

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062419\
 Data File : VL033950.D
 Acq On : 24 Jun 2019 23:56
 Operator : SY/AP
 Sample : K3481-06
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-AREA-C-2

Manual Integrations
 APPROVED

MMDadoda
 6/26/2019 8:15:49 AM

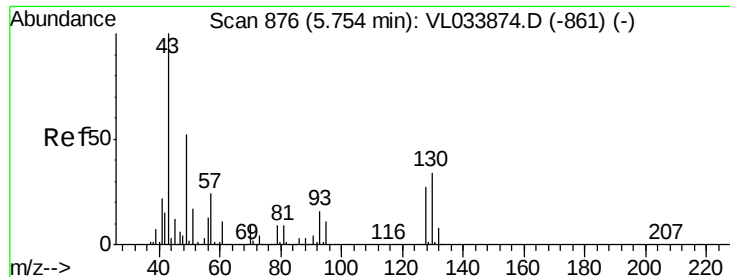
Quant Time: Jun 25 05:01:11 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL060719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 0
 QLast Update : Fri Jun 07 08:53:27 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.74	49	890599	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.27	114	2169027	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.21	117	2177039	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.55	95	1810930	10.13	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	47217	0.327	ppbv	96
3) Chlorodifluoromethane	3.01	51	47049m	0.449	ppbv	
4) Chloromethane	3.16	50	33179	0.555	ppbv #	87
9) Propene	3.04	41	30729m	0.783	ppbv	
11) Trichlorofluoromethane	3.99	101	41643	0.223	ppbv	99
13) Ethanol	3.65	45	76114m	5.963	ppbv	
15) Acetone	3.89	43	690030	5.312	ppbv	100
17) tert-Butyl alcohol	4.37	59	21590m	0.213	ppbv	
19) Isopropyl Alcohol	4.02	45	59187	0.798	ppbv #	94
20) Methylene Chloride	4.39	84	35860	0.708	ppbv #	84
26) Hexane	5.76	57	140336	1.558	ppbv #	41
27) Carbon Disulfide	4.61	76	19425m	0.155	ppbv	
34) 2-Butanone	5.32	43	93896	0.767	ppbv	99
35) Carbon Tetrachloride	7.10	117	10143m	0.061	ppbv	
36) Benzene	6.98	78	29270m	0.177	ppbv	
38) Trichloroethene	7.94	130	47648	0.739	ppbv	93
44) 2,2,4-Trimethylpentane	7.96	57	31155	0.106	ppbv #	57
52) Tetrachloroethene	11.34	164	9066m	0.156	ppbv	
53) Toluene	9.92	91	2159918	11.780	ppbv	99
58) Ethyl Benzene	12.83	91	604197	2.462	ppbv	98
59) m/p-Xylene	13.09	91	2370326	10.620	ppbv	99
60) o-Xylene	13.82	91	748841	3.249	ppbv	99
74) 1,2,4-Trimethylbenzene	16.90	105	63110m	0.212	ppbv	

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



#1

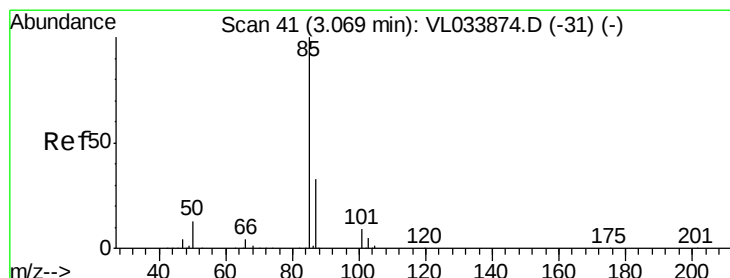
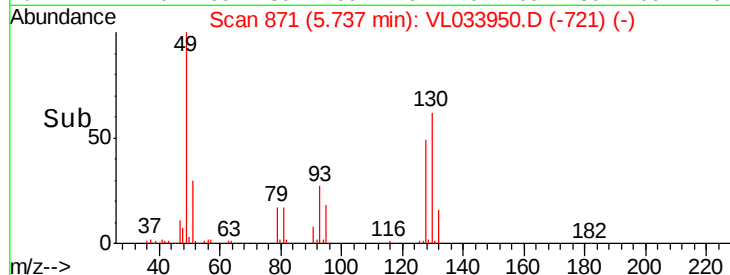
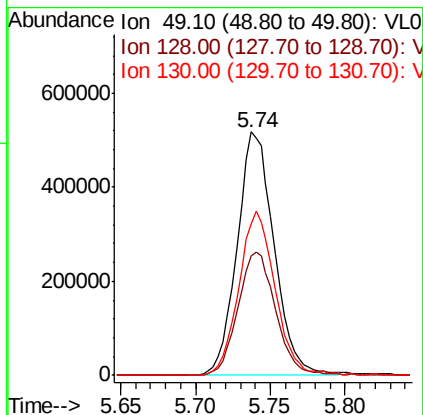
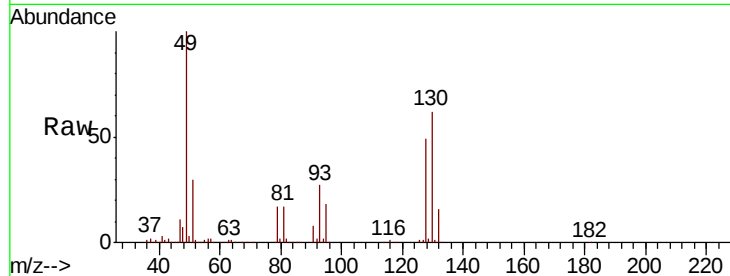
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.74 min Scan# 871
Delta R.T. -0.02 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-C-2

Tot Ion	Ratio	Lower	Upper
49	100		
128	51.7	25.5	76.5
130	66.8	32.5	97.4

Manual Integrations
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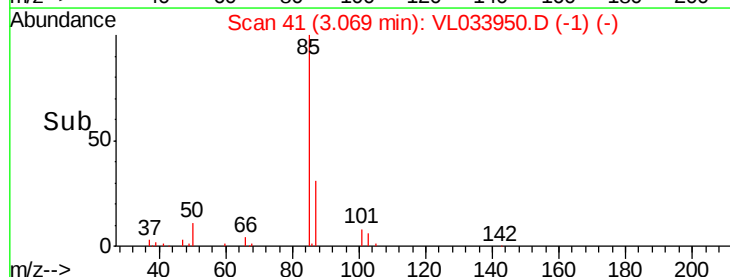
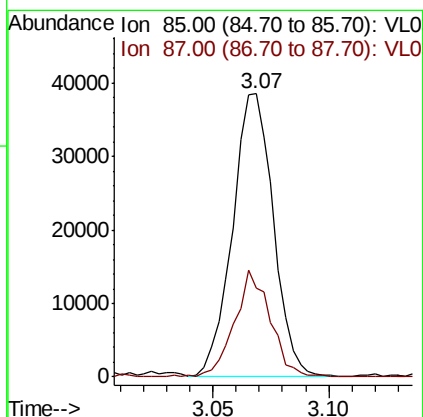
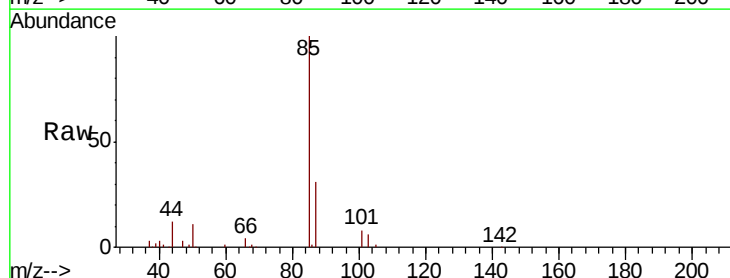
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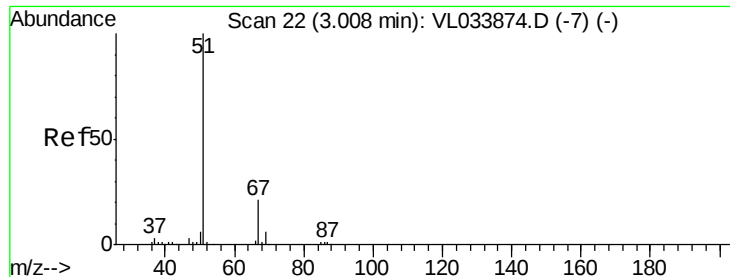


#2

Dichlorodifluoromethane
Concen: 0.327 ppbv
RT: 3.07 min Scan# 41
Delta R.T. -0.00 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Tgt Ion	Ratio	Lower	Upper
85	100		
87	30.9	26.6	40.0





#3

Chlorodifluoromethane

Concen: 0.449 ppbv

RT: 3.01 min Scan# 22

Delta R.T. -0.00 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-C-2

Tot Ion: 51 Resp: 47049

Ion Ratio Lower Upper

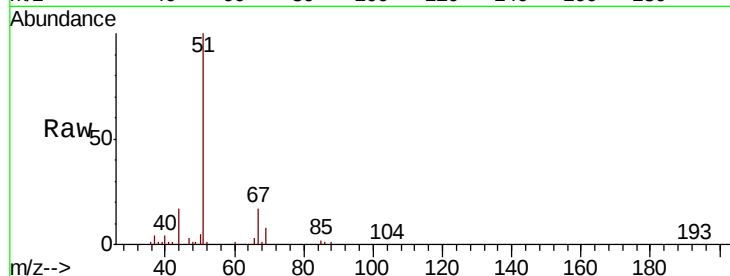
51 100

67 18.6 16.4 24.6

Manual Integrations
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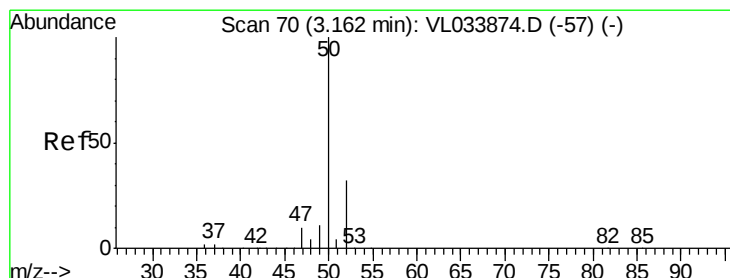
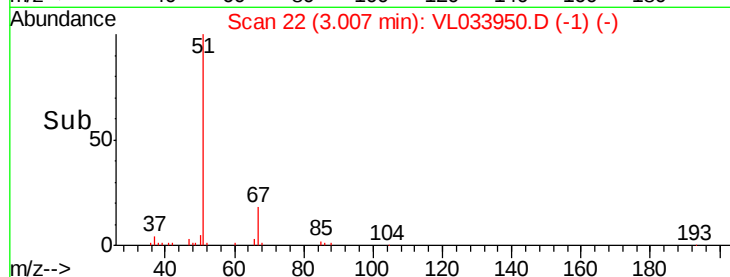
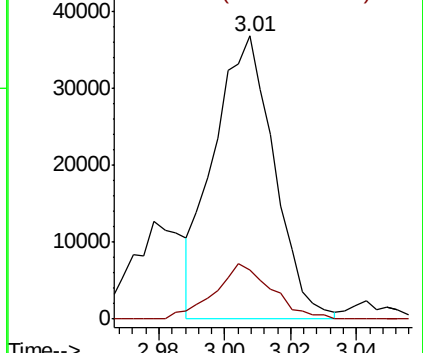
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.555 ppbv

RT: 3.16 min Scan# 70

Delta R.T. -0.00 min

Lab File: VL033950.D

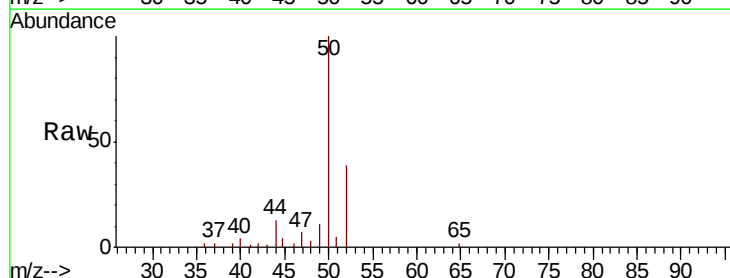
Acq: 24 Jun 2019 23:56

Tgt Ion: 50 Resp: 33179

Ion Ratio Lower Upper

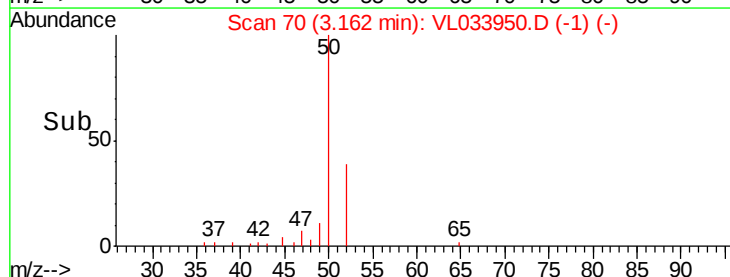
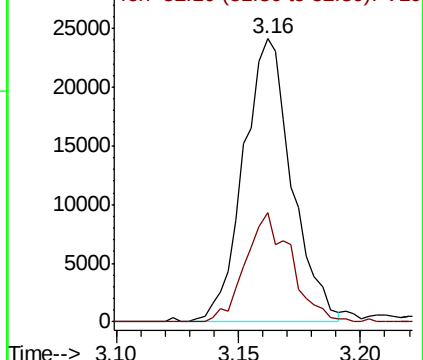
50 100

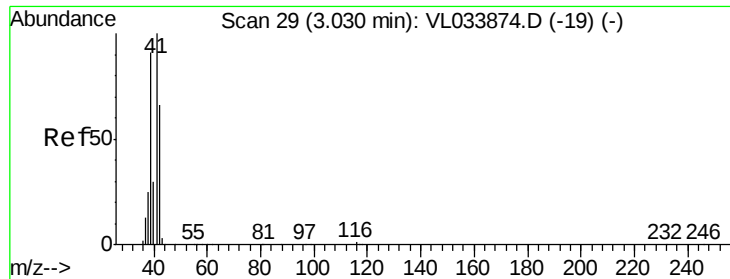
52 38.8 25.4 38.0#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.783 ppbv m

RT: 3.04 min Scan# 32

Delta R.T. 0.01 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-C-2

Tot Ion: 41 Resp: 30729

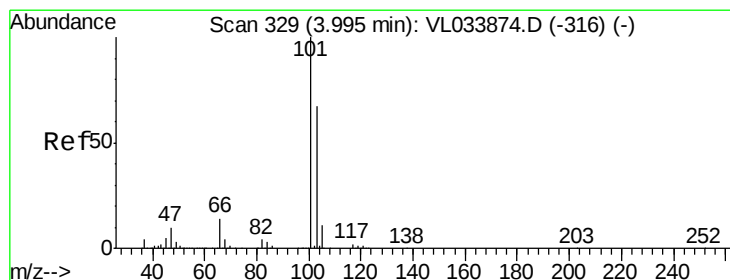
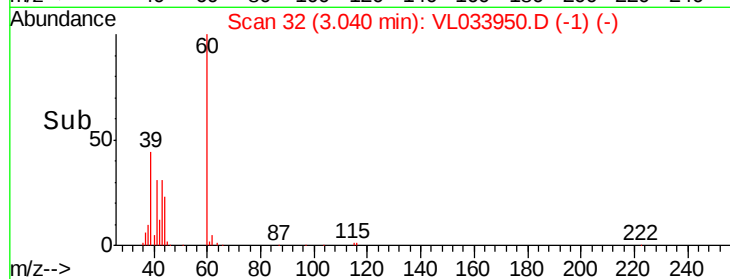
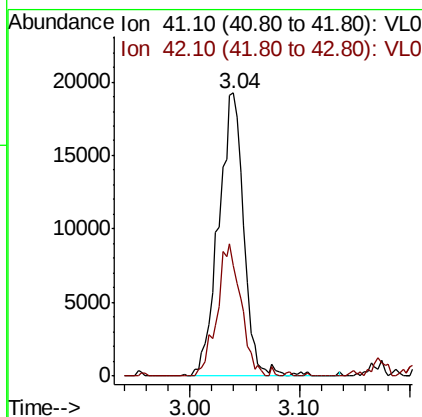
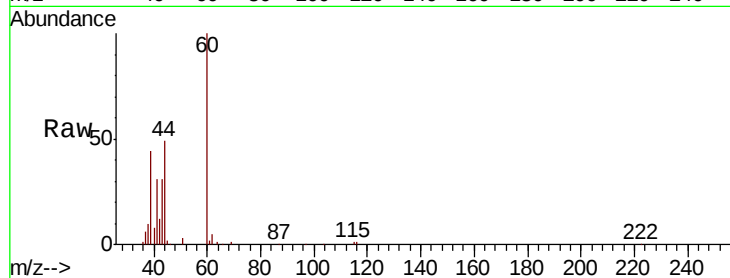
Ion Ratio Lower Upper

41 100

42 24.6 56.3 84.5#

Manual Integrations
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#11

Trichlorofluoromethane

Concen: 0.223 ppbv

RT: 3.99 min Scan# 328

Delta R.T. -0.00 min

Lab File: VL033950.D

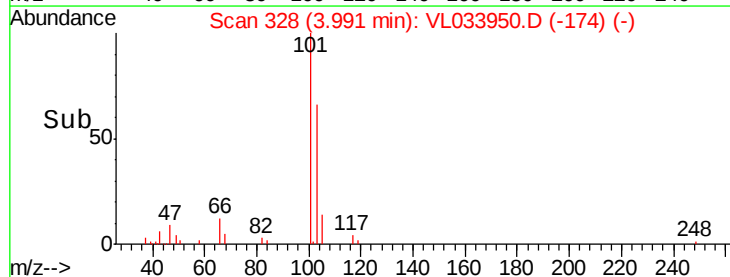
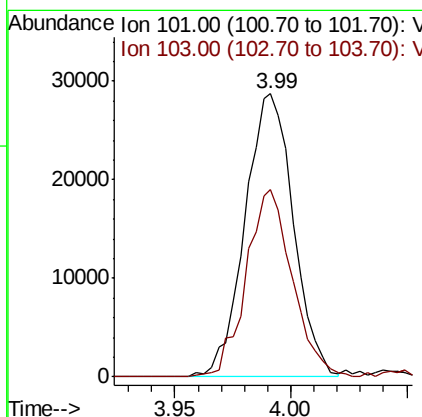
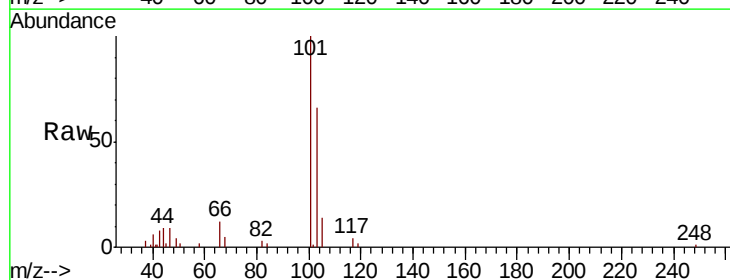
Acq: 24 Jun 2019 23:56

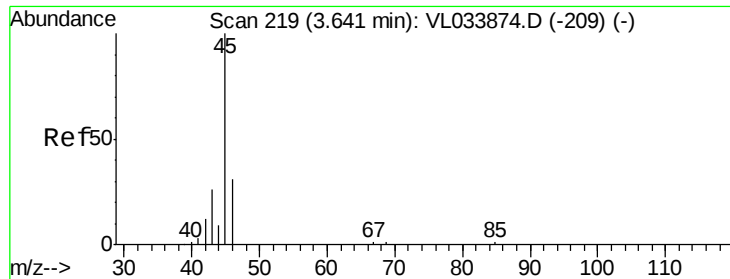
Tgt Ion: 101 Resp: 41643

Ion Ratio Lower Upper

101 100

103 66.3 53.6 80.4





#13

Ethanol

Concen: 5.963 ppbv m

RT: 3.65 min Scan# 221

Delta R.T. 0.01 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-C-2

Tot Ion: 45 Resp: 76114

Ion Ratio Lower Upper

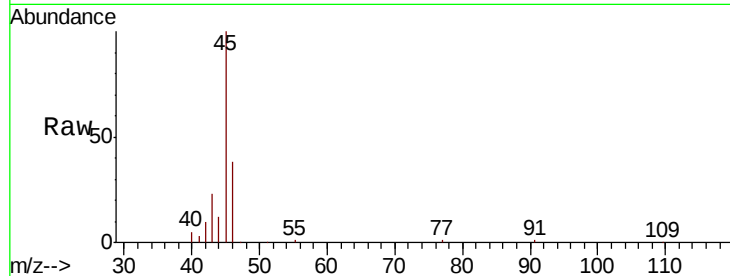
45 100

46 0.0 15.3 61.1#

Manual Integrations
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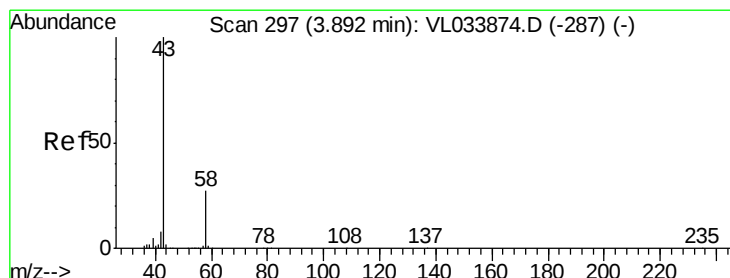
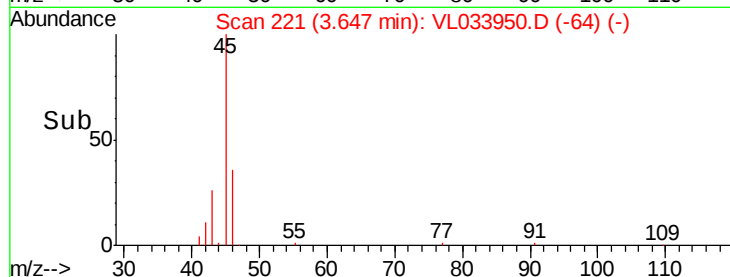
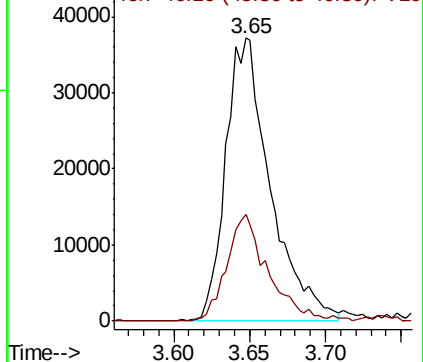
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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#15

Acetone

Concen: 5.312 ppbv

RT: 3.89 min Scan# 296

Delta R.T. -0.00 min

Lab File: VL033950.D

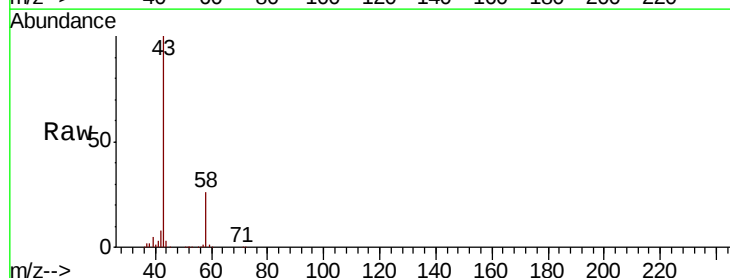
Acq: 24 Jun 2019 23:56

Tgt Ion: 43 Resp: 690030

Ion Ratio Lower Upper

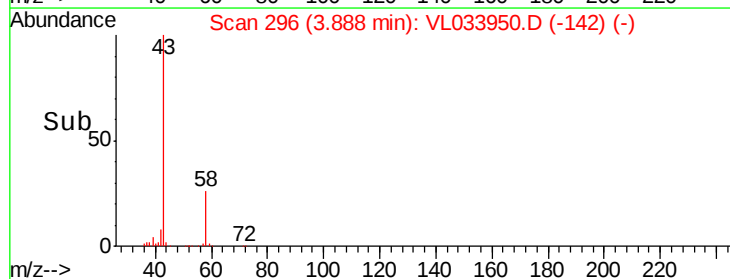
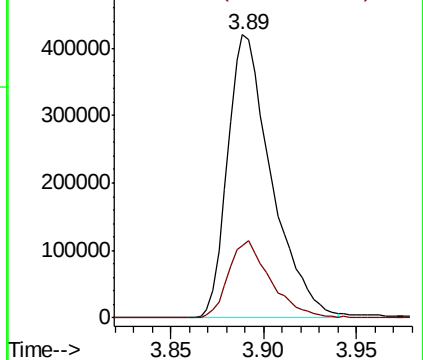
43 100

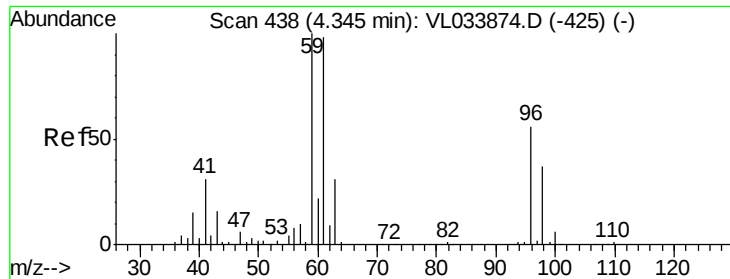
58 26.5 21.3 31.9



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#17

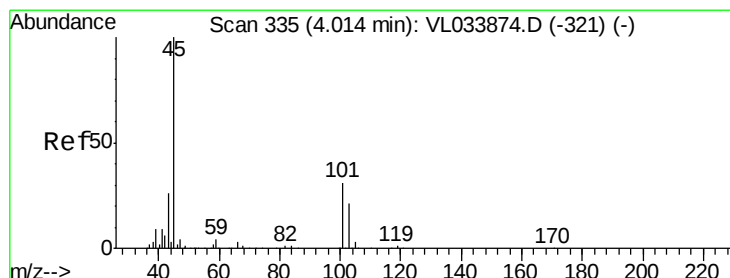
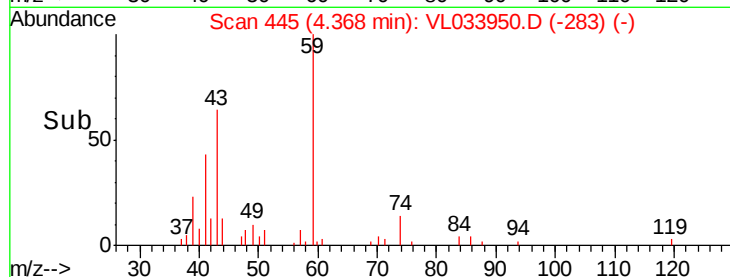
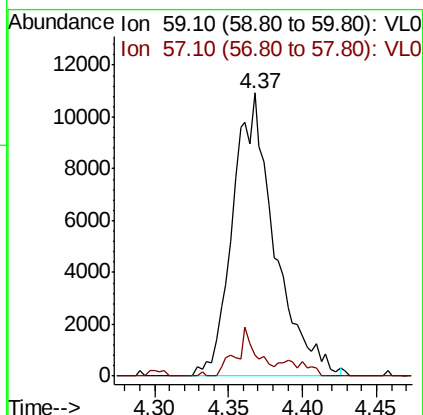
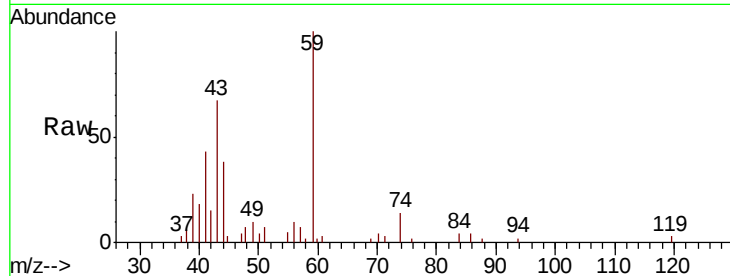
tert-Butyl alcohol
Concen: 0.213 ppbv
RT: 4.37 min Scan# 445
Delta R.T. 0.02 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-C-2

Tot Ion	59	Resp	21590
Ion Ratio	100	Lower	Upper
57	12.3	8.4	12.6

Manual Integrations
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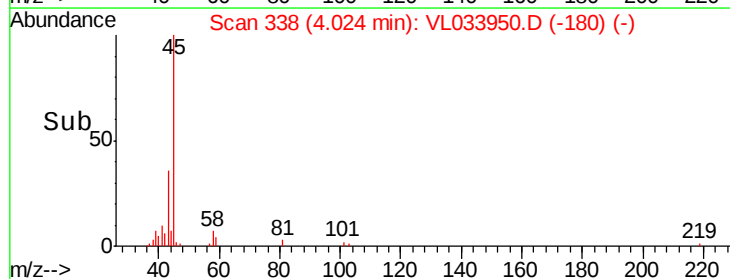
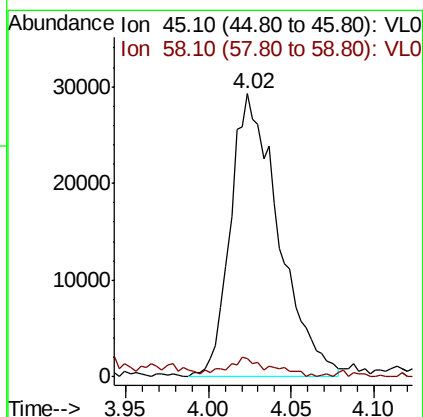
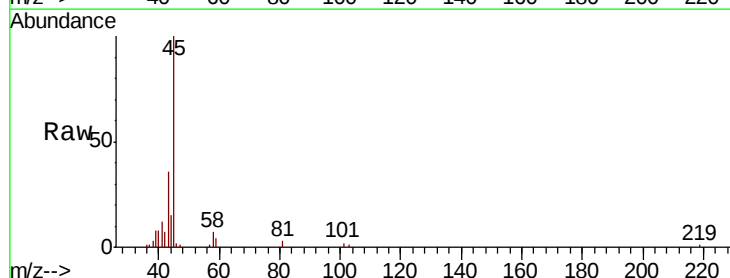
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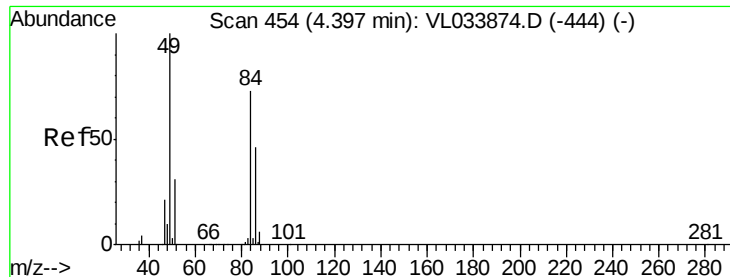


#19

Isopropyl Alcohol
Concen: 0.798 ppbv
RT: 4.02 min Scan# 338
Delta R.T. 0.01 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Tgt Ion	45	Resp	59187
Ion Ratio	100	Lower	Upper
58	0.0	1.8	2.6#





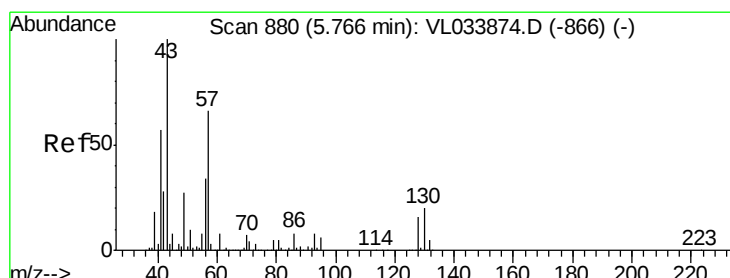
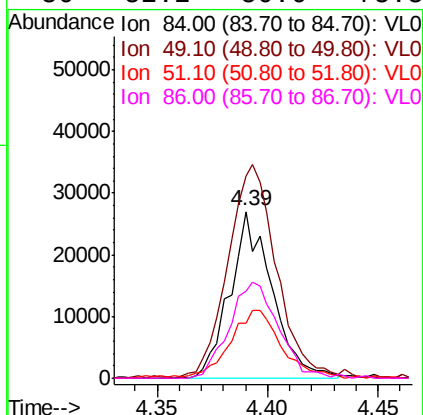
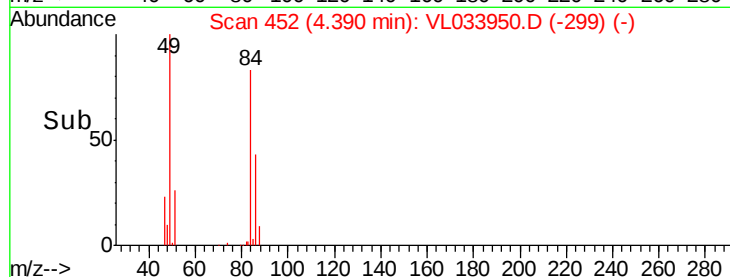
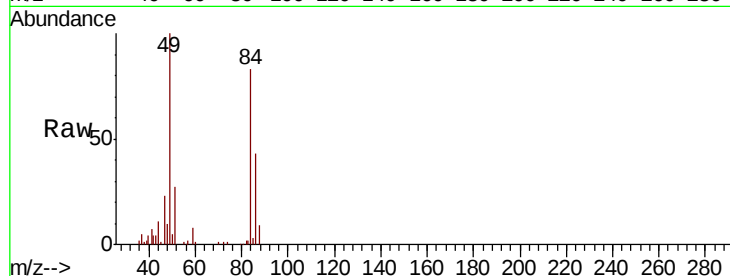
#20
Methvlene Chloride
Concen: 0.708 ppbv
RT: 4.39 min Scan# 452
Delta R.T. -0.01 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-C-2

Tot Ion	Ion	Ratio	Resp	Lower	Upper
84	100				
49	118.7	110.0	165.0		
51	31.5	34.6	51.8		
86	52.2	50.6	75.8		

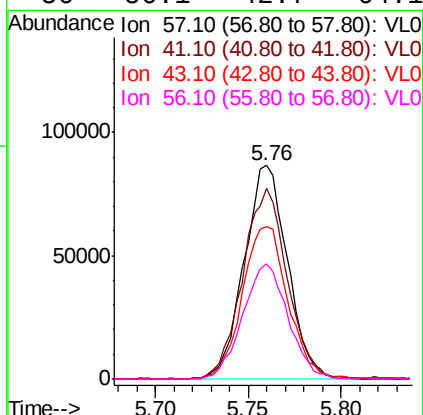
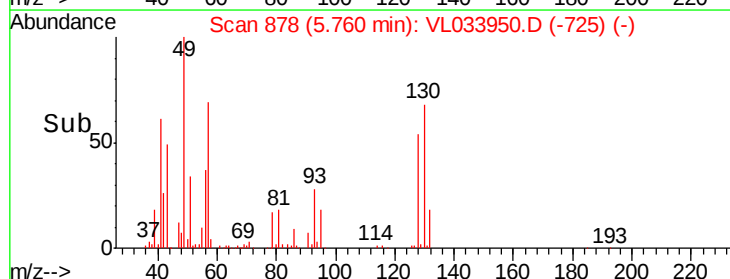
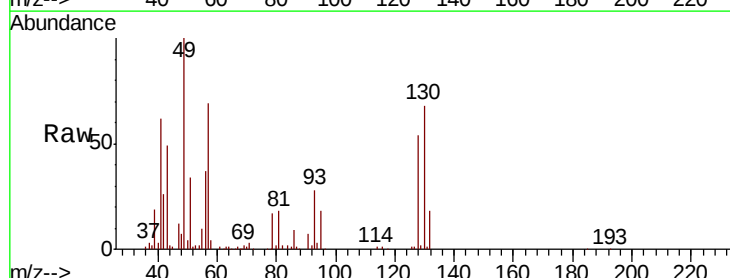
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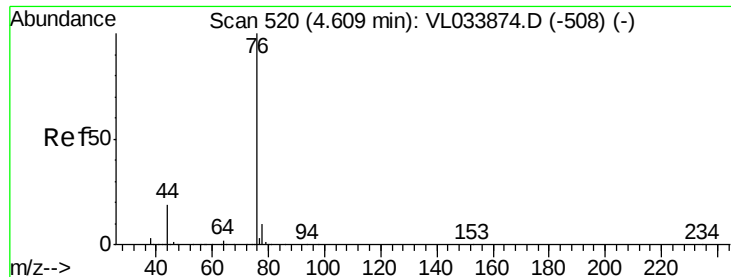
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#26
Hexane
Concen: 1.558 ppbv
RT: 5.76 min Scan# 878
Delta R.T. -0.01 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
57	100				
41	92.8	71.4	107.2		
43	75.4	183.7	275.5		
56	56.1	42.7	64.1		





#27

Carbon Disulfide

Concen: 0.155 ppbv m

RT: 4.61 min Scan# 519

Delta R.T. -0.00 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

Instrument :

MSVOA_L

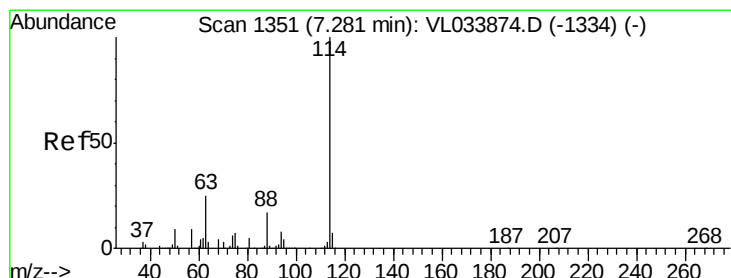
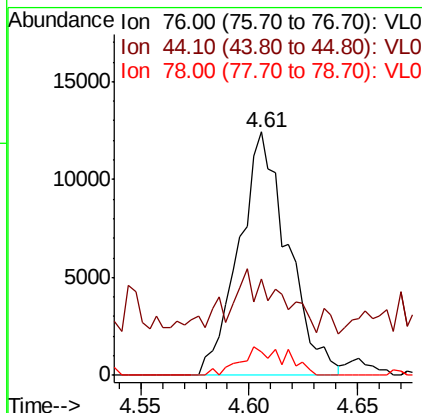
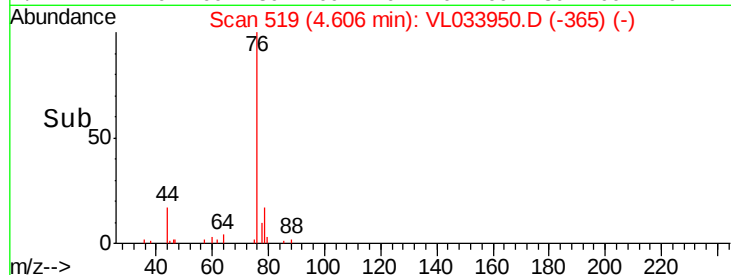
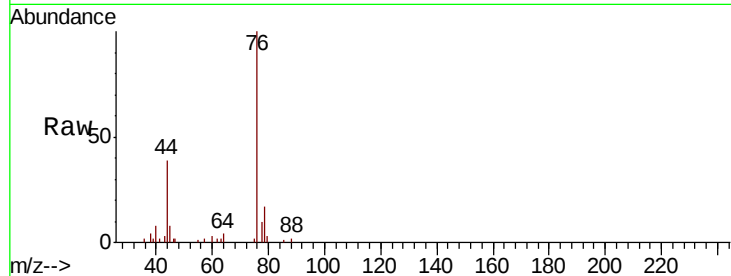
ClientSampleId :

TZC-SSDS-AREA-C-2

Tot Ion:	76	Resp:	19425
Ion	Ratio	Lower	Upper
76	100		
44	31.0	14.4	21.6#
78	10.8	7.5	11.3

Manual Integrations
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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

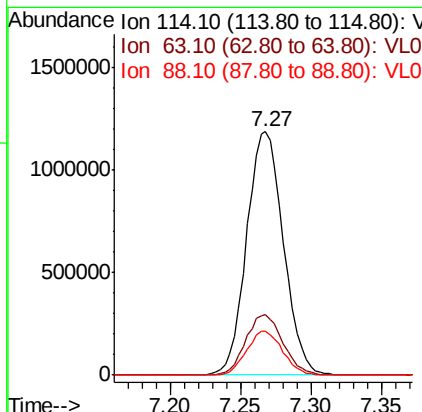
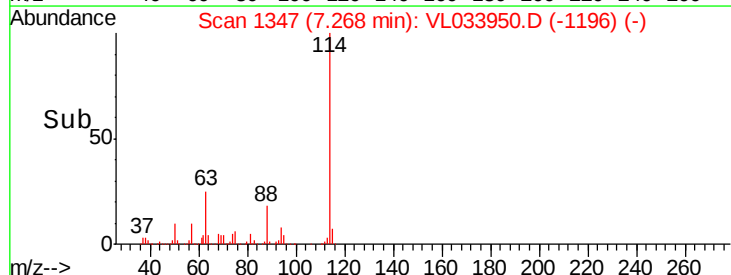
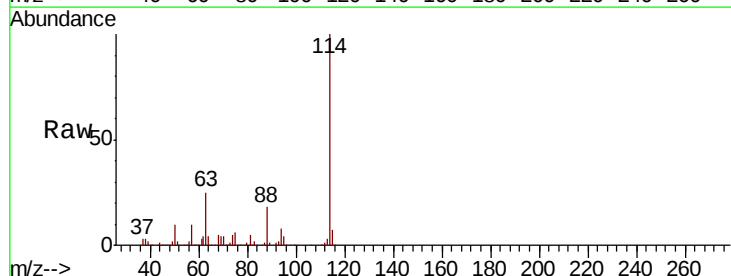
RT: 7.27 min Scan# 1347

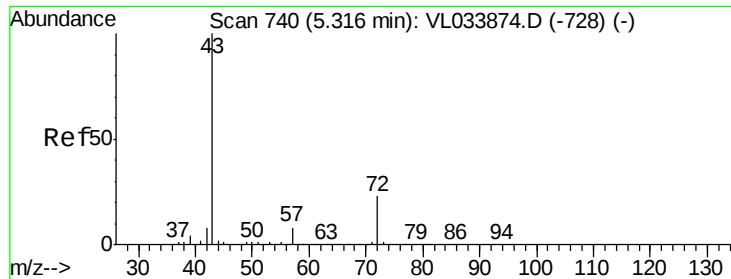
Delta R.T. -0.01 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

Tgt Ion:	114	Resp:	2169027
Ion	Ratio	Lower	Upper
114	100		
63	25.1	21.1	31.7
88	17.8	14.2	21.4





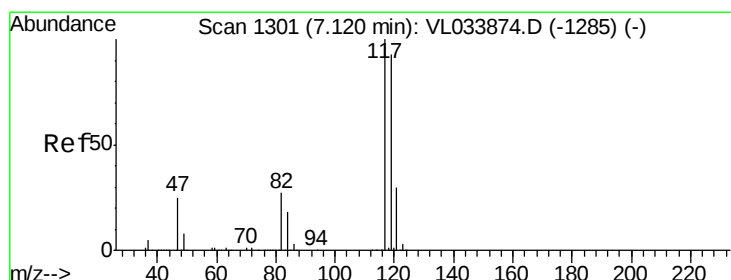
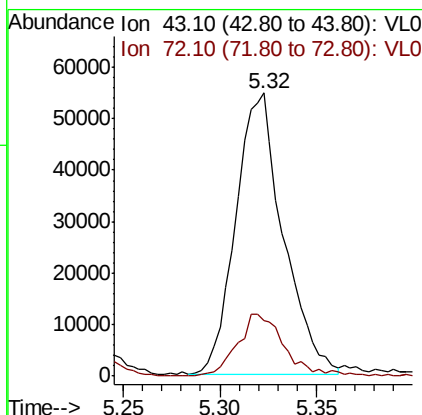
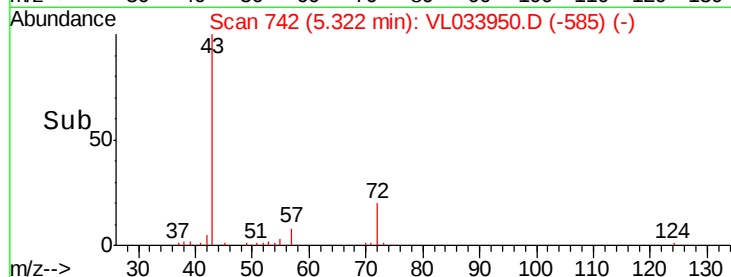
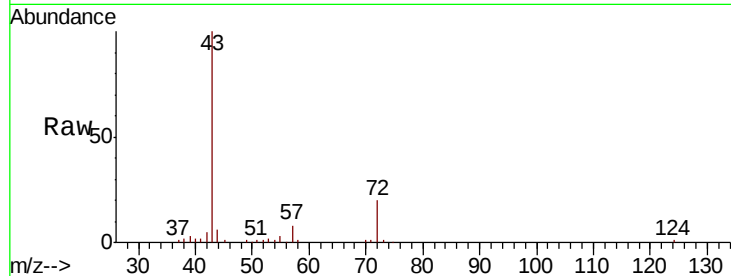
#34
2-Butanone
Concen: 0.767 ppbv
RT: 5.32 min Scan# 742
Delta R.T. 0.01 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-C-2

Tot Ion	Ratio	Lower	Upper
43	100		
72	21.9	17.9	26.9

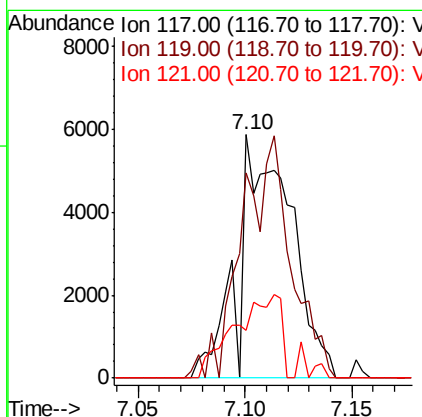
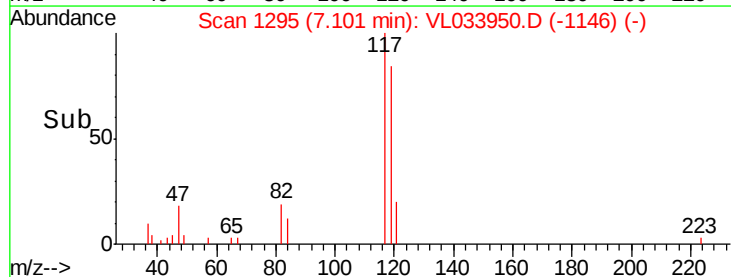
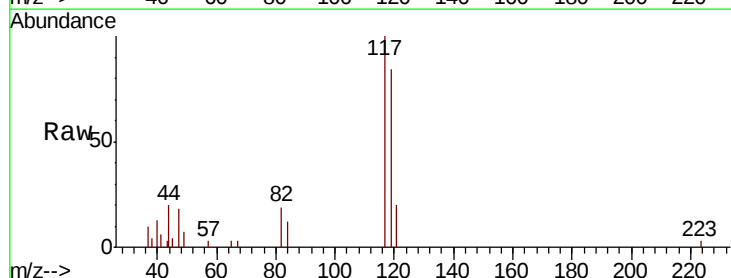
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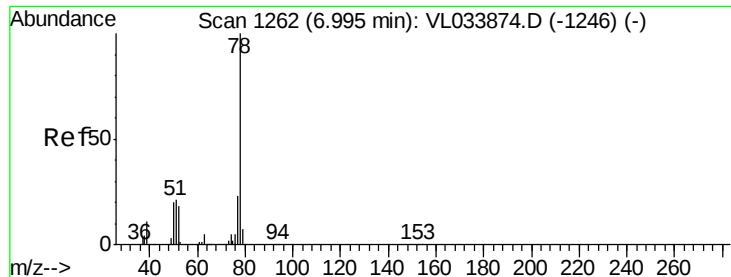
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#35
Carbon Tetrachloride
Concen: 0.061 ppbv m
RT: 7.10 min Scan# 1295
Delta R.T. -0.02 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Tgt Ion	Ratio	Lower	Upper
117	100		
119	84.4	74.6	111.8
121	19.6	24.0	36.0#





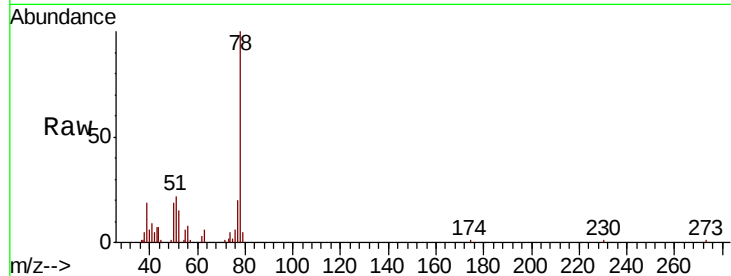
#36
Benzene
Concen: 0.177 ppbv m
RT: 6.98 min Scan# 1256
Delta R.T. -0.02 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-C-2

Tot Ion	Ratio	Lower	Upper
78	100		
77	20.0	18.2	27.2
50	18.9	15.9	23.9

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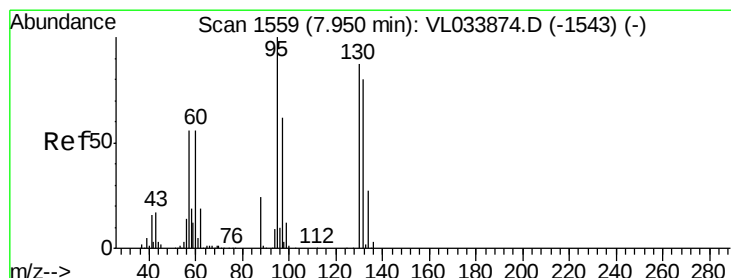
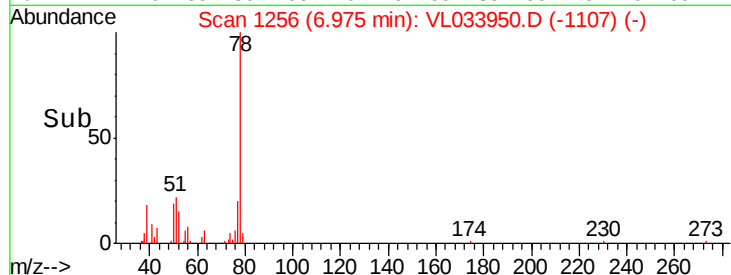
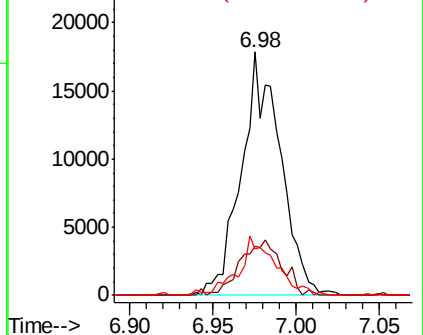


Abundance

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



#38
Trichloroethene
Concen: 0.739 ppbv
RT: 7.94 min Scan# 1555
Delta R.T. -0.01 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Tgt Ion	Ratio	Lower	Upper
130	100		
95	106.3	92.0	138.0
132	82.8	73.8	110.8
97	69.4	57.2	85.8

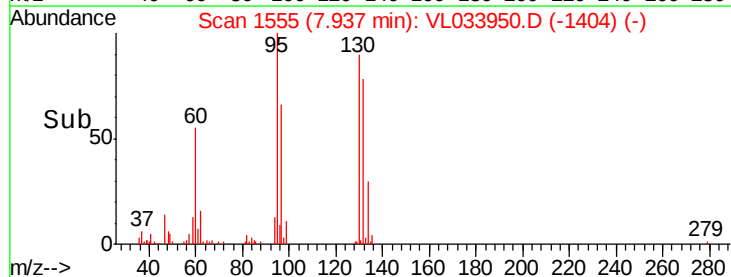
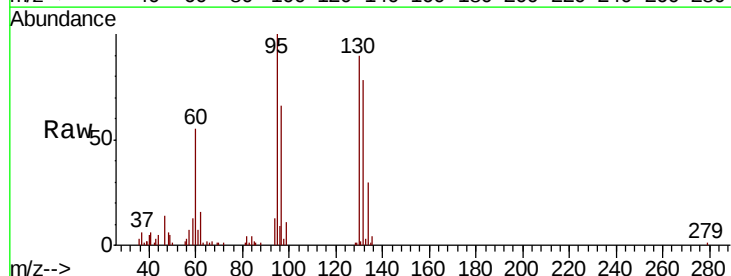
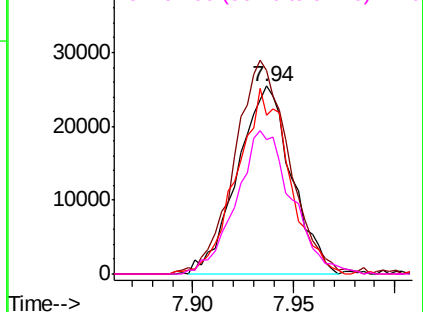
Abundance

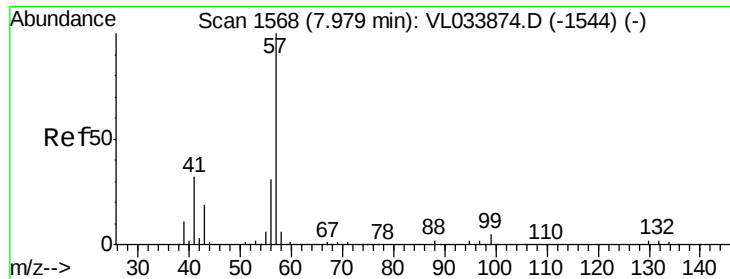
Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.106 ppbv

RT: 7.96 min Scan# 1563

Delta R.T. -0.02 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-C-2

Tot Ion: 57 Resp: 31155

Ion Ratio Lower Upper

57 100

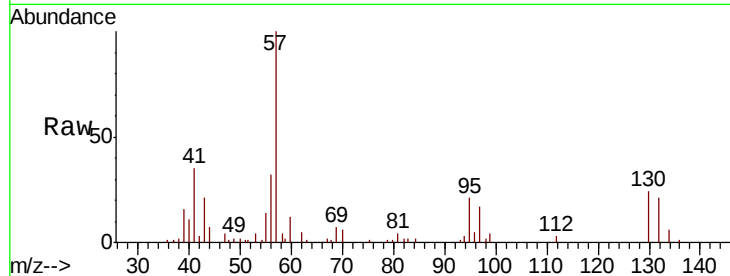
41 66.4 26.1 39.1#

56 44.1 24.6 36.8#

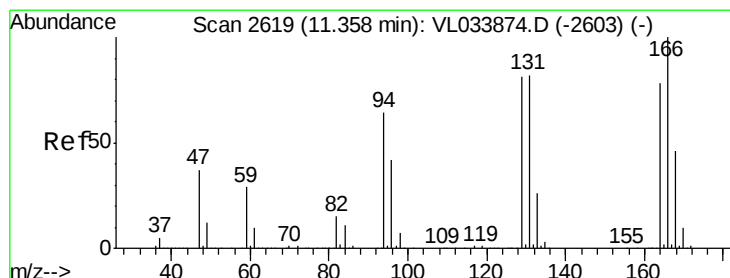
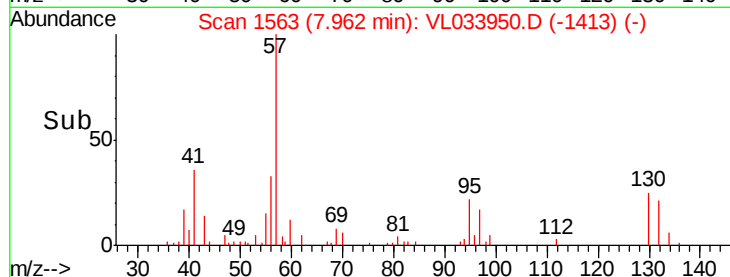
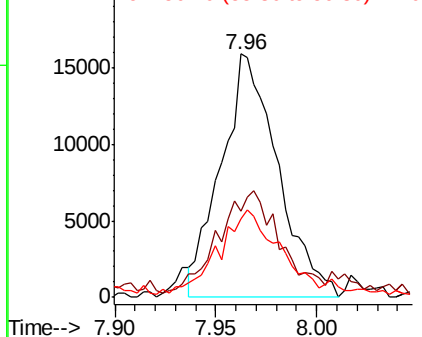
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Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 0.156 ppbv m

RT: 11.34 min Scan# 2614

Delta R.T. -0.02 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

Tgt Ion:164 Resp: 9066

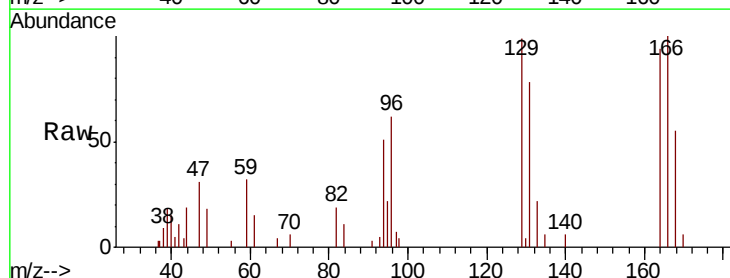
Ion Ratio Lower Upper

164 100

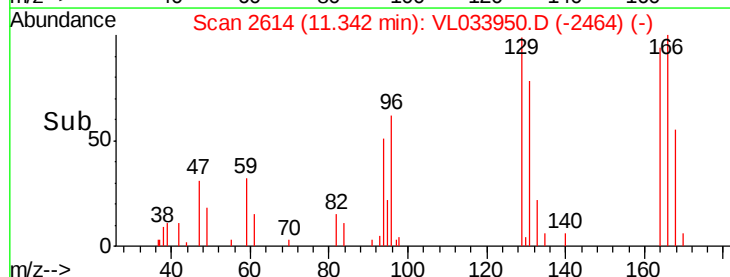
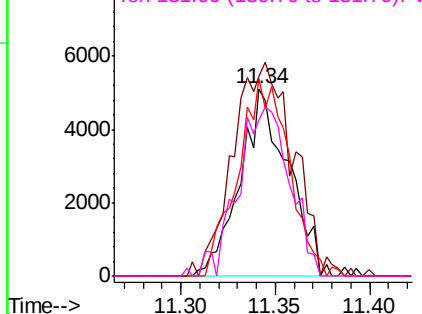
166 106.4 103.1 154.7

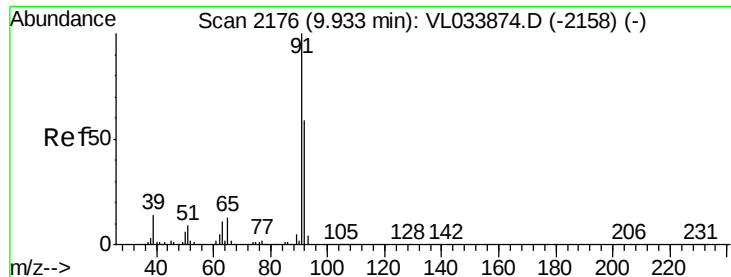
129 105.3 83.9 125.9

131 83.1 85.1 127.7#



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: 11.780 ppbv

RT: 9.92 min Scan# 2171

Delta R.T. -0.02 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

Instrument :

MSVOA_L

ClientSampleId :

TZC-SSDS-AREA-C-2

Tot Ion: 91 Resp: 2159918

Ion Ratio Lower Upper

91 100

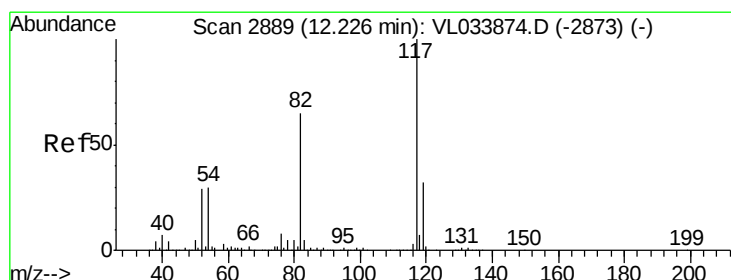
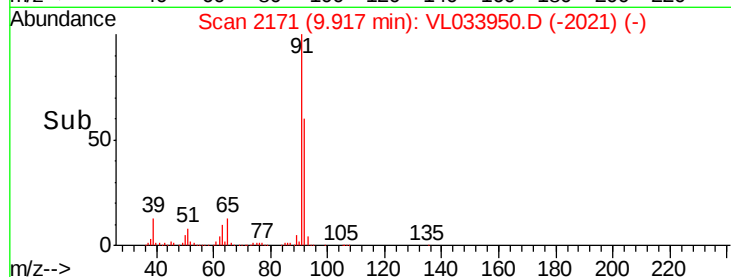
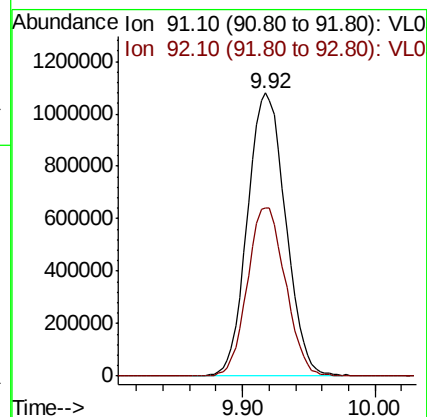
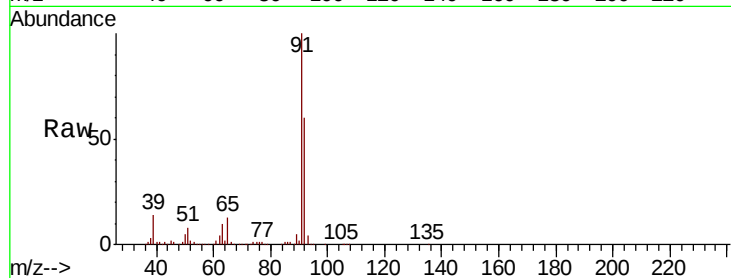
92 59.6 47.0 70.6

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.21 min Scan# 2884

Delta R.T. -0.02 min

Lab File: VL033950.D

Acq: 24 Jun 2019 23:56

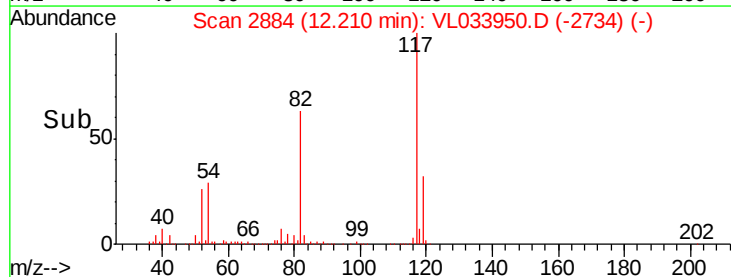
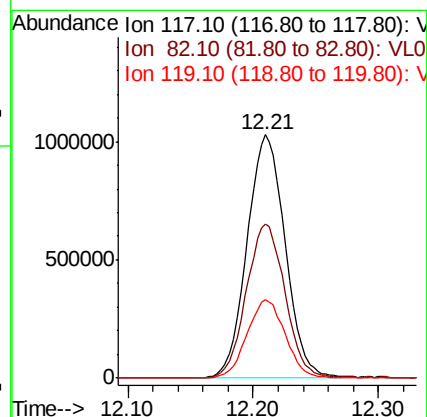
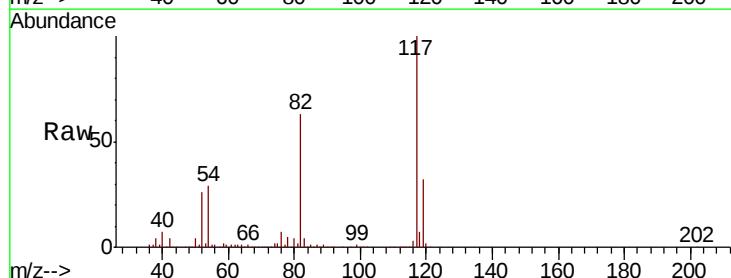
Tgt Ion: 117 Resp: 2177039

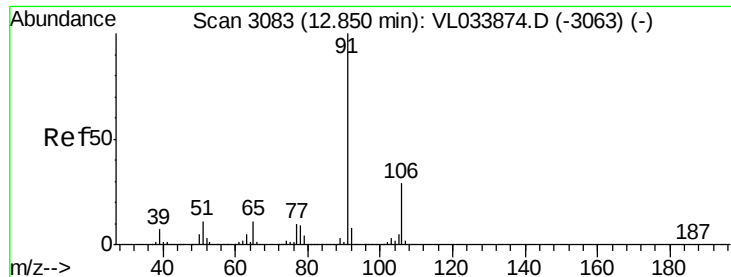
Ion Ratio Lower Upper

117 100

82 64.3 50.2 75.2

119 32.4 24.8 37.2





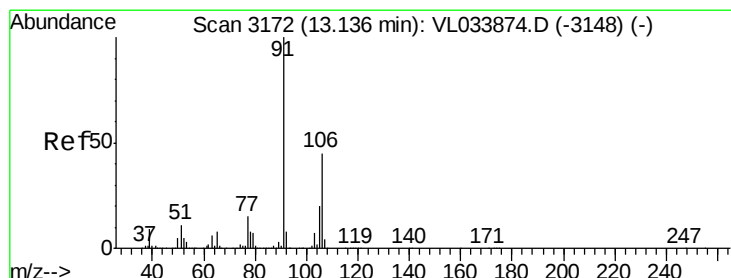
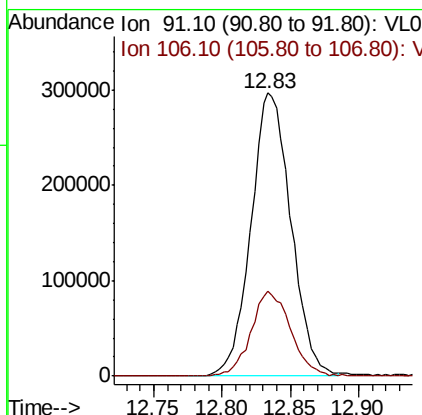
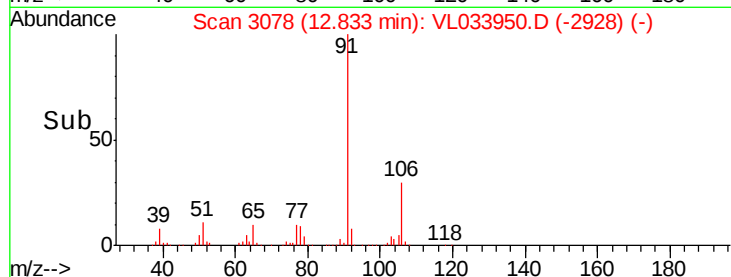
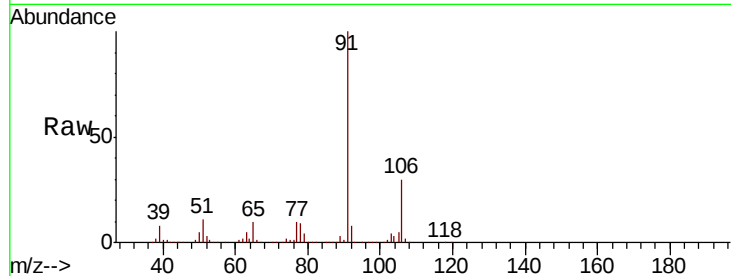
#58
Ethyl Benzene
Concen: 2.462 ppbv
RT: 12.83 min Scan# 3078
Delta R.T. -0.02 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-C-2

Tot Ion: 91 Resp: 604197
Ion Ratio Lower Upper
91 100
106 29.8 23.0 34.6

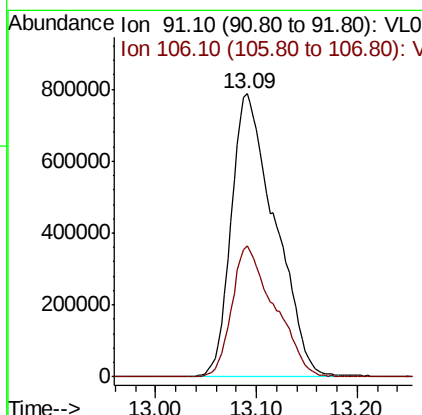
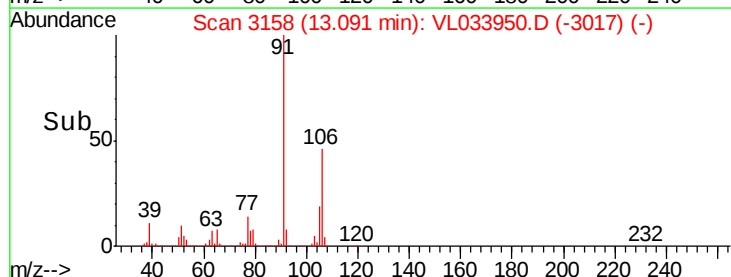
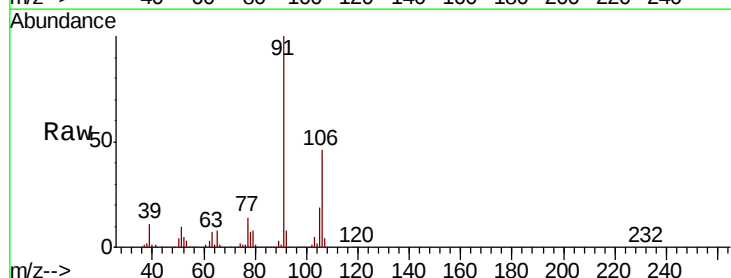
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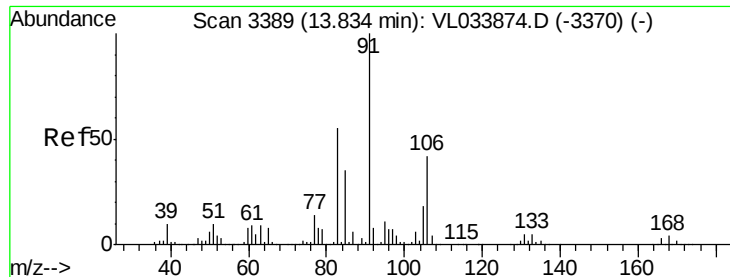
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#59
m/p-Xylene
Concen: 10.620 ppbv
RT: 13.09 min Scan# 3158
Delta R.T. -0.05 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Tgt Ion: 91 Resp: 2370326
Ion Ratio Lower Upper
91 100
106 45.4 35.8 53.8





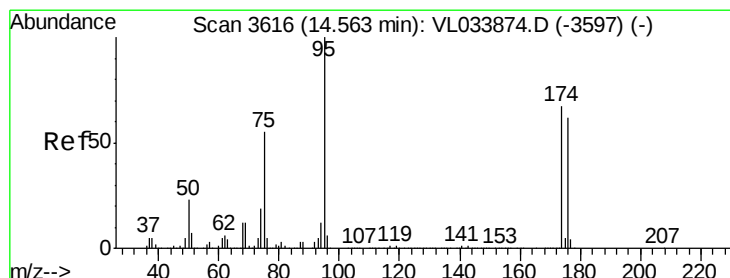
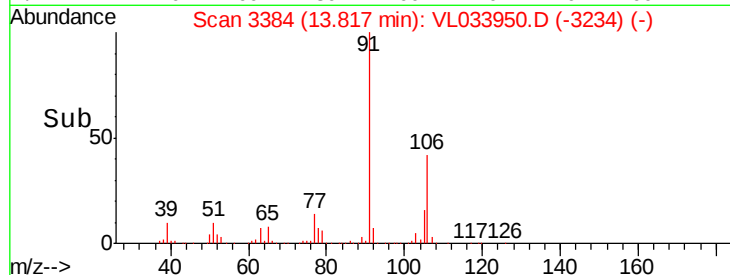
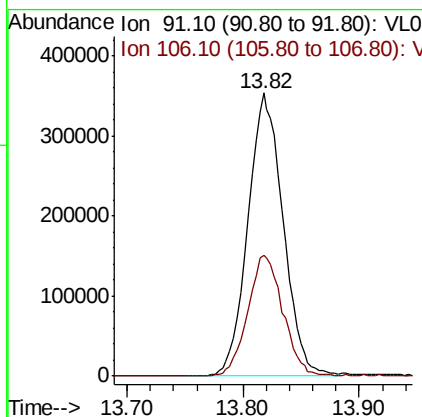
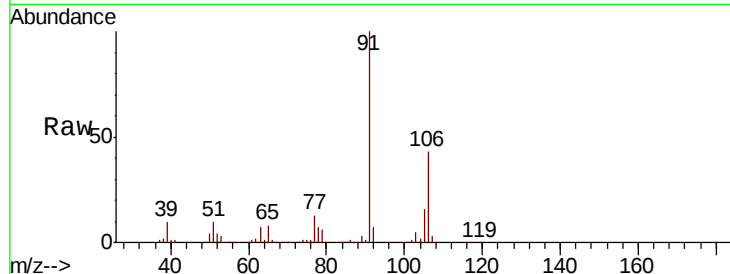
#60
o-Xylene
Concen: 3.249 ppbv
RT: 13.82 min Scan# 3384
Delta R.T. -0.02 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Instrument :
MSVOA_L
ClientSampleId :
TZC-SSDS-AREA-C-2

Tot Ion: 91 Resp: 748841
Ion Ratio Lower Upper
91 100
106 42.8 21.7 65.1

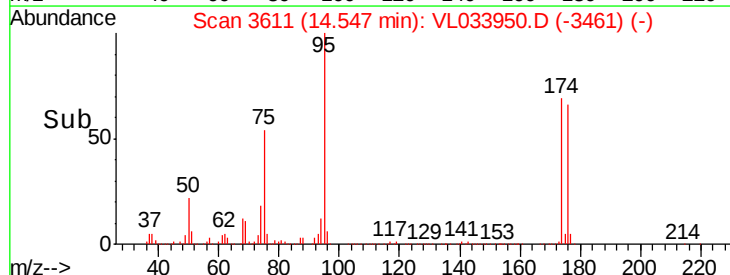
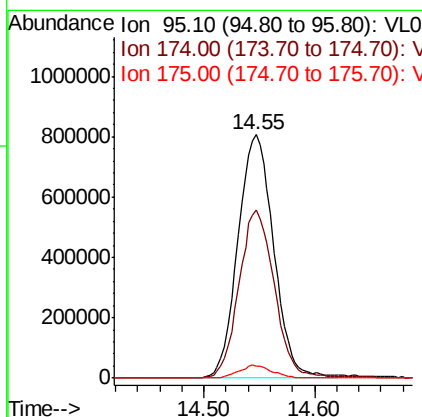
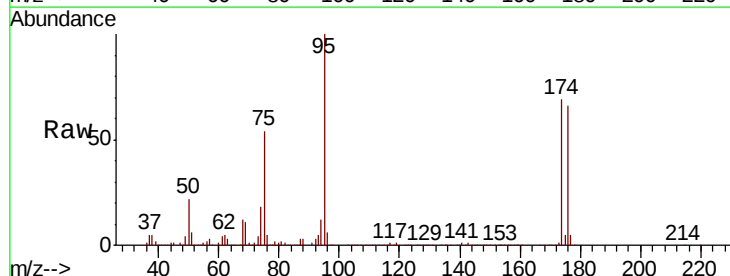
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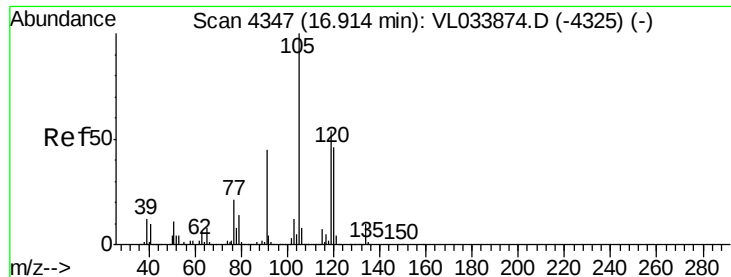
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#68
1-Bromo-4-Fluorobenzene
Concen: 10.127 ppbv
RT: 14.55 min Scan# 3611
Delta R.T. -0.02 min
Lab File: VL033950.D
Acq: 24 Jun 2019 23:56

Tgt Ion: 95 Resp: 1810930
Ion Ratio Lower Upper
95 100
174 69.1 54.0 81.0
175 4.9 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.212 ppbv m
 RT: 16.90 min Scan# 4342
 Delta R.T. -0.02 min
 Lab File: VL033950.D
 Acq: 24 Jun 2019 23:56

Instrument :
 MSVOA_L
 ClientSampleId :
 TZC-SSDS-AREA-C-2

Tot Ion	Ratio	Resp	Lower	Upper
105	100	63110		
120	37.9		36.7	55.1
91	17.1		35.8	53.8#
77	16.2		16.9	25.3#

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