

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120418\
 Data File : VL032893.D
 Acq On : 5 Dec 2018 1:58
 Operator : SY/AP
 Sample : J6176-02DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 MMSV-05DL

Manual Integrations
 APPROVED

MMDadoda
 12/10/2018 1:01:30 PM

Quant Time: Dec 05 15:49:29 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov 14 07:00:23 2018
 QLast Update : Wed Nov 14 07:00:23 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1504779	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3820360	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	3871956	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.58	95	2793215	9.65	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.50%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
9) Propene	3.04	41	1087639	22.782	ppbv	95
10) Heptane	8.25	43	147917	0.812	ppbv	100
13) Ethanol	3.66	45	58785	3.759	ppbv	98
15) Acetone	3.90	43	789690m	5.747	ppbv	
26) Hexane	5.79	57	213954	1.501	ppbv #	41
27) Carbon Disulfide	4.63	76	18995414	105.070	ppbv #	80
30) Cyclohexane	7.26	84	96643m	0.775	ppbv	
34) 2-Butanone	5.34	43	554608	2.799	ppbv	99
36) Benzene	7.01	78	13408893	44.076	ppbv #	89
41) Tetrahydrofuran	6.17	42	147816m	1.301	ppbv	
44) 2,2,4-Trimethylpentane	8.00	57	295338	0.581	ppbv #	81
53) Toluene	9.95	91	9724688	30.641	ppbv	96
58) Ethyl Benzene	12.87	91	1911506	4.102	ppbv	99
59) m/p-Xylene	13.12	91	3971002	9.573	ppbv	95
60) o-Xylene	13.85	91	1952217	4.680	ppbv	98
61) Styrene	13.69	104	53313m	0.196	ppbv	
62) Isopropylbenzene	14.83	105	186570	0.331	ppbv	99
72) 4-Ethyltoluene	16.00	105	88781	0.194	ppbv #	93
73) 1,3,5-Trimethylbenzene	16.16	105	225729	0.505	ppbv	94
74) 1,2,4-Trimethylbenzene	16.93	105	154375	0.323	ppbv #	69

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

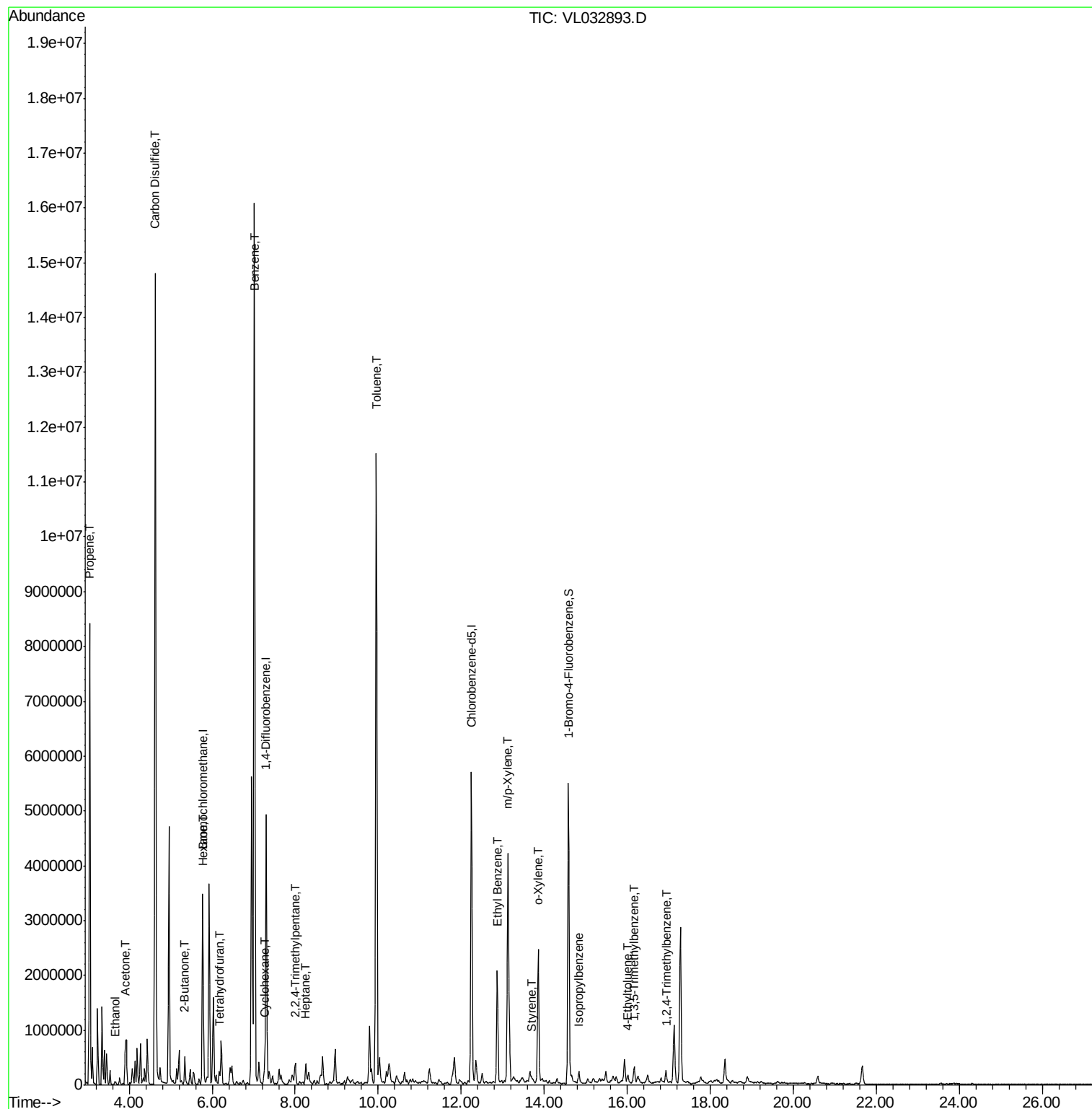
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120418\
Data File : VL032893.D
Acq On : 5 Dec 2018 1:58
Operator : SY/AP
Sample : J6176-02DL 10X
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

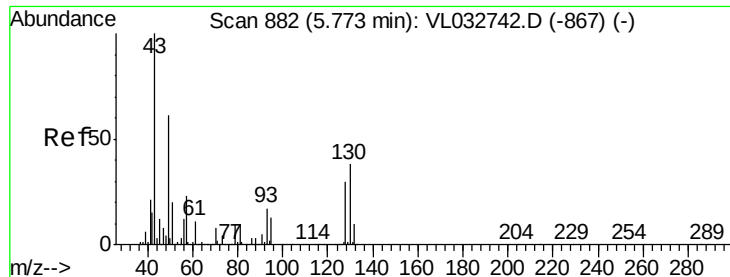
Instrument :
MSVOA_L
ClientSampleId :
MMSV-05DL

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Quant Time: Dec 05 15:49:29 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov
QLast Update : Wed Nov 14 07:00:23 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.01 min

Lab File: VL032893.D

Acq: 5 Dec 2018 1:58

Instrument :

MSVOA_L

ClientSampleId :

MMSV-05DL

Tot Ion: 49 Resp: 1504779

Ion Ratio Lower Upper

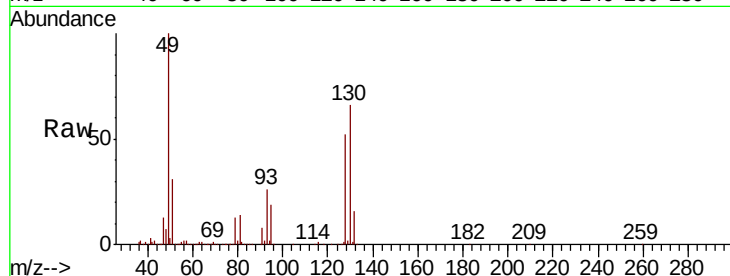
49 100

128 52.8 24.9 74.6

130 67.7 31.4 94.2

Manual Integrations
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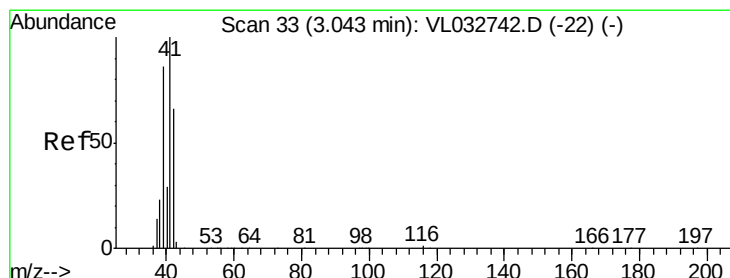
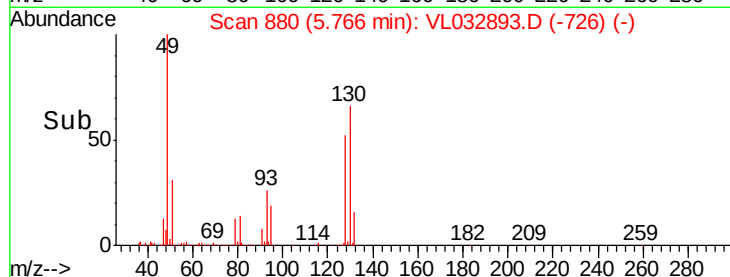
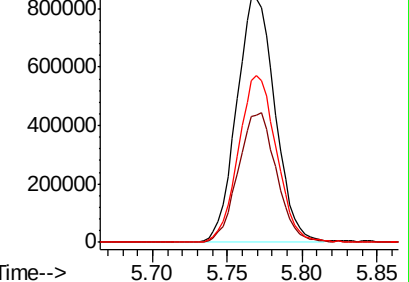
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#9

Propene

Concen: 22.782 ppbv

RT: 3.04 min Scan# 32

Delta R.T. -0.00 min

Lab File: VL032893.D

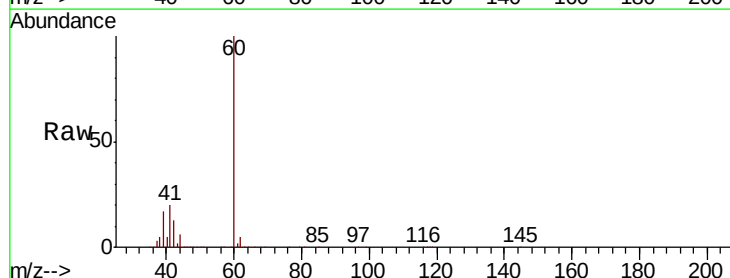
Acq: 5 Dec 2018 1:58

Tgt Ion: 41 Resp: 1087639

Ion Ratio Lower Upper

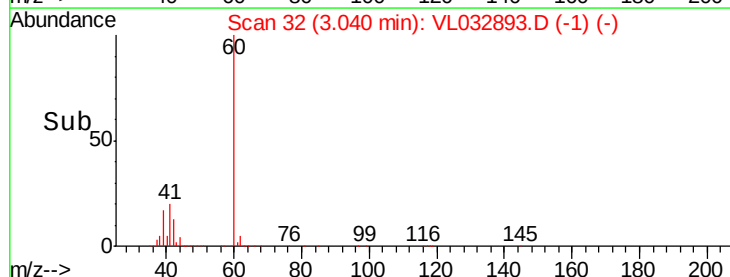
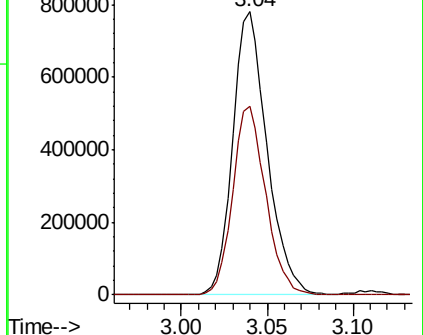
41 100

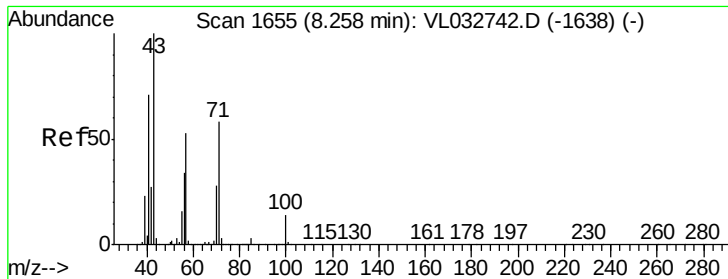
42 64.4 55.0 82.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





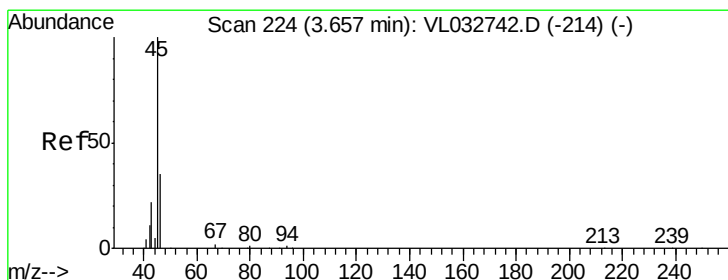
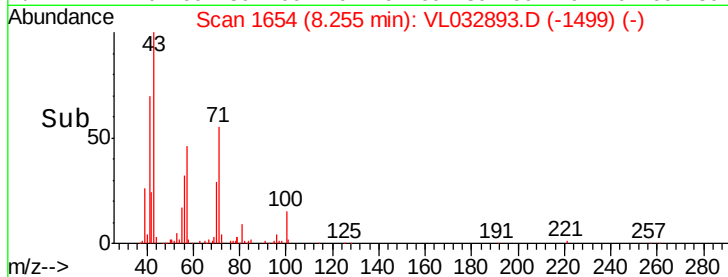
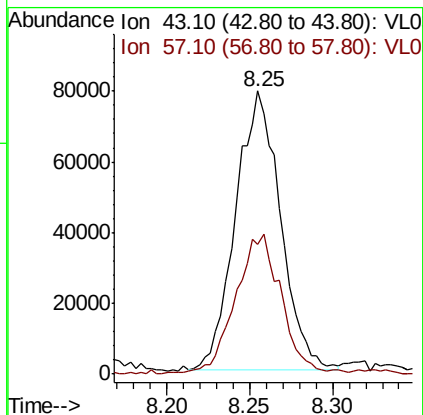
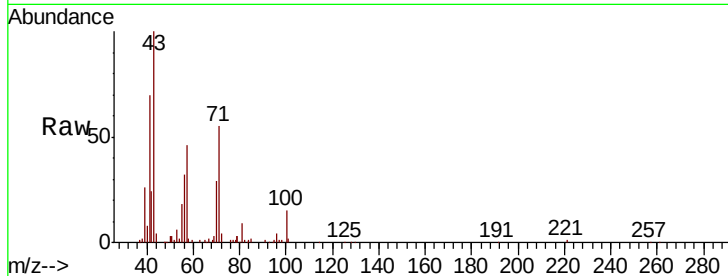
#10
Heptane
Concen: 0.812 ppbv
RT: 8.25 min Scan# 1654
Delta R.T. -0.00 min
Lab File: VL032893.D
Acq: 5 Dec 2018 1:58

Instrument :
MSVOA_L
ClientSampleId :
MMSV-05DL

Tot Ion: 43 Resp: 147917
Ion Ratio Lower Upper
43 100
57 52.4 41.8 62.8

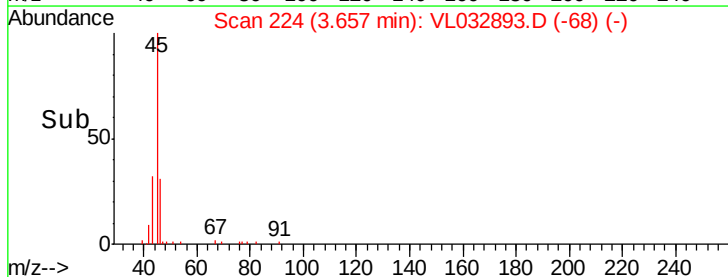
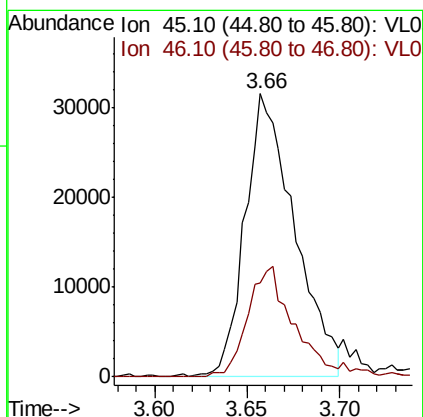
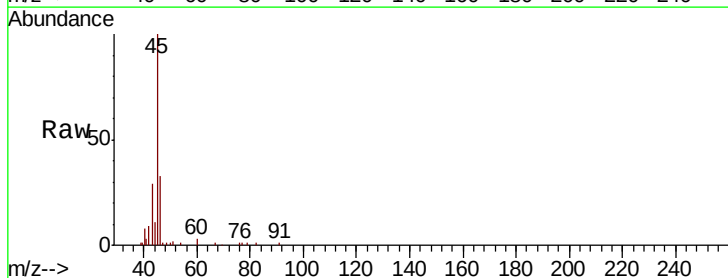
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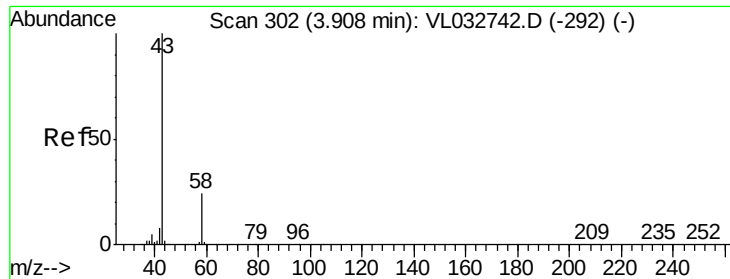
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#13
Ethanol
Concen: 3.759 ppbv
RT: 3.66 min Scan# 224
Delta R.T. 0.00 min
Lab File: VL032893.D
Acq: 5 Dec 2018 1:58

Tgt Ion: 45 Resp: 58785
Ion Ratio Lower Upper
45 100
46 37.5 14.5 57.9





#15

Acetone

Concen: 5.747 ppbv m

RT: 3.90 min Scan# 301

Delta R.T. -0.00 min

Lab File: VL032893.D

Acq: 5 Dec 2018 1:58

Instrument :

MSVOA_L

ClientSampleId :

MMSV-05DL

Tot Ion: 43 Resp: 789690

Ion Ratio Lower Upper

43 100

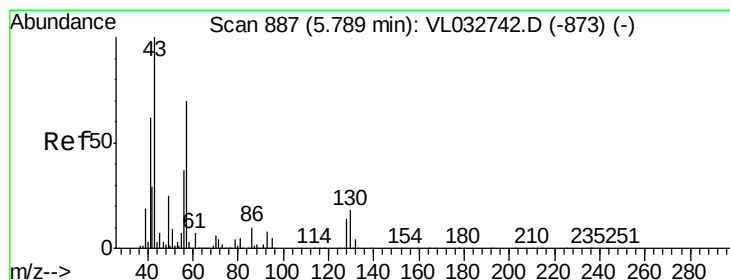
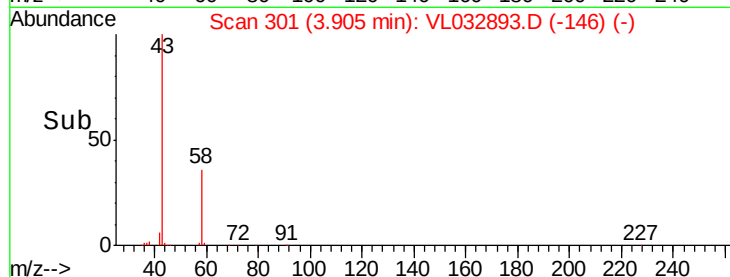
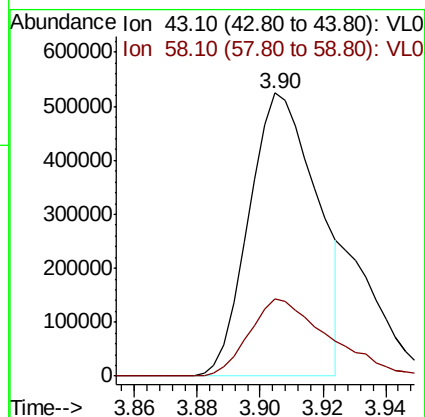
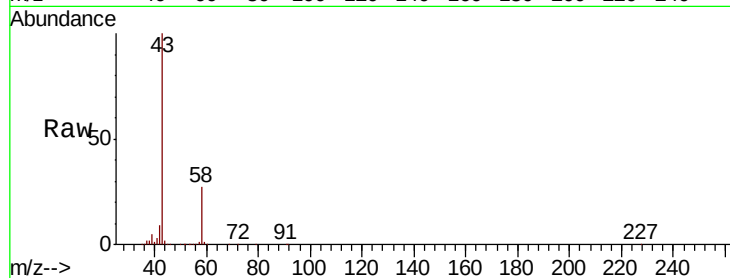
58 32.3 21.1 31.7#

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#26

Hexane

Concen: 1.501 ppbv

RT: 5.79 min Scan# 886

Delta R.T. -0.00 min

Lab File: VL032893.D

Acq: 5 Dec 2018 1:58

Tgt Ion: 57 Resp: 213954

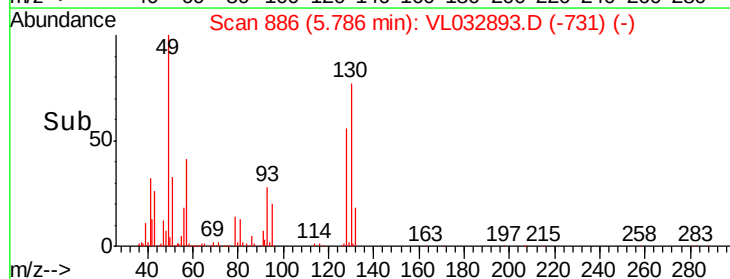
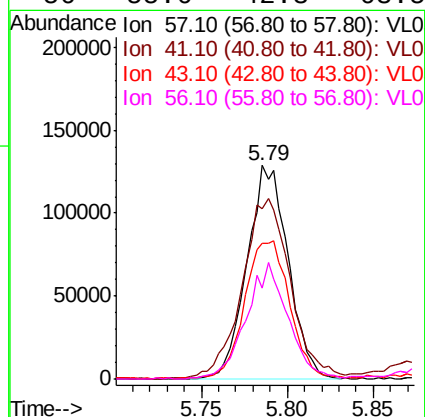
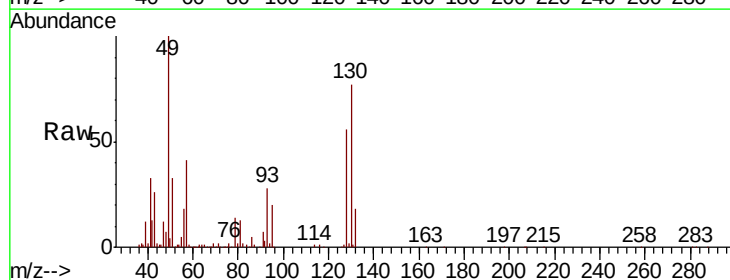
Ion Ratio Lower Upper

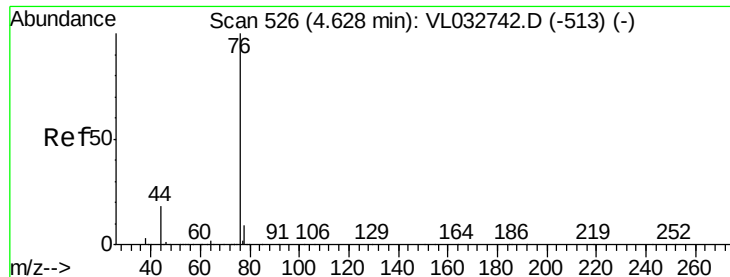
57 100

41 98.6 70.3 105.5

43 70.2 174.0 261.0#

56 55.6 42.3 63.5





#27

Carbon Disulfide

Concen: 105.070 ppbv

RT: 4.63 min Scan# 526

Delta R.T. 0.00 min

Lab File: VL032893.D

Acq: 5 Dec 2018 1:58

Instrument :

MSVOA_L

ClientSampled :

MMSV-05DL

Tot Ion: 76 Resp:18995414

Ion Ratio Lower Upper

76 100

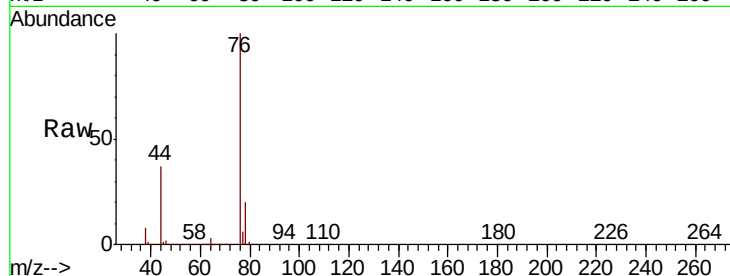
44 28.2 14.4 21.6#

78 14.9 7.7 11.5#

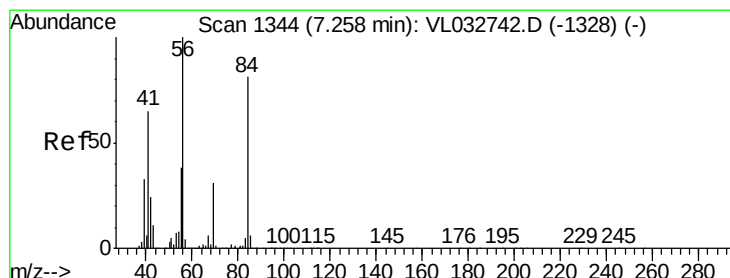
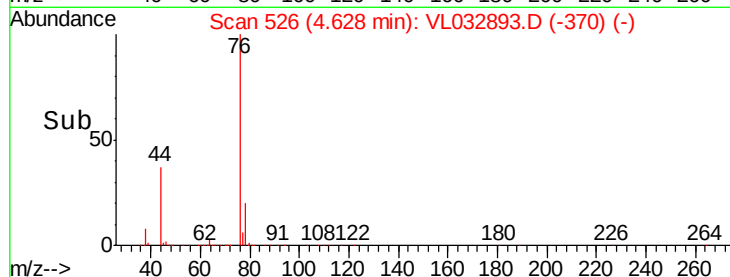
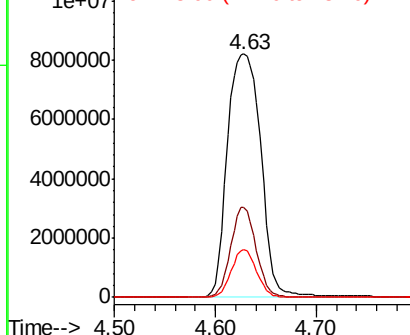
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Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#30

Cyclohexane

Concen: 0.775 ppbv m

RT: 7.26 min Scan# 1344

Delta R.T. 0.00 min

Lab File: VL032893.D

Acq: 5 Dec 2018 1:58

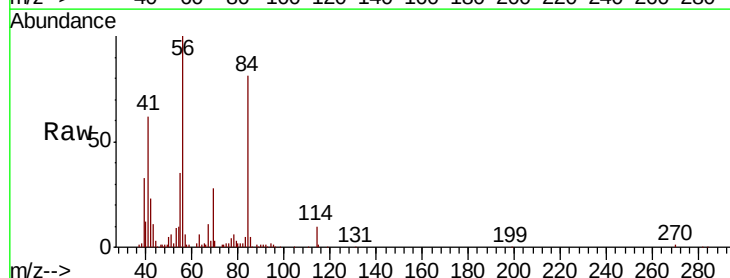
Tgt Ion: 84 Resp: 96643

Ion Ratio Lower Upper

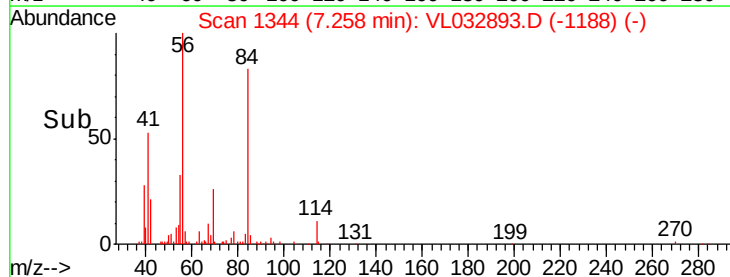
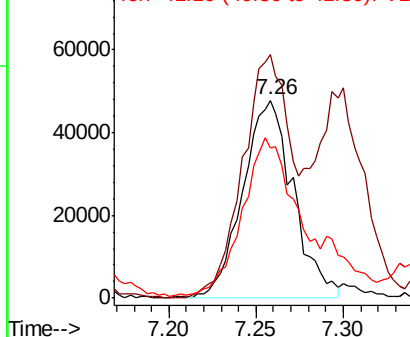
84 100

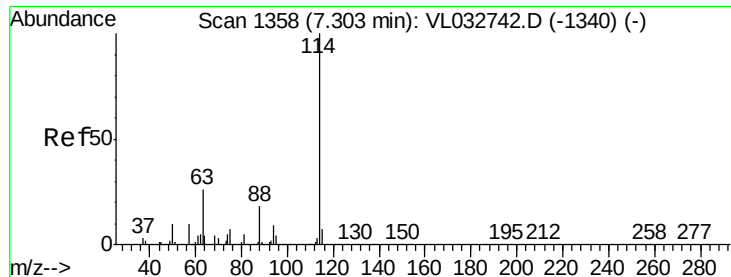
56 126.0 105.0 157.4

41 98.7 65.3 97.9#



Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0





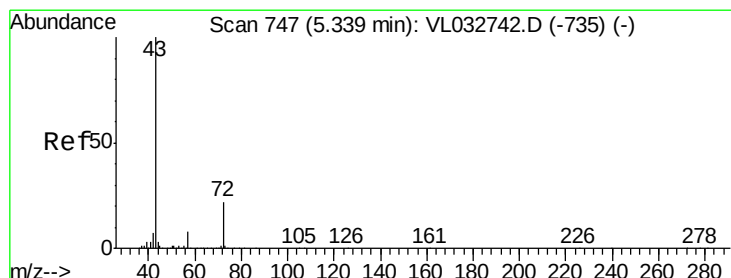
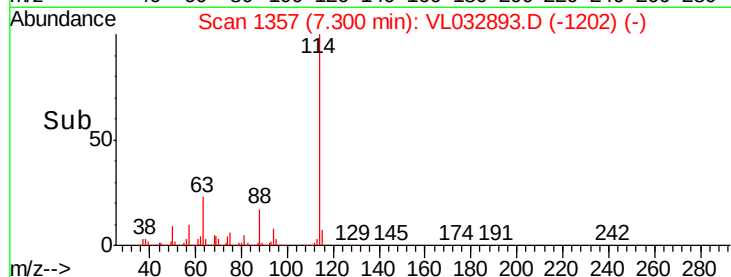
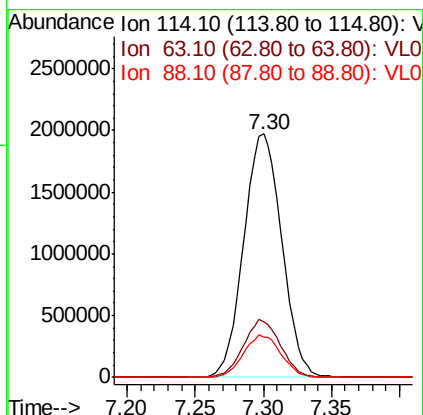
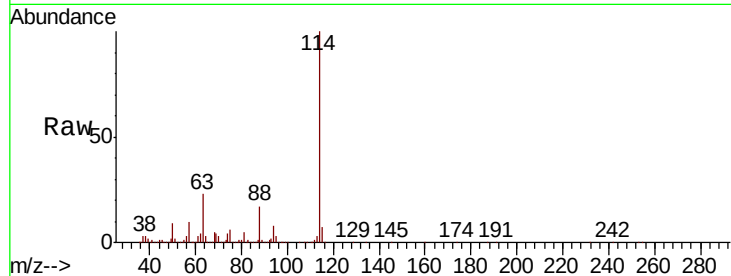
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1357
 Delta R.T. -0.00 min
 Lab File: VL032893.D
 Acq: 5 Dec 2018 1:58

Instrument :
 MSVOA_L
 ClientSampleId :
 MMSV-05DL

Tot Ion:114 Resp: 3820360
 Ion Ratio Lower Upper
 114 100
 63 23.1 20.9 31.3
 88 17.2 14.4 21.6

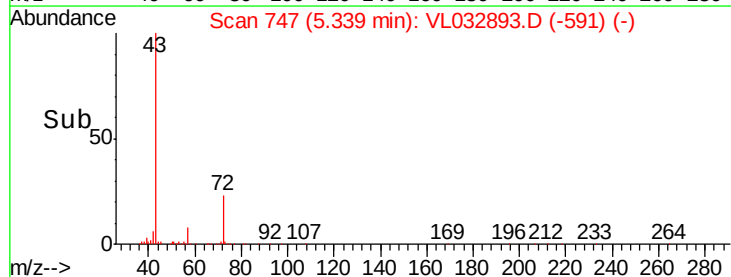
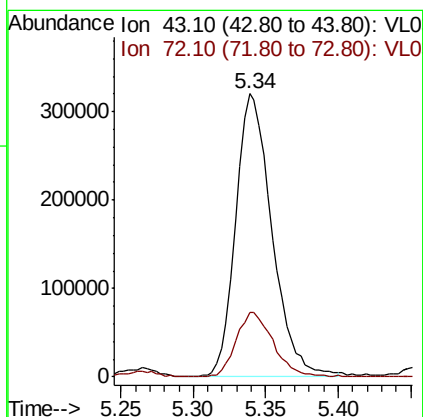
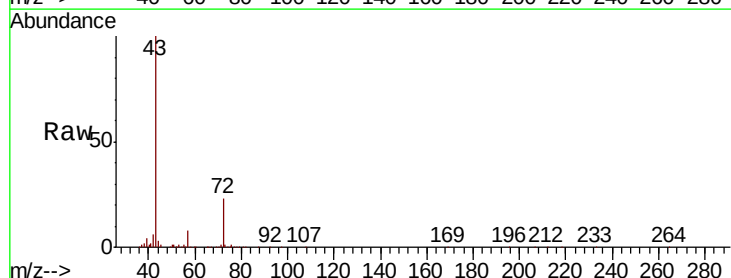
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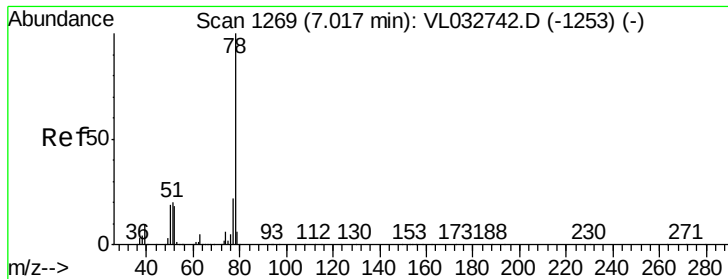
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#34
 2-Butanone
 Concen: 2.799 ppbv
 RT: 5.34 min Scan# 747
 Delta R.T. 0.00 min
 Lab File: VL032893.D
 Acq: 5 Dec 2018 1:58

Tgt Ion: 43 Resp: 554608
 Ion Ratio Lower Upper
 43 100
 72 23.7 18.4 27.6





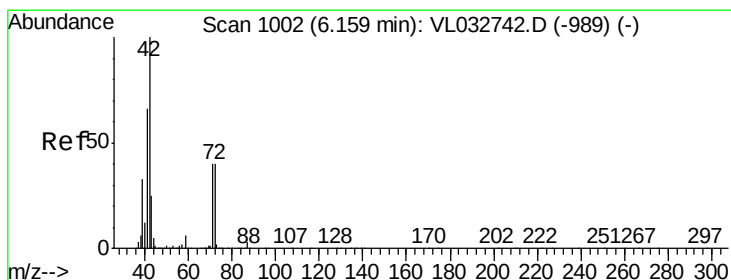
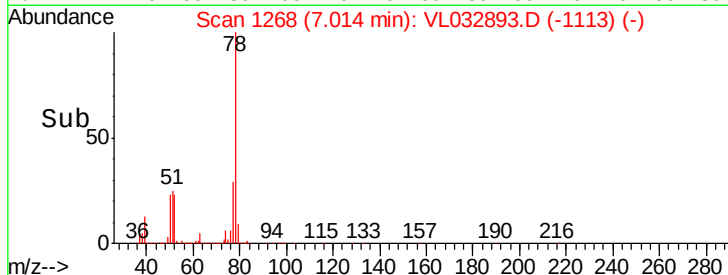
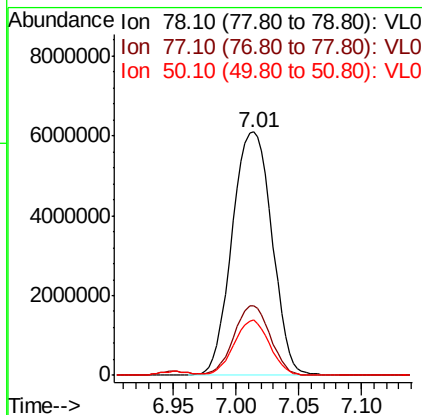
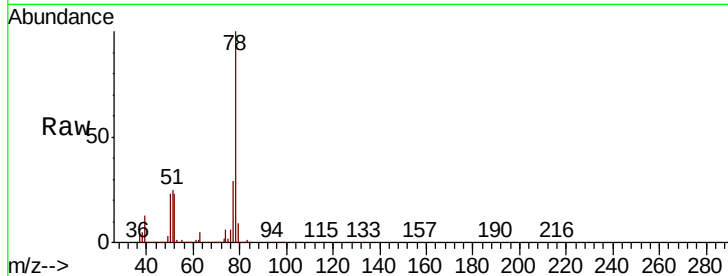
#36
Benzene
Concen: 44.076 ppbv
RT: 7.01 min Scan# 1268
Delta R.T. -0.00 min
Lab File: VL032893.D
Acq: 5 Dec 2018 1:58

Instrument :
MSVOA_L
ClientSampleId :
MMSV-05DL

Tot Ion: 78 Resp: 13408893
Ion Ratio Lower Upper
78 100
77 28.6 17.8 26.8#
50 22.8 15.4 23.0

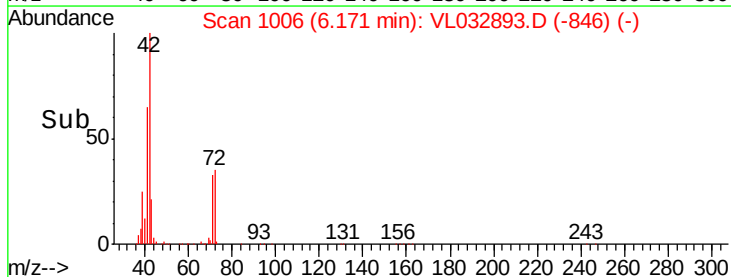
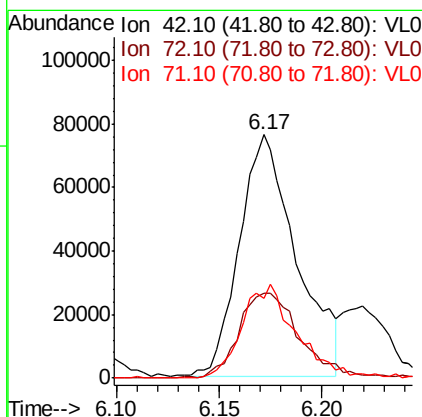
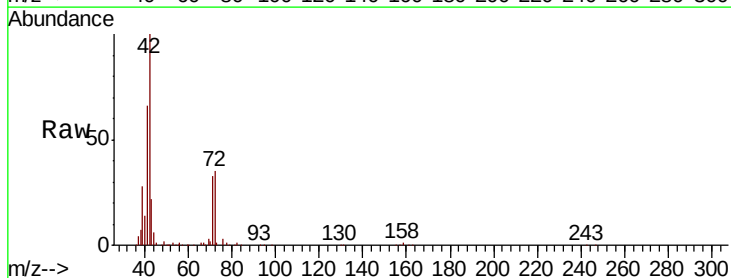
Manual Integrations
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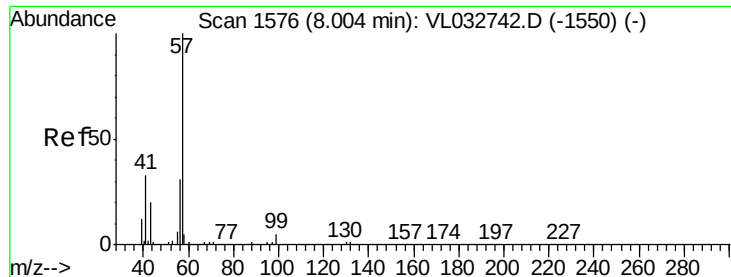
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#41
Tetrahydrofuran
Concen: 1.301 ppbv m
RT: 6.17 min Scan# 1006
Delta R.T. 0.01 min
Lab File: VL032893.D
Acq: 5 Dec 2018 1:58

Tgt Ion: 42 Resp: 147816
Ion Ratio Lower Upper
42 100
72 38.2 32.4 48.6
71 37.2 31.6 47.4





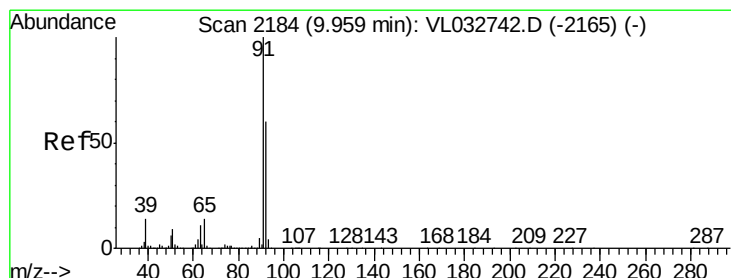
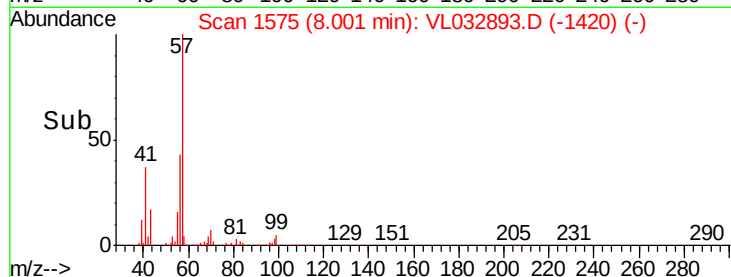
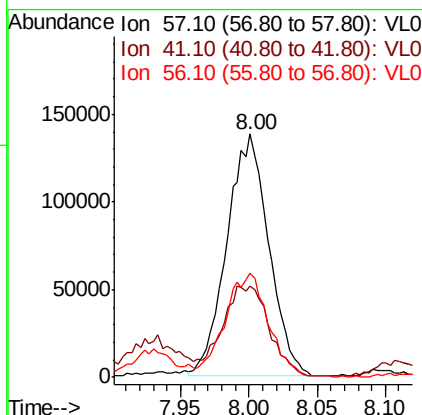
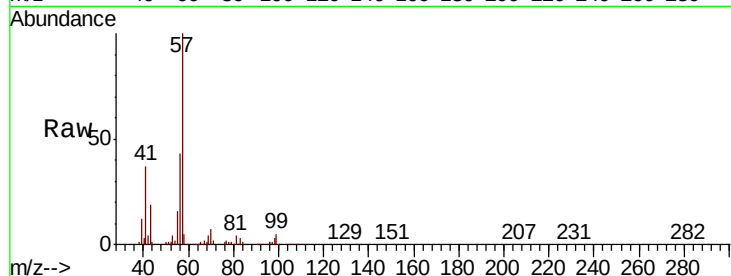
#44
 2,2,4-Trimethylpentane
 Concen: 0.581 ppbv
 RT: 8.00 min Scan# 1575
 Delta R.T. -0.00 min
 Lab File: VL032893.D
 Acq: 5 Dec 2018 1:58

Instrument :
 MSVOA_L
 ClientSampleId :
 MMSV-05DL

Tot Ion	Ratio	Lower	Upper
57	100		
41	42.1	26.6	39.8#
56	43.5	24.8	37.2#

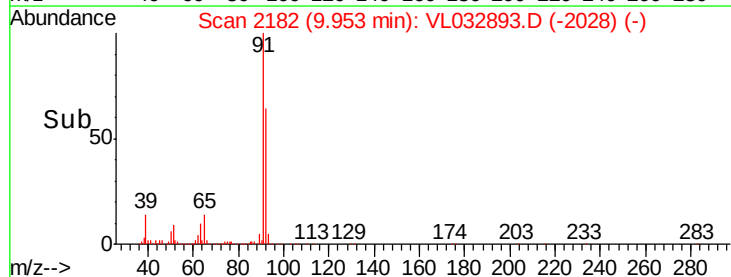
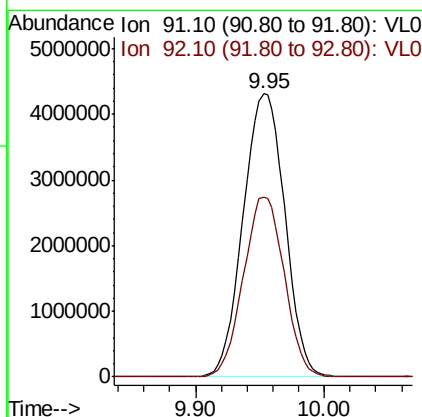
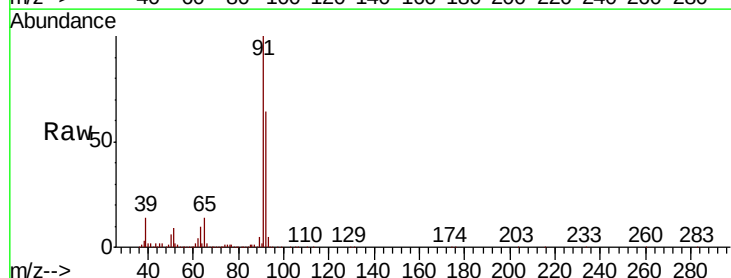
Manual Integrations
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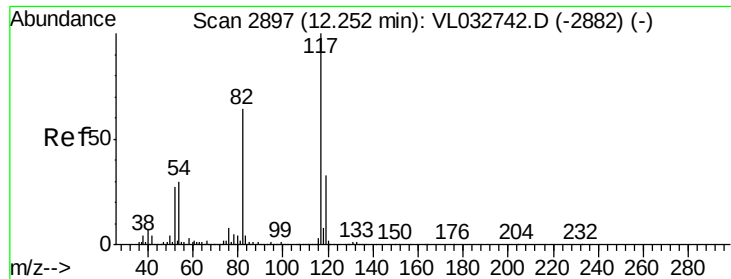
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 12/10/2018 1:01:30 PM



#53
 Toluene
 Concen: 30.641 ppbv
 RT: 9.95 min Scan# 2182
 Delta R.T. -0.01 min
 Lab File: VL032893.D
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Tgt Ion	Ratio	Lower	Upper
91	100		
92	62.6	47.9	71.9





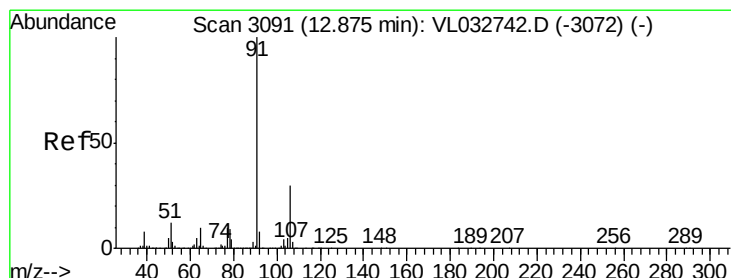
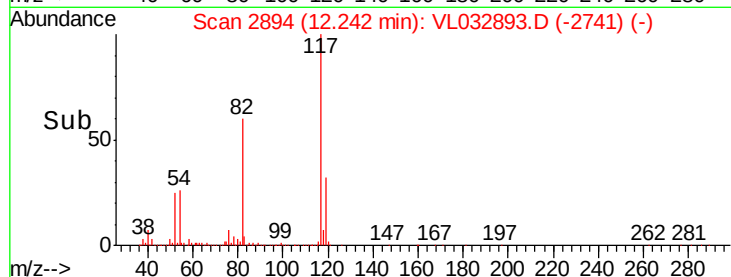
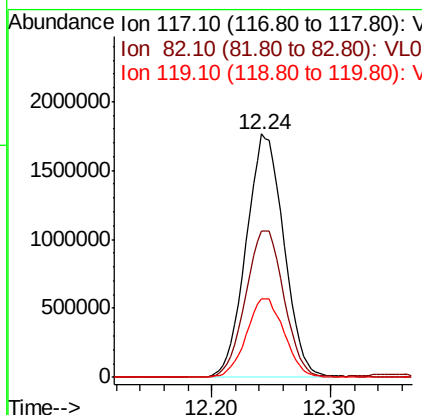
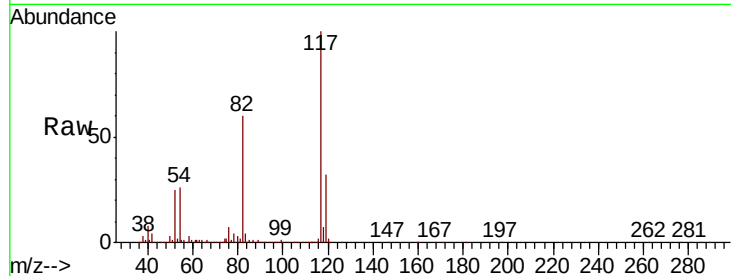
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2894
Delta R.T. -0.01 min
Lab File: VL032893.D
Acq: 5 Dec 2018 1:58

Instrument :
MSVOA_L
ClientSampleId :
MMSV-05DL

Tot Ion:117 Resp: 3871956
Ion Ratio Lower Upper
117 100
82 61.4 51.0 76.6
119 32.8 28.0 42.0

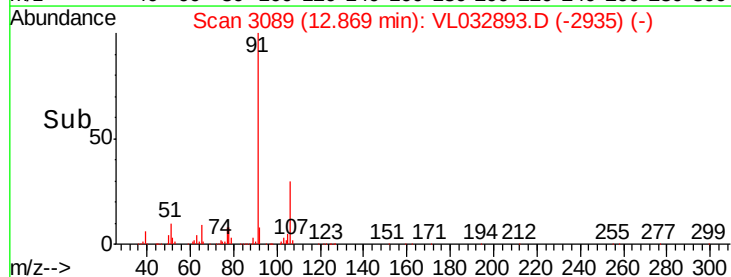
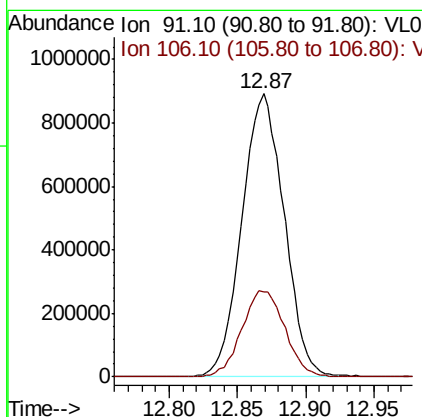
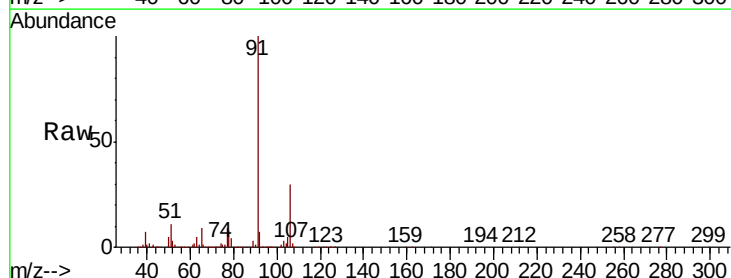
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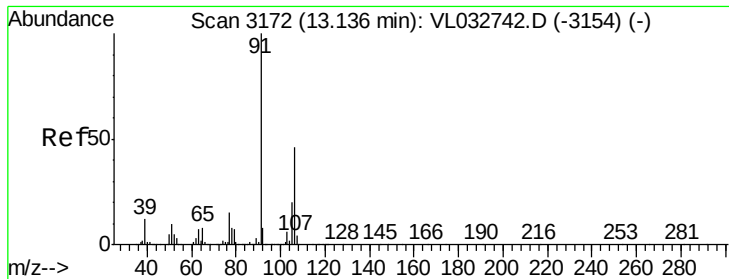
MMDadoda
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#58
Ethyl Benzene
Concen: 4.102 ppbv
RT: 12.87 min Scan# 3089
Delta R.T. -0.01 min
Lab File: VL032893.D
Acq: 5 Dec 2018 1:58

Tgt Ion: 91 Resp: 1911506
Ion Ratio Lower Upper
91 100
106 30.0 23.6 35.4





#59

m/p-Xylene

Concen: 9.573 ppbv

RT: 13.12 min Scan# 3168

Delta R.T. -0.01 min

Lab File: VL032893.D

Acq: 5 Dec 2018 1:58

Instrument :

MSVOA_L

ClientSampleId :

MMSV-05DL

Tot Ion: 91 Resp: 3971002

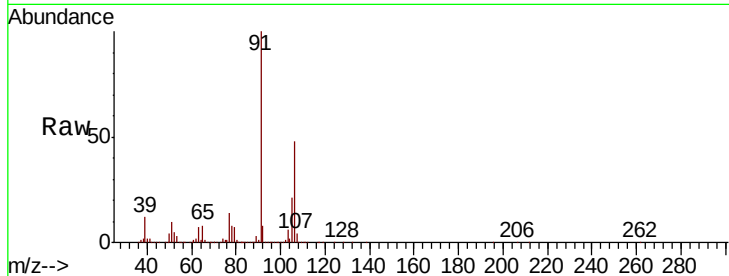
Ion Ratio Lower Upper

91 100

106 48.5 36.1 54.1

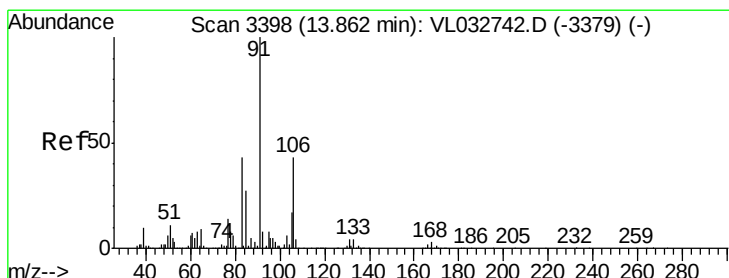
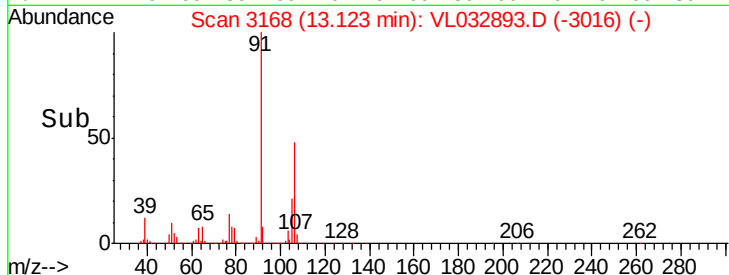
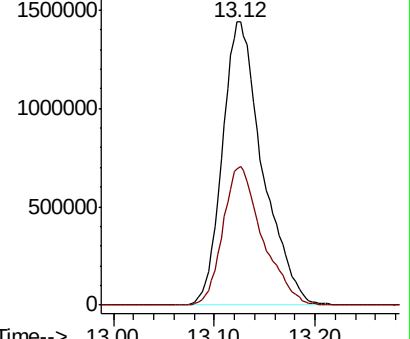
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 4.680 ppbv

RT: 13.85 min Scan# 3395

Delta R.T. -0.01 min

Lab File: VL032893.D

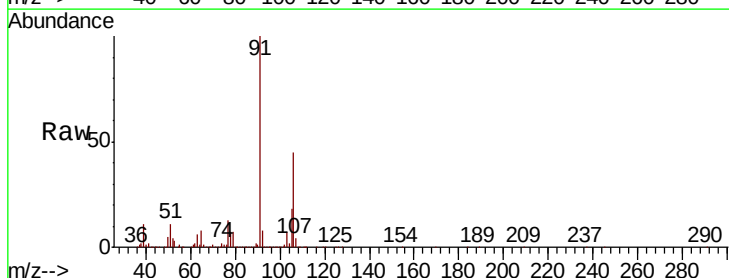
Acq: 5 Dec 2018 1:58

Tgt Ion: 91 Resp: 1952217

Ion Ratio Lower Upper

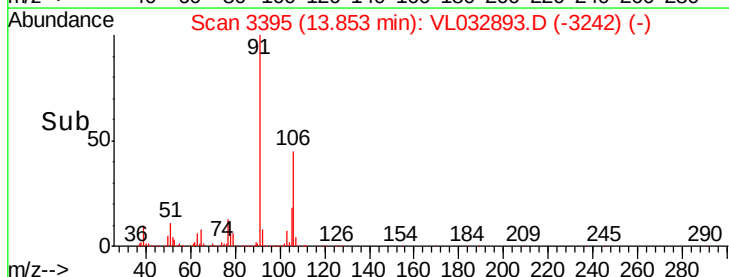
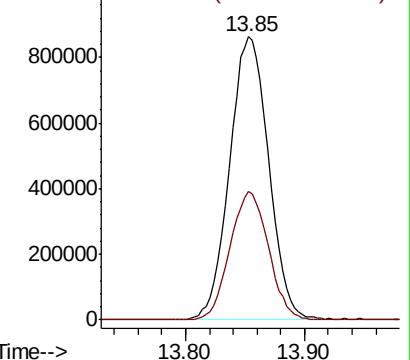
91 100

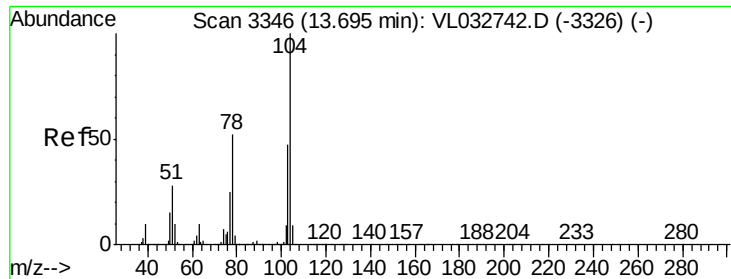
106 45.0 21.9 65.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#61

Stvrene

Concen: 0.196 ppbv m

RT: 13.69 min Scan# 3345

Delta R.T. -0.00 min

Lab File: VL032893.D

Acq: 5 Dec 2018 1:58

Instrument :

MSVOA_L

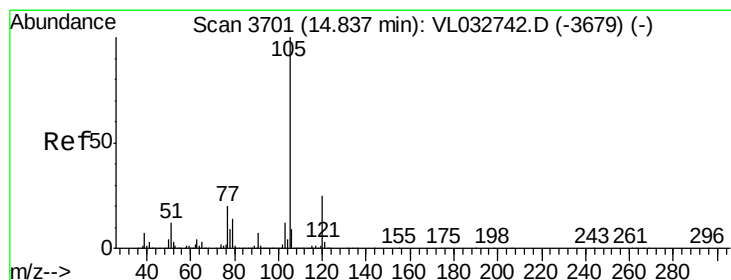
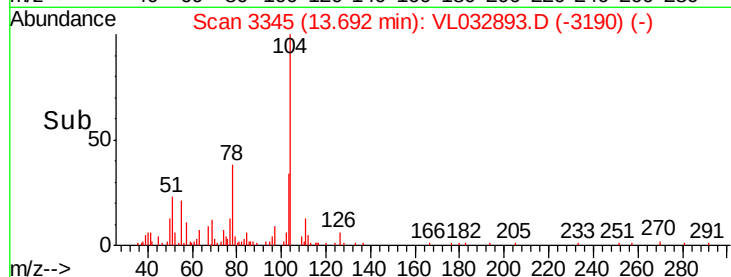
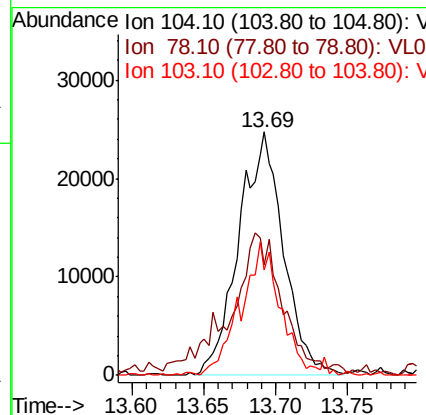
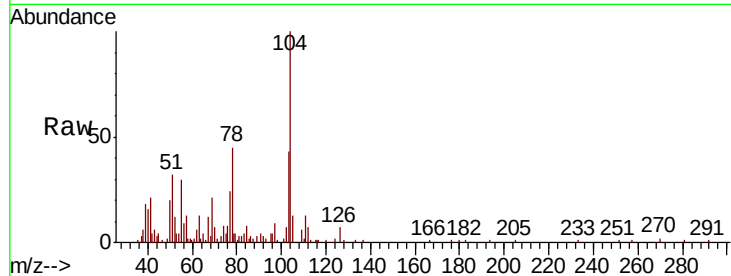
ClientSampleId :

MMSV-05DL

Tot Ion:	104	Resp:	53313
Ion Ratio	Lower	Upper	
104	100		
78	70.9	42.2	63.4#
103	50.0	38.2	57.2

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#62

Isopropylbenzene

Concen: 0.331 ppbv

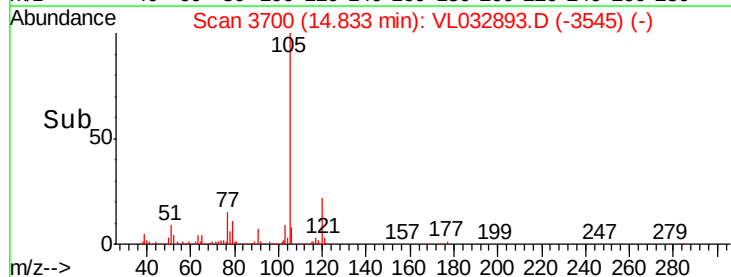
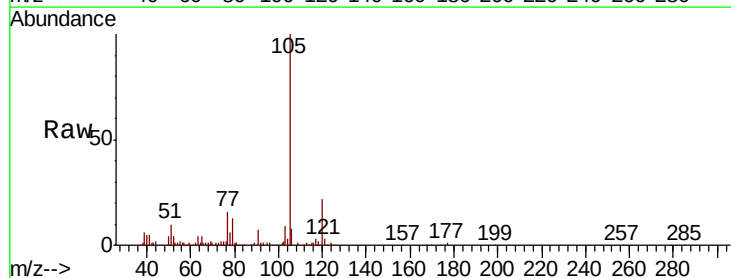
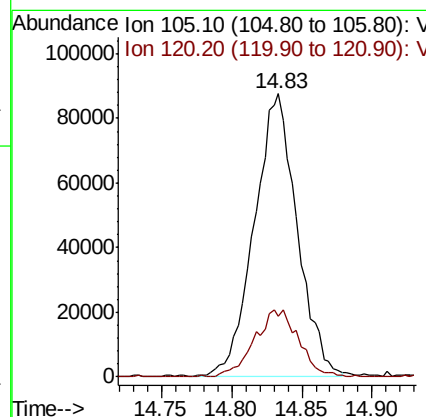
RT: 14.83 min Scan# 3700

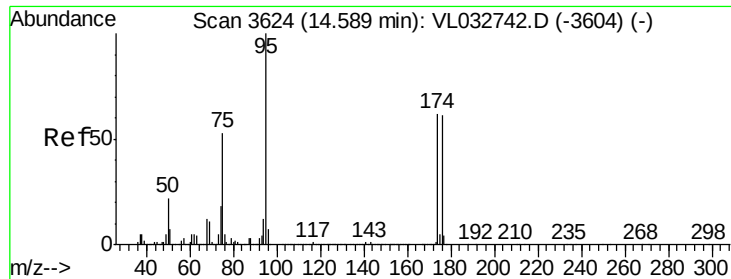
Delta R.T. -0.00 min

Lab File: VL032893.D

Acq: 5 Dec 2018 1:58

Tgt Ion:	105	Resp:	186570
Ion Ratio	Lower	Upper	
105	100		
120	24.6	20.1	30.1





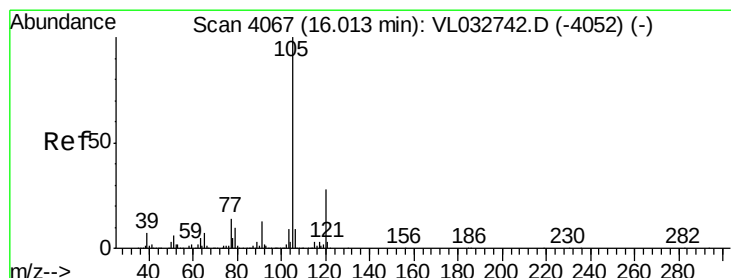
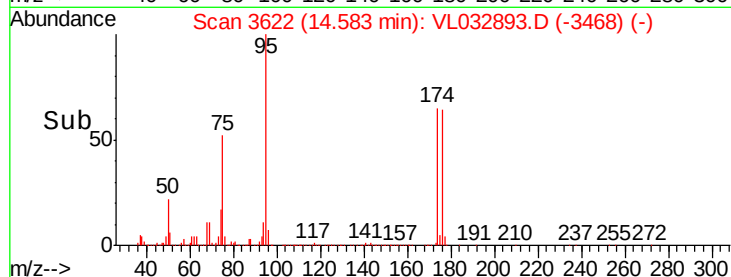
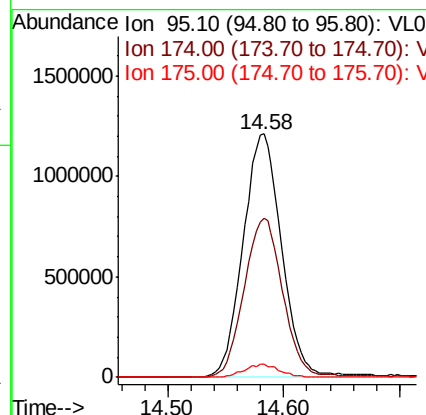
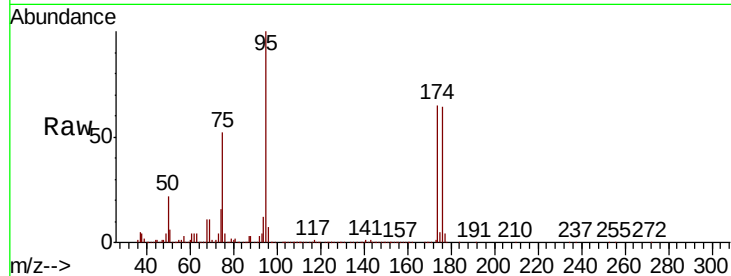
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.645 ppbv
 RT: 14.58 min Scan# 3622
 Delta R.T. -0.01 min
 Lab File: VL032893.D
 Acq: 5 Dec 2018 1:58

Instrument :
 MSVOA_L
 ClientSampleId :
 MMSV-05DL

Tot Ion	Ratio	Lower	Upper
95	100		
174	66.2	50.7	76.1
175	5.1	3.8	5.6

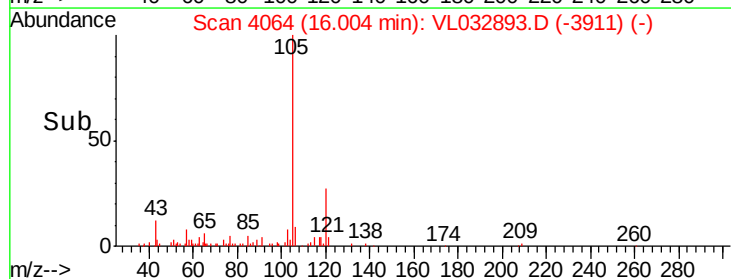
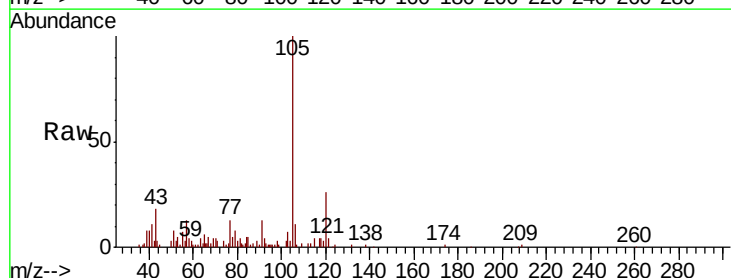
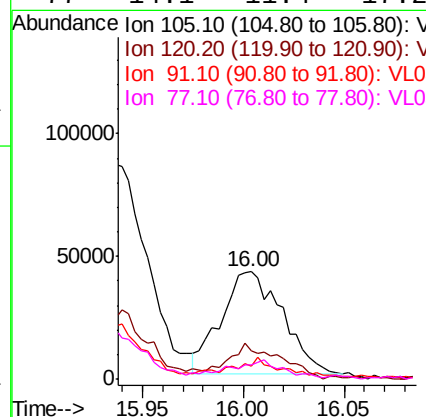
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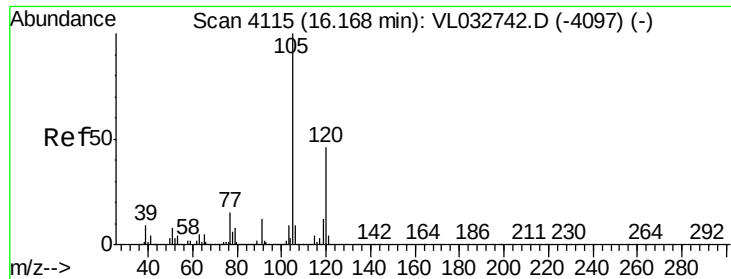
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#72
 4-Ethyltoluene
 Concen: 0.194 ppbv
 RT: 16.00 min Scan# 4064
 Delta R.T. -0.01 min
 Lab File: VL032893.D
 Acq: 5 Dec 2018 1:58

Tgt Ion	Ratio	Lower	Upper
105	100		
120	32.5	22.9	34.3
91	18.7	10.6	15.8
77	14.1	11.4	17.2





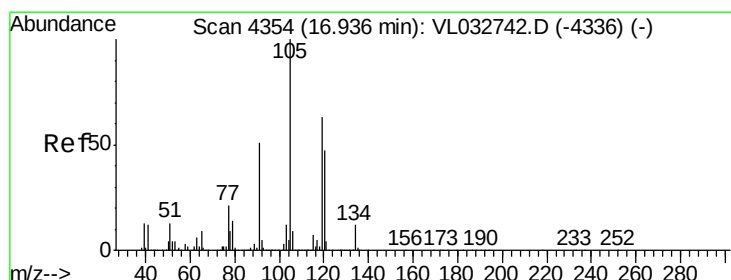
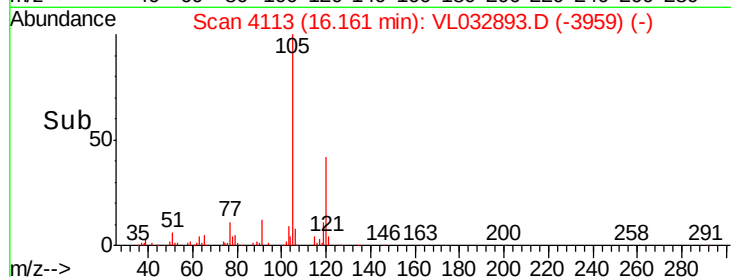
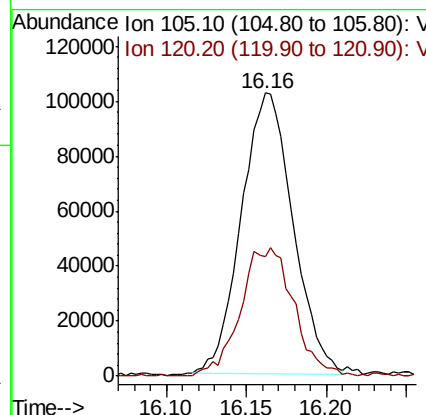
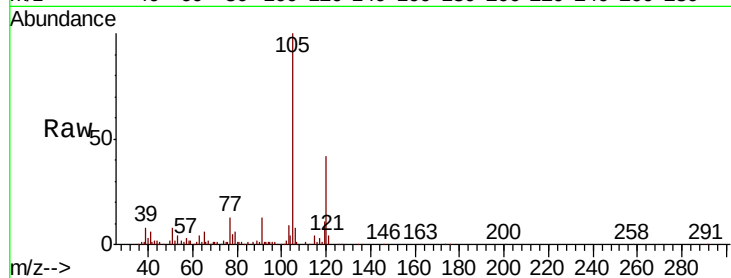
#73
 1,3,5-Trimethylbenzene
 Concen: 0.505 ppbv
 RT: 16.16 min Scan# 4113
 Delta R.T. -0.01 min
 Lab File: VL032893.D
 Acq: 5 Dec 2018 1:58

Instrument :
 MSVOA_L
 ClientSampleId :
 MMSV-05DL

Tot Ion	Ratio	Lower	Upper
105	100		
120	42.1	36.6	55.0

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 12/10/2018 1:01:30 PM



#74
 1,2,4-Trimethylbenzene
 Concen: 0.323 ppbv
 RT: 16.93 min Scan# 4353
 Delta R.T. -0.00 min
 Lab File: VL032893.D
 Acq: 5 Dec 2018 1:58

Tgt Ion	Ratio	Lower	Upper
105	100		
120	44.9	37.6	56.4
91	9.5	42.5	63.7#
77	12.7	17.4	26.2#

