

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL101419\
 Data File : VL034286.D
 Acq On : 14 Oct 2019 17:58
 Operator : SY/AP
 Sample : K5353-03
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

Quant Time: Oct 15 02:49:43 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL091719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep 18 12:53:31 2019
 QLast Update : Wed Sep 18 12:53:31 2019
 Response via : Initial Calibration

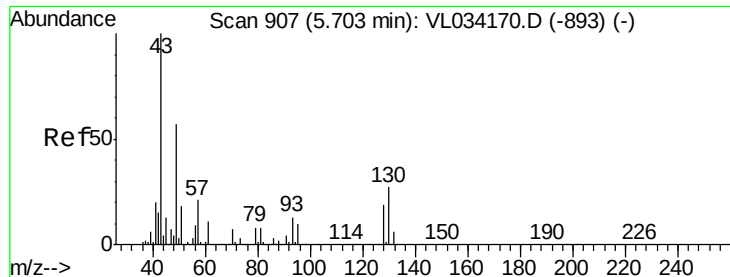
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	943692	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.21	114	1562403	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.15	117	1576429	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.49	95	1403499	10.25	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	92124	0.661	ppbv	92
3) Chlorodifluoromethane	2.94	51	487201	4.403	ppbv #	74
4) Chloromethane	3.12	50	25016	0.385	ppbv	90
9) Propene	3.19	41	155032	2.840	ppbv	93
10) Heptane	8.16	43	7401	0.052	ppbv #	40
11) Trichlorofluoromethane	3.95	101	53745	0.424	ppbv #	82
12) 1,1,2-Trichlorotrifluoroet	4.49	101	4382	0.053	ppbv #	18
13) Ethanol	3.60	45	1824141	137.992	ppbv	97
15) Acetone	3.84	43	736408	5.822	ppbv	91
16) 1,3-Butadiene	3.29	39	4747	0.086	ppbv #	29
19) Isopropyl Alcohol	3.97	45	76979	0.990	ppbv #	1
20) Methylene Chloride	4.35	84	30744	0.843	ppbv #	80
21) Allyl Chloride	4.30	41	3832	0.054	ppbv #	1
23) Vinyl Acetate	5.08	43	21259	0.114	ppbv #	1
25) Ethyl Acetate	5.70	43	121753	0.509	ppbv #	89
26) Hexane	5.71	57	100352	1.009	ppbv #	56
34) 2-Butanone	5.26	43	29860	0.187	ppbv	92
35) Carbon Tetrachloride	7.05	117	5070	0.039	ppbv	91
37) 1,2-Dichloroethane	6.33	62	4338	0.035	ppbv #	94
39) 1,2-Dichloropropane	7.21	63	516500	6.662	ppbv #	21
53) Toluene	9.86	91	110469	0.586	ppbv	94
74) 1,2,4-Trimethylbenzene	16.84	105	19975	0.082	ppbv #	68

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 902

Delta R.T. -0.02 min

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IA-2

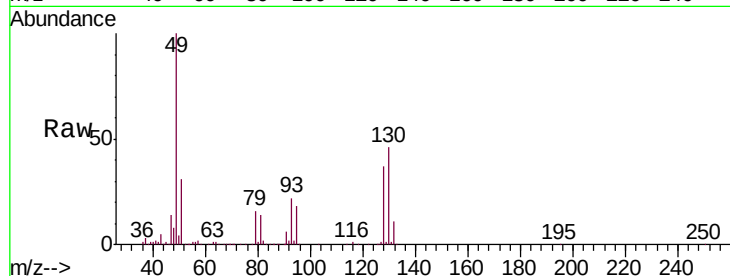
Tgt Ion: 49 Resp: 943692

Ion Ratio Lower Upper

49 100

128 36.0 17.6 52.9

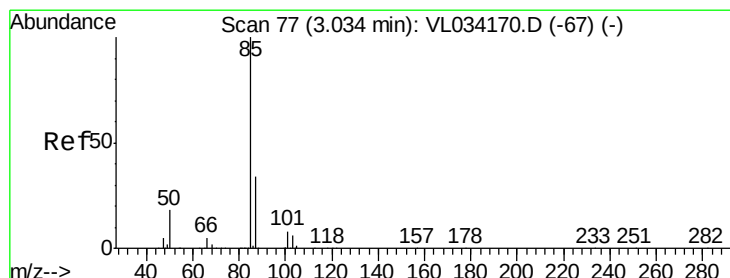
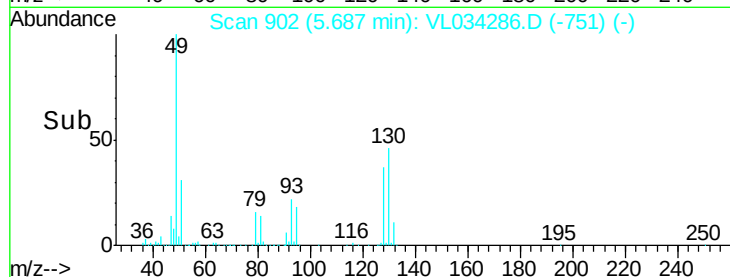
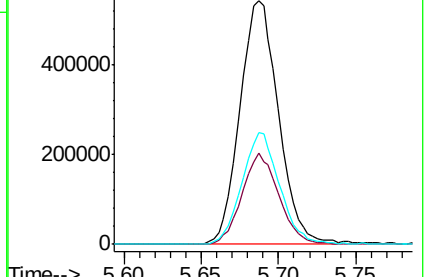
130 45.1 22.3 66.9



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: 0.661 ppbv

RT: 3.03 min Scan# 76

Delta R.T. -0.00 min

Lab File: VL034286.D

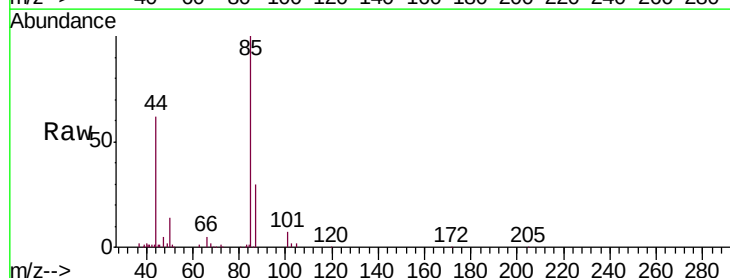
Acq: 14 Oct 2019 17:58

Tgt Ion: 85 Resp: 92124

Ion Ratio Lower Upper

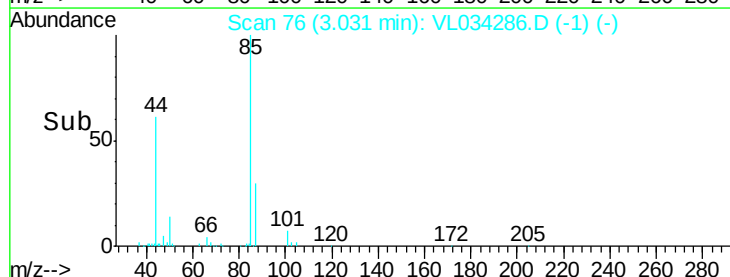
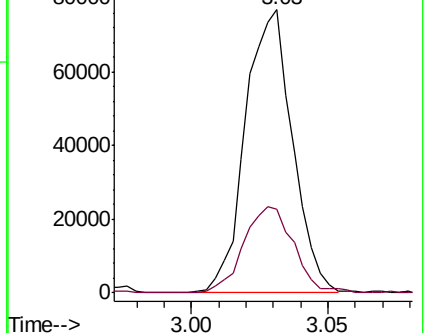
85 100

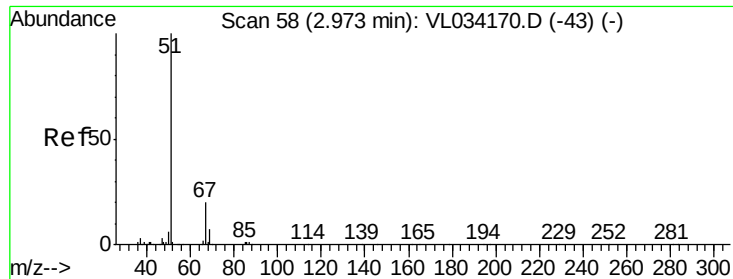
87 29.6 27.2 40.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

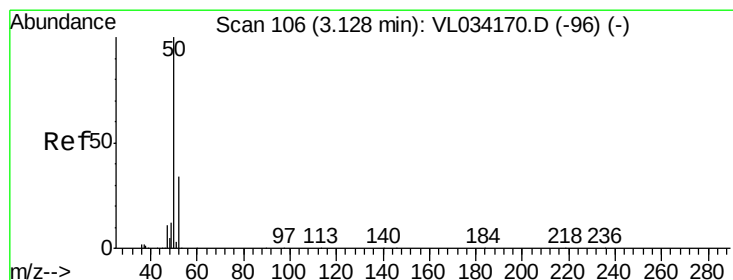
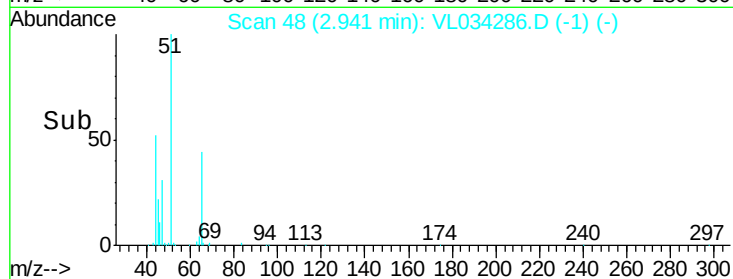
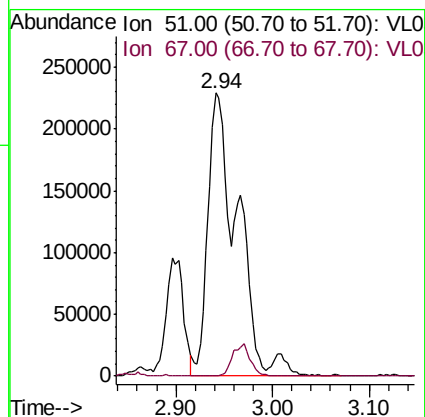
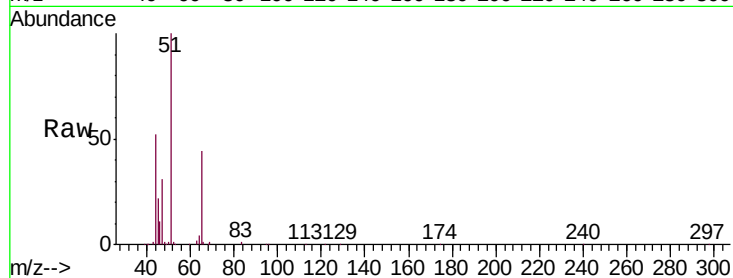




#3
Chlorodifluoromethane
Concen: 4.403 ppbv
RT: 2.94 min Scan# 48
Delta R.T. -0.03 min
Lab File: VL034286.D
Acq: 14 Oct 2019 17:58

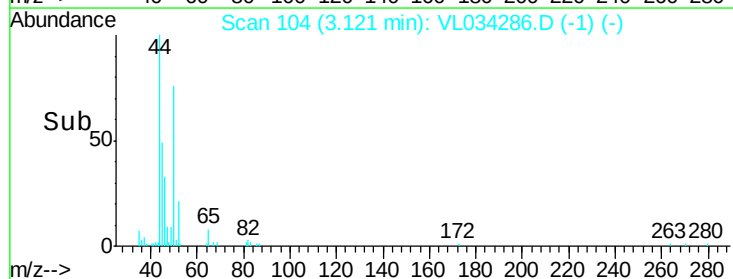
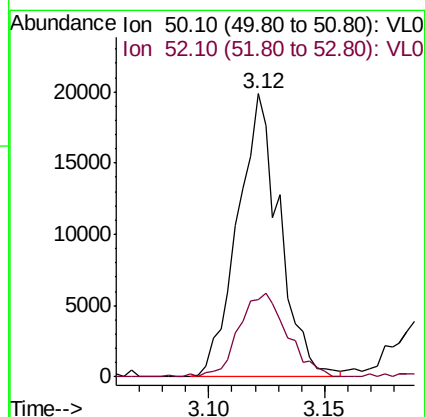
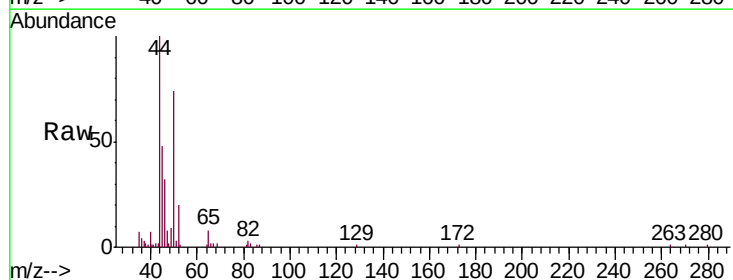
Instrument :
MSVOA_L
ClientSampleId :
IA-2

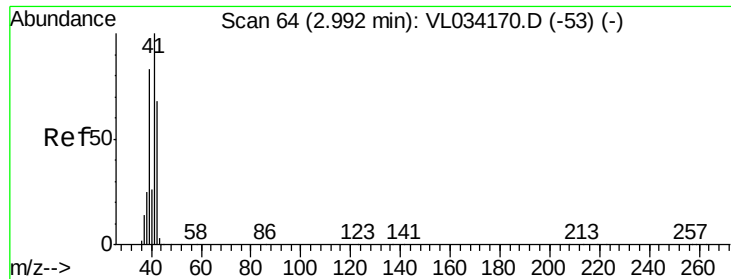
Tgt Ion: 51 Resp: 487201
Ion Ratio Lower Upper
51 100
67 6.8 14.8 22.2#



#4
Chloromethane
Concen: 0.385 ppbv
RT: 3.12 min Scan# 104
Delta R.T. -0.01 min
Lab File: VL034286.D
Acq: 14 Oct 2019 17:58

Tgt Ion: 50 Resp: 25016
Ion Ratio Lower Upper
50 100
52 28.5 27.1 40.7





#9

Propene

Concen: 2.840 ppbv

RT: 3.19 min Scan# 124

Delta R.T. 0.19 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Instrument :

MSVOA_L

ClientSampleId :

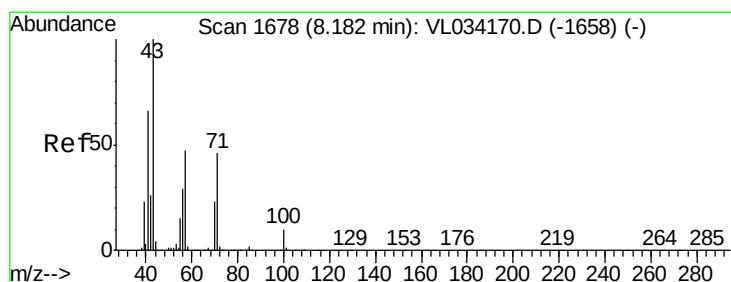
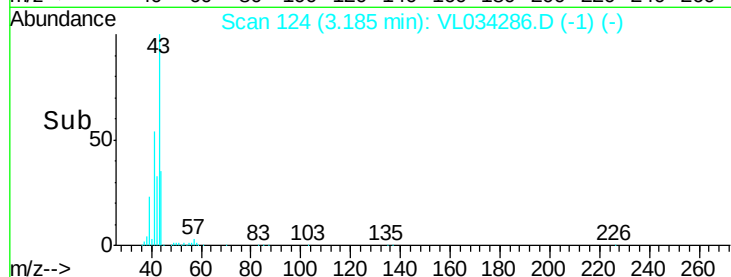
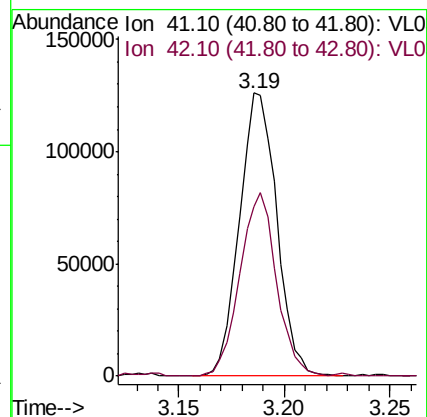
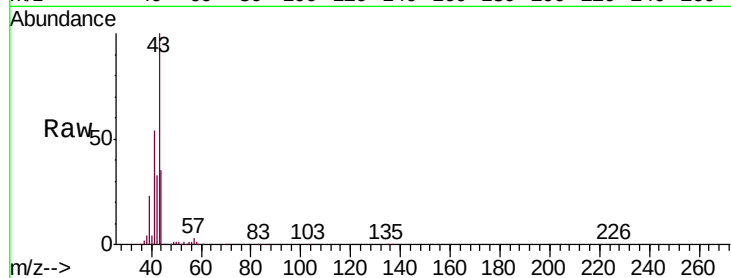
IA-2

Tgt Ion: 41 Resp: 155032

Ion Ratio Lower Upper

41 100

42 64.1 55.8 83.6



#10

Heptane

Concen: 0.052 ppbv

RT: 8.16 min Scan# 1672

Delta R.T. -0.02 min

Lab File: VL034286.D

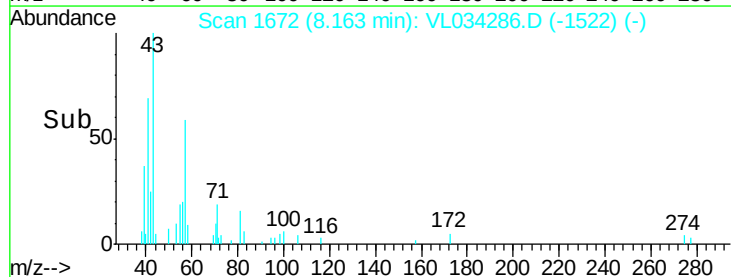
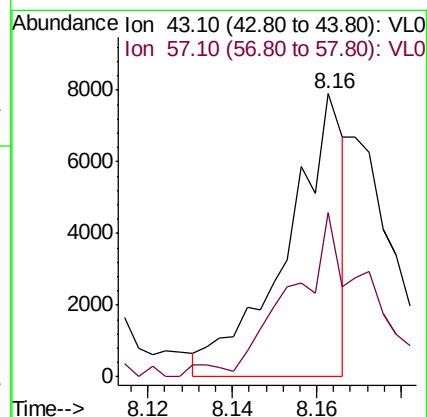
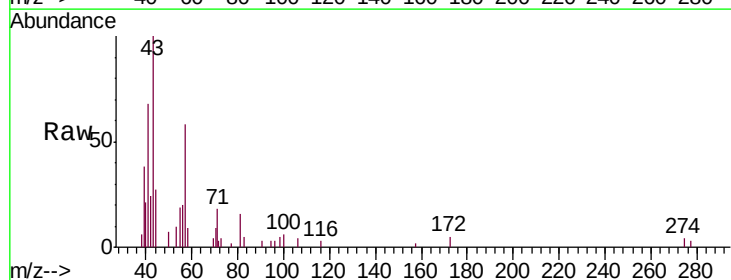
Acq: 14 Oct 2019 17:58

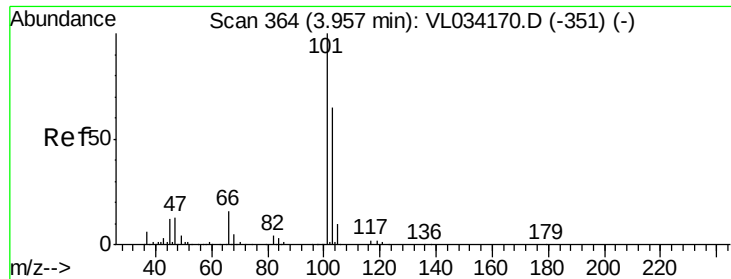
Tgt Ion: 43 Resp: 7401

Ion Ratio Lower Upper

43 100

57 87.0 37.5 56.3#





#11

Trichlorofluoromethane

Concen: 0.424 ppbv

RT: 3.95 min Scan# 362

Delta R.T. -0.01 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Instrument :

MSVOA_L

ClientSampleId :

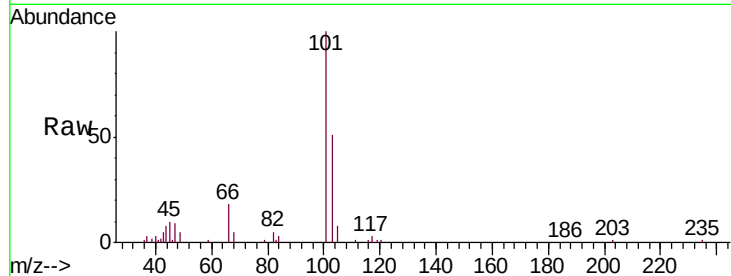
IA-2

Tgt Ion:101 Resp: 53745

Ion Ratio Lower Upper

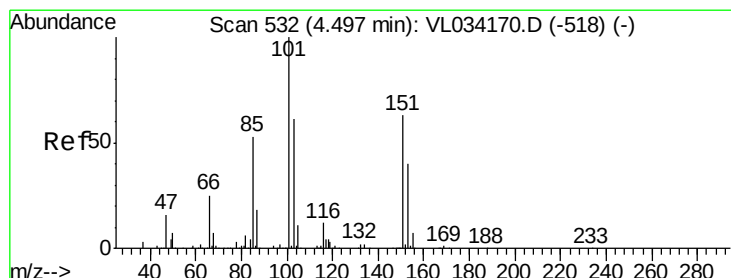
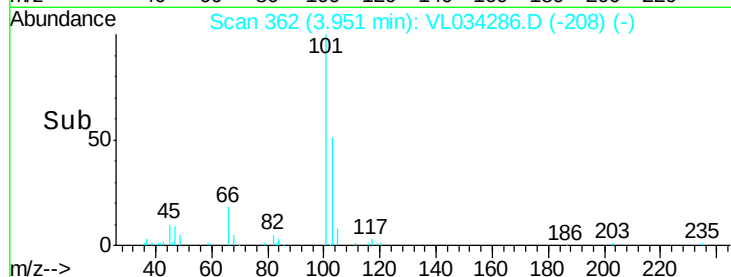
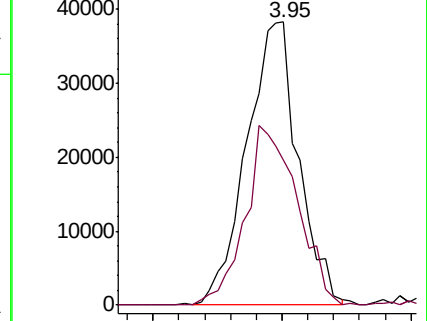
101 100

103 51.2 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: 0.053 ppbv

RT: 4.49 min Scan# 530

Delta R.T. -0.01 min

Lab File: VL034286.D

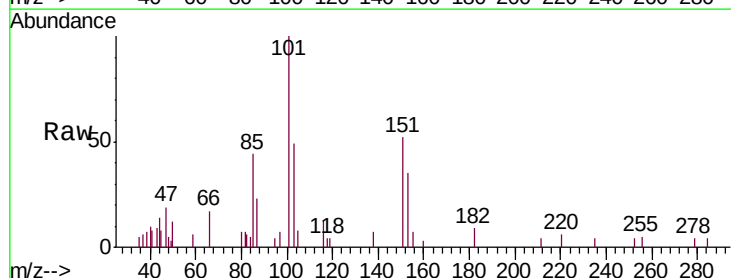
Acq: 14 Oct 2019 17:58

Tgt Ion:101 Resp: 4382

Ion Ratio Lower Upper

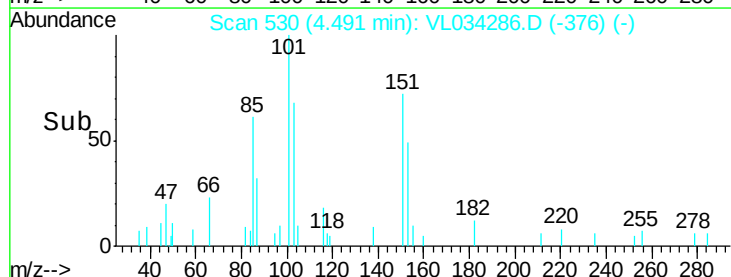
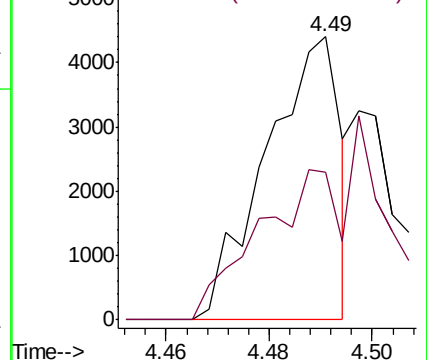
101 100

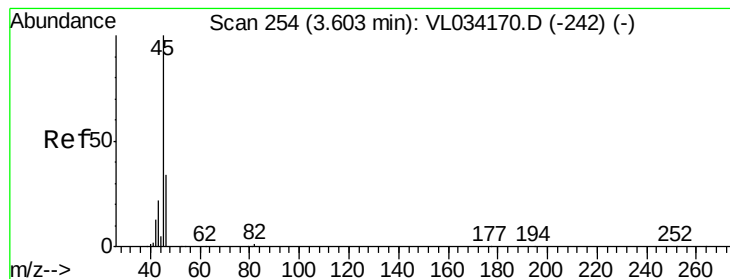
151 0.0 51.8 77.8#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 137.992 ppbv

RT: 3.60 min Scan# 252

Delta R.T. -0.01 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Instrument :

MSVOA_L

ClientSampleId :

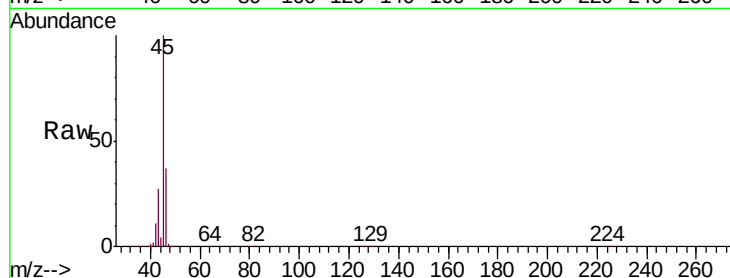
IA-2

Tgt Ion: 45 Resp: 1824141

Ion Ratio Lower Upper

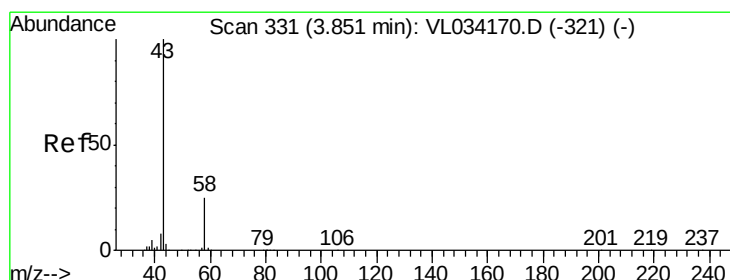
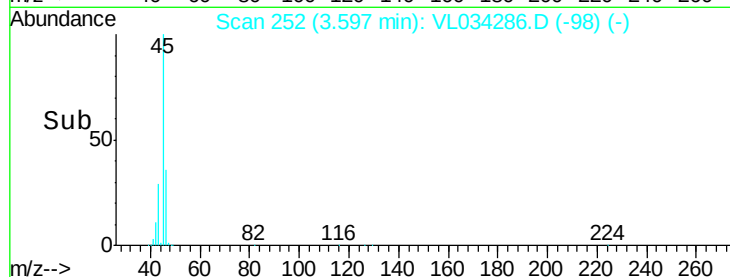
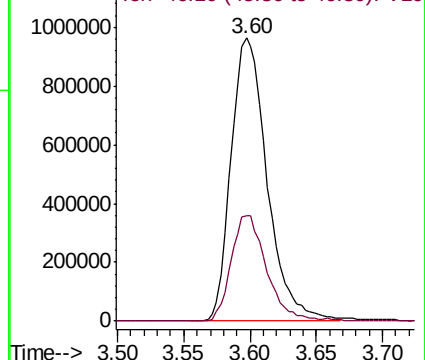
45 100

46 36.9 15.5 61.9



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#15

Acetone

Concen: 5.822 ppbv

RT: 3.84 min Scan# 329

Delta R.T. -0.01 min

Lab File: VL034286.D

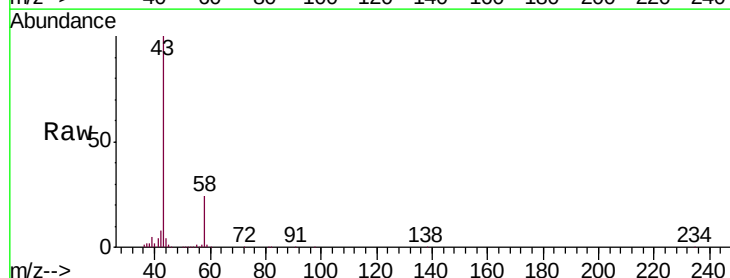
Acq: 14 Oct 2019 17:58

Tgt Ion: 43 Resp: 736408

Ion Ratio Lower Upper

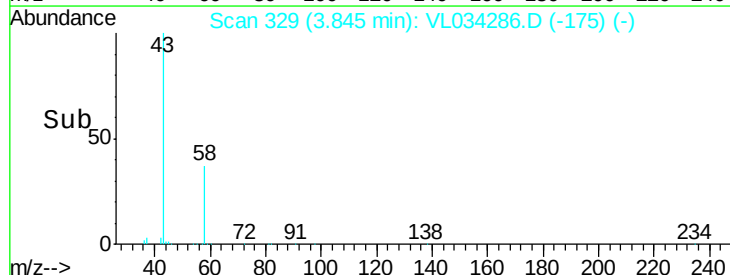
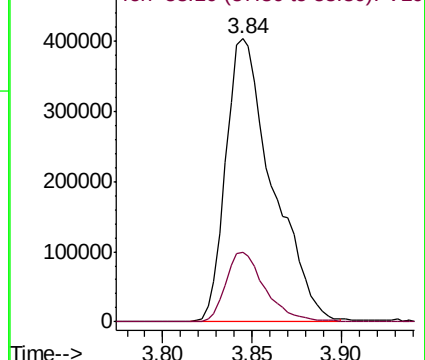
43 100

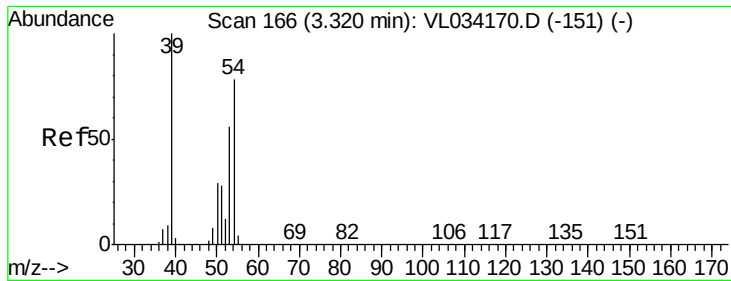
58 20.9 20.5 30.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#16

1,3-Butadiene

Concen: 0.086 ppbv

RT: 3.29 min Scan# 157

Delta R.T. -0.03 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Instrument :

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ClientSampleId :

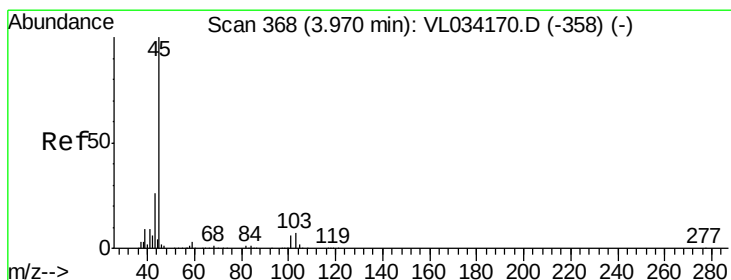
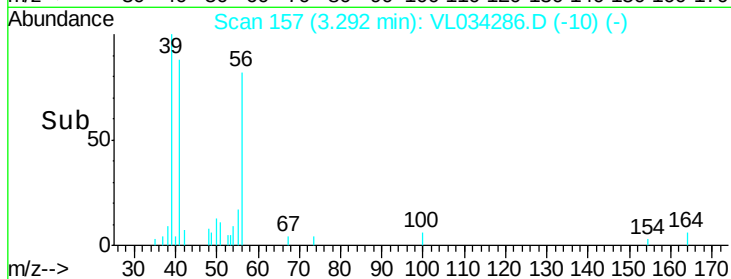
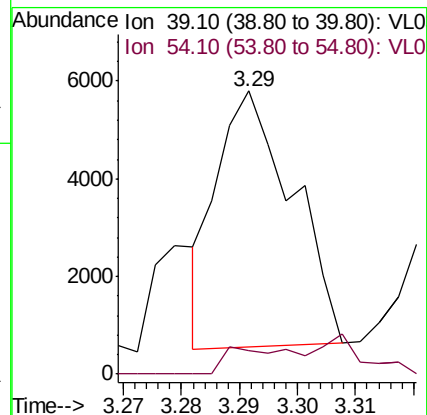
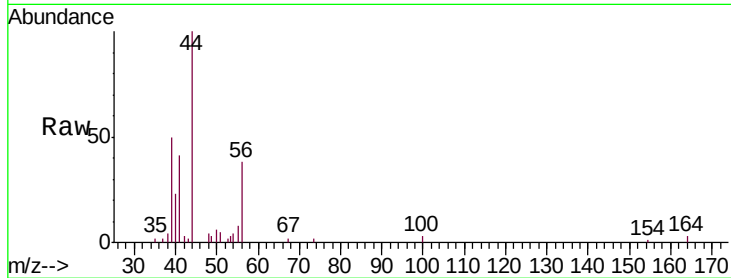
IA-2

Tgt Ion: 39 Resp: 4747

Ion Ratio Lower Upper

39 100

54 17.2 63.4 95.0#



#19

Isopropyl Alcohol

Concen: 0.990 ppbv

RT: 3.97 min Scan# 369

Delta R.T. 0.00 min

Lab File: VL034286.D

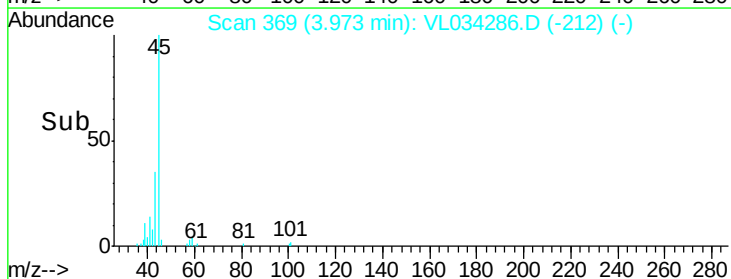
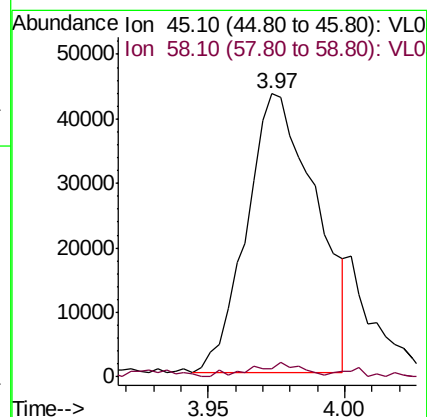
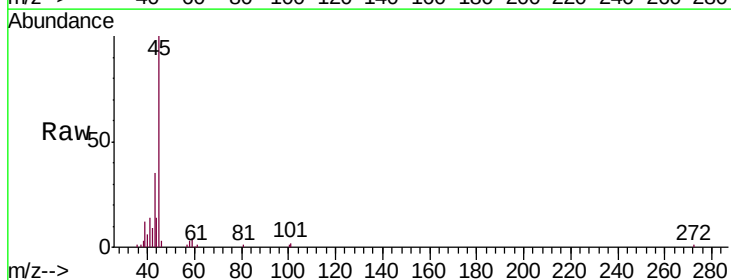
Acq: 14 Oct 2019 17:58

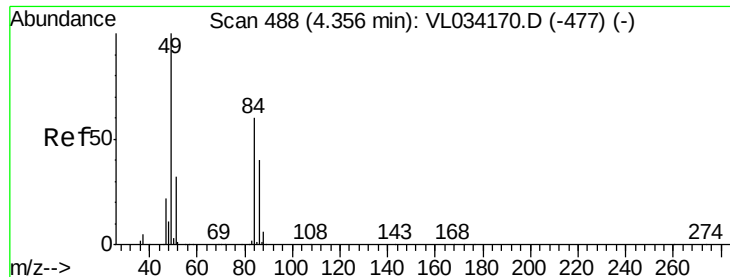
Tgt Ion: 45 Resp: 76979

Ion Ratio Lower Upper

45 100

58 200.0 1.4 2.0#

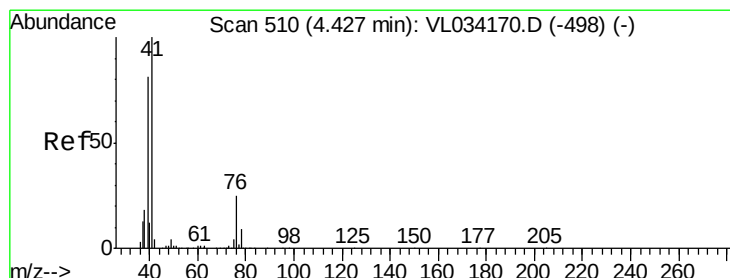
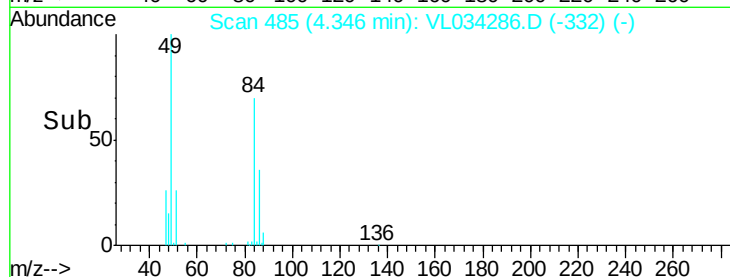
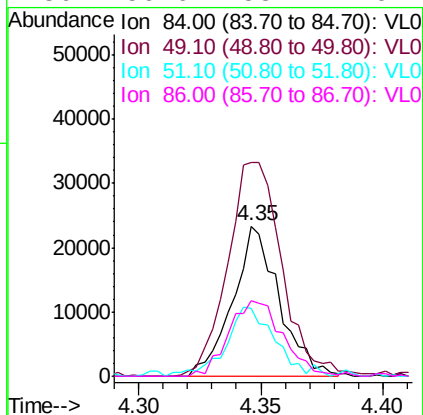
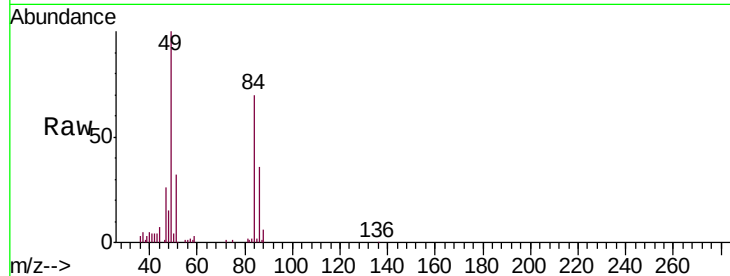




#20
Methylene Chloride
Concen: 0.843 ppbv
RT: 4.35 min Scan# 485
Delta R.T. -0.01 min
Lab File: VL034286.D
Acq: 14 Oct 2019 17:58

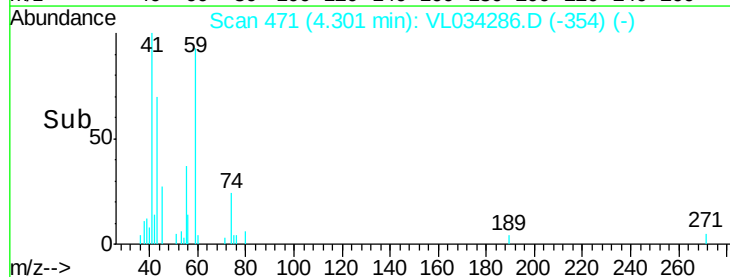
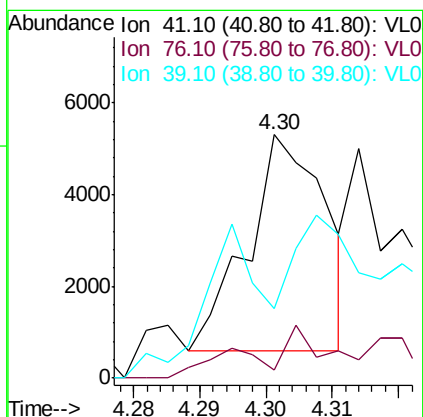
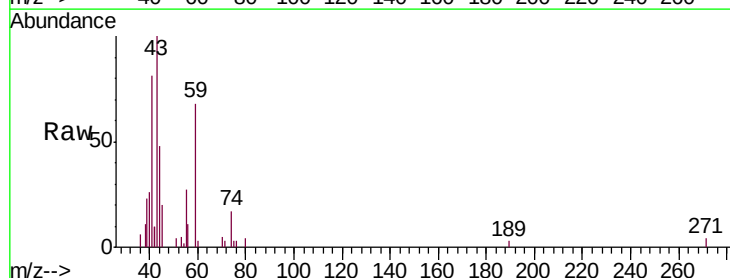
Instrument :
MSVOA_L
ClientSampleID :
IA-2

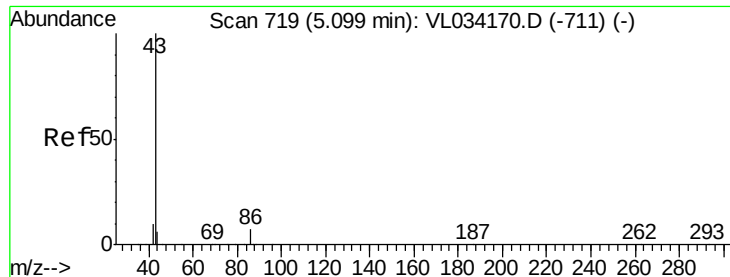
Tgt Ion: 84 Resp: 30744
Ion Ratio Lower Upper
84 100
49 138.3 133.8 200.8
51 43.8 43.6 65.4
86 50.6 53.1 79.7#



#21
Allyl Chloride
Concen: 0.054 ppbv
RT: 4.30 min Scan# 471
Delta R.T. -0.13 min
Lab File: VL034286.D
Acq: 14 Oct 2019 17:58

Tgt Ion: 41 Resp: 3832
Ion Ratio Lower Upper
41 100
76 31.7 21.8 32.6
39 257.4 64.8 97.2#





#23

Vinyl Acetate

Concen: 0.114 ppbv

RT: 5.08 min Scan# 712

Delta R.T. -0.02 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Instrument :

MSVOA_L

ClientSampleId :

IA-2

Tgt Ion: 43 Resp: 21259

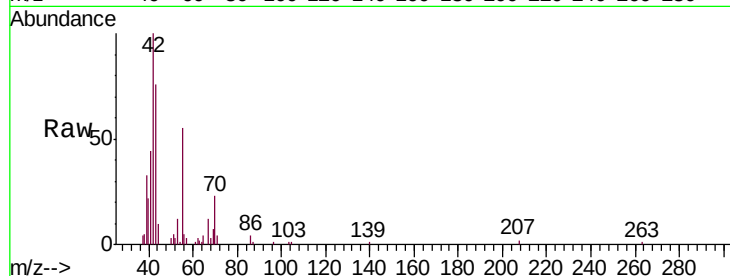
Ion Ratio Lower Upper

43 100

86 5.2 5.1 7.7

42 116.3 8.6 12.8#

44 0.0 4.7 7.1#

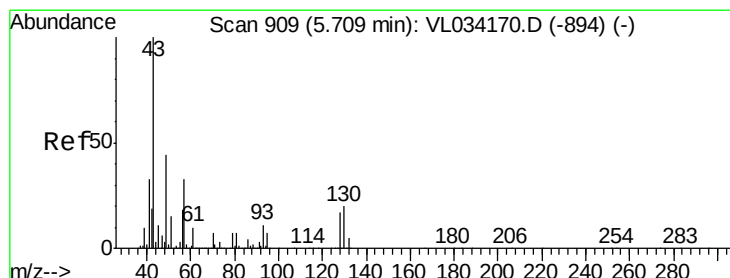
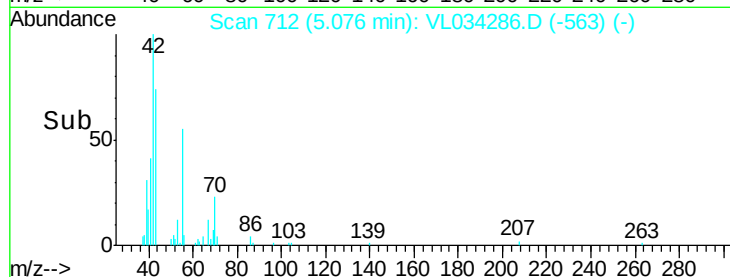
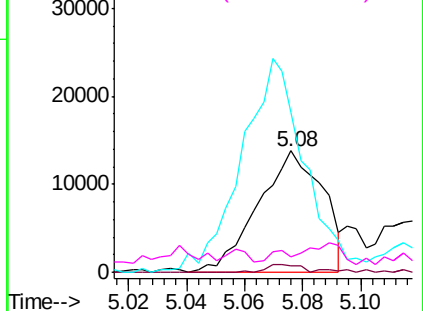


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#25

Ethyl Acetate

Concen: 0.509 ppbv

RT: 5.70 min Scan# 907

Delta R.T. -0.01 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Tgt Ion: 43 Resp: 121753

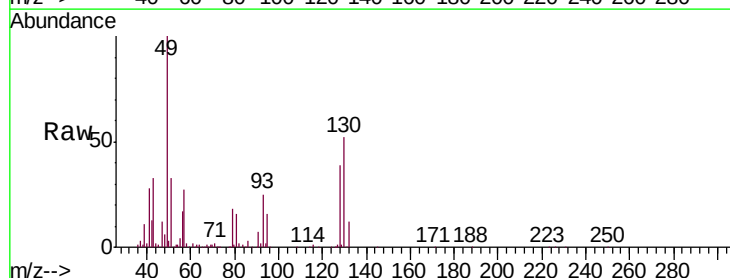
Ion Ratio Lower Upper

43 100

45 6.4 8.4 12.6#

61 4.5 7.2 10.8#

70 4.1 5.3 7.9#

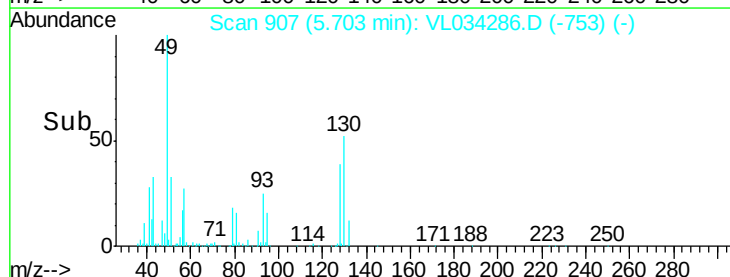
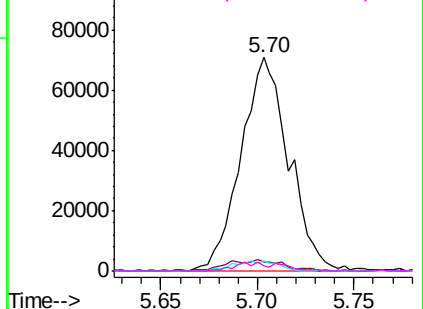


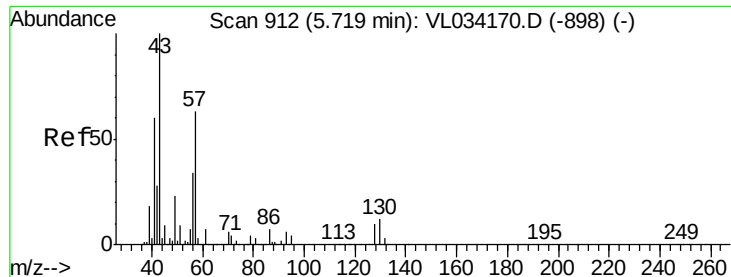
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 1.009 ppbv

RT: 5.71 min Scan# 908

Delta R.T. -0.01 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Instrument :

MSVOA_L

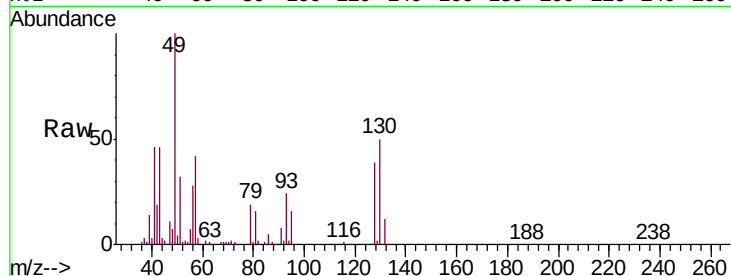
ClientSampleId :

IA-2

Tgt Ion: 57 Resp: 100352

Ion Ratio Lower Upper

57	100		
41	107.5	78.5	117.7
43	124.3	189.5	284.3#
56	61.2	43.2	64.8

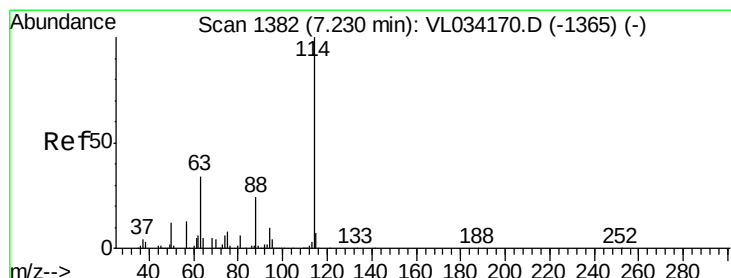
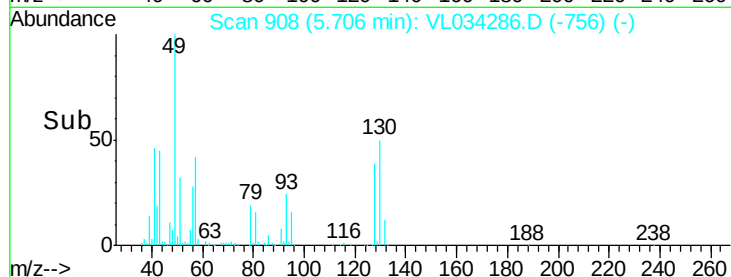
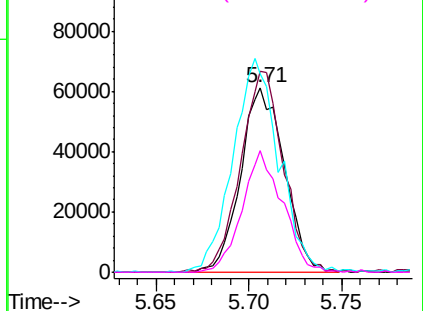


Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 7.21 min Scan# 1376

Delta R.T. -0.02 min

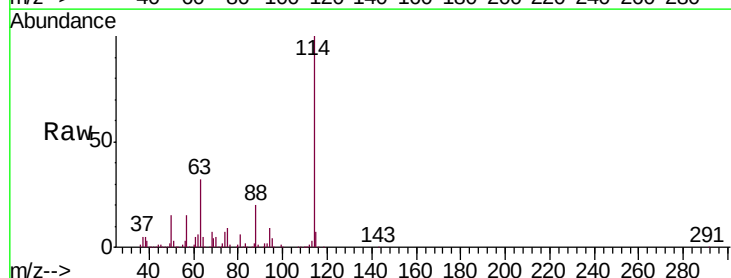
Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Tgt Ion: 114 Resp: 1562403

Ion Ratio Lower Upper

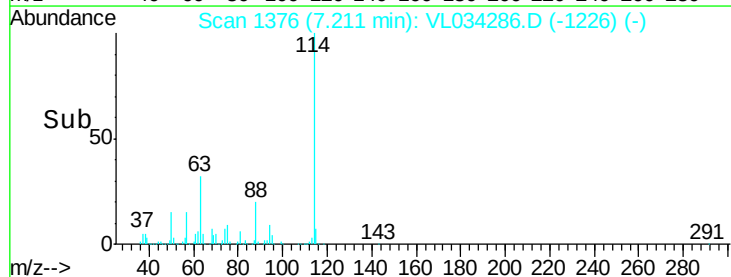
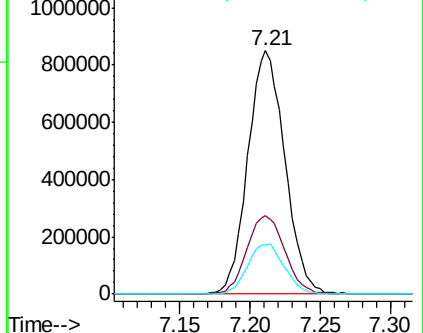
114	100		
63	33.1	27.8	41.6
88	20.8	17.1	25.7

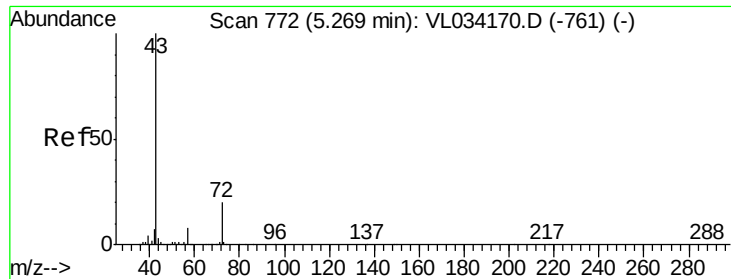


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





#34

2-Butanone

Concen: 0.187 ppbv

RT: 5.26 min Scan# 770

Delta R.T. -0.01 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Instrument :

MSVOA_L

ClientSampleId :

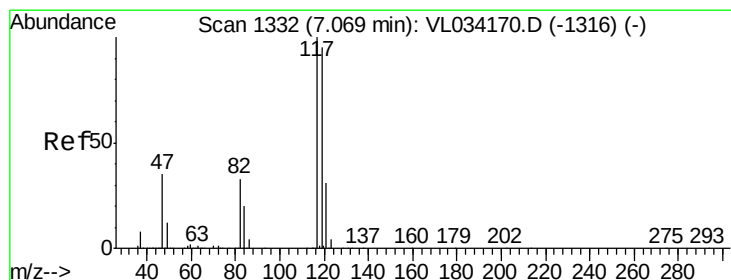
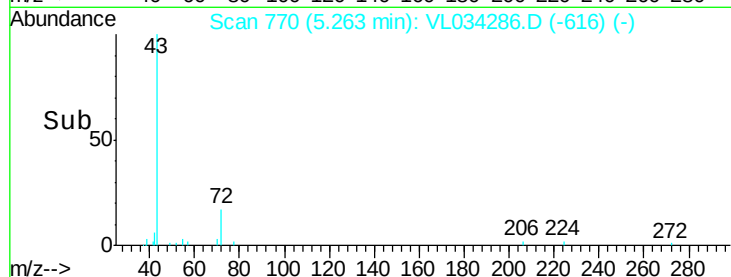
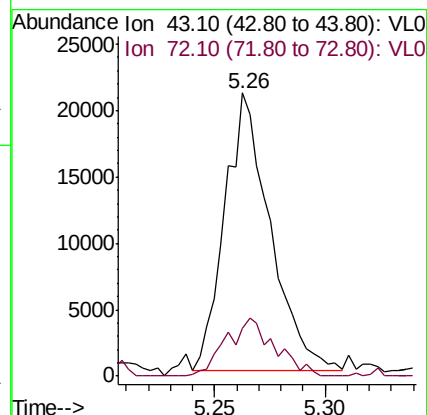
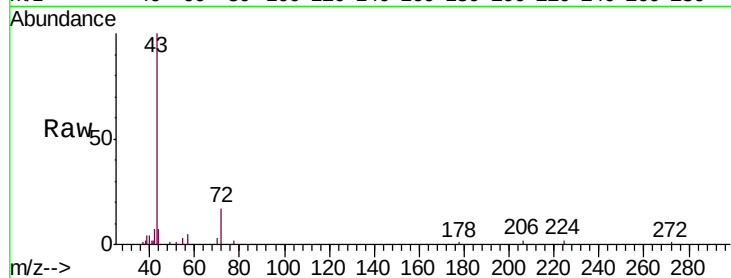
IA-2

Tgt Ion: 43 Resp: 29860

Ion Ratio Lower Upper

43 100

72 22.4 15.0 22.6



#35

Carbon Tetrachloride

Concen: 0.039 ppbv

RT: 7.05 min Scan# 1326

Delta R.T. -0.02 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

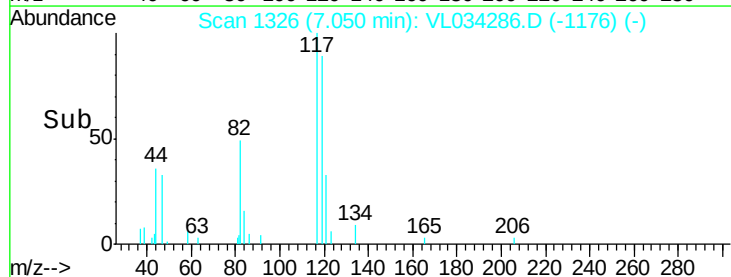
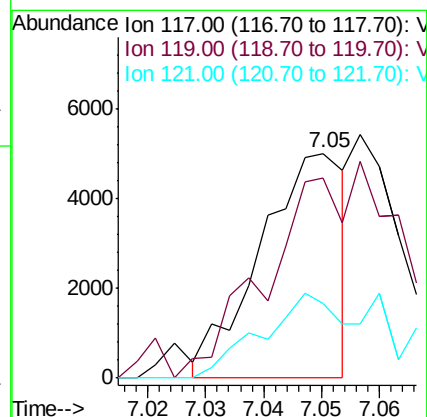
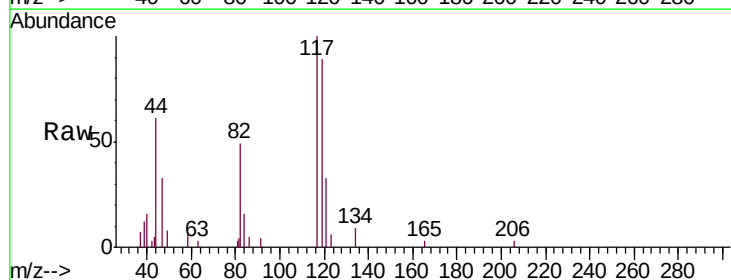
Tgt Ion: 117 Resp: 5070

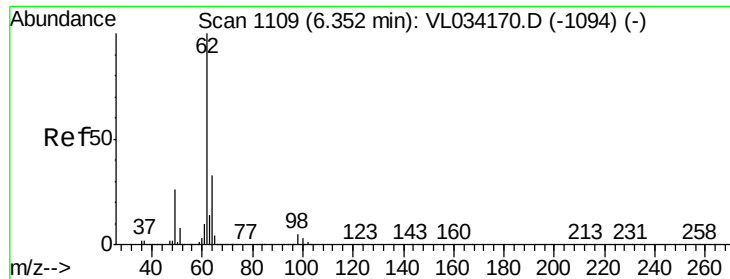
Ion Ratio Lower Upper

117 100

119 86.1 75.8 113.6

121 35.7 25.0 37.6

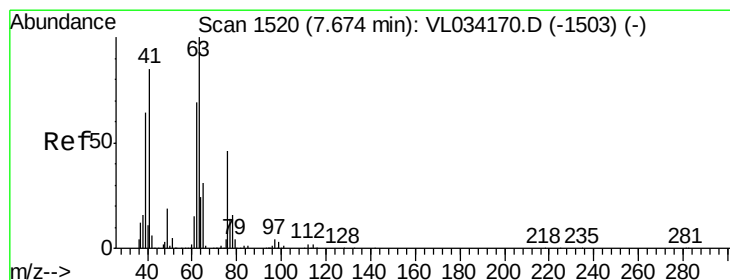
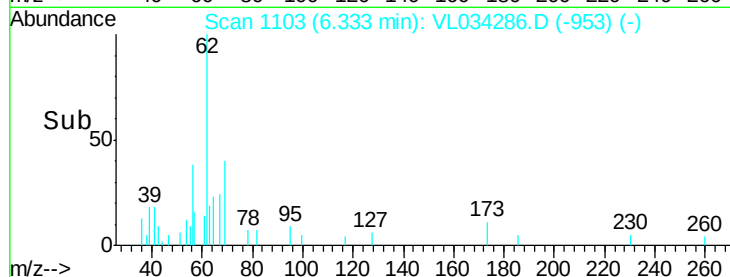
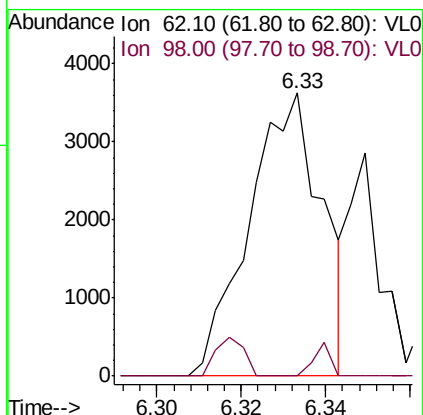
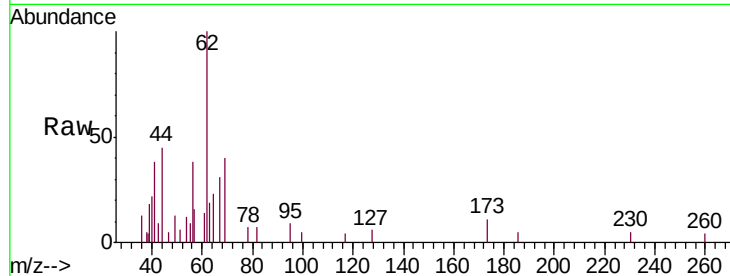




#37
 1,2-Dichloroethane
 Concen: 0.035 ppbv
 RT: 6.33 min Scan# 1103
 Delta R.T. -0.02 min
 Lab File: VL034286.D
 Acq: 14 Oct 2019 17:58

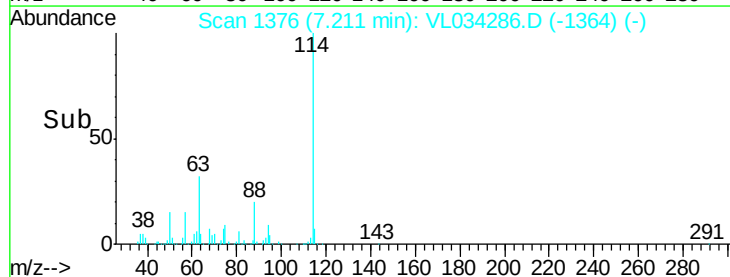
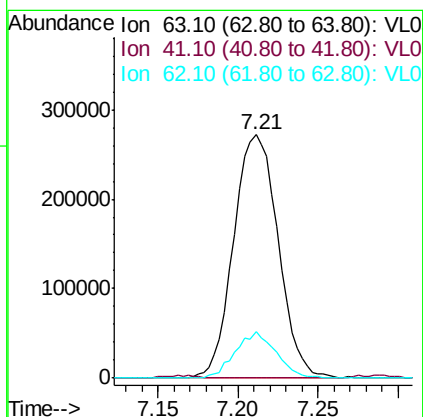
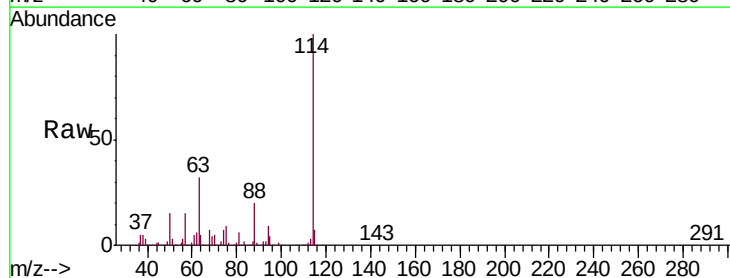
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

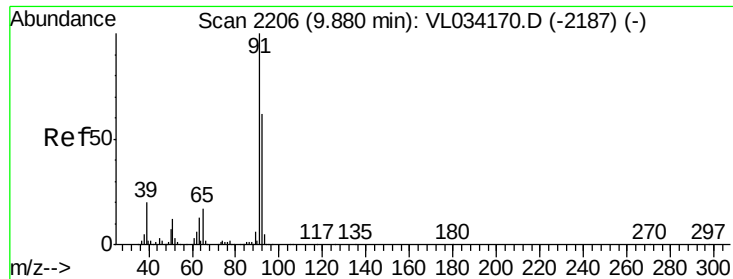
Tgt Ion: 62 Resp: 4338
 Ion Ratio Lower Upper
 62 100
 98 2.7 3.8 5.8#



#39
 1,2-Dichloropropane
 Concen: 6.662 ppbv
 RT: 7.21 min Scan# 1376
 Delta R.T. -0.46 min
 Lab File: VL034286.D
 Acq: 14 Oct 2019 17:58

Tgt Ion: 63 Resp: 516500
 Ion Ratio Lower Upper
 63 100
 41 0.0 68.4 102.6#
 62 18.6 55.4 83.2#





#53

Toluene

Concen: 0.586 ppbv

RT: 9.86 min Scan# 2200

Delta R.T. -0.02 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

Instrument :

MSVOA_L

ClientSampleId :

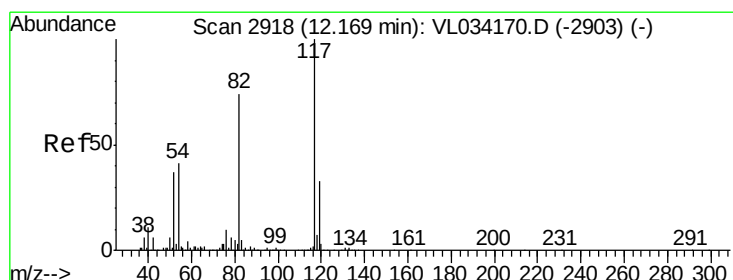
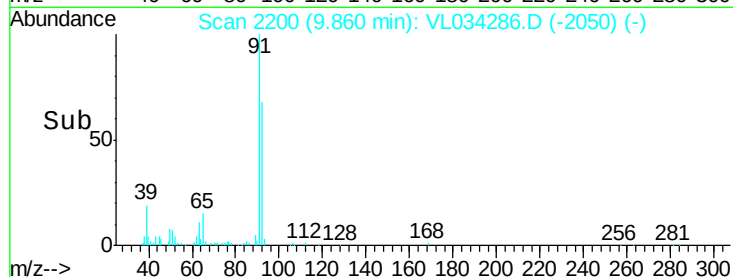
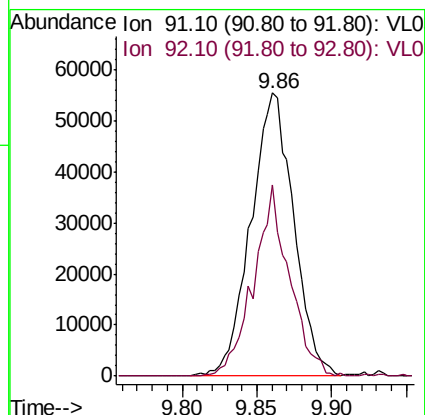
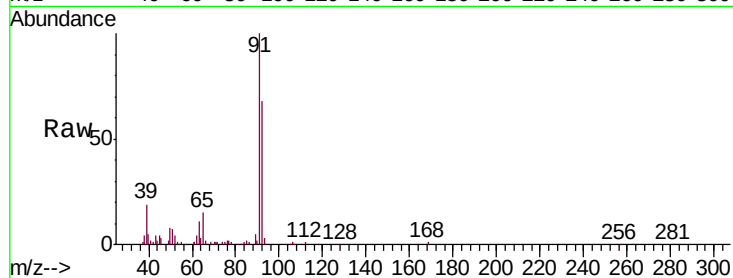
IA-2

Tgt Ion: 91 Resp: 110469

Ion Ratio Lower Upper

91 100

92 56.5 49.0 73.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2912

Delta R.T. -0.02 min

Lab File: VL034286.D

Acq: 14 Oct 2019 17:58

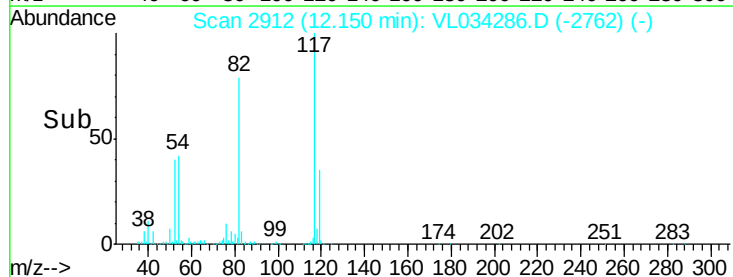
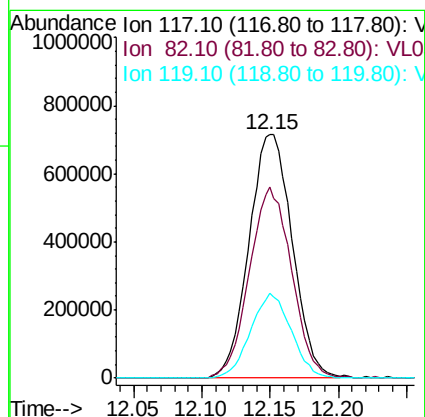
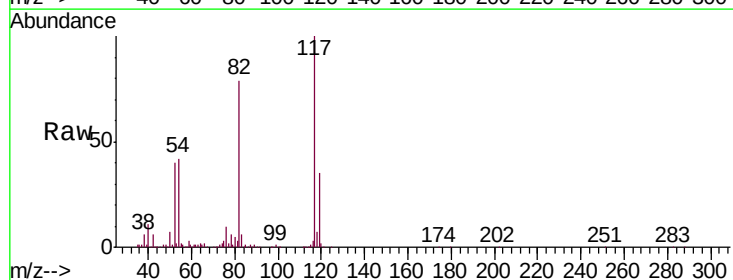
Tgt Ion: 117 Resp: 1576429

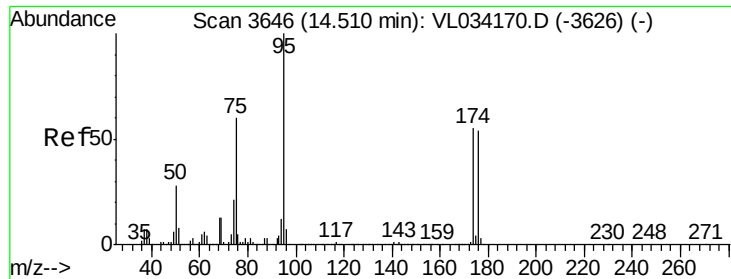
Ion Ratio Lower Upper

117 100

82 76.8 58.2 87.4

119 32.9 23.7 35.5

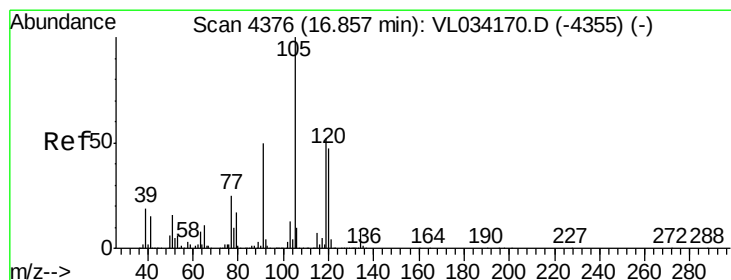
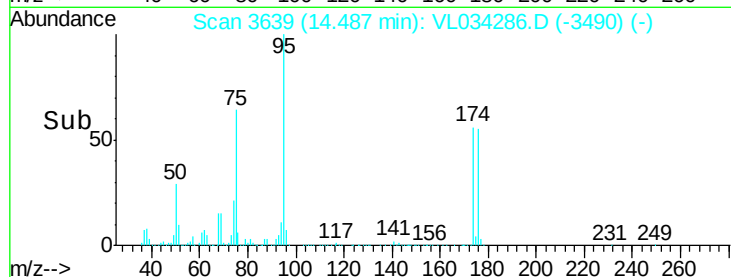
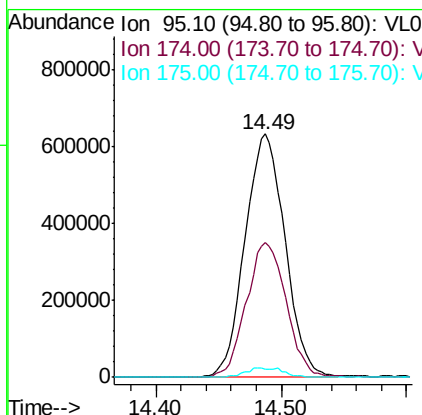
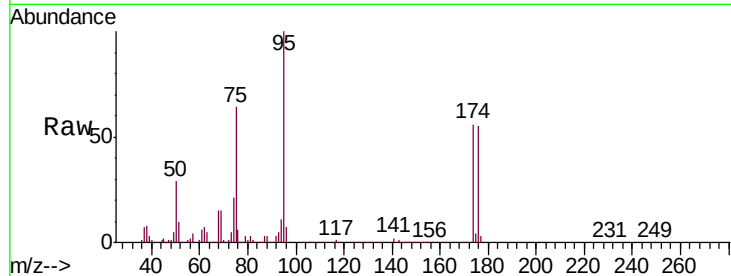




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.246 ppbv
 RT: 14.49 min Scan# 3639
 Delta R.T. -0.02 min
 Lab File: VL034286.D
 Acq: 14 Oct 2019 17:58

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

Tgt Ion: 95 Resp: 1403499
 Ion Ratio Lower Upper
 95 100
 174 55.9 45.1 67.7
 175 3.8 3.3 4.9



#74
 1,2,4-Trimethylbenzene
 Concen: 0.082 ppbv
 RT: 16.84 min Scan# 4370
 Delta R.T. -0.02 min
 Lab File: VL034286.D
 Acq: 14 Oct 2019 17:58

Tgt Ion: 105 Resp: 19975
 Ion Ratio Lower Upper
 105 100
 120 29.8 37.5 56.3#
 91 17.7 41.1 61.7#
 77 30.8 19.9 29.9#

