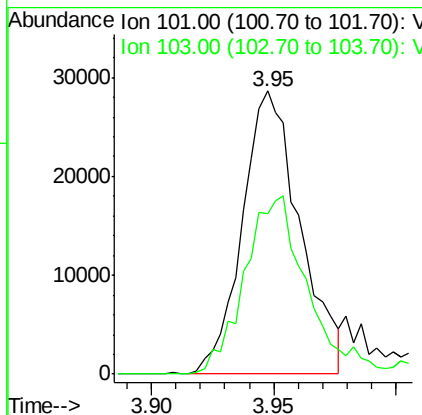
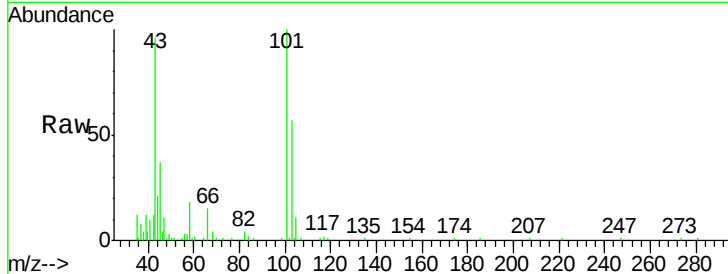
#11
 Trichlorofluoromethane
 Concen: 0.197 ppbv
 RT: 3.95 min Scan# 361
 Delta R.T. 0.02 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-4

Tot Ion	Ion	Ratio	Resp	Lower	Upper
101	100		46853		
103	56.8	52.9	79.3		

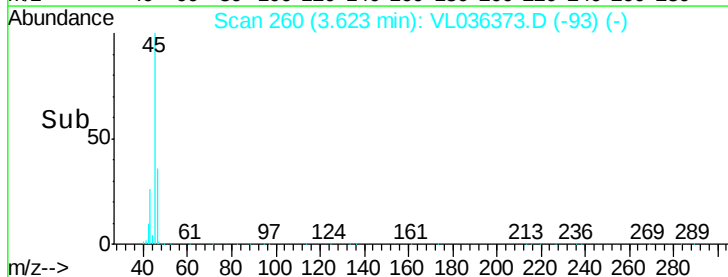
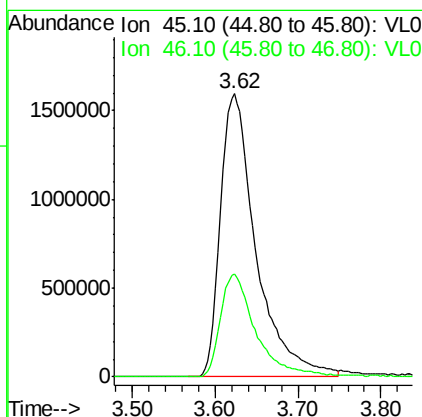
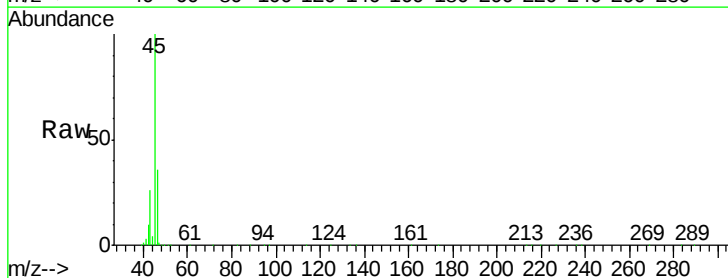
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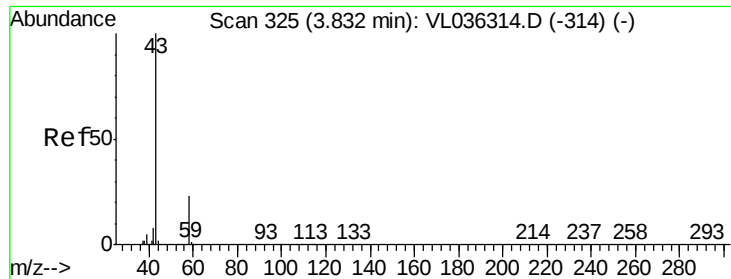
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#13
 Ethanol
 Concen: 336.136 ppbv
 RT: 3.62 min Scan# 260
 Delta R.T. 0.04 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
45	100		4770150		
46	36.3	17.7	70.7		





#15

Acetone

Concen: 12.818 ppbv

RT: 3.85 min Scan# 330

Delta R.T. 0.02 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Instrument :

MSVOA_L

ClientSampled :

NS-4

Tot Ion: 43 Resp: 2555490

Ion Ratio Lower Upper

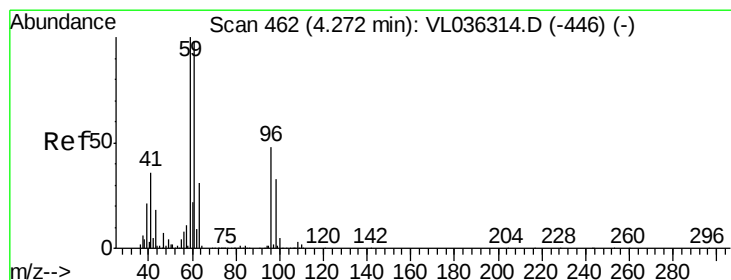
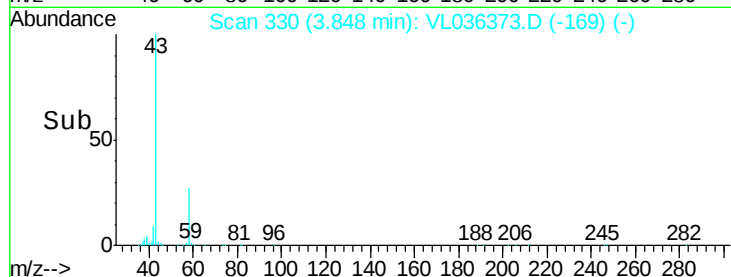
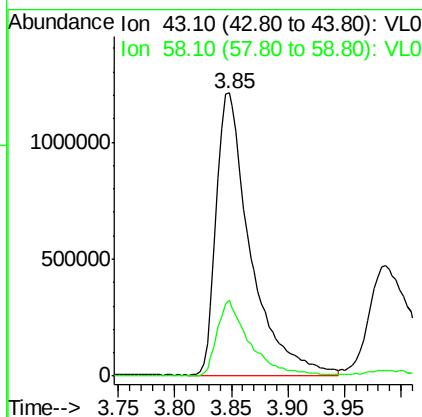
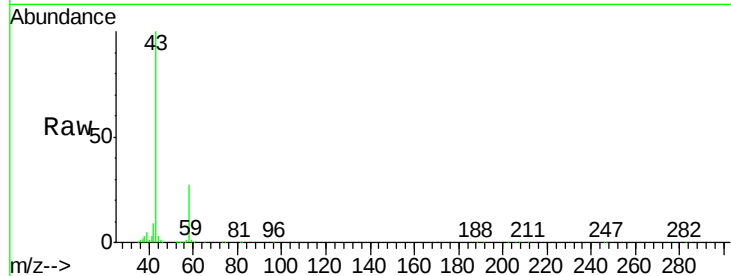
43 100

58 25.9 20.3 30.5

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#17

tert-Butyl alcohol

Concen: 0.445 ppbv m

RT: 4.31 min Scan# 475

Delta R.T. 0.04 min

Lab File: VL036373.D

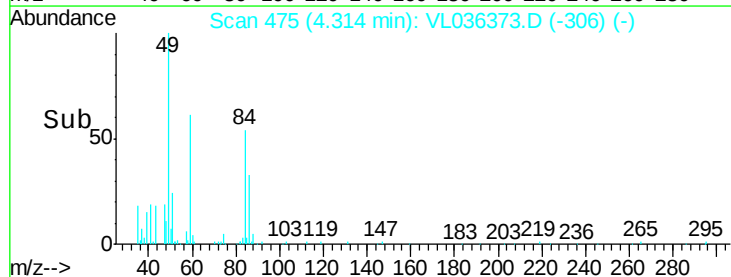
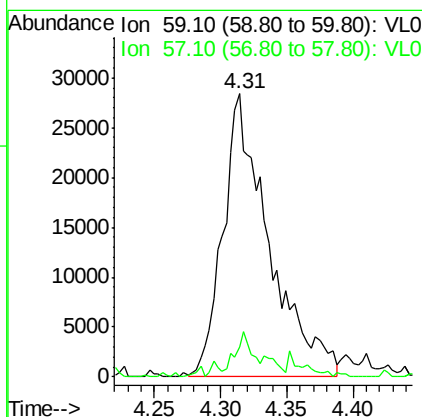
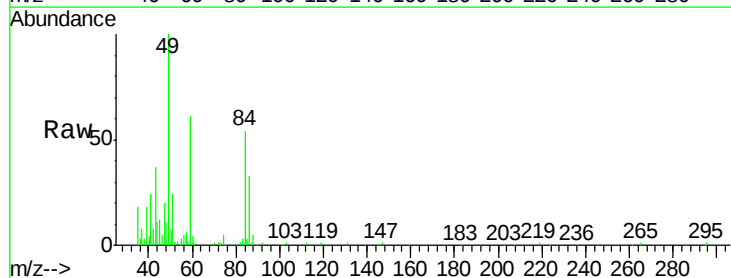
Acq: 25 Feb 2021 6:06

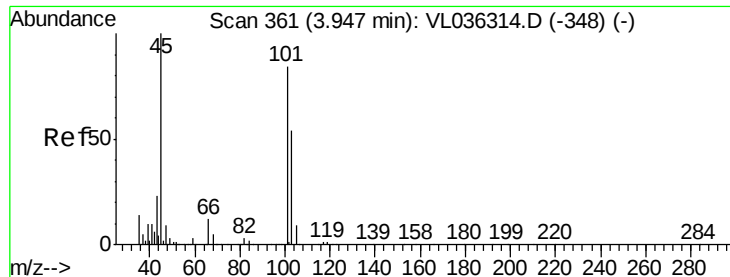
Tgt Ion: 59 Resp: 68873

Ion Ratio Lower Upper

59 100

57 25.3 9.0 13.4#





#19

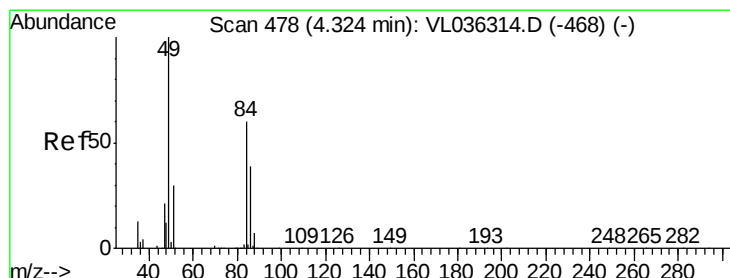
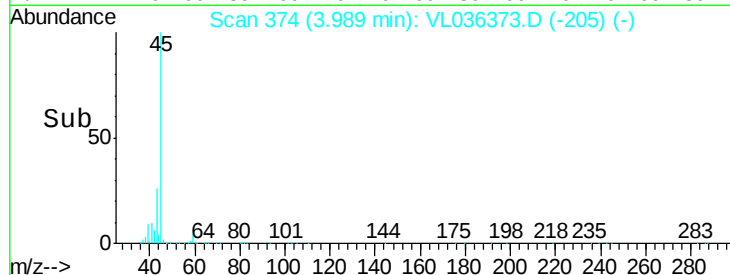
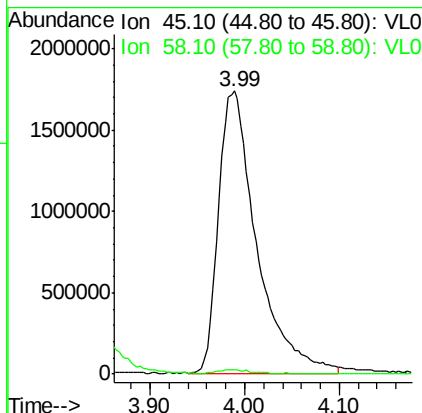
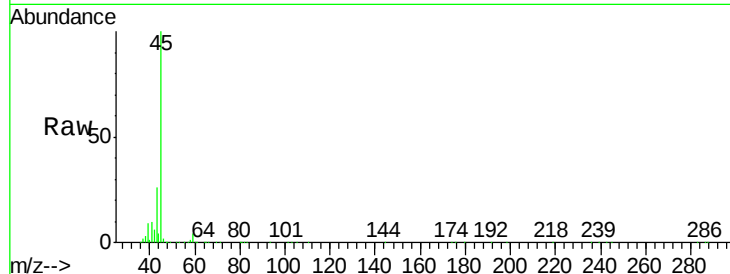
Isopropyl Alcohol
 Concen: 44.159 ppbv
 RT: 3.99 min Scan# 374
 Delta R.T. 0.04 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-4

Tot Ion: 45 Resp: 4877438
 Ion Ratio Lower Upper
 45 100
 58 1.7 1.9 2.9#

Manual Integrations
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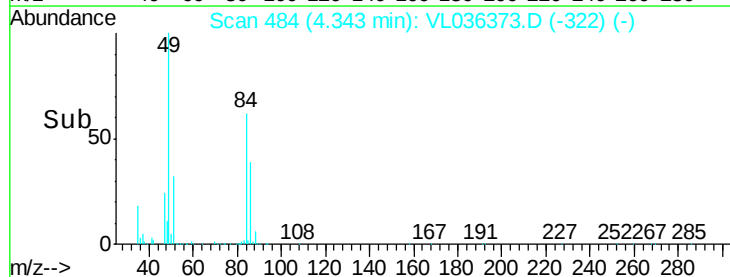
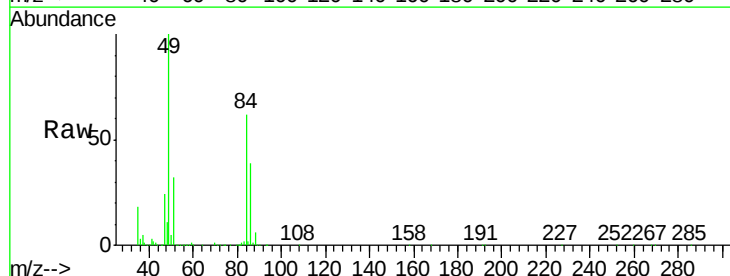
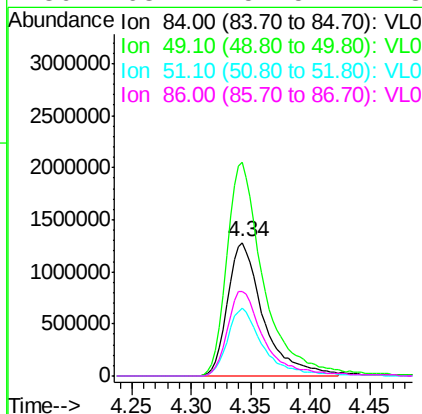
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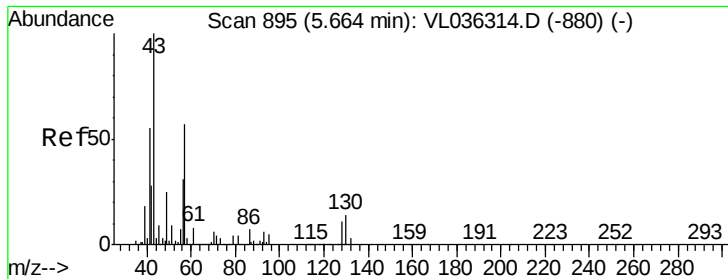


#20

Methylene Chloride
 Concen: 41.488 ppbv
 RT: 4.34 min Scan# 484
 Delta R.T. 0.02 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Tgt Ion: 84 Resp: 2668461
 Ion Ratio Lower Upper
 84 100
 49 160.1 133.8 200.8
 51 51.1 41.4 62.0
 86 63.1 51.5 77.3





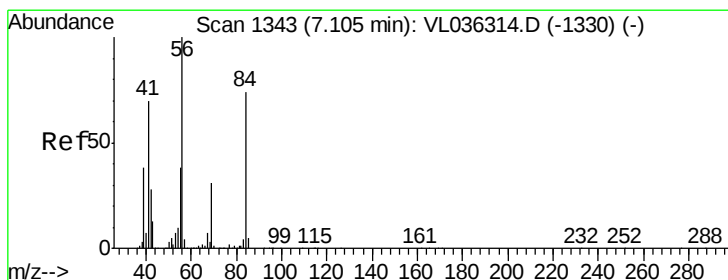
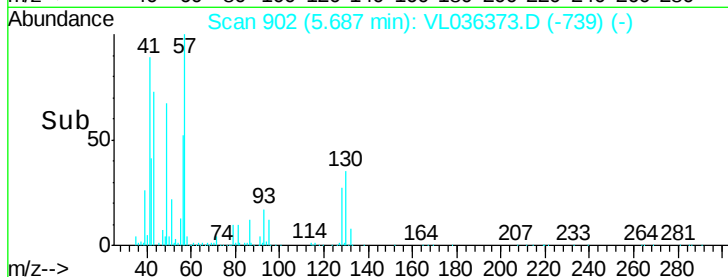
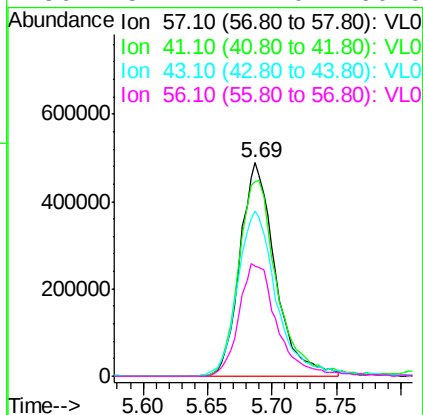
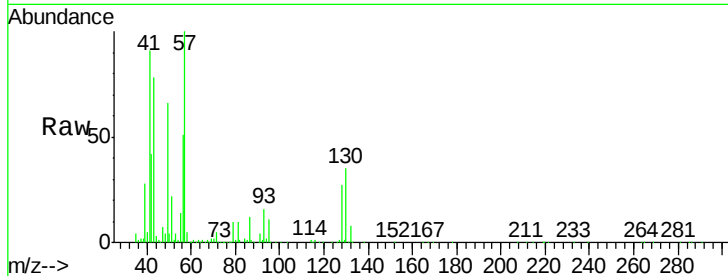
#26
Hexane
Concen: 5.916 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.02 min
Lab File: VL036373.D
Acq: 25 Feb 2021 6:06

Instrument :
MSVOA_L
ClientSampled :
NS-4

Tot Ion	Ratio	Lower	Upper
57	100		
41	100.4	81.7	122.5
43	85.2	199.1	298.7#
56	57.2	44.0	66.0

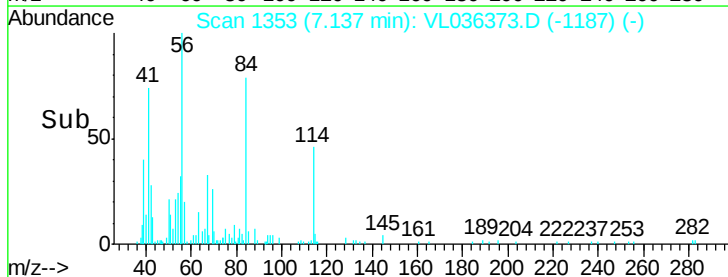
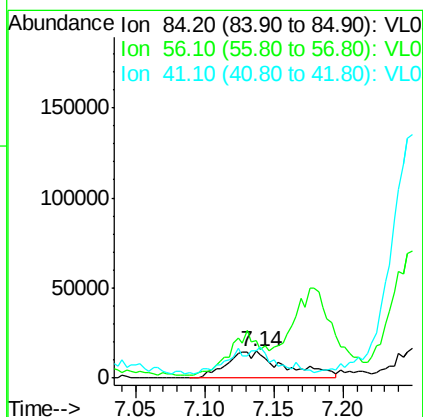
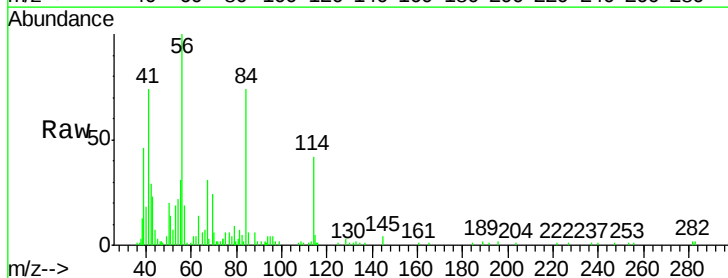
Manual Integrations
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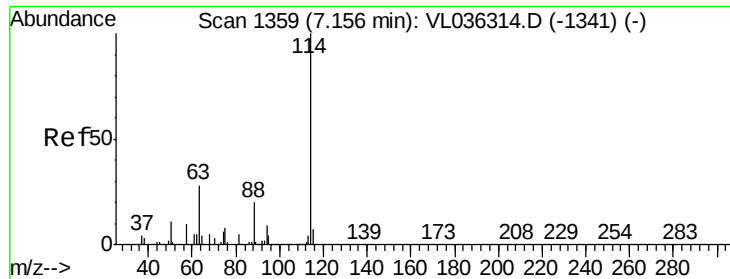
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#30
Cyclohexane
Concen: 0.330 ppbv m
RT: 7.14 min Scan# 1353
Delta R.T. 0.03 min
Lab File: VL036373.D
Acq: 25 Feb 2021 6:06

Tgt Ion	Ratio	Lower	Upper
84	100		
56	102.9	120.2	180.4#
41	0.0	79.7	119.5#





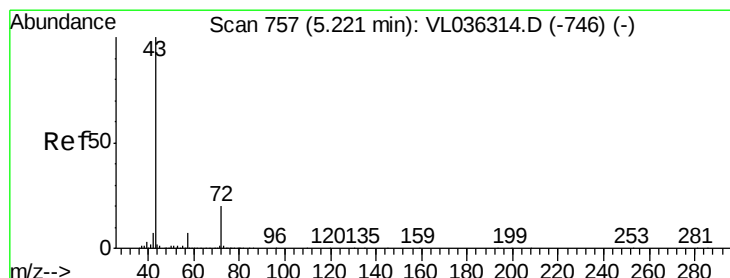
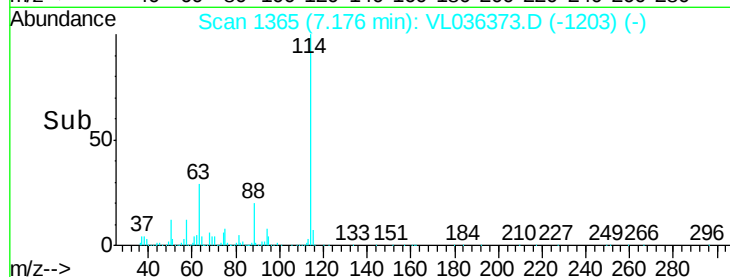
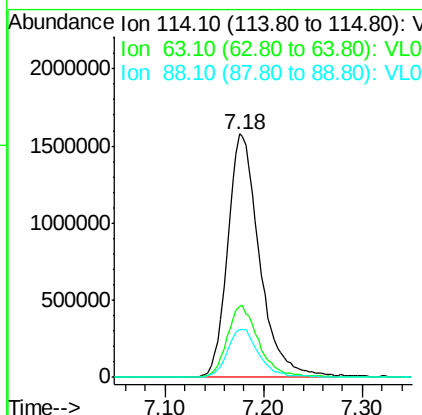
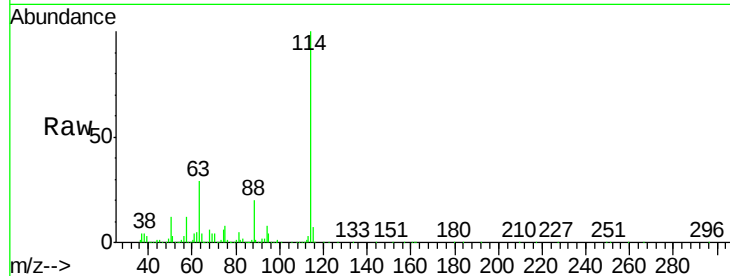
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1365
 Delta R.T. 0.02 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-4

Tot Ion	Ratio	Lower	Upper
114	100		
63	29.5	24.1	36.1
88	19.8	16.0	24.0

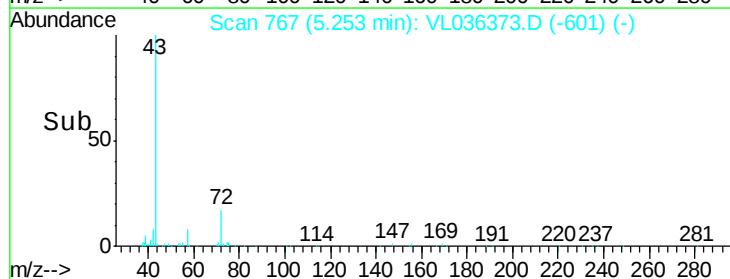
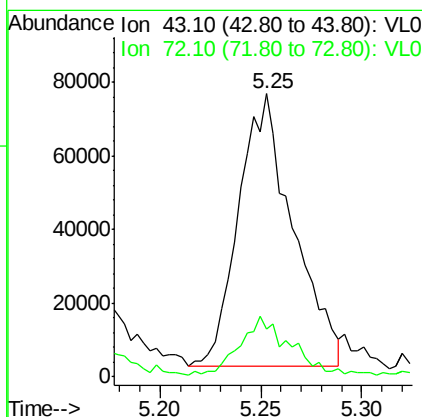
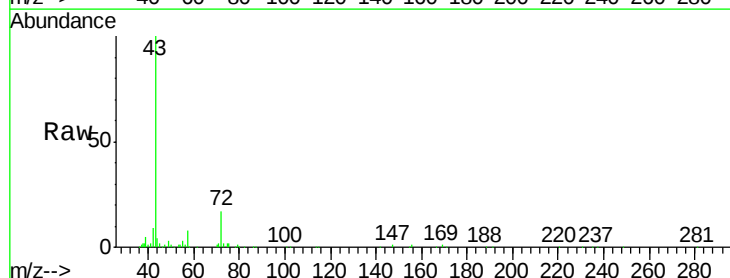
Manual Integrations
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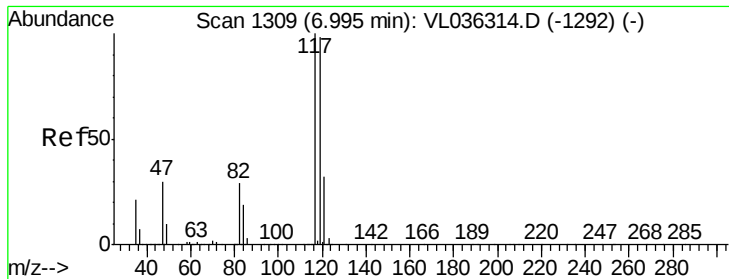
MMDadoda
 2/26/2021 4:18:14 PM



#34
 2-Butanone
 Concen: 0.589 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. 0.03 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Tgt Ion	Ratio	Lower	Upper
43	100		
72	21.2	16.7	25.1





#35

Carbon Tetrachloride

Concen: 0.058 ppbv m

RT: 7.01 min Scan# 1315

Delta R.T. 0.02 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Instrument :

MSVOA_L

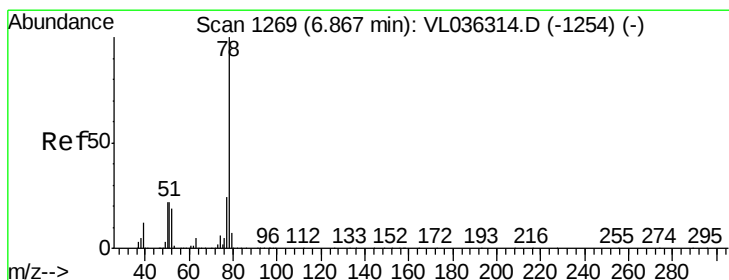
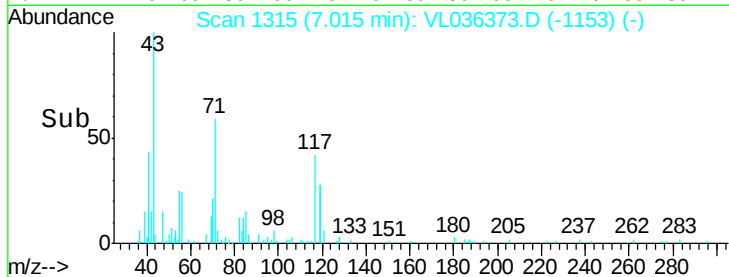
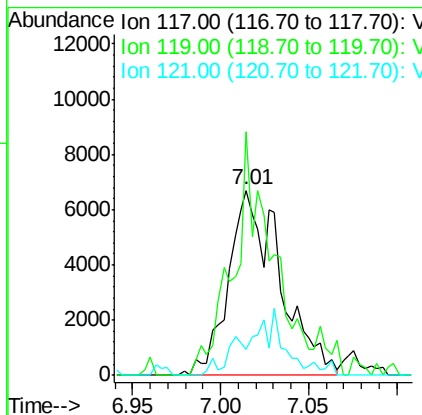
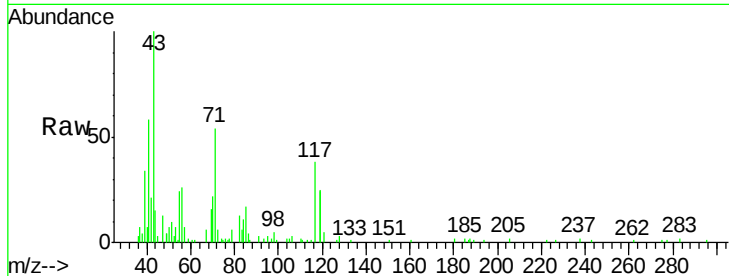
ClientSampled :

NS-4

Tot Ion	Ratio	Lower	Upper
117	100		
119	67.5	78.1	117.1#
121	14.2	25.8	38.8#

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#36

Benzene

Concen: 0.484 ppbv

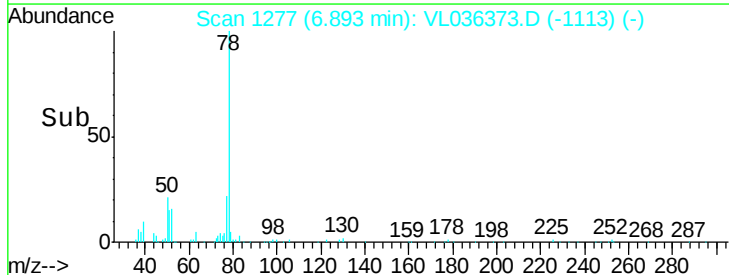
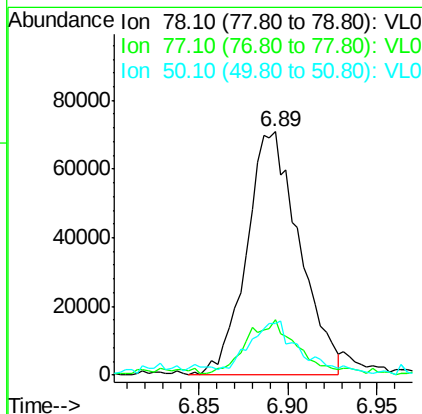
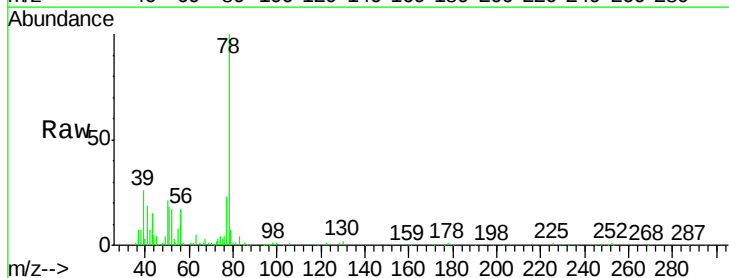
RT: 6.89 min Scan# 1277

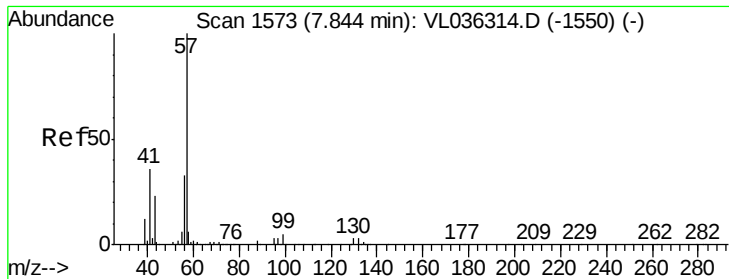
Delta R.T. 0.03 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Tgt Ion	Ratio	Lower	Upper
78	100		
77	21.2	18.9	28.3
50	18.5	17.3	25.9





#44

2,2,4-Trimethylpentane

Concen: 2.473 ppbv

RT: 7.87 min Scan# 1581

Delta R.T. 0.03 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Instrument :

MSVOA_L

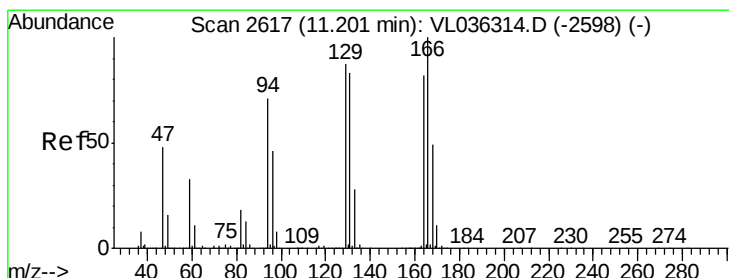
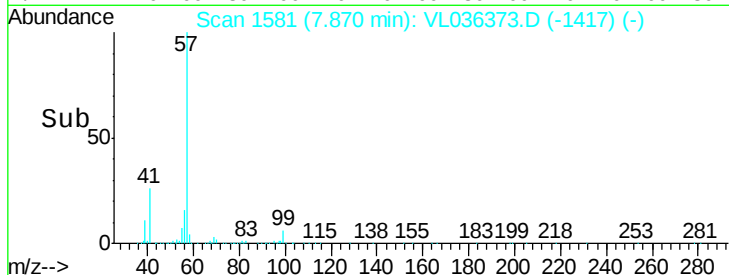
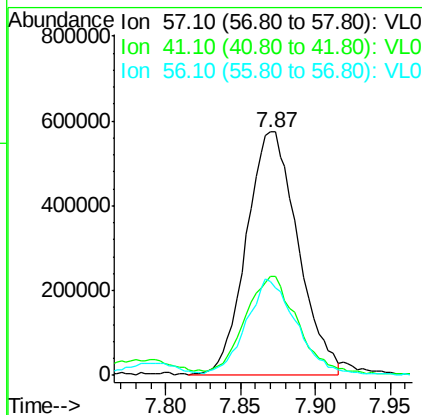
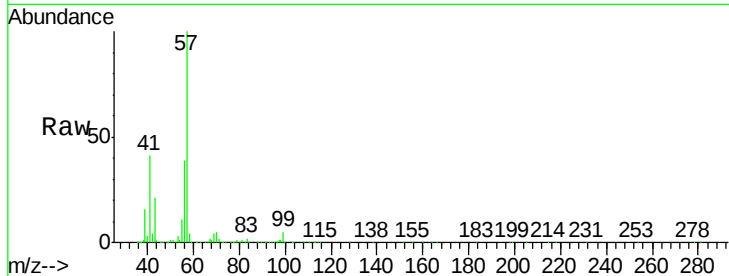
ClientSampled :

NS-4

Tot Ion	57	Resp	1361411
Ion	Ratio	Lower	Upper
57	100		
41	42.2	28.8	43.2
56	39.7	25.8	38.6#

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#52

Tetrachloroethene

Concen: 0.058 ppbv m

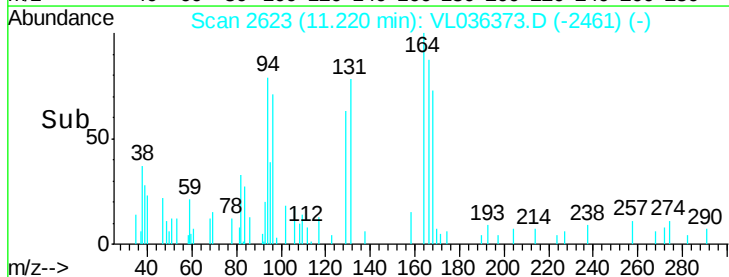
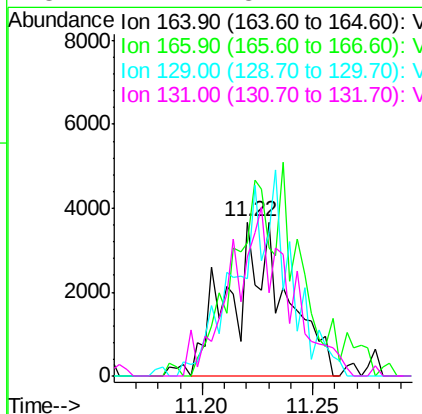
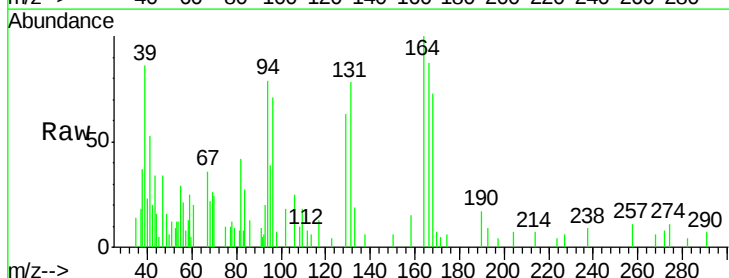
RT: 11.22 min Scan# 2623

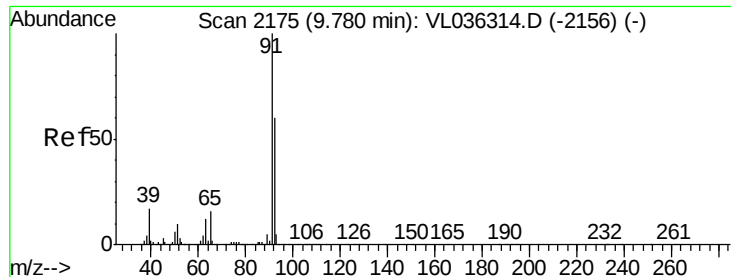
Delta R.T. 0.02 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Tgt Ion	164	Resp	6411
Ion	Ratio	Lower	Upper
164	100		
166	86.7	97.8	146.8#
129	63.4	84.9	127.3#
131	77.7	81.4	122.2#





#53

Toluene

Concen: 5.643 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. 0.03 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Instrument :

MSVOA_L

ClientSampleId :

NS-4

Tot Ion: 91 Resp: 1850176

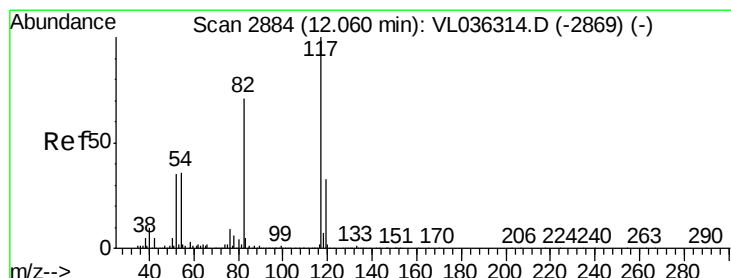
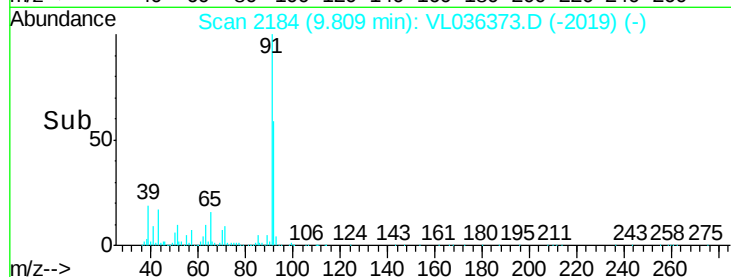
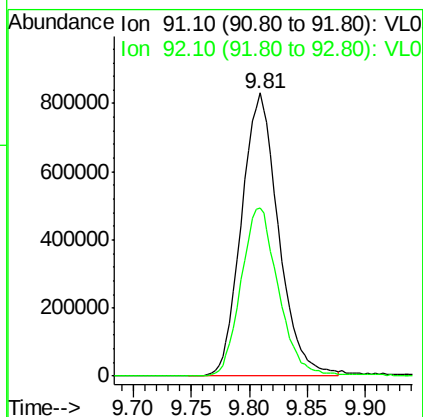
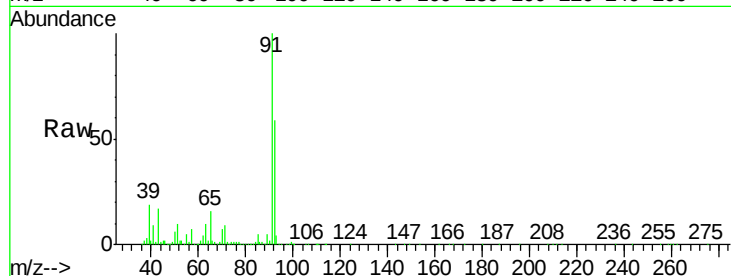
Ion Ratio Lower Upper

91 100

92 60.8 48.6 72.8

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. 0.03 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

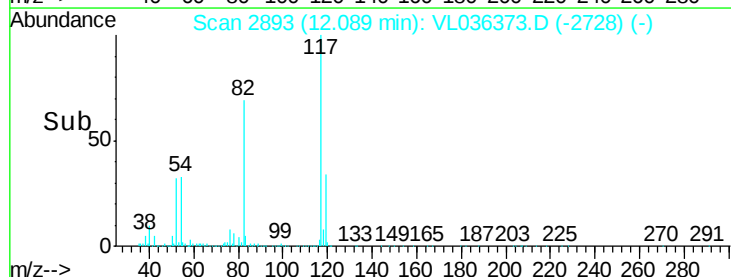
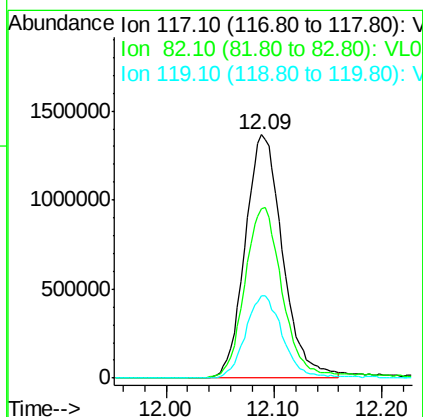
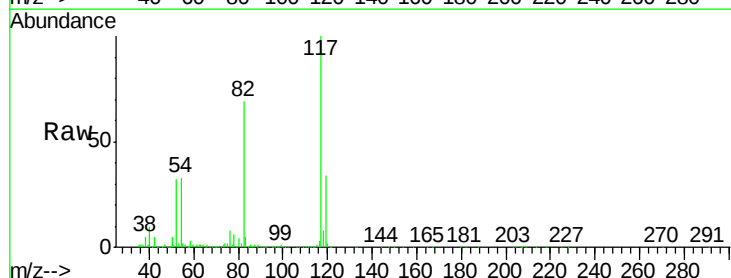
Tgt Ion: 117 Resp: 3305690

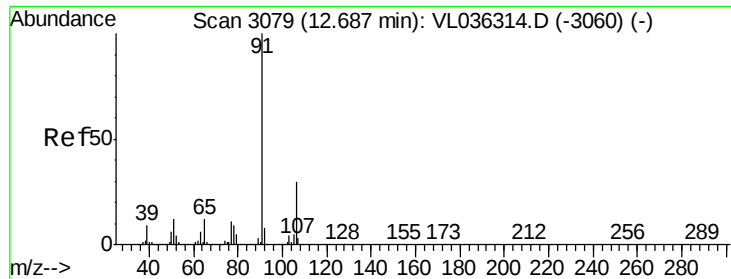
Ion Ratio Lower Upper

117 100

82 73.2 59.1 88.7

119 34.0 46.3 69.5#





#58

Ethyl Benzene

Concen: 1.018 ppbv

RT: 12.72 min Scan# 3088

Delta R.T. 0.03 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Instrument :

MSVOA_L

ClientSampled :

NS-4

Tot Ion: 91 Resp: 460845

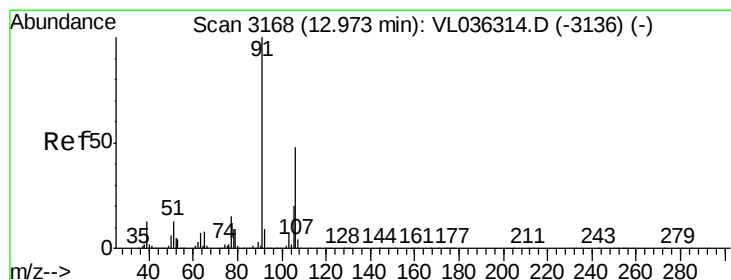
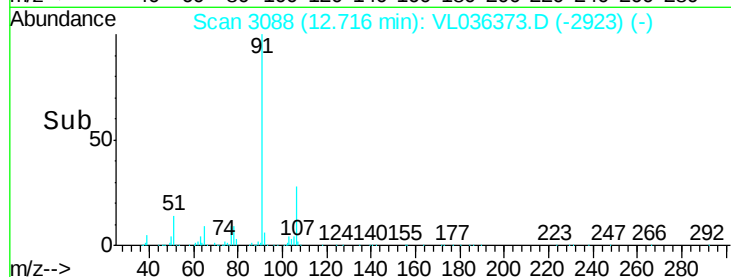
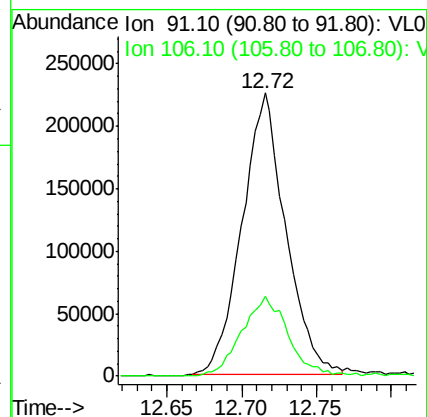
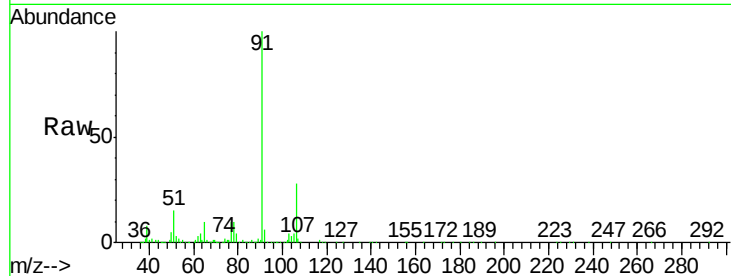
Ion Ratio Lower Upper

91 100

106 28.3 23.8 35.6

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#59

m/p-Xylene

Concen: 3.030 ppbv

RT: 12.97 min Scan# 3168

Delta R.T. 0.00 min

Lab File: VL036373.D

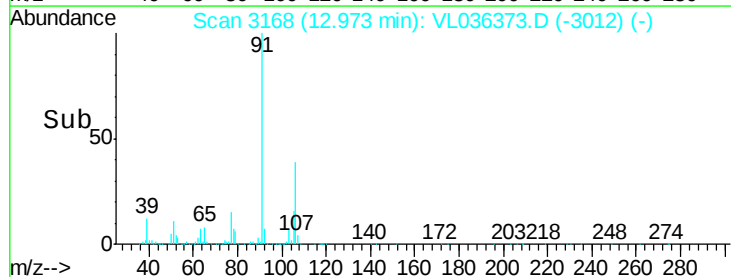
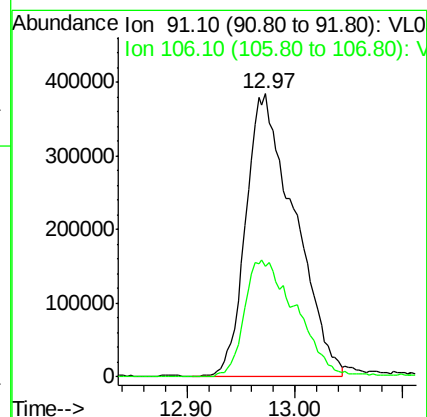
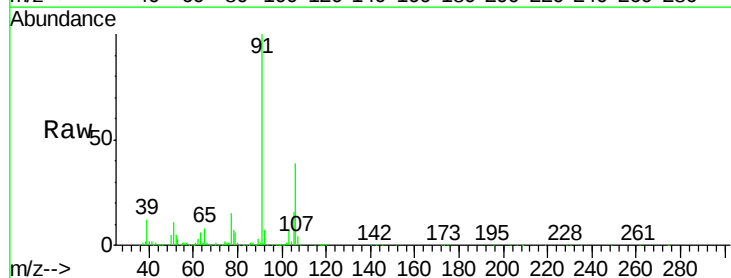
Acq: 25 Feb 2021 6:06

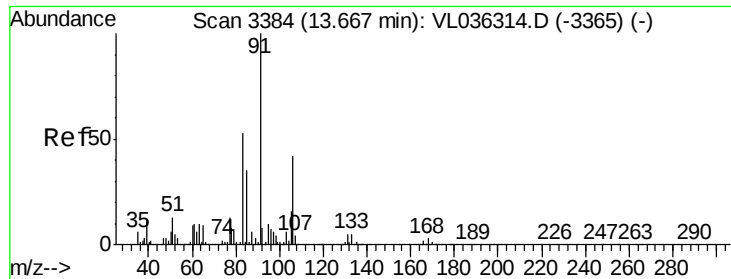
Tgt Ion: 91 Resp: 1204808

Ion Ratio Lower Upper

91 100

106 44.8 34.2 51.2





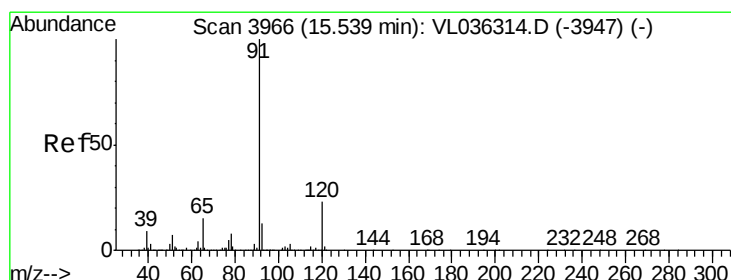
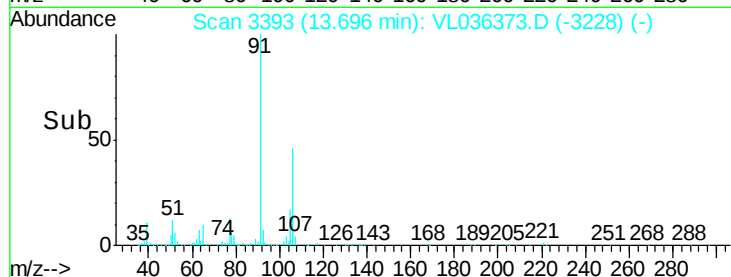
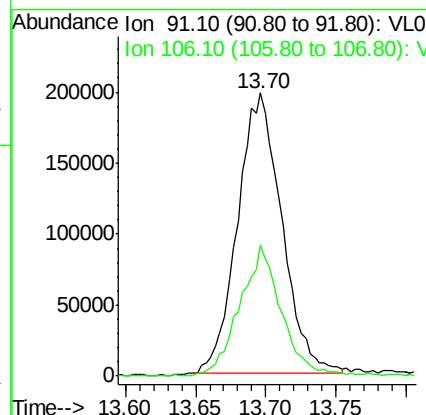
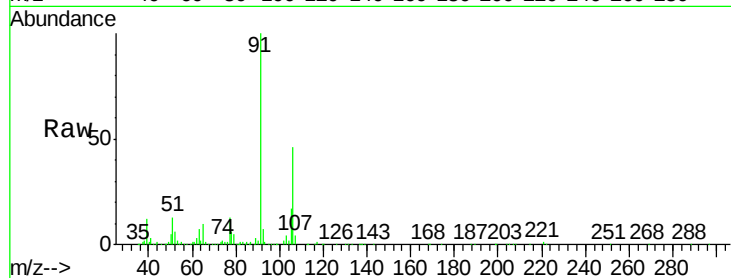
#60
o-Xylene
Concen: 1.145 ppbv
RT: 13.70 min Scan# 3393
Delta R.T. 0.03 min
Lab File: VL036373.D
Acq: 25 Feb 2021 6:06

Instrument :
MSVOA_L
ClientSampled :
NS-4

Tot Ion: 91 Resp: 435232
Ion Ratio Lower Upper
91 100
106 44.0 22.0 66.0

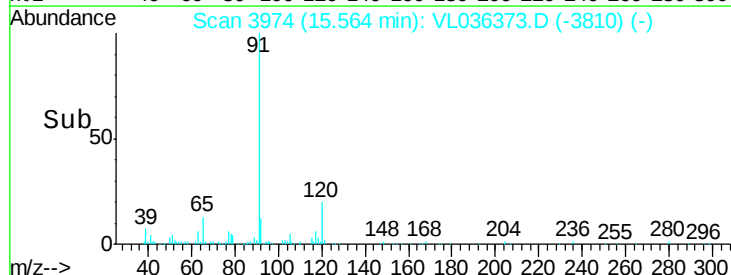
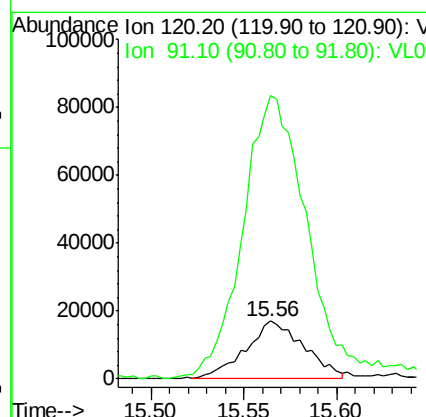
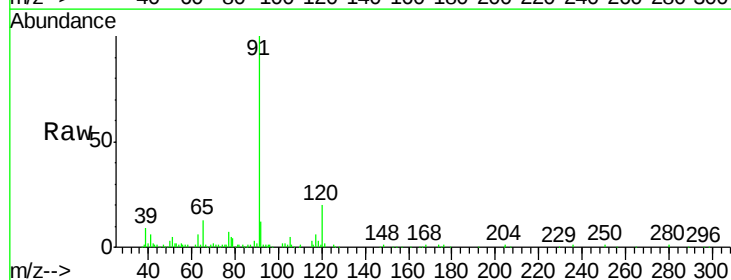
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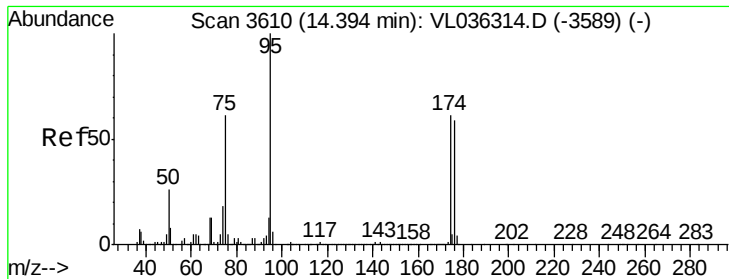
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#64
n-propylbenzene
Concen: 0.267 ppbv
RT: 15.56 min Scan# 3974
Delta R.T. 0.03 min
Lab File: VL036373.D
Acq: 25 Feb 2021 6:06

Tgt Ion:120 Resp: 37382
Ion Ratio Lower Upper
120 100
91 551.3 387.2 580.8





#68

1-Bromo-4-Fluorobenzene

Concen: 9.547 ppbv

RT: 14.42 min Scan# 3619

Delta R.T. 0.03 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Instrument :

MSVOA_L

ClientSampled :

NS-4

Tot Ion: 95 Resp: 259687

Ion Ratio Lower Upper

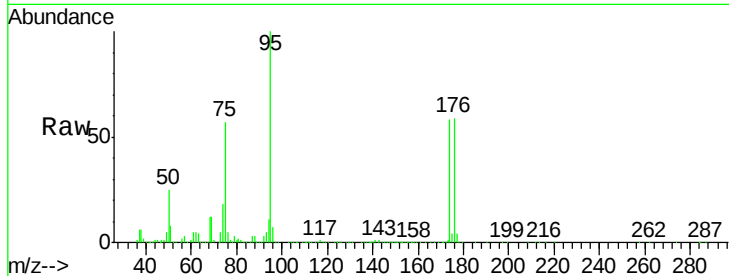
95 100

174 64.8 49.8 74.6

175 4.9 3.7 5.5

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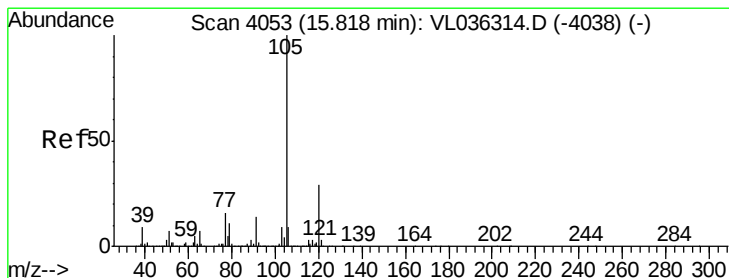
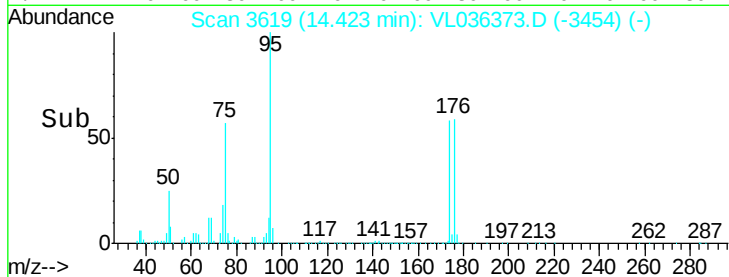
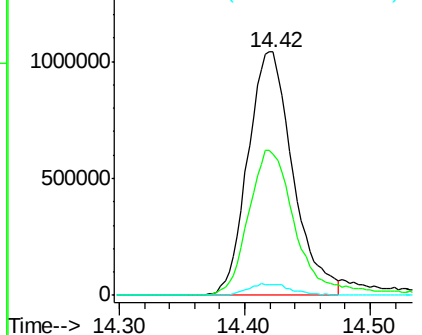
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Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#72

4-Ethyltoluene

Concen: 0.339 ppbv m

RT: 15.84 min Scan# 4061

Delta R.T. 0.03 min

Lab File: VL036373.D

Acq: 25 Feb 2021 6:06

Tgt Ion: 105 Resp: 143382

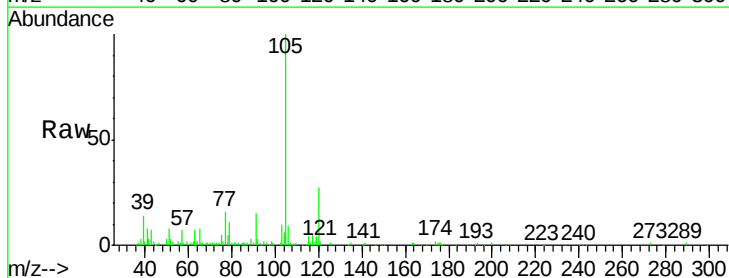
Ion Ratio Lower Upper

105 100

120 29.7 23.2 34.8

91 0.0 11.0 16.4#

77 0.0 12.2 18.4#

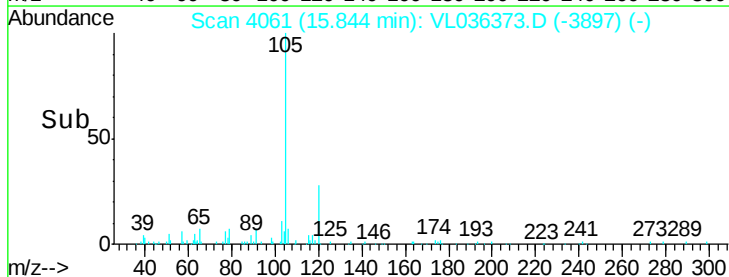
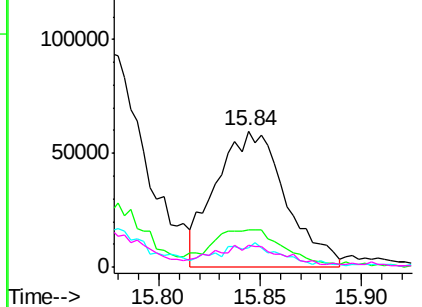


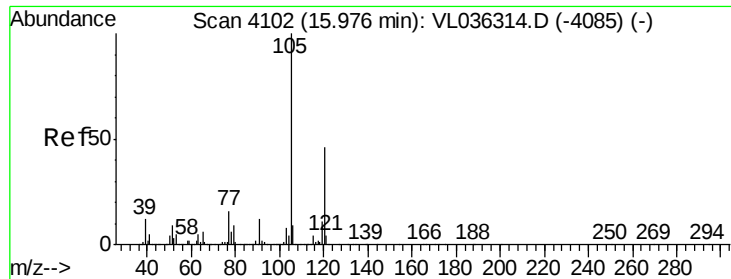
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





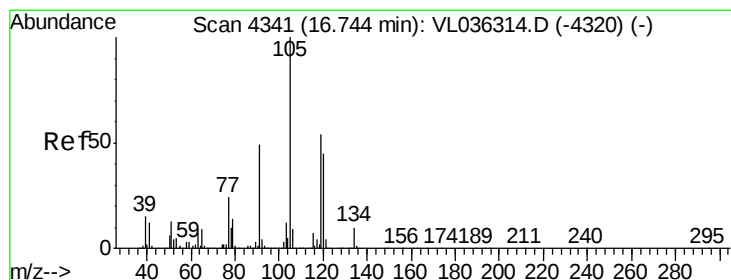
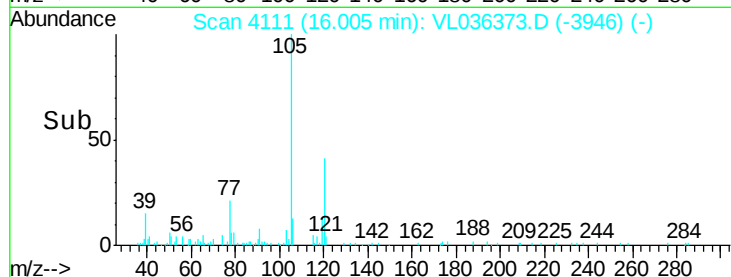
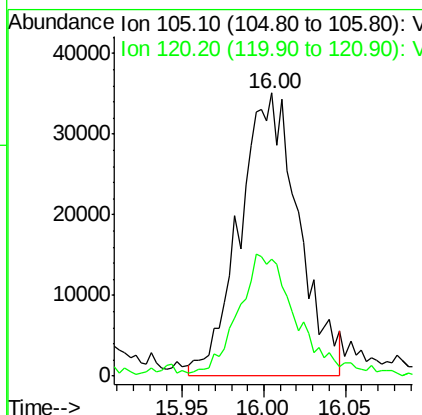
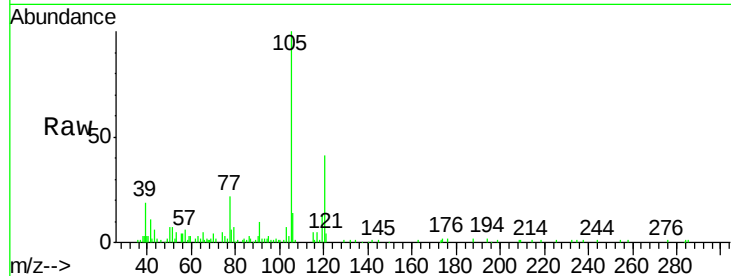
#73
 1,3,5-Trimethylbenzene
 Concen: 0.216 ppbv m
 RT: 16.00 min Scan# 4111
 Delta R.T. 0.03 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Instrument :
 MSVOA_L
 ClientSampled :
 NS-4

Tot Ion:105 Resp: 88699
 Ion Ratio Lower Upper
 105 100
 120 41.4 36.9 55.3

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#74
 1,2,4-Trimethylbenzene
 Concen: 1.015 ppbv m
 RT: 16.76 min Scan# 4347
 Delta R.T. 0.02 min
 Lab File: VL036373.D
 Acq: 25 Feb 2021 6:06

Tgt Ion:105 Resp: 424942
 Ion Ratio Lower Upper
 105 100
 120 35.7 35.8 53.6#
 91 11.9 39.8 59.6#
 77 15.8 19.1 28.7#

