

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032519\
 Data File : VL033454.D
 Acq On : 26 Mar 2019 2:47
 Operator : SY/AP
 Sample : K1991-06
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3

Manual Integrations
 APPROVED

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 4/1/2019 1:23:11 AM

Quant Time: Mar 27 02:17:00 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar 27 02:17:00 2019
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	661377	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1559210	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1598648	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.57	95	1250561	9.98	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.80%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	32147	0.333	ppbv	99
3) Chlorodifluoromethane	3.02	51	19627m	0.258	ppbv	
4) Chloromethane	3.17	50	23654	0.587	ppbv	95
9) Propene	3.05	41	34348	1.074	ppbv #	72
10) Heptane	8.24	43	20901	0.245	ppbv	99
11) Trichlorofluoromethane	4.00	101	29690	0.250	ppbv	98
13) Ethanol	3.65	45	555325	67.113	ppbv	65
15) Acetone	3.89	43	2799519	35.204	ppbv	98
17) tert-Butyl alcohol	4.37	59	19150m	1.310	ppbv	
19) Isopropyl Alcohol	4.03	45	92785	1.845	ppbv #	1
20) Methylene Chloride	4.41	84	28955	0.858	ppbv	93
26) Hexane	5.78	57	49990	0.762	ppbv #	46
30) Cyclohexane	7.25	84	7607m	0.147	ppbv	
34) 2-Butanone	5.33	43	252287	2.693	ppbv	100
35) Carbon Tetrachloride	7.14	117	7291m	0.066	ppbv	
36) Benzene	7.00	78	35153	0.269	ppbv #	94
41) Tetrahydrofuran	6.16	42	16175m	0.314	ppbv	
53) Toluene	9.95	91	464397	3.055	ppbv	99
59) m/p-Xylene	13.12	91	38414m	0.201	ppbv	
60) o-Xylene	13.84	91	18869m	0.102	ppbv	
61) Styrene	13.68	104	10940	0.086	ppbv	95
79) Naphthalene	22.41	128	45517m	0.250	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033454.D

Acq: 26 Mar 2019 2:47

Instrument :

MSVOA_L

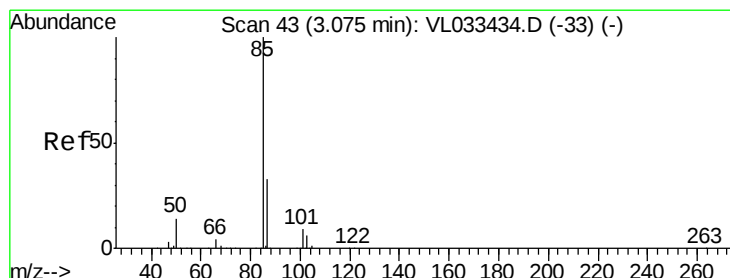
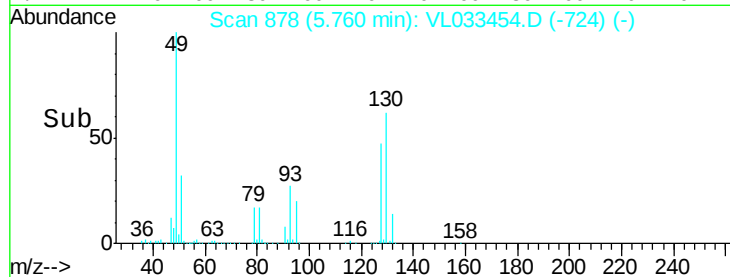
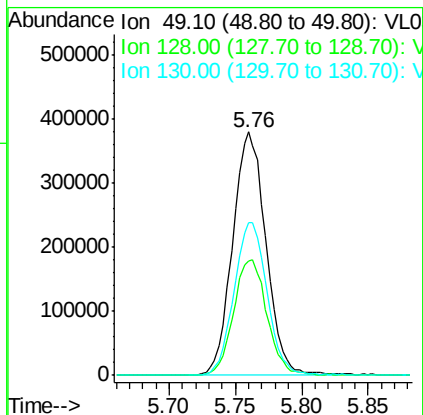
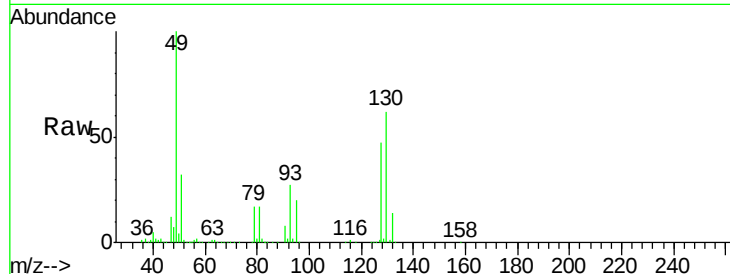
ClientSampled :

IA-3

Tot Ion	Ratio	Lower	Upper
49	100		
128	47.5	24.0	72.0
130	62.7	31.2	93.6

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#2

Dichlorodifluoromethane

Concen: 0.333 ppbv

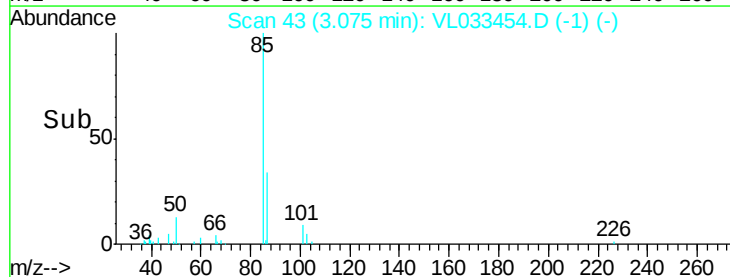
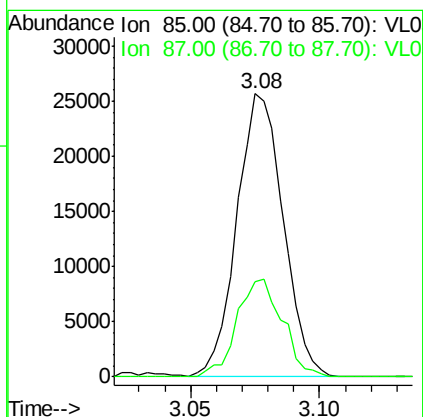
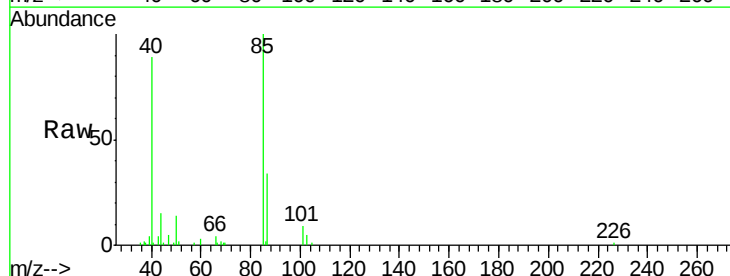
RT: 3.08 min Scan# 43

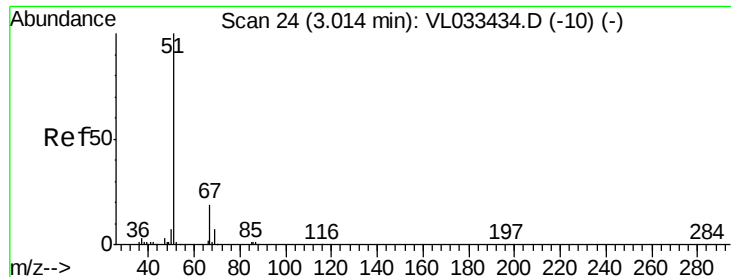
Delta R.T. -0.00 min

Lab File: VL033454.D

Acq: 26 Mar 2019 2:47

Tgt Ion	Ratio	Lower	Upper
85	100		
87	33.8	26.7	40.1





#3

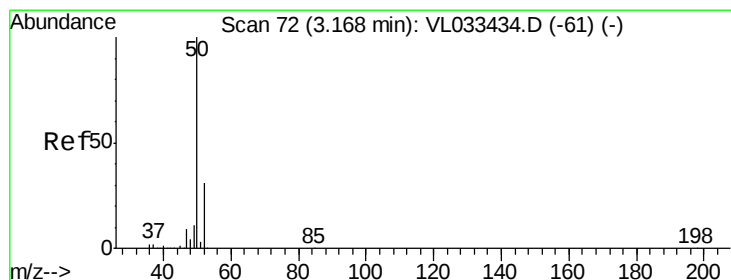
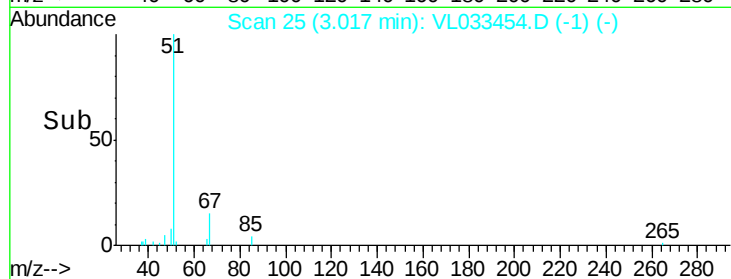
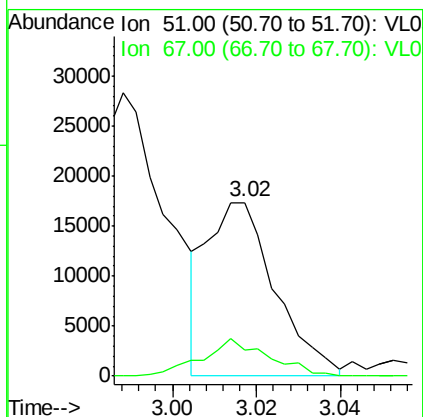
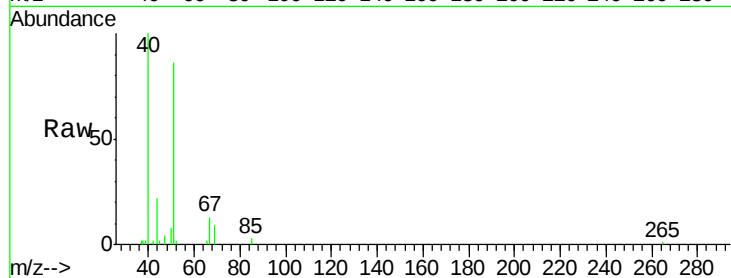
Chlorodifluoromethane
Concen: 0.258 ppbv
RT: 3.02 min Scan# 25
Delta R.T. 0.00 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Instrument :
MSVOA_L
ClientSampleId :
IA-3

Tot Ion	Ratio	Lower	Upper
51	100		
67	21.1	15.7	23.5

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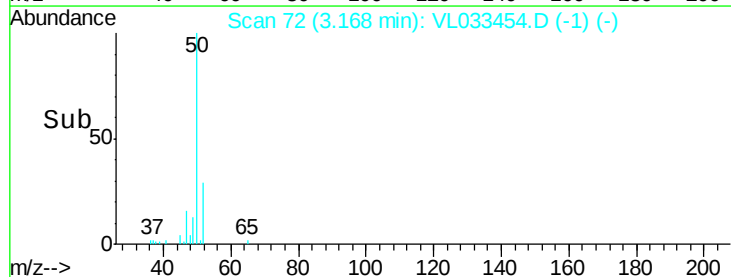
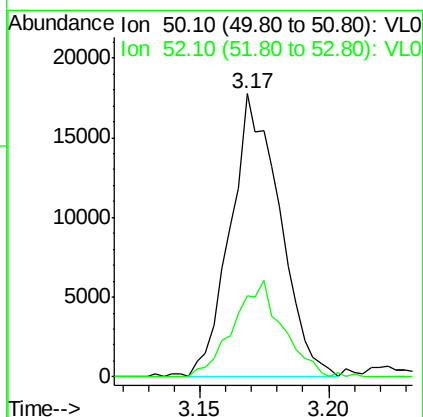
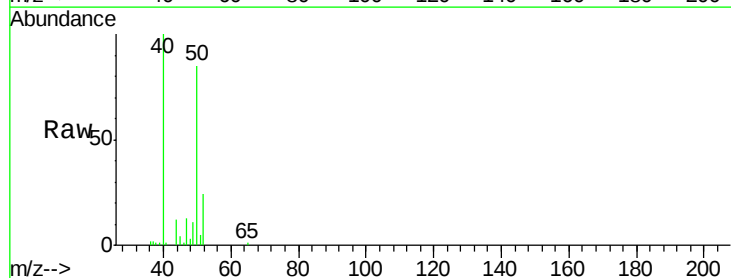
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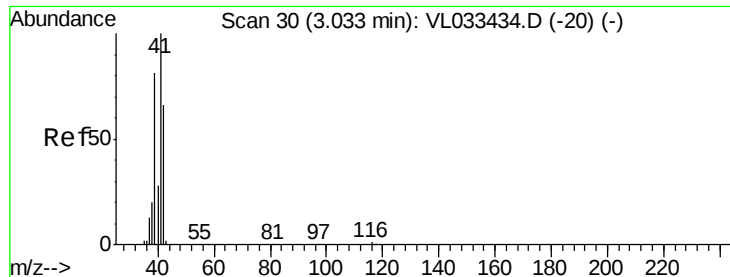


#4

Chloromethane
Concen: 0.587 ppbv
RT: 3.17 min Scan# 72
Delta R.T. -0.00 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Tgt Ion	Ratio	Lower	Upper
50	100		
52	28.6	25.0	37.6





#9

Propene

Concen: 1.074 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.02 min

Lab File: VL033454.D

Acq: 26 Mar 2019 2:47

Instrument :

MSVOA_L

ClientSampled :

IA-3

Tot Ion: 41 Resp: 34348

Ion Ratio Lower Upper

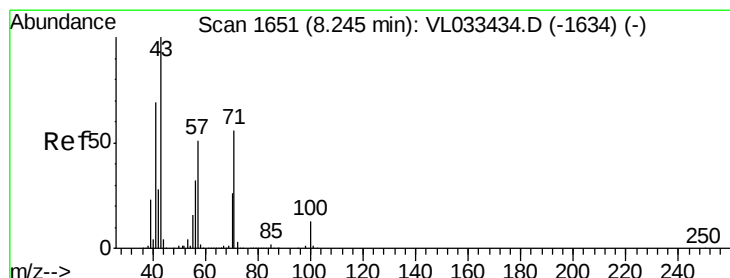
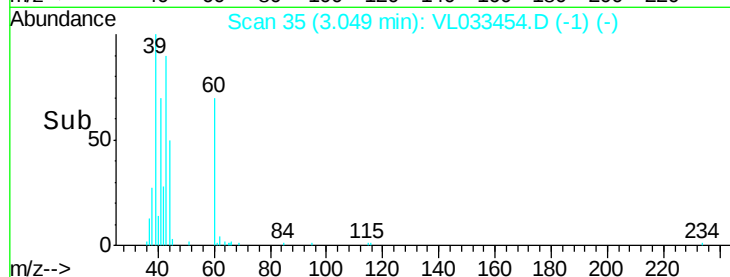
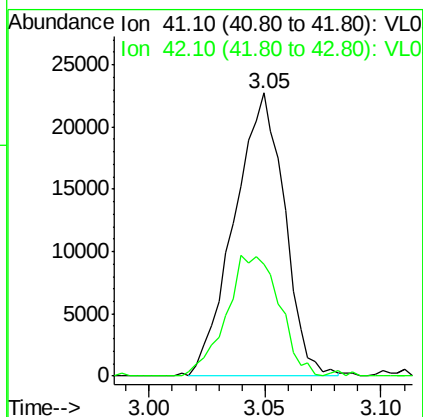
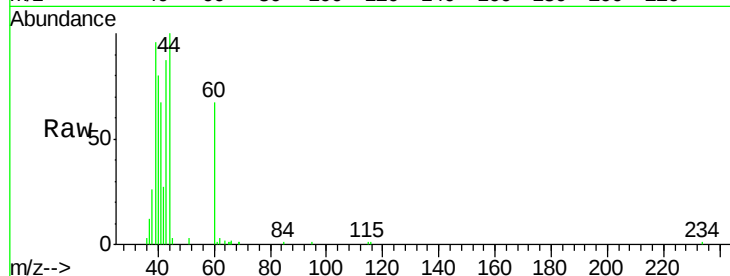
41 100

42 45.2 53.9 80.9#

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#10

Heptane

Concen: 0.245 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. -0.00 min

Lab File: VL033454.D

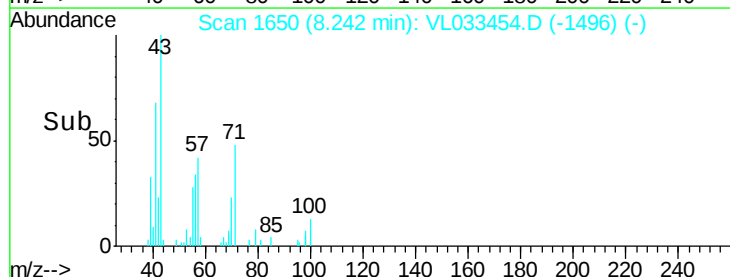
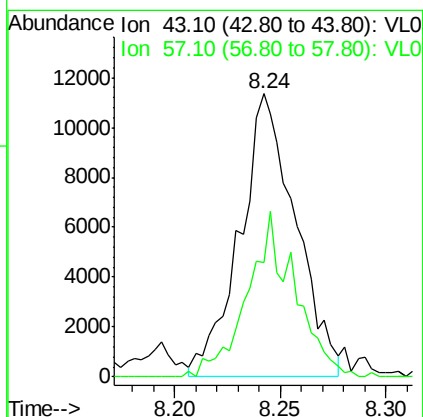
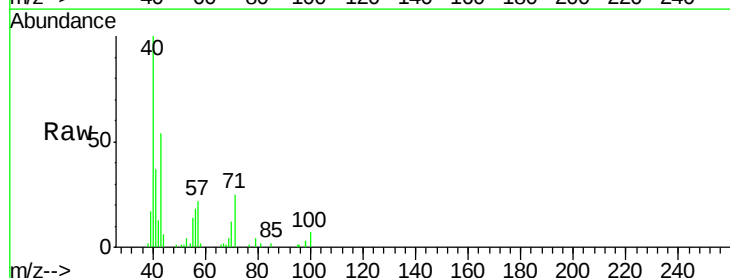
Acq: 26 Mar 2019 2:47

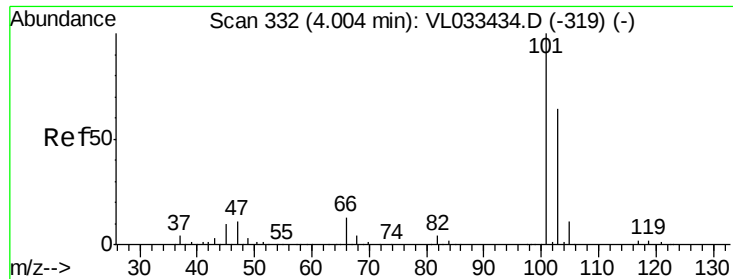
Tgt Ion: 43 Resp: 20901

Ion Ratio Lower Upper

43 100

57 49.7 40.6 60.8





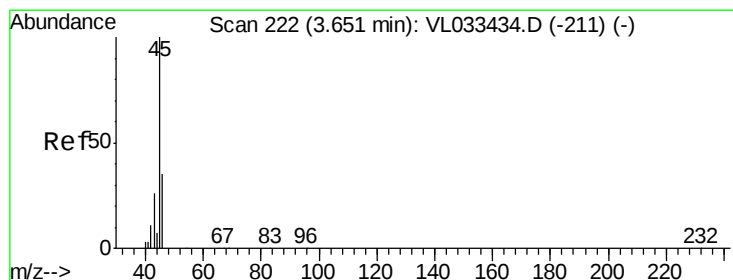
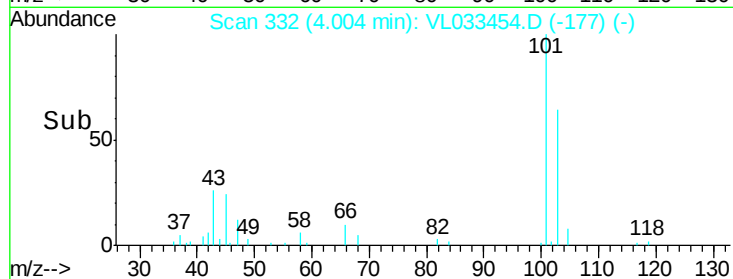
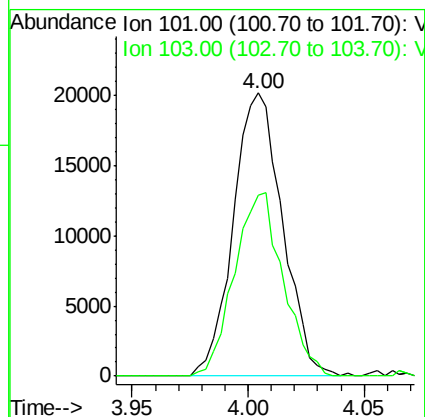
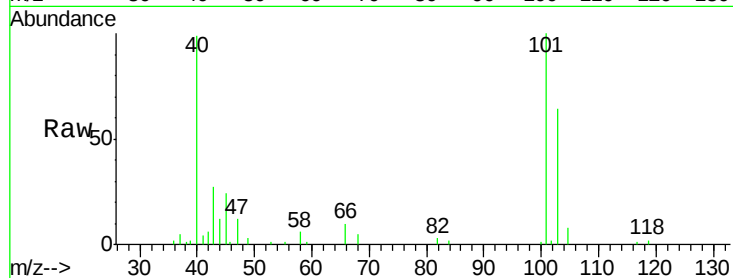
#11
 Trichlorofluoromethane
 Concen: 0.250 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.00 min
 Lab File: VL033454.D
 Acq: 26 Mar 2019 2:47

Instrument :
 MSVOA_L
 ClientSampleId :
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Tot Ion:101 Resp: 29690
 Ion Ratio Lower Upper
 101 100
 103 62.6 51.3 76.9

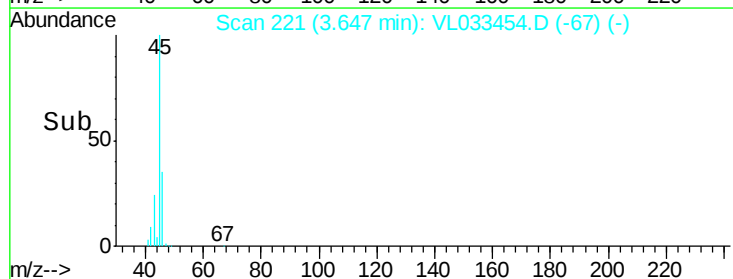
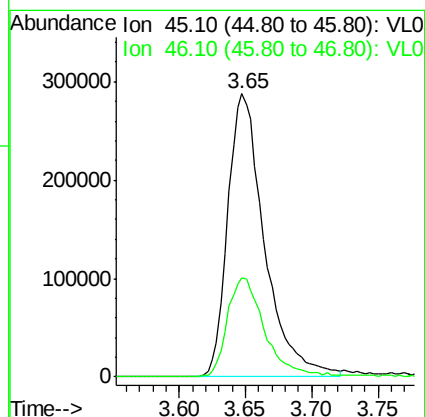
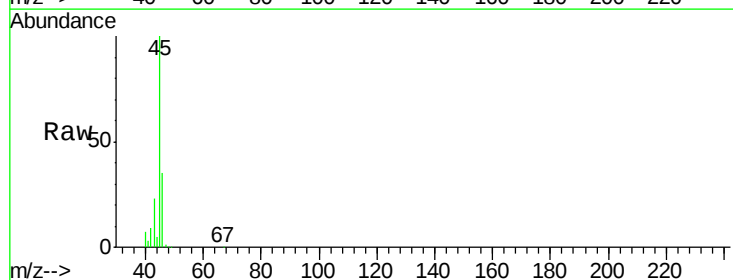
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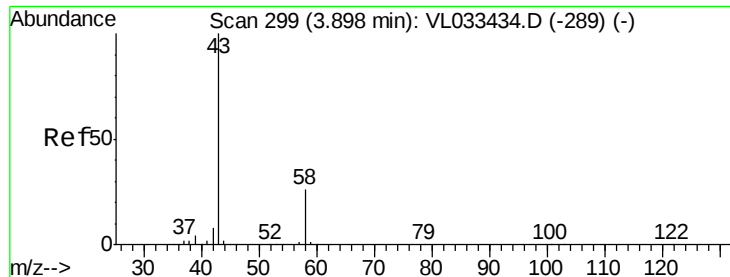
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#13
 Ethanol
 Concen: 67.113 ppbv
 RT: 3.65 min Scan# 221
 Delta R.T. -0.00 min
 Lab File: VL033454.D
 Acq: 26 Mar 2019 2:47

Tgt Ion: 45 Resp: 555325
 Ion Ratio Lower Upper
 45 100
 46 36.7 25.4 101.8





#15

Acetone

Concen: 35.204 ppbv

RT: 3.89 min Scan# 298

Delta R.T. -0.00 min

Lab File: VL033454.D

Acq: 26 Mar 2019 2:47

Instrument :

MSVOA_L

ClientSampleId :

IA-3

Tot Ion: 43 Resp: 2799519

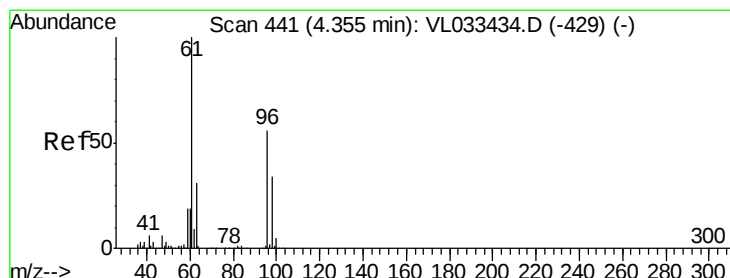
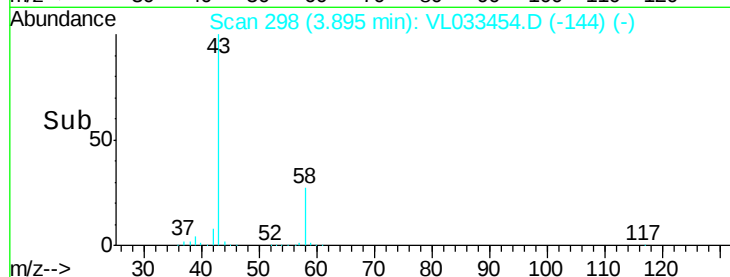
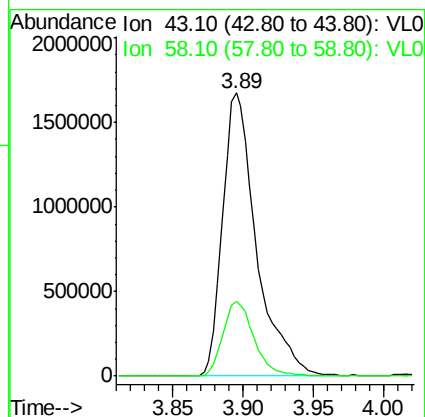
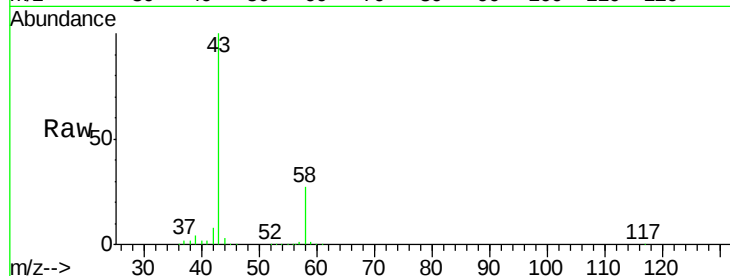
Ion Ratio Lower Upper

43 100

58 24.5 20.5 30.7

Manual Integrations
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#17

tert-Butyl alcohol

Concen: 1.310 ppbv m

RT: 4.37 min Scan# 446

Delta R.T. 0.02 min

Lab File: VL033454.D

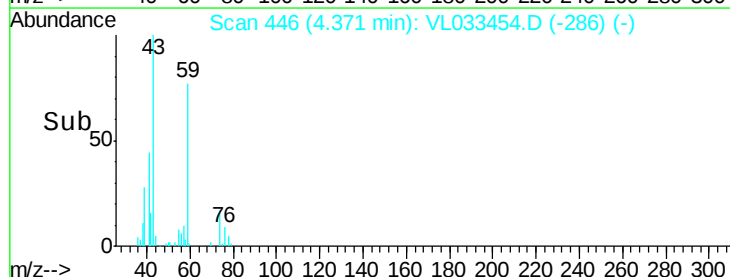
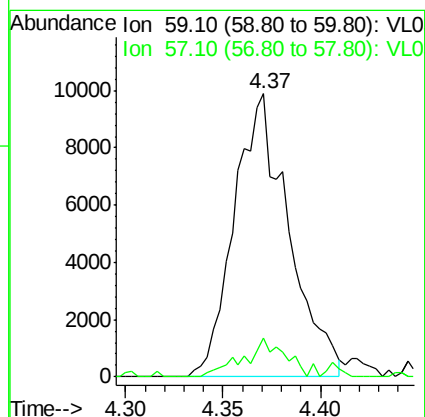
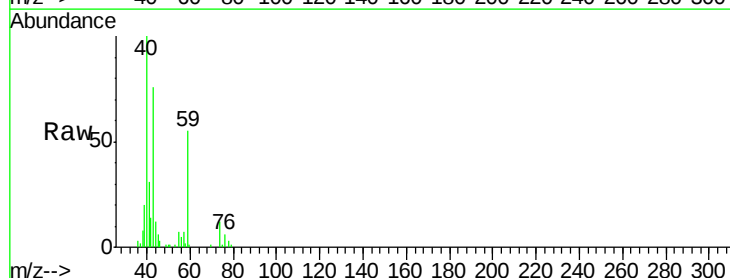
Acq: 26 Mar 2019 2:47

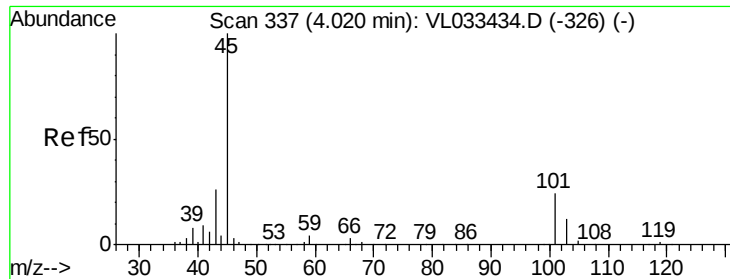
Tgt Ion: 59 Resp: 19150

Ion Ratio Lower Upper

59 100

57 0.0 7.8 11.8#





#19

Isopropyl Alcohol

Concen: 1.845 ppbv

RT: 4.03 min Scan# 340

Delta R.T. 0.01 min

Lab File: VL033454.D

Acq: 26 Mar 2019 2:47

Instrument :

MSVOA_L

ClientSampleId :

IA-3

Tot Ion: 45 Resp: 92785

Ion Ratio Lower Upper

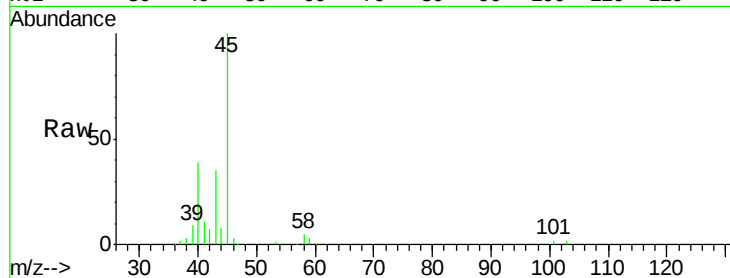
45 100

58 738.4 1.4 2.2#

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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

4.03

50000

40000

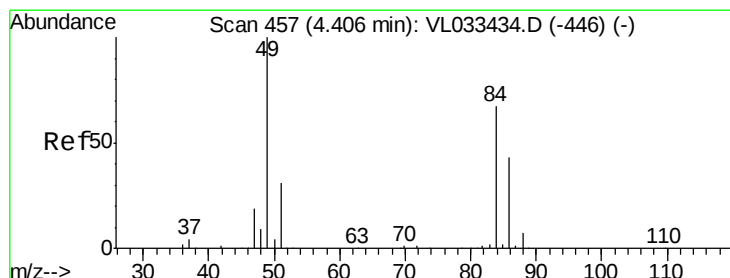
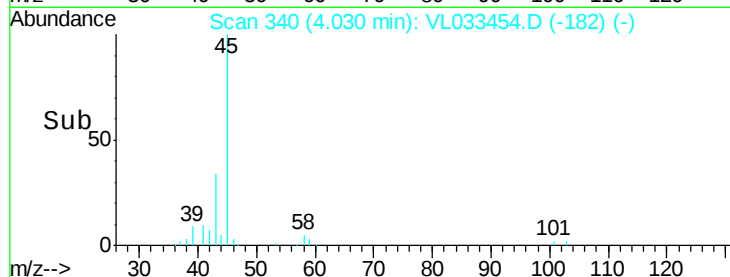
30000

20000

10000

0

Time--> 3.95 4.00 4.05 4.10



#20

Methylene Chloride

Concen: 0.858 ppbv

RT: 4.41 min Scan# 458

Delta R.T. 0.00 min

Lab File: VL033454.D

Acq: 26 Mar 2019 2:47

Tgt Ion: 84 Resp: 28955

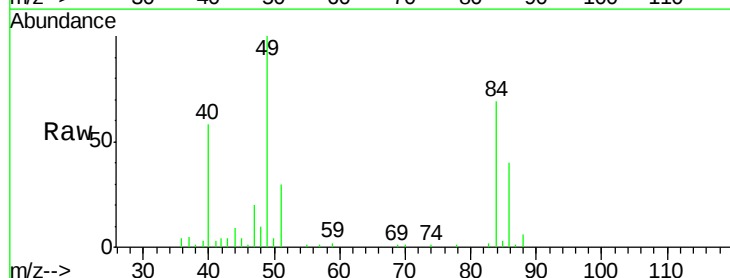
Ion Ratio Lower Upper

84 100

49 140.2 120.0 180.0

51 43.6 36.7 55.1

86 58.3 51.9 77.9



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

40000

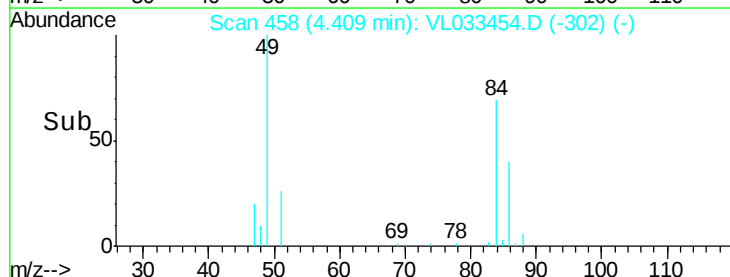
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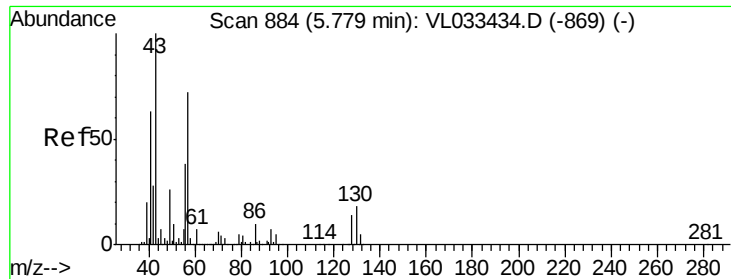
20000

10000

0

Time--> 4.35 4.40 4.45





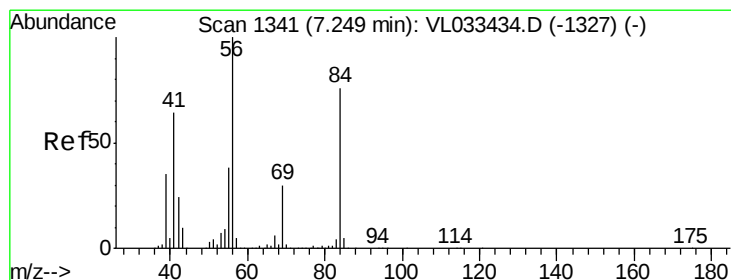
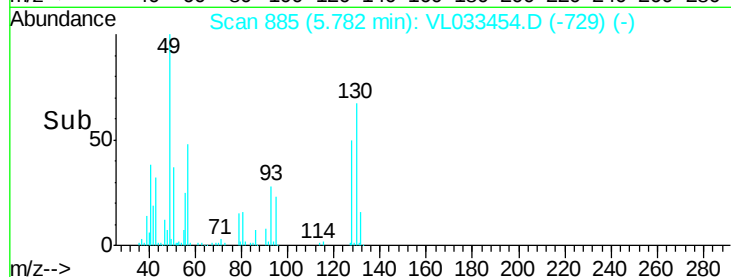
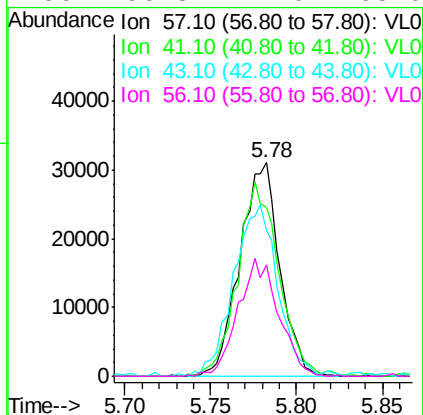
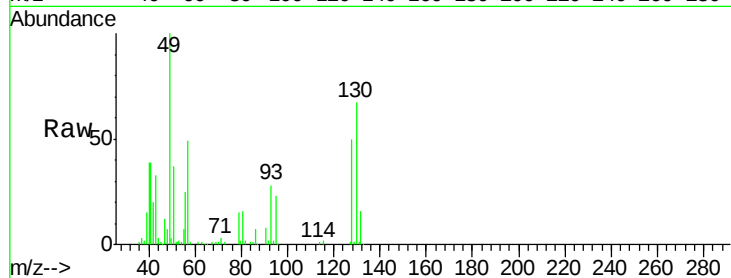
#26
Hexane
Concen: 0.762 ppbv
RT: 5.78 min Scan# 885
Delta R.T. 0.00 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Instrument :
MSVOA_L
ClientSampleId :
IA-3

Tot Ion	Ratio	Lower	Upper
57	100		
41	94.4	70.7	106.1
43	90.8	182.6	274.0#
56	56.3	42.0	63.0

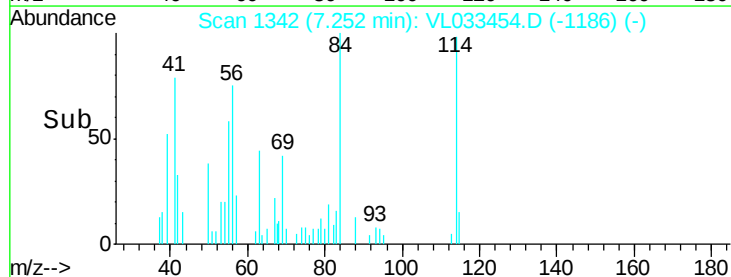
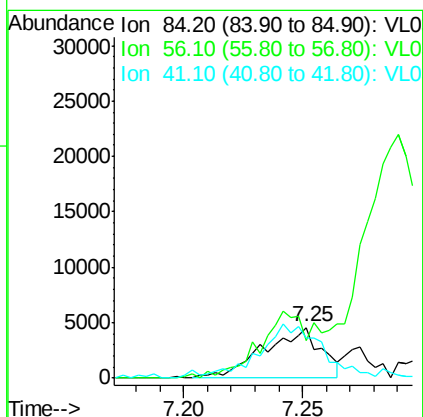
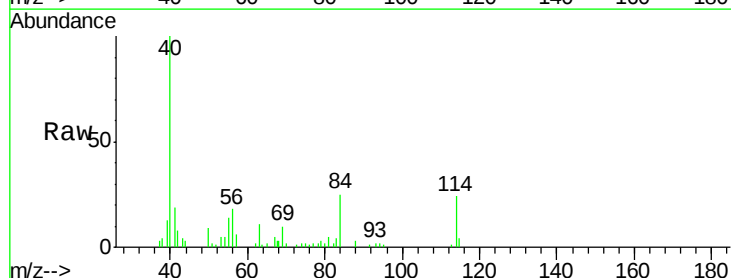
Manual Integrations
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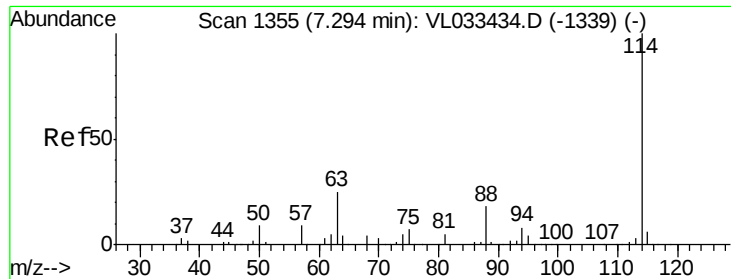
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#30
Cyclohexane
Concen: 0.147 ppbv m
RT: 7.25 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Tgt Ion	Ratio	Lower	Upper
84	100		
56	0.0	109.7	164.5#
41	131.1	68.2	102.2#





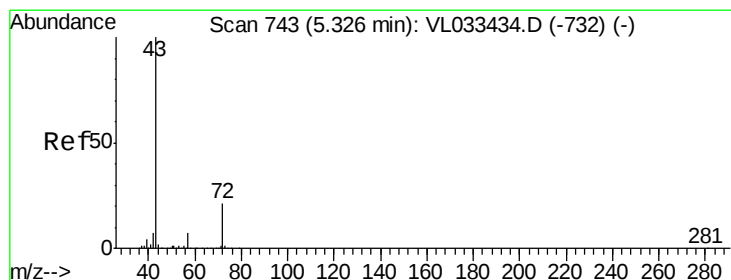
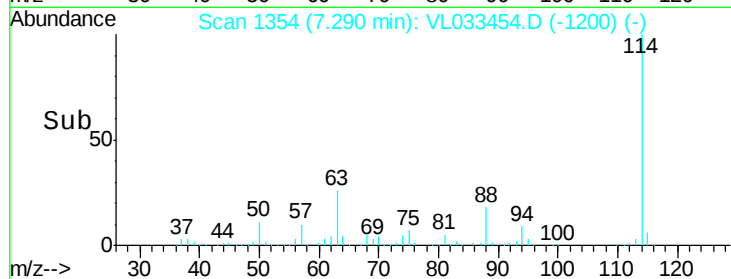
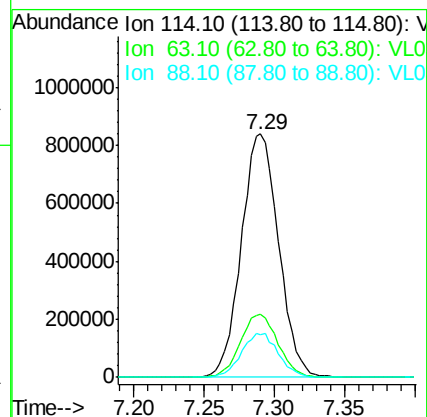
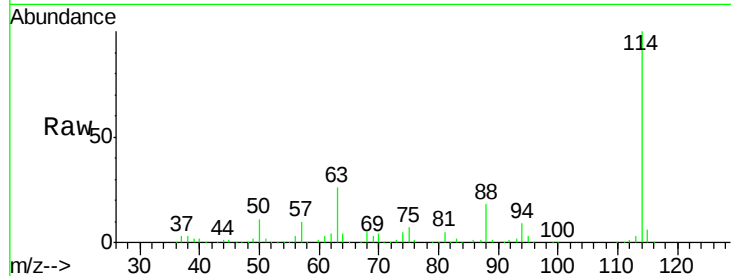
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1354
 Delta R.T. -0.00 min
 Lab File: VL033454.D
 Acq: 26 Mar 2019 2:47

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3

Tot Ion	Ratio	Lower	Upper
114	100		
63	26.2	21.5	32.3
88	17.9	14.5	21.7

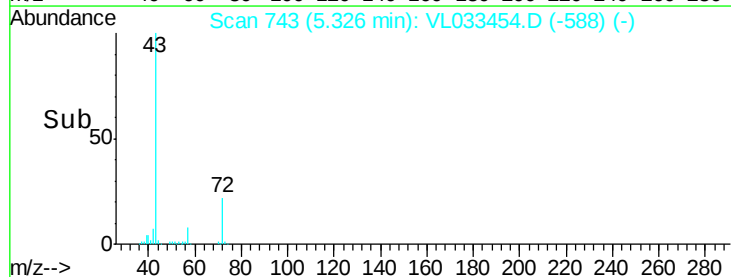
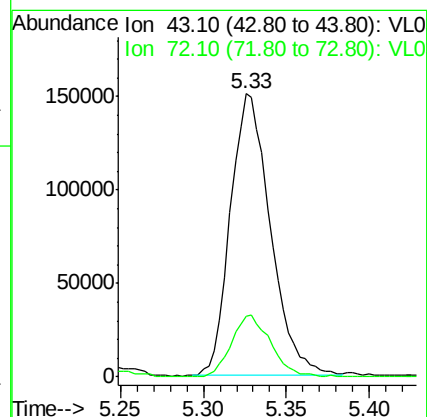
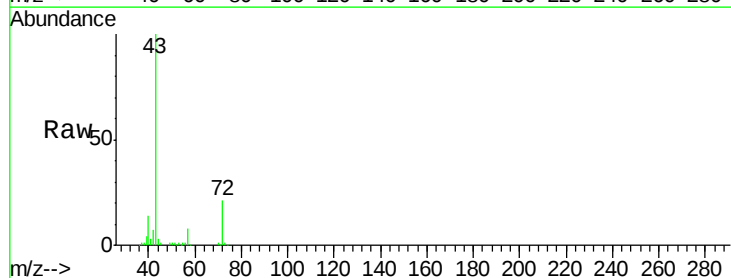
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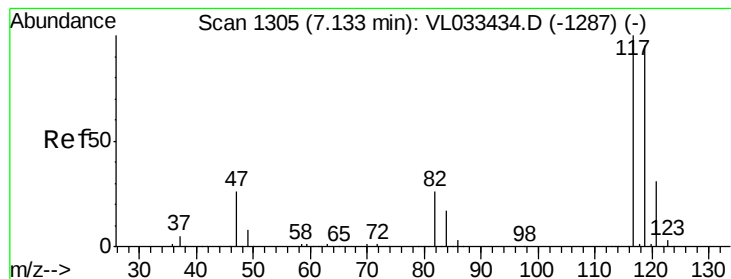
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#34
 2-Butanone
 Concen: 2.693 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. -0.00 min
 Lab File: VL033454.D
 Acq: 26 Mar 2019 2:47

Tgt Ion	Ratio	Lower	Upper
43	100		
72	21.6	17.4	26.2





#35

Carbon Tetrachloride

Concen: 0.066 ppbv m

RT: 7.14 min Scan# 1306

Delta R.T. 0.00 min

Lab File: VL033454.D

Acq: 26 Mar 2019 2:47

Instrument :

MSVOA_L

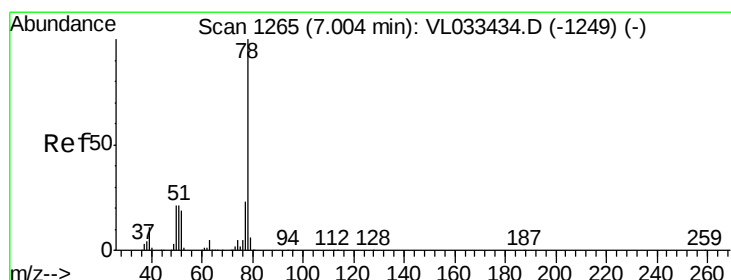
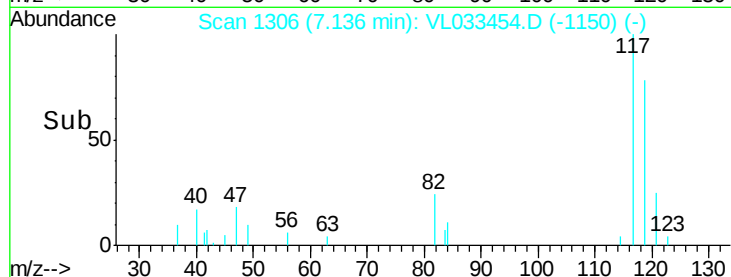
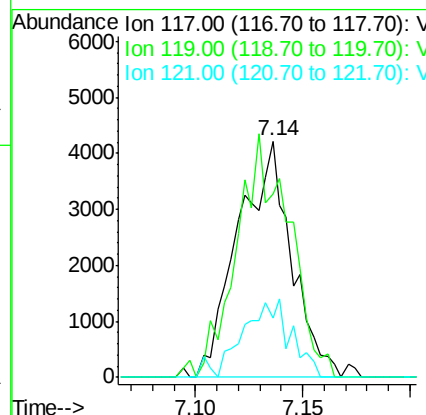
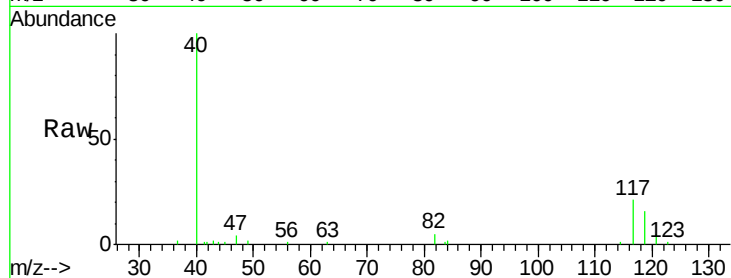
ClientSampleId :

IA-3

Tot Ion	Ratio	Lower	Upper
117	100		
119	77.8	75.8	113.8
121	24.9	24.7	37.1

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#36

Benzene

Concen: 0.269 ppbv

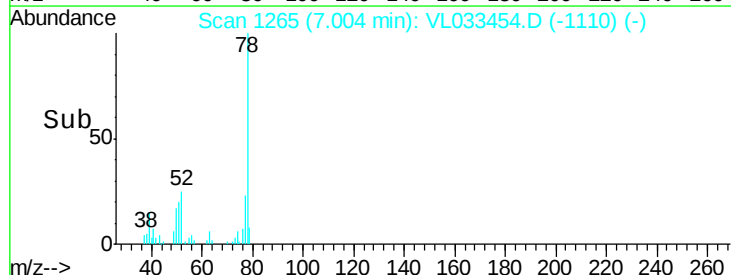
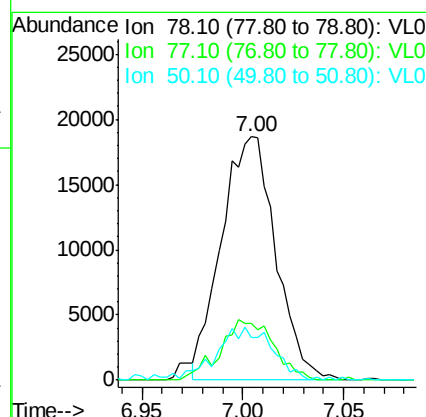
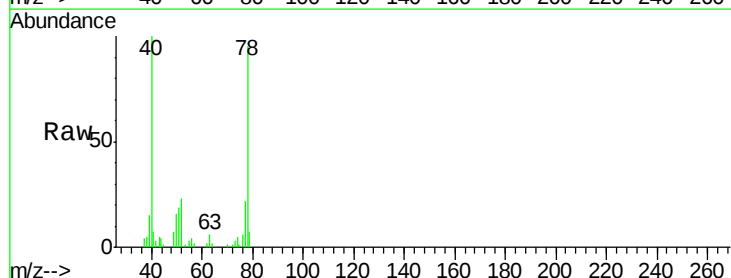
RT: 7.00 min Scan# 1265

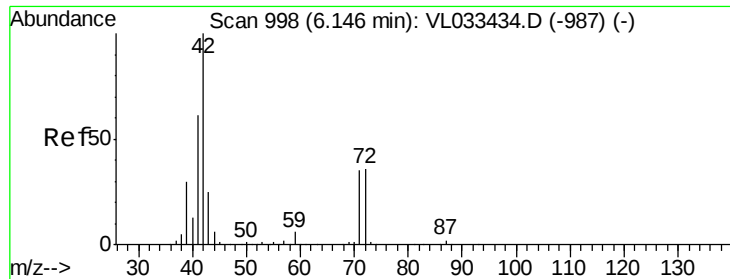
Delta R.T. -0.00 min

Lab File: VL033454.D

Acq: 26 Mar 2019 2:47

Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.4	18.1	27.1
50	16.1	16.7	25.1#





#41

Tetrahydrofuran

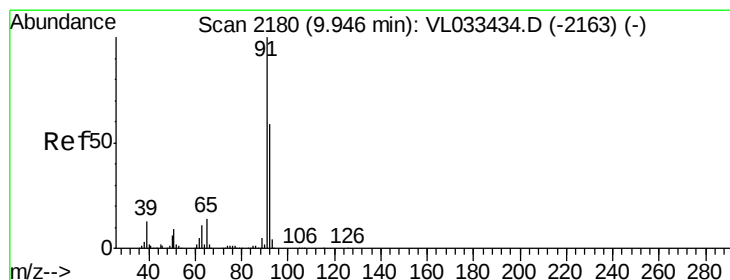
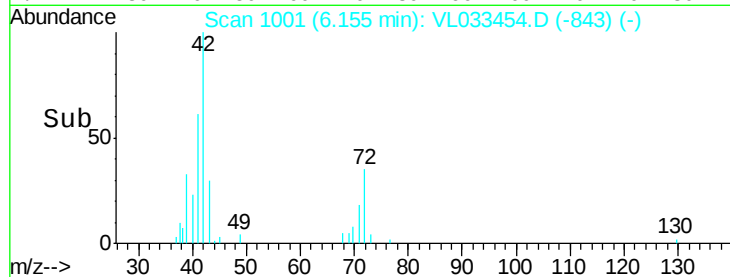
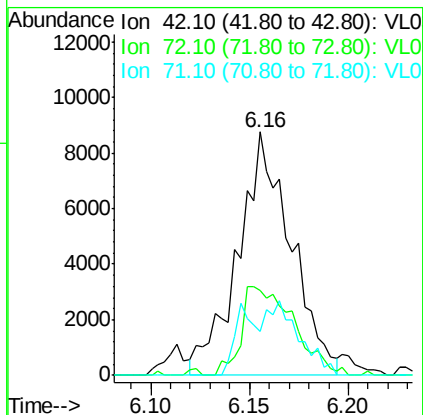
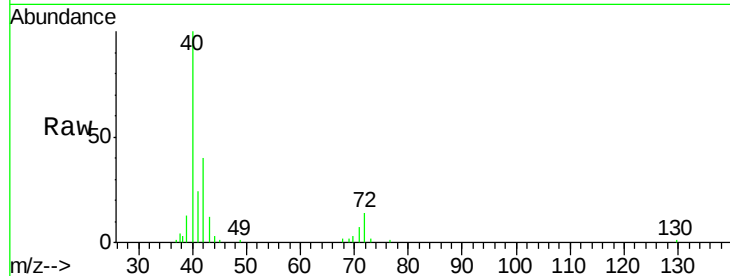
Concen: 0.314 ppbv m
RT: 6.16 min Scan# 1001
Delta R.T. 0.01 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Instrument :
MSVOA_L
ClientSampleId :
IA-3

Tot Ion	Ratio	Lower	Upper
42	100		
72	37.1	30.2	45.2
71	0.0	29.4	44.2#

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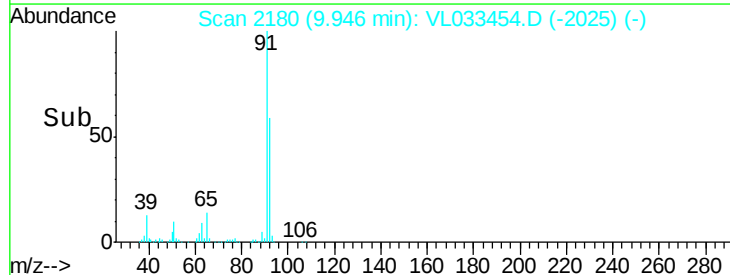
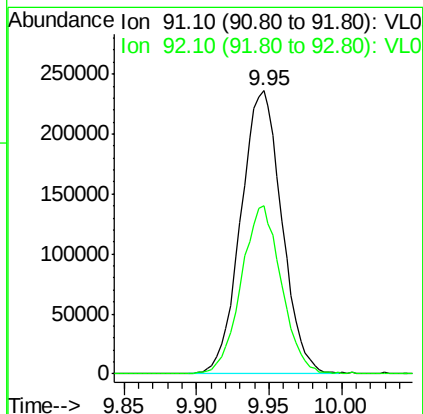
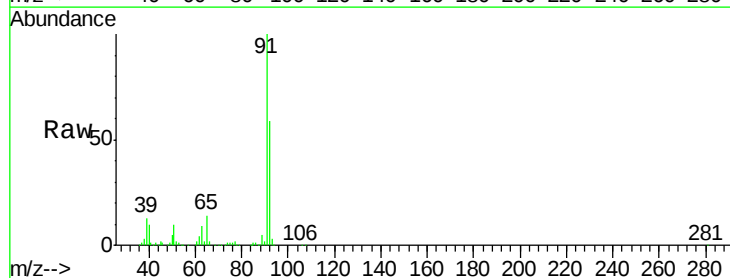


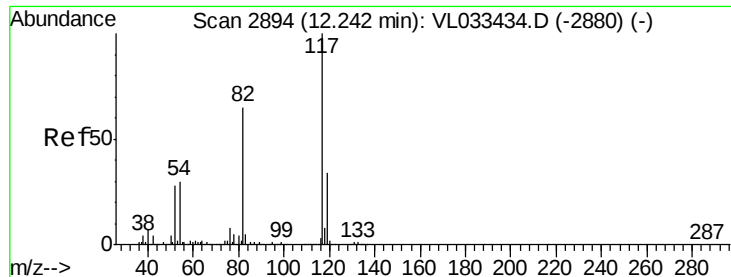
#53

Toluene

Concen: 3.055 ppbv
RT: 9.95 min Scan# 2180
Delta R.T. -0.00 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.2	47.4	71.0





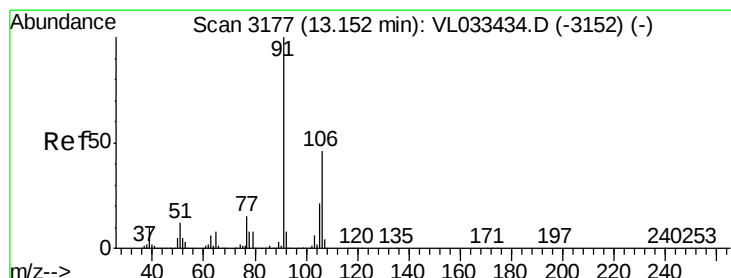
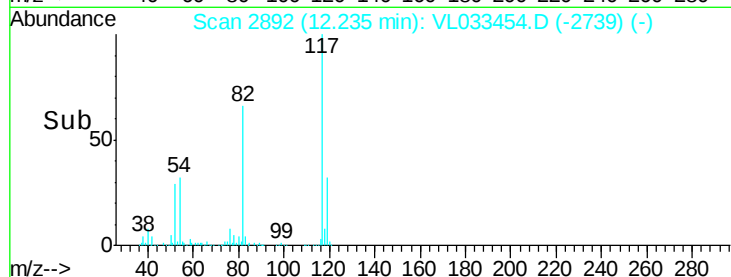
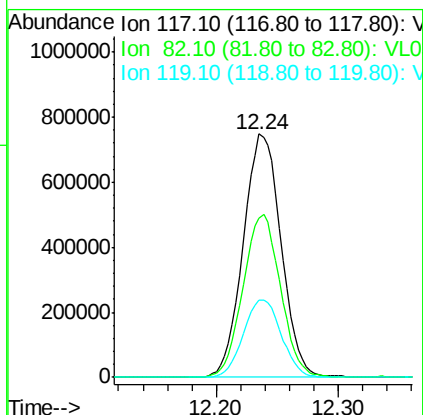
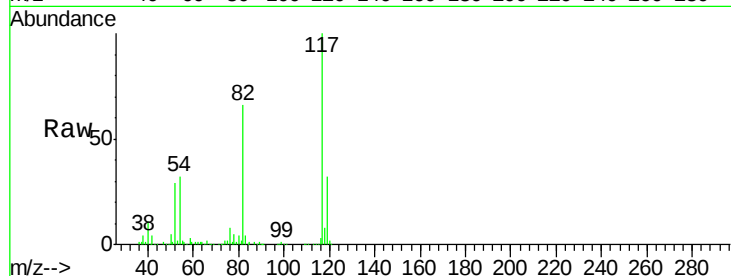
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2892
Delta R.T. -0.01 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Instrument :
MSVOA_L
ClientSampleId :
IA-3

Tot Ion	Ratio	Lower	Upper
117	100		
82	66.4	51.5	77.3
119	32.2	25.5	38.3

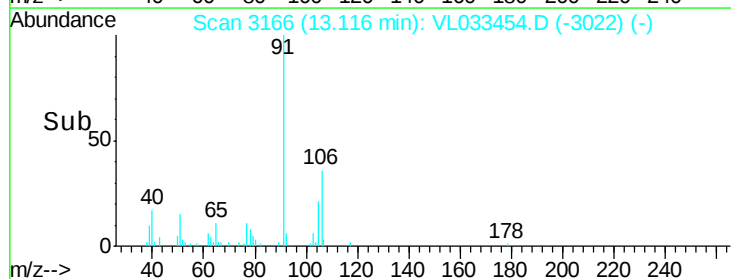
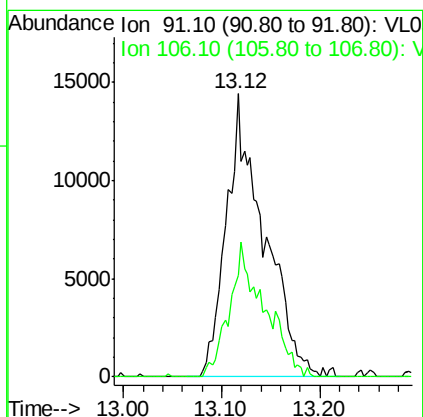
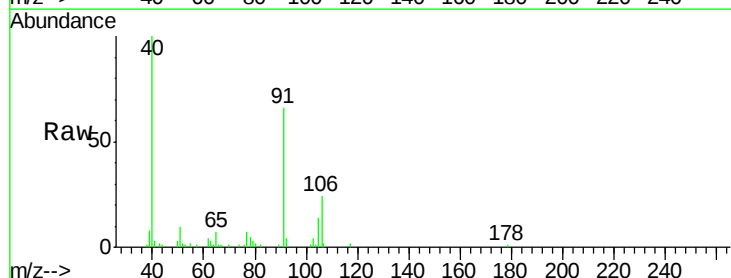
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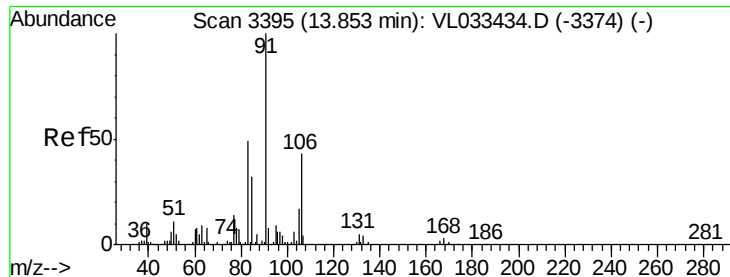
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#59
m/p-Xylene
Concen: 0.201 ppbv m
RT: 13.12 min Scan# 3166
Delta R.T. -0.04 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Tgt Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.0	0.0





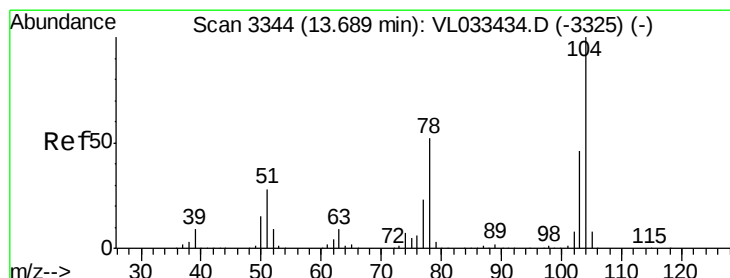
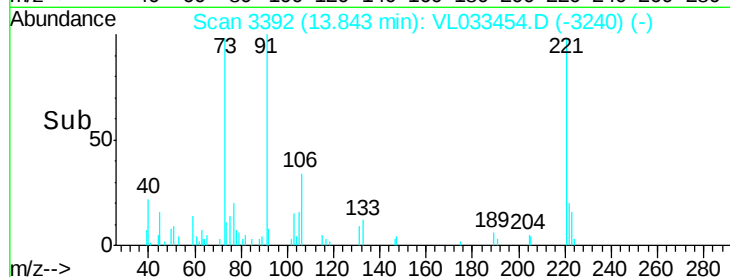
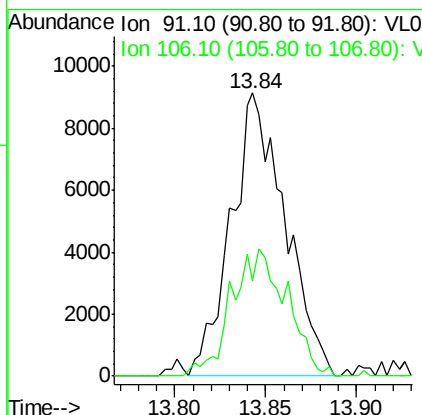
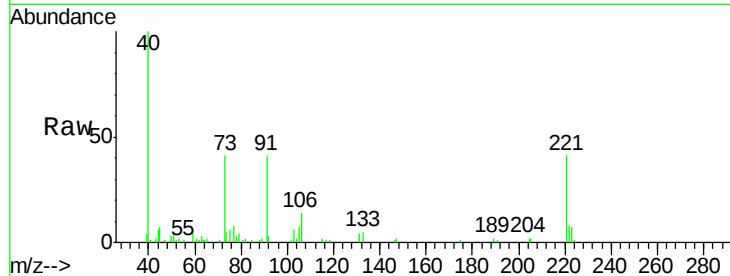
#60
o-Xylene
Concen: 0.102 ppbv m
RT: 13.84 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Instrument :
MSVOA_L
ClientSampled :
IA-3

Tot Ion: 91 Resp: 18869
Ion Ratio Lower Upper
91 100
106 46.0 21.4 64.3

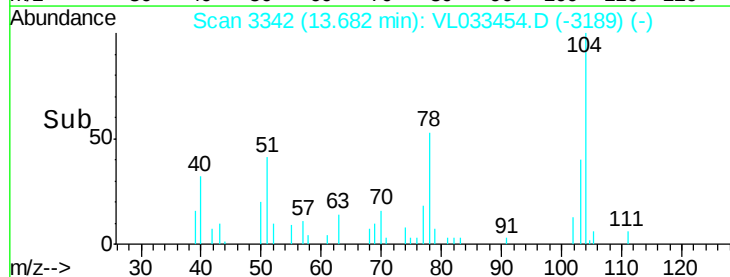
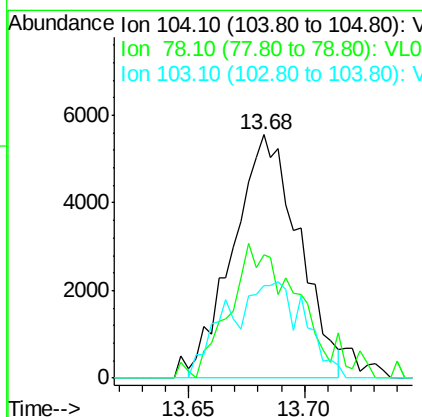
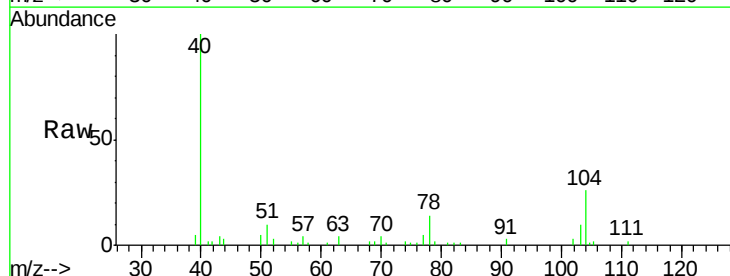
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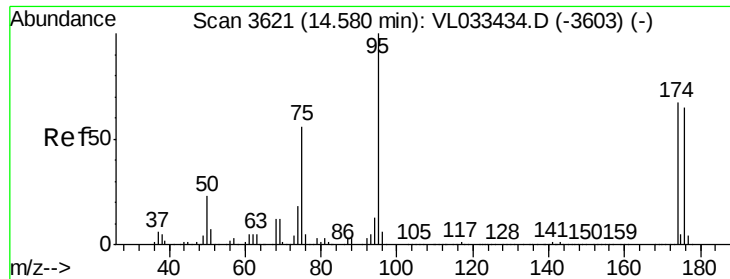
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#61
Styrene
Concen: 0.086 ppbv
RT: 13.68 min Scan# 3342
Delta R.T. -0.01 min
Lab File: VL033454.D
Acq: 26 Mar 2019 2:47

Tgt Ion: 104 Resp: 10940
Ion Ratio Lower Upper
104 100
78 59.7 43.2 64.8
103 46.6 37.8 56.8





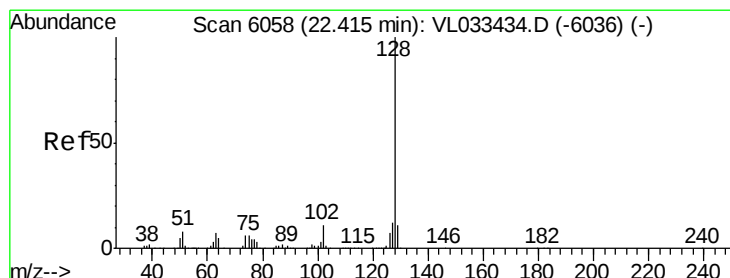
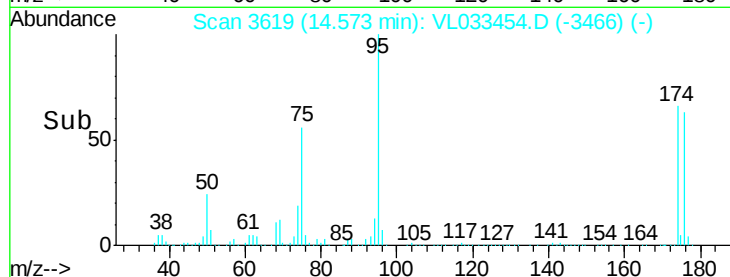
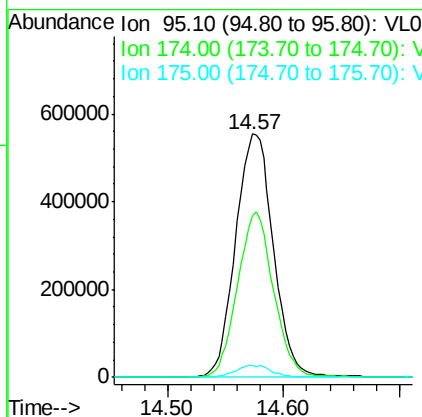
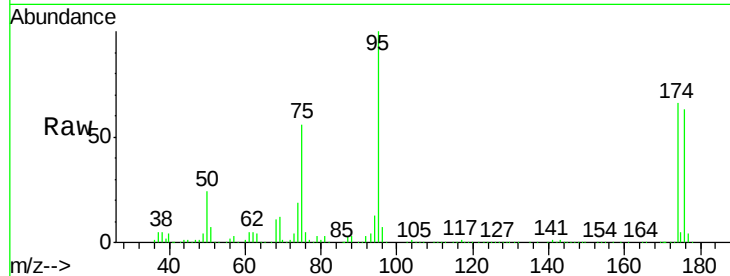
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.978 ppbv
 RT: 14.57 min Scan# 3619
 Delta R.T. -0.01 min
 Lab File: VL033454.D
 Acq: 26 Mar 2019 2:47

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3

Tot Ion: 95 Resp: 1250561
 Ion Ratio Lower Upper
 95 100
 174 65.3 52.9 79.3
 175 4.7 3.8 5.6

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#79
 Naphthalene
 Concen: 0.250 ppbv m
 RT: 22.41 min Scan# 6056
 Delta R.T. -0.01 min
 Lab File: VL033454.D
 Acq: 26 Mar 2019 2:47

Tgt Ion: 128 Resp: 45517
 Ion Ratio Lower Upper
 128 100
 127 14.8 9.8 14.8#
 129 10.0 8.6 12.8

