

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL031620\
 Data File : VL034894.D
 Acq On : 16 Mar 2020 17:26
 Operator : SY/AP
 Sample : L1924-03DUP
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-01DUP

Quant Time: Mar 17 04:27:02 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030920AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 09 16:42:53 2020
 QLast Update : Mon Mar 09 16:42:53 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	913667	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.17	114	1978474	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	1894574	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	1570356	10.63	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.30%

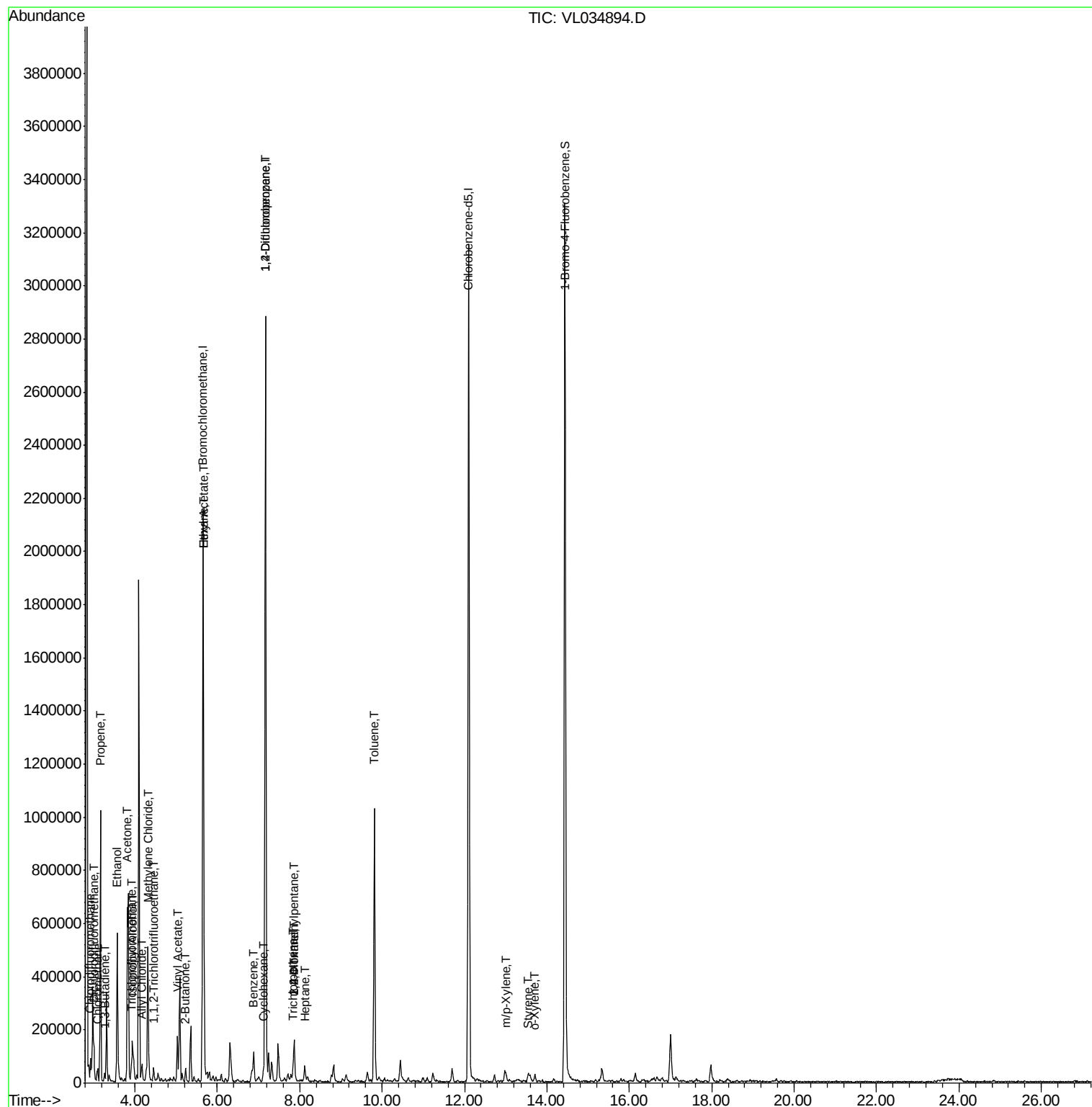
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.01	85	75395	0.603 ppbv	97
3) Chlorodifluoromethane	2.92	51	83547	0.819 ppbv #	82
4) Chloromethane	3.10	50	29800	0.517 ppbv	92
9) Propene	3.16	41	267687	5.493 ppbv	96
10) Heptane	8.11	43	6174	0.051 ppbv #	1
11) Trichlorofluoromethane	3.92	101	35537	0.267 ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.45	101	8847	0.095 ppbv #	11
13) Ethanol	3.57	45	549120	37.066 ppbv	92
15) Acetone	3.81	43	774134	6.537 ppbv #	90
16) 1,3-Butadiene	3.27	39	1868	0.035 ppbv #	1
19) Isopropyl Alcohol	3.95	45	69883	0.934 ppbv #	56
20) Methylene Chloride	4.31	84	161061	4.302 ppbv	98
21) Allyl Chloride	4.18	41	7685	0.101 ppbv #	1
23) Vinyl Acetate	5.03	43	62048	0.355 ppbv #	1
25) Ethyl Acetate	5.67	43	223920	1.061 ppbv #	94
26) Hexane	5.67	57	194550	2.141 ppbv #	55
30) Cyclohexane	7.12	84	8424	0.111 ppbv #	1
34) 2-Butanone	5.23	43	53006	0.403 ppbv	97
36) Benzene	6.88	78	45616	0.259 ppbv	98
38) Trichloroethene	7.83	130	4275	0.064 ppbv #	81
39) 1,2-Dichloropropane	7.17	63	538529	7.708 ppbv #	22
40) 1,4-Dioxane	7.87	88	1402	0.053 ppbv #	1
44) 2,2,4-Trimethylpentane	7.87	57	114506	0.384 ppbv #	83
53) Toluene	9.81	91	755542	3.710 ppbv	98
59) m/p-Xylene	13.01	91	10517	0.049 ppbv #	1
60) o-Xylene	13.70	91	14615	0.070 ppbv	76
61) Styrene	13.55	104	5071	0.034 ppbv #	1

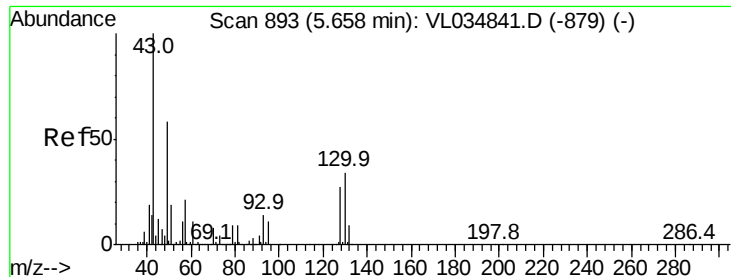
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 889

Delta R.T. -0.01 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

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IA-01DUP

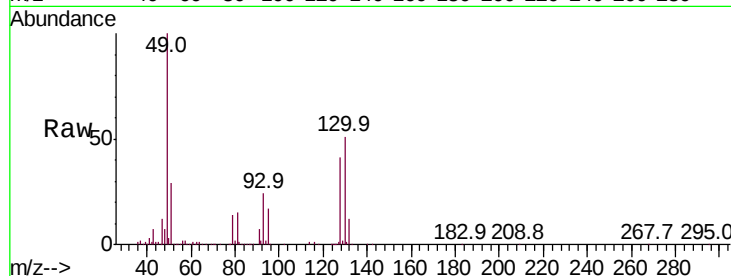
Tot Ion: 49 Resp: 913667

Ion Ratio Lower Upper

49 100

128 44.6 23.4 70.3

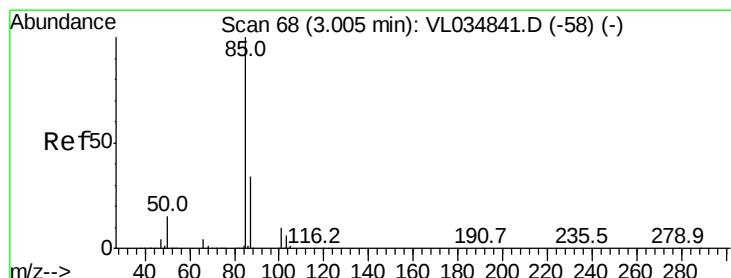
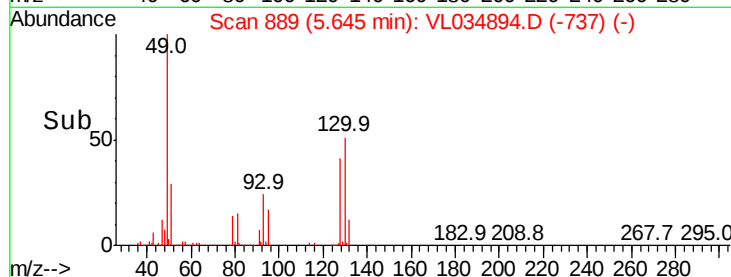
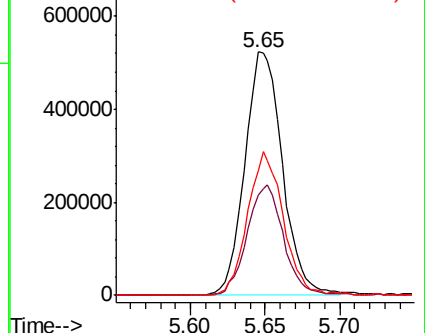
130 56.5 30.0 90.0



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



#2

Dichlorodifluoromethane

Concen: 0.603 ppbv

RT: 3.01 min Scan# 68

Delta R.T. 0.00 min

Lab File: VL034894.D

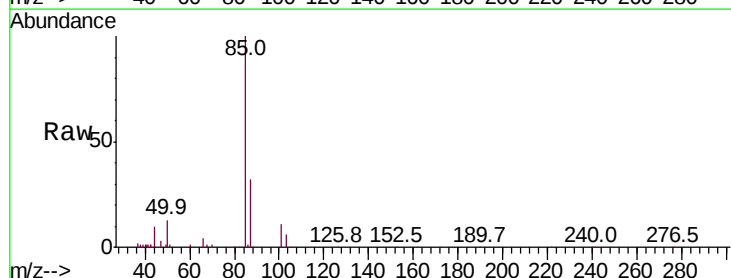
Acq: 16 Mar 2020 17:26

Tgt Ion: 85 Resp: 75395

Ion Ratio Lower Upper

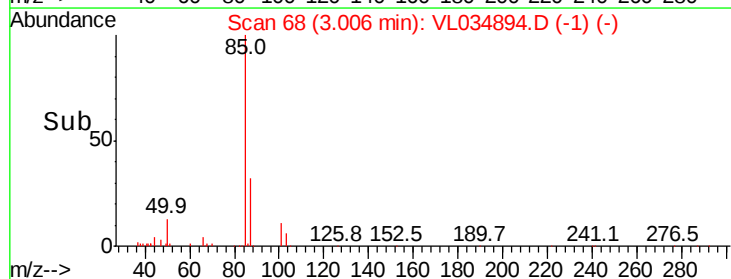
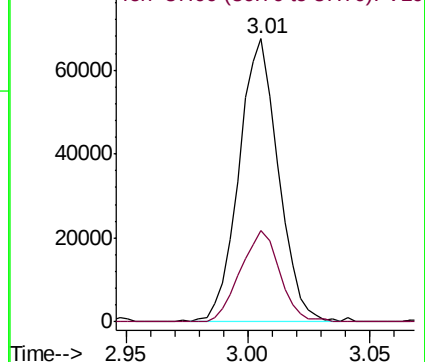
85 100

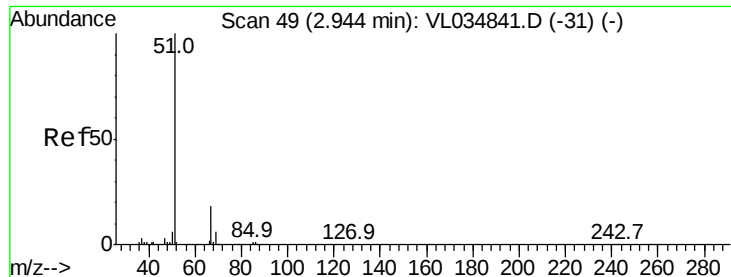
87 32.2 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

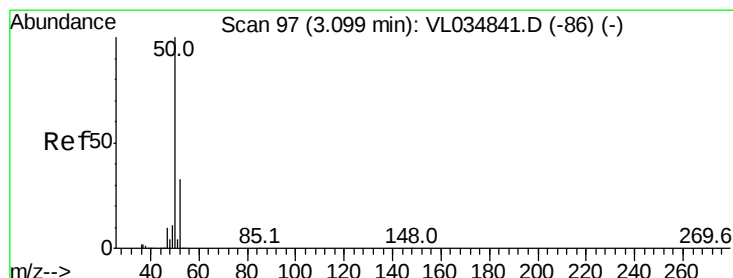
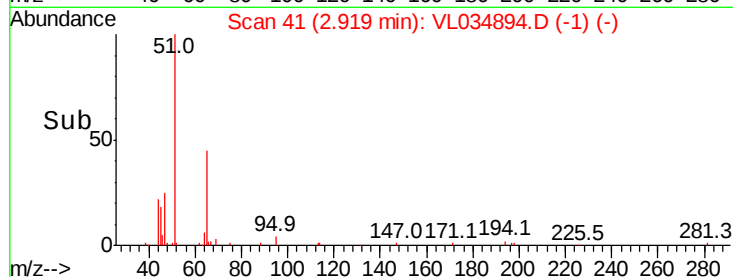
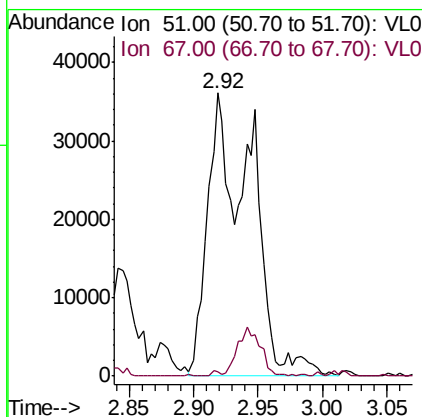
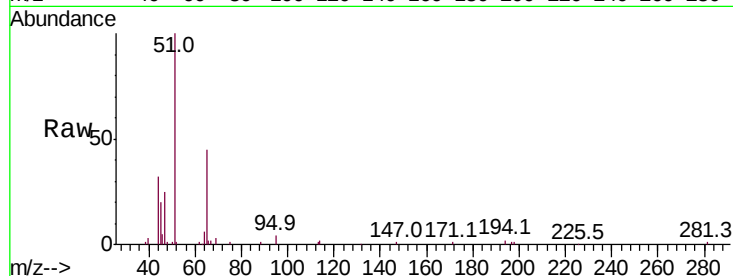




#3
Chlorodifluoromethane
Concen: 0.819 ppbv
RT: 2.92 min Scan# 41
Delta R.T. -0.03 min
Lab File: VL034894.D
Acq: 16 Mar 2020 17:26

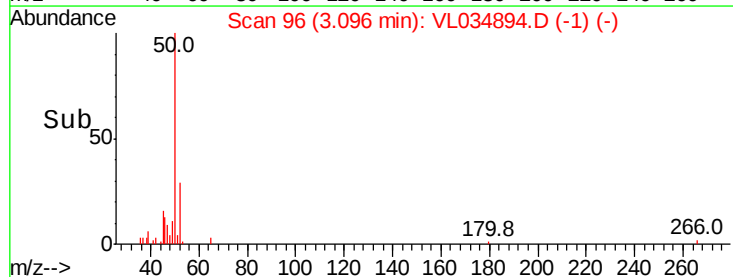
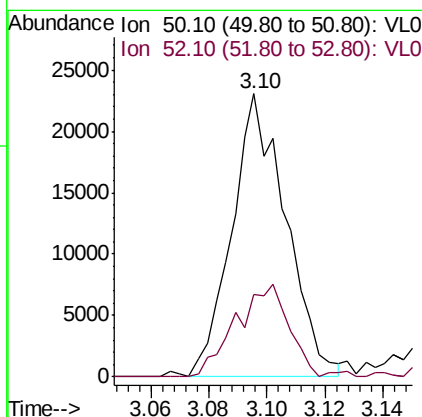
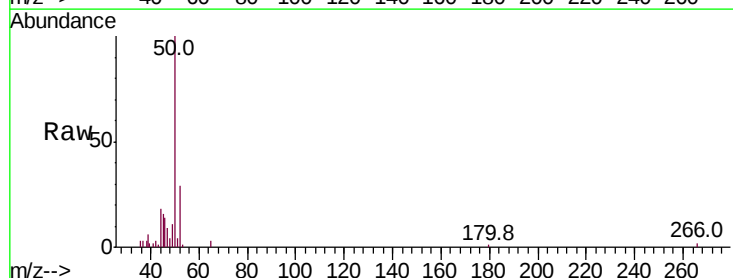
Instrument :
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ClientSampleId :
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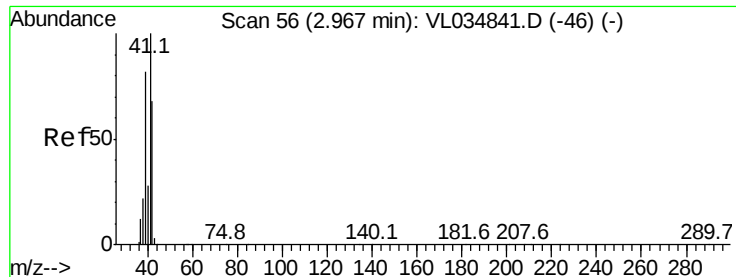
Tot Ion: 51 Resp: 83547
Ion Ratio Lower Upper
51 100
67 9.9 14.3 21.5#



#4
Chloromethane
Concen: 0.517 ppbv
RT: 3.10 min Scan# 96
Delta R.T. -0.00 min
Lab File: VL034894.D
Acq: 16 Mar 2020 17:26

Tgt Ion: 50 Resp: 29800
Ion Ratio Lower Upper
50 100
52 29.1 26.8 40.2





#9

Propene

Concen: 5.493 ppbv

RT: 3.16 min Scan# 117

Delta R.T. 0.20 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Instrument :

MSVOA_L

ClientSampleId :

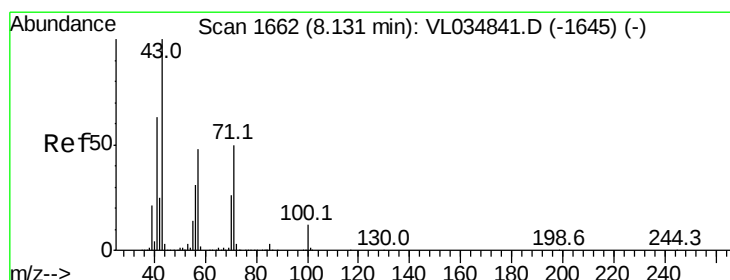
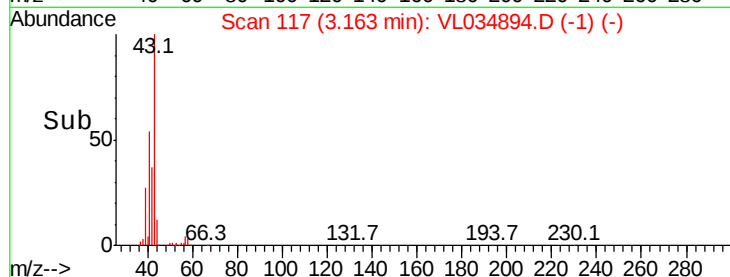
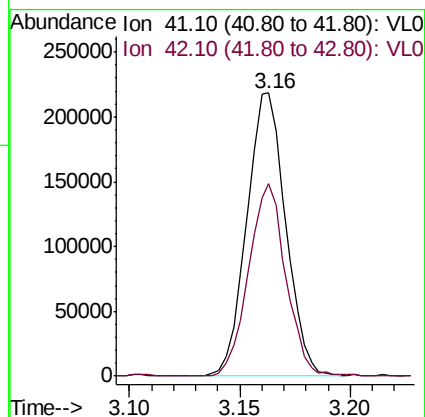
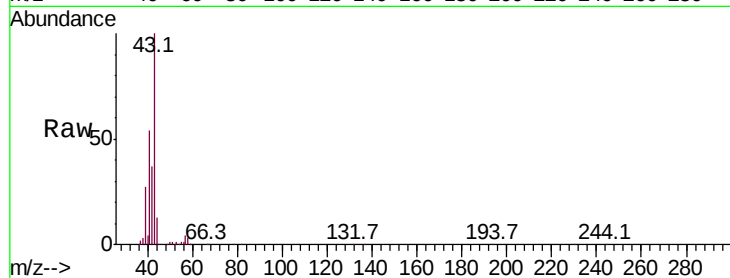
IA-01DUP

Tot Ion: 41 Resp: 267687

Ion Ratio Lower Upper

41 100

42 65.5 55.2 82.8



#10

Heptane

Concen: 0.051 ppbv

RT: 8.11 min Scan# 1656

Delta R.T. -0.02 min

Lab File: VL034894.D

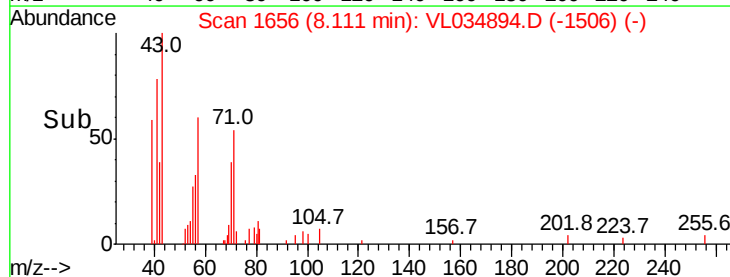
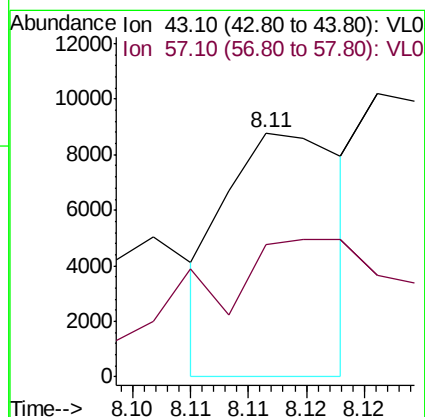
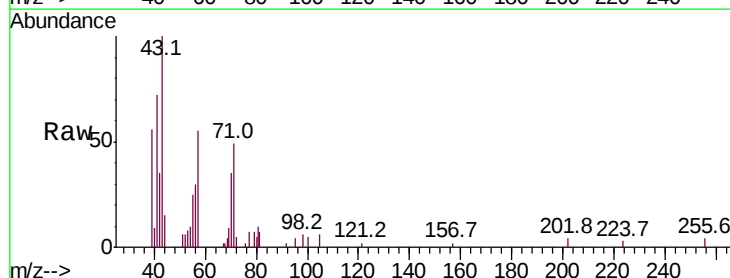
Acq: 16 Mar 2020 17:26

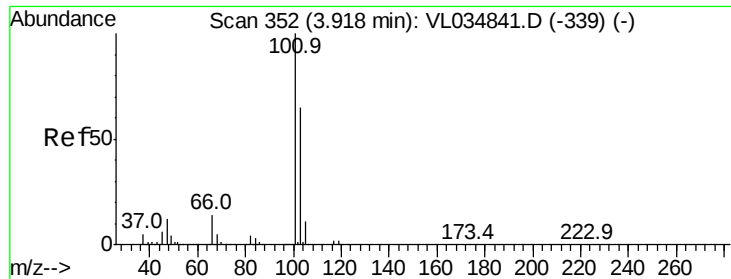
Tgt Ion: 43 Resp: 6174

Ion Ratio Lower Upper

43 100

57 161.9 39.7 59.5#

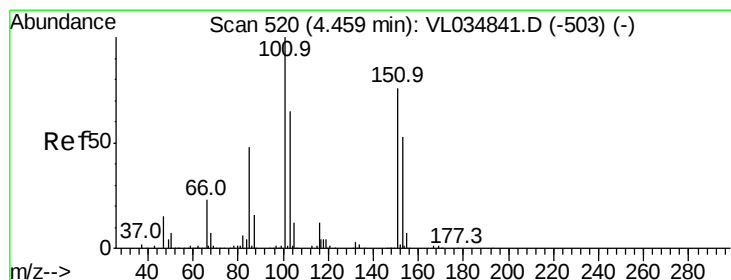
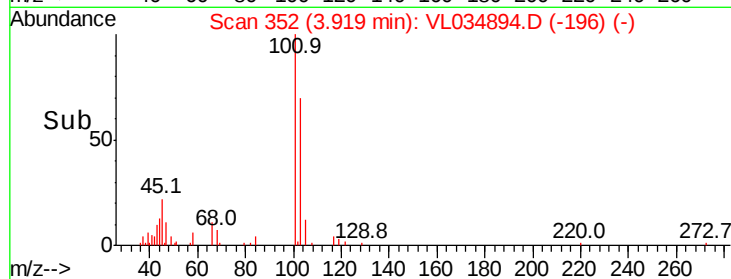
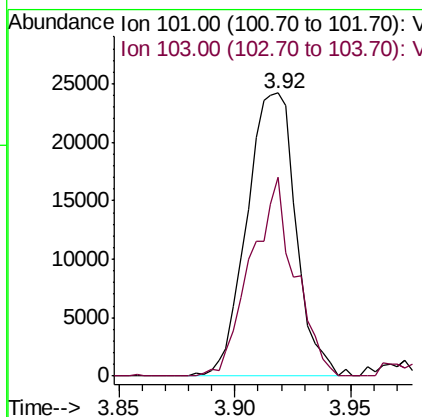
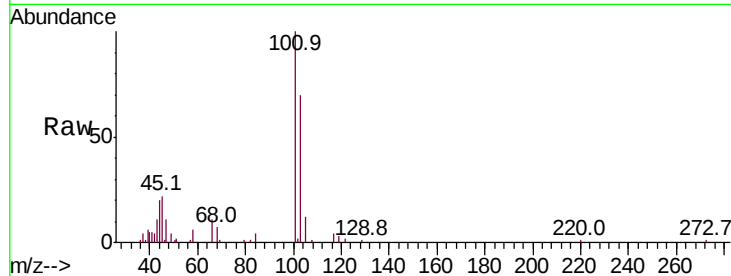




#11
 Trichlorofluoromethane
 Concen: 0.267 ppbv
 RT: 3.92 min Scan# 352
 Delta R.T. 0.00 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

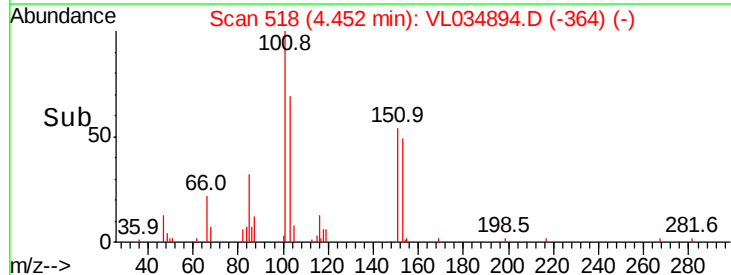
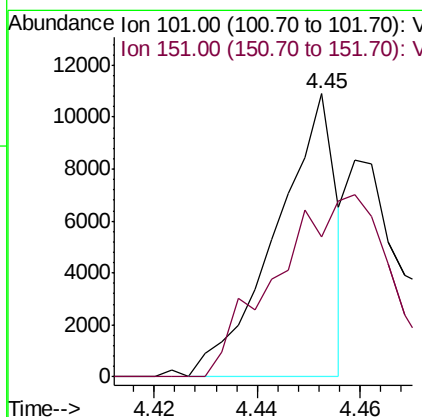
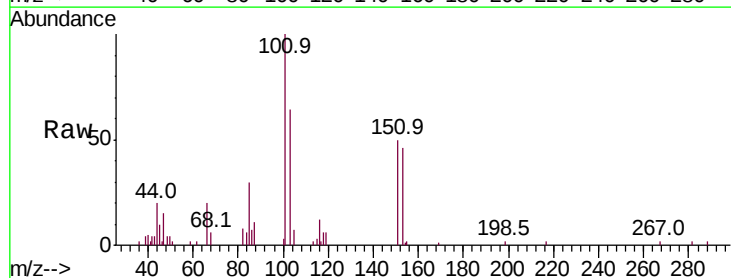
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-01DUP

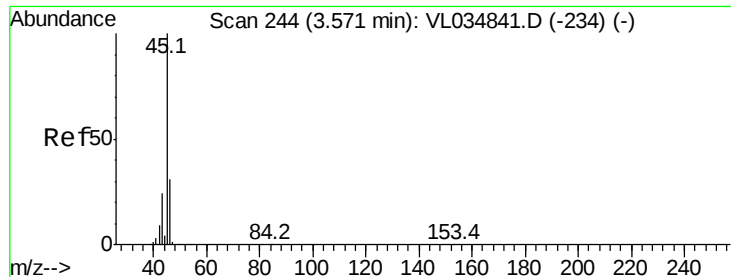
Tot Ion:101 Resp: 35537
 Ion Ratio Lower Upper
 101 100
 103 70.4 51.8 77.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.095 ppbv
 RT: 4.45 min Scan# 518
 Delta R.T. -0.01 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

Tgt Ion:101 Resp: 8847
 Ion Ratio Lower Upper
 101 100
 151 0.0 60.8 91.2#





#13

Ethanol

Concen: 37.066 ppbv

RT: 3.57 min Scan# 243

Delta R.T. -0.00 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Instrument :

MSVOA_L

ClientSampleId :

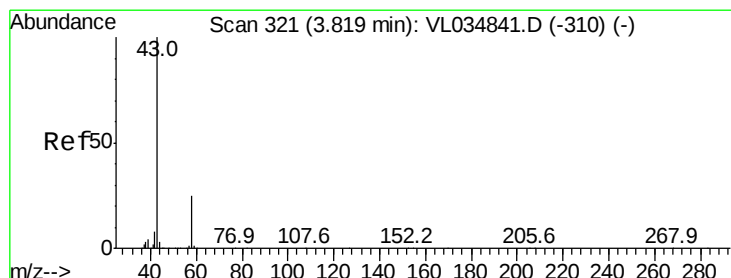
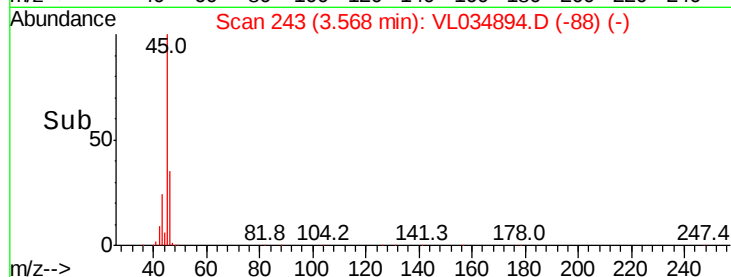
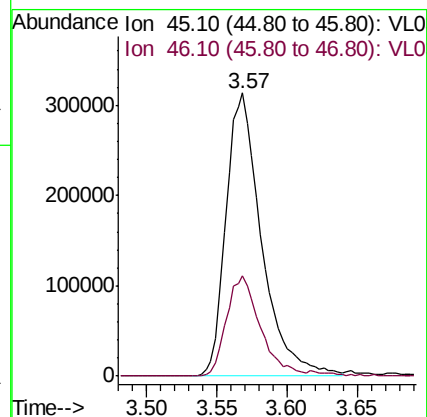
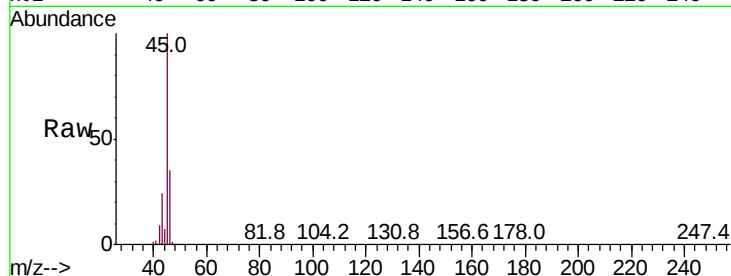
IA-01DUP

Tot Ion: 45 Resp: 549120

Ion Ratio Lower Upper

45 100

46 35.2 16.0 64.0



#15

Acetone

Concen: 6.537 ppbv

RT: 3.81 min Scan# 319

Delta R.T. -0.01 min

Lab File: VL034894.D

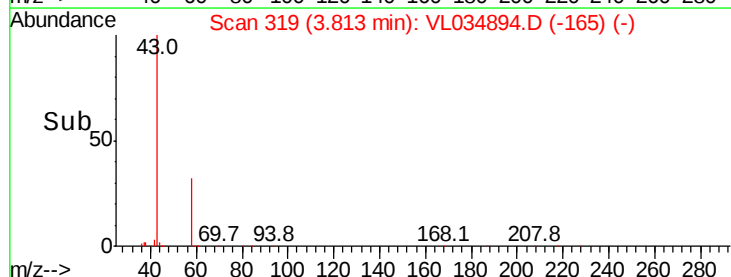
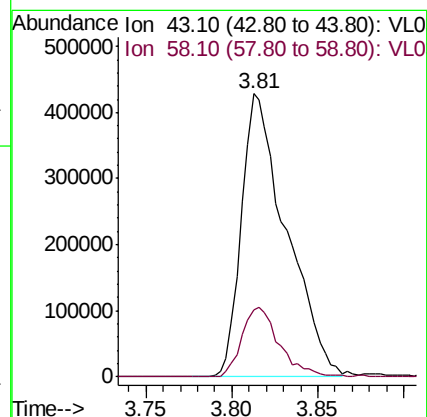
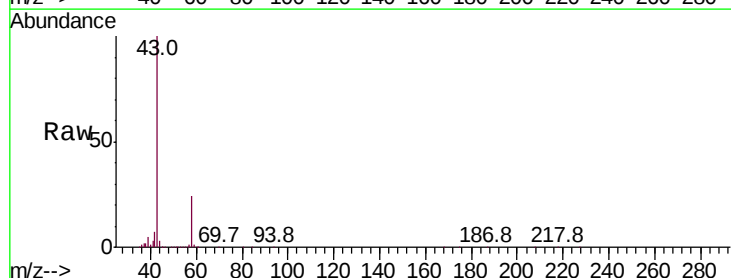
Acq: 16 Mar 2020 17:26

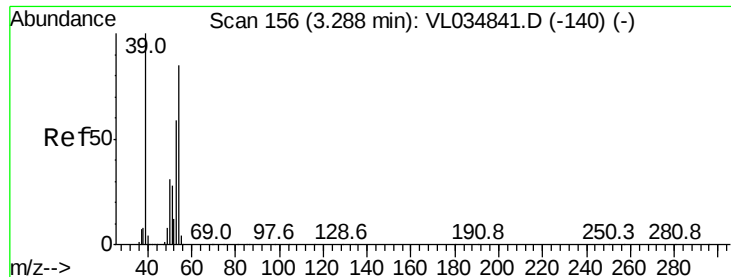
Tgt Ion: 43 Resp: 774134

Ion Ratio Lower Upper

43 100

58 21.0 21.0 31.6#

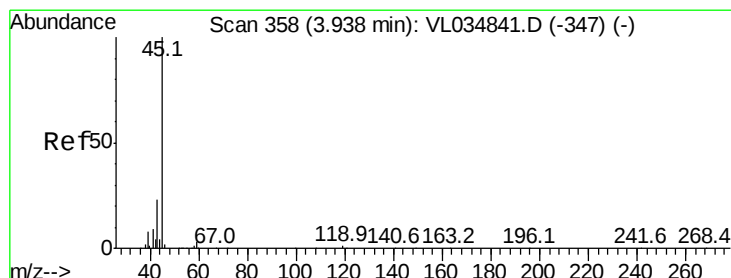
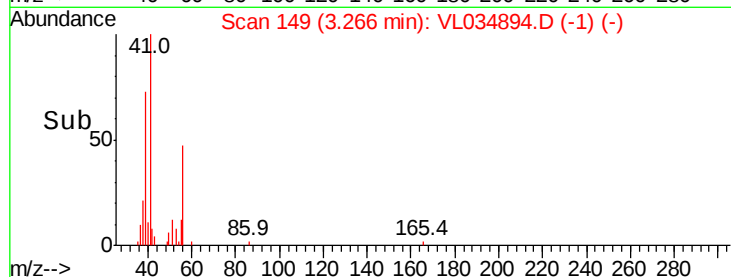
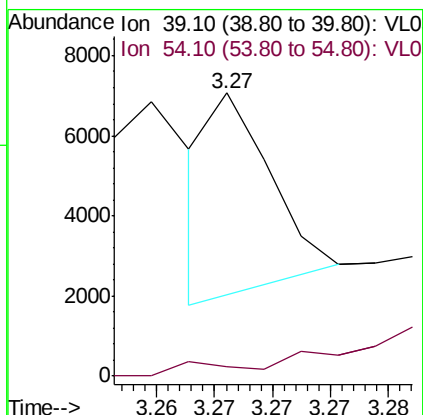
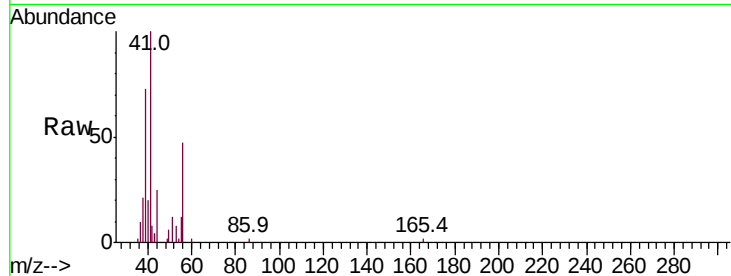




#16
 1,3-Butadiene
 Concen: 0.035 ppbv
 RT: 3.27 min Scan# 149
 Delta R.T. -0.02 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

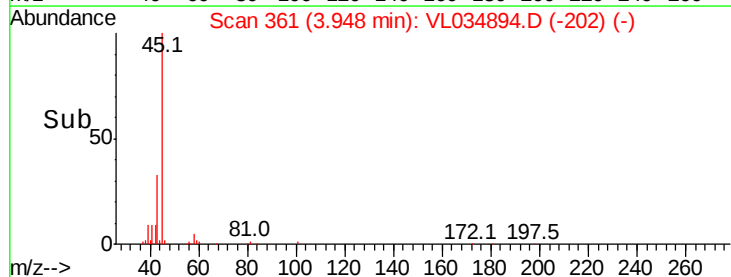
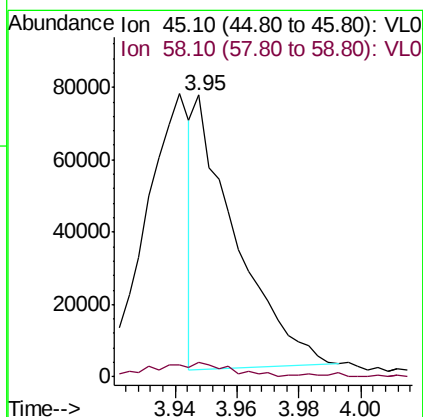
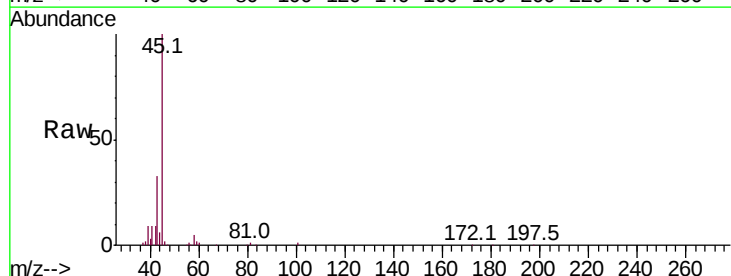
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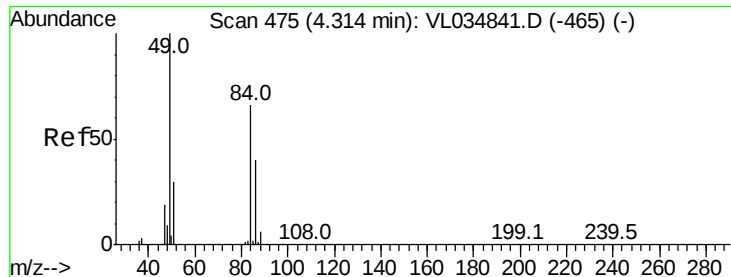
Tot Ion: 39 Resp: 1868
 Ion Ratio Lower Upper
 39 100
 54 183.0 65.0 97.6#



#19
 Isopropyl Alcohol
 Concen: 0.934 ppbv
 RT: 3.95 min Scan# 361
 Delta R.T. 0.01 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

Tgt Ion: 45 Resp: 69883
 Ion Ratio Lower Upper
 45 100
 58 11.3 30.5 45.7#

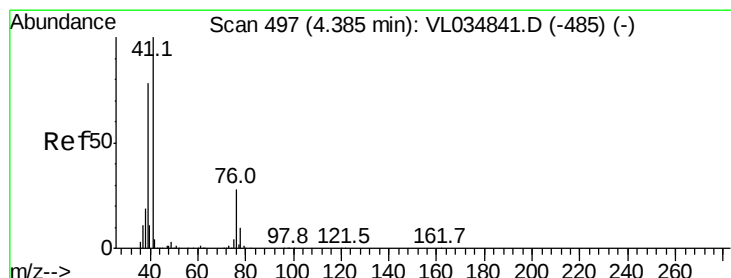
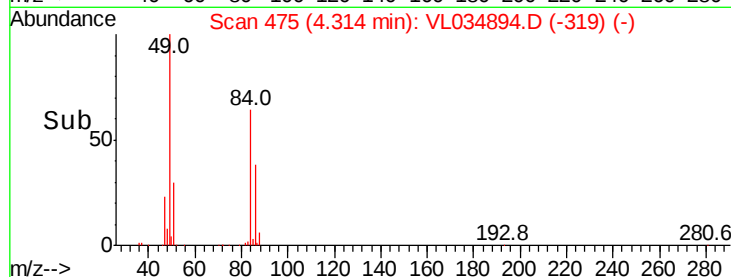
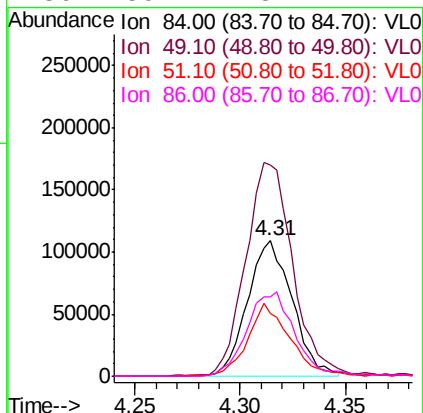
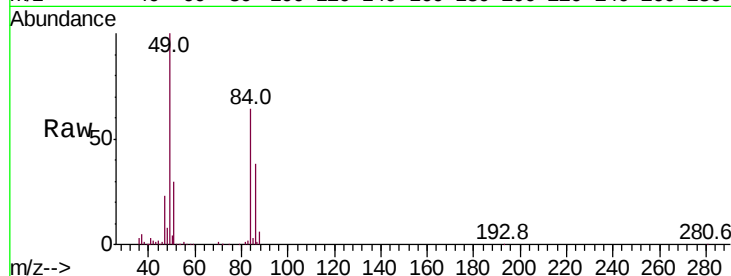




#20
Methylene Chloride
Concen: 4.302 ppbv
RT: 4.31 min Scan# 475
Delta R.T. 0.00 min
Lab File: VL034894.D
Acq: 16 Mar 2020 17:26

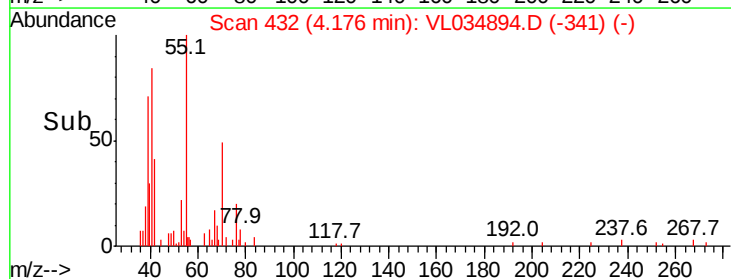
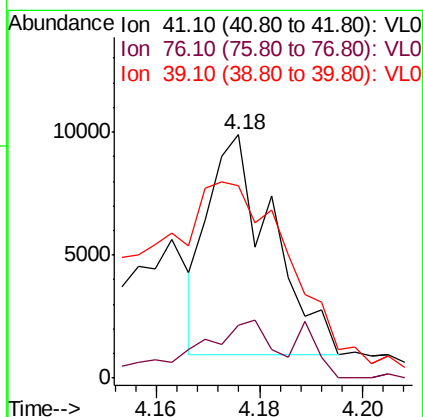
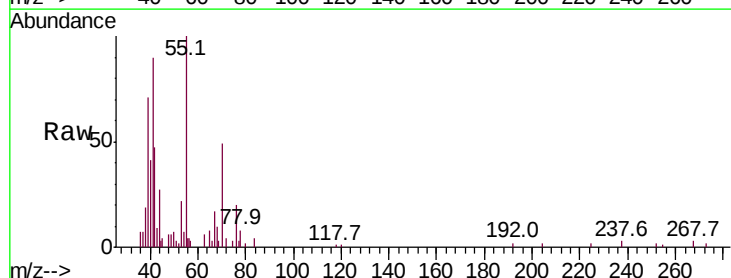
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MSVOA_L
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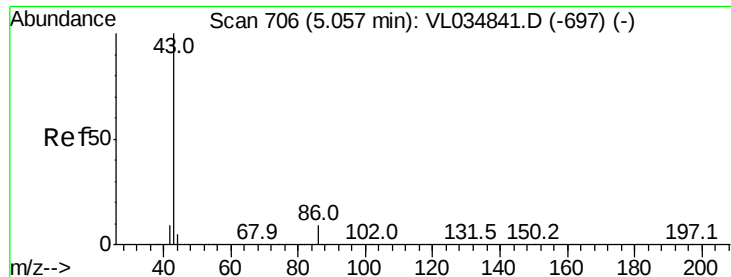
Tot Ion:	84	Resp:	161061
Ion	Ratio	Lower	Upper
84	100		
49	155.9	121.5	182.3
51	45.3	36.6	55.0
86	59.1	48.2	72.2



#21
Allyl Chloride
Concen: 0.101 ppbv
RT: 4.18 min Scan# 432
Delta R.T. -0.21 min
Lab File: VL034894.D
Acq: 16 Mar 2020 17:26

Tgt Ion:	41	Resp:	7685
Ion	Ratio	Lower	Upper
41	100		
76	42.4	22.2	33.2#
39	201.7	62.6	93.8#





#23

Vinyl Acetate

Concen: 0.355 ppbv

RT: 5.03 min Scan# 699

Delta R.T. -0.02 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Instrument :

MSVOA_L

ClientSampleId :

IA-01DUP

Tot Ion: 43 Resp: 62048

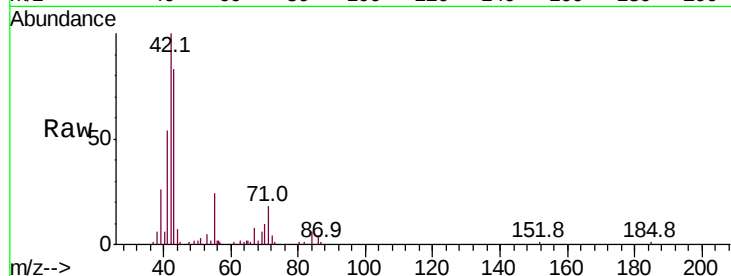
Ion Ratio Lower Upper

43 100

86 4.8 6.3 9.5#

42 118.5 7.8 11.8#

44 2.7 4.0 6.0#

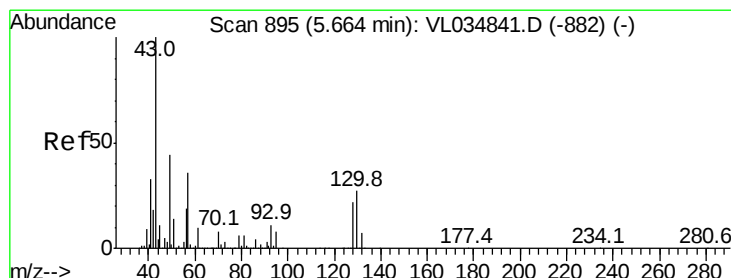
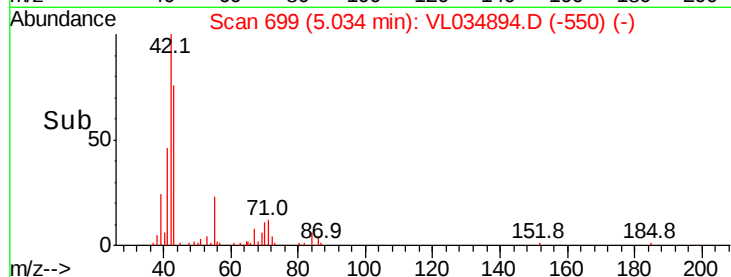
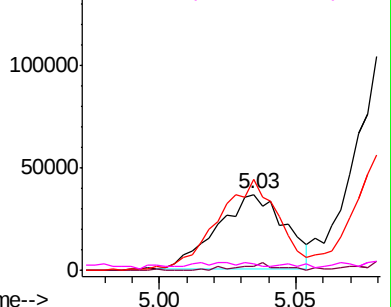


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 1.061 ppbv

RT: 5.67 min Scan# 896

Delta R.T. 0.00 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Tgt Ion: 43 Resp: 223920

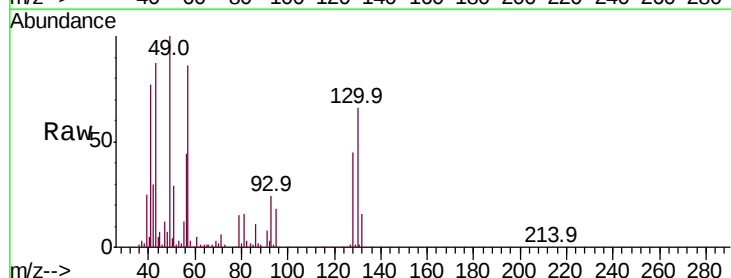
Ion Ratio Lower Upper

43 100

45 11.2 8.2 12.2

61 6.1 7.8 11.6#

70 5.6 5.8 8.8#

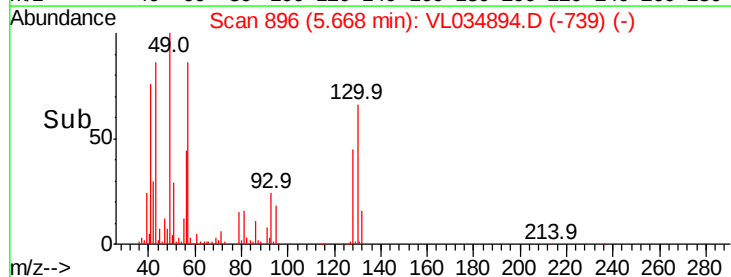
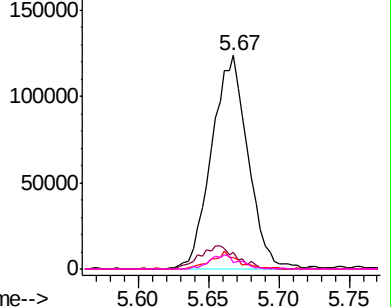


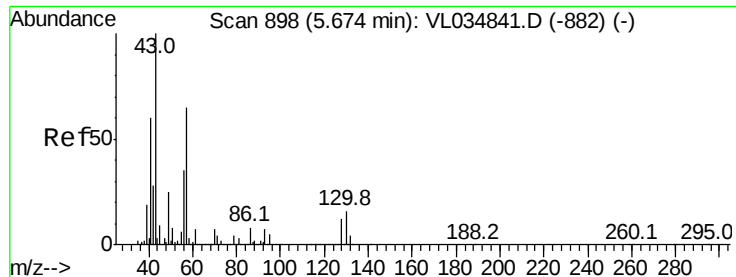
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 2.141 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Instrument :

MSVOA_L

ClientSampleId :

IA-01DUP

Tot Ion: 57 Resp: 194550

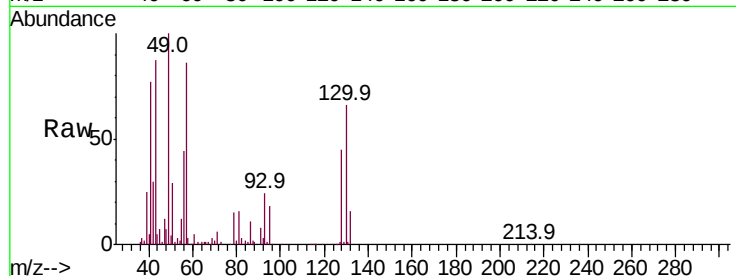
Ion Ratio Lower Upper

57 100

41 94.7 72.6 109.0

43 115.6 183.8 275.6#

56 57.4 41.9 62.9

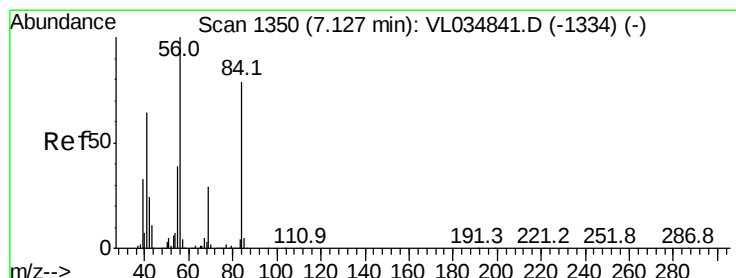
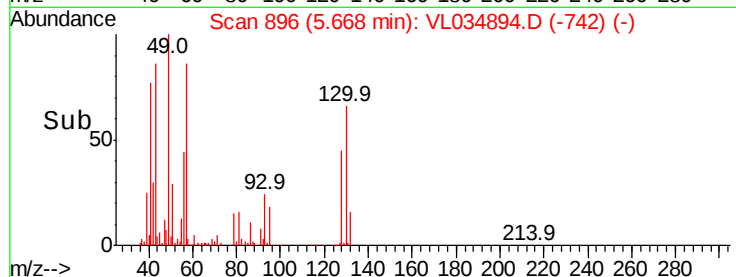
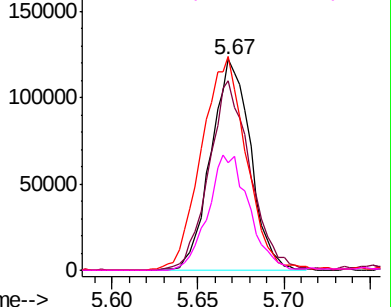


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#30

Cyclohexane

Concen: 0.111 ppbv

RT: 7.12 min Scan# 1348

Delta R.T. -0.01 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

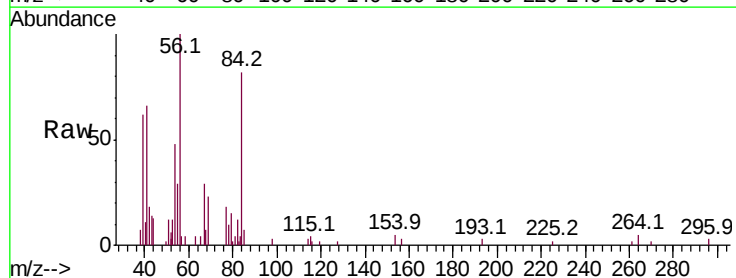
Tgt Ion: 84 Resp: 8424

Ion Ratio Lower Upper

84 100

56 0.0 110.5 165.7#

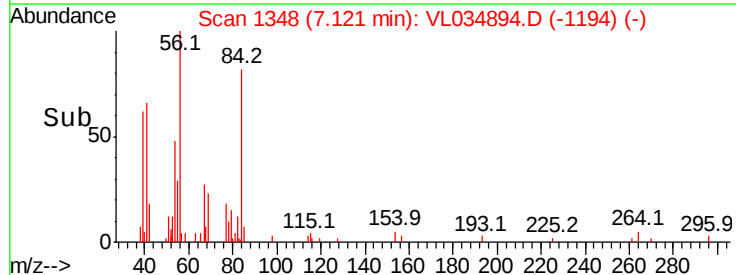
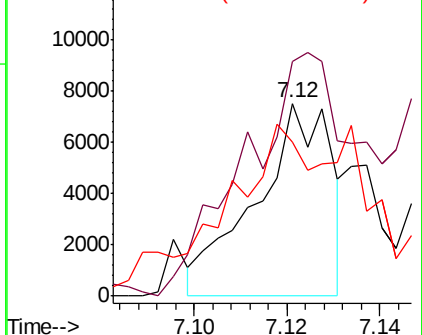
41 181.0 68.2 102.4#

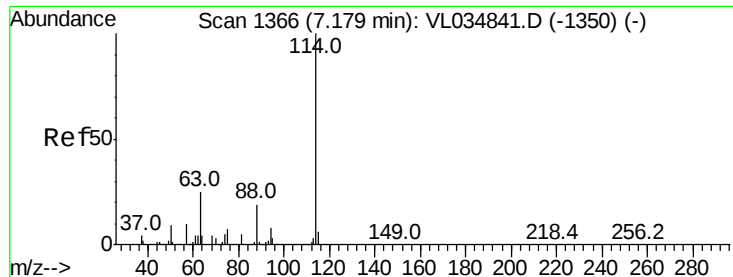


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

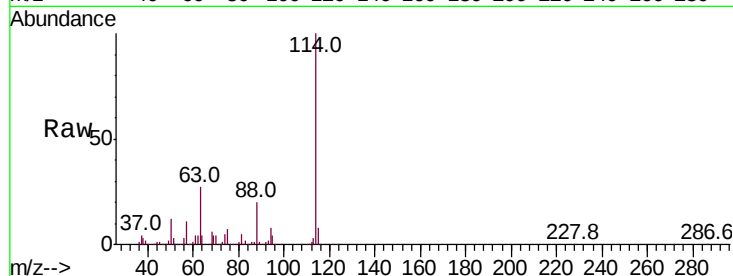




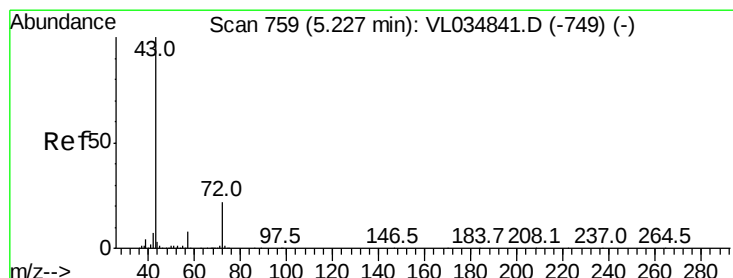
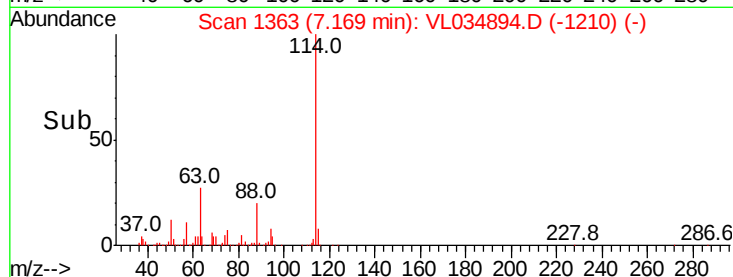
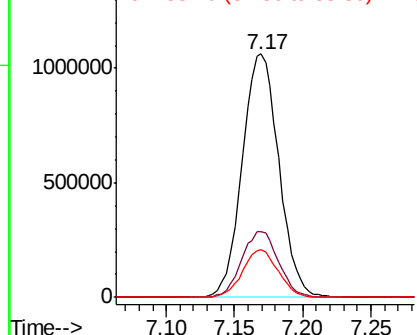
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.01 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-01DUP

Tot Ion:114 Resp: 1978474
 Ion Ratio Lower Upper
 114 100
 63 27.3 20.6 31.0
 88 19.0 15.0 22.6

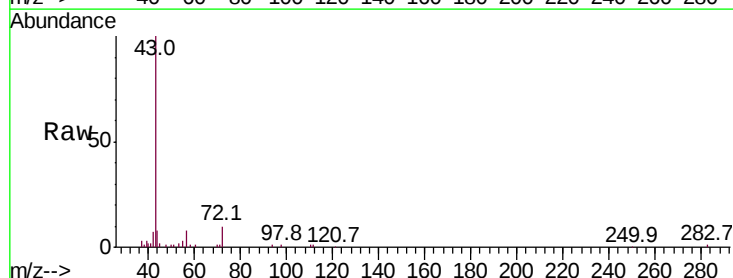


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

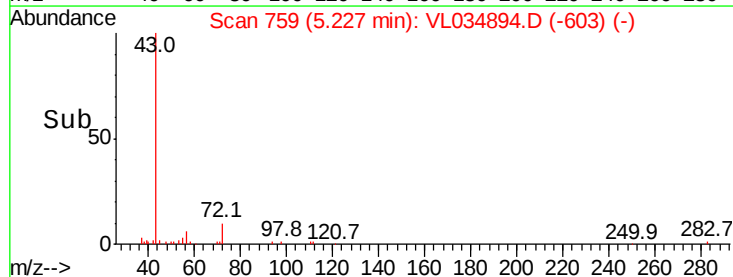
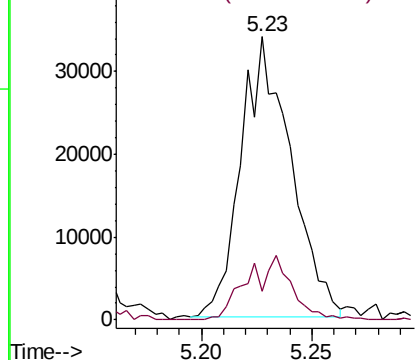


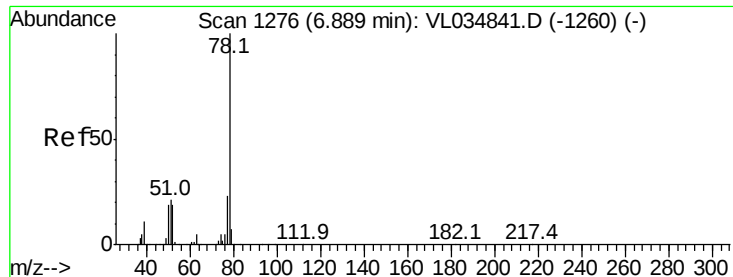
#34
 2-Butanone
 Concen: 0.403 ppbv
 RT: 5.23 min Scan# 759
 Delta R.T. 0.00 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

Tgt Ion: 43 Resp: 53006
 Ion Ratio Lower Upper
 43 100
 72 20.6 17.6 26.4



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





#36

Benzene

Concen: 0.259 ppbv

RT: 6.88 min Scan# 1273

Delta R.T. -0.01 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Instrument :

MSVOA_L

ClientSampled :

IA-01DUP

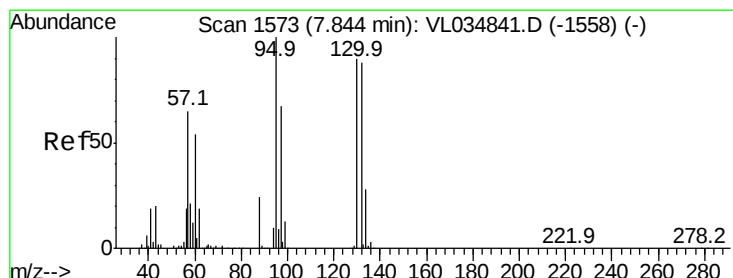
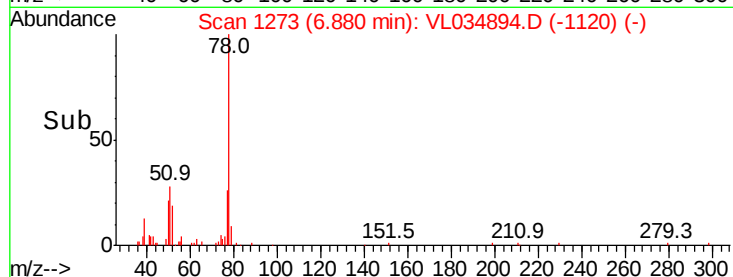
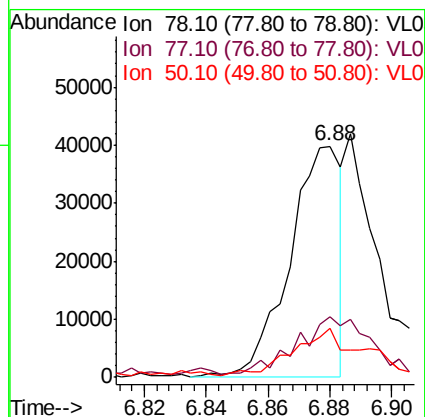
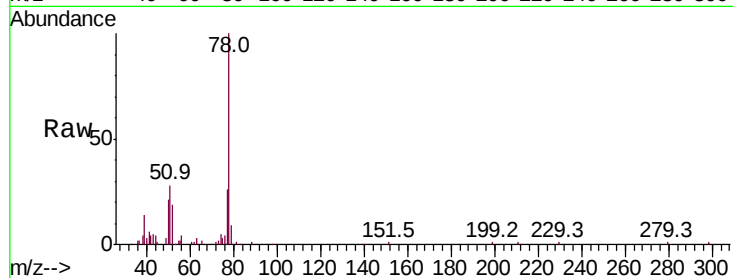
Tot Ion: 78 Resp: 45616

Ion Ratio Lower Upper

78 100

77 23.5 18.2 27.2

50 20.0 15.2 22.8



#38

Trichloroethene

Concen: 0.064 ppbv

RT: 7.83 min Scan# 1569

Delta R.T. -0.01 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Tgt Ion:130 Resp: 4275

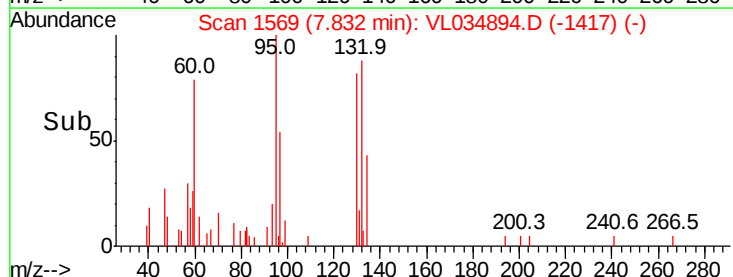
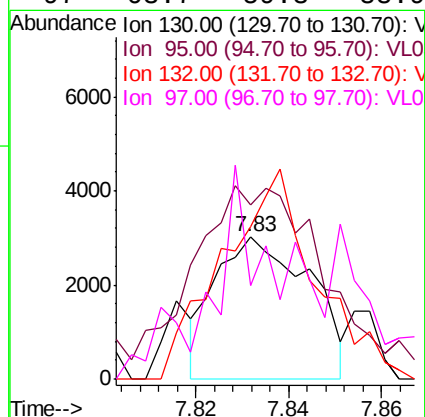
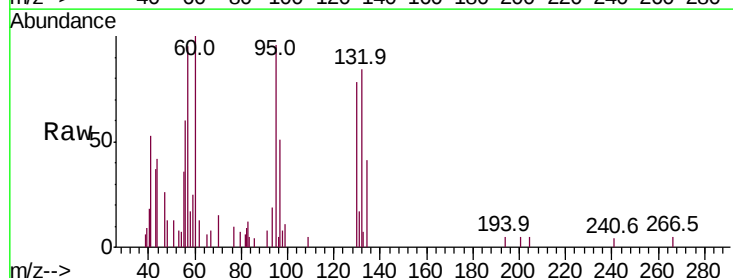
Ion Ratio Lower Upper

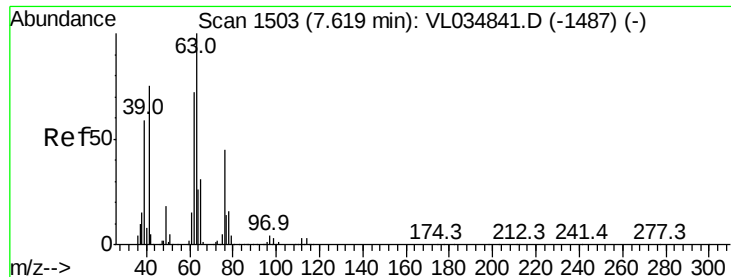
130 100

95 82.9 88.5 132.7#

132 82.4 78.0 117.0

97 63.7 59.3 88.9

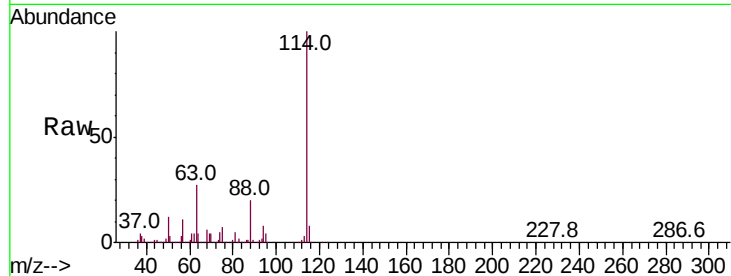




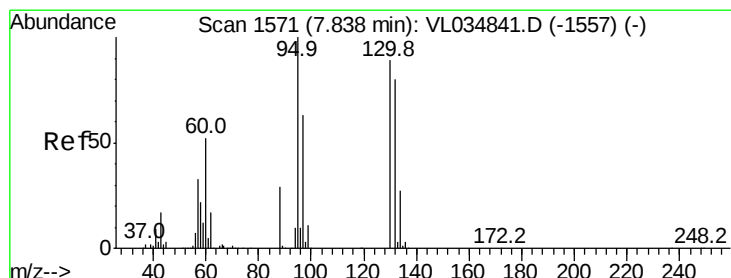
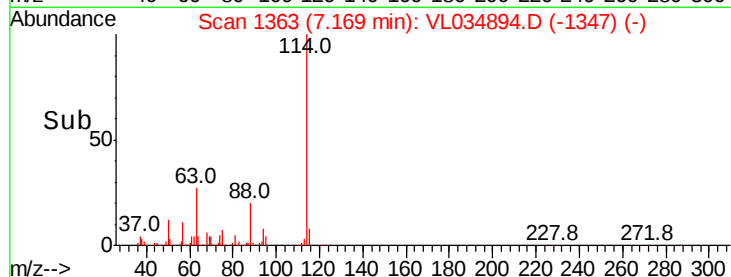
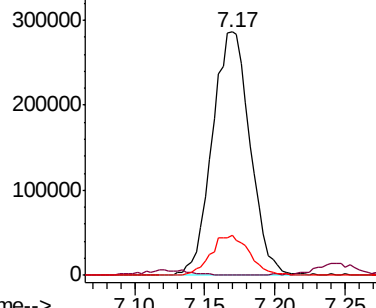
#39
 1,2-Dichloropropane
 Concen: 7.708 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.45 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-01DUP

Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	59.8	89.8#
62	16.4	57.6	86.4#

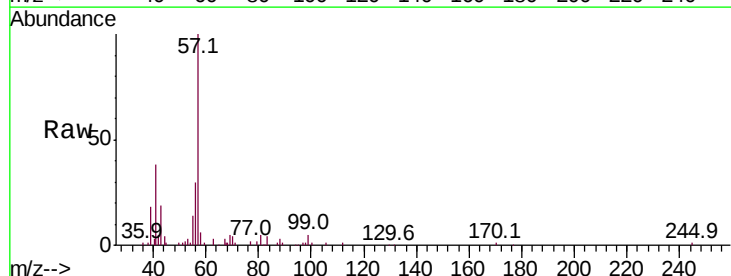


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

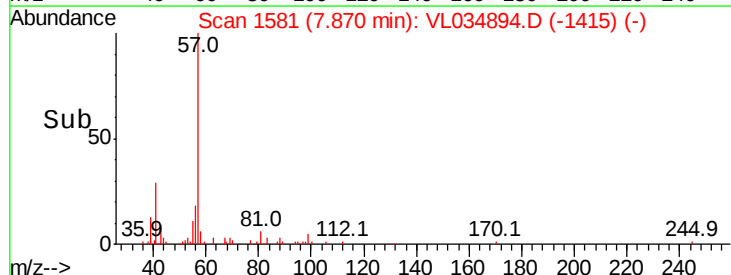
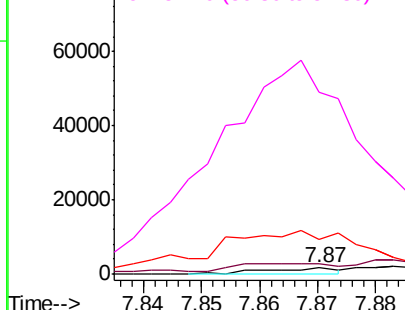


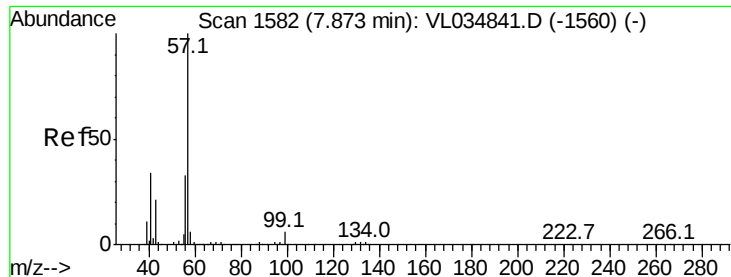
#40
 1,4-Dioxane
 Concen: 0.053 ppbv
 RT: 7.87 min Scan# 1581
 Delta R.T. 0.03 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

Tgt Ion	Ratio	Lower	Upper
88	100		
58	0.0	103.9	155.9#
43	1918.7	0.0	0.0#
57	8436.7	0.0	0.0#



Abundance Ion 88.10 (87.80 to 88.80): VL0
 Ion 58.10 (57.80 to 58.80): VL0
 Ion 43.10 (42.80 to 43.80): VL0
 Ion 57.10 (56.80 to 57.80): VL0

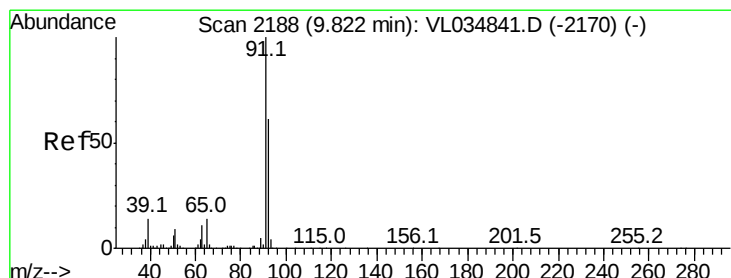
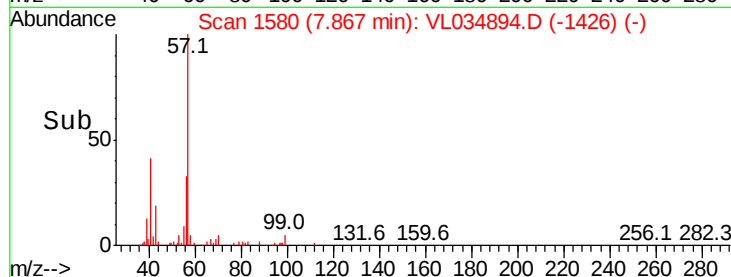
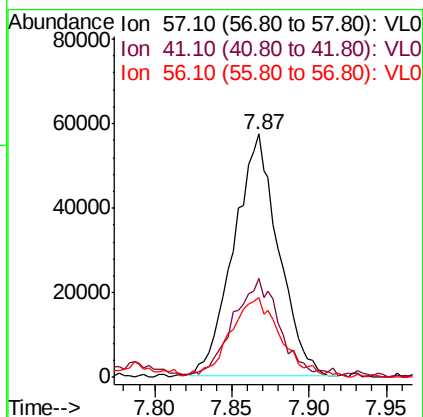
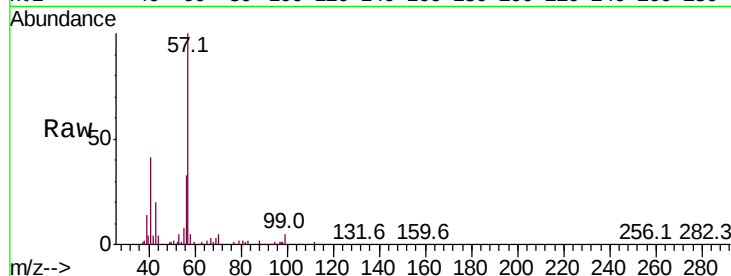




#44
 2,2,4-Trimethylpentane
 Concen: 0.384 ppbv
 RT: 7.87 min Scan# 1580
 Delta R.T. -0.01 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

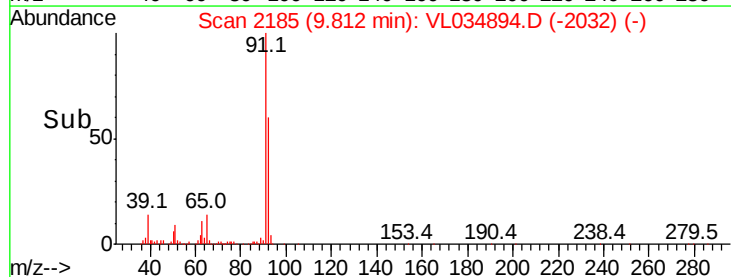
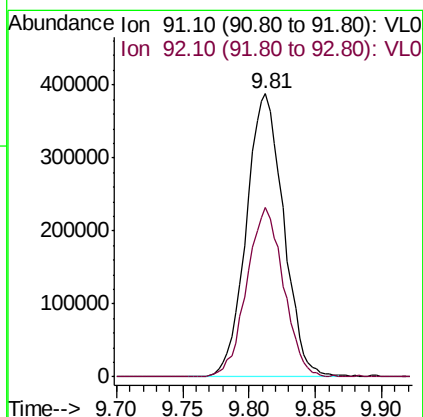
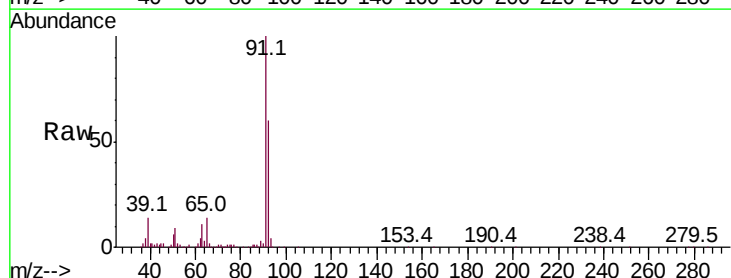
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-01DUP

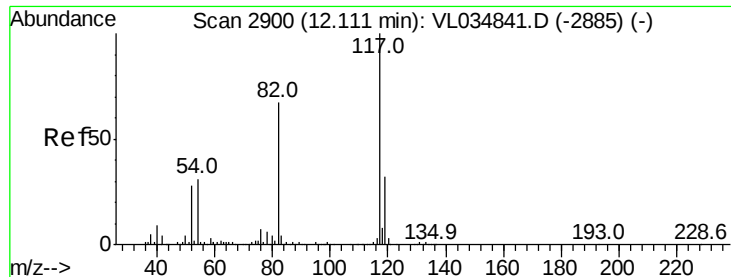
Tot Ion	Ratio	Lower	Upper
57	100		
41	45.1	26.2	39.4#
56	37.8	25.0	37.4#



#53
 Toluene
 Concen: 3.710 ppbv
 RT: 9.81 min Scan# 2185
 Delta R.T. -0.01 min
 Lab File: VL034894.D
 Acq: 16 Mar 2020 17:26

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.3	48.6	72.8

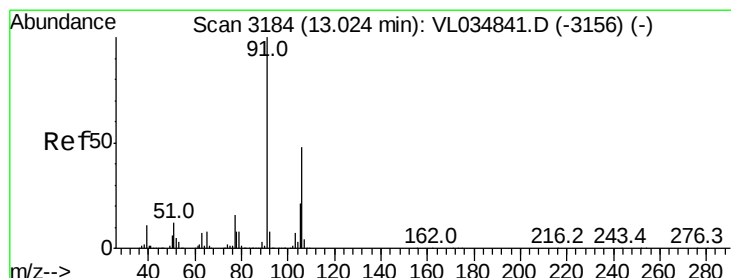
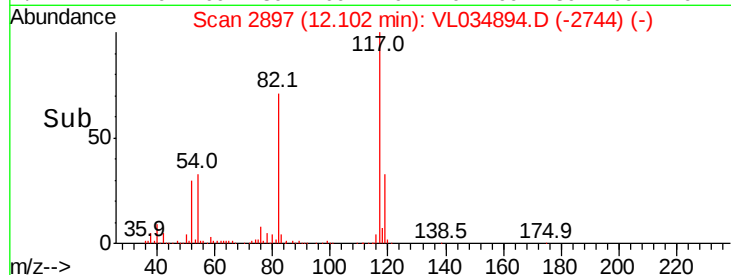
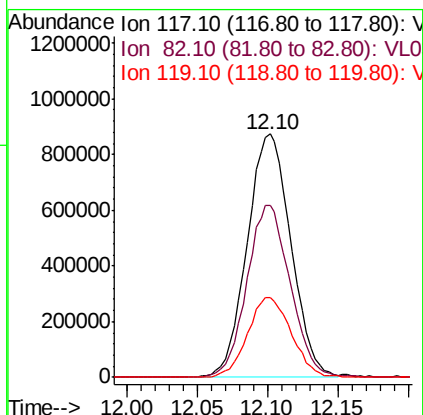
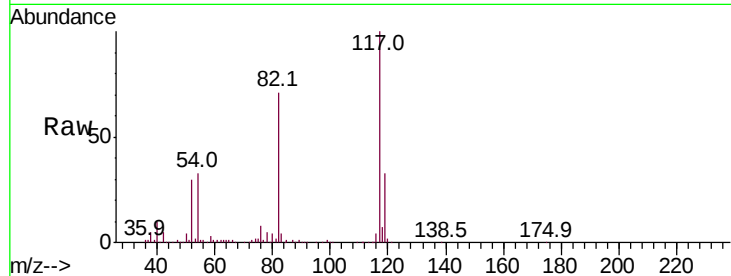




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2897
Delta R.T. -0.01 min
Lab File: VL034894.D
Acq: 16 Mar 2020 17:26

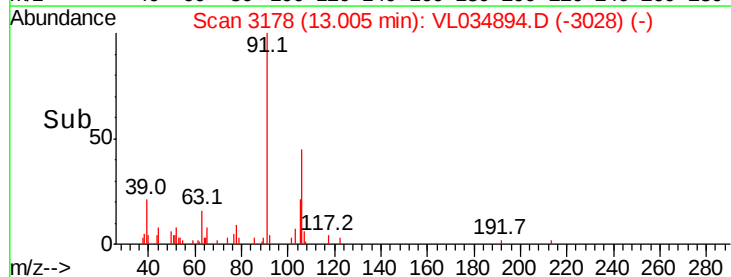
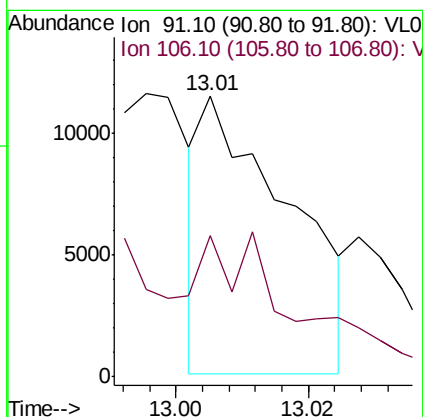
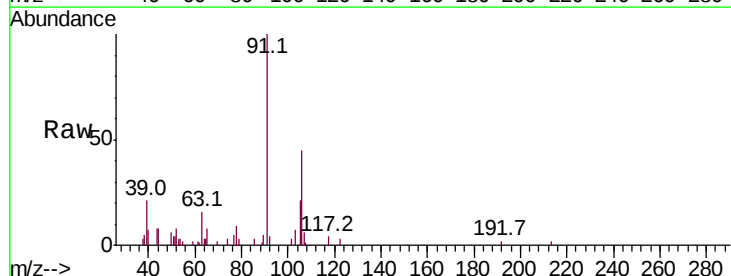
Instrument :
MSVOA_L
ClientSampleId :
IA-01DUP

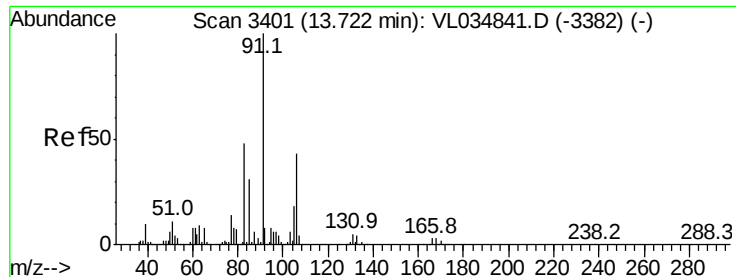
Tot Ion:117 Resp: 1894574
Ion Ratio Lower Upper
117 100
82 70.5 51.1 76.7
119 32.9 27.3 40.9



#59
m/p-Xylene
Concen: 0.049 ppbv
RT: 13.01 min Scan# 3178
Delta R.T. -0.02 min
Lab File: VL034894.D
Acq: 16 Mar 2020 17:26

Tgt Ion: 91 Resp: 10517
Ion Ratio Lower Upper
91 100
106 174.0 37.1 55.7#





#60

o-Xylene

Concen: 0.070 ppbv

RT: 13.70 min Scan# 3395

Delta R.T. -0.02 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Instrument :

MSVOA_L

ClientSampleId :

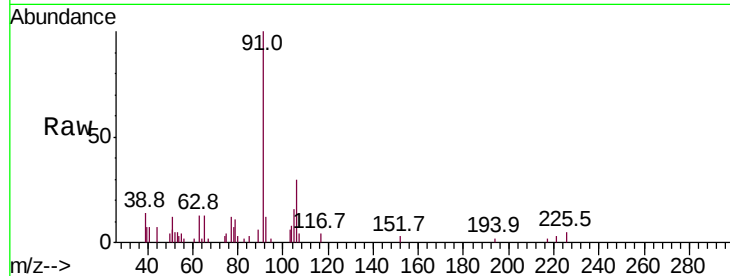
IA-01DUP

Tot Ion: 91 Resp: 14615

Ion Ratio Lower Upper

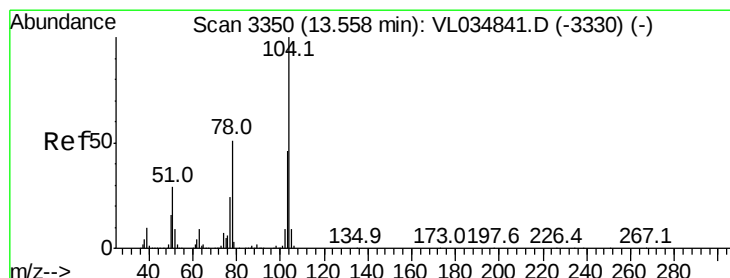
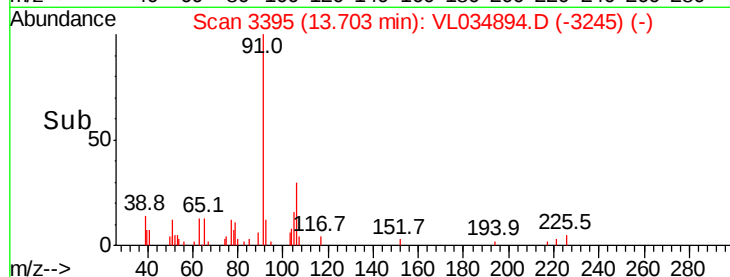
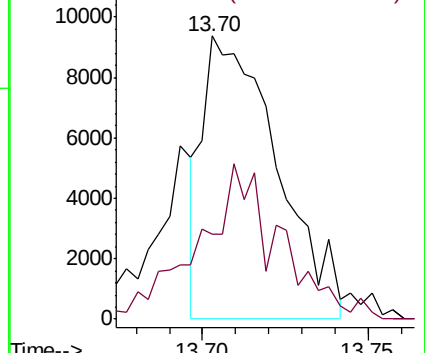
91 100

106 60.5 22.5 67.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): VL0



#61

Styrene

Concen: 0.034 ppbv

RT: 13.55 min Scan# 3349

Delta R.T. -0.00 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

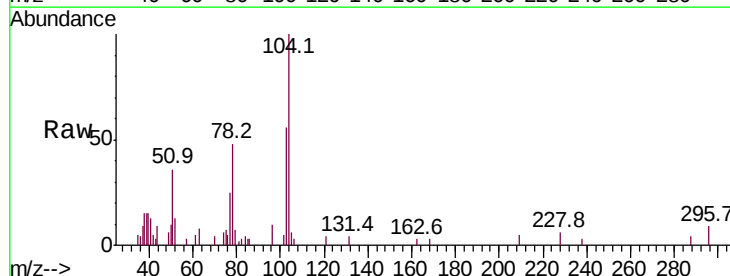
Tgt Ion: 104 Resp: 5071

Ion Ratio Lower Upper

104 100

78 0.0 41.8 62.6#

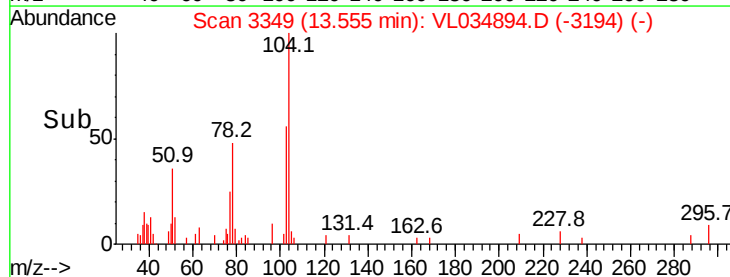
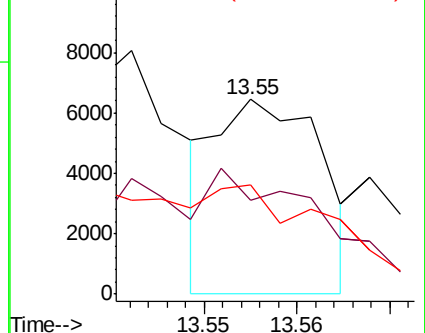
103 167.5 37.8 56.6#

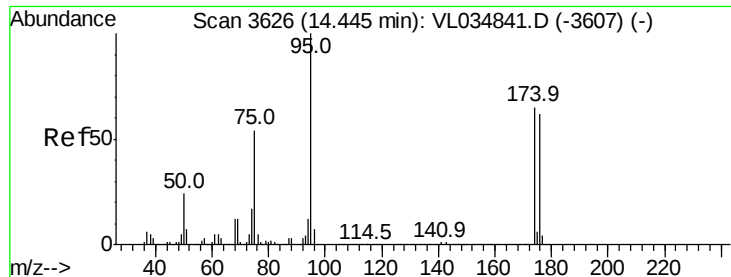


Abundance Ion 104.10 (103.80 to 104.80): VL0

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): VL0





#68

1-Bromo-4-Fluorobenzene

Concen: 10.628 ppbv

RT: 14.44 min Scan# 3624

Delta R.T. -0.01 min

Lab File: VL034894.D

Acq: 16 Mar 2020 17:26

Instrument :

MSVOA_L

ClientSampleId :

IA-01DUP

Tot Ion: 95 Resp: 1570356

Ion Ratio Lower Upper

95 100

174 65.4 55.2 82.8

175 4.7 4.3 6.5

