

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071918\
 Data File : VL032297.D
 Acq On : 19 Jul 2018 20:56
 Operator : SY/AP
 Sample : J4063-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 STORAGE-RM-19-0717-02

Manual Integrations
 APPROVED

MMDadoda
 7/20/2018 2:06:20 PM

Quant Time: Jul 20 13:45:47 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL071818AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jul 18
 QLast Update : Wed Jul 18 14:38:53 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.84	49	1539545	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.37	114	3221119	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.33	117	3640422	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.67	95	2927085	9.92	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.13	85	69978	0.27	ppbv	98
3) Chlorodifluoromethane	3.06	51	354437	2.05	ppbv	94
4) Chloromethane	3.22	50	50867	0.50	ppbv	89
9) Propene	3.10	41	41002	0.54	ppbv	84
11) Trichlorofluoromethane	4.06	101	53161m	0.26	ppbv	
13) Ethanol	3.75	45	375233	17.39	ppbv	97
15) Acetone	3.96	43	1647322	10.22	ppbv	95
19) Isopropyl Alcohol	4.13	45	159720	1.47	ppbv #	1
20) Methylene Chloride	4.47	84	502153	8.09	ppbv	97
26) Hexane	5.85	57	709021	4.40	ppbv #	46
34) 2-Butanone	5.40	43	155631	0.70	ppbv	96
35) Carbon Tetrachloride	7.22	117	15587m	0.07	ppbv	
36) Benzene	7.09	78	40250	0.13	ppbv	93
37) 1,2-Dichloroethane	6.49	62	75199	0.40	ppbv	96
41) Tetrahydrofuran	6.23	42	14085	0.11	ppbv #	90
44) 2,2,4-Trimethylpentane	8.07	57	64586m	0.12	ppbv	
53) Toluene	10.04	91	398874	1.04	ppbv	96
58) Ethyl Benzene	12.96	91	70694	0.14	ppbv	95
59) m/p-Xylene	13.21	91	156638	0.36	ppbv	100
60) o-Xylene	13.94	91	68812m	0.16	ppbv	
61) Styrene	13.78	104	36386m	0.11	ppbv	
73) 1,3,5-Trimethylbenzene	16.25	105	48547m	0.10	ppbv	
74) 1,2,4-Trimethylbenzene	17.02	105	134678	0.26	ppbv #	68
76) 1,4-Dichlorobenzene	17.39	146	84537	0.30	ppbv	94

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

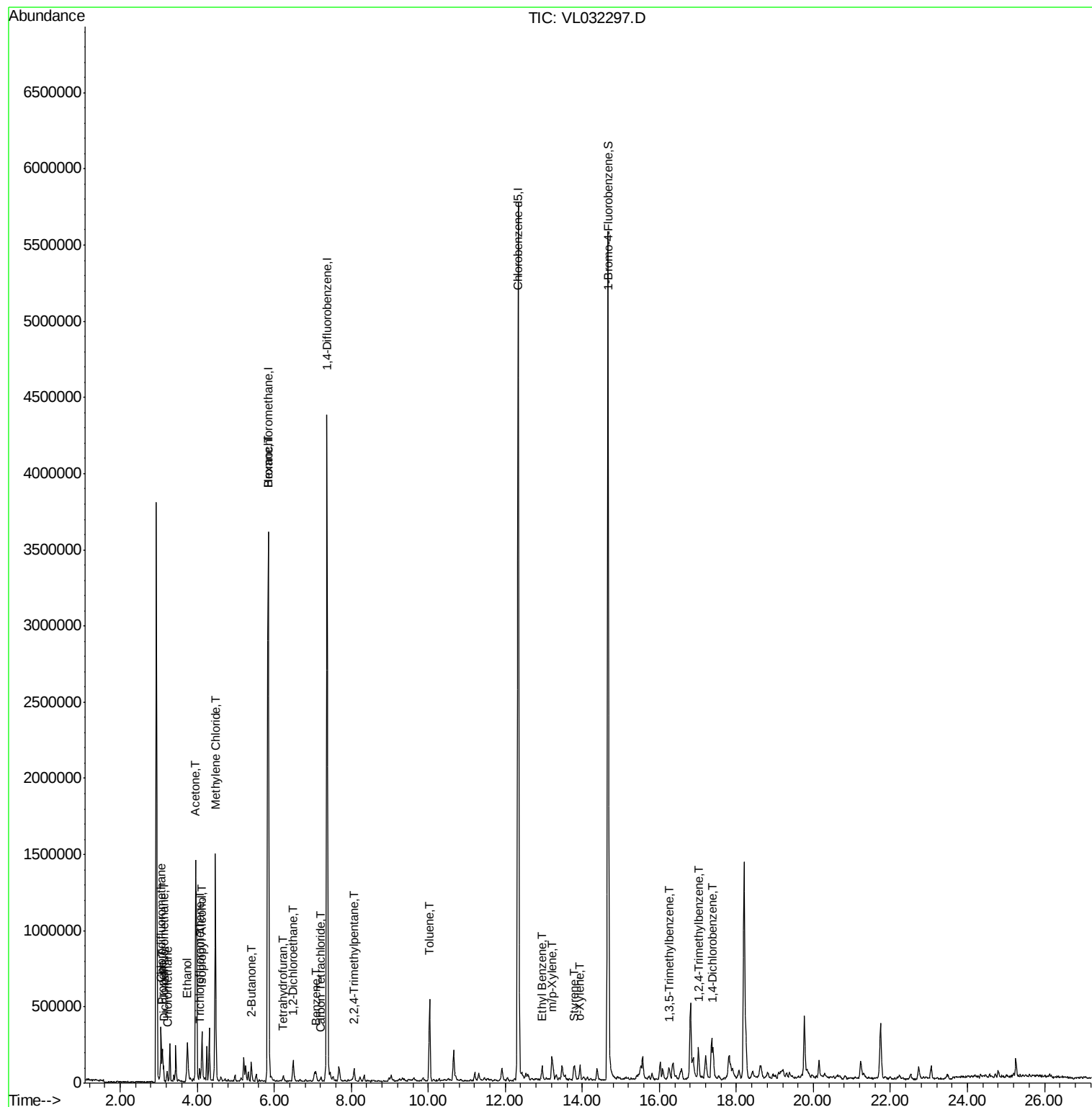
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL071918\
Data File : VL032297.D
Acq On : 19 Jul 2018 20:56
Operator : SY/AP
Sample : J4063-02
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

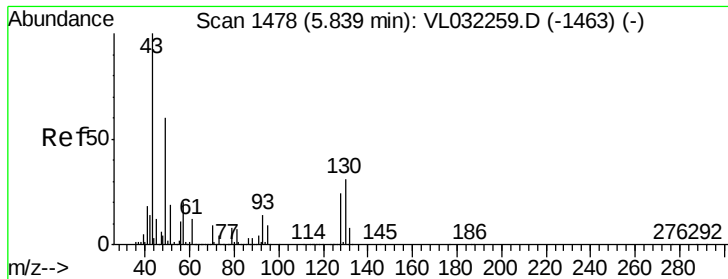
Instrument :
MSVOA_L
ClientSampleId :
STORAGE-RM-19-0717-02

Manual Integrations
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MMDadoda
7/20/2018 2:06:20 PM

Quant Time: Jul 20 13:45:47 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL071818AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul
QLast Update : Wed Jul 18 14:38:53 2018
Response via : Initial Calibration





#1

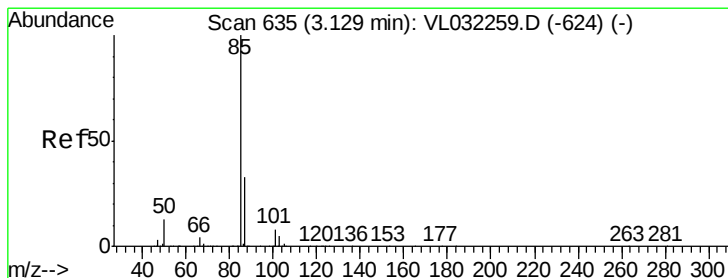
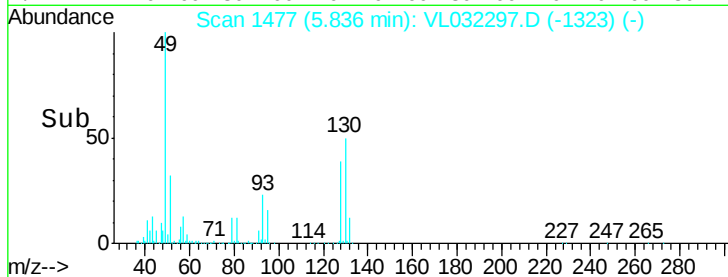
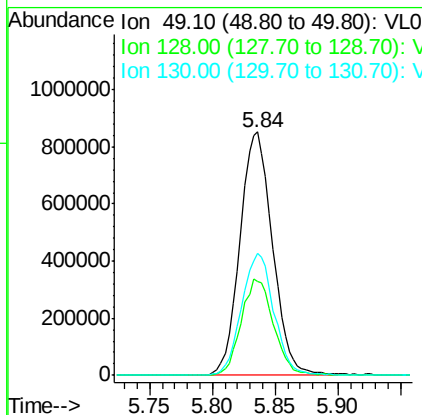
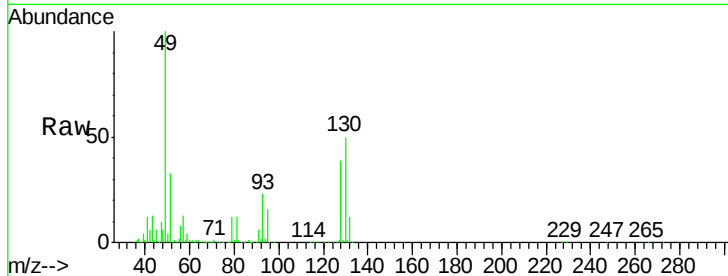
Bromochloromethane
 Concen: 10.00 ppbv
 RT: 5.84 min Scan# 1477
 Delta R.T. -0.00 min
 Lab File: VL032297.D
 Acq: 19 Jul 2018 20:56

Instrument :
 MSVOA_L
 ClientSampleId :
 STORAGE-RM-19-0717-02

Tot Ion	Ratio	Lower	Upper
49	100		
128	39.8	20.1	60.2
130	49.9	25.9	77.6

Manual Integrations
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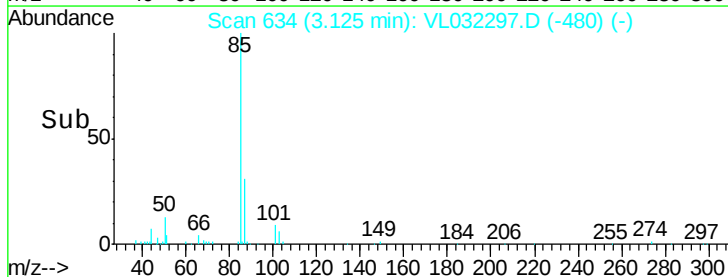
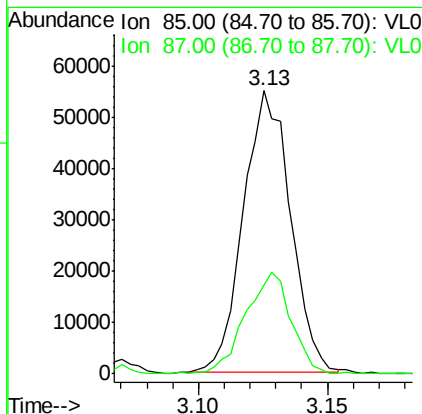
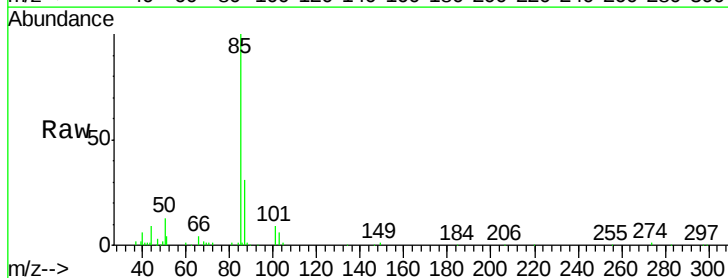
MMDadoda
 7/20/2018 2:06:20 PM

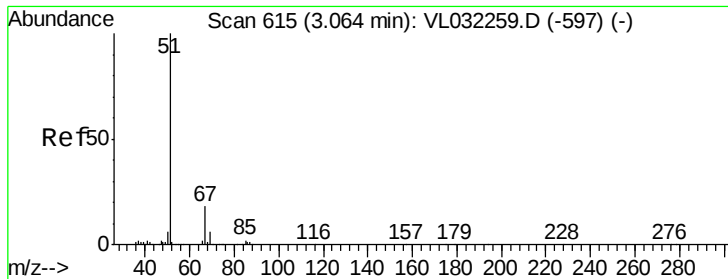


#2

Dichlorodifluoromethane
 Concen: 0.27 ppbv
 RT: 3.13 min Scan# 634
 Delta R.T. -0.00 min
 Lab File: VL032297.D
 Acq: 19 Jul 2018 20:56

Tgt Ion	Ratio	Lower	Upper
85	100		
87	31.6	26.2	39.2





#3

Chlorodifluoromethane

Concen: 2.05 ppbv

RT: 3.06 min Scan# 615

Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion: 51 Resp: 354437

Ion Ratio Lower Upper

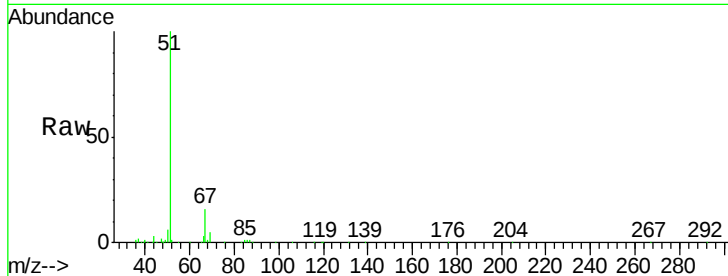
51 100

67 15.1 14.2 21.4

Manual Integrations
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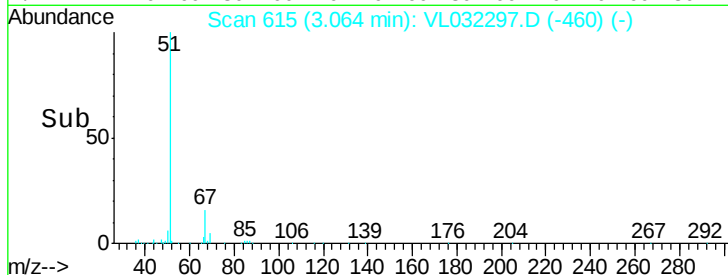
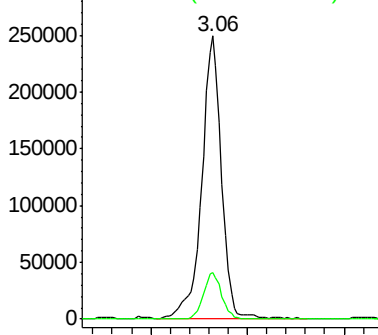
MMDadoda

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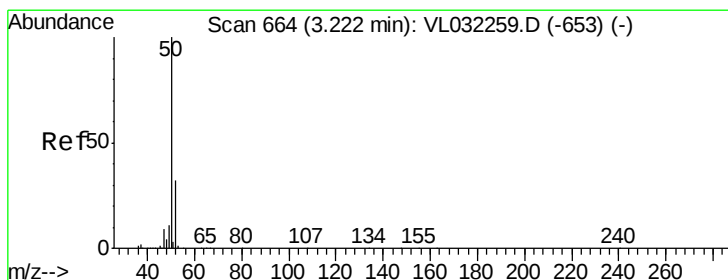


Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



Time-->



#4

Chloromethane

Concen: 0.50 ppbv

RT: 3.22 min Scan# 664

Delta R.T. -0.00 min

Lab File: VL032297.D

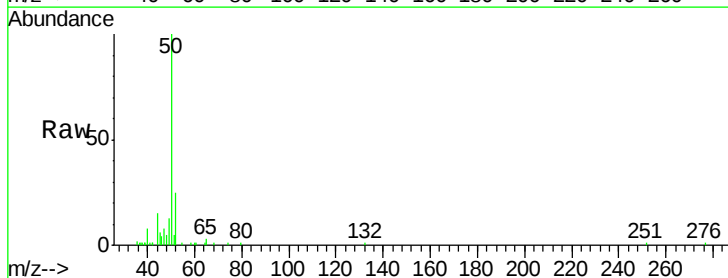
Acq: 19 Jul 2018 20:56

Tgt Ion: 50 Resp: 50867

Ion Ratio Lower Upper

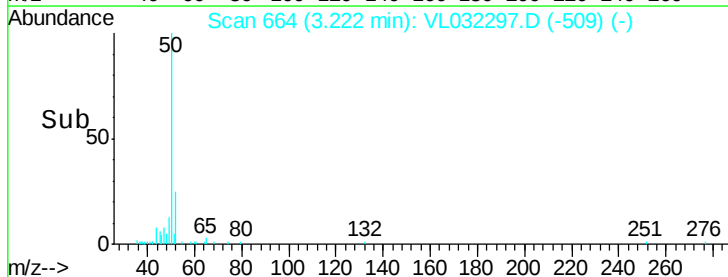
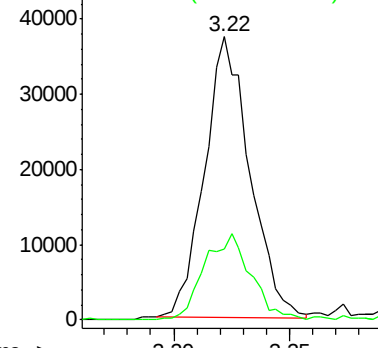
50 100

52 25.5 25.3 37.9

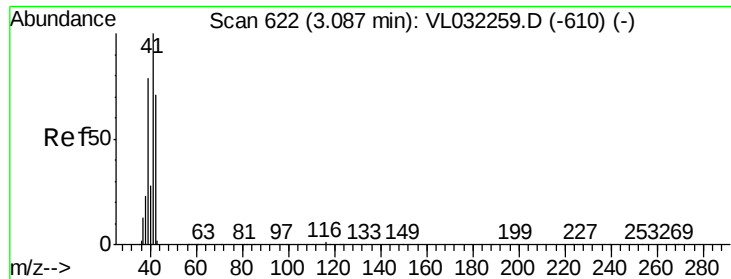


Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



Time-->



#9

Propene

Concen: 0.54 ppbv

RT: 3.10 min Scan# 625

Delta R.T. 0.01 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion: 41 Resp: 41002

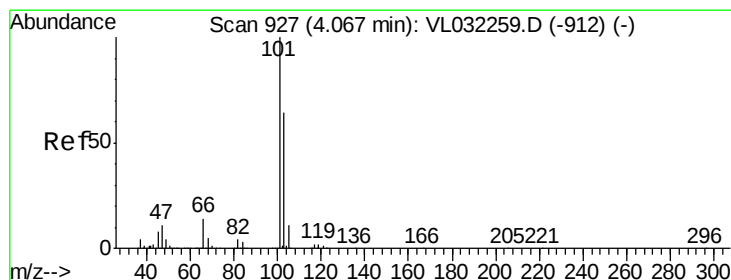
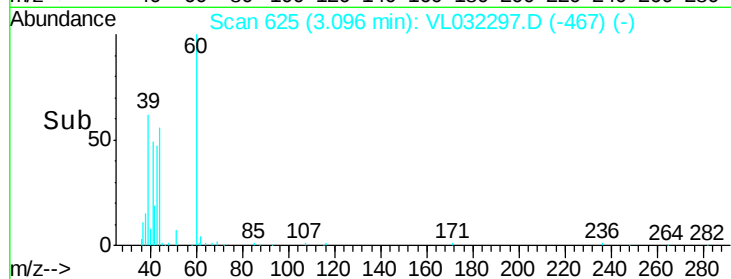
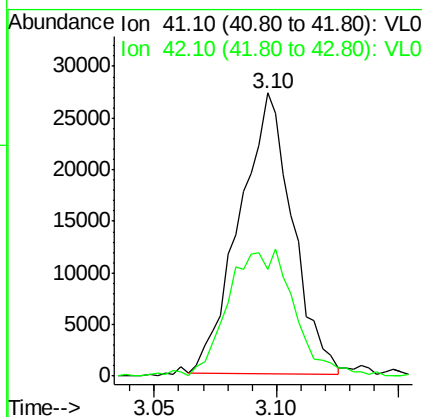
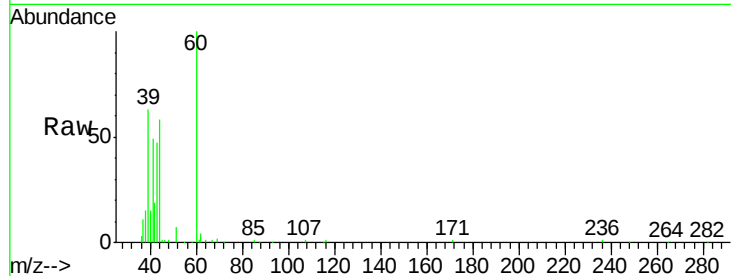
Ion Ratio Lower Upper

41 100

42 57.1 56.2 84.4

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#11

Trichlorofluoromethane

Concen: 0.26 ppbv m

RT: 4.06 min Scan# 925

Delta R.T. -0.01 min

Lab File: VL032297.D

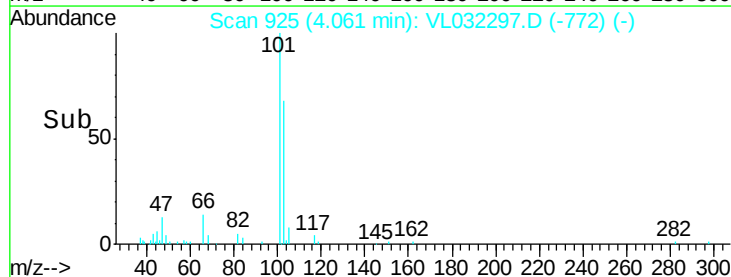
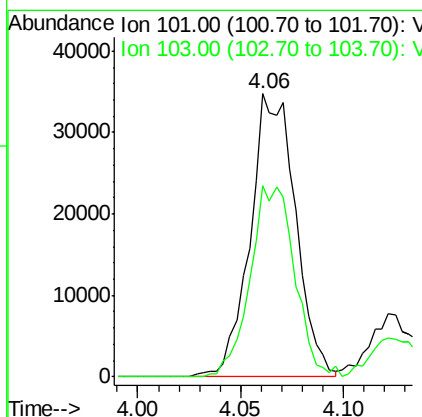
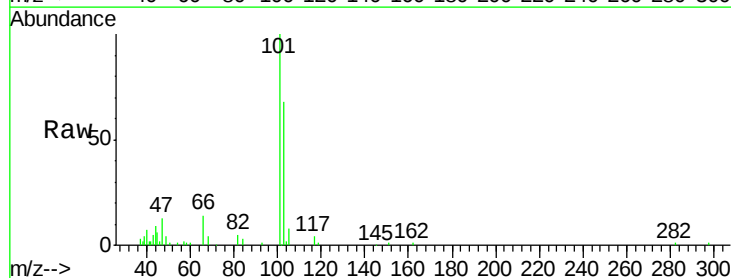
Acq: 19 Jul 2018 20:56

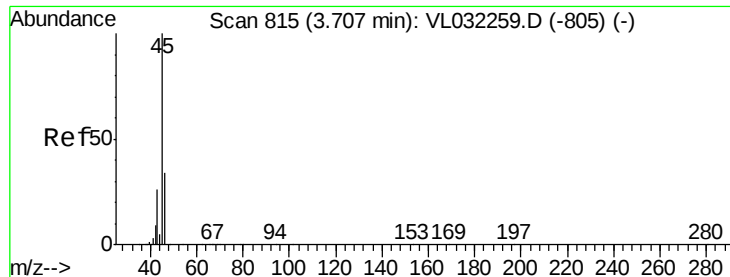
Tgt Ion: 101 Resp: 53161

Ion Ratio Lower Upper

101 100

103 67.7 51.5 77.3





#13

Ethanol

Concen: 17.39 ppbv

RT: 3.75 min Scan# 829

Delta R.T. 0.04 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion: 45 Resp: 375233

Ion Ratio Lower Upper

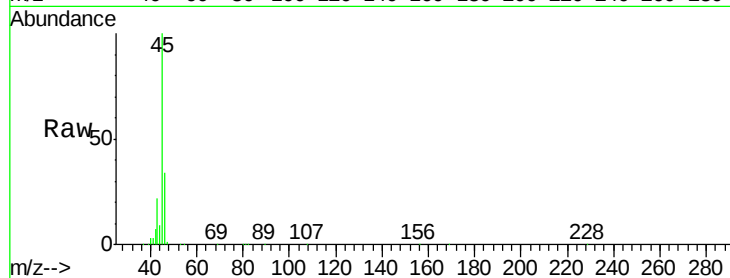
45 100

46 36.2 15.2 60.8

Manual Integrations
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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

3.75

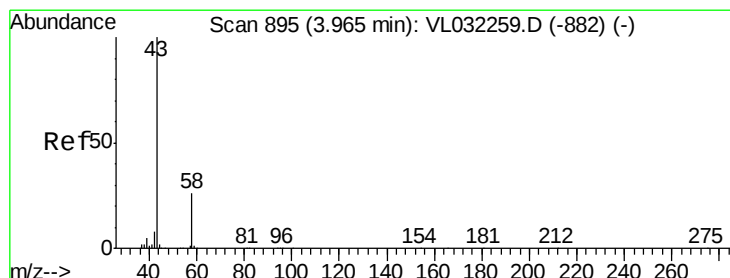
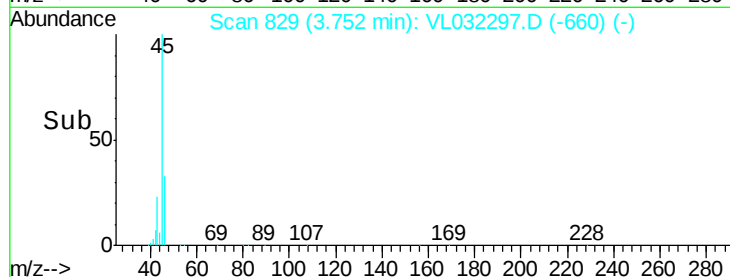
150000

100000

50000

0

Time-->



#15

Acetone

Concen: 10.22 ppbv

RT: 3.96 min Scan# 894

Delta R.T. -0.00 min

Lab File: VL032297.D

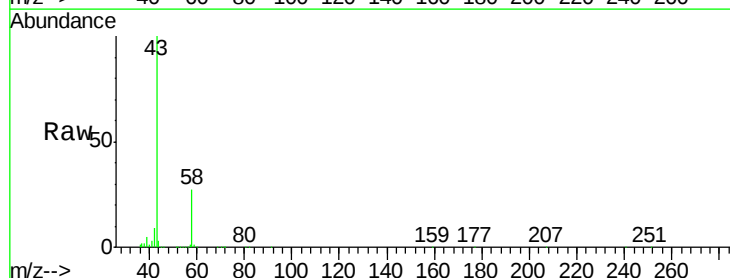
Acq: 19 Jul 2018 20:56

Tgt Ion: 43 Resp: 1647322

Ion Ratio Lower Upper

43 100

58 24.7 21.8 32.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.96

1000000

800000

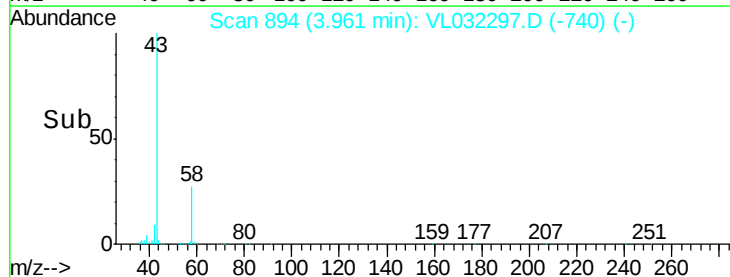
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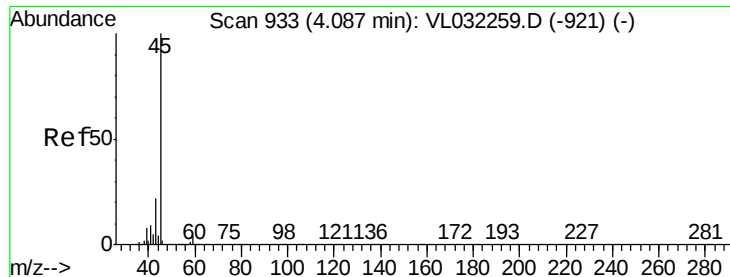
400000

200000

0

Time-->





#19

Isopropyl Alcohol

Concen: 1.47 ppbv

RT: 4.13 min Scan# 945

Delta R.T. 0.04 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion: 45 Resp: 159720

Ion Ratio Lower Upper

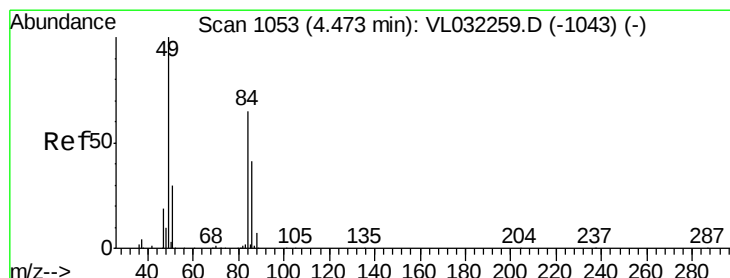
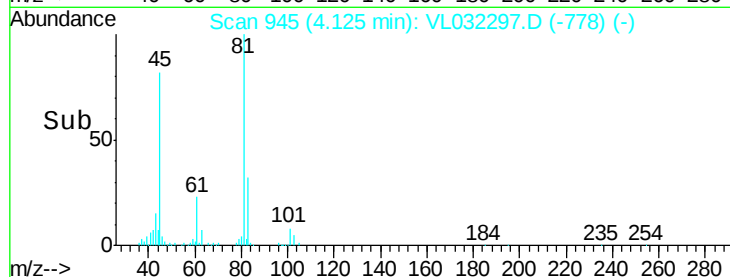
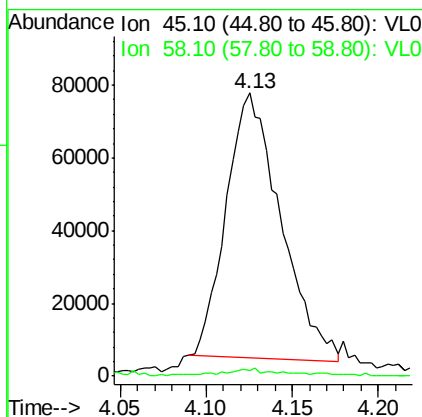
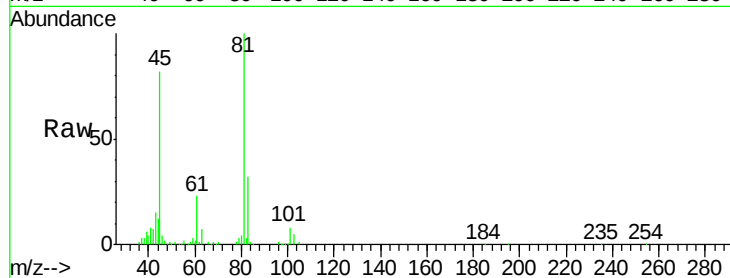
45 100

58 254.5 1.5 2.3#

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#20

Methylene Chloride

Concen: 8.09 ppbv

RT: 4.47 min Scan# 1053

Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Tgt Ion: 84 Resp: 502153

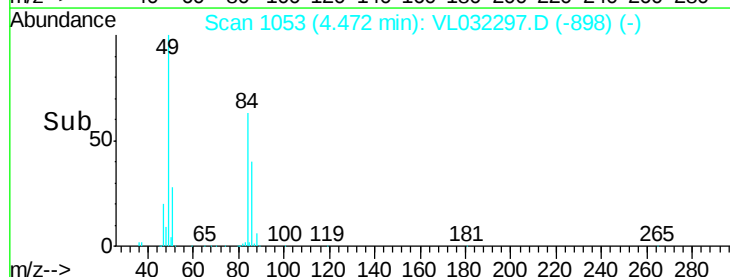
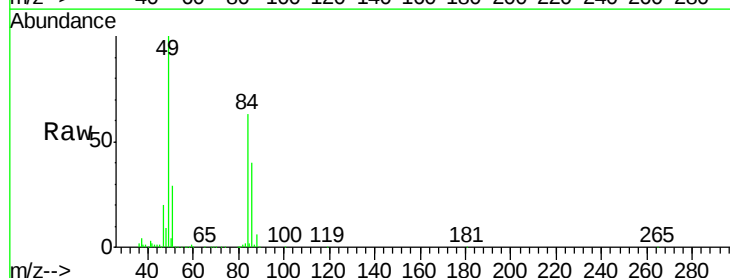
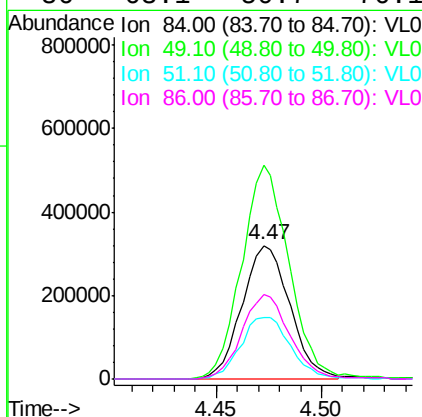
Ion Ratio Lower Upper

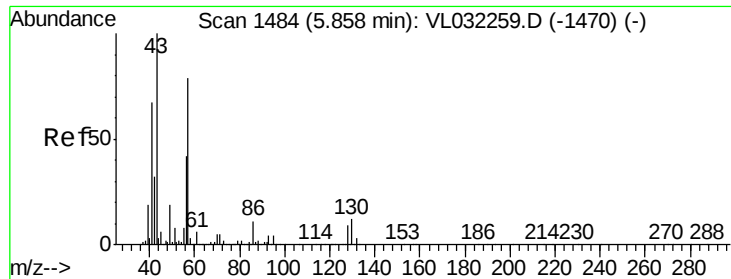
84 100

49 159.5 122.4 183.6

51 45.7 36.8 55.2

86 63.1 50.7 76.1





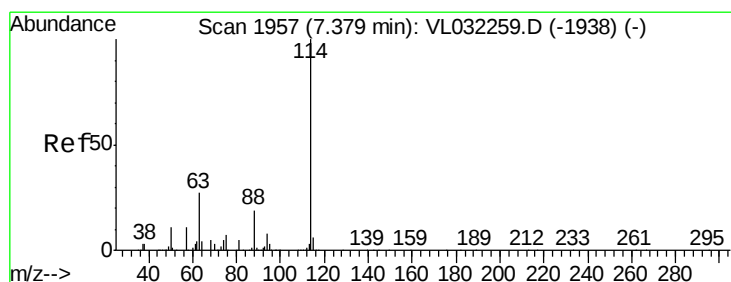
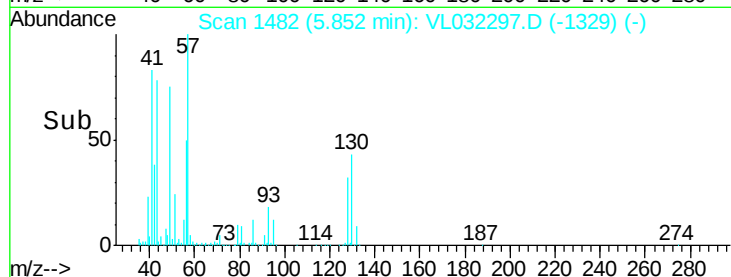
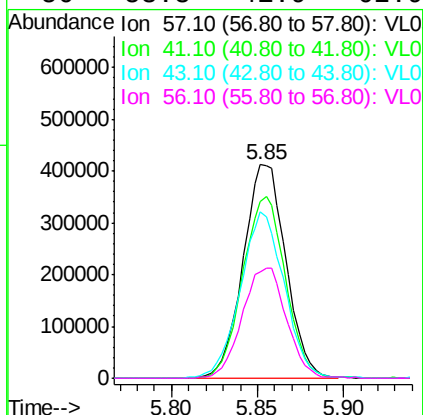
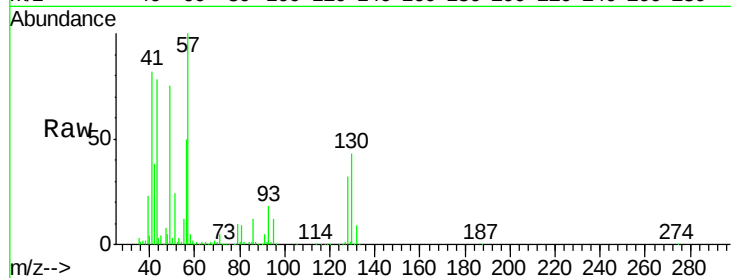
#26
Hexane
Concen: 4.40 ppbv
RT: 5.85 min Scan# 1482
Delta R.T. -0.01 min
Lab File: VL032297.D
Acq: 19 Jul 2018 20:56

Instrument :
MSVOA_L
ClientSampleId :
STORAGE-RM-19-0717-02

Tot Ion	57	Resp	709021
Ion Ratio	Lower	Upper	
57	100		
41	85.6	67.9	101.9
43	80.1	175.9	263.9#
56	53.8	41.9	62.9

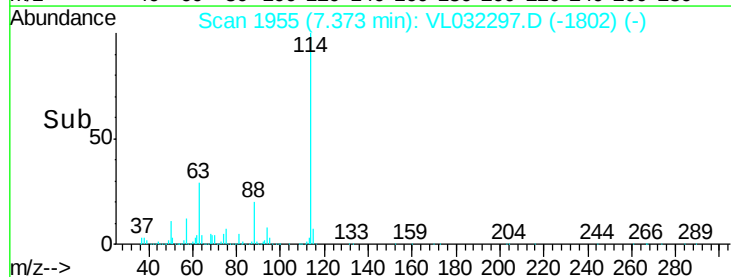
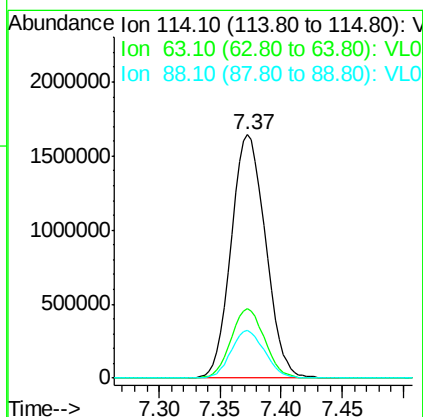
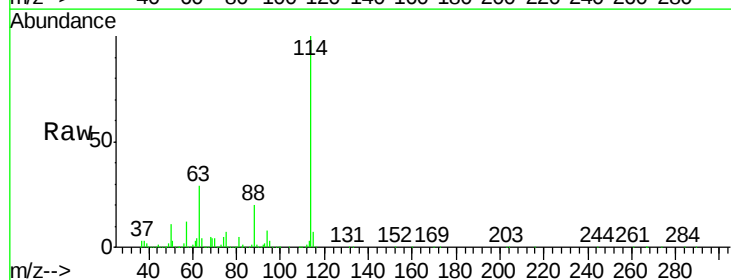
Manual Integrations
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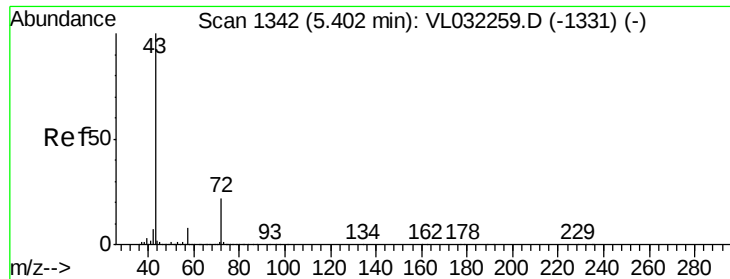
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#33
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 7.37 min Scan# 1955
Delta R.T. -0.01 min
Lab File: VL032297.D
Acq: 19 Jul 2018 20:56

Tgt Ion	114	Resp	3221119
Ion Ratio	Lower	Upper	
114	100		
63	28.1	22.6	33.8
88	19.2	15.2	22.8





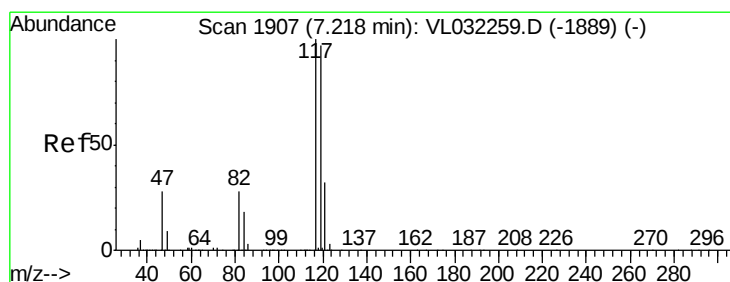
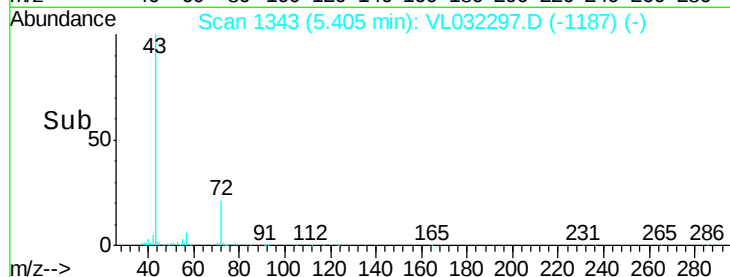
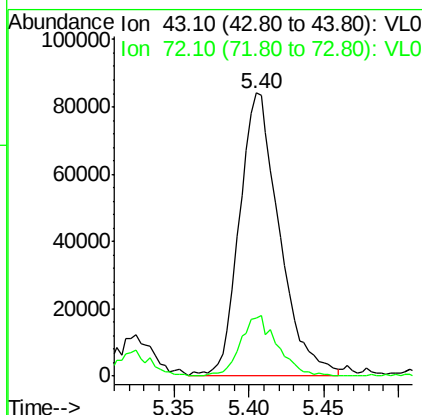
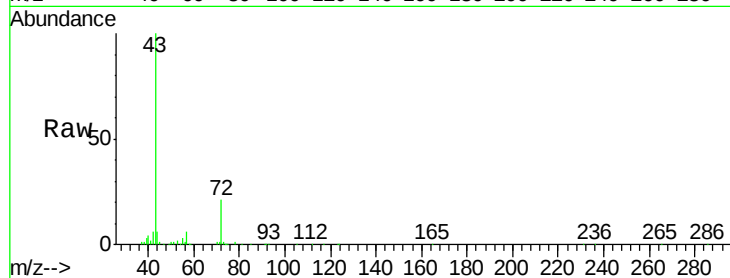
#34
2-Butanone
Concen: 0.70 ppbv
RT: 5.40 min Scan# 1343
Delta R.T. 0.00 min
Lab File: VL032297.D
Acq: 19 Jul 2018 20:56

Instrument :
MSVOA_L
ClientSampleId :
STORAGE-RM-19-0717-02

Tot Ion: 43 Resp: 155631
Ion Ratio Lower Upper
43 100
72 20.1 17.7 26.5

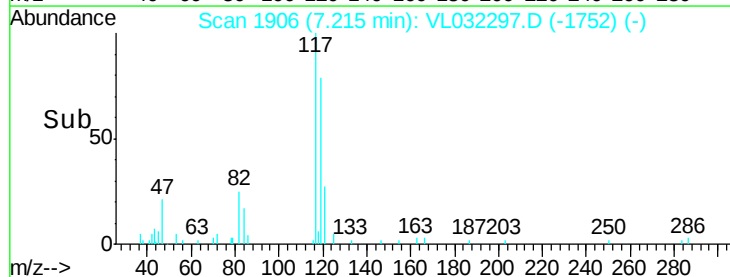
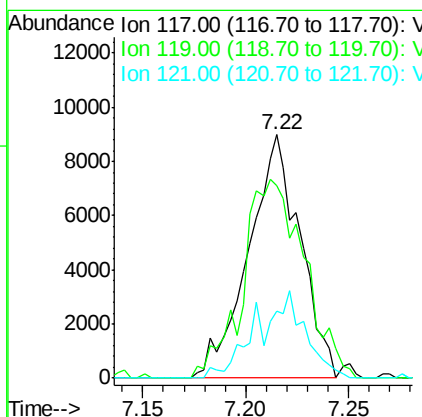
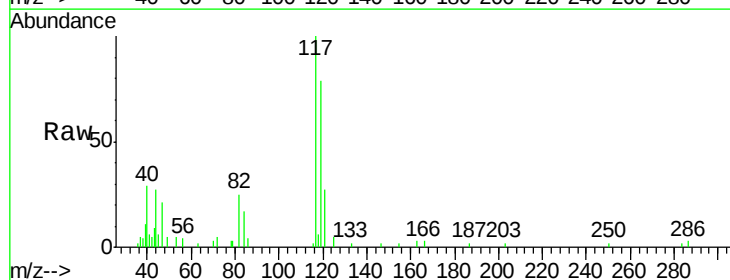
Manual Integrations
APPROVED

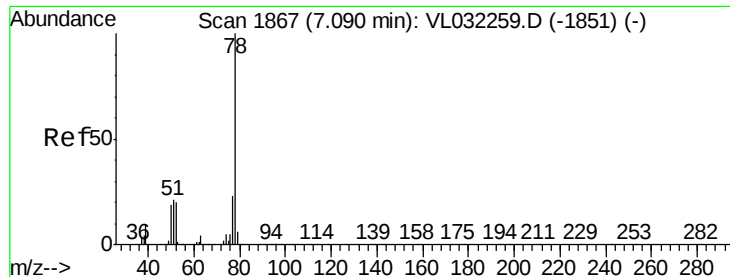
MMDadoda
7/20/2018 2:06:20 PM



#35
Carbon Tetrachloride
Concen: 0.07 ppbv m
RT: 7.22 min Scan# 1906
Delta R.T. -0.00 min
Lab File: VL032297.D
Acq: 19 Jul 2018 20:56

Tgt Ion: 117 Resp: 15587
Ion Ratio Lower Upper
117 100
119 79.0 77.4 116.0
121 27.5 25.4 38.2





#36

Benzene

Concen: 0.13 ppbv

RT: 7.09 min Scan# 1866

Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

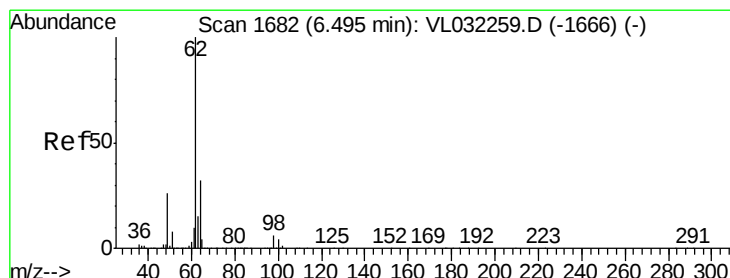
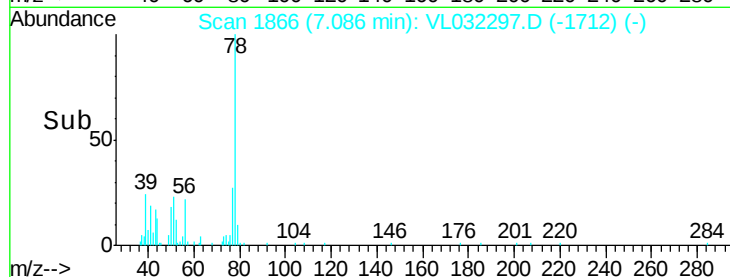
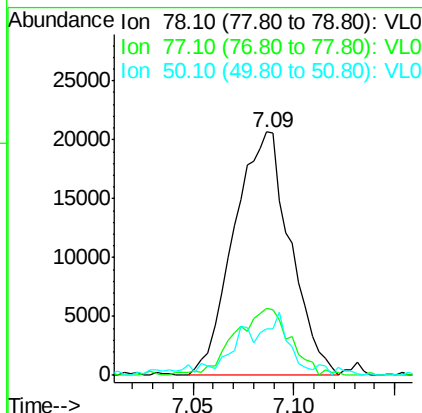
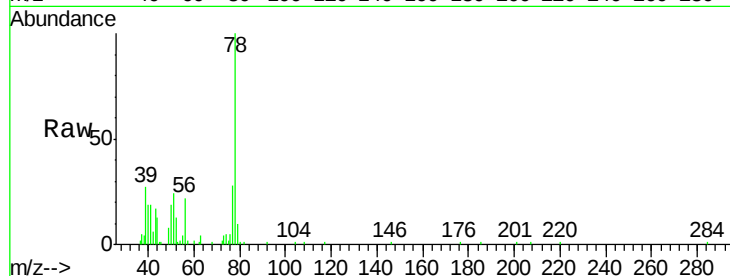
ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion:	78	Resp:	40250
Ion	Ratio	Lower	Upper
78	100		
77	26.3	18.6	27.8
50	15.2	15.0	22.6

Manual Integrations
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#37

1,2-Dichloroethane

Concen: 0.40 ppbv

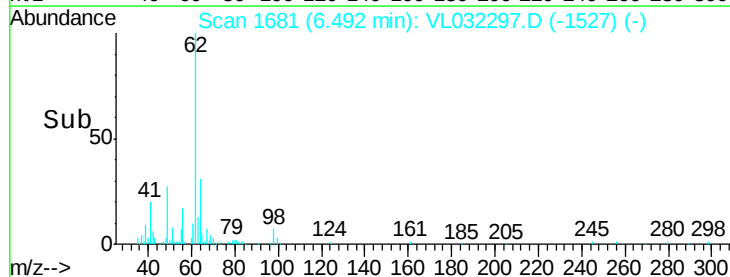
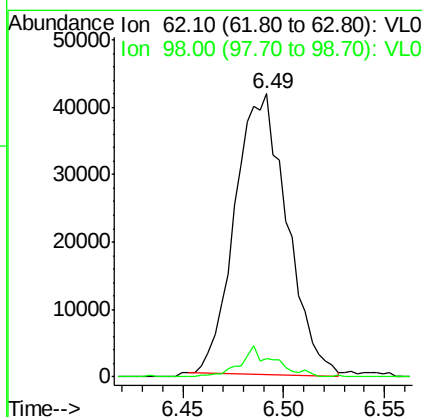
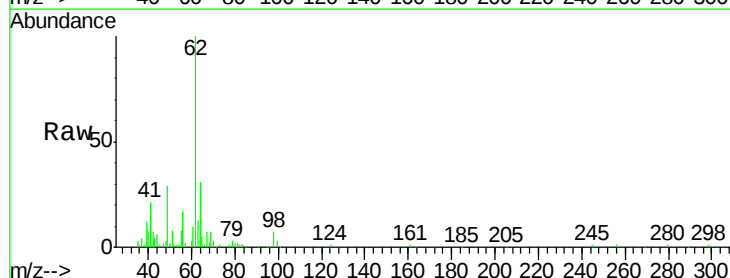
RT: 6.49 min Scan# 1681

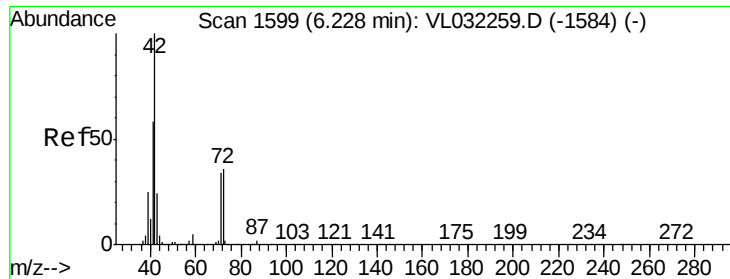
Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Tgt Ion:	62	Resp:	75199
Ion	Ratio	Lower	Upper
62	100		
98	7.3	4.9	7.3





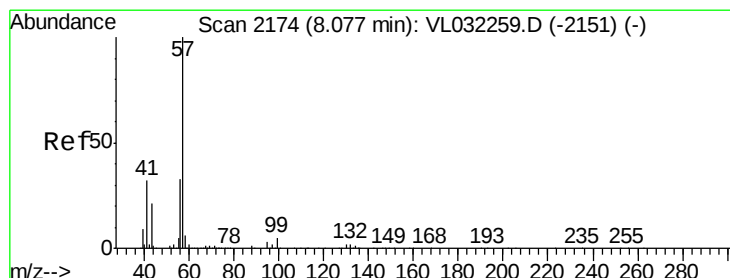
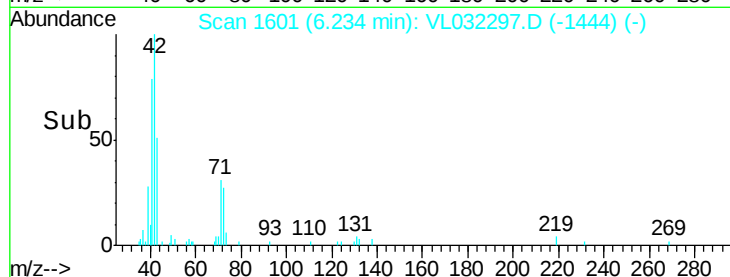
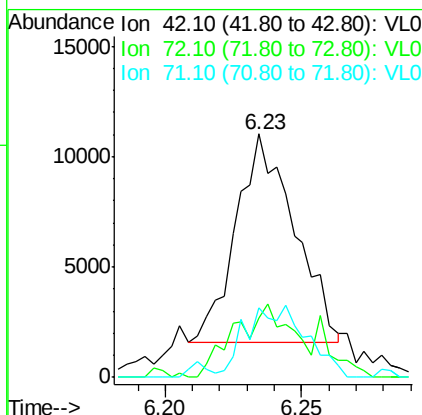
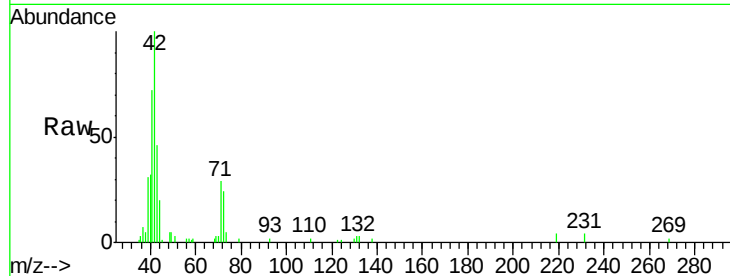
#41
Tetrahydrofuran
Concen: 0.11 ppbv
RT: 6.23 min Scan# 1601
Delta R.T. 0.01 min
Lab File: VL032297.D
Acq: 19 Jul 2018 20:56

Instrument :
MSVOA_L
ClientSampleId :
STORAGE-RM-19-0717-02

Tot Ion	Ratio	Resp Lower	Upper
42	100		
72	44.6	29.4	44.0#
71	38.8	28.2	42.4

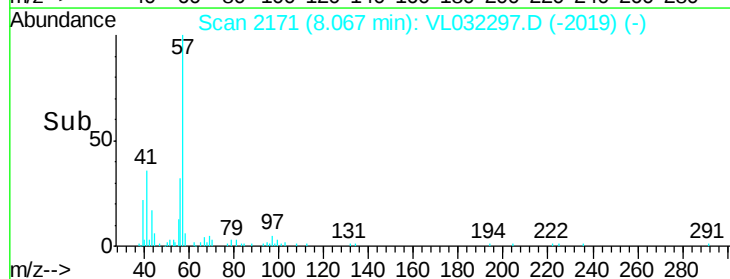
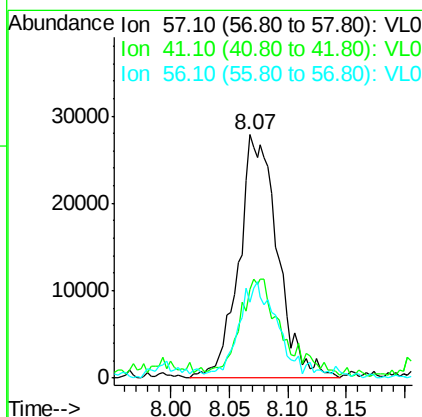
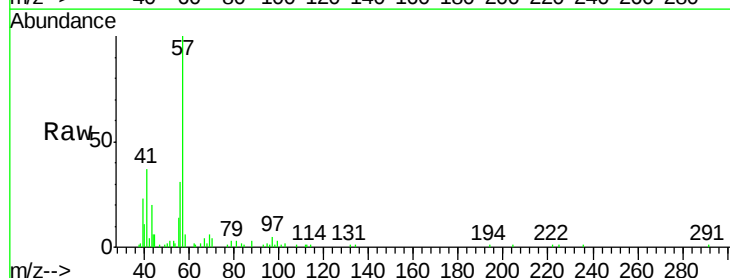
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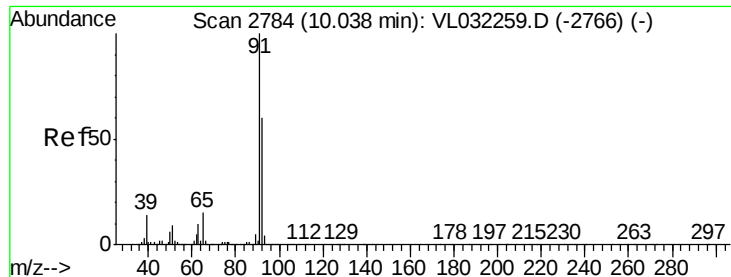
MMDadoda
7/20/2018 2:06:20 PM



#44
2,2,4-Trimethylpentane
Concen: 0.12 ppbv m
RT: 8.07 min Scan# 2171
Delta R.T. -0.01 min
Lab File: VL032297.D
Acq: 19 Jul 2018 20:56

Tgt Ion	Ratio	Resp Lower	Upper
57	100		
41	0.0	24.4	36.6#
56	0.0	25.7	38.5#





#53

Toluene

Concen: 1.04 ppbv

RT: 10.04 min Scan# 2784

Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion: 91 Resp: 398874

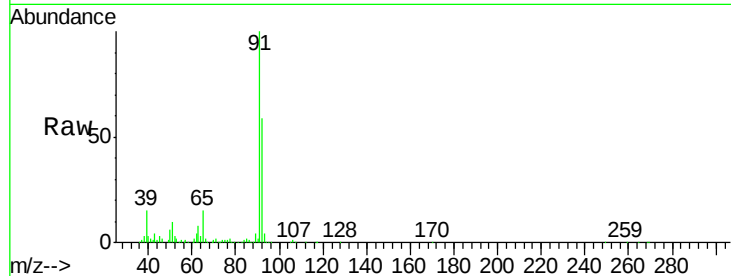
Ion Ratio Lower Upper

91 100

92 57.9 48.6 72.8

Manual Integrations
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

10.04

200000

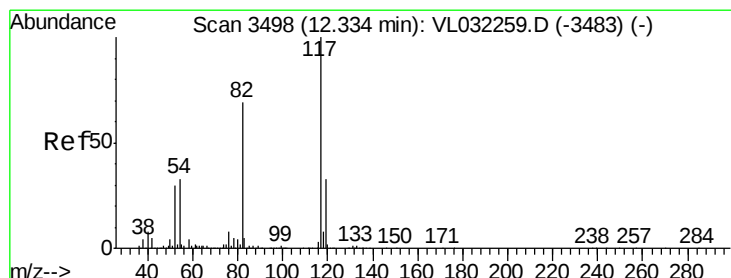
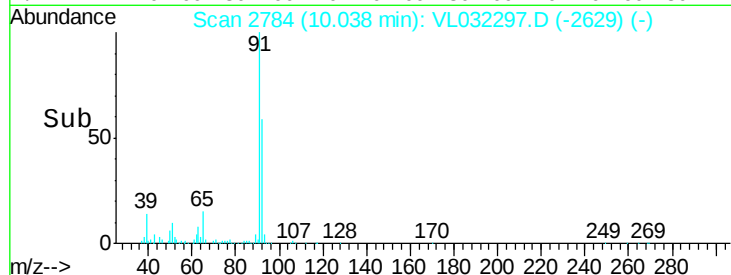
150000

100000

50000

0

Time-->



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.33 min Scan# 3498

Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

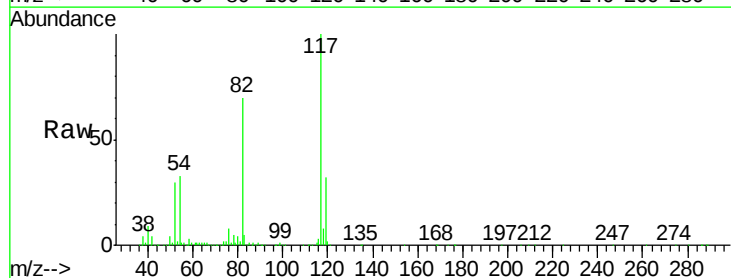
Tgt Ion: 117 Resp: 3640422

Ion Ratio Lower Upper

117 100

82 69.9 53.9 80.9

119 32.8 25.5 38.3



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

12.33

2000000

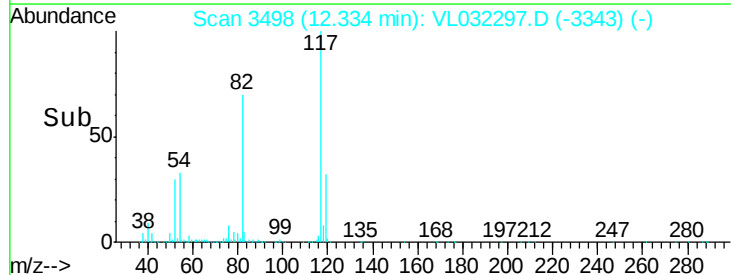
1500000

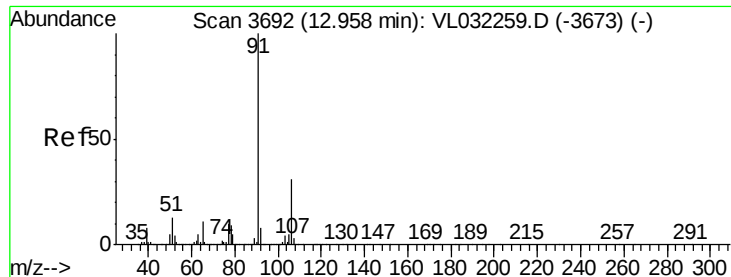
1000000

500000

0

Time-->





#58

Ethyl Benzene

Concen: 0.14 ppbv

RT: 12.96 min Scan# 3693

Delta R.T. 0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion: 91 Resp: 70694

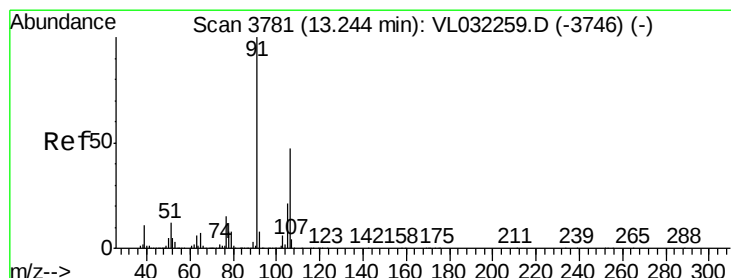
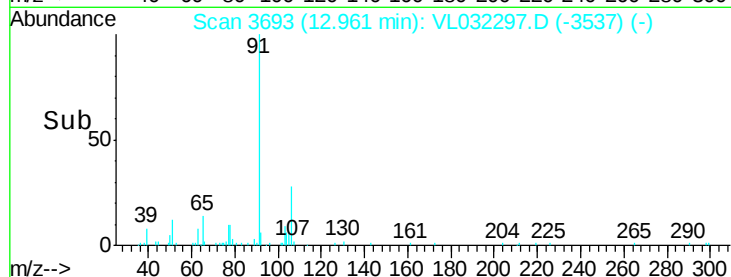
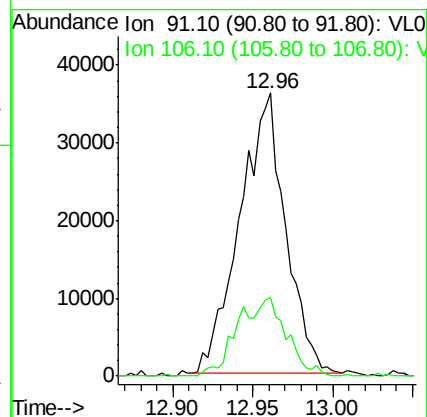
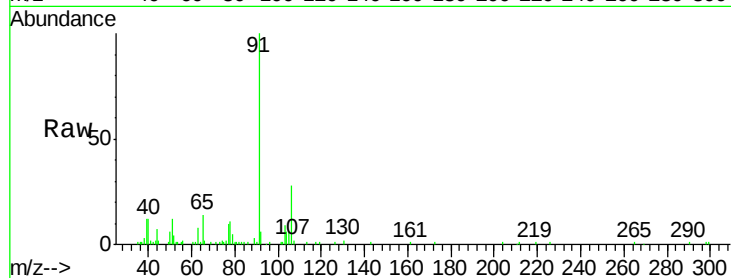
Ion Ratio Lower Upper

91 100

106 28.1 24.5 36.7

Manual Integrations
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#59

m/p-Xylene

Concen: 0.36 ppbv

RT: 13.21 min Scan# 3771

Delta R.T. -0.03 min

Lab File: VL032297.D

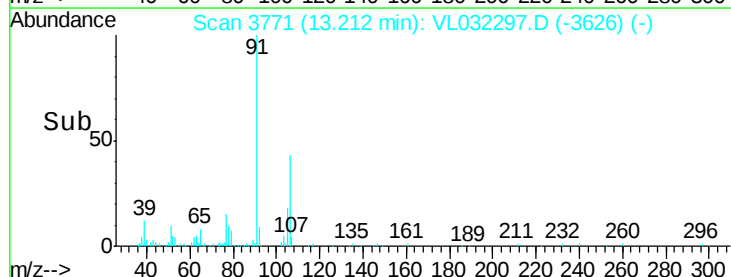
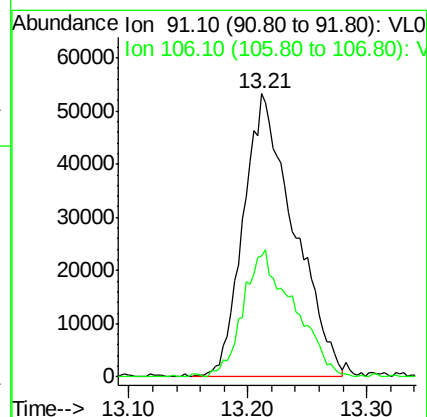
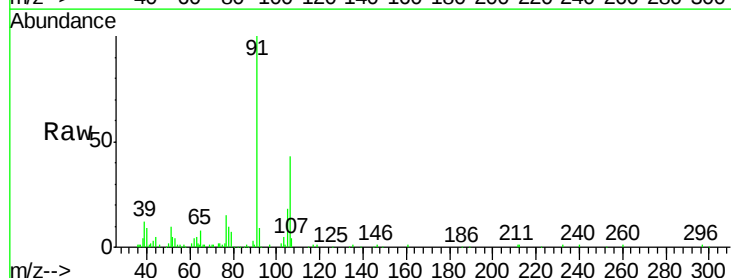
Acq: 19 Jul 2018 20:56

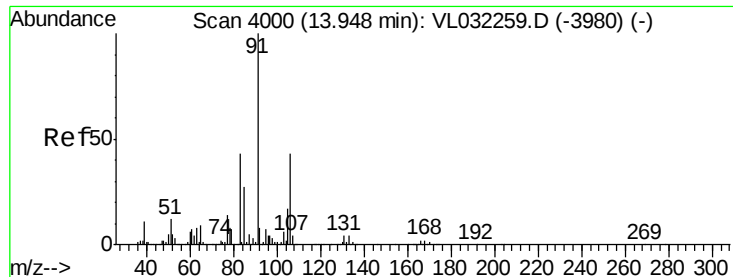
Tgt Ion: 91 Resp: 156638

Ion Ratio Lower Upper

91 100

106 44.9 36.2 54.2





#60

o-Xylene

Concen: 0.16 ppbv m

RT: 13.94 min Scan# 3997

Delta R.T. -0.01 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion: 91 Resp: 68812

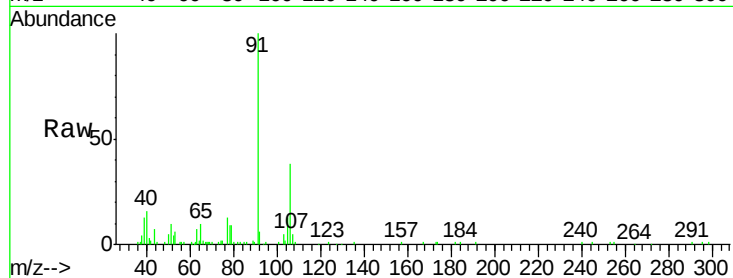
Ion Ratio Lower Upper

91 100

106 43.4 21.7 65.1

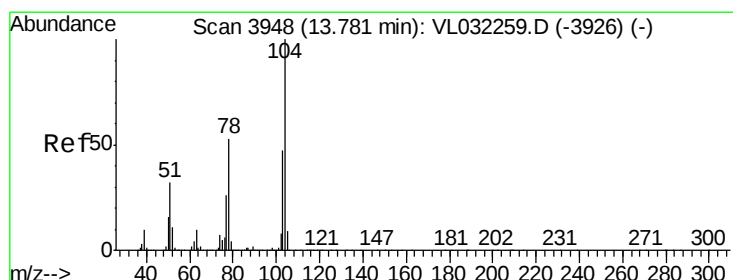
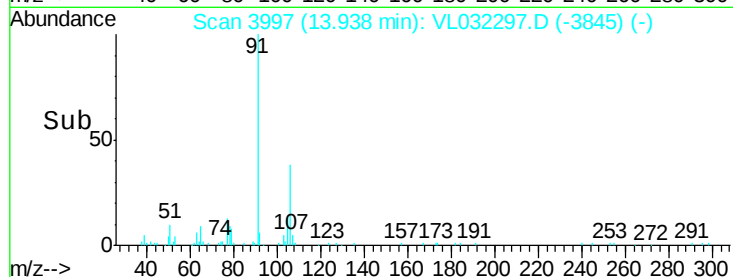
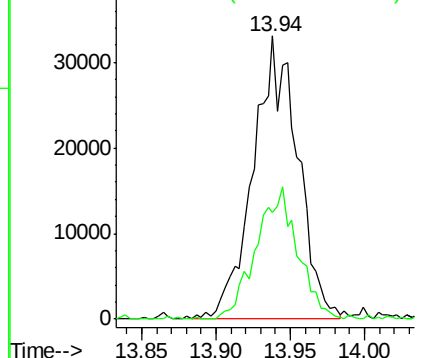
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#61

Styrene

Concen: 0.11 ppbv m

RT: 13.78 min Scan# 3947

Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

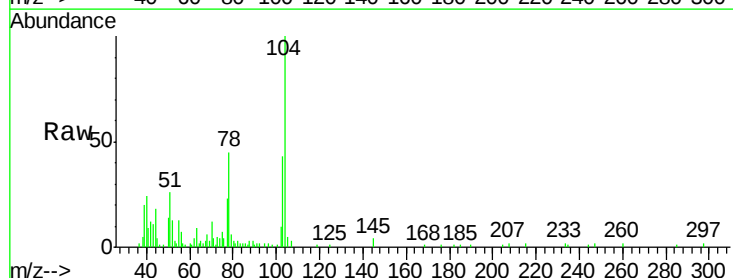
Tgt Ion: 104 Resp: 36386

Ion Ratio Lower Upper

104 100

78 62.8 43.2 64.8

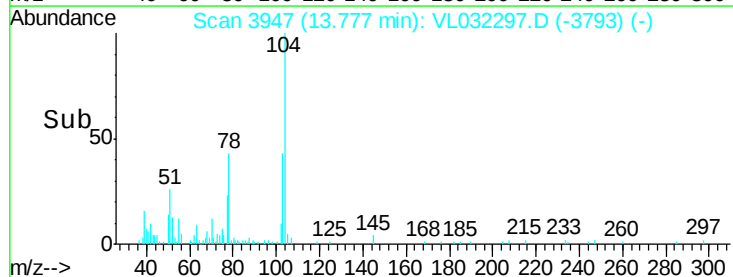
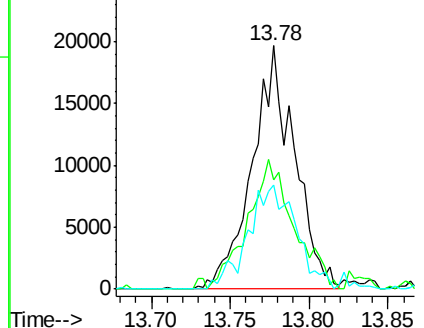
103 50.5 37.8 56.6

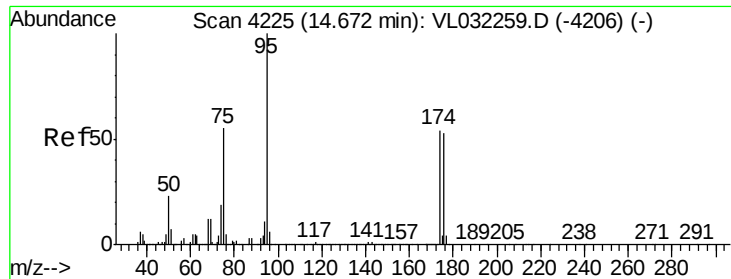


Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 9.92 ppbv

RT: 14.67 min Scan# 4224

Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion: 95 Resp: 2927085

Ion Ratio Lower Upper

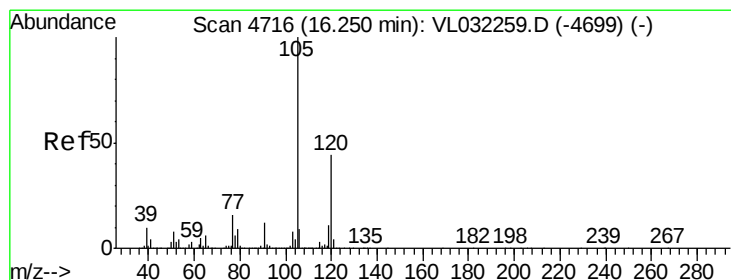
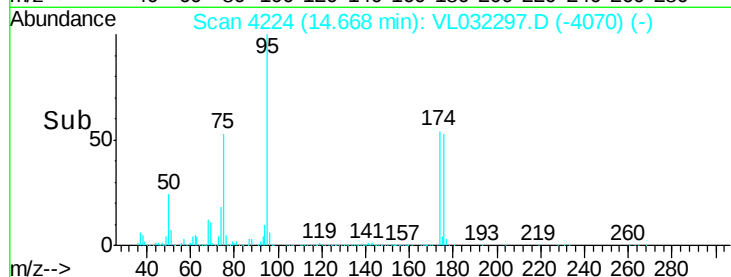
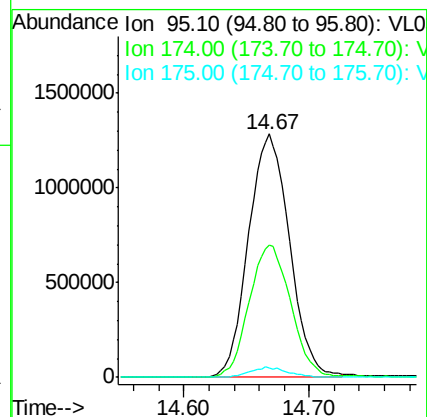
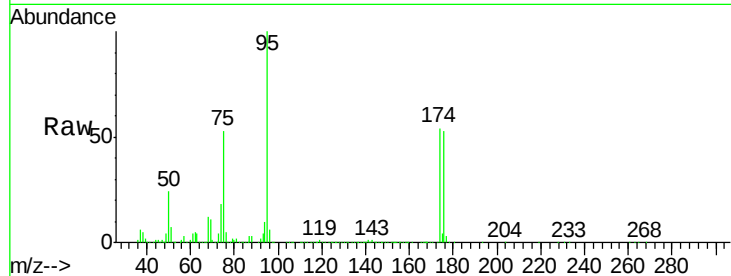
95 100

174 55.9 44.3 66.5

175 3.9 3.3 4.9

Manual Integrations
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#73

1,3,5-Trimethylbenzene

Concen: 0.10 ppbv m

RT: 16.25 min Scan# 4715

Delta R.T. -0.00 min

Lab File: VL032297.D

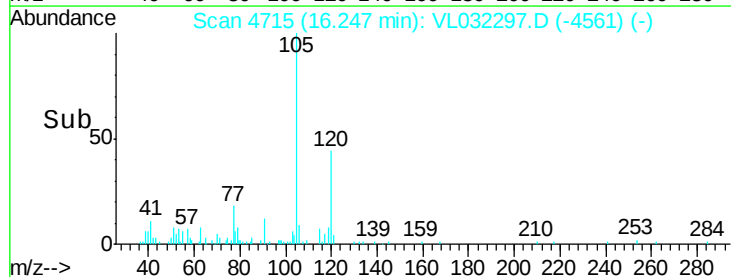
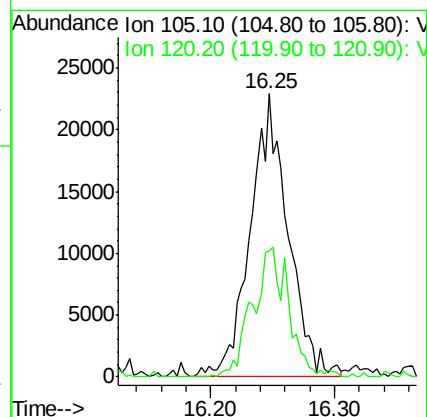
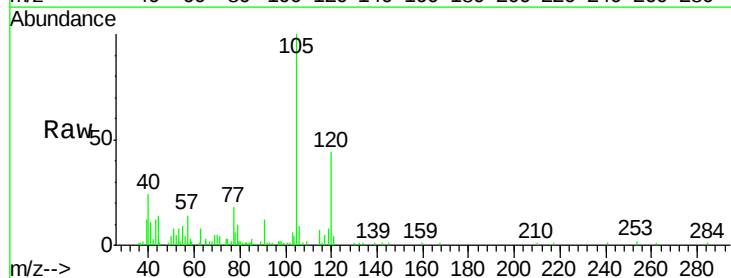
Acq: 19 Jul 2018 20:56

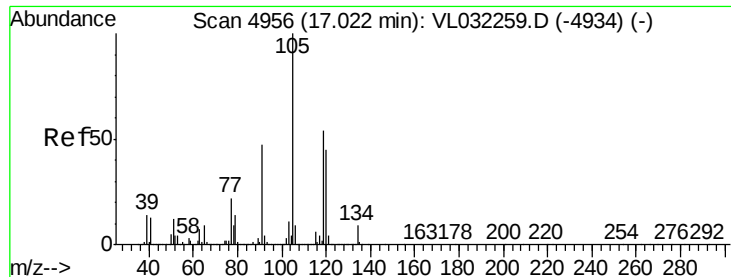
Tgt Ion: 105 Resp: 48547

Ion Ratio Lower Upper

105 100

120 44.3 35.5 53.3





#74

1,2,4-Trimethylbenzene

Concen: 0.26 ppbv

RT: 17.02 min Scan# 4955

Delta R.T. -0.00 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Instrument :

MSVOA_L

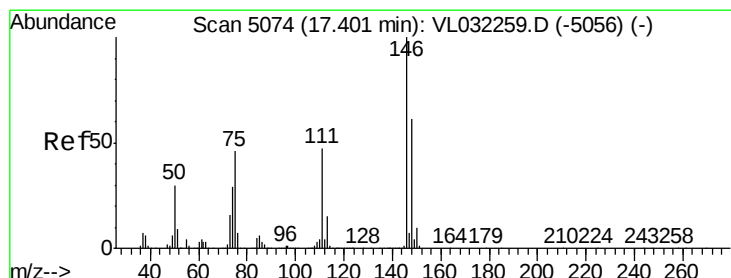
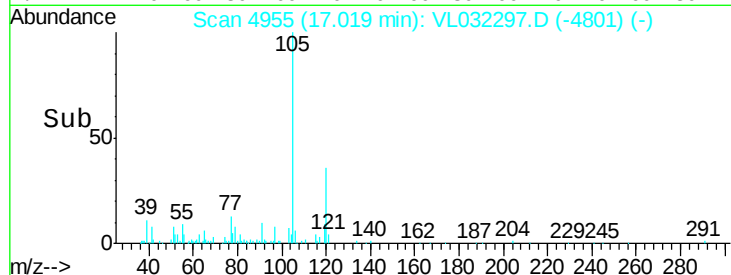
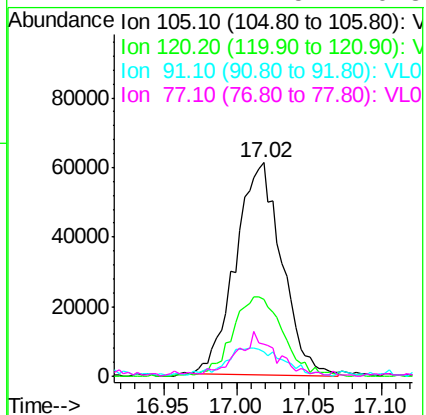
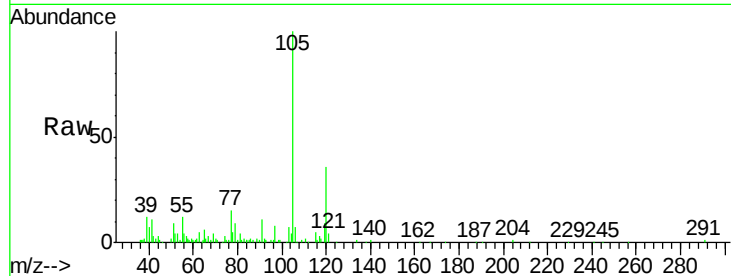
ClientSampleId :

STORAGE-RM-19-0717-02

Tot Ion	Ratio	Lower	Upper
105	100		
120	35.5	35.8	53.6#
91	10.8	38.2	57.4#
77	14.2	17.5	26.3#

Manual Integrations
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#76

1,4-Dichlorobenzene

Concen: 0.30 ppbv

RT: 17.39 min Scan# 5072

Delta R.T. -0.01 min

Lab File: VL032297.D

Acq: 19 Jul 2018 20:56

Tgt Ion	Ratio	Lower	Upper
146	100		
111	53.2	24.1	72.2
148	67.5	31.9	95.9

