

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL060118\
 Data File : VL032035.D
 Acq On : 2 Jun 2018 00:14
 Operator : SY/AP
 Sample : J3193-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IA1-DUP-052518

Manual Integrations
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 6/4/2018 3:35:51 PM

Quant Time: Jun 03 13:57:55 2018
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL053118AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 0
 QLast Update : Fri Jun 01 02:31:35 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.86	49	1197473	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.40	114	2342666	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.37	117	2279041	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.70	95	1771896	10.07	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.14	85	67337	0.47	ppbv	91
3) Chlorodifluoromethane	3.08	51	60698m	0.54	ppbv	
4) Chloromethane	3.24	50	34639	0.61	ppbv	92
10) Heptane	8.37	43	192540m	1.48	ppbv	
11) Trichlorofluoromethane	4.09	101	44135	0.20	ppbv	99
13) Ethanol	3.77	45	28563255m	1986.64	ppbv	
15) Acetone	3.98	43	1789006	12.39	ppbv	95
19) Isopropyl Alcohol	4.19	45	2906698m	30.40	ppbv	
20) Methylene Chloride	4.50	84	127043	1.94	ppbv	98
25) Ethyl Acetate	5.87	43	921435	3.22	ppbv #	97
26) Hexane	5.88	57	628245	4.73	ppbv #	75
27) Carbon Disulfide	4.72	76	24790	0.14	ppbv #	52
29) Chloroform	5.95	83	105133m	0.47	ppbv	
30) Cyclohexane	7.36	84	38307m	0.49	ppbv	
34) 2-Butanone	5.43	43	134403	0.73	ppbv	96
35) Carbon Tetrachloride	7.24	117	14192m	0.07	ppbv	
36) Benzene	7.11	78	208995	1.02	ppbv	98
44) 2,2,4-Trimethylpentane	8.10	57	1198078	3.40	ppbv	93
52) Tetrachloroethene	11.49	164	10687m	0.13	ppbv	
53) Toluene	10.07	91	2426271	10.54	ppbv	98
58) Ethyl Benzene	12.99	91	147401	0.46	ppbv	98
59) m/p-Xylene	13.24	91	450052	1.60	ppbv	99
60) o-Xylene	13.97	91	187707m	0.67	ppbv	
61) Styrene	13.81	104	52517m	0.96	ppbv	
72) 4-Ethyltoluene	16.12	105	55126	0.20	ppbv #	96
73) 1,3,5-Trimethylbenzene	16.28	105	70245m	0.27	ppbv	
74) 1,2,4-Trimethylbenzene	17.05	105	200504m	0.69	ppbv	

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

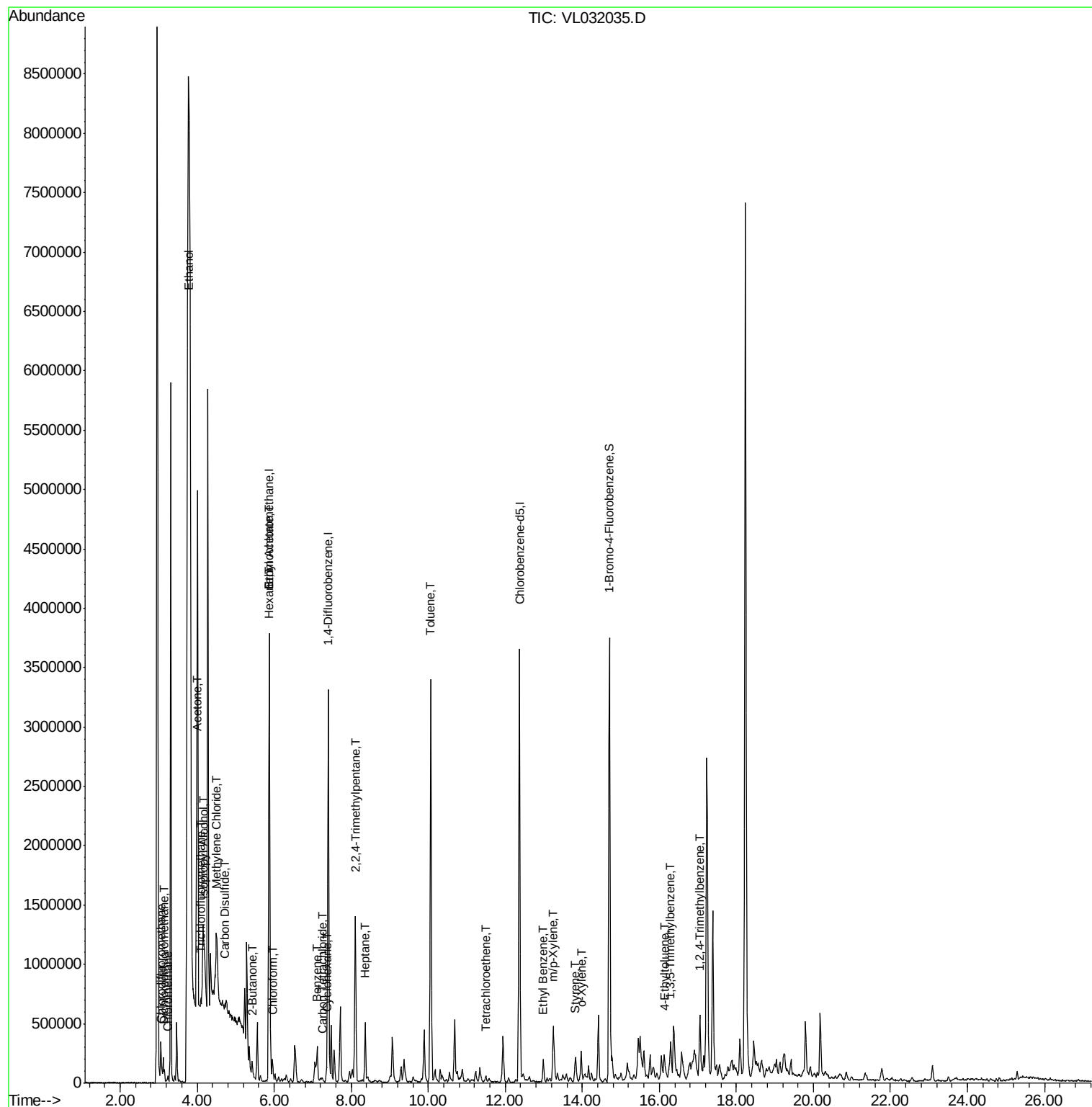
Data Path : W:\HPCHEM1\MSVOA L\DATA\VL060118\
Data File : VL032035.D
Acq On : 2 Jun 2018 00:14
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Sample : J3193-02
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

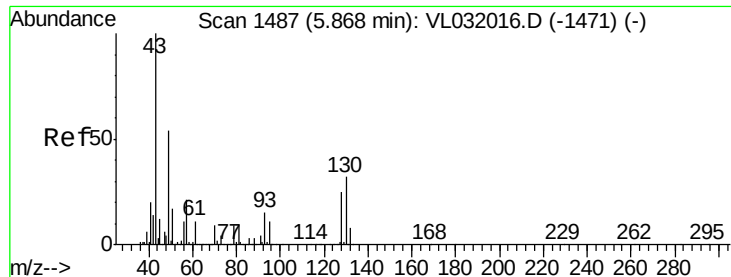
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-DUP-052518

Manual Integrations
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Quant Time: Jun 03 13:57:55 2018
Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL053118AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun
QLast Update : Fri Jun 01 02:31:35 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.86 min Scan# 1486

Delta R.T. -0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-DUP-052518

Tot Ion: 49 Resp: 1197473

Ion Ratio Lower Upper

49 100

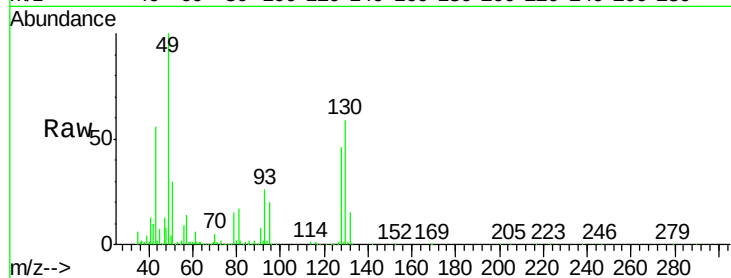
128 49.7 24.1 72.3

130 63.1 30.9 92.8

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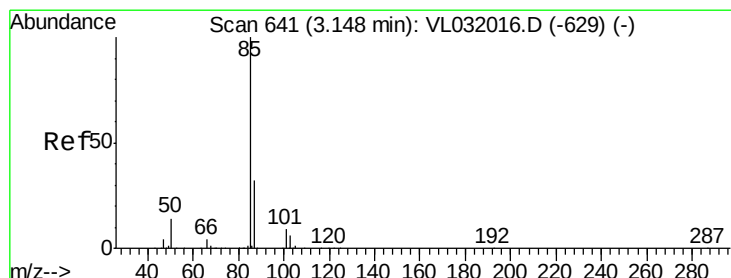
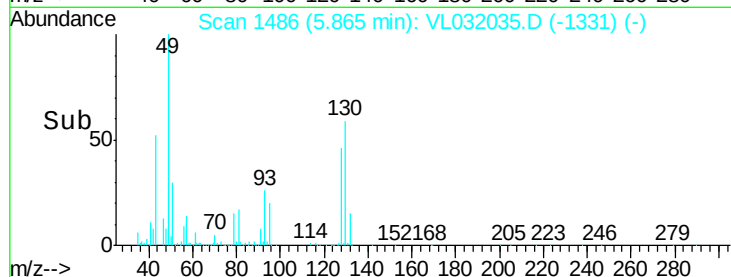
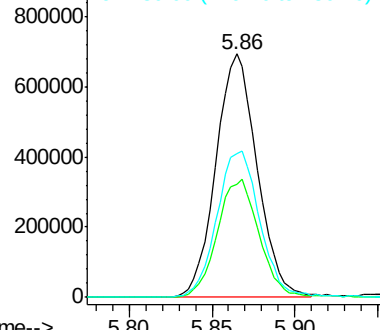
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.47 ppbv

RT: 3.14 min Scan# 640

Delta R.T. -0.00 min

Lab File: VL032035.D

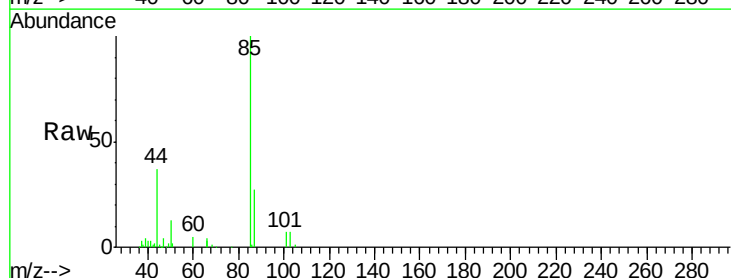
Acq: 2 Jun 2018 00:14

Tgt Ion: 85 Resp: 67337

Ion Ratio Lower Upper

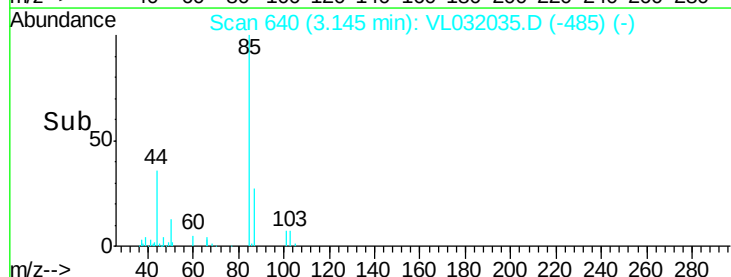
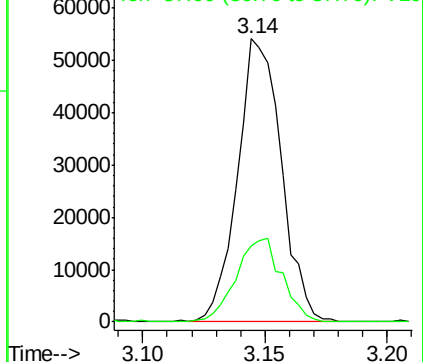
85 100

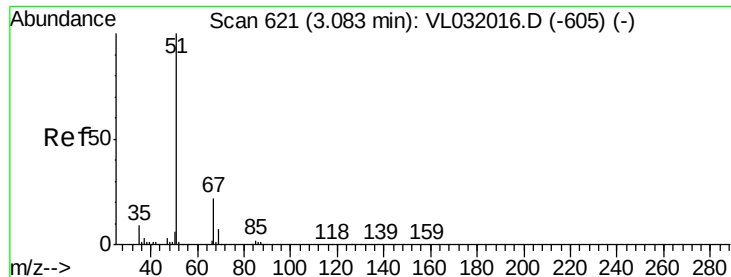
87 26.9 25.5 38.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.54 ppbv m

RT: 3.08 min Scan# 621

Delta R.T. 0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-DUP-052518

Tot Ion: 51 Resp: 60698

Ion Ratio Lower Upper

51 100

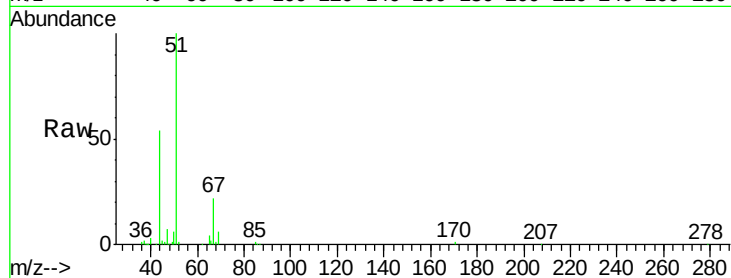
67 23.0 17.2 25.8

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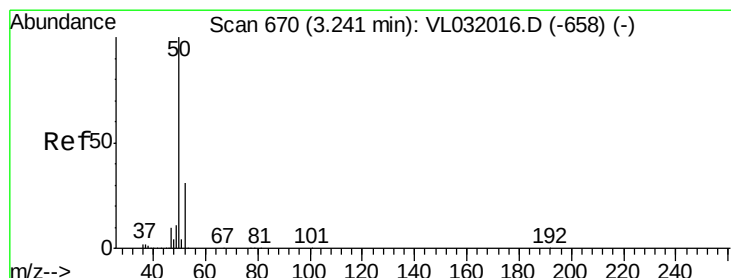
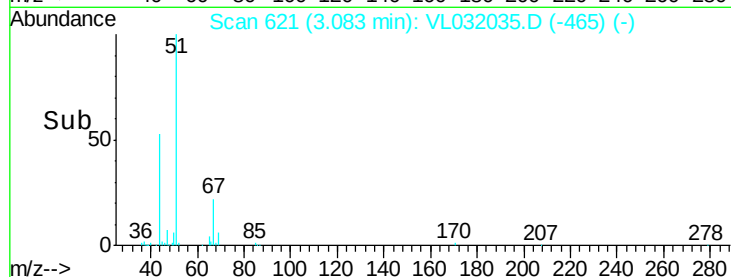
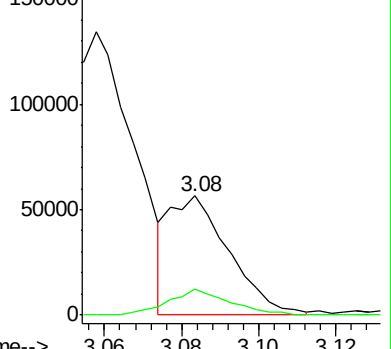
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.61 ppbv

RT: 3.24 min Scan# 670

Delta R.T. 0.00 min

Lab File: VL032035.D

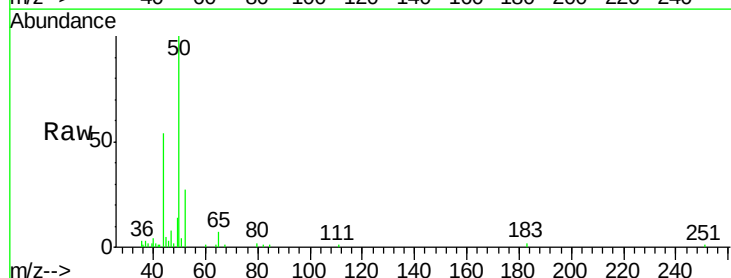
Acq: 2 Jun 2018 00:14

Tgt Ion: 50 Resp: 34639

Ion Ratio Lower Upper

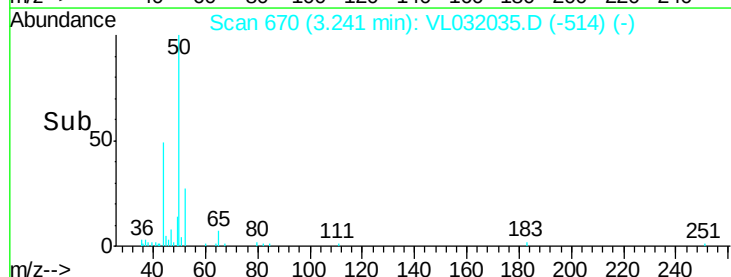
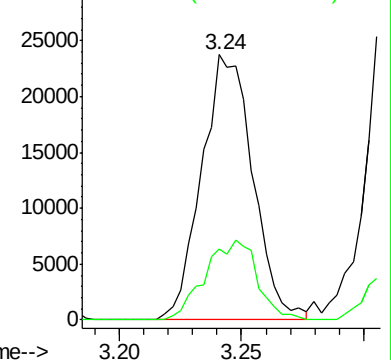
50 100

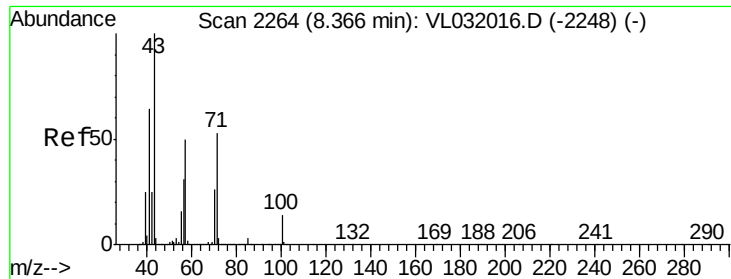
52 26.7 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#10

Heptane

Concen: 1.48 ppbv m

RT: 8.37 min Scan# 2264

Delta R.T. 0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA1-DUP-052518

Tot Ion: 43 Resp: 192540

Ion Ratio Lower Upper

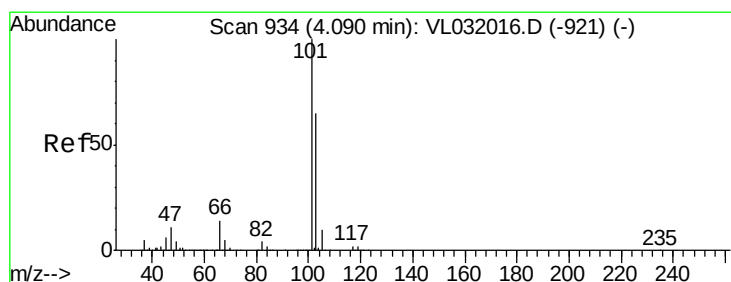
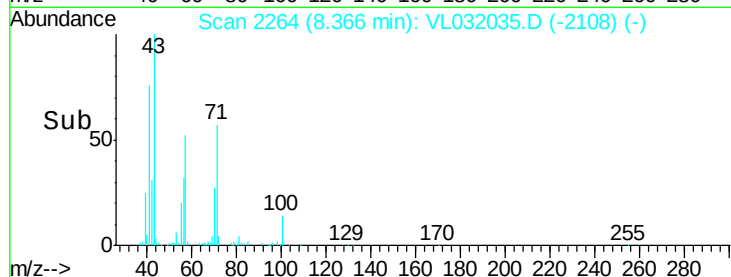
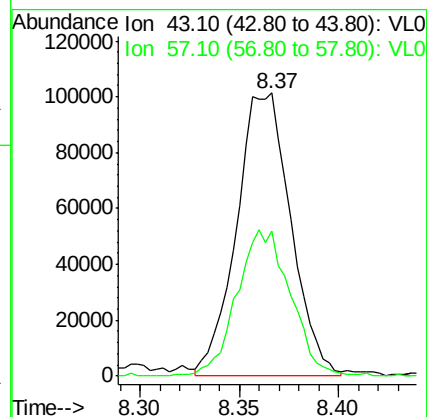
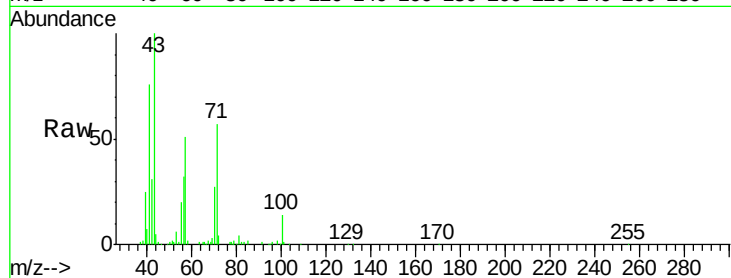
43 100

57 51.5 41.7 62.5

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#11

Trichlorofluoromethane

Concen: 0.20 ppbv

RT: 4.09 min Scan# 934

Delta R.T. 0.00 min

Lab File: VL032035.D

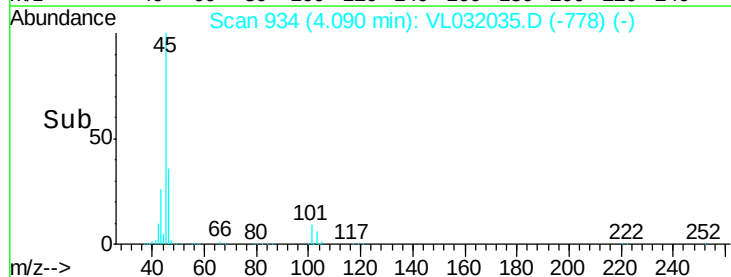
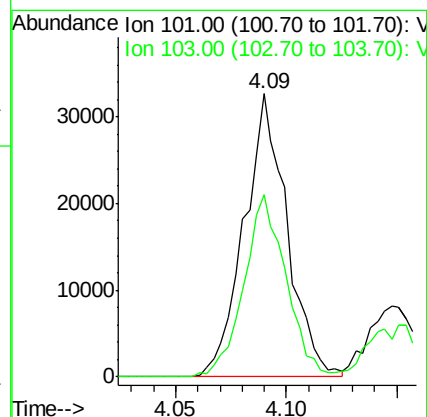
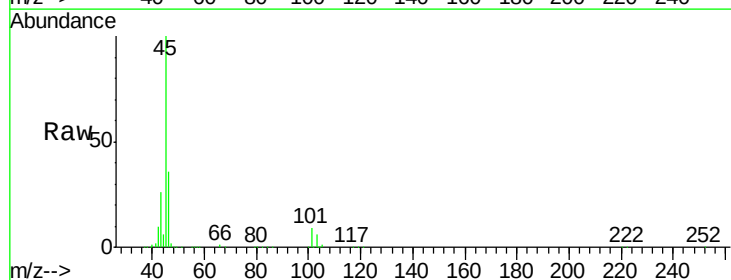
Acq: 2 Jun 2018 00:14

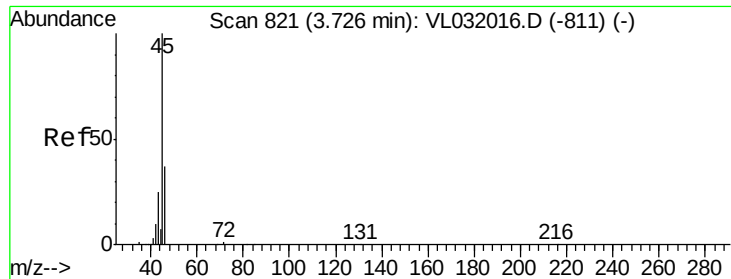
Tgt Ion: 101 Resp: 44135

Ion Ratio Lower Upper

101 100

103 65.4 52.0 78.0





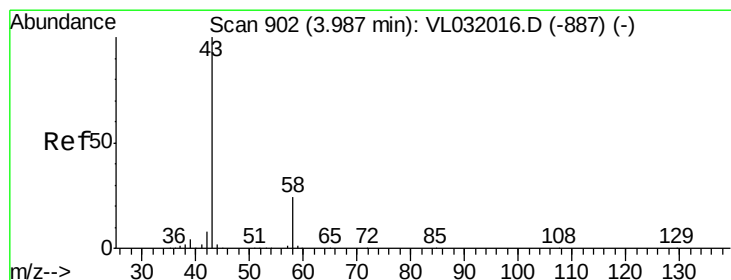
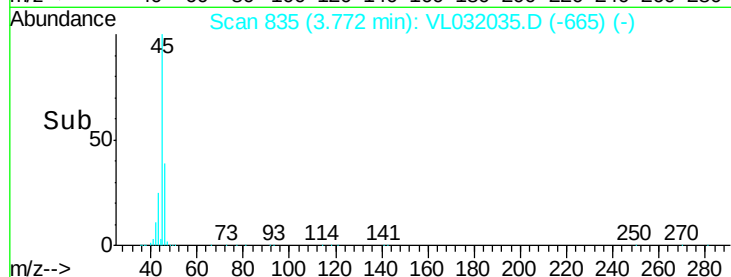
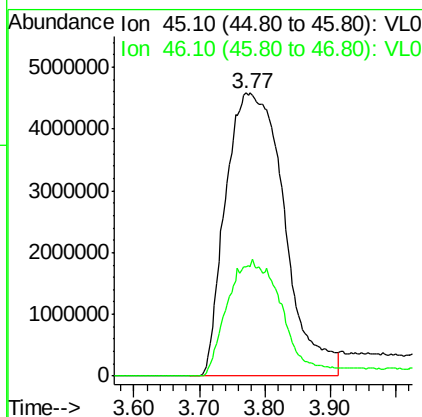
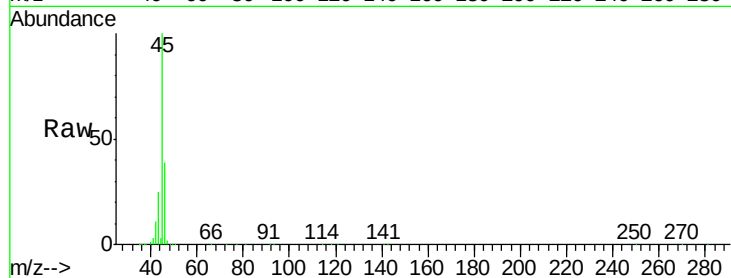
#13
Ethanol
Concen: 1986.64 ppbv m
RT: 3.77 min Scan# 835
Delta R.T. 0.05 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-DUP-052518

Tot Ion: 45 Resp: 28563255
Ion Ratio Lower Upper
45 100
46 0.0 14.9 59.5#

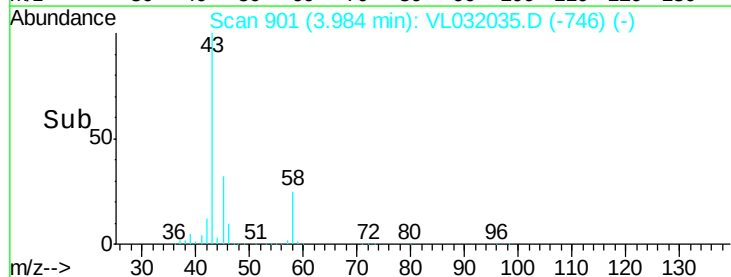
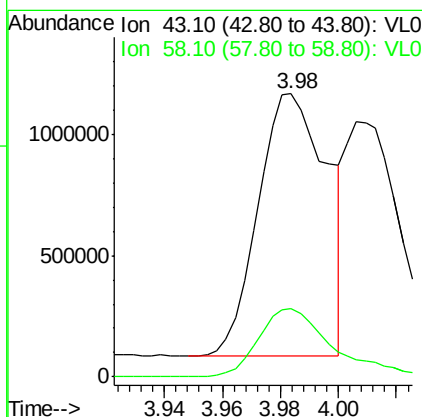
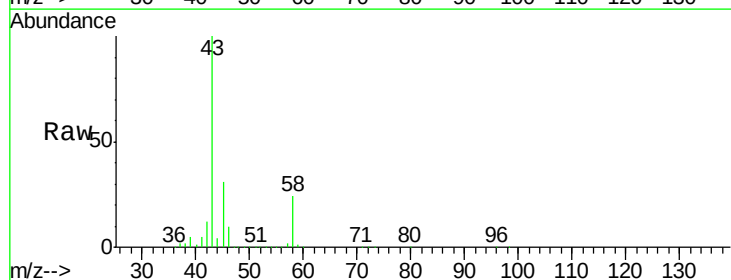
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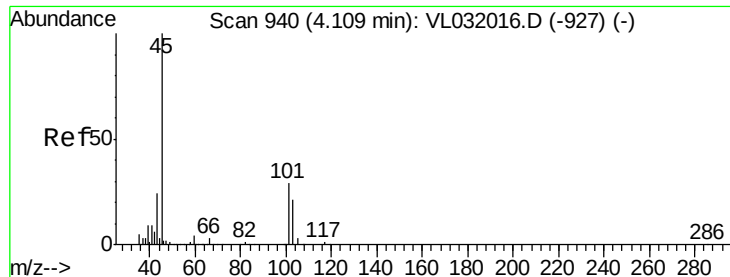
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#15
Acetone
Concen: 12.39 ppbv
RT: 3.98 min Scan# 901
Delta R.T. -0.00 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Tgt Ion: 43 Resp: 1789006
Ion Ratio Lower Upper
43 100
58 28.3 20.7 31.1





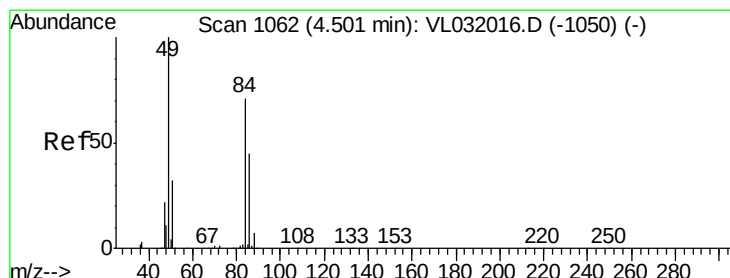
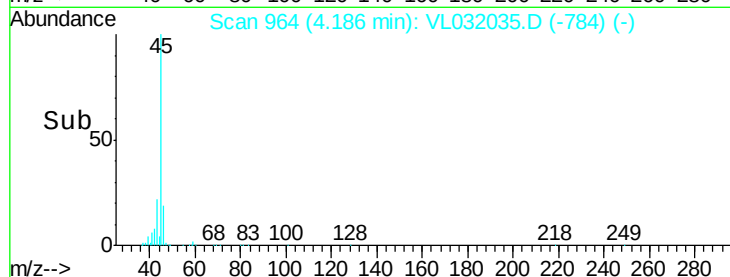
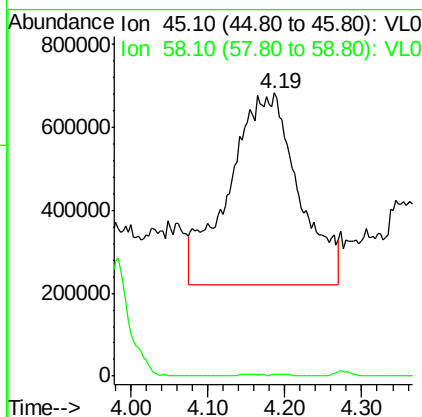
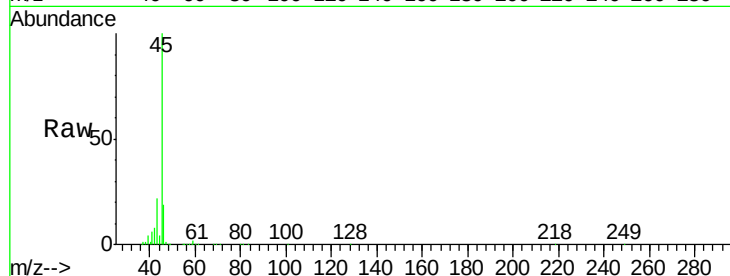
#19
Isopropyl Alcohol
Concen: 30.40 ppbv m
RT: 4.19 min Scan# 964
Delta R.T. 0.08 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-DUP-052518

Tot Ion: 45 Resp: 2906698
Ion Ratio Lower Upper
45 100
58 0.0 1.5 2.3#

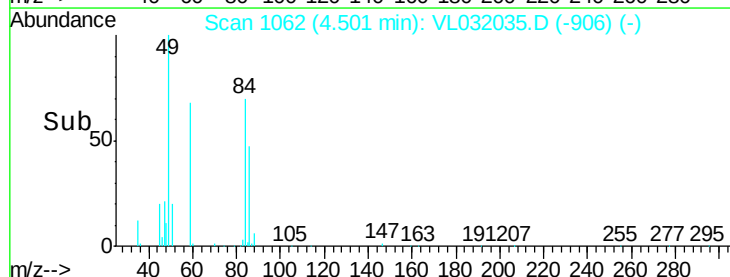
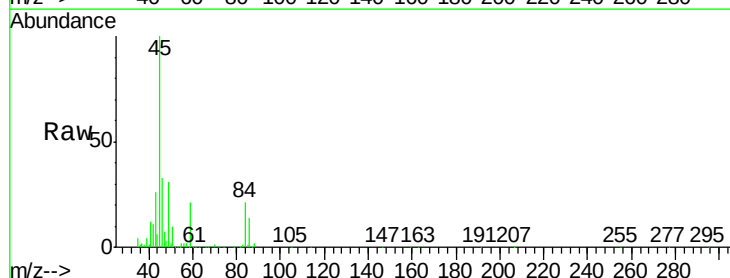
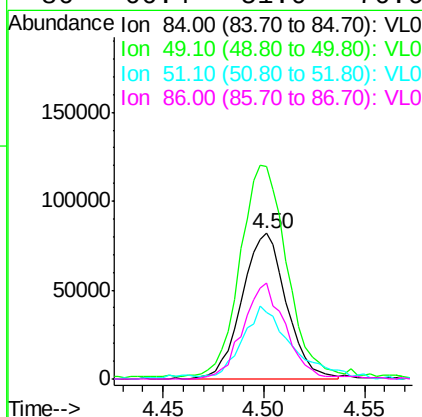
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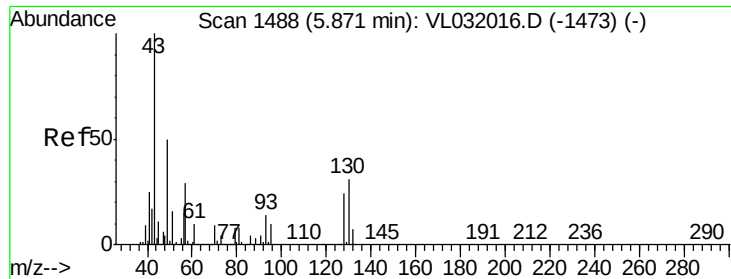
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#20
Methylene Chloride
Concen: 1.94 ppbv
RT: 4.50 min Scan# 1062
Delta R.T. 0.00 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Tgt Ion: 84 Resp: 127043
Ion Ratio Lower Upper
84 100
49 142.9 113.0 169.4
51 43.1 36.4 54.6
86 66.4 51.0 76.6





#25

Ethyl Acetate

Concen: 3.22 ppbv

RT: 5.87 min Scan# 1489

Delta R.T. 0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Instrument :

MSVOA_L

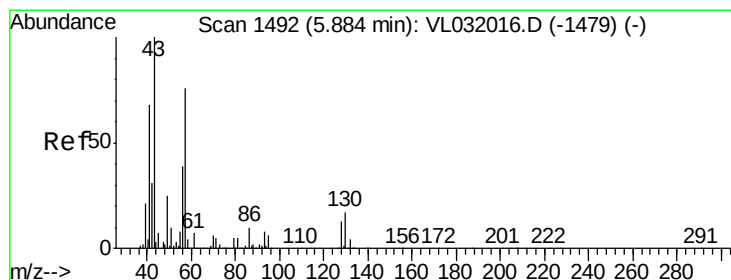
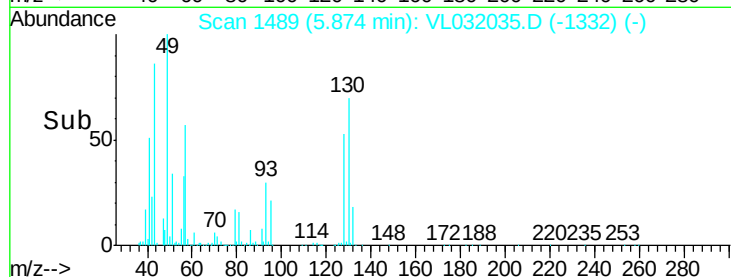
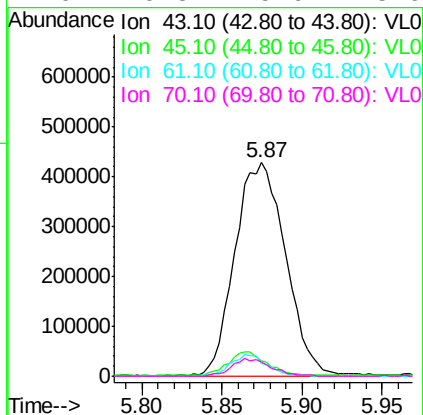
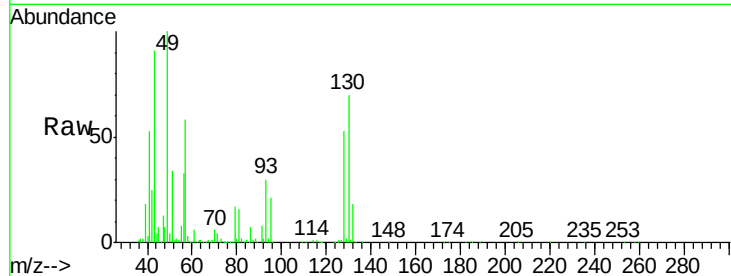
ClientSampleId :

LIHA-IA1-DUP-052518

Tot Ion	Ratio	Lower	Upper
43	100		
45	9.4	7.8	11.6
61	7.4	7.4	11.2#
70	6.3	5.9	8.9

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#26

Hexane

Concen: 4.73 ppbv

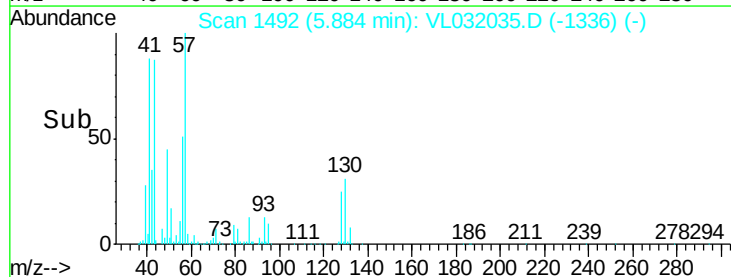
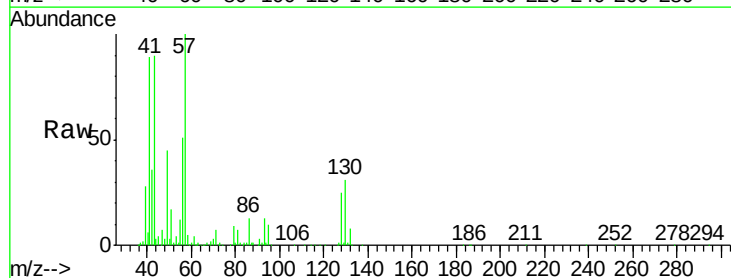
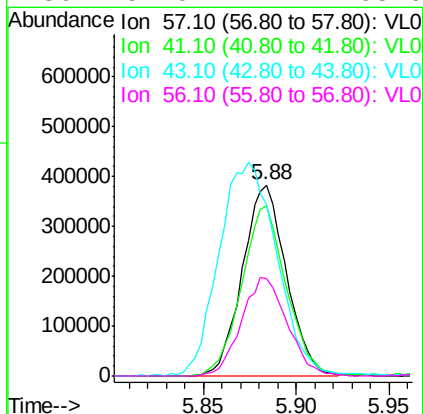
RT: 5.88 min Scan# 1492

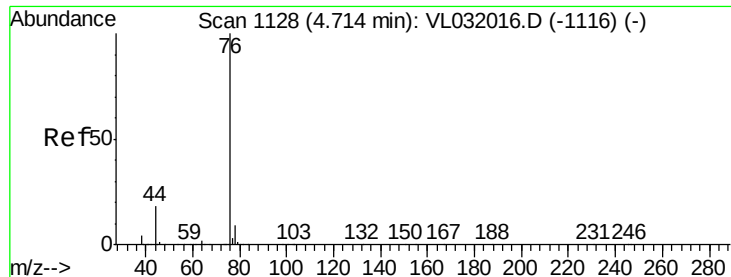
Delta R.T. 0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Tgt Ion	Ratio	Lower	Upper
57	100		
41	91.9	71.4	107.2
43	147.7	168.6	252.8#
56	54.0	42.4	63.6





#27

Carbon Disulfide

Concen: 0.14 ppbv

RT: 4.72 min Scan# 1129

Delta R.T. 0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Instrument :

MSVOA_L

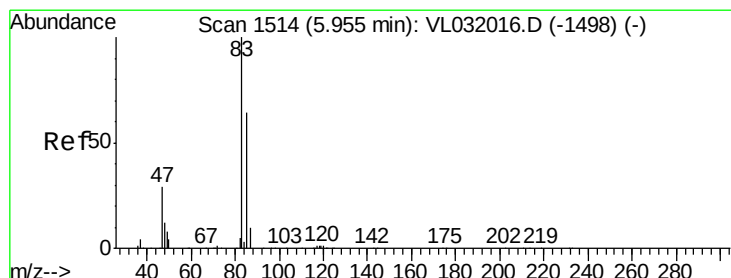
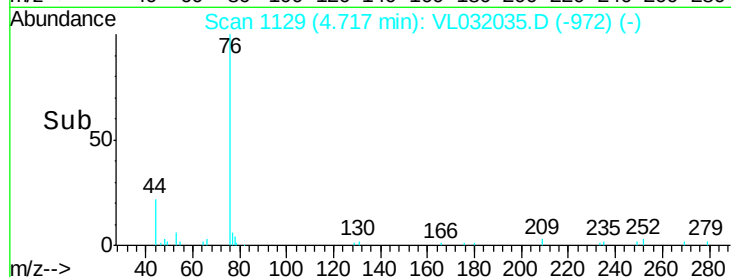
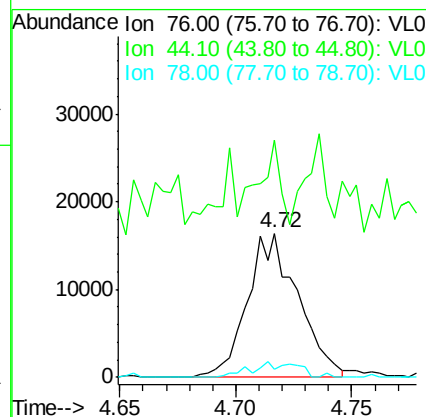
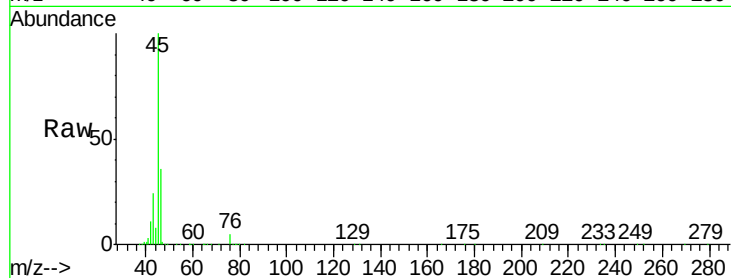
ClientSampleId :

LIHA-IA1-DUP-052518

Tot Ion:	76	Resp:	24790
Ion Ratio	Lower	Upper	
76	100		
44	50.9	14.9	22.3#
78	9.8	7.6	11.4

Manual Integrations
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#29

Chloroform

Concen: 0.47 ppbv m

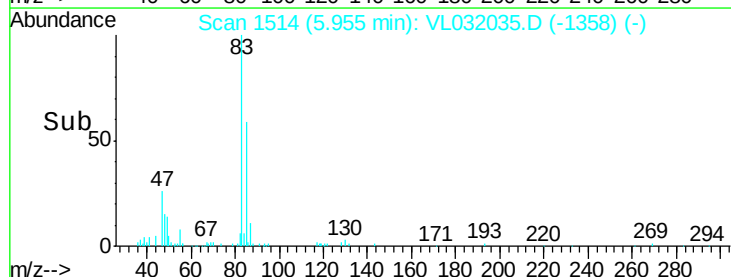
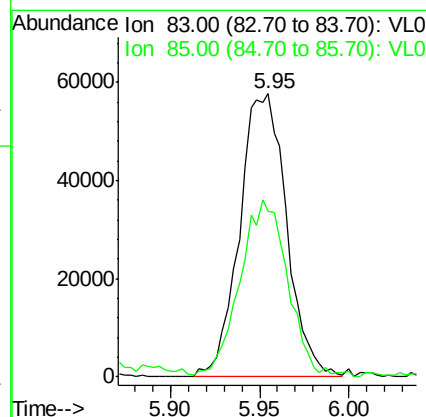
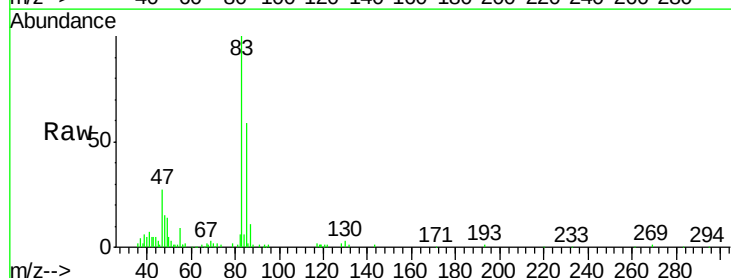
RT: 5.95 min Scan# 1514

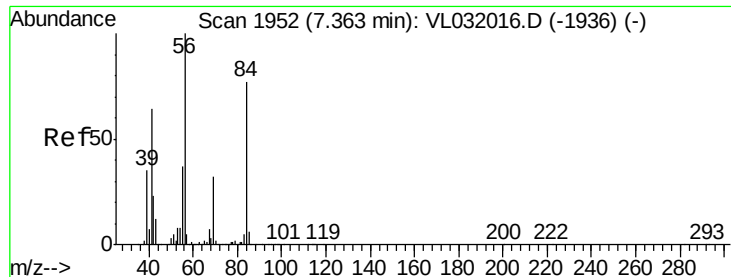
Delta R.T. 0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Tgt Ion:	83	Resp:	105133
Ion Ratio	Lower	Upper	
83	100		
85	58.6	50.9	76.3





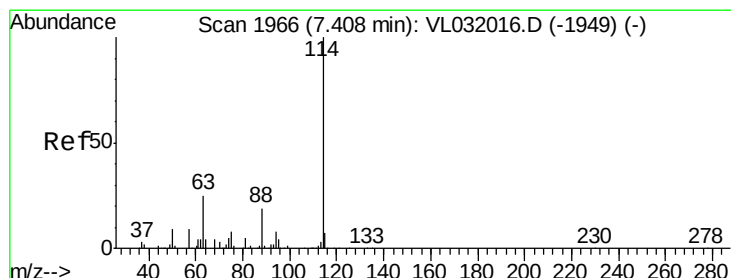
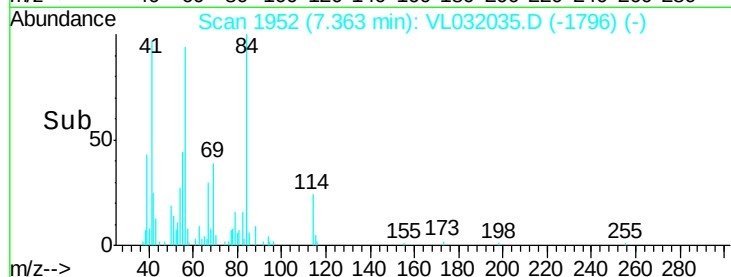
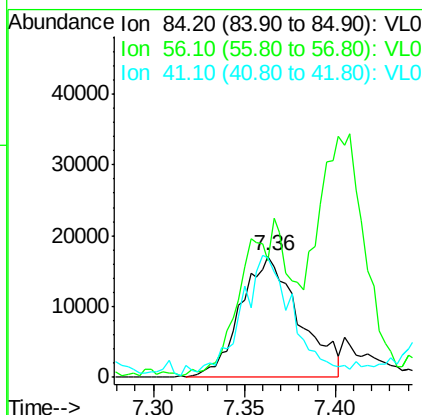
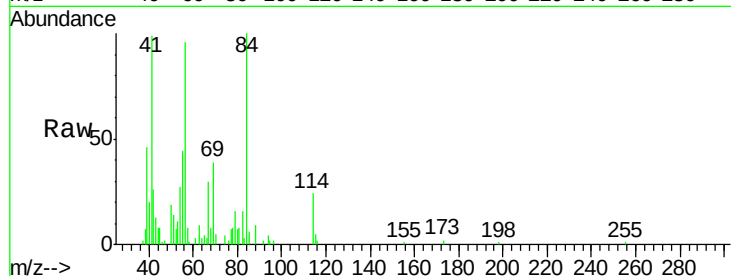
#30
Cyclohexane
Concen: 0.49 ppbv m
RT: 7.36 min Scan# 1952
Delta R.T. 0.00 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-DUP-052518

Tot Ion	Ratio	Lower	Upper
84	100		
56	104.8	108.6	162.8#
41	87.5	66.8	100.2

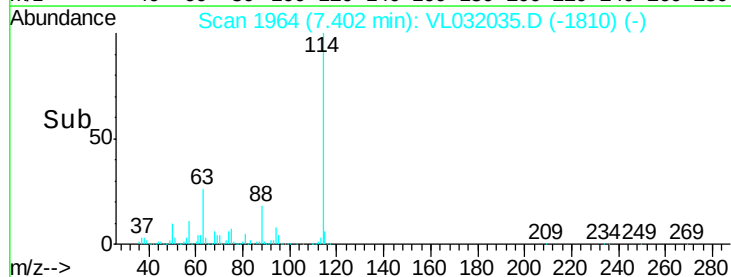
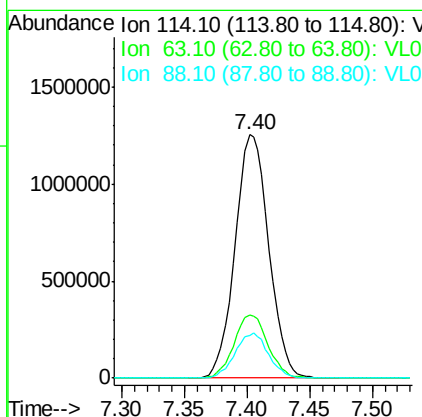
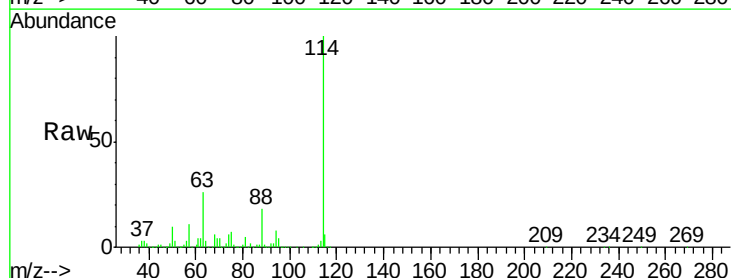
Manual Integrations
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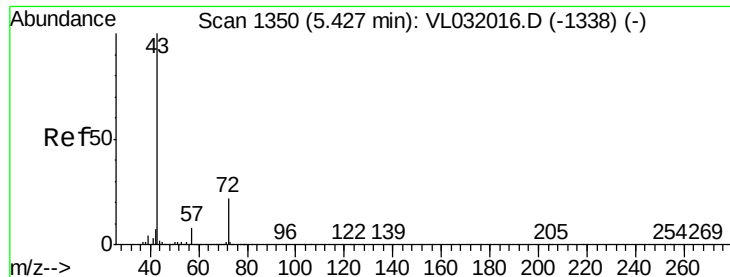
MMDadoda
6/4/2018 3:35:51 PM



#33
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 7.40 min Scan# 1964
Delta R.T. -0.01 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Tgt Ion	Ratio	Lower	Upper
114	100		
63	26.2	21.1	31.7
88	18.4	14.8	22.2





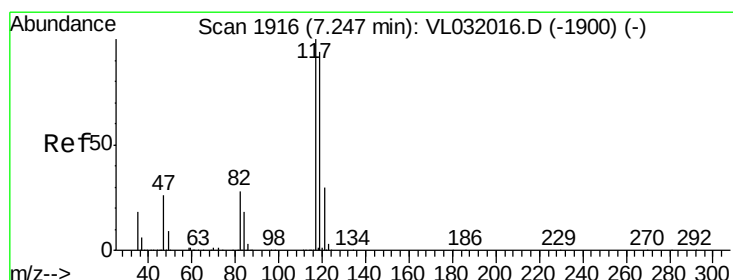
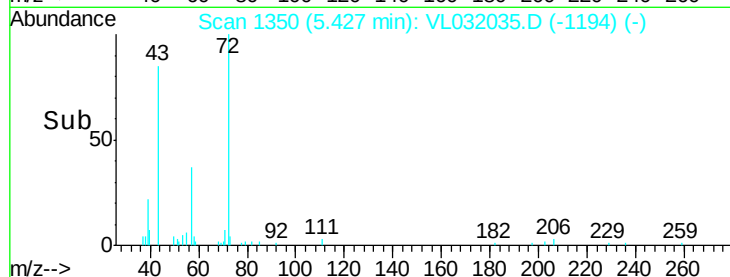
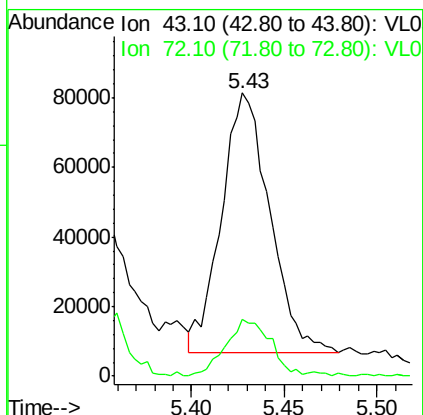
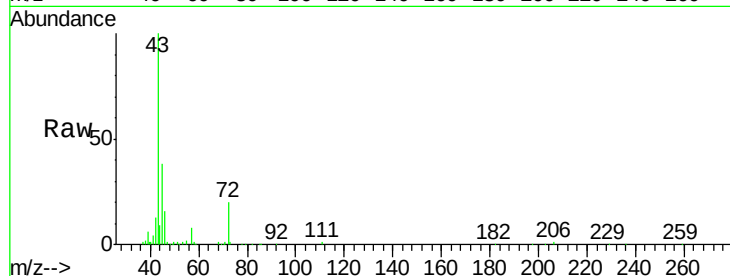
#34
2-Butanone
Concen: 0.73 ppbv
RT: 5.43 min Scan# 1350
Delta R.T. 0.00 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-DUP-052518

Tot Ion: 43 Resp: 134403
Ion Ratio Lower Upper
43 100
72 21.5 18.6 27.8

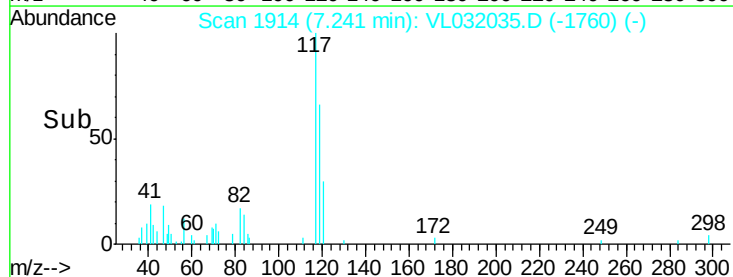
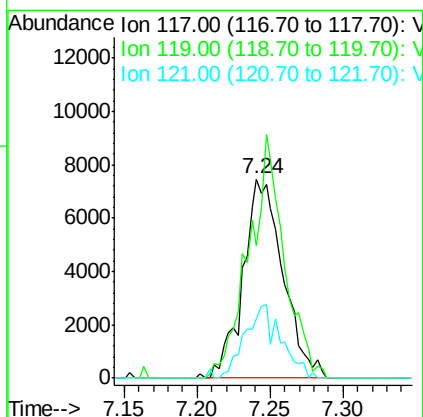
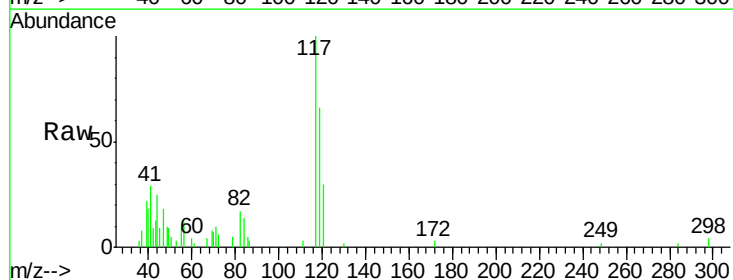
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APPROVED

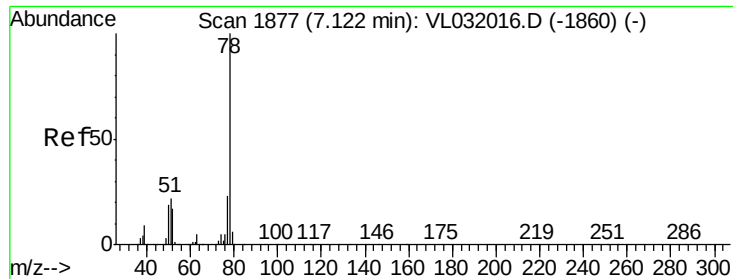
MMDadoda
6/4/2018 3:35:51 PM



#35
Carbon Tetrachloride
Concen: 0.07 ppbv m
RT: 7.24 min Scan# 1914
Delta R.T. -0.01 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Tgt Ion: 117 Resp: 14192
Ion Ratio Lower Upper
117 100
119 66.2 75.3 112.9#
121 29.6 24.1 36.1





#36

Benzene

Concen: 1.02 ppbv

RT: 7.11 min Scan# 1874

Delta R.T. -0.01 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Instrument :

MSVOA_L

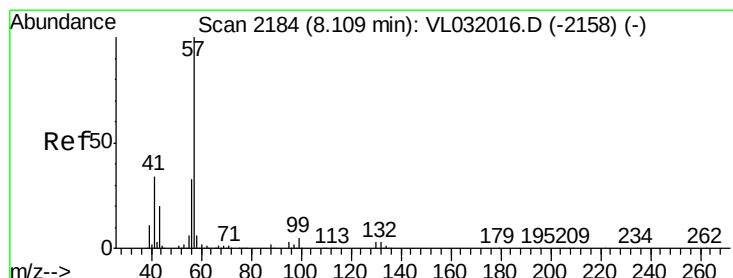
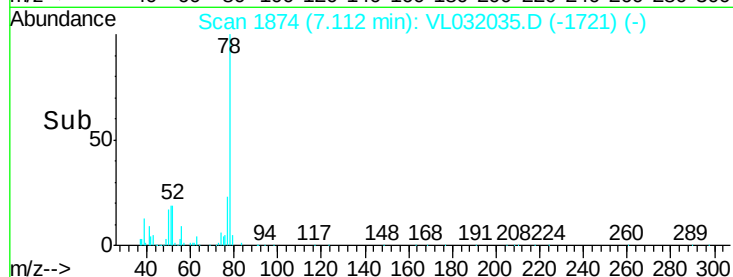
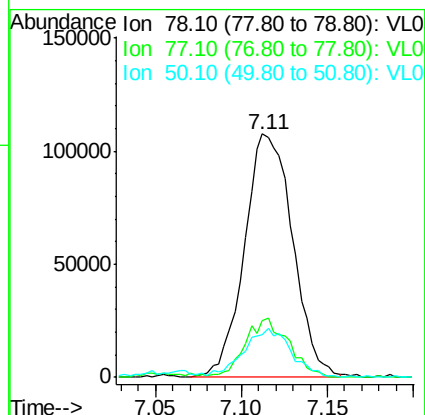
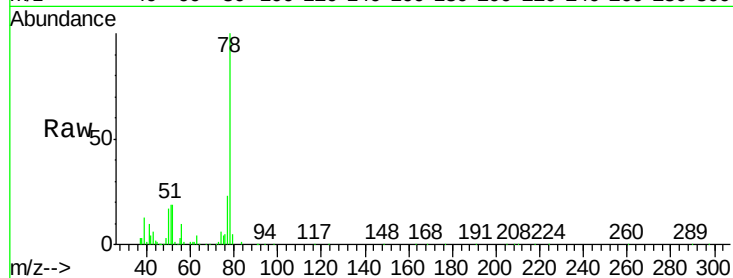
ClientSampleId :

LIHA-IA1-DUP-052518

Tot Ion:	78	Resp:	208995
Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.1	27.1
50	17.4	14.9	22.3

Manual Integrations
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6/4/2018 3:35:51 PM



#44

2,2,4-Trimethylpentane

Concen: 3.40 ppbv

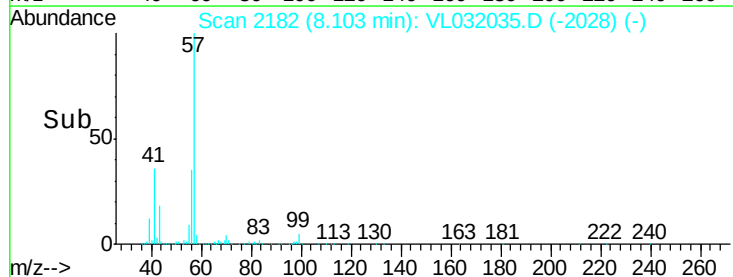
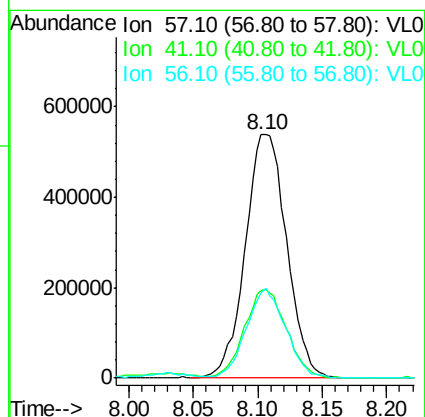
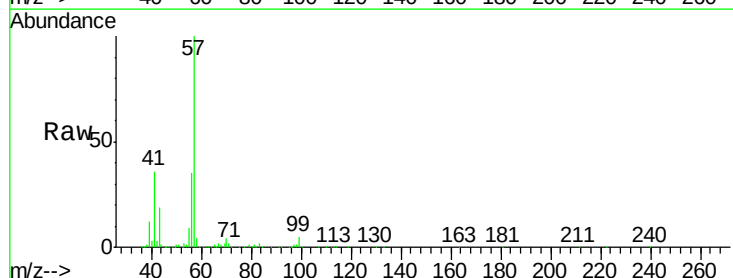
RT: 8.10 min Scan# 2182

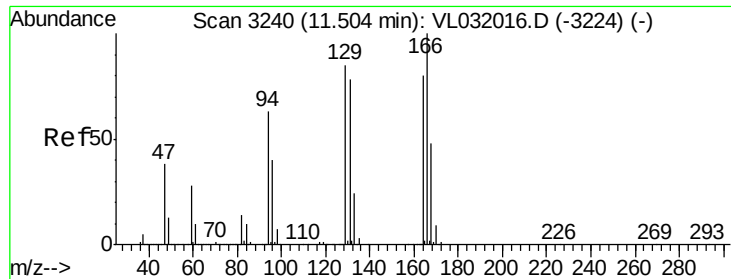
Delta R.T. -0.01 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Tgt Ion:	57	Resp:	1198078
Ion	Ratio	Lower	Upper
57	100		
41	36.9	26.6	40.0
56	35.4	24.9	37.3





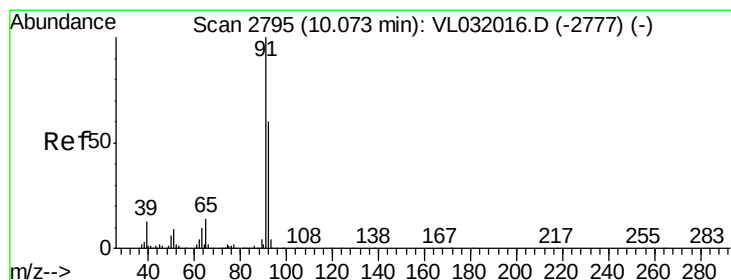
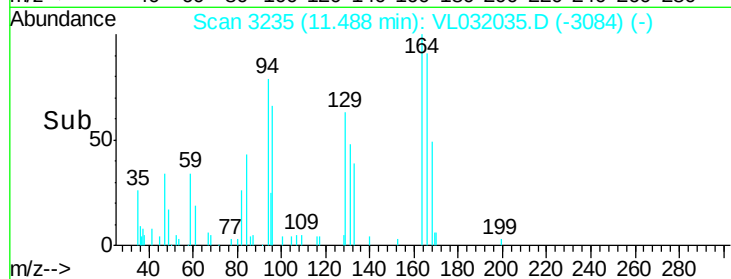
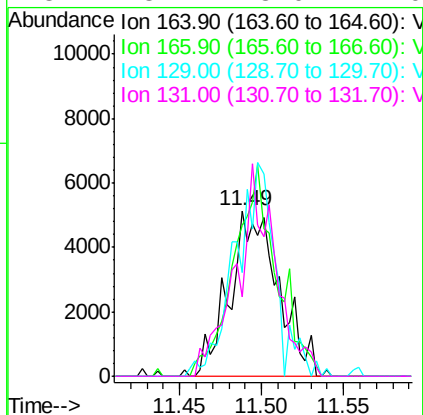
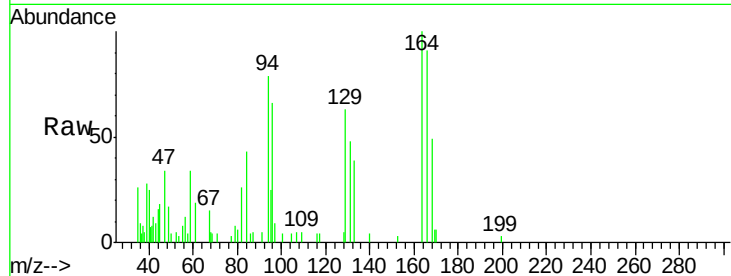
#52
Tetrachloroethene
Concen: 0.13 ppbv m
RT: 11.49 min Scan# 3235
Delta R.T. -0.02 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-DUP-052518

Tot Ion	Ratio	Lower	Upper
164	100		
166	91.1	100.2	150.2#
129	63.0	85.4	128.0#
131	48.2	78.0	117.0#

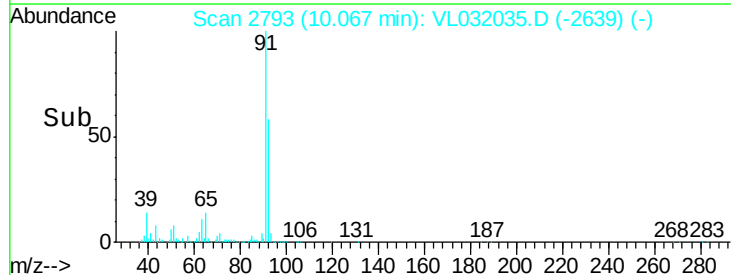
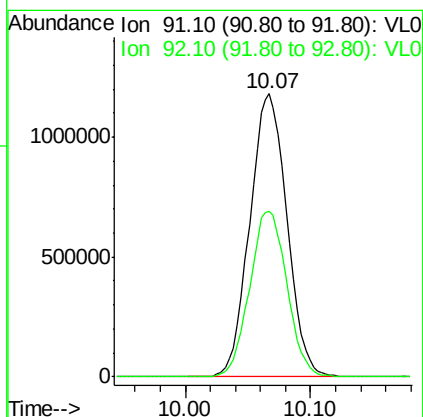
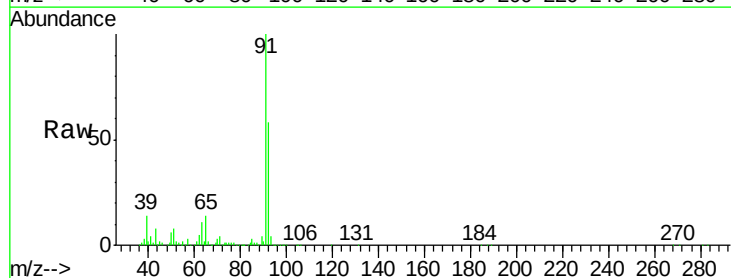
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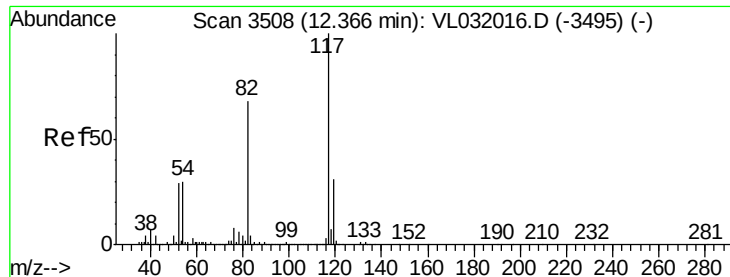
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#53
Toluene
Concen: 10.54 ppbv
RT: 10.07 min Scan# 2793
Delta R.T. -0.01 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.9	48.2	72.2





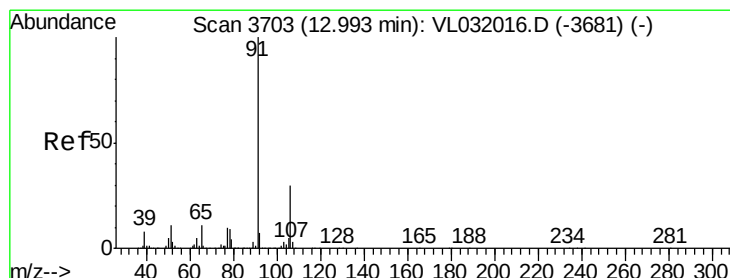
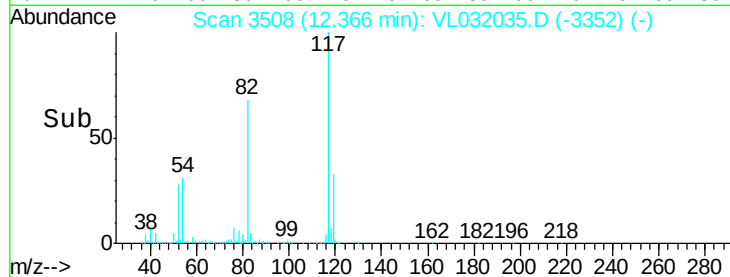
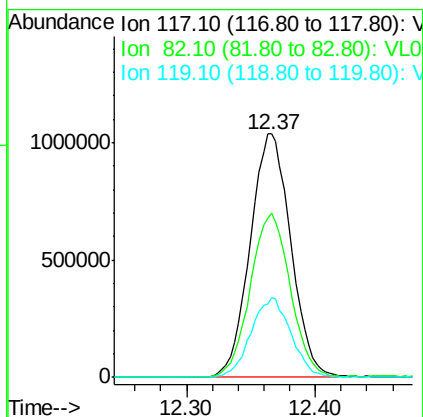
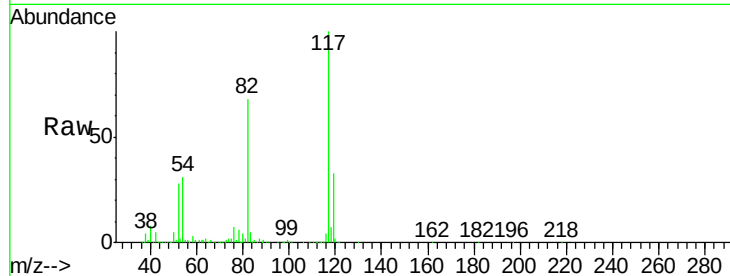
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.37 min Scan# 3508
Delta R.T. 0.00 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-DUP-052518

Tot Ion	Ratio	Lower	Upper
117	100		
82	66.6	52.7	79.1
119	32.2	25.5	38.3

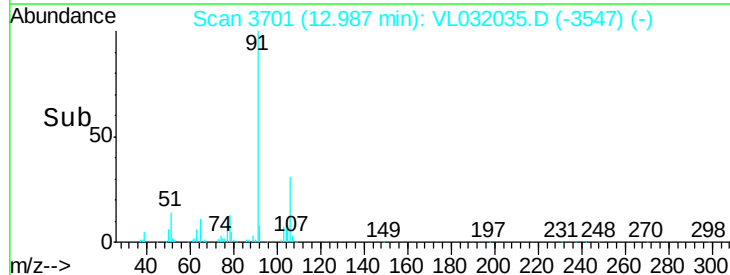
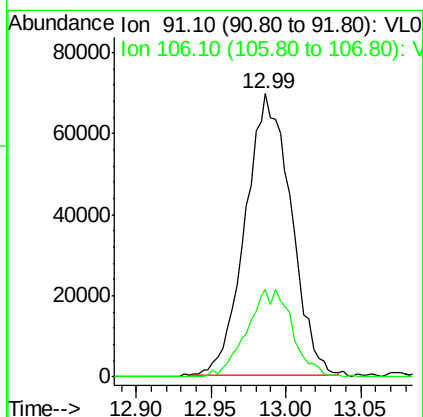
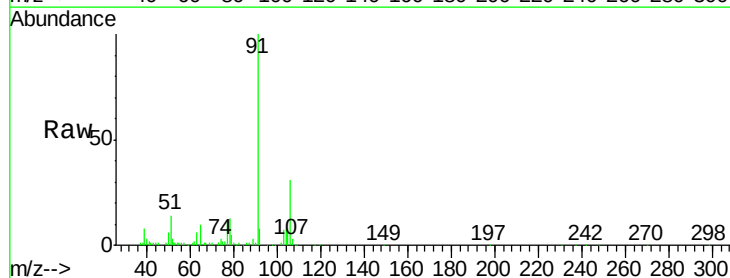
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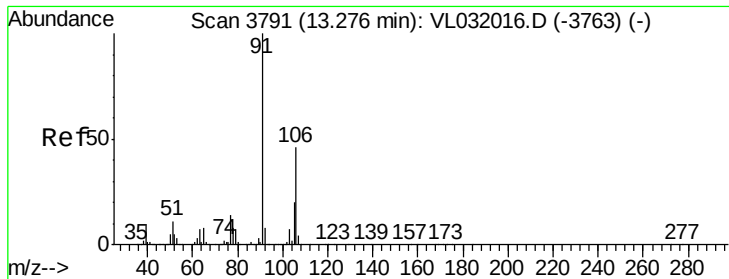
MMDadoda
6/4/2018 3:35:51 PM



#58
Ethyl Benzene
Concen: 0.46 ppbv
RT: 12.99 min Scan# 3701
Delta R.T. -0.01 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Tgt Ion	Ratio	Lower	Upper
91	100		
106	31.1	24.2	36.2





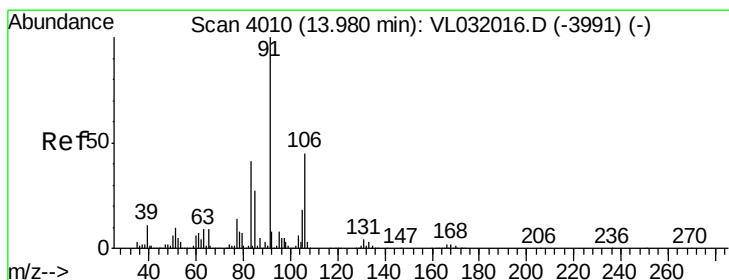
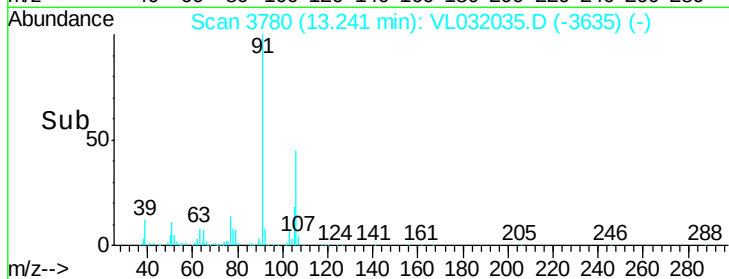
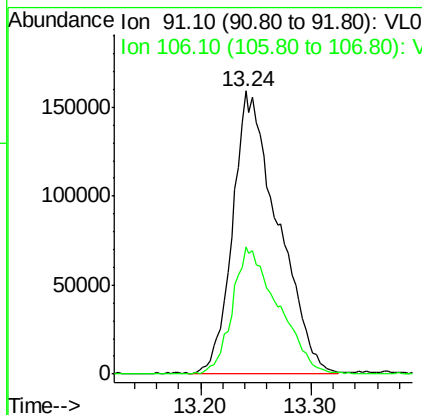
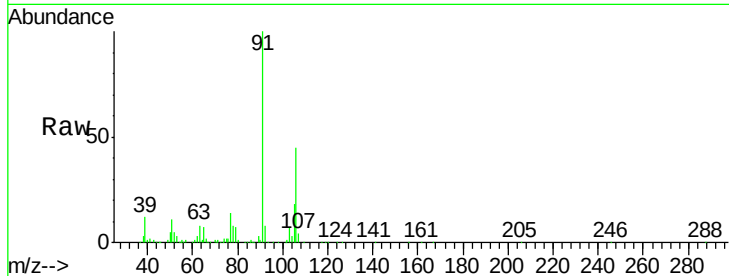
#59
m/p-Xylene
Concen: 1.60 ppbv
RT: 13.24 min Scan# 3780
Delta R.T. -0.04 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA1-DUP-052518

Tot Ion: 91 Resp: 450052
Ion Ratio Lower Upper
91 100
106 45.6 35.7 53.5

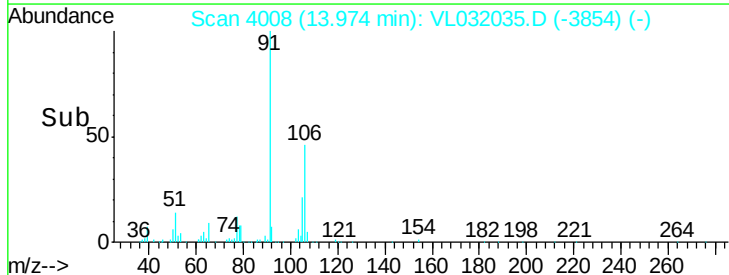
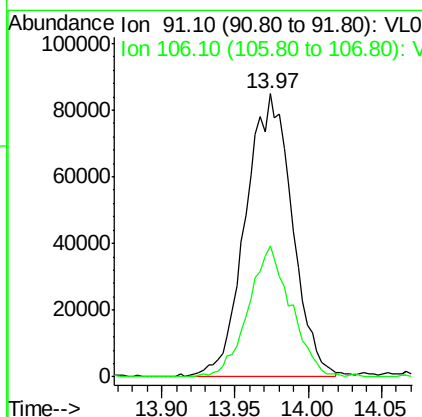
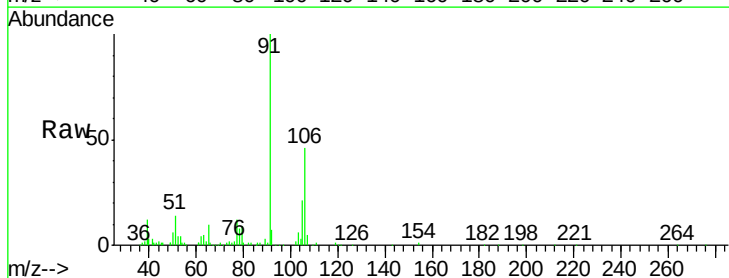
Manual Integrations
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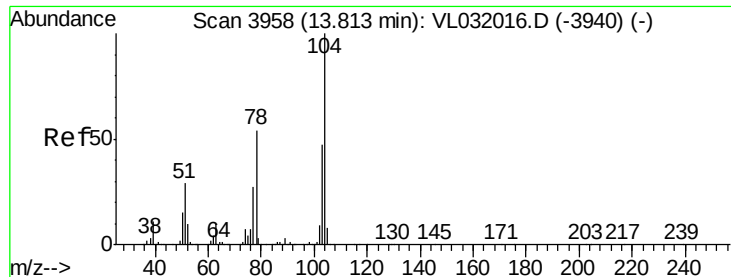
MMDadoda
6/4/2018 3:35:51 PM



#60
o-Xylene
Concen: 0.67 ppbv m
RT: 13.97 min Scan# 4008
Delta R.T. -0.01 min
Lab File: VL032035.D
Acq: 2 Jun 2018 00:14

Tgt Ion: 91 Resp: 187707
Ion Ratio Lower Upper
91 100
106 42.3 21.9 65.5





#61

Stvrene

Concen: 0.96 ppbv m

RT: 13.81 min Scan# 3958

Delta R.T. 0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Instrument :

MSVOA_L

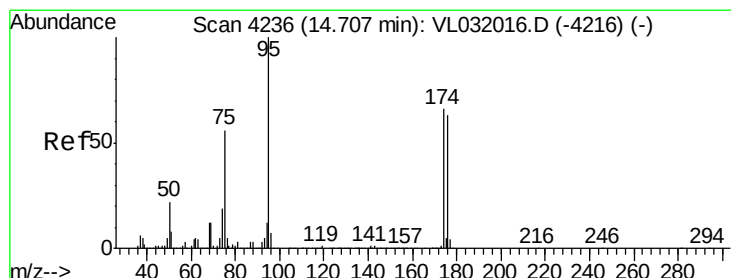
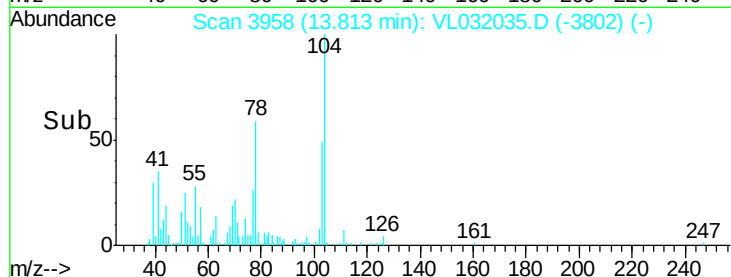
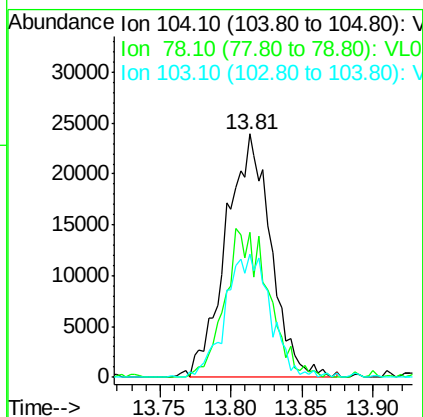
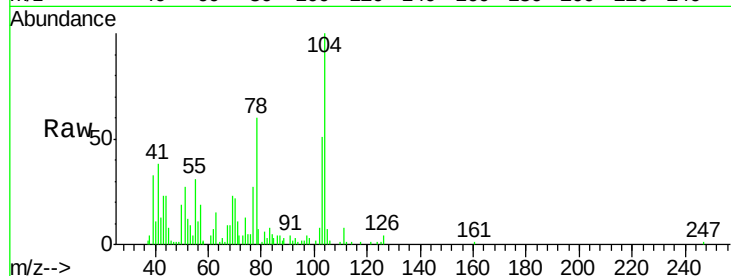
ClientSampleId :

LIHA-IA1-DUP-052518

Tot Ion:	104	Resp:	52517
Ion Ratio	Lower	Upper	
104	100		
78	58.8	43.0	64.4
103	51.4	37.4	56.2

Manual Integrations
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6/4/2018 3:35:51 PM



#68

1-Bromo-4-Fluorobenzene

Concen: 10.07 ppbv

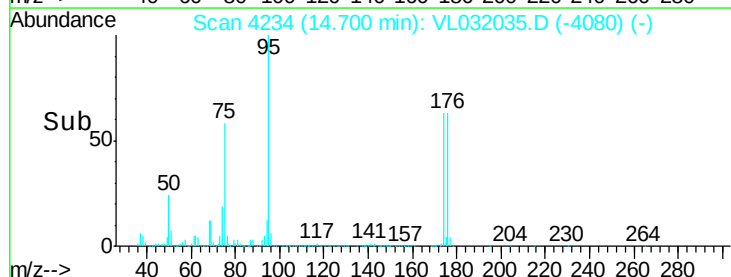
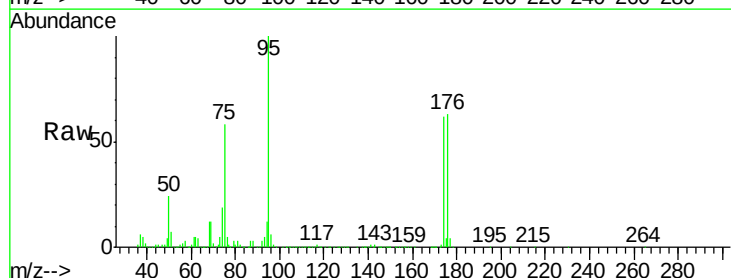
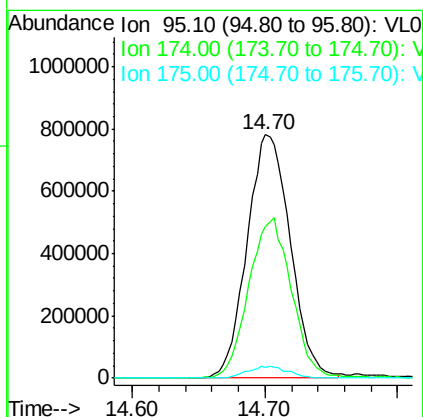
RT: 14.70 min Scan# 4234

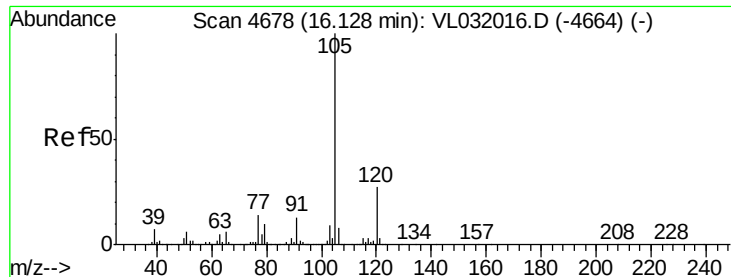
Delta R.T. -0.01 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Tgt Ion:	95	Resp:	1771896
Ion Ratio	Lower	Upper	
95	100		
174	66.0	53.2	79.8
175	4.7	3.7	5.5





#72

4-Ethyltoluene

Concen: 0.20 ppbv

RT: 16.12 min Scan# 4676

Delta R.T. -0.01 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Instrument :

MSVOA_L

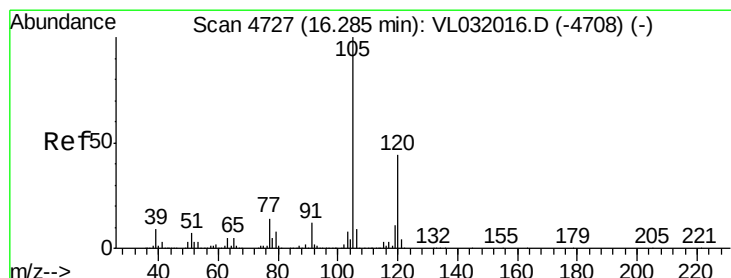
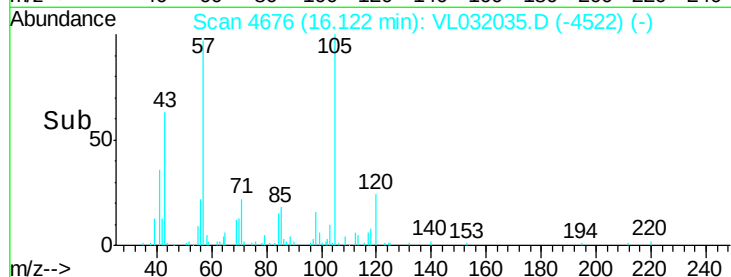
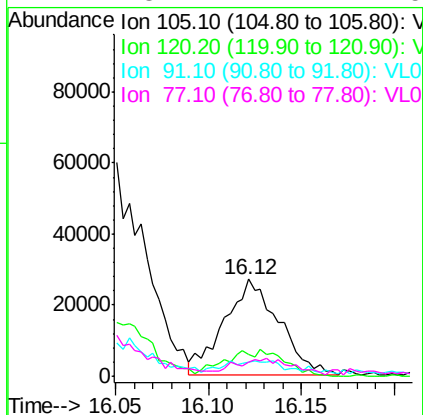
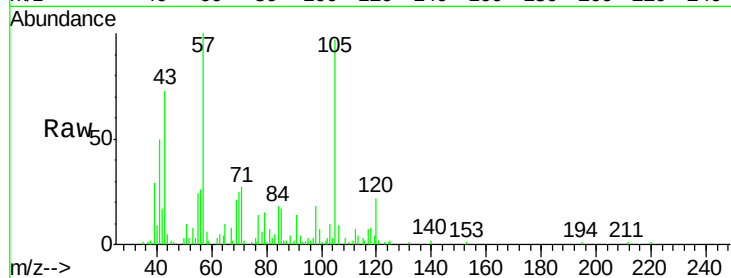
ClientSampleId :

LIHA-IA1-DUP-052518

Tot Ion:	105	Resp:	55126
Ion Ratio	Lower	Upper	
105	100		
120	30.0	23.4	35.0
91	16.1	10.7	16.1
77	18.2	11.7	17.5#

Manual Integrations
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#73

1,3,5-Trimethylbenzene

Concen: 0.27 ppbv m

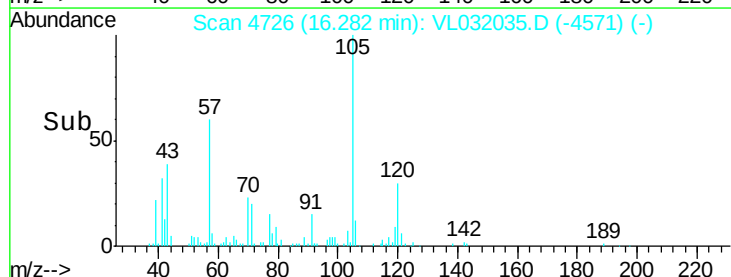
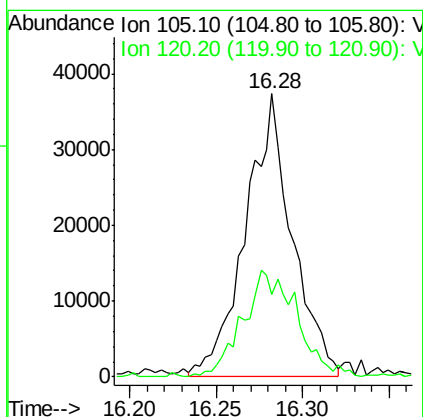
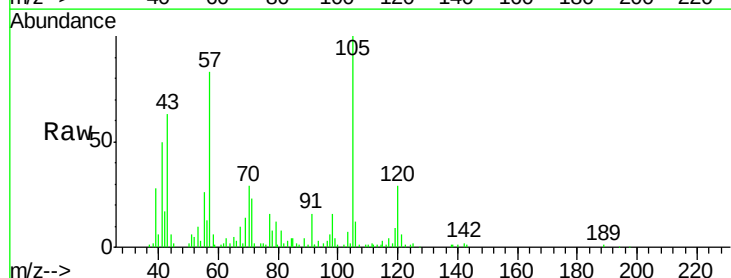
RT: 16.28 min Scan# 4726

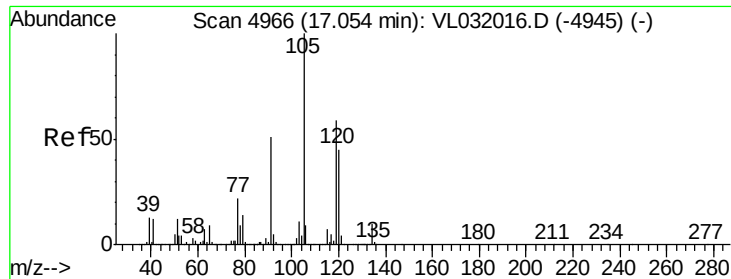
Delta R.T. -0.00 min

Lab File: VL032035.D

Acq: 2 Jun 2018 00:14

Tgt Ion:	105	Resp:	70245
Ion Ratio	Lower	Upper	
105	100		
120	29.1	35.0	52.4#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.69 ppbv m
 RT: 17.05 min Scan# 4965
 Delta R.T. -0.00 min
 Lab File: VL032035.D
 Acq: 2 Jun 2018 00:14

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IA1-DUP-052518

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	42.0	36.0	54.0
91	14.4	41.4	62.0
77	17.4	17.3	25.9

Manual Integrations
 APPROVED

MMDadoda
 6/4/2018 3:35:51 PM

