

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL070715\
 Data File : VL025608.D
 Acq On : 7 Jul 2015 13:12
 Operator : SY/MD
 Sample : VSTDIC0.1
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.1

Quant Time: Jul 07 14:53:19 2015
 Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL070715AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Jul 07 13:08:42 2015
 QLast Update : Tue Jul 07 13:08:42 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.65	49	601818	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	8.32	114	1590337	10.00	ppbv	0.00
55) Chlorobenzene-d5	13.74	117	2057813	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	16.29	95	1745744	10.27	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.70%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.64	85	20409	0.15	ppbv	93
3) Chlorodifluoromethane	3.56	51	8541	0.12	ppbv #	90
4) Chloromethane	3.75	50	4333	0.12	ppbv #	84
5) Vinyl Chloride	3.89	62	4515	0.11	ppbv	91
6) Bromomethane	4.15	94	3459	0.12	ppbv #	74
7) Chloroethane	4.25	64	1883	0.11	ppbv	91
8) Dichlorotetrafluoroethane	3.80	85	14825	0.13	ppbv	98
9) Propene	3.59	41	3422	0.11	ppbv	88
10) Heptane	9.35	43	5819	0.05	ppbv	88
11) Trichlorofluoromethane	4.70	101	21407	0.15	ppbv	88
12) 1,1,2-Trichlorotrifluoroet	5.30	101	12322	0.14	ppbv	96
14) Bromoethene	4.45	108	3797	0.12	ppbv #	80
15) Acetone	4.64	43	19727	0.22	ppbv #	83
16) 1,3-Butadiene	3.97	39	4644	0.12	ppbv	85
17) tert-Butyl alcohol	5.19	59	8455	0.11	ppbv #	93
18) 1,1-Dichloroethene	5.09	96	4520	0.12	ppbv	96
20) Methylene Chloride	5.15	84	7461	0.19	ppbv	88
21) Allyl Chloride	5.23	41	4086	0.07	ppbv #	6
22) trans-1,2-Dichloroethene	5.76	96	4067	0.10	ppbv #	79
24) 1,1-Dichloroethane	5.91	63	10459	0.10	ppbv #	87
25) Ethyl Acetate	6.71	43	9497	0.06	ppbv #	95
26) Hexane	6.66	57	5886	0.08	ppbv	91
27) Carbon Disulfide	5.39	76	10975	0.11	ppbv #	68
28) Methyl tert-Butyl Ether	6.00	73	9881	0.07	ppbv	94
29) Chloroform	6.74	83	15370	0.12	ppbv	99
31) cis-1,2-Dichloroethene	6.52	61	5938	0.08	ppbv	93
32) 1,1,1-Trichloroethane	7.59	97	16045	0.11	ppbv	100
35) Carbon Tetrachloride	8.16	117	16805	0.12	ppbv #	84
36) Benzene	8.02	78	11336	0.07	ppbv	97
37) 1,2-Dichloroethane	7.37	62	12591	0.12	ppbv #	94
38) Trichloroethene	9.07	130	6192	0.09	ppbv #	88
39) 1,2-Dichloropropane	8.82	63	5290	0.09	ppbv	86
41) Tetrahydrofuran	7.19	42	2222	0.04	ppbv #	78
42) Bromodichloromethane	9.01	83	13788	0.10	ppbv #	99
43) Methyl Methacrylate	9.27	69	2329	0.04	ppbv	84
44) 2,2,4-Trimethylpentane	9.08	57	17360	0.06	ppbv	98
46) cis-1,3-Dichloropropene	10.02	75	6183	0.06	ppbv	89
47) 1,1,2-Trichloroethane	10.88	97	7145	0.10	ppbv	91
48) Dibromochloromethane	11.80	129	9930	0.08	ppbv	98
51) 2-Hexanone	11.66	43	4278	0.04	ppbv #	96
52) Tetrachloroethene	12.79	164	4592	0.06	ppbv	96

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Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

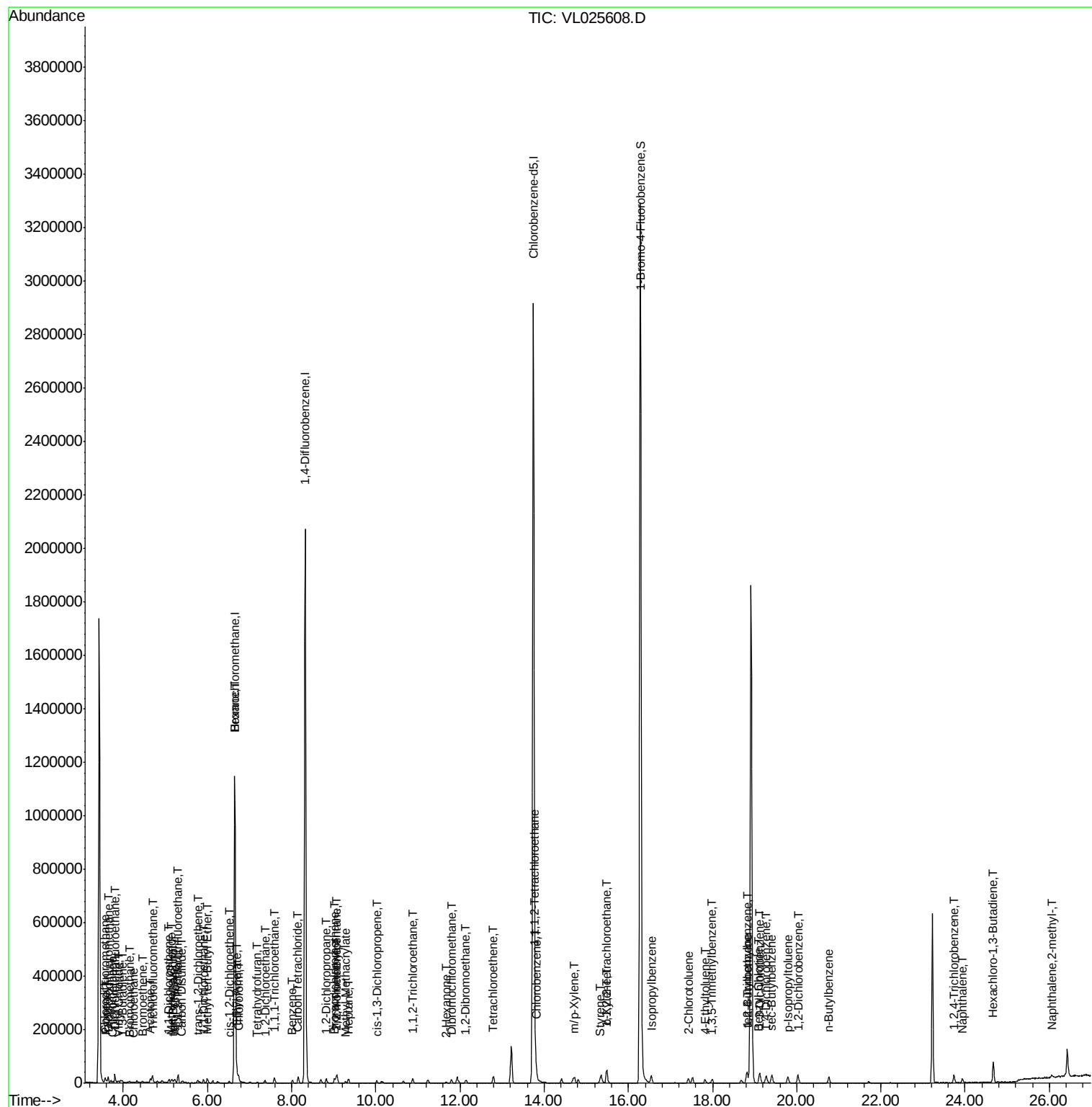
54) 1,2-Dibromoethane	12.15	107	11267	0.10	ppbv	92
56) 1,1,1,2-Tetrachloroethane	13.79	131	10822	0.11	ppbv #	1
57) Chlorobenzene	13.82	112	24052	0.12	ppbv #	80
59) m/p-Xylene	14.71	91	22195	0.08	ppbv #	80
60) o-Xylene	15.49	91	21022	0.07	ppbv	96
61) Styrene	15.31	104	4803	0.04	ppbv	98
62) Isopropylbenzene	16.54	105	25539	0.07	ppbv	99
63) 1,1,2,2-Tetrachloroethane	15.47	83	20900	0.10	ppbv	99
65) tert-Butylbenzene	18.82	119	19897	0.06	ppbv #	82
66) Benzyl Chloride	19.10	91	6378	0.05	ppbv #	87
67) sec-Butylbenzene	19.41	105	30406	0.06	ppbv	99
69) p-Isopropyltoluene	19.79	119	21418	0.05	ppbv	94
70) n-Butylbenzene	20.76	91	22832	0.06	ppbv	89
71) 2-Chlorotoluene	17.42	91	17250	0.06	ppbv	91
72) 4-Ethyltoluene	17.82	105	14103	0.04	ppbv #	96
73) 1,3,5-Trimethylbenzene	17.99	105	14743	0.05	ppbv	89
74) 1,2,4-Trimethylbenzene	18.83	105	19220	0.06	ppbv	89
75) 1,3-Dichlorobenzene	19.13	146	22477	0.11	ppbv	97
76) 1,4-Dichlorobenzene	19.27	146	19320	0.09	ppbv	97
77) 1,2-Dichlorobenzene	20.03	146	20241	0.10	ppbv	95
78) Hexachloro-1,3-Butadiene	24.67	225	17816	0.17	ppbv	95
79) Naphthalene	23.94	128	20085	0.07	ppbv	97
80) Naphthalene,2-methyl-	26.06	142	9283	0.13	ppbv #	87
81) 1,2,4-Trichlorobenzene	23.74	180	12908	0.10	ppbv	98

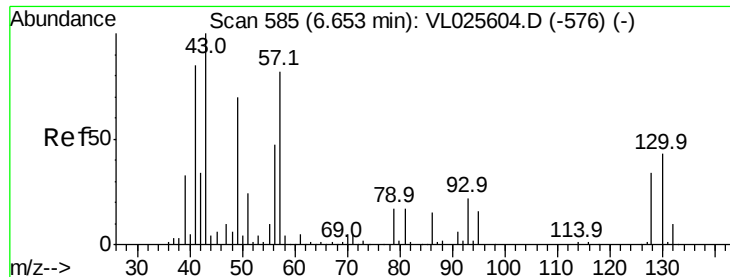
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.65 min Scan# 584

Delta R.T. -0.01 min

Lab File: VL025608.D

Acq: 7 Jul 2015 13:12

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

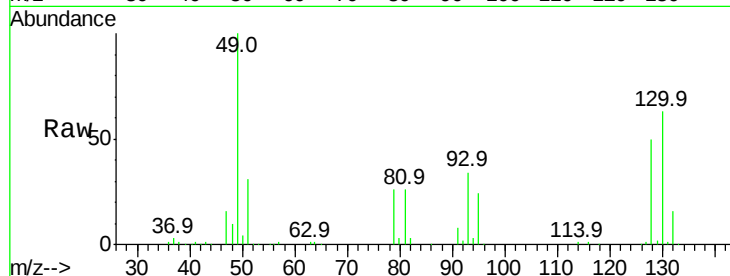
Tgt Ion: 49 Resp: 601818

Ion Ratio Lower Upper

49 100

128 51.4 25.4 76.0

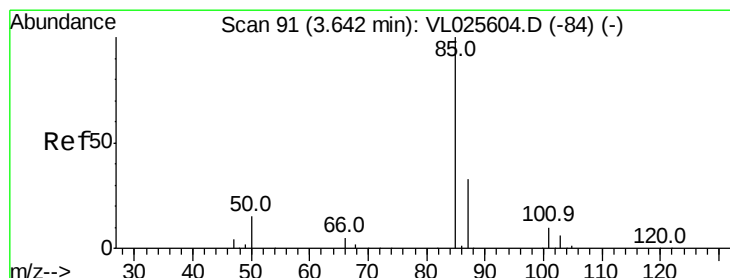
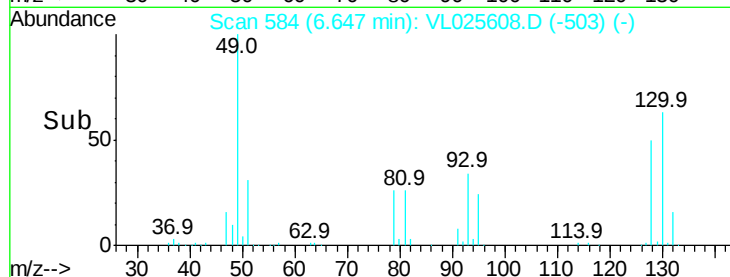
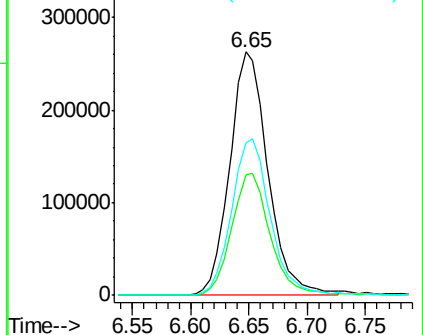
130 66.4 31.9 95.9



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.15 ppbv

RT: 3.64 min Scan# 91

Delta R.T. -0.00 min

Lab File: VL025608.D

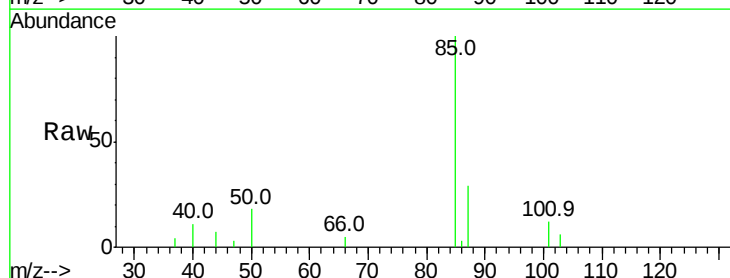
Acq: 7 Jul 2015 13:12

Tgt Ion: 85 Resp: 20409

Ion Ratio Lower Upper

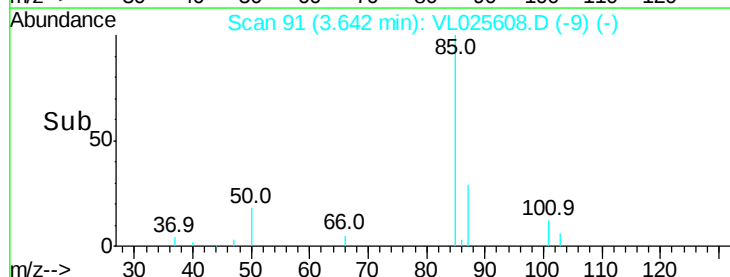
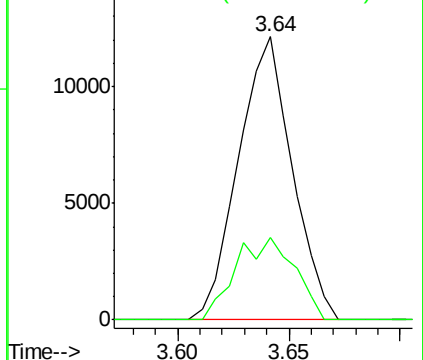
85 100

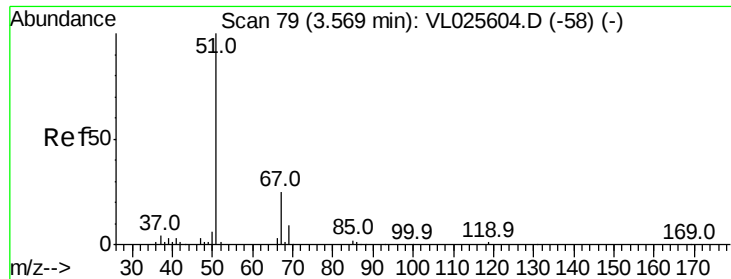
87 29.3 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.12 ppbv

RT: 3.56 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL025608.D

Acq: 7 Jul 2015 13:12

Instrument :

MSVOA_L

ClientSampleId :

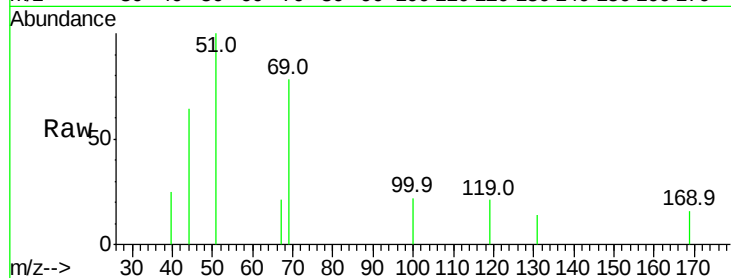
VSTDIC0.1

Tgt Ion: 51 Resp: 8541

Ion Ratio Lower Upper

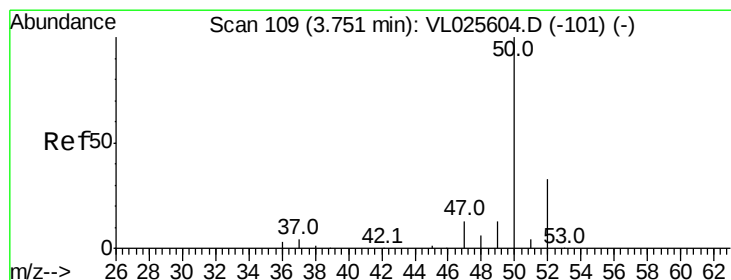
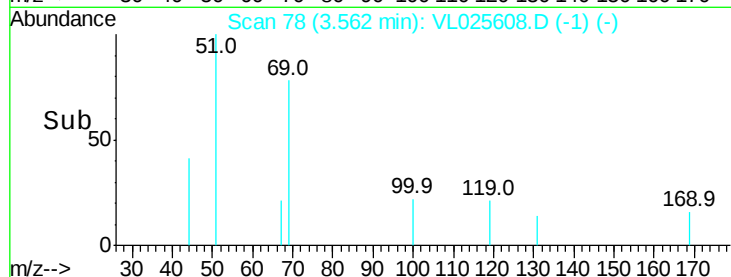
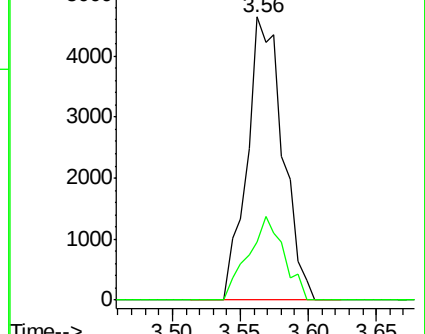
51 100

67 29.4 19.5 29.3#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.12 ppbv

RT: 3.75 min Scan# 109

Delta R.T. -0.00 min

Lab File: VL025608.D

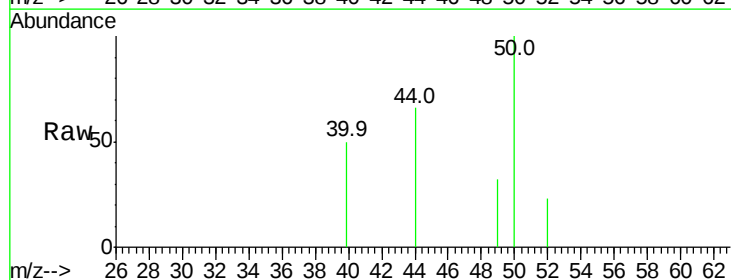
Acq: 7 Jul 2015 13:12

Tgt Ion: 50 Resp: 4333

Ion Ratio Lower Upper

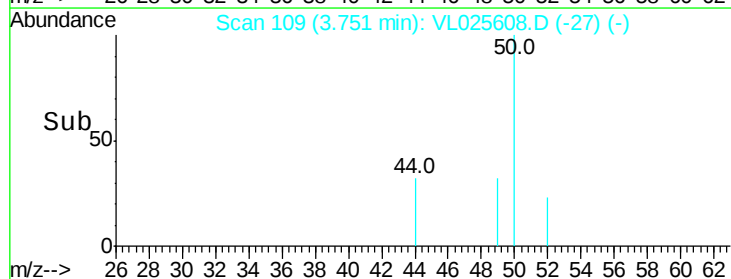
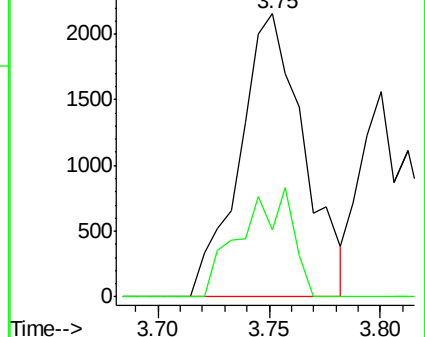
50 100

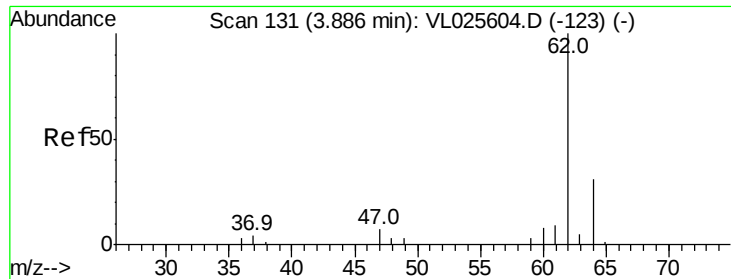
52 23.5 26.2 39.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.11 ppbv

RT: 3.89 min Scan# 131

Delta R.T. -0.00 min

Lab File: VL025608.D

Acq: 7 Jul 2015 13:12

Instrument :

MSVOA_L

ClientSampleId :

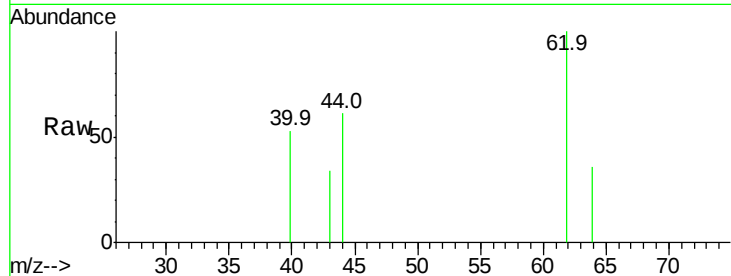
VSTDIC0.1

Tgt Ion: 62 Resp: 4515

Ion Ratio Lower Upper

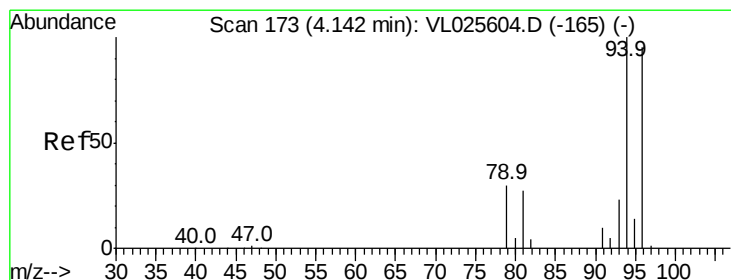
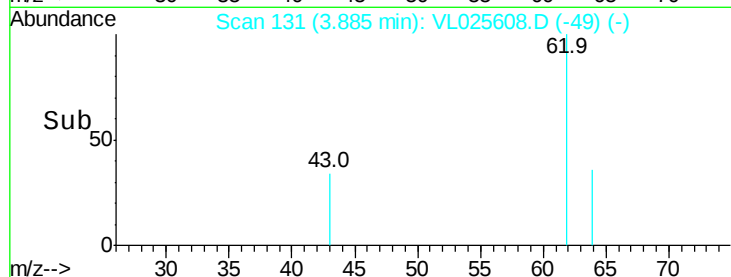
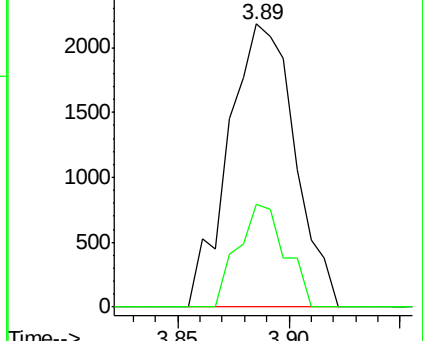
62 100

64 36.3 25.0 37.6



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 0.12 ppbv

RT: 4.15 min Scan# 174

Delta R.T. 0.01 min

Lab File: VL025608.D

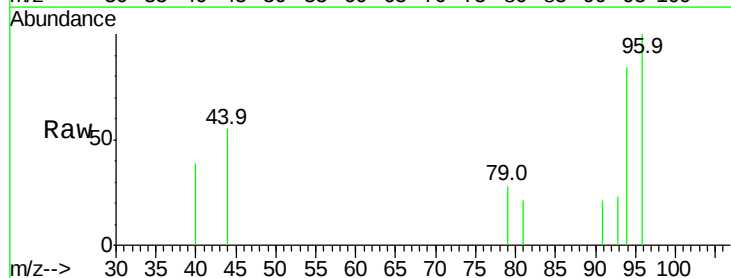
Acq: 7 Jul 2015 13:12

Tgt Ion: 94 Resp: 3459

Ion Ratio Lower Upper

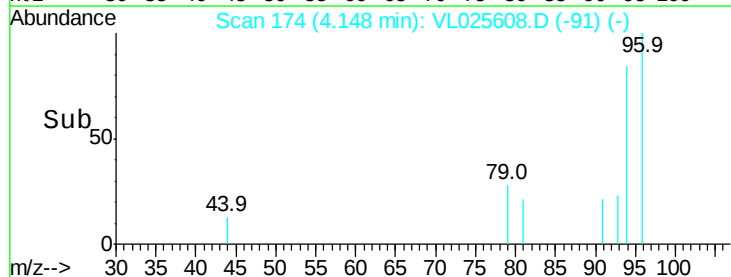
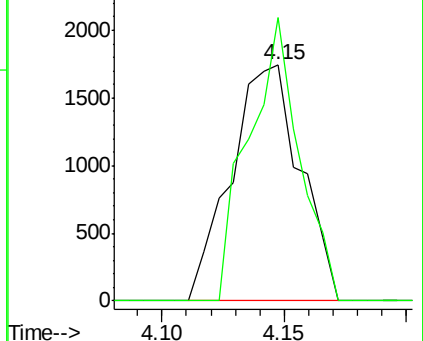
94 100

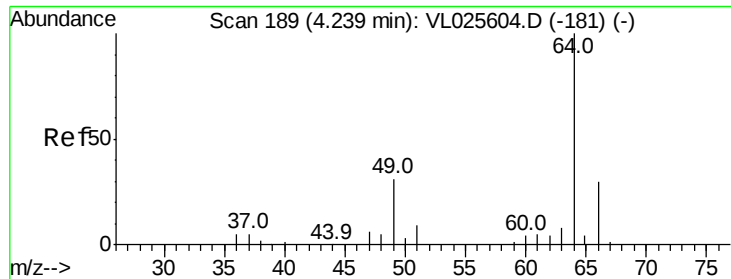
96 119.7 75.9 113.9#



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 0.11 ppbv

RT: 4.25 min Scan# 190

Delta R.T. 0.01 min

Lab File: VL025608.D

Acq: 7 Jul 2015 13:12

Instrument :

MSVOA_L

ClientSampleId :

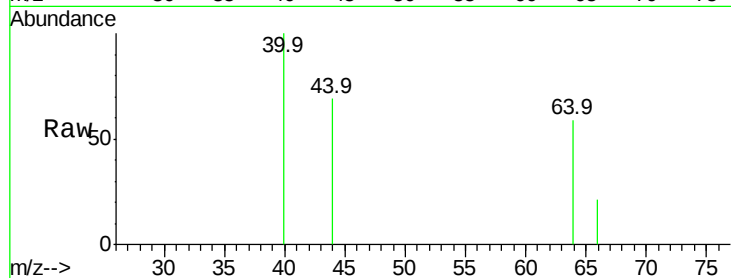
VSTDIC0.1

Tgt Ion: 64 Resp: 1883

Ion Ratio Lower Upper

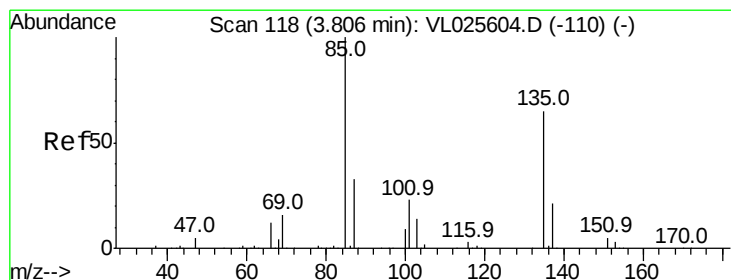
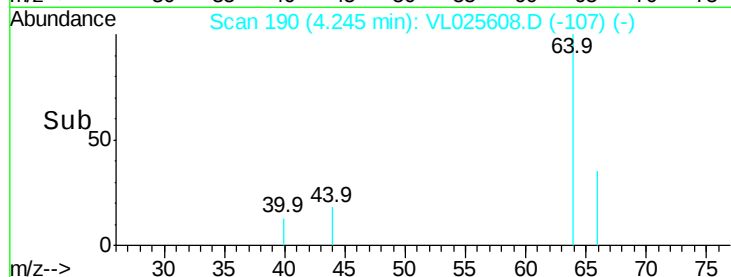
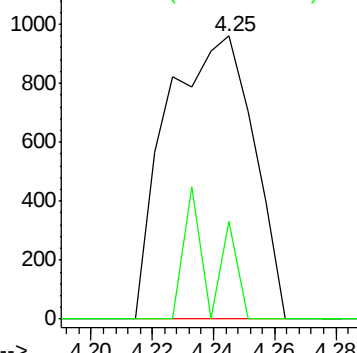
64 100

66 34.7 23.8 35.8



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 0.13 ppbv

RT: 3.80 min Scan# 117

Delta R.T. -0.01 min

Lab File: VL025608.D

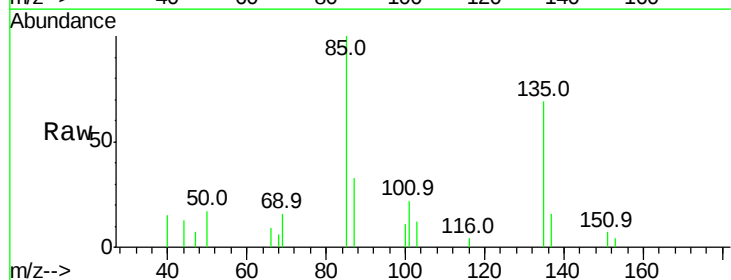
Acq: 7 Jul 2015 13:12

Tgt Ion: 85 Resp: 14825

Ion Ratio Lower Upper

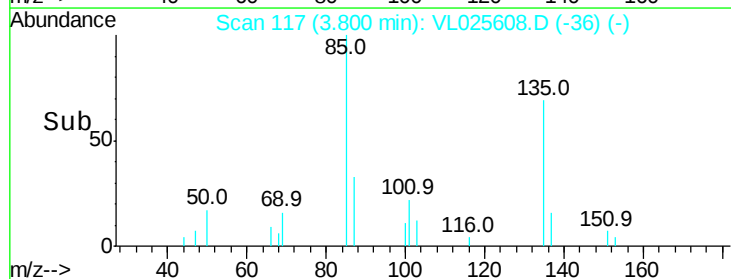
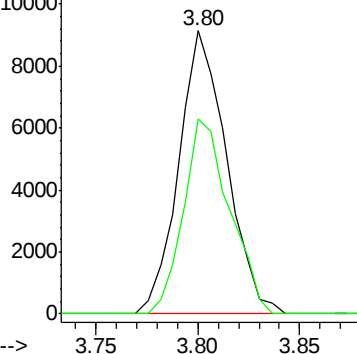
85 100

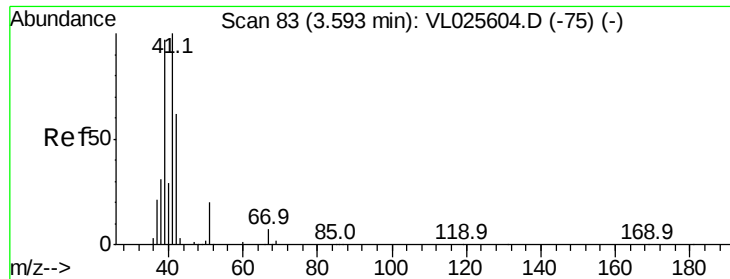
135 66.5 52.2 78.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 0.11 ppbv

RT: 3.59 min Scan# 83

Delta R.T. -0.00 min

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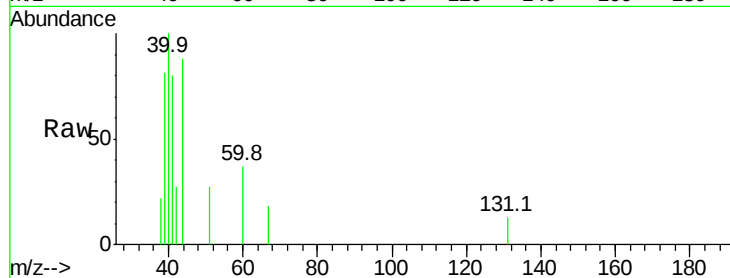
VSTDIC0.1

Tgt Ion: 41 Resp: 3422

Ion Ratio Lower Upper

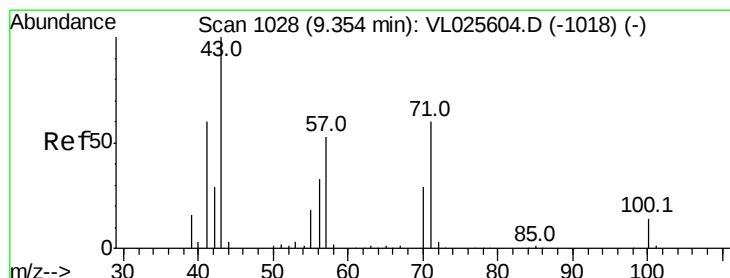
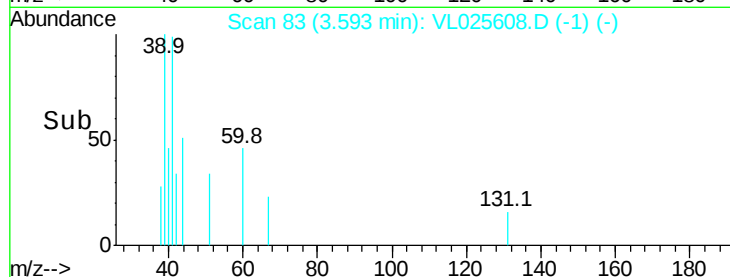
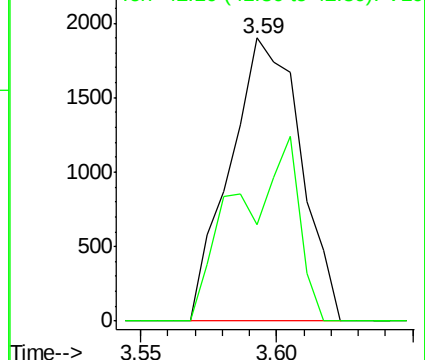
41 100

42 56.0 52.4 78.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.05 ppbv

RT: 9.35 min Scan# 1028

Delta R.T. -0.00 min

Lab File: VL025608.D

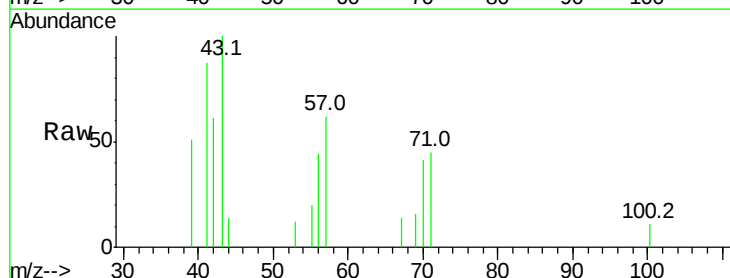
Acq: 7 Jul 2015 13:12

Tgt Ion: 43 Resp: 5819

Ion Ratio Lower Upper

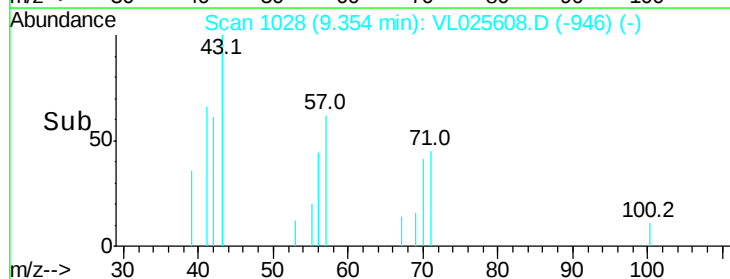
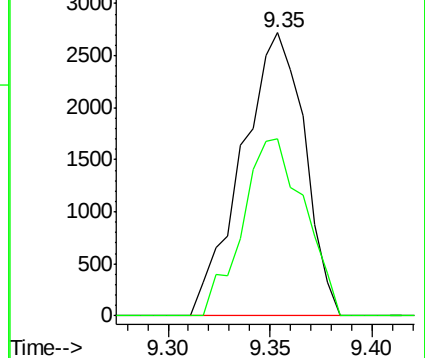
43 100

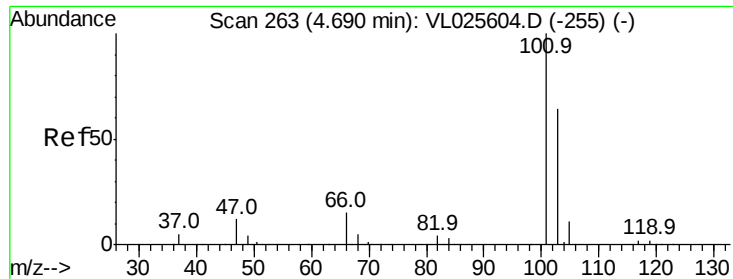
57 62.2 42.6 64.0



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

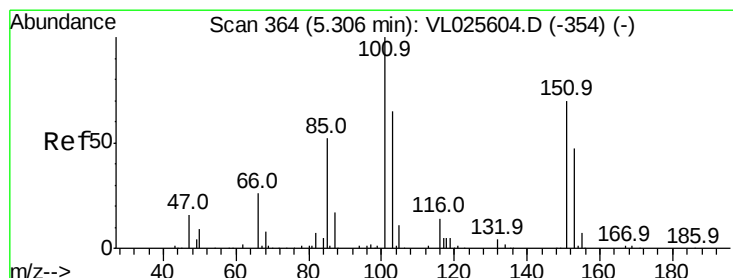
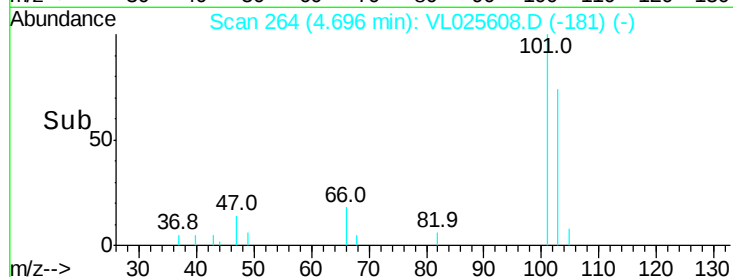
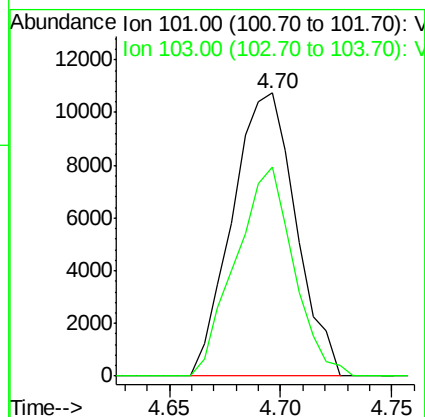
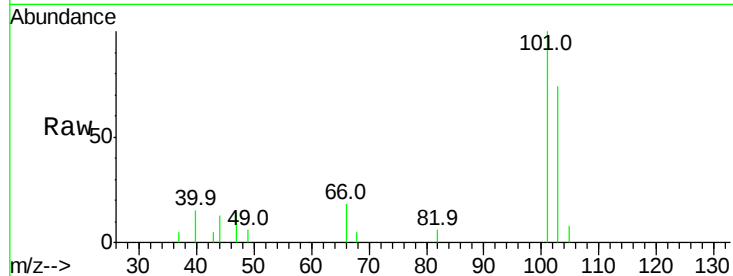




#11
 Trichlorofluoromethane
 Concen: 0.15 ppbv
 RT: 4.70 min Scan# 264
 Delta R.T. 0.01 min
 Lab File: VL025608.D
 Acq: 7 Jul 2015 13:12

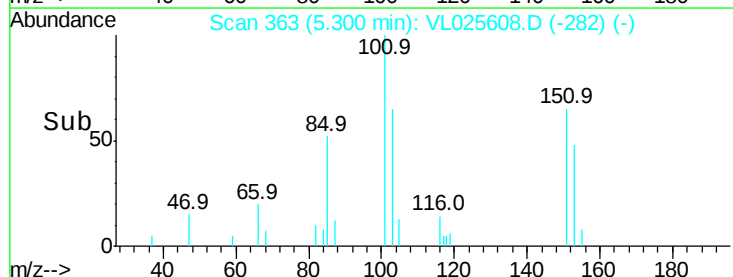
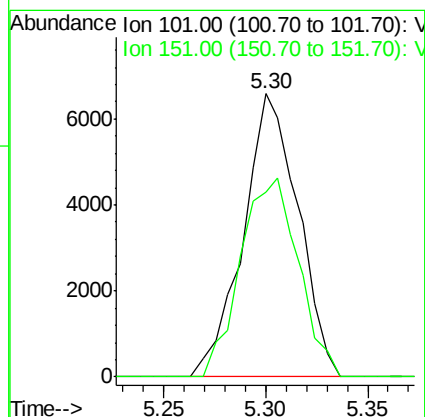
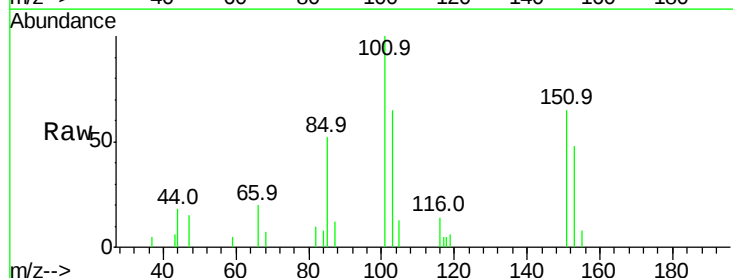
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.1

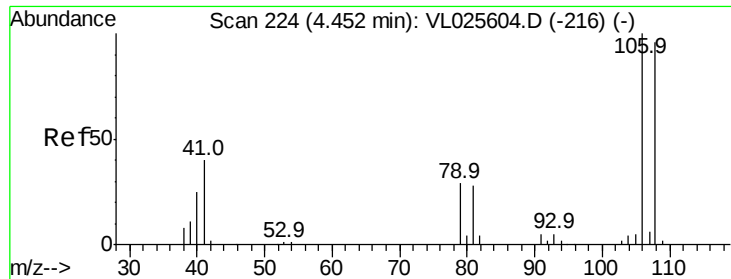
Tgt Ion:101 Resp: 21407
 Ion Ratio Lower Upper
 101 100
 103 73.7 51.4 77.2



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.14 ppbv
 RT: 5.30 min Scan# 363
 Delta R.T. -0.01 min
 Lab File: VL025608.D
 Acq: 7 Jul 2015 13:12

Tgt Ion:101 Resp: 12322
 Ion Ratio Lower Upper
 101 100
 151 74.0 56.3 84.5





#14

Bromoethene

Concen: 0.12 ppbv

RT: 4.45 min Scan# 224

Delta R.T. -0.00 min

Lab File: VL025608.D

Acq: 7 Jul 2015 13:12

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.1

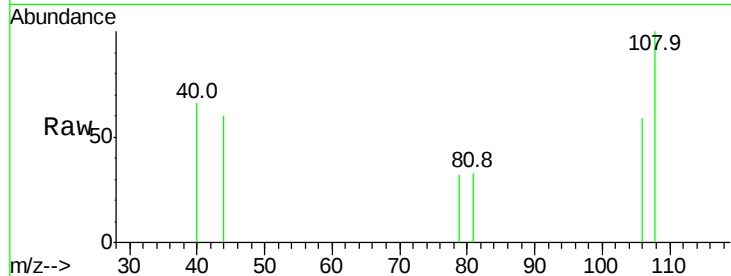
Tgt Ion:108 Resp: 3797

Ion Ratio Lower Upper

108 100

106 81.4 85.7 128.5#

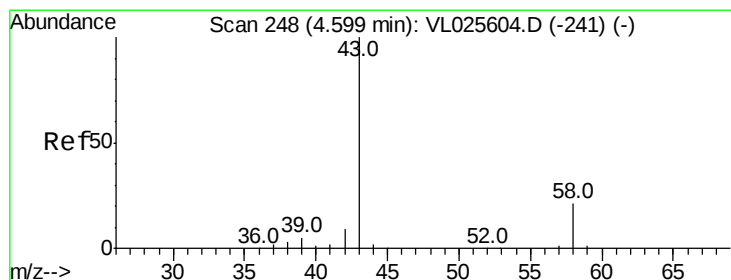
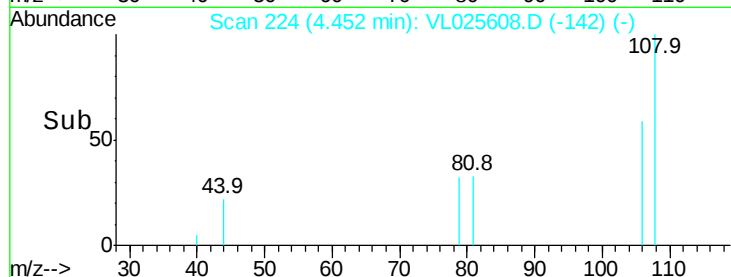
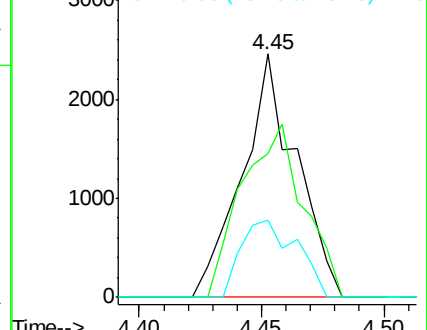
79 32.4 24.6 36.8



Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VL0



#15

Acetone

Concen: 0.22 ppbv

RT: 4.64 min Scan# 255

Delta R.T. 0.04 min

Lab File: VL025608.D

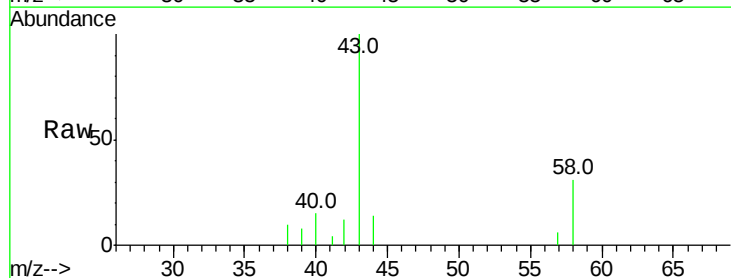
Acq: 7 Jul 2015 13:12

Tgt Ion: 43 Resp: 19727

Ion Ratio Lower Upper

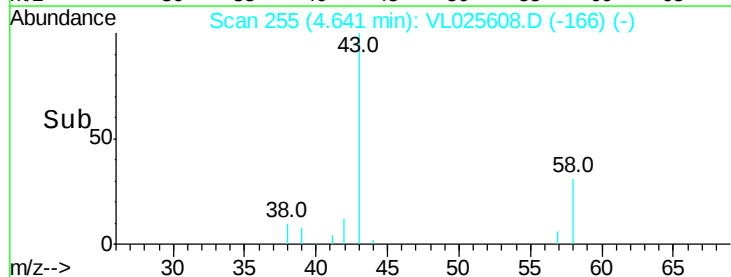
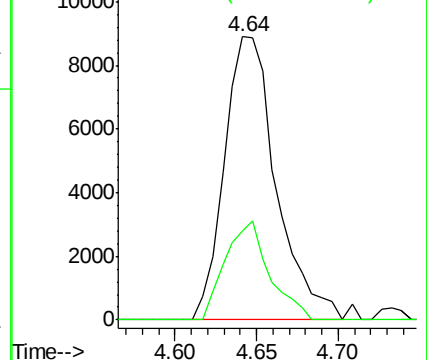
43 100

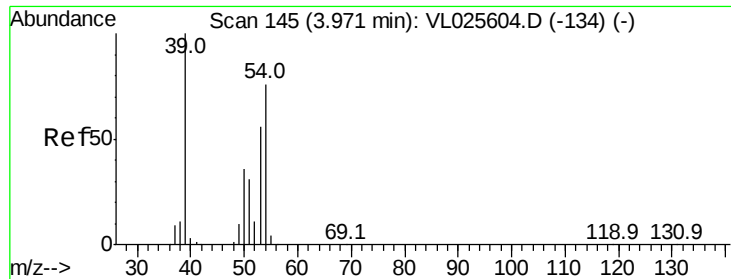
58 29.7 17.2 25.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

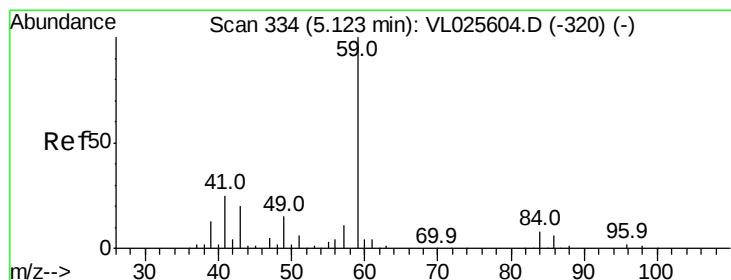
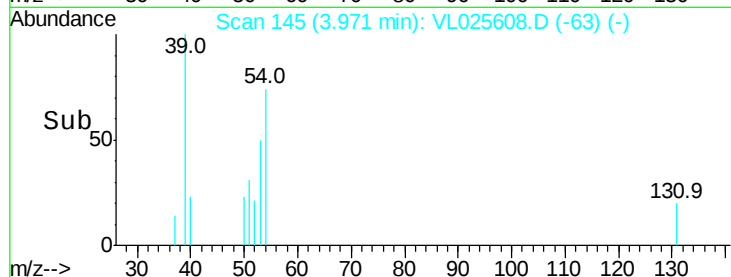
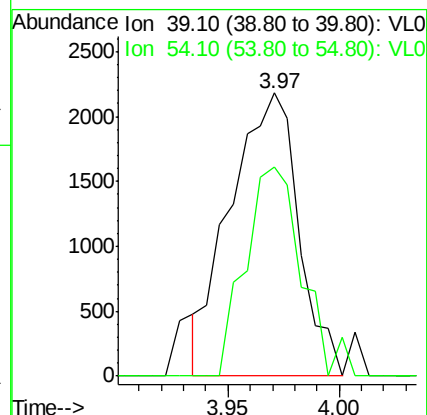
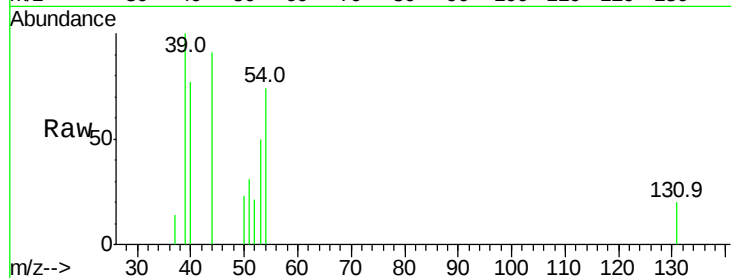




#16
 1,3-Butadiene
 Concen: 0.12 ppbv
 RT: 3.97 min Scan# 145
 Delta R.T. -0.00 min
 Lab File: VL025608.D
 Acq: 7 Jul 2015 13:12

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.1

Tgt Ion: 39 Resp: 4644
 Ion Ratio Lower Upper
 39 100
 54 61.3 59.3 88.9



#17
 tert-Butyl alcohol
 Concen: 0.11 ppbv
 RT: 5.19 min Scan# 345
 Delta R.T. 0.07 min
 Lab File: VL025608.D
 Acq: 7 Jul 2015 13:12

Tgt Ion: 59 Resp: 8455
 Ion Ratio Lower Upper
 59 100
 57 9.0 9.4 14.2#

