

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL092320\
 Data File : VL035716.D
 Acq On : 23 Sep 2020 13:04
 Operator : SY/AP
 Sample : L4079-01DUP
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 B-1DUP

Manual Integrations
 APPROVED

MMDadoda
 9/24/2020 1:35:33 PM

Quant Time: Sep 24 11:31:01 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Sep 23 2020
 QLast Update : Wed Sep 23 07:38:05 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1087762	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	4144306	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	4165217	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.44	95	3181758	10.19	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	48979	0.274	ppbv	97
3) Chlorodifluoromethane	2.99	51	51829m	0.443	ppbv	
4) Chloromethane	3.14	50	39329	0.626	ppbv	97
10) Heptane	8.14	43	39909	0.337	ppbv #	19
11) Trichlorofluoromethane	3.95	101	65788	0.258	ppbv	91
13) Ethanol	3.60	45	169776	16.203	ppbv	100
15) Acetone	3.85	43	1068572	9.130	ppbv #	54
19) Isopropyl Alcohol	3.98	45	167183	2.626	ppbv #	89
20) Methylene Chloride	4.35	84	927473	10.788	ppbv	97
26) Hexane	5.70	57	600015	5.199	ppbv #	50
30) Cyclohexane	7.15	84	68974	0.606	ppbv	89
34) 2-Butanone	5.26	43	83697	0.611	ppbv	99
35) Carbon Tetrachloride	7.03	117	16041	0.074	ppbv	97
36) Benzene	6.90	78	83167	0.308	ppbv	96
44) 2,2,4-Trimethylpentane	7.89	57	3752561	9.684	ppbv	97
52) Tetrachloroethene	11.25	164	22597	0.174	ppbv	94
53) Toluene	9.83	91	411346	1.292	ppbv	97
58) Ethyl Benzene	12.73	91	53120	0.127	ppbv	93
59) m/p-Xylene	13.00	91	180939	0.496	ppbv	97
60) o-Xylene	13.72	91	66036	0.179	ppbv	98
74) 1,2,4-Trimethylbenzene	16.80	105	188756	0.405	ppbv #	71
79) Naphthalene	22.24	128	822409	1.850	ppbv	95
80) Naphthalene,2-methyl-	25.00	142	16935	0.162	ppbv #	88

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

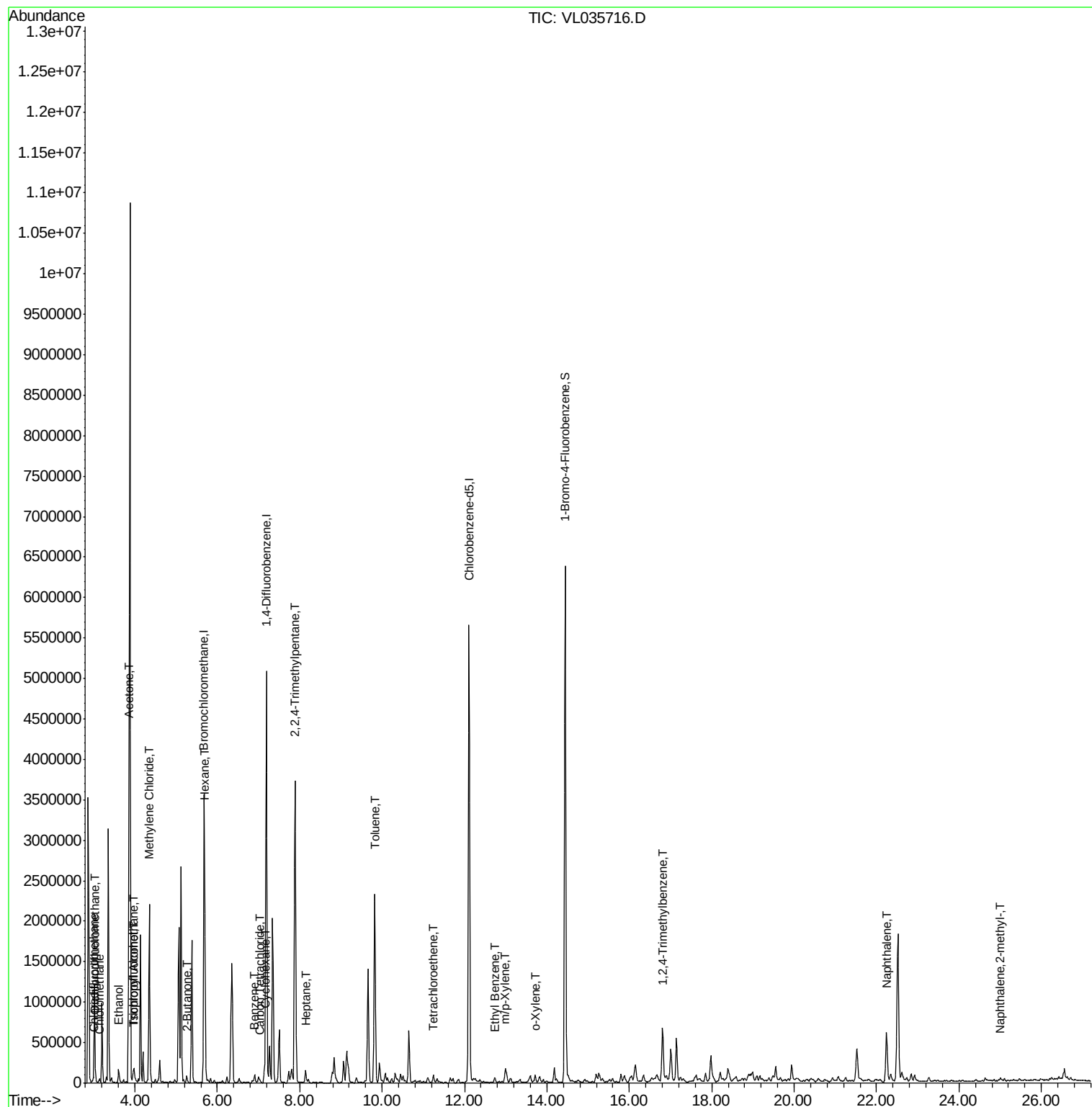
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL092320\
Data File : VL035716.D
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Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

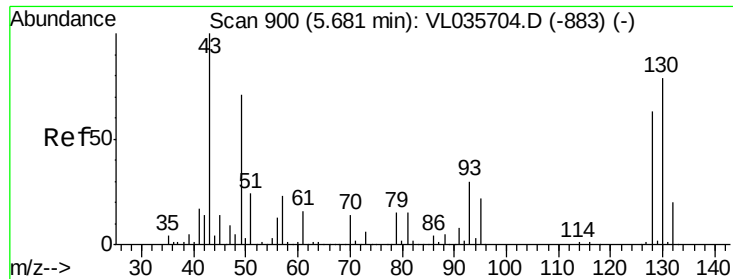
Instrument :
MSVOA_L
ClientSampleId :
B-1DUP

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9/24/2020 1:35:33 PM

Quant Time: Sep 24 11:31:01 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep
QLast Update : Wed Sep 23 07:38:05 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Instrument :

MSVOA_L

ClientSampled :

B-1DUP

Tot Ion: 49 Resp: 1087762

Ion Ratio Lower Upper

49 100

128 83.7 43.1 129.4

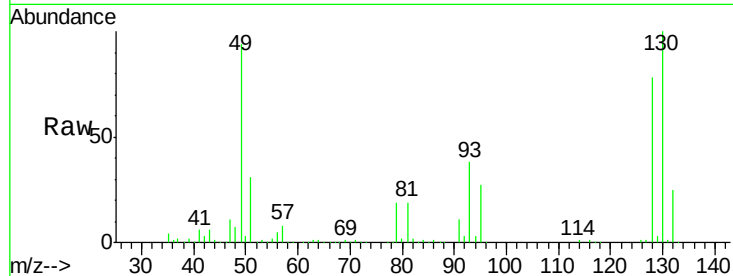
130 107.0 54.9 164.7

Manual Integrations

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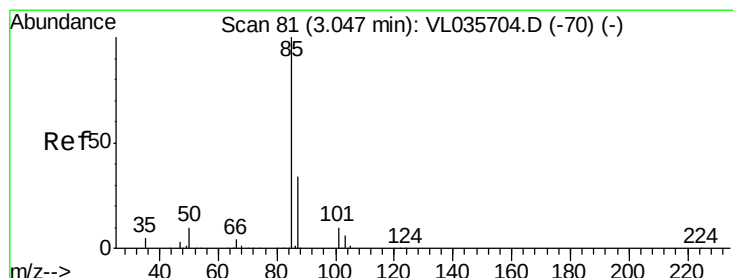
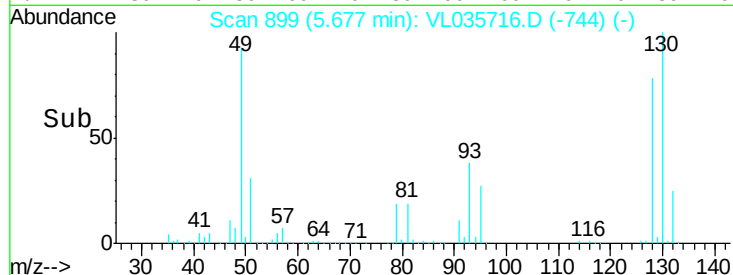
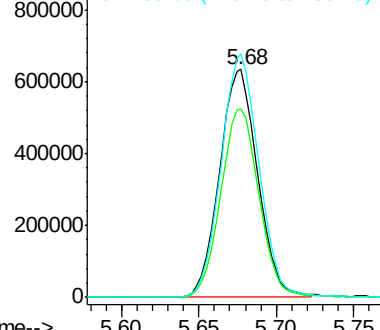
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.274 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.00 min

Lab File: VL035716.D

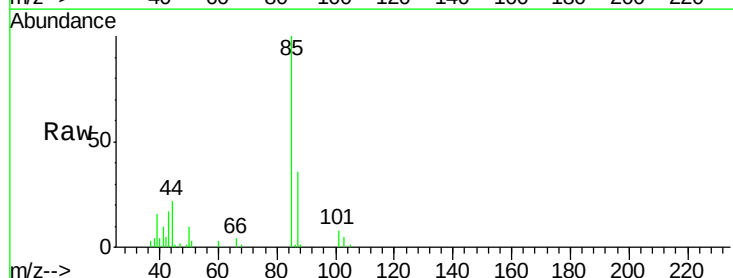
Acq: 23 Sep 2020 13:04

Tgt Ion: 85 Resp: 48979

Ion Ratio Lower Upper

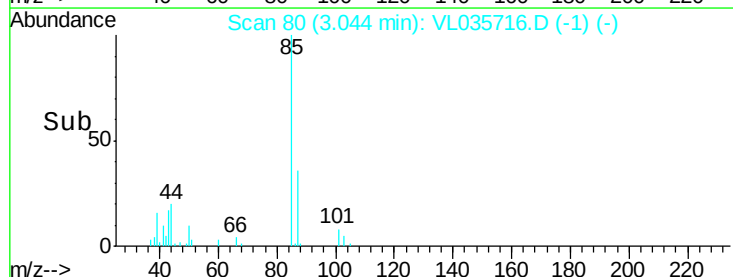
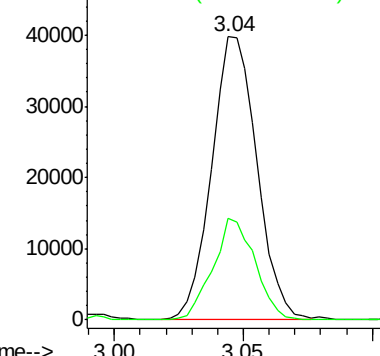
85 100

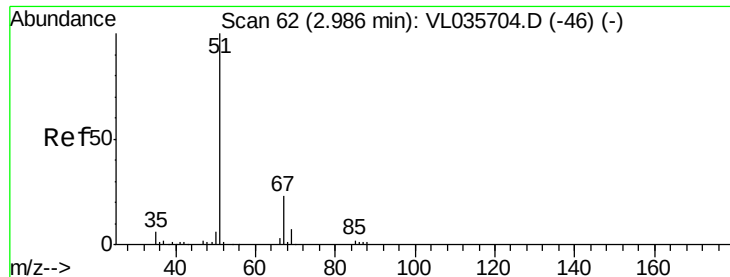
87 35.9 27.3 40.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.443 ppbv

RT: 2.99 min Scan# 62

Delta R.T. 0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Instrument :

MSVOA_L

ClientSampled :

B-1DUP

Tot Ion: 51 Resp: 51829

Ion Ratio Lower Upper

51 100

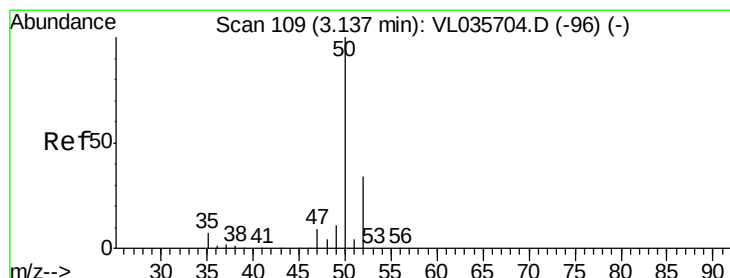
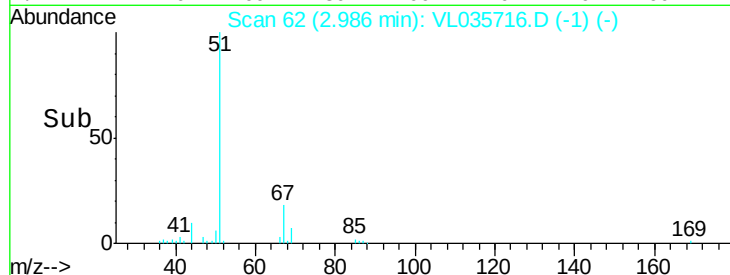
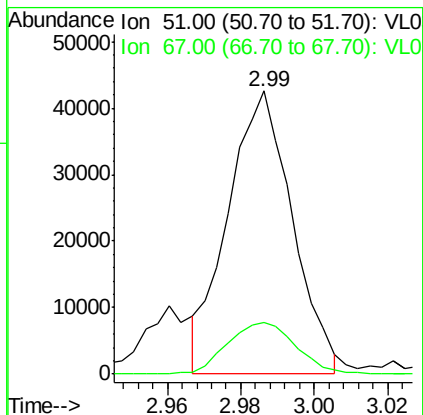
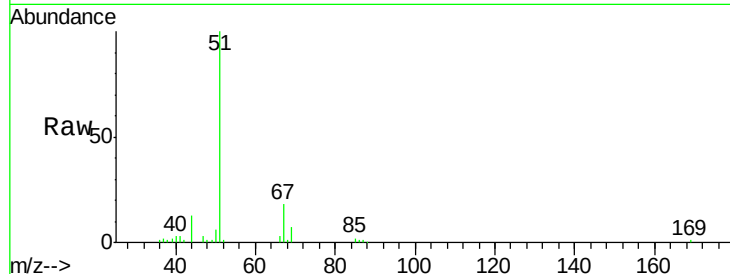
67 19.4 17.8 26.8

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#4

Chloromethane

Concen: 0.626 ppbv

RT: 3.14 min Scan# 110

Delta R.T. 0.00 min

Lab File: VL035716.D

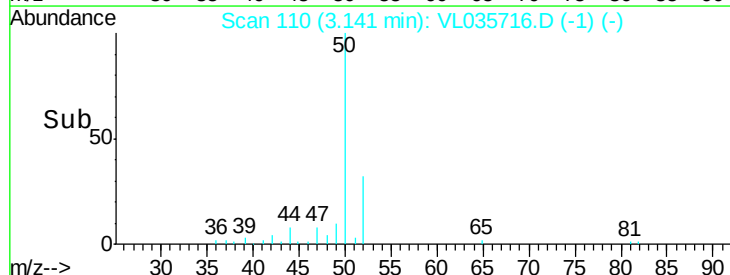
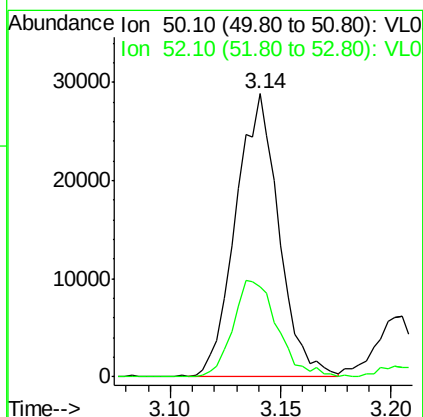
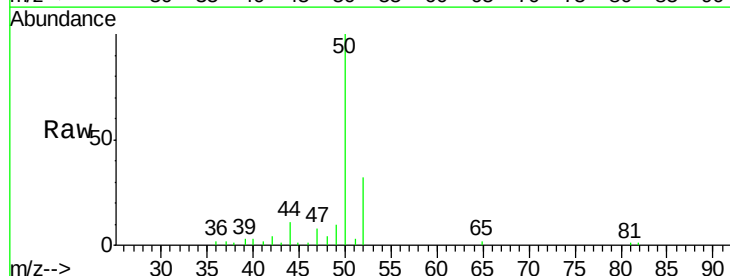
Acq: 23 Sep 2020 13:04

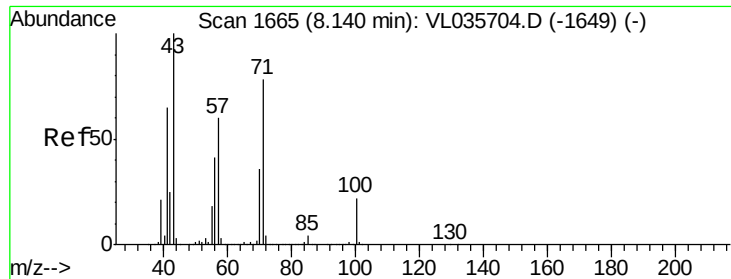
Tgt Ion: 50 Resp: 39329

Ion Ratio Lower Upper

50 100

52 32.0 26.8 40.2





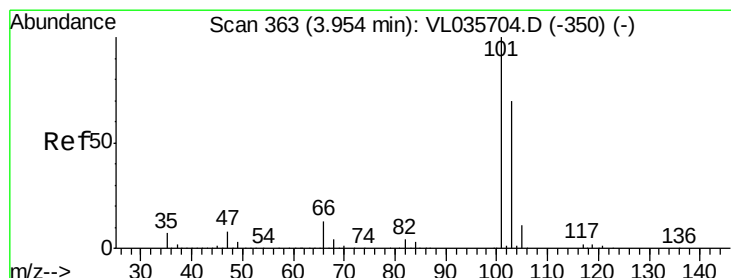
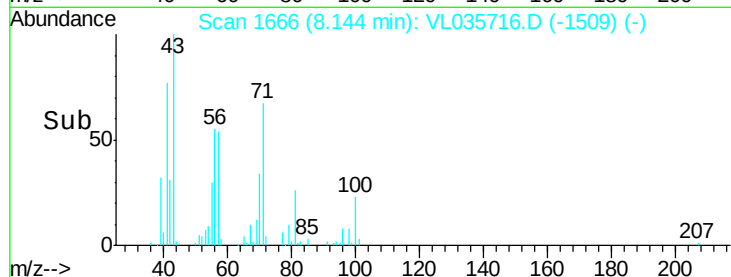
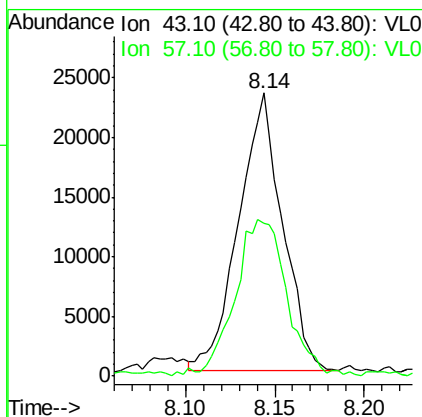
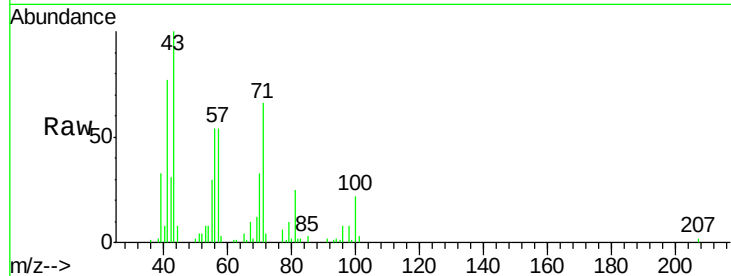
#10
 Heptane
 Concen: 0.337 ppbv
 RT: 8.14 min Scan# 1666
 Delta R.T. 0.00 min
 Lab File: VL035716.D
 Acq: 23 Sep 2020 13:04

Instrument :
 MSVOA_L
 ClientSampled :
 B-1DUP

Tot Ion: 43 Resp: 39909
 Ion Ratio Lower Upper
 43 100
 57 0.0 50.4 75.6#

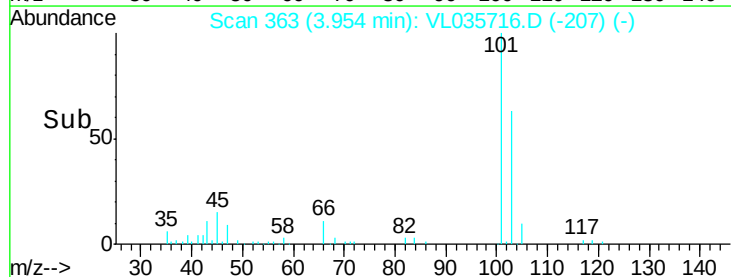
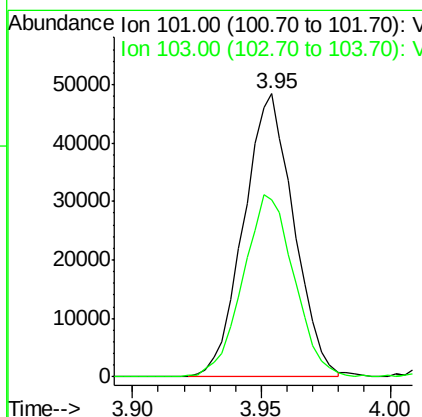
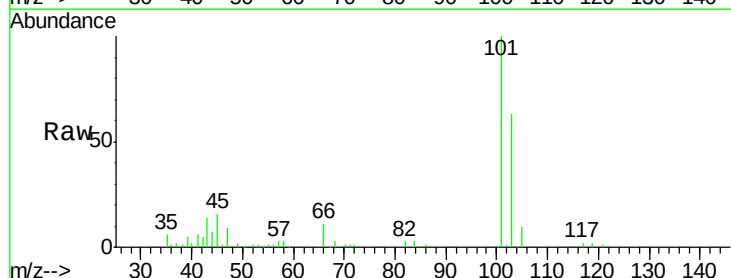
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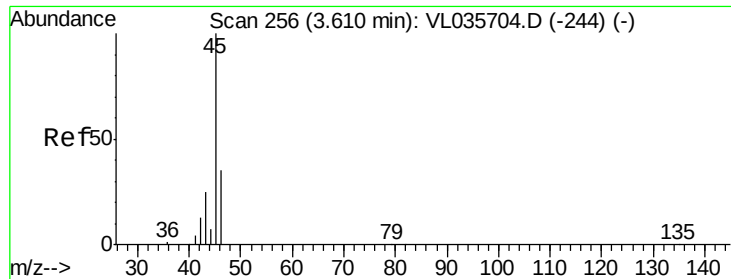
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#11
 Trichlorofluoromethane
 Concen: 0.258 ppbv
 RT: 3.95 min Scan# 363
 Delta R.T. 0.00 min
 Lab File: VL035716.D
 Acq: 23 Sep 2020 13:04

Tgt Ion:101 Resp: 65788
 Ion Ratio Lower Upper
 101 100
 103 62.0 55.6 83.4





#13

Ethanol

Concen: 16.203 ppbv

RT: 3.60 min Scan# 254

Delta R.T. -0.01 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Instrument :

MSVOA_L

ClientSampled :

B-1DUP

Tot Ion: 45 Resp: 169776

Ion Ratio Lower Upper

45 100

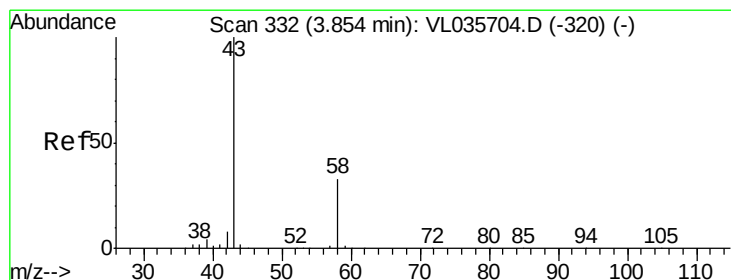
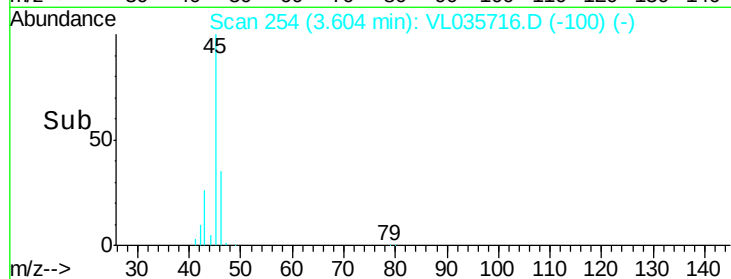
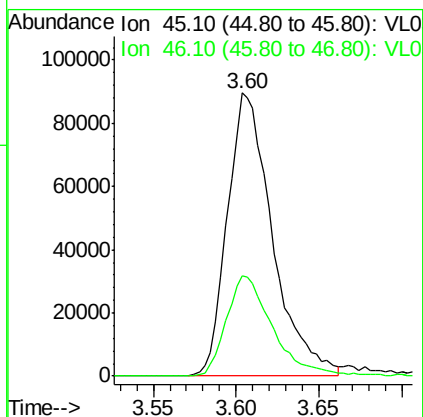
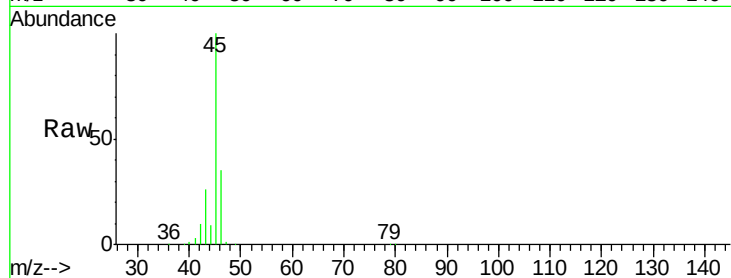
46 36.8 14.7 58.7

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#15

Acetone

Concen: 9.130 ppbv

RT: 3.85 min Scan# 331

Delta R.T. -0.00 min

Lab File: VL035716.D

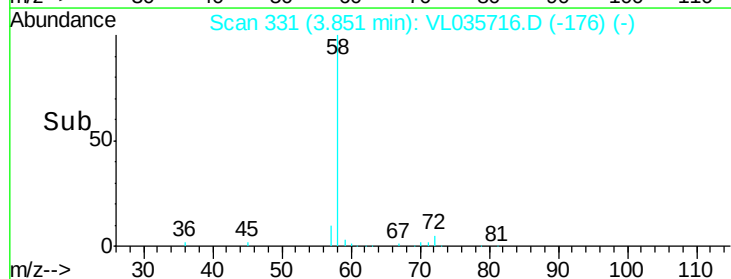
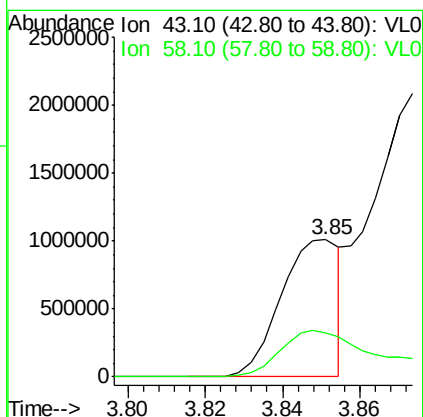
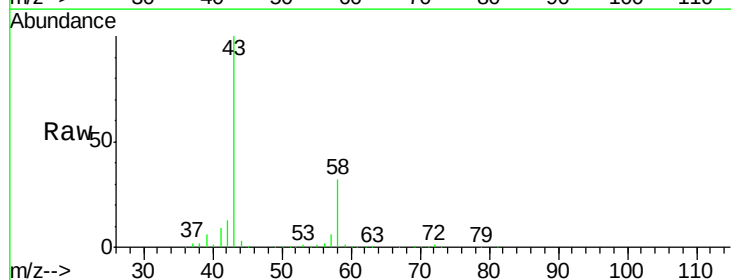
Acq: 23 Sep 2020 13:04

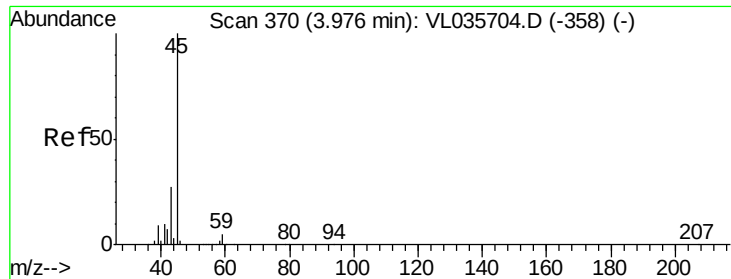
Tgt Ion: 43 Resp: 1068572

Ion Ratio Lower Upper

43 100

58 60.4 27.3 40.9#





#19

Isopropyl Alcohol

Concen: 2.626 ppbv

RT: 3.98 min Scan# 370

Delta R.T. 0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Instrument :

MSVOA_L

ClientSampled :

B-1DUP

Tot Ion: 45 Resp: 167183

Ion Ratio Lower Upper

45 100

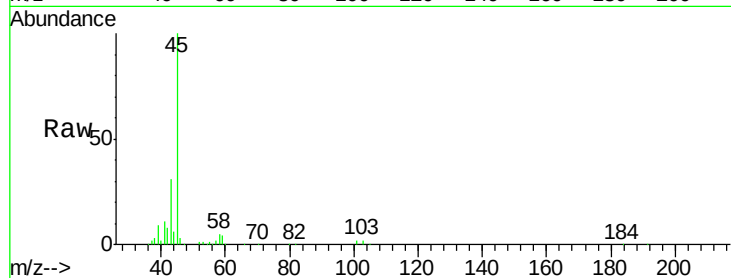
58 0.0 2.8 4.2#

Manual Integrations

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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.98

100000

80000

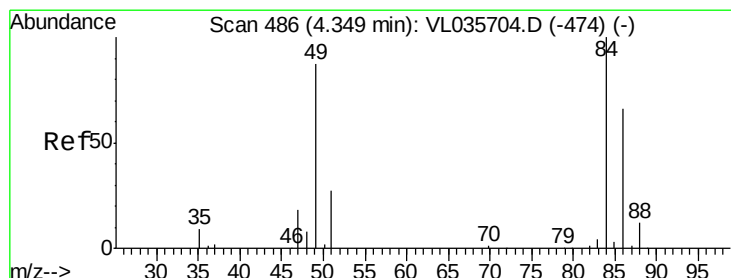
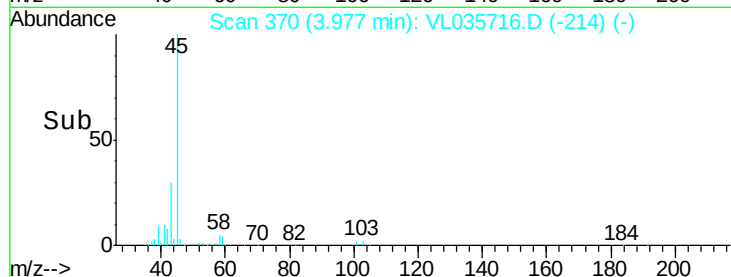
60000

40000

20000

0

Time--> 3.90 3.95 4.00 4.05



#20

Methylene Chloride

Concen: 10.788 ppbv

RT: 4.35 min Scan# 485

Delta R.T. -0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Tgt Ion: 84 Resp: 927473

Ion Ratio Lower Upper

84 100

49 91.9 69.8 104.6

51 29.1 21.8 32.8

86 66.0 52.6 78.8

Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

800000

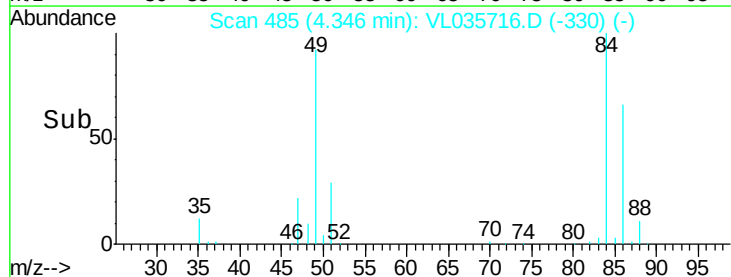
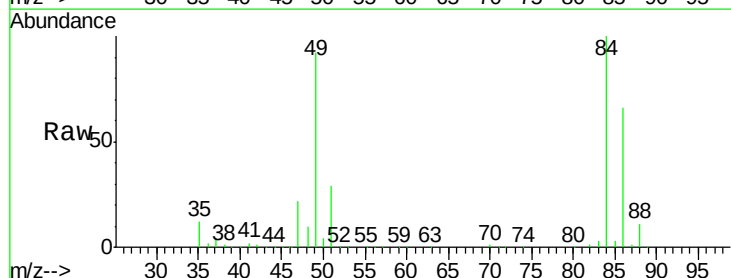
600000

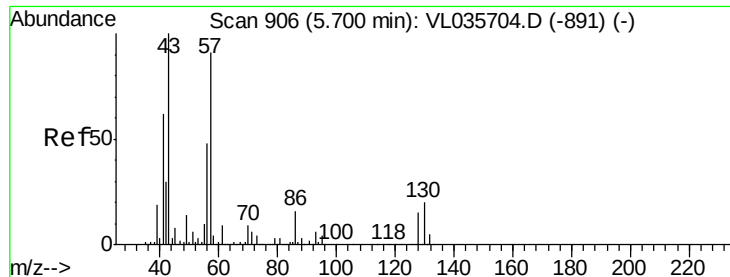
400000

200000

0

Time--> 4.25 4.30 4.35 4.40 4.45





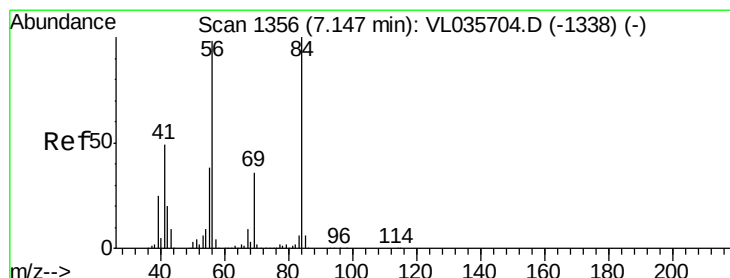
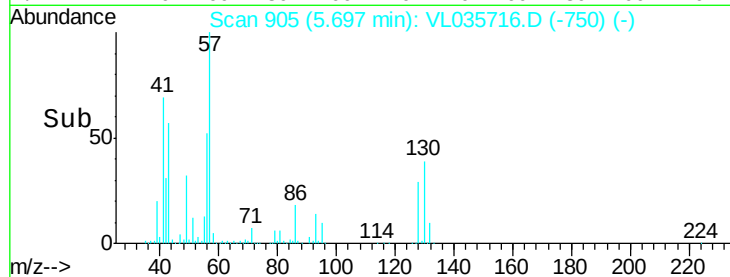
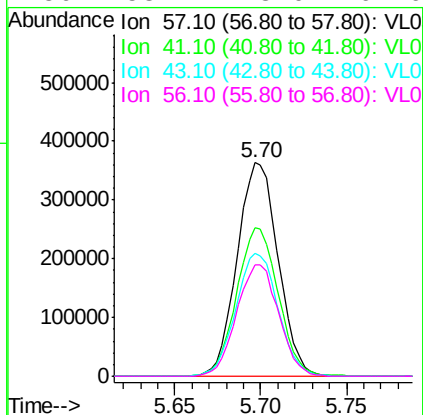
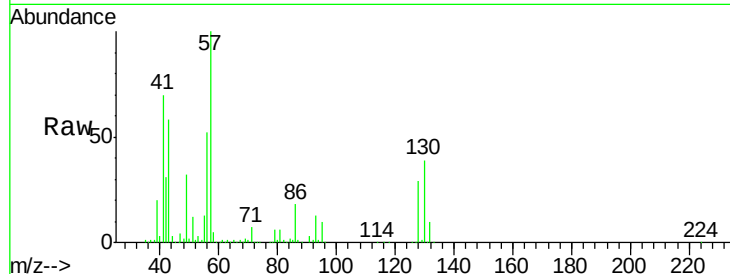
#26
Hexane
Concen: 5.199 ppbv
RT: 5.70 min Scan# 905
Delta R.T. -0.00 min
Lab File: VL035716.D
Acq: 23 Sep 2020 13:04

Instrument :
MSVOA_L
ClientSampled :
B-1DUP

Tot Ion	Ratio	Lower	Upper
57	100		
41	70.7	57.9	86.9
43	59.8	143.8	215.6#
56	53.7	43.0	64.6

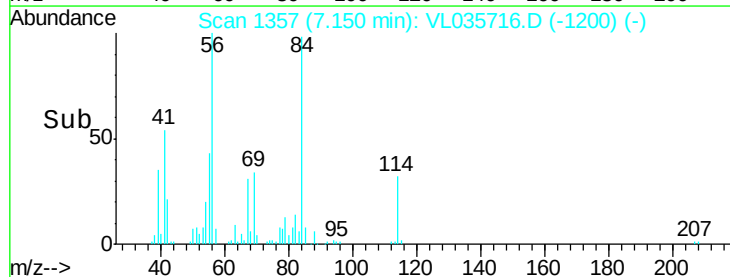
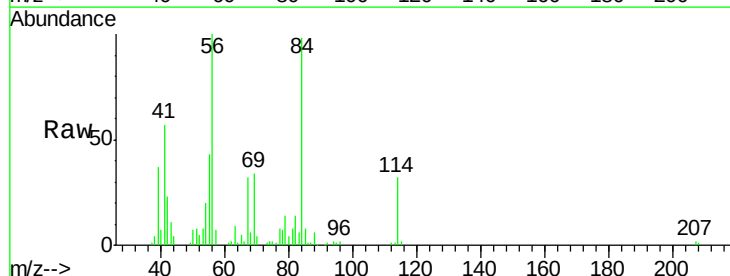
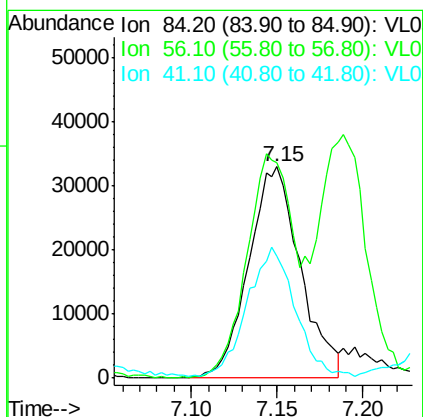
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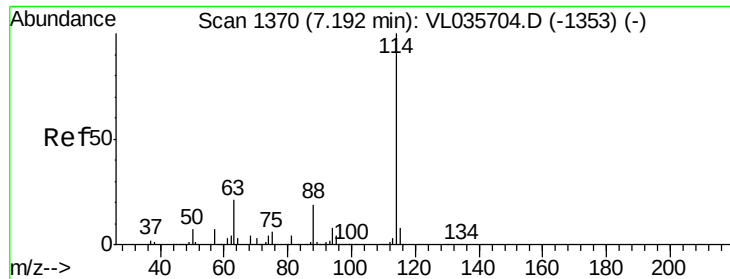
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#30
Cyclohexane
Concen: 0.606 ppbv
RT: 7.15 min Scan# 1357
Delta R.T. 0.00 min
Lab File: VL035716.D
Acq: 23 Sep 2020 13:04

Tgt Ion	Ratio	Lower	Upper
84	100		
56	91.8	84.6	127.0
41	55.8	41.1	61.7





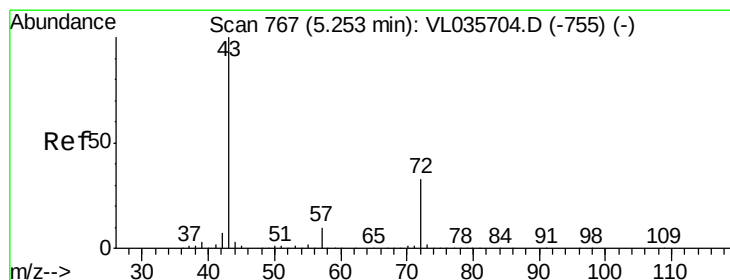
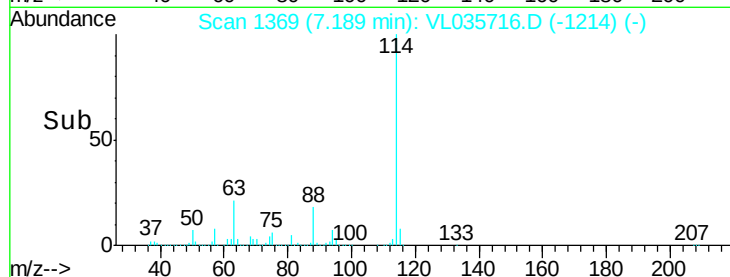
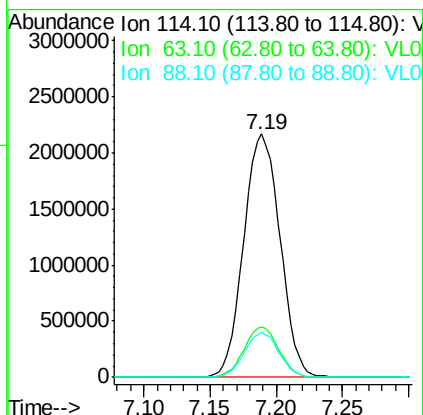
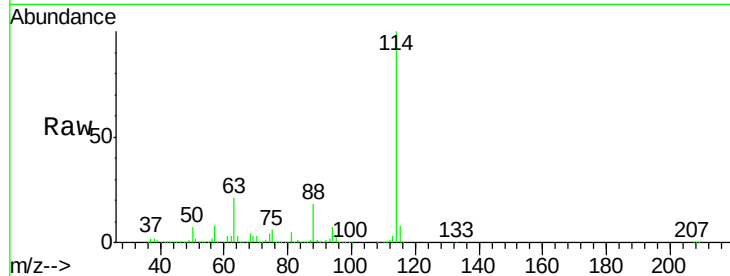
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1369
 Delta R.T. -0.00 min
 Lab File: VL035716.D
 Acq: 23 Sep 2020 13:04

Instrument :
 MSVOA_L
 ClientSampled :
 B-1DUP

Tot Ion	Ratio	Lower	Upper
114	100		
63	20.1	16.1	24.1
88	17.7	14.1	21.1

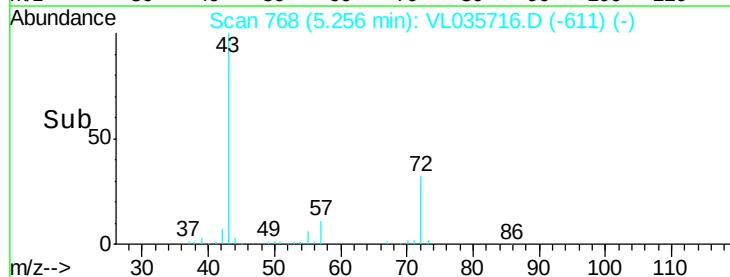
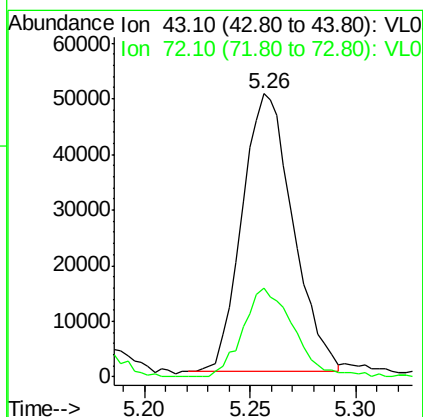
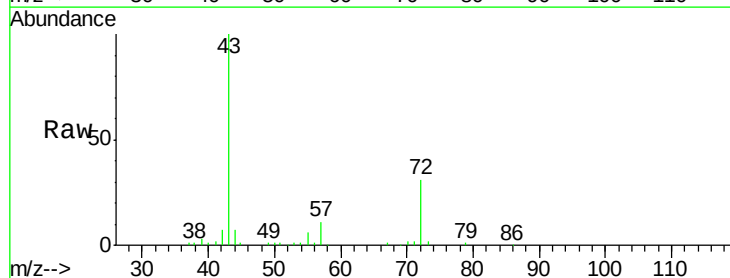
Manual Integrations
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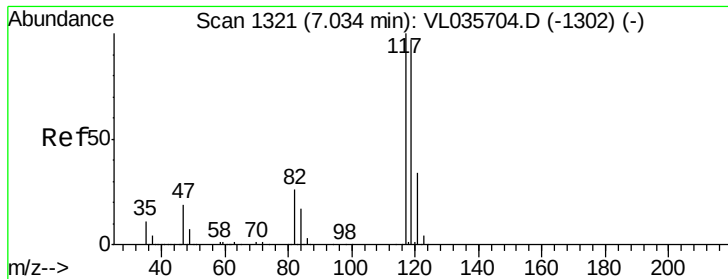
MMDadoda
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#34
 2-Butanone
 Concen: 0.611 ppbv
 RT: 5.26 min Scan# 768
 Delta R.T. 0.00 min
 Lab File: VL035716.D
 Acq: 23 Sep 2020 13:04

Tgt Ion	Ratio	Lower	Upper
43	100		
72	32.3	26.1	39.1





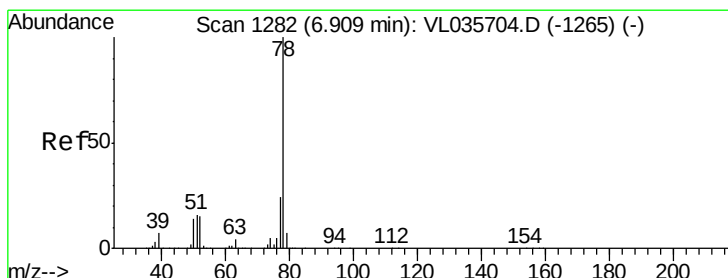
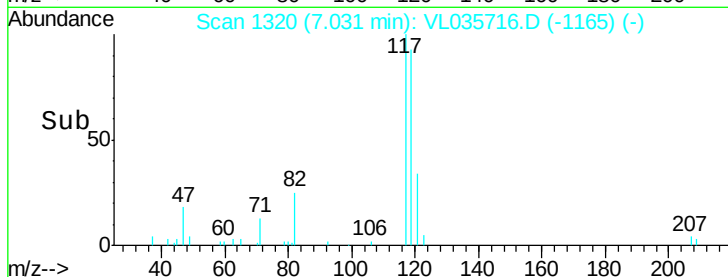
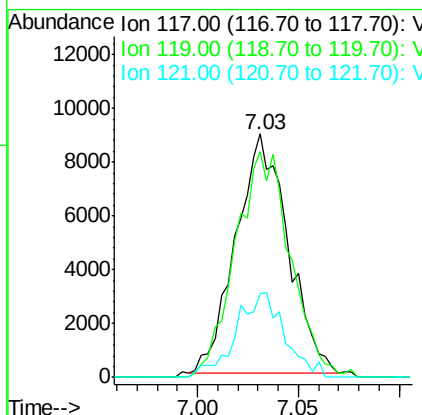
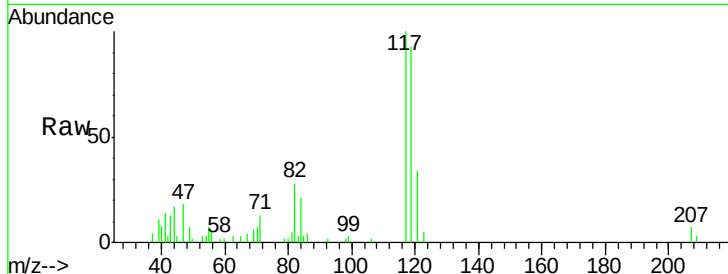
#35
Carbon Tetrachloride
Concen: 0.074 ppbv
RT: 7.03 min Scan# 1320
Delta R.T. -0.00 min
Lab File: VL035716.D
Acq: 23 Sep 2020 13:04

Instrument :
MSVOA_L
ClientSampleId :
B-1DUP

Tot Ion	Ion	Ratio	Resp	Lower	Upper
117	100		16041		
119	94.3	77.7	116.5		
121	34.7	26.9	40.3		

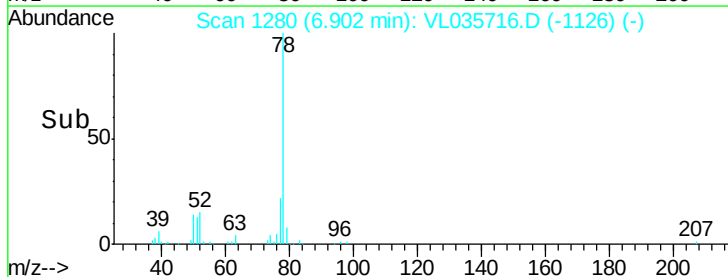
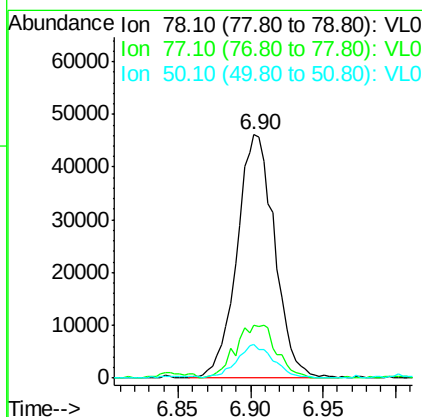
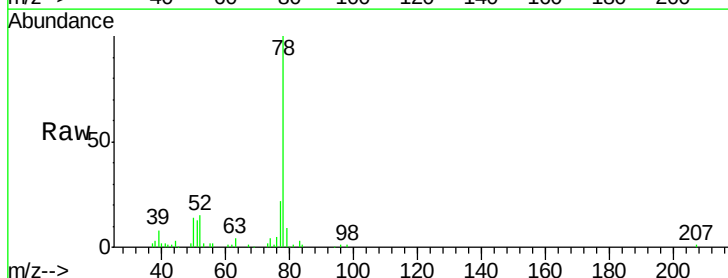
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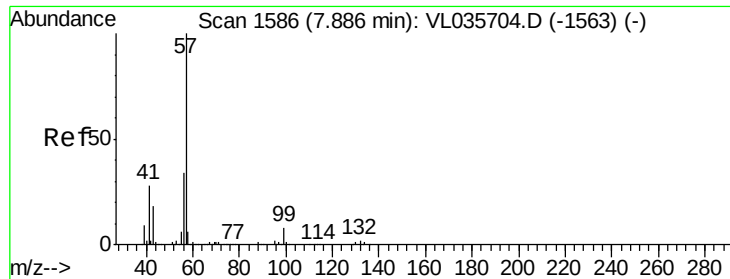
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#36
Benzene
Concen: 0.308 ppbv
RT: 6.90 min Scan# 1280
Delta R.T. -0.01 min
Lab File: VL035716.D
Acq: 23 Sep 2020 13:04

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
78	100		83167		
77	21.6	19.3	28.9		
50	13.9	11.6	17.4		





#44

2,2,4-Trimethylpentane

Concen: 9.684 ppbv

RT: 7.89 min Scan# 1586

Delta R.T. 0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Instrument :

MSVOA_L

ClientSampleId :

B-1DUP

Tot Ion: 57 Resp: 3752561

Ion Ratio Lower Upper

57 100

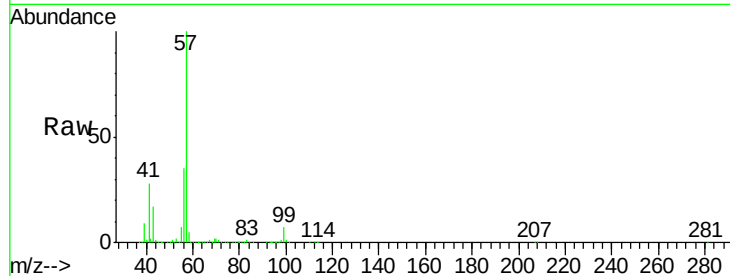
41 27.4 21.2 31.8

56 34.2 25.8 38.8

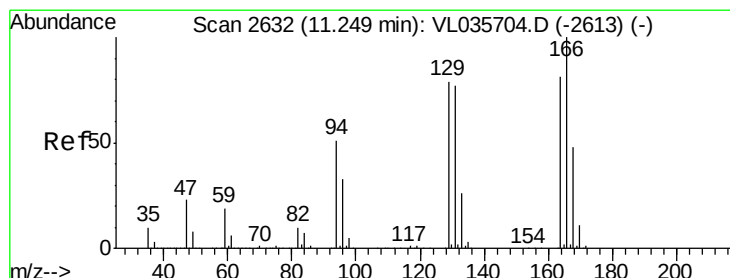
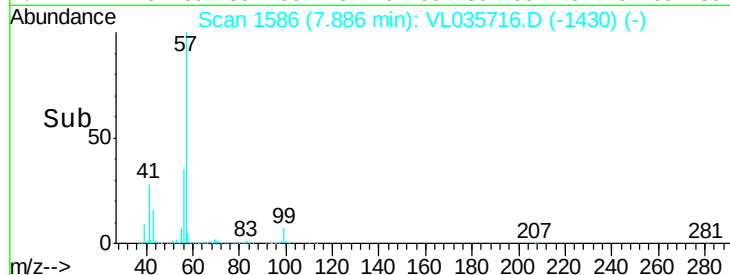
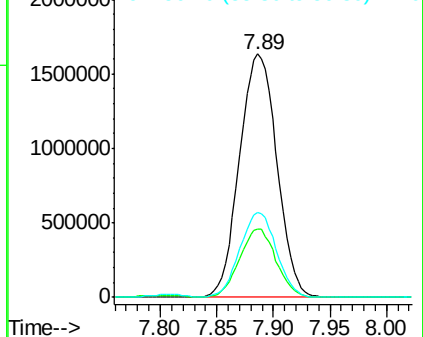
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Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 0.174 ppbv

RT: 11.25 min Scan# 2631

Delta R.T. -0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Tgt Ion: 164 Resp: 22597

Ion Ratio Lower Upper

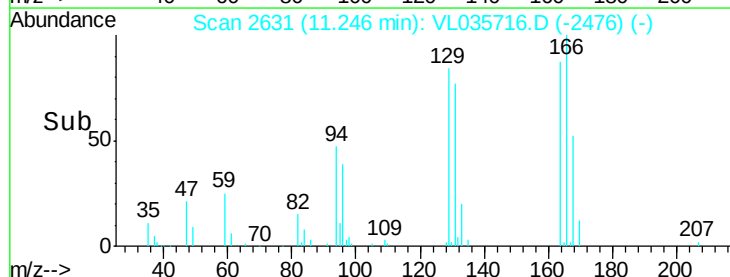
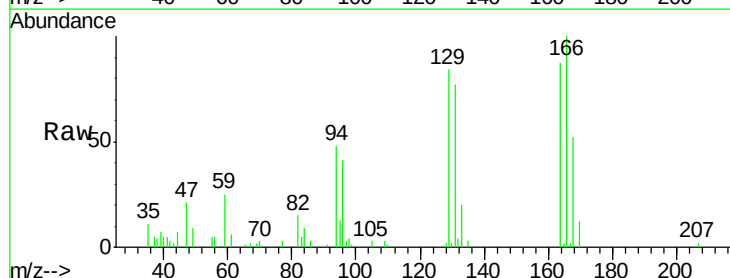
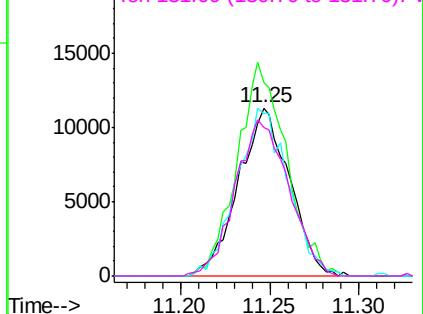
164 100

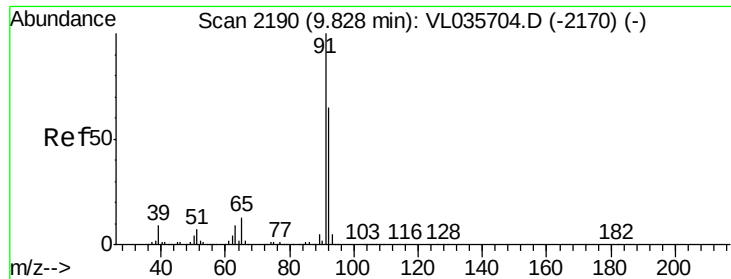
166 114.7 98.7 148.1

129 96.5 78.4 117.6

131 88.3 76.2 114.2

Abundance Ion 163.90 (163.60 to 164.60): V
Ion 165.90 (165.60 to 166.60): V
Ion 129.00 (128.70 to 129.70): V
Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 1.292 ppbv

RT: 9.83 min Scan# 2189

Delta R.T. -0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Instrument :

MSVOA_L

ClientSampleId :

B-1DUP

Tot Ion: 91 Resp: 411346

Ion Ratio Lower Upper

91 100

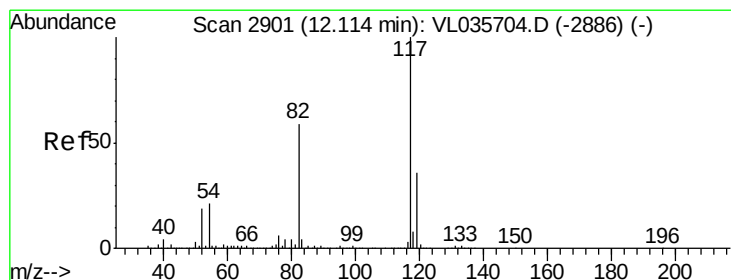
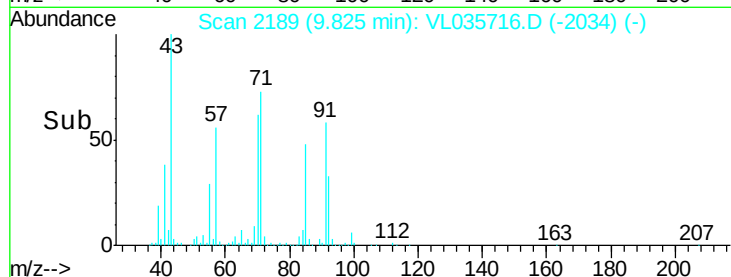
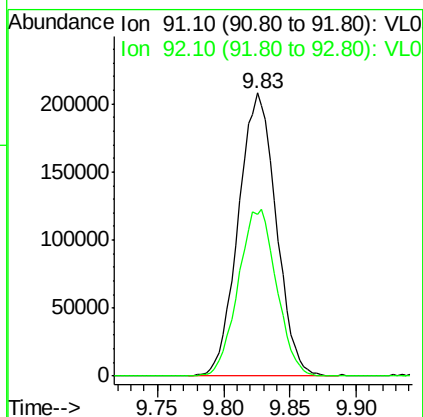
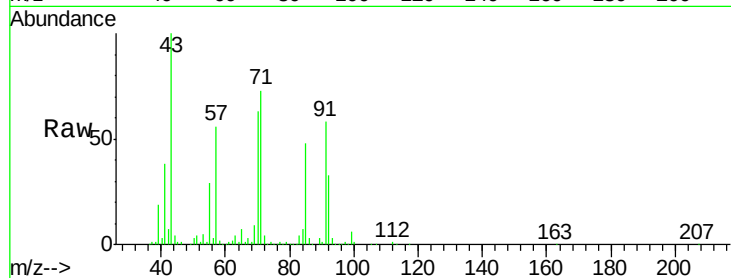
92 60.1 50.0 75.0

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.11 min Scan# 2899

Delta R.T. -0.01 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

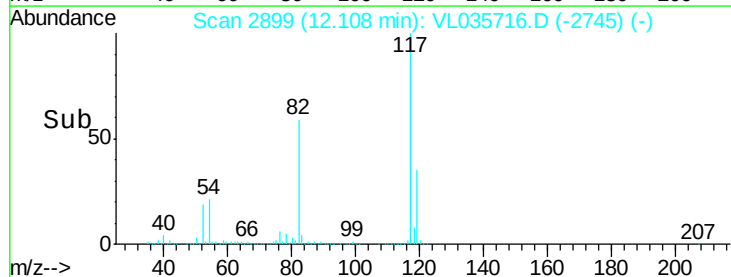
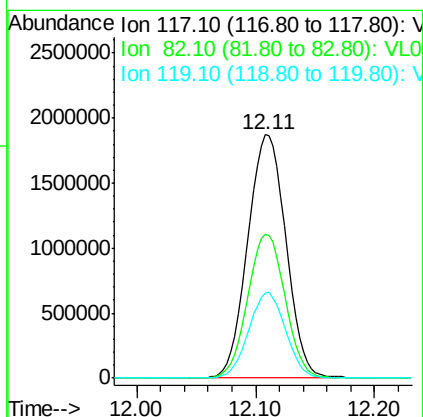
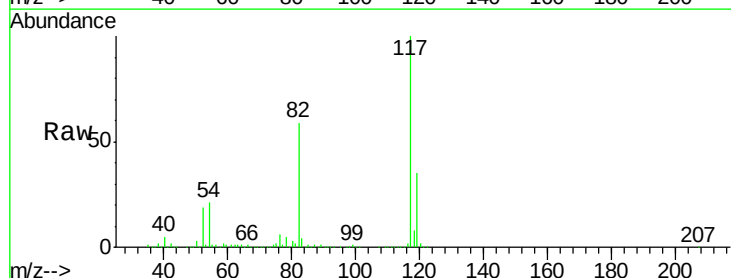
Tgt Ion: 117 Resp: 4165217

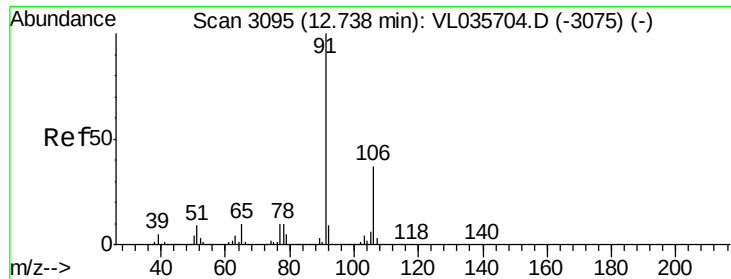
Ion Ratio Lower Upper

117 100

82 58.1 46.1 69.1

119 34.2 28.0 42.0





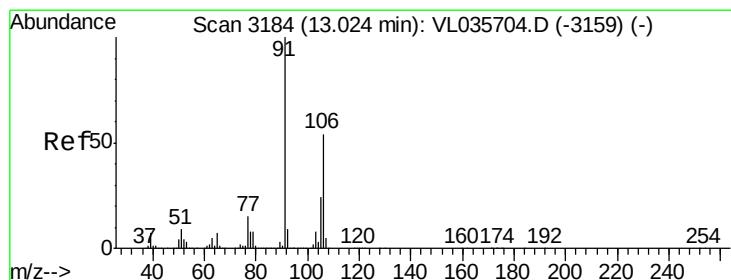
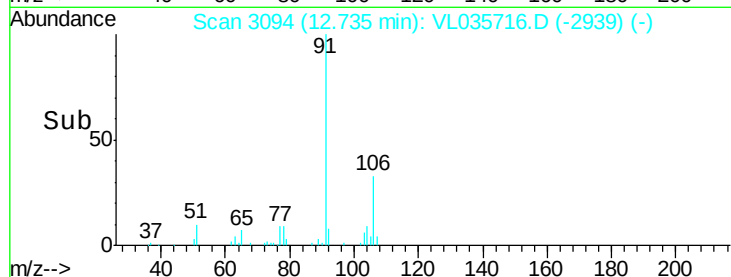
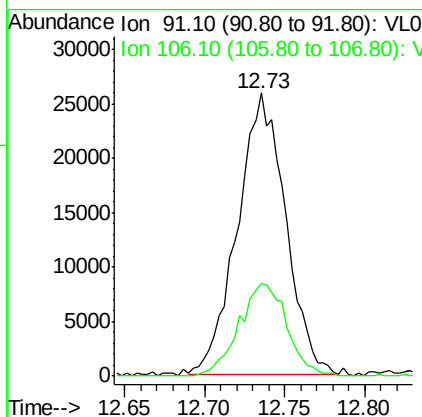
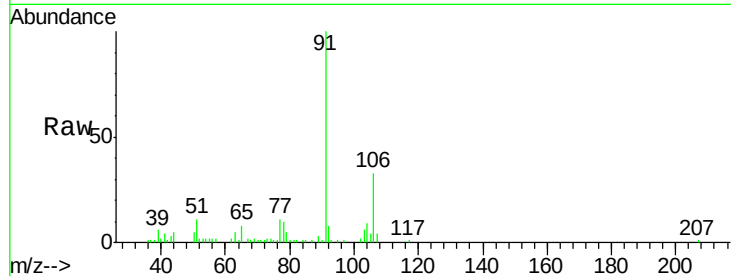
#58
Ethyl Benzene
Concen: 0.127 ppbv
RT: 12.73 min Scan# 3094
Delta R.T. -0.00 min
Lab File: VL035716.D
Acq: 23 Sep 2020 13:04

Instrument :
MSVOA_L
ClientSampled :
B-1DUP

Tot Ion	Ratio	Lower	Upper
91	100		
106	32.9	29.7	44.5

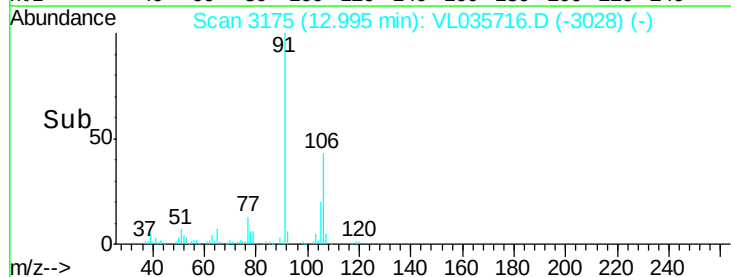
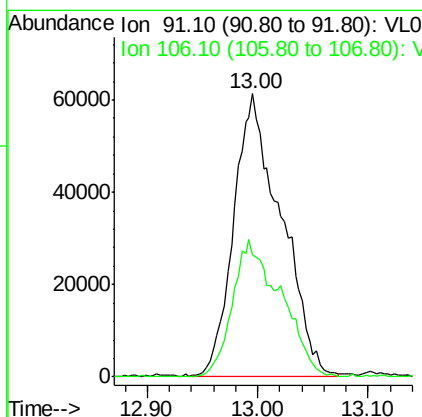
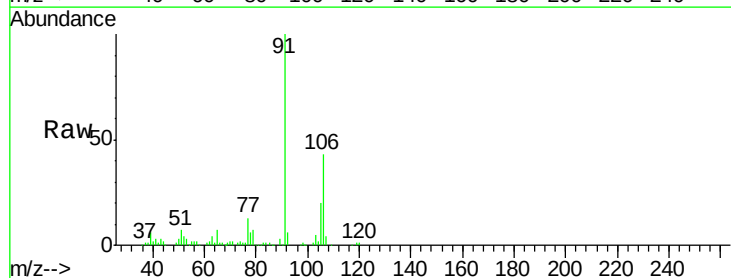
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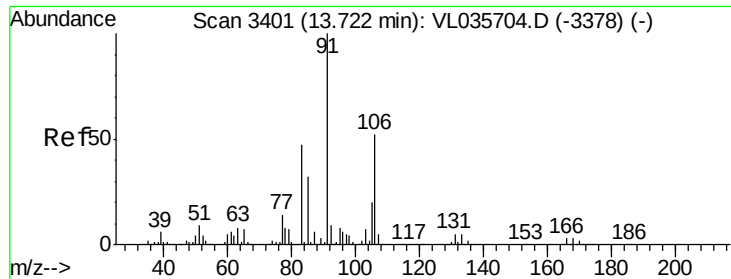
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#59
m/p-Xylene
Concen: 0.496 ppbv
RT: 13.00 min Scan# 3175
Delta R.T. -0.03 min
Lab File: VL035716.D
Acq: 23 Sep 2020 13:04

Tgt Ion	Ratio	Lower	Upper
91	100		
106	49.7	41.4	62.0





#60

o-Xylene

Concen: 0.179 ppbv

RT: 13.72 min Scan# 3399

Delta R.T. -0.01 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Instrument :

MSVOA_L

ClientSampled :

B-1DUP

Tot Ion: 91 Resp: 66036

Ion Ratio Lower Upper

91 100

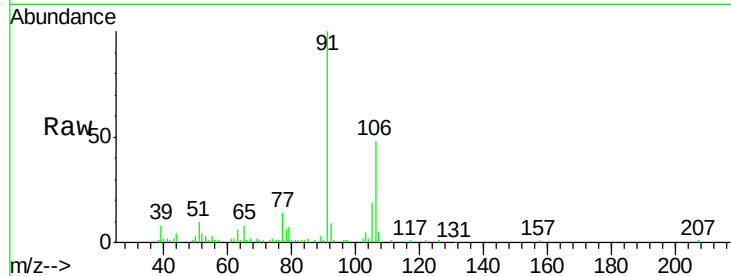
106 48.7 25.0 75.0

Manual Integrations

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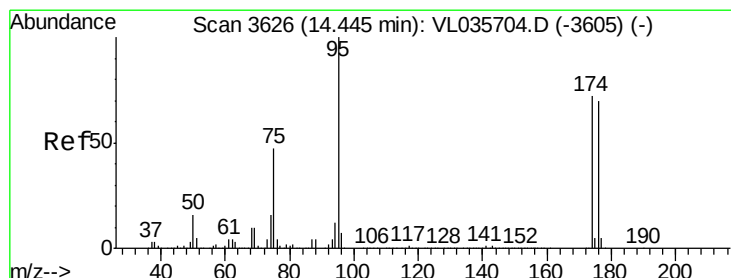
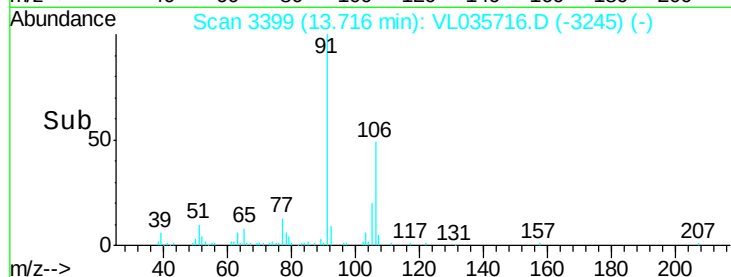
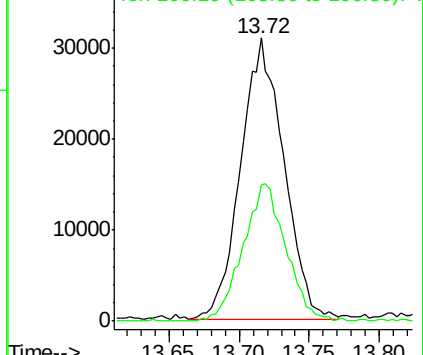
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.194 ppbv

RT: 14.44 min Scan# 3625

Delta R.T. -0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

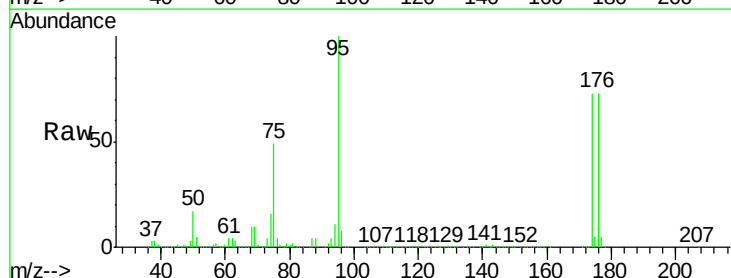
Tgt Ion: 95 Resp: 3181758

Ion Ratio Lower Upper

95 100

174 74.9 59.6 89.4

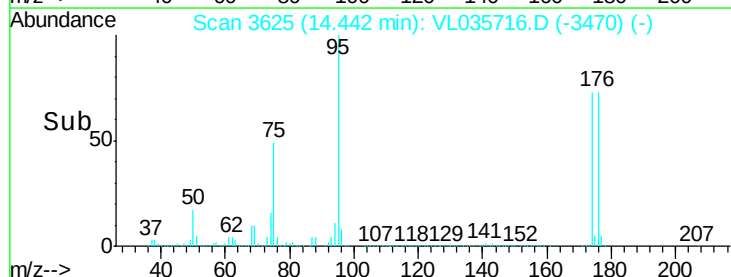
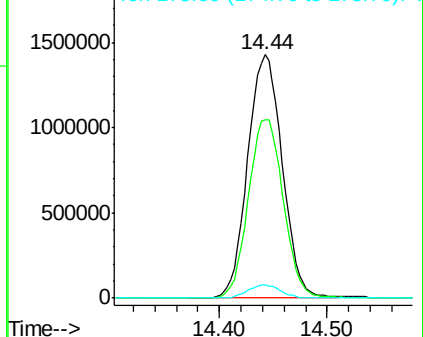
175 5.3 4.2 6.4

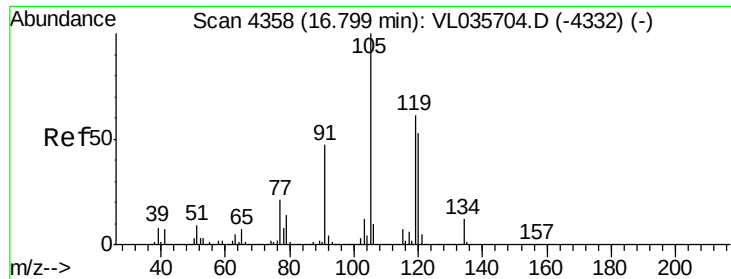


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74

1,2,4-Trimethylbenzene

Concen: 0.405 ppbv

RT: 16.80 min Scan# 4357

Delta R.T. -0.00 min

Lab File: VL035716.D

Acq: 23 Sep 2020 13:04

Instrument :

MSVOA_L

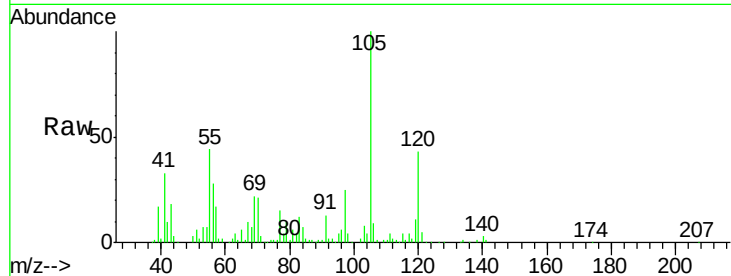
ClientSampleId :

B-1DUP

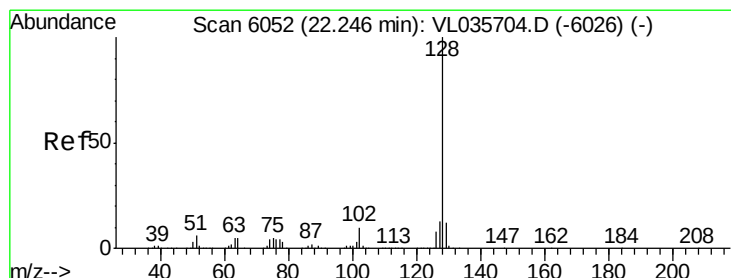
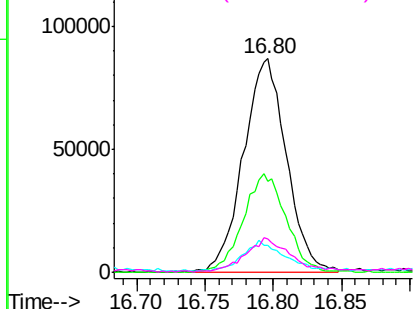
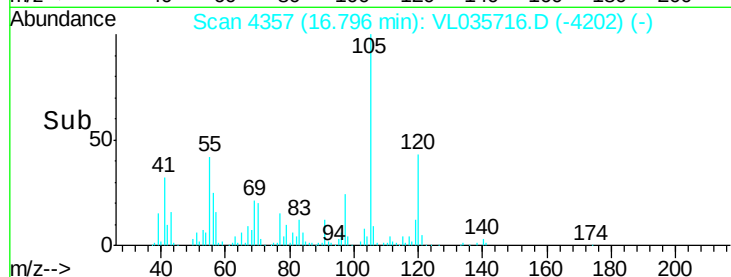
Tot Ion	Ratio	Resp	Lower	Upper
105	100	188756		
120	42.7		42.5	63.7
91	11.8		37.7	56.5#
77	14.9		16.7	25.1#

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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



#79

Naphthalene

Concen: 1.850 ppbv

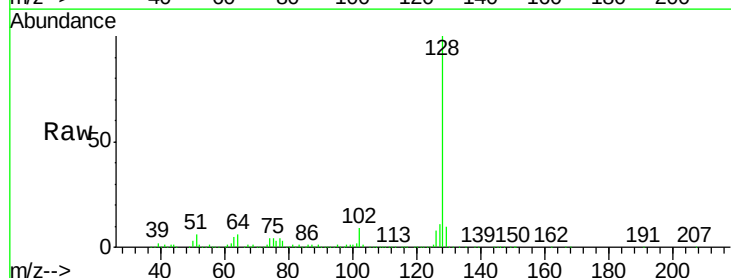
RT: 22.24 min Scan# 6050

Delta R.T. -0.01 min

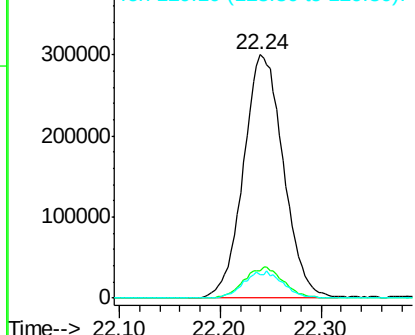
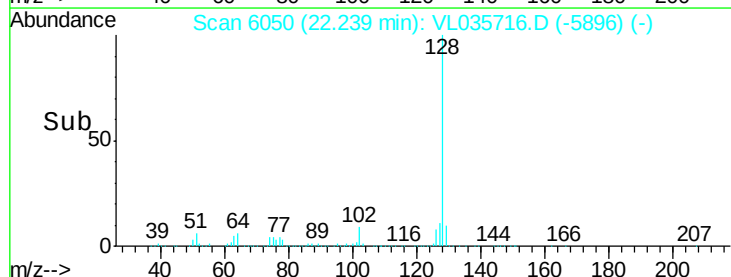
Lab File: VL035716.D

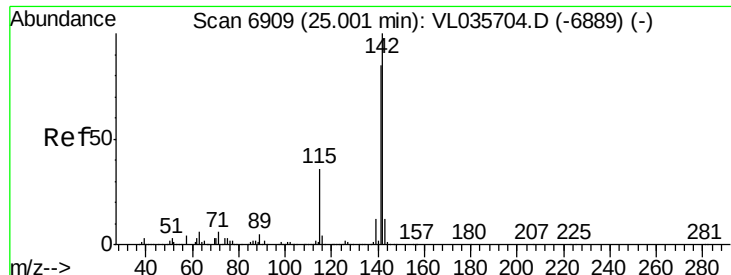
Acq: 23 Sep 2020 13:04

Tgt Ion	Ratio	Resp	Lower	Upper
128	100	822409		
127	11.4		10.6	15.8
129	9.9		9.4	14.0



Abundance Ion 128.10 (127.80 to 128.80): V
Ion 127.10 (126.80 to 127.80): V
Ion 129.10 (128.80 to 129.80): V





#80
Naphthalene, 2-methyl-
Concen: 0.162 ppbv
RT: 25.00 min Scan# 6909
Delta R.T. 0.00 min
Lab File: VL035716.D
Acq: 23 Sep 2020 13:04

Instrument :
MSVOA_L
ClientSampleId :
B-1DUP

Tot Ion	Ratio	Lower	Upper
142	100		
141	91.3	68.2	102.4
115	48.5	27.8	41.6

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