

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110718\
 Data File : VL032729.D
 Acq On : 7 Nov 2018 22:58
 Operator : SY/AP
 Sample : J5823-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-01

Manual Integrations
 APPROVED

MMDadoda
 11/12/2018 12:30:18 PM

Quant Time: Nov 12 03:03:55 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Oct 25 2018
 QLast Update : Thu Oct 25 05:15:43 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1445531	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.31	114	3554325	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3625676	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.59	95	2593177	9.61	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.10%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	75170	0.510	ppbv	96
3) Chlorodifluoromethane	3.02	51	26651	0.236	ppbv	99
4) Chloromethane	3.18	50	40811	0.646	ppbv	91
9) Propene	3.05	41	135324	2.909	ppbv	90
10) Heptane	8.26	43	175336	0.978	ppbv	98
11) Trichlorofluoromethane	4.01	101	43973	0.229	ppbv #	82
13) Ethanol	3.69	45	19093710	1435.970	ppbv	100
15) Acetone	3.91	43	2384530	17.864	ppbv	95
17) tert-Butyl alcohol	4.43	59	938571m	23.908	ppbv	
19) Isopropyl Alcohol	4.08	45	3684210	38.756	ppbv #	96
20) Methylene Chloride	4.42	84	45834	0.676	ppbv	91
26) Hexane	5.79	57	270888	1.863	ppbv #	57
30) Cyclohexane	7.26	84	45548	0.396	ppbv	93
34) 2-Butanone	5.34	43	364569	1.913	ppbv	99
35) Carbon Tetrachloride	7.14	117	21151m	0.084	ppbv	
36) Benzene	7.01	78	953252	3.303	ppbv	99
41) Tetrahydrofuran	6.17	42	43704	0.412	ppbv #	89
44) 2,2,4-Trimethylpentane	8.00	57	1471842	2.987	ppbv	94
52) Tetrachloroethene	11.39	164	28634m	0.285	ppbv	
53) Toluene	9.96	91	6381172	19.287	ppbv	99
58) Ethyl Benzene	12.88	91	1027230	2.439	ppbv	97
59) m/p-Xylene	13.13	91	3205461	8.546	ppbv	97
60) o-Xylene	13.86	91	1209605	3.343	ppbv	99
61) Styrene	13.70	104	79812	0.329	ppbv	97
64) n-propylbenzene	15.74	120	37563	0.295	ppbv	96
72) 4-Ethyltoluene	16.01	105	309387	0.803	ppbv	97
73) 1,3,5-Trimethylbenzene	16.17	105	237351	0.632	ppbv	94
74) 1,2,4-Trimethylbenzene	16.94	105	969158	2.418	ppbv #	74
79) Naphthalene	22.42	128	37685m	0.151	ppbv	

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

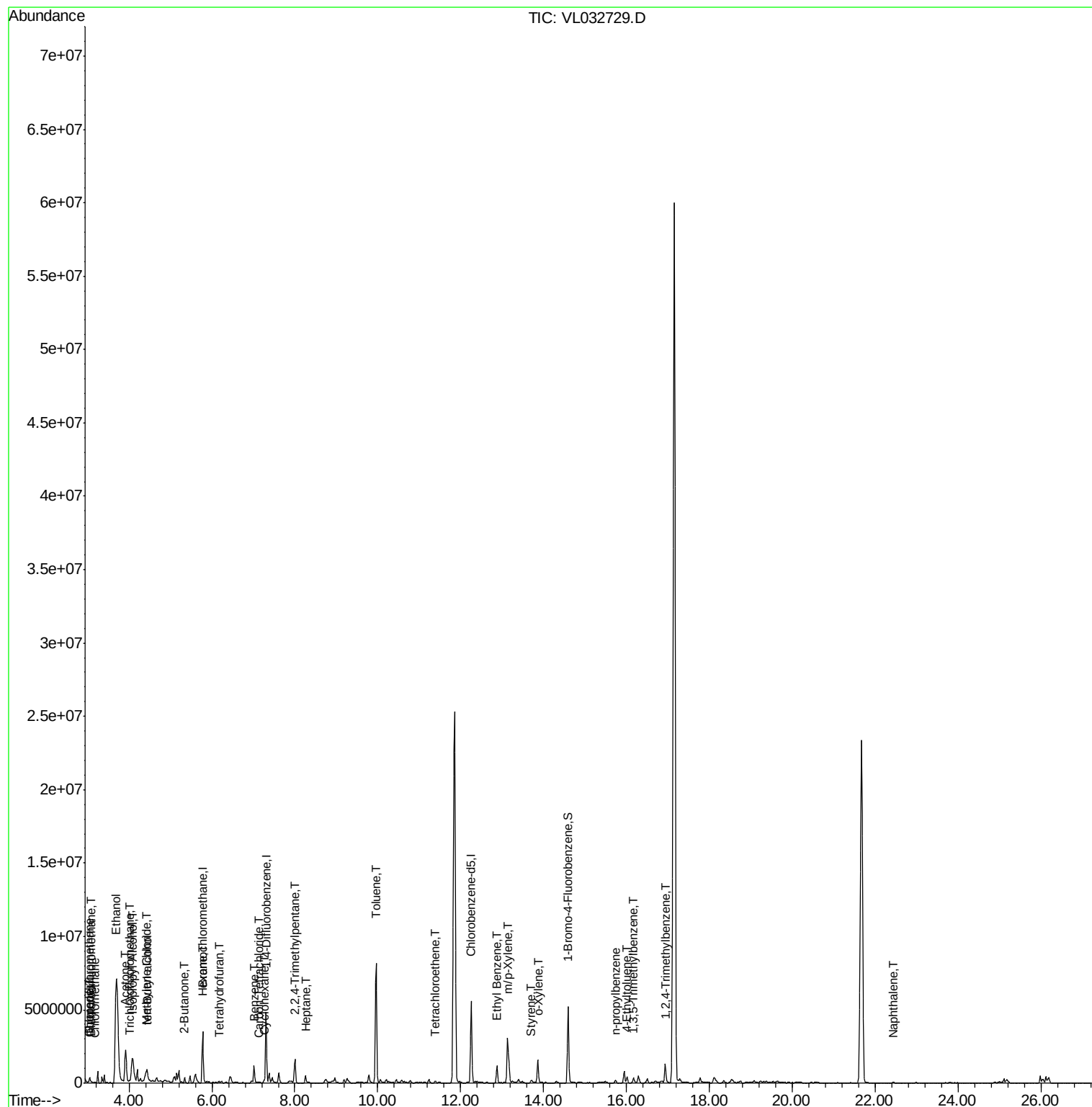
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL110718\
Data File : VL032729.D
Acq On : 7 Nov 2018 22:58
Operator : SY/AP
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Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

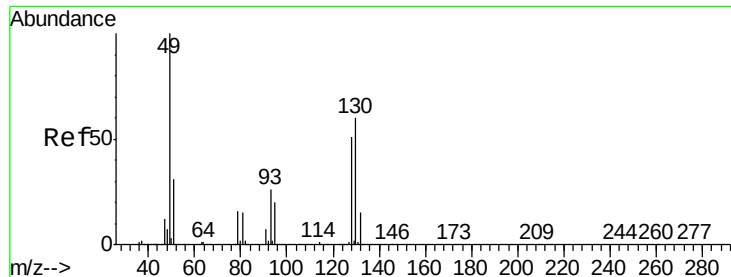
Instrument :
MSVOA_L
ClientSampleId :
IA-01

Manual Integrations
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11/12/2018 12:30:18 PM

Quant Time: Nov 12 03:03:55 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Oct
QLast Update : Thu Oct 25 05:15:43 2018
Response via : Initial Calibration





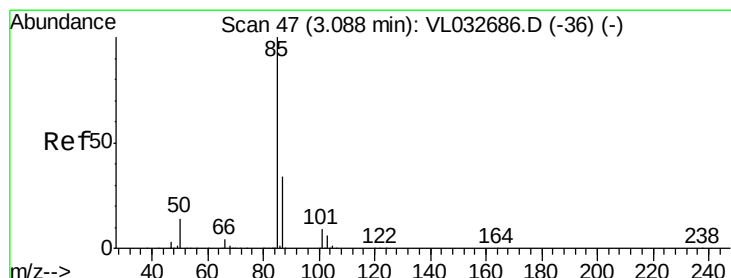
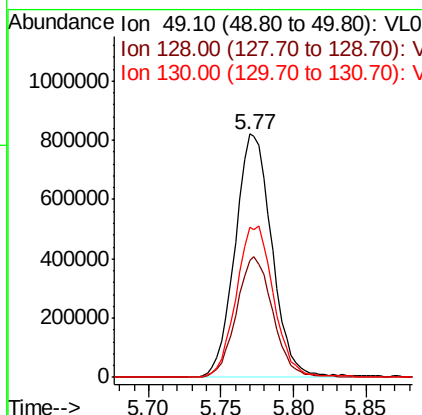
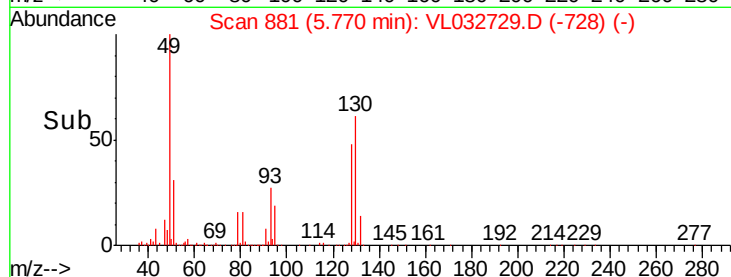
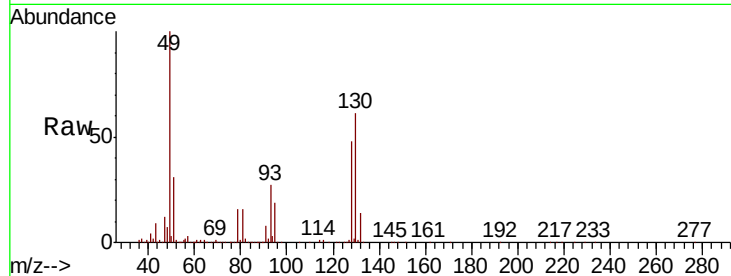
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.77 min Scan# 881
 Delta R.T. -0.01 min
 Lab File: VL032729.D
 Acq: 7 Nov 2018 22:58

Instrument :
 MSVOA_L
 ClientSampled :
 IA-01

Tot Ion:	49	Resp:	1445531
Ion	Ratio	Lower	Upper
49	100		
128	49.7	22.3	66.8
130	63.7	28.4	85.3

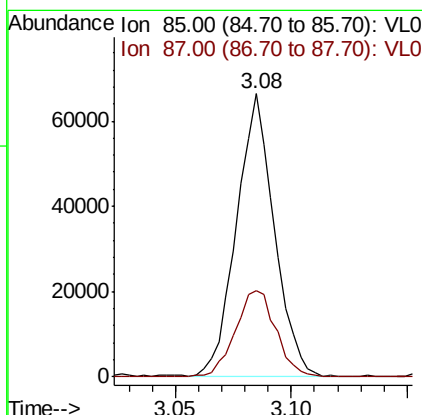
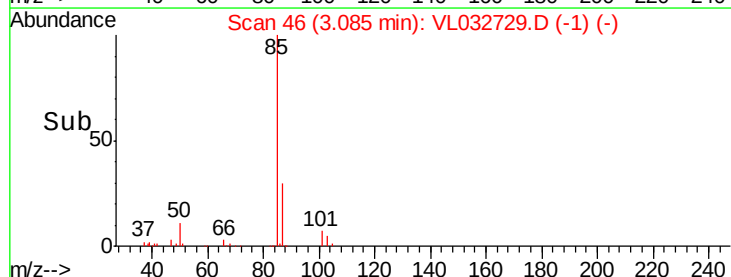
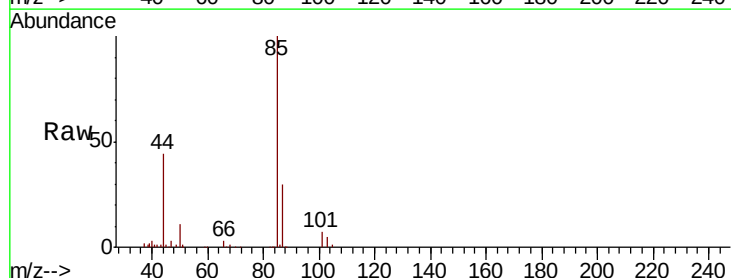
Manual Integrations
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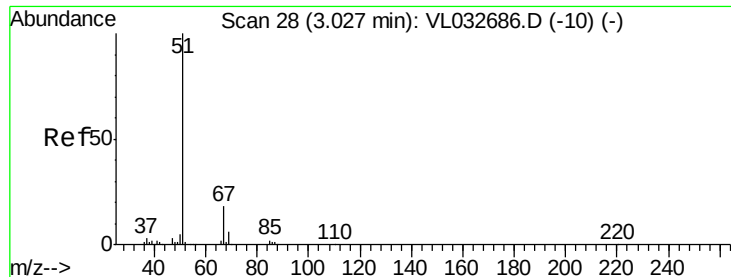
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#2
 Dichlorodifluoromethane
 Concen: 0.510 ppbv
 RT: 3.08 min Scan# 46
 Delta R.T. 0.00 min
 Lab File: VL032729.D
 Acq: 7 Nov 2018 22:58

Tgt Ion:	85	Resp:	75170
Ion	Ratio	Lower	Upper
85	100		
87	30.3	26.2	39.2





#3

Chlorodifluoromethane

Concen: 0.236 ppbv

RT: 3.02 min Scan# 26

Delta R.T. -0.00 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Instrument :

MSVOA_L

ClientSampled :

IA-01

Tot Ion: 51 Resp: 26651

Ion Ratio Lower Upper

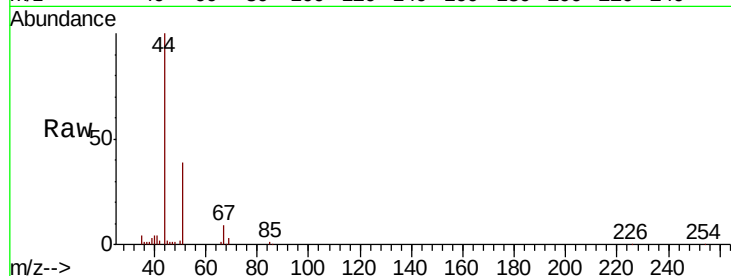
51 100

67 19.4 15.2 22.8

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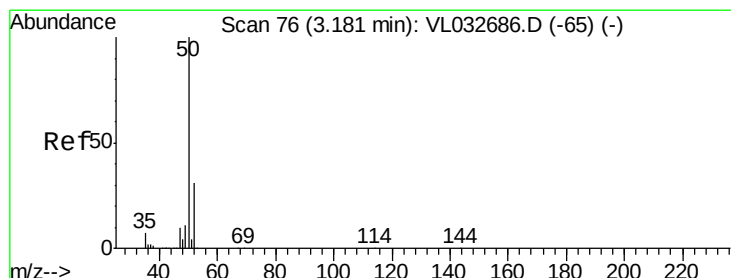
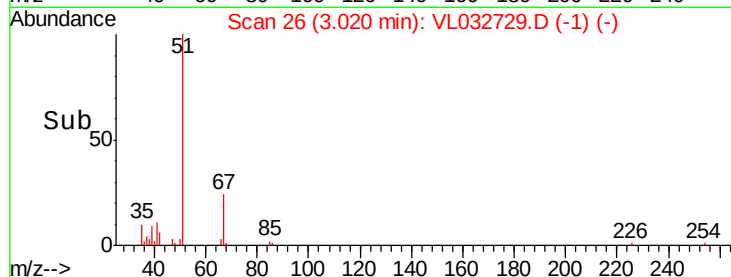
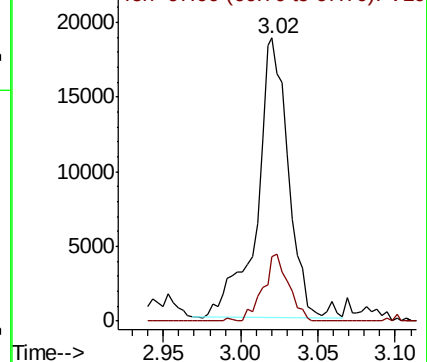
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.646 ppbv

RT: 3.18 min Scan# 75

Delta R.T. -0.00 min

Lab File: VL032729.D

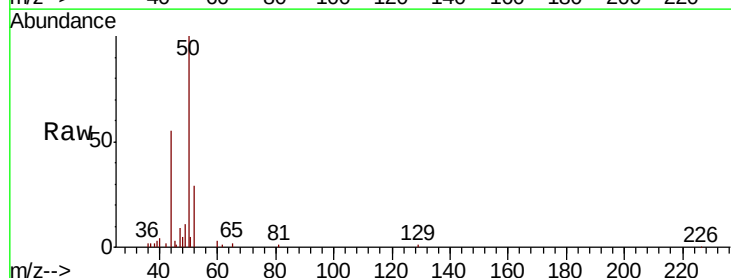
Acq: 7 Nov 2018 22:58

Tgt Ion: 50 Resp: 40811

Ion Ratio Lower Upper

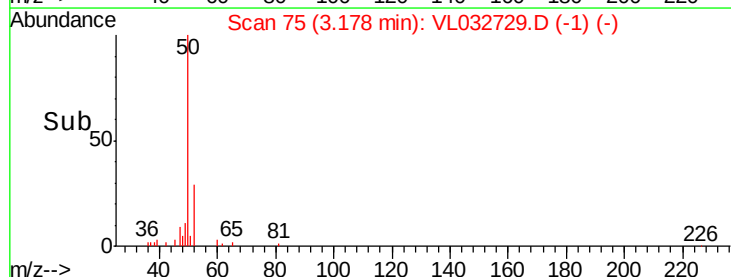
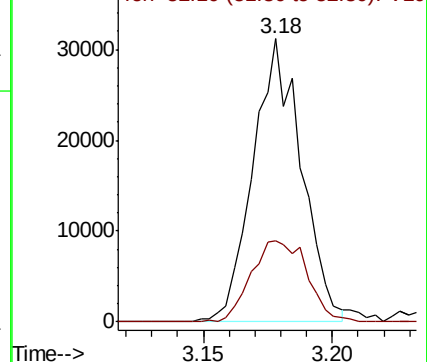
50 100

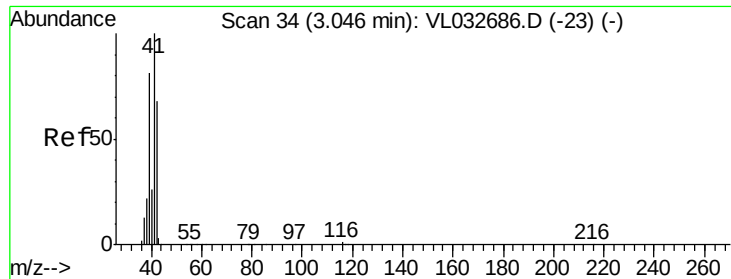
52 27.3 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.909 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.01 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Instrument :

MSVOA_L

ClientSampled :

IA-01

Tot Ion: 41 Resp: 135324

Ion Ratio Lower Upper

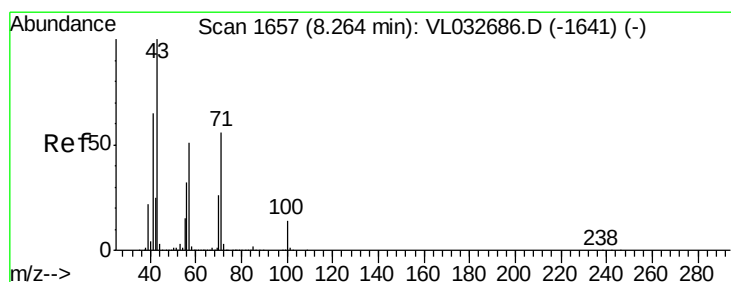
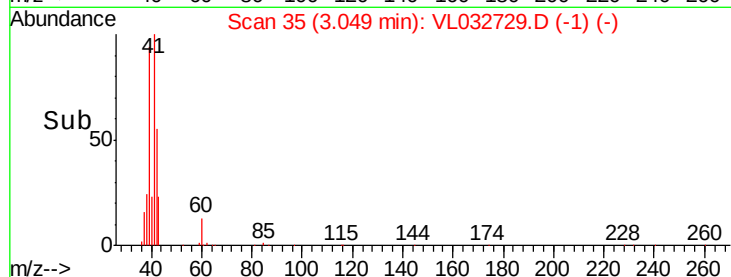
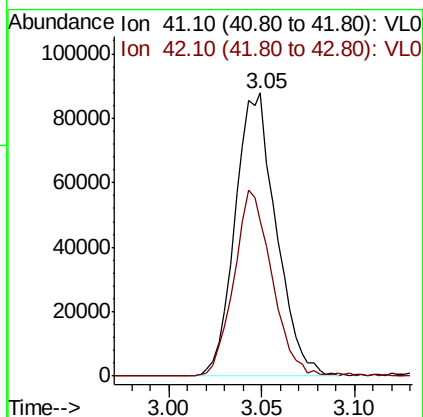
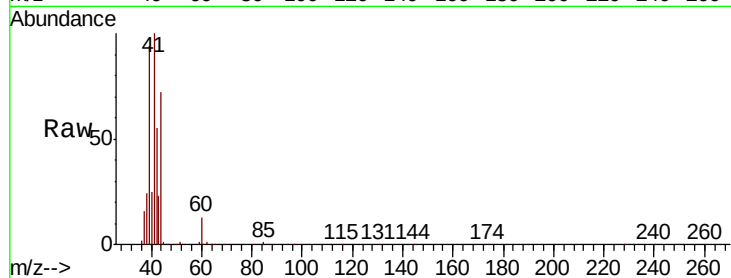
41 100

42 61.3 55.4 83.0

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#10

Heptane

Concen: 0.978 ppbv

RT: 8.26 min Scan# 1655

Delta R.T. -0.00 min

Lab File: VL032729.D

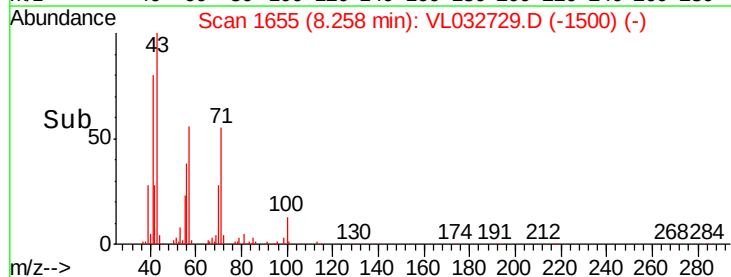
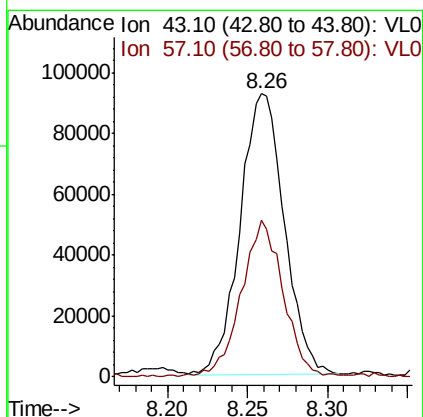
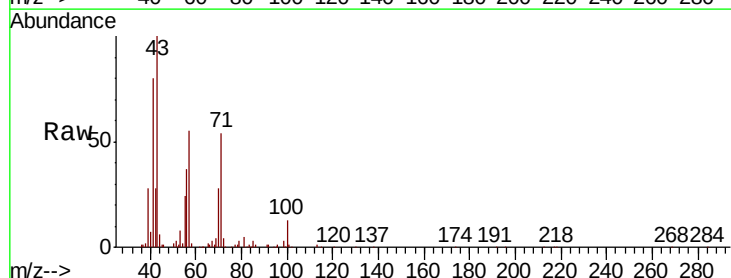
Acq: 7 Nov 2018 22:58

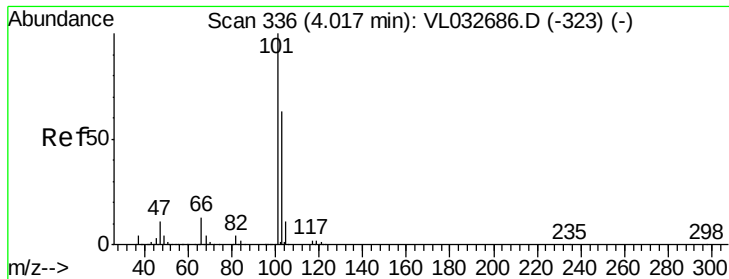
Tgt Ion: 43 Resp: 175336

Ion Ratio Lower Upper

43 100

57 53.2 41.5 62.3





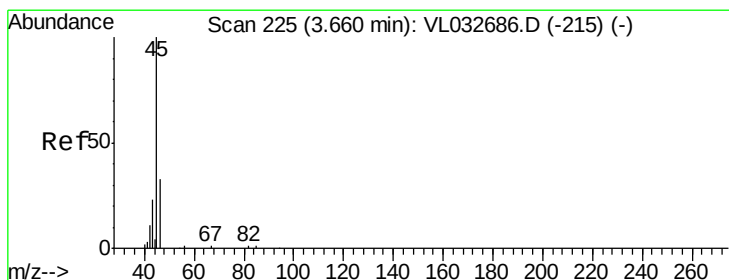
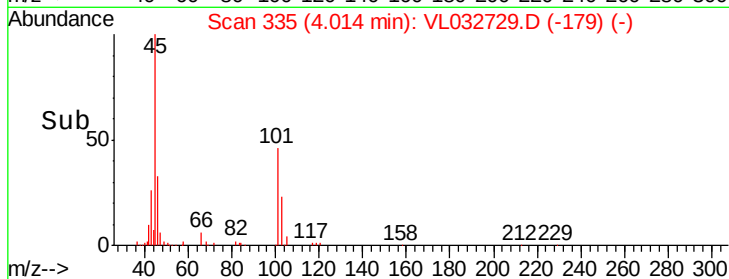
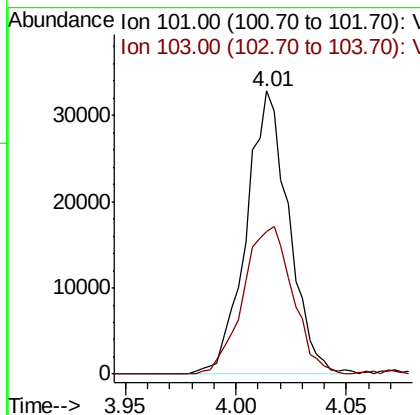
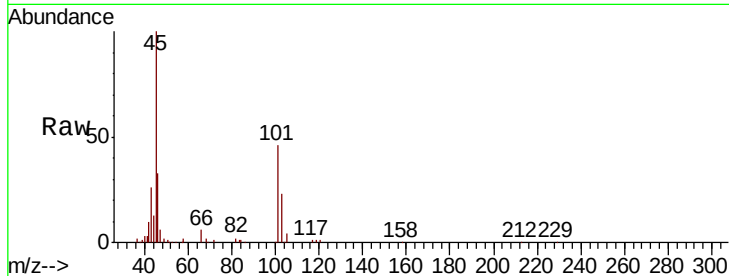
#11
Trichlorofluoromethane
Concen: 0.229 ppbv
RT: 4.01 min Scan# 335
Delta R.T. -0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Instrument :
MSVOA_L
ClientSampled :
IA-01

Tot Ion:101 Resp: 43973
Ion Ratio Lower Upper
101 100
103 50.3 51.4 77.2#

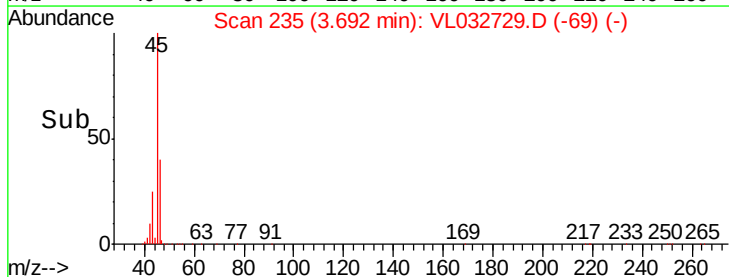
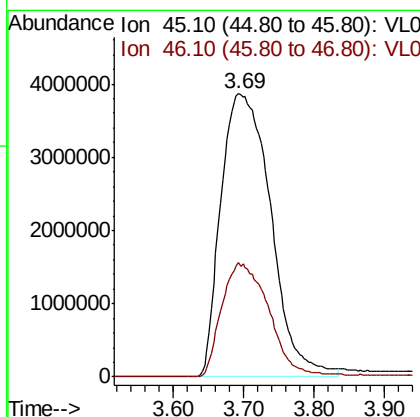
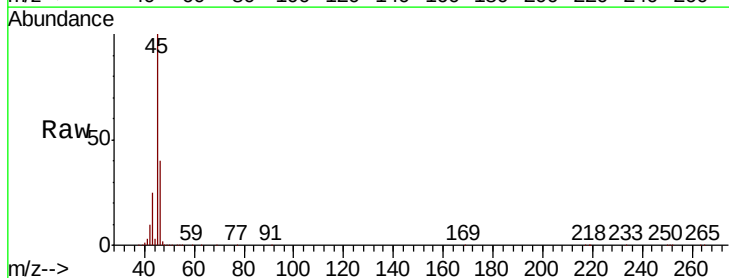
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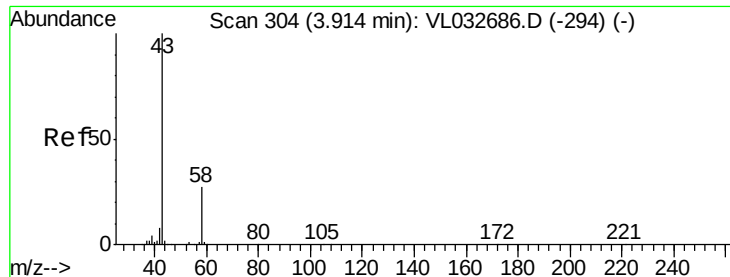
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11/12/2018 12:30:18 PM



#13
Ethanol
Concen: 1435.970 ppbv
RT: 3.69 min Scan# 235
Delta R.T. 0.03 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Tgt Ion: 45 Resp:19093710
Ion Ratio Lower Upper
45 100
46 38.6 15.4 61.8





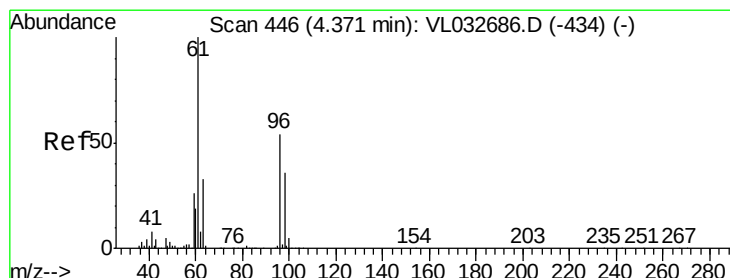
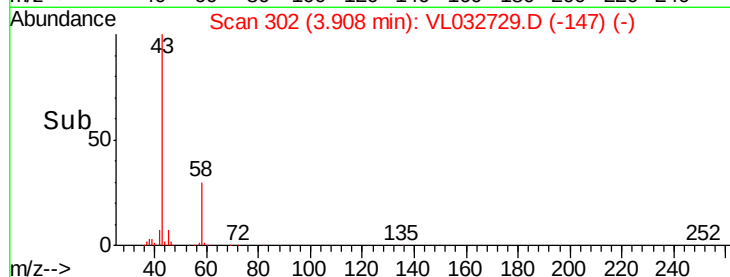
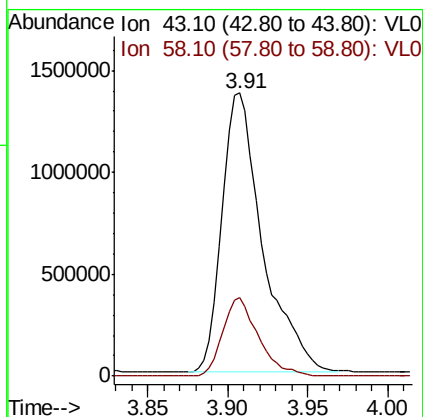
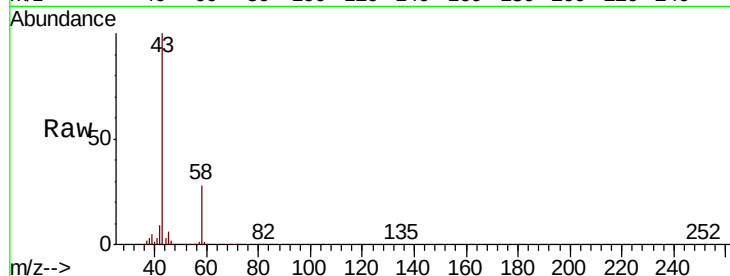
#15
Acetone
Concen: 17.864 ppbv
RT: 3.91 min Scan# 302
Delta R.T. -0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Instrument :
MSVOA_L
ClientSampled :
IA-01

Tot Ion: 43 Resp: 2384530
Ion Ratio Lower Upper
43 100
58 25.1 22.1 33.1

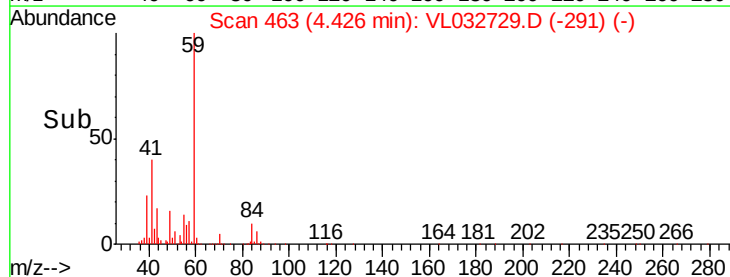
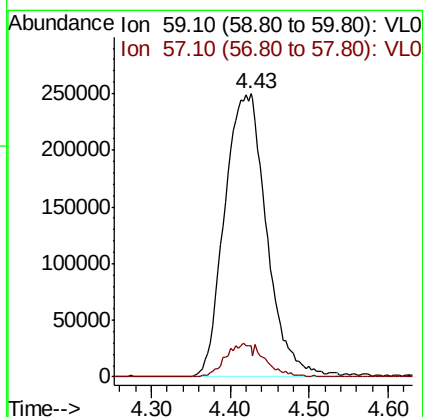
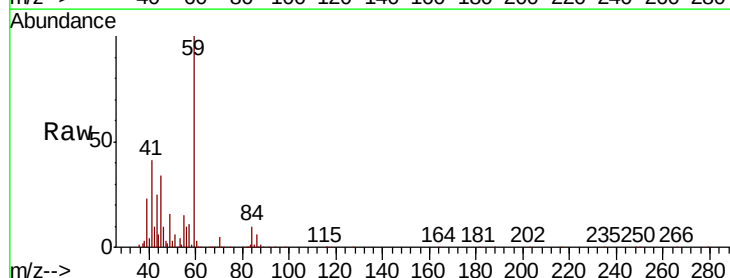
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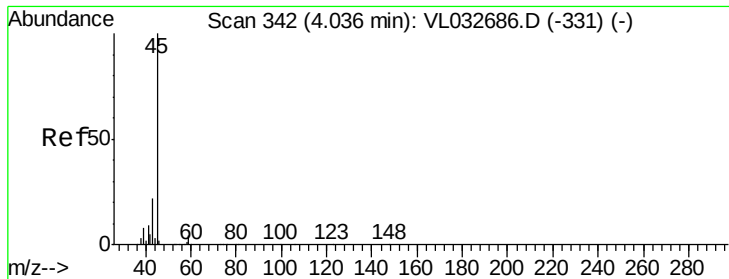
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#17
tert-Butyl alcohol
Concen: 23.908 ppbv m
RT: 4.43 min Scan# 463
Delta R.T. 0.05 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Tgt Ion: 59 Resp: 938571
Ion Ratio Lower Upper
59 100
57 10.9 0.0 0.0#





#19

Isopropyl Alcohol

Concen: 38.756 ppbv

RT: 4.08 min Scan# 357

Delta R.T. 0.05 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Instrument :

MSVOA_L

ClientSampleId :

IA-01

Tot Ion: 45 Resp: 3684210

Ion Ratio Lower Upper

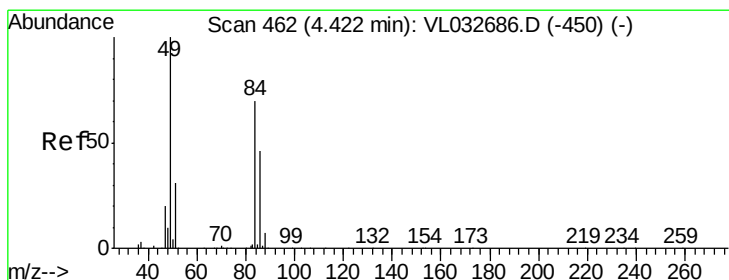
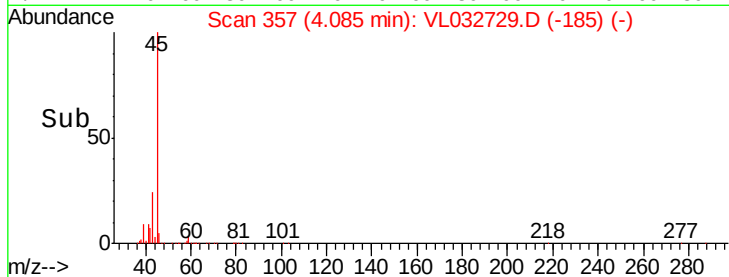
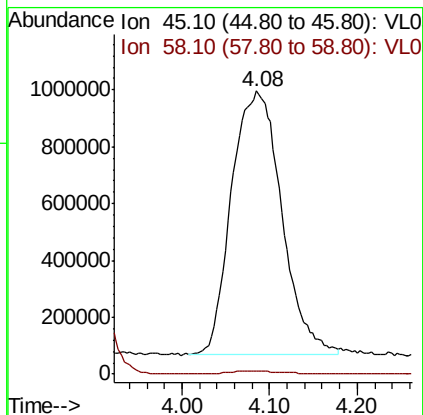
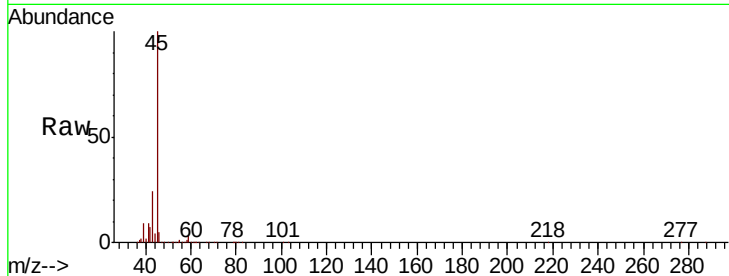
45 100

58 1.2 2.0 3.0#

Manual Integrations
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#20

Methylene Chloride

Concen: 0.676 ppbv

RT: 4.42 min Scan# 461

Delta R.T. 0.00 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Tgt Ion: 84 Resp: 45834

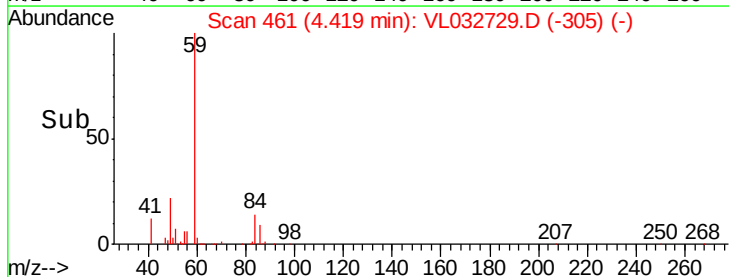
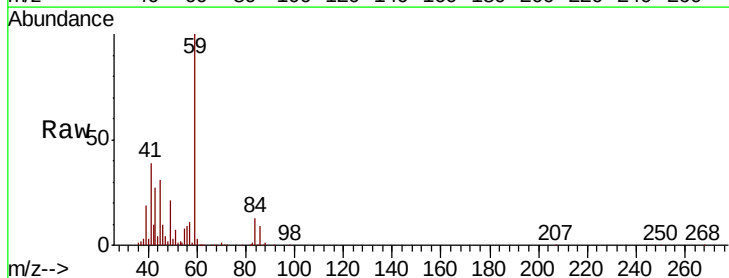
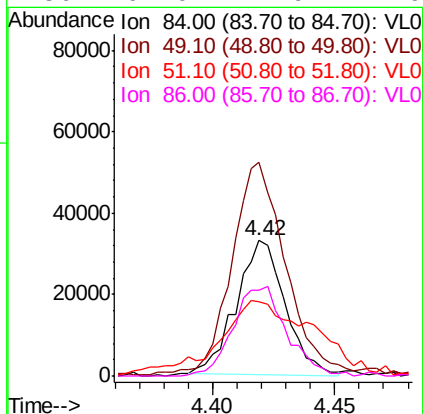
Ion Ratio Lower Upper

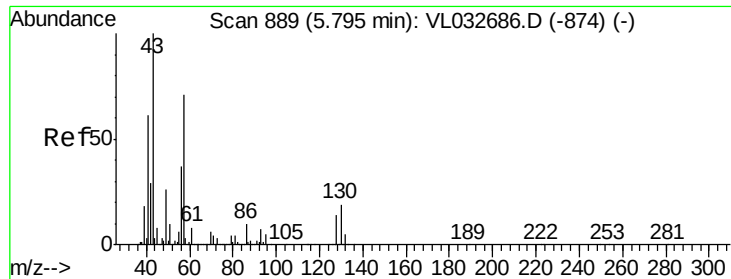
84 100

49 156.1 113.5 170.3

51 41.5 34.8 52.2

86 64.0 47.9 71.9





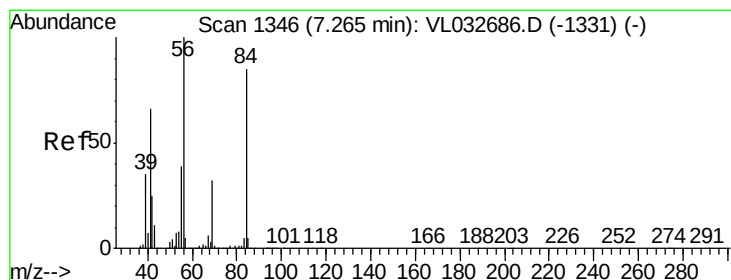
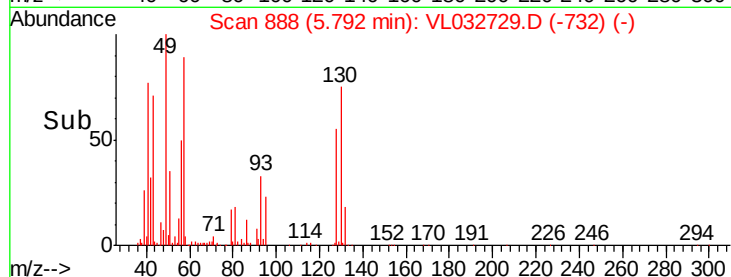
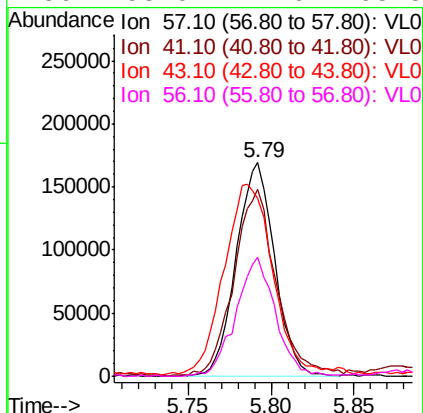
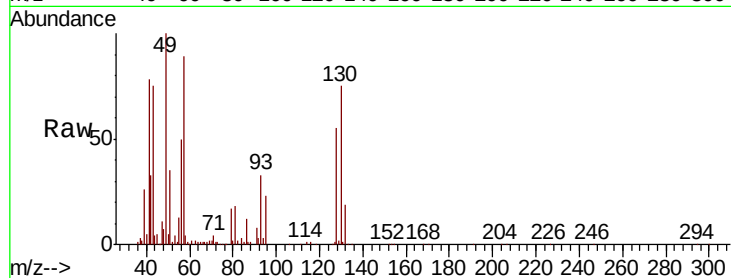
#26
Hexane
Concen: 1.863 ppbv
RT: 5.79 min Scan# 888
Delta R.T. 0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Instrument :
MSVOA_L
ClientSampled :
IA-01

Tot Ion	57	Resp	270888
Ion	Ratio	Lower	Upper
57	100		
41	96.7	67.4	101.0
43	113.3	171.9	257.9#
56	58.0	42.6	63.8

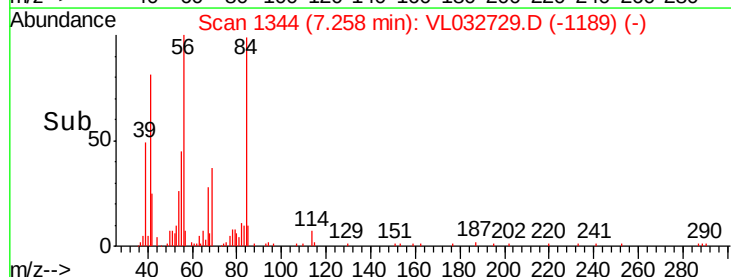
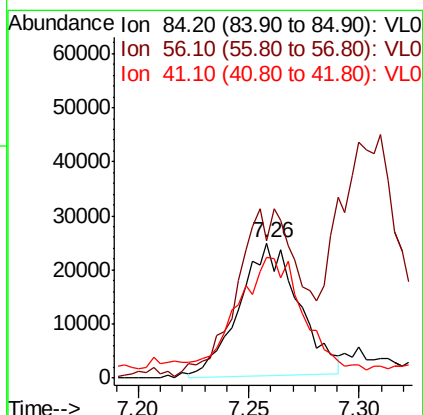
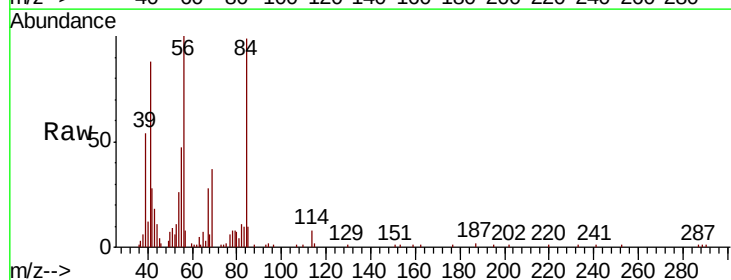
Manual Integrations
APPROVED

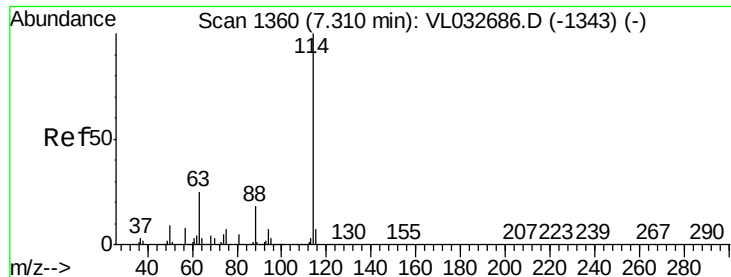
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11/12/2018 12:30:18 PM



#30
Cyclohexane
Concen: 0.396 ppbv
RT: 7.26 min Scan# 1344
Delta R.T. -0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Tgt Ion	84	Resp	45548
Ion	Ratio	Lower	Upper
84	100		
56	138.2	108.3	162.5
41	93.2	64.8	97.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.31 min Scan# 1359

Delta R.T. -0.00 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Instrument :

MSVOA_L

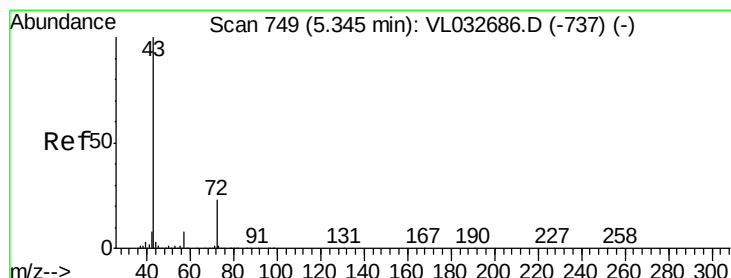
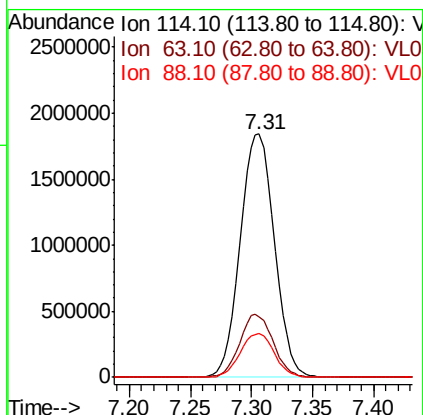
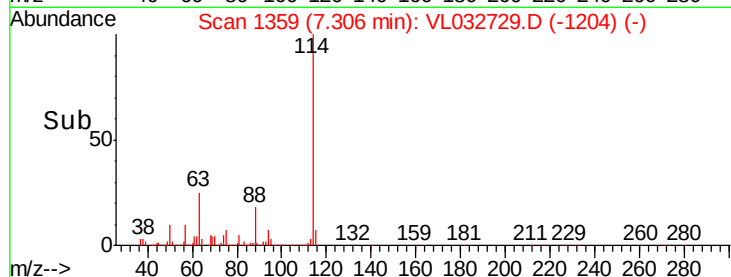
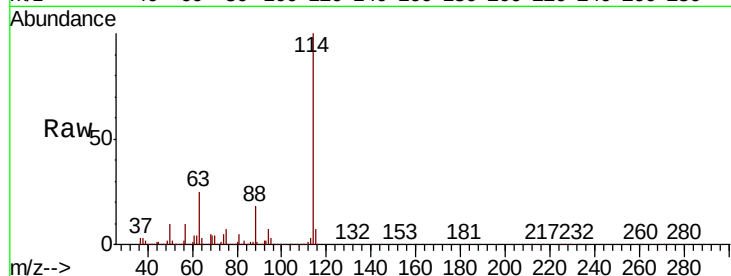
ClientSampled :

IA-01

Tot Ion:	114	Resp:	3554325
Ion	Ratio	Lower	Upper
114	100		
63	25.6	21.7	32.5
88	17.9	14.9	22.3

Manual Integrations
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#34

2-Butanone

Concen: 1.913 ppbv

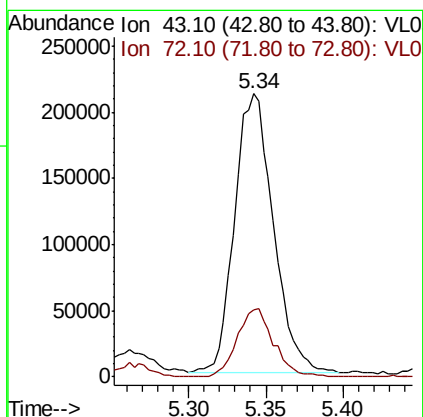
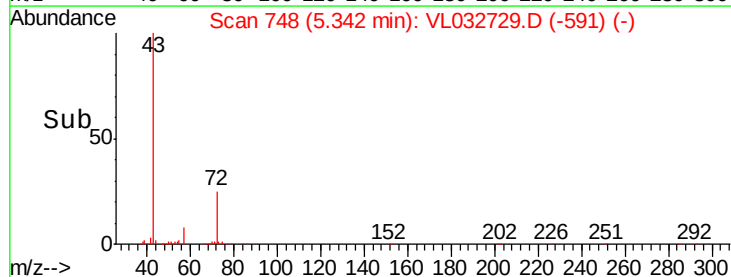
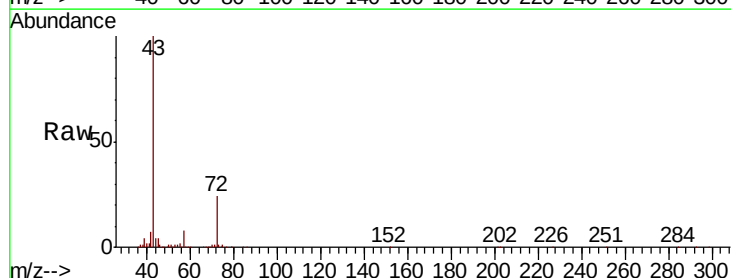
RT: 5.34 min Scan# 748

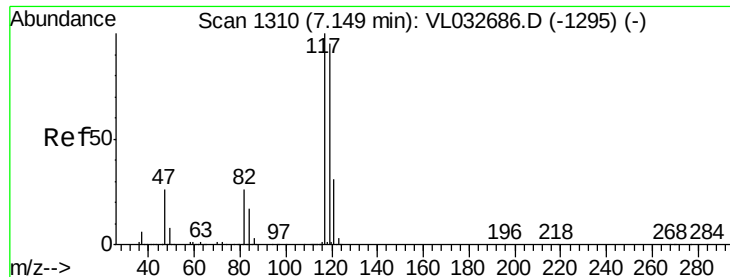
Delta R.T. 0.00 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Tgt Ion:	43	Resp:	364569
Ion	Ratio	Lower	Upper
43	100		
72	23.6	18.6	27.8





#35

Carbon Tetrachloride

Concen: 0.084 ppbv m

RT: 7.14 min Scan# 1308

Delta R.T. -0.01 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Instrument :

MSVOA_L

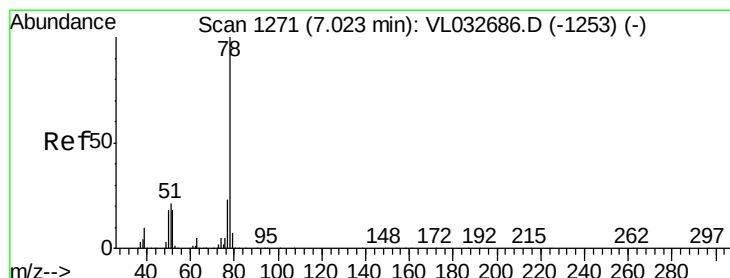
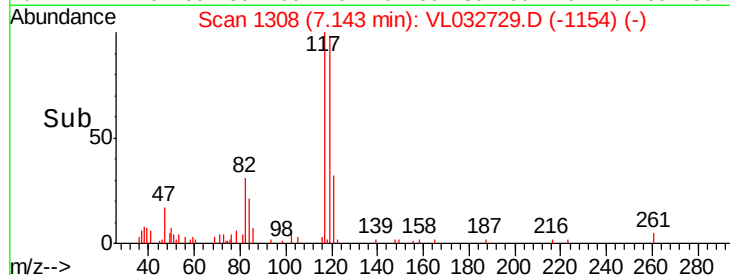
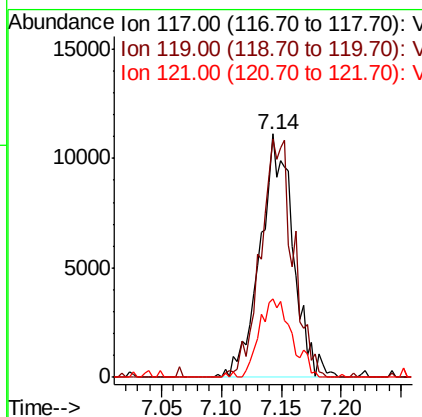
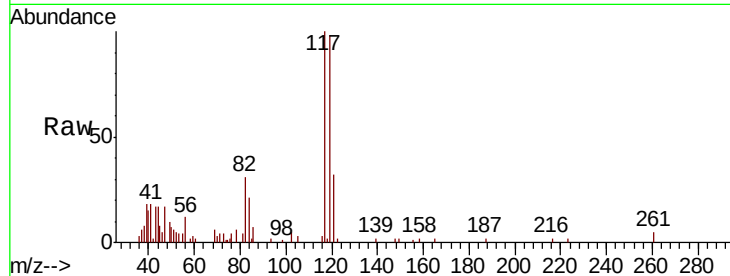
ClientSampled :

IA-01

Tot Ion:	117	Resp:	21151
Ion Ratio	Lower	Upper	
117	100		
119	98.2	75.7	113.5
121	32.1	24.7	37.1

Manual Integrations
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#36

Benzene

Concen: 3.303 ppbv

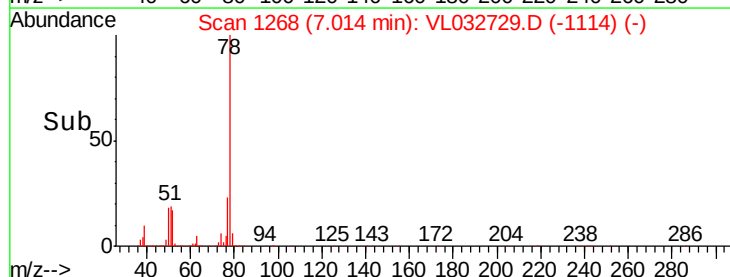
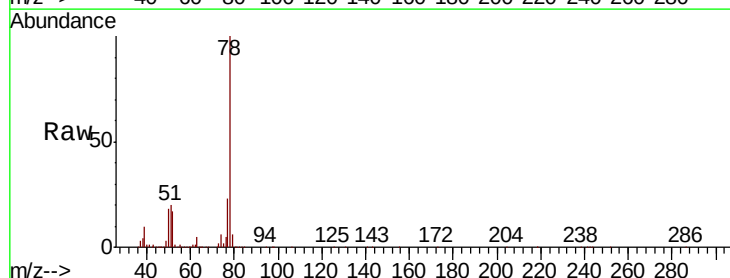
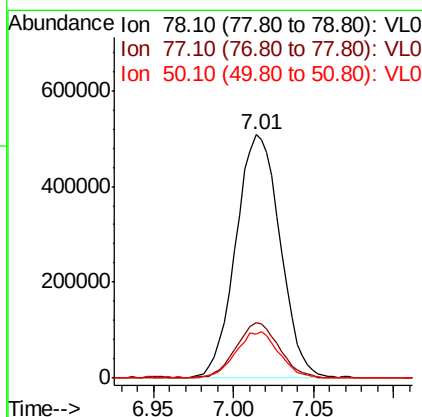
RT: 7.01 min Scan# 1268

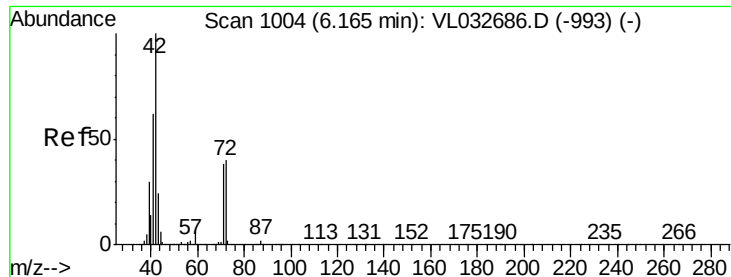
Delta R.T. -0.01 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Tgt Ion:	78	Resp:	953252
Ion Ratio	Lower	Upper	
78	100		
77	22.8	18.1	27.1
50	17.9	15.1	22.7





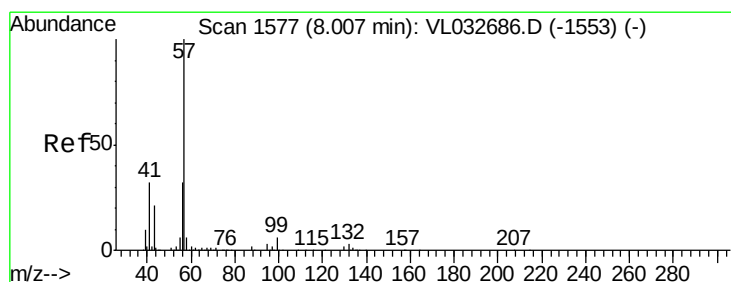
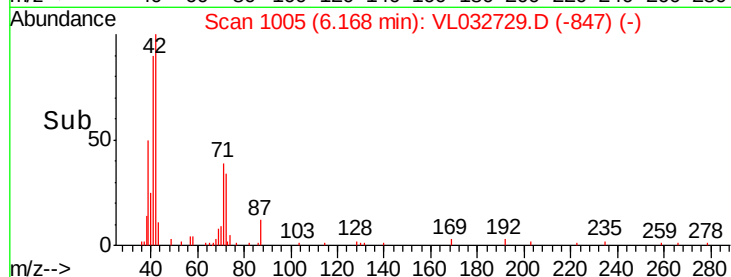
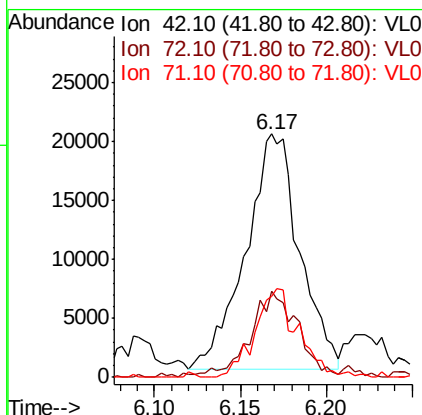
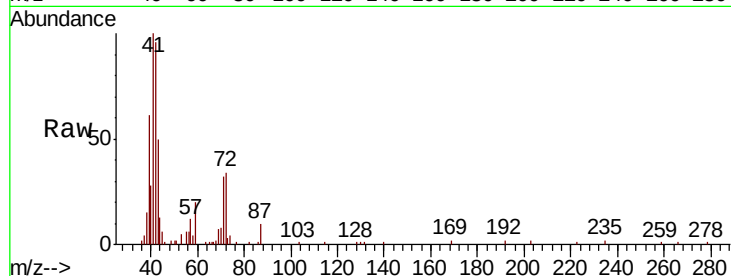
#41
Tetrahydrofuran
Concen: 0.412 ppbv
RT: 6.17 min Scan# 1005
Delta R.T. 0.01 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Instrument :
MSVOA_L
ClientSampled :
IA-01

Tot Ion	Ratio	Lower	Upper
42	100		
72	35.4	32.4	48.6
71	30.8	31.3	46.9

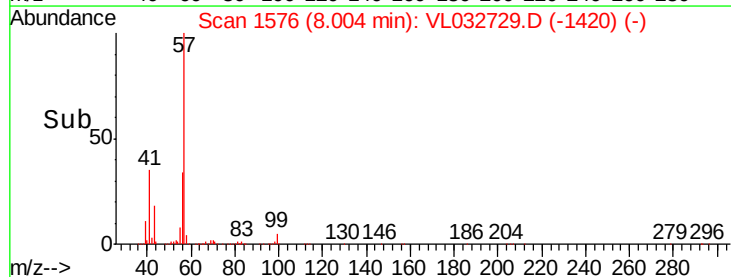
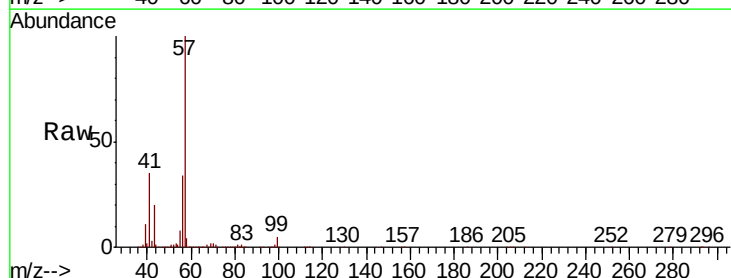
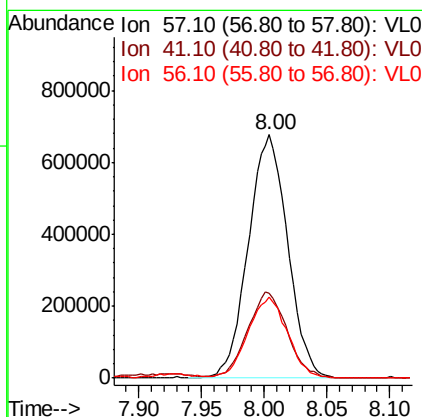
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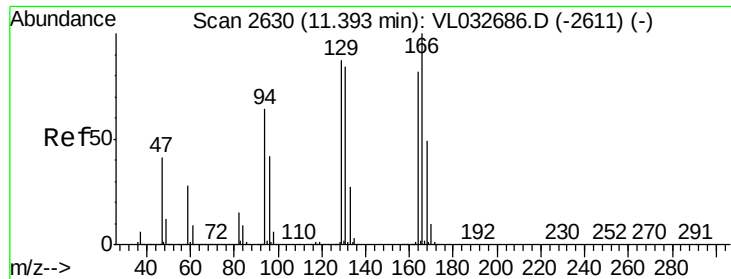
MMDadoda
11/12/2018 12:30:18 PM



#44
2,2,4-Trimethylpentane
Concen: 2.987 ppbv
RT: 8.00 min Scan# 1576
Delta R.T. 0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Tgt Ion	Ratio	Lower	Upper
57	100		
41	35.5	24.7	37.1
56	33.4	25.0	37.4





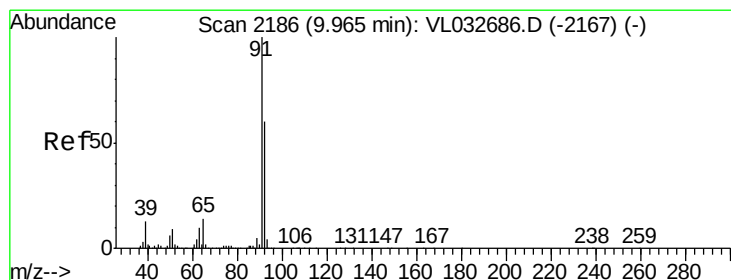
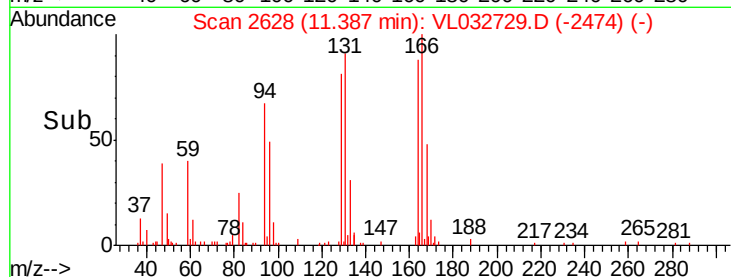
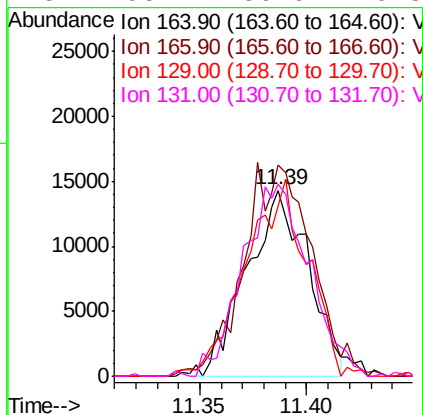
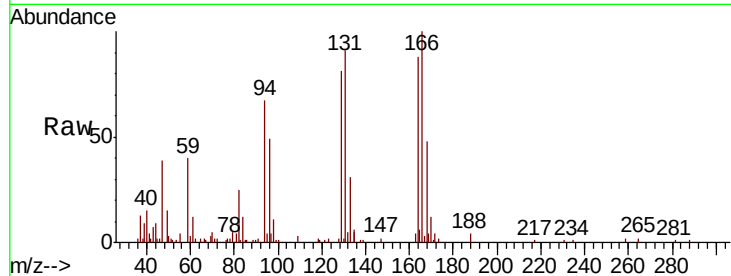
#52
Tetrachloroethene
Concen: 0.285 ppbv m
RT: 11.39 min Scan# 2628
Delta R.T. -0.01 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Instrument :
MSVOA_L
ClientSampled :
IA-01

Tot Ion	Ratio	Lower	Upper
164	100		
166	113.5	100.5	150.7
129	91.5	90.0	135.0
131	103.4	86.6	129.8

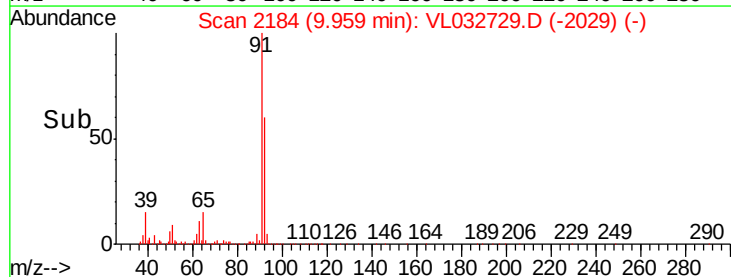
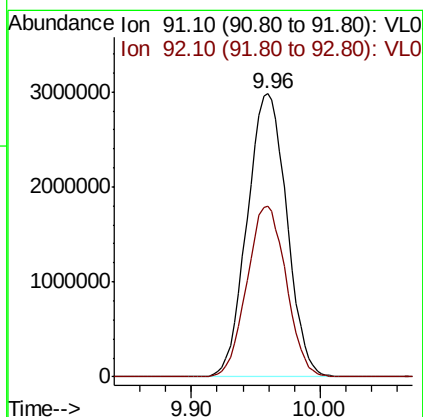
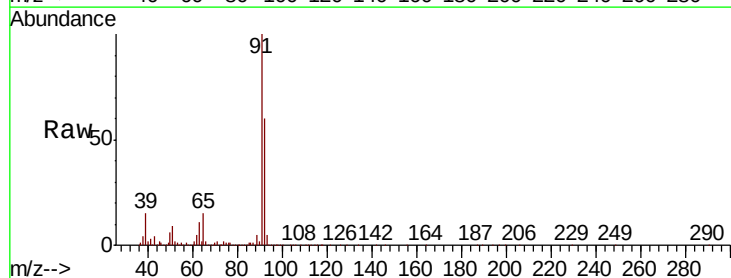
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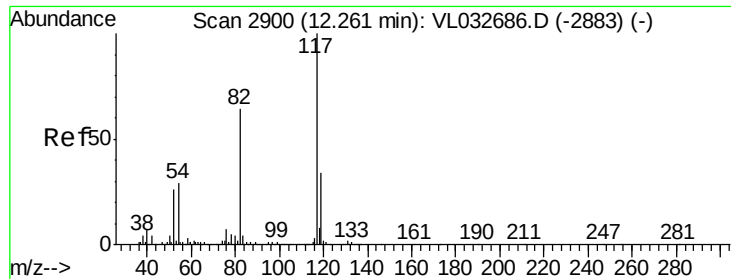
MMDadoda
11/12/2018 12:30:18 PM



#53
Toluene
Concen: 19.287 ppbv
RT: 9.96 min Scan# 2184
Delta R.T. -0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.8	48.4	72.6





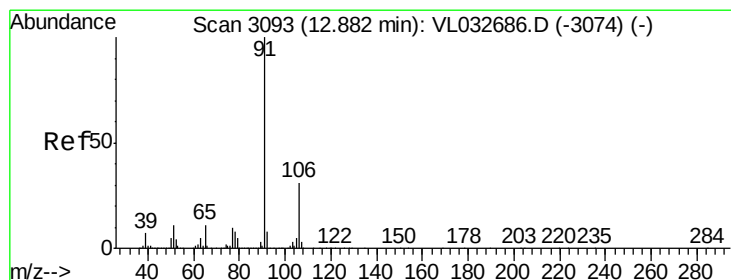
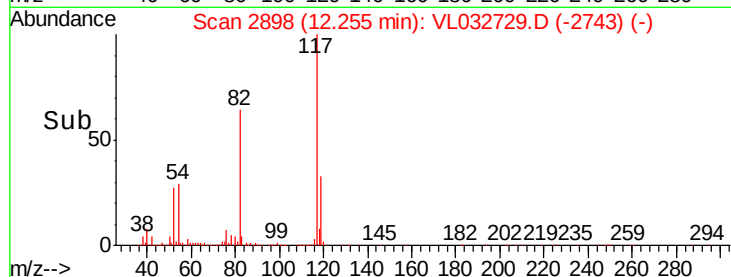
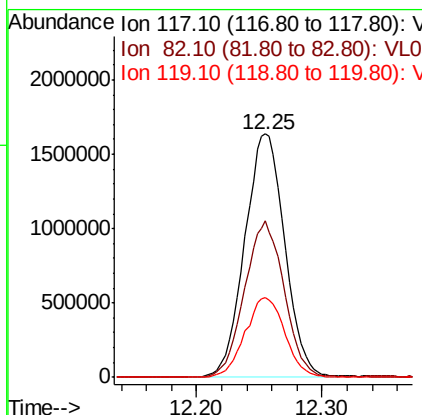
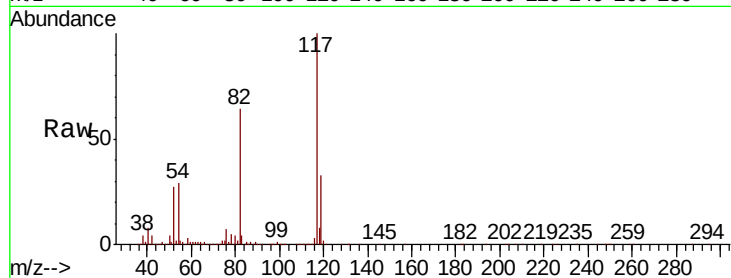
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.25 min Scan# 2898
Delta R.T. -0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Instrument :
MSVOA_L
ClientSampled :
IA-01

Tot Ion:117 Resp: 3625676
Ion Ratio Lower Upper
117 100
82 63.8 52.7 79.1
119 32.7 26.7 40.1

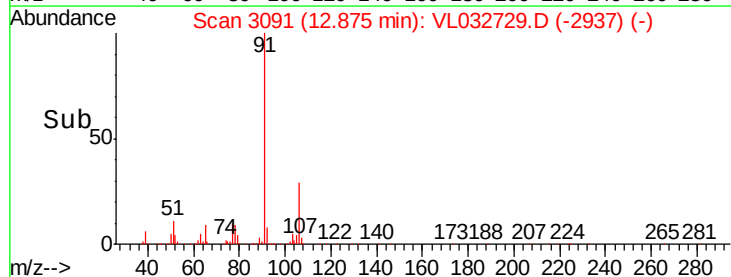
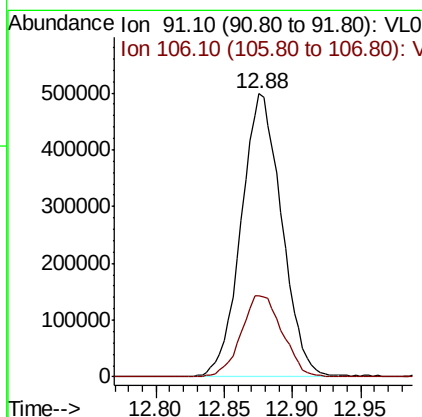
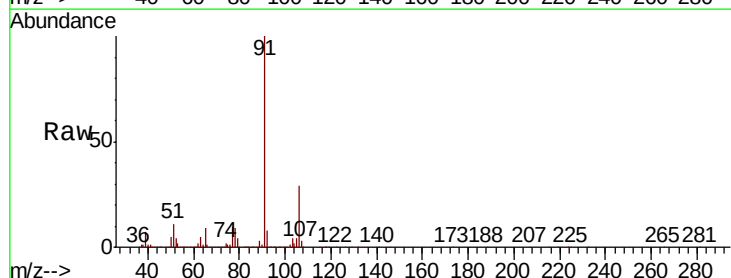
Manual Integrations
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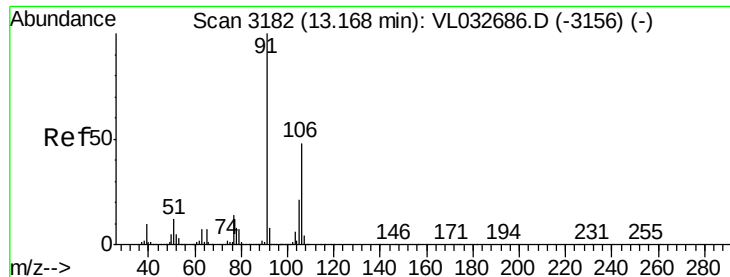
MMDadoda
11/12/2018 12:30:18 PM



#58
Ethyl Benzene
Concen: 2.439 ppbv
RT: 12.88 min Scan# 3091
Delta R.T. -0.01 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Tgt Ion: 91 Resp: 1027230
Ion Ratio Lower Upper
91 100
106 28.6 24.2 36.2





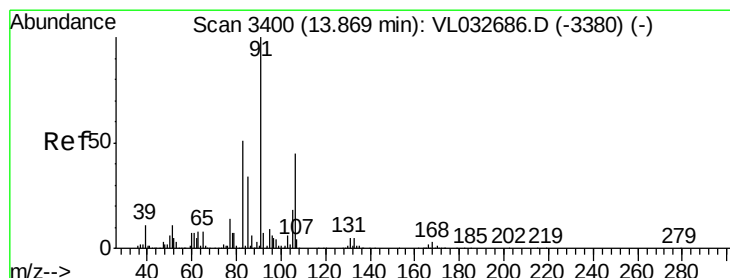
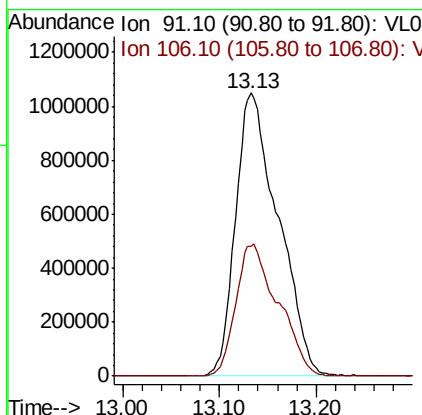
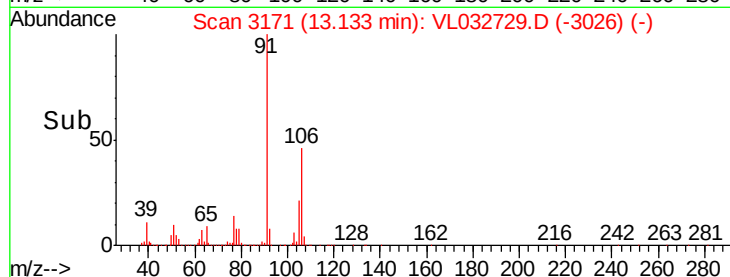
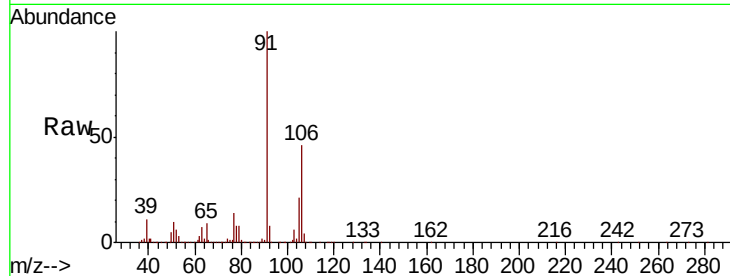
#59
m/p-Xylene
Concen: 8.546 ppbv
RT: 13.13 min Scan# 3171
Delta R.T. -0.04 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Instrument :
MSVOA_L
ClientSampled :
IA-01

Tot Ion: 91 Resp: 3205461
Ion Ratio Lower Upper
91 100
106 46.6 35.9 53.9

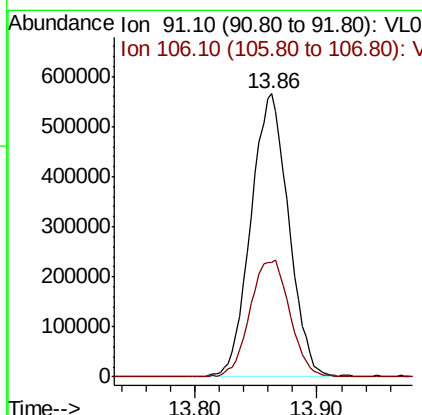
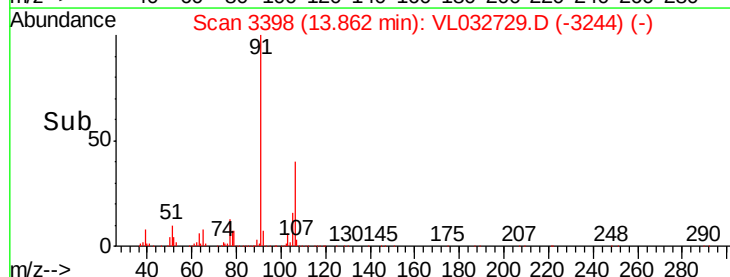
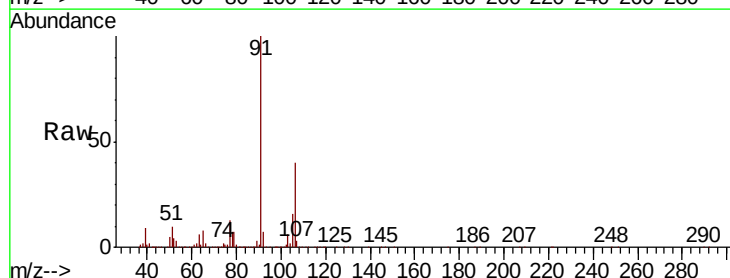
Manual Integrations
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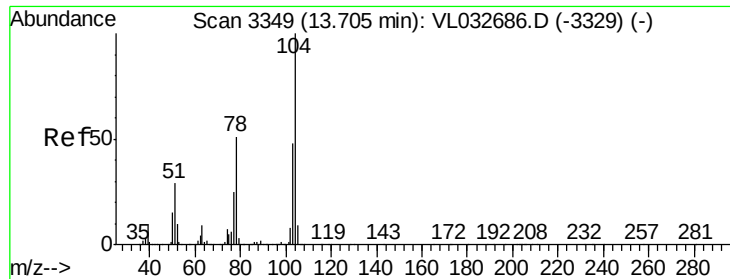
MMDadoda
11/12/2018 12:30:18 PM



#60
o-Xylene
Concen: 3.343 ppbv
RT: 13.86 min Scan# 3398
Delta R.T. -0.01 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Tgt Ion: 91 Resp: 1209605
Ion Ratio Lower Upper
91 100
106 43.5 22.1 66.1





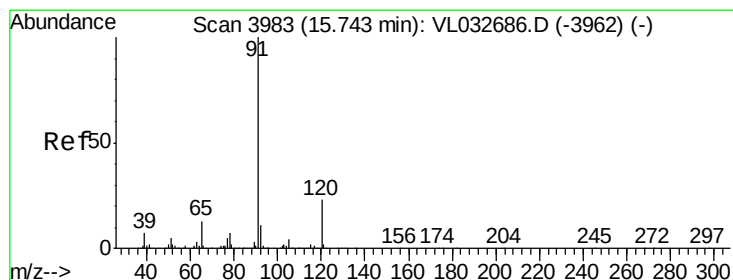
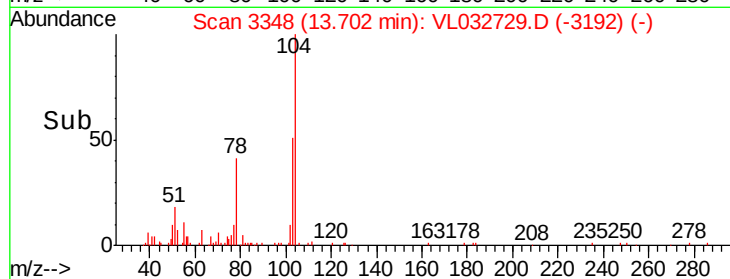
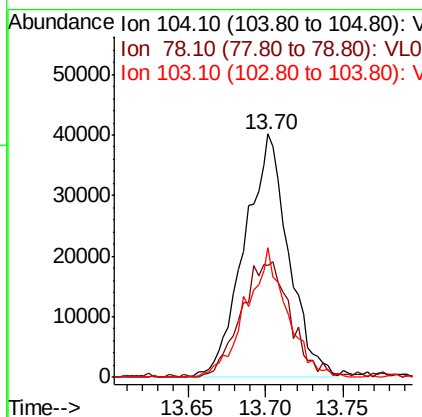
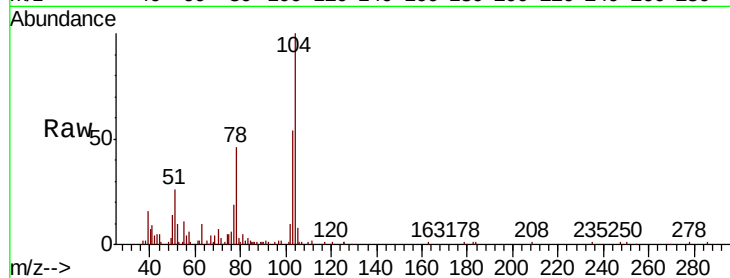
#61
Stvrene
Concen: 0.329 ppbv
RT: 13.70 min Scan# 3348
Delta R.T. 0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Instrument :
MSVOA_L
ClientSampled :
IA-01

Tot Ion	Ratio	Lower	Upper
104	100		
78	54.1	42.8	64.2
103	50.1	37.4	56.0

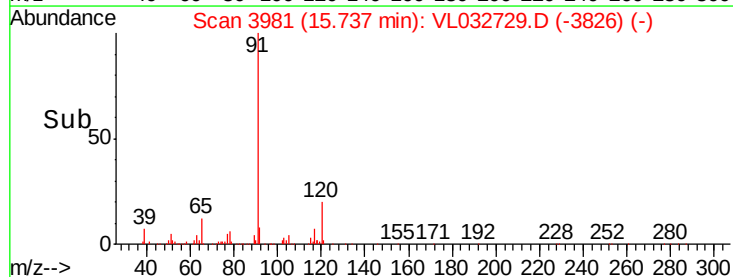
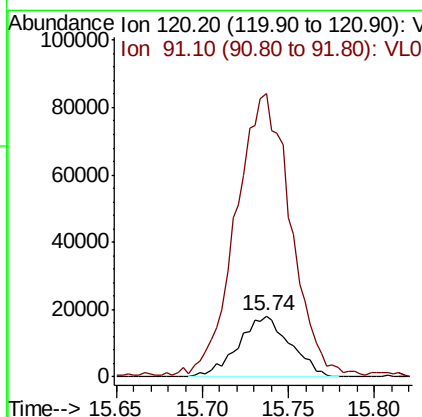
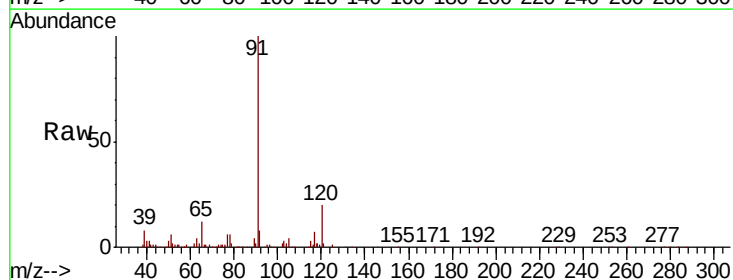
Manual Integrations
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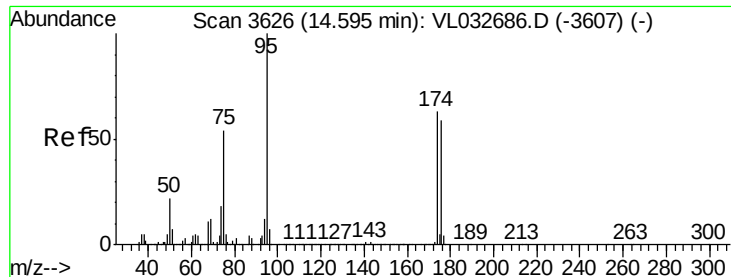
MMDadoda
11/12/2018 12:30:18 PM



#64
n-propylbenzene
Concen: 0.295 ppbv
RT: 15.74 min Scan# 3981
Delta R.T. -0.00 min
Lab File: VL032729.D
Acq: 7 Nov 2018 22:58

Tgt Ion	Ratio	Lower	Upper
120	100		
91	499.4	390.2	585.2





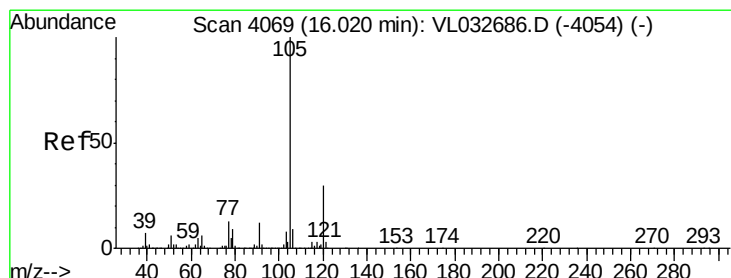
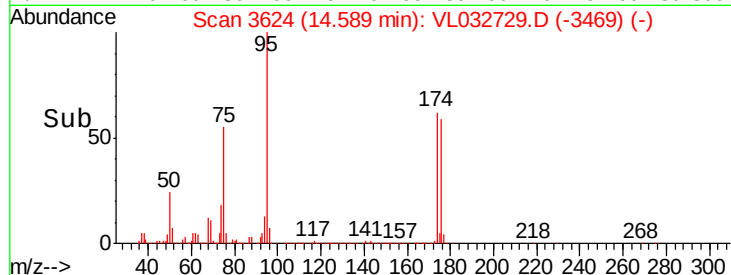
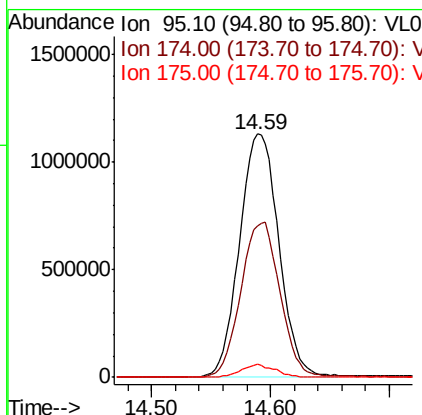
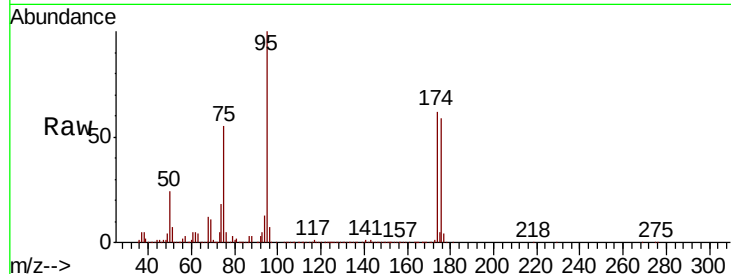
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.606 ppbv
 RT: 14.59 min Scan# 3624
 Delta R.T. -0.00 min
 Lab File: VL032729.D
 Acq: 7 Nov 2018 22:58

Instrument :
 MSVOA_L
 ClientSampled :
 IA-01

Tot Ion	Ratio	Lower	Upper
95	100		
174	63.7	46.0	69.0
175	4.8	3.4	5.0

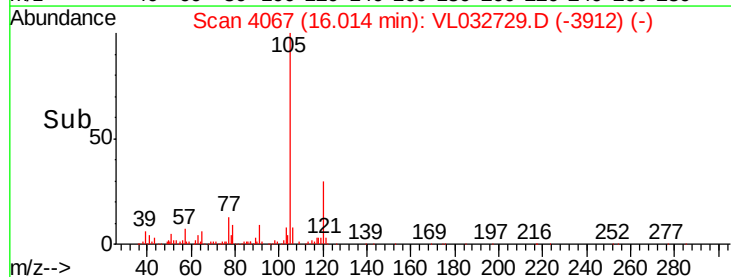
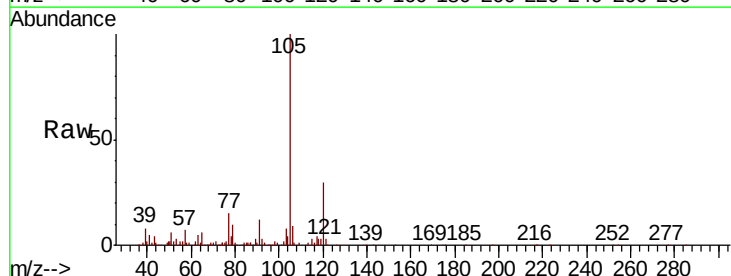
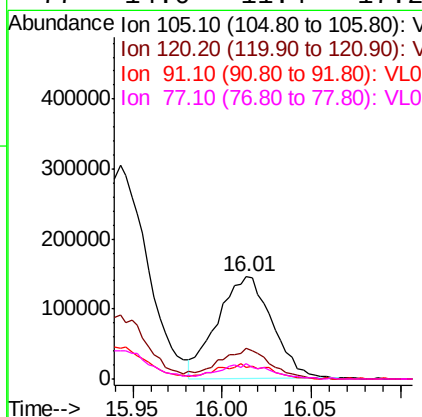
Manual Integrations
 APPROVED

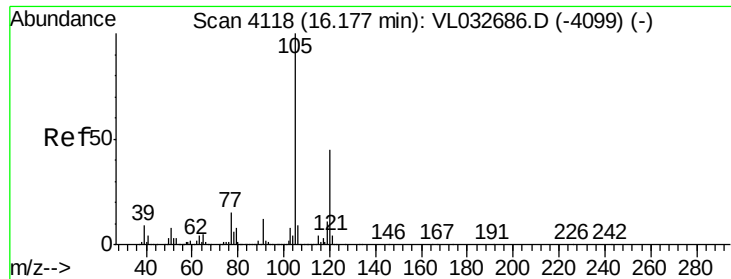
MMDadoda
 11/12/2018 12:30:18 PM



#72
 4-Ethyltoluene
 Concen: 0.803 ppbv
 RT: 16.01 min Scan# 4067
 Delta R.T. -0.00 min
 Lab File: VL032729.D
 Acq: 7 Nov 2018 22:58

Tgt Ion	Ratio	Lower	Upper
105	100		
120	27.3	23.7	35.5
91	13.6	10.4	15.6
77	14.0	11.4	17.2





#73

1,3,5-Trimethylbenzene

Concen: 0.632 ppbv

RT: 16.17 min Scan# 4116

Delta R.T. -0.01 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Instrument :

MSVOA_L

ClientSampled :

IA-01

Tot Ion:105 Resp: 237351

Ion Ratio Lower Upper

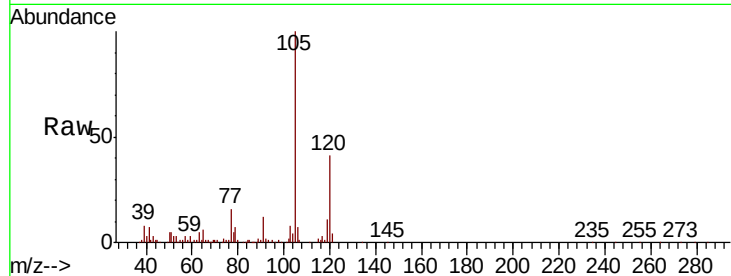
105 100

120 40.7 35.4 53.2

Manual Integrations
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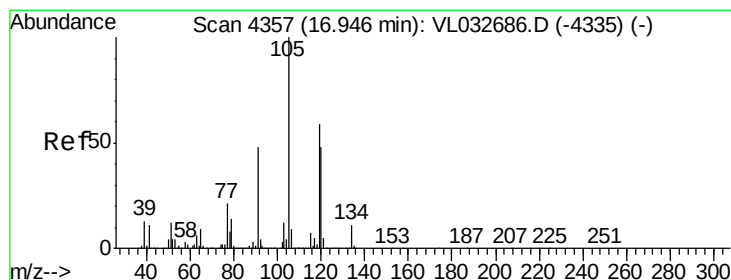
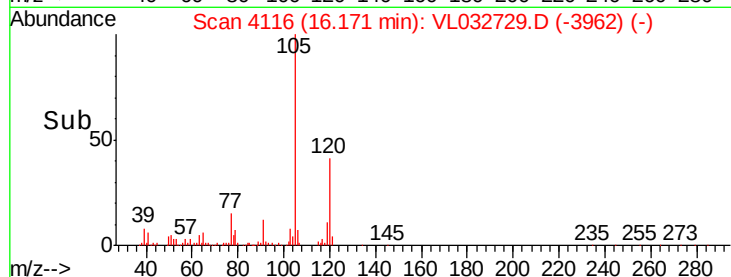
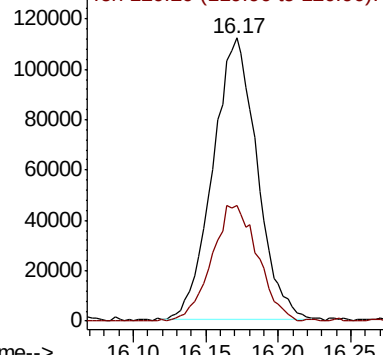
MMDadoda

11/12/2018 12:30:18 PM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 2.418 ppbv

RT: 16.94 min Scan# 4355

Delta R.T. -0.01 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Tgt Ion:105 Resp: 969158

Ion Ratio Lower Upper

105 100

120 38.3 35.8 53.8

91 11.2 33.2 49.8#

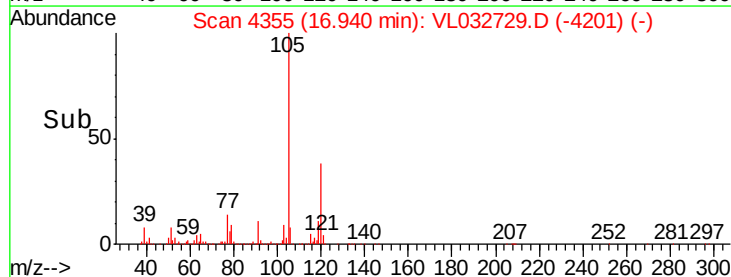
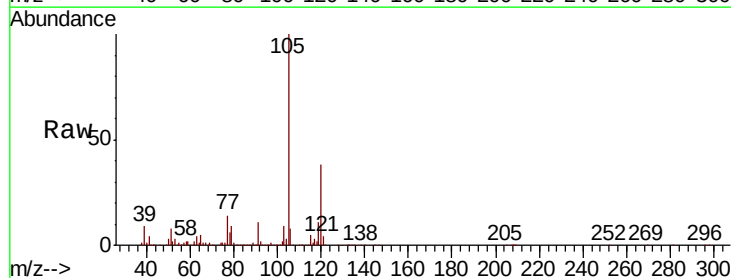
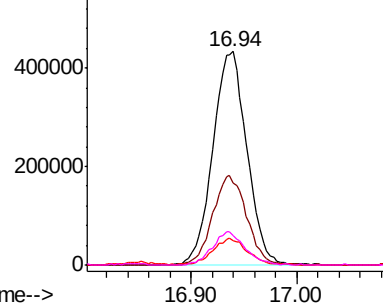
77 13.5 16.2 24.4#

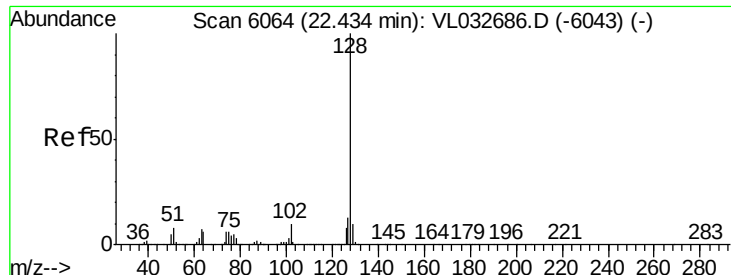
Abundance Ion 105.10 (104.80 to 105.80): V

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





#79

Naphthalene

Concen: 0.151 ppbv m

RT: 22.42 min Scan# 6061

Delta R.T. -0.01 min

Lab File: VL032729.D

Acq: 7 Nov 2018 22:58

Instrument :

MSVOA_L

ClientSampleId :

IA-01

Tot Ion:	128	Resp:	37685
Ion Ratio	Lower	Upper	
128	100		
127	10.8	10.3	15.5
129	16.6	8.6	13.0#

Manual Integrations
APPROVED

MMDadoda
11/12/2018 12:30:18 PM

