

Data File : VL034939.D
Acq On : 6 May 2020 12:04
Operator : SY/AP
Sample : VSTDIC0.5
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.5

Quant Time: May 06 12:44:03 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL050620AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed May 06 12:36:21 2020
QLast Update : Wed May 06 12:36:21 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1194344	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2756609	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.12	117	2529657	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.46	95	2134302	10.82	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	108.20%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.01	85	127299	0.778	ppbv	95
3) Chlorodifluoromethane	2.95	51	76332	0.572	ppbv	96
4) Chloromethane	3.11	50	42884	0.569	ppbv	95
5) Vinyl Chloride	3.22	62	38241	0.528	ppbv #	87
6) Bromomethane	3.45	94	24832	0.588	ppbv	95
7) Chloroethane	3.53	64	14369	0.549	ppbv	98
8) Dichlorotetrafluoroethane	3.15	85	101341	0.597	ppbv	98
9) Propene	2.98	41	31100	0.488	ppbv	99
10) Heptane	8.13	43	68581	0.437	ppbv	98
11) Trichlorofluoromethane	3.93	101	96971	0.557	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.47	101	71515	0.587	ppbv	93
13) Ethanol	3.57	45	3016	0.156	ppbv #	1
14) Bromoethene	3.71	108	27328	0.520	ppbv #	94
15) Acetone	3.84	43	97080	0.627	ppbv #	88
16) 1,3-Butadiene	3.29	39	37665	0.538	ppbv	94
17) tert-Butyl alcohol	4.27	59	24977	0.167	ppbv #	71
18) 1,1-Dichloroethene	4.27	96	28768	0.533	ppbv #	91
19) Isopropyl Alcohol	3.95	45	61063	0.625	ppbv #	91
20) Methylene Chloride	4.32	84	31477	0.643	ppbv	94
21) Allyl Chloride	4.39	41	44645	0.449	ppbv	93
22) trans-1,2-Dichloroethene	4.88	96	25395	0.464	ppbv	100
23) Vinyl Acetate	5.06	43	92646	0.405	ppbv #	98
24) 1,1-Dichloroethane	5.00	63	86542	0.565	ppbv	99
25) Ethyl Acetate	5.67	43	140731	0.510	ppbv	98
26) Hexane	5.68	57	57156	0.481	ppbv	88
27) Carbon Disulfide	4.54	76	62901	0.467	ppbv #	81
28) Methyl tert-Butyl Ether	5.02	73	37130	0.188	ppbv #	53
29) Chloroform	5.74	83	104814	0.578	ppbv	95
30) Cyclohexane	7.13	84	7692	0.078	ppbv #	1
31) cis-1,2-Dichloroethene	5.55	61	55196	0.454	ppbv	93
32) 1,1,1-Trichloroethane	6.51	97	88653	0.502	ppbv	98
34) 2-Butanone	5.24	43	83627	0.457	ppbv	99
35) Carbon Tetrachloride	7.02	117	55268	0.322	ppbv	93
36) Benzene	6.90	78	110494	0.450	ppbv #	91
37) 1,2-Dichloroethane	6.30	62	41575	0.300	ppbv #	82
38) Trichloroethene	7.84	130	20929	0.224	ppbv	89
39) 1,2-Dichloropropane	7.63	63	18394	0.189	ppbv	92
41) Tetrahydrofuran	6.06	42	40285	0.406	ppbv	98
42) Bromodichloromethane	7.81	83	48283	0.256	ppbv #	83
43) Methyl Methacrylate	8.03	69	20472	0.198	ppbv #	1
44) 2,2,4-Trimethylpentane	7.88	57	205277	0.494	ppbv	97

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Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.5

Quant Time: May 06 12:44:03 2020

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL050620AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed May 06 12:36:21 2020

QLast Update : Wed May 06 12:36:21 2020

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) t-1,3-Dichloropropene	9.30	75	36482	0.300	ppbv	92
46) cis-1,3-Dichloropropene	8.72	75	45600	0.316	ppbv	99
47) 1,1,2-Trichloroethane	9.49	97	25147	0.252	ppbv	94
48) Dibromochloromethane	10.33	129	70072	0.433	ppbv	100
49) Bromoform	13.08	173	58209	0.403	ppbv	99
50) 4-Methyl-2-Pentanone	8.77	43	115010	0.436	ppbv	93
51) 2-Hexanone	10.17	43	65855	0.307	ppbv #	93
52) Tetrachloroethene	11.25	164	19436	0.200	ppbv	96
53) Toluene	9.82	91	39449	0.139	ppbv #	20
54) 1,2-Dibromoethane	10.64	107	70389	0.468	ppbv	84
56) 1,1,1,2-Tetrachloroethane	12.16	131	26322	0.232	ppbv #	8
57) Chlorobenzene	12.18	112	74505	0.376	ppbv	97
58) Ethyl Benzene	12.75	91	140289	0.410	ppbv	93
59) m/p-Xylene	13.03	91	93656	0.326	ppbv #	8
60) o-Xylene	13.73	91	131299	0.469	ppbv	100
61) Styrene	13.57	104	54875	0.279	ppbv #	83
62) Isopropylbenzene	14.71	105	208698	0.493	ppbv	97
63) 1,1,2,2-Tetrachloroethane	13.72	83	54392	0.286	ppbv #	4
64) n-propylbenzene	15.60	120	31462	0.285	ppbv #	1
65) tert-Butylbenzene	16.79	119	103341	0.279	ppbv #	41
66) Benzyl Chloride	17.04	91	29122	0.189	ppbv #	72
67) sec-Butylbenzene	17.34	105	239821	0.467	ppbv	97
69) p-Isopropyltoluene	17.70	119	88302	0.205	ppbv #	38
70) n-Butylbenzene	18.60	91	101216	0.230	ppbv #	32
71) 2-Chlorotoluene	15.50	91	149150	0.465	ppbv	94
72) 4-Ethyltoluene	15.88	105	136539	0.413	ppbv #	97
73) 1,3,5-Trimethylbenzene	16.04	105	140701	0.454	ppbv #	86
74) 1,2,4-Trimethylbenzene	16.81	105	167626	0.525	ppbv	94
75) 1,3-Dichlorobenzene	17.05	146	46541	0.242	ppbv #	1
76) 1,4-Dichlorobenzene	17.18	146	93907	0.489	ppbv	97
77) 1,2-Dichlorobenzene	17.87	146	55129	0.296	ppbv #	36
78) Hexachloro-1,3-Butadiene	23.43	225	58210	0.374	ppbv #	63
79) Naphthalene	22.27	128	37283	0.150	ppbv #	93
80) Naphthalene,2-methyl-	25.03	142	10692	0.164	ppbv	95
81) 1,2,4-Trichlorobenzene	22.00	180	31865	0.202	ppbv #	1

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

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Sample       : VSTDICC0.5
Misc         : 400ml/MSV0A_L
ALS Vial     : 1 Sample Multipl
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Instrument :
MSVOA_L
ClientSampleId :
VSTDICC0.5

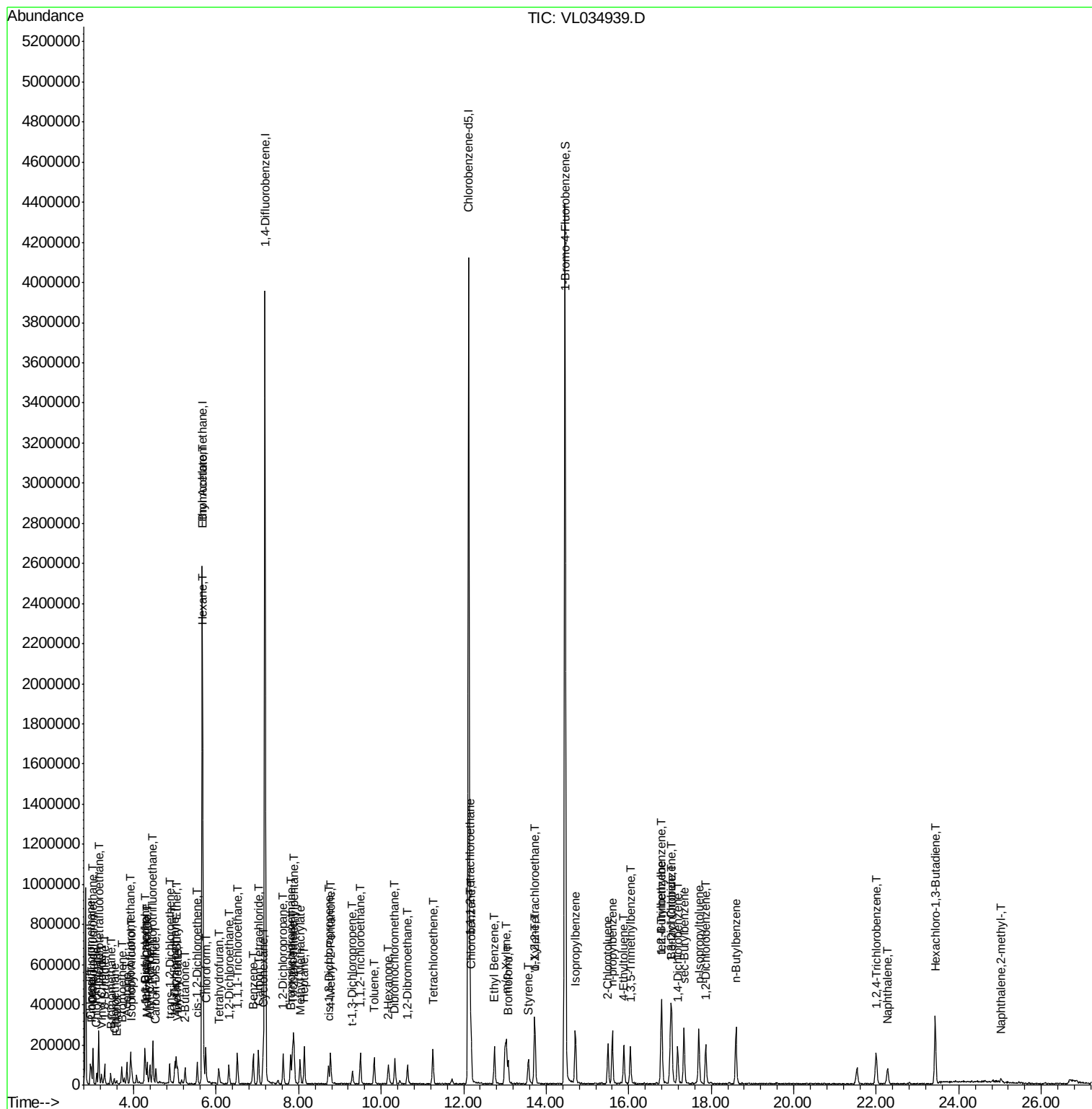
Quant Time: May 06 12:44:03 2020

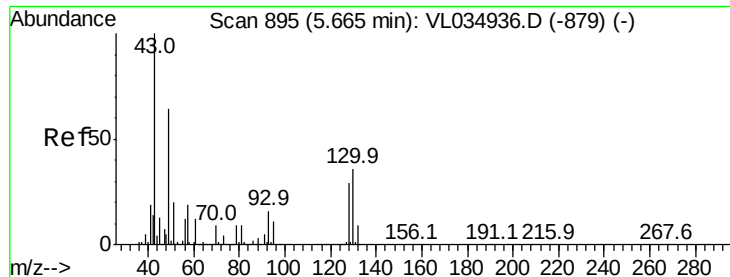
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_L\METHODS\VL050620AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LWed May 06 12:36:21 2020

QLast Update : Wed May 06 12:36:21 2020

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.00 min

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Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.5

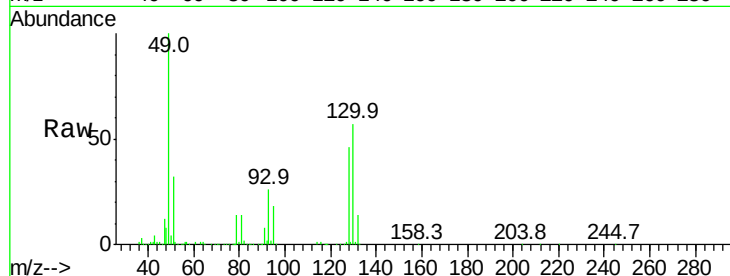
Tgt Ion: 49 Resp: 1194344

Ion Ratio Lower Upper

49 100

128 45.4 22.1 66.5

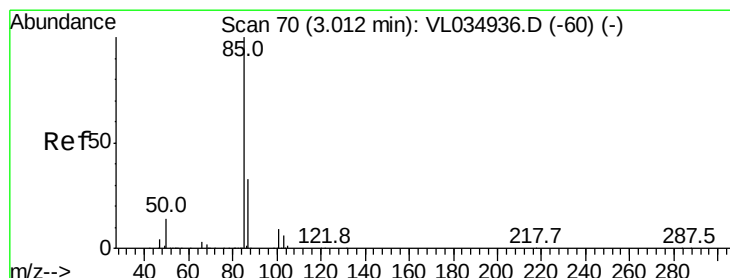
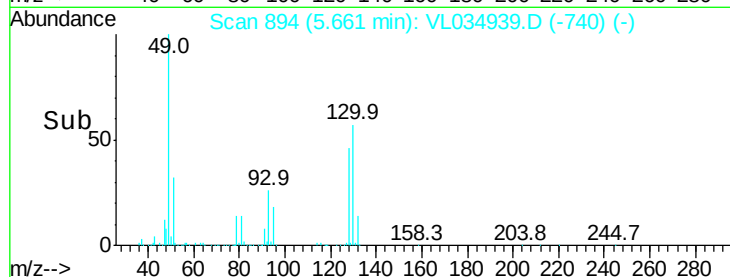
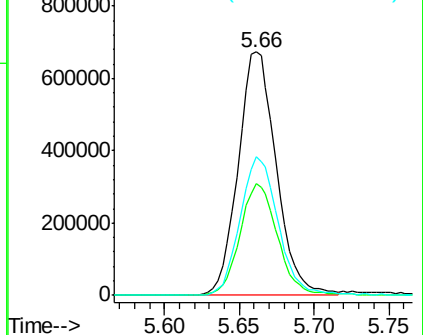
130 57.6 29.1 87.3



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: 0.778 ppbv

RT: 3.01 min Scan# 70

Delta R.T. -0.00 min

Lab File: VL034939.D

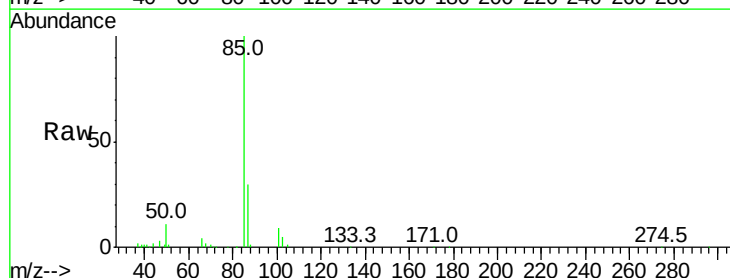
Acq: 6 May 2020 12:04

Tgt Ion: 85 Resp: 127299

Ion Ratio Lower Upper

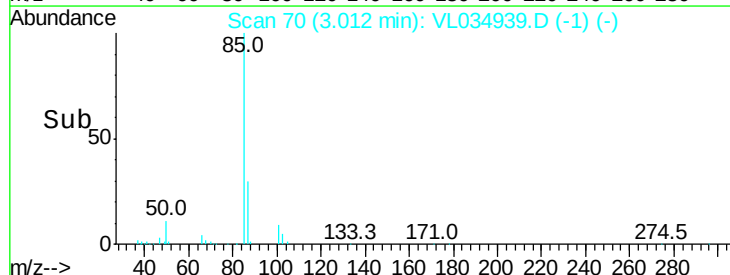
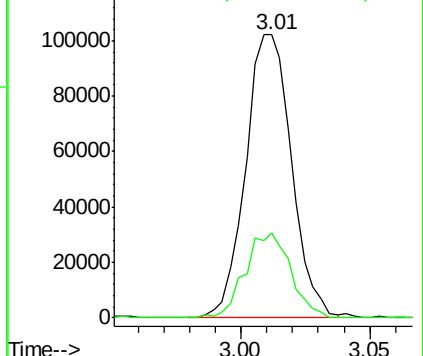
85 100

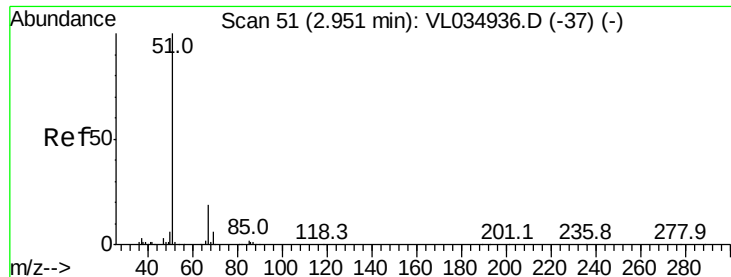
87 30.0 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.572 ppbv

RT: 2.95 min Scan# 51

Delta R.T. -0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

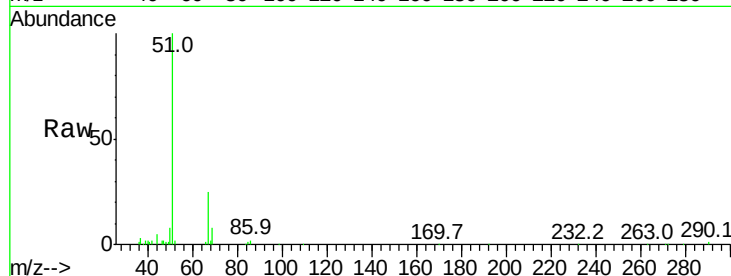
VSTDIC0.5

Tgt Ion: 51 Resp: 76332

Ion Ratio Lower Upper

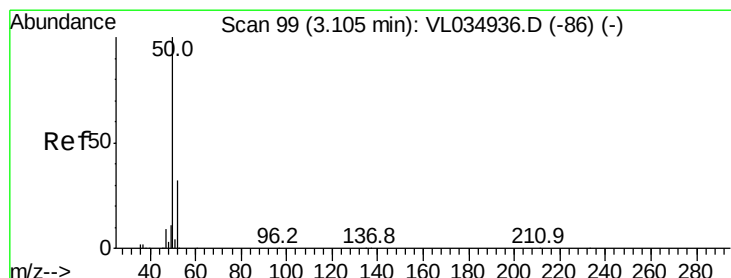
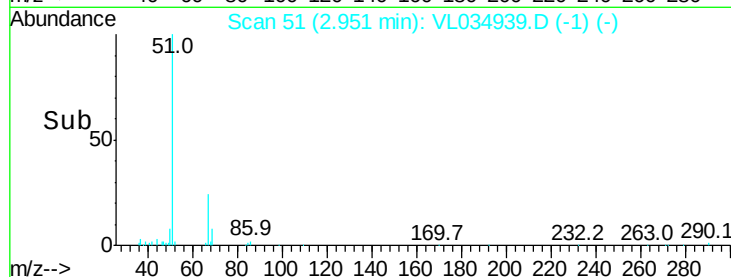
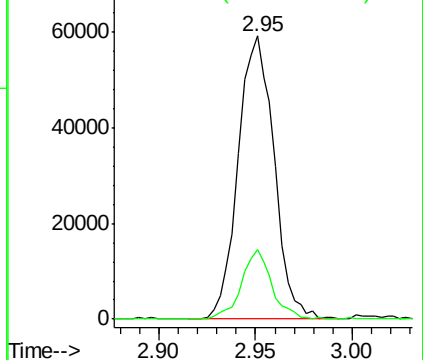
51 100

67 20.7 15.0 22.6



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.569 ppbv

RT: 3.11 min Scan# 99

Delta R.T. -0.00 min

Lab File: VL034939.D

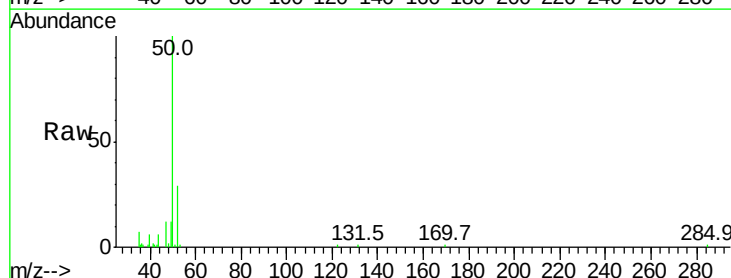
Acq: 6 May 2020 12:04

Tgt Ion: 50 Resp: 42884

Ion Ratio Lower Upper

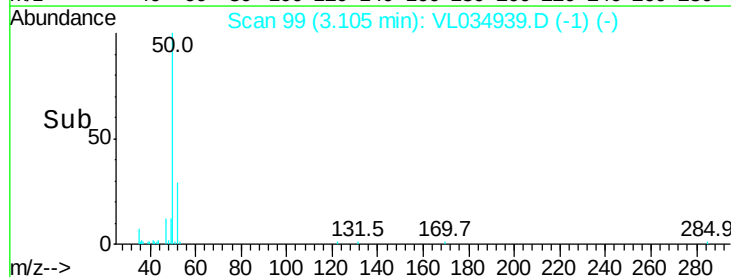
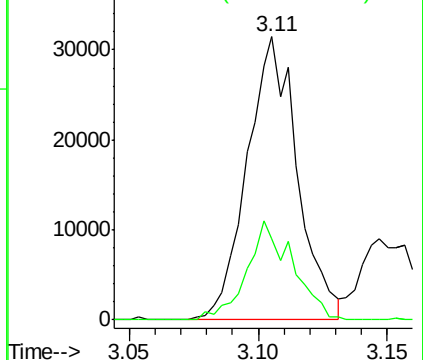
50 100

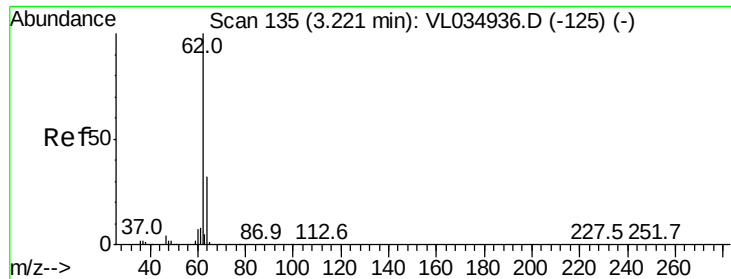
52 28.9 25.4 38.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.528 ppbv

RT: 3.22 min Scan# 135

Delta R.T. -0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

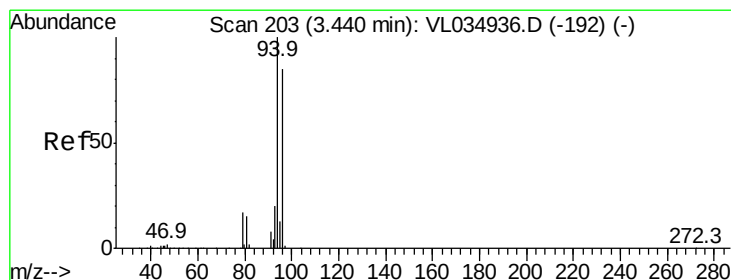
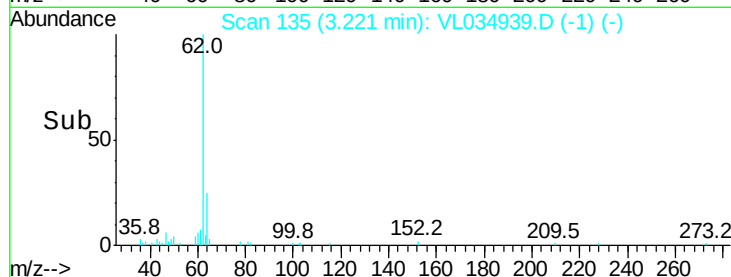
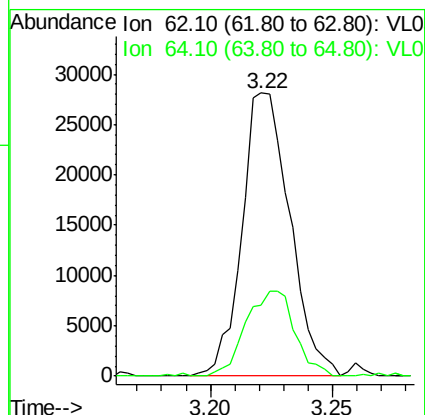
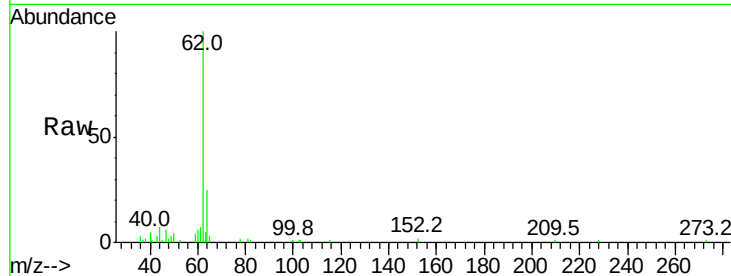
VSTDIC0.5

Tgt Ion: 62 Resp: 38241

Ion Ratio Lower Upper

62 100

64 25.0 25.7 38.5#



#6

Bromomethane

Concen: 0.588 ppbv

RT: 3.45 min Scan# 205

Delta R.T. 0.01 min

Lab File: VL034939.D

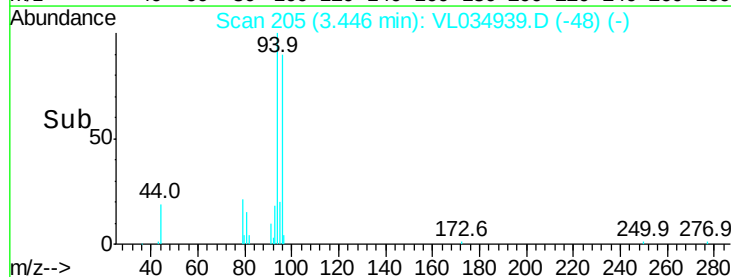
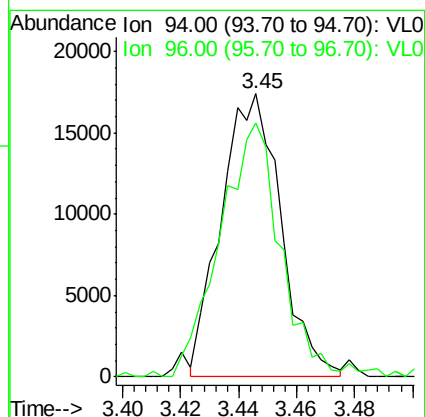
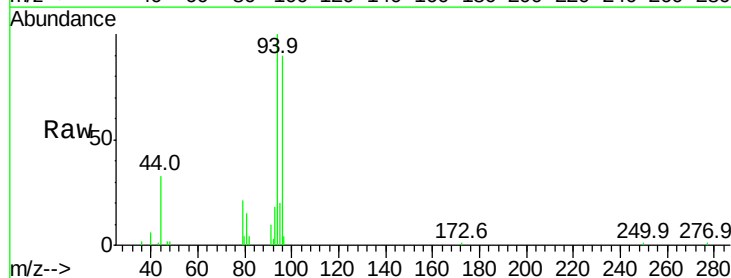
Acq: 6 May 2020 12:04

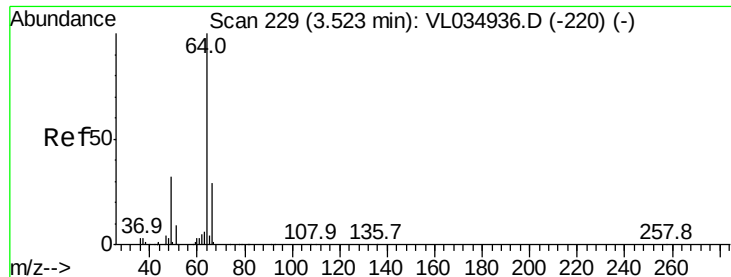
Tgt Ion: 94 Resp: 24832

Ion Ratio Lower Upper

94 100

96 89.5 67.9 101.9





#7

Chloroethane

Concen: 0.549 ppbv

RT: 3.53 min Scan# 231

Delta R.T. 0.01 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

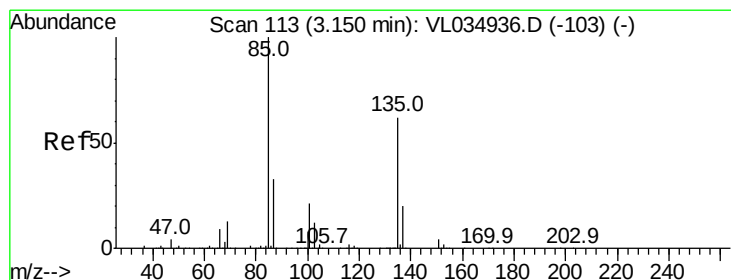
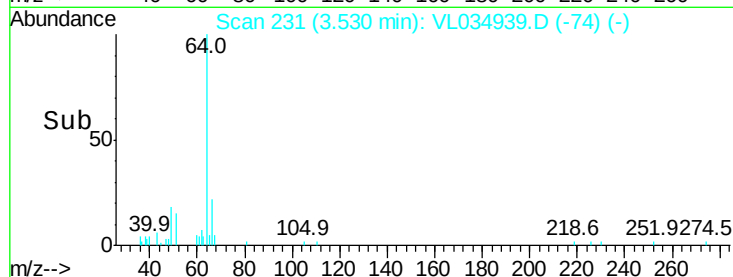
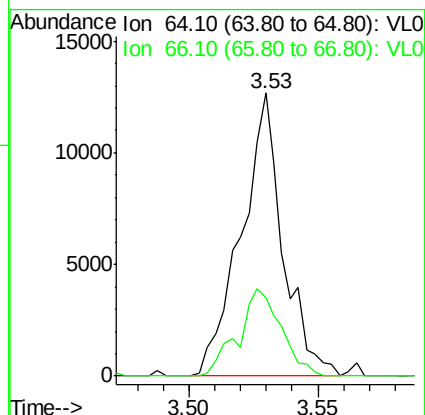
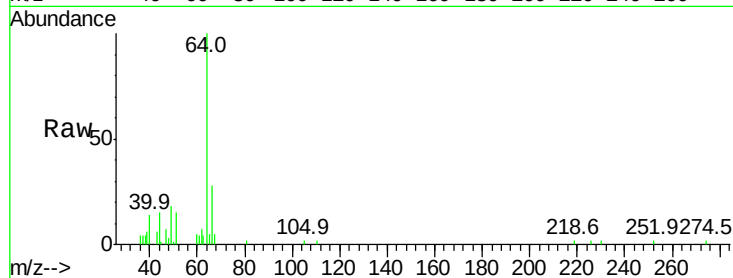
VSTDIC0.5

Tgt Ion: 64 Resp: 14369

Ion Ratio Lower Upper

64 100

66 27.9 23.2 34.8



#8

Dichlorotetrafluoroethane

Concen: 0.597 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.00 min

Lab File: VL034939.D

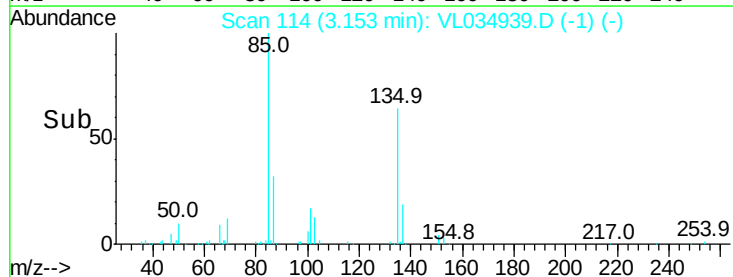
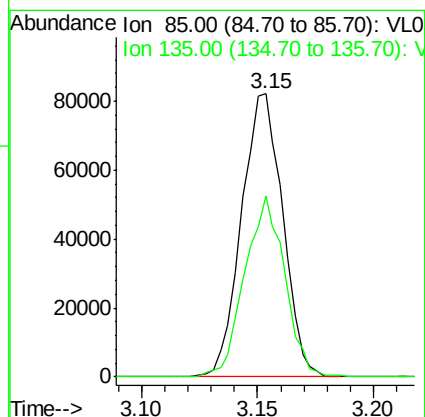
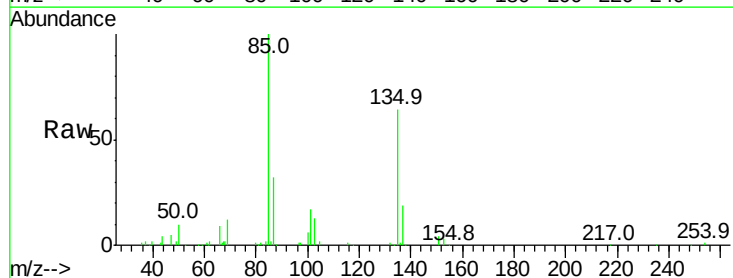
Acq: 6 May 2020 12:04

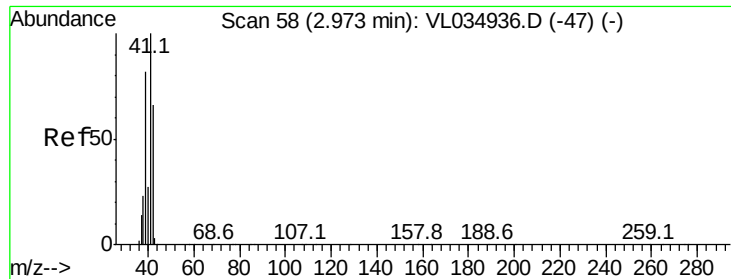
Tgt Ion: 85 Resp: 101341

Ion Ratio Lower Upper

85 100

135 62.0 50.9 76.3





#9

Propene

Concen: 0.488 ppbv

RT: 2.98 min Scan# 59

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

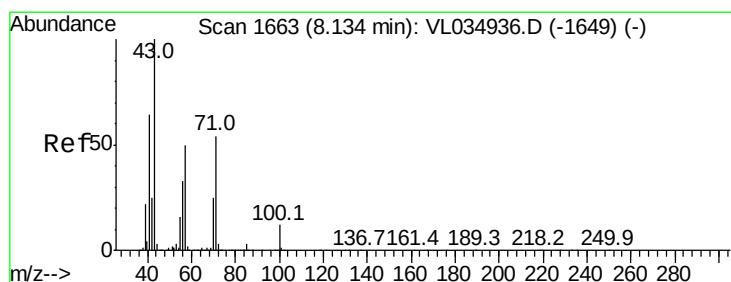
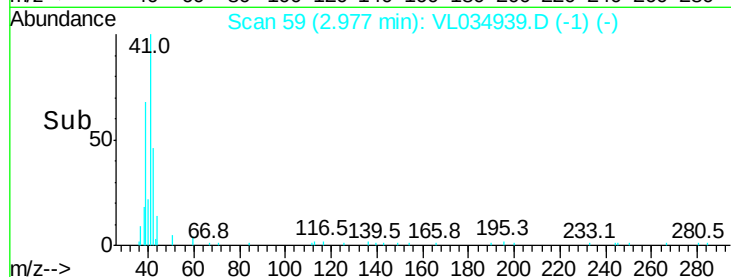
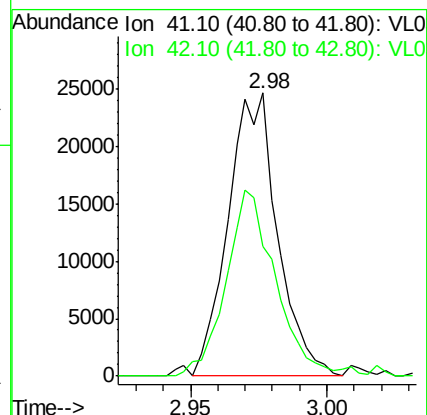
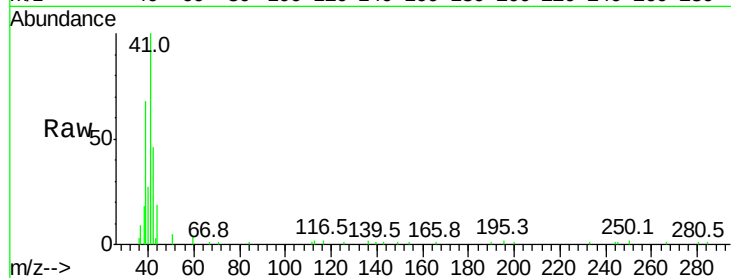
VSTDIC0.5

Tgt Ion: 41 Resp: 31100

Ion Ratio Lower Upper

41 100

42 67.1 54.5 81.7



#10

Heptane

Concen: 0.437 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. -0.00 min

Lab File: VL034939.D

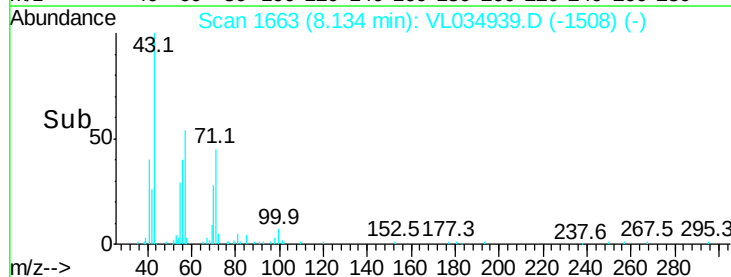
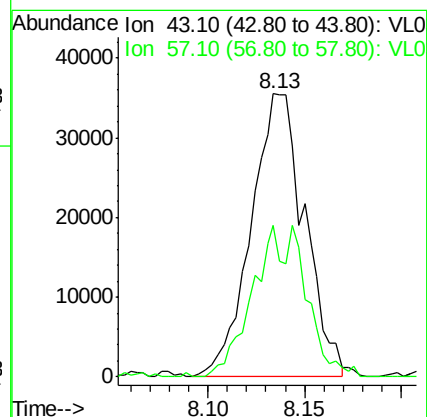
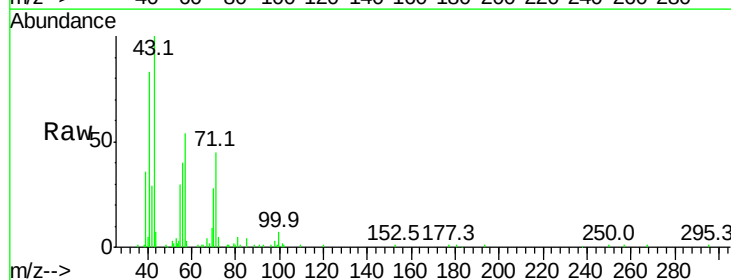
Acq: 6 May 2020 12:04

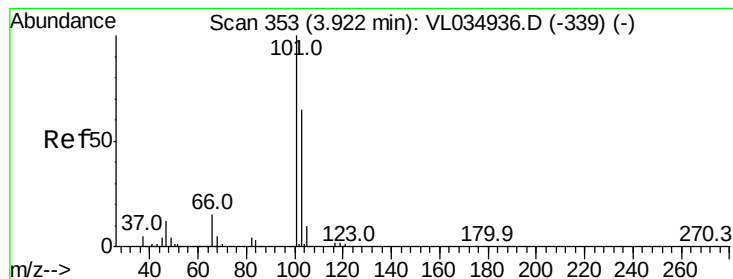
Tgt Ion: 43 Resp: 68581

Ion Ratio Lower Upper

43 100

57 52.7 41.1 61.7





#11

Trichlorofluoromethane

Concen: 0.557 ppbv

RT: 3.93 min Scan# 354

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

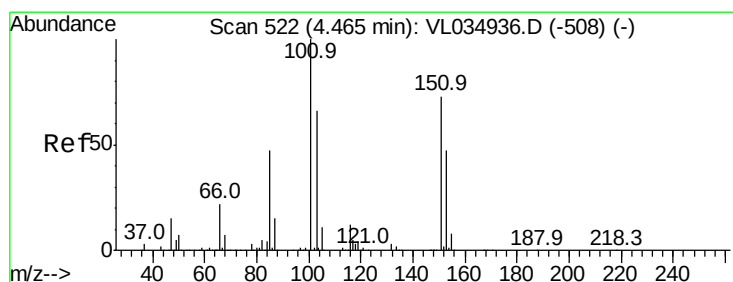
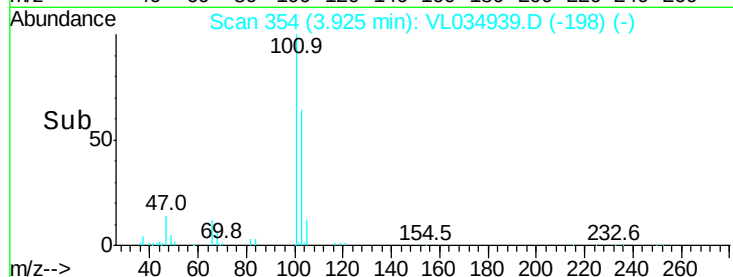
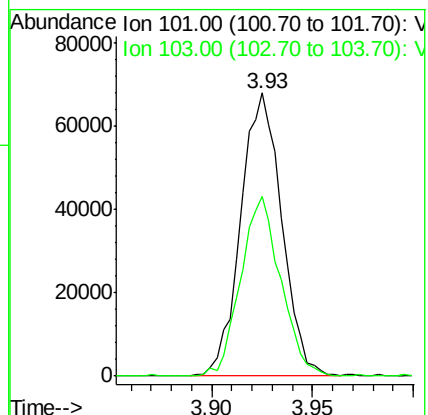
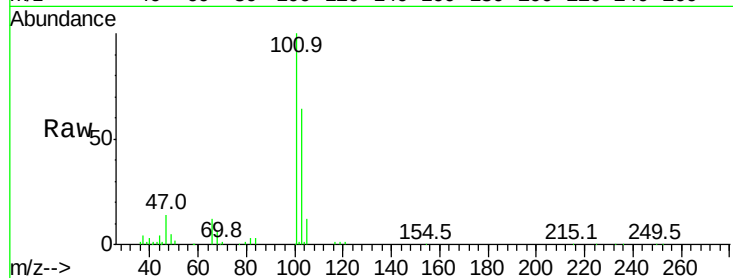
VSTDIC0.5

Tgt Ion:101 Resp: 96971

Ion Ratio Lower Upper

101 100

103 63.6 51.9 77.9



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.587 ppbv

RT: 4.47 min Scan# 523

Delta R.T. 0.00 min

Lab File: VL034939.D

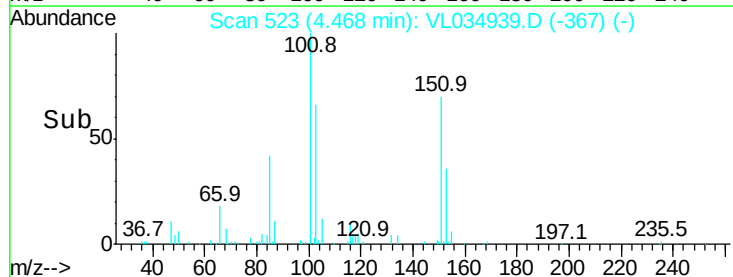
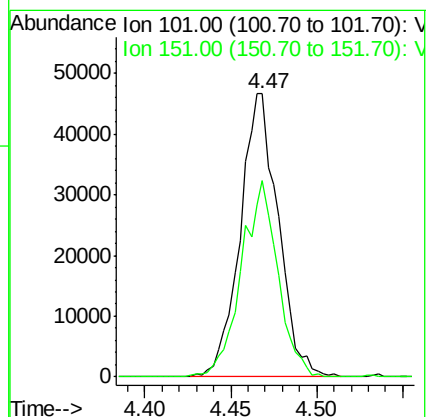
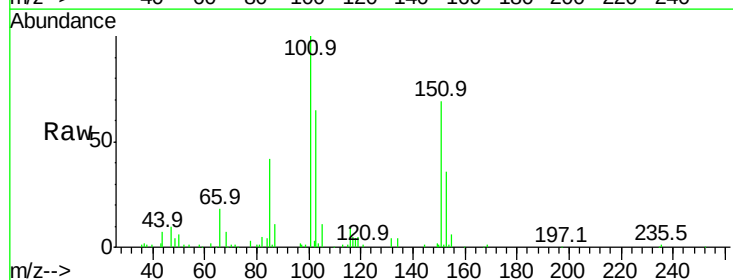
Acq: 6 May 2020 12:04

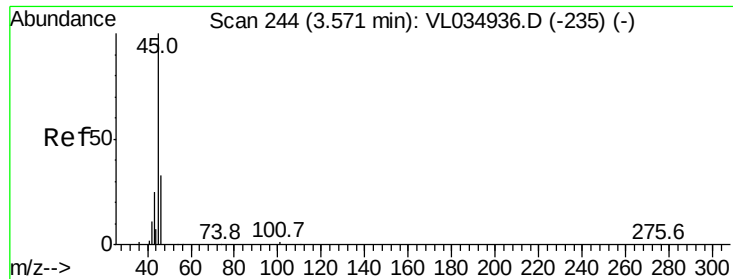
Tgt Ion:101 Resp: 71515

Ion Ratio Lower Upper

101 100

151 66.4 57.6 86.4





#13

Ethanol

Concen: 0.156 ppbv

RT: 3.57 min Scan# 245

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

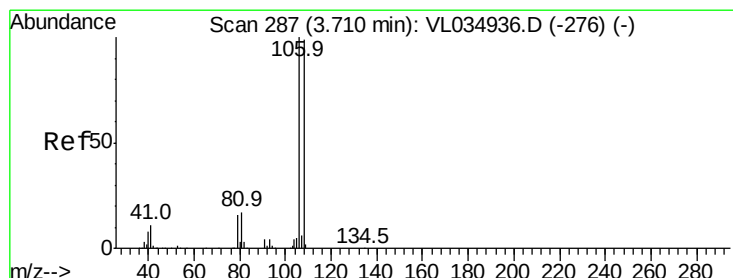
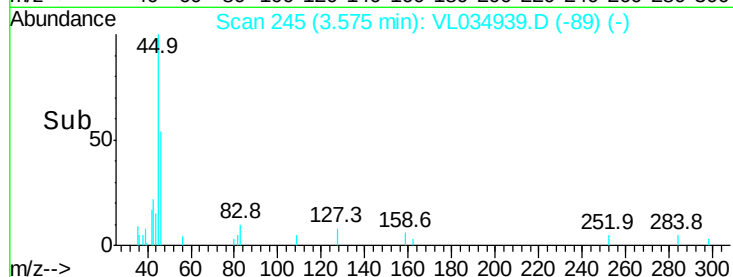
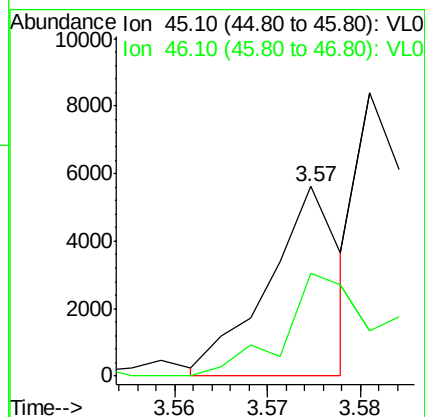
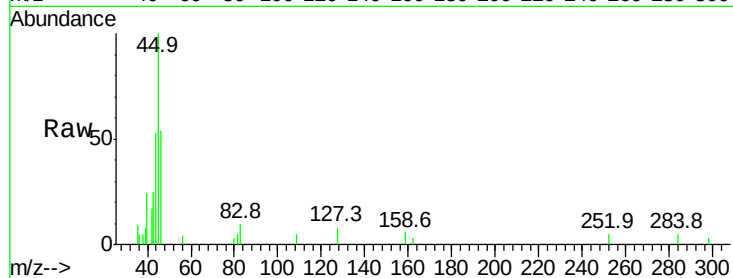
VSTDIC0.5

Tgt Ion: 45 Resp: 3016

Ion Ratio Lower Upper

45 100

46 169.7 14.3 57.3#



#14

Bromoethene

Concen: 0.520 ppbv

RT: 3.71 min Scan# 288

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

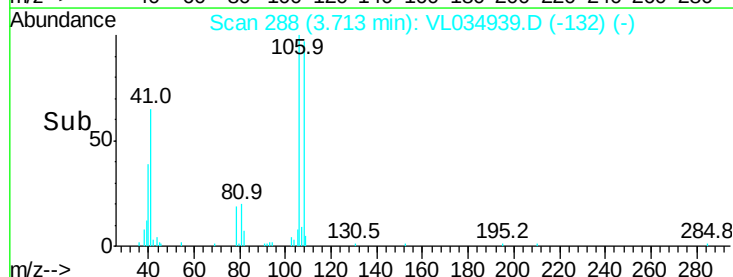
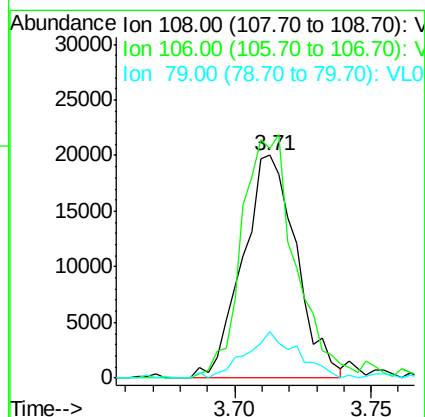
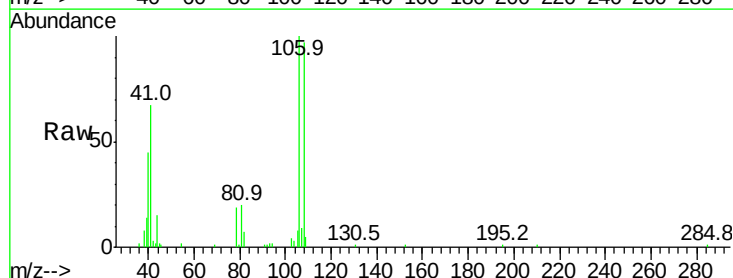
Tgt Ion: 108 Resp: 27328

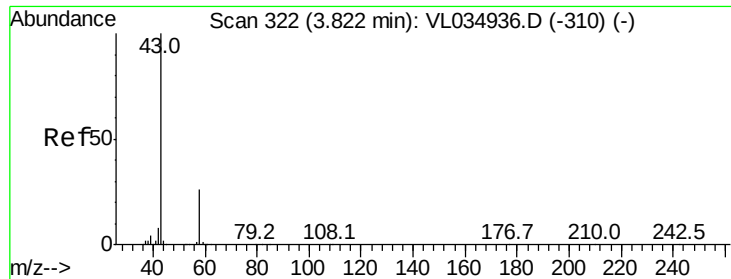
Ion Ratio Lower Upper

108 100

106 112.0 84.9 127.3

79 21.3 14.1 21.1#





#15

Acetone

Concen: 0.627 ppbv

RT: 3.84 min Scan# 326

Delta R.T. 0.01 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

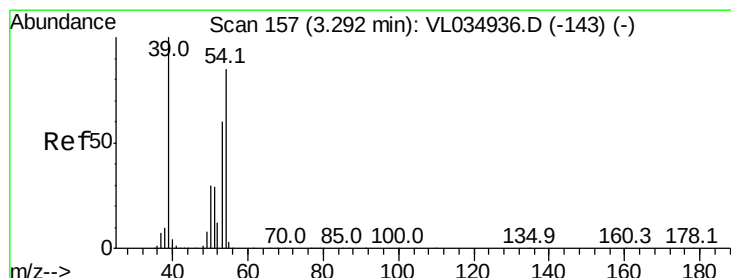
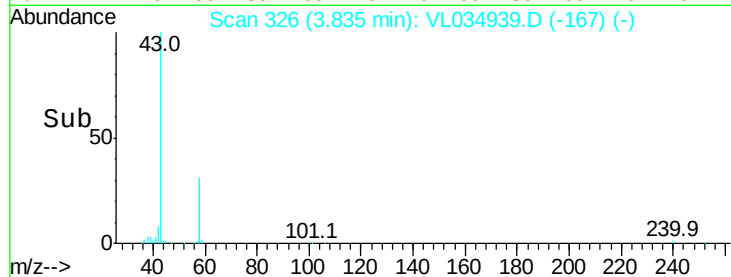
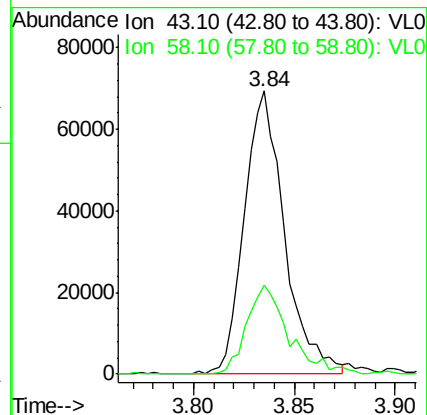
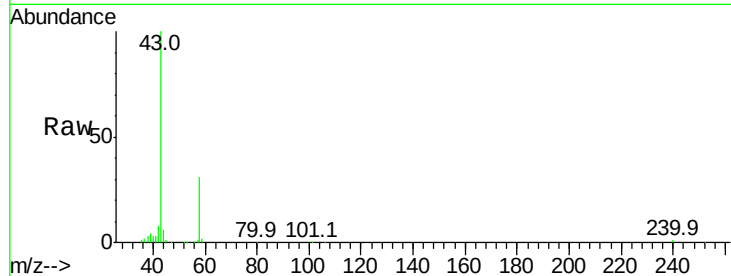
VSTDIC0.5

Tgt Ion: 43 Resp: 97080

Ion Ratio Lower Upper

43 100

58 33.2 21.7 32.5#



#16

1,3-Butadiene

Concen: 0.538 ppbv

RT: 3.29 min Scan# 158

Delta R.T. 0.00 min

Lab File: VL034939.D

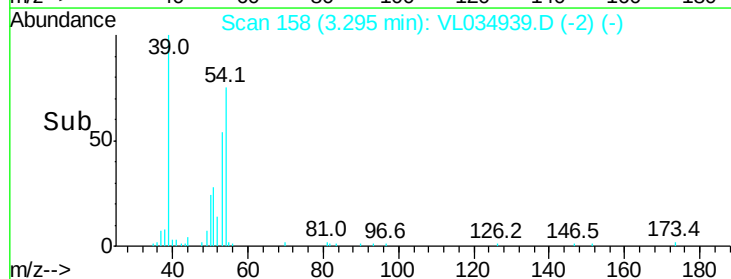
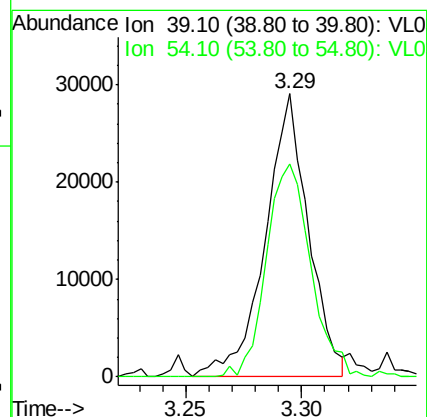
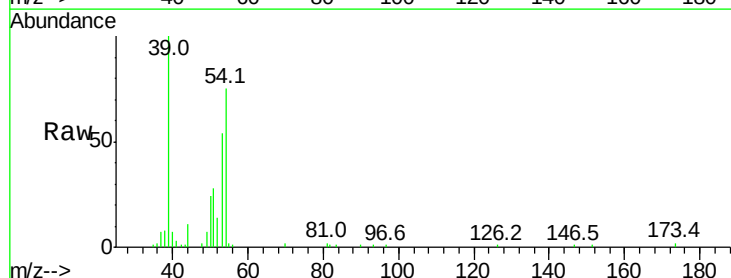
Acq: 6 May 2020 12:04

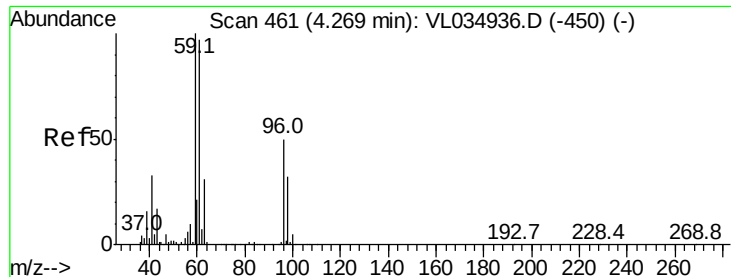
Tgt Ion: 39 Resp: 37665

Ion Ratio Lower Upper

39 100

54 77.5 66.6 100.0





#17

tert-Butyl alcohol

Concen: 0.167 ppbv

RT: 4.27 min Scan# 462

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

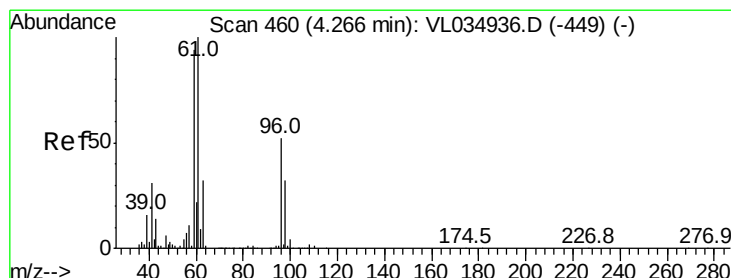
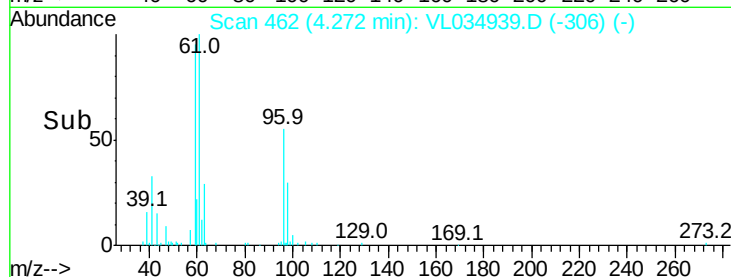
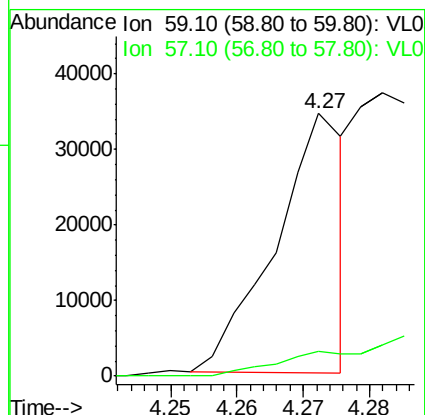
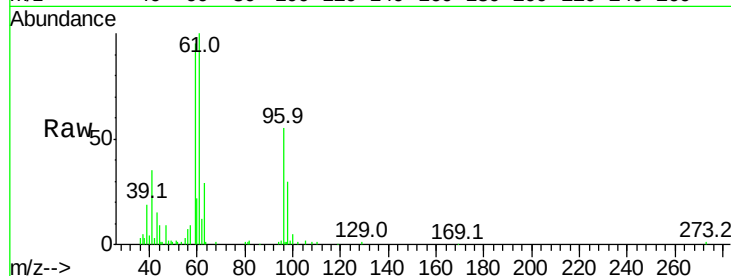
VSTDIC0.5

Tgt Ion: 59 Resp: 24977

Ion Ratio Lower Upper

59 100

57 0.0 8.7 13.1#



#18

1,1-Dichloroethene

Concen: 0.533 ppbv

RT: 4.27 min Scan# 461

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

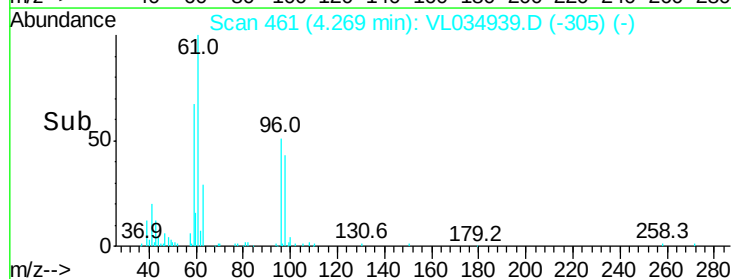
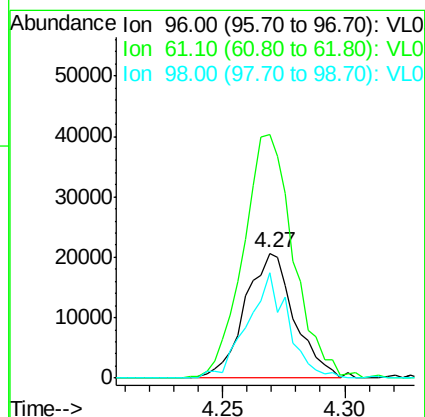
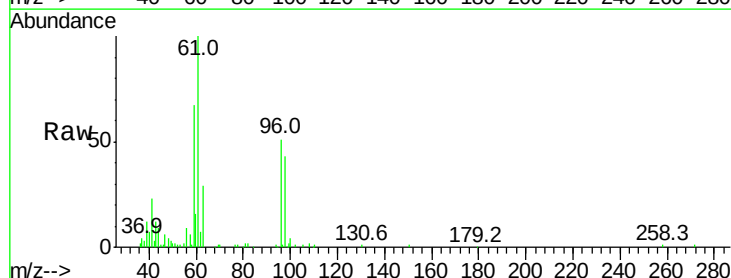
Tgt Ion: 96 Resp: 28768

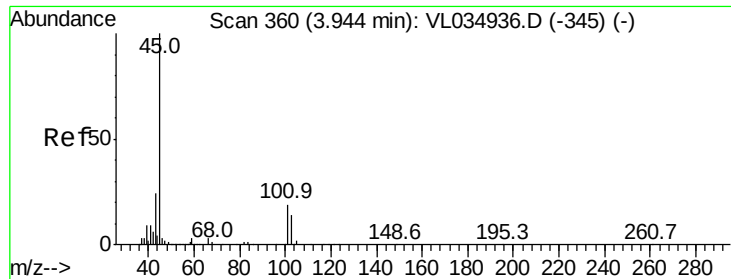
Ion Ratio Lower Upper

96 100

61 194.0 152.4 228.6

98 84.4 48.8 73.2#





#19

Isopropyl Alcohol

Concen: 0.625 ppbv

RT: 3.95 min Scan# 361

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

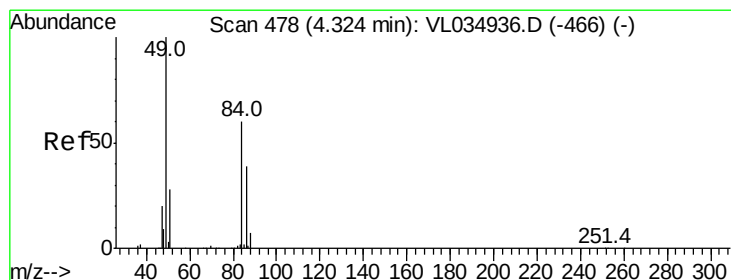
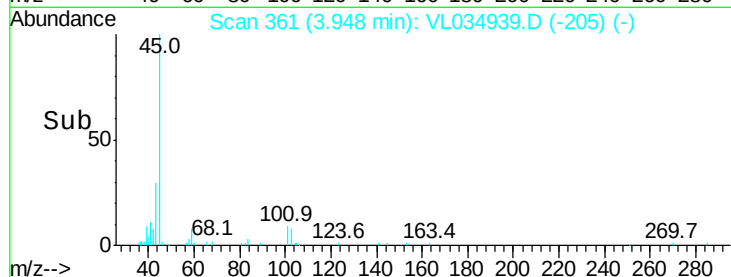
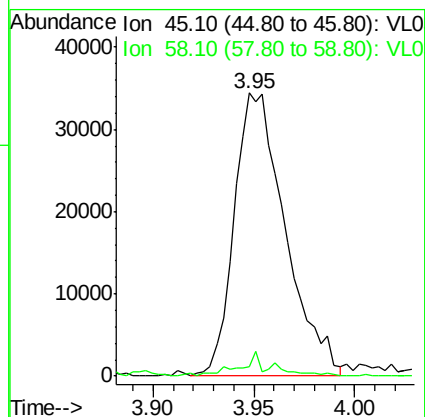
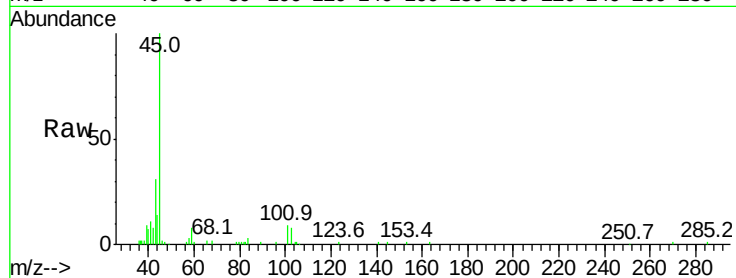
VSTDIC0.5

Tgt Ion: 45 Resp: 61063

Ion Ratio Lower Upper

45 100

58 5.2 1.7 2.5#



#20

Methylene Chloride

Concen: 0.643 ppbv

RT: 4.32 min Scan# 478

Delta R.T. -0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Tgt Ion: 84 Resp: 31477

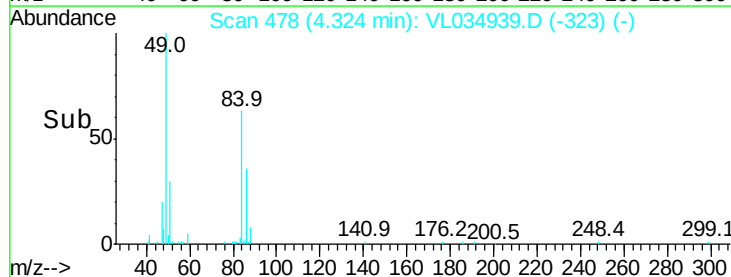
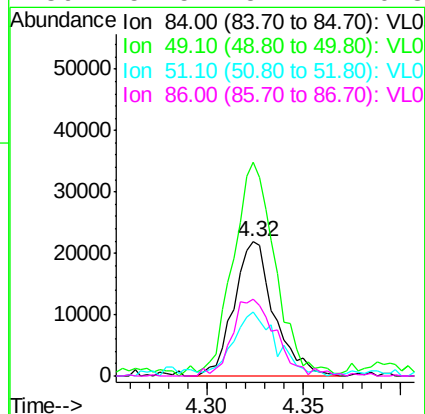
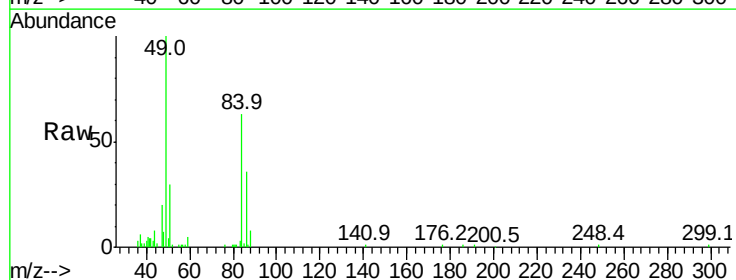
Ion Ratio Lower Upper

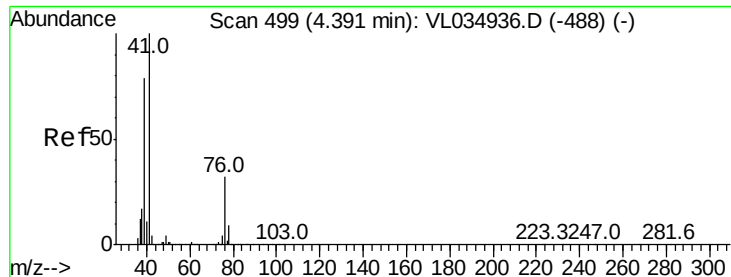
84 100

49 157.3 132.5 198.7

51 47.2 38.4 57.6

86 57.5 51.2 76.8





#21

Allyl Chloride

Concen: 0.449 ppbv

RT: 4.39 min Scan# 499

Delta R.T. -0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.5

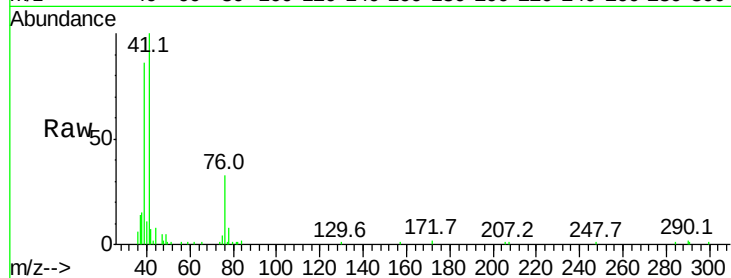
Tgt Ion: 41 Resp: 44645

Ion Ratio Lower Upper

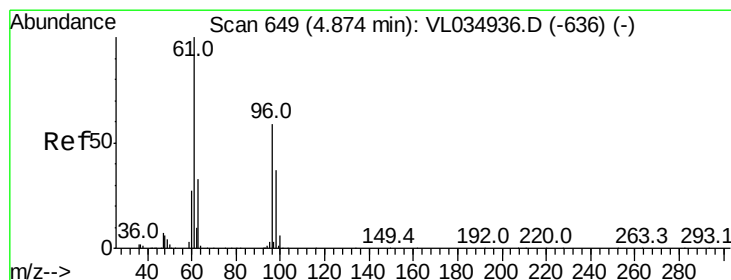
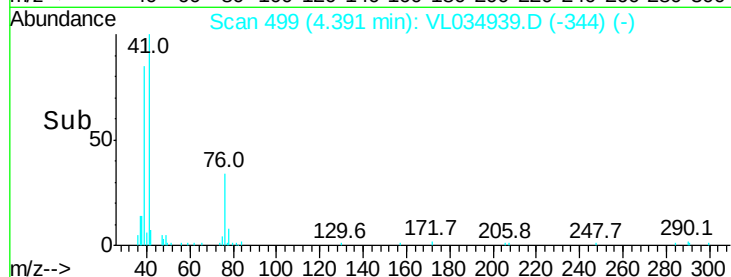
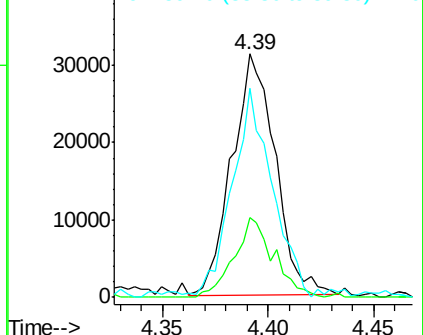
41 100

76 30.5 23.6 35.4

39 85.4 61.9 92.9



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0



#22

trans-1,2-Dichloroethene

Concen: 0.464 ppbv

RT: 4.88 min Scan# 650

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

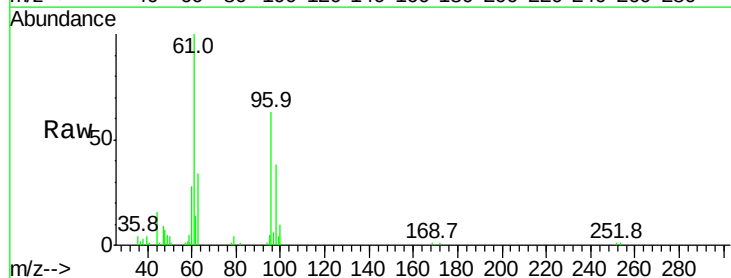
Tgt Ion: 96 Resp: 25395

Ion Ratio Lower Upper

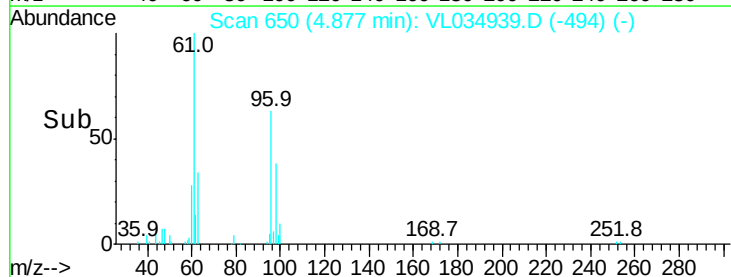
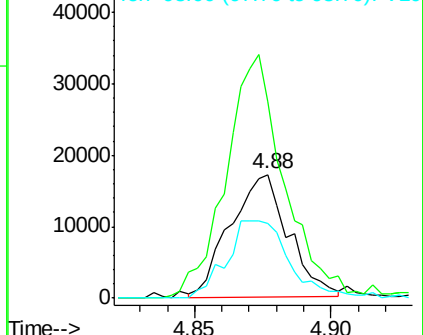
96 100

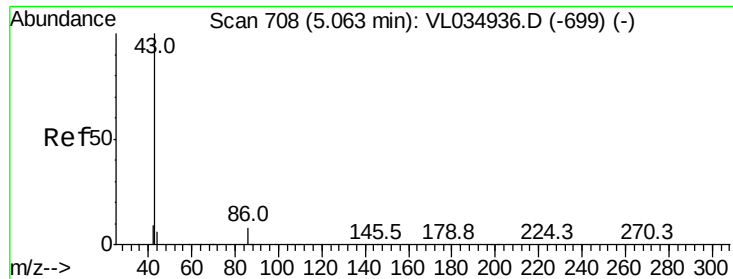
61 169.0 135.3 202.9

98 62.6 50.4 75.6



Abundance Ion 96.00 (95.70 to 96.70): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 98.00 (97.70 to 98.70): VL0





#23

Vinyl Acetate

Concen: 0.405 ppbv

RT: 5.06 min Scan# 708

Delta R.T. -0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.5

Tgt Ion: 43 Resp: 92646

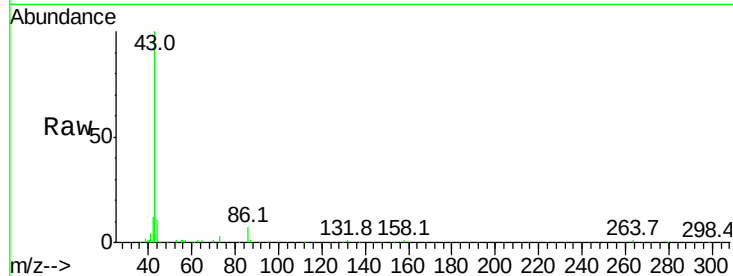
Ion Ratio Lower Upper

43 100

86 7.3 5.5 8.3

42 9.9 8.0 12.0

44 7.8 4.5 6.7#

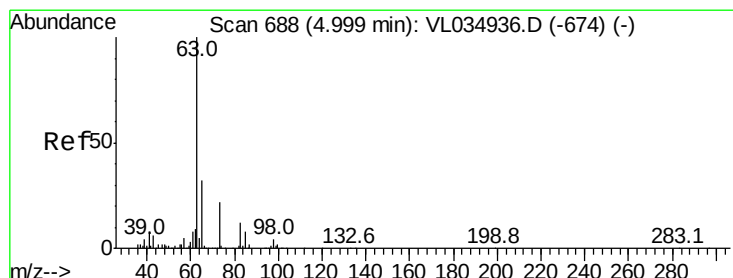
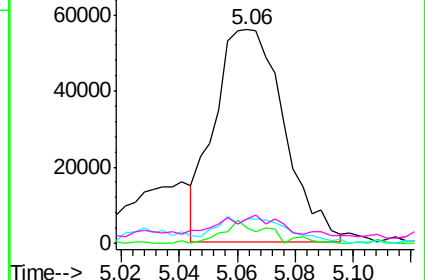
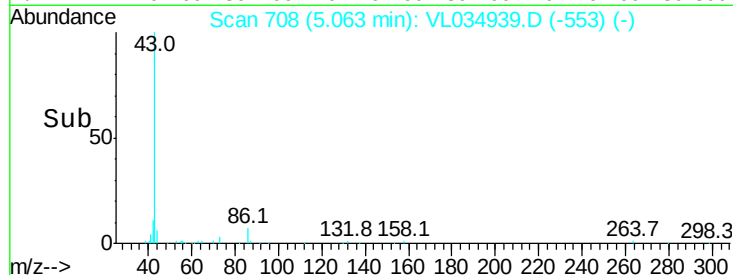


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.565 ppbv

RT: 5.00 min Scan# 687

Delta R.T. -0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

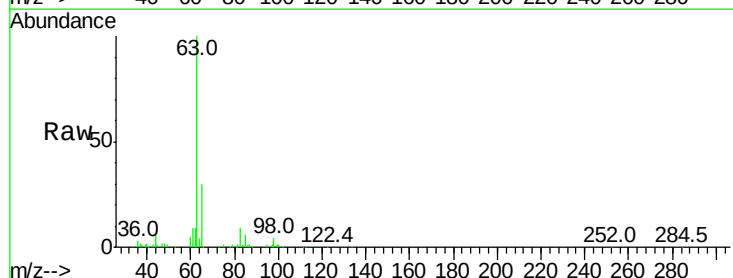
Tgt Ion: 63 Resp: 86542

Ion Ratio Lower Upper

63 100

98 4.1 2.0 6.0

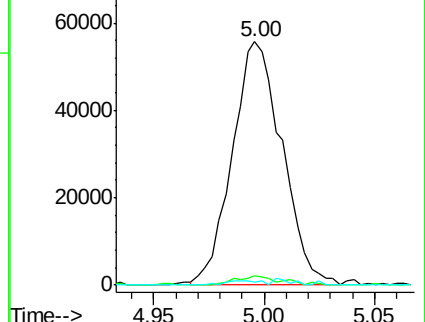
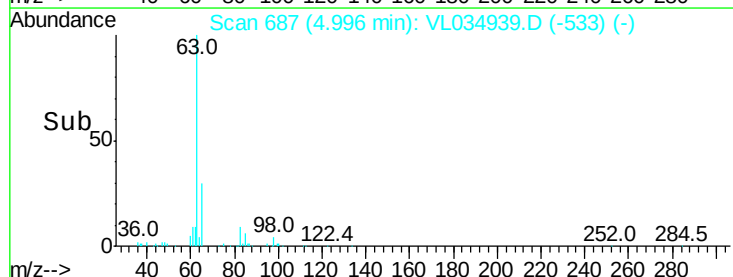
100 1.2 1.1 3.5

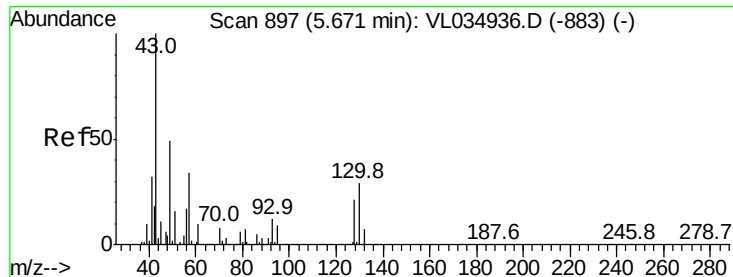


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0





#25

Ethyl Acetate

Concen: 0.510 ppbv

RT: 5.67 min Scan# 898

Delta R.T. 0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.5

Tgt Ion: 43 Resp: 140731

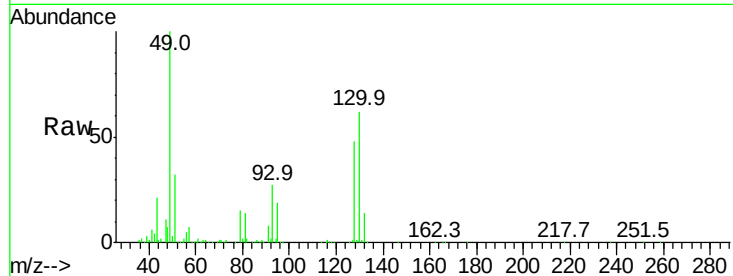
Ion Ratio Lower Upper

43 100

45 10.4 8.1 12.1

61 10.9 7.8 11.8

70 7.4 6.0 9.0

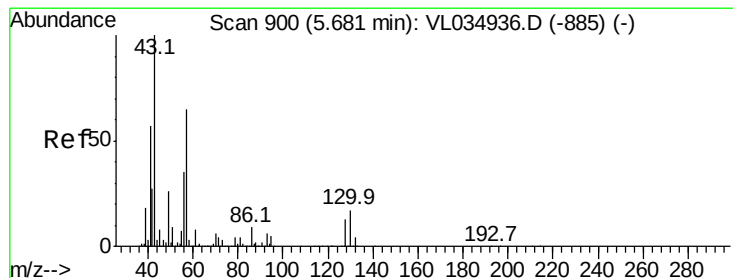
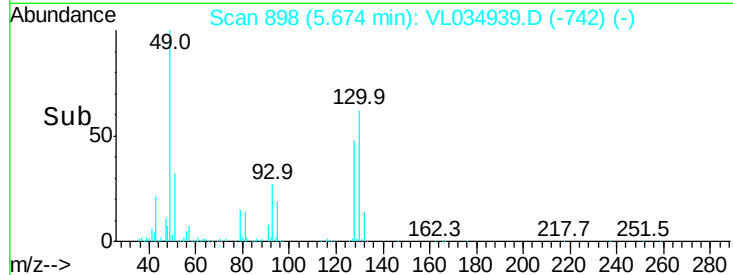
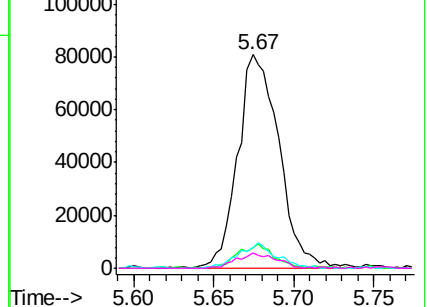


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.481 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.00 min

Lab File: VL034939.D

Acq: 6 May 2020 12:04

Tgt Ion: 57 Resp: 57156

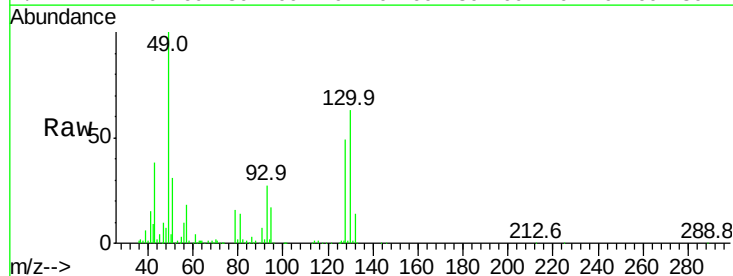
Ion Ratio Lower Upper

57 100

41 99.8 72.7 109.1

43 251.9 182.1 273.1

56 56.1 42.2 63.2



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

