

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL050219\
 Data File : VL033632.D
 Acq On : 2 May 2019 17:45
 Operator : SY/AP
 Sample : K2628-04
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

Quant Time: May 03 02:29:04 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL050119AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 02 06:29:02 2019
 QLast Update : Thu May 02 06:29:02 2019
 Response via : Initial Calibration

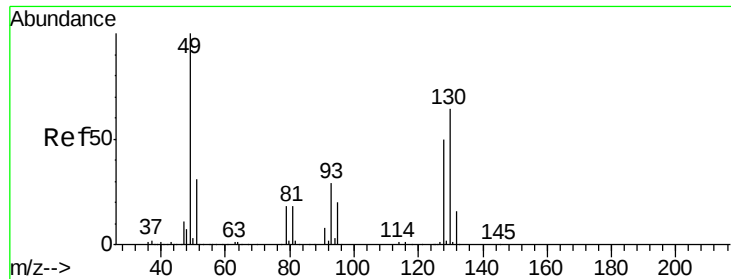
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	859331	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2072458	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2322318	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1826818	10.33	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	58629	0.453	ppbv	88
3) Chlorodifluoromethane	2.99	51	882087	8.586	ppbv #	60
4) Chloromethane	3.17	50	32612	0.583	ppbv	93
7) Chloroethane	3.59	64	221	0.011	ppbv #	87
8) Dichlorotetrafluoroethane	3.22	85	2227	0.016	ppbv	93
9) Propene	3.05	41	26061	0.886	ppbv #	70
10) Heptane	8.24	43	7745	0.071	ppbv #	74
11) Trichlorofluoromethane	4.00	101	44634	0.290	ppbv	92
12) 1,1,2-Trichlorotrifluoroet	4.55	101	8528	0.081	ppbv	98
13) Ethanol	3.65	45	798656	59.875	ppbv	99
15) Acetone	3.90	43	639203	6.110	ppbv	95
16) 1,3-Butadiene	3.36	39	596	0.013	ppbv	92
19) Isopropyl Alcohol	4.03	45	179325	2.497	ppbv #	94
20) Methylene Chloride	4.41	84	57540	1.411	ppbv	94
23) Vinyl Acetate	5.14	43	24673	0.159	ppbv #	78
25) Ethyl Acetate	5.78	43	100268	0.505	ppbv #	88
26) Hexane	5.77	57	99535	1.190	ppbv #	46
34) 2-Butanone	5.33	43	37454	0.294	ppbv	96
35) Carbon Tetrachloride	7.13	117	4432	0.027	ppbv	89
36) Benzene	7.00	78	12386	0.070	ppbv #	79
39) 1,2-Dichloropropane	7.29	63	558637	8.389	ppbv #	23
44) 2,2,4-Trimethylpentane	7.99	57	8553	0.028	ppbv #	1
53) Toluene	9.94	91	1808421	8.115	ppbv	100
58) Ethyl Benzene	13.12	91	12128	0.045	ppbv	94
60) o-Xylene	13.84	91	8743	0.038	ppbv	93
73) 1,3,5-Trimethylbenzene	16.15	105	5425	0.021	ppbv #	56
74) 1,2,4-Trimethylbenzene	16.92	105	29036	0.100	ppbv #	77

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. 0.00 min

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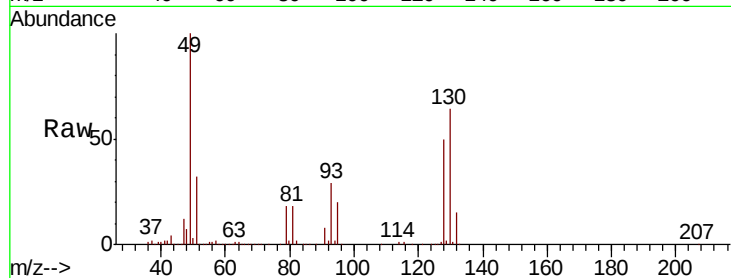
Tgt Ion: 49 Resp: 859331

Ion Ratio Lower Upper

49 100

128 49.3 25.0 75.0

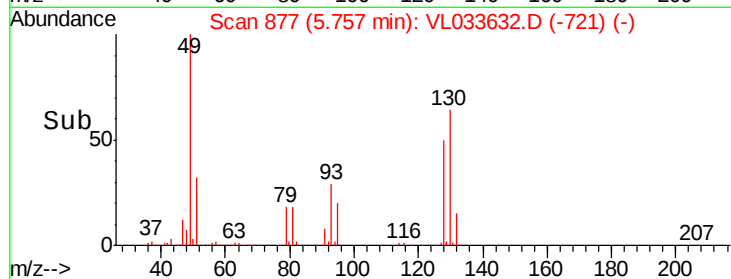
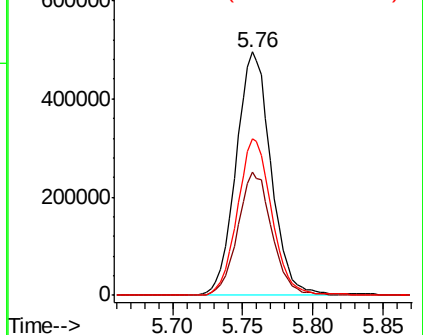
130 63.9 31.9 95.9



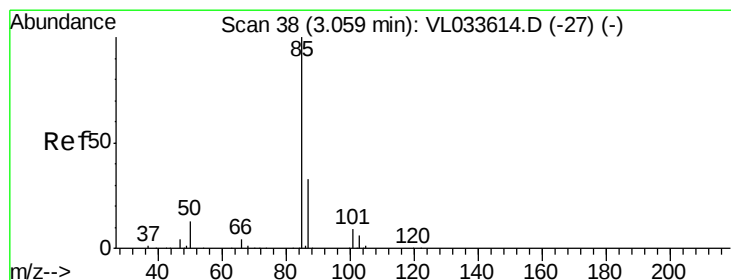
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



Scan 877 (5.757 min): VL033632.D (-721) (-)



#2

Dichlorodifluoromethane

Concen: 0.453 ppbv

RT: 3.08 min Scan# 43

Delta R.T. 0.02 min

Lab File: VL033632.D

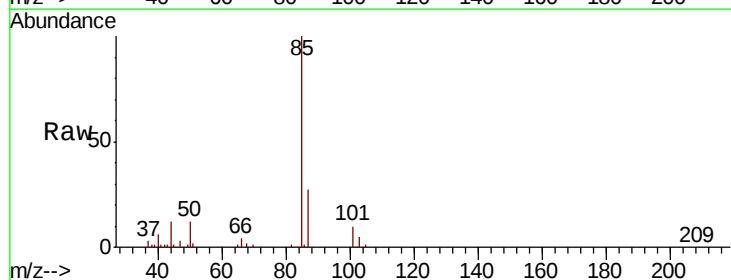
Acq: 2 May 2019 17:45

Tgt Ion: 85 Resp: 58629

Ion Ratio Lower Upper

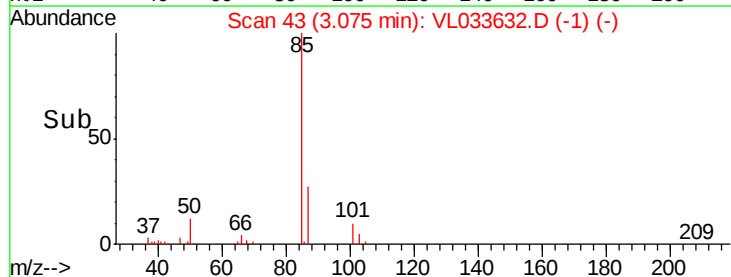
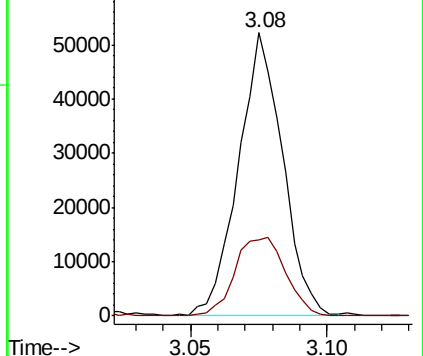
85 100

87 26.8 26.8 40.2

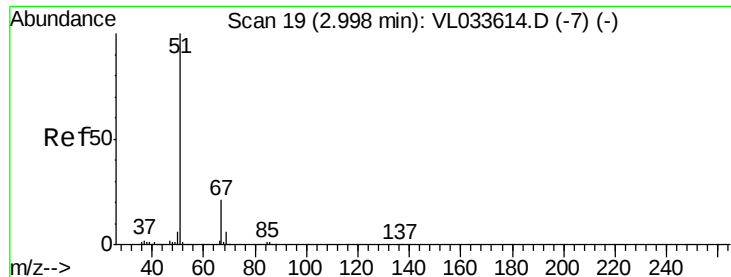


Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0



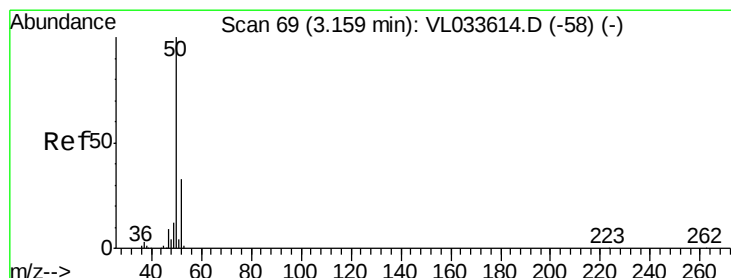
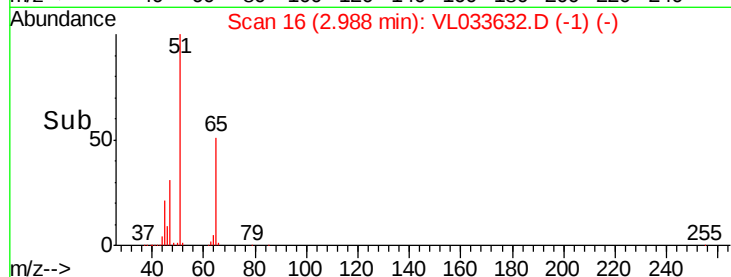
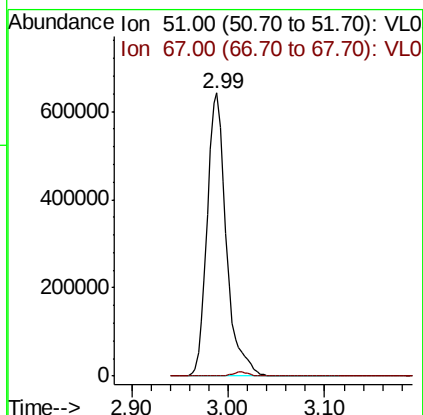
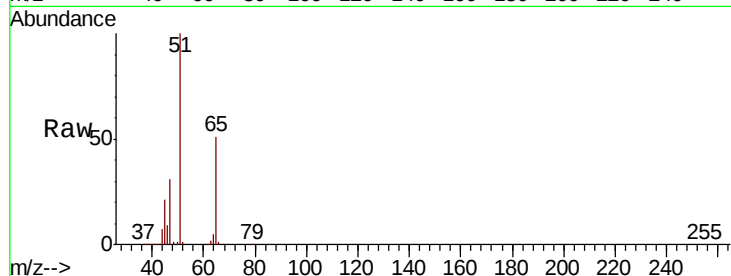
Scan 43 (3.075 min): VL033632.D (-1) (-)



#3
 Chlorodifluoromethane
 Concen: 8.586 ppbv
 RT: 2.99 min Scan# 16
 Delta R.T. -0.01 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

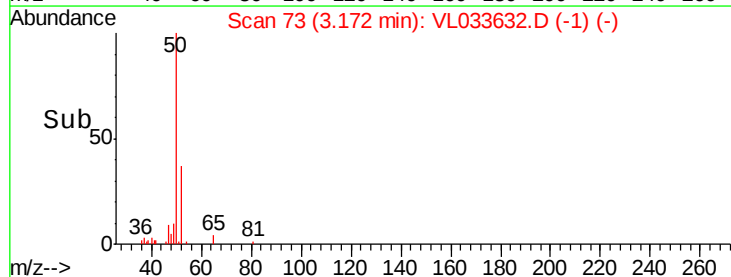
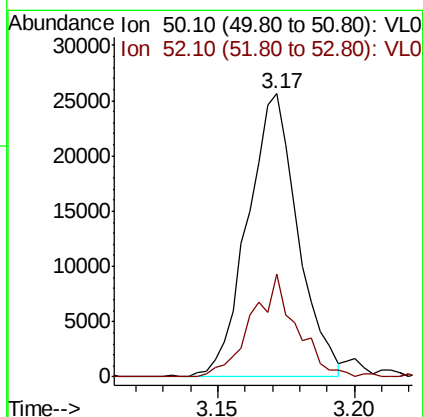
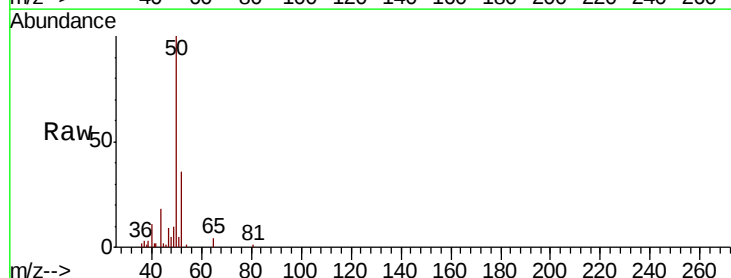
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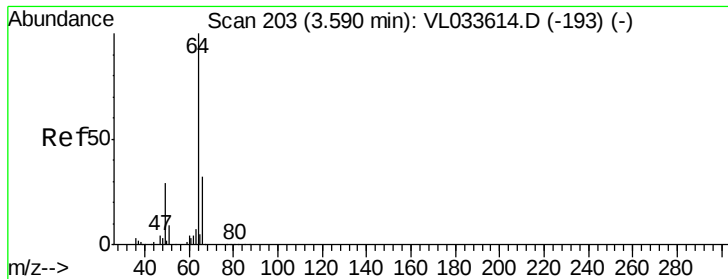
Tgt Ion: 51 Resp: 882087
 Ion Ratio Lower Upper
 51 100
 67 1.4 15.6 23.4#



#4
 Chloromethane
 Concen: 0.583 ppbv
 RT: 3.17 min Scan# 73
 Delta R.T. 0.01 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

Tgt Ion: 50 Resp: 32612
 Ion Ratio Lower Upper
 50 100
 52 36.5 26.0 39.0





#7

Chloroethane

Concen: 0.011 ppbv

RT: 3.59 min Scan# 204

Delta R.T. 0.00 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Instrument :

MSVOA_L

ClientSampled :

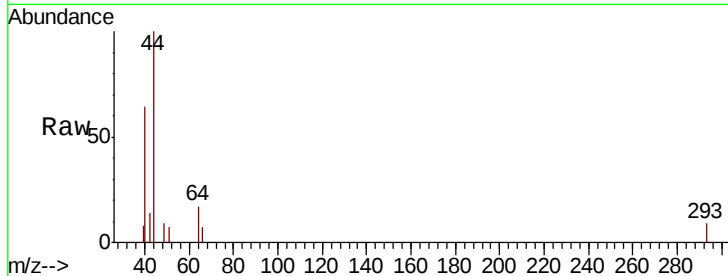
A-4

Tgt Ion: 64 Resp: 221

Ion Ratio Lower Upper

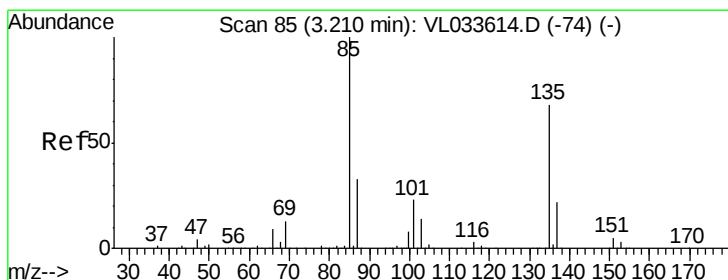
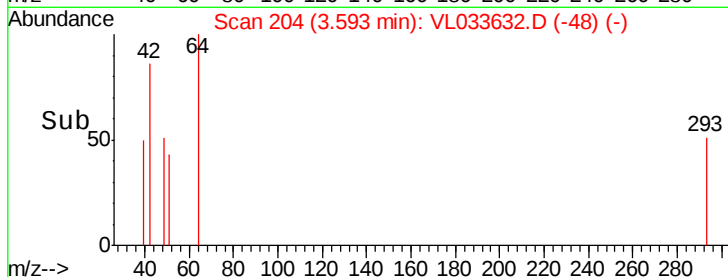
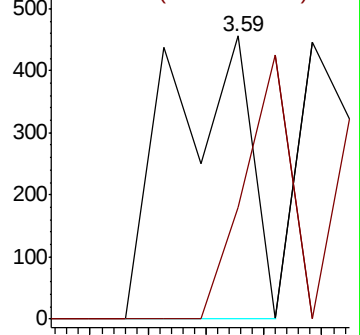
64 100

66 39.3 25.4 38.2#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 0.016 ppbv

RT: 3.22 min Scan# 89

Delta R.T. 0.01 min

Lab File: VL033632.D

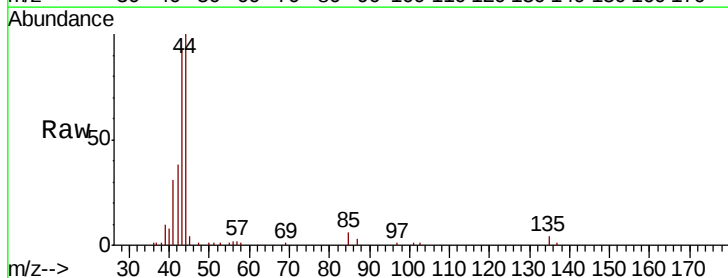
Acq: 2 May 2019 17:45

Tgt Ion: 85 Resp: 2227

Ion Ratio Lower Upper

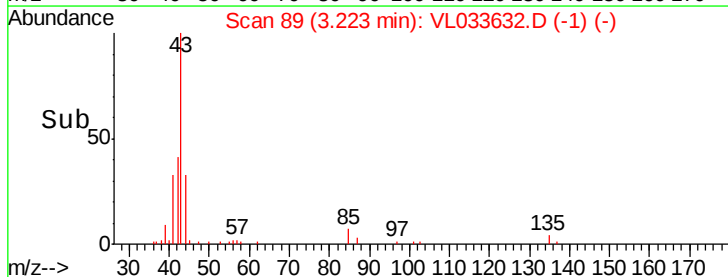
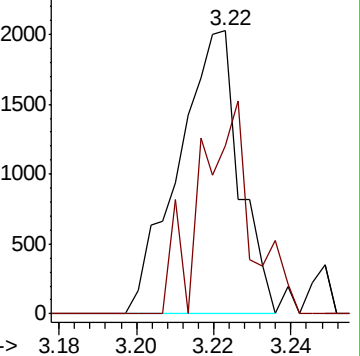
85 100

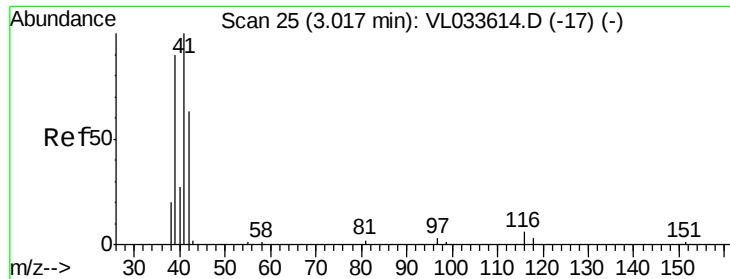
135 63.0 55.0 82.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 0.886 ppbv

RT: 3.05 min Scan# 34

Delta R.T. 0.03 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Instrument :

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ClientSampleId :

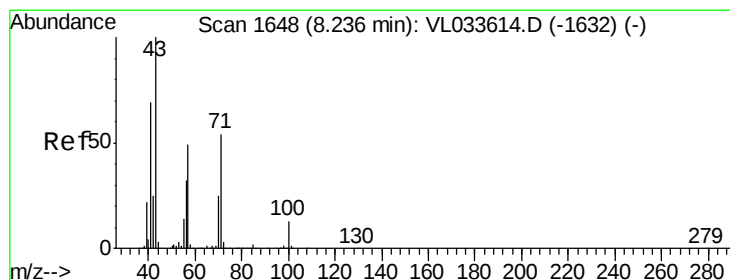
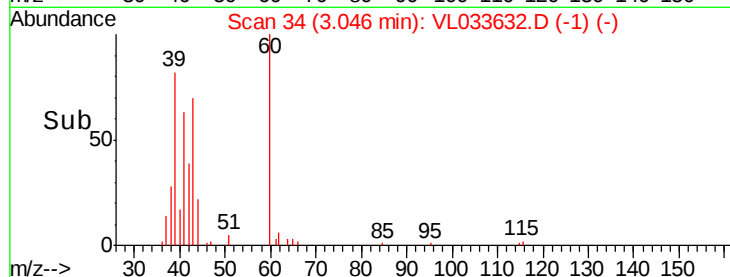
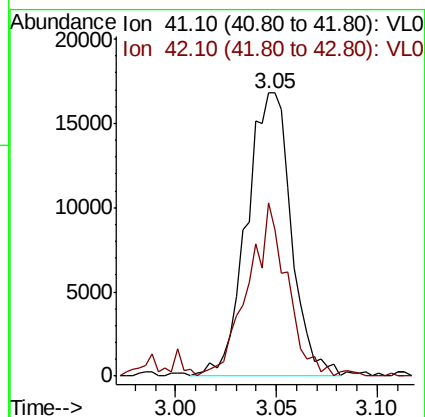
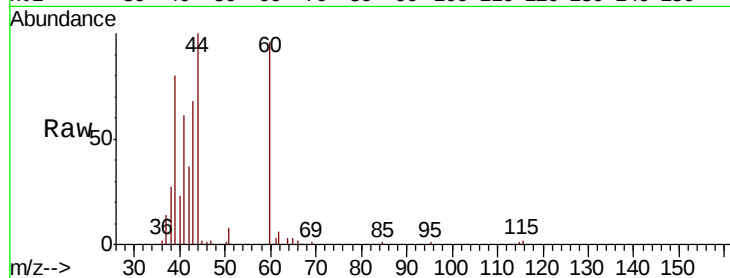
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Tgt Ion: 41 Resp: 26061

Ion Ratio Lower Upper

41 100

42 56.0 66.0 99.0#



#10

Heptane

Concen: 0.071 ppbv

RT: 8.24 min Scan# 1648

Delta R.T. -0.00 min

Lab File: VL033632.D

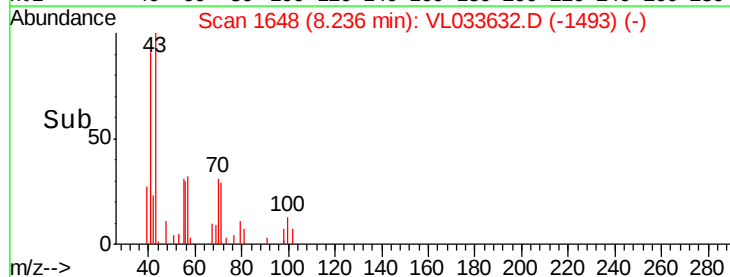
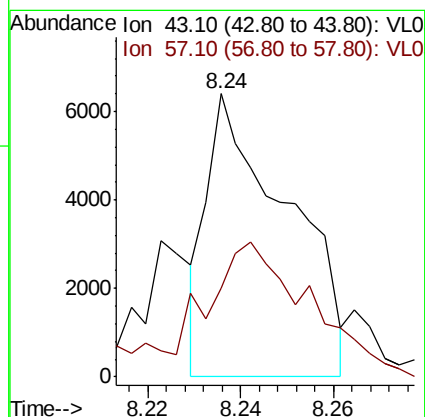
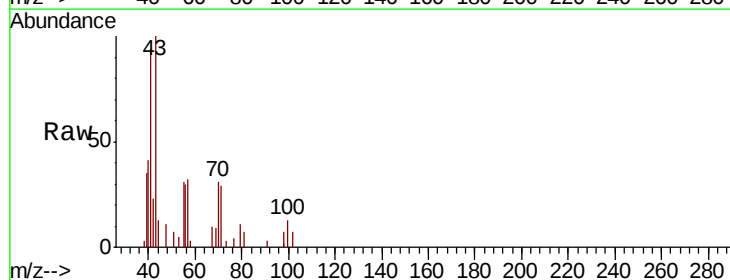
Acq: 2 May 2019 17:45

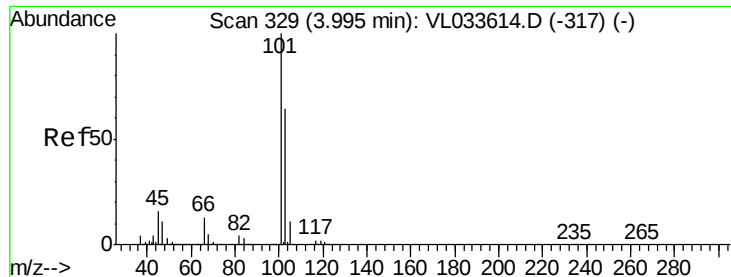
Tgt Ion: 43 Resp: 7745

Ion Ratio Lower Upper

43 100

57 68.3 40.3 60.5#

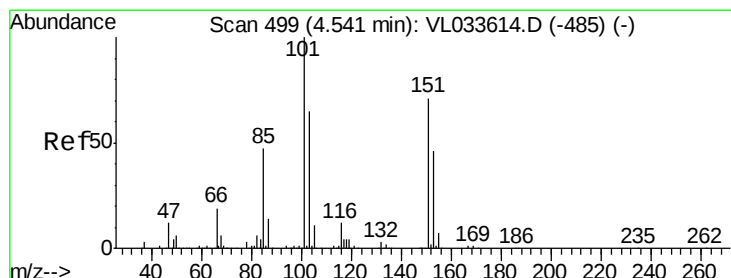
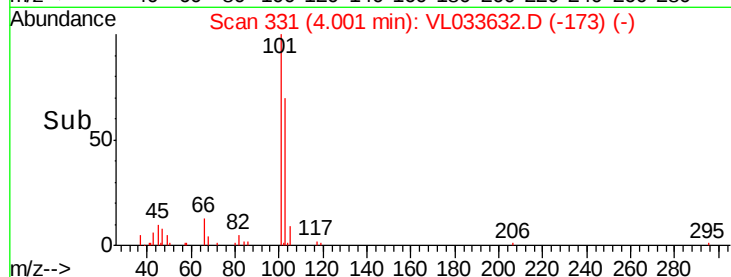
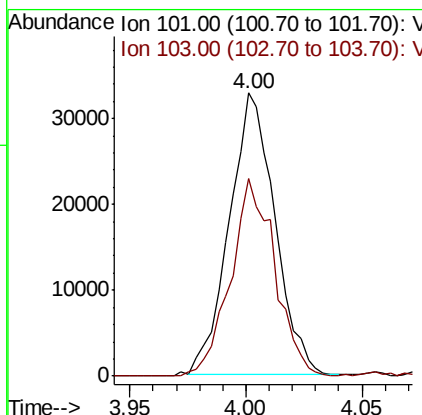
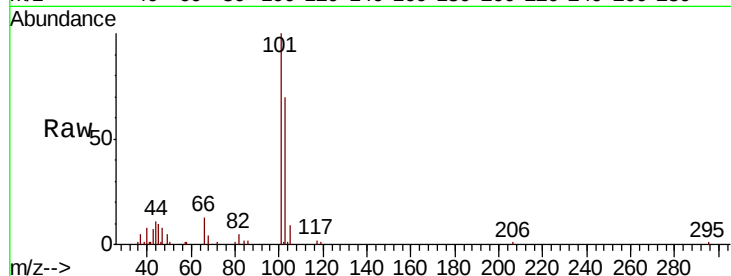




#11
 Trichlorofluoromethane
 Concen: 0.290 ppbv
 RT: 4.00 min Scan# 331
 Delta R.T. 0.01 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

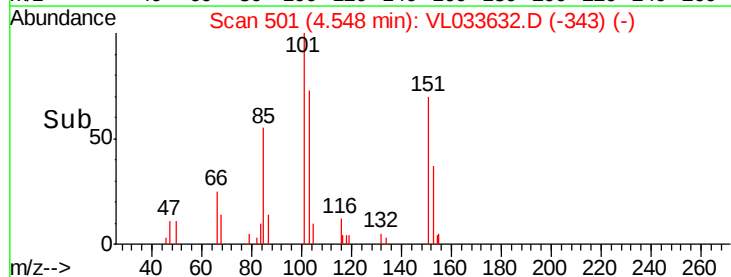
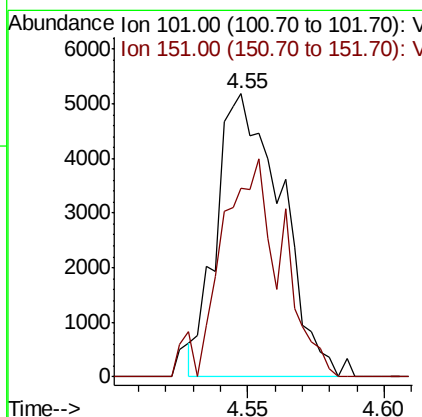
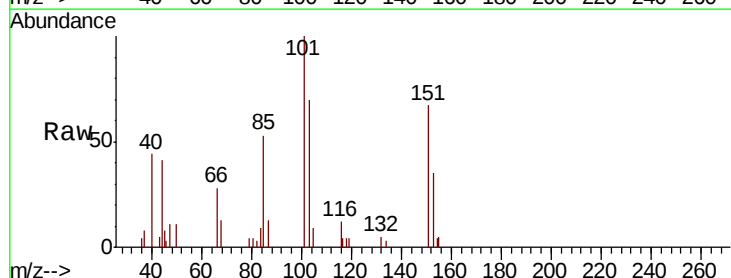
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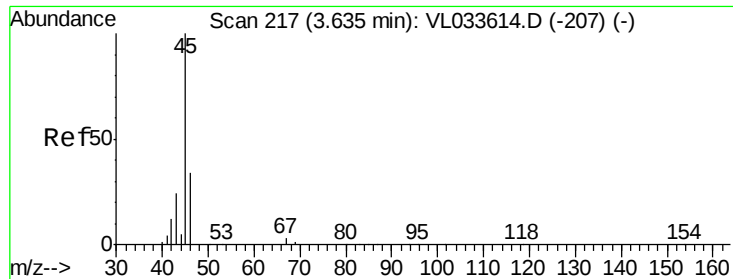
Tgt Ion:101 Resp: 44634
 Ion Ratio Lower Upper
 101 100
 103 70.3 51.2 76.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.081 ppbv
 RT: 4.55 min Scan# 501
 Delta R.T. 0.01 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

Tgt Ion:101 Resp: 8528
 Ion Ratio Lower Upper
 101 100
 151 72.3 59.2 88.8





#13

Ethanol

Concen: 59.875 ppbv

RT: 3.65 min Scan# 222

Delta R.T. 0.02 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Instrument :

MSVOA_L

ClientSampleId :

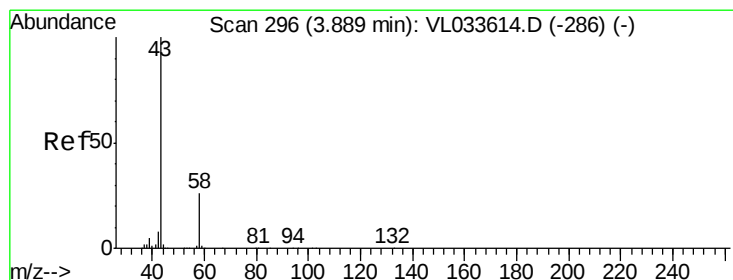
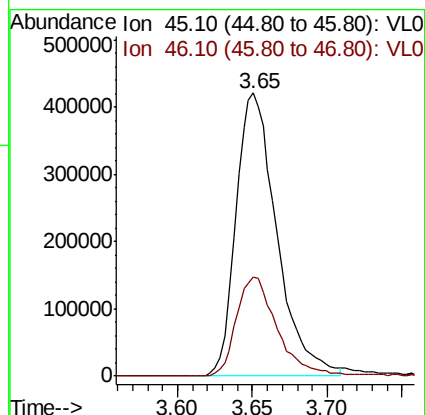
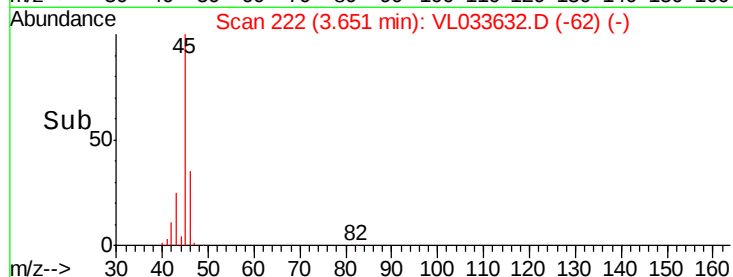
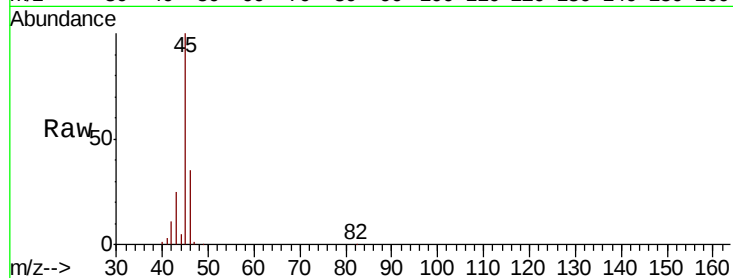
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Tgt Ion: 45 Resp: 798656

Ion Ratio Lower Upper

45 100

46 36.0 14.6 58.2



#15

Acetone

Concen: 6.110 ppbv

RT: 3.90 min Scan# 299

Delta R.T. 0.01 min

Lab File: VL033632.D

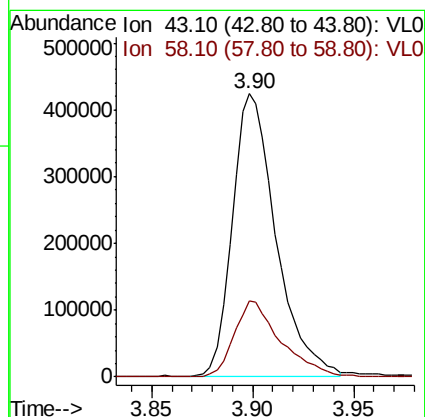
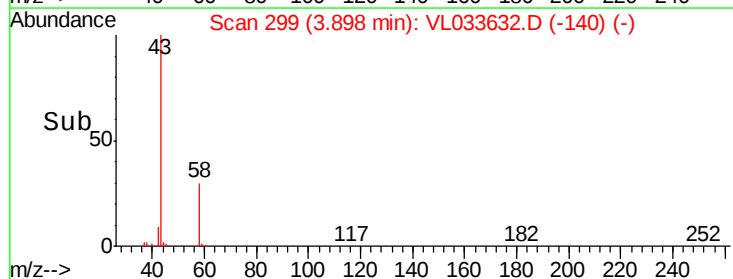
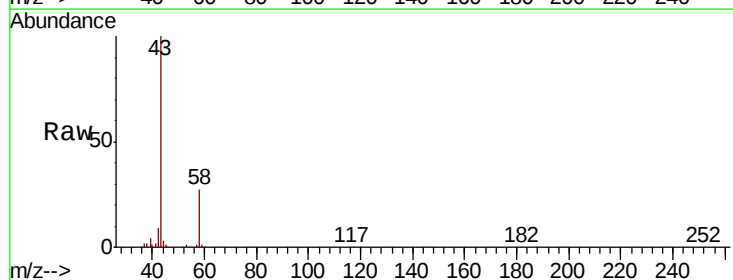
Acq: 2 May 2019 17:45

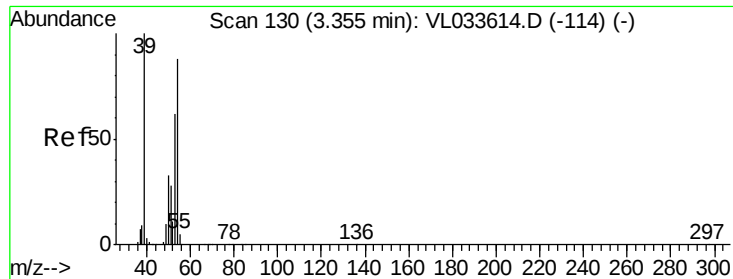
Tgt Ion: 43 Resp: 639203

Ion Ratio Lower Upper

43 100

58 29.3 21.2 31.8

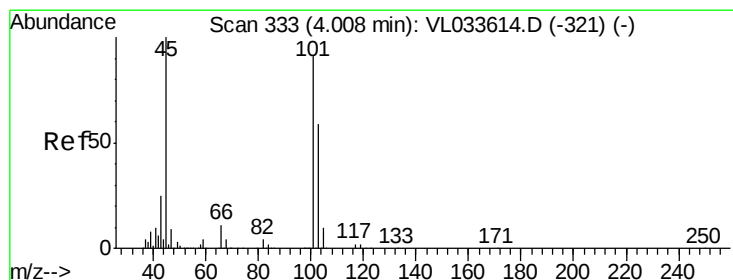
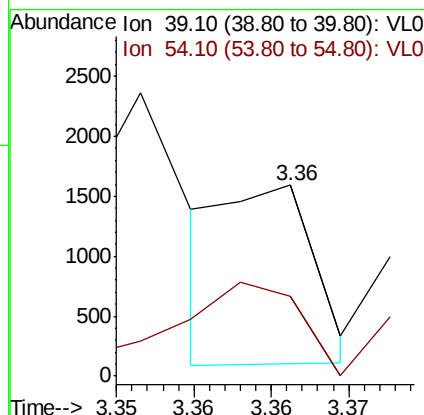
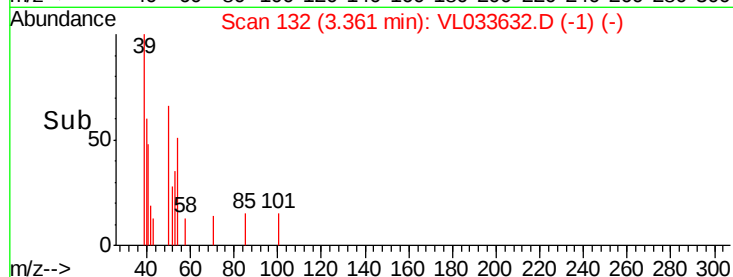
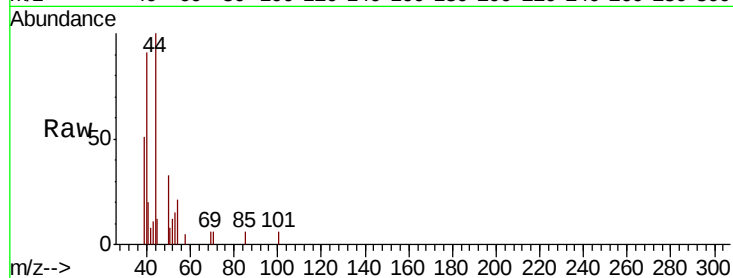




#16
 1,3-Butadiene
 Concen: 0.013 ppbv
 RT: 3.36 min Scan# 132
 Delta R.T. 0.01 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

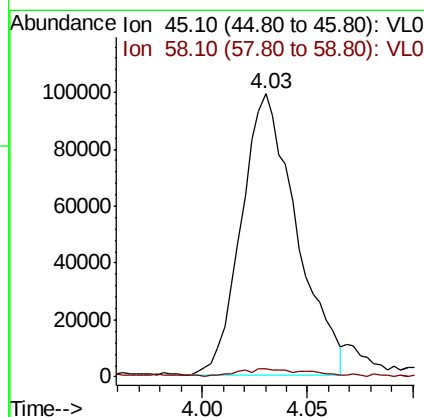
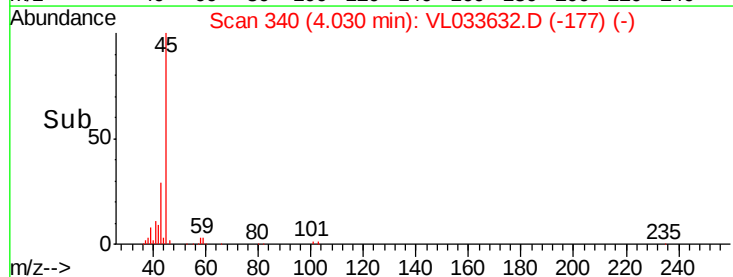
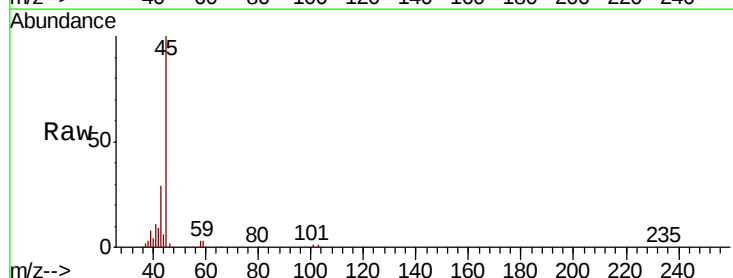
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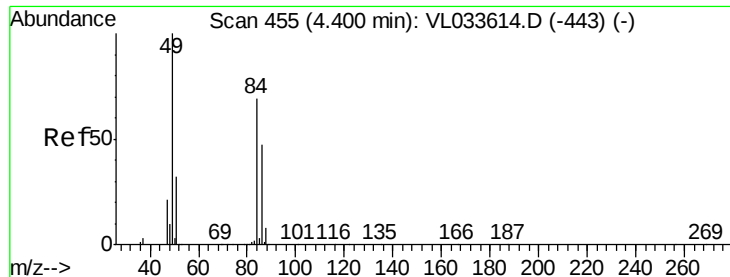
Tgt Ion: 39 Resp: 596
 Ion Ratio Lower Upper
 39 100
 54 78.0 68.4 102.6



#19
 Isopropyl Alcohol
 Concen: 2.497 ppbv
 RT: 4.03 min Scan# 340
 Delta R.T. 0.02 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

Tgt Ion: 45 Resp: 179325
 Ion Ratio Lower Upper
 45 100
 58 4.4 1.8 2.6#





#20

Methylene Chloride

Concen: 1.411 ppbv

RT: 4.41 min Scan# 457

Delta R.T. 0.01 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Instrument :

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Tgt Ion: 84 Resp: 57540

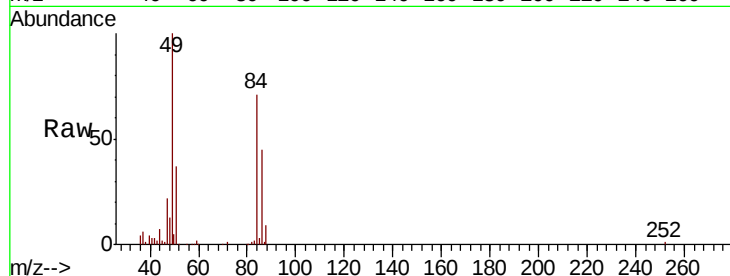
Ion Ratio Lower Upper

84 100

49 138.4 116.2 174.2

51 51.2 37.0 55.6

86 63.6 54.0 81.0

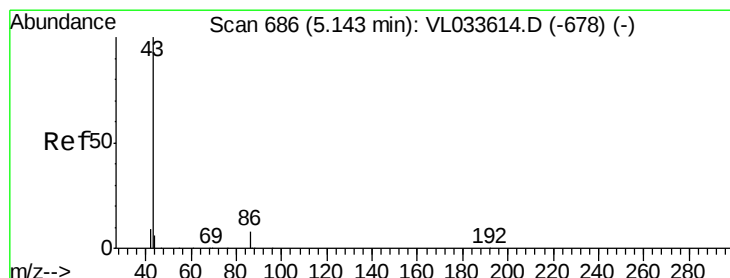
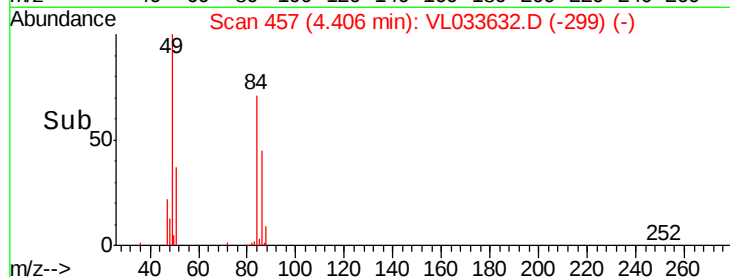
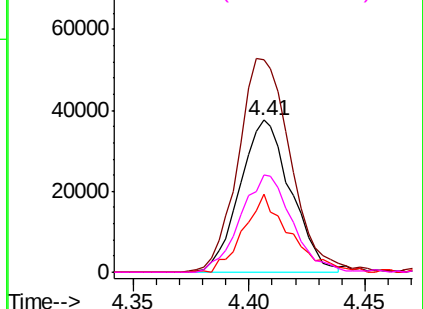


Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#23

Vinyl Acetate

Concen: 0.159 ppbv

RT: 5.14 min Scan# 686

Delta R.T. -0.00 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Tgt Ion: 43 Resp: 24673

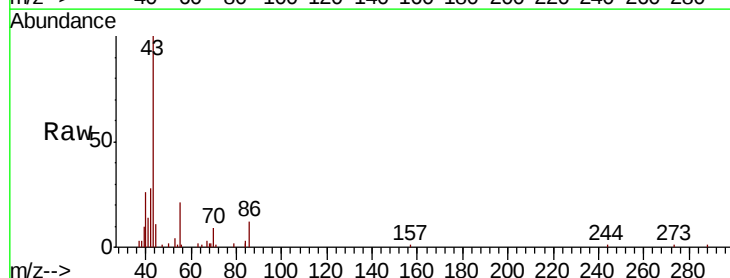
Ion Ratio Lower Upper

43 100

86 13.0 5.8 8.8#

42 23.2 7.8 11.8#

44 4.0 4.6 7.0#

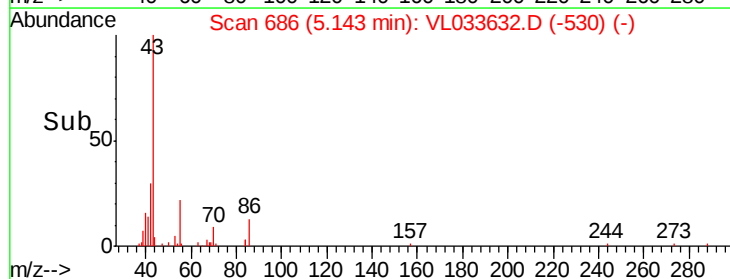
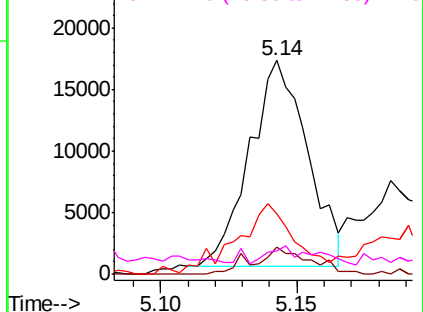


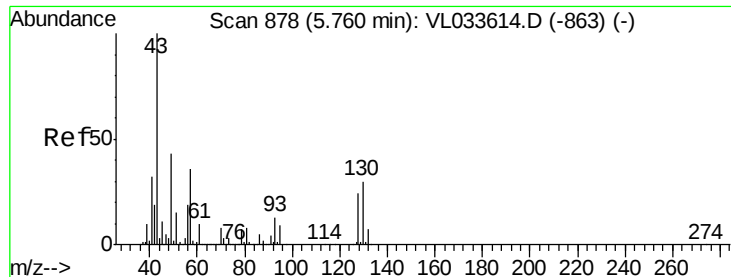
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0

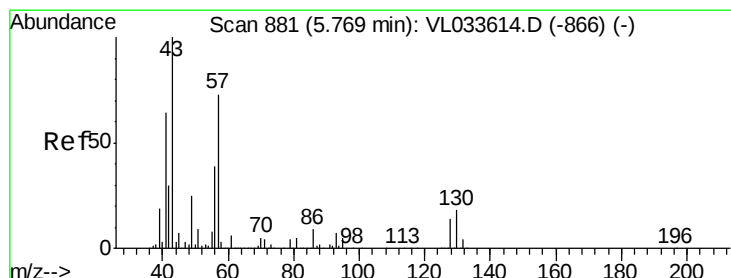
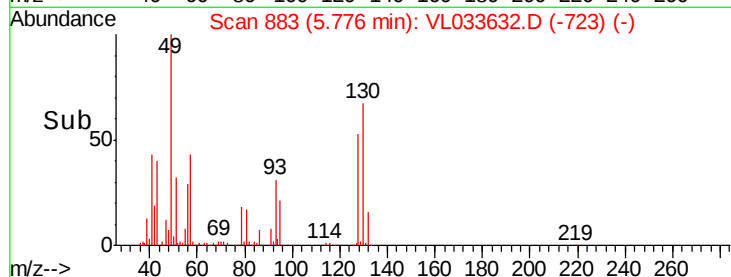
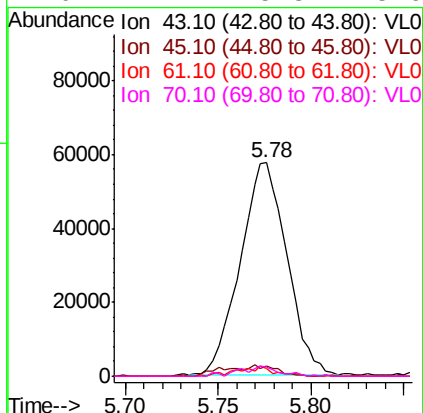
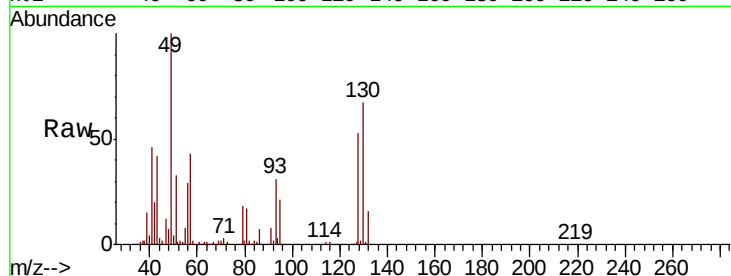




#25
Ethyl Acetate
Concen: 0.505 ppbv
RT: 5.78 min Scan# 883
Delta R.T. 0.02 min
Lab File: VL033632.D
Acq: 2 May 2019 17:45

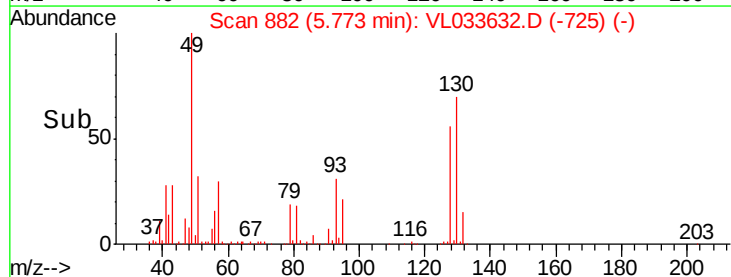
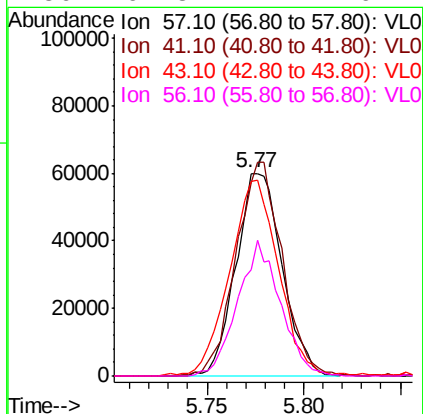
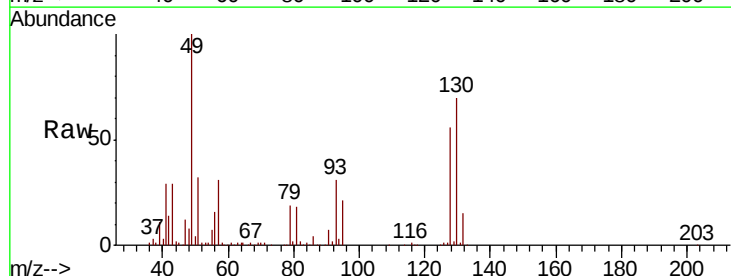
Instrument :
MSVOA_L
ClientSampleId :
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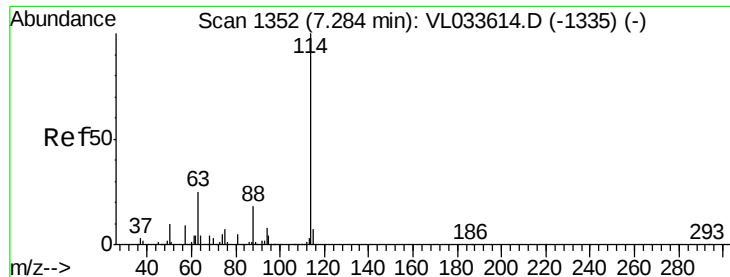
Tgt Ion:	43	Resp:	100268
Ion	Ratio	Lower	Upper
43	100		
45	6.0	8.1	12.1#
61	4.0	7.5	11.3#
70	4.1	5.8	8.6#



#26
Hexane
Concen: 1.190 ppbv
RT: 5.77 min Scan# 882
Delta R.T. 0.00 min
Lab File: VL033632.D
Acq: 2 May 2019 17:45

Tgt Ion:	57	Resp:	99535
Ion	Ratio	Lower	Upper
57	100		
41	105.9	70.6	106.0
43	104.2	186.0	279.0#
56	61.8	42.7	64.1

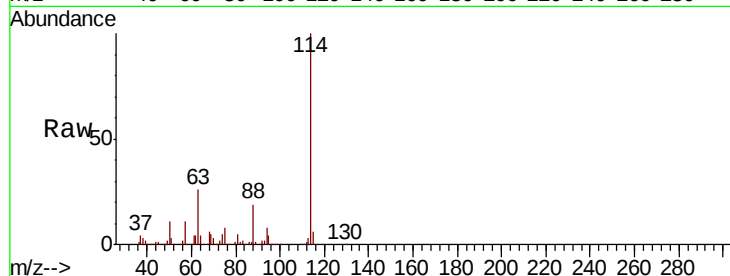




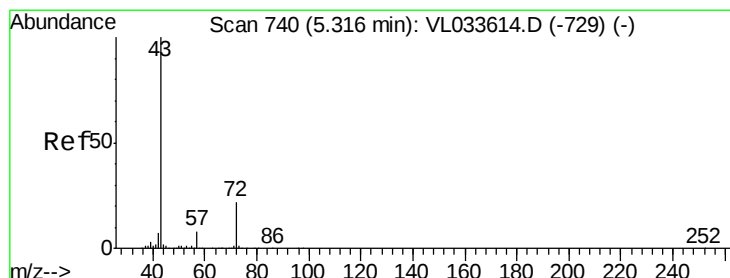
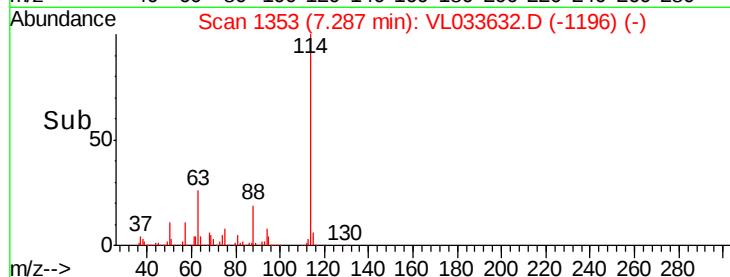
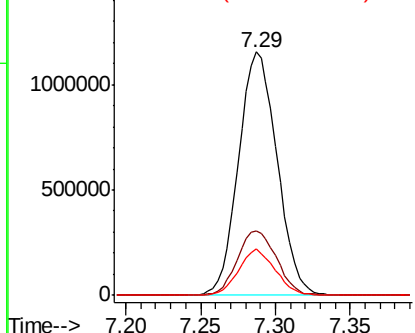
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. 0.00 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

Instrument :
 MSVOA_L
 ClientSampled :
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Tgt Ion:114 Resp: 2072458
 Ion Ratio Lower Upper
 114 100
 63 27.1 21.1 31.7
 88 18.1 14.2 21.4

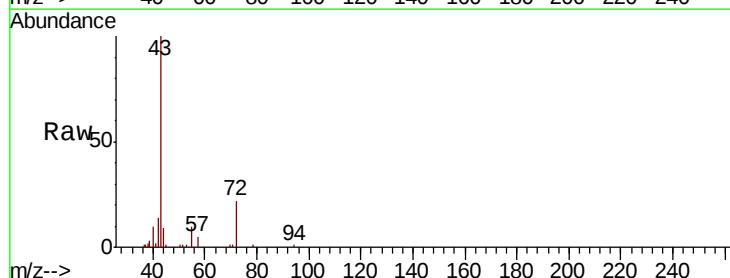


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

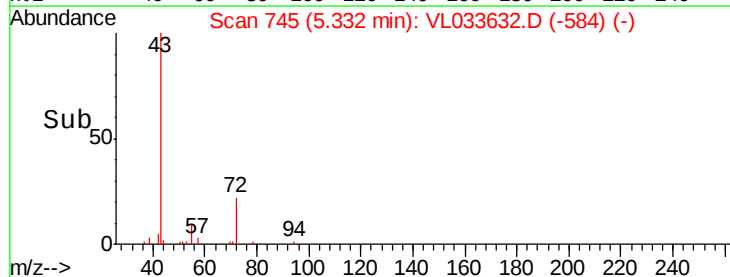
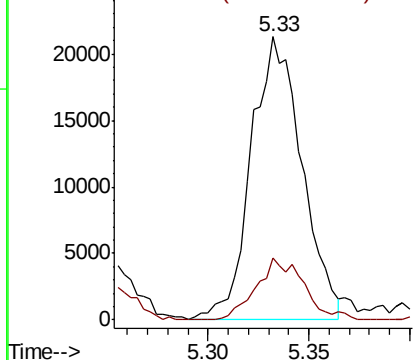


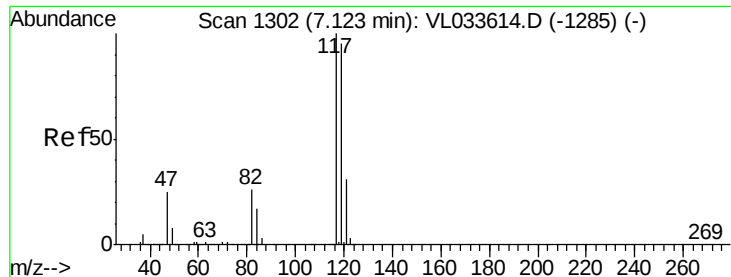
#34
 2-Butanone
 Concen: 0.294 ppbv
 RT: 5.33 min Scan# 745
 Delta R.T. 0.02 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

Tgt Ion: 43 Resp: 37454
 Ion Ratio Lower Upper
 43 100
 72 20.4 17.8 26.8



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.027 ppbv

RT: 7.13 min Scan# 1305

Delta R.T. 0.01 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Instrument :

MSVOA_L

ClientSampleId :

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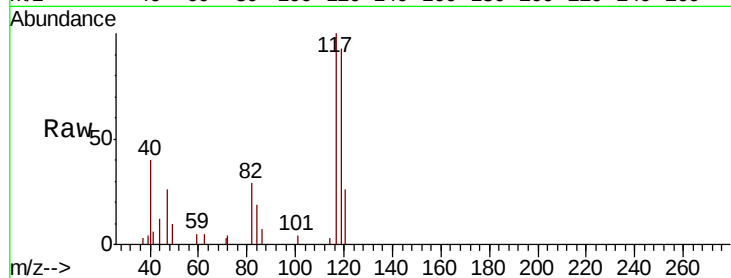
Tgt Ion:117 Resp: 4432

Ion Ratio Lower Upper

117 100

119 84.5 76.2 114.4

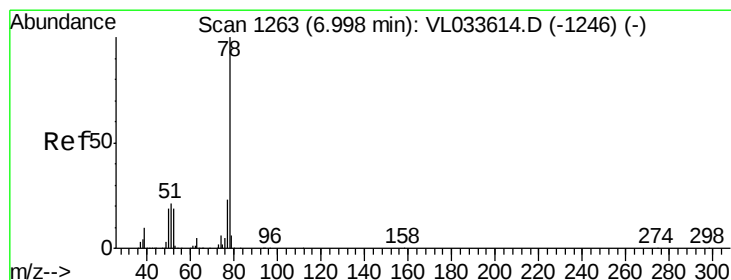
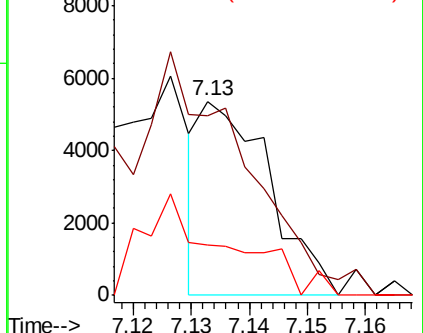
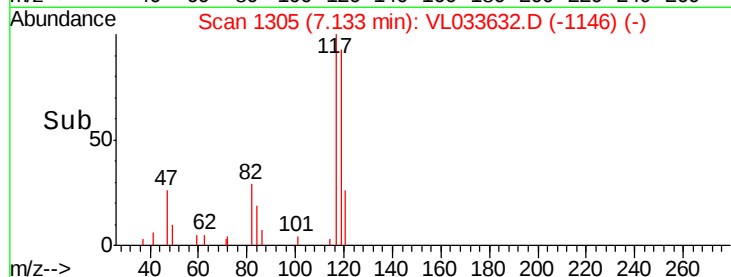
121 26.1 24.9 37.3



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.070 ppbv

RT: 7.00 min Scan# 1263

Delta R.T. -0.00 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

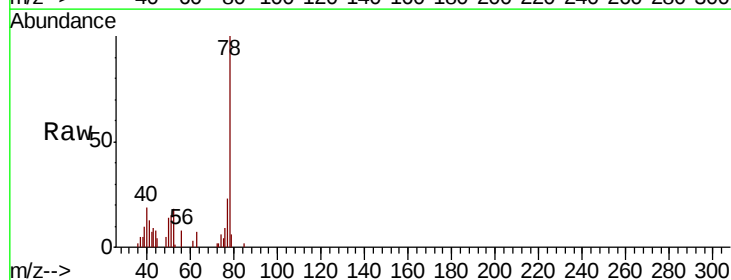
Tgt Ion: 78 Resp: 12386

Ion Ratio Lower Upper

78 100

77 12.6 18.1 27.1#

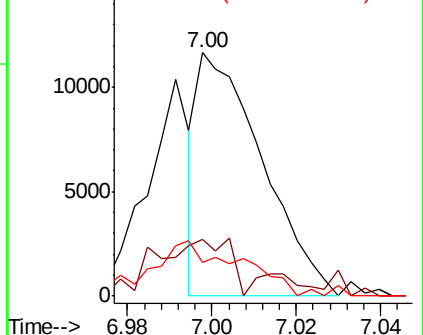
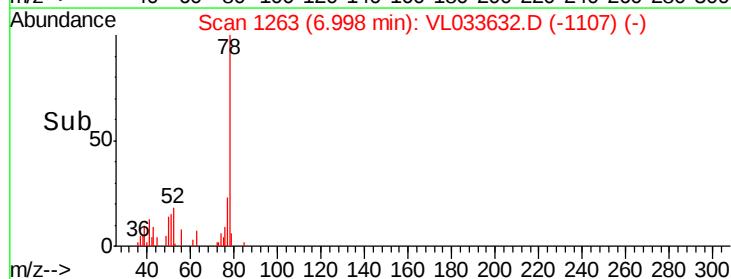
50 9.5 15.1 22.7#

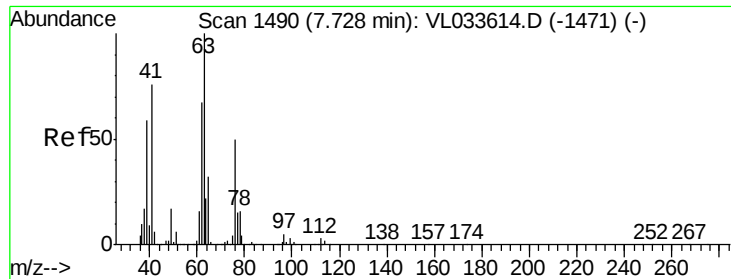


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 8.389 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.44 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Instrument :

MSVOA_L

ClientSampleId :

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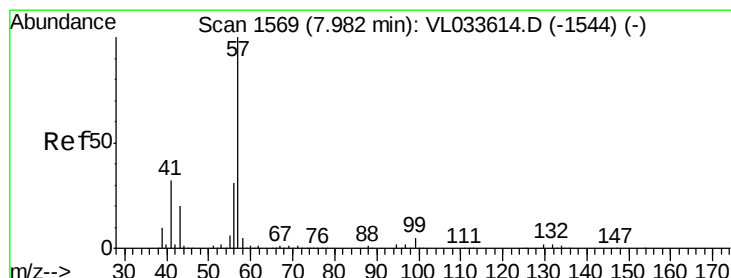
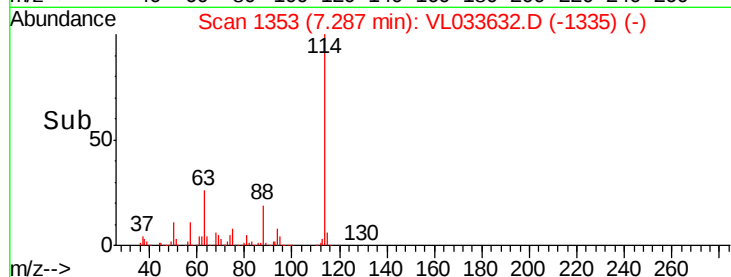
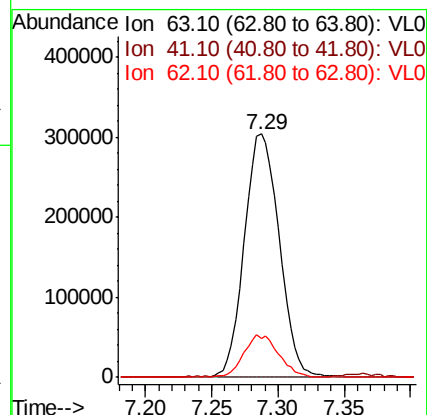
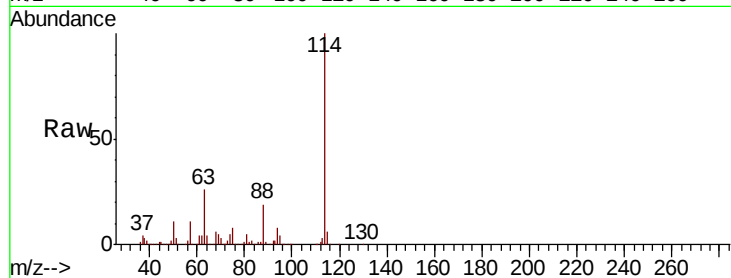
Tgt Ion: 63 Resp: 558637

Ion Ratio Lower Upper

63 100

41 0.0 60.9 91.3#

62 16.1 53.3 79.9#



#44

2,2,4-Trimethylpentane

Concen: 0.028 ppbv

RT: 7.99 min Scan# 1571

Delta R.T. 0.01 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

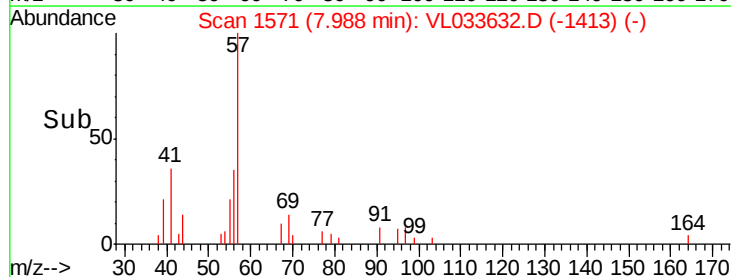
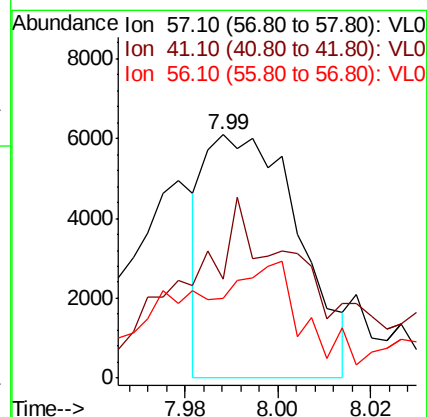
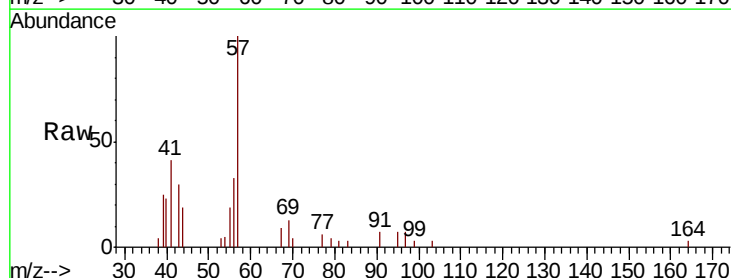
Tgt Ion: 57 Resp: 8553

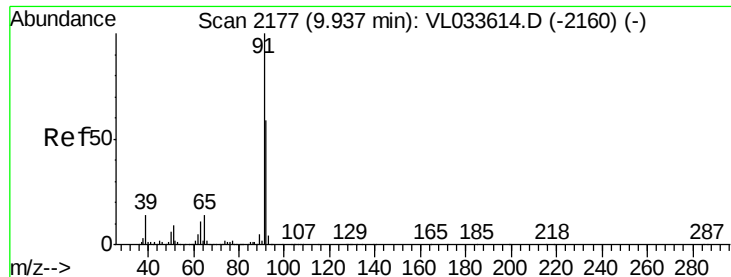
Ion Ratio Lower Upper

57 100

41 144.6 25.4 38.2#

56 87.5 24.6 37.0#





#53

Toluene

Concen: 8.115 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. 0.01 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Instrument :

MSVOA_L

ClientSampled :

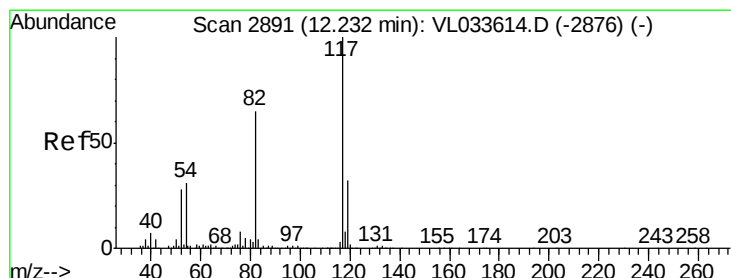
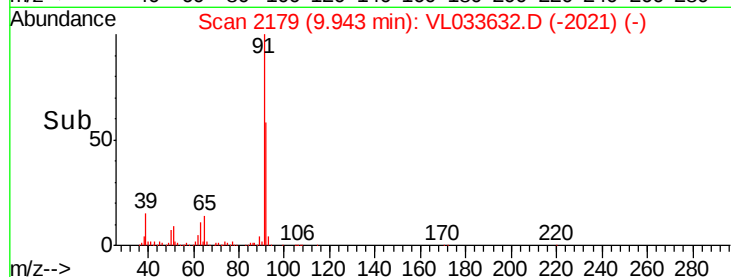
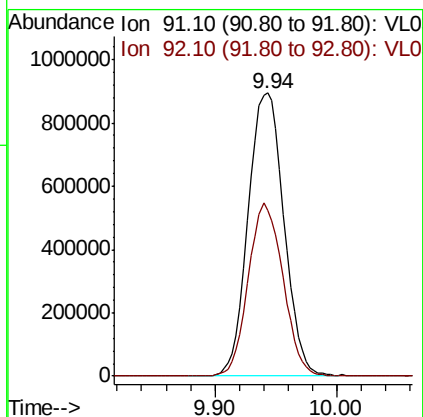
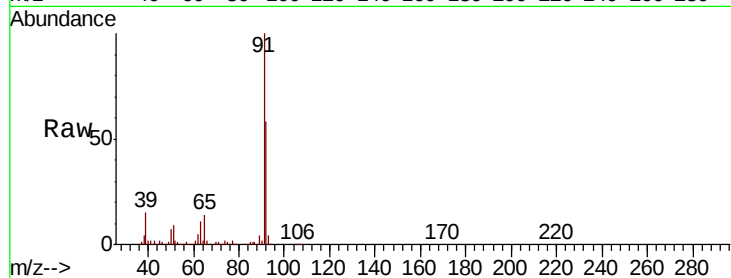
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Tgt Ion: 91 Resp: 1808421

Ion Ratio Lower Upper

91 100

92 59.5 47.8 71.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2892

Delta R.T. 0.00 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

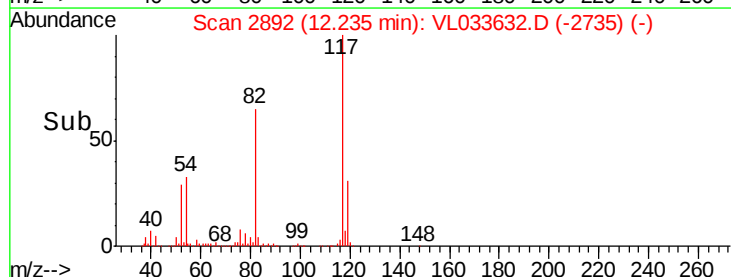
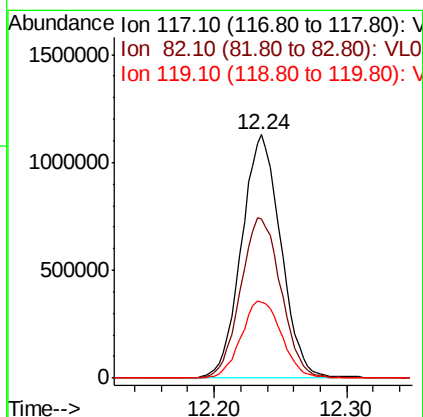
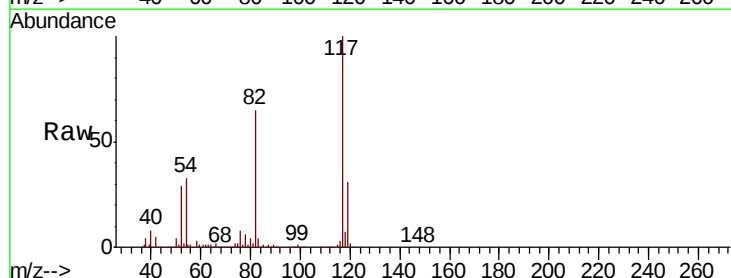
Tgt Ion: 117 Resp: 2322318

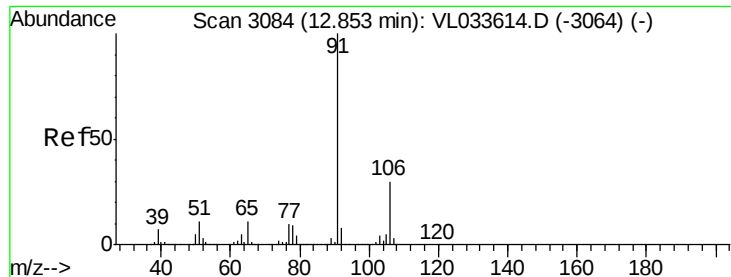
Ion Ratio Lower Upper

117 100

82 68.6 52.6 78.8

119 32.7 28.3 42.5





#58

Ethyl Benzene

Concen: 0.045 ppbv

RT: 13.12 min Scan# 3166

Delta R.T. 0.26 min

Lab File: VL033632.D

Acq: 2 May 2019 17:45

Instrument :

MSVOA_L

ClientSampleId :

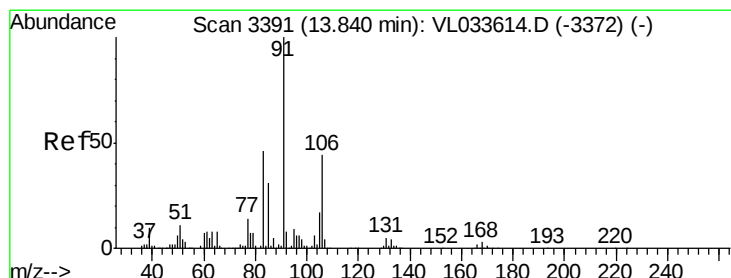
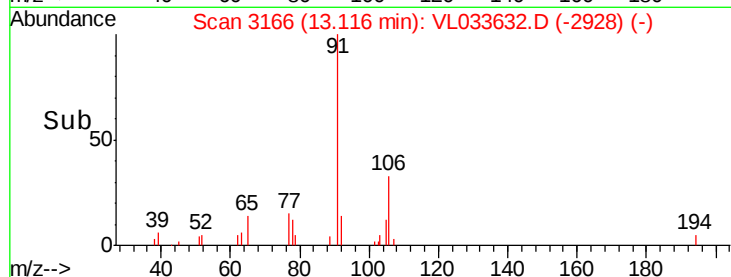
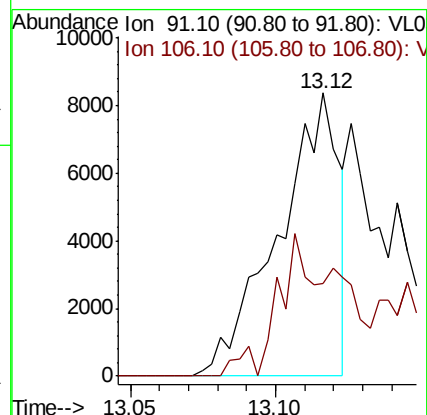
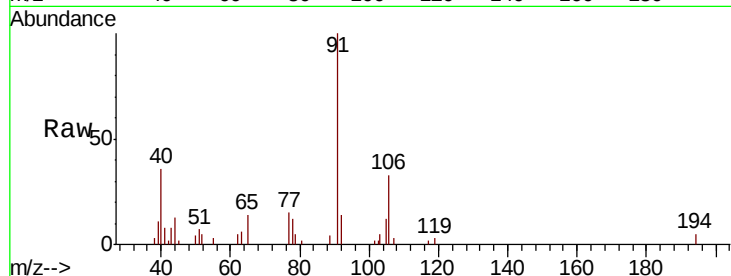
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Tgt Ion: 91 Resp: 12128

Ion Ratio Lower Upper

91 100

106 32.6 23.6 35.4



#60

o-Xylene

Concen: 0.038 ppbv

RT: 13.84 min Scan# 3391

Delta R.T. -0.00 min

Lab File: VL033632.D

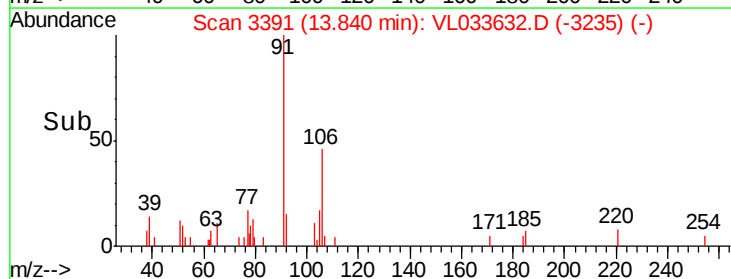
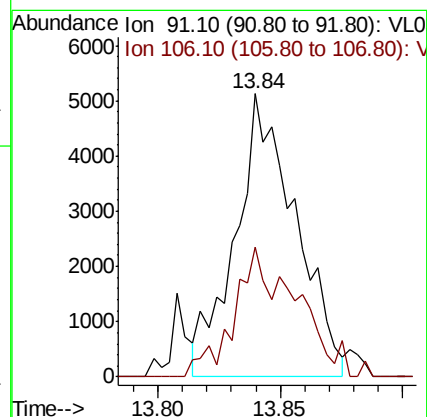
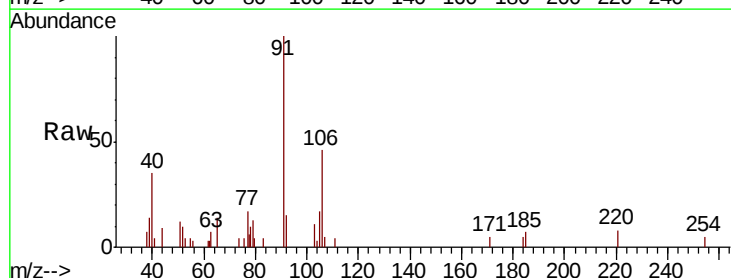
Acq: 2 May 2019 17:45

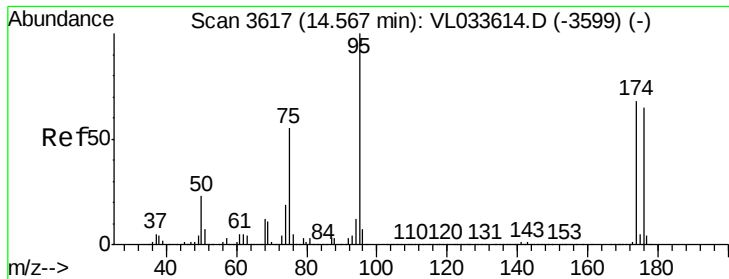
Tgt Ion: 91 Resp: 8743

Ion Ratio Lower Upper

91 100

106 48.3 21.8 65.4

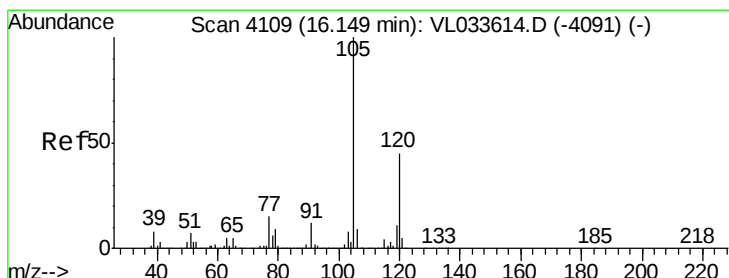
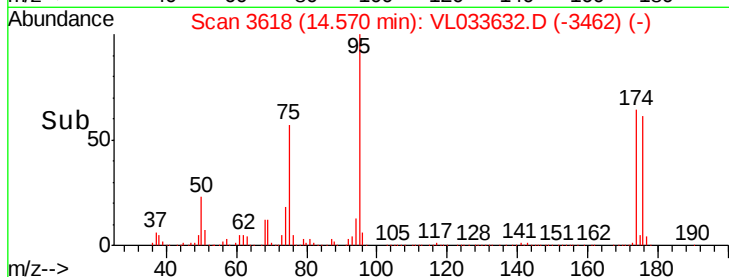
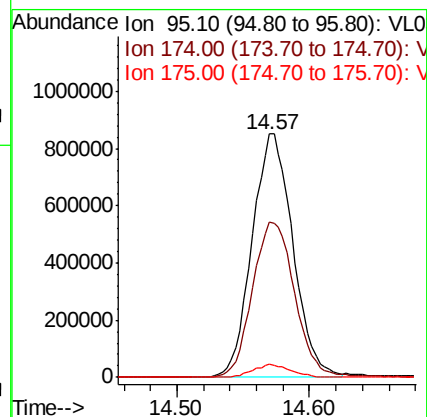
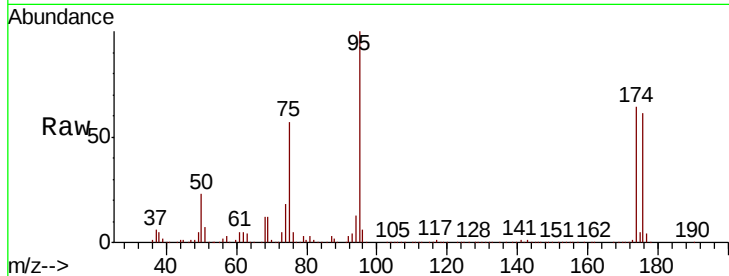




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.333 ppbv
 RT: 14.57 min Scan# 3618
 Delta R.T. 0.00 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

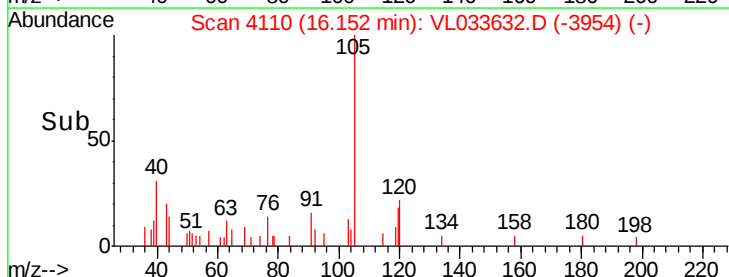
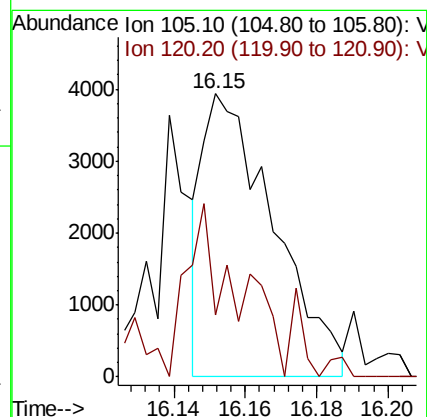
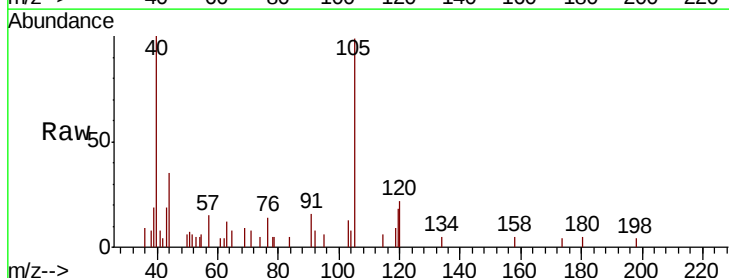
Instrument :
 MSVOA_L
 ClientSampleId :
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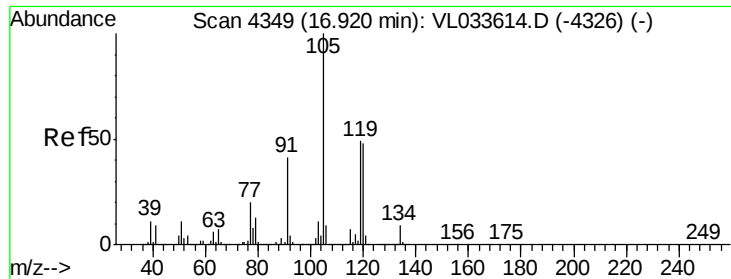
Tgt Ion: 95 Resp: 1826818
 Ion Ratio Lower Upper
 95 100
 174 66.7 53.9 80.9
 175 5.0 4.0 6.0



#73
 1,3,5-Trimethylbenzene
 Concen: 0.021 ppbv
 RT: 16.15 min Scan# 4110
 Delta R.T. 0.00 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

Tgt Ion: 105 Resp: 5425
 Ion Ratio Lower Upper
 105 100
 120 16.4 36.2 54.2#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.100 ppbv
 RT: 16.92 min Scan# 4349
 Delta R.T. -0.00 min
 Lab File: VL033632.D
 Acq: 2 May 2019 17:45

Instrument :
 MSVOA_L
 ClientSampleId :
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Tgt Ion:	105	Resp:	29036
Ion	Ratio	Lower	Upper
105	100		
120	41.7	38.4	57.6
91	12.8	33.0	49.4#
77	24.0	16.2	24.2

