

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051220\
 Data File : VL035012.D
 Acq On : 13 May 2020 7:11
 Operator : SY/AP
 Sample : L2566-06DL 40X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-3DL

Manual Integrations
 APPROVED

MMDadoda
 5/13/2020 5:13:24 PM

Quant Time: May 13 08:55:58 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed May 0
 QLast Update : Wed May 06 14:49:39 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	829422	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	2026686	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.10	117	1867103	10.00	ppbv	-0.03

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.44	95	1511533	10.00	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
9) Propene	2.96	41	12466	0.303	ppbv	91
10) Heptane	8.11	43	85763	0.833	ppbv	99
13) Ethanol	3.56	45	105689	7.794	ppbv	94
15) Acetone	3.81	43	1171201	10.681	ppbv	99
17) tert-Butyl alcohol	4.26	59	160872	1.649	ppbv	96
19) Isopropyl Alcohol	3.93	45	462266	6.322	ppbv #	1
20) Methylene Chloride	4.31	84	11558	0.318	ppbv #	80
22) trans-1,2-Dichloroethene	4.85	96	14739	0.397	ppbv	98
24) 1,1-Dichloroethane	4.98	63	17777m	0.166	ppbv	
26) Hexane	5.66	57	51947m	0.651	ppbv	
29) Chloroform	5.73	83	245409	1.878	ppbv	96
30) Cyclohexane	7.12	84	12732m	0.207	ppbv	
31) cis-1,2-Dichloroethene	5.52	61	130293	1.672	ppbv	98
32) 1,1,1-Trichloroethane	6.49	97	9179m	0.078	ppbv	
34) 2-Butanone	5.22	43	36358	0.289	ppbv	93
38) Trichloroethene	7.83	130	467430	7.221	ppbv	96
41) Tetrahydrofuran	6.04	42	14872m	0.224	ppbv	
44) 2,2,4-Trimethylpentane	7.86	57	103467	0.348	ppbv #	83
52) Tetrachloroethene	11.23	164	1030913	17.351	ppbv	97
53) Toluene	9.81	91	175155	0.989	ppbv	99
58) Ethyl Benzene	12.73	91	116716	0.506	ppbv	94
59) m/p-Xylene	12.98	91	623669	3.070	ppbv #	59
60) o-Xylene	13.71	91	194472	0.970	ppbv	100
62) Isopropylbenzene	14.69	105	158494	0.530	ppbv	97
64) n-propylbenzene	15.60	120	10925m	0.142	ppbv	
72) 4-Ethyltoluene	15.87	105	33936m	0.152	ppbv	
73) 1,3,5-Trimethylbenzene	16.04	105	58993m	0.271	ppbv	
74) 1,2,4-Trimethylbenzene	16.84	105	41453m	0.174	ppbv	

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

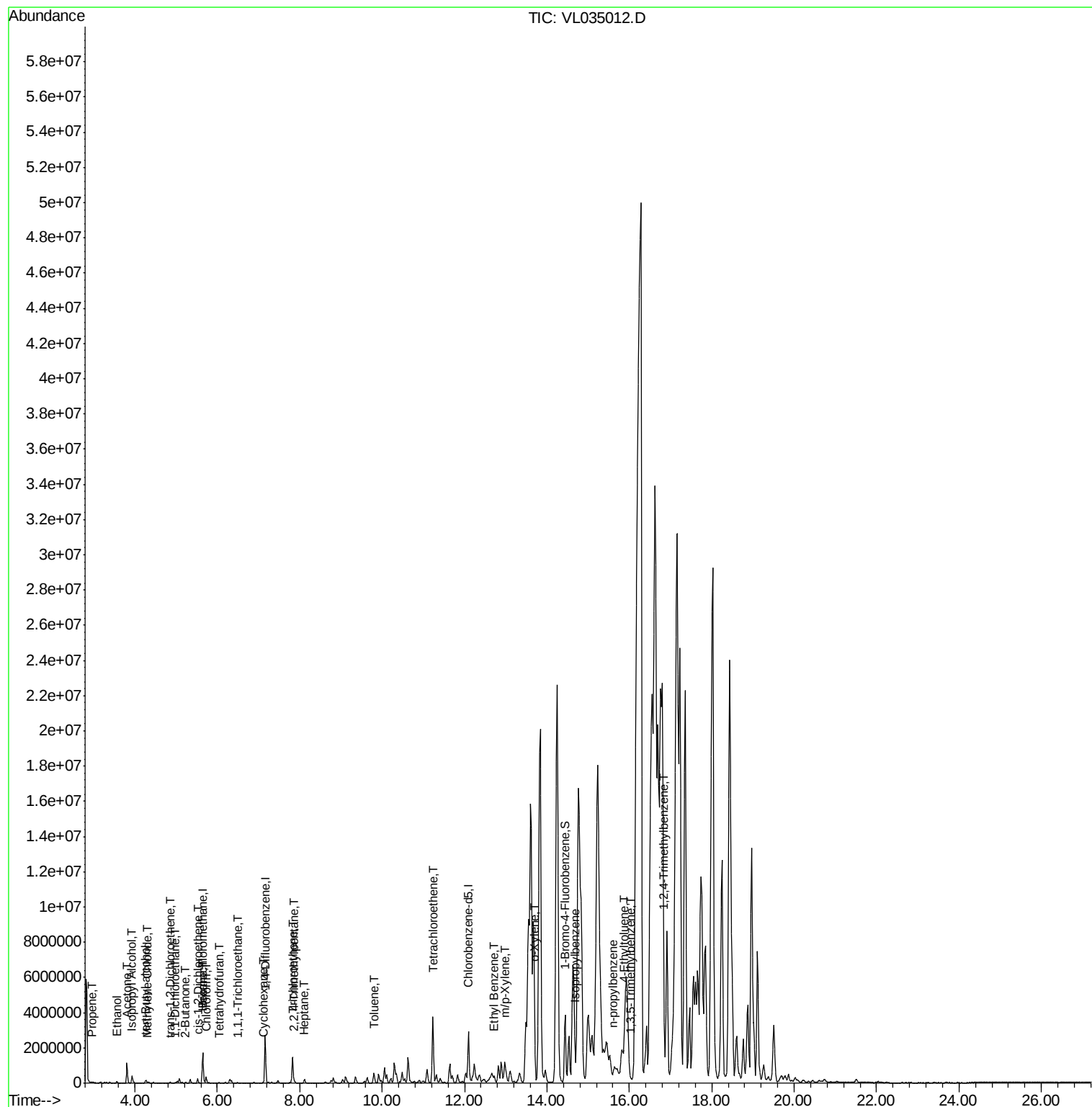
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL051220\
Data File : VL035012.D
Acq On : 13 May 2020 7:11
Operator : SY/AP
Sample : L2566-06DL 40X
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

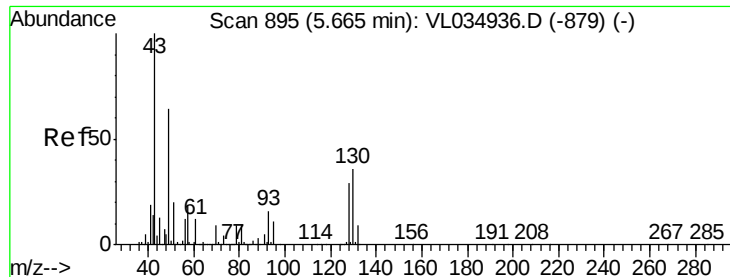
Instrument :
MSVOA_L
ClientSampleId :
SG-3DL

Manual Integrations
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5/13/2020 5:13:24 PM

Quant Time: May 13 08:55:58 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed May
QLast Update : Wed May 06 14:49:39 2020
Response via : Initial Calibration





#1

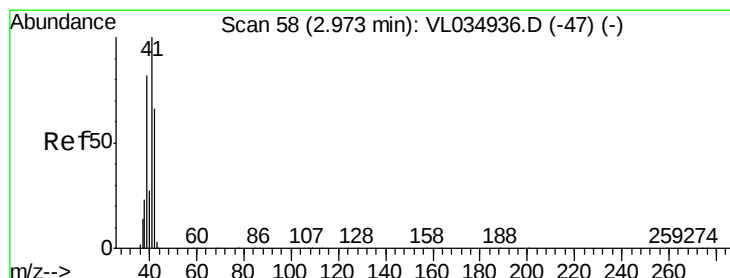
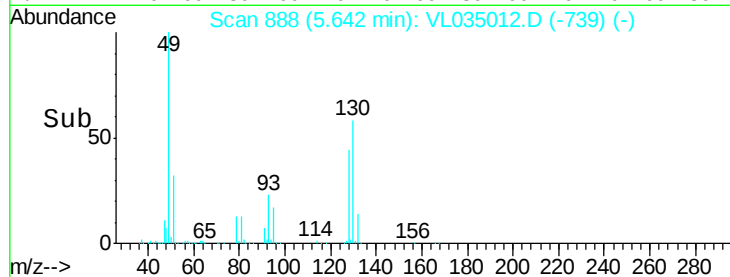
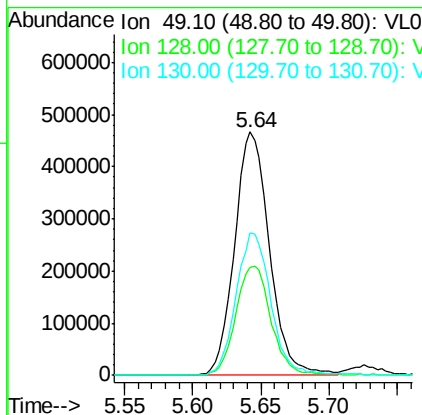
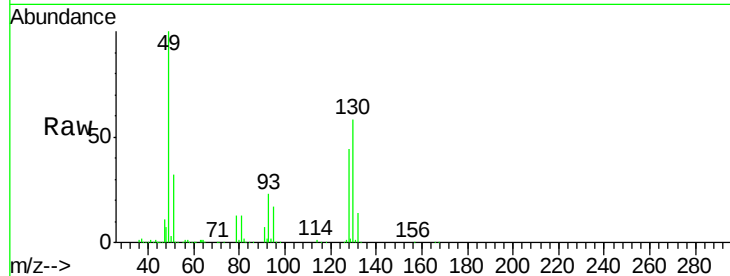
Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.64 min Scan# 888
 Delta R.T. -0.02 min
 Lab File: VL035012.D
 Acq: 13 May 2020 7:11

Instrument :
 MSVOA_L
 ClientSampled :
 SG-3DL

Tot Ion	Ratio	Lower	Upper
49	100		
128	45.5	22.1	66.5
130	58.9	29.1	87.3

Manual Integrations
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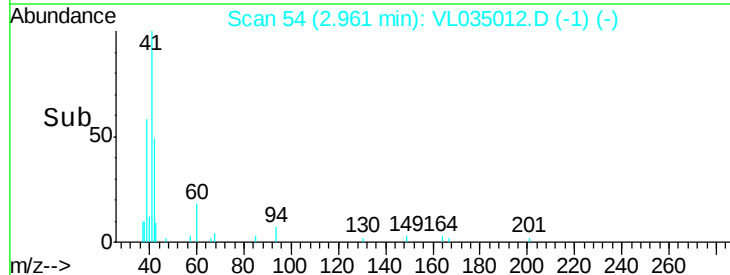
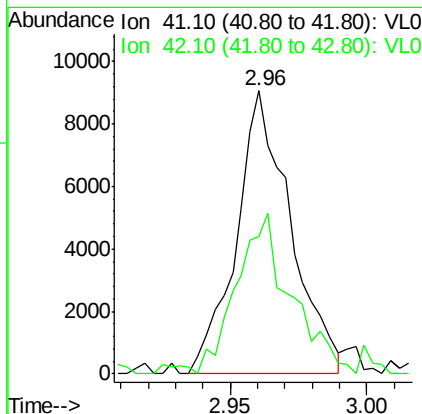
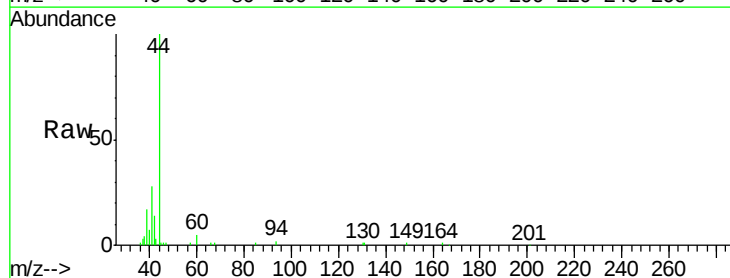
MMDadoda
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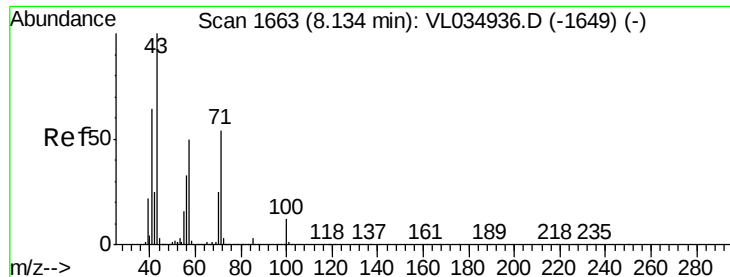


#9

Propene
 Concen: 0.303 ppbv
 RT: 2.96 min Scan# 54
 Delta R.T. -0.01 min
 Lab File: VL035012.D
 Acq: 13 May 2020 7:11

Tgt Ion	Ratio	Lower	Upper
41	100		
42	61.0	54.5	81.7





#10

Heptane

Concen: 0.833 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. -0.02 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Instrument :

MSVOA_L

ClientSampleId :

SG-3DL

Tot Ion: 43 Resp: 85763

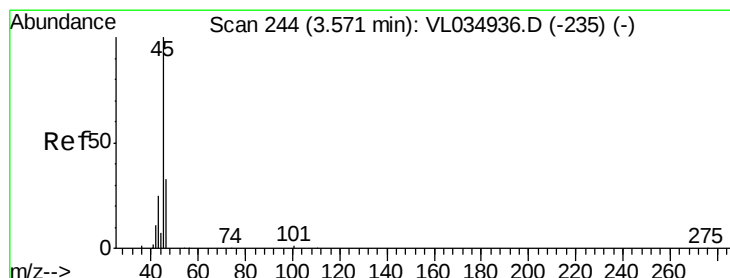
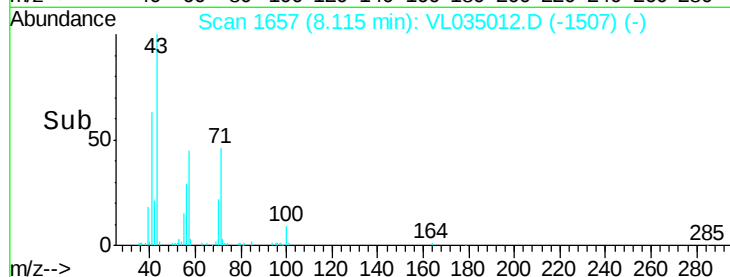
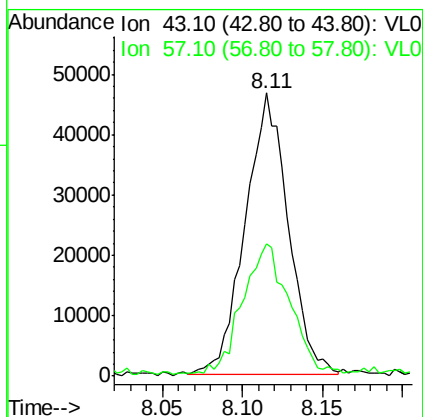
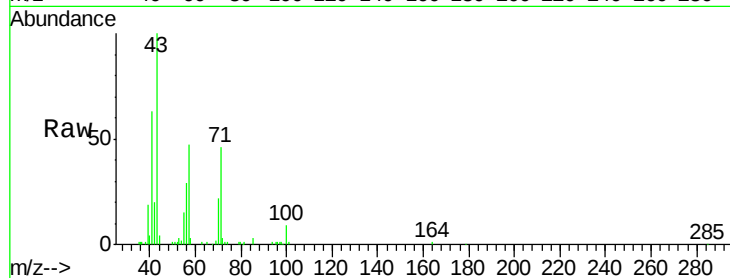
Ion Ratio Lower Upper

43 100

57 50.4 41.1 61.7

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#13

Ethanol

Concen: 7.794 ppbv

RT: 3.56 min Scan# 240

Delta R.T. -0.01 min

Lab File: VL035012.D

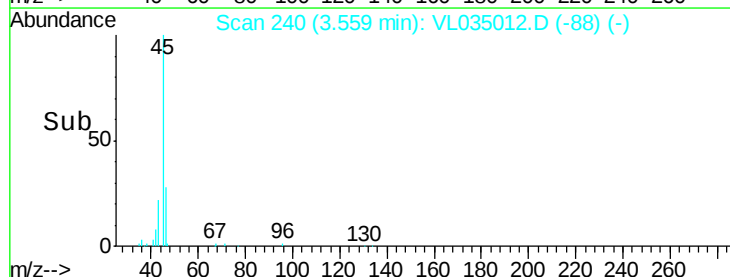
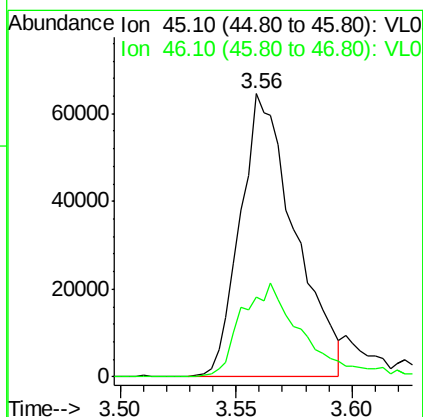
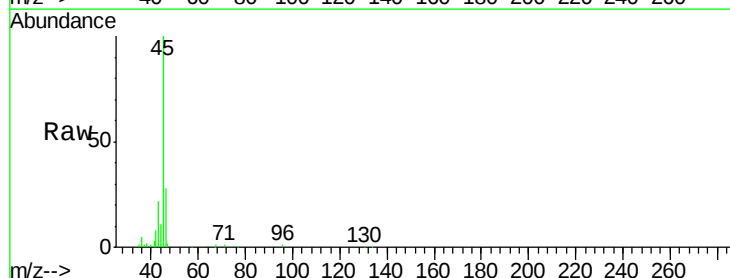
Acq: 13 May 2020 7:11

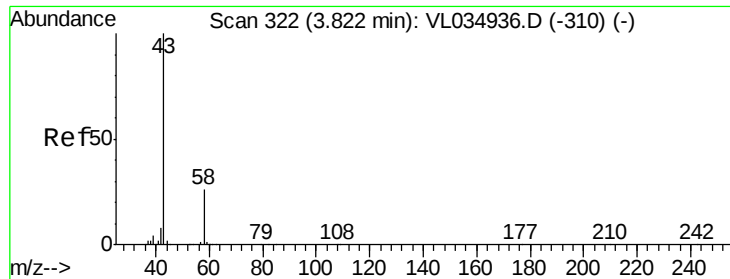
Tgt Ion: 45 Resp: 105689

Ion Ratio Lower Upper

45 100

46 39.1 14.3 57.3





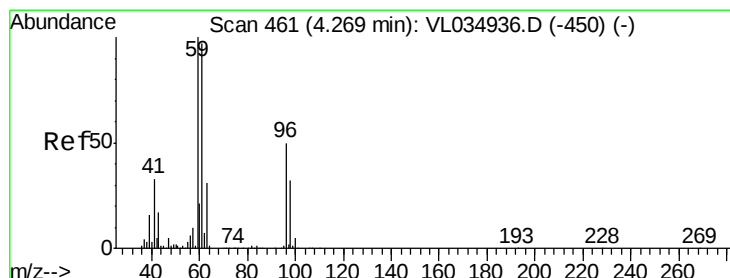
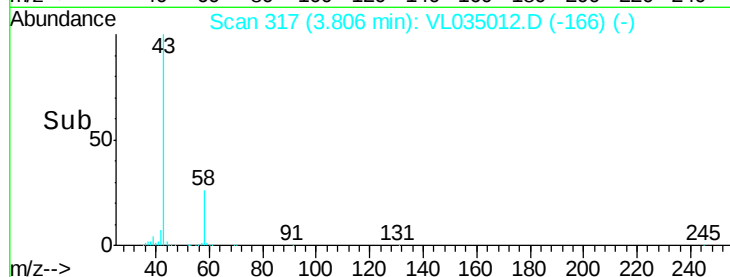
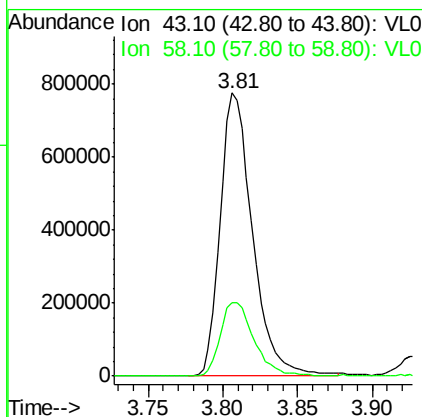
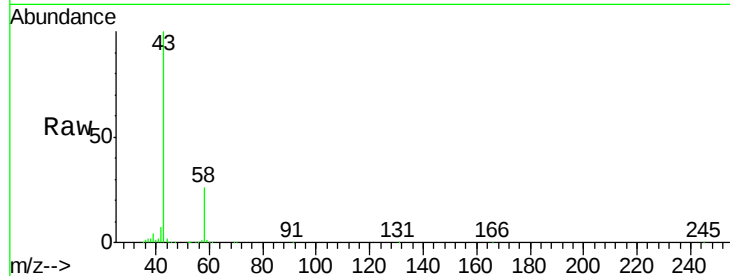
#15
Acetone
Concen: 10.681 ppbv
RT: 3.81 min Scan# 317
Delta R.T. -0.02 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Instrument :
MSVOA_L
ClientSampled :
SG-3DL

Tot Ion: 43 Resp: 1171201
Ion Ratio Lower Upper
43 100
58 27.4 21.7 32.5

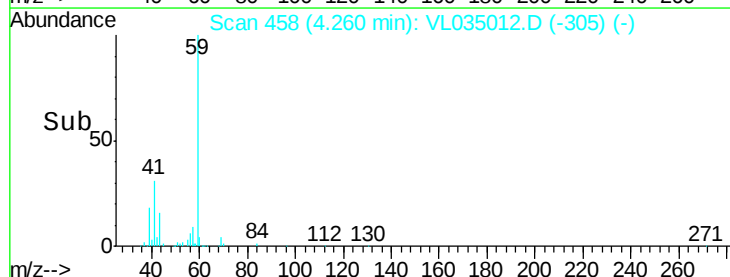
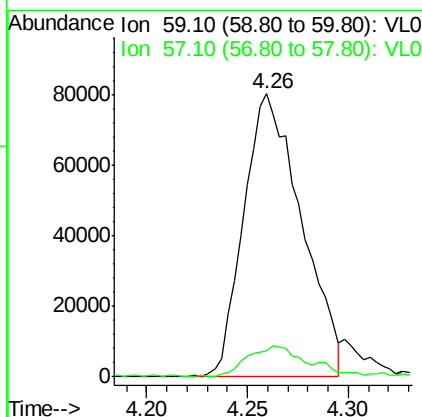
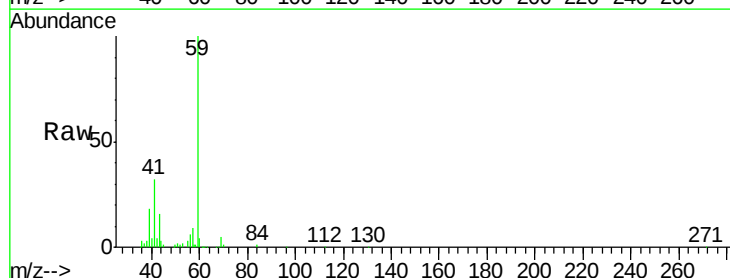
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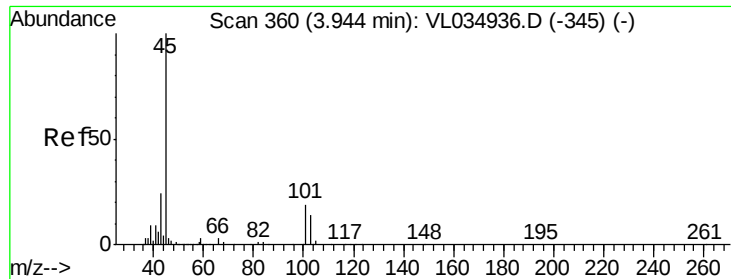
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#17
tert-Butyl alcohol
Concen: 1.649 ppbv
RT: 4.26 min Scan# 458
Delta R.T. -0.01 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Tgt Ion: 59 Resp: 160872
Ion Ratio Lower Upper
59 100
57 12.5 8.7 13.1





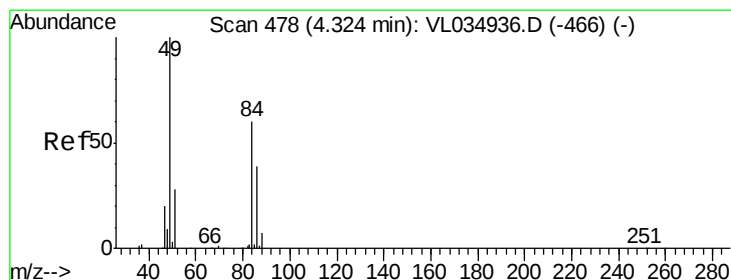
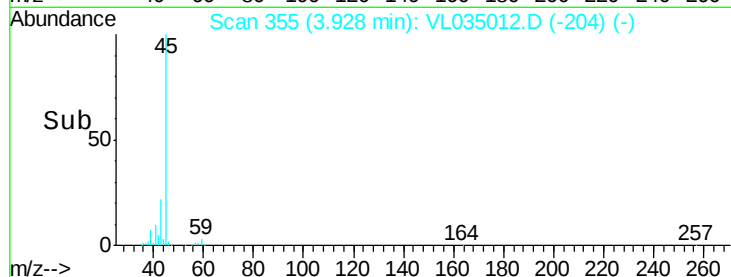
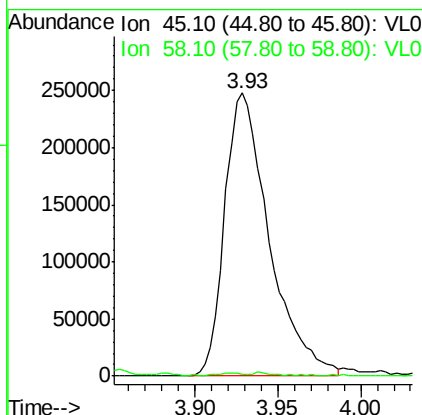
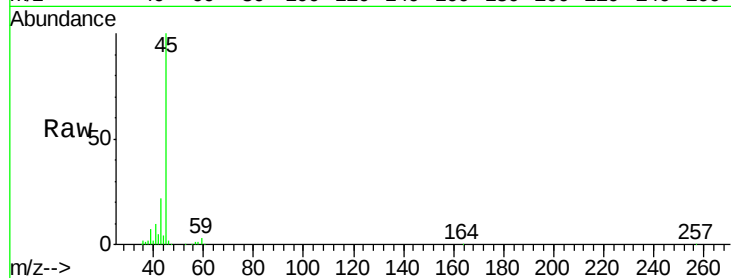
#19
Isopropyl Alcohol
Concen: 6.322 ppbv
RT: 3.93 min Scan# 355
Delta R.T. -0.02 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Instrument :
MSVOA_L
ClientSampled :
SG-3DL

Tot Ion: 45 Resp: 462266
Ion Ratio Lower Upper
45 100
58 69.3 1.7 2.5#

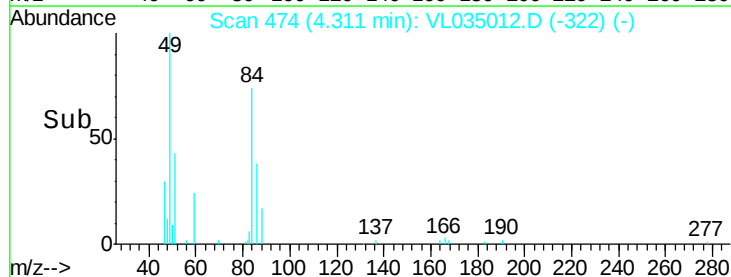
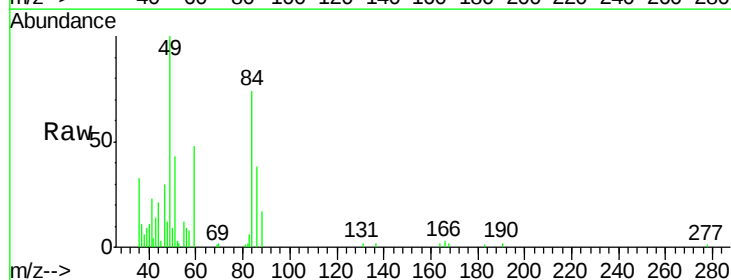
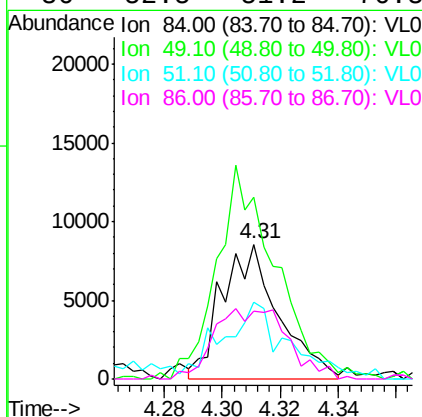
Manual Integrations
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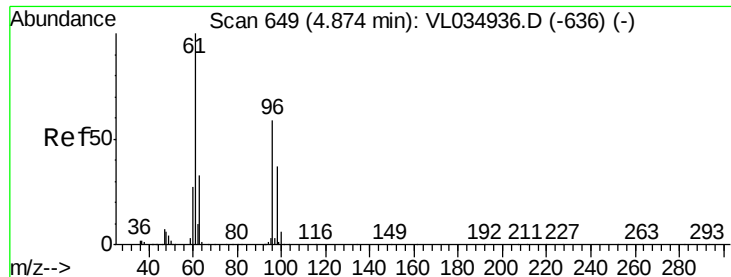
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#20
Methylene Chloride
Concen: 0.318 ppbv
RT: 4.31 min Scan# 474
Delta R.T. -0.01 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Tgt Ion: 84 Resp: 11558
Ion Ratio Lower Upper
84 100
49 130.0 132.5 198.7#
51 50.4 38.4 57.6
86 52.5 51.2 76.8





#22

trans-1,2-Dichloroethene

Concen: 0.397 ppbv

RT: 4.85 min Scan# 643

Delta R.T. -0.02 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Instrument :

MSVOA_L

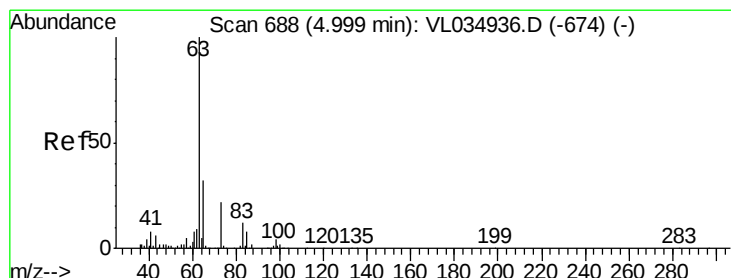
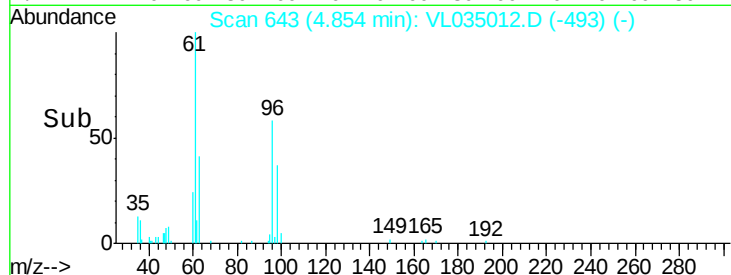
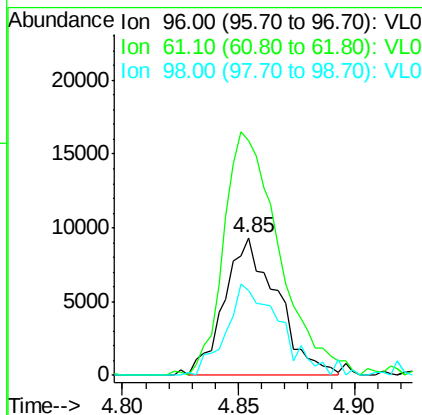
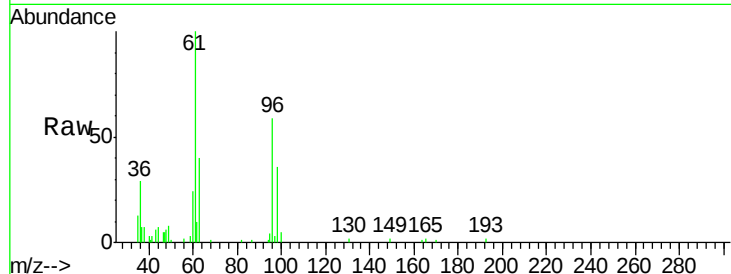
ClientSampled :

SG-3DL

Tot Ion:	96	Resp:	14739
Ion	Ratio	Lower	Upper
96	100		
61	170.6	135.3	202.9
98	59.6	50.4	75.6

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#24

1,1-Dichloroethane

Concen: 0.166 ppbv m

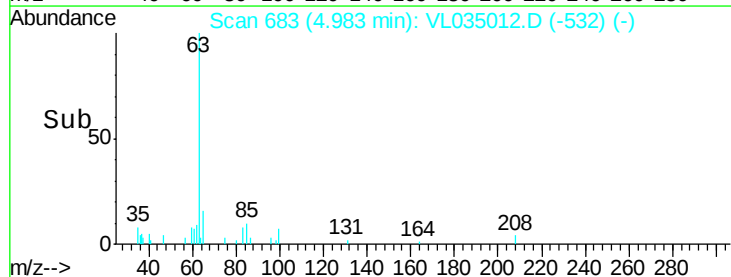
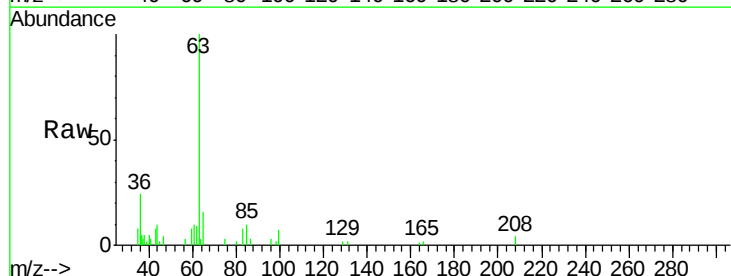
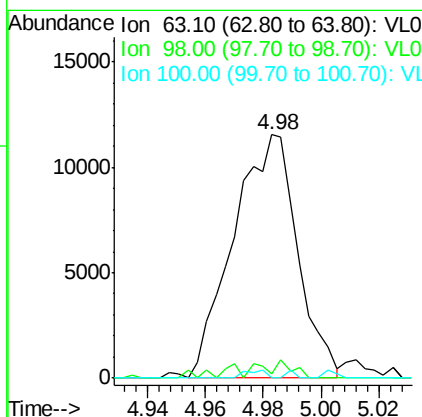
RT: 4.98 min Scan# 683

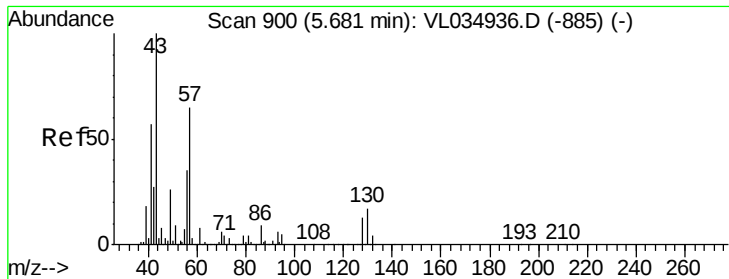
Delta R.T. -0.02 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Tgt Ion:	63	Resp:	17777
Ion	Ratio	Lower	Upper
63	100		
98	2.0	2.0	6.0#
100	0.0	1.1	3.5#





#26

Hexane

Concen: 0.651 ppbv m

RT: 5.66 min Scan# 893

Delta R.T. -0.02 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Instrument :

MSVOA_L

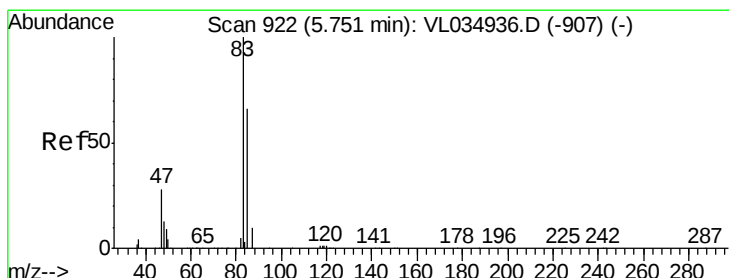
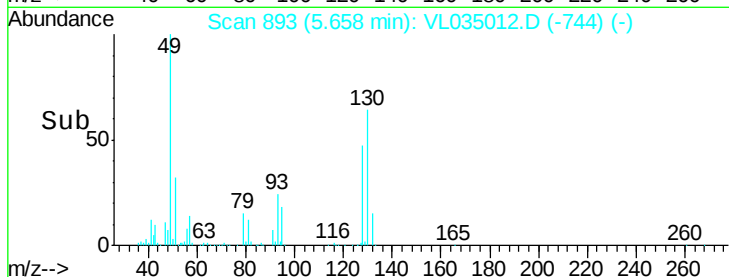
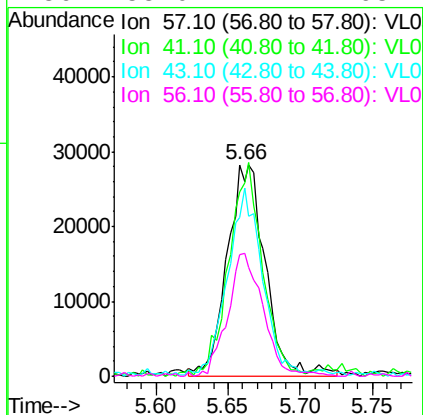
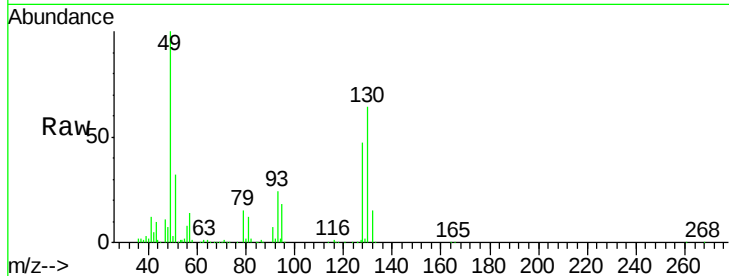
ClientSampled :

SG-3DL

Tot Ion:	57	Resp:	51947
Ion Ratio	Lower	Upper	
57	100		
41	90.2	72.7	109.1
43	81.1	182.1	273.1#
56	55.0	42.2	63.2

Manual Integrations
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#29

Chloroform

Concen: 1.878 ppbv

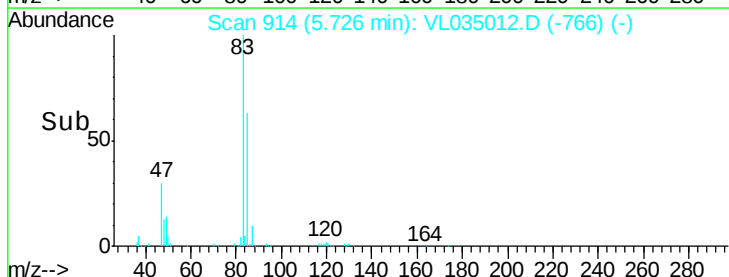
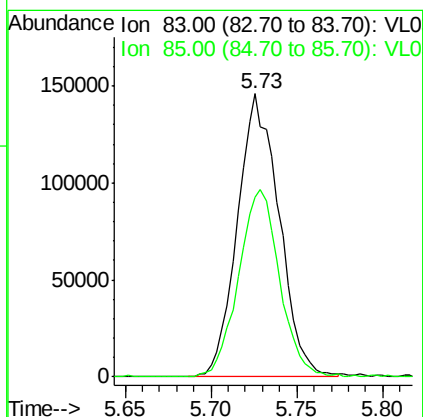
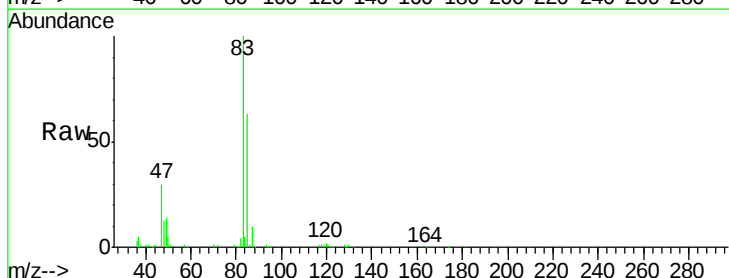
RT: 5.73 min Scan# 914

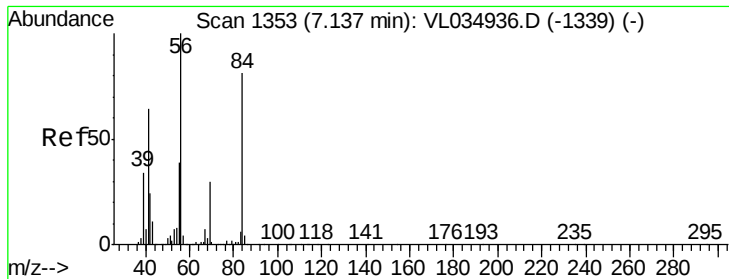
Delta R.T. -0.03 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Tgt Ion:	83	Resp:	245409
Ion Ratio	Lower	Upper	
83	100		
85	63.3	53.0	79.6





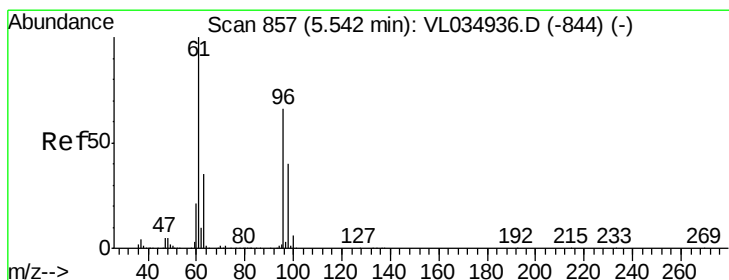
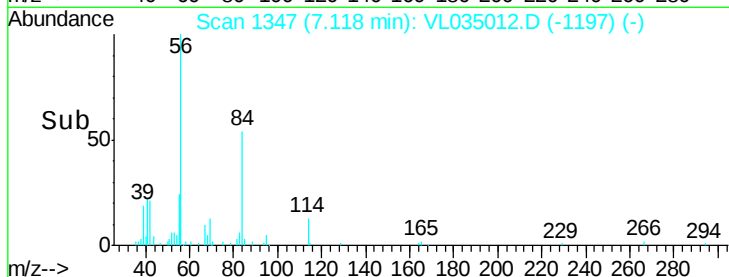
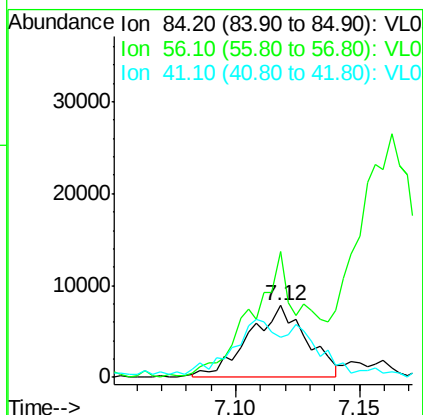
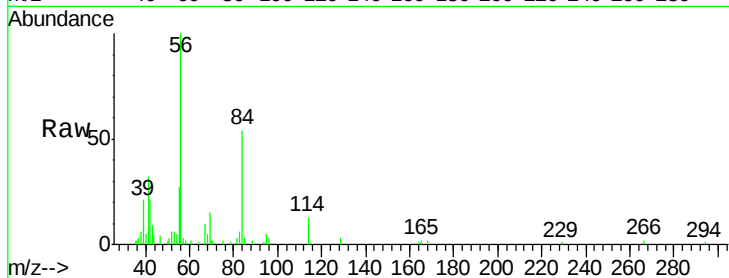
#30
Cvclohexane
Concen: 0.207 ppbv m
RT: 7.12 min Scan# 1347
Delta R.T. -0.02 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Instrument :
MSVOA_L
ClientSampled :
SG-3DL

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	111.4	167.2#
41	128.5	66.7	100.1#

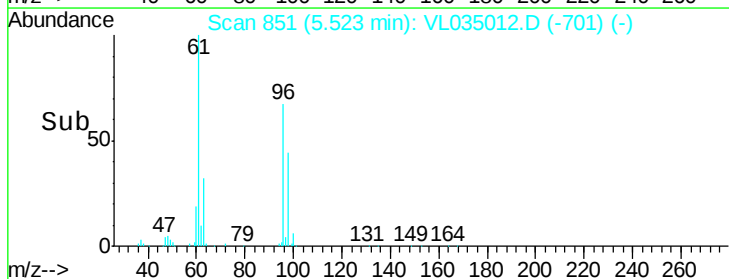
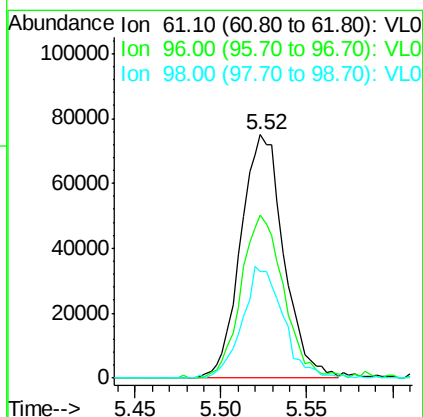
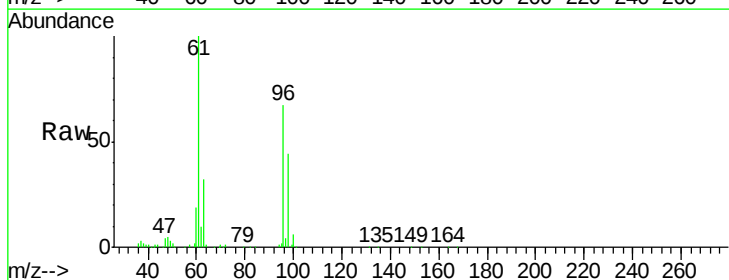
Manual Integrations
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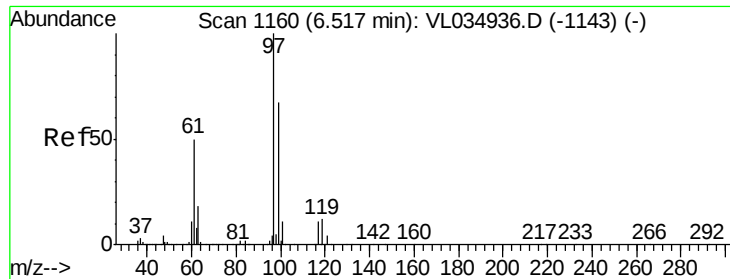
MMDadoda
5/13/2020 5:13:24 PM



#31
cis-1,2-Dichloroethene
Concen: 1.672 ppbv
RT: 5.52 min Scan# 851
Delta R.T. -0.02 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Tgt Ion	Ratio	Lower	Upper
61	100		
96	66.9	53.0	79.6
98	43.3	32.2	48.2





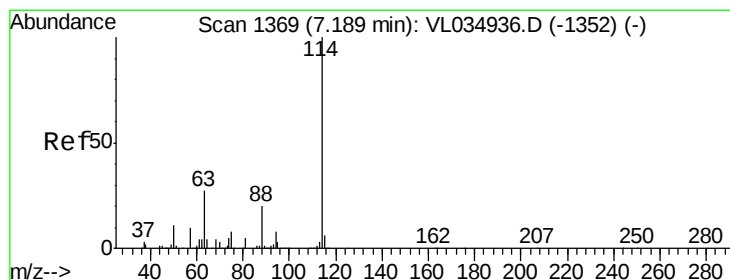
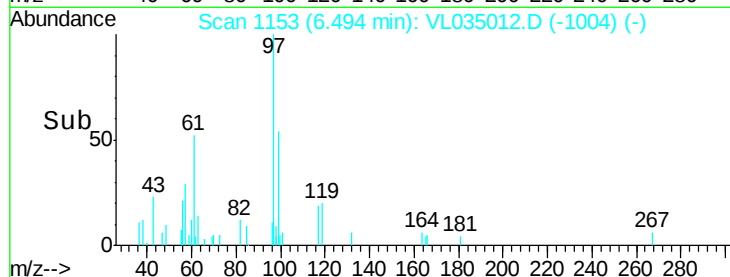
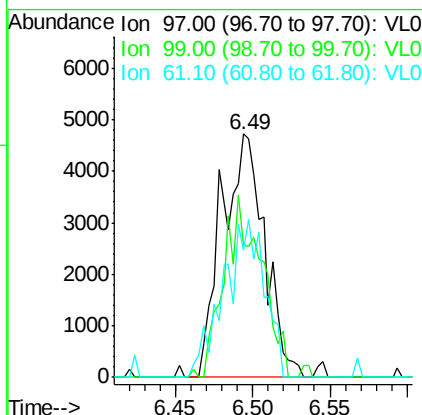
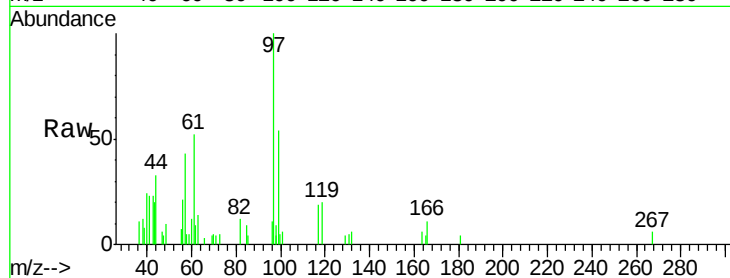
#32
 1,1,1-Trichloroethane
 Concen: 0.078 ppbv m
 RT: 6.49 min Scan# 1153
 Delta R.T. -0.02 min
 Lab File: VL035012.D
 Acq: 13 May 2020 7:11

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-3DL

Tot Ion	Ratio	Lower	Upper
97	100		
99	66.6	52.1	78.1
61	61.7	41.8	62.8

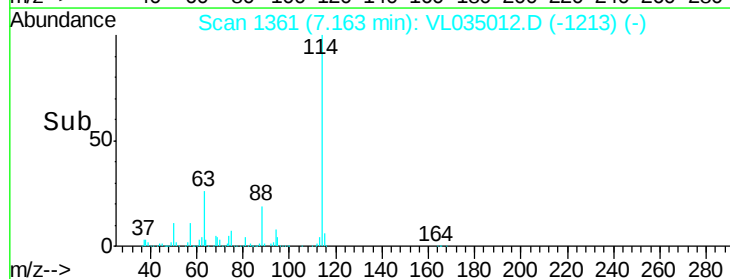
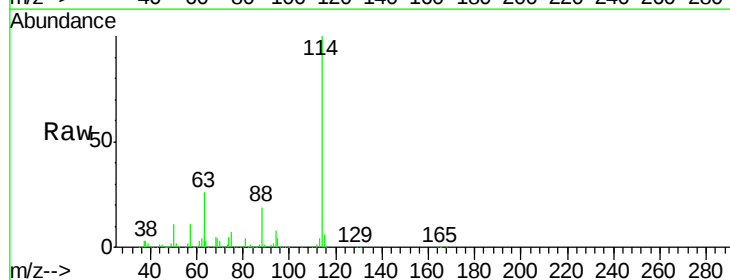
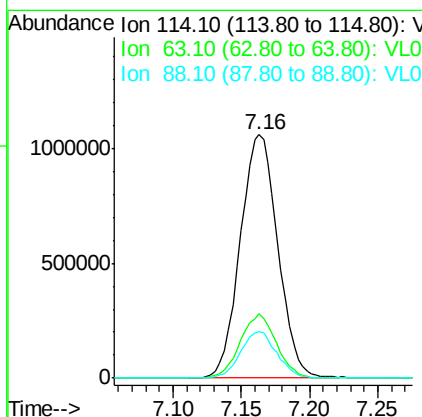
Manual Integrations
 APPROVED

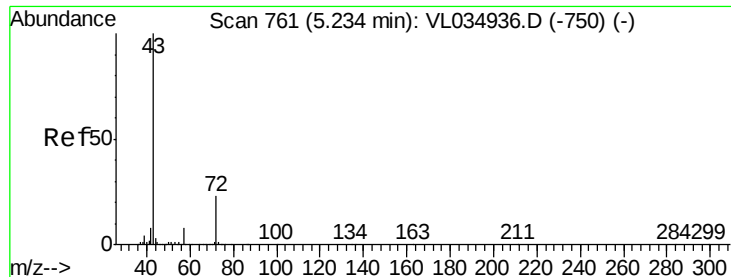
MMDadoda
 5/13/2020 5:13:24 PM



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1361
 Delta R.T. -0.03 min
 Lab File: VL035012.D
 Acq: 13 May 2020 7:11

Tgt Ion	Ratio	Lower	Upper
114	100		
63	25.5	22.2	33.4
88	18.4	15.5	23.3





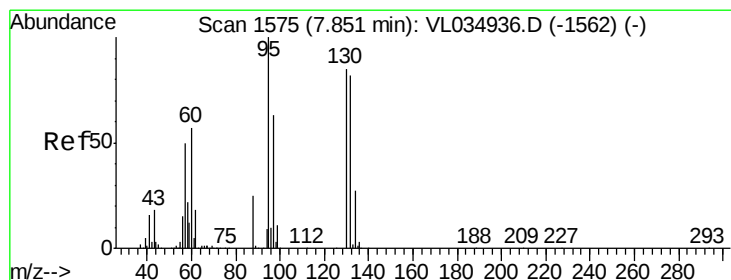
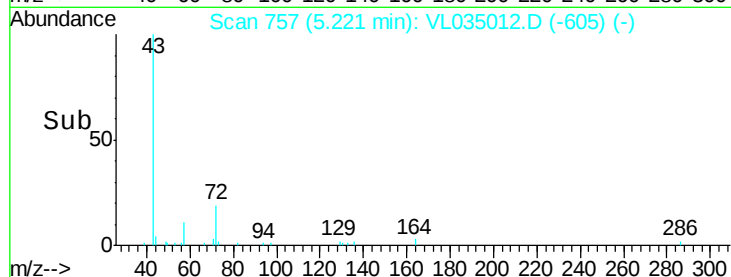
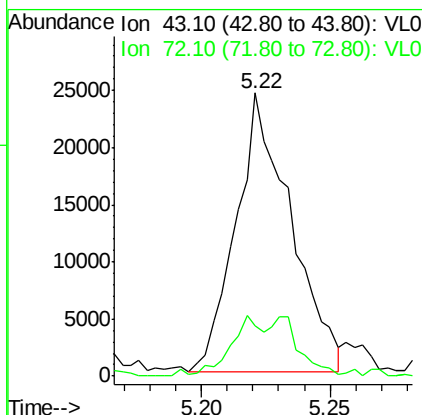
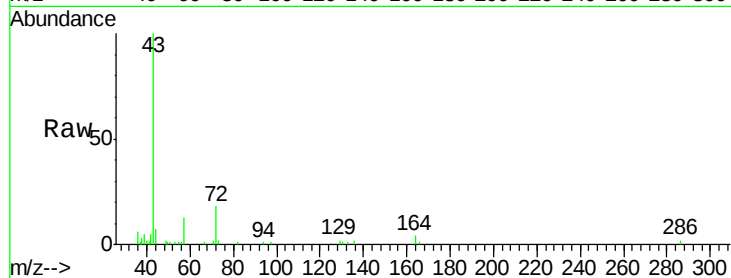
#34
2-Butanone
Concen: 0.289 ppbv
RT: 5.22 min Scan# 757
Delta R.T. -0.01 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Instrument :
MSVOA_L
ClientSampleId :
SG-3DL

Tot Ion: 43 Resp: 36358
Ion Ratio Lower Upper
43 100
72 25.8 18.0 27.0

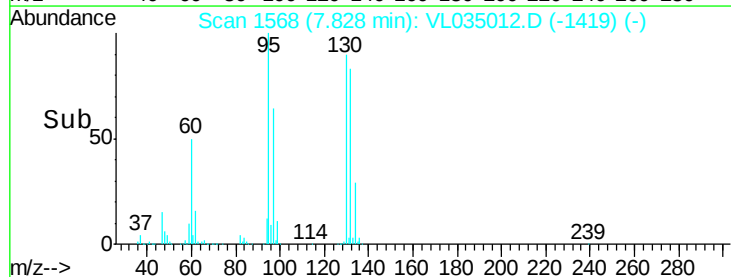
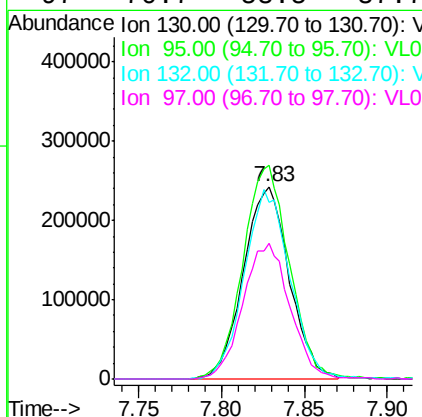
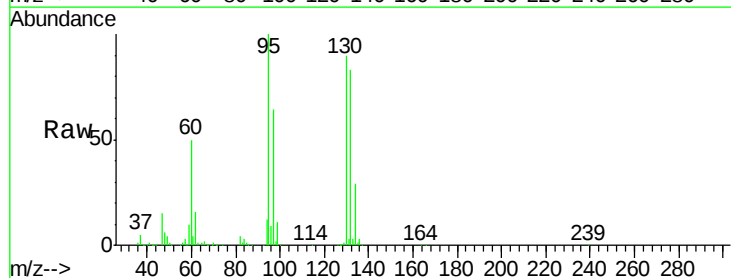
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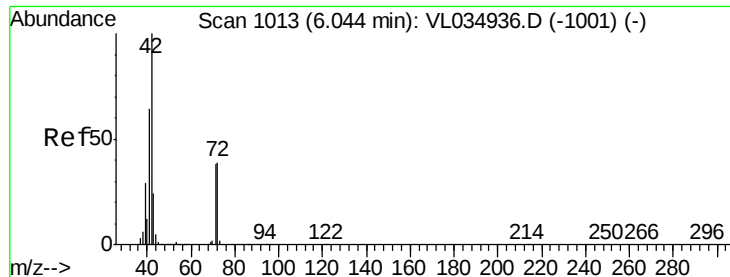
MMDadoda
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#38
Trichloroethene
Concen: 7.221 ppbv
RT: 7.83 min Scan# 1568
Delta R.T. -0.02 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Tgt Ion: 130 Resp: 467430
Ion Ratio Lower Upper
130 100
95 110.4 93.4 140.0
132 92.0 76.4 114.6
97 70.7 58.5 87.7





#41

Tetrahydrofuran

Concen: 0.224 ppbv m

RT: 6.04 min Scan# 1013

Delta R.T. 0.00 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Instrument :

MSVOA_L

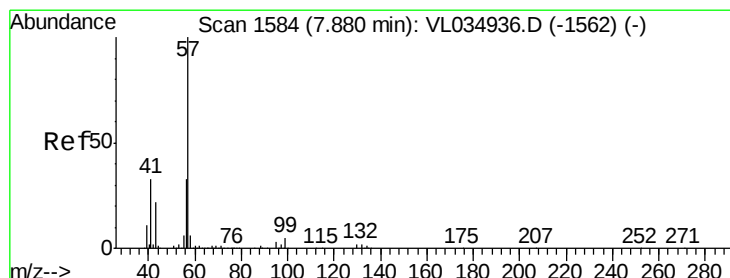
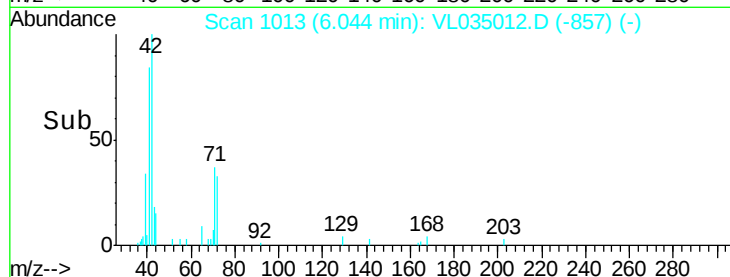
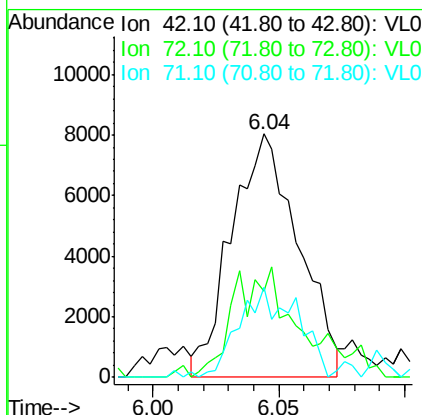
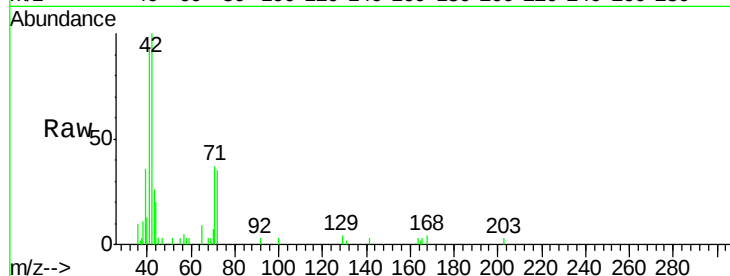
ClientSampled :

SG-3DL

Tot Ion:	42	Resp:	14872
Ion Ratio	Lower	Upper	
42	100		
72	0.0	31.4	47.0#
71	0.0	29.8	44.8#

Manual Integrations
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#44

2,2,4-Trimethylpentane

Concen: 0.348 ppbv

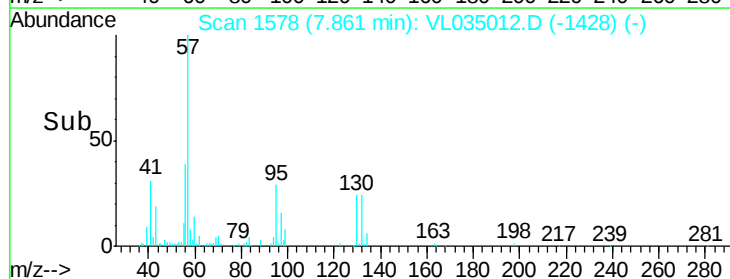
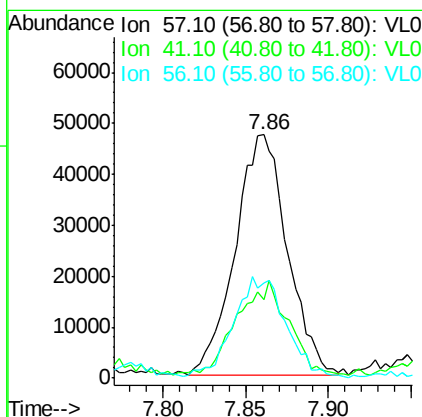
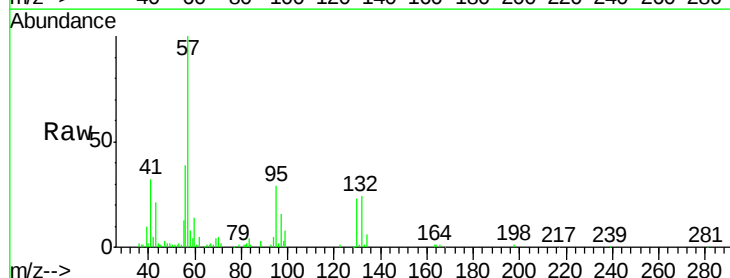
RT: 7.86 min Scan# 1578

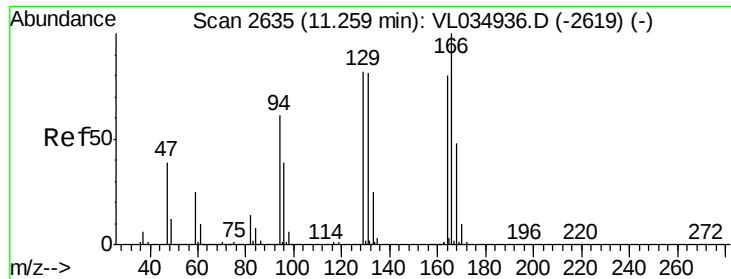
Delta R.T. -0.02 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Tgt Ion:	57	Resp:	103467
Ion Ratio	Lower	Upper	
57	100		
41	41.8	26.4	39.6#
56	42.4	25.5	38.3#





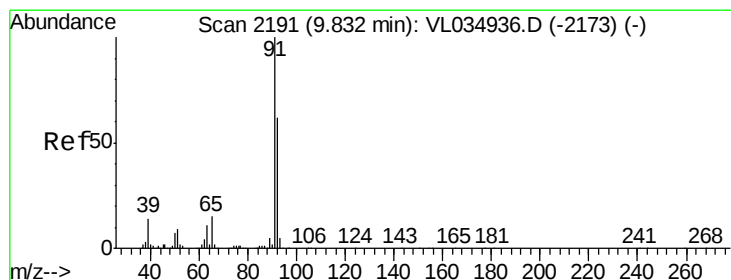
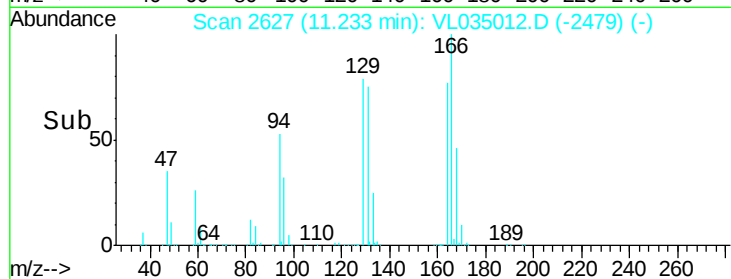
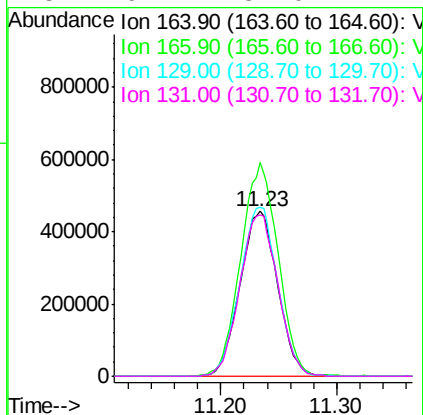
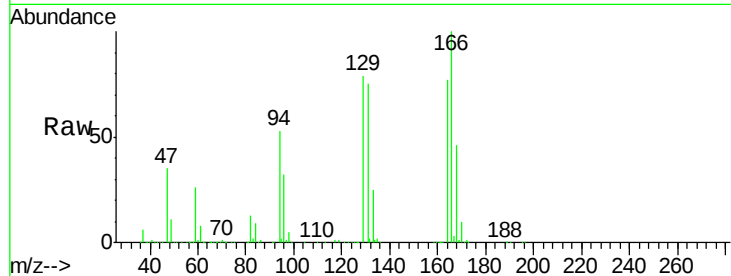
#52
Tetrachloroethene
Concen: 17.351 ppbv
RT: 11.23 min Scan# 2627
Delta R.T. -0.03 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Instrument :
MSVOA_L
ClientSampleId :
SG-3DL

Tot Ion	Ratio	Lower	Upper
164	100		
166	129.8	100.7	151.1
129	102.4	83.0	124.4
131	97.7	81.0	121.4

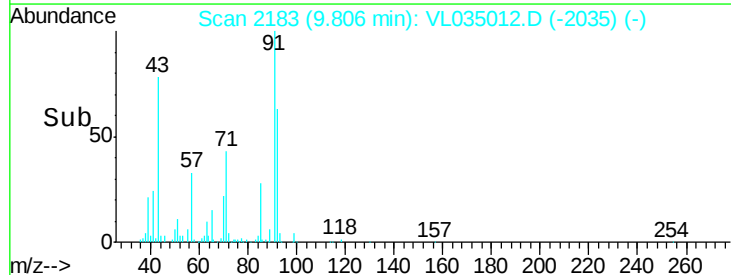
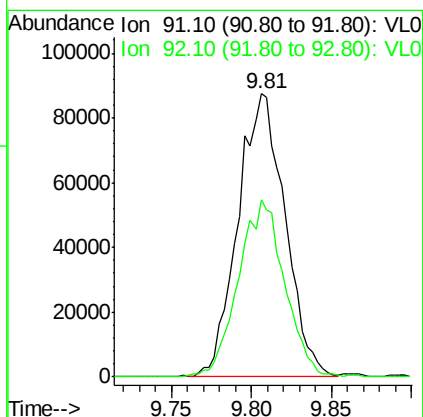
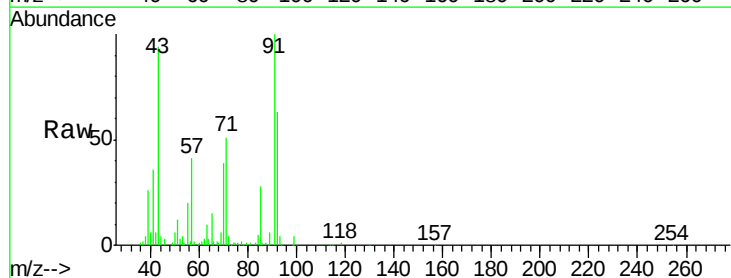
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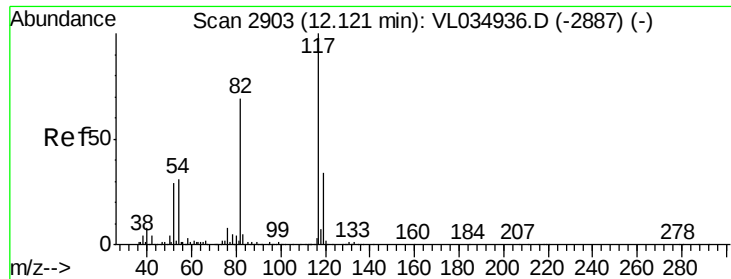
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#53
Toluene
Concen: 0.989 ppbv
RT: 9.81 min Scan# 2183
Delta R.T. -0.03 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Tgt Ion	Ratio	Lower	Upper
91	100		
92	61.8	48.6	73.0





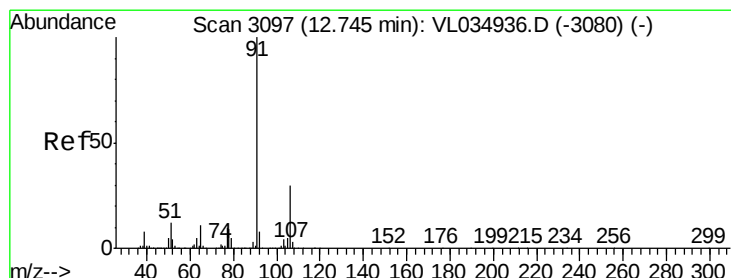
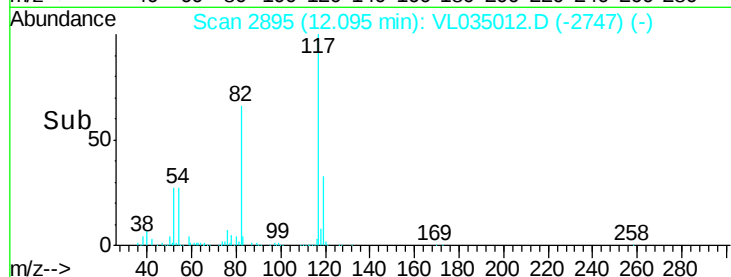
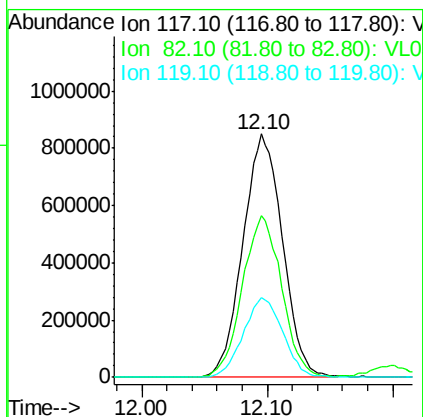
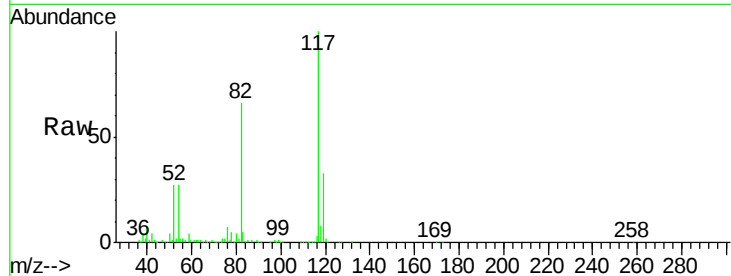
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2895
Delta R.T. -0.03 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Instrument :
MSVOA_L
ClientSampleId :
SG-3DL

Tot Ion	Ratio	Lower	Upper
117	100		
82	65.8	53.1	79.7
119	32.9	26.7	40.1

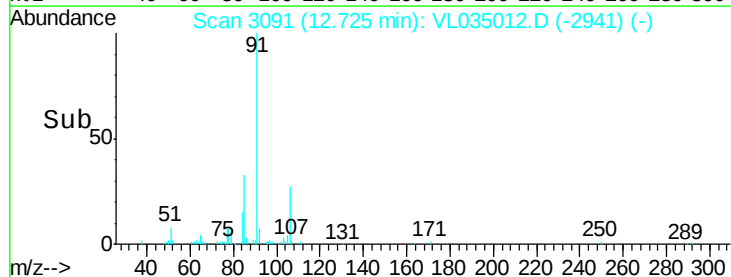
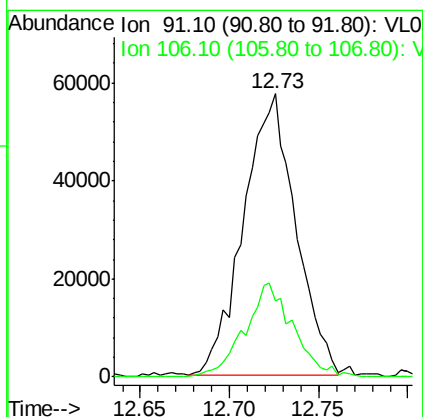
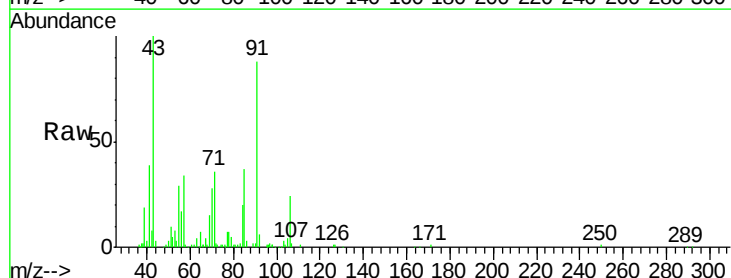
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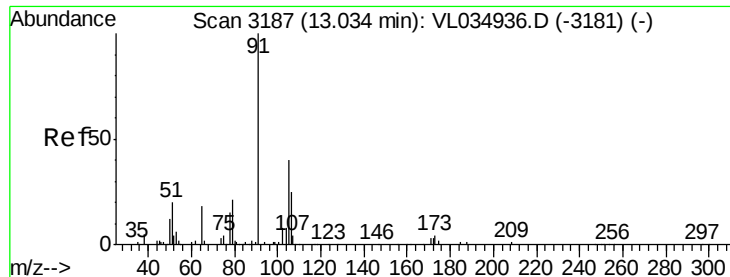
MMDadoda
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#58
Ethyl Benzene
Concen: 0.506 ppbv
RT: 12.73 min Scan# 3091
Delta R.T. -0.02 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Tgt Ion	Ratio	Lower	Upper
91	100		
106	27.2	24.2	36.4





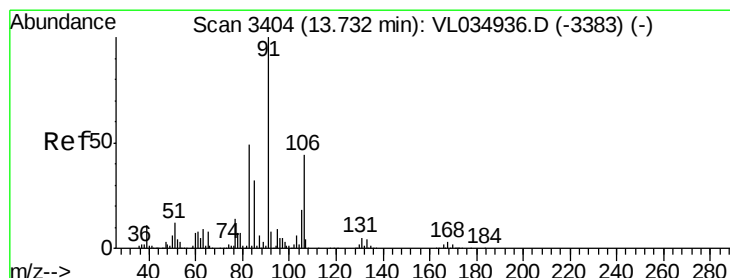
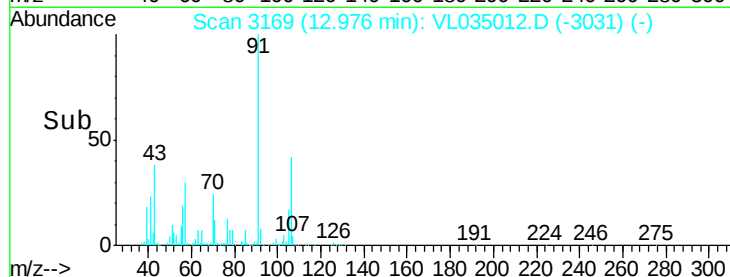
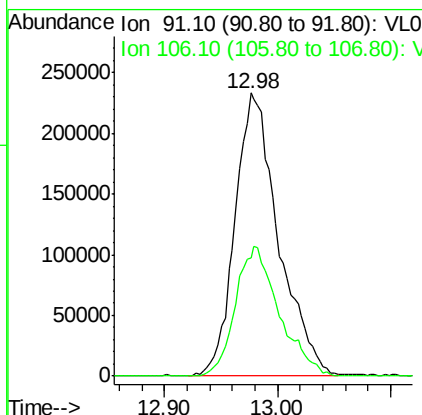
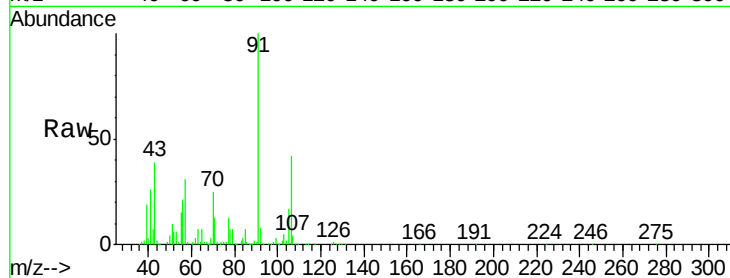
#59
m/p-Xylene
Concen: 3.070 ppbv
RT: 12.98 min Scan# 3169
Delta R.T. -0.06 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Instrument :
MSVOA_L
ClientSampleId :
SG-3DL

Tot Ion: 91 Resp: 623669
Ion Ratio Lower Upper
91 100
106 46.0 66.0 99.0#

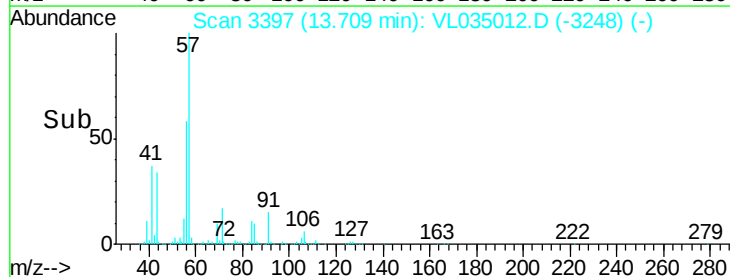
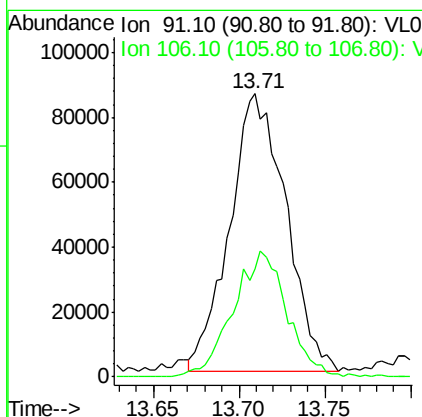
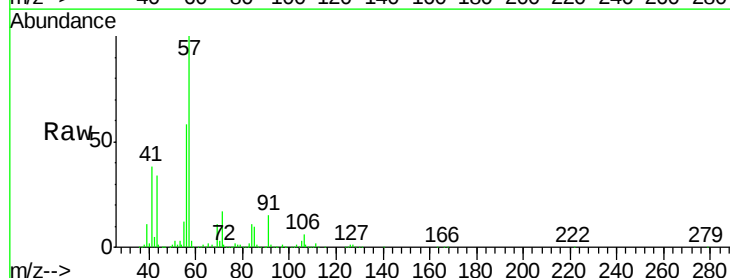
Manual Integrations
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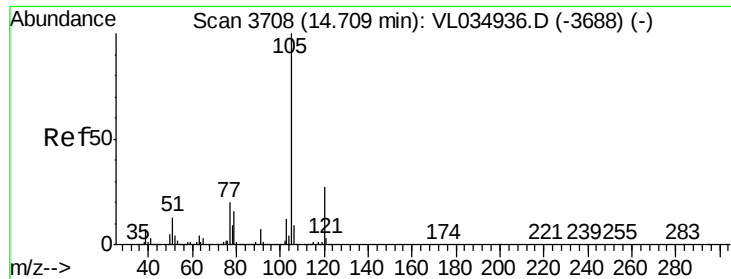
MMDadoda
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#60
o-Xylene
Concen: 0.970 ppbv
RT: 13.71 min Scan# 3397
Delta R.T. -0.02 min
Lab File: VL035012.D
Acq: 13 May 2020 7:11

Tgt Ion: 91 Resp: 194472
Ion Ratio Lower Upper
91 100
106 43.4 21.9 65.5





#62

Isopropylbenzene

Concen: 0.530 ppbv

RT: 14.69 min Scan# 3703

Delta R.T. -0.02 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Instrument :

MSVOA_L

ClientSampled :

SG-3DL

Tot Ion:105 Resp: 158494

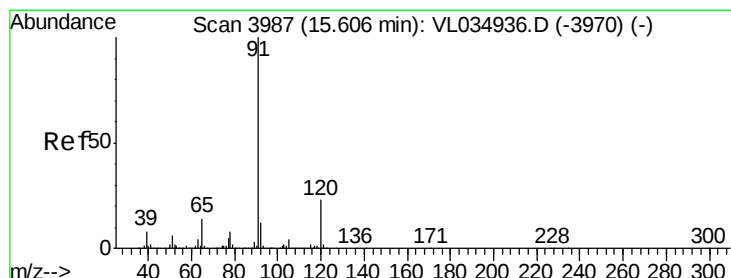
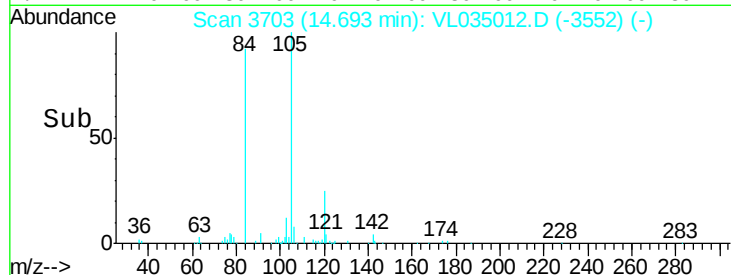
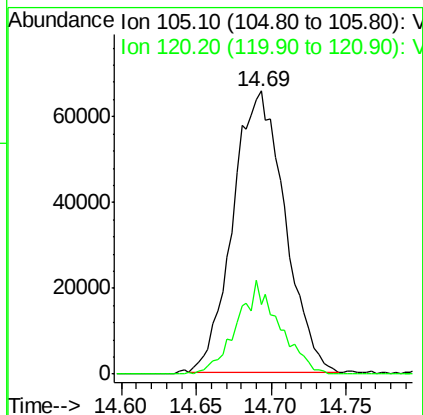
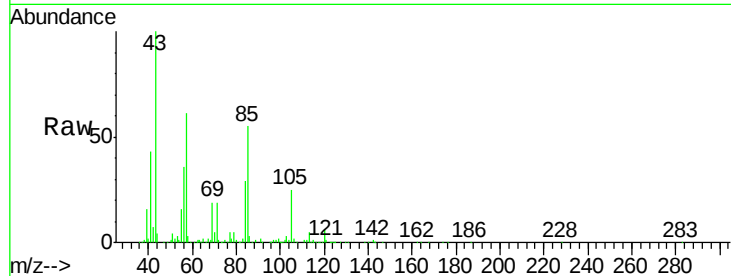
Ion Ratio Lower Upper

105 100

120 27.3 20.6 31.0

Manual Integrations
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#64

n-propylbenzene

Concen: 0.142 ppbv m

RT: 15.60 min Scan# 3984

Delta R.T. -0.01 min

Lab File: VL035012.D

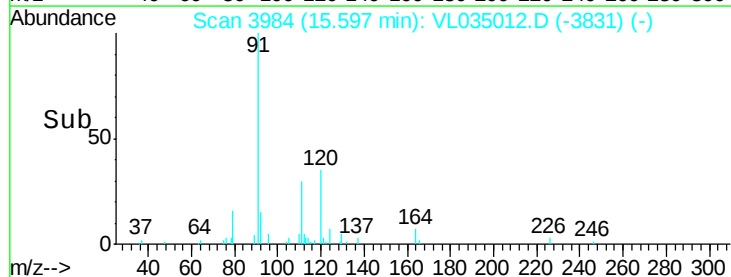
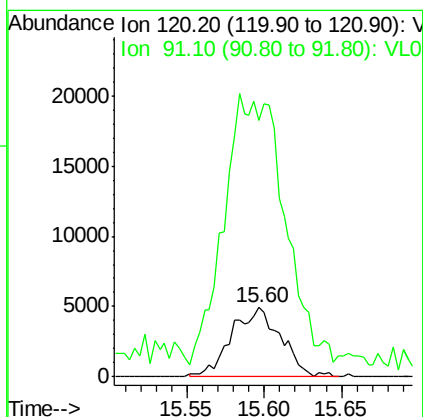
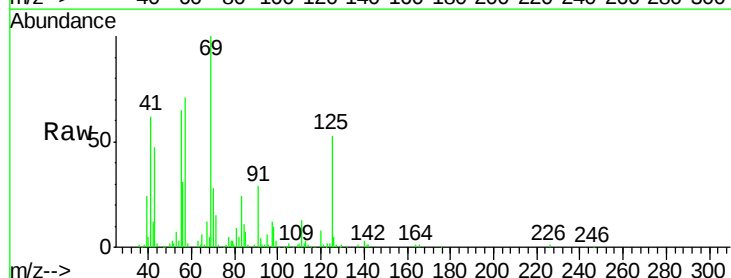
Acq: 13 May 2020 7:11

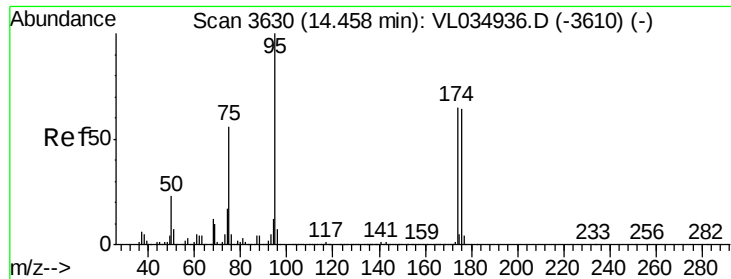
Tgt Ion:120 Resp: 10925

Ion Ratio Lower Upper

120 100

91 357.0 373.5 560.3#





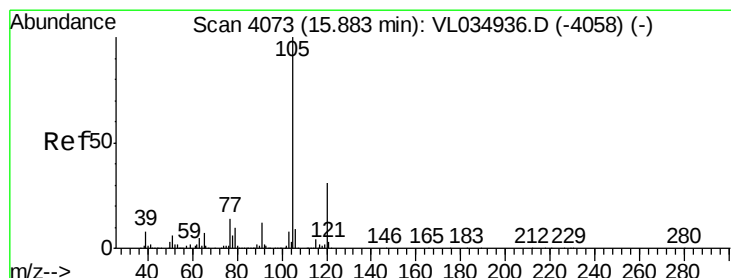
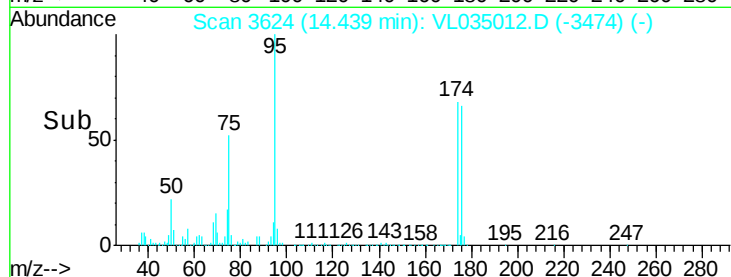
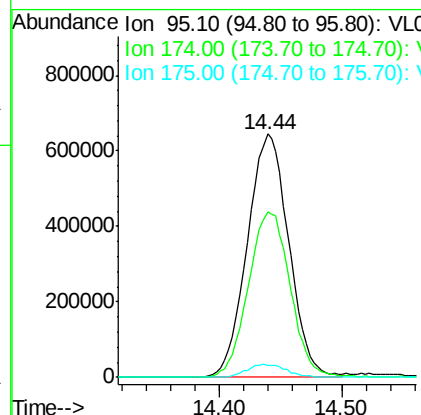
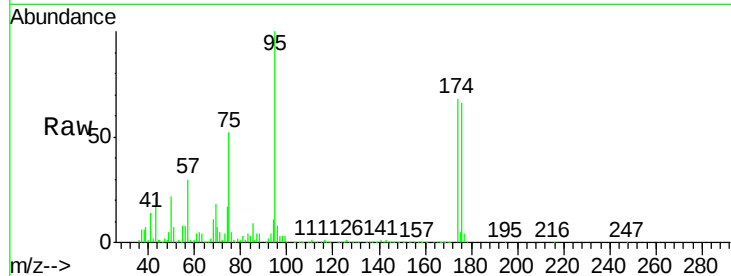
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.001 ppbv
 RT: 14.44 min Scan# 3624
 Delta R.T. -0.02 min
 Lab File: VL035012.D
 Acq: 13 May 2020 7:11

Instrument :
 MSVOA_L
 ClientSampled :
 SG-3DL

Tot Ion: 95 Resp: 1511533
 Ion Ratio Lower Upper
 95 100
 174 69.2 51.5 77.3
 175 5.2 3.8 5.8

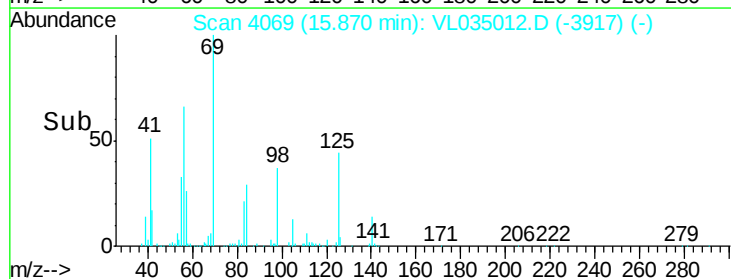
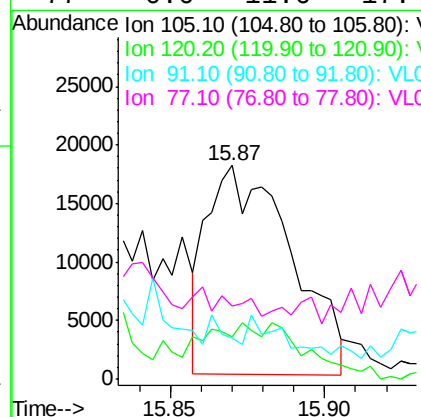
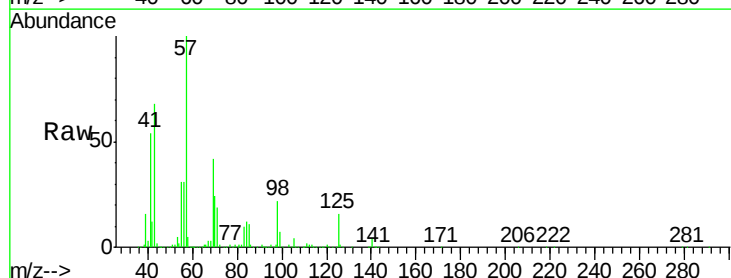
Manual Integrations
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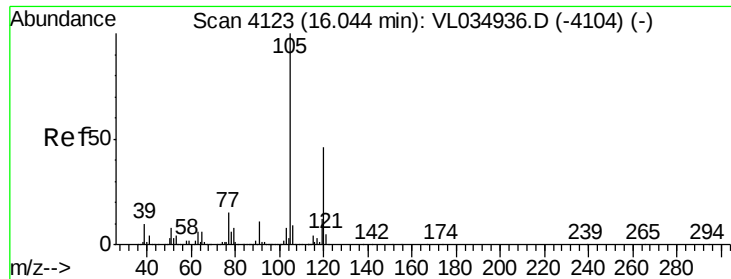
MMDadoda
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#72
 4-Ethyltoluene
 Concen: 0.152 ppbv m
 RT: 15.87 min Scan# 4069
 Delta R.T. -0.01 min
 Lab File: VL035012.D
 Acq: 13 May 2020 7:11

Tgt Ion: 105 Resp: 33936
 Ion Ratio Lower Upper
 105 100
 120 0.0 23.8 35.8#
 91 0.0 10.6 15.8#
 77 0.0 11.6 17.4#





#73

1,3,5-Trimethylbenzene

Concen: 0.271 ppbv m

RT: 16.04 min Scan# 4122

Delta R.T. -0.00 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Instrument :

MSVOA_L

ClientSampled :

SG-3DL

Tot Ion:105 Resp: 58993

Ion Ratio Lower Upper

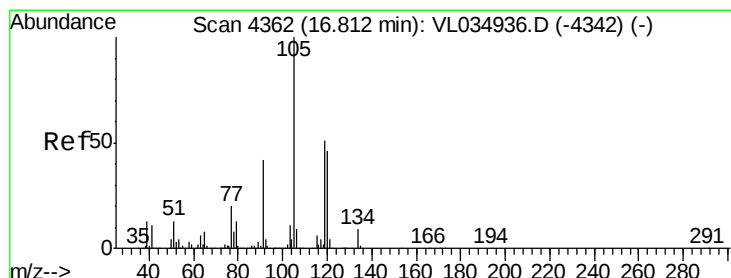
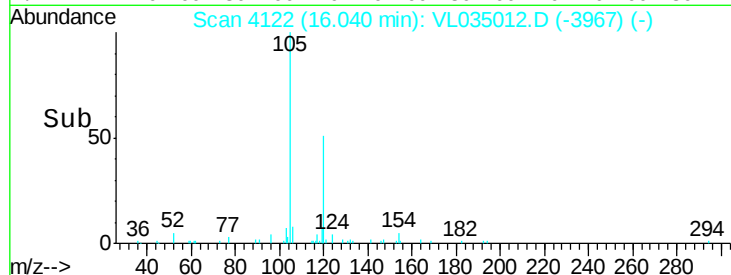
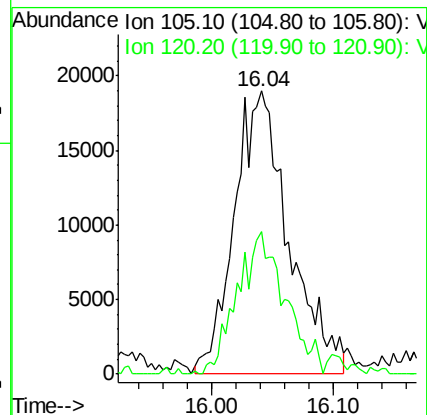
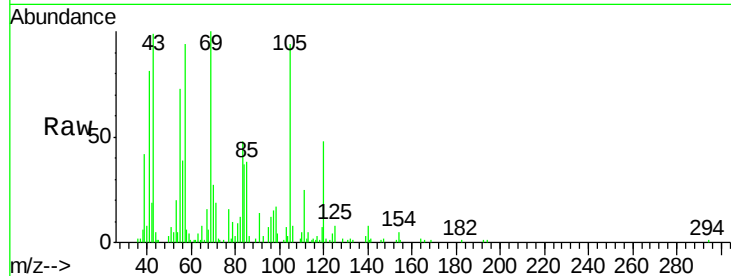
105 100

120 50.4 36.4 54.6

Manual Integrations
APPROVED

MMDadoda

5/13/2020 5:13:24 PM



#74

1,2,4-Trimethylbenzene

Concen: 0.174 ppbv m

RT: 16.84 min Scan# 4372

Delta R.T. 0.03 min

Lab File: VL035012.D

Acq: 13 May 2020 7:11

Tgt Ion:105 Resp: 41453

Ion Ratio Lower Upper

105 100

120 38.5 36.8 55.2

91 24.7 35.4 53.0#

77 49.6 16.2 24.2#

