

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL101719\
 Data File : VL034331.D
 Acq On : 18 Oct 2019 00:40
 Operator : SY/AP
 Sample : K5409-03DL 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV3DL

Quant Time: Oct 18 04:36:36 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL101619AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Oct 17 05:12:37 2019
 QLast Update : Thu Oct 17 05:12:37 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	848751	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.21	114	1856337	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.15	117	1887335	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.49	95	1531624	9.58	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.80%

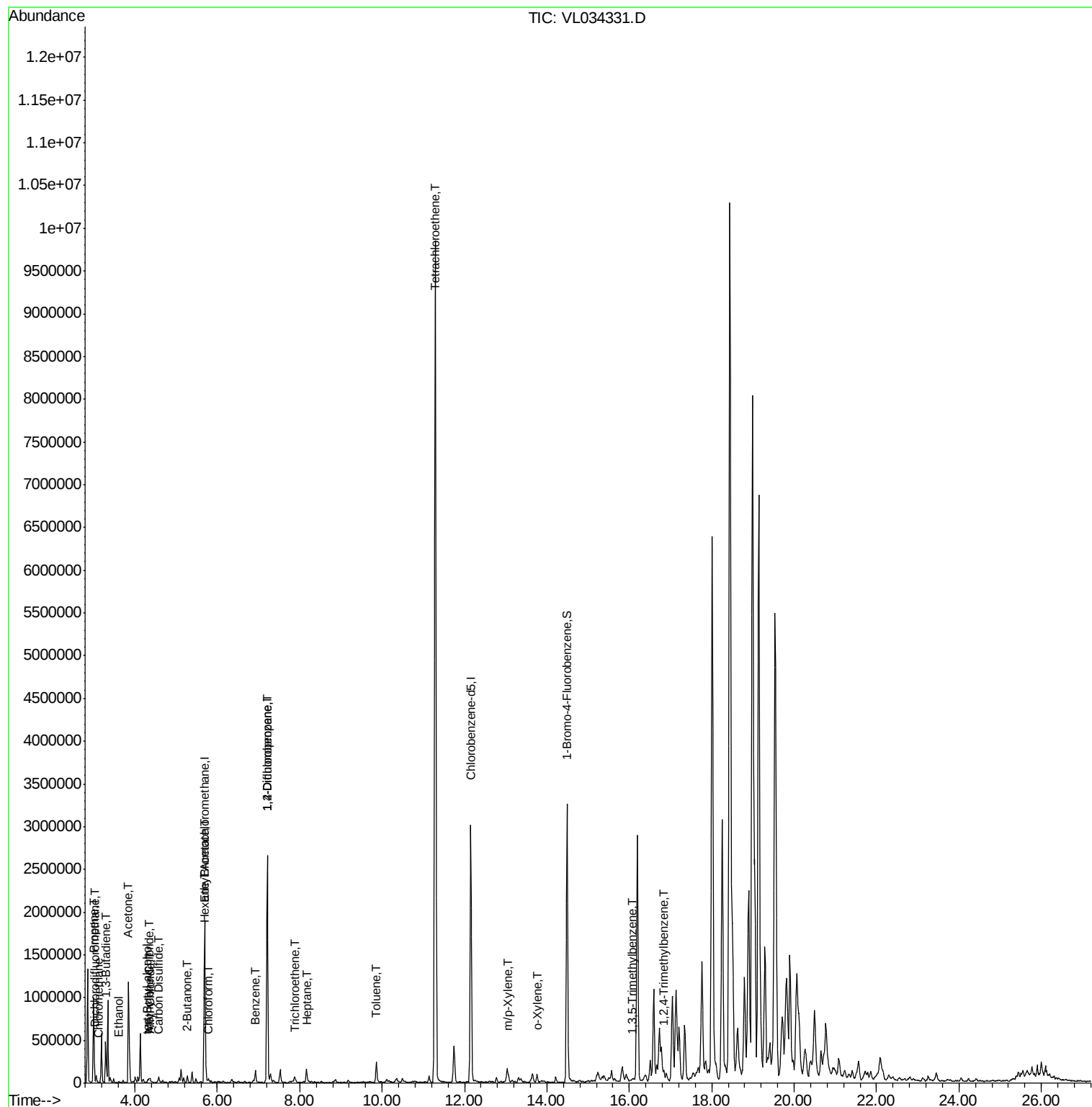
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	8960	0.061	ppbv	96
4) Chloromethane	3.12	50	2970	0.050	ppbv #	83
9) Propene	2.99	41	330588	7.496	ppbv	84
10) Heptane	8.16	43	64802	0.573	ppbv	95
13) Ethanol	3.60	45	3273	0.331	ppbv #	36
15) Acetone	3.84	43	1264809	10.418	ppbv	100
16) 1,3-Butadiene	3.29	39	140276	2.844	ppbv #	29
17) tert-Butyl alcohol	4.31	59	6098	0.079	ppbv #	71
20) Methylene Chloride	4.35	84	12657	0.288	ppbv #	77
21) Allyl Chloride	4.37	41	3563	0.053	ppbv #	1
25) Ethyl Acetate	5.71	43	93490	0.456	ppbv #	77
26) Hexane	5.71	57	129390	1.481	ppbv #	40
27) Carbon Disulfide	4.56	76	14931	0.165	ppbv #	62
29) Chloroform	5.77	83	12206	0.088	ppbv	92
34) 2-Butanone	5.27	43	91199	0.601	ppbv	97
36) Benzene	6.92	78	105537	0.593	ppbv	91
38) Trichloroethene	7.87	130	6545	0.092	ppbv	89
39) 1,2-Dichloropropane	7.21	63	503247	6.562	ppbv #	22
52) Tetrachloroethene	11.29	164	2722515	38.996	ppbv	95
53) Toluene	9.86	91	181073	0.921	ppbv	98
59) m/p-Xylene	13.07	91	16602	0.073	ppbv #	32
60) o-Xylene	13.76	91	58957	0.259	ppbv	96
73) 1,3,5-Trimethylbenzene	16.07	105	20327	0.080	ppbv #	75
74) 1,2,4-Trimethylbenzene	16.84	105	34673	0.131	ppbv #	67

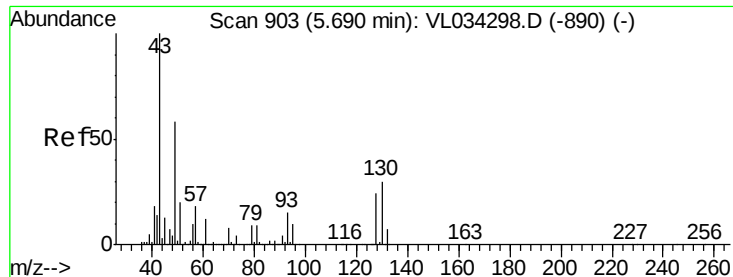
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Oct 17 05:12:37 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 902

Delta R.T. -0.00 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Instrument :

MSVOA_L

ClientSampleId :

SV3DL

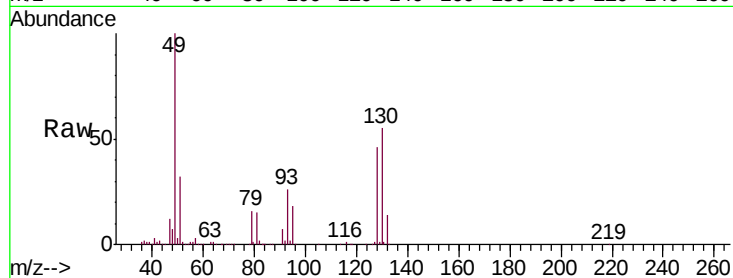
Tgt Ion: 49 Resp: 848751

Ion Ratio Lower Upper

49 100

128 45.5 20.6 61.8

130 58.2 26.2 78.5



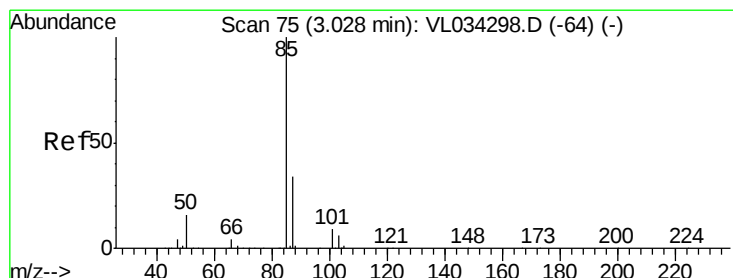
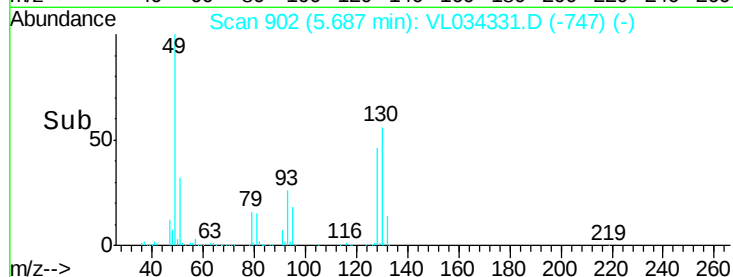
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.69

Time-->



#2

Dichlorodifluoromethane

Concen: 0.061 ppbv

RT: 3.03 min Scan# 75

Delta R.T. 0.00 min

Lab File: VL034331.D

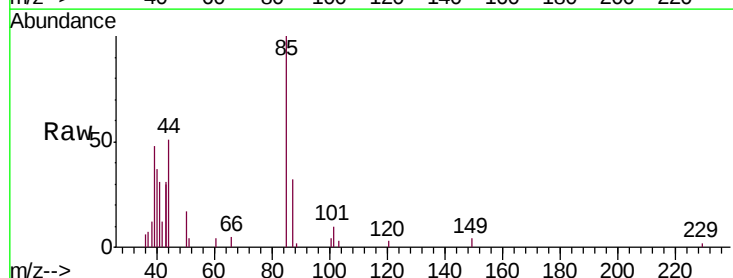
Acq: 18 Oct 2019 00:40

Tgt Ion: 85 Resp: 8960

Ion Ratio Lower Upper

85 100

87 31.7 27.0 40.6

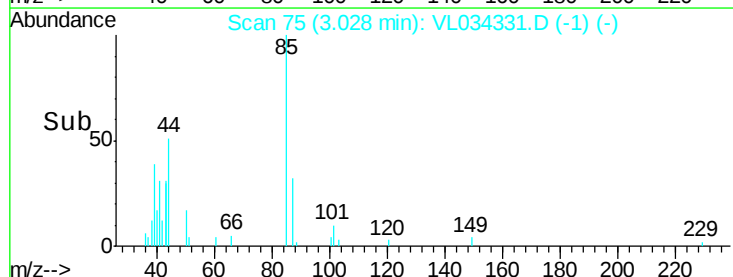


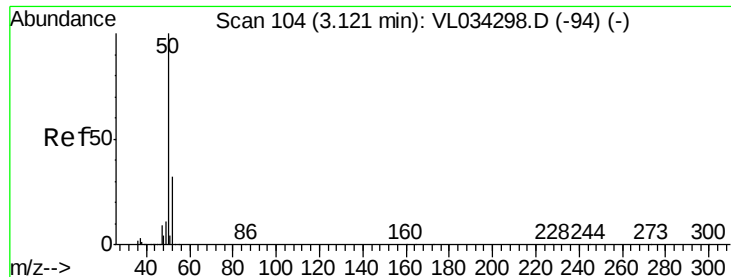
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.03

Time-->





#4

Chloromethane

Concen: 0.050 ppbv

RT: 3.12 min Scan# 104

Delta R.T. 0.00 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Instrument :

MSVOA_L

ClientSampleId :

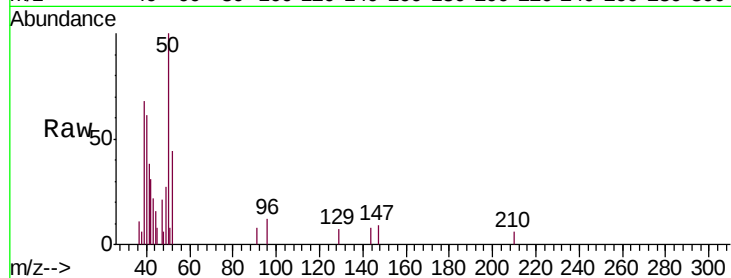
SV3DL

Tgt Ion: 50 Resp: 2970

Ion Ratio Lower Upper

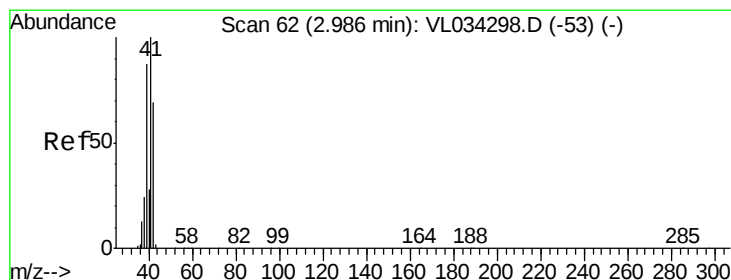
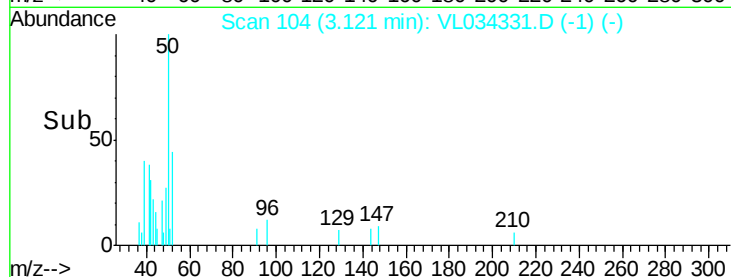
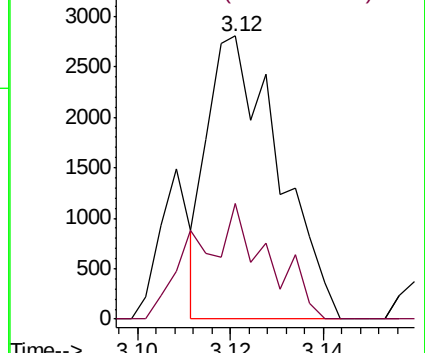
50 100

52 41.1 25.4 38.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 7.496 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.01 min

Lab File: VL034331.D

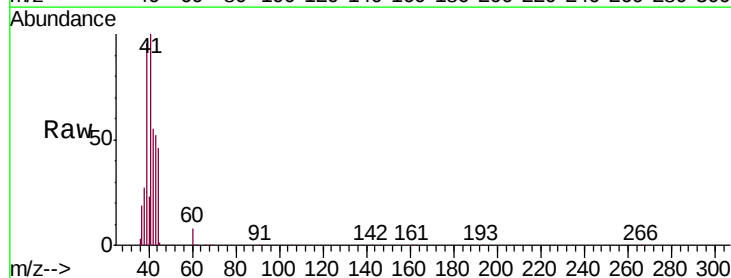
Acq: 18 Oct 2019 00:40

Tgt Ion: 41 Resp: 330588

Ion Ratio Lower Upper

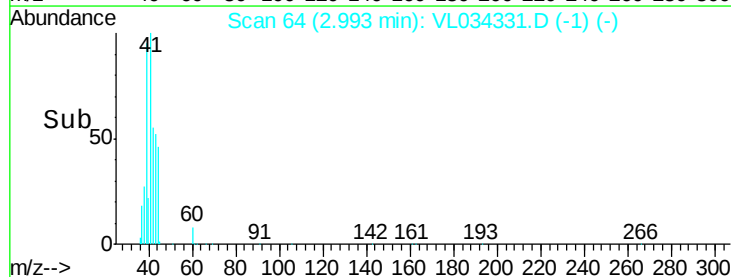
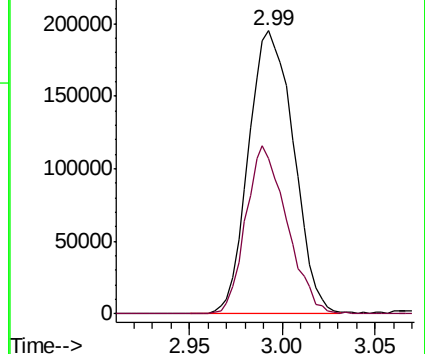
41 100

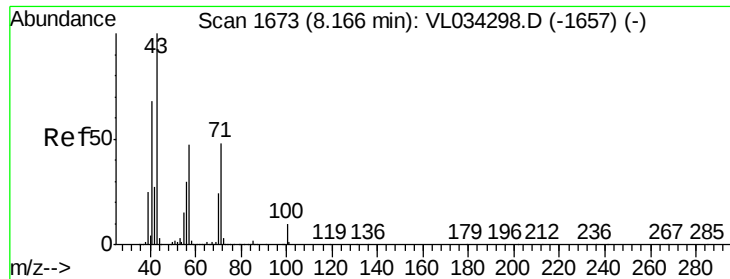
42 54.2 53.9 80.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.573 ppbv

RT: 8.16 min Scan# 1672

Delta R.T. -0.00 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Instrument :

MSVOA_L

ClientSampleId :

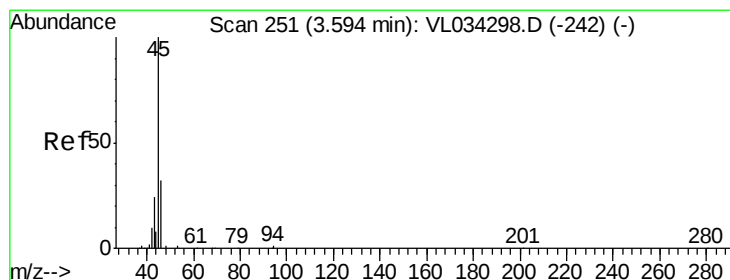
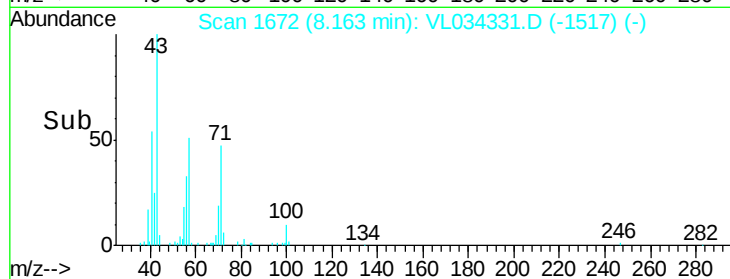
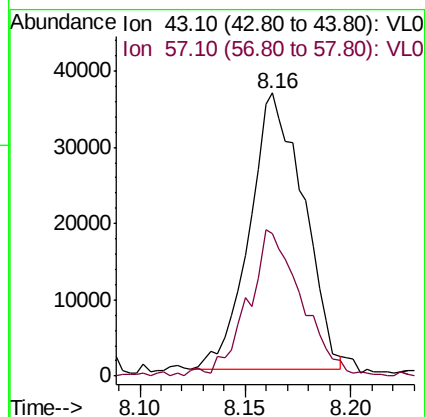
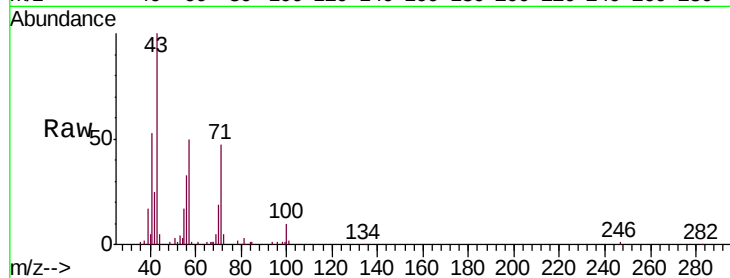
SV3DL

Tgt Ion: 43 Resp: 64802

Ion Ratio Lower Upper

43 100

57 52.9 39.5 59.3



#13

Ethanol

Concen: 0.331 ppbv

RT: 3.60 min Scan# 253

Delta R.T. 0.01 min

Lab File: VL034331.D

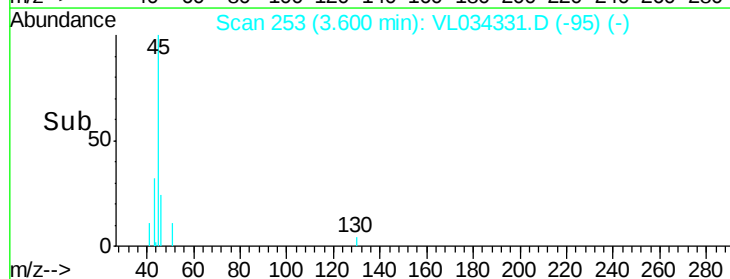
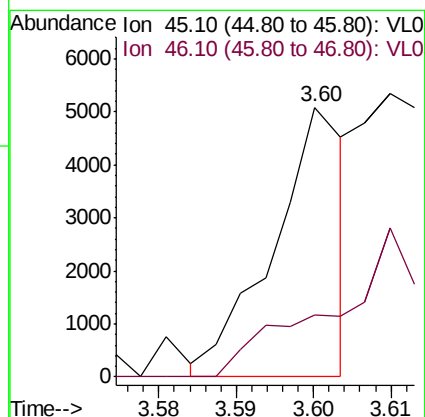
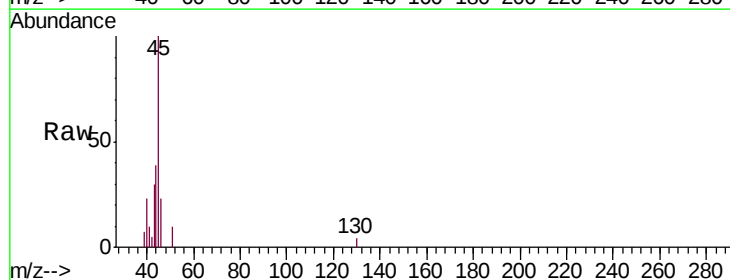
Acq: 18 Oct 2019 00:40

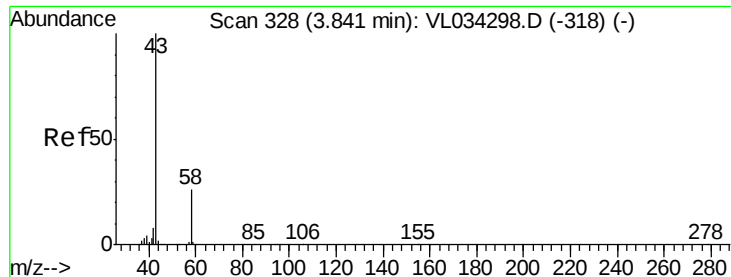
Tgt Ion: 45 Resp: 3273

Ion Ratio Lower Upper

45 100

46 0.0 15.8 63.2#





#15

Acetone

Concen: 10.418 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.00 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Instrument :

MSVOA_L

ClientSampleId :

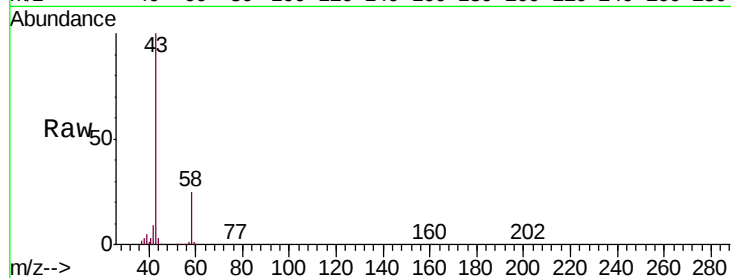
SV3DL

Tgt Ion: 43 Resp: 1264809

Ion Ratio Lower Upper

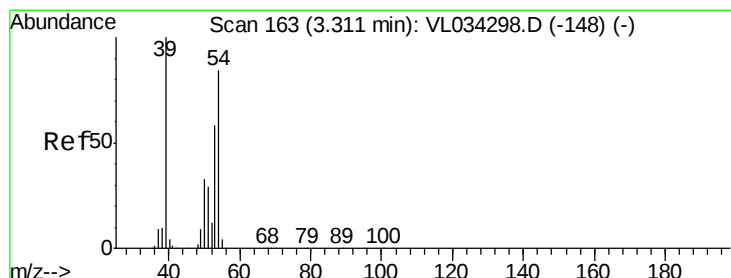
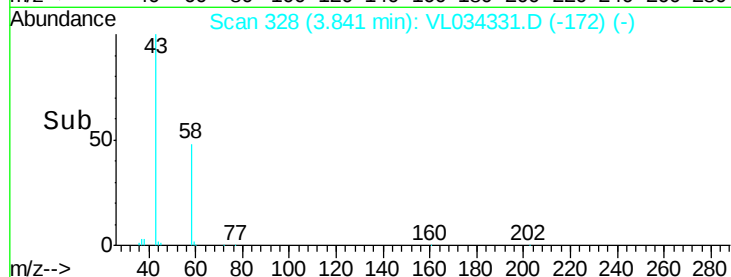
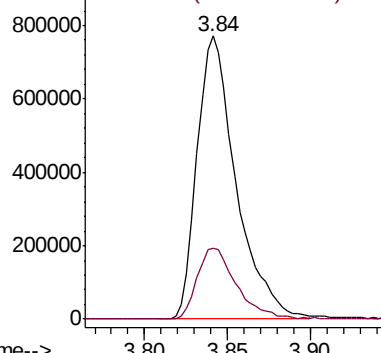
43 100

58 25.3 20.4 30.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 2.844 ppbv

RT: 3.29 min Scan# 157

Delta R.T. -0.02 min

Lab File: VL034331.D

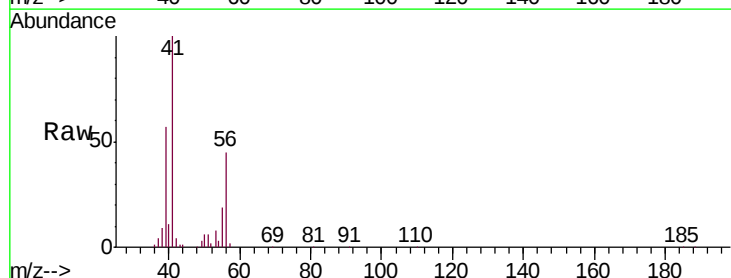
Acq: 18 Oct 2019 00:40

Tgt Ion: 39 Resp: 140276

Ion Ratio Lower Upper

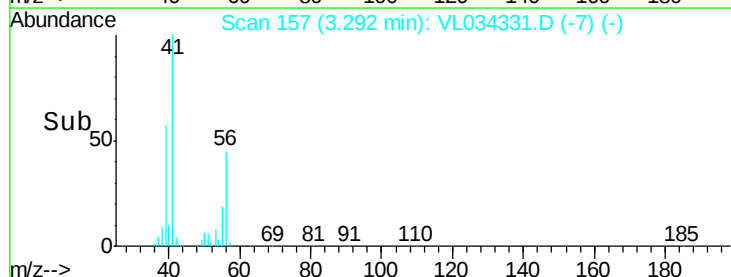
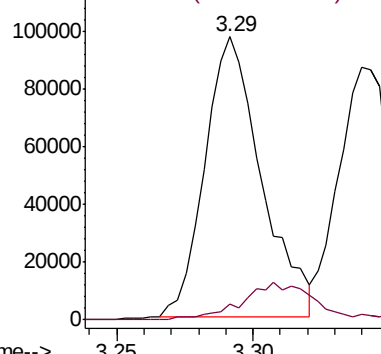
39 100

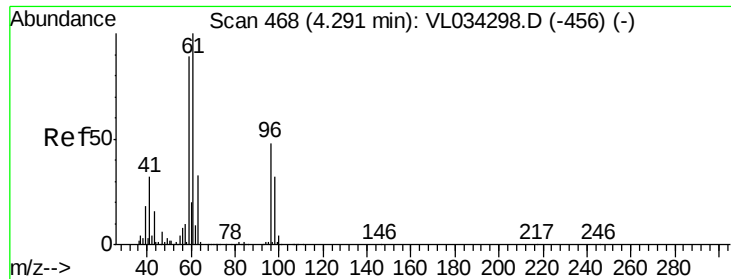
54 17.4 63.9 95.9#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

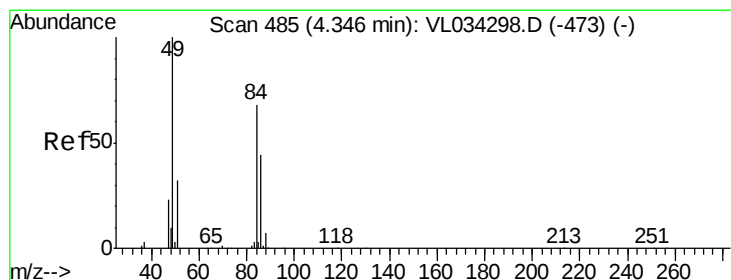
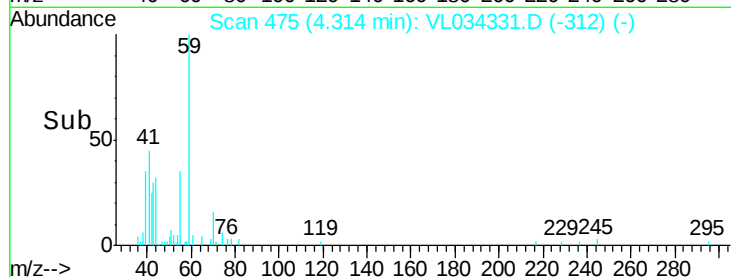
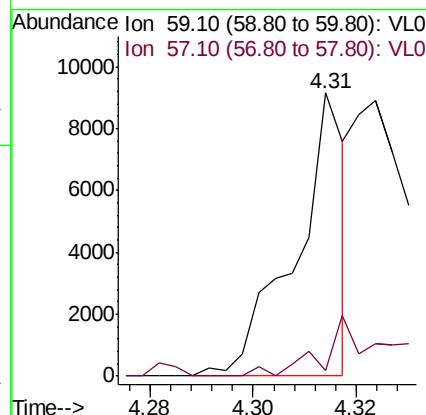
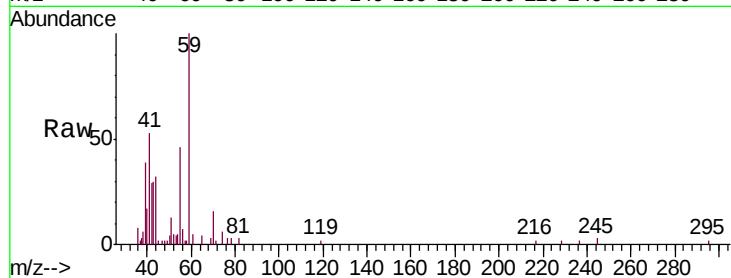




#17
 tert-Butyl alcohol
 Concen: 0.079 ppbv
 RT: 4.31 min Scan# 475
 Delta R.T. 0.02 min
 Lab File: VL034331.D
 Acq: 18 Oct 2019 00:40

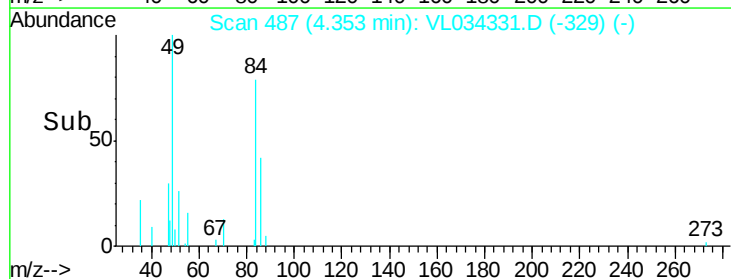
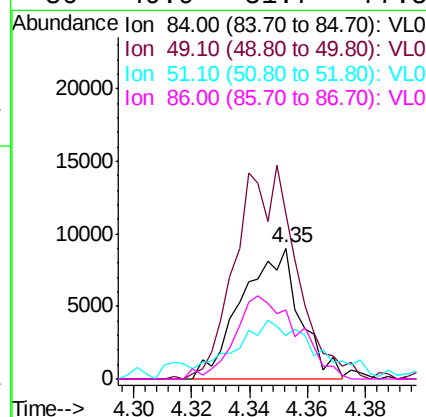
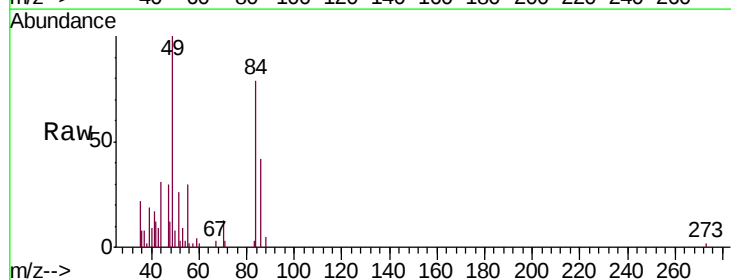
Instrument :
 MSVOA_L
 ClientSampleId :
 SV3DL

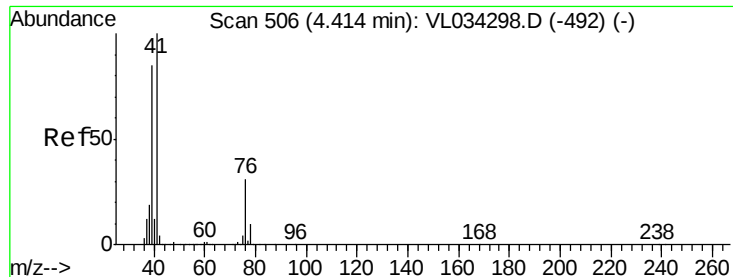
Tgt Ion: 59 Resp: 6098
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.8 13.2#



#20
 Methylene Chloride
 Concen: 0.288 ppbv
 RT: 4.35 min Scan# 487
 Delta R.T. 0.01 min
 Lab File: VL034331.D
 Acq: 18 Oct 2019 00:40

Tgt Ion: 84 Resp: 12657
 Ion Ratio Lower Upper
 84 100
 49 122.2 118.5 177.7
 51 25.3 38.8 58.2#
 86 49.9 51.7 77.5#





#21

Allyl Chloride

Concen: 0.053 ppbv

RT: 4.37 min Scan# 493

Delta R.T. -0.04 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Instrument :

MSVOA_L

ClientSampleId :

SV3DL

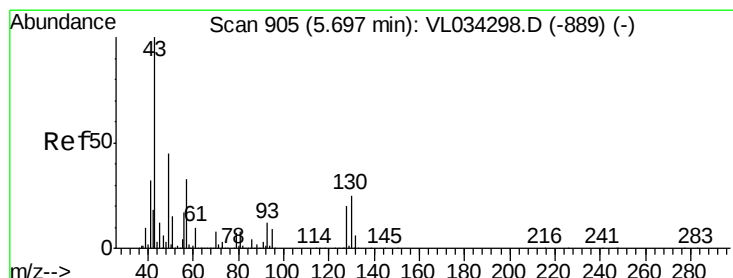
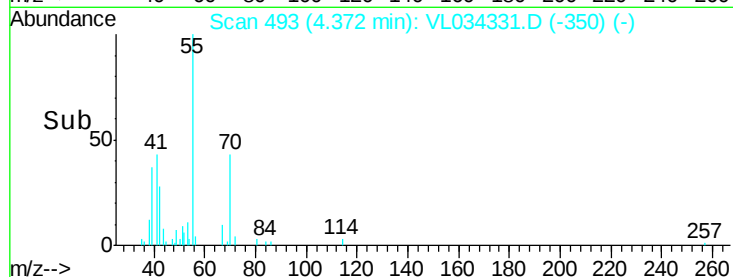
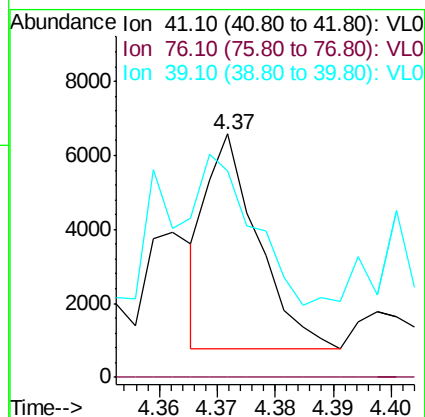
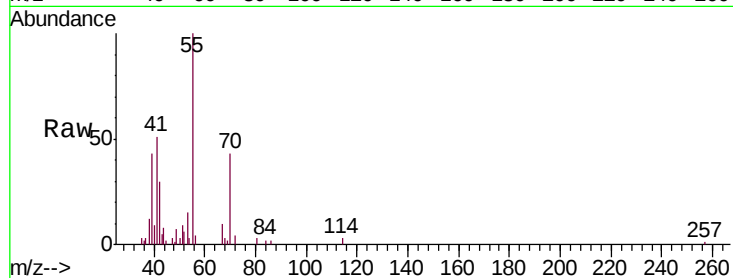
Tgt Ion: 41 Resp: 3563

Ion Ratio Lower Upper

41 100

76 0.0 22.8 34.2#

39 409.4 66.0 99.0#



#25

Ethyl Acetate

Concen: 0.456 ppbv

RT: 5.71 min Scan# 908

Delta R.T. 0.01 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Tgt Ion: 43 Resp: 93490

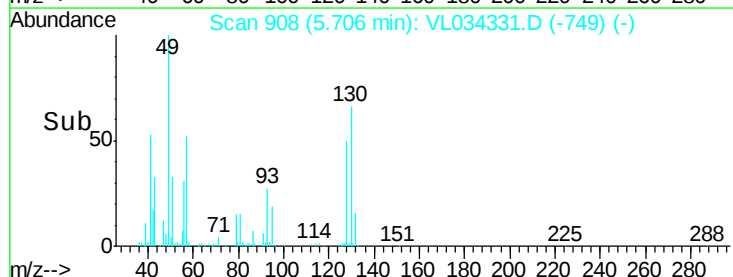
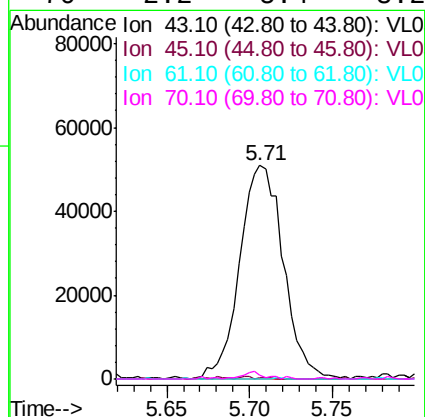
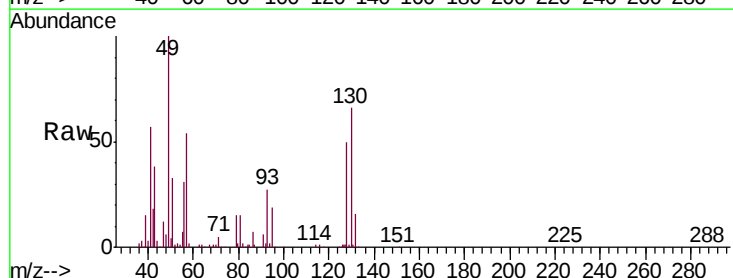
Ion Ratio Lower Upper

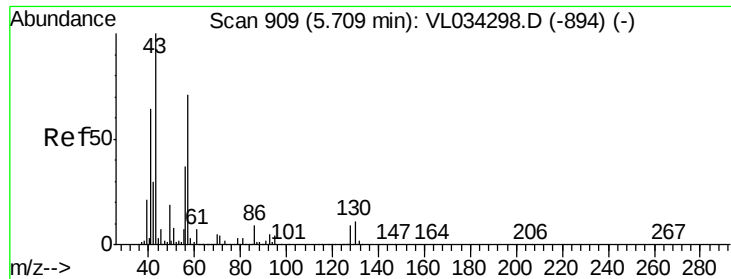
43 100

45 1.0 8.3 12.5#

61 0.0 7.7 11.5#

70 2.2 5.4 8.2#

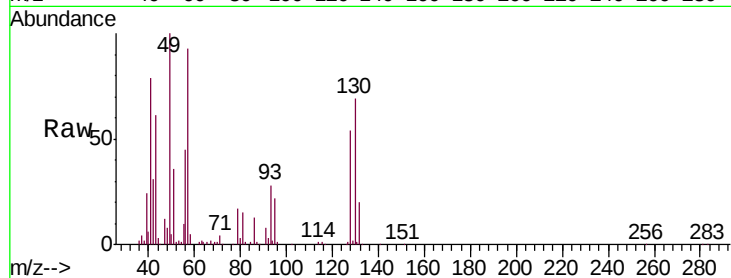




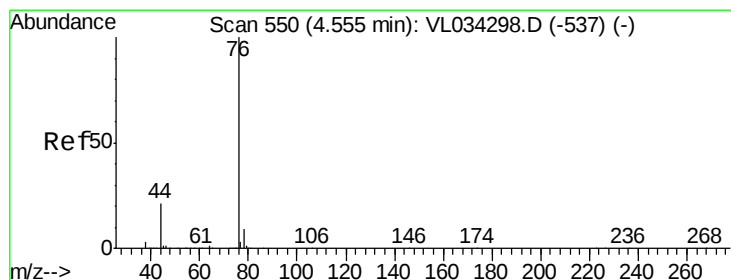
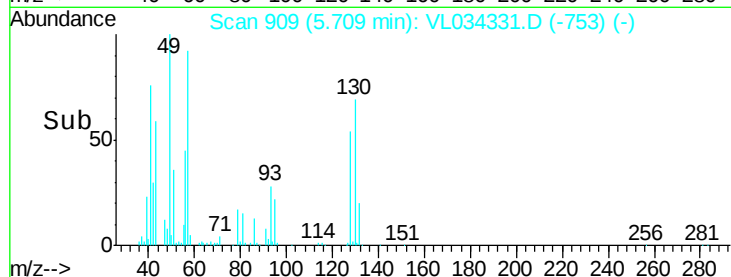
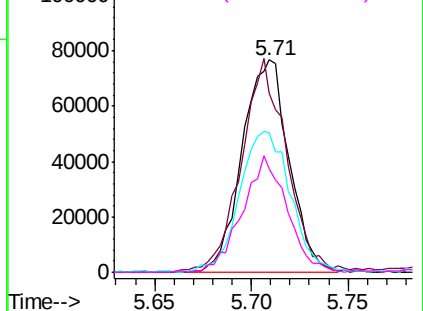
#26
Hexane
Concen: 1.481 ppbv
RT: 5.71 min Scan# 909
Delta R.T. 0.00 min
Lab File: VL034331.D
Acq: 18 Oct 2019 00:40

Instrument :
MSVOA_L
ClientSampleId :
SV3DL

Tgt Ion: 57 Resp: 129390
Ion Ratio Lower Upper
57 100
41 98.4 76.5 114.7
43 73.7 188.5 282.7#
56 52.7 42.8 64.2

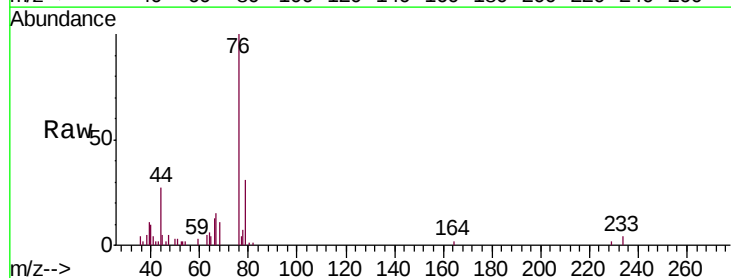


Abundance Ion 57.10 (56.80 to 57.80): VL0
120000 Ion 41.10 (40.80 to 41.80): VL0
100000 Ion 43.10 (42.80 to 43.80): VL0
80000 Ion 56.10 (55.80 to 56.80): VL0

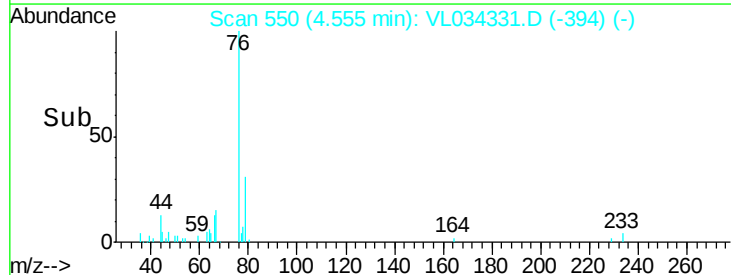
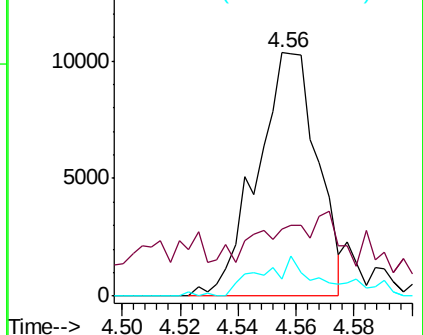


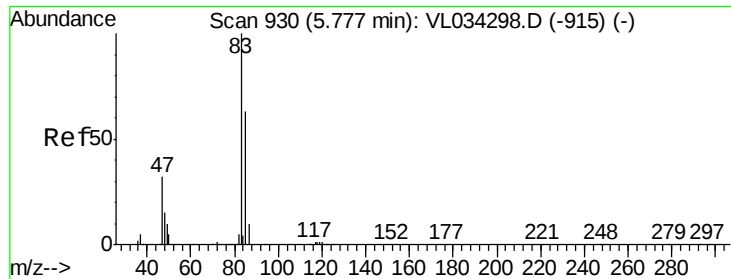
#27
Carbon Disulfide
Concen: 0.165 ppbv
RT: 4.56 min Scan# 550
Delta R.T. 0.00 min
Lab File: VL034331.D
Acq: 18 Oct 2019 00:40

Tgt Ion: 76 Resp: 14931
Ion Ratio Lower Upper
76 100
44 0.0 17.3 25.9#
78 17.8 7.8 11.6#



Abundance Ion 76.00 (75.70 to 76.70): VL0
10000 Ion 44.10 (43.80 to 44.80): VL0
5000 Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 0.088 ppbv

RT: 5.77 min Scan# 929

Delta R.T. -0.00 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Instrument :

MSVOA_L

ClientSampleId :

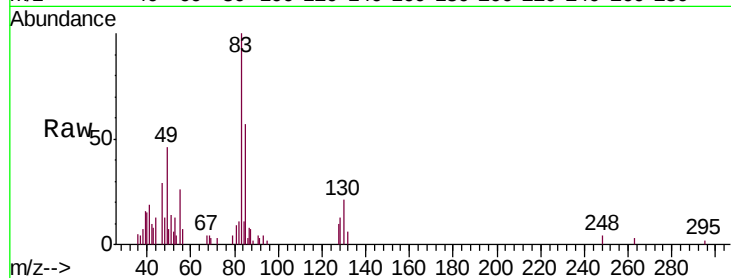
SV3DL

Tgt Ion: 83 Resp: 12206

Ion Ratio Lower Upper

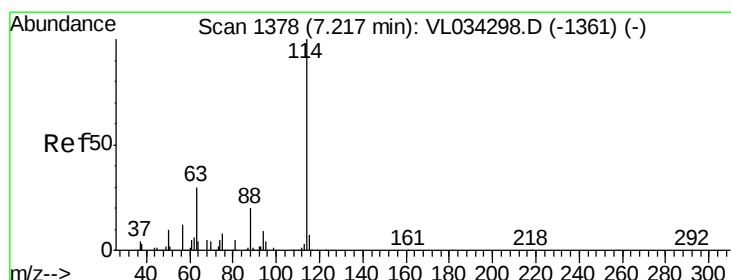
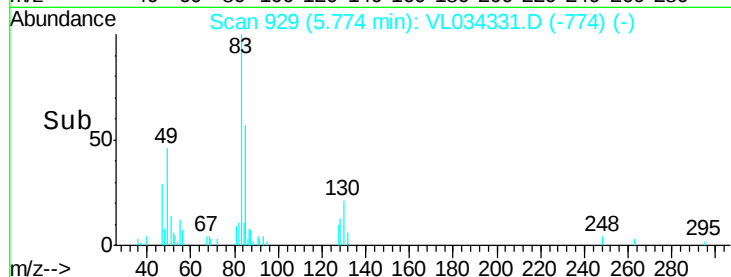
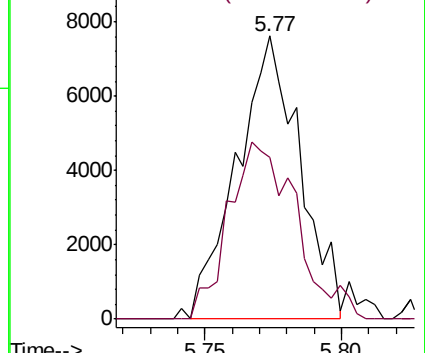
83 100

85 57.0 50.5 75.7



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.21 min Scan# 1376

Delta R.T. -0.01 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

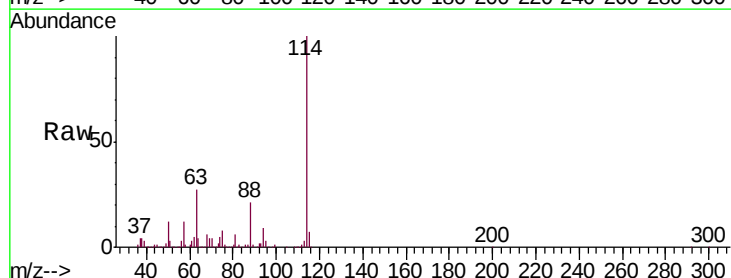
Tgt Ion: 114 Resp: 1856337

Ion Ratio Lower Upper

114 100

63 27.3 25.2 37.8

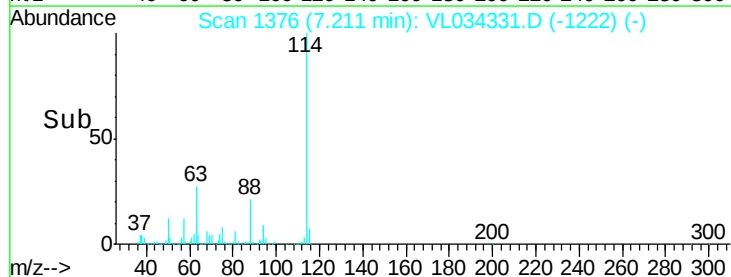
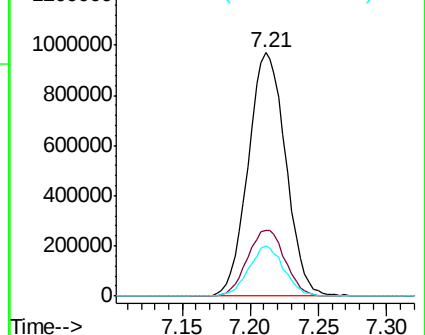
88 19.4 16.0 24.0

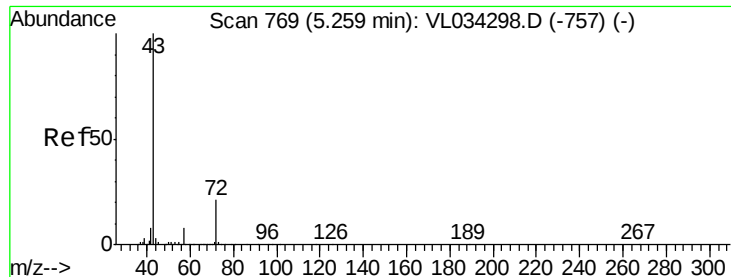


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0

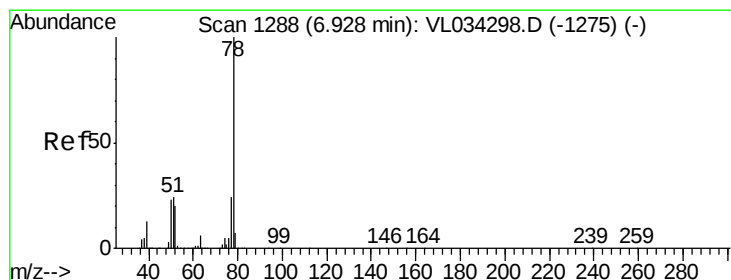
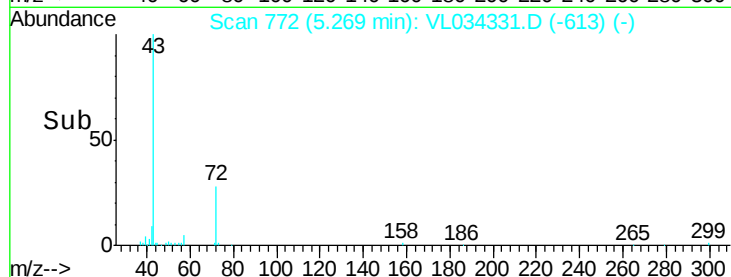
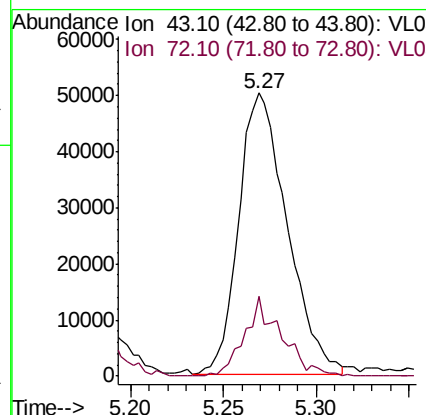
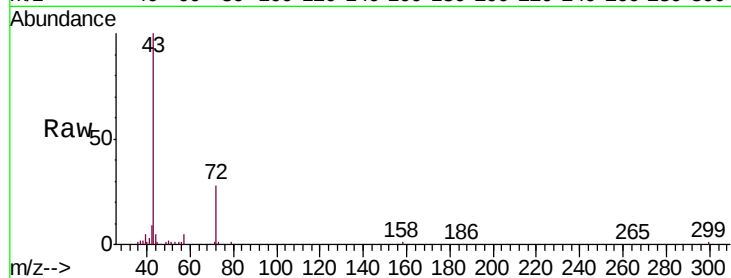




#34
2-Butanone
Concen: 0.601 ppbv
RT: 5.27 min Scan# 772
Delta R.T. 0.01 min
Lab File: VL034331.D
Acq: 18 Oct 2019 00:40

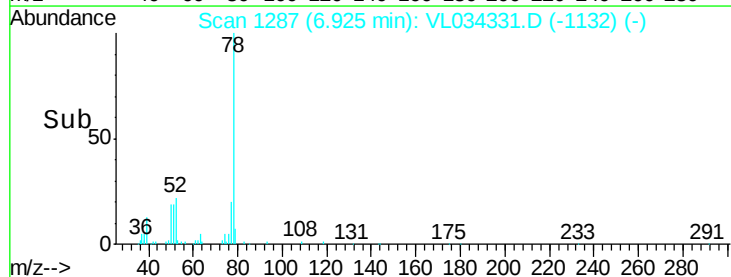
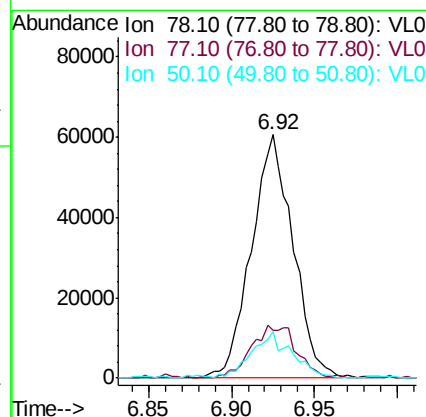
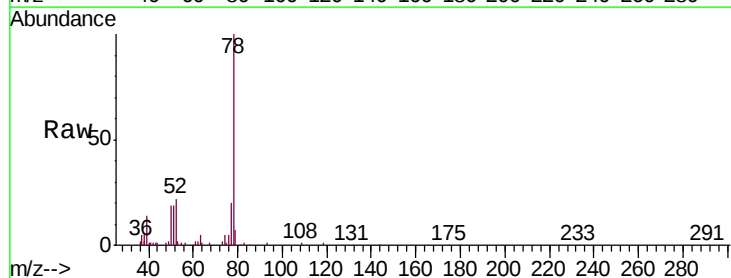
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

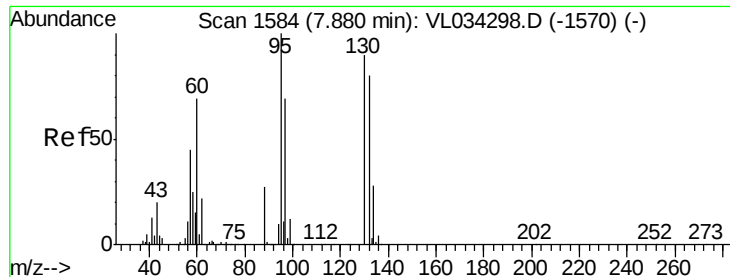
Tgt Ion: 43 Resp: 91199
Ion Ratio Lower Upper
43 100
72 21.7 16.3 24.5



#36
Benzene
Concen: 0.593 ppbv
RT: 6.92 min Scan# 1287
Delta R.T. -0.00 min
Lab File: VL034331.D
Acq: 18 Oct 2019 00:40

Tgt Ion: 78 Resp: 105537
Ion Ratio Lower Upper
78 100
77 19.3 19.0 28.4
50 19.1 18.6 27.8

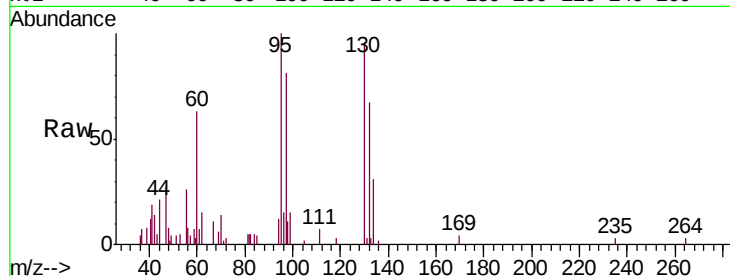




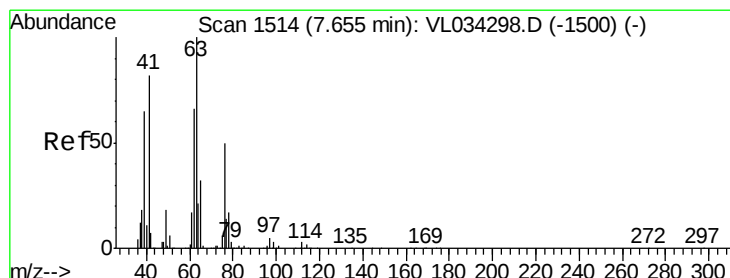
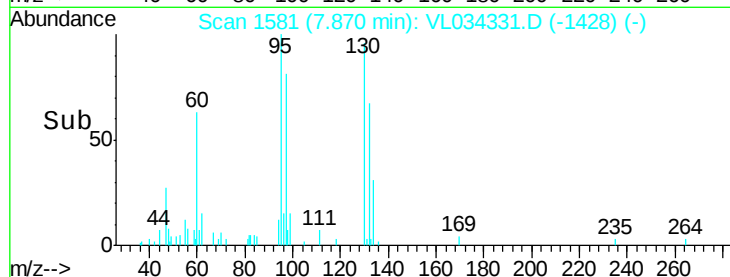
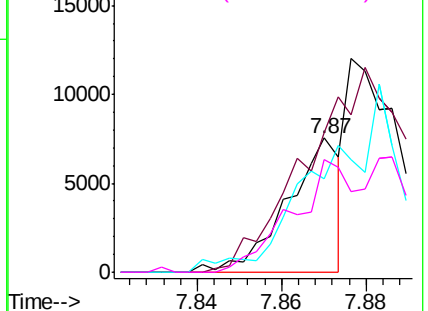
#38
 Trichloroethene
 Concen: 0.092 ppbv
 RT: 7.87 min Scan# 1581
 Delta R.T. -0.01 min
 Lab File: VL034331.D
 Acq: 18 Oct 2019 00:40

Instrument :
 MSVOA_L
 ClientSampleId :
 SV3DL

Tgt Ion: 130 Resp: 6545
 Ion Ratio Lower Upper
 130 100
 95 103.8 88.6 132.8
 132 73.4 71.2 106.8
 97 84.3 61.0 91.4

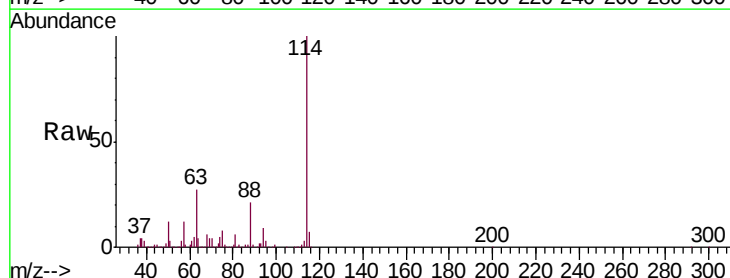


Abundance Ion 130.00 (129.70 to 130.70): V

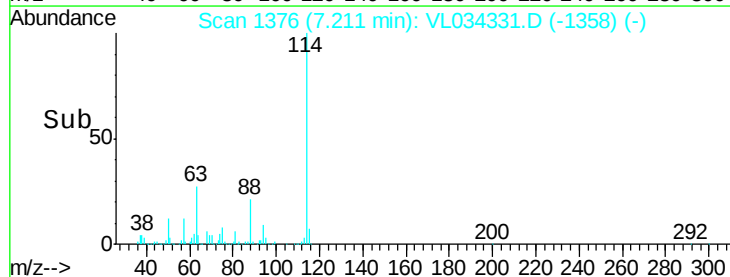
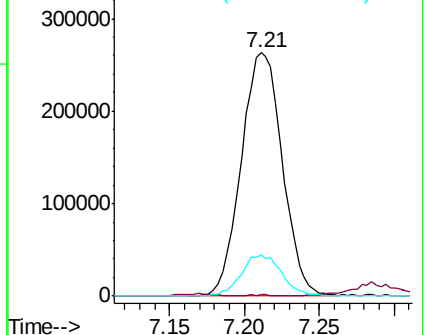


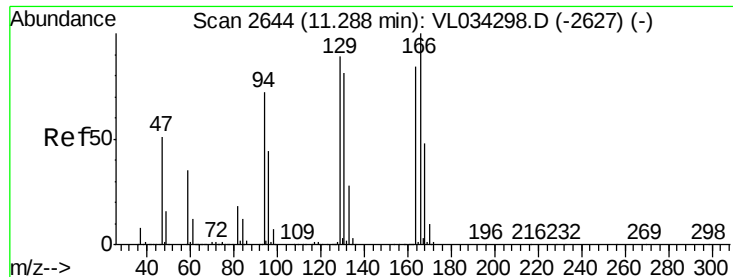
#39
 1,2-Dichloropropane
 Concen: 6.562 ppbv
 RT: 7.21 min Scan# 1376
 Delta R.T. -0.44 min
 Lab File: VL034331.D
 Acq: 18 Oct 2019 00:40

Tgt Ion: 63 Resp: 503247
 Ion Ratio Lower Upper
 63 100
 41 0.0 65.6 98.4#
 62 16.8 53.0 79.6#



Abundance Ion 63.10 (62.80 to 63.80): VL0





#52

Tetrachloroethene

Concen: 38.996 ppbv

RT: 11.29 min Scan# 2646

Delta R.T. 0.01 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Instrument :

MSVOA_L

ClientSampleId :

SV3DL

Tgt Ion:164 Resp: 2722515

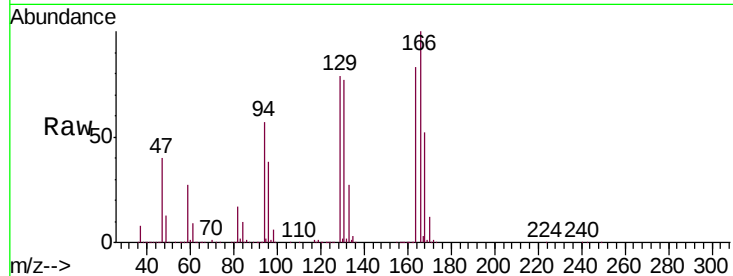
Ion Ratio Lower Upper

164 100

166 120.9 95.3 142.9

129 95.4 84.5 126.7

131 93.4 77.3 115.9

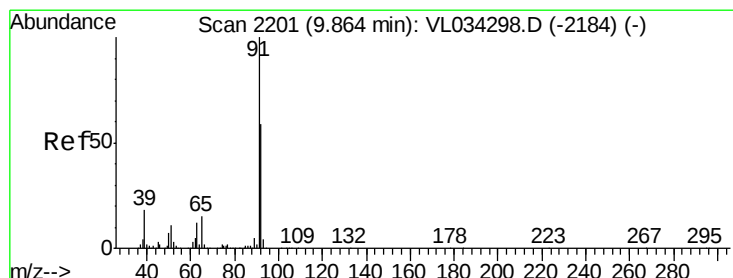
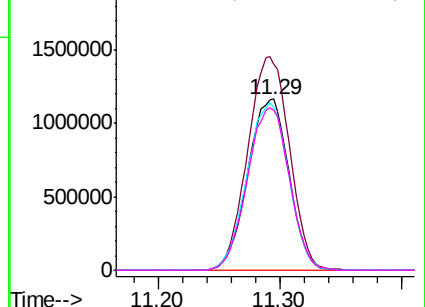
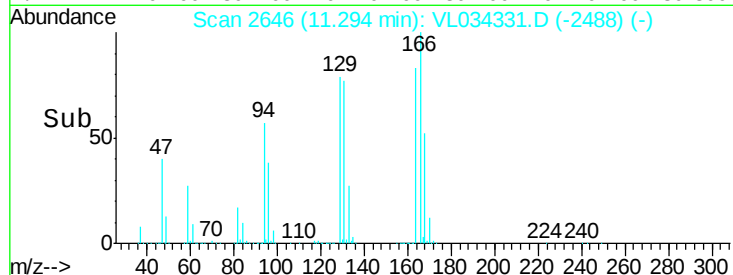


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.921 ppbv

RT: 9.86 min Scan# 2199

Delta R.T. -0.01 min

Lab File: VL034331.D

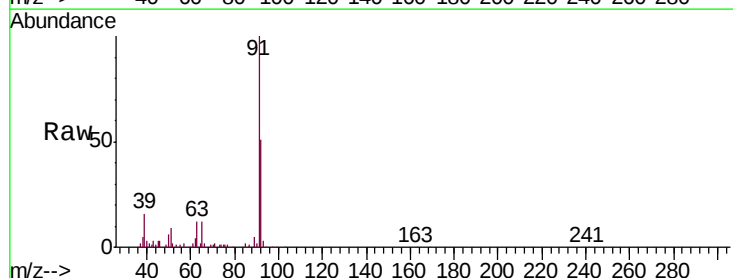
Acq: 18 Oct 2019 00:40

Tgt Ion: 91 Resp: 181073

Ion Ratio Lower Upper

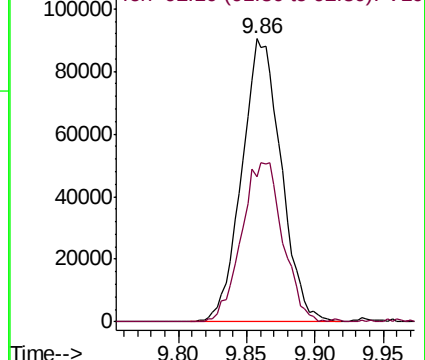
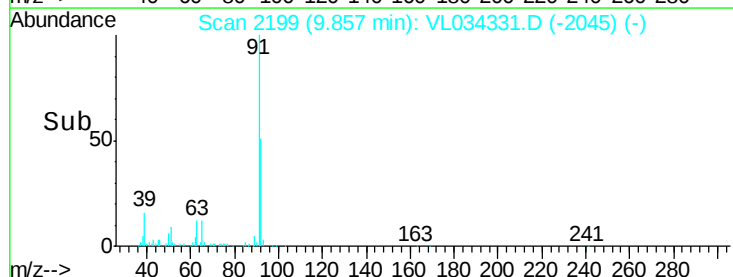
91 100

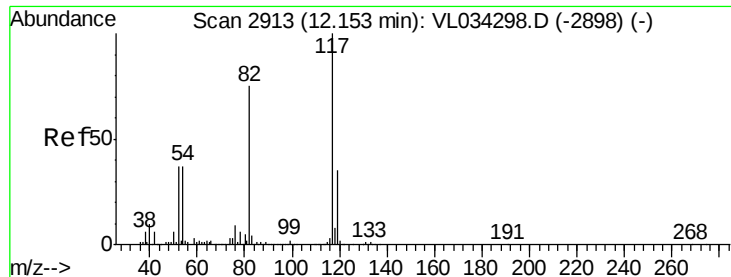
92 59.3 48.4 72.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

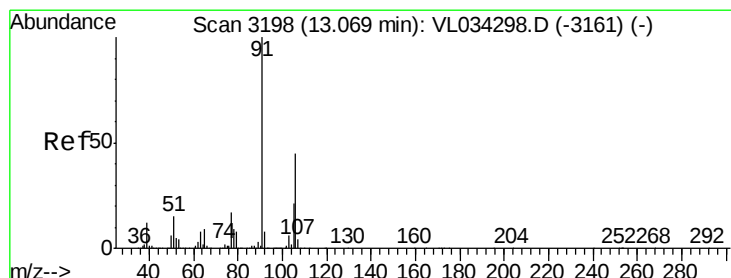
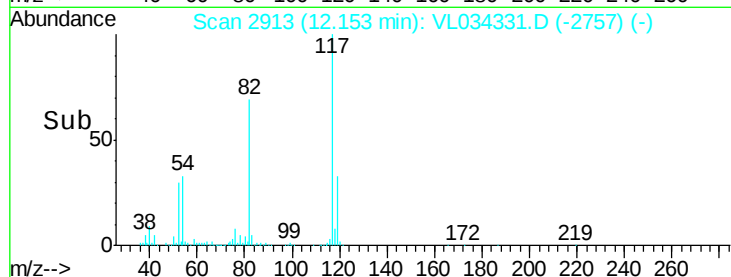
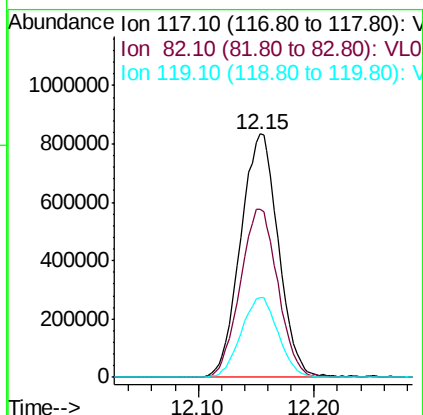
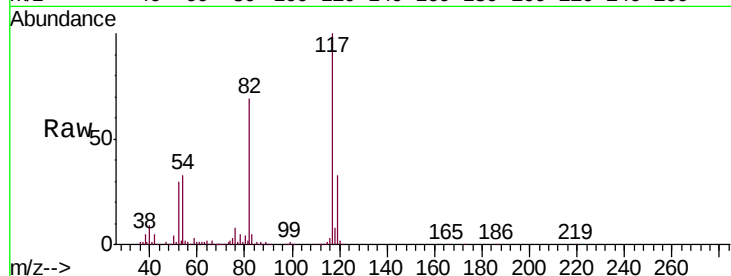




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.15 min Scan# 2913
Delta R.T. 0.00 min
Lab File: VL034331.D
Acq: 18 Oct 2019 00:40

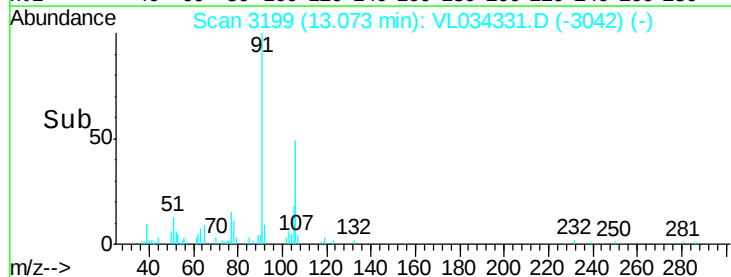
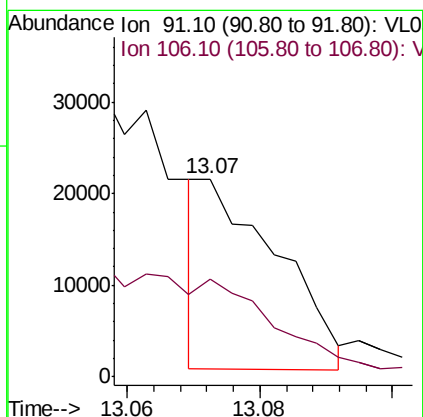
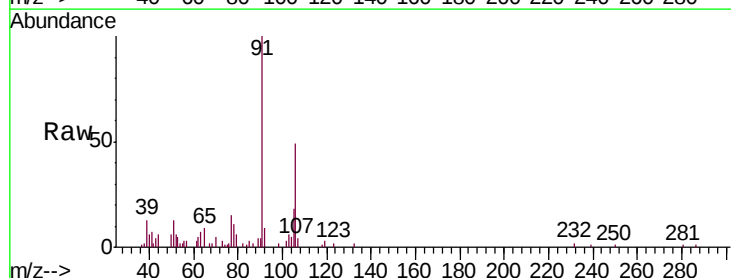
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

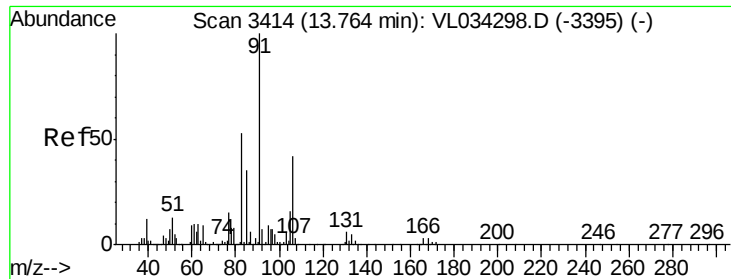
Tgt Ion: 117 Resp: 1887335
Ion Ratio Lower Upper
117 100
82 69.0 55.5 83.3
119 32.6 26.5 39.7



#59
m/p-Xylene
Concen: 0.073 ppbv
RT: 13.07 min Scan# 3199
Delta R.T. 0.00 min
Lab File: VL034331.D
Acq: 18 Oct 2019 00:40

Tgt Ion: 91 Resp: 16602
Ion Ratio Lower Upper
91 100
106 0.0 35.4 53.2#

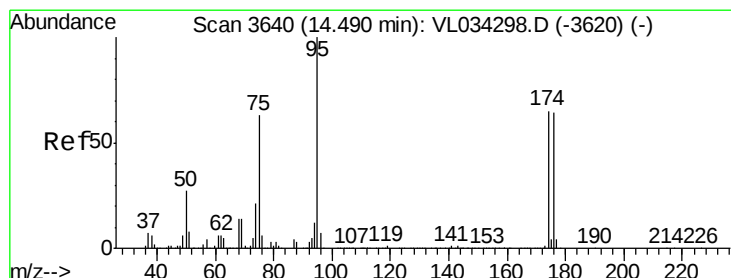
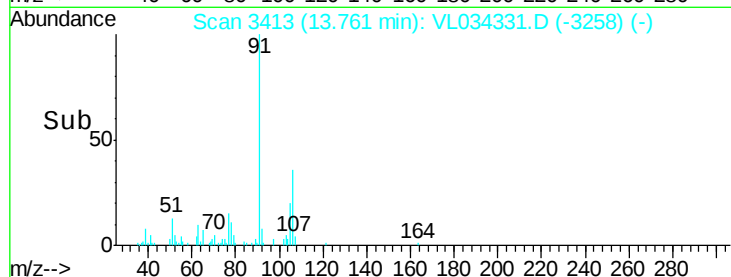
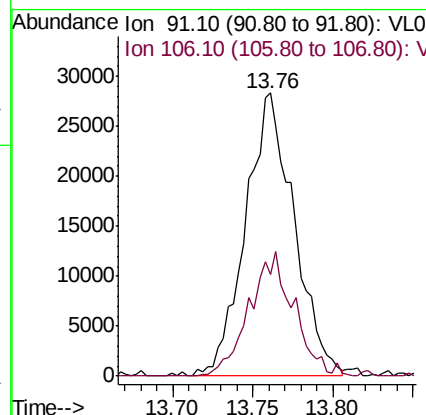
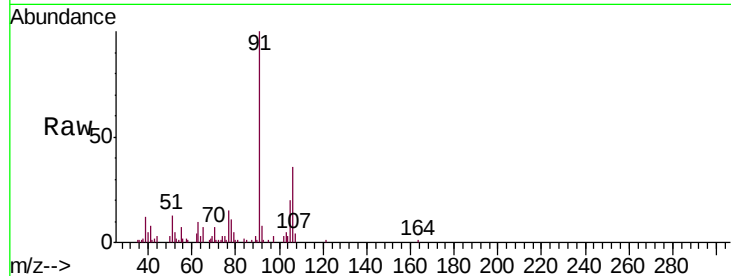




#60
o-Xylene
Concen: 0.259 ppbv
RT: 13.76 min Scan# 3413
Delta R.T. -0.00 min
Lab File: VL034331.D
Acq: 18 Oct 2019 00:40

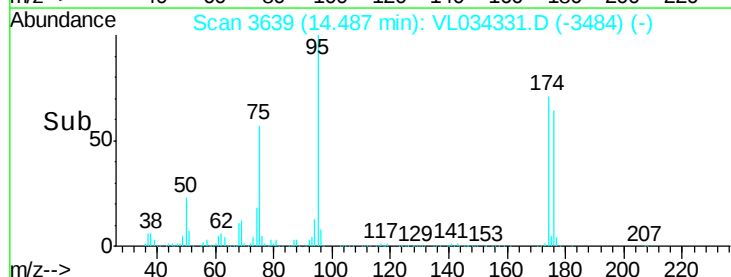
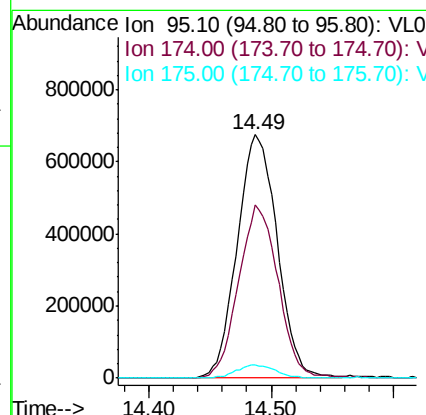
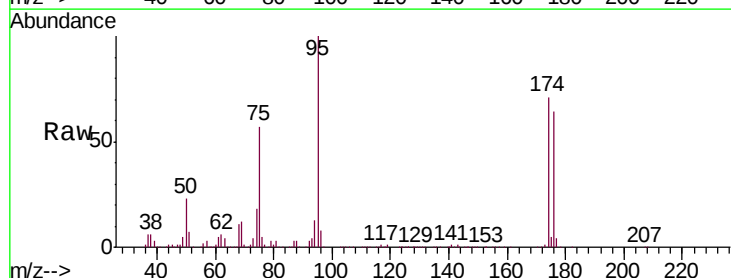
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

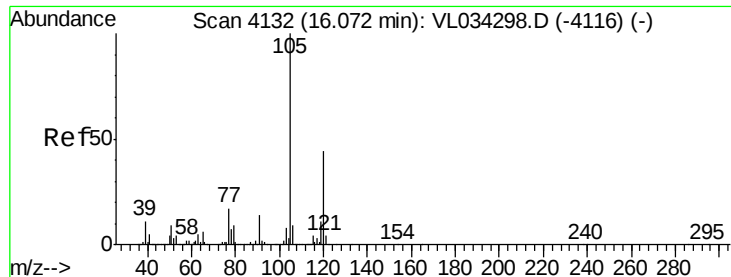
Tgt Ion: 91 Resp: 58957
Ion Ratio Lower Upper
91 100
106 40.8 21.6 64.6



#68
1-Bromo-4-Fluorobenzene
Concen: 9.582 ppbv
RT: 14.49 min Scan# 3639
Delta R.T. -0.00 min
Lab File: VL034331.D
Acq: 18 Oct 2019 00:40

Tgt Ion: 95 Resp: 1531624
Ion Ratio Lower Upper
95 100
174 70.8 52.6 78.8
175 5.5 3.8 5.6





#73

1,3,5-Trimethylbenzene

Concen: 0.080 ppbv

RT: 16.07 min Scan# 4130

Delta R.T. -0.01 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Instrument :

MSVOA_L

ClientSampleId :

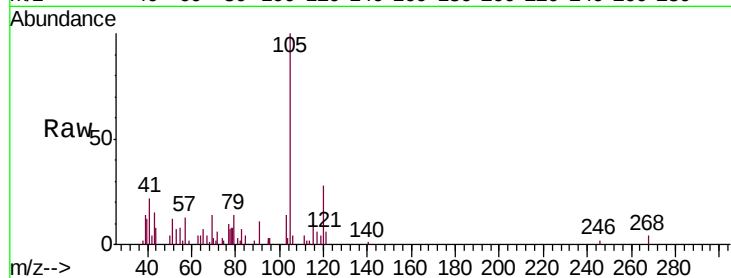
SV3DL

Tgt Ion:105 Resp: 20327

Ion Ratio Lower Upper

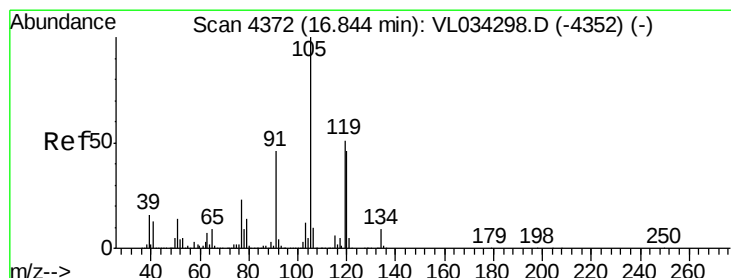
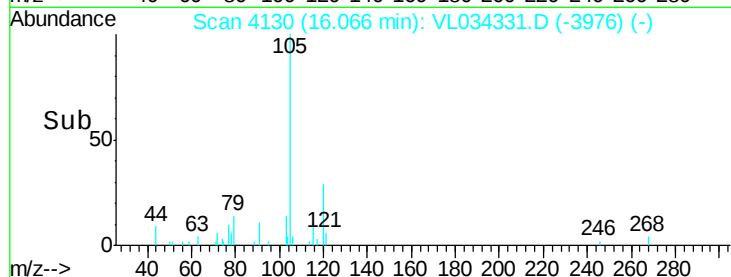
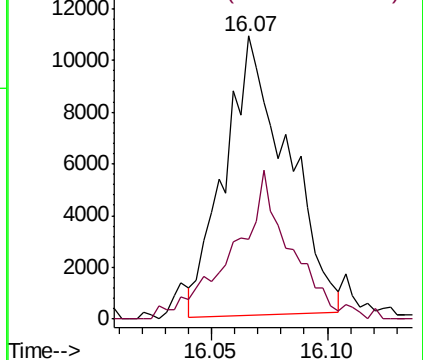
105 100

120 28.0 35.2 52.8#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.131 ppbv

RT: 16.84 min Scan# 4372

Delta R.T. 0.00 min

Lab File: VL034331.D

Acq: 18 Oct 2019 00:40

Tgt Ion:105 Resp: 34673

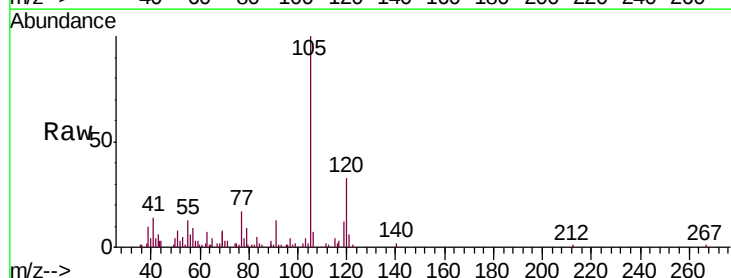
Ion Ratio Lower Upper

105 100

120 31.7 37.0 55.6#

91 12.3 38.2 57.2#

77 15.4 19.0 28.4#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

