

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091620\
 Data File : VL035635.D
 Acq On : 16 Sep 2020 19:06
 Operator : SY/AP
 Sample : L4026-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 TRC-AA-01

Quant Time: Sep 17 07:08:22 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Sep 14 15:19:50 2020
 QLast Update : Mon Sep 14 15:19:50 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1020568	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	4098533	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	4119764	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	3088996	10.56	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.60%

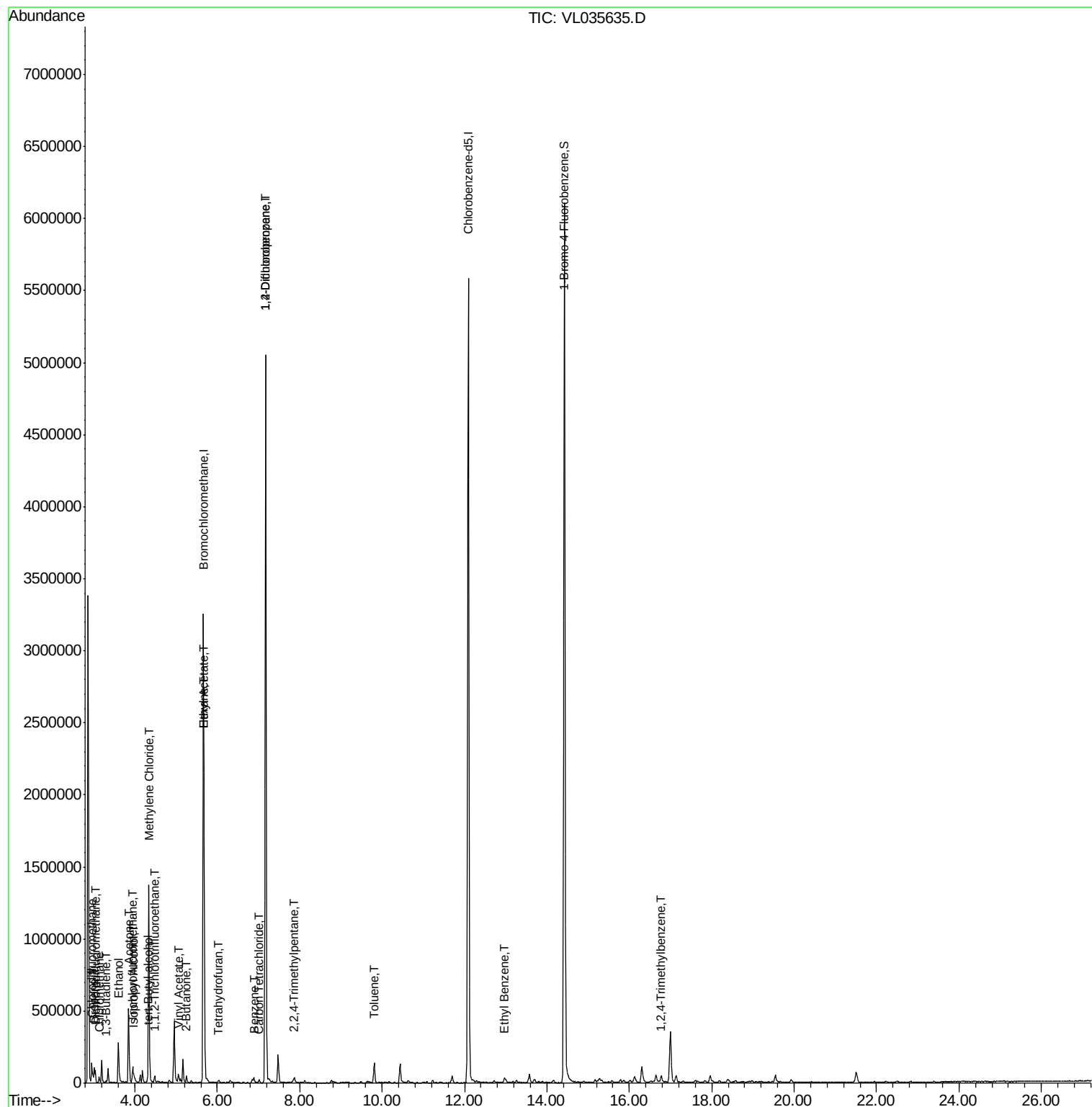
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	59072	0.334	ppbv	97
3) Chlorodifluoromethane	2.95	51	124858	1.106	ppbv #	71
4) Chloromethane	3.13	50	31583	0.522	ppbv	93
9) Propene	3.01	41	10987	0.252	ppbv #	14
11) Trichlorofluoromethane	3.94	101	68807	0.267	ppbv	89
12) 1,1,2-Trichlorotrifluoroet	4.48	101	15009	0.077	ppbv	98
13) Ethanol	3.60	45	284023	26.325	ppbv	97
15) Acetone	3.84	43	457099	4.061	ppbv	95
16) 1,3-Butadiene	3.30	39	2426	0.058	ppbv #	48
17) tert-Butyl alcohol	4.30	59	8804	0.064	ppbv #	72
19) Isopropyl Alcohol	3.97	45	59602	0.888	ppbv #	1
20) Methylene Chloride	4.34	84	611159	7.290	ppbv	95
23) Vinyl Acetate	5.06	43	34381	0.238	ppbv #	87
25) Ethyl Acetate	5.68	43	121788	0.612	ppbv #	76
26) Hexane	5.68	57	200508	1.780	ppbv #	50
34) 2-Butanone	5.25	43	44516	0.366	ppbv	96
35) Carbon Tetrachloride	7.01	117	8068	0.039	ppbv	93
36) Benzene	6.89	78	28964	0.109	ppbv #	94
39) 1,2-Dichloropropane	7.17	63	772177	8.616	ppbv #	32
41) Tetrahydrofuran	6.03	42	2568	0.040	ppbv #	49
44) 2,2,4-Trimethylpentane	7.87	57	28608	0.082	ppbv #	81
53) Toluene	9.81	91	106923	0.320	ppbv	98
58) Ethyl Benzene	12.98	91	13703	0.032	ppbv	90
74) 1,2,4-Trimethylbenzene	16.78	105	20226	0.044	ppbv #	72

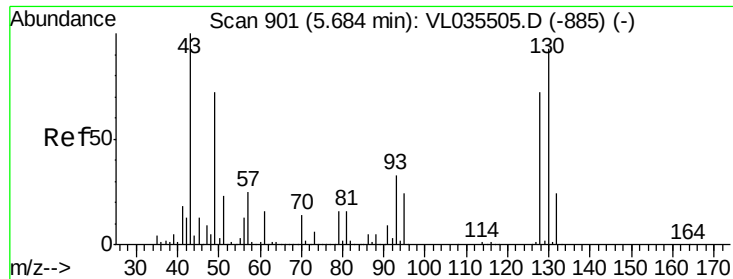
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M
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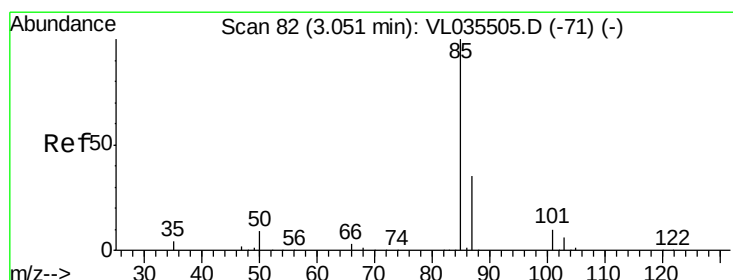
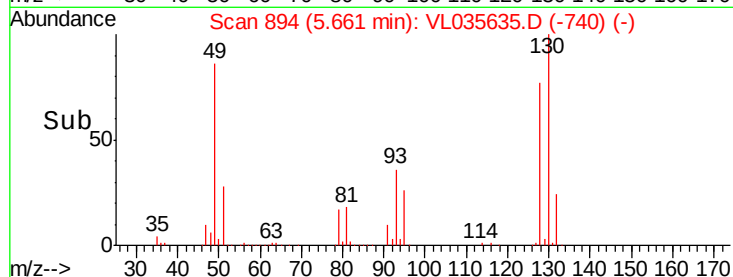
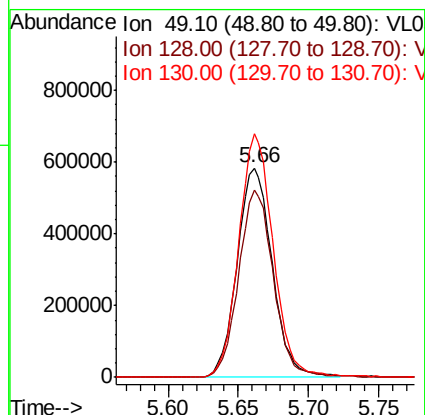
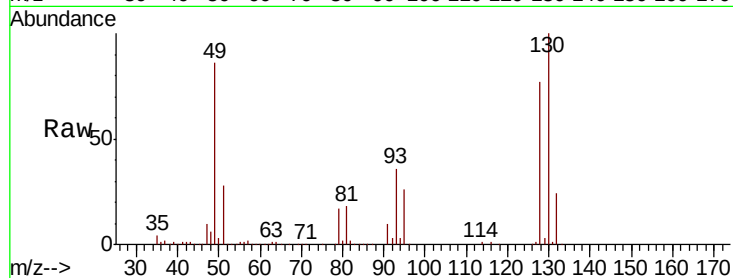




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.66 min Scan# 894
 Delta R.T. -0.00 min
 Lab File: VL035635.D
 Acq: 16 Sep 2020 19:06

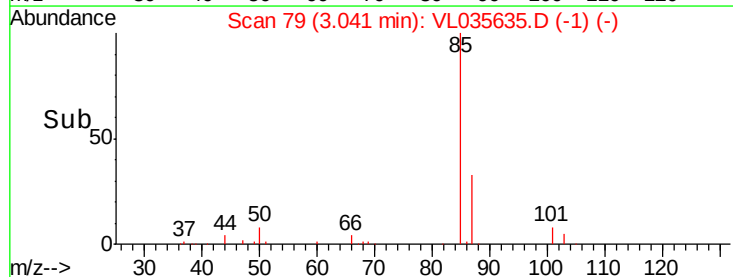
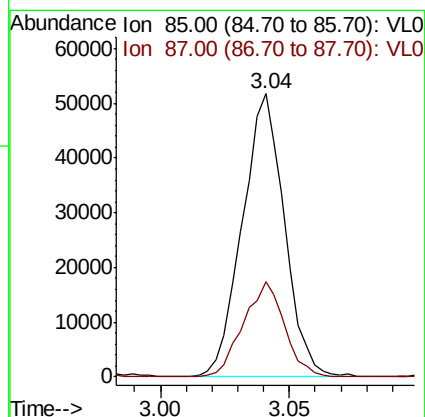
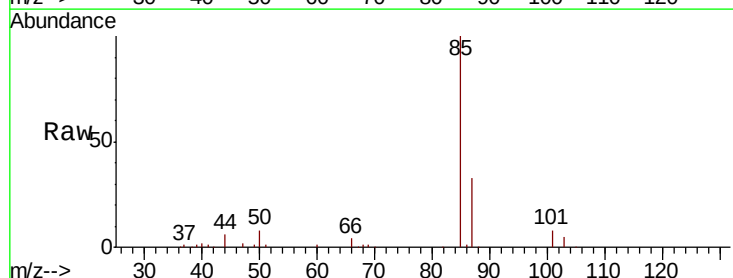
Instrument :
 MSVOA_L
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 TRC-AA-01

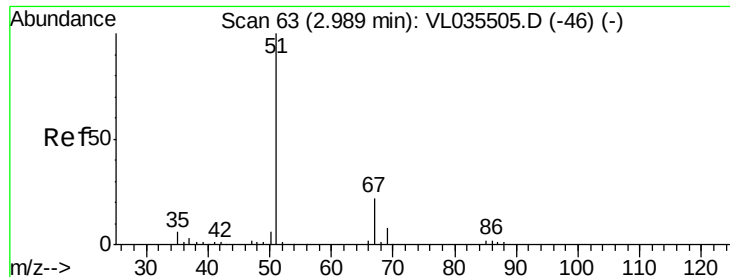
Tot Ion: 49 Resp: 1020568
 Ion Ratio Lower Upper
 49 100
 128 89.3 50.0 150.1
 130 115.0 64.4 193.2



#2
 Dichlorodifluoromethane
 Concen: 0.334 ppbv
 RT: 3.04 min Scan# 79
 Delta R.T. 0.01 min
 Lab File: VL035635.D
 Acq: 16 Sep 2020 19:06

Tgt Ion: 85 Resp: 59072
 Ion Ratio Lower Upper
 85 100
 87 33.5 28.0 42.0





#3

Chlorodifluoromethane

Concen: 1.106 ppbv

RT: 2.95 min Scan# 52

Delta R.T. -0.02 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

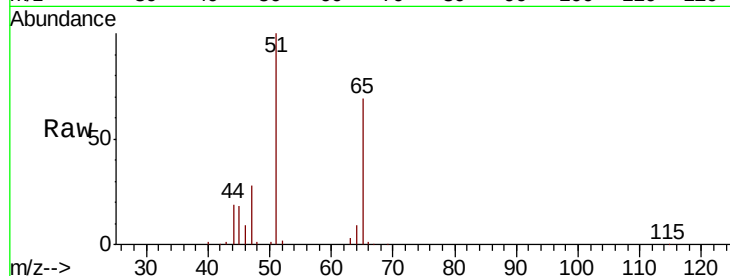
TRC-AA-01

Tot Ion: 51 Resp: 124858

Ion Ratio Lower Upper

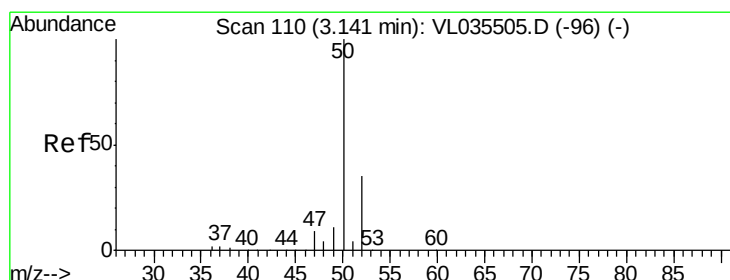
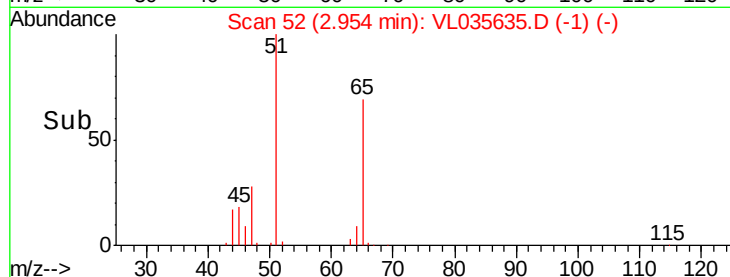
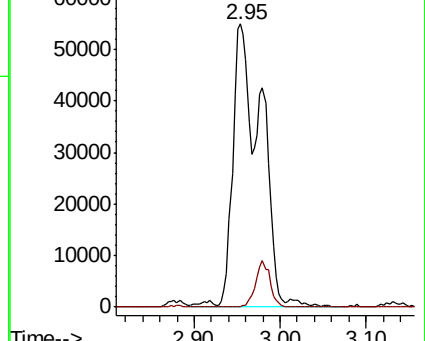
51 100

67 8.5 17.8 26.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.522 ppbv

RT: 3.13 min Scan# 108

Delta R.T. 0.01 min

Lab File: VL035635.D

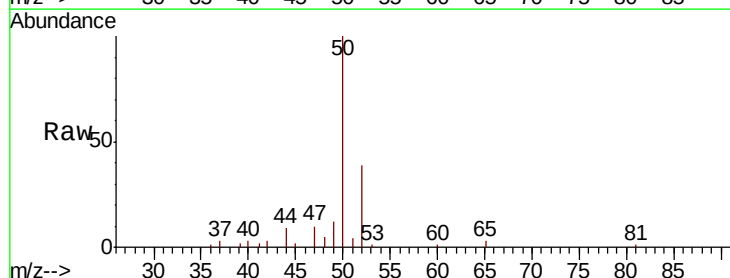
Acq: 16 Sep 2020 19:06

Tgt Ion: 50 Resp: 31583

Ion Ratio Lower Upper

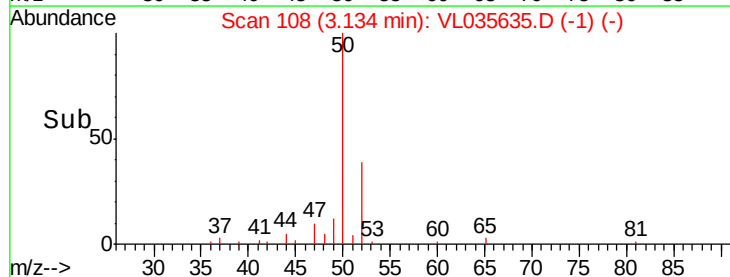
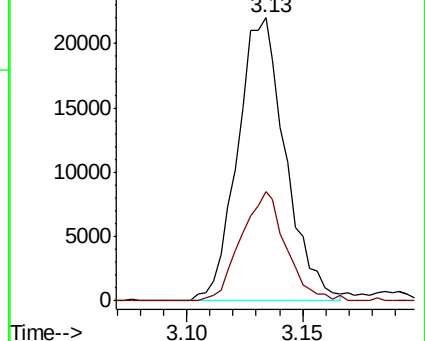
50 100

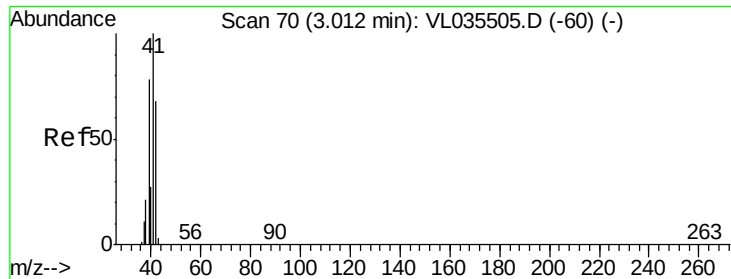
52 38.7 27.7 41.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.252 ppbv

RT: 3.01 min Scan# 69

Delta R.T. 0.01 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

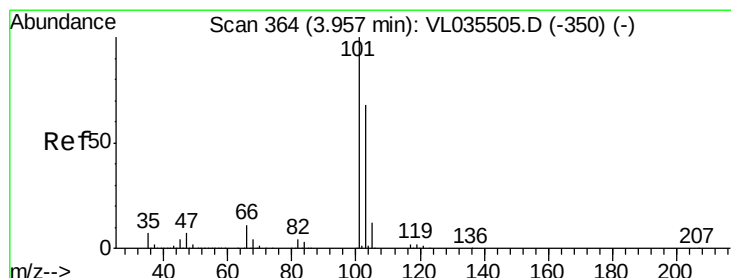
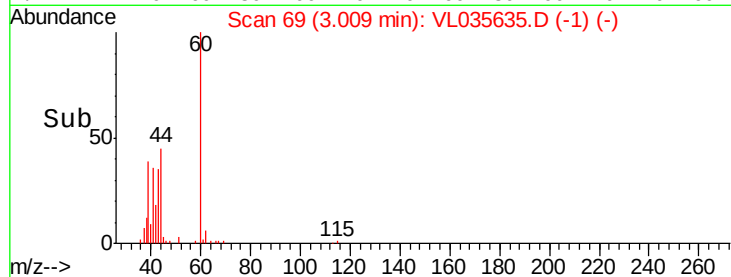
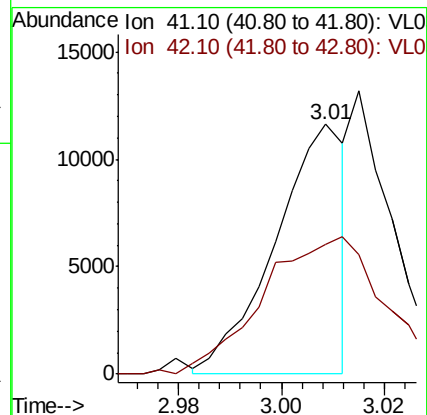
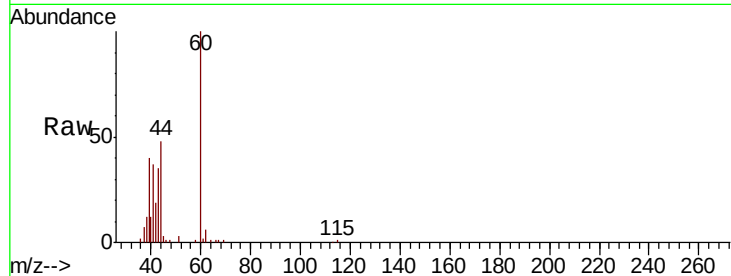
TRC-AA-01

Tot Ion: 41 Resp: 10987

Ion Ratio Lower Upper

41 100

42 0.0 56.3 84.5#



#11

Trichlorofluoromethane

Concen: 0.267 ppbv

RT: 3.94 min Scan# 360

Delta R.T. 0.00 min

Lab File: VL035635.D

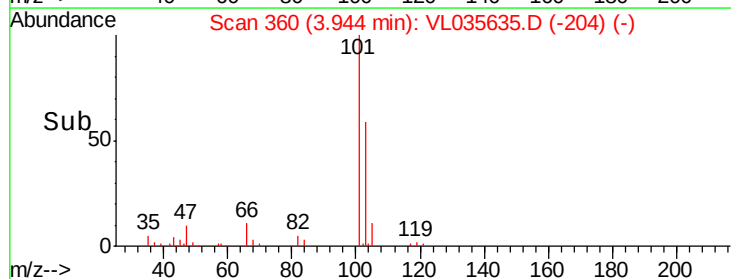
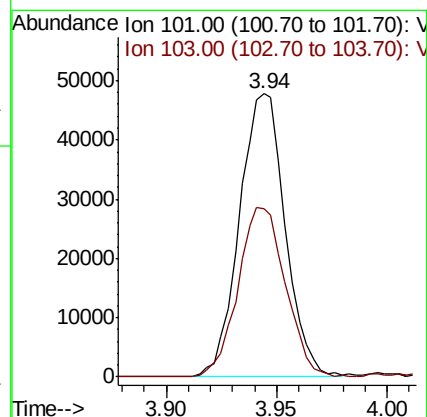
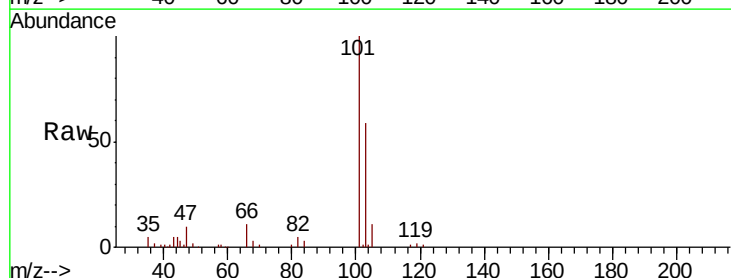
Acq: 16 Sep 2020 19:06

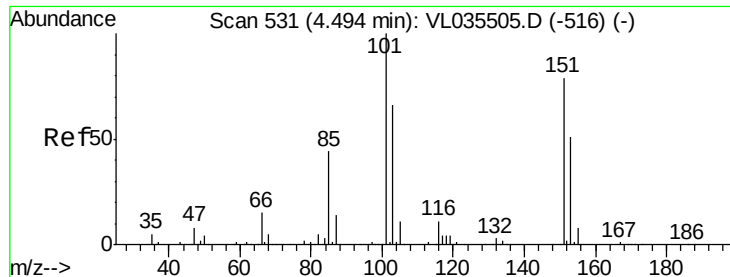
Tgt Ion: 101 Resp: 68807

Ion Ratio Lower Upper

101 100

103 59.3 54.5 81.7





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.077 ppbv

RT: 4.48 min Scan# 527

Delta R.T. 0.00 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

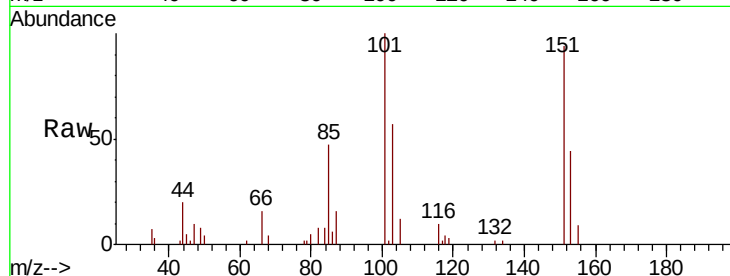
TRC-AA-01

Tot Ion:101 Resp: 15009

Ion Ratio Lower Upper

101 100

151 81.3 63.5 95.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

10000

8000

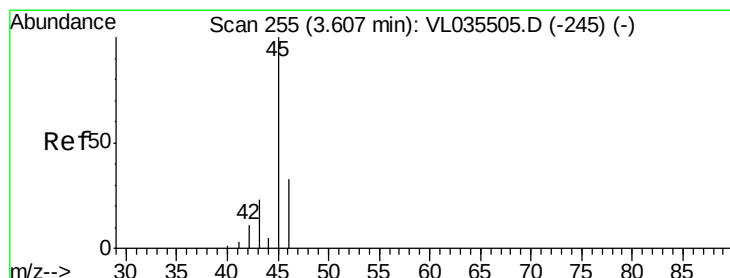
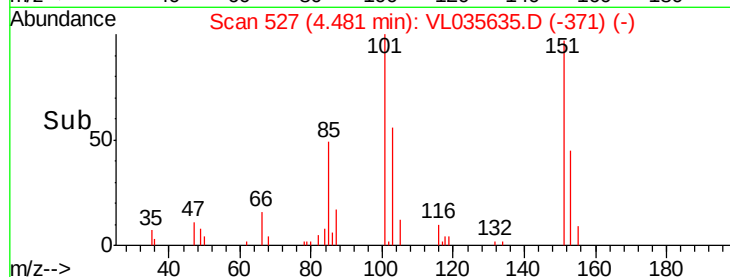
6000

4000

2000

0

Time-->



#13

Ethanol

Concen: 26.325 ppbv

RT: 3.60 min Scan# 252

Delta R.T. -0.00 min

Lab File: VL035635.D

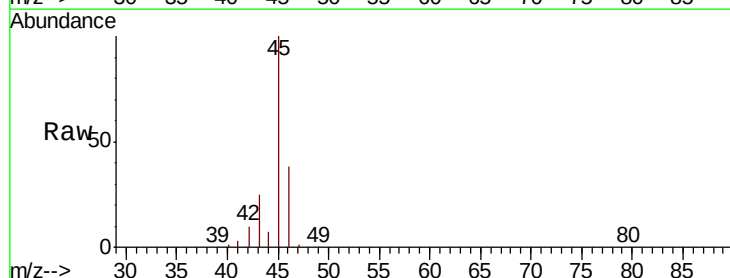
Acq: 16 Sep 2020 19:06

Tgt Ion: 45 Resp: 284023

Ion Ratio Lower Upper

45 100

46 35.8 15.2 60.6



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

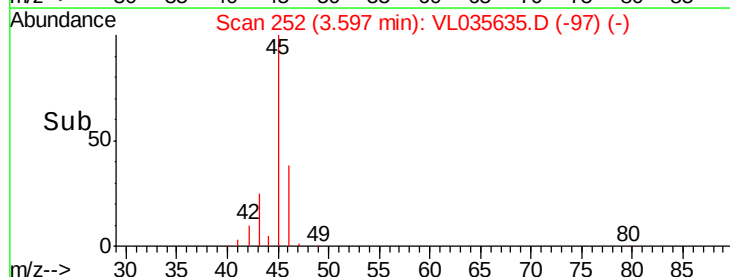
150000

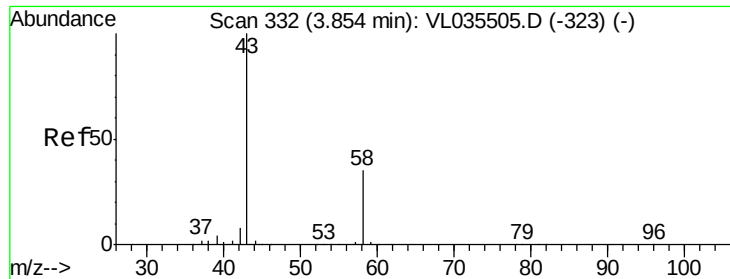
100000

50000

0

Time-->





#15

Acetone

Concen: 4.061 ppbv

RT: 3.84 min Scan# 329

Delta R.T. 0.01 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

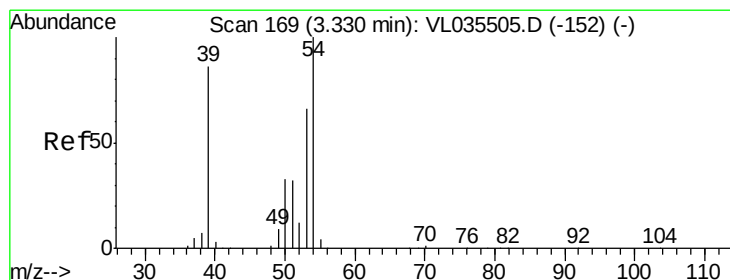
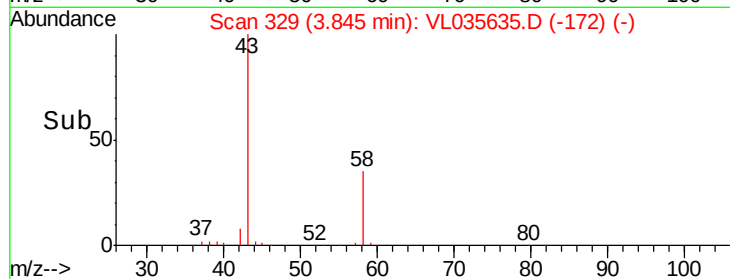
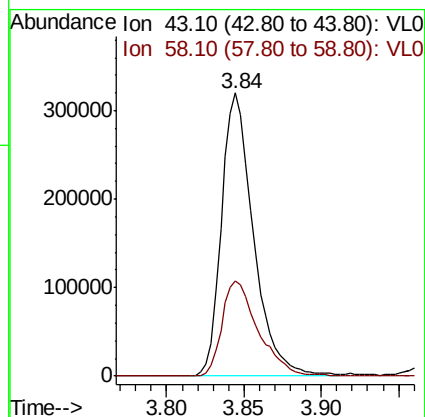
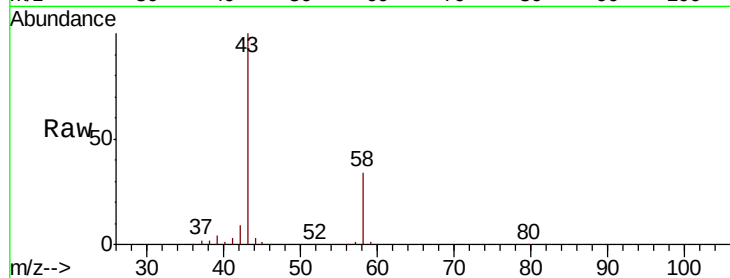
TRC-AA-01

Tot Ion: 43 Resp: 457099

Ion Ratio Lower Upper

43 100

58 38.6 28.4 42.6



#16

1,3-Butadiene

Concen: 0.058 ppbv

RT: 3.30 min Scan# 160

Delta R.T. -0.02 min

Lab File: VL035635.D

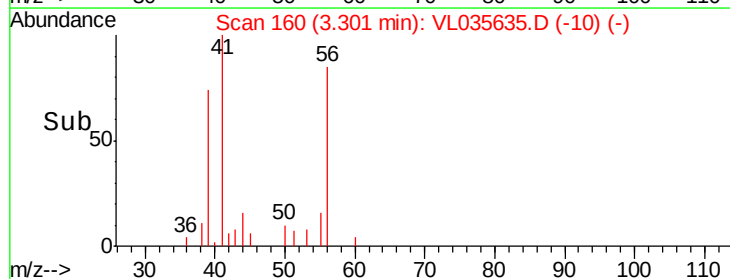
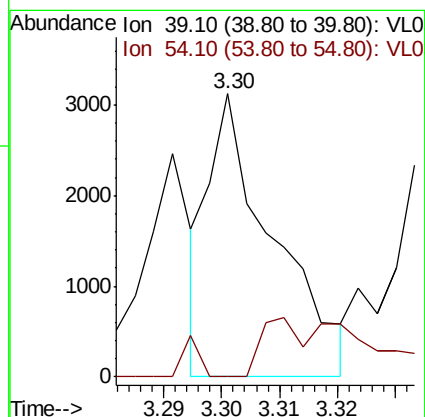
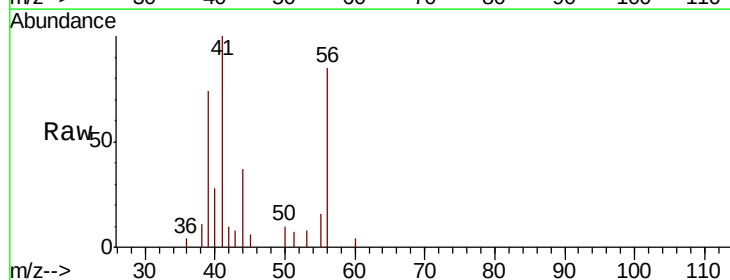
Acq: 16 Sep 2020 19:06

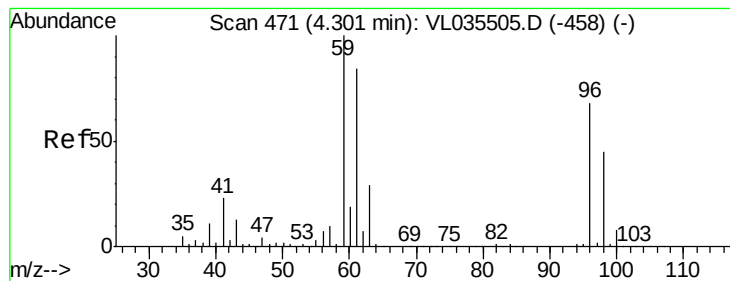
Tgt Ion: 39 Resp: 2426

Ion Ratio Lower Upper

39 100

54 55.6 88.4 132.6#





#17

tert-Butyl alcohol

Concen: 0.064 ppbv

RT: 4.30 min Scan# 472

Delta R.T. 0.02 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

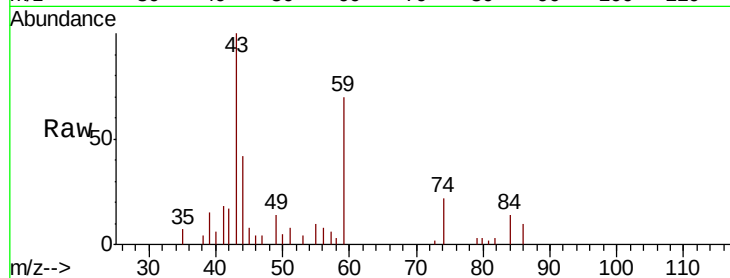
TRC-AA-01

Tot Ion: 59 Resp: 8804

Ion Ratio Lower Upper

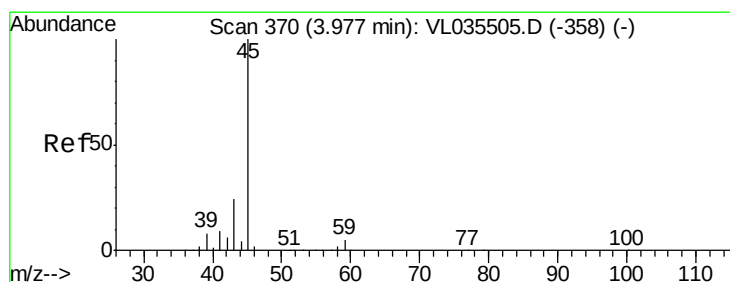
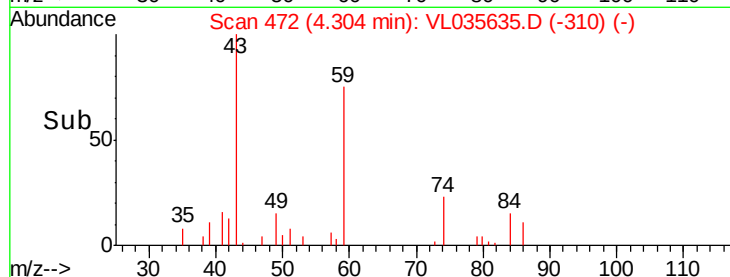
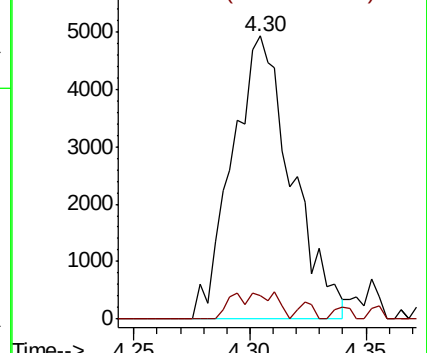
59 100

57 0.0 8.4 12.6#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 0.888 ppbv

RT: 3.97 min Scan# 368

Delta R.T. 0.01 min

Lab File: VL035635.D

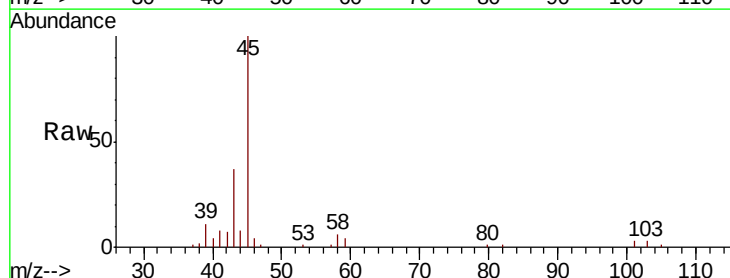
Acq: 16 Sep 2020 19:06

Tgt Ion: 45 Resp: 59602

Ion Ratio Lower Upper

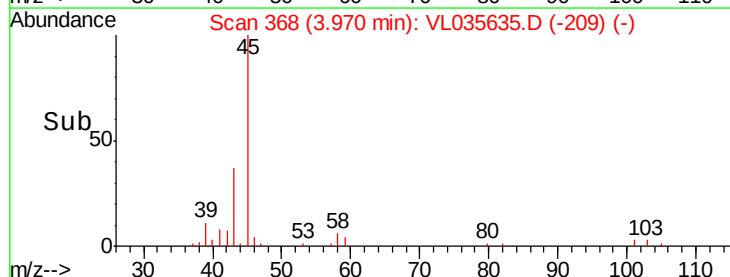
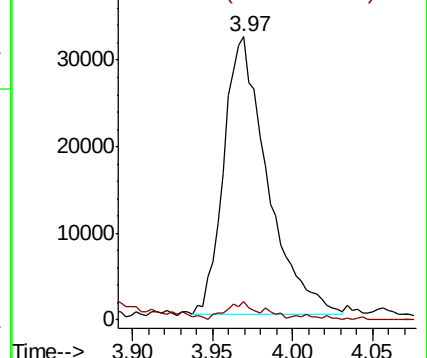
45 100

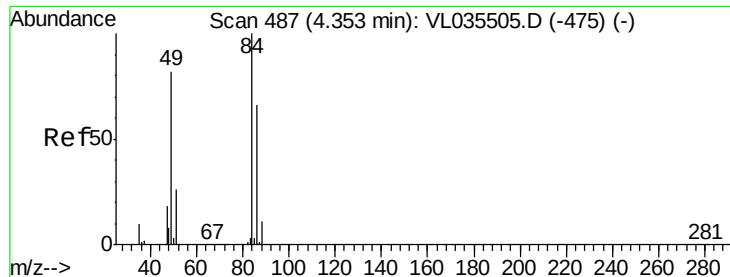
58 296.0 2.0 3.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

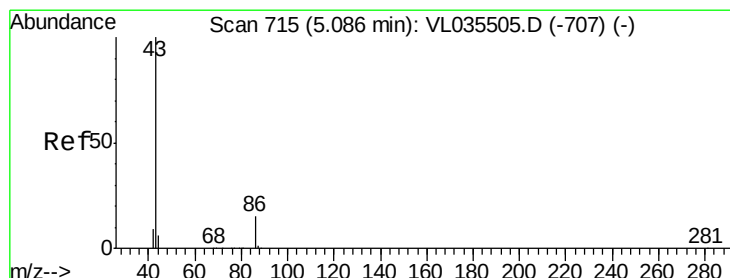
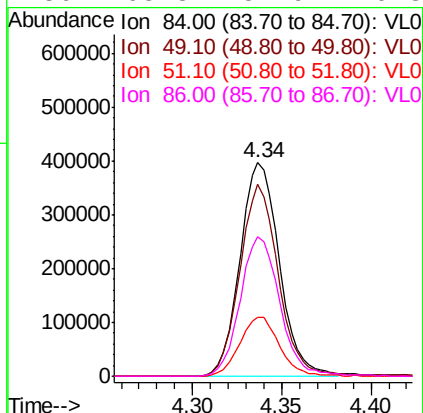
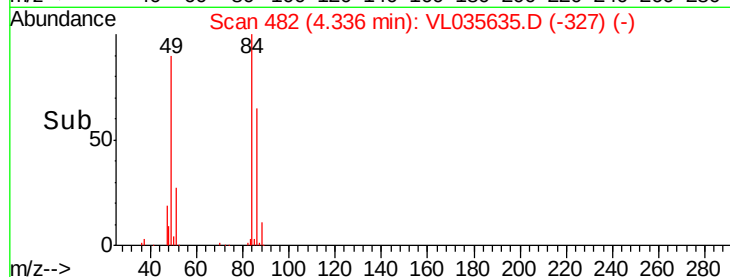
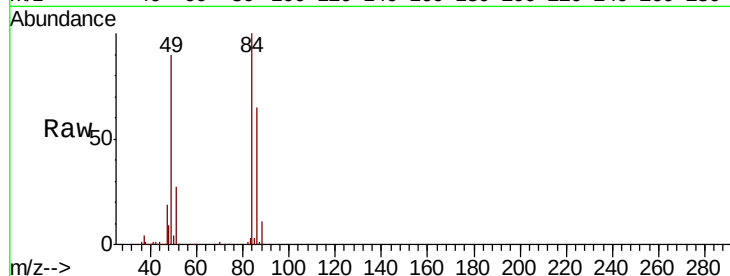




#20
Methvlene Chloride
Concen: 7.290 ppbv
RT: 4.34 min Scan# 482
Delta R.T. -0.00 min
Lab File: VL035635.D
Acq: 16 Sep 2020 19:06

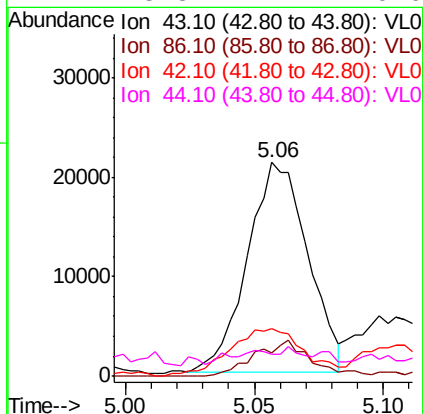
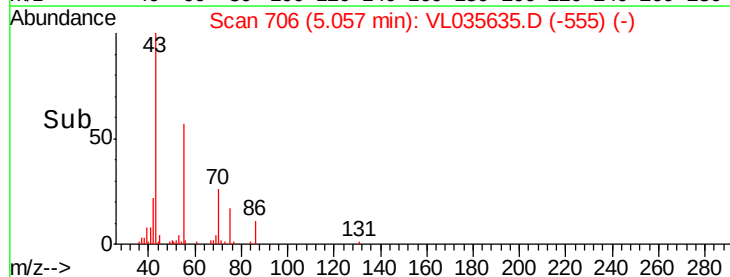
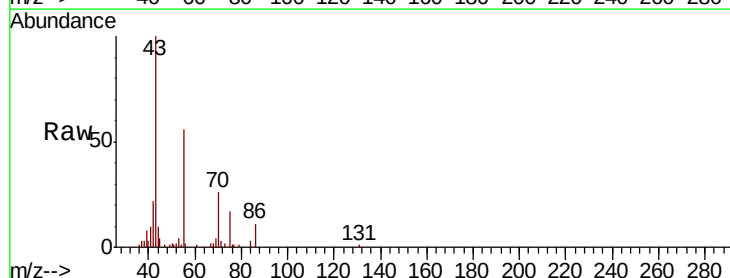
Instrument :
MSVOA_L
ClientSampleId :
TRC-AA-01

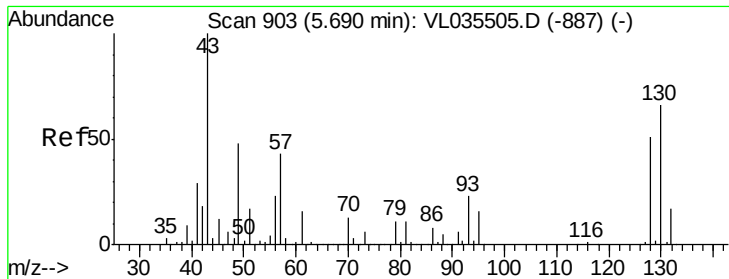
Tot Ion:	84	Resp:	611159
Ion	Ratio	Lower	Upper
84	100		
49	89.7	65.4	98.0
51	27.4	21.5	32.3
86	65.3	52.9	79.3



#23
Vinyl Acetate
Concen: 0.238 ppbv
RT: 5.06 min Scan# 706
Delta R.T. -0.01 min
Lab File: VL035635.D
Acq: 16 Sep 2020 19:06

Tgt Ion:	43	Resp:	34381
Ion	Ratio	Lower	Upper
43	100		
86	11.2	10.6	16.0
42	19.8	7.5	11.3#
44	3.3	4.4	6.6#





#25

Ethyl Acetate

Concen: 0.612 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.01 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

TRC-AA-01

Tot Ion: 43 Resp: 121788

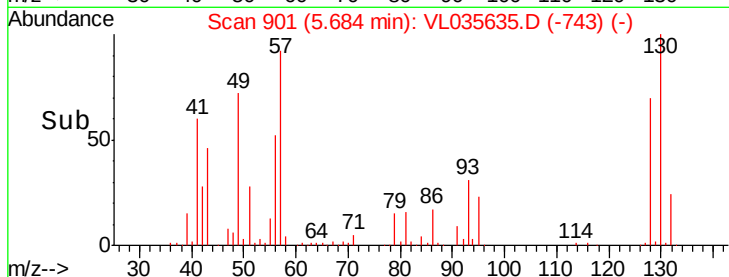
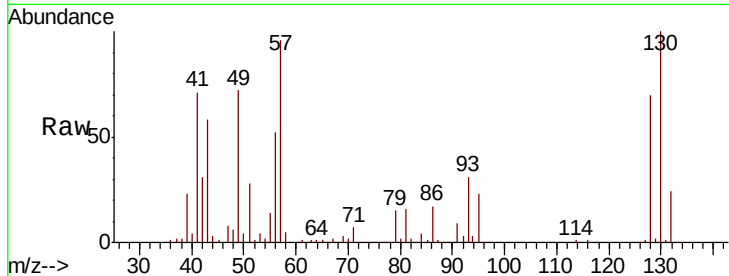
Ion Ratio Lower Upper

43 100

45 2.6 8.4 12.6#

61 1.8 10.6 16.0#

70 3.4 9.4 14.2#



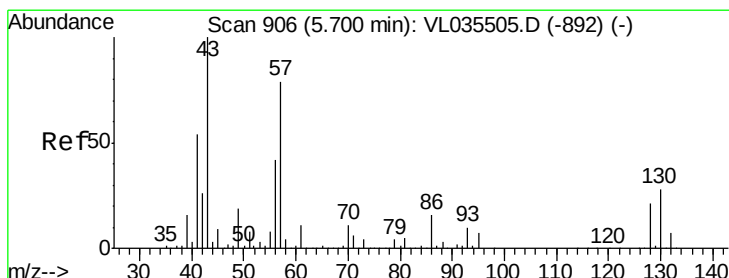
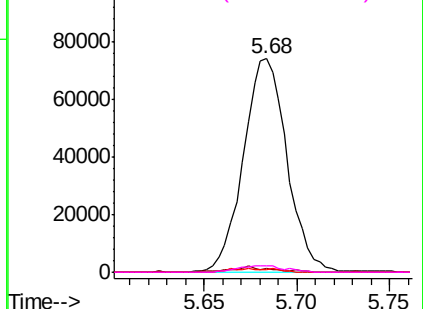
Abundance

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: 1.780 ppbv

RT: 5.68 min Scan# 901

Delta R.T. -0.00 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Tgt Ion: 57 Resp: 200508

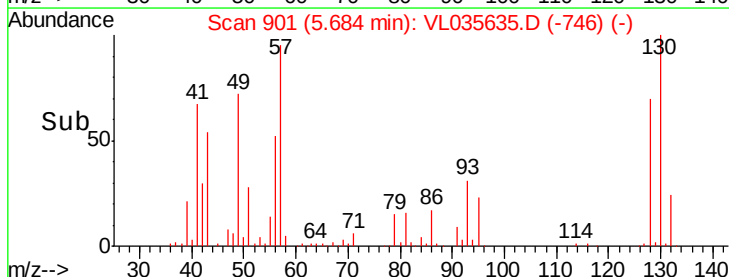
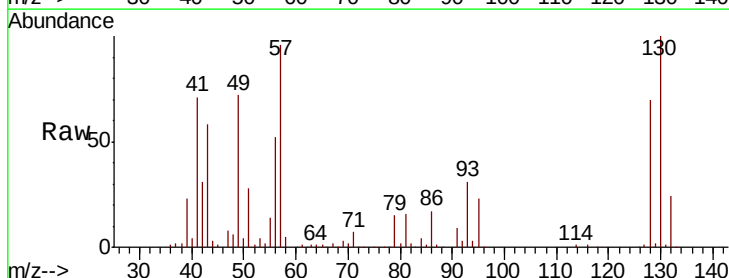
Ion Ratio Lower Upper

57 100

41 73.0 55.9 83.9

43 61.3 141.8 212.8#

56 54.3 41.8 62.8



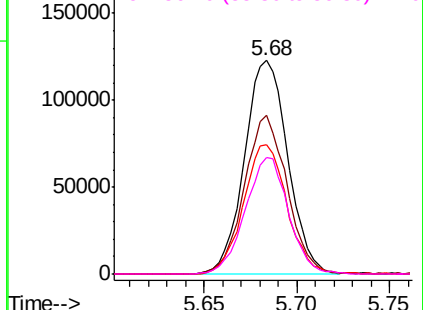
Abundance

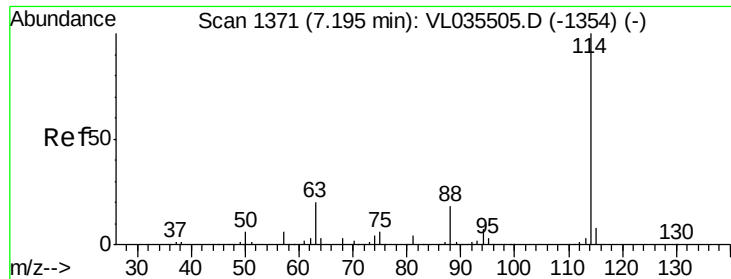
Ion 57.10 (56.80 to 57.80): VL0

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

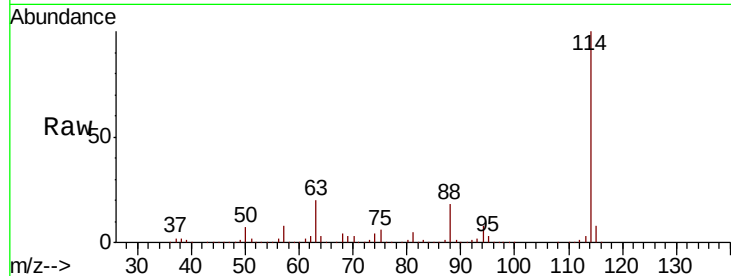




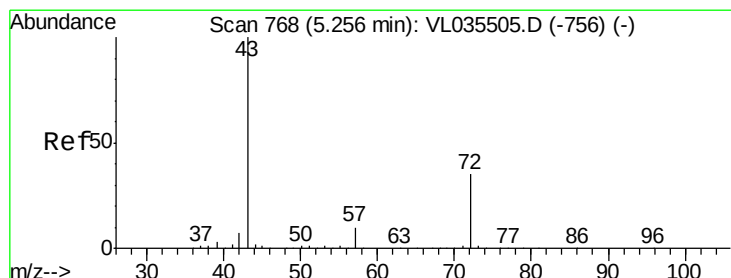
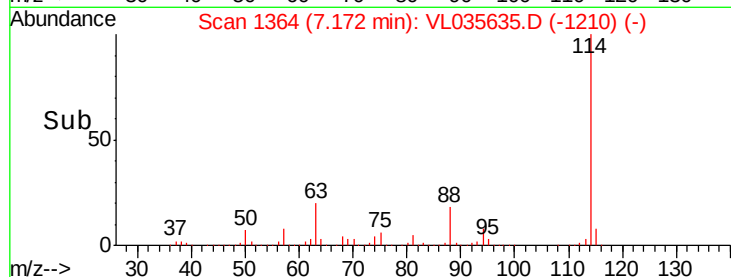
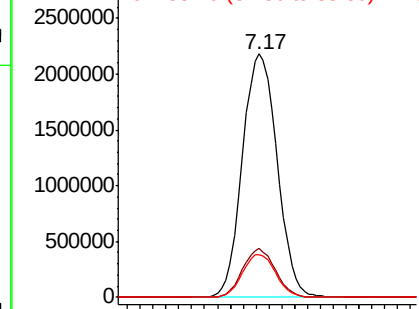
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.00 min
 Lab File: VL035635.D
 Acq: 16 Sep 2020 19:06

Instrument :
 MSVOA_L
 ClientSampleId :
 TRC-AA-01

Tot Ion:114 Resp: 4098533
 Ion Ratio Lower Upper
 114 100
 63 18.9 14.7 22.1
 88 17.0 13.4 20.2

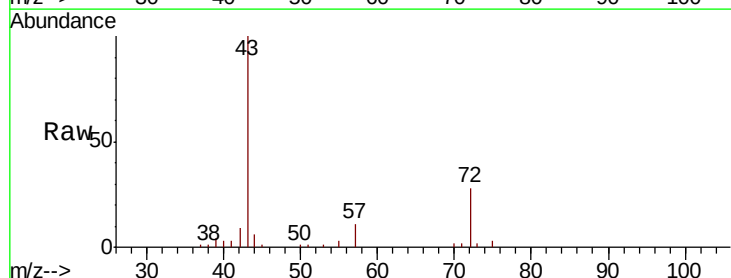


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

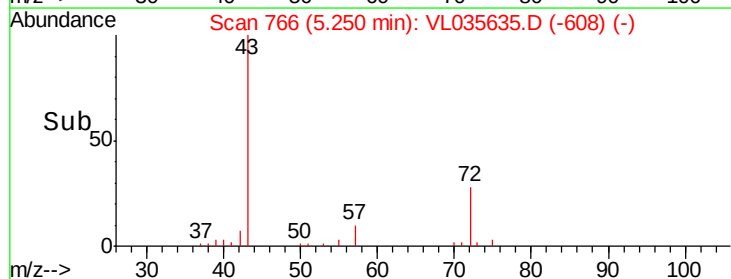
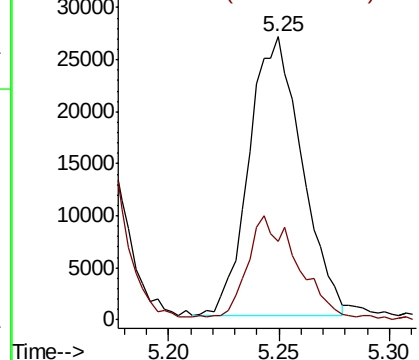


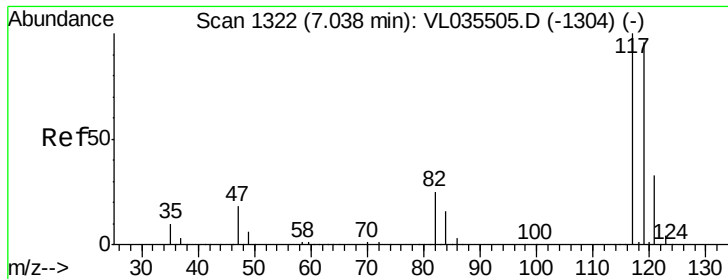
#34
 2-Butanone
 Concen: 0.366 ppbv
 RT: 5.25 min Scan# 766
 Delta R.T. 0.01 min
 Lab File: VL035635.D
 Acq: 16 Sep 2020 19:06

Tgt Ion: 43 Resp: 44516
 Ion Ratio Lower Upper
 43 100
 72 36.9 27.7 41.5



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.039 ppbv

RT: 7.01 min Scan# 1315

Delta R.T. -0.00 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

TRC-AA-01

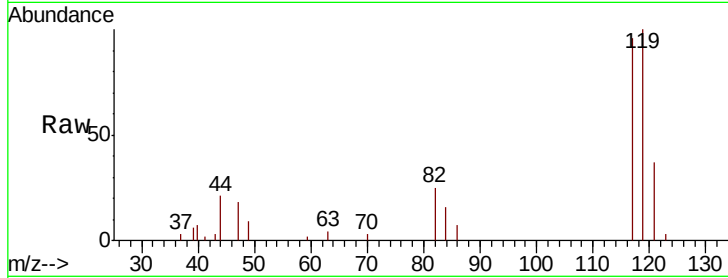
Tot Ion:117 Resp: 8068

Ion Ratio Lower Upper

117 100

119 101.8 77.2 115.8

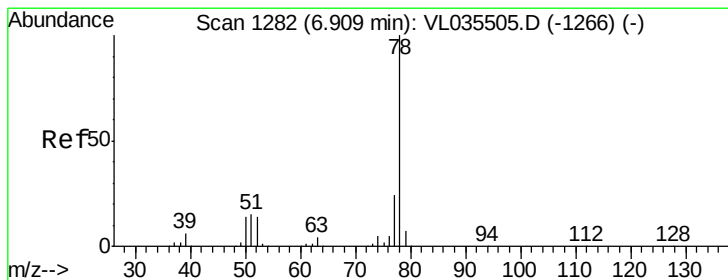
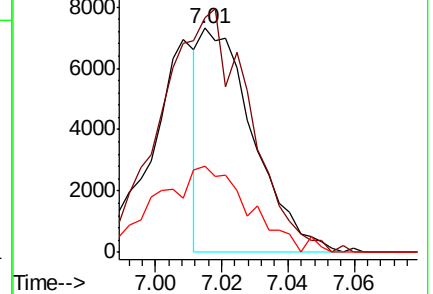
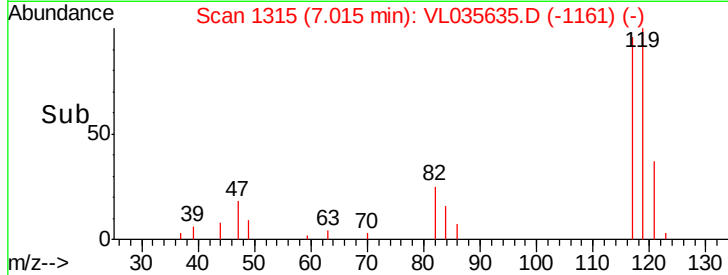
121 38.4 26.1 39.1



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.109 ppbv

RT: 6.89 min Scan# 1275

Delta R.T. -0.01 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

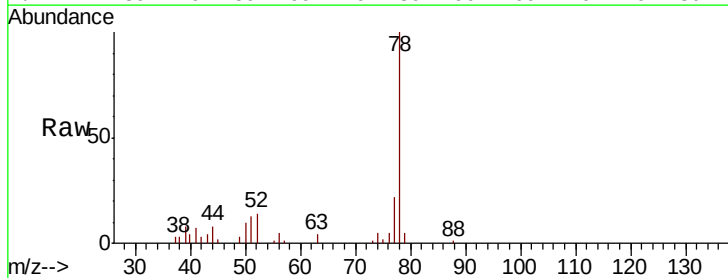
Tgt Ion: 78 Resp: 28964

Ion Ratio Lower Upper

78 100

77 21.8 19.3 28.9

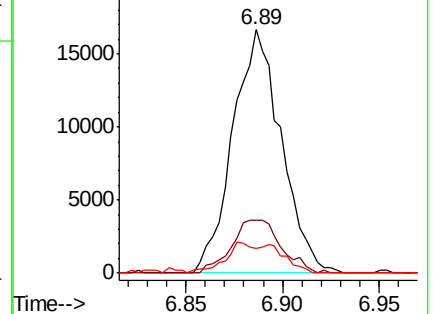
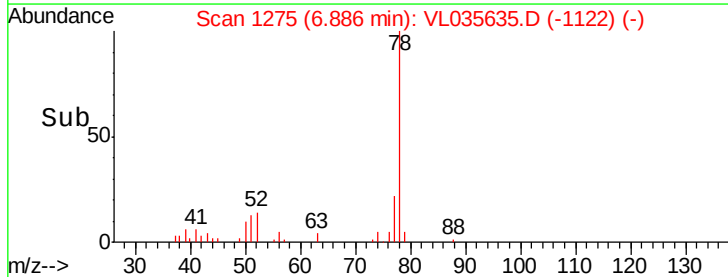
50 9.9 11.0 16.6#

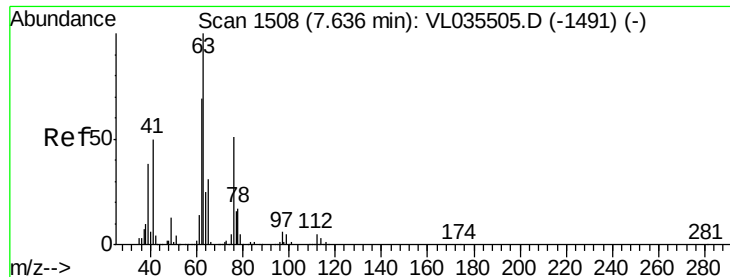


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 8.616 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.44 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

TRC-AA-01

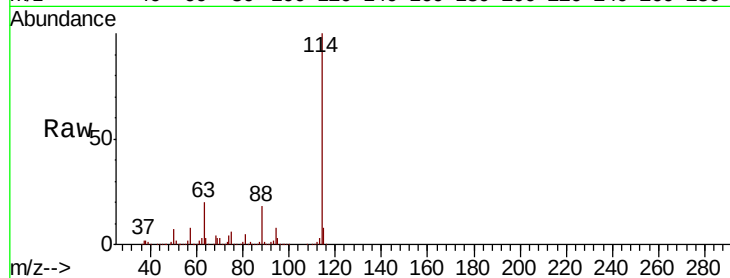
Tot Ion: 63 Resp: 772177

Ion Ratio Lower Upper

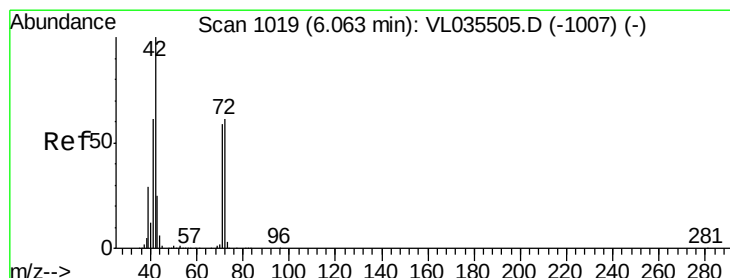
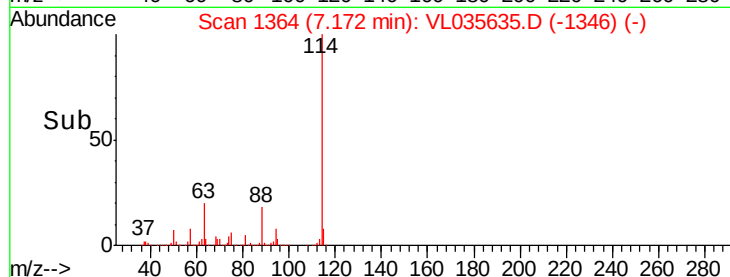
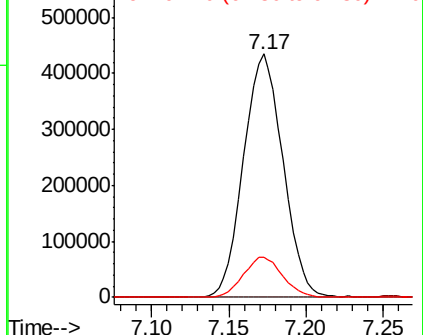
63 100

41 0.0 40.0 60.0#

62 16.6 55.4 83.0#



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 0.040 ppbv

RT: 6.03 min Scan# 1010

Delta R.T. -0.01 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

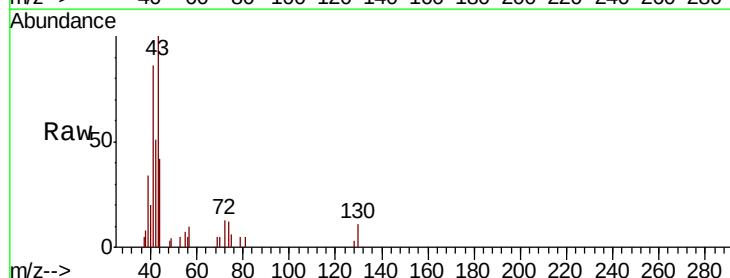
Tgt Ion: 42 Resp: 2568

Ion Ratio Lower Upper

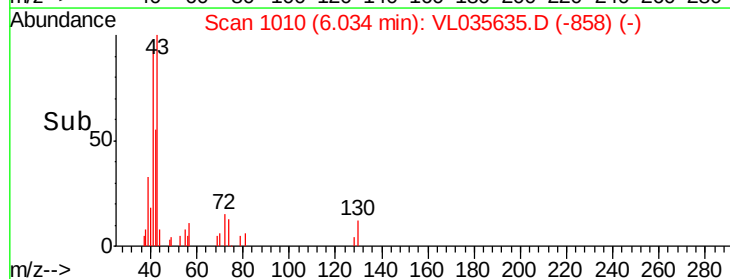
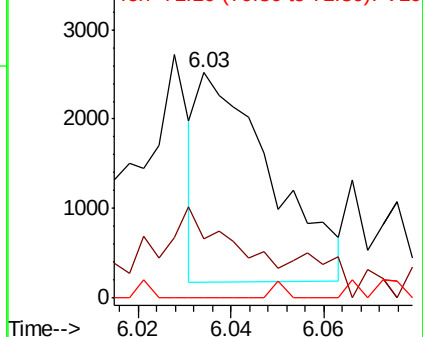
42 100

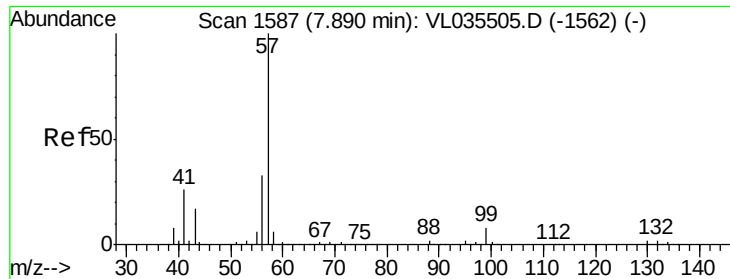
72 80.7 48.6 73.0#

71 0.0 46.1 69.1#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.082 ppbv

RT: 7.87 min Scan# 1580

Delta R.T. -0.00 min

Lab File: VL035635.D

Acq: 16 Sep 2020 19:06

Instrument :

MSVOA_L

ClientSampleId :

TRC-AA-01

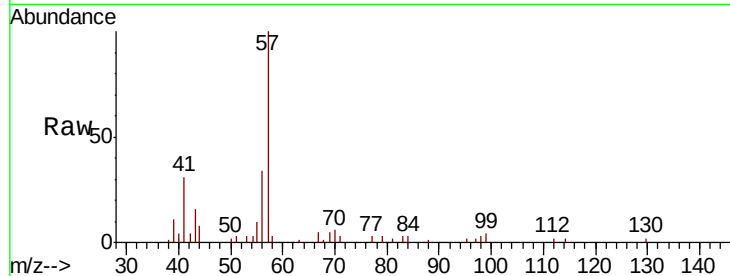
Tot Ion: 57 Resp: 28608

Ion Ratio Lower Upper

57 100

41 36.9 20.5 30.7#

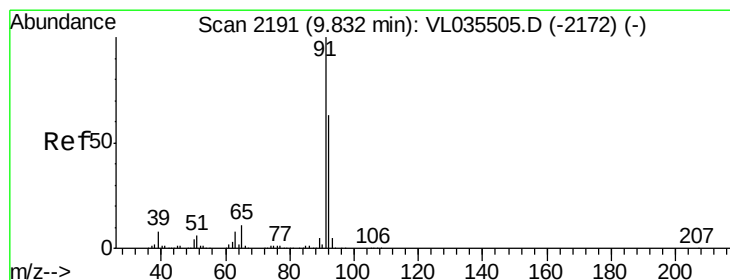
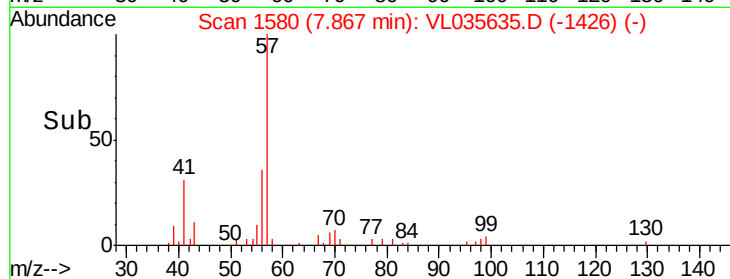
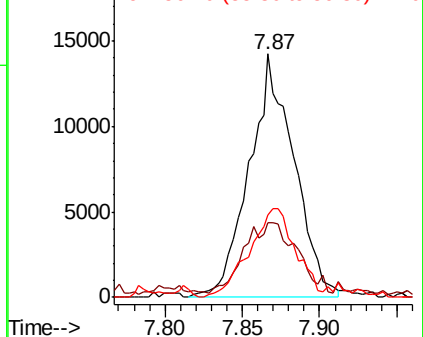
56 40.8 25.3 37.9#



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#53

Toluene

Concen: 0.320 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL035635.D

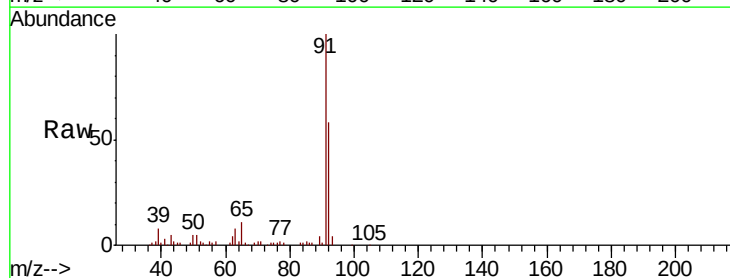
Acq: 16 Sep 2020 19:06

Tgt Ion: 91 Resp: 106923

Ion Ratio Lower Upper

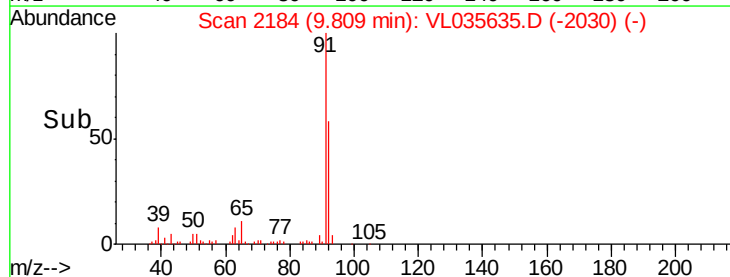
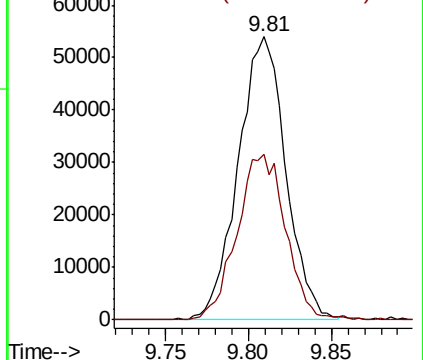
91 100

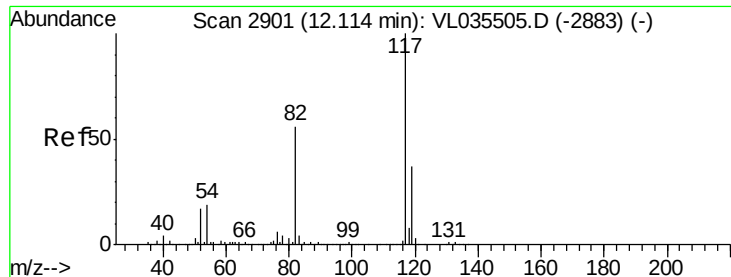
92 60.6 49.8 74.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

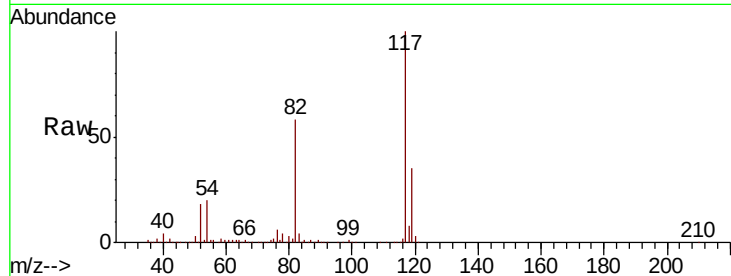




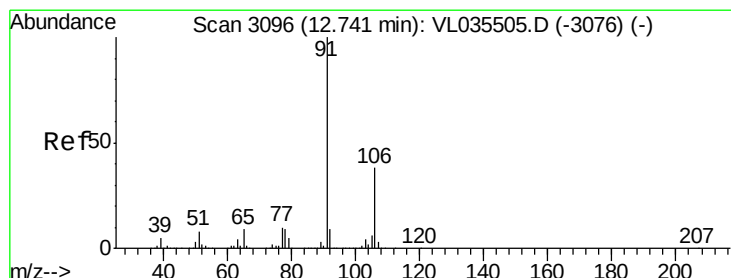
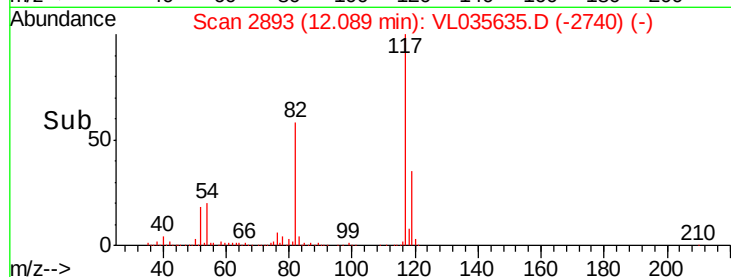
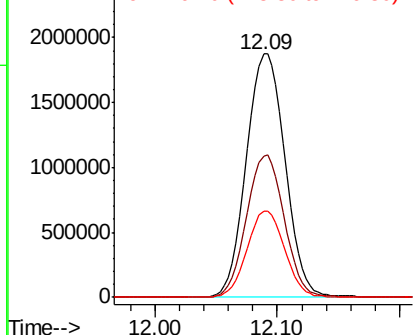
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min Scan# 2893
Delta R.T. -0.01 min
Lab File: VL035635.D
Acq: 16 Sep 2020 19:06

Instrument :
MSVOA_L
ClientSampleId :
TRC-AA-01

Tot Ion:117 Resp: 4119764
Ion Ratio Lower Upper
117 100
82 57.2 41.6 62.4
119 34.6 29.3 43.9

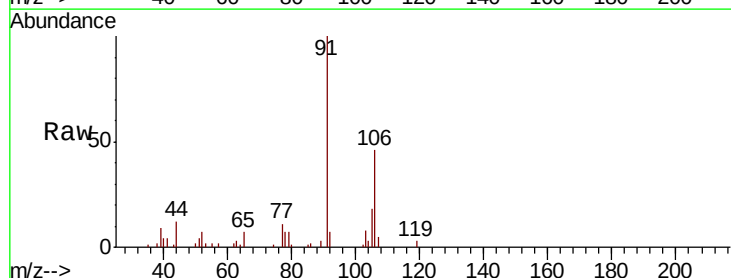


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

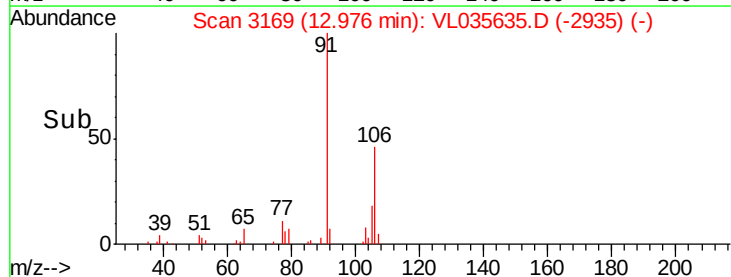
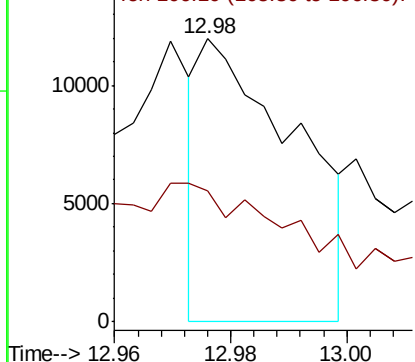


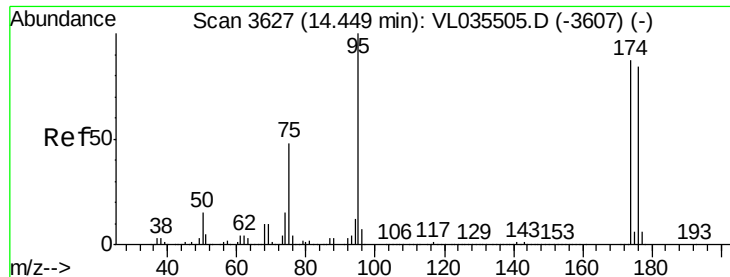
#58
Ethyl Benzene
Concen: 0.032 ppbv
RT: 12.98 min Scan# 3169
Delta R.T. 0.25 min
Lab File: VL035635.D
Acq: 16 Sep 2020 19:06

Tgt Ion: 91 Resp: 13703
Ion Ratio Lower Upper
91 100
106 31.7 30.3 45.5



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V

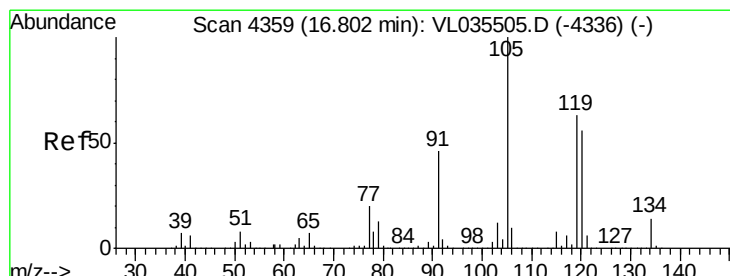
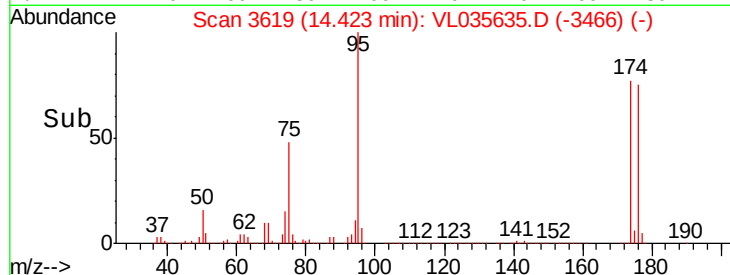
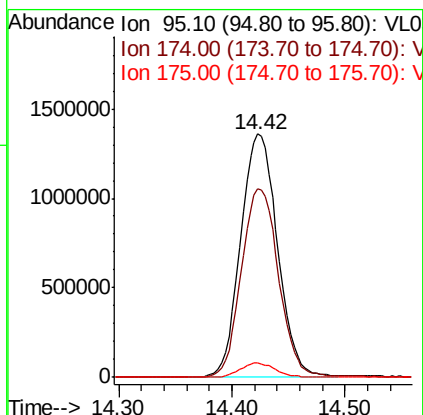
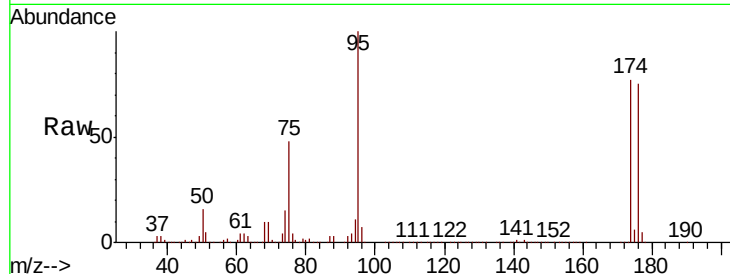




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.558 ppbv
 RT: 14.42 min Scan# 3619
 Delta R.T. -0.01 min
 Lab File: VL035635.D
 Acq: 16 Sep 2020 19:06

Instrument :
 MSVOA_L
 ClientSampleId :
 TRC-AA-01

Tot Ion: 95 Resp: 3088996
 Ion Ratio Lower Upper
 95 100
 174 79.1 69.6 104.4
 175 5.6 5.1 7.7



#74
 1,2,4-Trimethylbenzene
 Concen: 0.044 ppbv
 RT: 16.78 min Scan# 4351
 Delta R.T. -0.00 min
 Lab File: VL035635.D
 Acq: 16 Sep 2020 19:06

Tgt Ion: 105 Resp: 20226
 Ion Ratio Lower Upper
 105 100
 120 46.0 44.4 66.6
 91 13.2 37.1 55.7#
 77 12.6 16.0 24.0#

