

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL112718\
 Data File : VL032810.D
 Acq On : 27 Nov 2018 16:51
 Operator : SY/AP
 Sample : VL1127ABS01
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleID :
 VL1127ABS01

Manual Integrations
 APPROVED

MMDadoda
 11/28/2018 4:21:24 PM

Quant Time: Nov 28 03:33:44 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL111418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov 14 07:00:23 2018
 QLast Update : Wed Nov 14 07:00:23 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.78	49	1388233	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.31	114	3657128	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.26	117	3498293m	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.60	95	2581382	9.87	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	1897556	9.51	ppbv	99
3) Chlorodifluoromethane	3.02	51	1079856	9.81	ppbv	100
4) Chloromethane	3.18	50	580584	9.51	ppbv	96
5) Vinyl Chloride	3.30	62	599432	9.27	ppbv	99
6) Bromomethane	3.53	94	395185	9.99	ppbv	95
7) Chloroethane	3.61	64	235241	10.09	ppbv	99
8) Dichlorotetrafluoroethane	3.23	85	1518728	9.66	ppbv	97
9) Propene	3.05	41	437548	9.93	ppbv	99
10) Heptane	8.26	43	1813000	10.78	ppbv	99
11) Trichlorofluoromethane	4.01	101	2274399	12.09	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.56	101	1575186	10.25	ppbv	97
13) Ethanol	3.66	45	112489	7.80	ppbv	98
14) Bromoethene	3.80	108	681075	13.36	ppbv	99
15) Acetone	3.91	43	1403352	11.07	ppbv	100
16) 1,3-Butadiene	3.37	39	478652	9.75	ppbv	89
17) tert-Butyl alcohol	4.37	59	452893	11.39	ppbv	100
18) 1,1-Dichloroethene	4.36	96	817780	10.83	ppbv	94
19) Isopropyl Alcohol	4.03	45	1041346	12.33	ppbv	100
20) Methylene Chloride	4.42	84	709699	10.81	ppbv	99
21) Allyl Chloride	4.49	41	1205709	11.32	ppbv	99
22) trans-1,2-Dichloroethene	4.98	96	821585	11.14	ppbv	96
23) Vinyl Acetate	5.17	43	2433111	10.53	ppbv	99
24) 1,1-Dichloroethane	5.10	63	1882980	10.25	ppbv	99
25) Ethyl Acetate	5.78	43	3005107	10.17	ppbv	100
26) Hexane	5.79	57	1385801	10.54	ppbv	100
27) Carbon Disulfide	4.63	76	1921505	11.52	ppbv	99
28) Methyl tert-Butyl Ether	5.13	73	2294786	10.94	ppbv	100
29) Chloroform	5.87	83	2489079	10.62	ppbv	98
30) Cyclohexane	7.26	84	1268794	11.03	ppbv	97
31) cis-1,2-Dichloroethene	5.66	61	1418256	10.72	ppbv	97
32) 1,1,1-Trichloroethane	6.63	97	2537558	9.88	ppbv	99
34) 2-Butanone	5.34	43	1895281	9.99	ppbv	99
35) Carbon Tetrachloride	7.15	117	2743971	9.33	ppbv	99
36) Benzene	7.02	78	2996258	10.29	ppbv	98
37) 1,2-Dichloroethane	6.43	62	1867740	9.53	ppbv	99
38) Trichloroethene	7.98	130	1241473	10.53	ppbv	97
39) 1,2-Dichloropropane	7.75	63	1109494	10.00	ppbv	97
40) 1,4-Dioxane	7.97	88	426828	10.77	ppbv	84
41) Tetrahydrofuran	6.16	42	1157176	10.64	ppbv	99
42) Bromodichloromethane	7.93	83	2664428	10.03	ppbv	98
43) Methyl Methacrylate	8.16	69	1193329	10.98	ppbv	98

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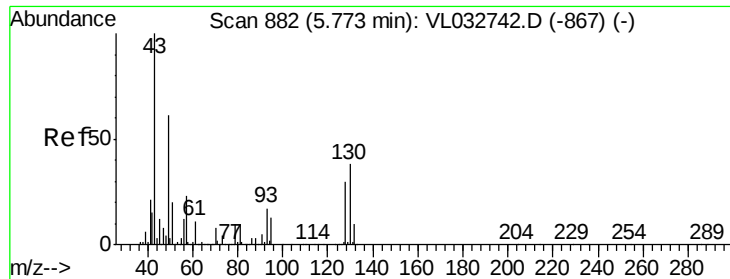
Manual Integrations
 APPROVED

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 11/28/2018 4:21:24 PM

Quant Time: Nov 28 03:33:44 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL111418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov 14 07:00:23 2018
 QLast Update : Wed Nov 14 07:00:23 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,2,4-Trimethylpentane	8.01	57	5020595	10.32	ppbv	100
45) t-1,3-Dichloropropene	9.43	75	1747604	11.98	ppbv	98
46) cis-1,3-Dichloropropene	8.85	75	2006460	11.38	ppbv	96
47) 1,1,2-Trichloroethane	9.63	97	1366243	10.41	ppbv	96
48) Dibromochloromethane	10.47	129	2355697	10.56	ppbv	99
49) Bromoform	13.22	173	2040398	11.08	ppbv	100
50) 4-Methyl-2-Pentanone	8.89	43	3089017	10.43	ppbv	100
51) 2-Hexanone	10.29	43	2150060	11.26	ppbv #	99
52) Tetrachloroethene	11.39	164	1102030	10.88	ppbv	97
53) Toluene	9.97	91	3534787	11.63	ppbv	100
54) 1,2-Dibromoethane	10.78	107	1990475	10.73	ppbv	99
56) 1,1,1,2-Tetrachloroethane	12.30	131	1666240	10.21	ppbv	99
57) Chlorobenzene	12.32	112	2701276	10.09	ppbv	99
58) Ethyl Benzene	12.88	91	4782609	11.36	ppbv	96
59) m/p-Xylene	13.17	91	8040694m	21.45	ppbv	
60) o-Xylene	13.87	91	3934714	10.44	ppbv	99
61) Styrene	13.70	104	2959276	12.06	ppbv	99
62) Isopropylbenzene	14.84	105	5650631	11.09	ppbv	99
63) 1,1,2,2-Tetrachloroethane	13.86	83	2733142	9.30	ppbv	99
64) n-propylbenzene	15.74	120	1441687	10.76	ppbv	97
65) tert-Butylbenzene	16.93	119	4981299	10.91	ppbv	98
66) Benzyl Chloride	17.18	91	2783164	11.02	ppbv	99
67) sec-Butylbenzene	17.48	105	6920560	10.52	ppbv	100
69) p-Isopropyltoluene	17.84	119	5664314	10.83	ppbv	99
70) n-Butylbenzene	18.73	91	5613158	10.57	ppbv	99
71) 2-Chlorotoluene	15.64	91	4148019	10.92	ppbv	99
72) 4-Ethyltoluene	16.02	105	4538955	10.99	ppbv	99
73) 1,3,5-Trimethylbenzene	16.18	105	4321028	10.70	ppbv	100
74) 1,2,4-Trimethylbenzene	16.95	105	4386143	10.15	ppbv	93
75) 1,3-Dichlorobenzene	17.19	146	2488301	10.04	ppbv	99
76) 1,4-Dichlorobenzene	17.33	146	2413074	10.42	ppbv	100
77) 1,2-Dichlorobenzene	18.01	146	2395701	10.45	ppbv	99
78) Hexachloro-1,3-Butadiene	23.56	225	1201061	9.70	ppbv	99
79) Naphthalene	22.43	128	3292025	11.60	ppbv	100
80) Naphthalene,2-methyl-	25.13	142	779238	10.96	ppbv	99
81) 1,2,4-Trichlorobenzene	22.16	180	1673730	11.74	ppbv	100

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



#1

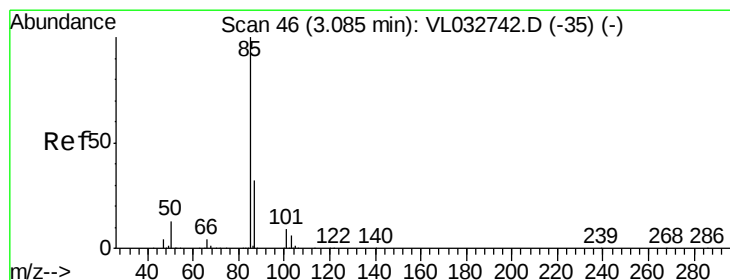
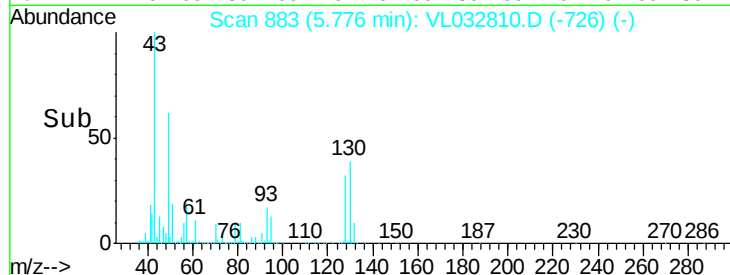
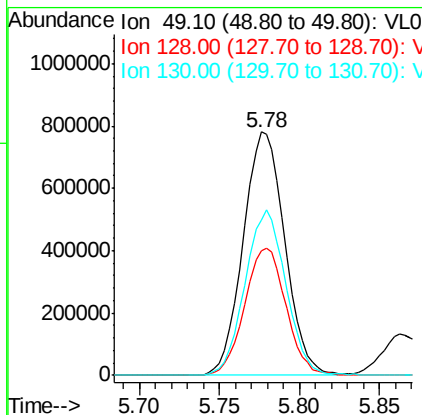
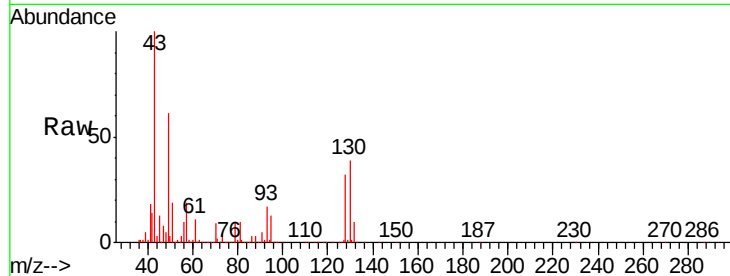
Bromochloromethane
 Concen: 10.00 ppbv
 RT: 5.78 min Scan# 883
 Delta R.T. 0.00 min
 Lab File: VL032810.D
 Acq: 27 Nov 2018 16:51

Instrument :
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 ClientSampleId :
 VL1127ABS01

Tgt Ion	Ratio	Lower	Upper
49	100		
128	52.2	24.9	74.6
130	67.1	31.4	94.2

Manual Integrations
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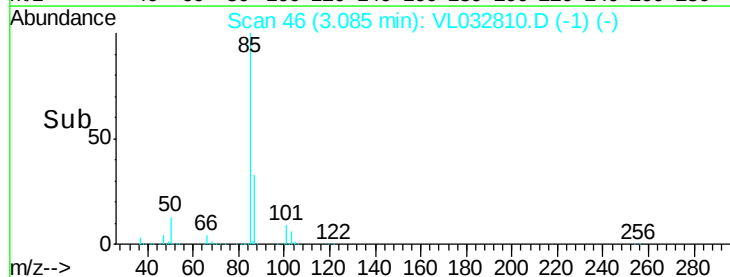
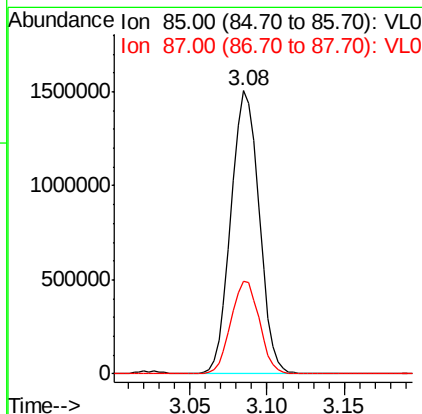
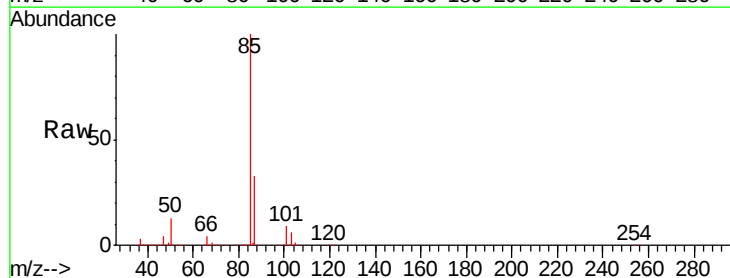
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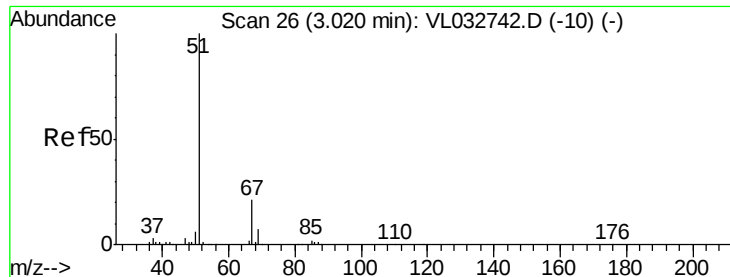


#2

Dichlorodifluoromethane
 Concen: 9.51 ppbv
 RT: 3.08 min Scan# 46
 Delta R.T. -0.00 min
 Lab File: VL032810.D
 Acq: 27 Nov 2018 16:51

Tgt Ion	Ratio	Lower	Upper
85	100		
87	32.9	26.0	39.0





#3

Chlorodifluoromethane

Concen: 9.81 ppbv

RT: 3.02 min Scan# 27

Delta R.T. 0.00 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

Instrument :

MSVOA_L

ClientSampleId :

VL1127ABS01

Tgt Ion: 51 Resp: 1079856

Ion Ratio Lower Upper

51 100

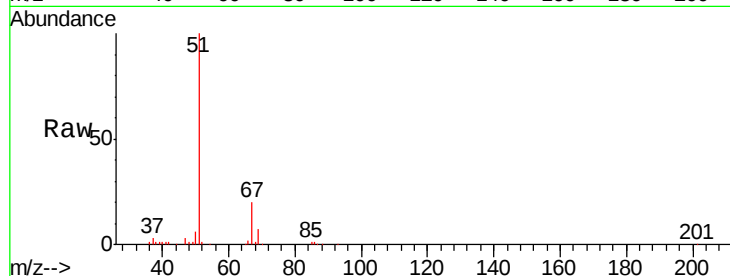
67 20.0 16.1 24.1

Manual Integrations

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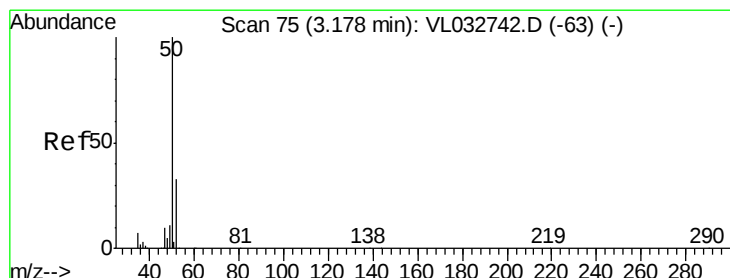
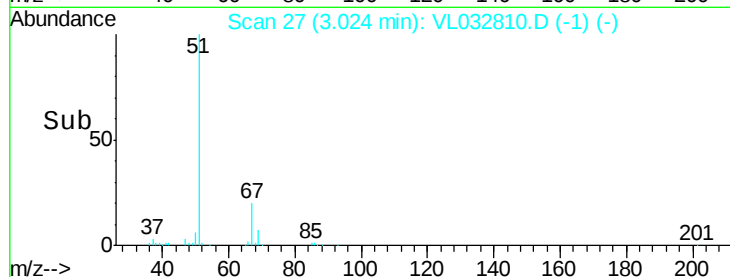
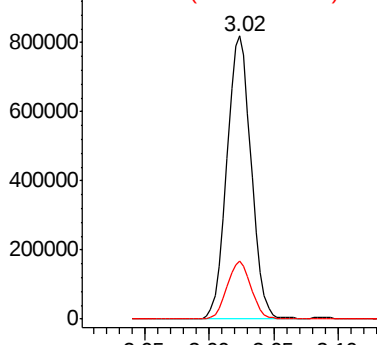
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 9.51 ppbv

RT: 3.18 min Scan# 76

Delta R.T. 0.00 min

Lab File: VL032810.D

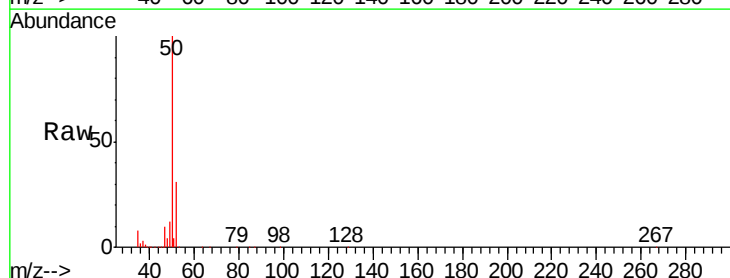
Acq: 27 Nov 2018 16:51

Tgt Ion: 50 Resp: 580584

Ion Ratio Lower Upper

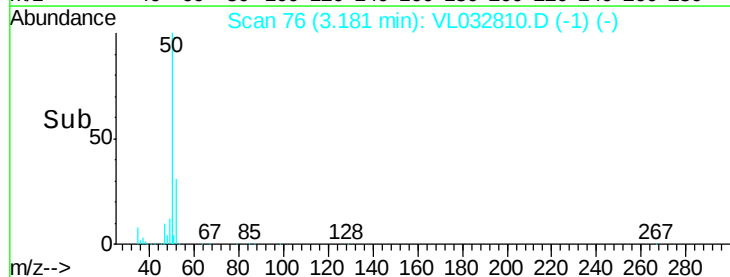
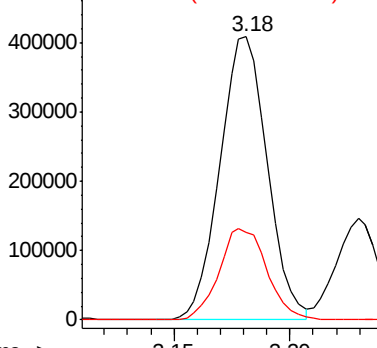
50 100

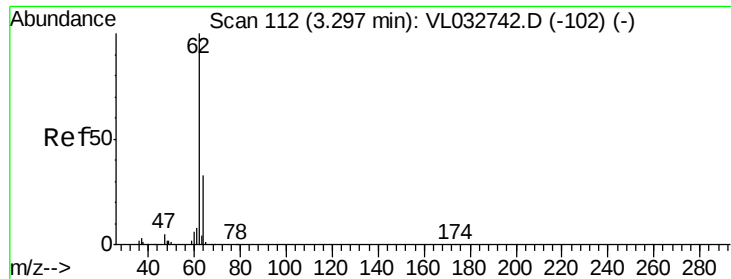
52 30.8 26.6 40.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 9.27 ppbv

RT: 3.30 min Scan# 113

Delta R.T. 0.00 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

Instrument :

MSVOA_L

ClientSampleId :

VL1127ABS01

Tgt Ion: 62 Resp: 599432

Ion Ratio Lower Upper

62 100

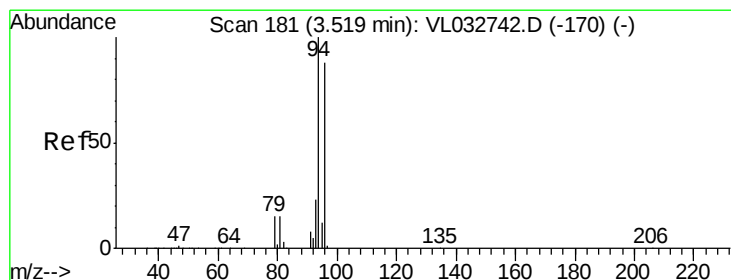
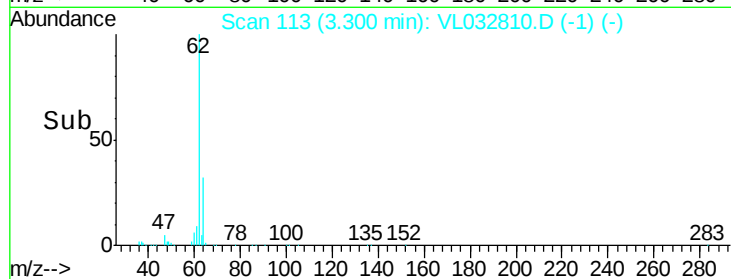
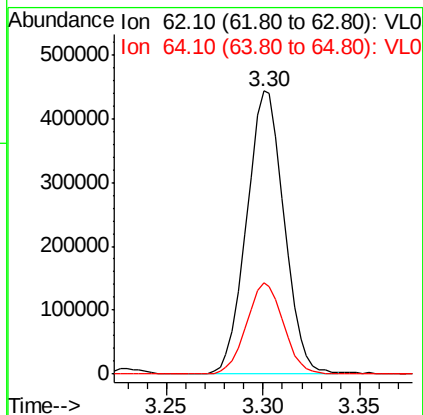
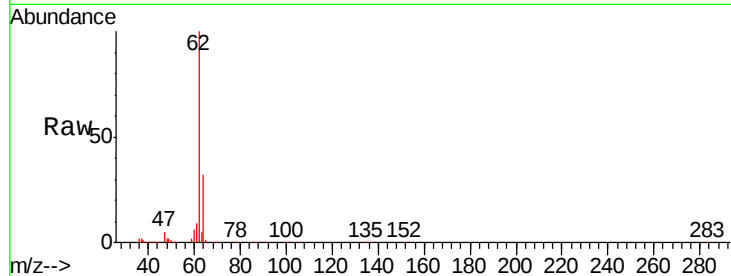
64 32.2 26.2 39.4

Manual Integrations

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#6

Bromomethane

Concen: 9.99 ppbv

RT: 3.53 min Scan# 183

Delta R.T. 0.01 min

Lab File: VL032810.D

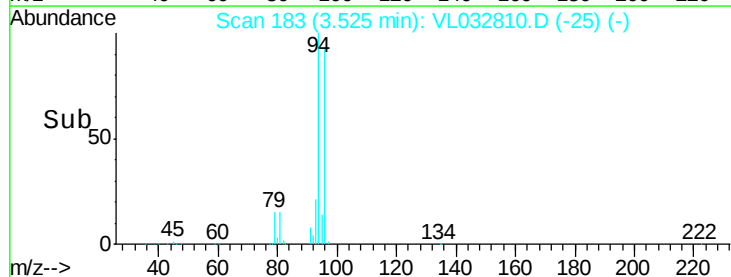
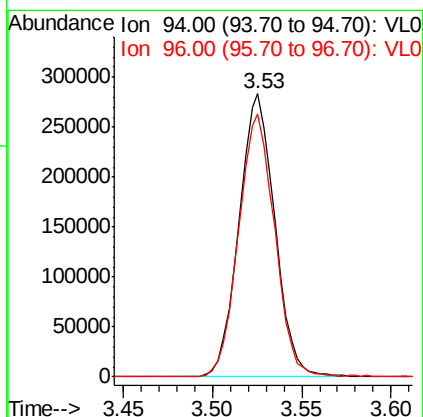
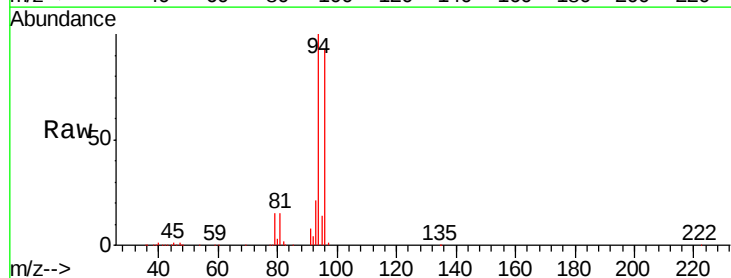
Acq: 27 Nov 2018 16:51

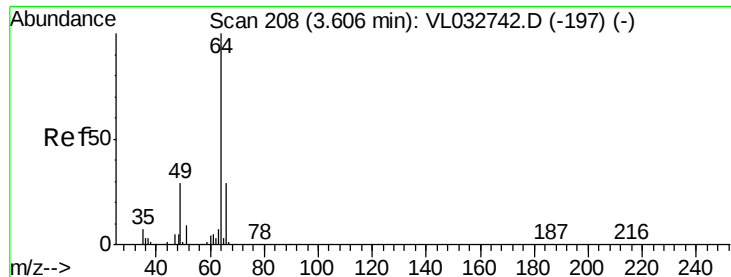
Tgt Ion: 94 Resp: 395185

Ion Ratio Lower Upper

94 100

96 92.8 70.2 105.2





#7

Chloroethane

Concen: 10.09 ppbv

RT: 3.61 min Scan# 210

Delta R.T. 0.01 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

Instrument :

MSVOA_L

ClientSampleId :

VL1127ABS01

Tgt Ion: 64 Resp: 235241

Ion Ratio Lower Upper

64 100

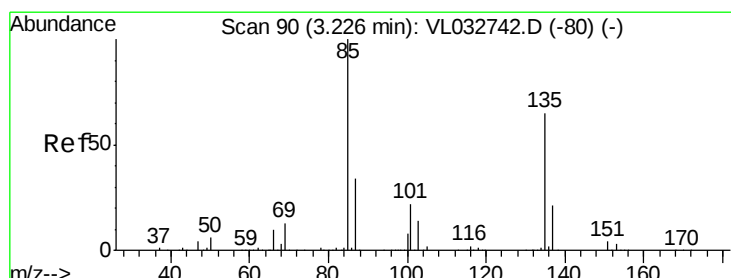
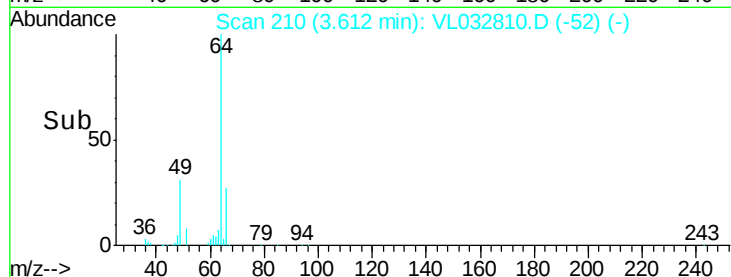
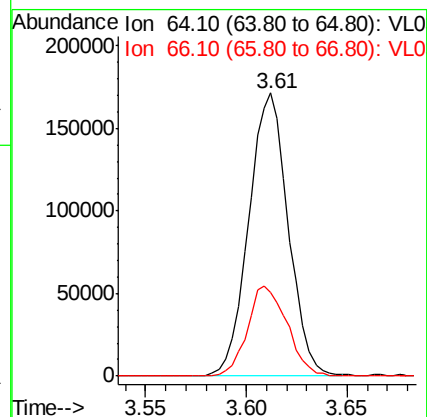
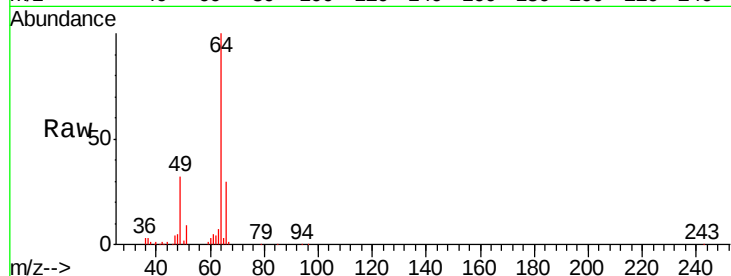
66 29.6 23.2 34.8

Manual Integrations

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#8

Dichlorotetrafluoroethane

Concen: 9.66 ppbv

RT: 3.23 min Scan# 91

Delta R.T. 0.00 min

Lab File: VL032810.D

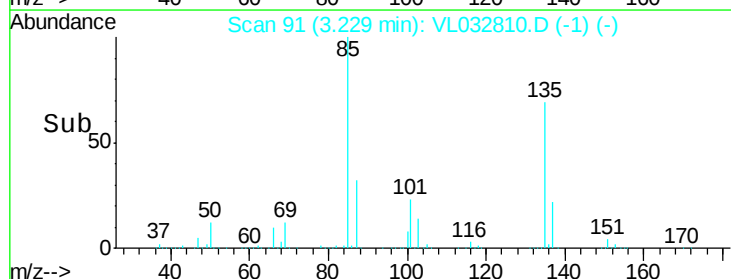
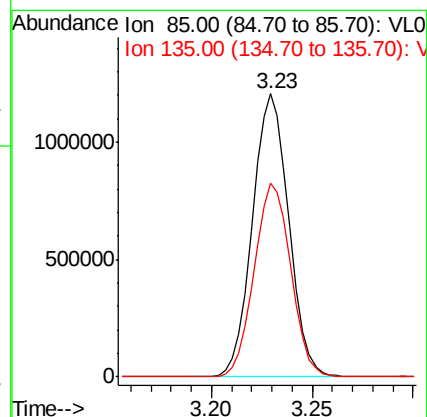
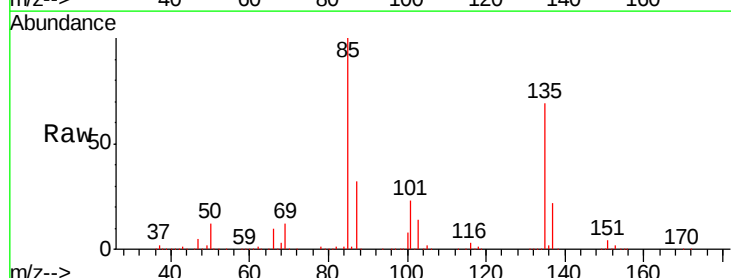
Acq: 27 Nov 2018 16:51

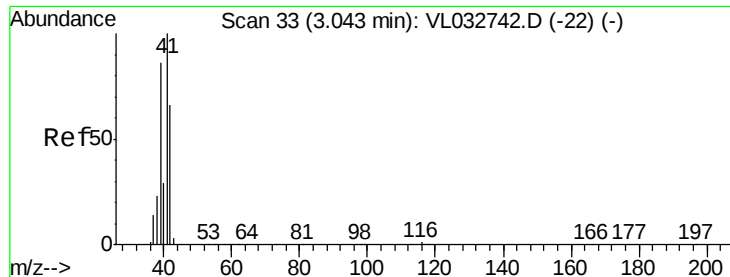
Tgt Ion: 85 Resp: 1518728

Ion Ratio Lower Upper

85 100

135 69.4 53.8 80.8





#9

Propene

Concen: 9.93 ppbv

RT: 3.05 min Scan# 34

Delta R.T. 0.00 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

Instrument :

MSVOA_L

ClientSampleId :

VL1127ABS01

Tgt Ion: 41 Resp: 437548

Ion Ratio Lower Upper

41 100

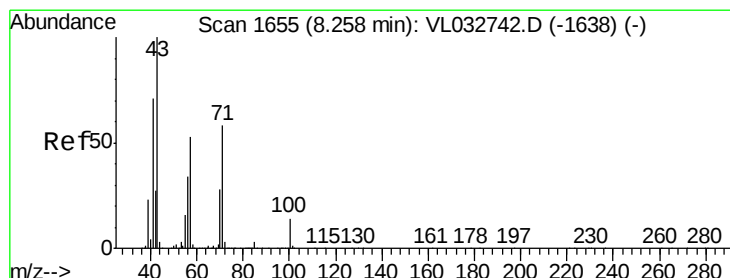
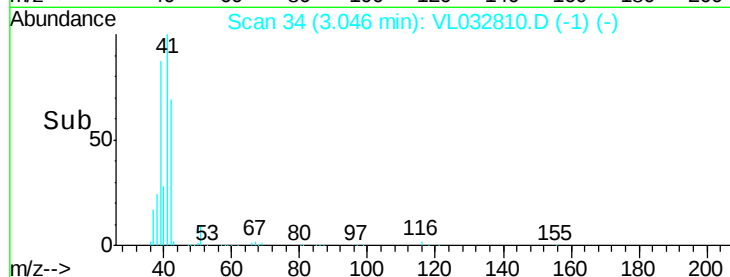
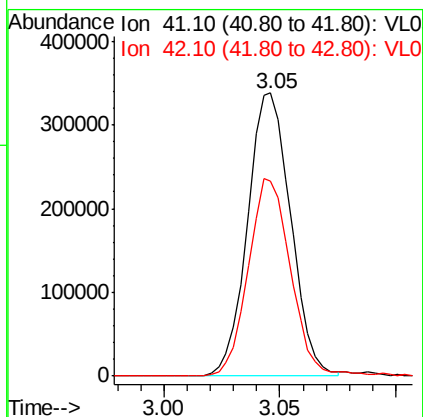
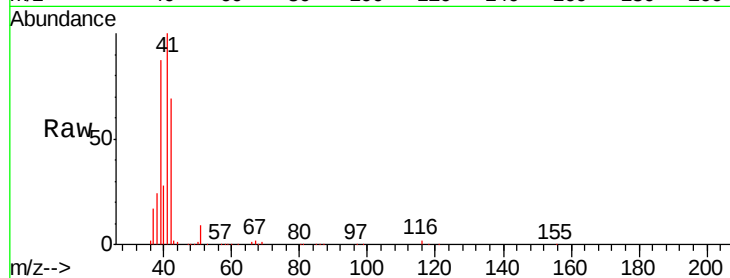
42 69.3 55.0 82.6

Manual Integrations

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#10

Heptane

Concen: 10.78 ppbv

RT: 8.26 min Scan# 1657

Delta R.T. 0.01 min

Lab File: VL032810.D

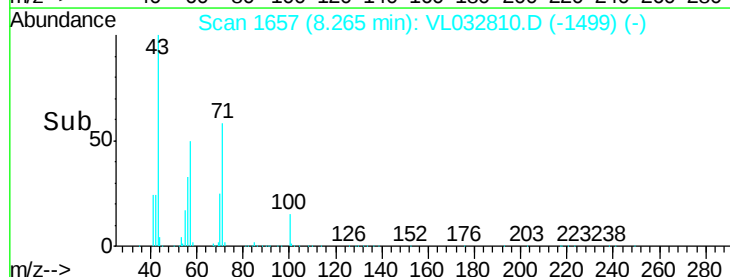
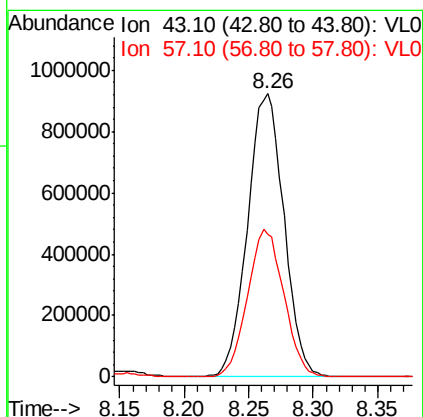
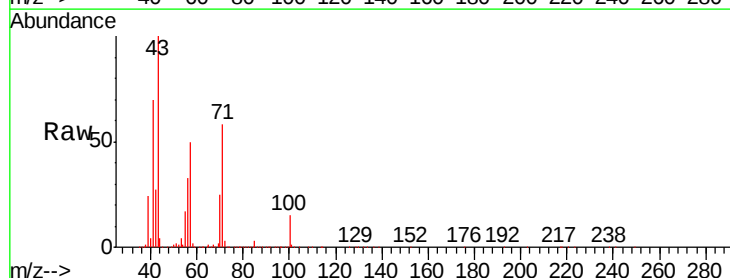
Acq: 27 Nov 2018 16:51

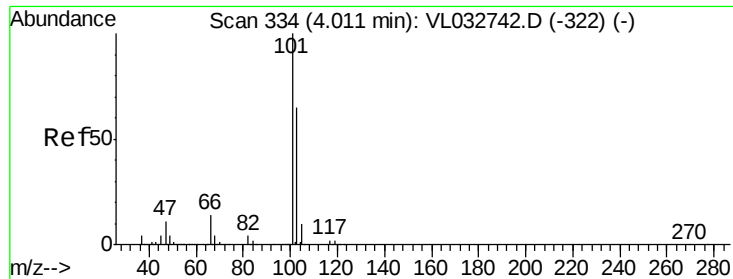
Tgt Ion: 43 Resp: 1813000

Ion Ratio Lower Upper

43 100

57 51.9 41.8 62.8





#11

Trichlorofluoromethane

Concen: 12.09 ppbv

RT: 4.01 min Scan# 335

Delta R.T. 0.00 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

Instrument :

MSVOA_L

ClientSampleId :

VL1127ABS01

Tgt Ion:101 Resp: 2274399

Ion Ratio Lower Upper

101 100

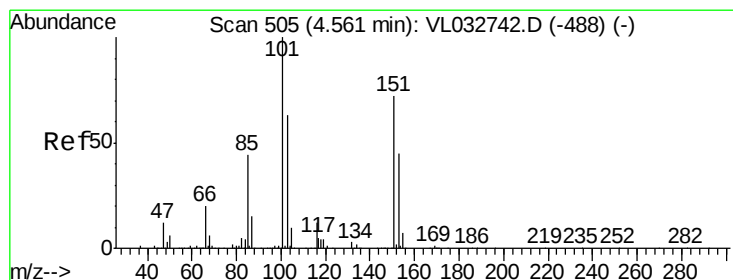
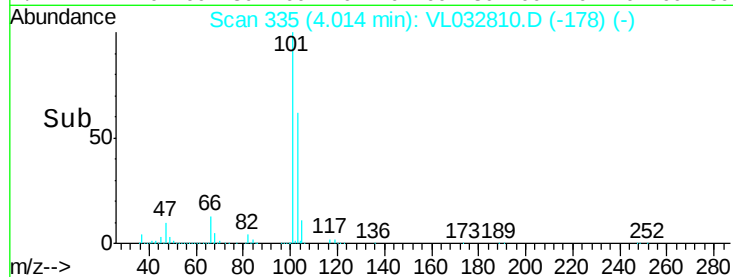
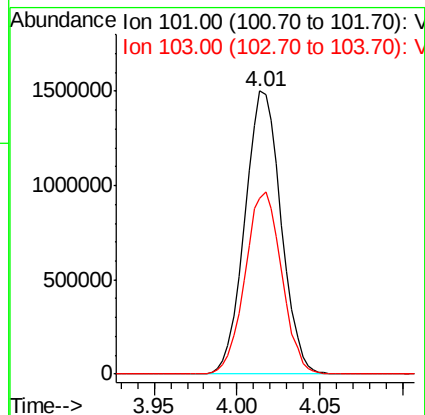
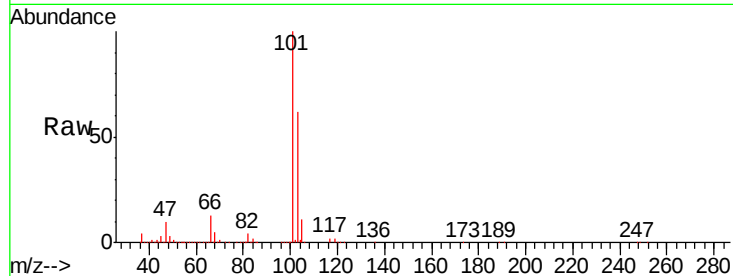
103 62.3 51.6 77.4

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#12

1,1,2-Trichlorotrifluoroethane

Concen: 10.25 ppbv

RT: 4.56 min Scan# 506

Delta R.T. 0.00 min

Lab File: VL032810.D

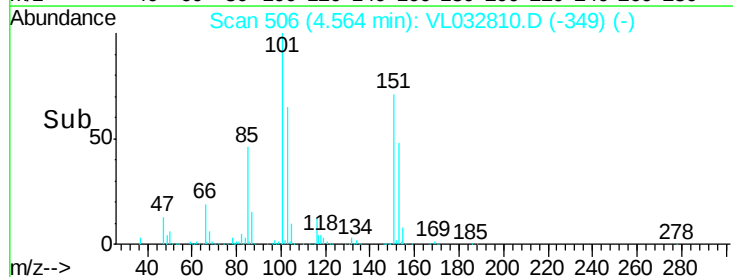
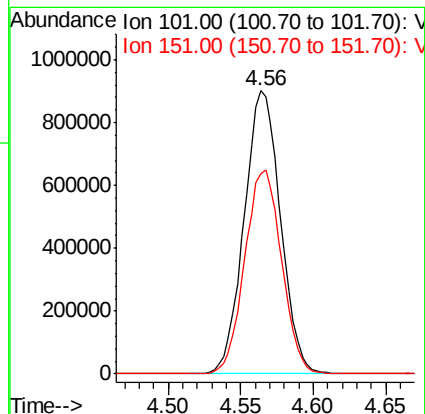
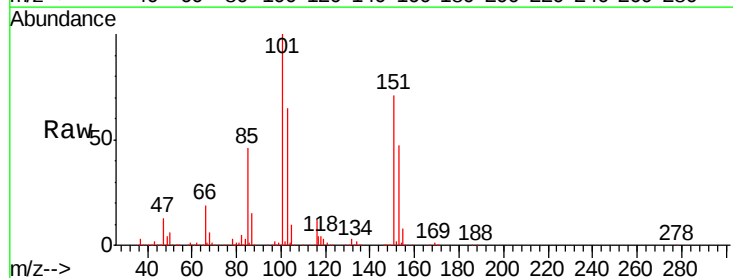
Acq: 27 Nov 2018 16:51

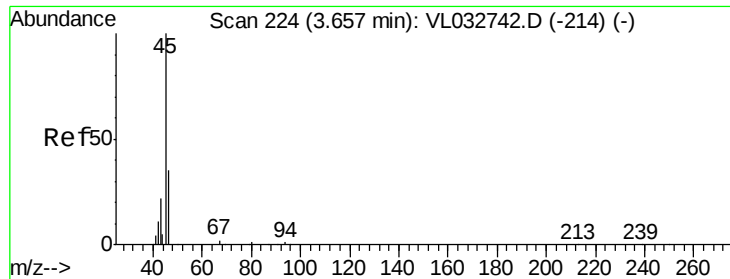
Tgt Ion:101 Resp: 1575186

Ion Ratio Lower Upper

101 100

151 73.2 56.7 85.1





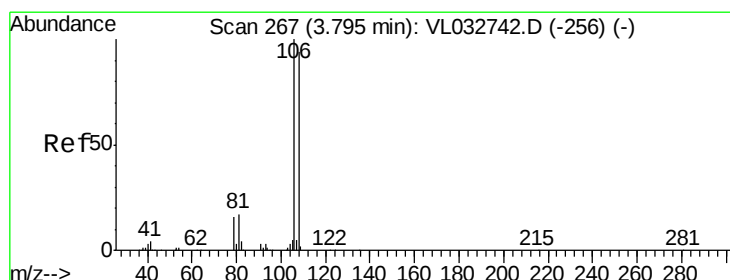
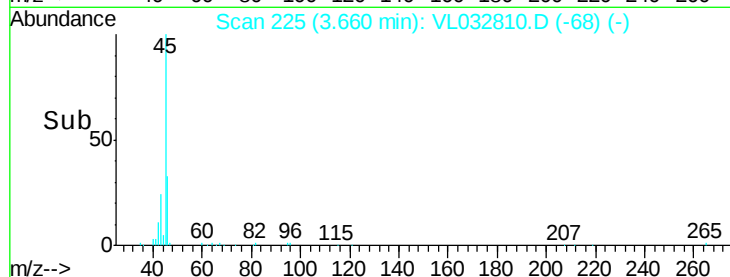
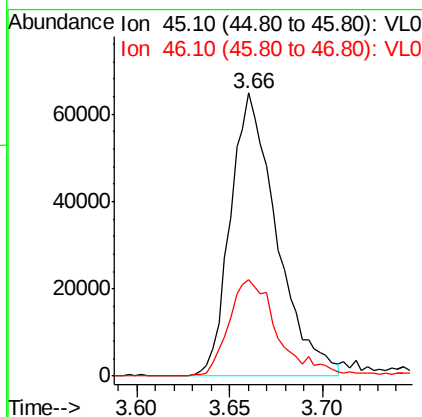
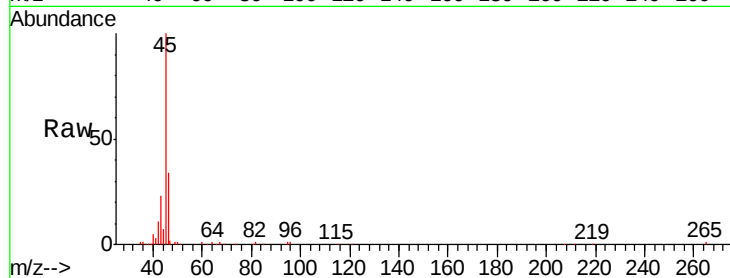
#13
Ethanol
Concen: 7.80 ppbv
RT: 3.66 min Scan# 225
Delta R.T. 0.00 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Instrument :
MSVOA_L
ClientSampleId :
VL1127ABS01

Tgt Ion: 45 Resp: 112489
Ion Ratio Lower Upper
45 100
46 37.6 14.5 57.9

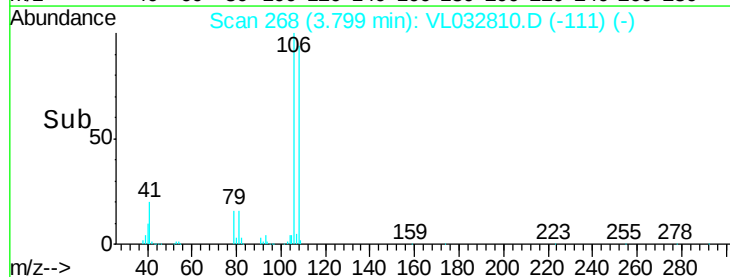
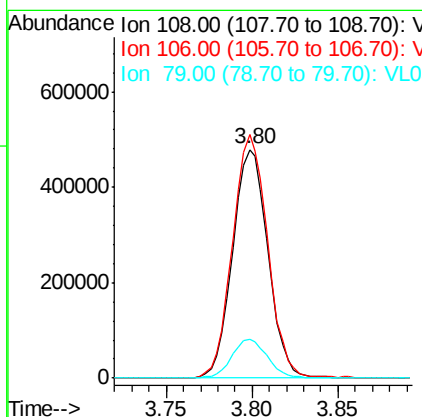
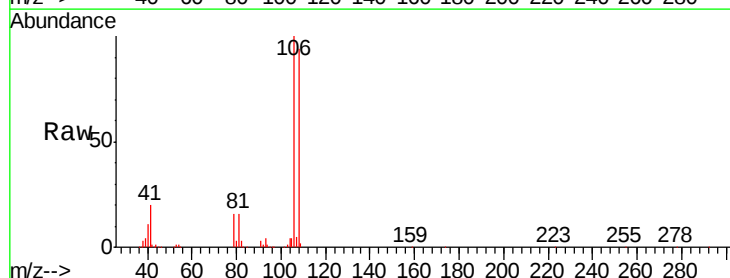
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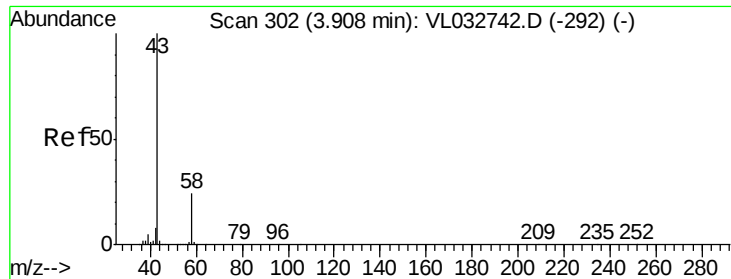
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#14
Bromoethene
Concen: 13.36 ppbv
RT: 3.80 min Scan# 268
Delta R.T. 0.00 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Tgt Ion: 108 Resp: 681075
Ion Ratio Lower Upper
108 100
106 106.9 84.9 127.3
79 17.3 14.2 21.4





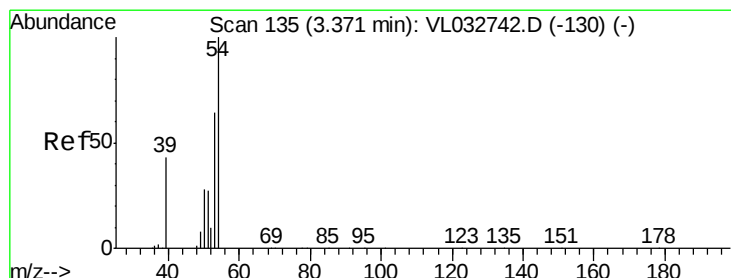
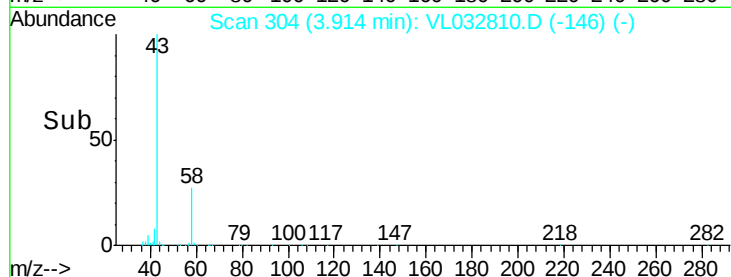
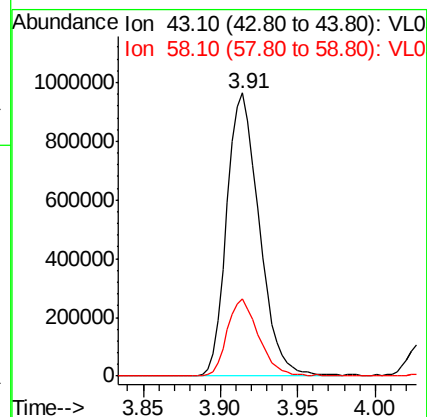
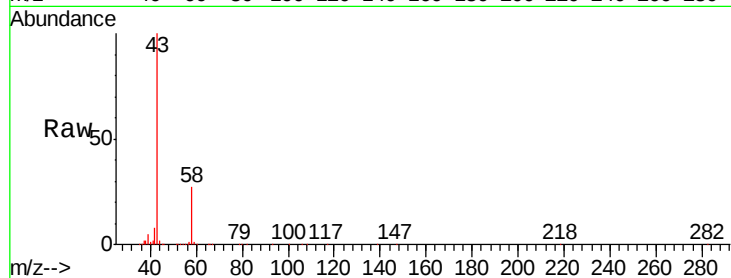
#15
Acetone
Concen: 11.07 ppbv
RT: 3.91 min Scan# 304
Delta R.T. 0.01 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Instrument :
MSVOA_L
ClientSampleId :
VL1127ABS01

Tgt Ion: 43 Resp: 1403352
Ion Ratio Lower Upper
43 100
58 26.5 21.1 31.7

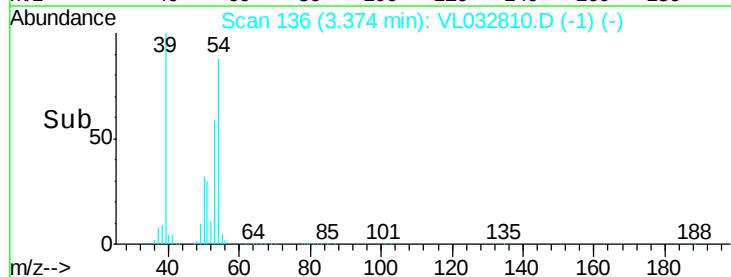
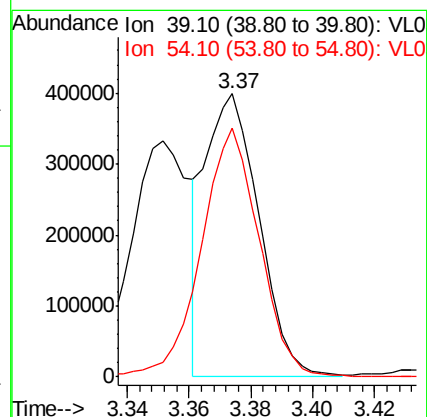
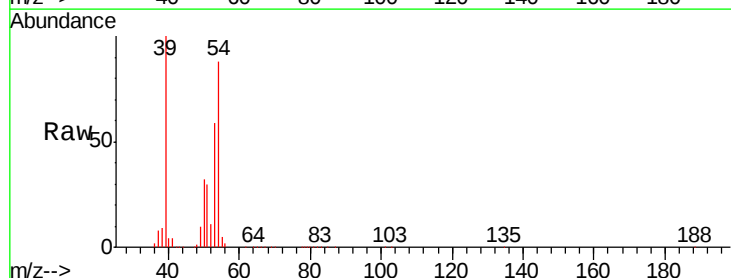
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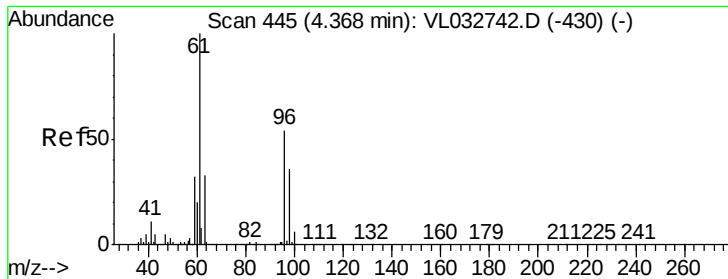
MMDadoda
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#16
1,3-Butadiene
Concen: 9.75 ppbv
RT: 3.37 min Scan# 136
Delta R.T. 0.00 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Tgt Ion: 39 Resp: 478652
Ion Ratio Lower Upper
39 100
54 96.1 68.9 103.3





#17

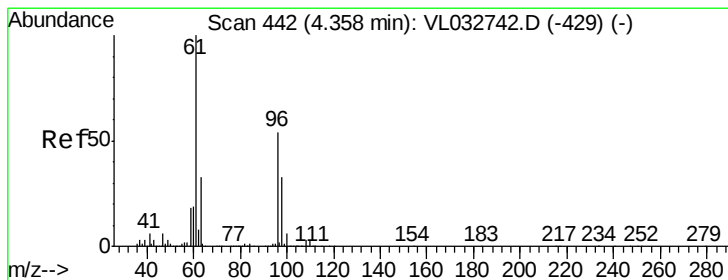
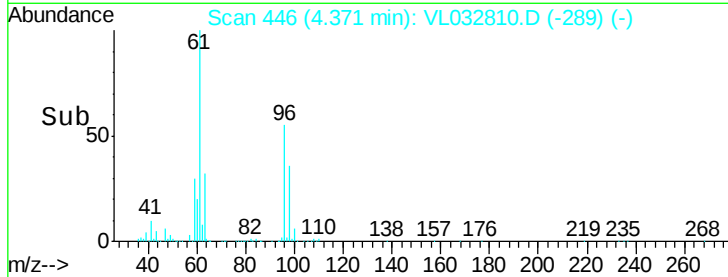
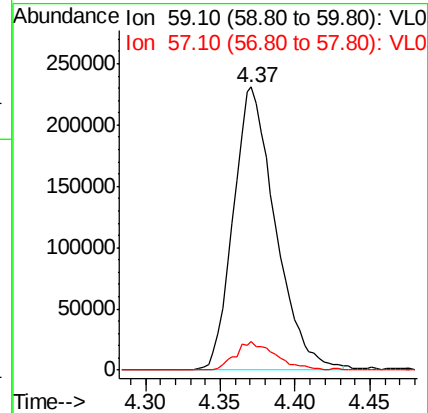
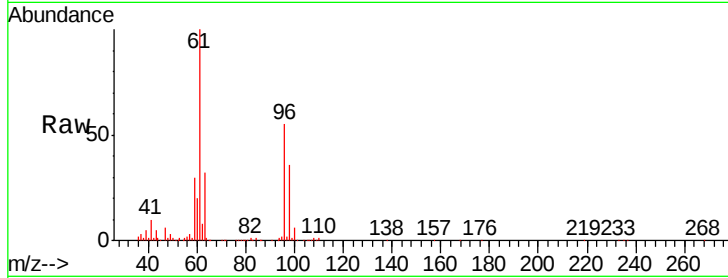
tert-Butyl alcohol
Concen: 11.39 ppbv
RT: 4.37 min Scan# 446
Delta R.T. 0.00 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Instrument :
MSVOA_L
ClientSampleId :
VL1127ABS01

Tgt Ion	Ratio	Lower	Upper
59	100		
57	9.9	7.8	11.8

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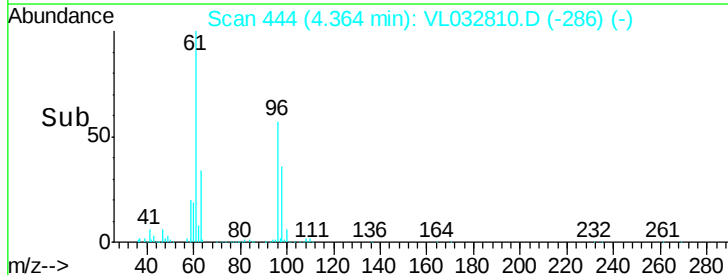
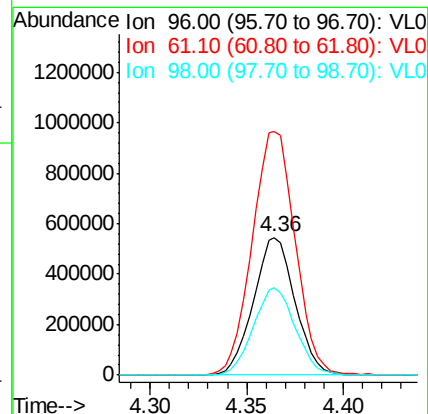
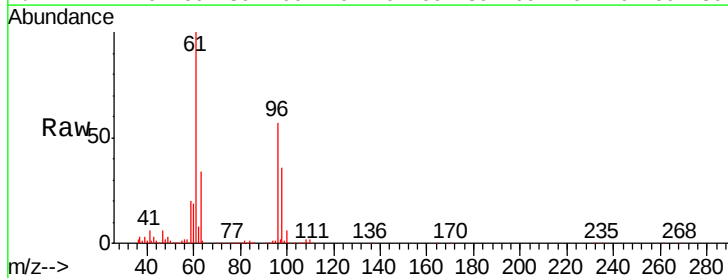
MMDadoda
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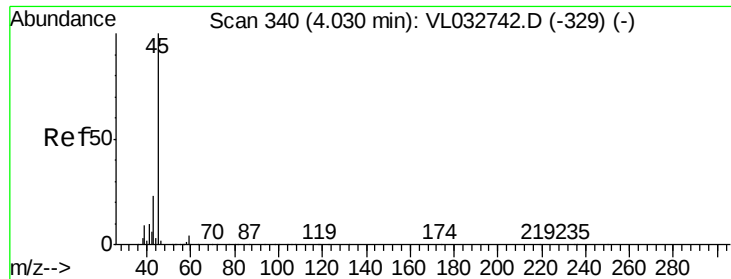


#18

1,1-Dichloroethene
Concen: 10.83 ppbv
RT: 4.36 min Scan# 444
Delta R.T. 0.01 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Tgt Ion	Ratio	Lower	Upper
96	100		
61	176.5	148.5	222.7
98	63.5	48.6	72.8





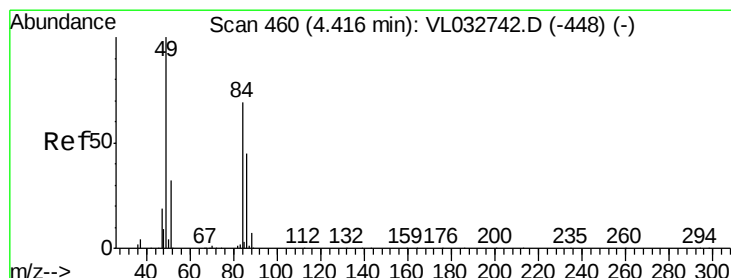
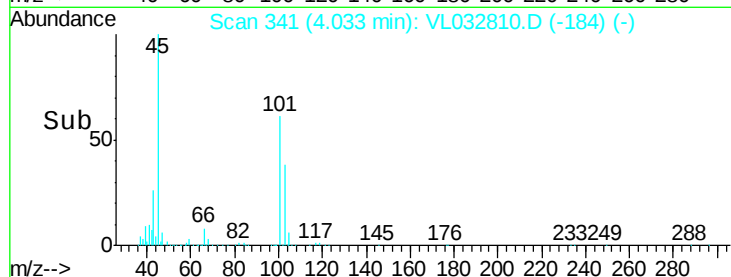
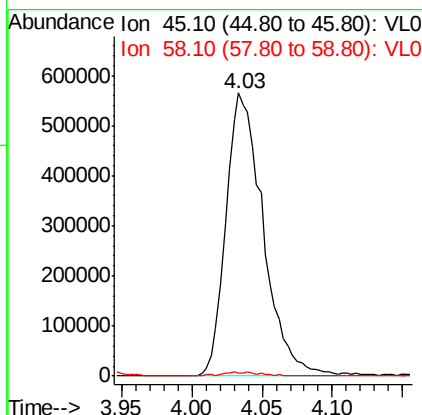
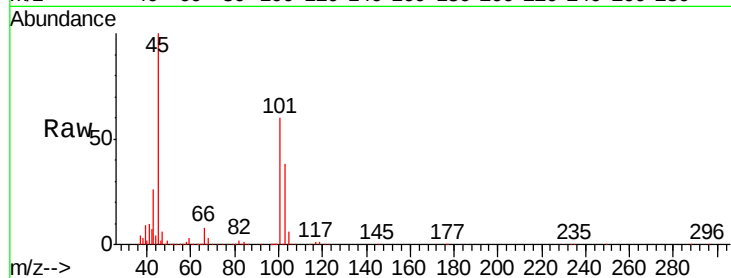
#19
Isopropyl Alcohol
Concen: 12.33 ppbv
RT: 4.03 min Scan# 341
Delta R.T. 0.00 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Instrument :
MSVOA_L
ClientSampleId :
VL1127ABS01

Tgt Ion: 45 Resp: 1041346
Ion Ratio Lower Upper
45 100
58 1.7 1.4 2.0

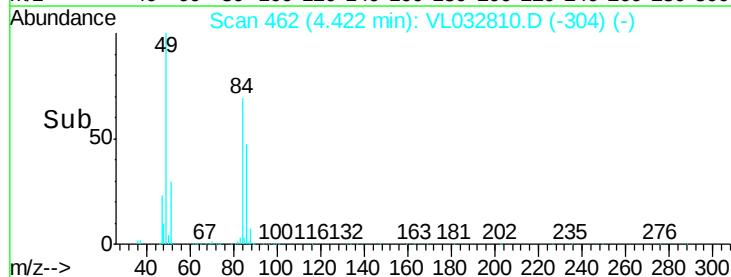
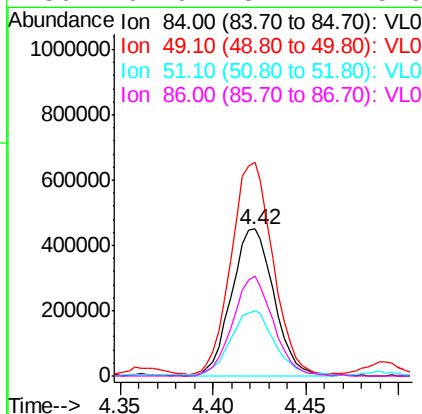
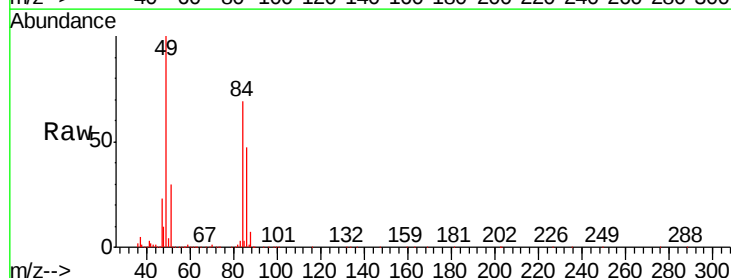
Manual Integrations
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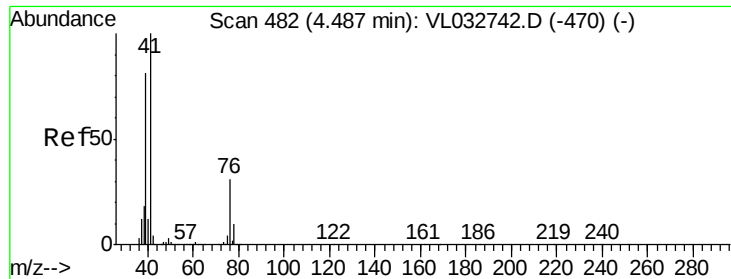
MMDadoda
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#20
Methylene Chloride
Concen: 10.81 ppbv
RT: 4.42 min Scan# 462
Delta R.T. 0.01 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Tgt Ion: 84 Resp: 709699
Ion Ratio Lower Upper
84 100
49 144.8 115.8 173.6
51 43.7 36.9 55.3
86 67.9 52.4 78.6





#21

Allyl Chloride

Concen: 11.32 ppbv

RT: 4.49 min Scan# 483

Delta R.T. 0.00 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

Instrument :

MSVOA_L

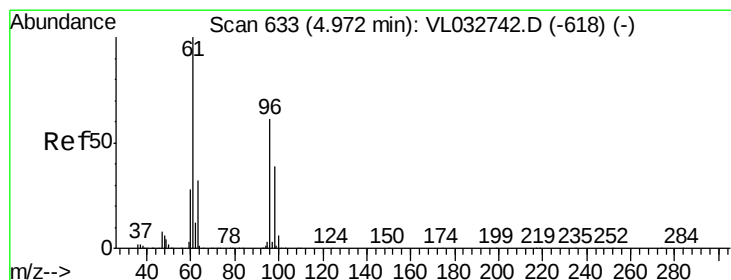
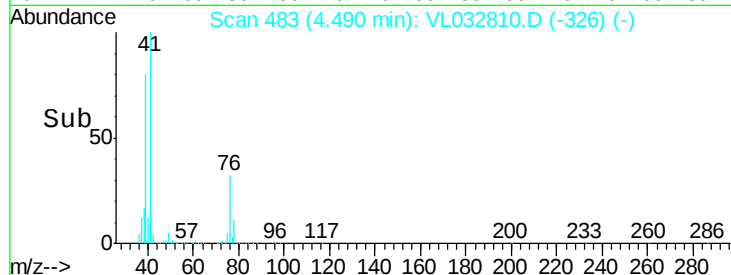
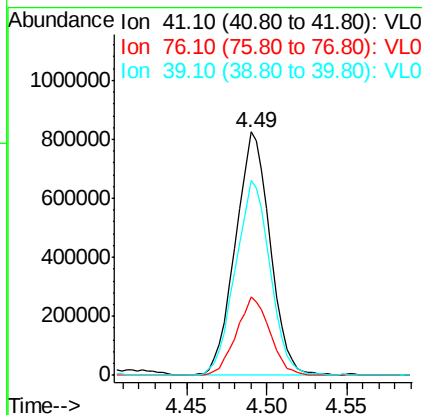
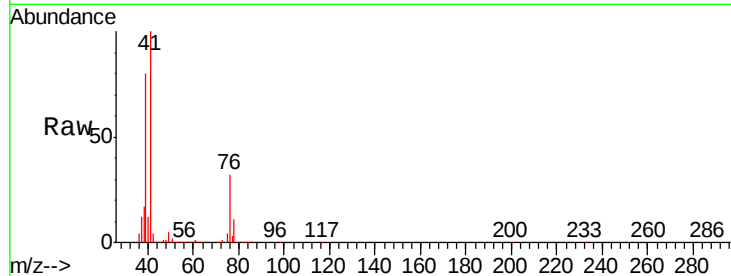
ClientSampleId :

VL1127ABS01

Tgt Ion:	41	Resp:	1205709
Ion	Ratio	Lower	Upper
41	100		
76	31.5	24.4	36.6
39	80.3	63.5	95.3

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#22

trans-1,2-Dichloroethene

Concen: 11.14 ppbv

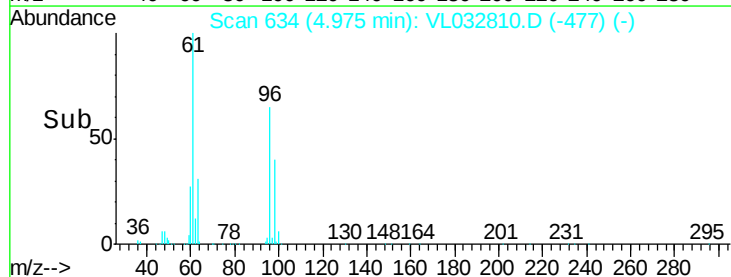
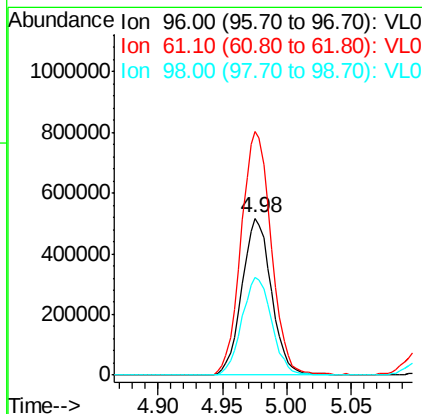
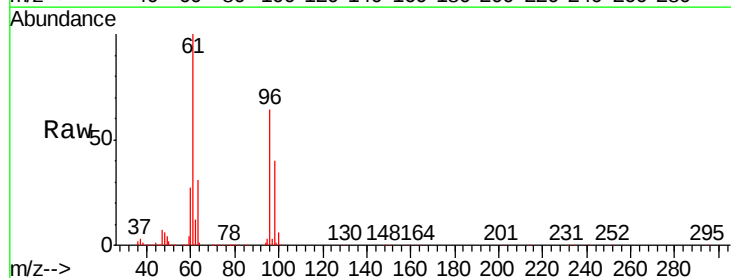
RT: 4.98 min Scan# 634

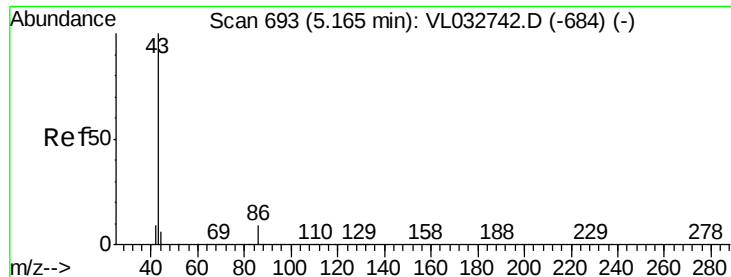
Delta R.T. 0.00 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

Tgt Ion:	96	Resp:	821585
Ion	Ratio	Lower	Upper
96	100		
61	155.0	130.2	195.2
98	62.3	50.2	75.2





#23

Vinyl Acetate

Concen: 10.53 ppbv

RT: 5.17 min Scan# 694

Delta R.T. 0.00 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

Instrument :

MSVOA_L

ClientSampleId :

VL1127ABS01

Tgt Ion: 43 Resp: 2433111

Ion Ratio Lower Upper

43 100

86 8.0 6.2 9.4

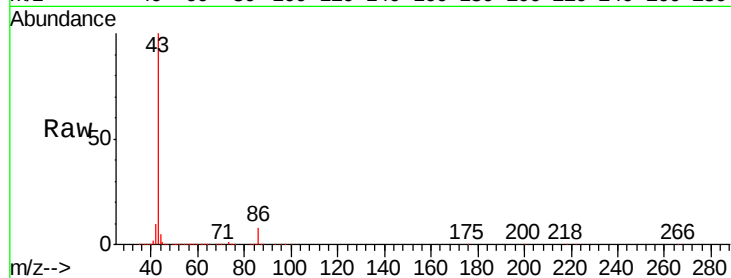
42 10.3 7.8 11.6

44 5.2 4.4 6.6

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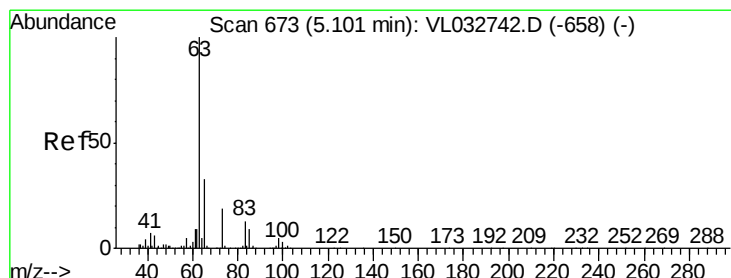
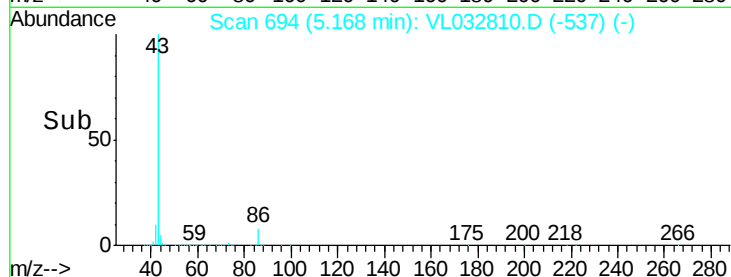
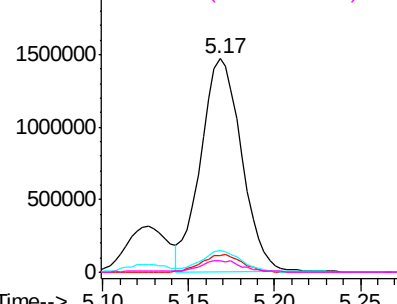


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#24

1,1-Dichloroethane

Concen: 10.25 ppbv

RT: 5.10 min Scan# 674

Delta R.T. 0.00 min

Lab File: VL032810.D

Acq: 27 Nov 2018 16:51

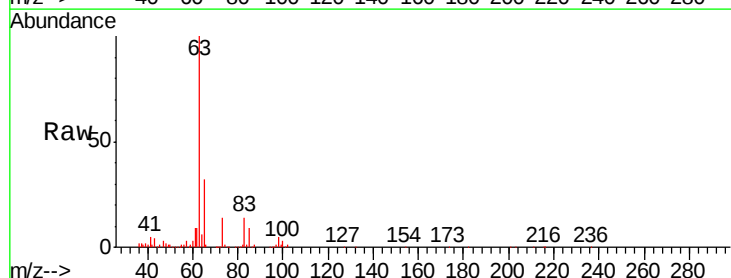
Tgt Ion: 63 Resp: 1882980

Ion Ratio Lower Upper

63 100

98 4.9 2.3 6.8

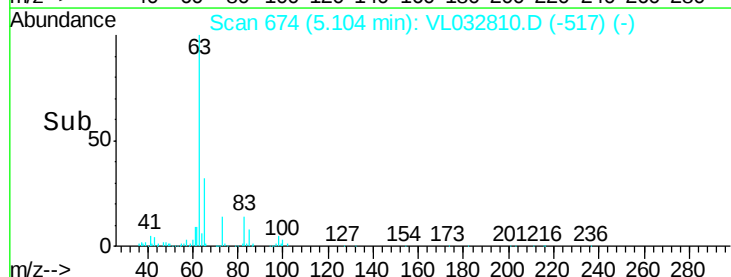
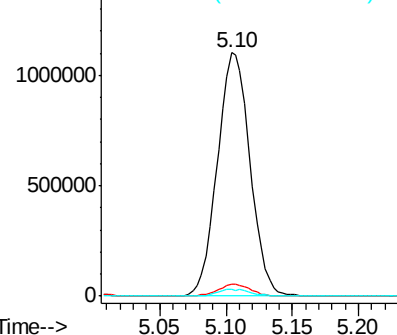
100 2.7 1.4 4.2

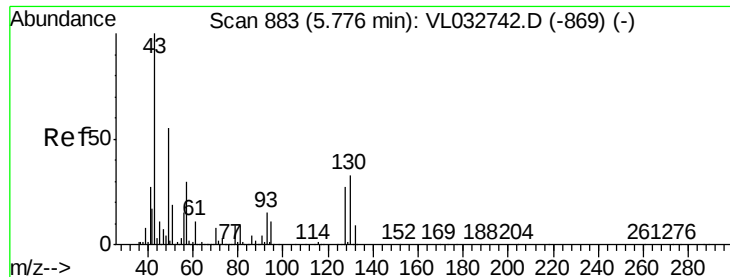


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0





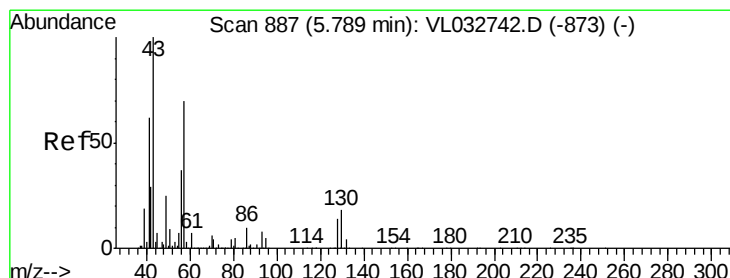
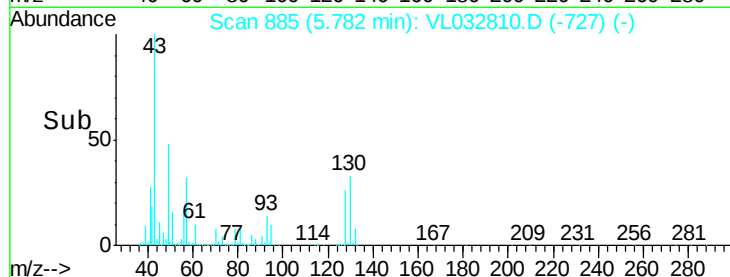
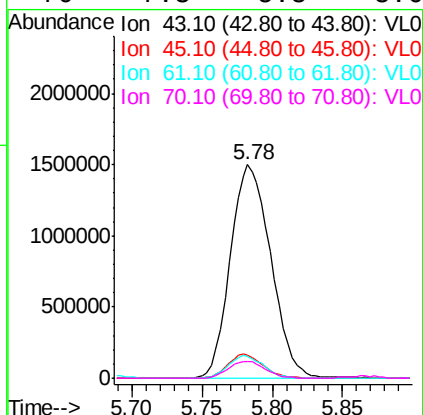
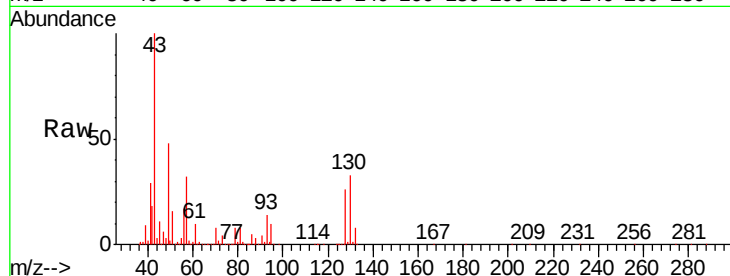
#25
Ethyl Acetate
Concen: 10.17 ppbv
RT: 5.78 min Scan# 885
Delta R.T. 0.01 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Instrument :
MSVOA_L
ClientSampleId :
VL1127ABS01

Tgt Ion	Ratio	Lower	Upper
43	100		
45	9.8	7.9	11.9
61	9.4	7.8	11.6
70	7.3	5.8	8.6

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#26
Hexane
Concen: 10.54 ppbv
RT: 5.79 min Scan# 888
Delta R.T. 0.00 min
Lab File: VL032810.D
Acq: 27 Nov 2018 16:51

Tgt Ion	Ratio	Lower	Upper
57	100		
41	89.4	70.3	105.5
43	217.5	174.0	261.0
56	53.1	42.3	63.5

