

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL031519\
 Data File : VL033345.D
 Acq On : 16 Mar 2019 00:24
 Operator : SY/AP
 Sample : K1827-07
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-7

Manual Integrations
 APPROVED

MMDadoda
 3/19/2019 10:01:30 AM

Quant Time: Mar 16 06:34:38 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar 16 06:34:38 2019
 QLast Update : Fri Mar 15 14:52:14 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	754995	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1697479	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1694884	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.58	95	1262201	10.05	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	37843	0.285	ppbv	97
3) Chlorodifluoromethane	3.02	51	162647m	1.877	ppbv	
4) Chloromethane	3.17	50	28742	0.613	ppbv	95
9) Propene	3.05	41	77255m	1.997	ppbv	
10) Heptane	8.25	43	76854	0.801	ppbv	99
11) Trichlorofluoromethane	4.01	101	35876	0.271	ppbv	98
13) Ethanol	3.65	45	2502189	135.683	ppbv	98
15) Acetone	3.90	43	941304	8.020	ppbv	94
19) Isopropyl Alcohol	4.03	45	986867	17.677	ppbv	100
20) Methylene Chloride	4.41	84	71991	1.881	ppbv	98
25) Ethyl Acetate	5.77	43	420663	2.466	ppbv #	97
26) Hexane	5.78	57	129773	1.701	ppbv #	60
34) 2-Butanone	5.33	43	111224	0.998	ppbv	99
35) Carbon Tetrachloride	7.14	117	9624	0.080	ppbv #	81
36) Benzene	7.00	78	45641	0.300	ppbv	98
38) Trichloroethene	7.96	130	3362	0.058	ppbv #	63
44) 2,2,4-Trimethylpentane	7.99	57	32168	0.128	ppbv #	63
50) 4-Methyl-2-Pentanone	8.88	43	90422	0.574	ppbv	95
53) Toluene	9.95	91	2996093	17.357	ppbv	100
58) Ethyl Benzene	12.87	91	81010m	0.338	ppbv	
59) m/p-Xylene	13.12	91	122962m	0.597	ppbv	
60) o-Xylene	13.85	91	41921	0.209	ppbv	97

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

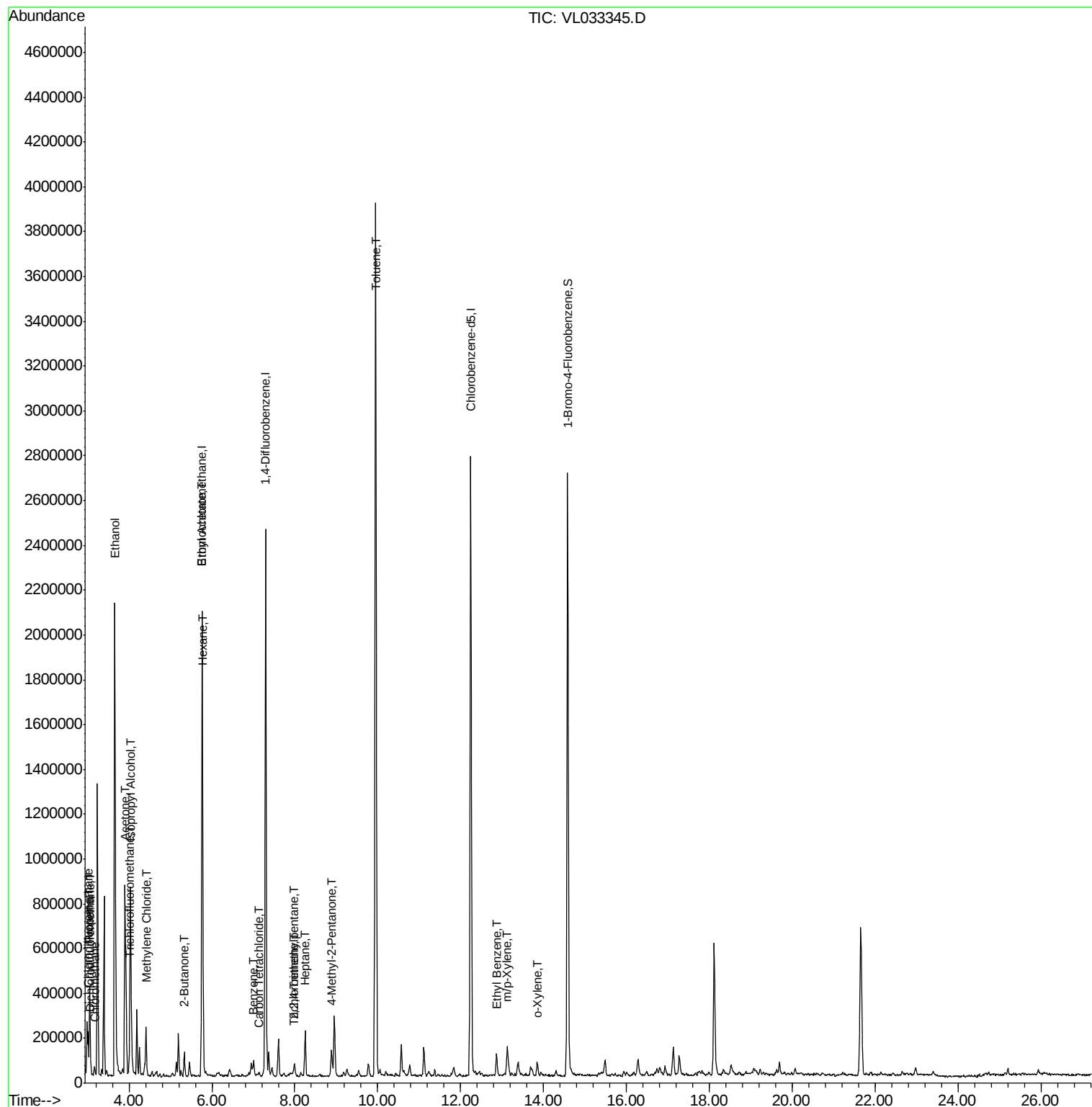
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL031519\
Data File : VL033345.D
Acq On : 16 Mar 2019 00:24
Operator : SY/AP
Sample : K1827-07
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

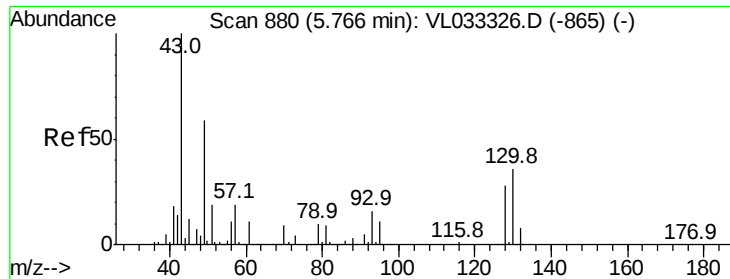
Instrument :
MSVOA_L
ClientSampleId :
A-7

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Quant Time: Mar 16 06:34:38 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar
QLast Update : Fri Mar 15 14:52:14 2019
Response via : Initial Calibration





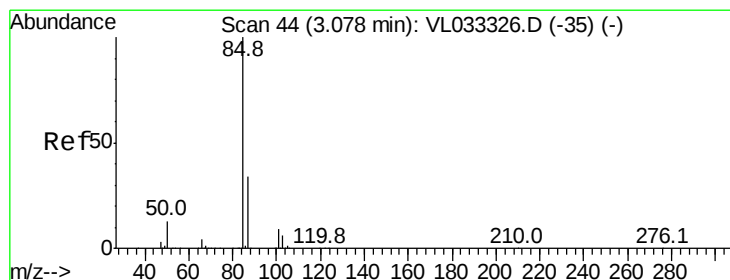
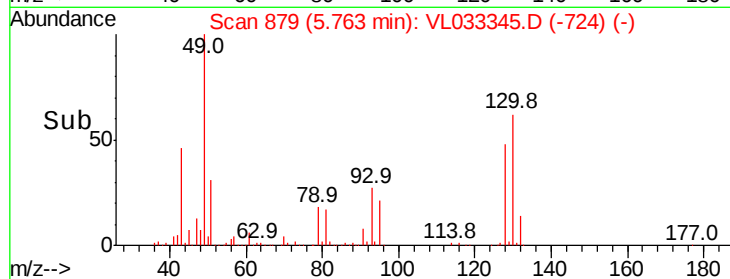
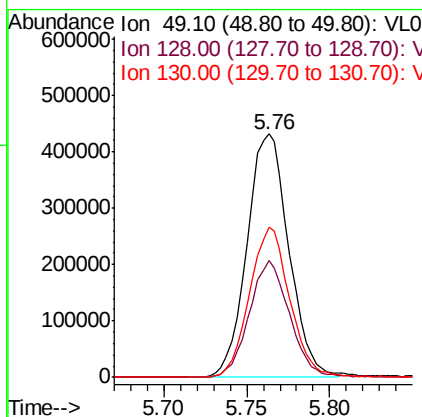
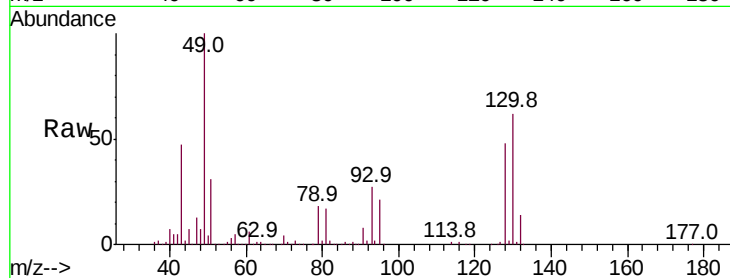
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.76 min Scan# 879
Delta R.T. -0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Instrument :
MSVOA_L
ClientSampled :
A-7

Tot Ion	Ratio	Lower	Upper
49	100		
128	46.4	23.5	70.6
130	60.0	30.1	90.3

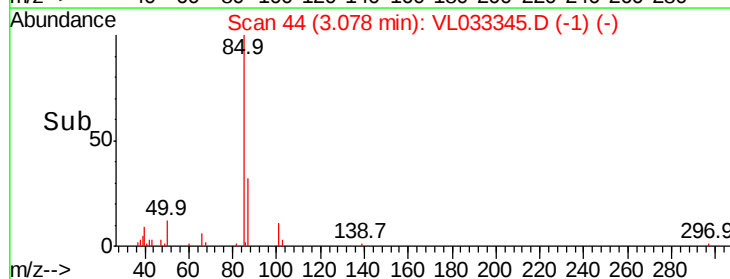
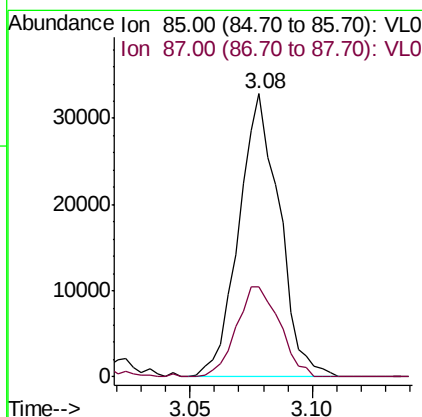
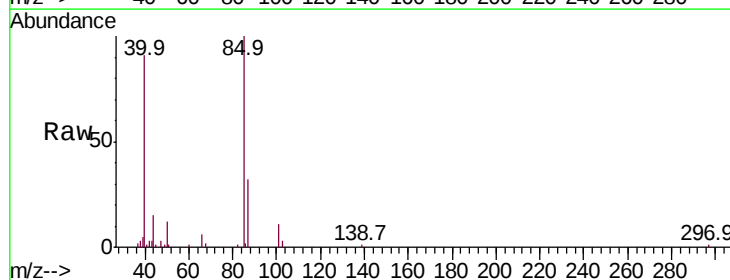
Manual Integrations
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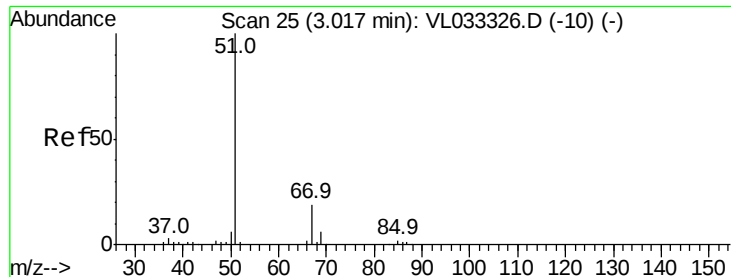
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#2
Dichlorodifluoromethane
Concen: 0.285 ppbv
RT: 3.08 min Scan# 44
Delta R.T. -0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Tgt Ion	Ratio	Lower	Upper
85	100		
87	31.9	26.9	40.3





#3

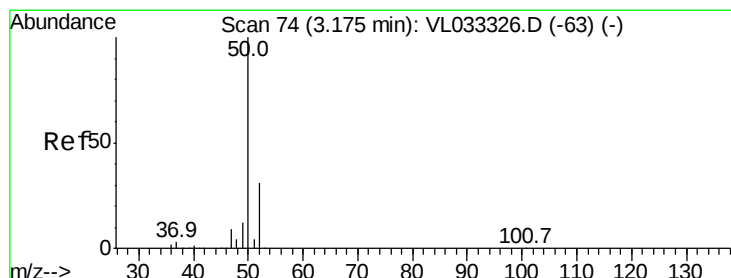
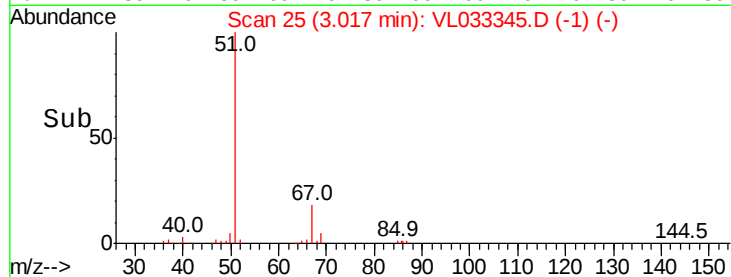
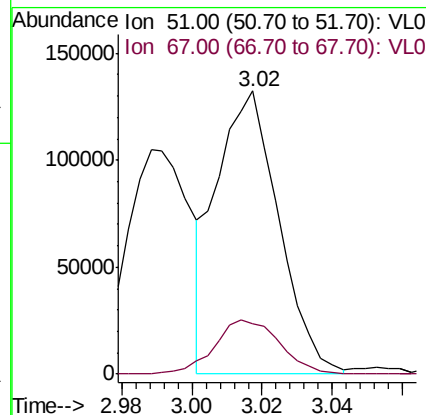
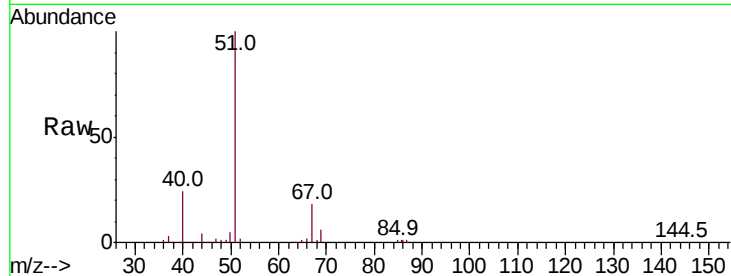
Chlorodifluoromethane
Concen: 1.877 ppbv
RT: 3.02 min Scan# 25
Delta R.T. 0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Instrument :
MSVOA_L
ClientSampled :
A-7

Tot Ion	51	Resp	162647
Ion Ratio	100	Lower	Upper
51	100		
67	20.2	14.9	22.3

Manual Integrations
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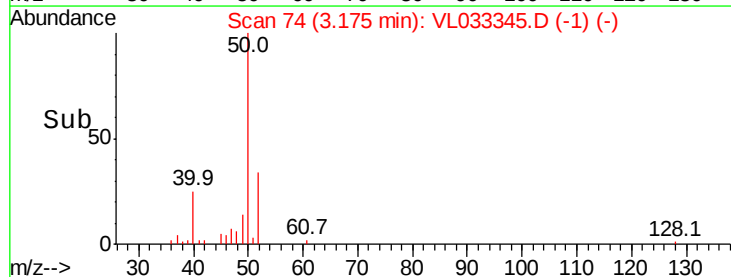
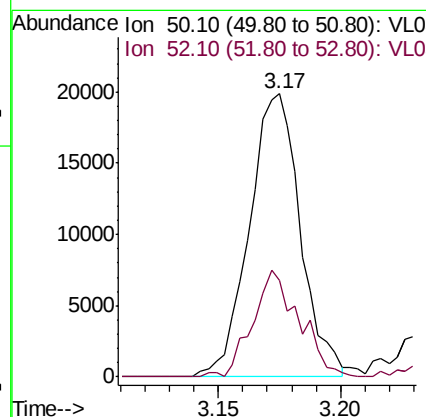
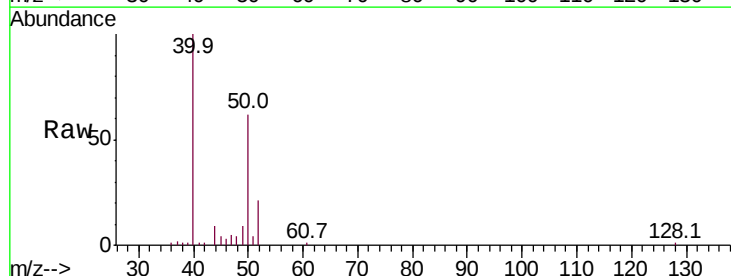
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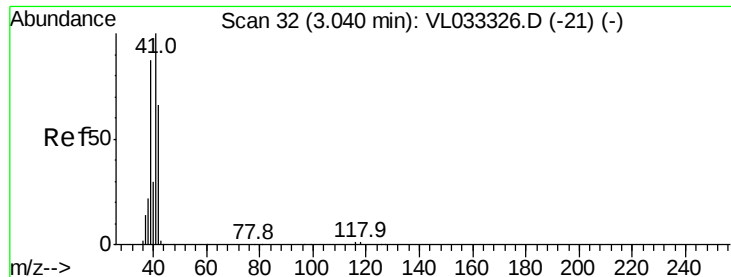


#4

Chloromethane
Concen: 0.613 ppbv
RT: 3.17 min Scan# 74
Delta R.T. 0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Tgt Ion	50	Resp	28742
Ion Ratio	100	Lower	Upper
50	100		
52	34.1	25.0	37.6





#9

Propene

Concen: 1.997 ppbv m

RT: 3.05 min Scan# 35

Delta R.T. 0.01 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

Instrument :

MSVOA_L

ClientSampled :

A-7

Tot Ion: 41 Resp: 77255

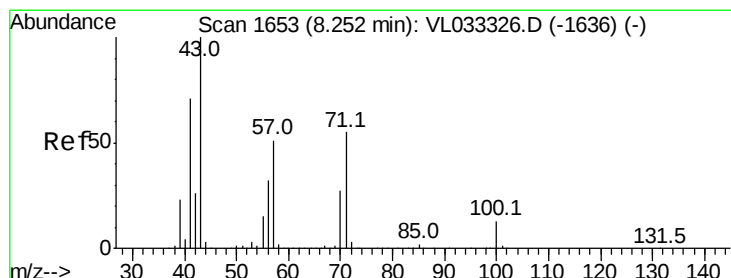
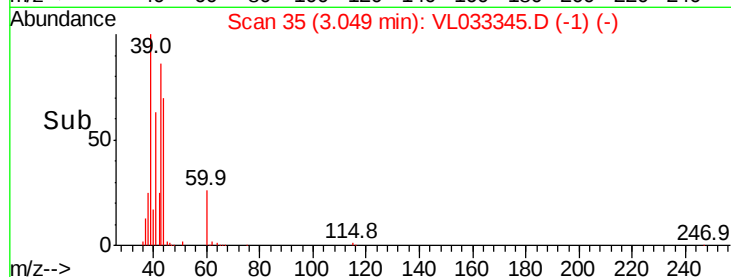
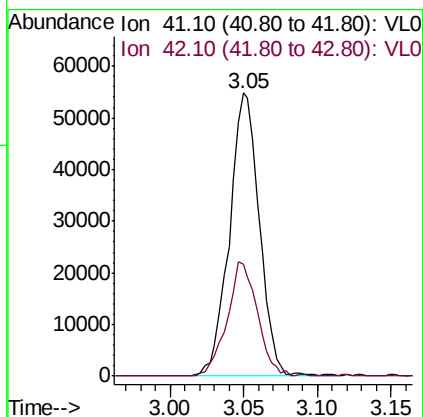
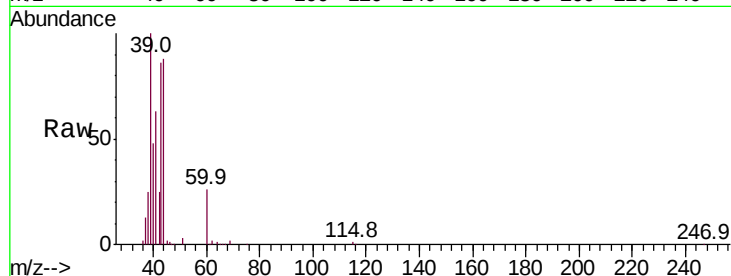
Ion Ratio Lower Upper

41 100

42 287.3 55.2 82.8#

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#10

Heptane

Concen: 0.801 ppbv

RT: 8.25 min Scan# 1653

Delta R.T. 0.00 min

Lab File: VL033345.D

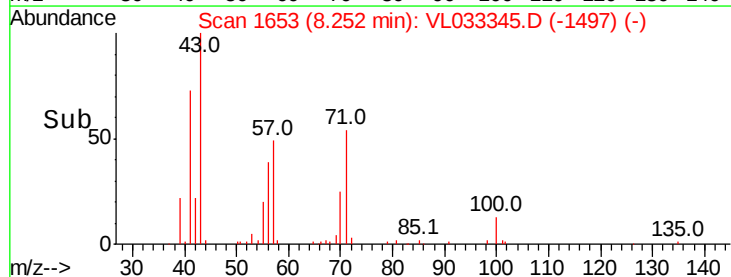
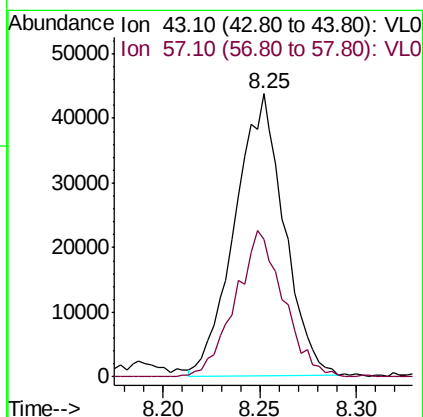
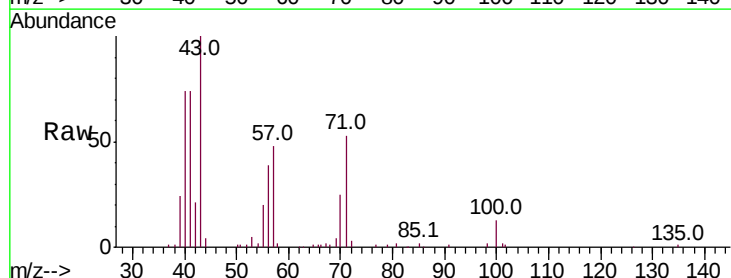
Acq: 16 Mar 2019 00:24

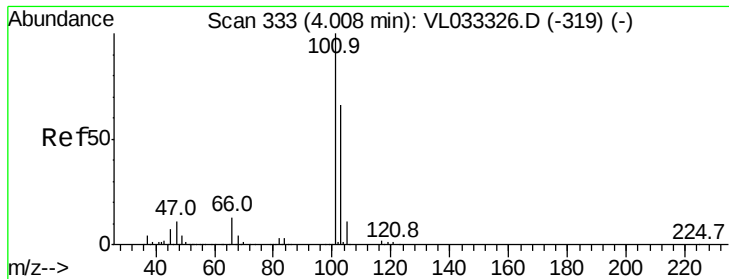
Tgt Ion: 43 Resp: 76854

Ion Ratio Lower Upper

43 100

57 51.3 40.4 60.6





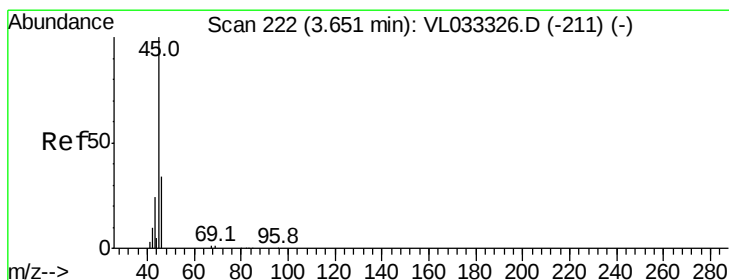
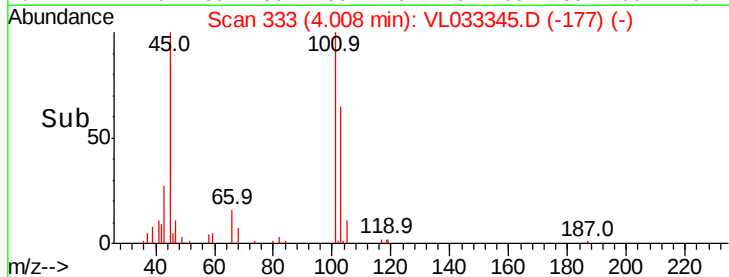
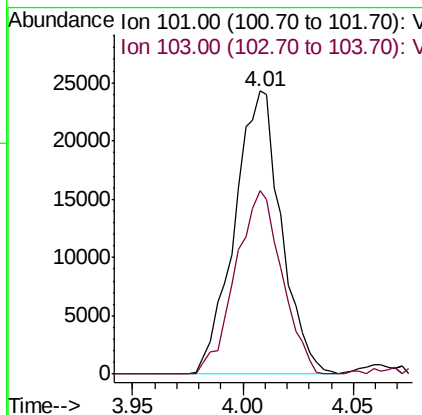
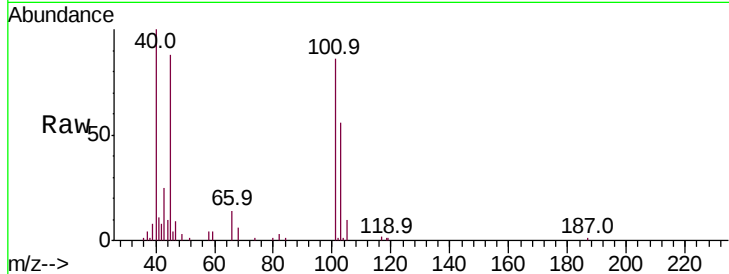
#11
Trichlorofluoromethane
Concen: 0.271 ppbv
RT: 4.01 min Scan# 333
Delta R.T. 0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Instrument :
MSVOA_L
ClientSampled :
A-7

Tot Ion:101 Resp: 35876
Ion Ratio Lower Upper
101 100
103 64.9 52.9 79.3

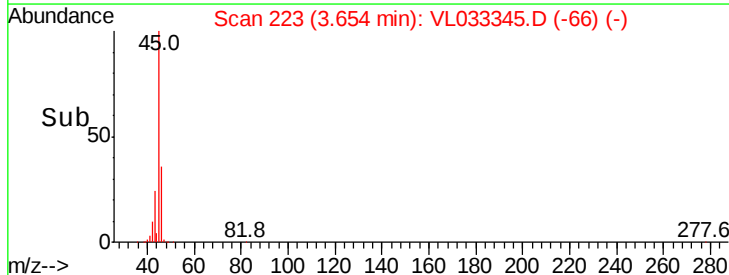
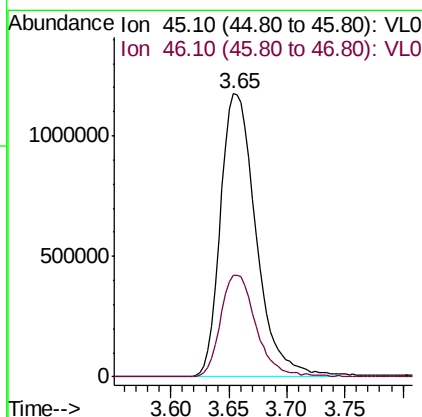
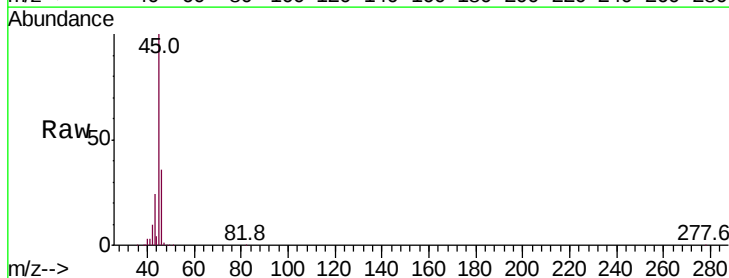
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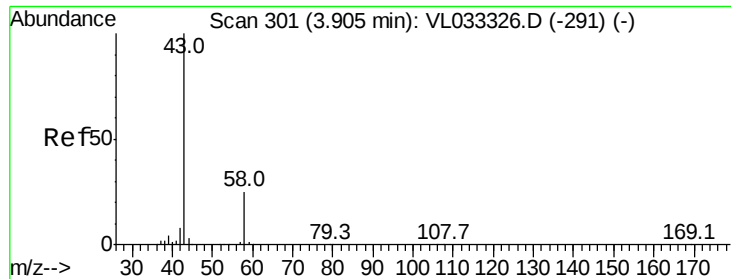
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#13
Ethanol
Concen: 135.683 ppbv
RT: 3.65 min Scan# 223
Delta R.T. 0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Tgt Ion: 45 Resp: 2502189
Ion Ratio Lower Upper
45 100
46 36.3 14.9 59.7





#15

Acetone

Concen: 8.020 ppbv

RT: 3.90 min Scan# 300

Delta R.T. -0.00 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

Instrument :

MSVOA_L

ClientSampled :

A-7

Tot Ion: 43 Resp: 941304

Ion Ratio Lower Upper

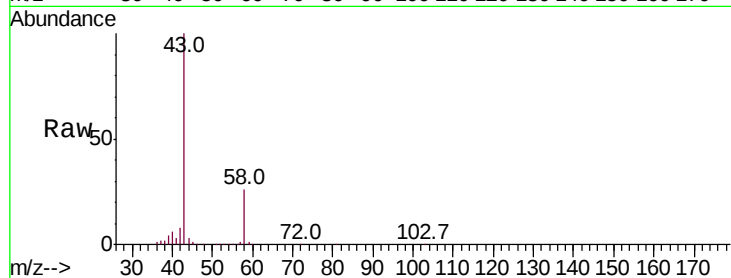
43 100

58 22.7 20.4 30.6

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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.90

600000

500000

400000

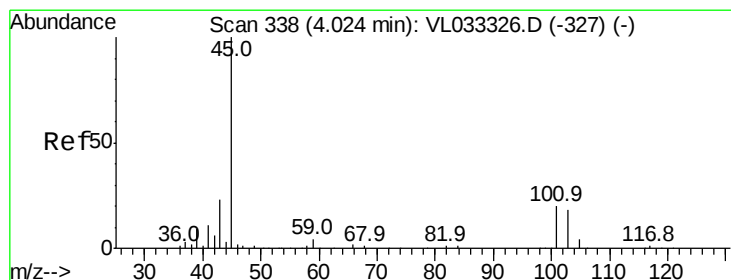
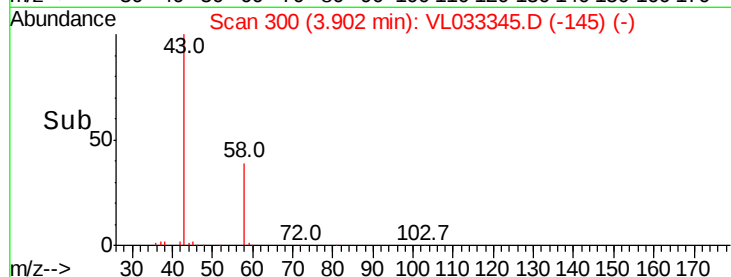
300000

200000

100000

0

Time-->



#19

Isopropyl Alcohol

Concen: 17.677 ppbv

RT: 4.03 min Scan# 341

Delta R.T. 0.01 min

Lab File: VL033345.D

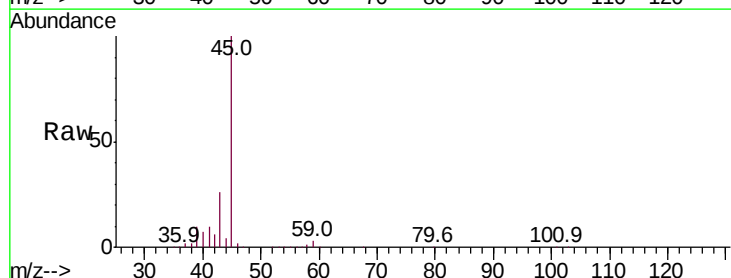
Acq: 16 Mar 2019 00:24

Tgt Ion: 45 Resp: 986867

Ion Ratio Lower Upper

45 100

58 1.7 1.5 2.3



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

4.03

500000

400000

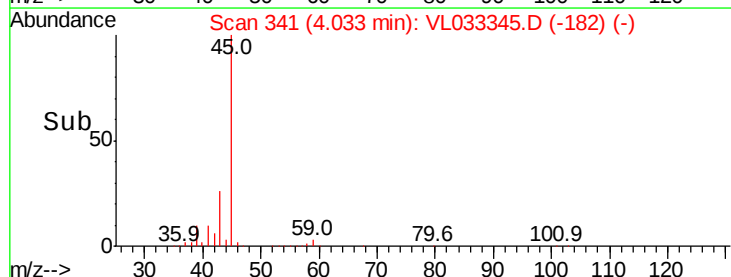
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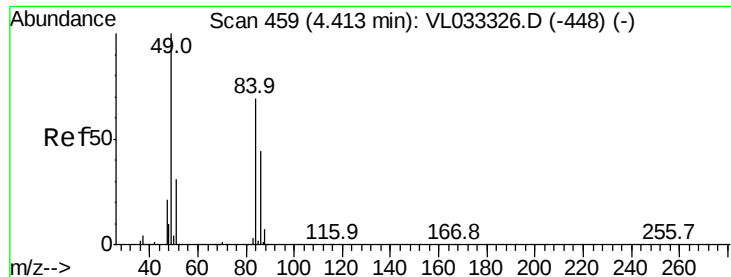
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100000

0

Time-->





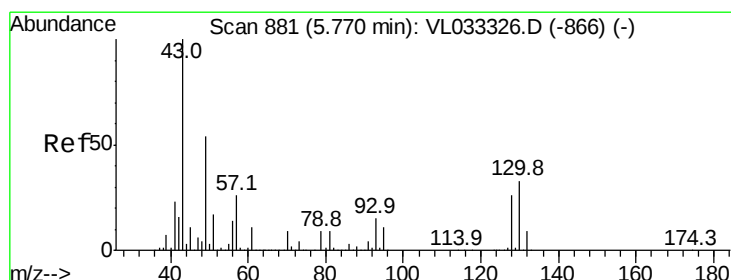
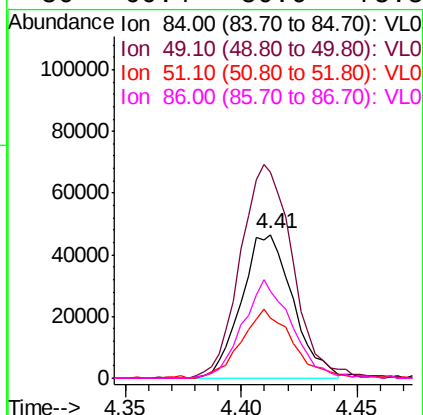
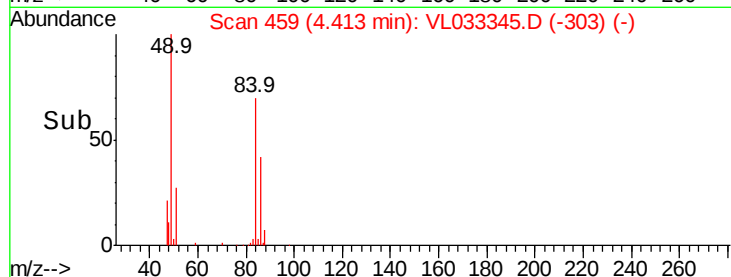
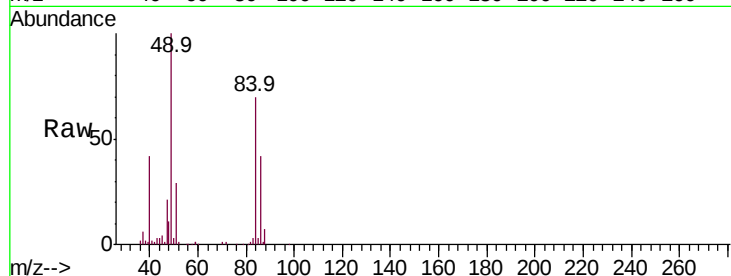
#20
Methvlene Chloride
Concen: 1.881 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Instrument :
MSVOA_L
ClientSampled :
A-7

Tot Ion:	84	Resp:	71991
Ion	Ratio	Lower	Upper
84	100		
49	142.9	115.4	173.0
51	41.7	35.8	53.6
86	60.4	50.6	75.8

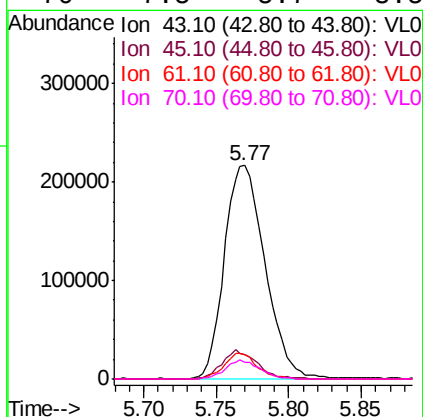
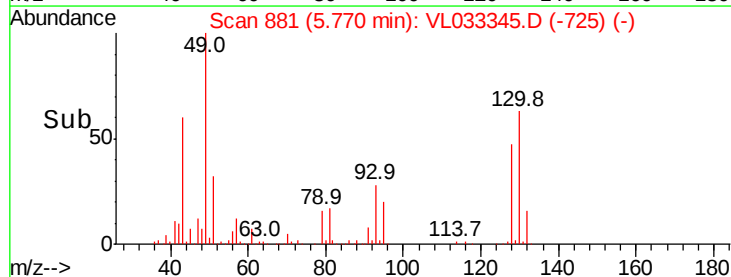
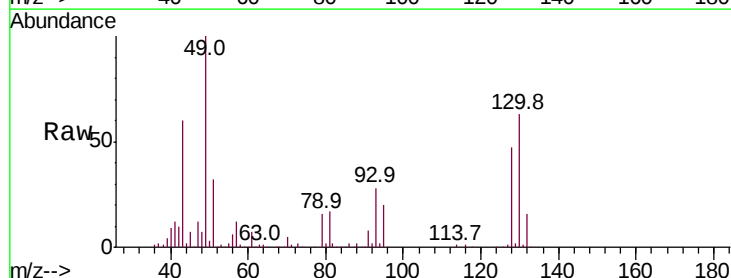
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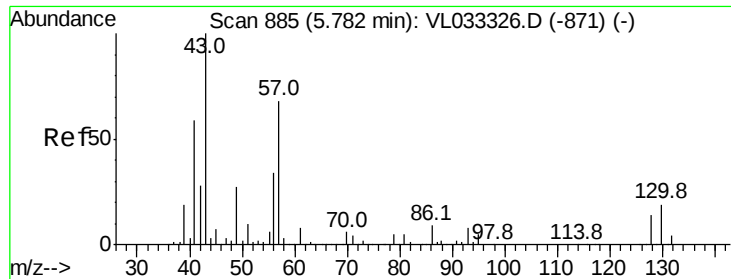
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3/19/2019 10:01:30 AM



#25
Ethyl Acetate
Concen: 2.466 ppbv
RT: 5.77 min Scan# 881
Delta R.T. 0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Tgt Ion:	43	Resp:	420663
Ion	Ratio	Lower	Upper
43	100		
45	12.0	7.9	11.9#
61	10.0	7.4	11.2
70	7.5	5.7	8.5





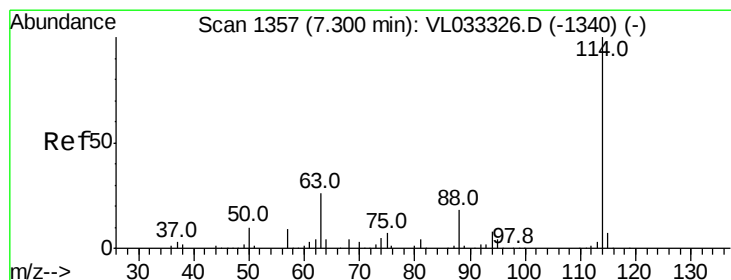
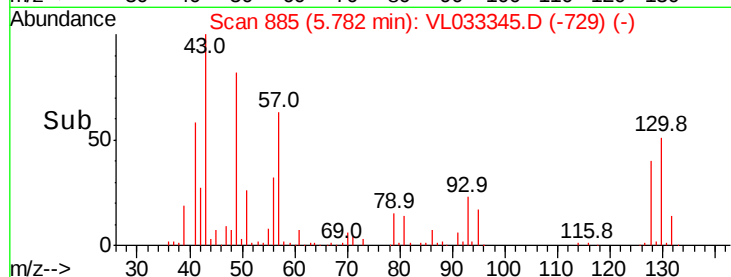
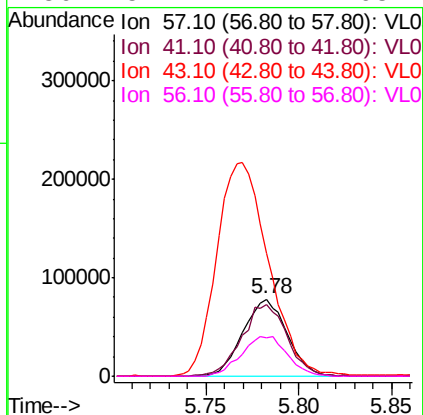
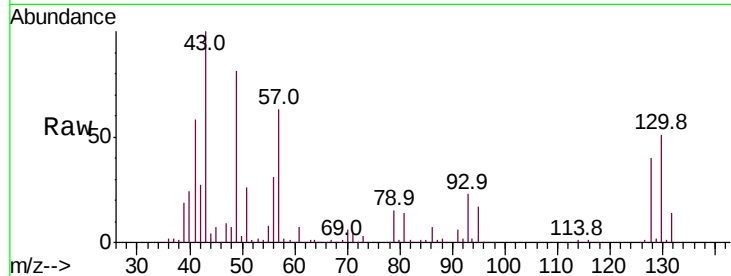
#26
Hexane
Concen: 1.701 ppbv
RT: 5.78 min Scan# 885
Delta R.T. -0.00 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Instrument :
MSVOA_L
ClientSampleId :
A-7

Tot Ion	Ratio	Lower	Upper
57	100		
41	95.8	70.5	105.7
43	328.1	181.8	272.8#
56	54.2	42.2	63.2

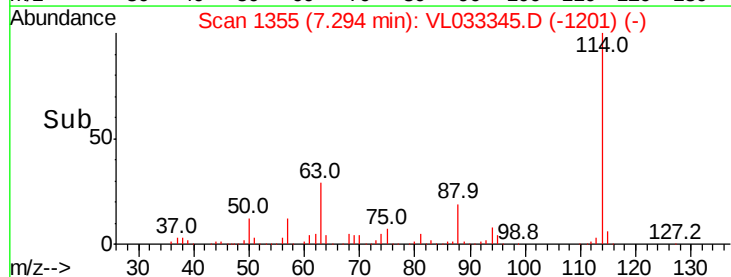
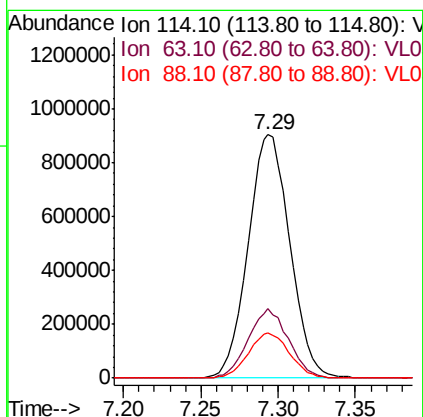
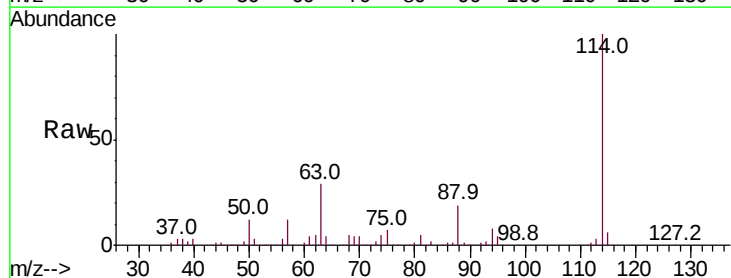
Manual Integrations
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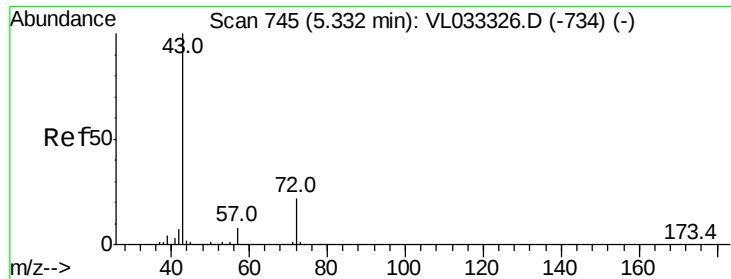
MMDadoda
3/19/2019 10:01:30 AM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1355
Delta R.T. -0.01 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.6	21.4	32.2
88	18.4	14.5	21.7





#34

2-Butanone

Concen: 0.998 ppbv

RT: 5.33 min Scan# 745

Delta R.T. 0.00 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

Instrument :

MSVOA_L

ClientSampleId :

A-7

Tot Ion: 43 Resp: 111224

Ion Ratio Lower Upper

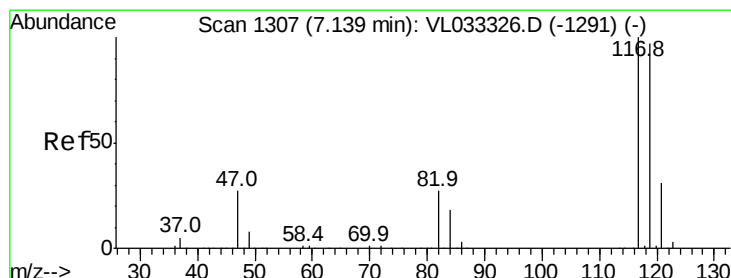
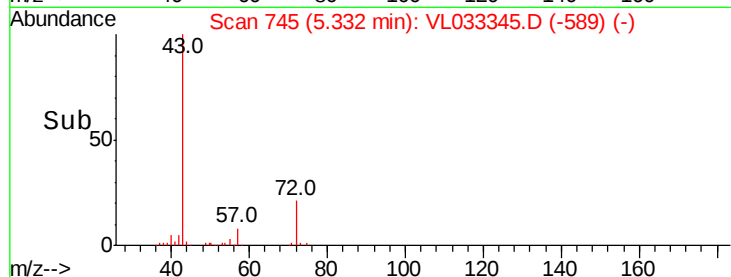
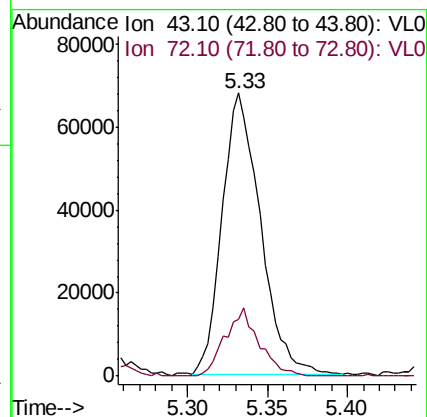
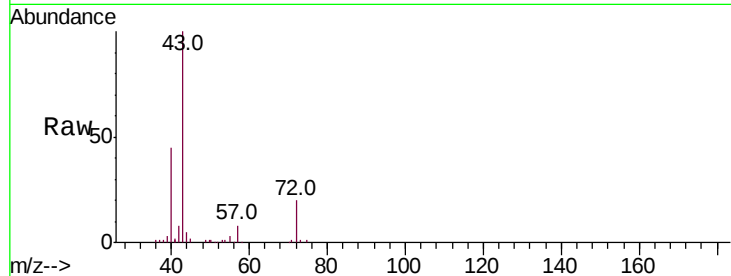
43 100

72 21.7 17.7 26.5

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#35

Carbon Tetrachloride

Concen: 0.080 ppbv

RT: 7.14 min Scan# 1306

Delta R.T. -0.00 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

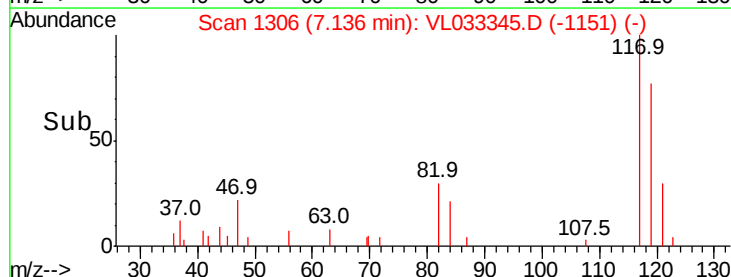
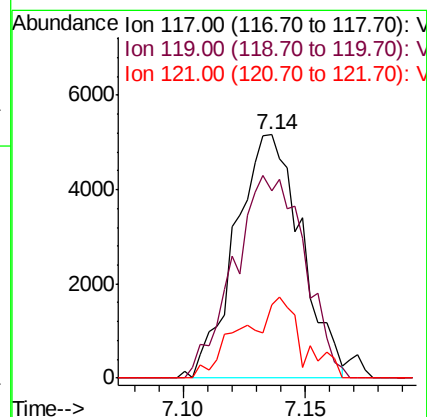
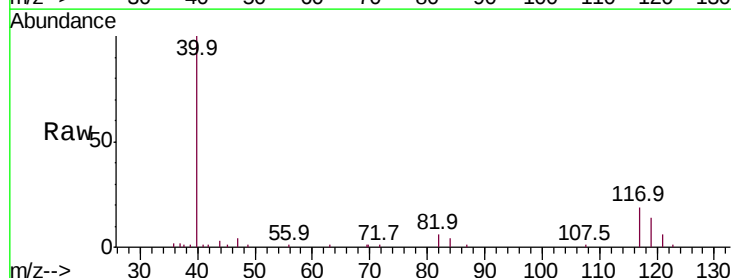
Tgt Ion: 117 Resp: 9624

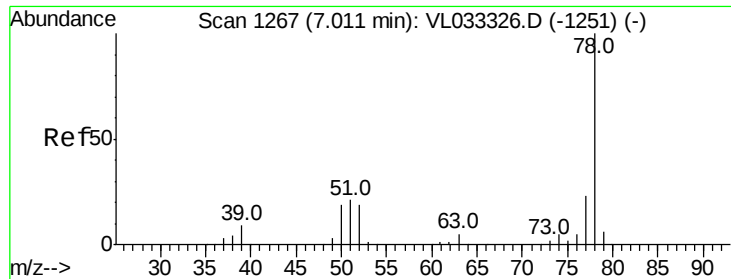
Ion Ratio Lower Upper

117 100

119 72.6 77.4 116.0#

121 30.3 24.9 37.3





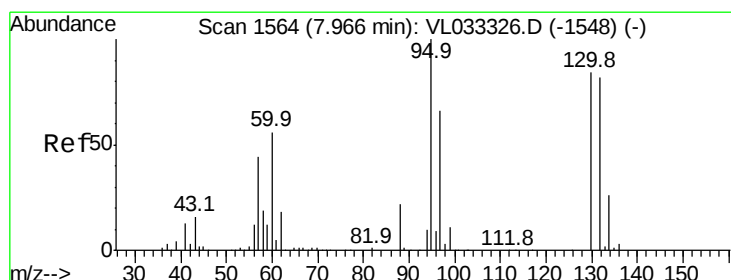
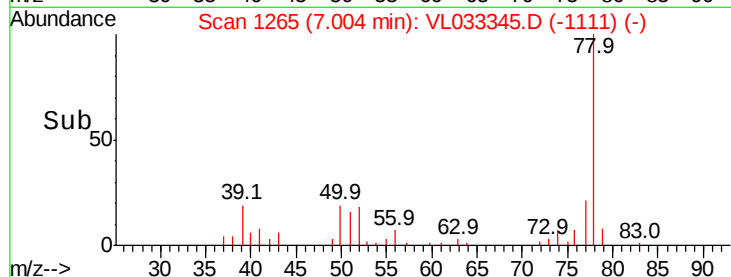
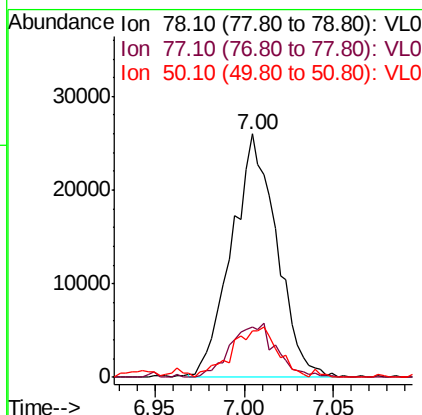
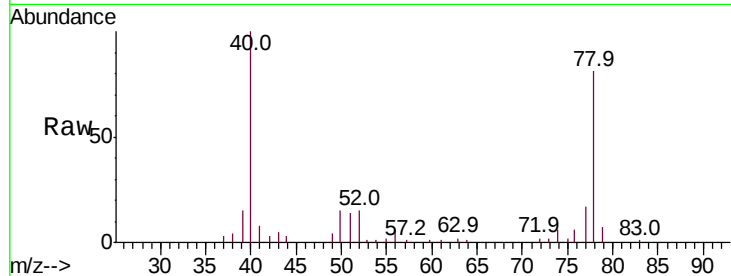
#36
Benzene
Concen: 0.300 ppbv
RT: 7.00 min Scan# 1265
Delta R.T. -0.01 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Instrument :
MSVOA_L
ClientSampleId :
A-7

Tot Ion	Ratio	Lower	Upper
78	100		
77	20.8	18.1	27.1
50	19.0	15.2	22.8

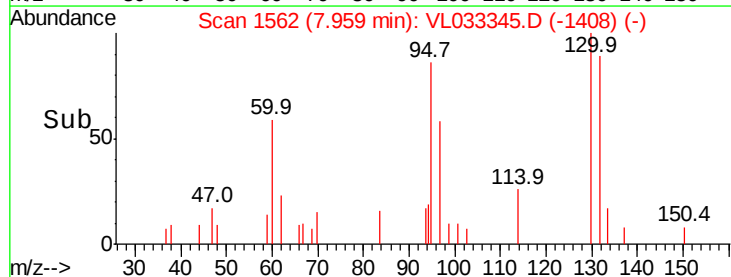
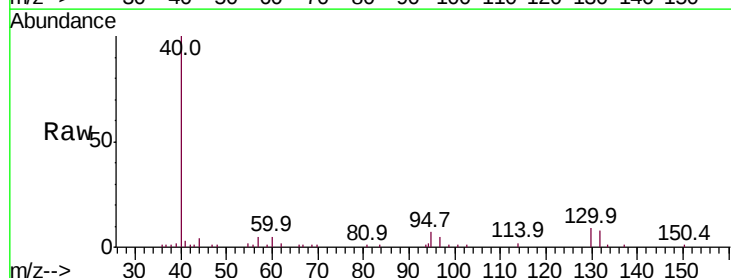
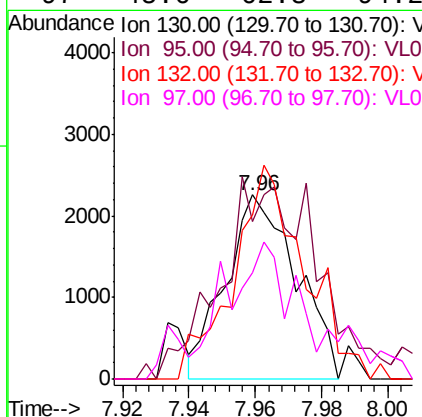
Manual Integrations
APPROVED

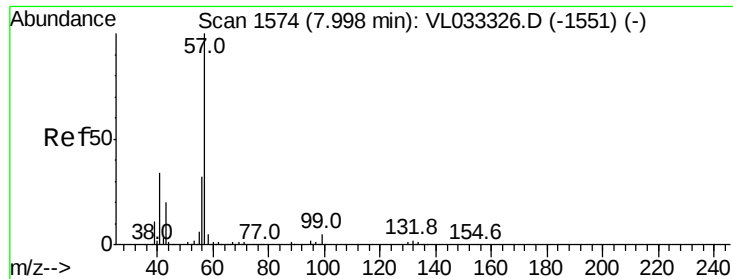
MMDadoda
3/19/2019 10:01:30 AM



#38
Trichloroethene
Concen: 0.058 ppbv
RT: 7.96 min Scan# 1562
Delta R.T. -0.01 min
Lab File: VL033345.D
Acq: 16 Mar 2019 00:24

Tgt Ion	Ratio	Lower	Upper
130	100		
95	64.9	95.2	142.8#
132	75.6	77.7	116.5#
97	45.6	62.8	94.2#





#44

2,2,4-Trimethylpentane

Concen: 0.128 ppbv

RT: 7.99 min Scan# 1572

Delta R.T. -0.01 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

Instrument :

MSVOA_L

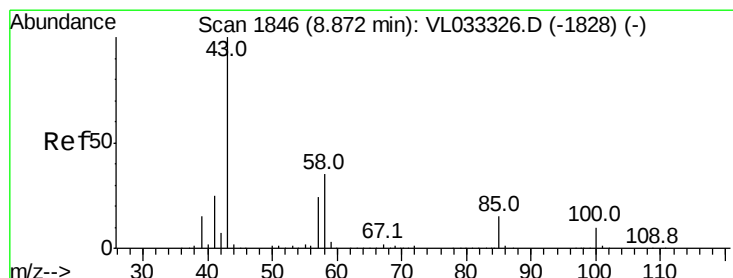
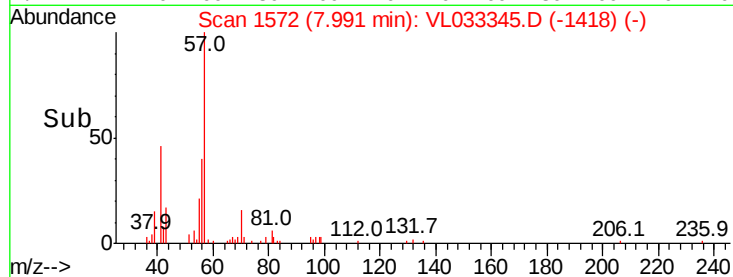
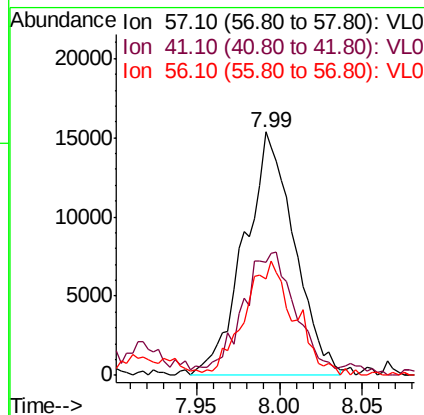
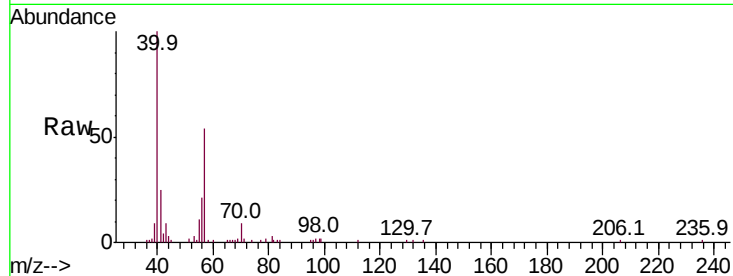
ClientSampleId :

A-7

Tot Ion:	57	Resp:	32168
Ion Ratio	Lower	Upper	
57	100		
41	56.4	26.0	39.0#
56	47.7	24.6	36.8#

Manual Integrations
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#50

4-Methyl-2-Pentanone

Concen: 0.574 ppbv

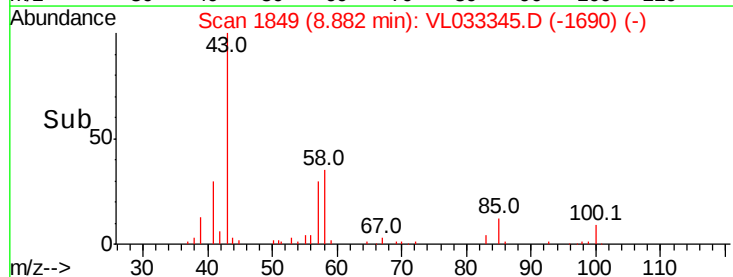
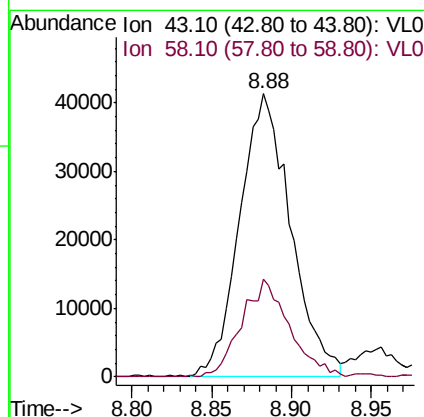
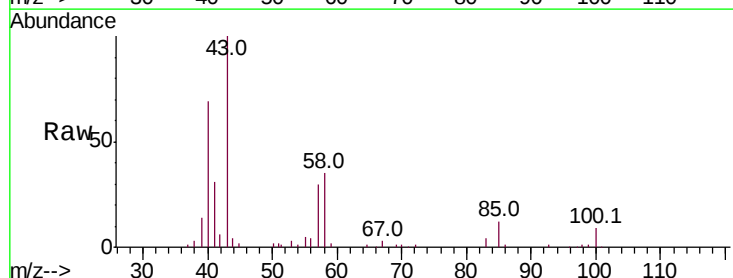
RT: 8.88 min Scan# 1849

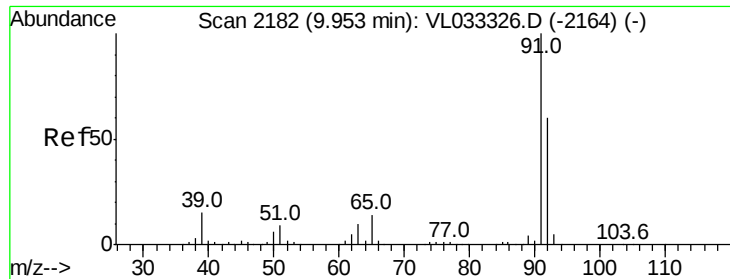
Delta R.T. 0.01 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

Tgt Ion:	43	Resp:	90422
Ion Ratio	Lower	Upper	
43	100		
58	32.8	28.4	42.6





#53

Toluene

Concen: 17.357 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.00 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

Instrument :

MSVOA_L

ClientSampleId :

A-7

Tot Ion: 91 Resp: 2996093

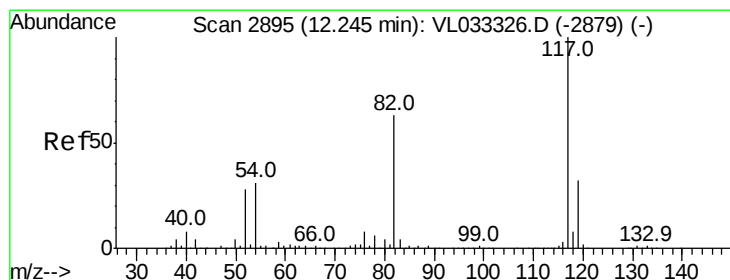
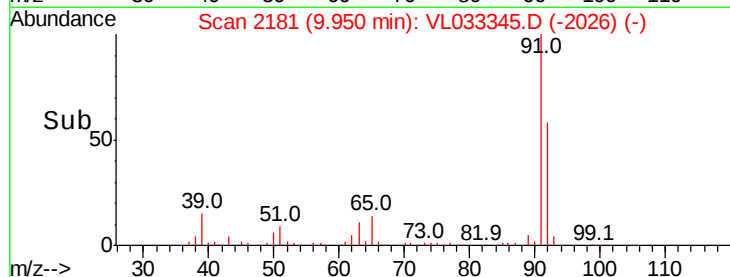
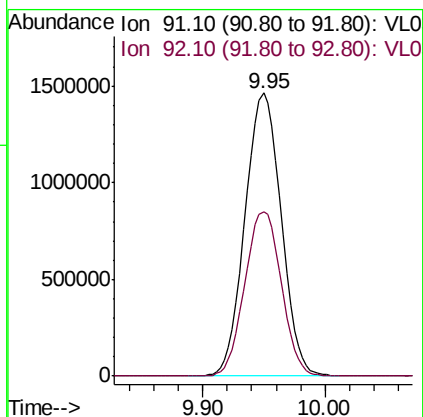
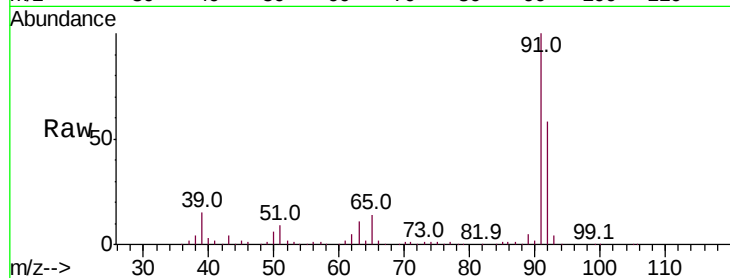
Ion Ratio Lower Upper

91 100

92 58.9 47.4 71.0

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2894

Delta R.T. -0.00 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

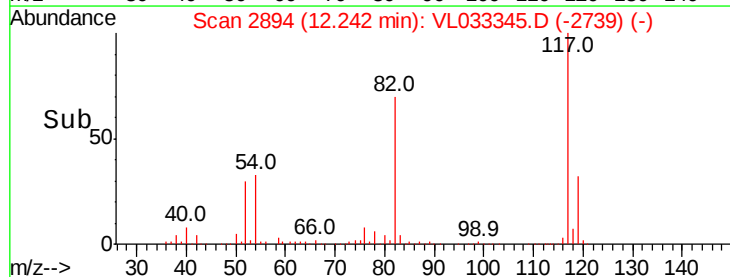
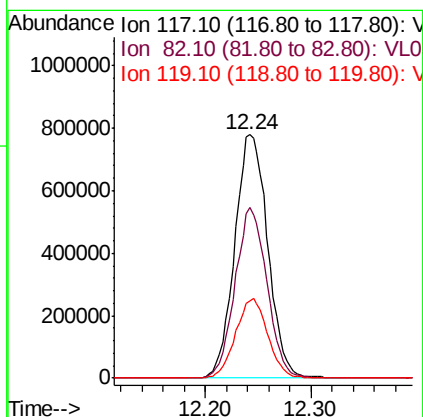
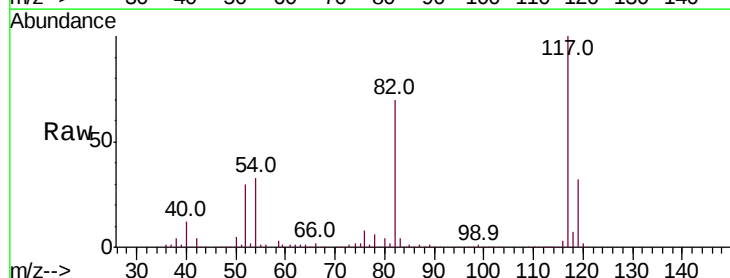
Tgt Ion: 117 Resp: 1694884

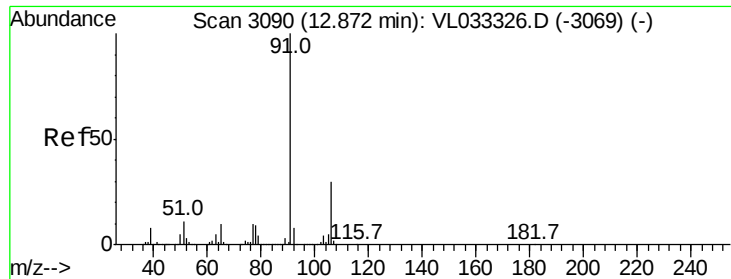
Ion Ratio Lower Upper

117 100

82 68.3 53.4 80.2

119 32.0 27.3 40.9





#58

Ethyl Benzene

Concen: 0.338 ppbv m

RT: 12.87 min Scan# 3088

Delta R.T. -0.01 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

Instrument :

MSVOA_L

ClientSampleId :

A-7

Tot Ion: 91 Resp: 81010

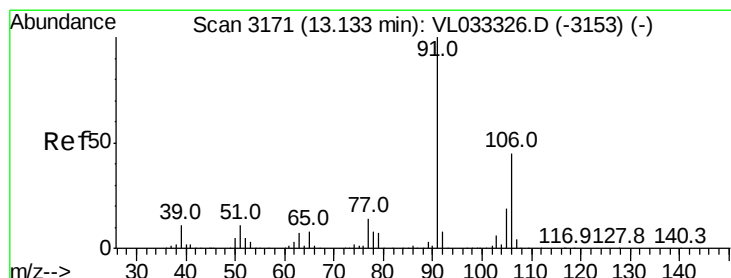
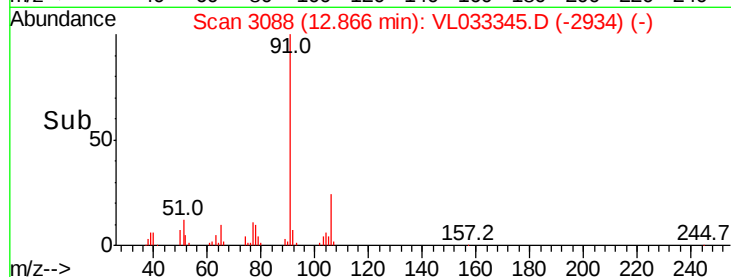
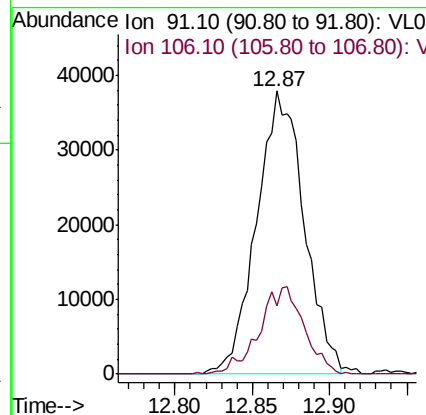
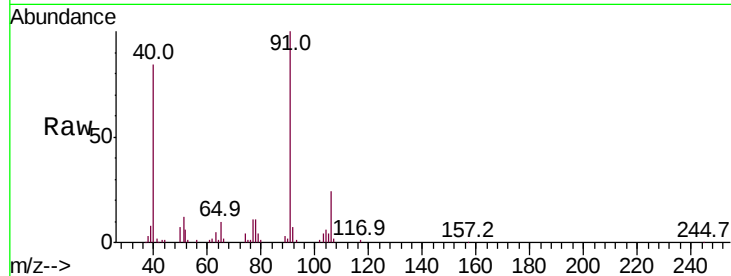
Ion Ratio Lower Upper

91 100

106 24.1 24.2 36.2#

Manual Integrations
APPROVED

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3/19/2019 10:01:30 AM



#59

m/p-Xylene

Concen: 0.597 ppbv m

RT: 13.12 min Scan# 3168

Delta R.T. -0.01 min

Lab File: VL033345.D

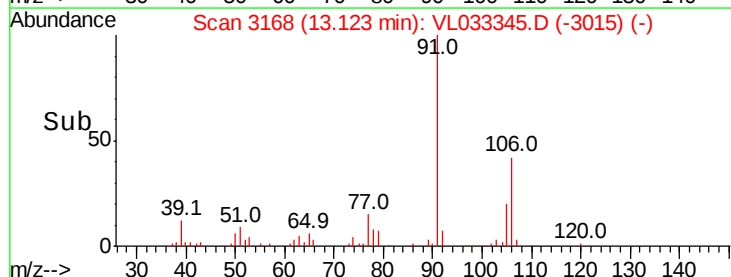
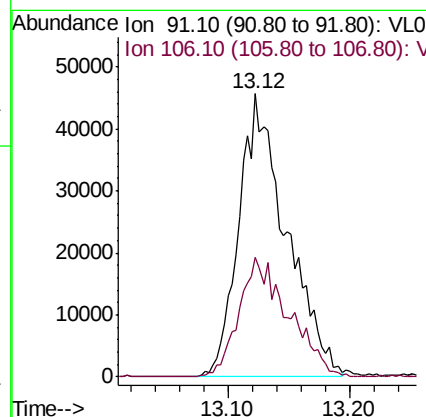
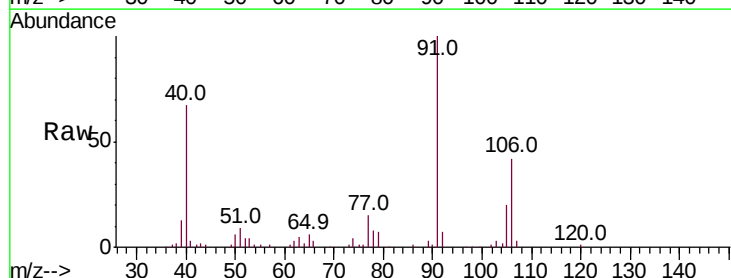
Acq: 16 Mar 2019 00:24

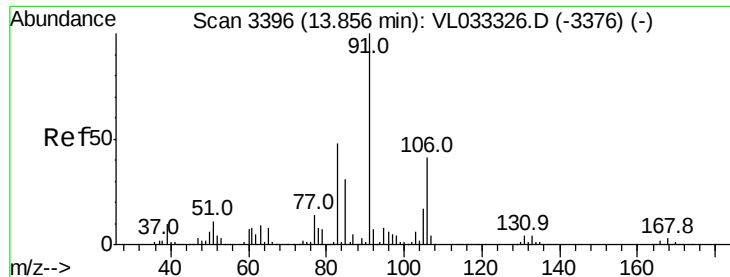
Tgt Ion: 91 Resp: 122962

Ion Ratio Lower Upper

91 100

106 0.0 0.0 0.0





#60

o-Xylene

Concen: 0.209 ppbv

RT: 13.85 min Scan# 3395

Delta R.T. -0.00 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

Instrument :

MSVOA_L

ClientSampled :

A-7

Tot Ion: 91 Resp: 41921

Ion Ratio Lower Upper

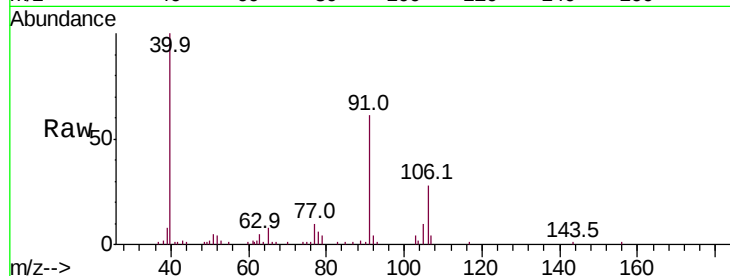
91 100

106 44.4 21.3 63.9

Manual Integrations
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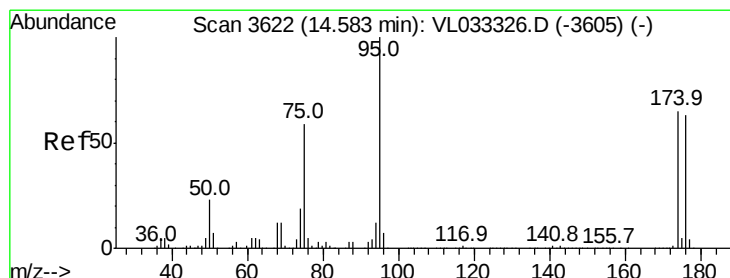
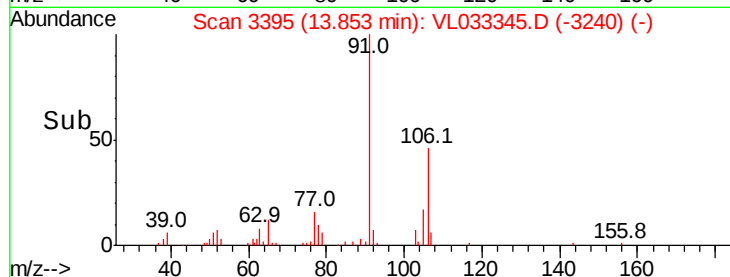
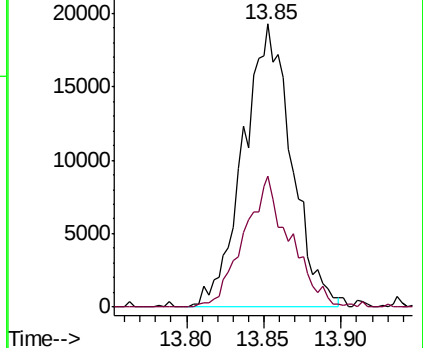
MMDadoda

3/19/2019 10:01:30 AM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.050 ppbv

RT: 14.58 min Scan# 3622

Delta R.T. 0.00 min

Lab File: VL033345.D

Acq: 16 Mar 2019 00:24

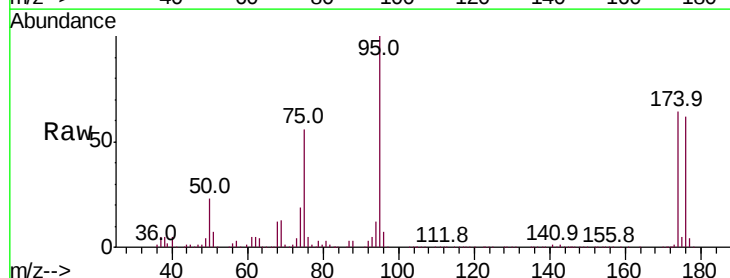
Tgt Ion: 95 Resp: 1262201

Ion Ratio Lower Upper

95 100

174 64.3 51.5 77.3

175 4.7 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

