

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052919\
 Data File : VL033854.D
 Acq On : 30 May 2019 3:34
 Operator : SY/AP
 Sample : K3067-06
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-5-20190523-0

Manual Integrations
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Quant Time: May 30 06:41:04 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May 1
 QLast Update : Fri May 17 08:15:41 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	724319	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1663507	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1721790	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	1373733	9.84	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	38108	0.250	ppbv	95
3) Chlorodifluoromethane	3.01	51	55313m	0.667	ppbv	
4) Chloromethane	3.17	50	12025	0.253	ppbv	94
11) Trichlorofluoromethane	4.00	101	43672	0.300	ppbv	93
13) Ethanol	3.67	45	221566	19.425	ppbv	99
15) Acetone	3.90	43	595615	5.927	ppbv	100
17) tert-Butyl alcohol	4.38	59	14346m	0.177	ppbv	
19) Isopropyl Alcohol	4.05	45	229227	3.538	ppbv #	94
20) Methylene Chloride	4.40	84	132017	3.412	ppbv	94
26) Hexane	5.77	57	182359	2.403	ppbv #	43
27) Carbon Disulfide	4.62	76	23560	0.226	ppbv #	60
34) 2-Butanone	5.33	43	97065	0.941	ppbv	99
35) Carbon Tetrachloride	7.13	117	5286m	0.040	ppbv	
36) Benzene	6.99	78	43853	0.290	ppbv	99
38) Trichloroethene	7.95	130	4119m	0.073	ppbv	
44) 2,2,4-Trimethylpentane	7.98	57	31680m	0.124	ppbv	
52) Tetrachloroethene	11.36	164	57664	1.084	ppbv	97
53) Toluene	9.94	91	506205	3.101	ppbv	99
59) m/p-Xylene	13.12	91	44926m	0.225	ppbv	
60) o-Xylene	13.84	91	22340m	0.111	ppbv	
74) 1,2,4-Trimethylbenzene	16.92	105	37308	0.153	ppbv #	70

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

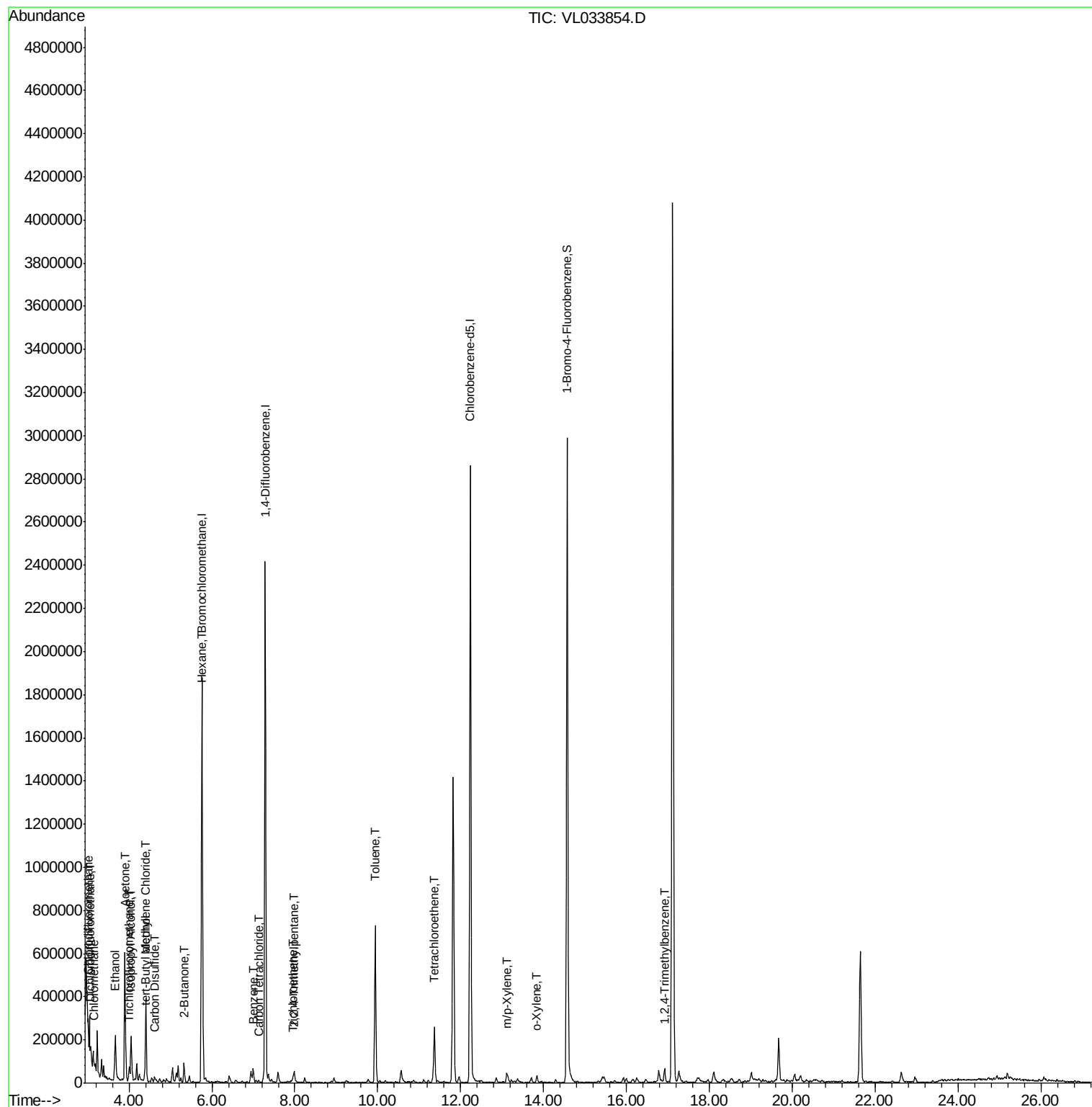
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL052919\
Data File : VL033854.D
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Misc : 400ml/MSVOA L
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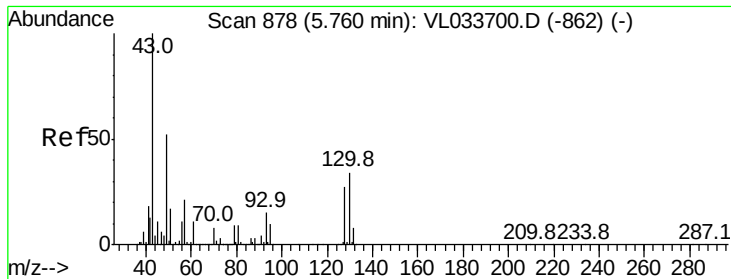
Instrument :
MSVOA_L
ClientSampleId :
SG-5-20190523-0

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Quant Time: May 30 06:41:04 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL051719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May
QLast Update : Fri May 17 08:15:41 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.00 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Instrument :

MSVOA_L

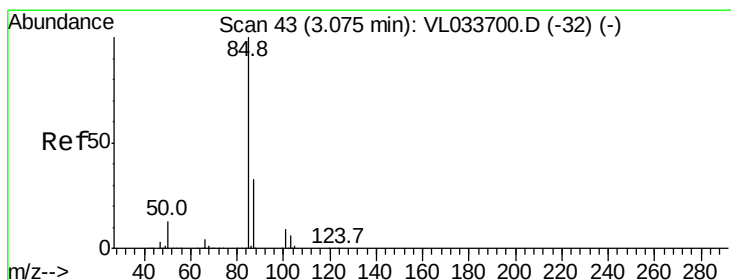
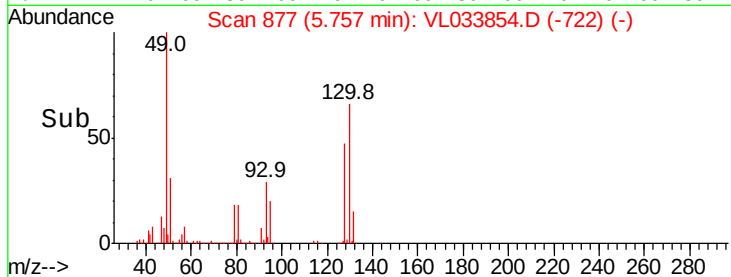
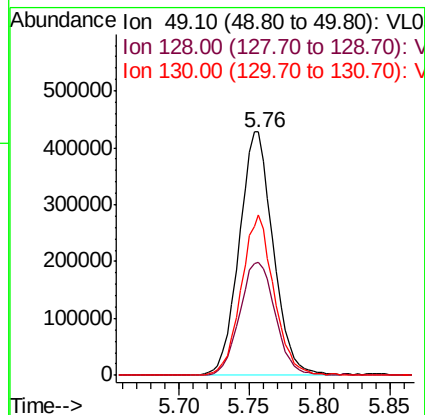
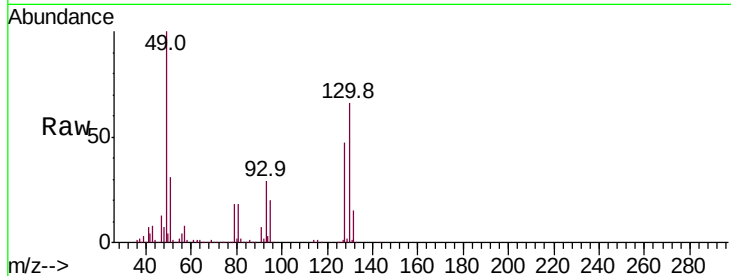
ClientSampleId :

SG-5-20190523-0

Tot Ion:	49	Resp:	724319
Ion Ratio	Lower	Upper	
49	100		
128	48.9	25.2	75.6
130	63.3	32.5	97.5

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#2

Dichlorodifluoromethane

Concen: 0.250 ppbv

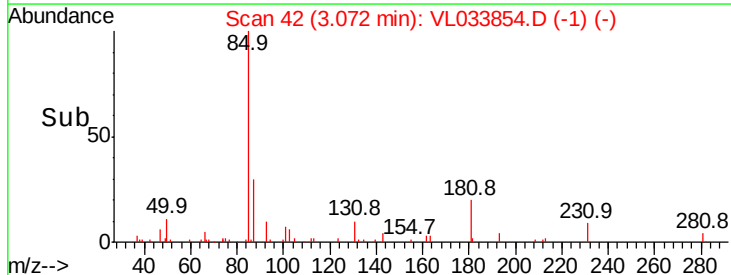
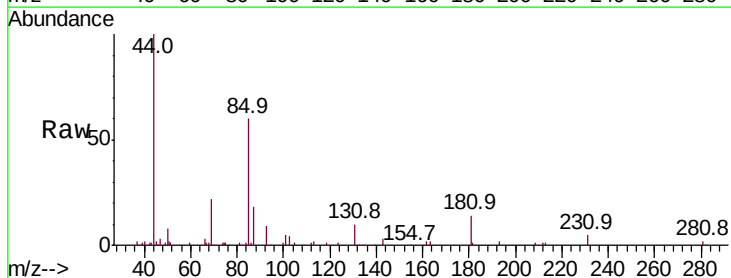
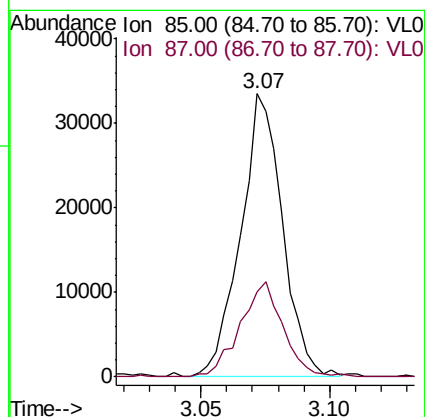
RT: 3.07 min Scan# 42

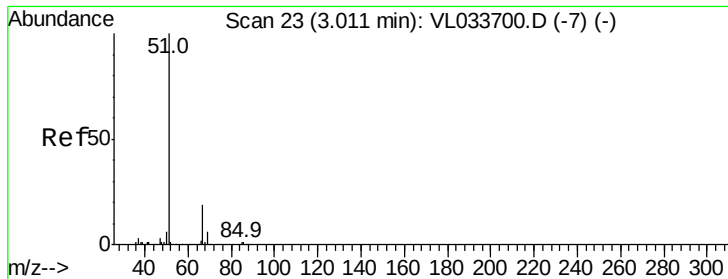
Delta R.T. -0.00 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Tgt Ion:	85	Resp:	38108
Ion Ratio	Lower	Upper	
85	100		
87	30.1	26.3	39.5





#3

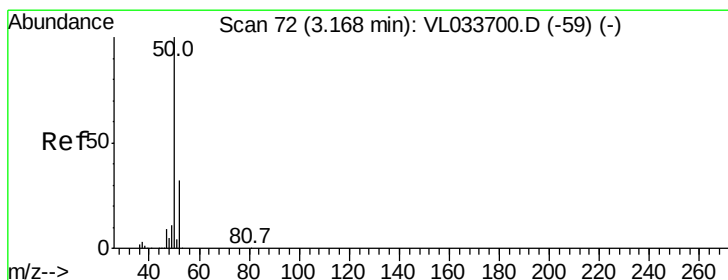
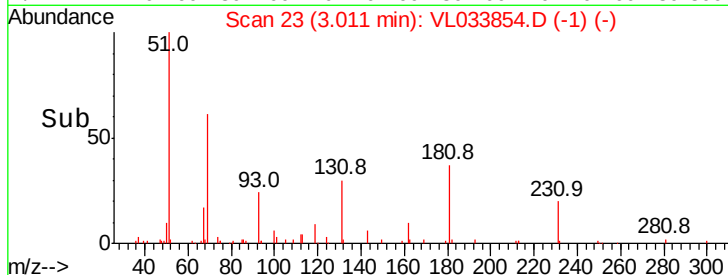
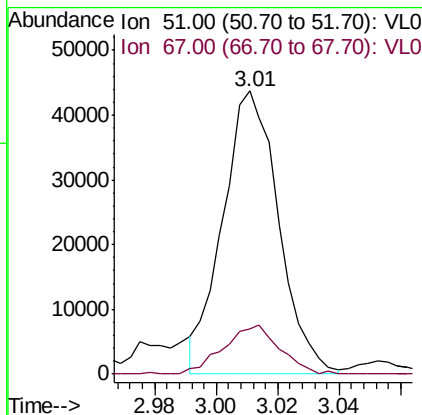
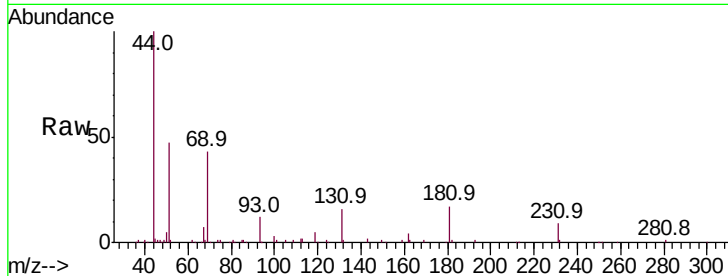
Chlorodifluoromethane
Concen: 0.667 ppbv
RT: 3.01 min Scan# 23
Delta R.T. 0.00 min
Lab File: VL033854.D
Acq: 30 May 2019 3:34

Instrument :
MSVOA_L
ClientSampleId :
SG-5-20190523-0

Tot Ion	Ratio	Lower	Upper
51	100		
67	17.5	15.6	23.4

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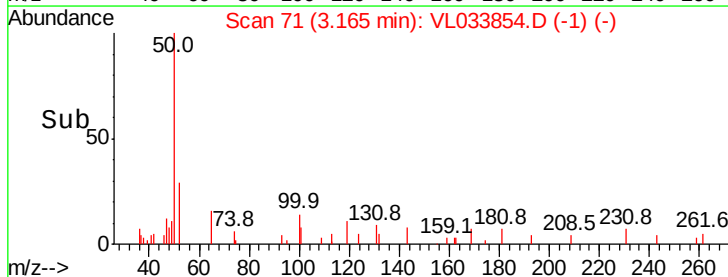
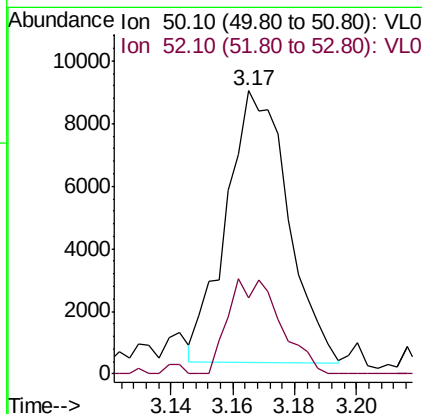
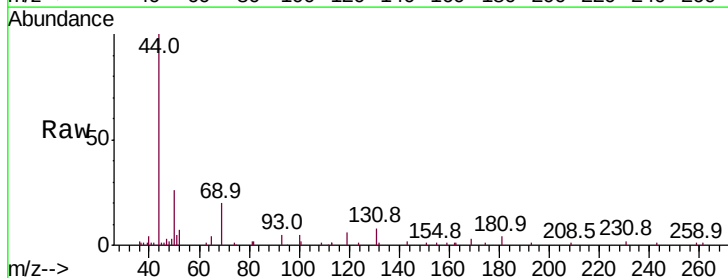
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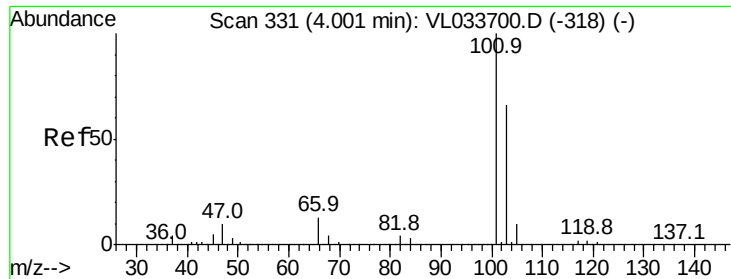


#4

Chloromethane
Concen: 0.253 ppbv
RT: 3.17 min Scan# 71
Delta R.T. -0.00 min
Lab File: VL033854.D
Acq: 30 May 2019 3:34

Tgt Ion	Ratio	Lower	Upper
50	100		
52	28.9	25.7	38.5





#11

Trichlorofluoromethane

Concen: 0.300 ppbv

RT: 4.00 min Scan# 331

Delta R.T. 0.00 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Instrument :

MSVOA_L

ClientSampled :

SG-5-20190523-0

Tot Ion:101 Resp: 43672

Ion Ratio Lower Upper

101 100

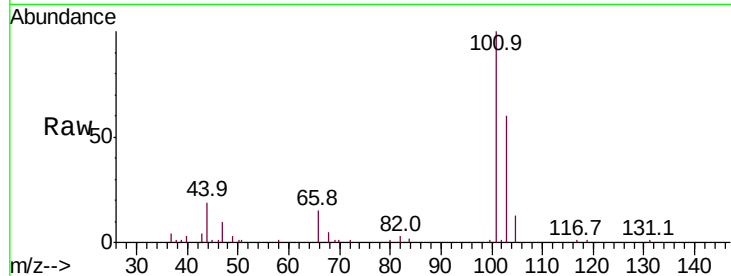
103 60.3 52.6 78.8

Manual Integrations

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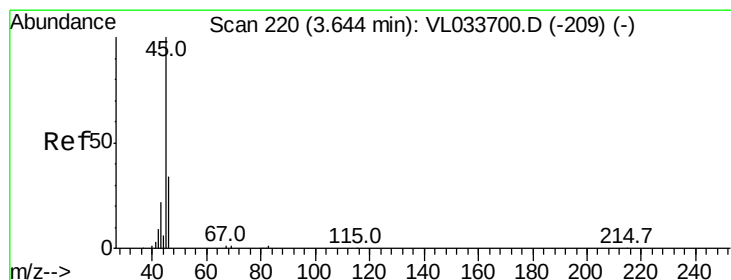
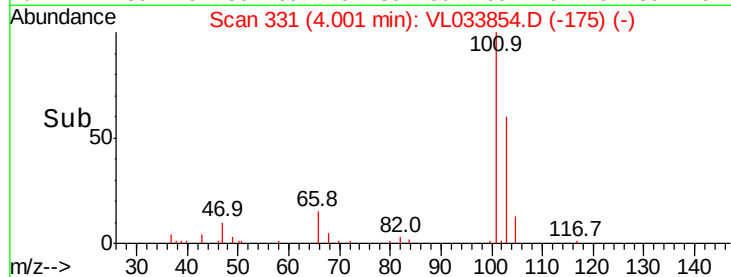
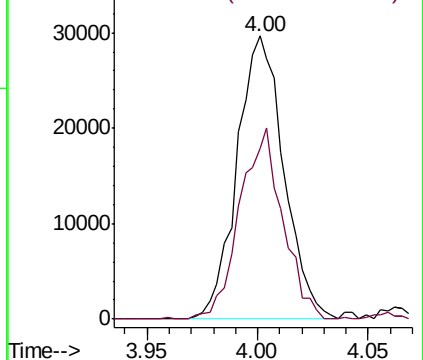
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Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 19.425 ppbv

RT: 3.67 min Scan# 227

Delta R.T. 0.02 min

Lab File: VL033854.D

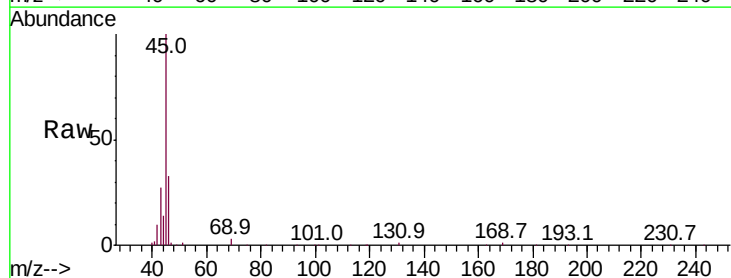
Acq: 30 May 2019 3:34

Tgt Ion: 45 Resp: 221566

Ion Ratio Lower Upper

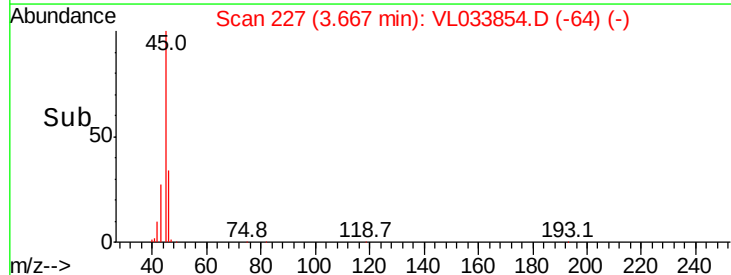
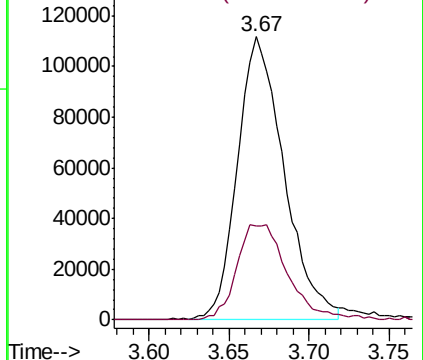
45 100

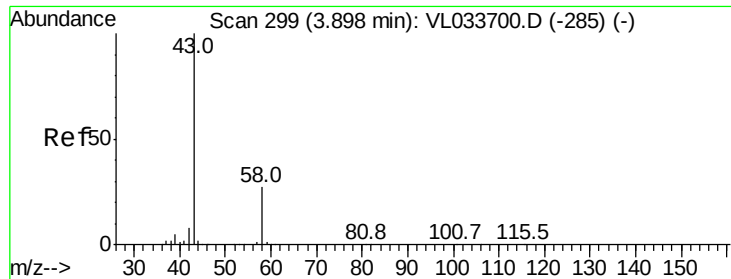
46 37.5 14.8 59.0



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 5.927 ppbv

RT: 3.90 min Scan# 299

Delta R.T. 0.00 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Instrument :

MSVOA_L

ClientSampleId :

SG-5-20190523-0

Tot Ion: 43 Resp: 595615

Ion Ratio Lower Upper

43 100

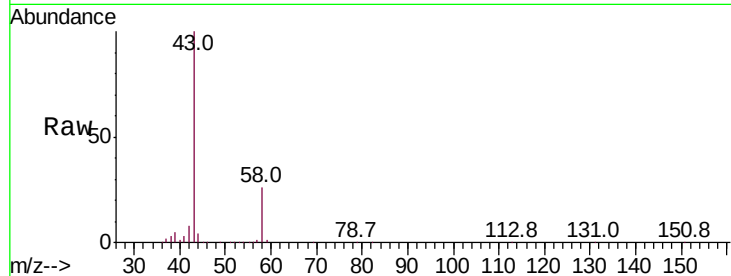
58 26.8 21.3 31.9

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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.90

400000

300000

200000

100000

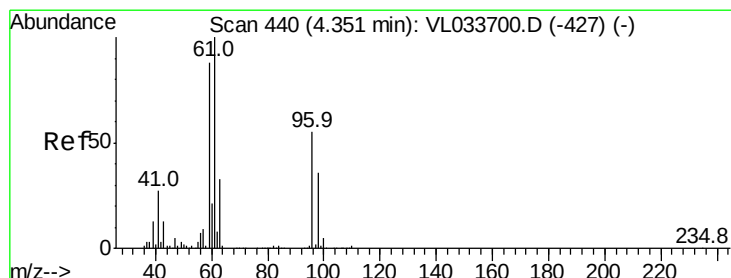
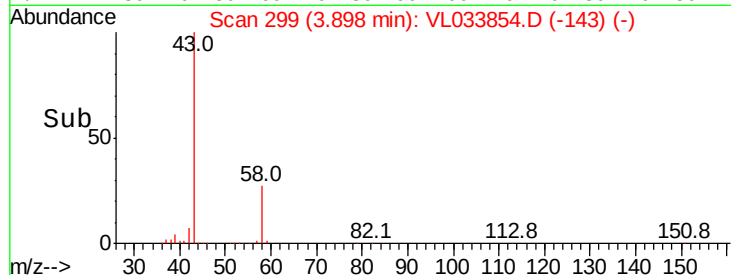
0

Time-->

3.85

3.90

3.95



#17

tert-Butyl alcohol

Concen: 0.177 ppbv m

RT: 4.38 min Scan# 449

Delta R.T. 0.03 min

Lab File: VL033854.D

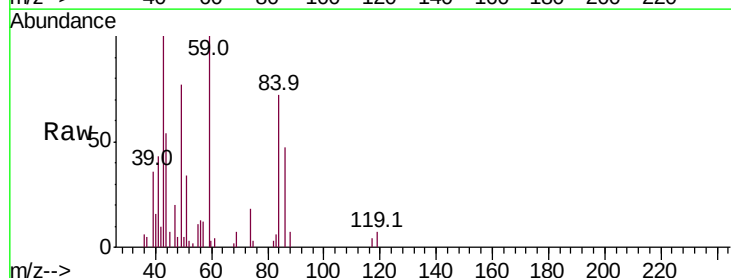
Acq: 30 May 2019 3:34

Tgt Ion: 59 Resp: 14346

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

4.38

8000

6000

4000

2000

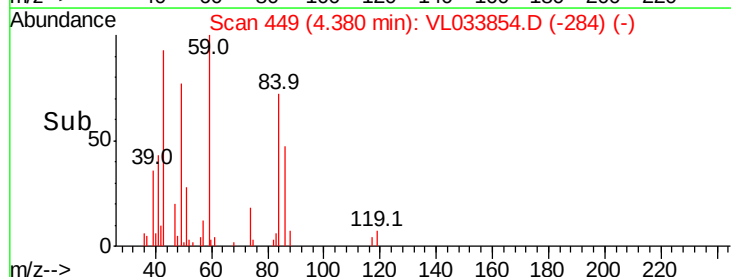
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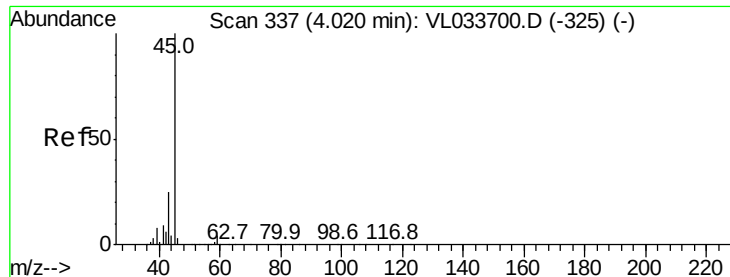
Time-->

4.35

4.40

4.45





#19

Isopropyl Alcohol

Concen: 3.538 ppbv

RT: 4.05 min Scan# 345

Delta R.T. 0.03 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Instrument :

MSVOA_L

ClientSampleId :

SG-5-20190523-0

Tot Ion: 45 Resp: 229227

Ion Ratio Lower Upper

45 100

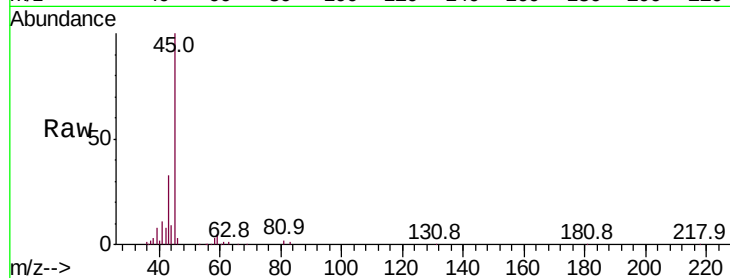
58 4.1 1.6 2.4#

Manual Integrations

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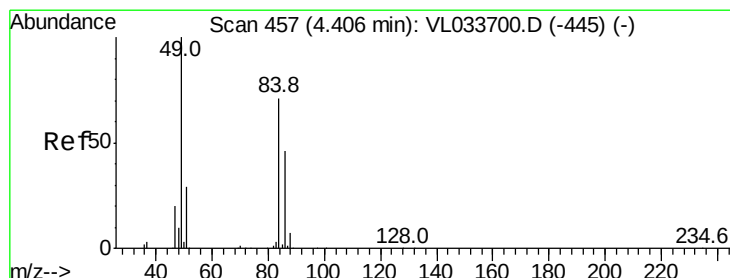
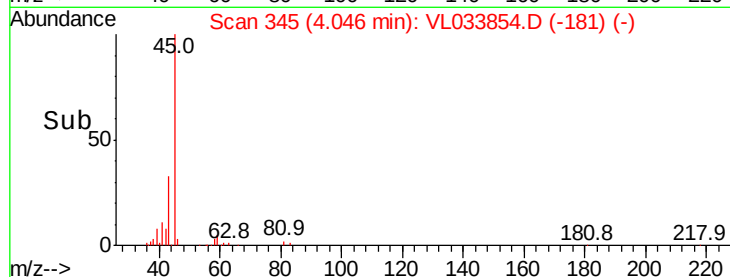
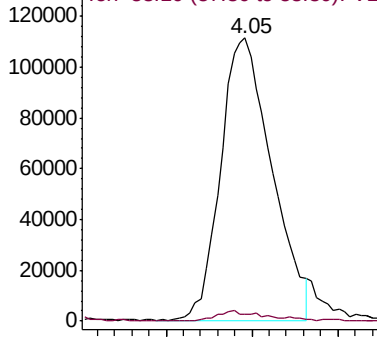
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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 3.412 ppbv

RT: 4.40 min Scan# 456

Delta R.T. -0.00 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Tgt Ion: 84 Resp: 132017

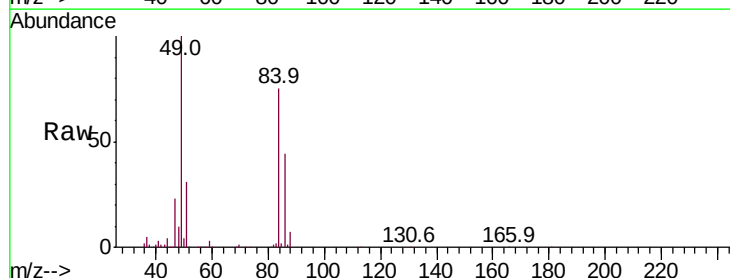
Ion Ratio Lower Upper

84 100

49 133.5 112.8 169.2

51 40.9 33.4 50.0

86 59.0 51.7 77.5

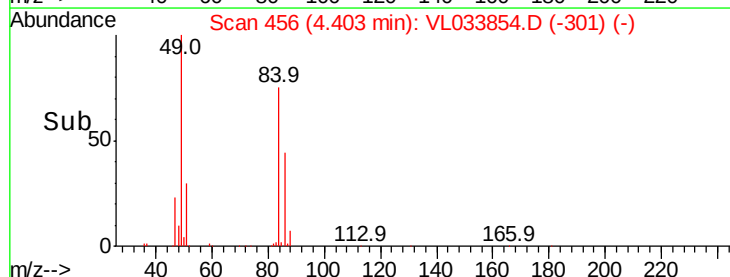
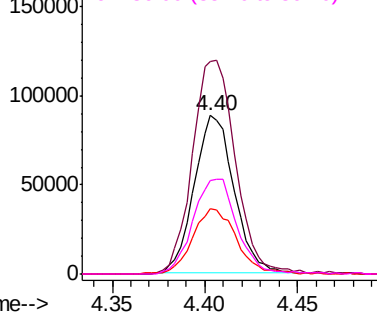


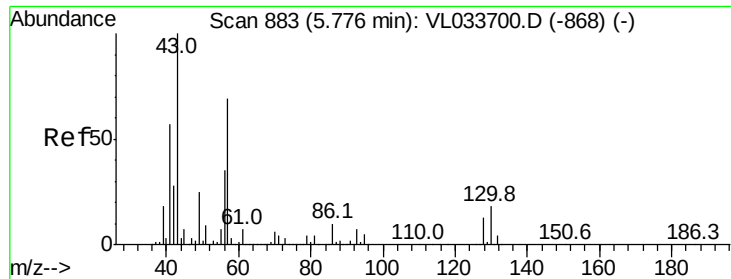
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





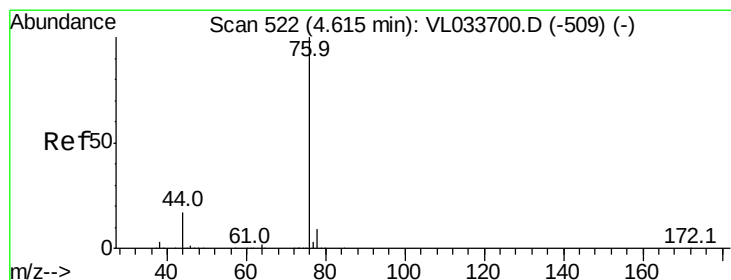
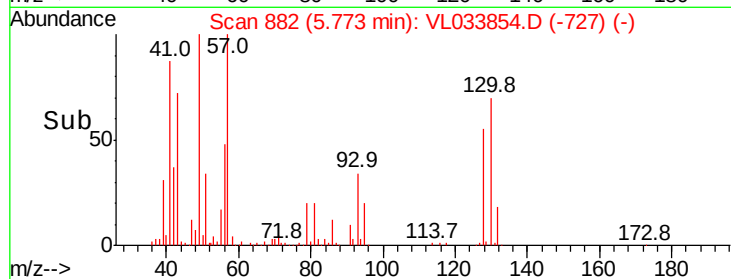
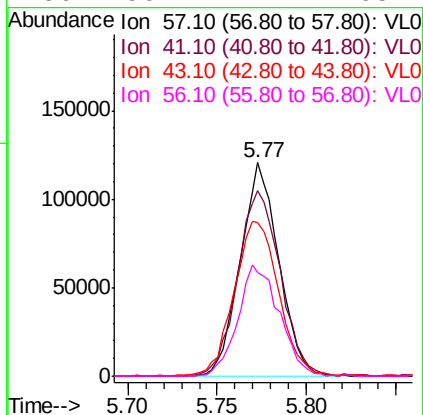
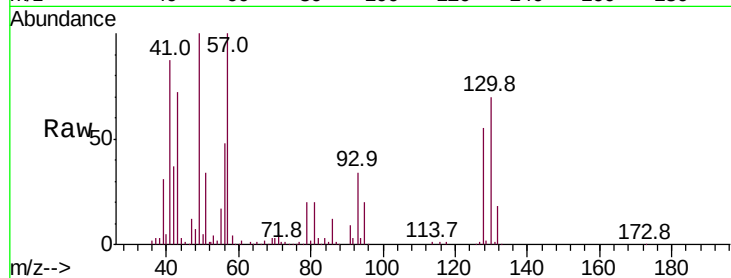
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Hexane
Concen: 2.403 ppbv
RT: 5.77 min Scan# 882
Delta R.T. -0.00 min
Lab File: VL033854.D
Acq: 30 May 2019 3:34

Instrument :
MSVOA_L
ClientSampleId :
SG-5-20190523-0

Tot Ion	Ratio	Lower	Upper
57	100		
41	96.3	69.8	104.6
43	84.7	181.8	272.6#
56	56.2	42.1	63.1

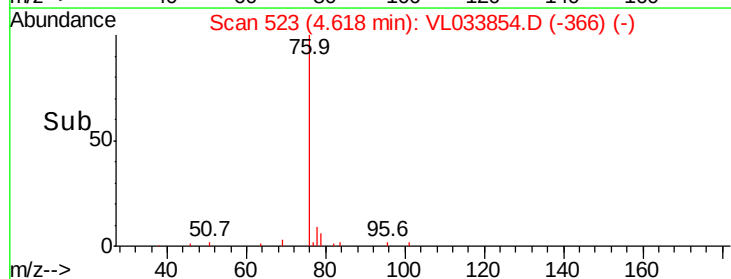
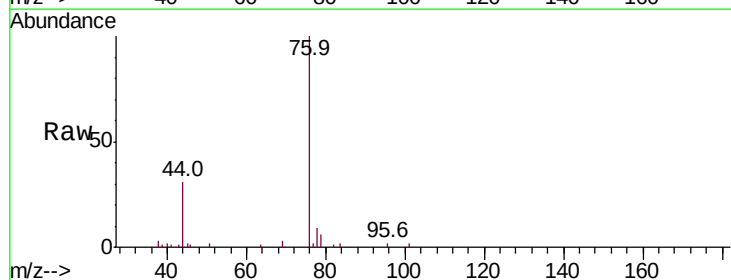
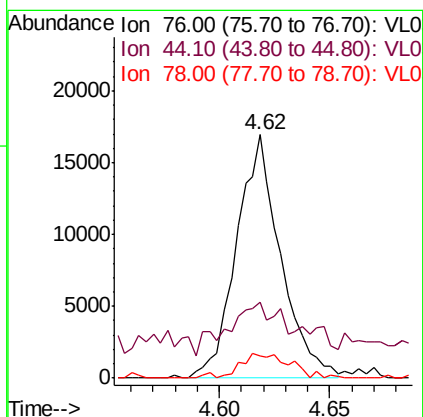
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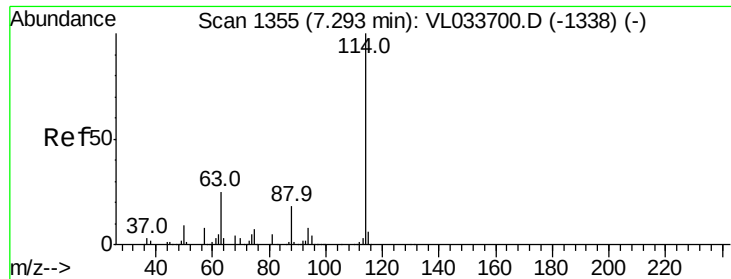
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#27
Carbon Disulfide
Concen: 0.226 ppbv
RT: 4.62 min Scan# 523
Delta R.T. 0.00 min
Lab File: VL033854.D
Acq: 30 May 2019 3:34

Tgt Ion	Ratio	Lower	Upper
76	100		
44	42.6	13.8	20.8#
78	11.7	7.4	11.0#





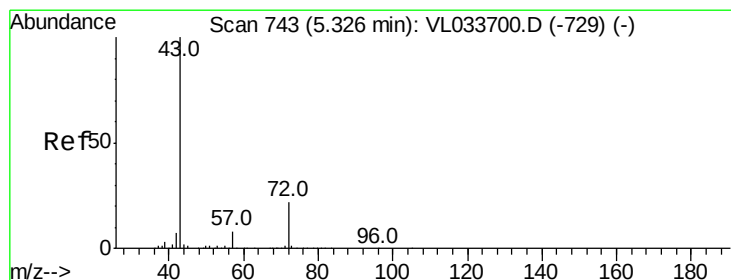
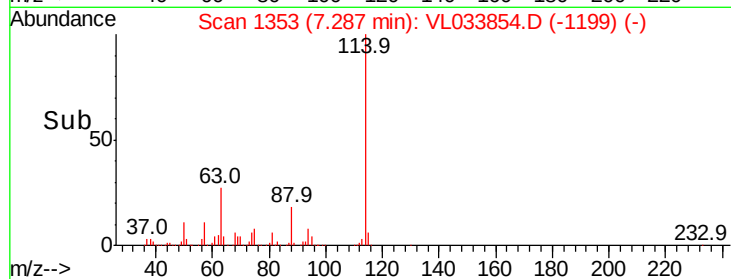
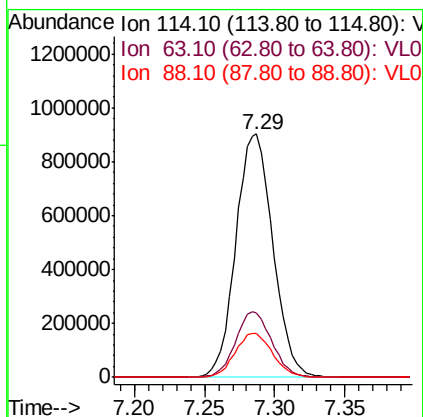
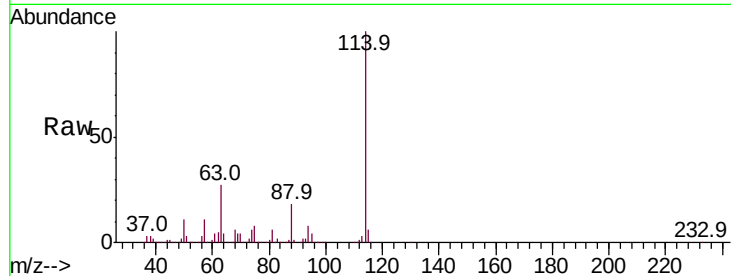
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033854.D
 Acq: 30 May 2019 3:34

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-5-20190523-0

Tot Ion	Ratio	Lower	Upper
114	100		
63	26.5	20.9	31.3
88	18.3	14.3	21.5

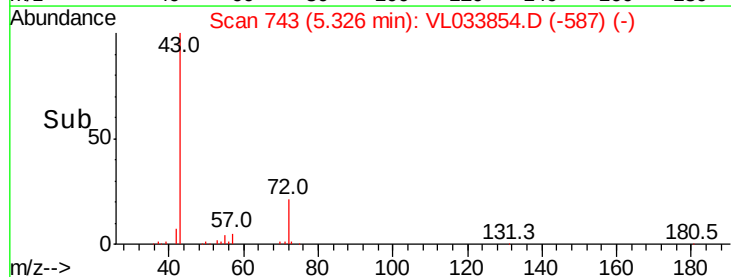
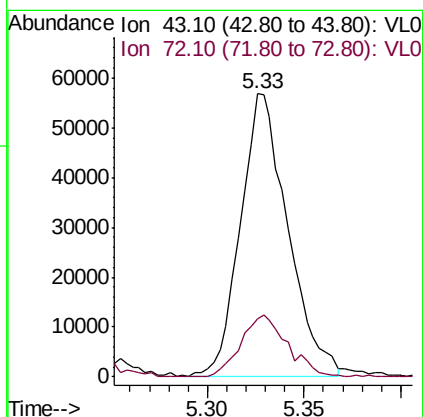
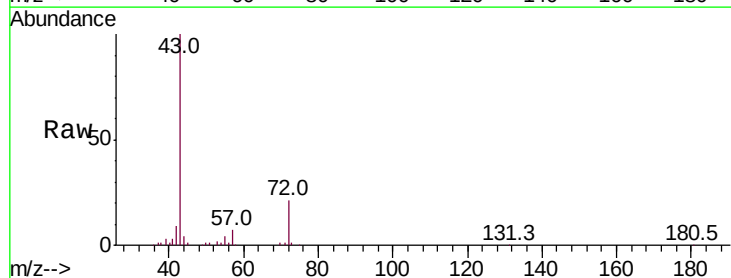
Manual Integrations
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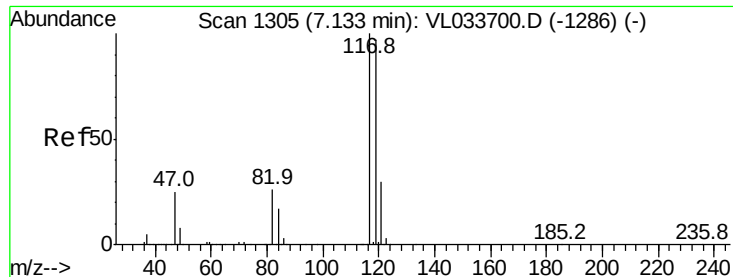
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#34
 2-Butanone
 Concen: 0.941 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. 0.00 min
 Lab File: VL033854.D
 Acq: 30 May 2019 3:34

Tgt Ion	Ratio	Lower	Upper
43	100		
72	21.5	17.8	26.6





#35

Carbon Tetrachloride

Concen: 0.040 ppbv m

RT: 7.13 min Scan# 1305

Delta R.T. 0.00 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Instrument :

MSVOA_L

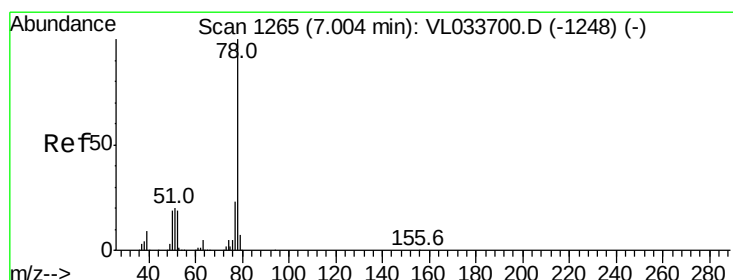
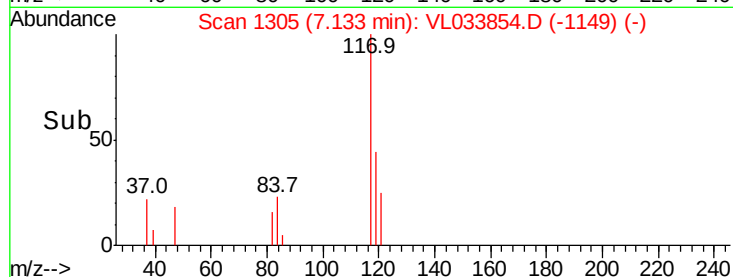
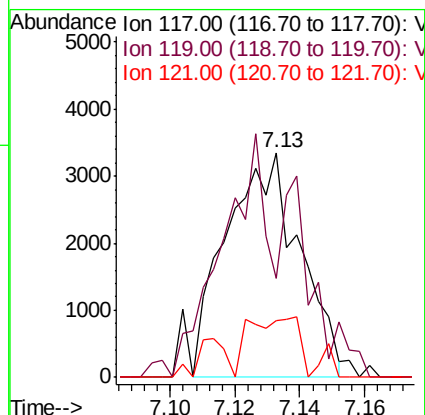
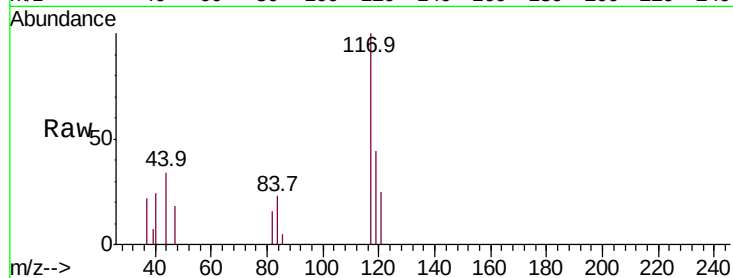
ClientSampleId :

SG-5-20190523-0

Tot Ion	Ratio	Lower	Upper
117	100		
119	43.8	77.2	115.8#
121	25.5	24.1	36.1

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#36

Benzene

Concen: 0.290 ppbv

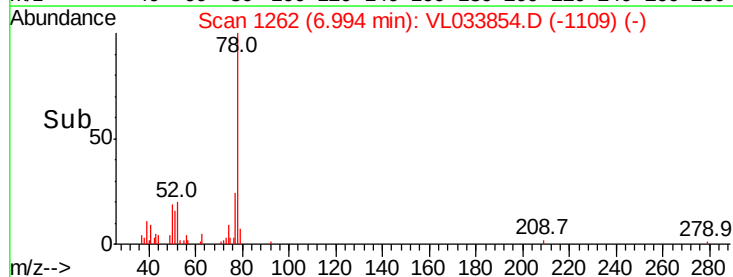
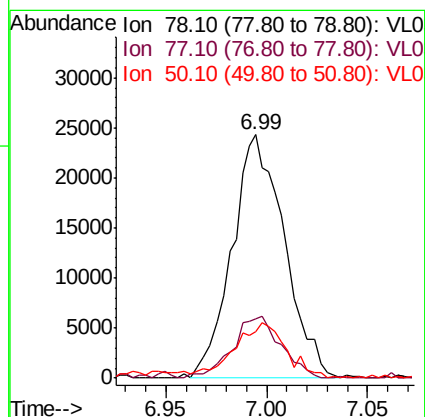
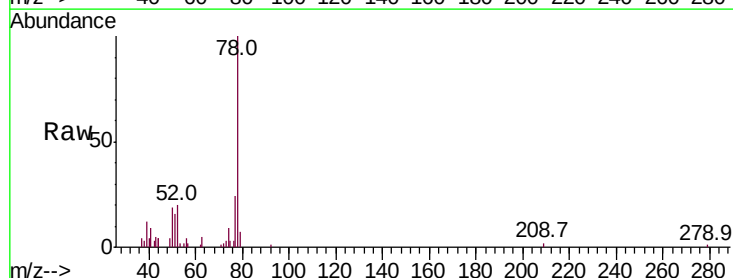
RT: 6.99 min Scan# 1262

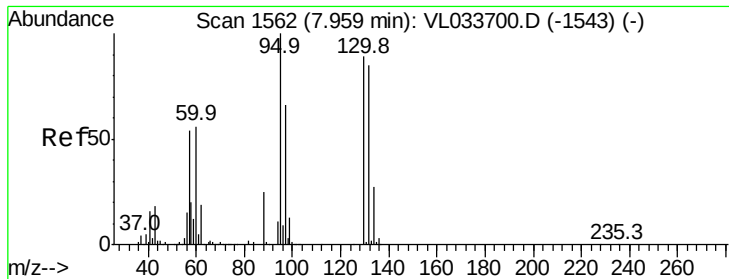
Delta R.T. -0.01 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.8	18.4	27.6
50	19.3	15.5	23.3





#38

Trichloroethene

Concen: 0.073 ppbv m

RT: 7.95 min Scan# 1558

Delta R.T. -0.01 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Instrument :

MSVOA_L

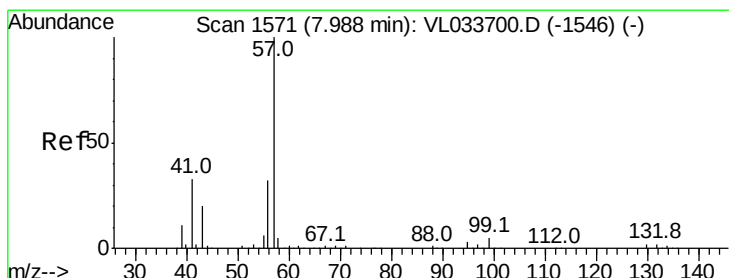
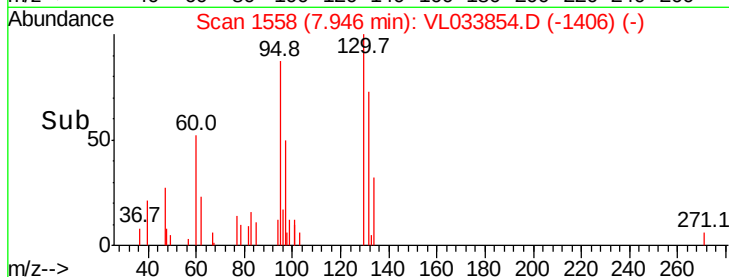
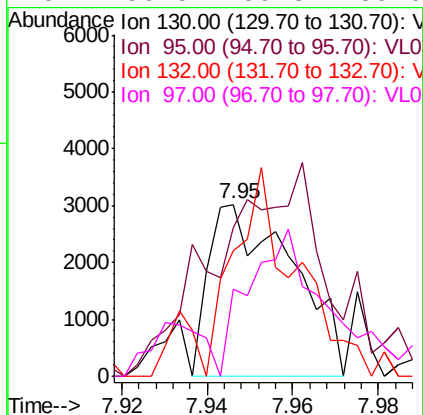
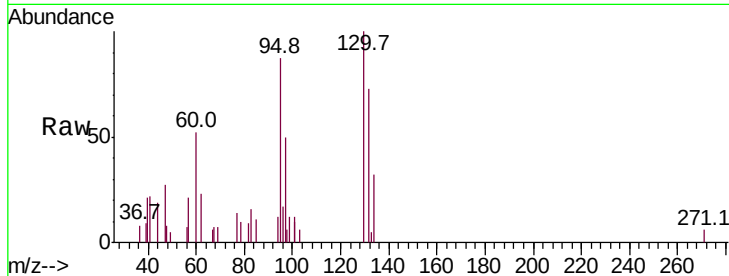
ClientSampleId :

SG-5-20190523-0

Tot Ion	130	Resp	4119
Ion Ratio	Lower	Upper	
130	100		
95	86.6	90.2	135.4#
132	72.8	76.4	114.6#
97	50.5	59.8	89.6#

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#44

2,2,4-Trimethylpentane

Concen: 0.124 ppbv m

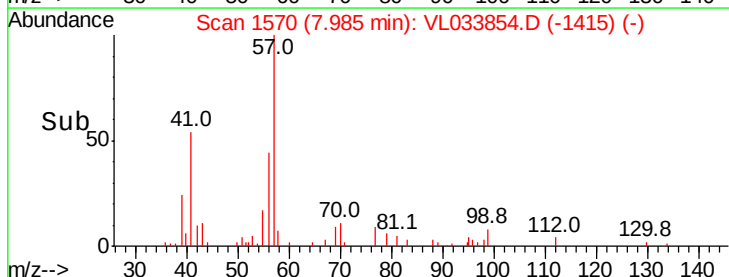
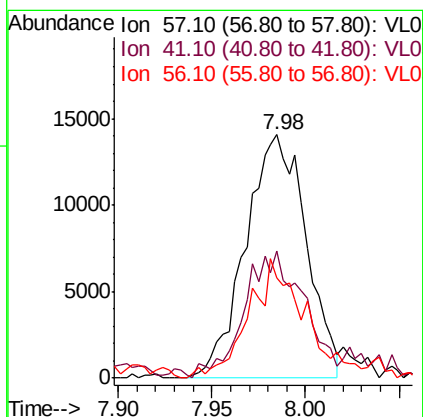
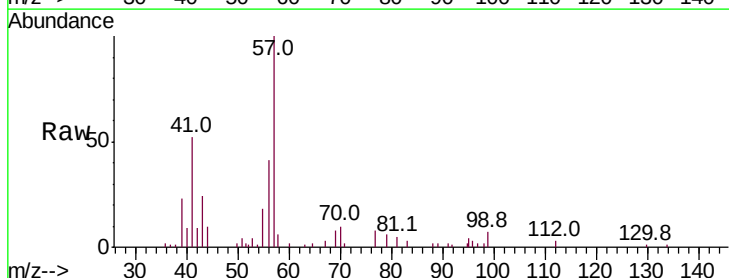
RT: 7.98 min Scan# 1570

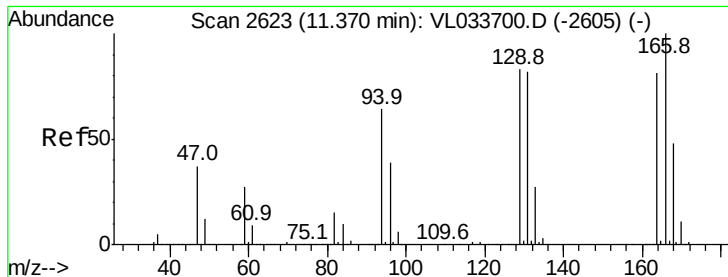
Delta R.T. -0.00 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Tgt Ion	57	Resp	31680
Ion Ratio	Lower	Upper	
57	100		
41	59.9	25.4	38.0#
56	48.0	24.7	37.1#





#52

Tetrachloroethene

Concen: 1.084 ppbv

RT: 11.36 min Scan# 2621

Delta R.T. -0.01 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Instrument :

MSVOA_L

ClientSampleId :

SG-5-20190523-0

Tot Ion:164 Resp: 57664

Ion Ratio Lower Upper

164 100

166 124.6 98.9 148.3

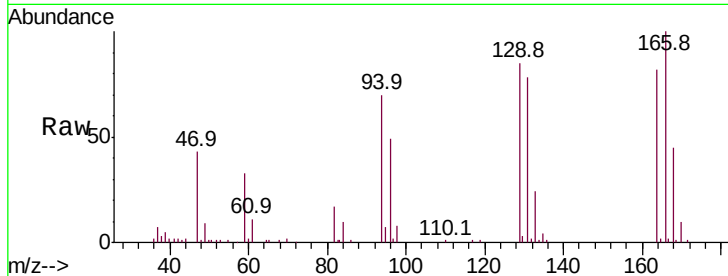
129 108.0 81.8 122.6

131 98.3 81.1 121.7

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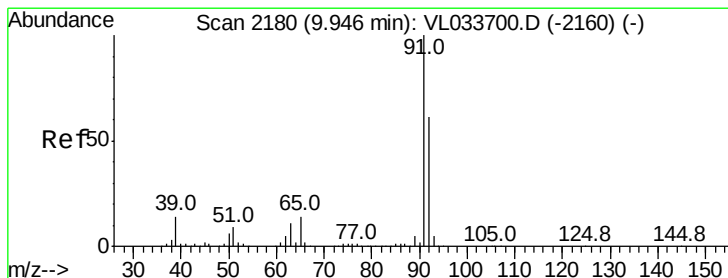
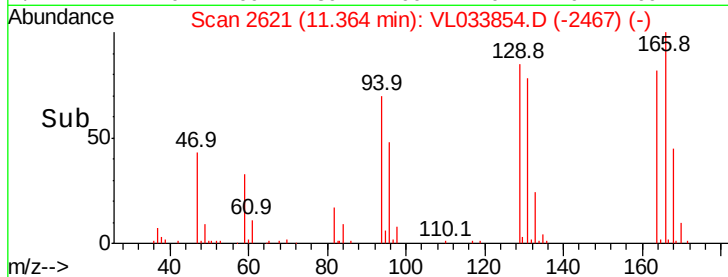
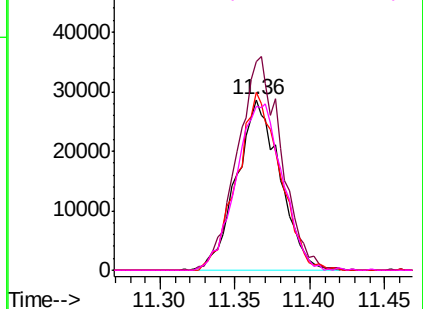


Abundance Ion 163.90 (163.60 to 164.60): V

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: 3.101 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033854.D

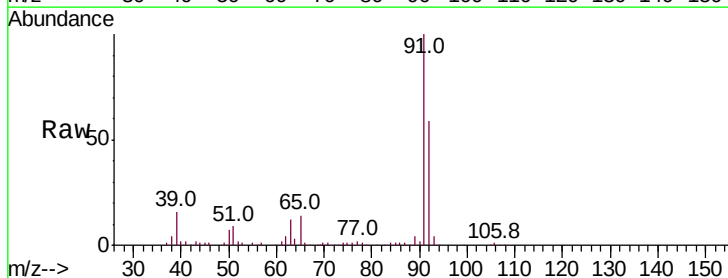
Acq: 30 May 2019 3:34

Tgt Ion: 91 Resp: 506205

Ion Ratio Lower Upper

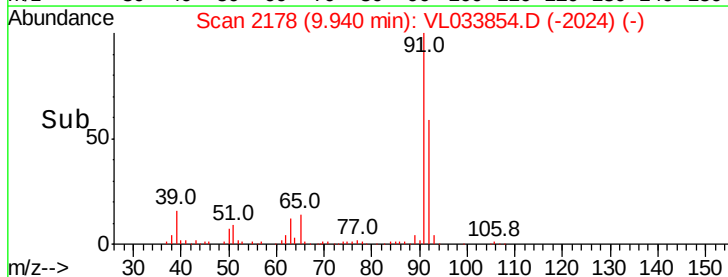
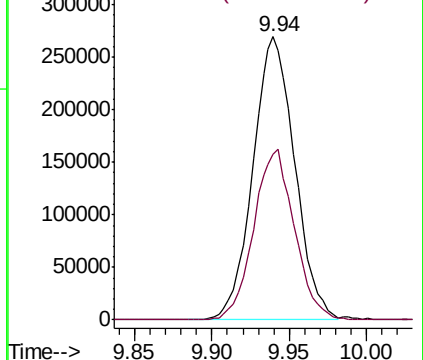
91 100

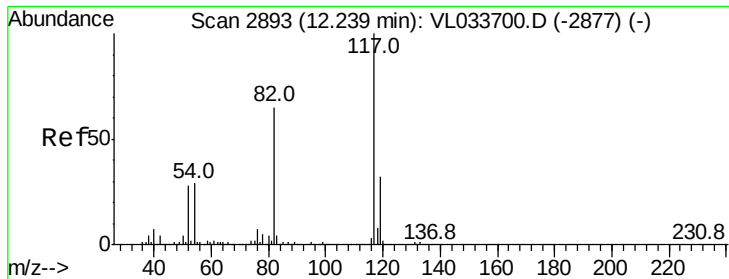
92 58.9 47.6 71.4



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: 12.24 min Scan# 2892

Delta R.T. -0.00 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Instrument :

MSVOA_L

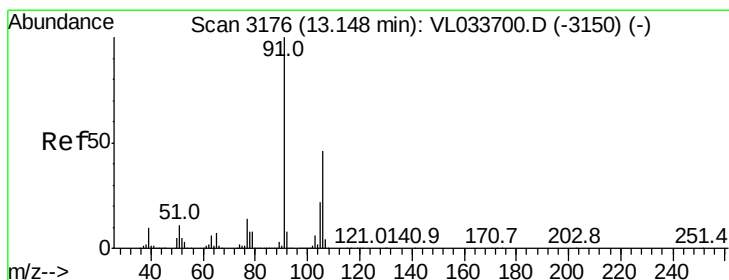
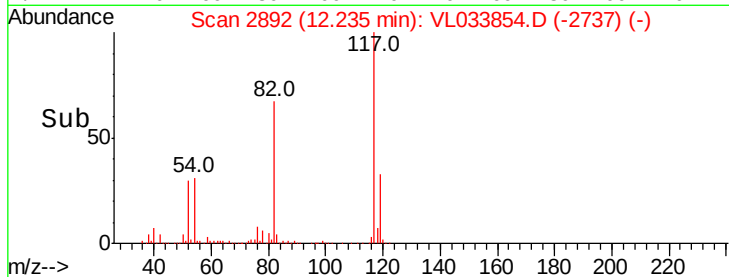
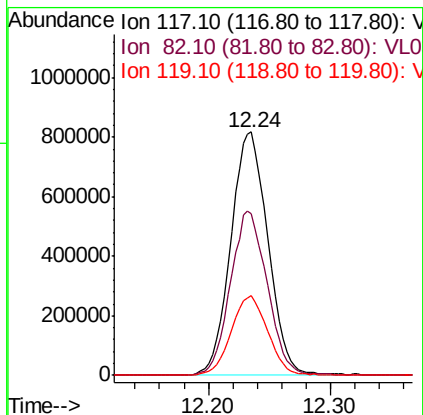
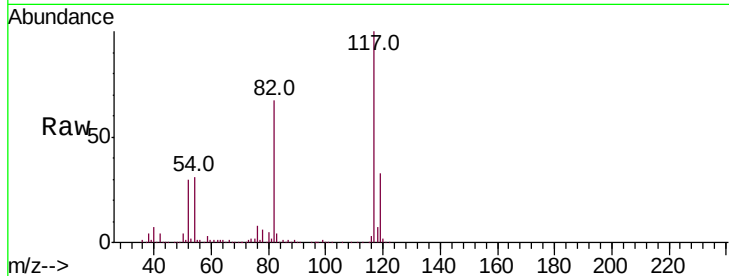
ClientSampleId :

SG-5-20190523-0

Tot Ion	Ratio	Lower	Upper
117	100		
82	67.7	49.4	74.0
119	32.3	24.9	37.3

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#59

m/p-Xylene

Concen: 0.225 ppbv m

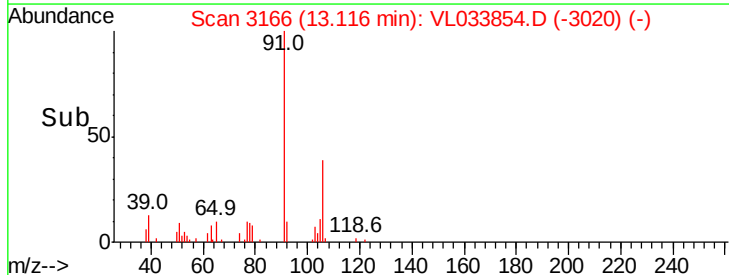
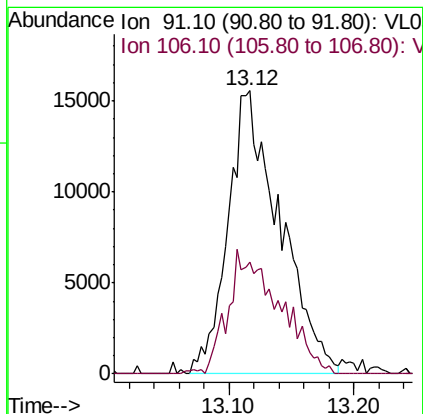
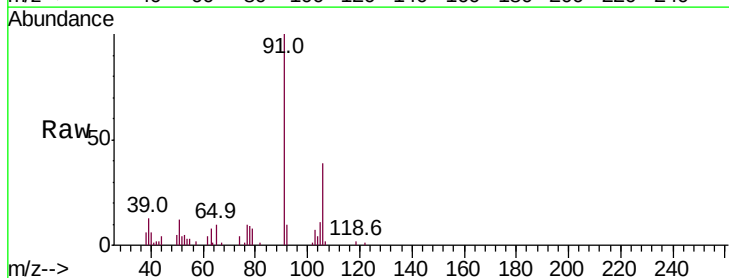
RT: 13.12 min Scan# 3166

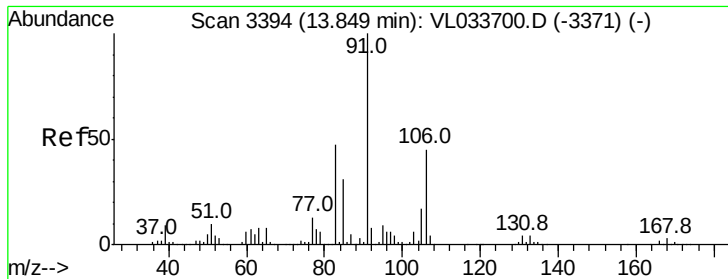
Delta R.T. -0.03 min

Lab File: VL033854.D

Acq: 30 May 2019 3:34

Tgt Ion	Ratio	Lower	Upper
91	100		
106	0.0	35.8	53.6#





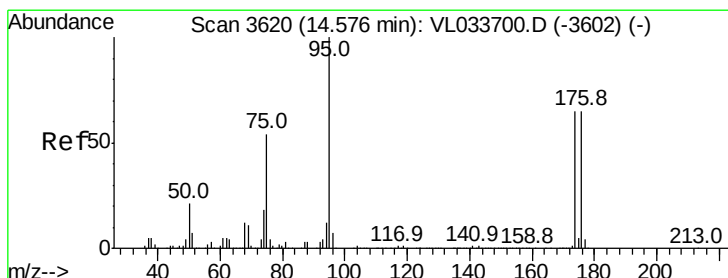
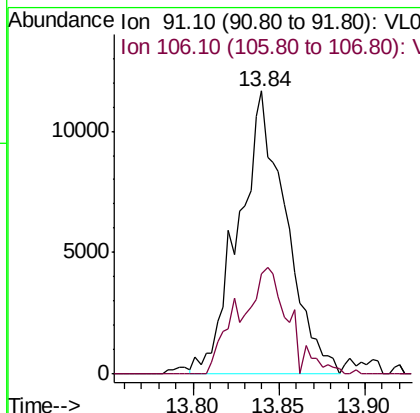
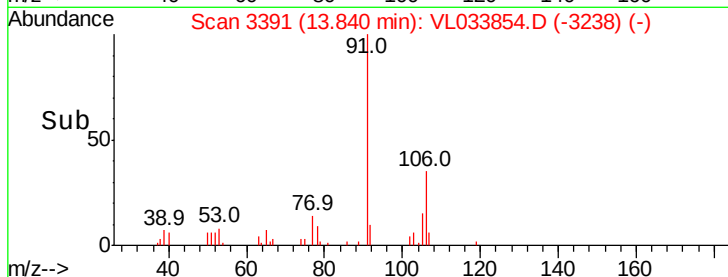
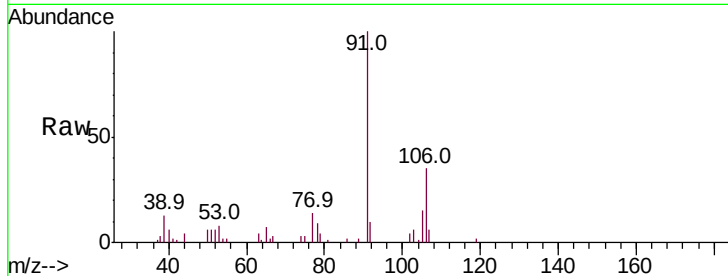
#60
o-Xylene
Concen: 0.111 ppbv m
RT: 13.84 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL033854.D
Acq: 30 May 2019 3:34

Instrument :
MSVOA_L
ClientSampled :
SG-5-20190523-0

Tot Ion: 91 Resp: 22340
Ion Ratio Lower Upper
91 100
106 39.5 21.6 64.8

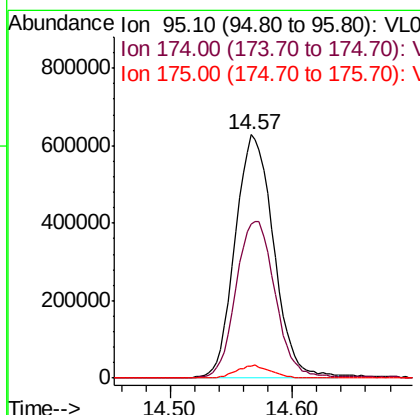
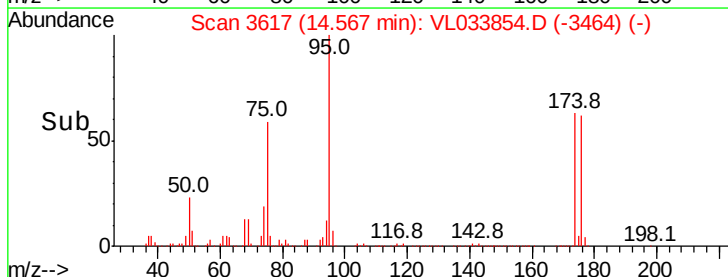
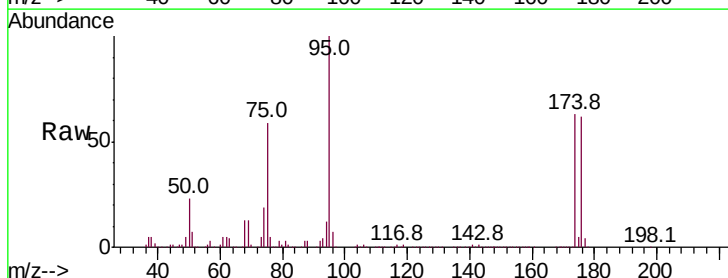
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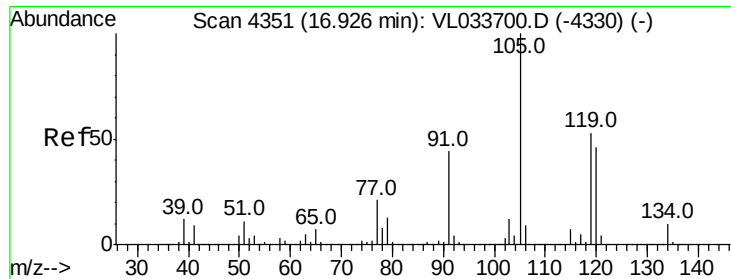
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#68
1-Bromo-4-Fluorobenzene
Concen: 9.842 ppbv
RT: 14.57 min Scan# 3617
Delta R.T. -0.01 min
Lab File: VL033854.D
Acq: 30 May 2019 3:34

Tgt Ion: 95 Resp: 1373733
Ion Ratio Lower Upper
95 100
174 66.4 53.9 80.9
175 4.8 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.153 ppbv
 RT: 16.92 min Scan# 4349
 Delta R.T. -0.01 min
 Lab File: VL033854.D
 Acq: 30 May 2019 3:34

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-5-20190523-0

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	32.2	36.8	55.2#
91	11.7	35.4	53.0#
77	16.9	16.8	25.2

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