

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL123019\
 Data File : VL034531.D
 Acq On : 31 Dec 2019 3:46
 Operator : SY/AP
 Sample : K6470-02
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 27-2

Quant Time: Dec 31 05:03:14 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL123019AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 30 14:58:50 2019
 QLast Update : Mon Dec 30 14:58:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	892429	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1809950	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.13	117	1751215	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.47	95	1486185	10.17	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.70%

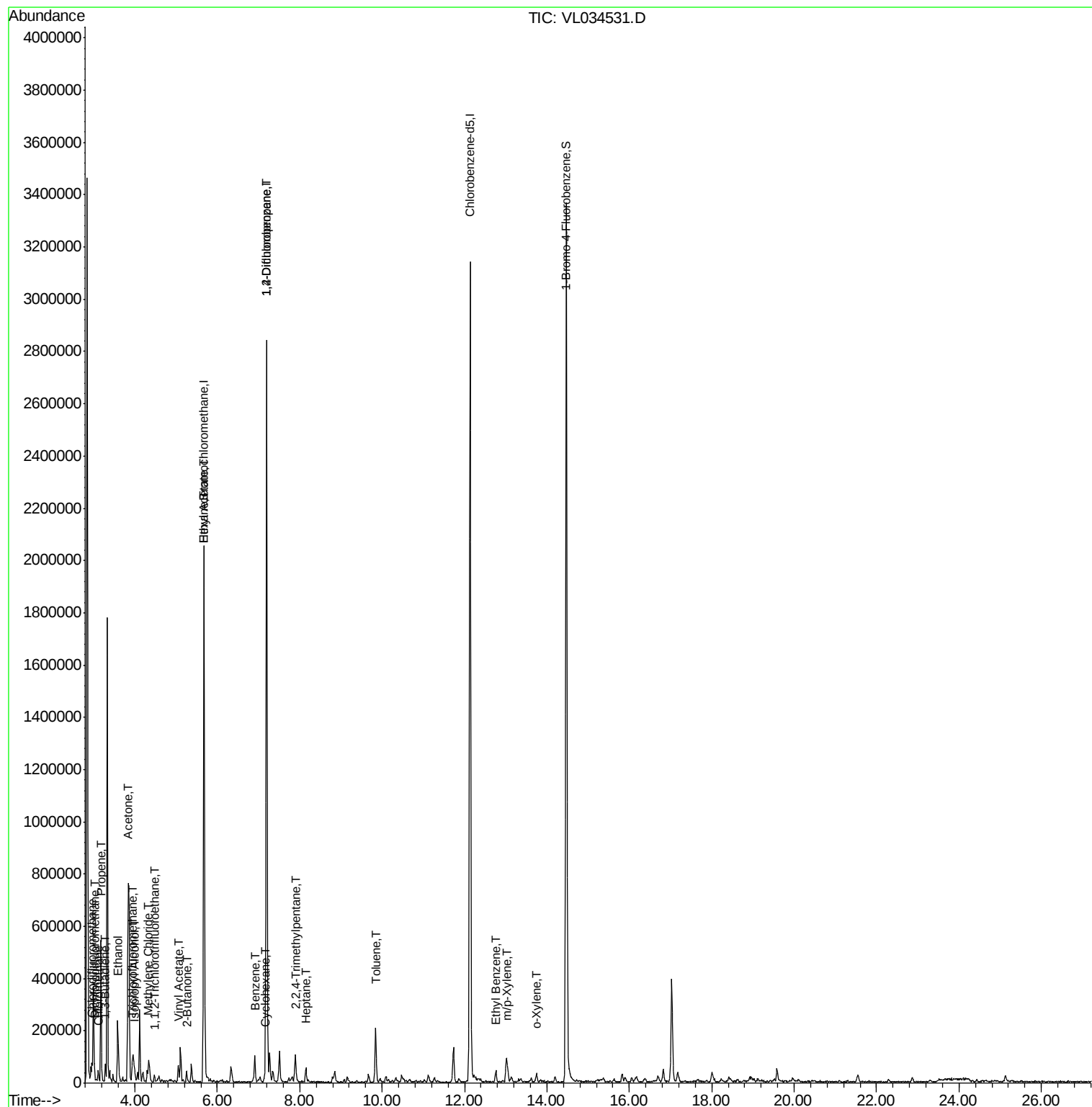
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	39991	0.284	ppbv	99
3) Chlorodifluoromethane	2.96	51	75574	0.711	ppbv #	86
4) Chloromethane	3.11	50	27101	0.429	ppbv #	72
9) Propene	3.18	41	140485	3.427	ppbv	93
10) Heptane	8.14	43	4143	0.039	ppbv #	26
11) Trichlorofluoromethane	3.93	101	37600	0.231	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.47	101	4886	0.047	ppbv #	63
13) Ethanol	3.58	45	235947	20.744	ppbv	100
15) Acetone	3.83	43	852889	6.549	ppbv	94
16) 1,3-Butadiene	3.29	39	9750	0.195	ppbv #	8
19) Isopropyl Alcohol	3.99	45	6466	0.077	ppbv #	95
20) Methylene Chloride	4.33	84	24909	0.486	ppbv #	79
23) Vinyl Acetate	5.05	43	23310	0.155	ppbv #	1
25) Ethyl Acetate	5.69	43	41496	0.204	ppbv #	89
26) Hexane	5.69	57	21783	0.254	ppbv #	46
30) Cyclohexane	7.15	84	3135	0.049	ppbv #	1
34) 2-Butanone	5.25	43	40231	0.311	ppbv	95
36) Benzene	6.91	78	70949	0.450	ppbv #	89
39) 1,2-Dichloropropane	7.20	63	539613	8.318	ppbv #	22
44) 2,2,4-Trimethylpentane	7.90	57	69730	0.239	ppbv #	77
53) Toluene	9.84	91	124415	0.718	ppbv	96
58) Ethyl Benzene	12.76	91	29574	0.125	ppbv	98
59) m/p-Xylene	13.04	91	23223	0.112	ppbv #	32
60) o-Xylene	13.74	91	9610	0.046	ppbv #	33

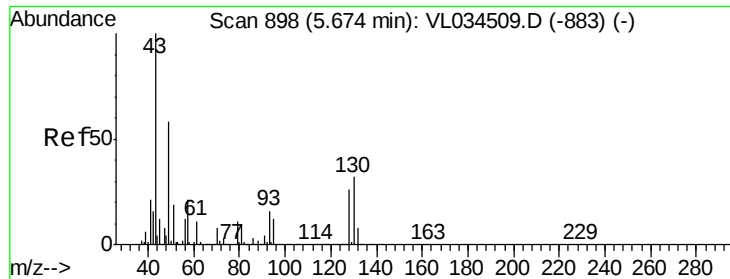
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Dec 31 05:03:14 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL123019AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 30 14:58:50 2019
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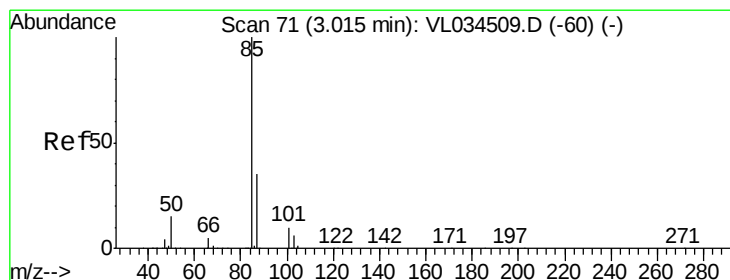
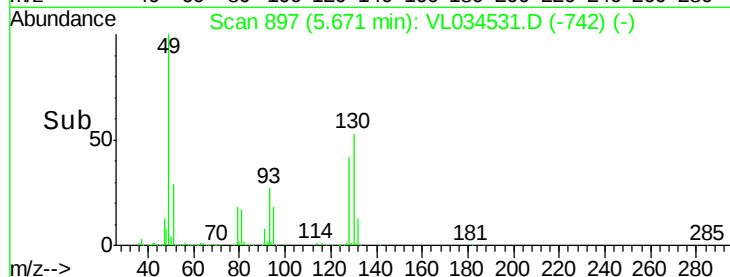
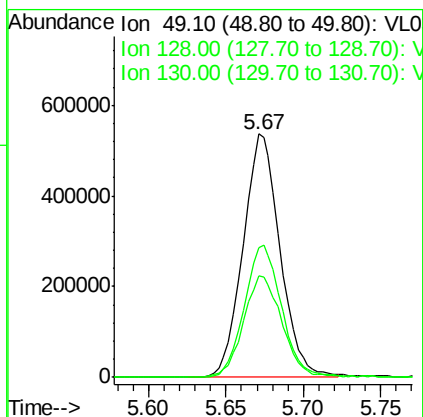
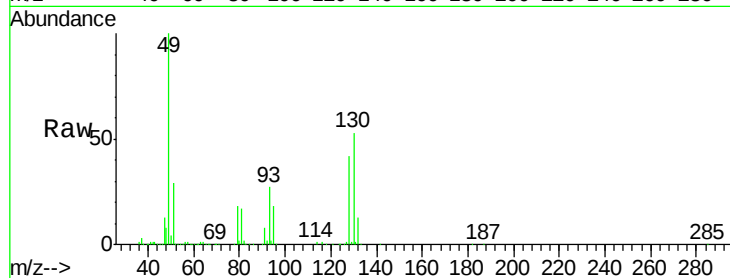




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.67 min Scan# 897
 Delta R.T. -0.00 min
 Lab File: VL034531.D
 Acq: 31 Dec 2019 3:46

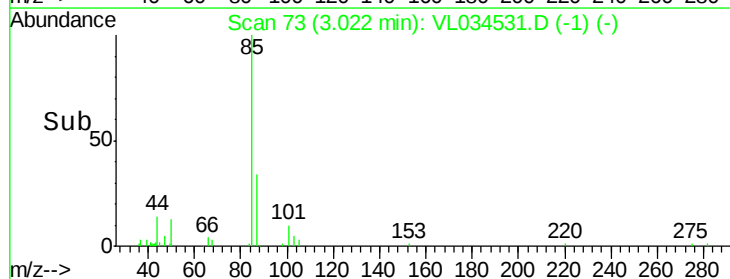
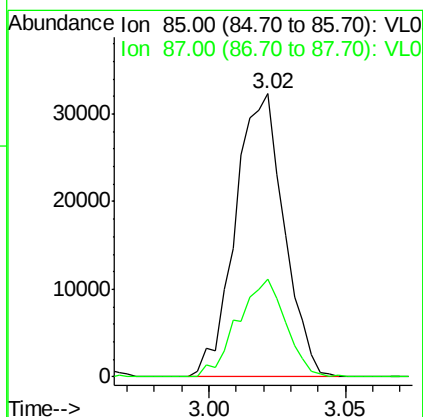
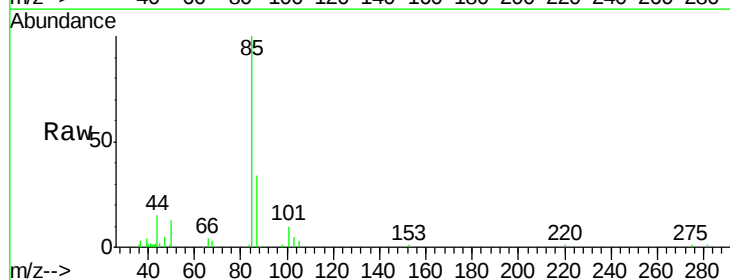
Instrument :
 MSVOA_L
 ClientSampleId :
 27-2

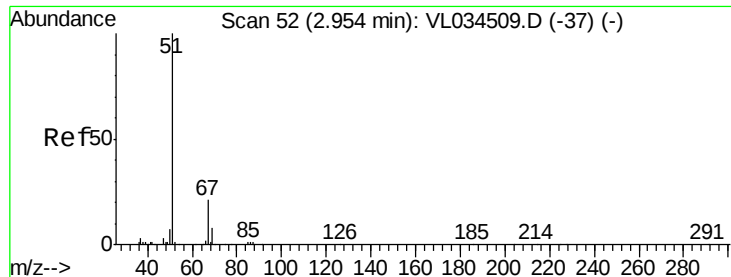
Tgt Ion: 49 Resp: 892429
 Ion Ratio Lower Upper
 49 100
 128 44.0 22.4 67.2
 130 55.1 28.3 85.0



#2
 Dichlorodifluoromethane
 Concen: 0.284 ppbv
 RT: 3.02 min Scan# 73
 Delta R.T. 0.01 min
 Lab File: VL034531.D
 Acq: 31 Dec 2019 3:46

Tgt Ion: 85 Resp: 39991
 Ion Ratio Lower Upper
 85 100
 87 34.5 27.9 41.9





#3

Chlorodifluoromethane

Concen: 0.711 ppbv

RT: 2.96 min Scan# 53

Delta R.T. 0.00 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Instrument :

MSVOA_L

ClientSampleId :

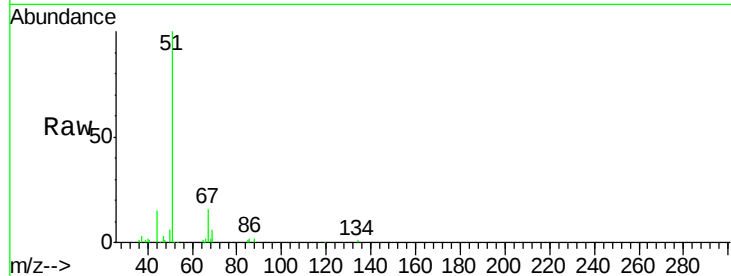
27-2

Tgt Ion: 51 Resp: 75574

Ion Ratio Lower Upper

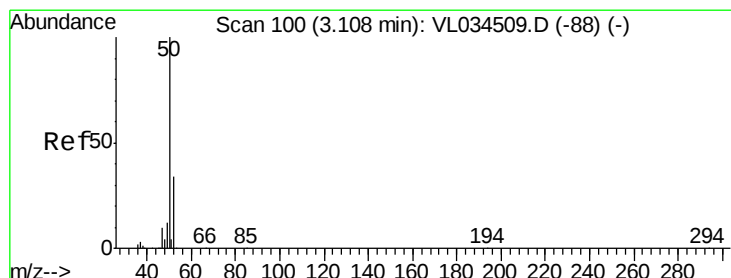
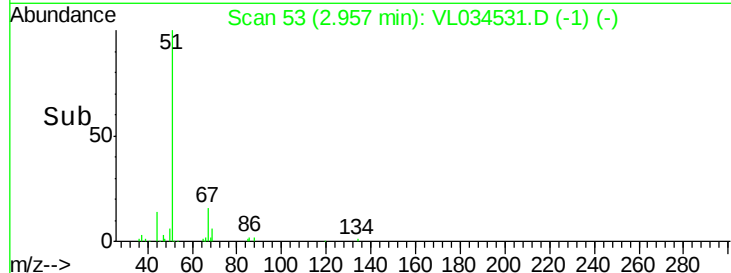
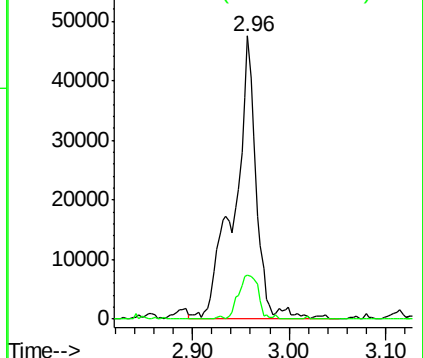
51 100

67 14.4 16.8 25.2#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.429 ppbv

RT: 3.11 min Scan# 100

Delta R.T. 0.00 min

Lab File: VL034531.D

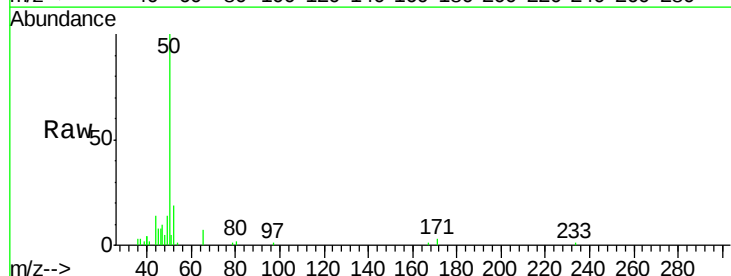
Acq: 31 Dec 2019 3:46

Tgt Ion: 50 Resp: 27101

Ion Ratio Lower Upper

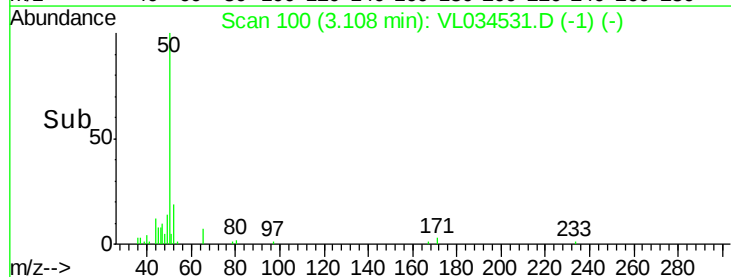
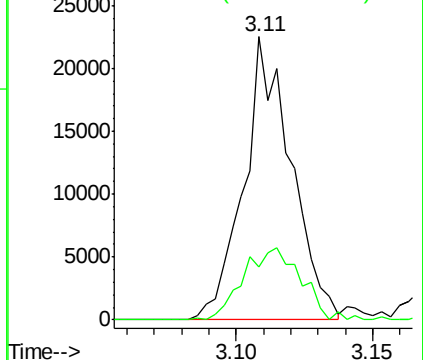
50 100

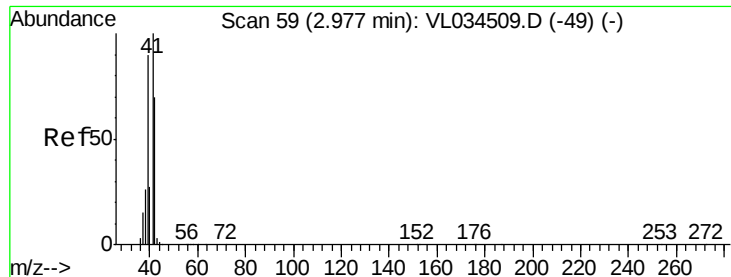
52 18.1 27.6 41.4#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 3.427 ppbv

RT: 3.18 min Scan# 122

Delta R.T. 0.20 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Instrument :

MSVOA_L

ClientSampleId :

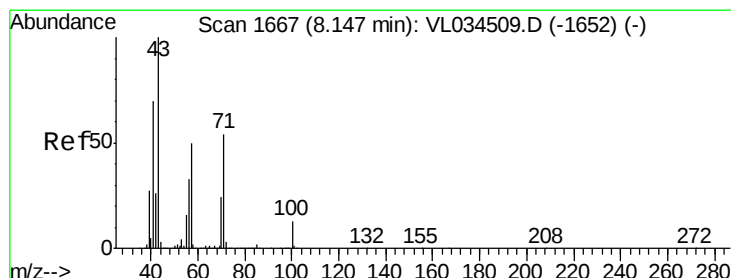
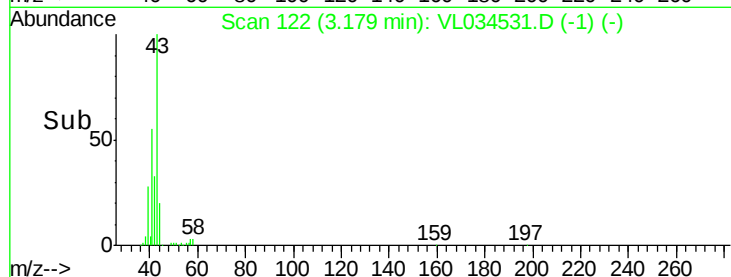
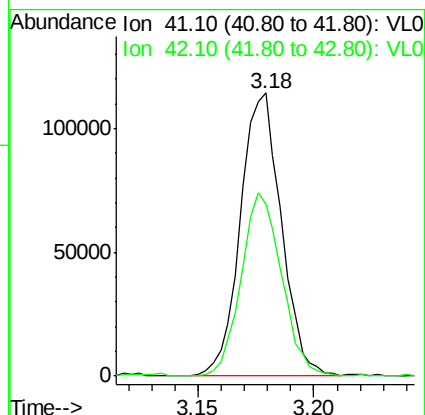
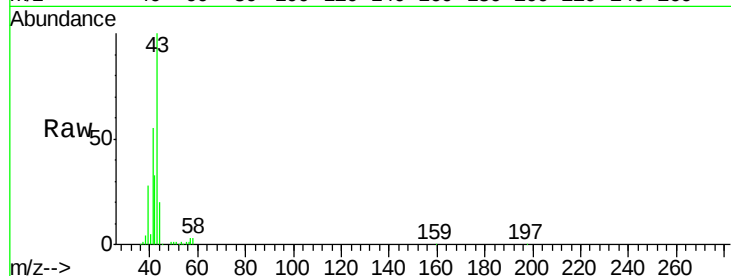
27-2

Tgt Ion: 41 Resp: 140485

Ion Ratio Lower Upper

41 100

42 64.1 55.8 83.6



#10

Heptane

Concen: 0.039 ppbv

RT: 8.14 min Scan# 1666

Delta R.T. -0.00 min

Lab File: VL034531.D

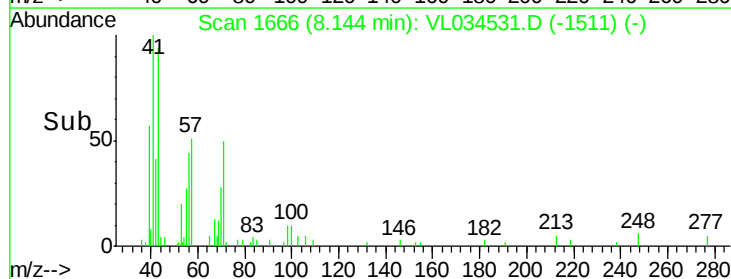
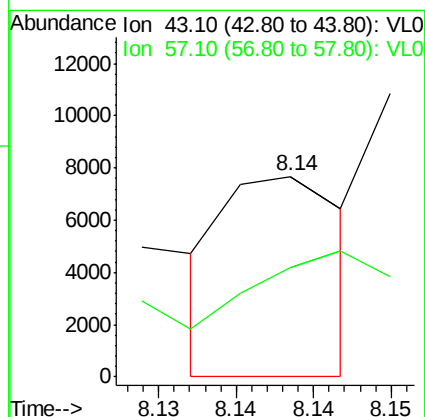
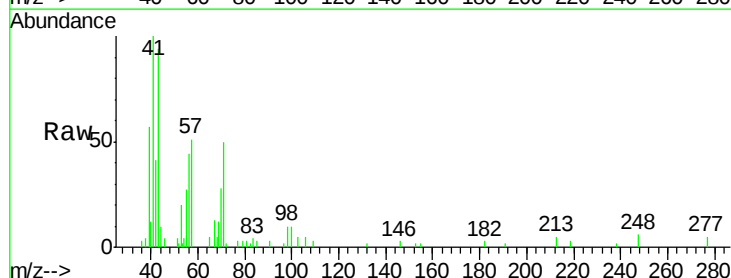
Acq: 31 Dec 2019 3:46

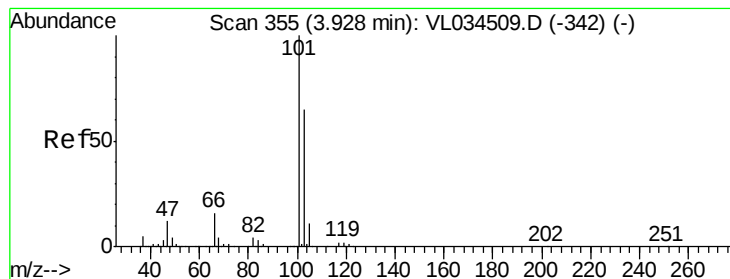
Tgt Ion: 43 Resp: 4143

Ion Ratio Lower Upper

43 100

57 0.0 41.0 61.6#





#11

Trichlorofluoromethane

Concen: 0.231 ppbv

RT: 3.93 min Scan# 357

Delta R.T. 0.01 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Instrument :

MSVOA_L

ClientSampleId :

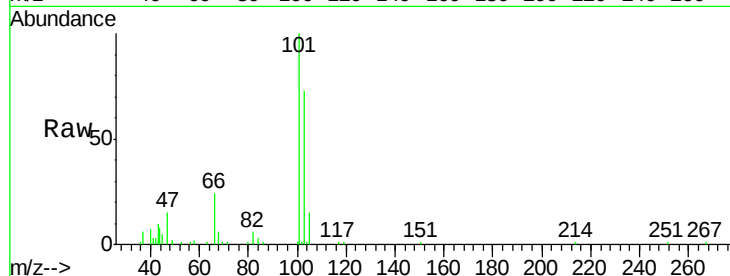
27-2

Tgt Ion:101 Resp: 37600

Ion Ratio Lower Upper

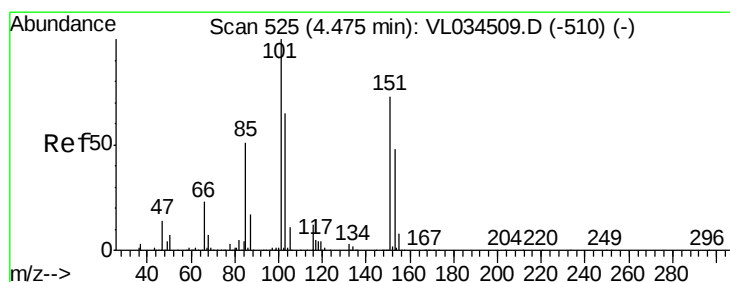
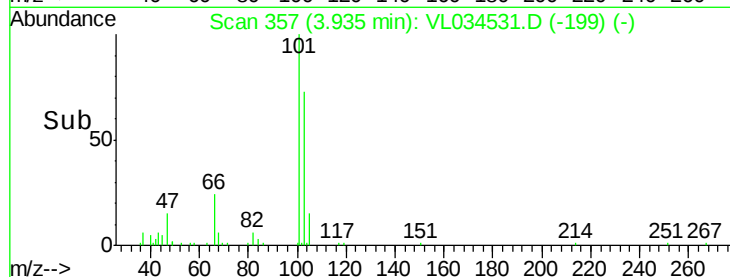
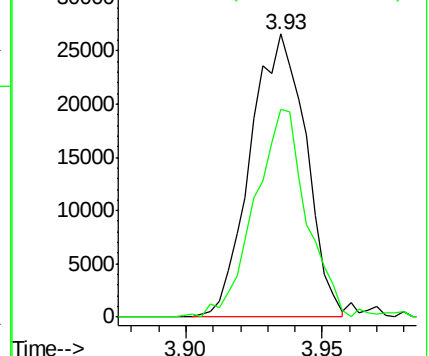
101 100

103 72.1 52.1 78.1



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.047 ppbv

RT: 4.47 min Scan# 525

Delta R.T. -0.00 min

Lab File: VL034531.D

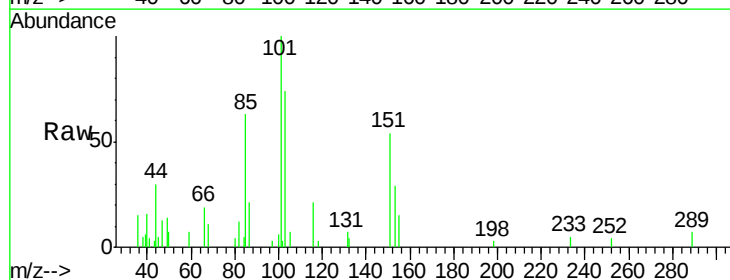
Acq: 31 Dec 2019 3:46

Tgt Ion:101 Resp: 4886

Ion Ratio Lower Upper

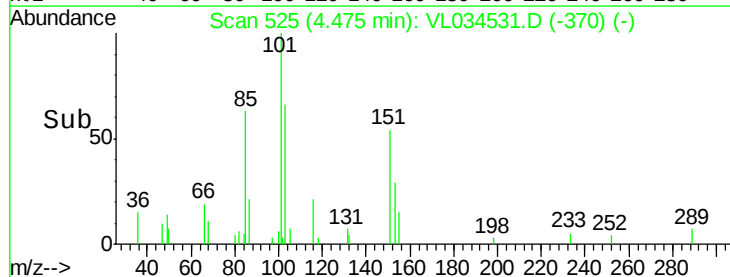
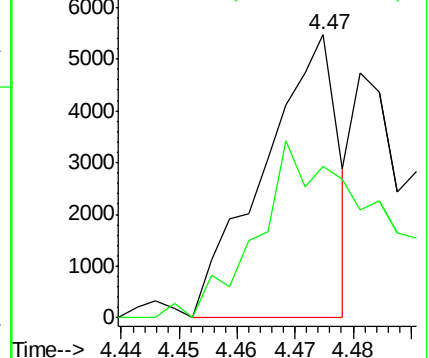
101 100

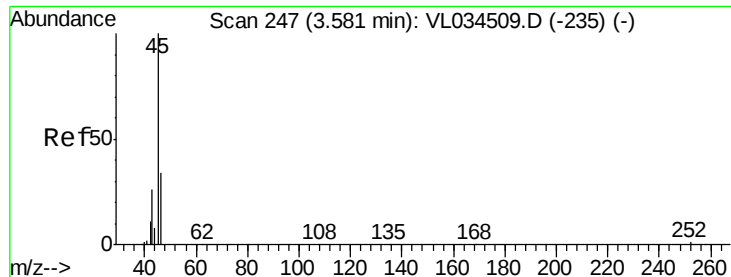
151 102.9 57.8 86.6#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 20.744 ppbv

RT: 3.58 min Scan# 247

Delta R.T. -0.00 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Instrument :

MSVOA_L

ClientSampleId :

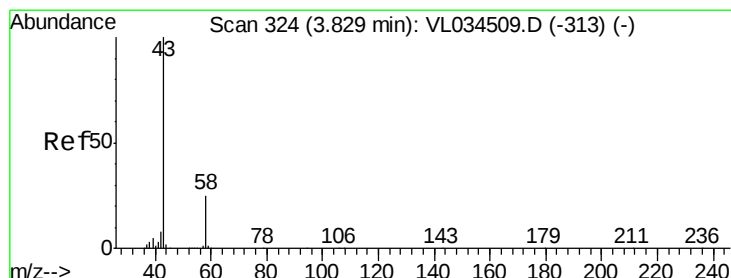
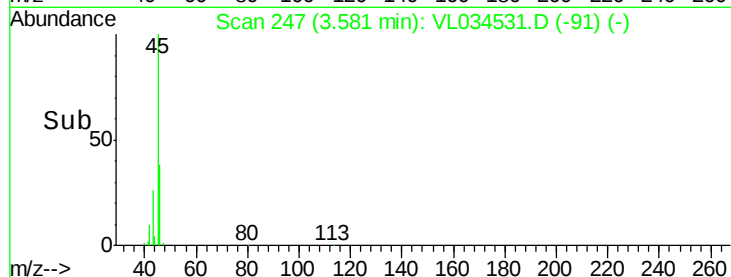
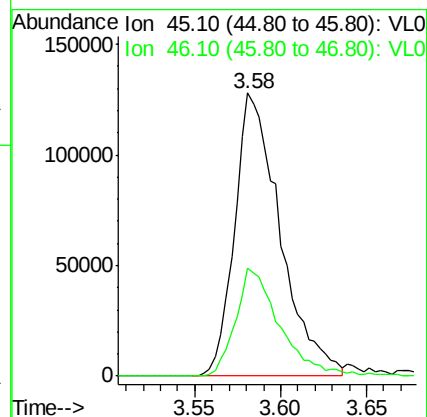
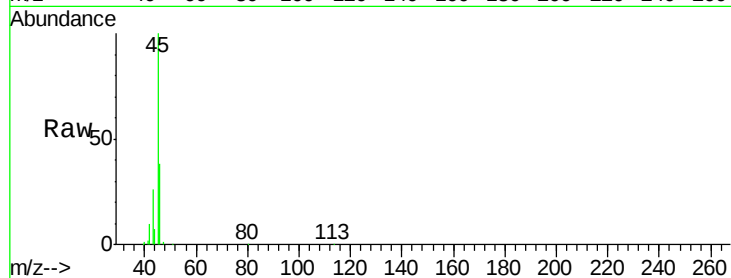
27-2

Tgt Ion: 45 Resp: 235947

Ion Ratio Lower Upper

45 100

46 37.4 14.9 59.7



#15

Acetone

Concen: 6.549 ppbv

RT: 3.83 min Scan# 325

Delta R.T. 0.00 min

Lab File: VL034531.D

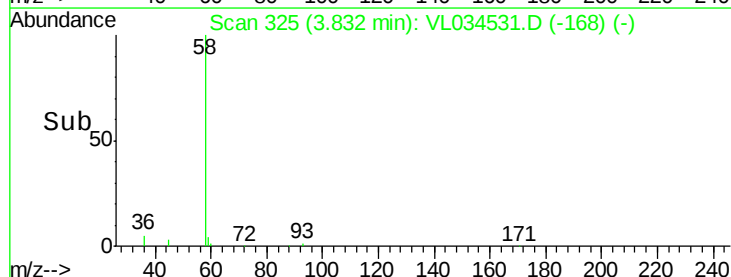
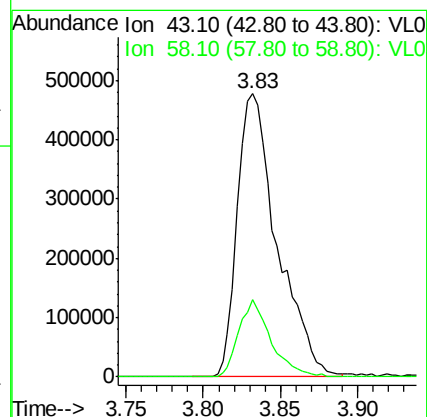
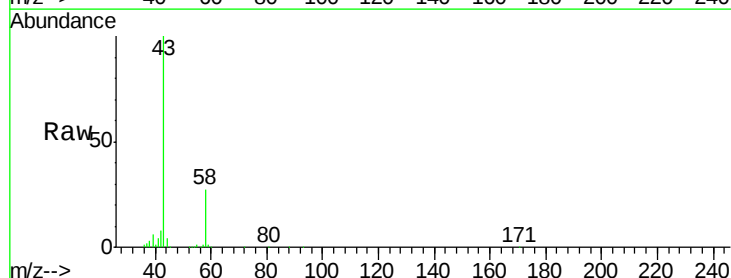
Acq: 31 Dec 2019 3:46

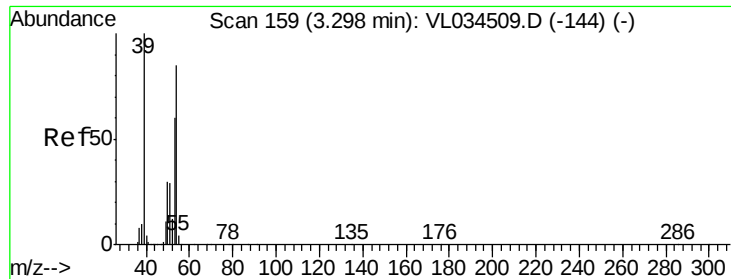
Tgt Ion: 43 Resp: 852889

Ion Ratio Lower Upper

43 100

58 22.3 20.4 30.6

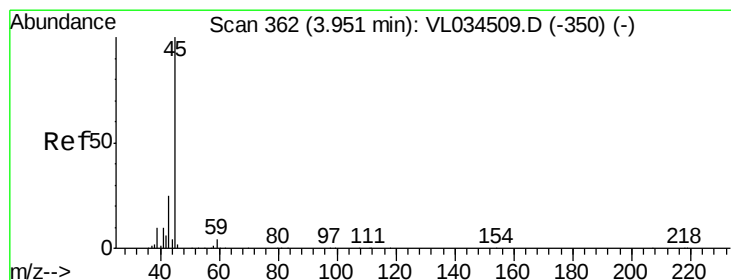
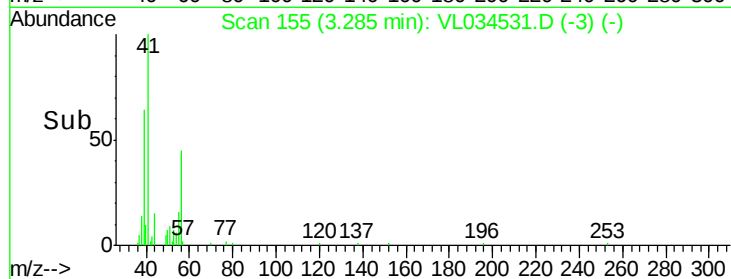
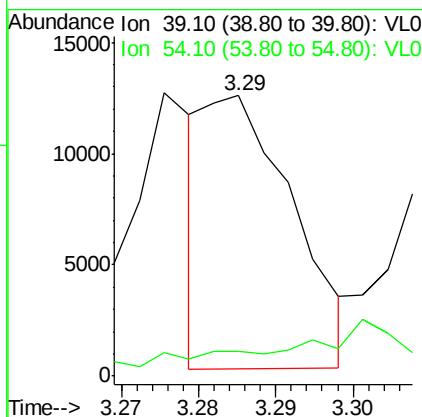
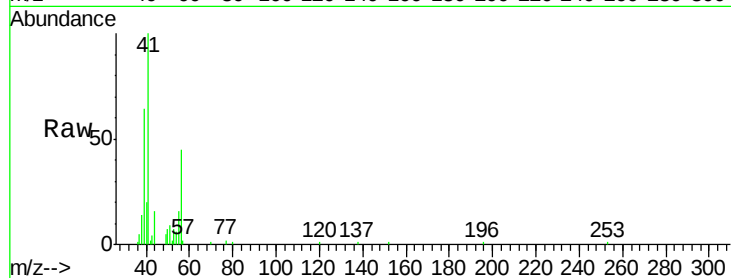




#16
 1,3-Butadiene
 Concen: 0.195 ppbv
 RT: 3.29 min Scan# 155
 Delta R.T. -0.01 min
 Lab File: VL034531.D
 Acq: 31 Dec 2019 3:46

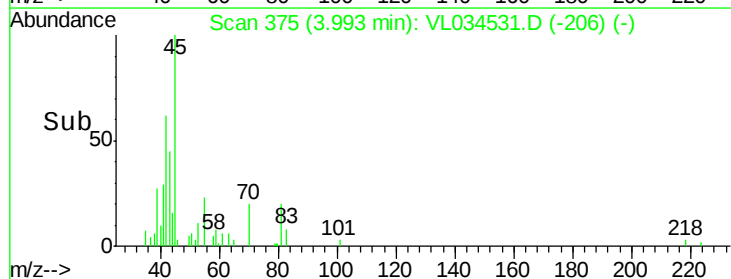
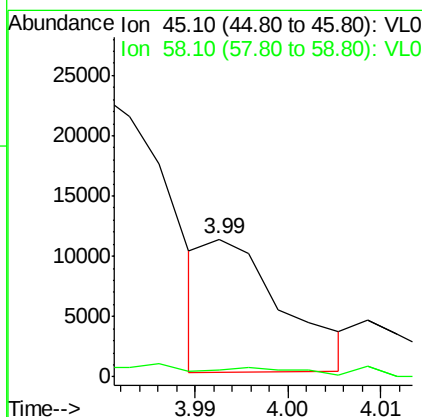
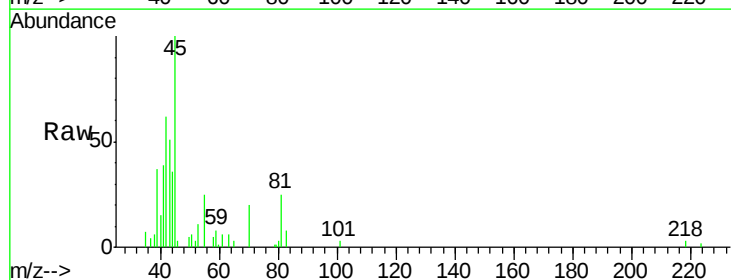
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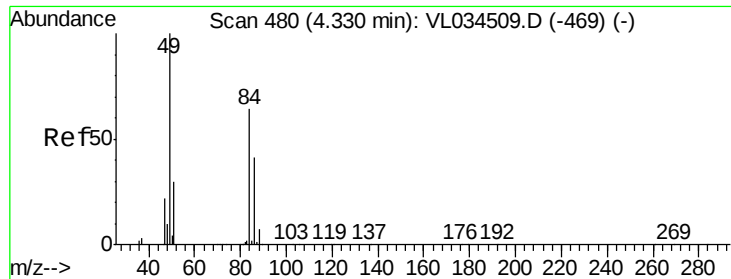
Tgt Ion: 39 Resp: 9750
 Ion Ratio Lower Upper
 39 100
 54 0.0 66.2 99.2#



#19
 Isopropyl Alcohol
 Concen: 0.077 ppbv
 RT: 3.99 min Scan# 375
 Delta R.T. 0.04 min
 Lab File: VL034531.D
 Acq: 31 Dec 2019 3:46

Tgt Ion: 45 Resp: 6466
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.4 2.0#

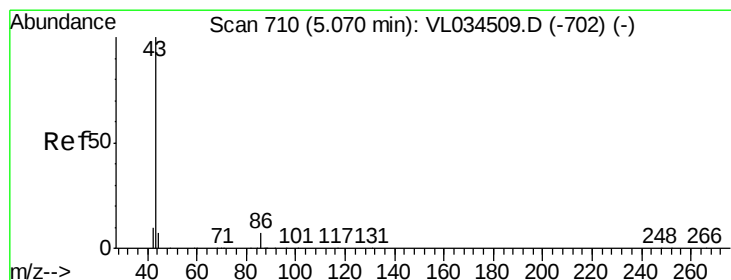
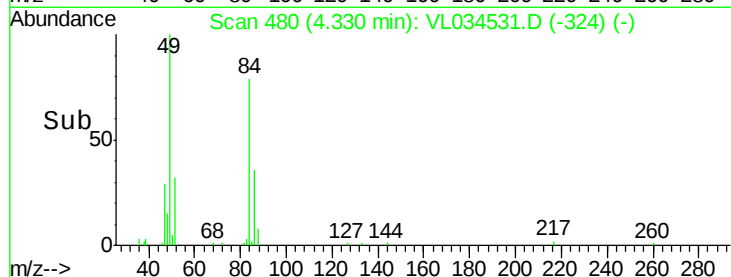
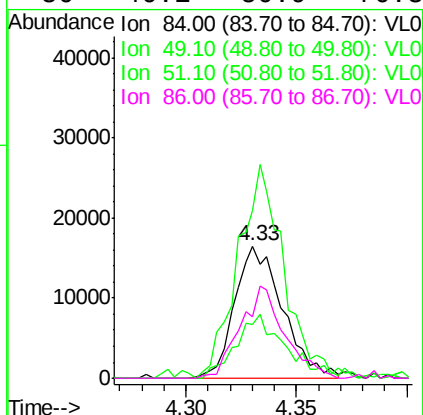
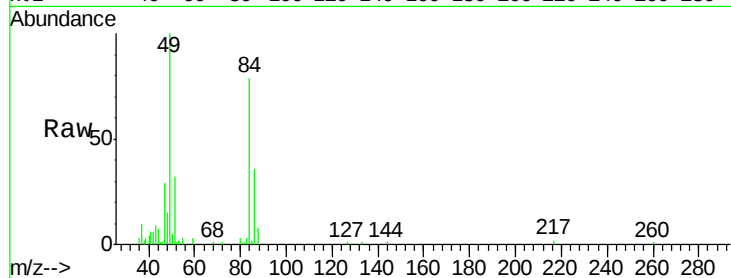




#20
Methylene Chloride
Concen: 0.486 ppbv
RT: 4.33 min Scan# 480
Delta R.T. -0.00 min
Lab File: VL034531.D
Acq: 31 Dec 2019 3:46

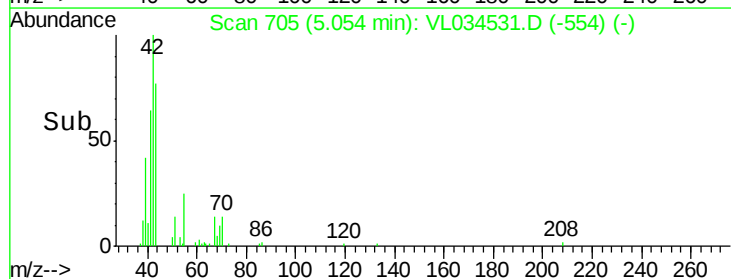
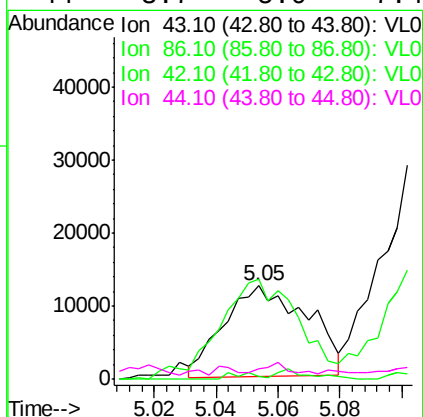
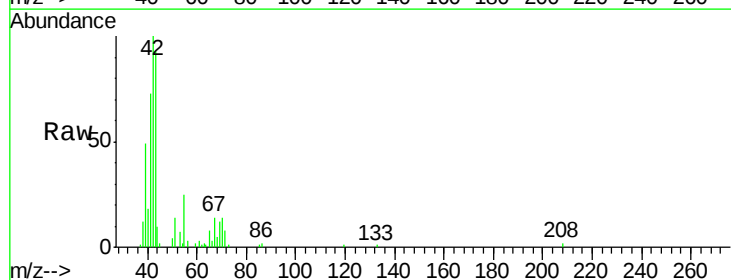
Instrument :
MSVOA_L
ClientSampleId :
27-2

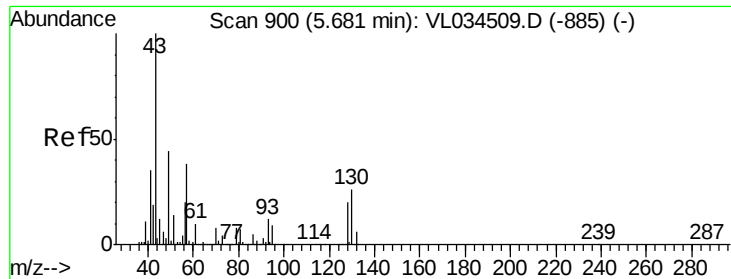
Tgt Ion:	84	Resp:	24909
Ion	Ratio	Lower	Upper
84	100		
49	127.1	124.4	186.6
51	37.4	37.0	55.6
86	46.1	50.9	76.3#



#23
Vinyl Acetate
Concen: 0.155 ppbv
RT: 5.05 min Scan# 705
Delta R.T. -0.02 min
Lab File: VL034531.D
Acq: 31 Dec 2019 3:46

Tgt Ion:	43	Resp:	23310
Ion	Ratio	Lower	Upper
43	100		
86	3.0	5.4	8.2#
42	113.3	8.9	13.3#
44	3.7	5.0	7.4#





#25

Ethyl Acetate

Concen: 0.204 ppbv

RT: 5.69 min Scan# 902

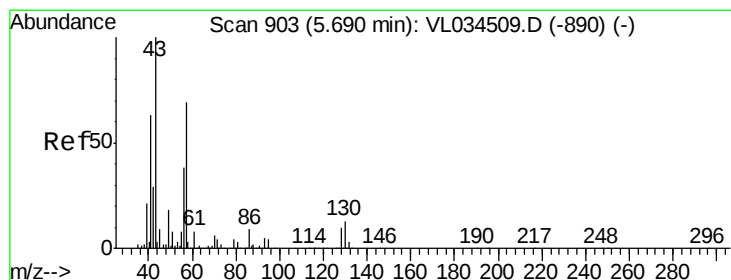
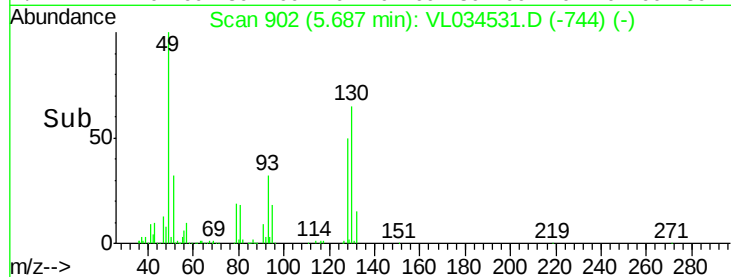
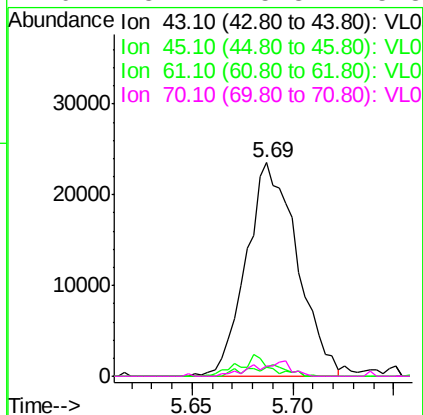
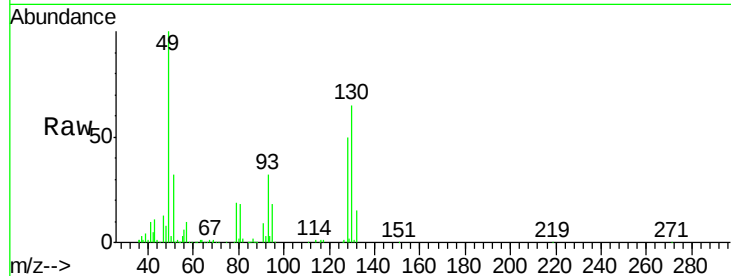
Delta R.T. 0.01 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Instrument :
MSVOA_L
ClientSampleId :
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Tgt Ion:	43	Resp:	41496
Ion	Ratio	Lower	Upper
43	100		
45	6.6	8.3	12.5#
61	3.7	7.8	11.6#
70	5.1	5.8	8.8#



#26

Hexane

Concen: 0.254 ppbv

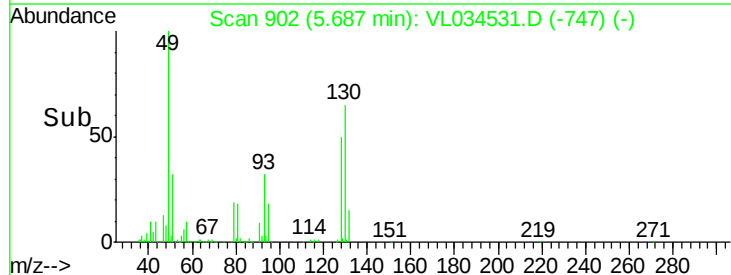
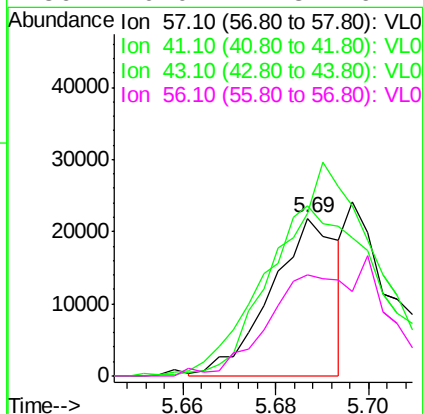
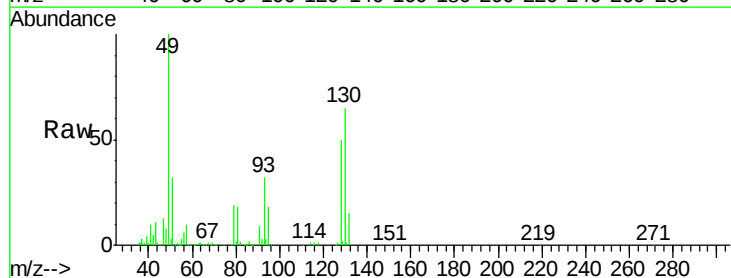
RT: 5.69 min Scan# 902

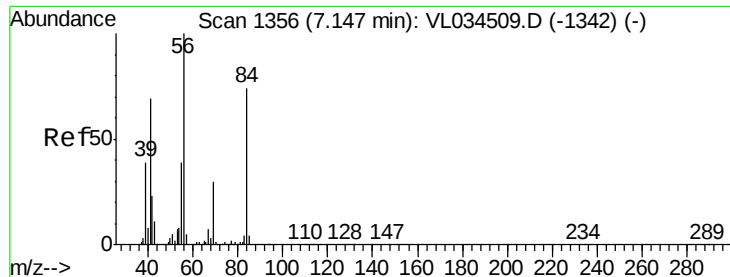
Delta R.T. -0.00 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Tgt Ion:	57	Resp:	21783
Ion	Ratio	Lower	Upper
57	100		
41	206.6	75.3	112.9#
43	196.3	189.4	284.2
56	0.0	42.8	64.2#

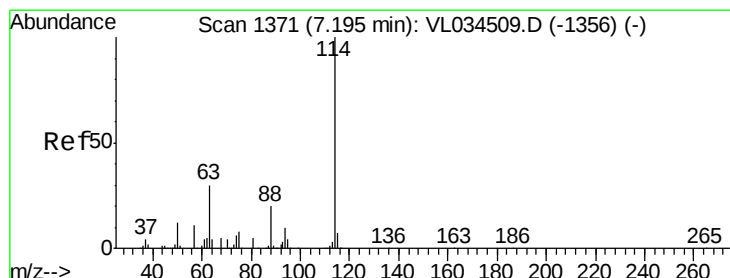
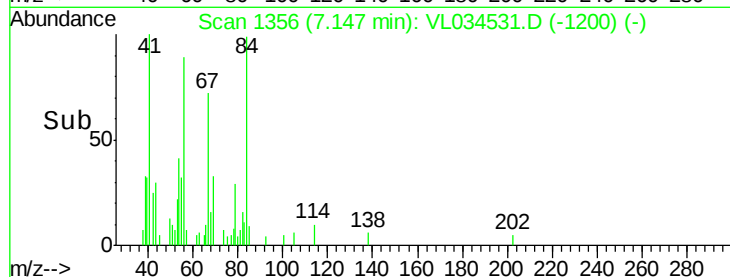
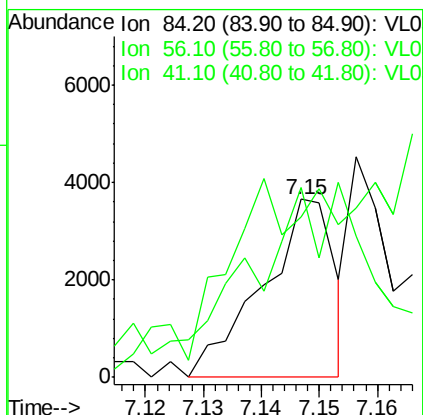
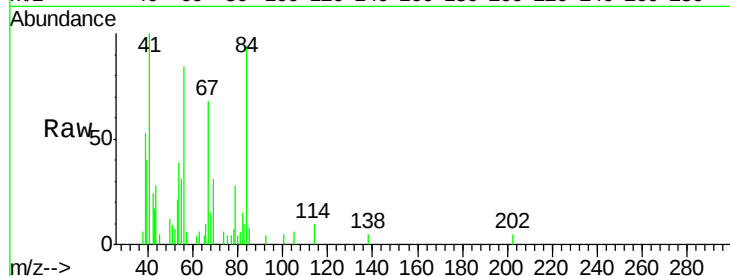




#30
Cyclohexane
Concen: 0.049 ppbv
RT: 7.15 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VL034531.D
Acq: 31 Dec 2019 3:46

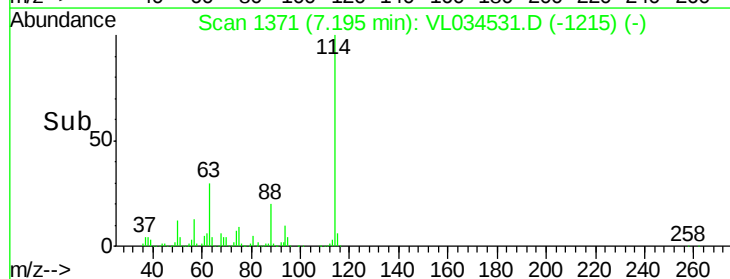
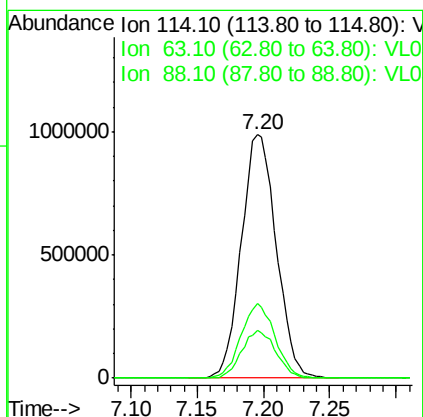
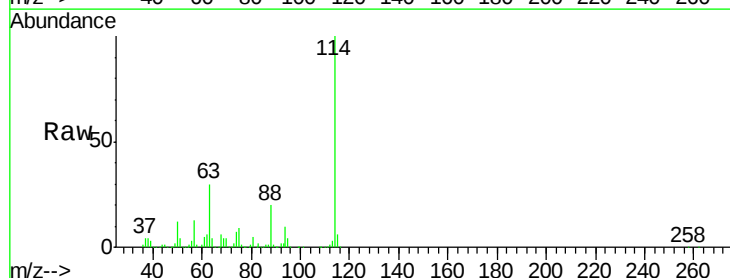
Instrument :
MSVOA_L
ClientSampleId :
27-2

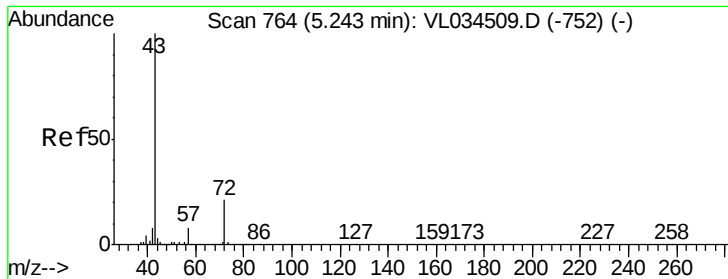
Tgt Ion: 84 Resp: 3135
Ion Ratio Lower Upper
84 100
56 0.0 112.7 169.1#
41 0.0 73.0 109.4#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.20 min Scan# 1371
Delta R.T. 0.00 min
Lab File: VL034531.D
Acq: 31 Dec 2019 3:46

Tgt Ion: 114 Resp: 1809950
Ion Ratio Lower Upper
114 100
63 29.9 24.1 36.1
88 19.2 15.7 23.5





#34

2-Butanone

Concen: 0.311 ppbv

RT: 5.25 min Scan# 767

Delta R.T. 0.01 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Instrument :

MSVOA_L

ClientSampleId :

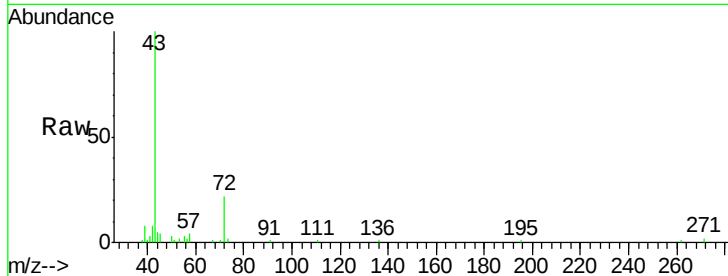
27-2

Tgt Ion: 43 Resp: 40231

Ion Ratio Lower Upper

43 100

72 23.3 17.0 25.4



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

5.25

30000

25000

20000

15000

10000

5000

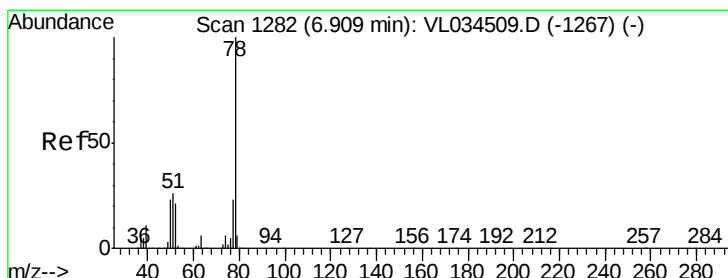
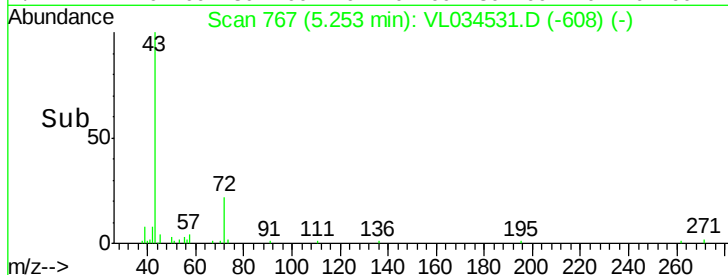
0

Time-->

5.20

5.25

5.30



#36

Benzene

Concen: 0.450 ppbv

RT: 6.91 min Scan# 1282

Delta R.T. -0.00 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

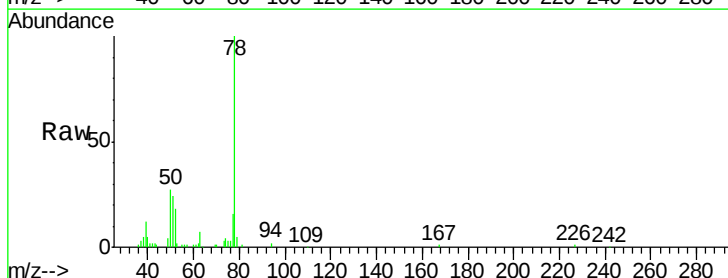
Tgt Ion: 78 Resp: 70949

Ion Ratio Lower Upper

78 100

77 16.1 18.6 28.0#

50 27.5 18.8 28.2



Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

6.91

50000

40000

30000

20000

10000

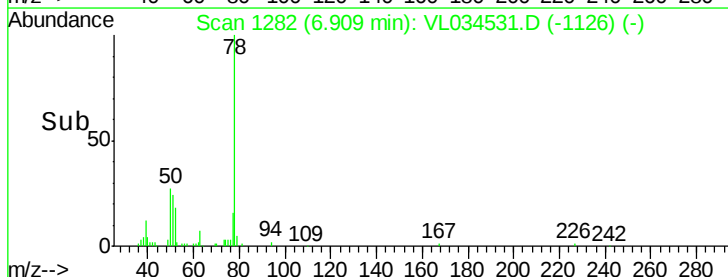
0

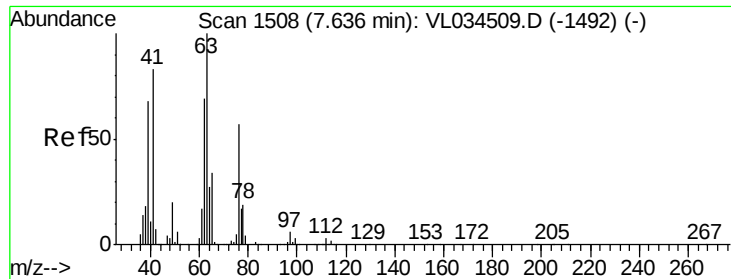
Time-->

6.85

6.90

6.95

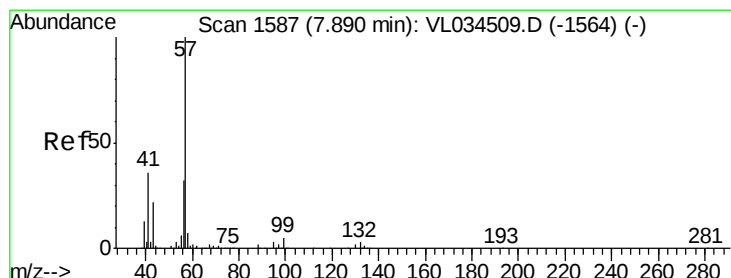
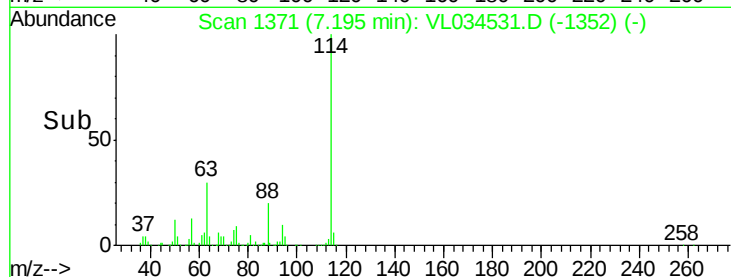
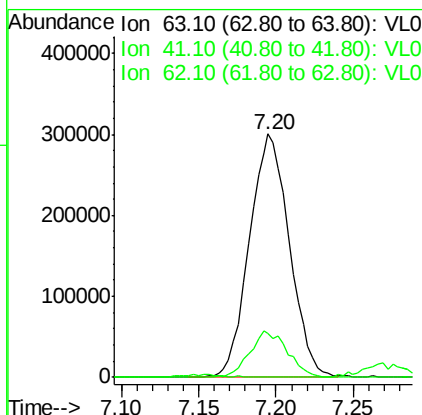
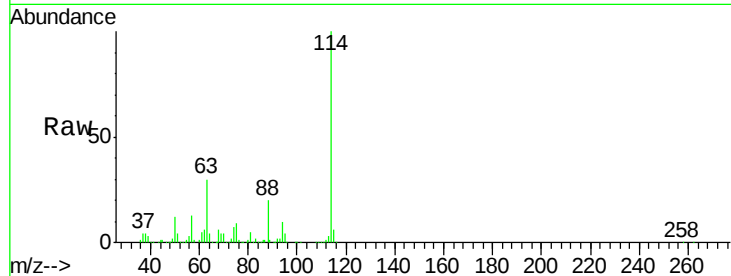




#39
 1,2-Dichloropropane
 Concen: 8.318 ppbv
 RT: 7.20 min Scan# 1371
 Delta R.T. -0.44 min
 Lab File: VL034531.D
 Acq: 31 Dec 2019 3:46

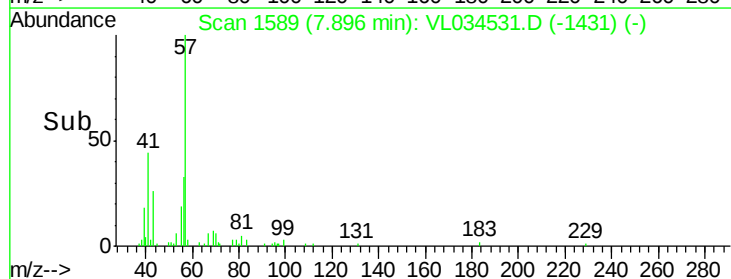
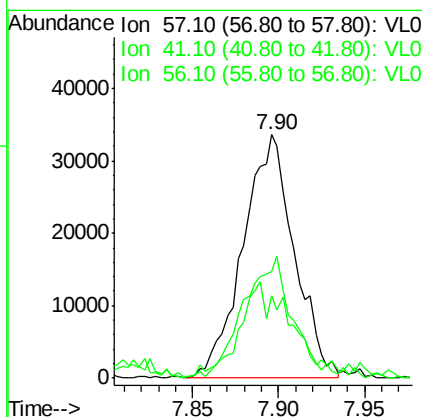
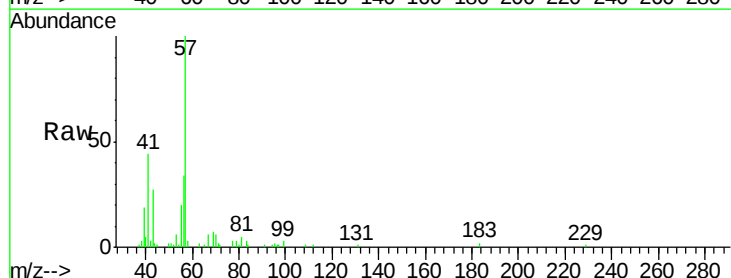
Instrument :
 MSVOA_L
 ClientSampleId :
 27-2

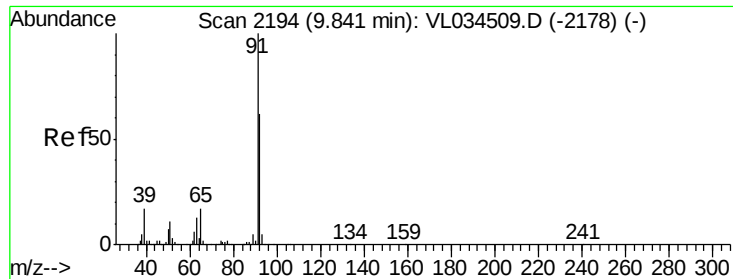
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	66.1	99.1#
62	18.1	54.9	82.3#



#44
 2,2,4-Trimethylpentane
 Concen: 0.239 ppbv
 RT: 7.90 min Scan# 1589
 Delta R.T. 0.01 min
 Lab File: VL034531.D
 Acq: 31 Dec 2019 3:46

Tgt Ion	Ratio	Lower	Upper
57	100		
41	52.6	29.0	43.4#
56	40.8	24.9	37.3#





#53

Toluene

Concen: 0.718 ppbv

RT: 9.84 min Scan# 2194

Delta R.T. -0.00 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Instrument :

MSVOA_L

ClientSampleId :

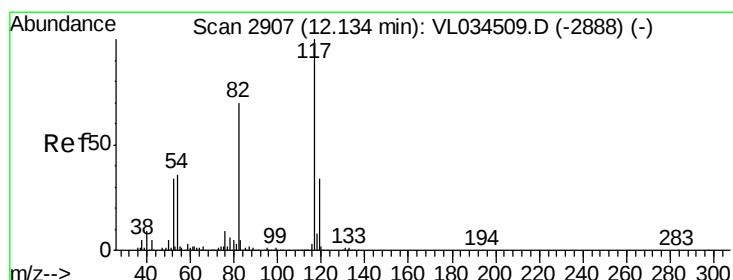
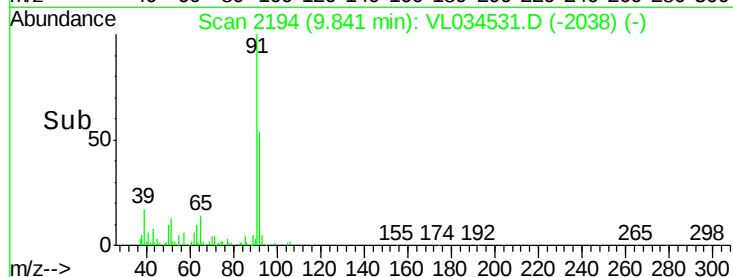
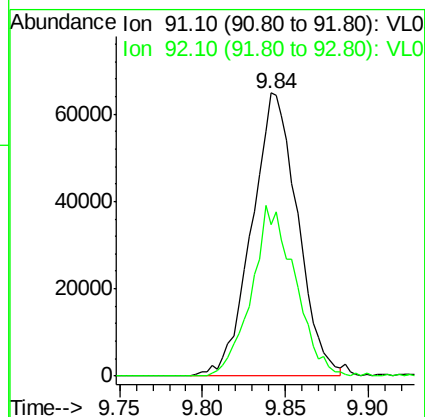
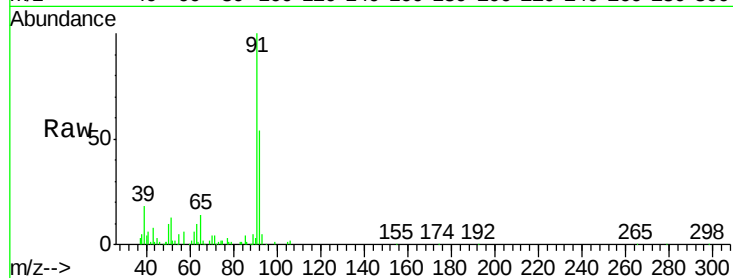
27-2

Tgt Ion: 91 Resp: 124415

Ion Ratio Lower Upper

91 100

92 57.6 48.4 72.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.13 min Scan# 2907

Delta R.T. -0.00 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

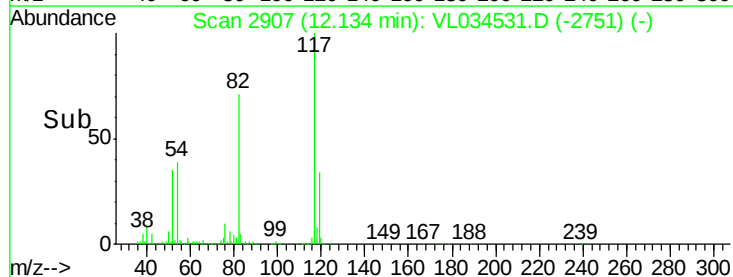
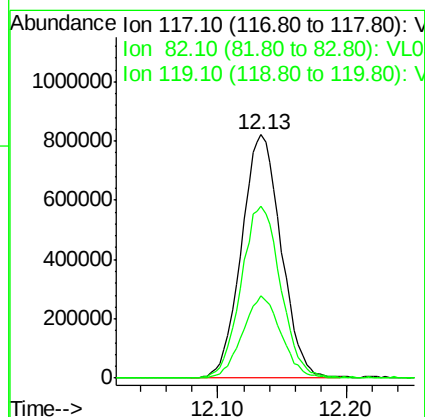
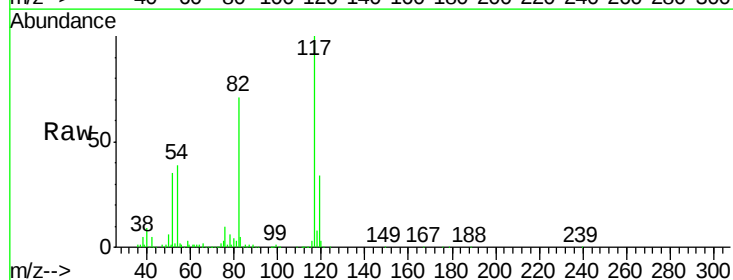
Tgt Ion: 117 Resp: 1751215

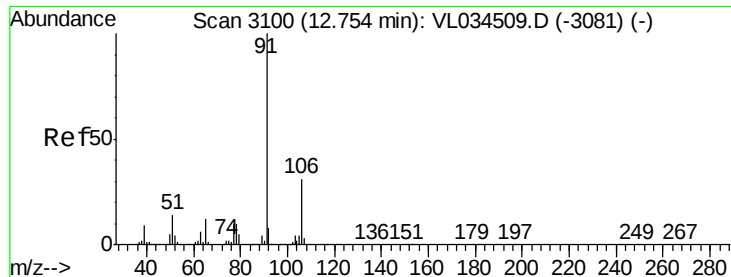
Ion Ratio Lower Upper

117 100

82 70.9 56.2 84.4

119 33.2 27.1 40.7





#58

Ethyl Benzene

Concen: 0.125 ppbv

RT: 12.76 min Scan# 3101

Delta R.T. 0.00 min

Lab File: VL034531.D

Acq: 31 Dec 2019 3:46

Instrument :

MSVOA_L

ClientSampleId :

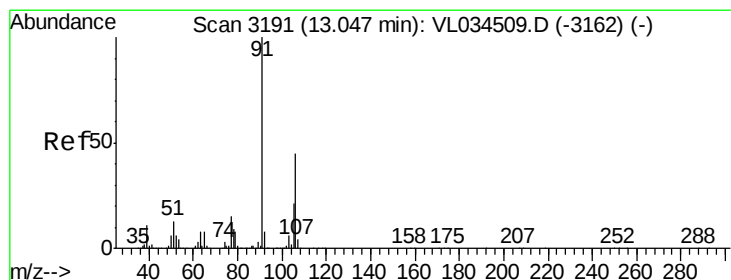
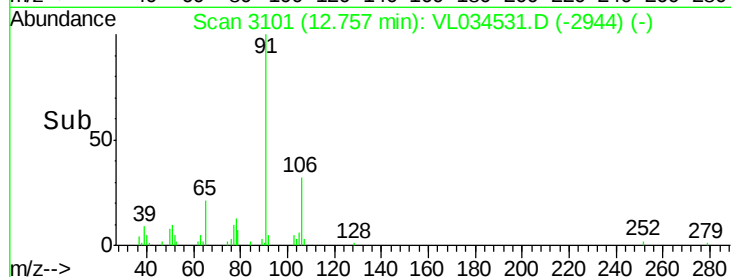
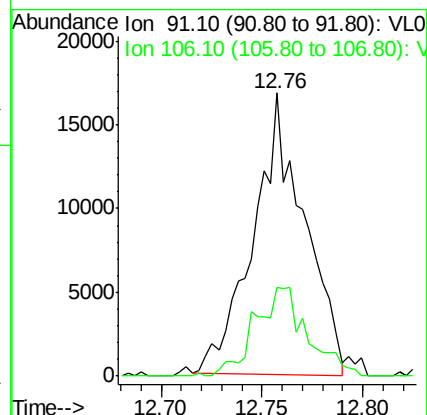
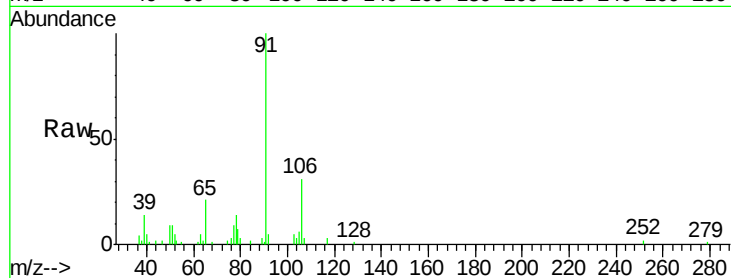
27-2

Tgt Ion: 91 Resp: 29574

Ion Ratio Lower Upper

91 100

106 31.7 24.6 36.8



#59

m/p-Xylene

Concen: 0.112 ppbv

RT: 13.04 min Scan# 3190

Delta R.T. -0.00 min

Lab File: VL034531.D

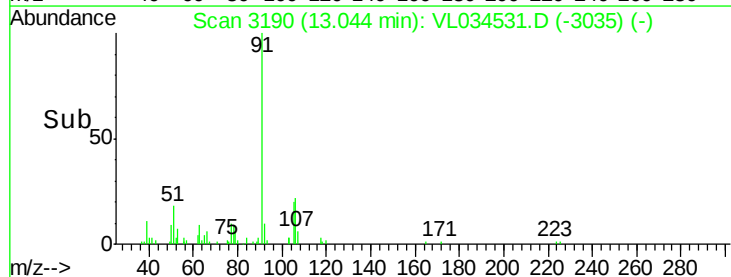
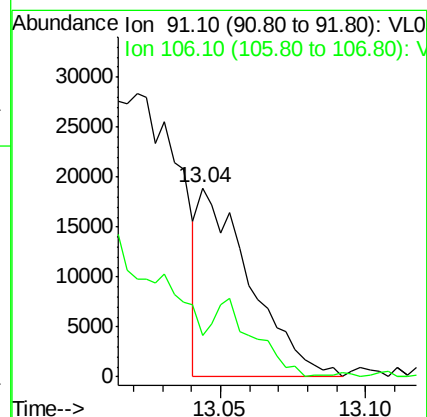
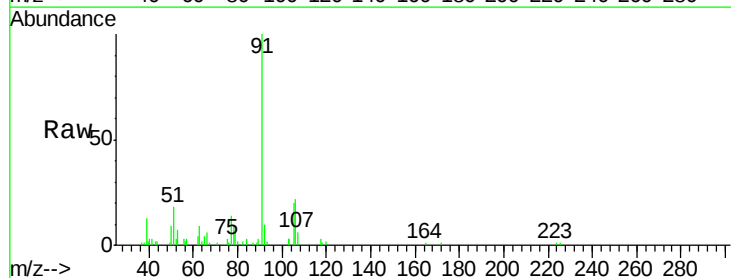
Acq: 31 Dec 2019 3:46

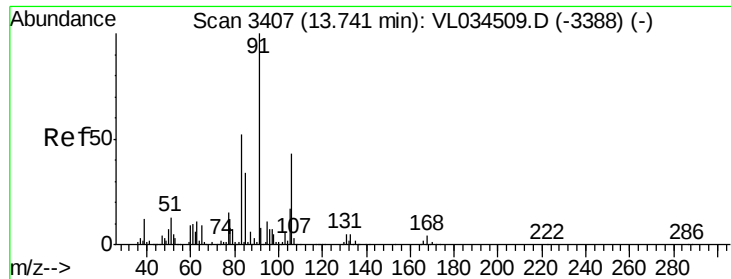
Tgt Ion: 91 Resp: 23223

Ion Ratio Lower Upper

91 100

106 0.0 35.6 53.4#

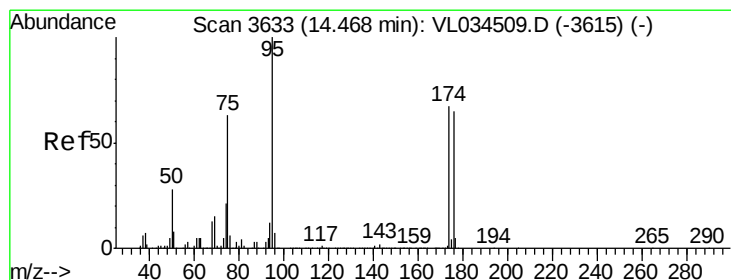
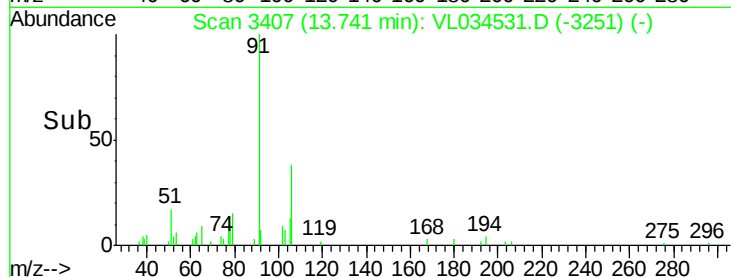
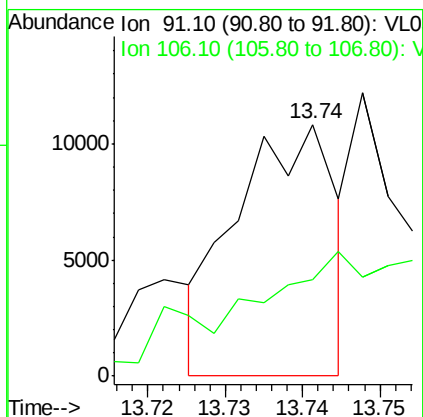
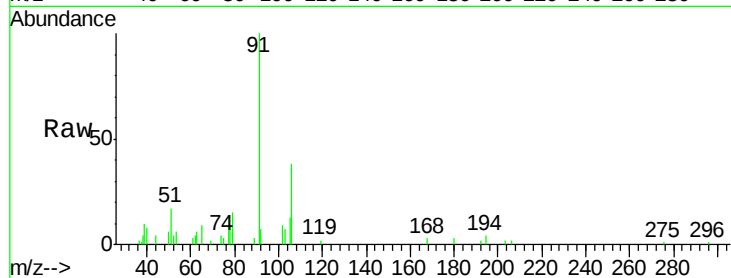




#60
o-Xylene
Concen: 0.046 ppbv
RT: 13.74 min Scan# 3407
Delta R.T. -0.00 min
Lab File: VL034531.D
Acq: 31 Dec 2019 3:46

Instrument :
MSVOA_L
ClientSampleId :
27-2

Tgt Ion: 91 Resp: 9610
Ion Ratio Lower Upper
91 100
106 0.0 21.4 64.3#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.170 ppbv
RT: 14.47 min Scan# 3635
Delta R.T. 0.01 min
Lab File: VL034531.D
Acq: 31 Dec 2019 3:46

Tgt Ion: 95 Resp: 1486185
Ion Ratio Lower Upper
95 100
174 65.2 52.4 78.6
175 4.7 3.9 5.9

