

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032320\
 Data File : VL034931.D
 Acq On : 23 Mar 2020 15:54
 Operator : SY/AP
 Sample : L2004-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AIR-01

Manual Integrations
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3/25/2020 11:54:16 AM

Quant Time: Mar 24 03:26:17 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL030920AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 0
 QLast Update : Mon Mar 09 16:42:53 2020
 Response via : Initial Calibration

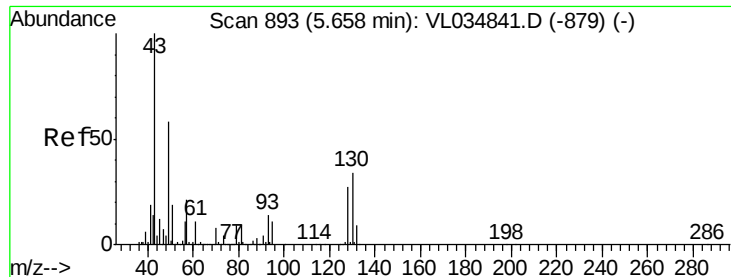
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1023224	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2193724	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	2194723	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	1809898	10.57	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.01	85	77445	0.553	ppbv	93
3) Chlorodifluoromethane	2.94	51	322700m	2.823	ppbv	
4) Chloromethane	3.10	50	25113	0.389	ppbv #	81
9) Propene	2.98	41	69972	1.282	ppbv #	71
11) Trichlorofluoromethane	3.92	101	61710	0.414	ppbv	91
13) Ethanol	3.58	45	1787719	107.751	ppbv	94
15) Acetone	3.82	43	1762869	13.293	ppbv #	89
17) tert-Butyl alcohol	4.28	59	152707	1.195	ppbv	96
18) 1,1-Dichloroethene	4.26	96	8854m	0.192	ppbv	
19) Isopropyl Alcohol	3.95	45	496213	5.925	ppbv #	43
20) Methylene Chloride	4.31	84	622765	14.852	ppbv	94
22) trans-1,2-Dichloroethene	4.86	96	12176m	0.260	ppbv	
26) Hexane	5.67	57	522059	5.131	ppbv #	42
27) Carbon Disulfide	4.53	76	100726	0.872	ppbv #	91
29) Chloroform	5.74	83	1158478	7.463	ppbv	95
30) Cyclohexane	7.13	84	10916m	0.129	ppbv	
31) cis-1,2-Dichloroethene	5.53	61	121499	1.168	ppbv	88
32) 1,1,1-Trichloroethane	6.51	97	6070m	0.040	ppbv	
34) 2-Butanone	5.23	43	41048m	0.282	ppbv	
35) Carbon Tetrachloride	7.02	117	7239m	0.053	ppbv	
38) Trichloroethene	7.84	130	4999435	67.321	ppbv	98
42) Bromodichloromethane	7.80	83	28201	0.188	ppbv	97
52) Tetrachloroethene	11.25	164	9148m	0.118	ppbv	
53) Toluene	9.82	91	36065m	0.160	ppbv	
78) Hexachloro-1,3-Butadiene	23.42	225	16675m	0.123	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.01 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Instrument :

MSVOA_L

ClientSampled :

AIR-01

Tot Ion: 49 Resp: 1023224

Ion Ratio Lower Upper

49 100

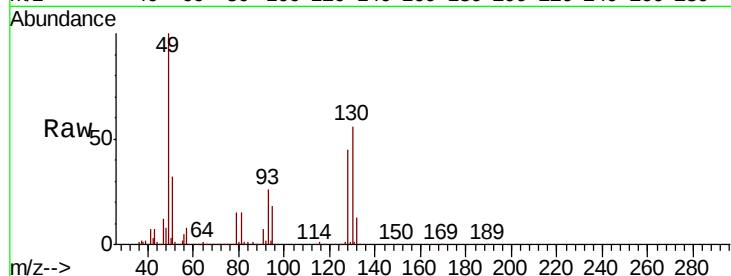
128 45.7 23.4 70.3

130 57.1 30.0 90.0

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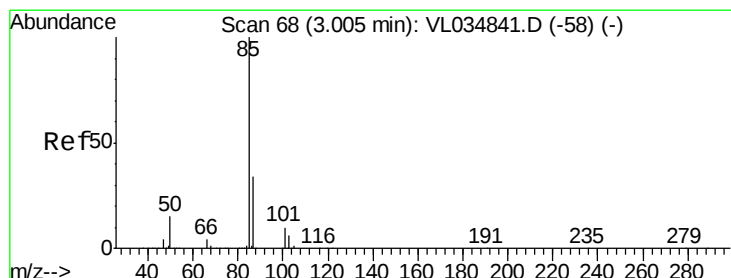
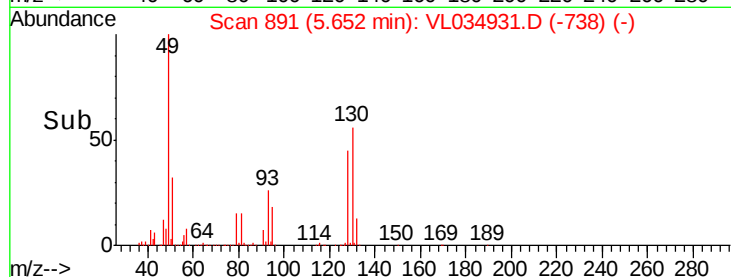
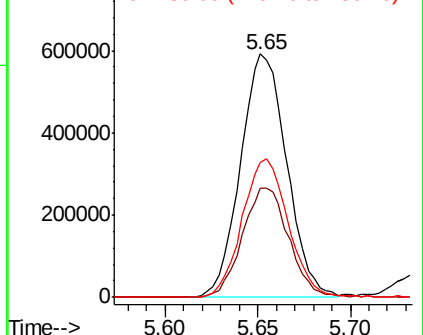
3/25/2020 11:54:16 AM



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: 0.553 ppbv

RT: 3.01 min Scan# 69

Delta R.T. 0.00 min

Lab File: VL034931.D

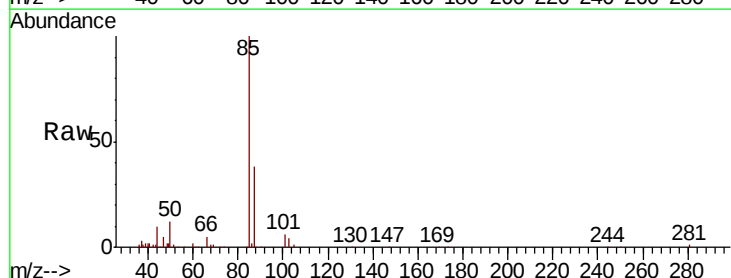
Acq: 23 Mar 2020 15:54

Tgt Ion: 85 Resp: 77445

Ion Ratio Lower Upper

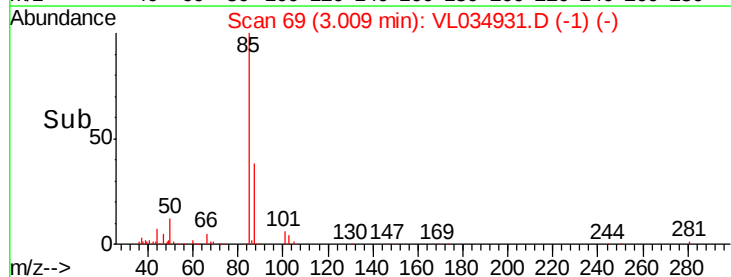
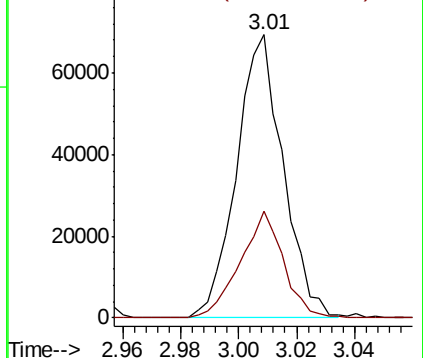
85 100

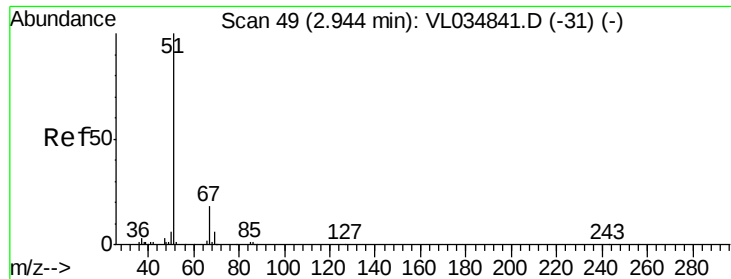
87 37.5 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3
Chlorodifluoromethane
Concen: 2.823 ppbv
RT: 2.94 min Scan# 49
Delta R.T. -0.00 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

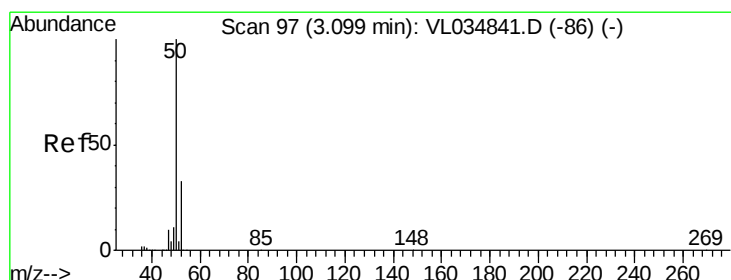
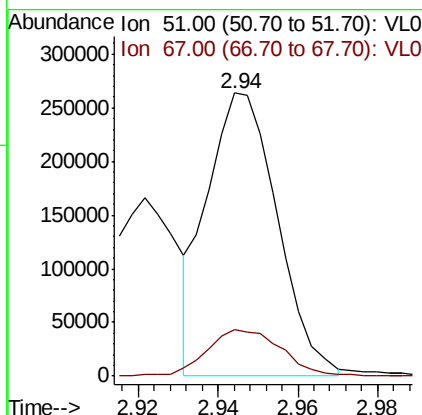
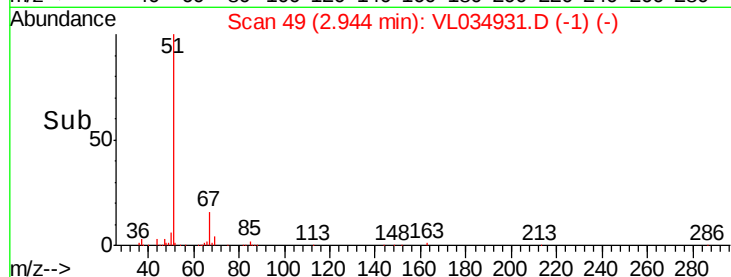
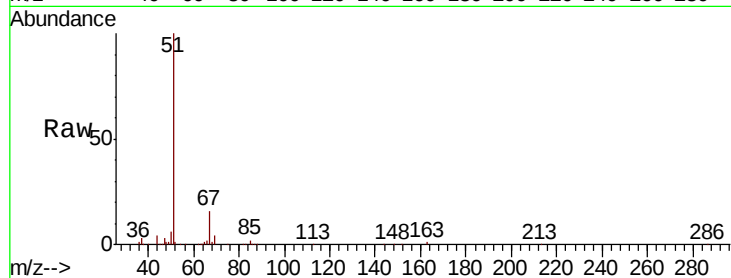
Instrument :
MSVOA_L
ClientSampled :
AIR-01

Tot Ion	Ratio	Lower	Upper
51	100		
67	17.6	14.3	21.5

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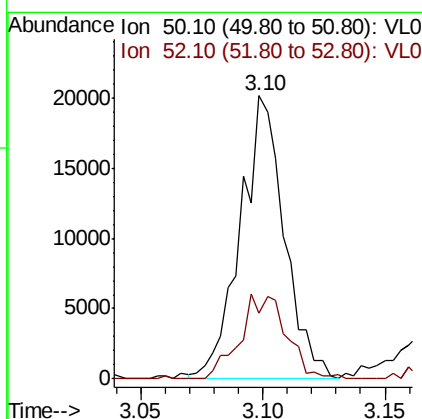
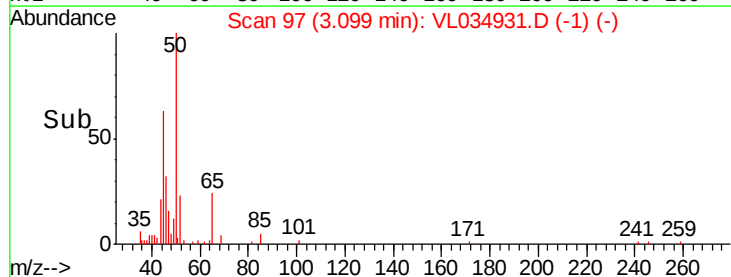
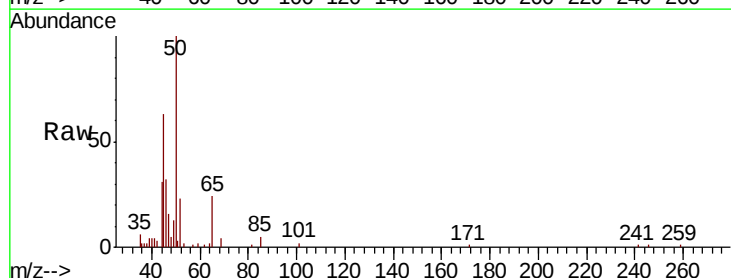
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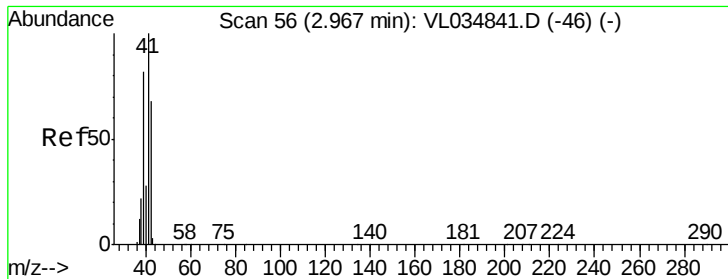
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#4
Chloromethane
Concen: 0.389 ppbv
RT: 3.10 min Scan# 97
Delta R.T. -0.00 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Tgt Ion	Ratio	Lower	Upper
50	100		
52	22.4	26.8	40.2





#9

Propene

Concen: 1.282 ppbv

RT: 2.98 min Scan# 60

Delta R.T. 0.01 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Instrument :

MSVOA_L

ClientSampled :

AIR-01

Tot Ion: 41 Resp: 69972

Ion Ratio Lower Upper

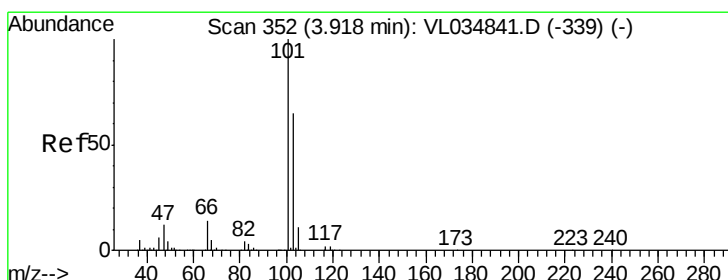
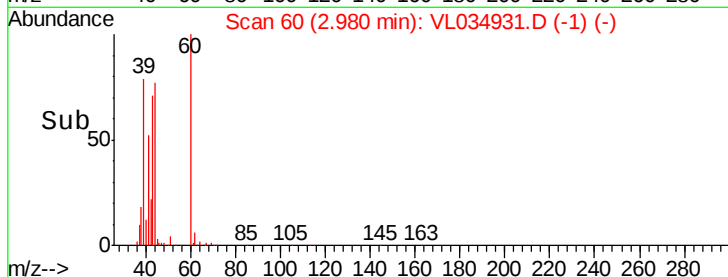
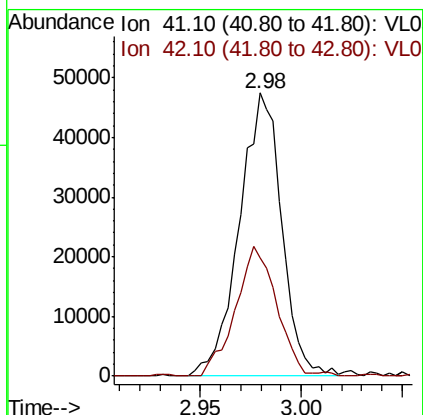
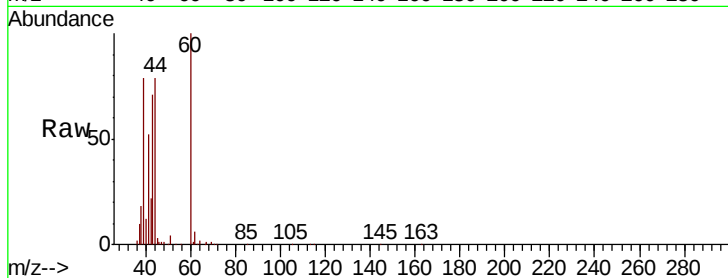
41 100

42 45.2 55.2 82.8#

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#11

Trichlorofluoromethane

Concen: 0.414 ppbv

RT: 3.92 min Scan# 353

Delta R.T. 0.00 min

Lab File: VL034931.D

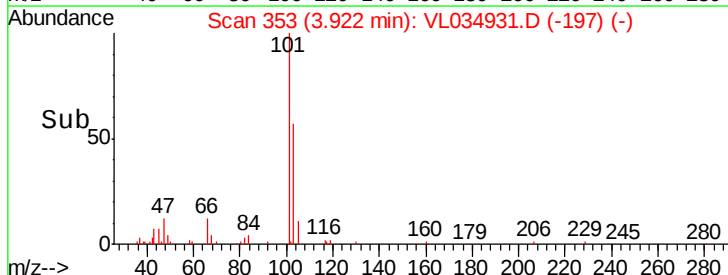
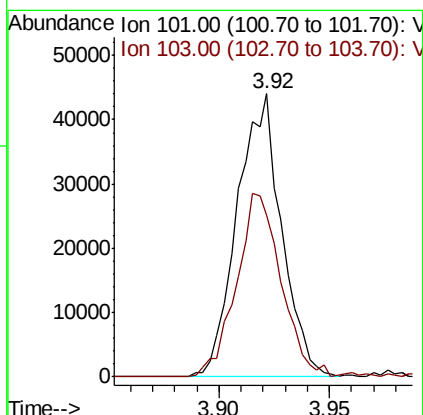
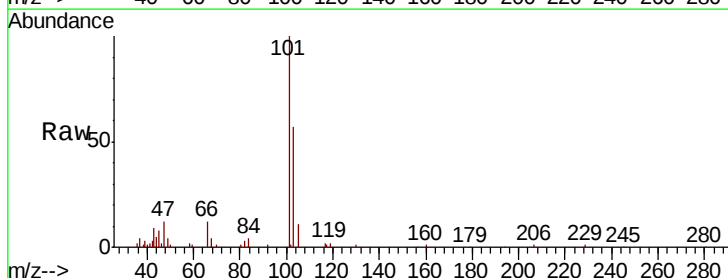
Acq: 23 Mar 2020 15:54

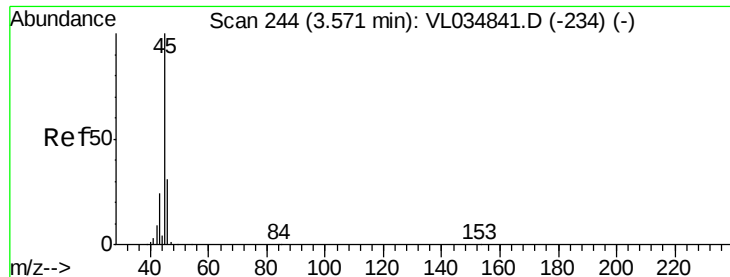
Tgt Ion: 101 Resp: 61710

Ion Ratio Lower Upper

101 100

103 57.4 51.8 77.8





#13
Ethanol
Concen: 107.751 ppbv
RT: 3.58 min Scan# 246
Delta R.T. 0.01 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

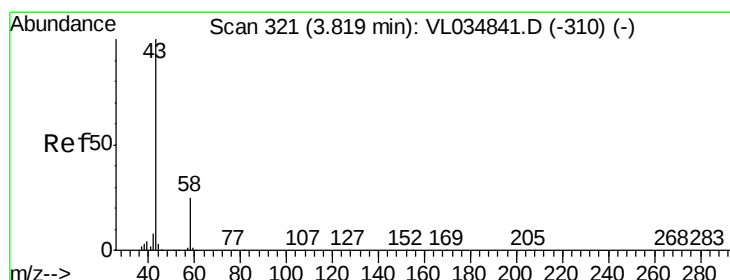
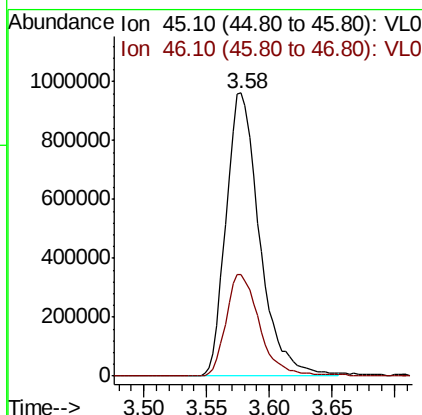
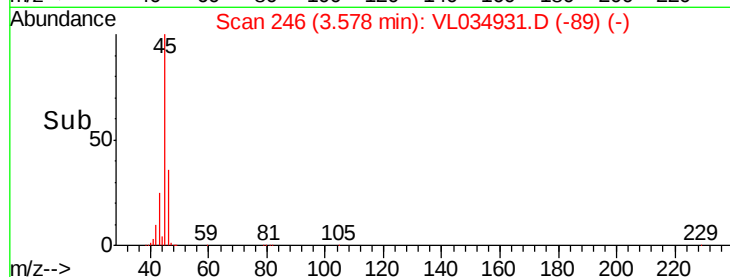
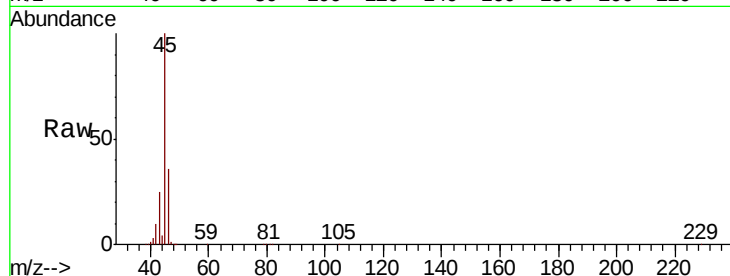
Instrument :
MSVOA_L
ClientSampled :
AIR-01

Tot Ion: 45 Resp: 1787719
Ion Ratio Lower Upper
45 100
46 36.2 16.0 64.0

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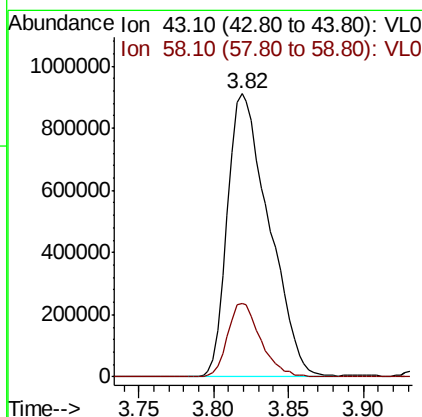
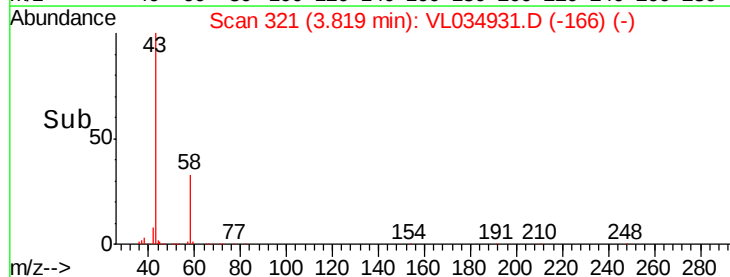
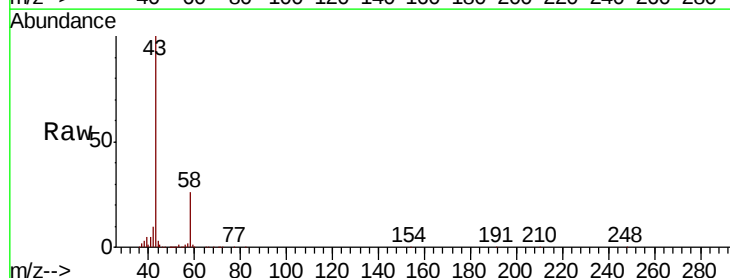
apatel

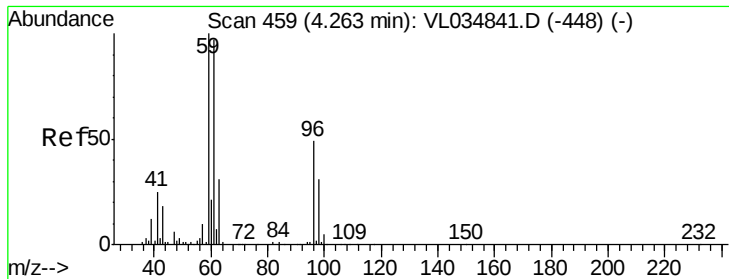
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#15
Acetone
Concen: 13.293 ppbv
RT: 3.82 min Scan# 321
Delta R.T. -0.00 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Tgt Ion: 43 Resp: 1762869
Ion Ratio Lower Upper
43 100
58 20.7 21.0 31.6#





#17

tert-Butyl alcohol
Concen: 1.195 ppbv
RT: 4.28 min Scan# 465
Delta R.T. 0.02 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

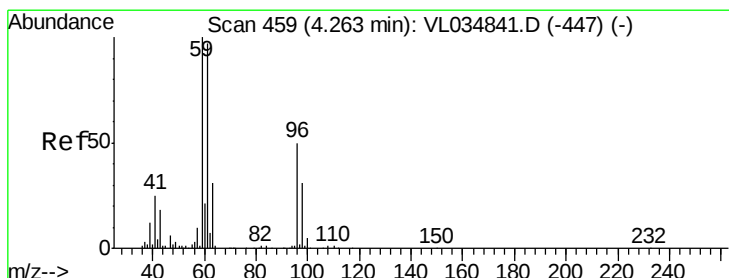
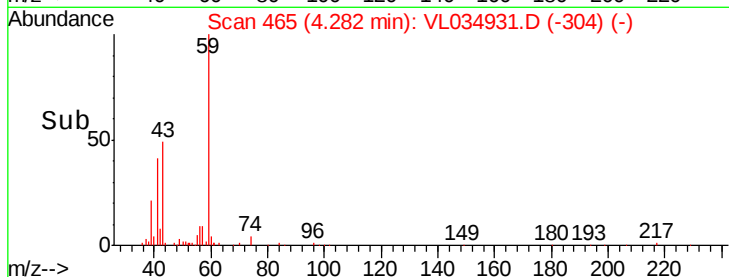
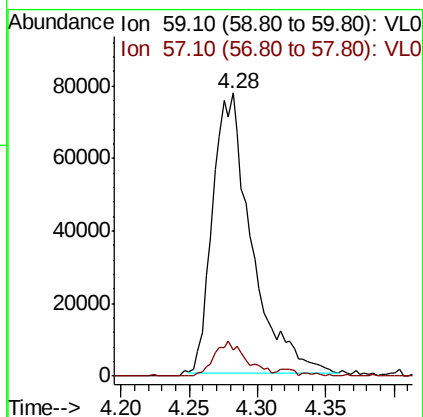
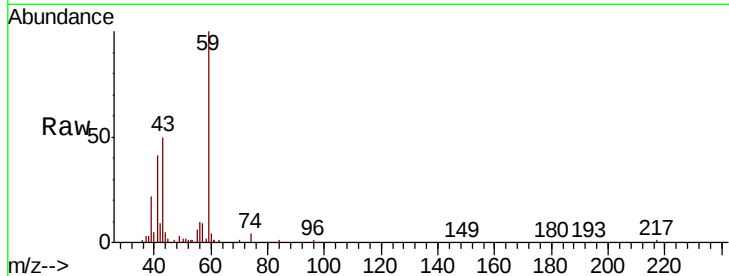
Instrument :
MSVOA_L
ClientSampled :
AIR-01

Tot Ion	59.10 (58.80 to 59.80): VL0	Resp	152707
Ion Ratio	59	100	Lower Upper
	57	11.8	8.3 12.5

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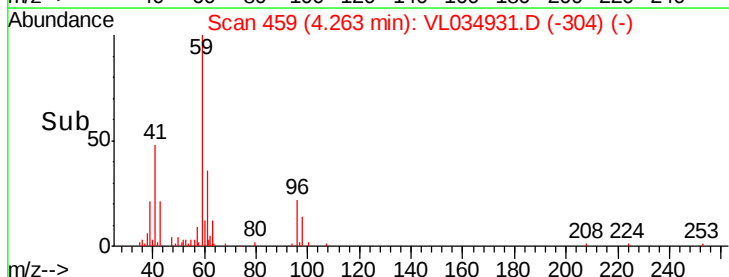
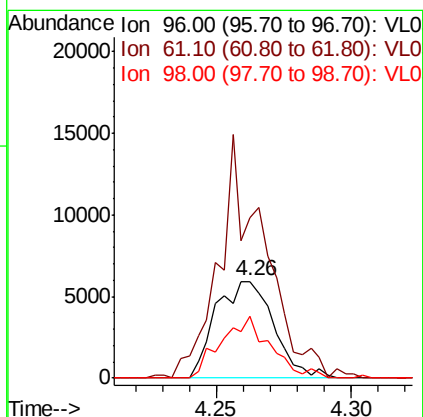
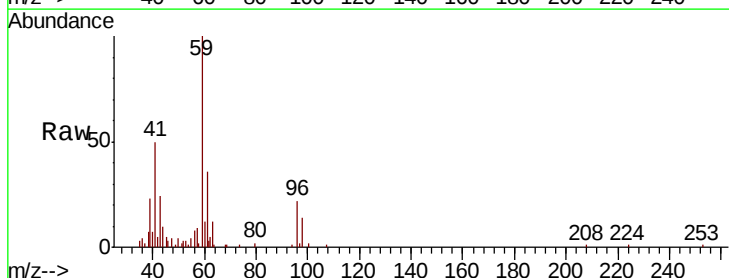
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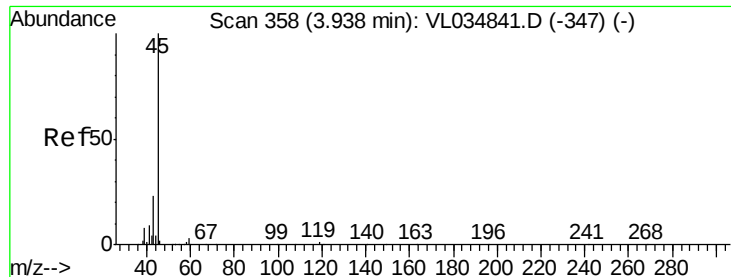


#18

1,1-Dichloroethene
Concen: 0.192 ppbv m
RT: 4.26 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Tgt Ion	96	Resp	8854
Ion Ratio	96	100	Lower Upper
	61	165.5	157.3 235.9
	98	63.3	50.2 75.4





#19

Isopropyl Alcohol

Concen: 5.925 ppbv

RT: 3.95 min Scan# 361

Delta R.T. 0.01 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Instrument :

MSVOA_L

ClientSampleId :

AIR-01

Tot Ion: 45 Resp: 496213

Ion Ratio Lower Upper

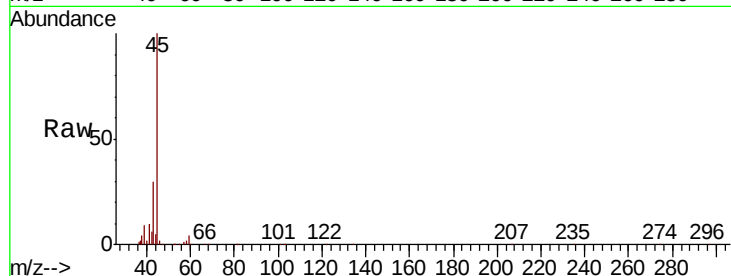
45 100

58 3.6 30.5 45.7#

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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.95

250000

200000

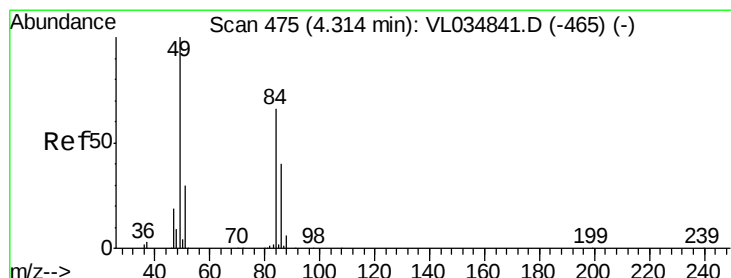
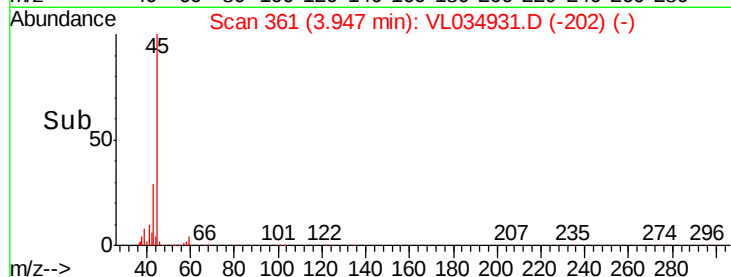
150000

100000

50000

0

Time-->



#20

Methylene Chloride

Concen: 14.852 ppbv

RT: 4.31 min Scan# 475

Delta R.T. -0.00 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Tgt Ion: 84 Resp: 622765

Ion Ratio Lower Upper

84 100

49 161.6 121.5 182.3

51 48.8 36.6 55.0

86 60.9 48.2 72.2

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

1000000

800000

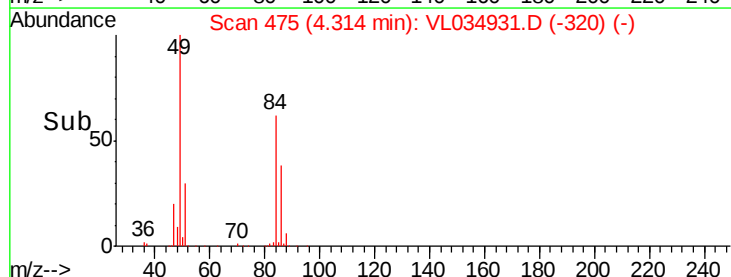
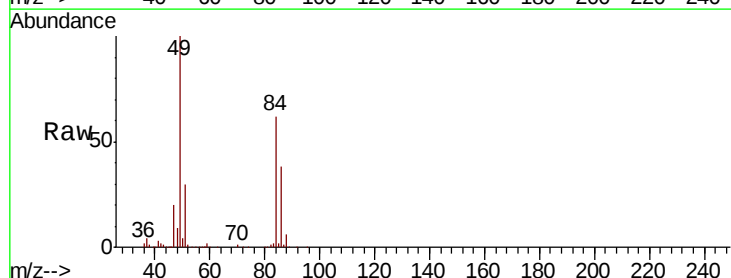
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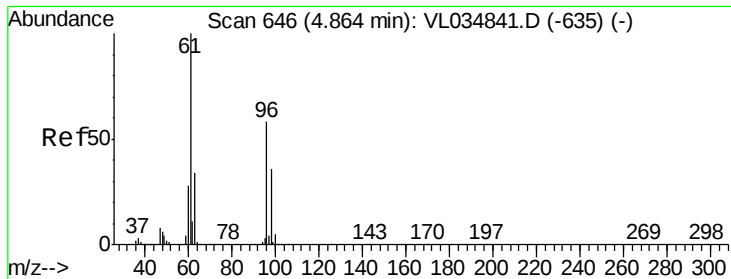
400000

200000

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Time-->





#22

trans-1,2-Dichloroethene

Concen: 0.260 ppbv m

RT: 4.86 min Scan# 645

Delta R.T. -0.00 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Instrument :

MSVOA_L

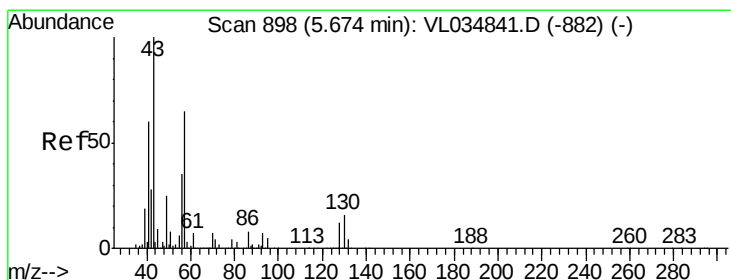
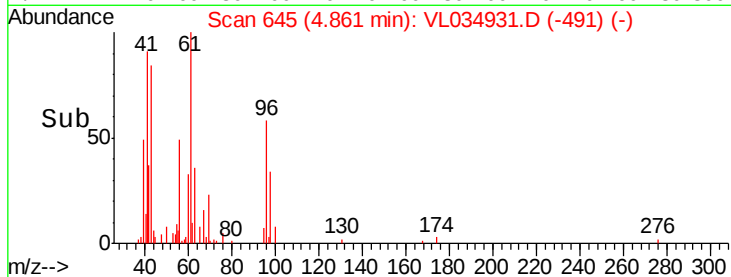
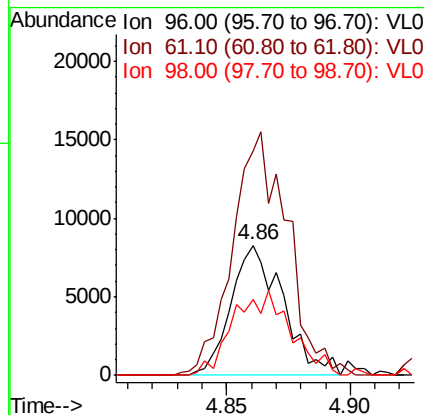
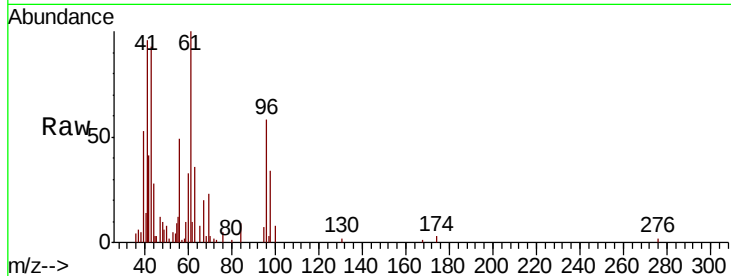
ClientSampled :

AIR-01

Tot Ion:	96	Resp:	12176
Ion	Ratio	Lower	Upper
96	100		
61	172.1	139.0	208.6
98	58.6	50.3	75.5

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#26

Hexane

Concen: 5.131 ppbv

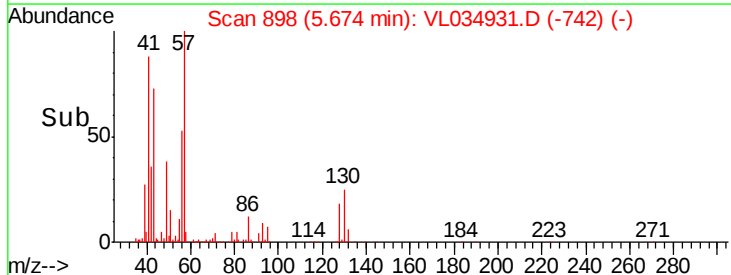
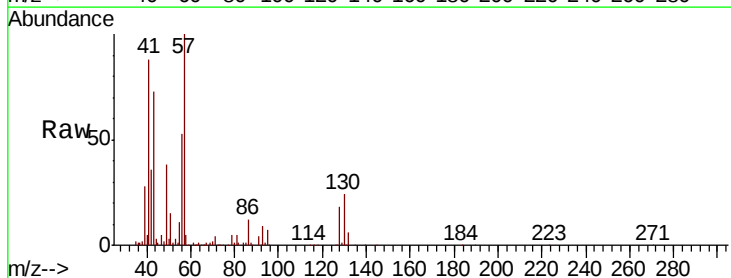
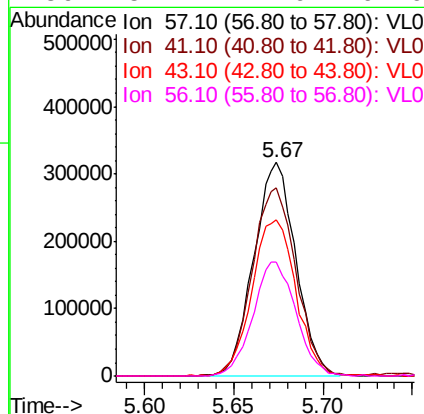
RT: 5.67 min Scan# 898

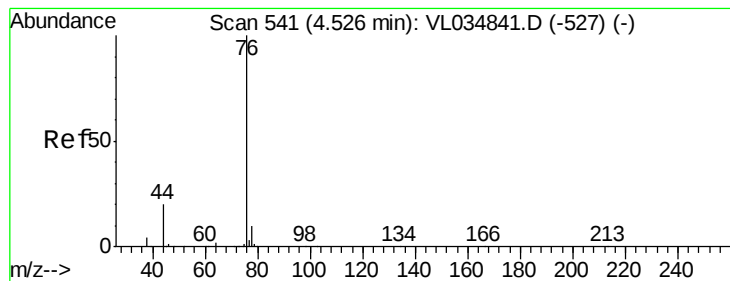
Delta R.T. -0.00 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Tgt Ion:	57	Resp:	522059
Ion	Ratio	Lower	Upper
57	100		
41	92.1	72.6	109.0
43	77.0	183.8	275.6#
56	54.7	41.9	62.9





#27

Carbon Disulfide

Concen: 0.872 ppbv

RT: 4.53 min Scan# 541

Delta R.T. -0.00 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Instrument :

MSVOA_L

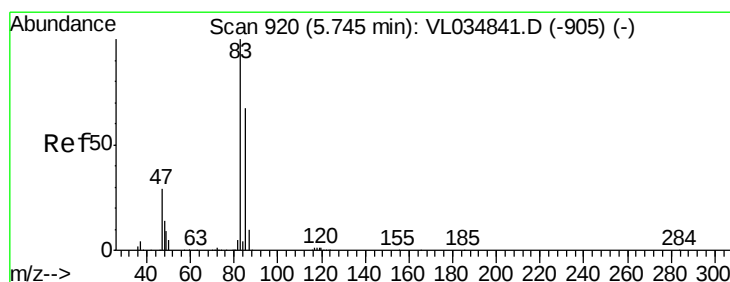
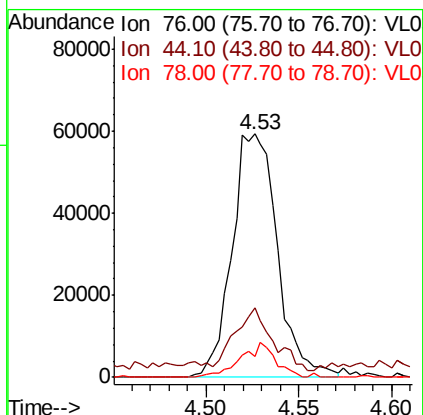
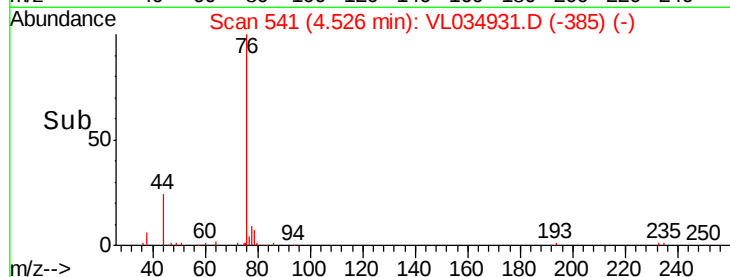
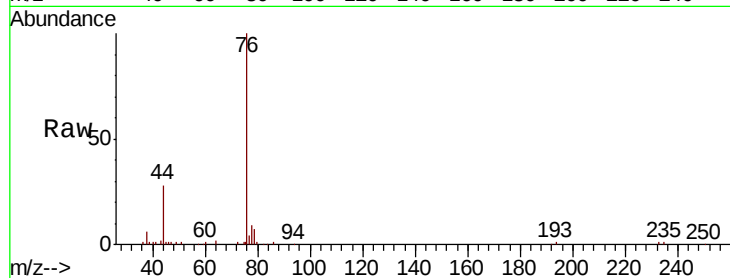
ClientSampleId :

AIR-01

Tot Ion	Ratio	Lower	Upper
76	100		
44	25.0	16.2	24.2#
78	11.3	7.8	11.6

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#29

Chloroform

Concen: 7.463 ppbv

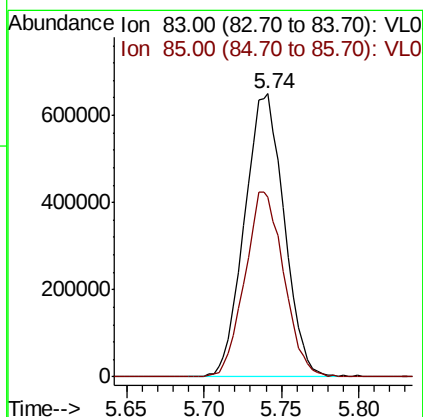
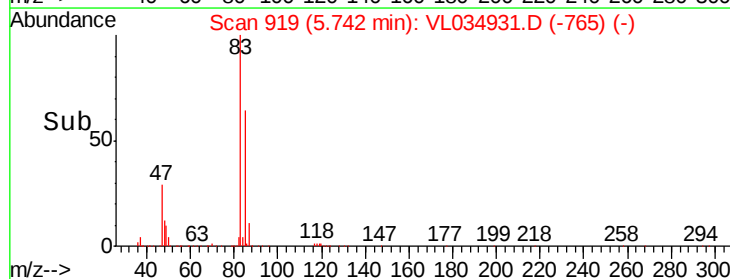
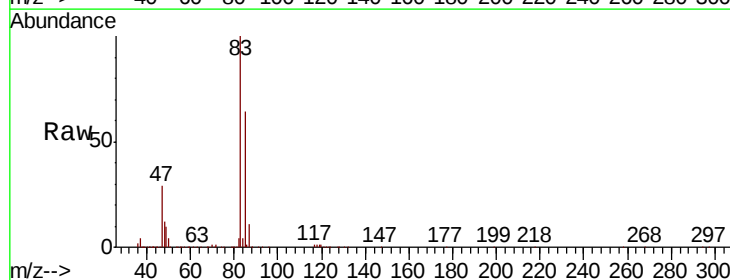
RT: 5.74 min Scan# 919

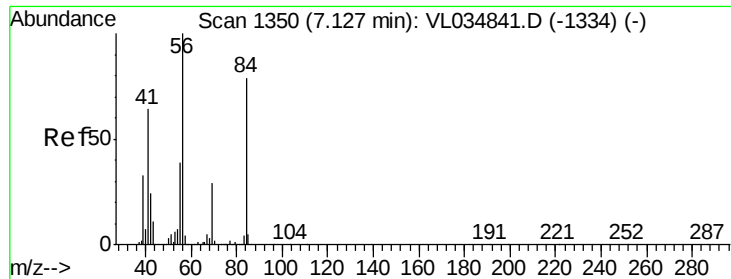
Delta R.T. -0.00 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Tgt Ion	Ratio	Lower	Upper
83	100		
85	63.6	53.8	80.6





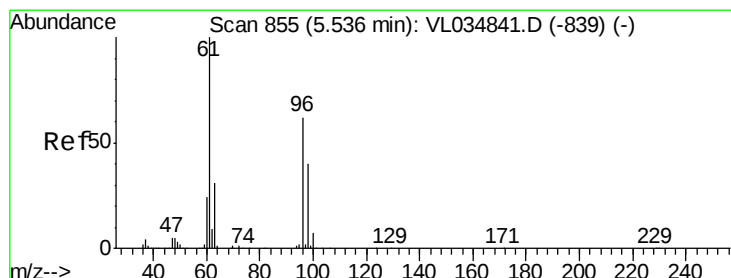
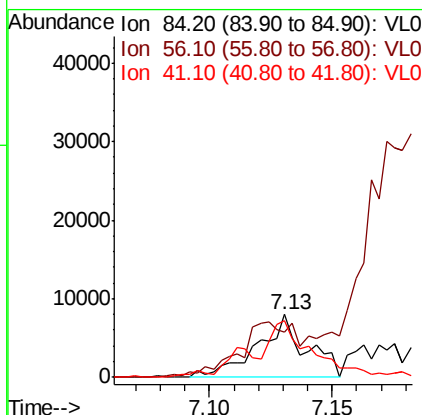
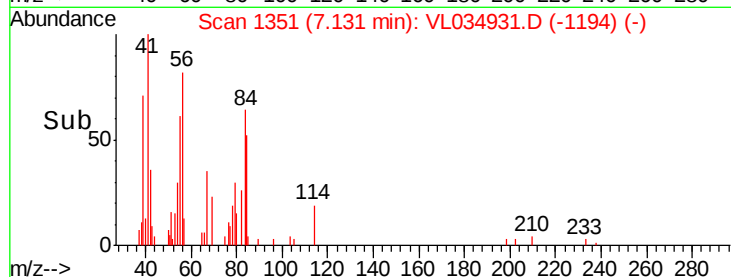
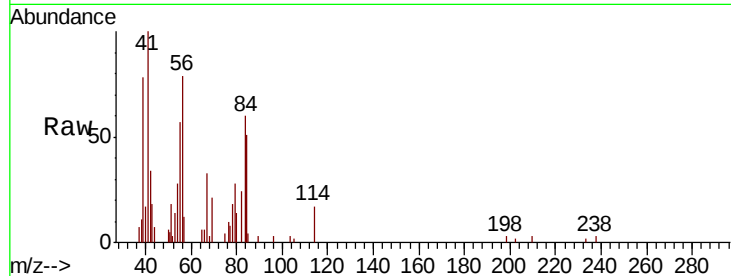
#30
Cyclohexane
Concen: 0.129 ppbv m
RT: 7.13 min Scan# 1351
Delta R.T. 0.00 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Instrument :
MSVOA_L
ClientSampleId :
AIR-01

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	110.5	165.7#
41	0.0	68.2	102.4#

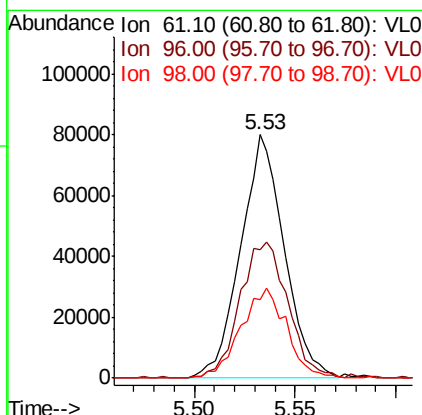
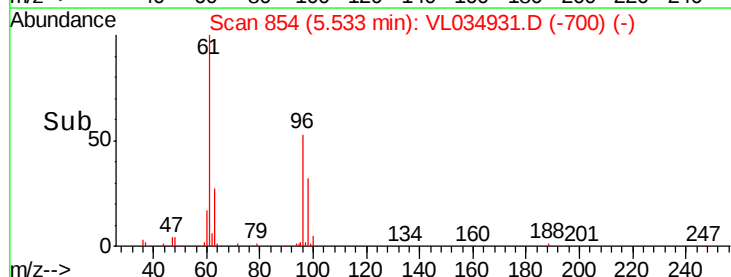
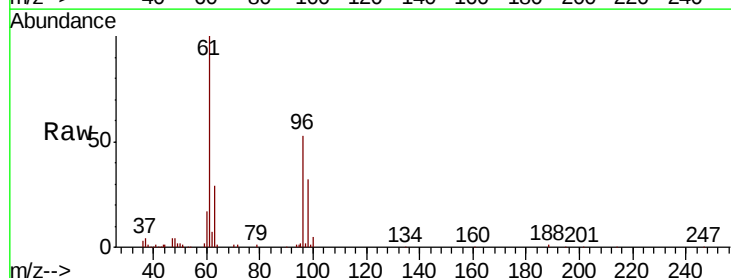
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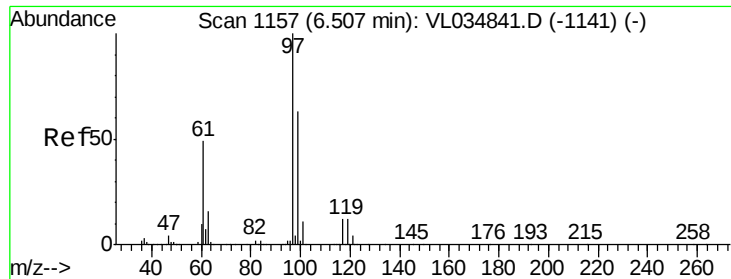
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#31
cis-1,2-Dichloroethene
Concen: 1.168 ppbv
RT: 5.53 min Scan# 854
Delta R.T. -0.00 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Tgt Ion	Ratio	Lower	Upper
61	100		
96	52.8	49.8	74.8
98	32.4	32.2	48.4





#32

1,1,1-Trichloroethane

Concen: 0.040 ppbv m

RT: 6.51 min Scan# 1158

Delta R.T. 0.00 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Instrument :

MSVOA_L

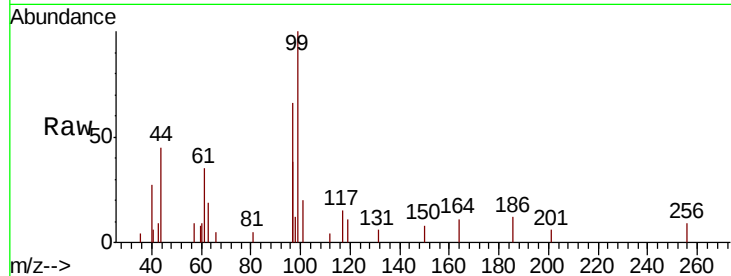
ClientSampled :

AIR-01

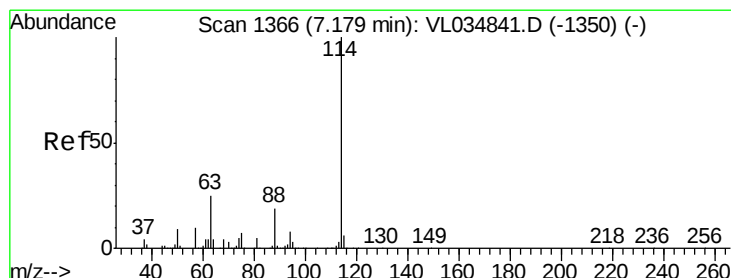
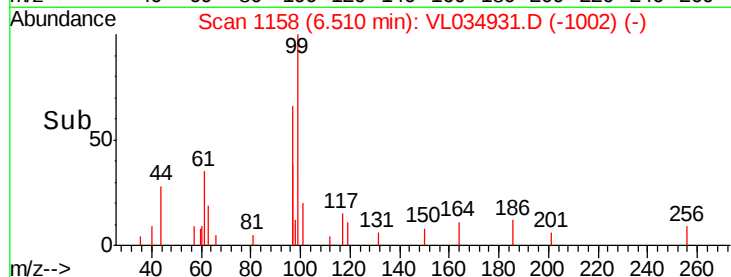
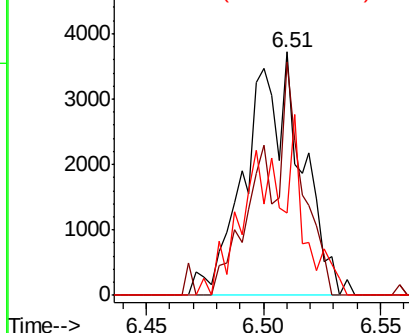
Tot Ion:	97	Resp:	6070
Ion Ratio	Lower	Upper	
97	100		
99	0.0	51.1	76.7#
61	0.0	39.7	59.5#

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Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

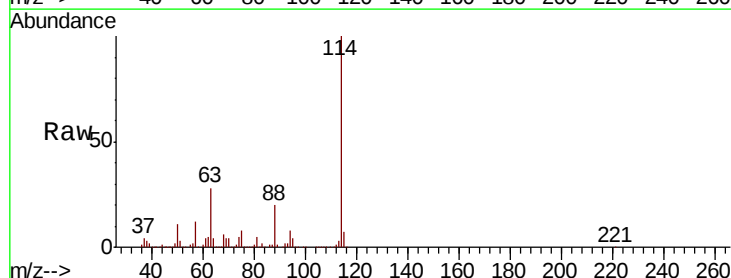
RT: 7.18 min Scan# 1365

Delta R.T. -0.00 min

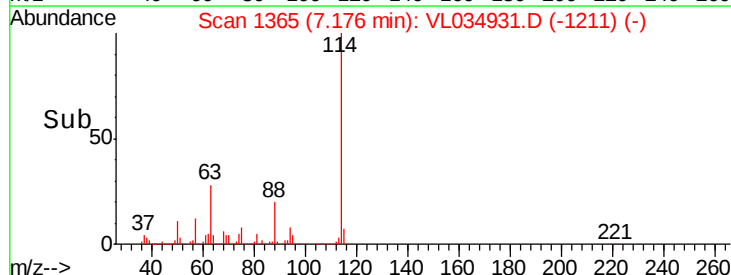
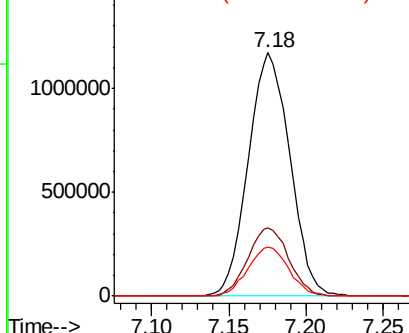
Lab File: VL034931.D

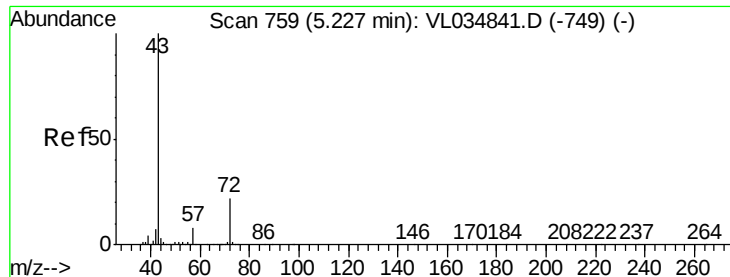
Acq: 23 Mar 2020 15:54

Tgt Ion:	114	Resp:	2193724
Ion Ratio	Lower	Upper	
114	100		
63	27.6	20.6	31.0
88	19.7	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





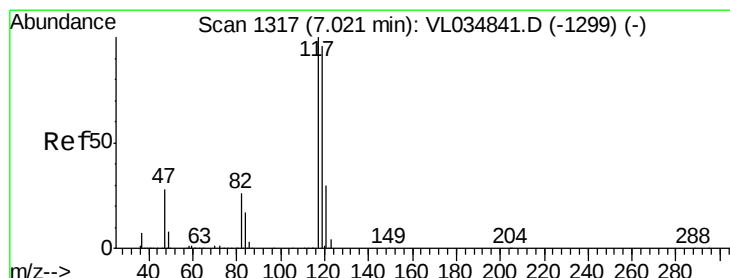
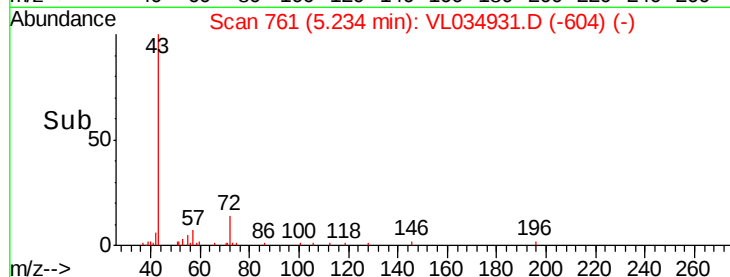
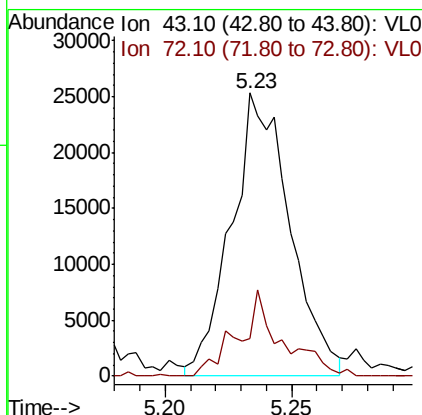
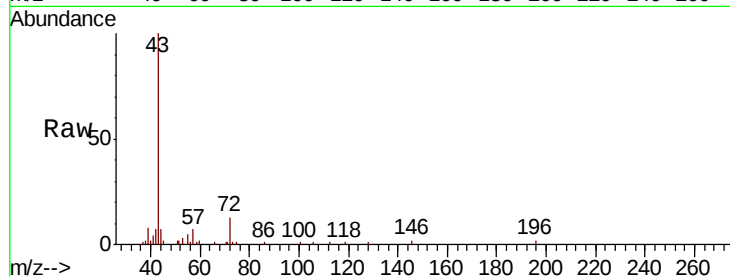
#34
2-Butanone
Concen: 0.282 ppbv m
RT: 5.23 min Scan# 761
Delta R.T. 0.01 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Instrument :
MSVOA_L
ClientSampled :
AIR-01

Tot Ion	43	Resp	41048
Ion Ratio	100	Lower	Upper
72	126.6	17.6	26.4#

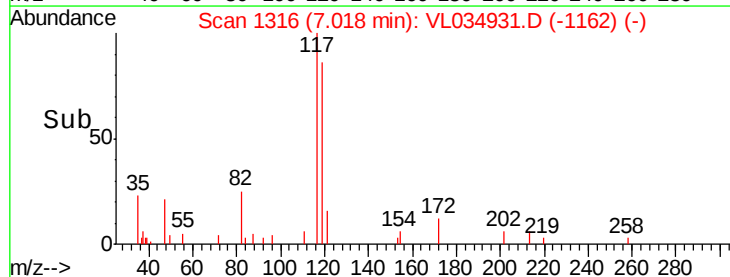
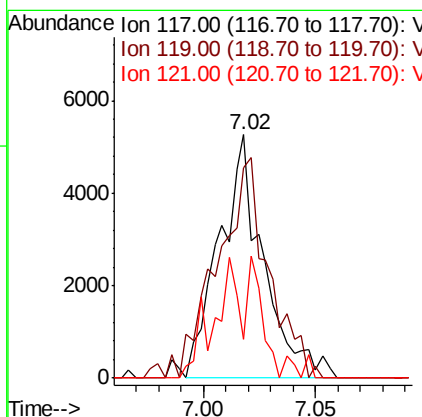
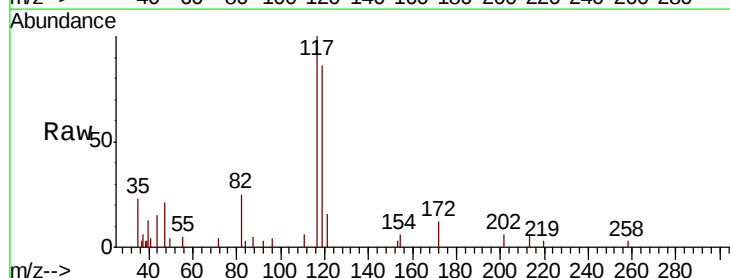
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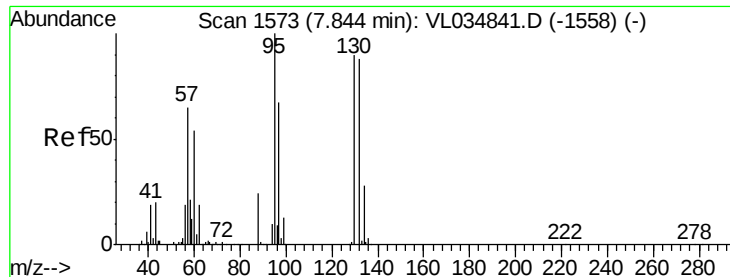
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#35
Carbon Tetrachloride
Concen: 0.053 ppbv m
RT: 7.02 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Tgt Ion	117	Resp	7239
Ion Ratio	100	Lower	Upper
119	86.4	77.0	115.4
121	16.1	24.0	36.0#





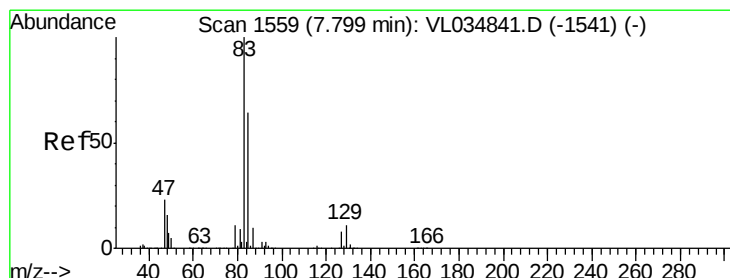
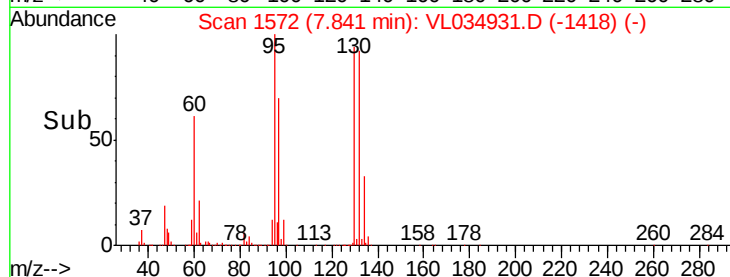
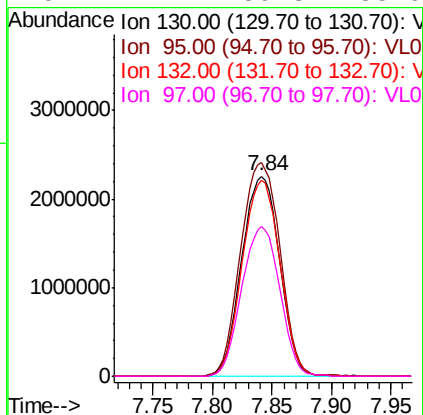
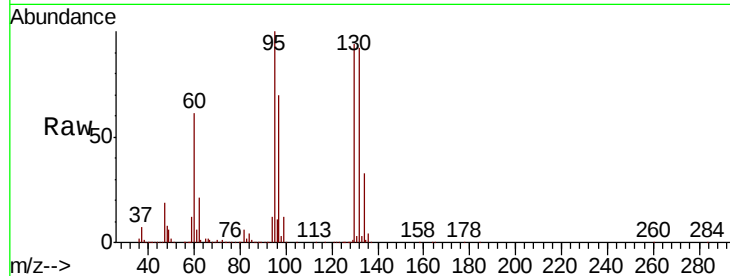
#38
 Trichloroethene
 Concen: 67.321 ppbv
 RT: 7.84 min Scan# 1572
 Delta R.T. -0.00 min
 Lab File: VL034931.D
 Acq: 23 Mar 2020 15:54

Instrument :
 MSVOA_L
 ClientSampled :
 AIR-01

Tot Ion	Ion	Ratio	Lower	Upper
130	100			
95	106.8	88.5	132.7	
132	97.9	78.0	117.0	
97	74.7	59.3	88.9	

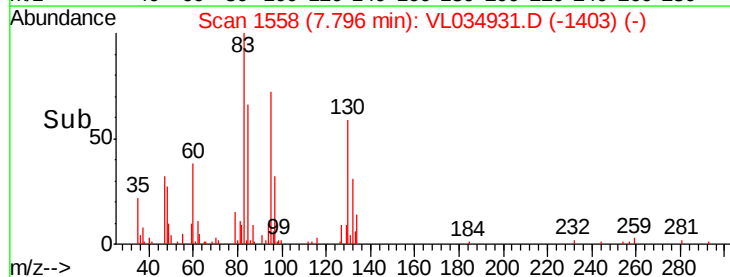
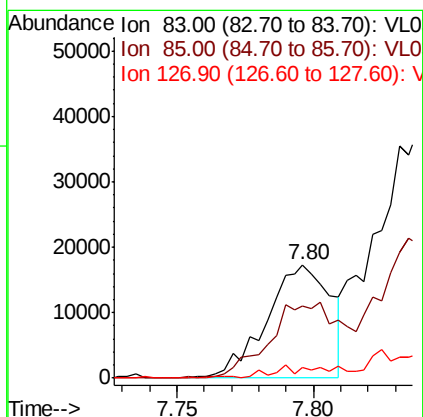
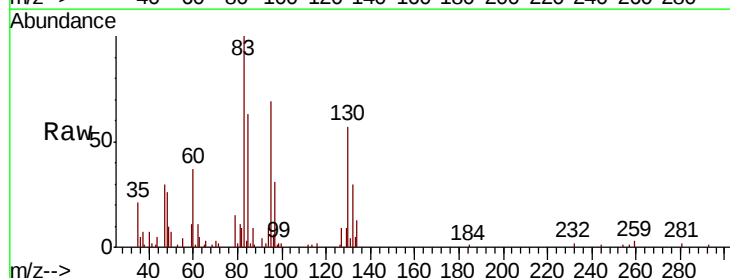
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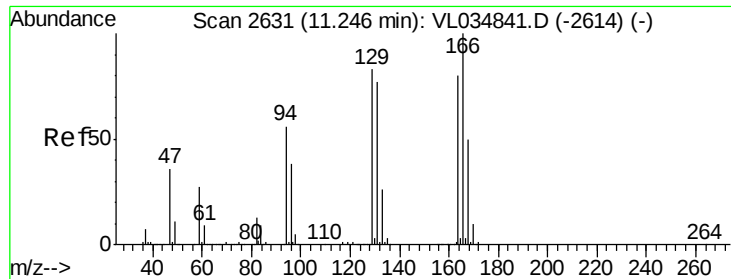
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#42
 Bromodichloromethane
 Concen: 0.188 ppbv
 RT: 7.80 min Scan# 1558
 Delta R.T. -0.00 min
 Lab File: VL034931.D
 Acq: 23 Mar 2020 15:54

Tgt Ion	Ion	Ratio	Lower	Upper
83	100			
85	62.2	51.4	77.2	
127	8.9	6.2	9.4	





#52

Tetrachloroethene

Concen: 0.118 ppbv m

RT: 11.25 min Scan# 2631

Delta R.T. -0.00 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Instrument :

MSVOA_L

ClientSampled :

AIR-01

Tot Ion:164 Resp: 9148

Ion Ratio Lower Upper

164 100

166 77.8 100.0 150.0#

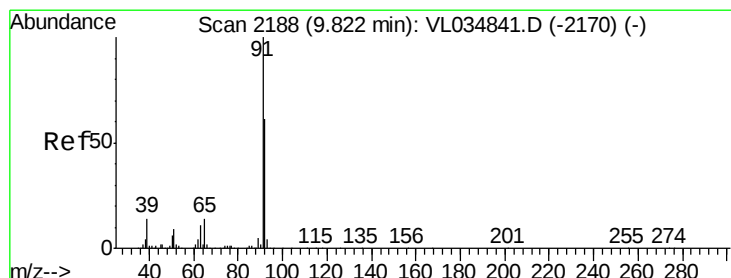
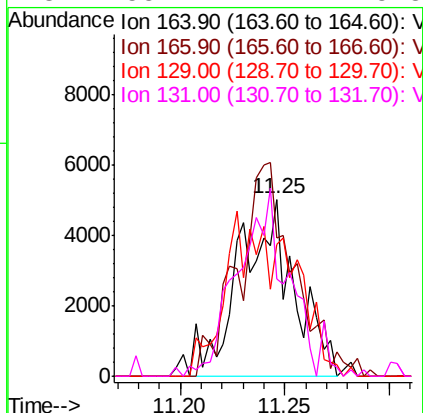
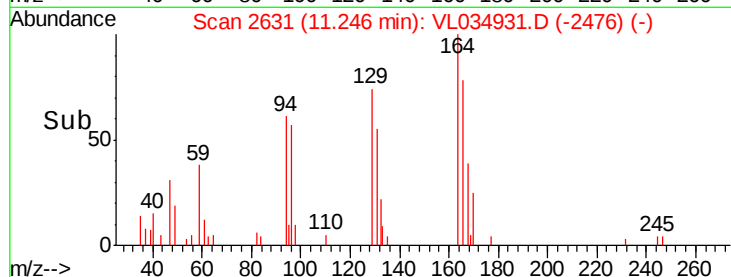
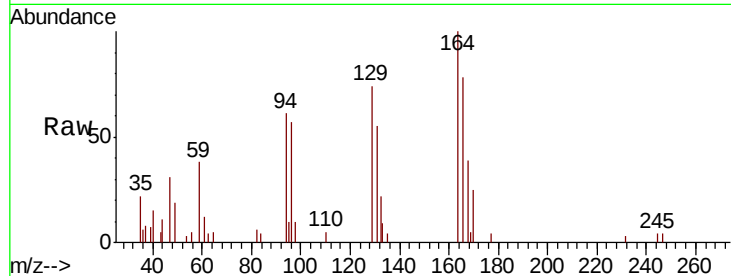
129 74.2 83.1 124.7#

131 55.1 77.2 115.8#

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#53

Toluene

Concen: 0.160 ppbv m

RT: 9.82 min Scan# 2188

Delta R.T. -0.00 min

Lab File: VL034931.D

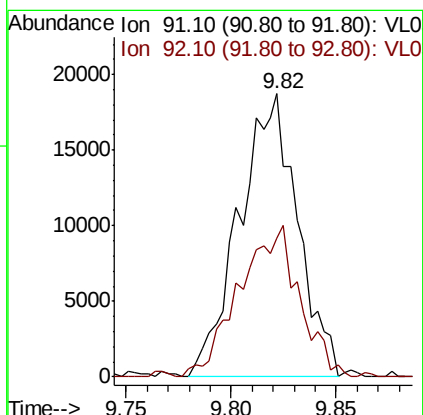
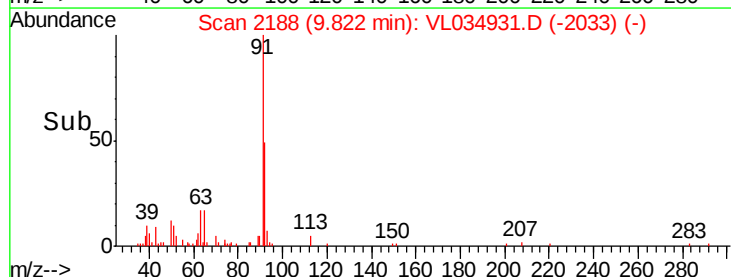
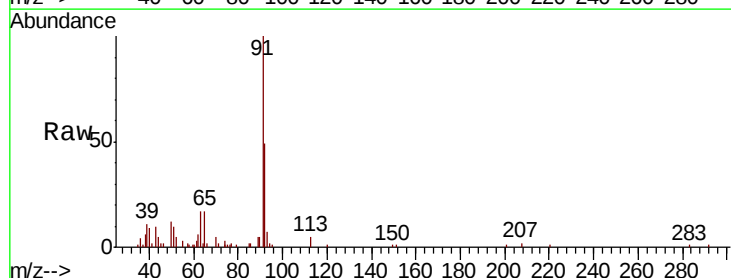
Acq: 23 Mar 2020 15:54

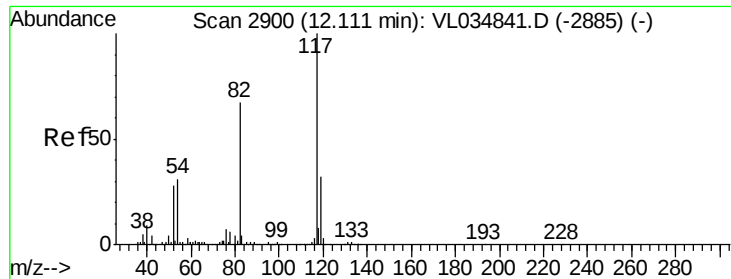
Tgt Ion: 91 Resp: 36065

Ion Ratio Lower Upper

91 100

92 0.0 48.6 72.8#





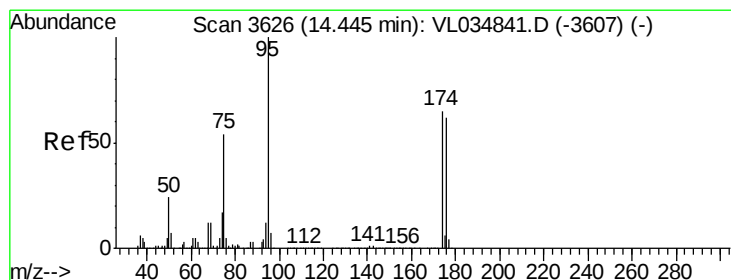
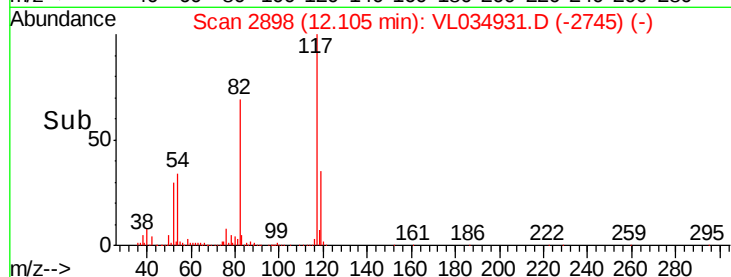
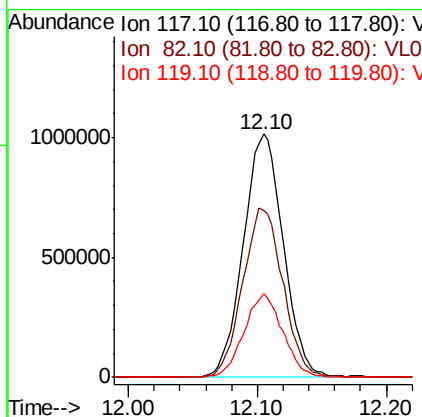
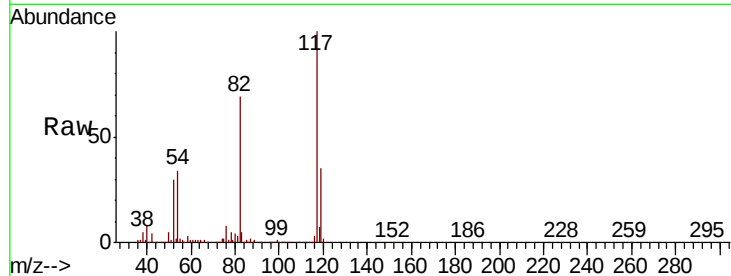
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2898
Delta R.T. -0.01 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Instrument :
MSVOA_L
ClientSampled :
AIR-01

Tot Ion:117 Resp: 2194723
Ion Ratio Lower Upper
117 100
82 70.4 51.1 76.7
119 33.2 27.3 40.9

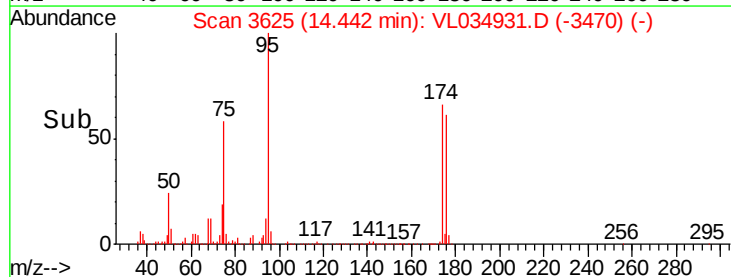
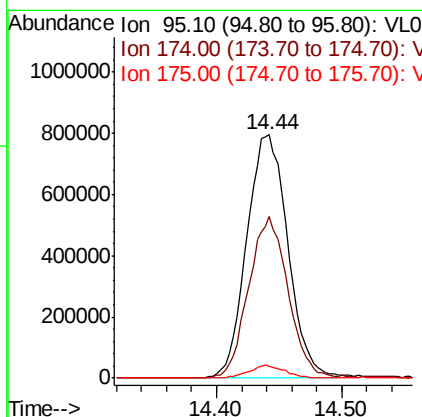
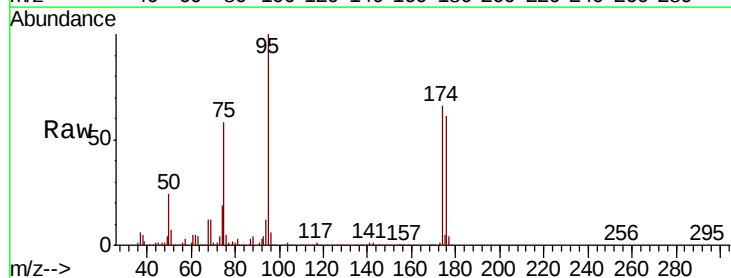
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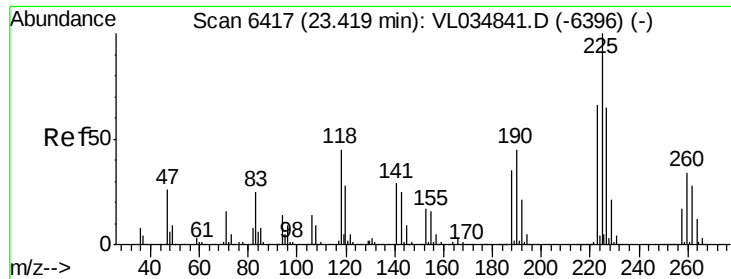
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#68
1-Bromo-4-Fluorobenzene
Concen: 10.574 ppbv
RT: 14.44 min Scan# 3625
Delta R.T. -0.00 min
Lab File: VL034931.D
Acq: 23 Mar 2020 15:54

Tgt Ion: 95 Resp: 1809898
Ion Ratio Lower Upper
95 100
174 64.5 55.2 82.8
175 4.7 4.3 6.5





#78

Hexachloro-1,3-Butadiene

Concen: 0.123 ppbv m

RT: 23.42 min Scan# 6416

Delta R.T. -0.00 min

Lab File: VL034931.D

Acq: 23 Mar 2020 15:54

Instrument :

MSVOA_L

ClientSampleId :

AIR-01

Tot Ion:	225	Resp:	16675
Ion Ratio		Lower	Upper
225	100		
223	0.0	51.1	76.7#
227	0.0	51.8	77.6#

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