

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052219\
 Data File : VL033746.D
 Acq On : 22 May 2019 16:11
 Operator : SY/AP
 Sample : K2929-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-ODA-3001-04

Manual Integrations
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 5/28/2019 2:50:50 AM

Quant Time: May 23 05:11:12 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

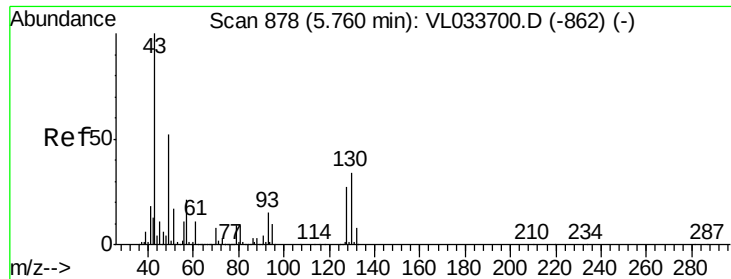
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	904780	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2180085	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2550583	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.56	95	1879954	9.09	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	90.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	30802	0.162	ppbv	98
3) Chlorodifluoromethane	3.01	51	30322m	0.293	ppbv	
4) Chloromethane	3.17	50	58097	0.980	ppbv	89
9) Propene	3.03	41	143851	3.263	ppbv	100
10) Heptane	8.23	43	210899	1.689	ppbv	98
11) Trichlorofluoromethane	4.00	101	103687	0.570	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.54	101	63770	0.502	ppbv	99
13) Ethanol	3.67	45	5118535	359.250	ppbv	100
15) Acetone	3.89	43	5128856	40.856	ppbv	94
17) tert-Butyl alcohol	4.38	59	472502	4.655	ppbv	99
19) Isopropyl Alcohol	4.05	45	2316127	28.615	ppbv	100
20) Methylene Chloride	4.40	84	180292	3.730	ppbv	96
25) Ethyl Acetate	5.75	43	9133215	41.416	ppbv #	87
27) Carbon Disulfide	4.61	76	452076	3.476	ppbv	99
30) Cyclohexane	7.24	84	106648	1.338	ppbv	94
34) 2-Butanone	5.33	43	275370	2.038	ppbv	97
35) Carbon Tetrachloride	7.13	117	9747m	0.056	ppbv	
36) Benzene	7.00	78	36723m	0.185	ppbv	
38) Trichloroethene	7.95	130	13953m	0.190	ppbv	
43) Methyl Methacrylate	8.13	69	49528	0.679	ppbv	94
50) 4-Methyl-2-Pentanone	8.86	43	40777m	0.196	ppbv	
53) Toluene	9.94	91	6795627	31.771	ppbv	99
58) Ethyl Benzene	12.85	91	88839	0.263	ppbv	99
59) m/p-Xylene	13.11	91	176051m	0.596	ppbv	
60) o-Xylene	13.84	91	93240	0.313	ppbv	98
61) Styrene	13.68	104	31341m	0.156	ppbv	
74) 1,2,4-Trimethylbenzene	16.91	105	61407	0.170	ppbv #	78
75) 1,3-Dichlorobenzene	17.15	146	72470	0.327	ppbv #	69
76) 1,4-Dichlorobenzene	17.30	146	29506m	0.140	ppbv	

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



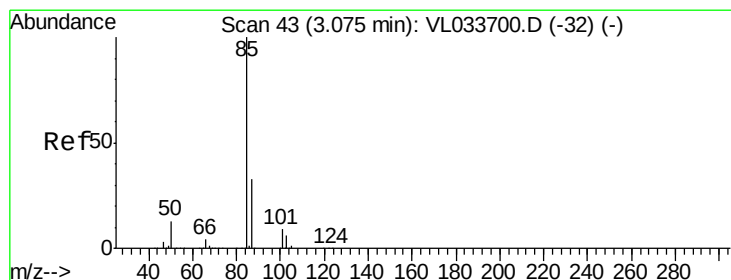
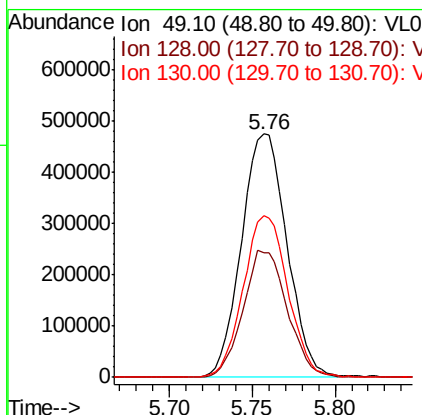
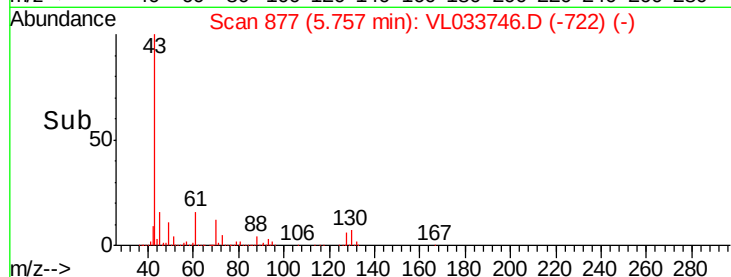
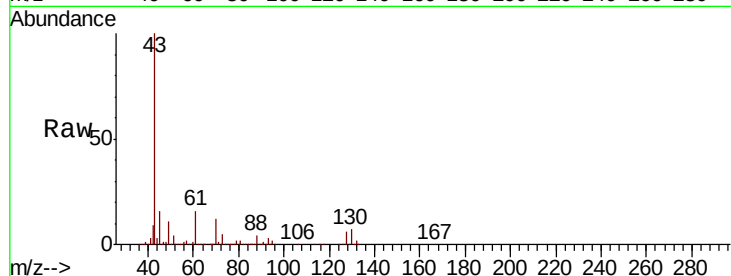
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Bromochloromethane
Concen: 10.000 ppbv
RT: 5.76 min Scan# 877
Delta R.T. -0.00 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Instrument :
MSVOA_L
ClientSampleId :
BPS1-ODA-3001-04

Tot Ion	Ratio	Lower	Upper
49	100		
128	50.7	25.2	75.6
130	65.4	32.5	97.5

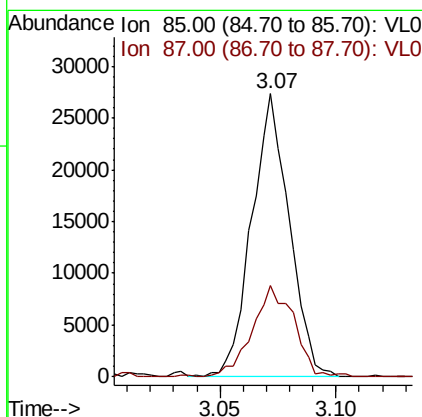
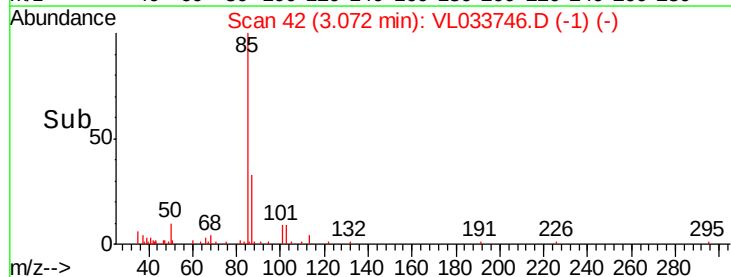
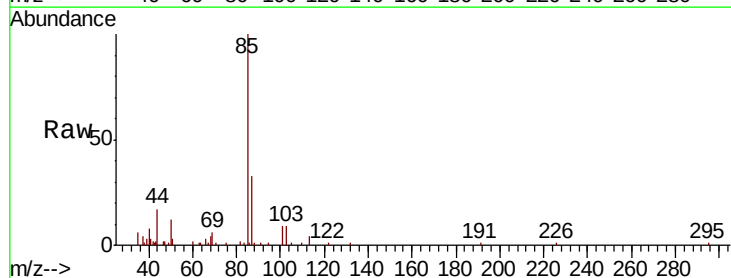
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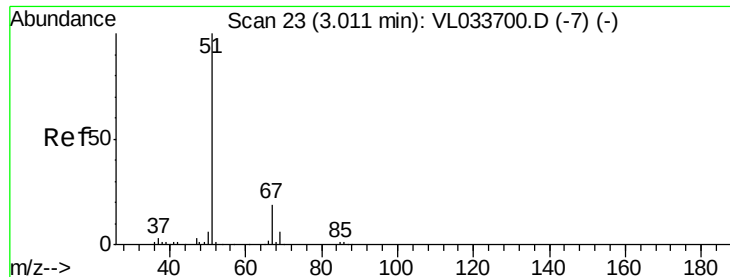
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#2
Dichlorodifluoromethane
Concen: 0.162 ppbv
RT: 3.07 min Scan# 42
Delta R.T. -0.00 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Tgt Ion	Ratio	Lower	Upper
85	100		
87	31.8	26.3	39.5





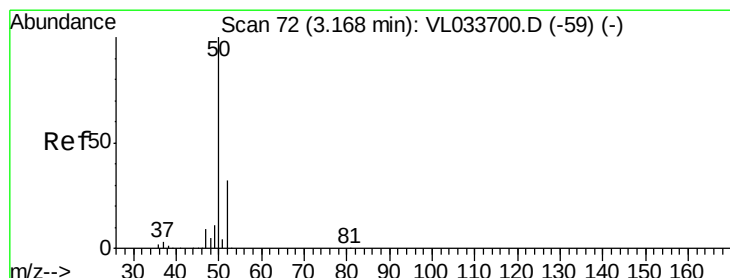
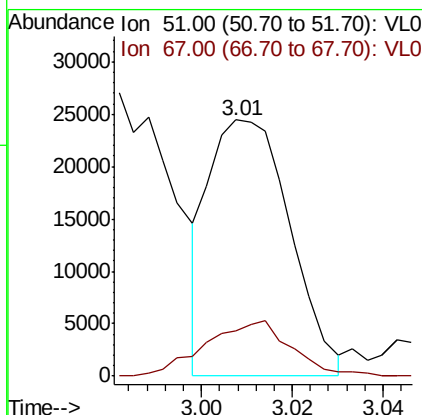
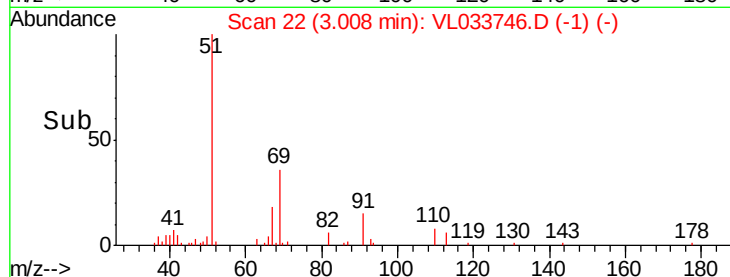
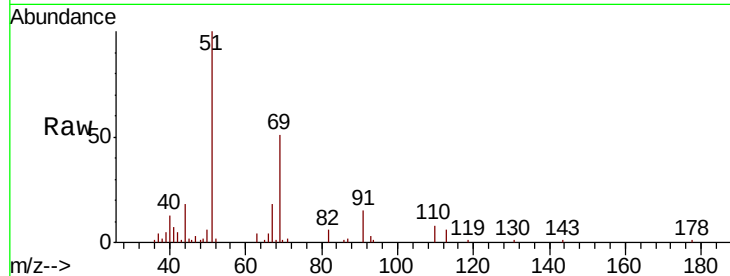
#3
 Chlorodifluoromethane
 Concen: 0.293 ppbv
 RT: 3.01 min Scan# 22
 Delta R.T. -0.00 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-ODA-3001-04

Tot Ion: 51 Resp: 30322
 Ion Ratio Lower Upper
 51 100
 67 23.6 15.6 23.4#

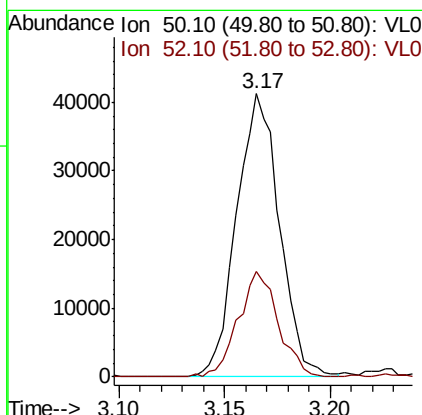
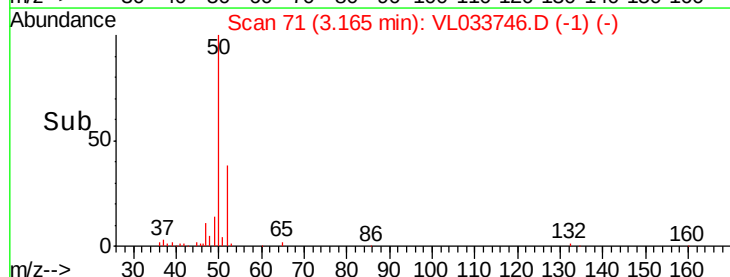
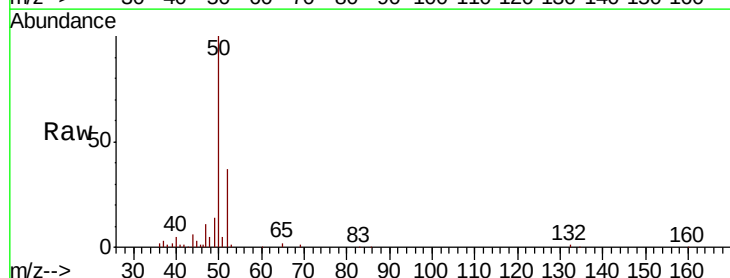
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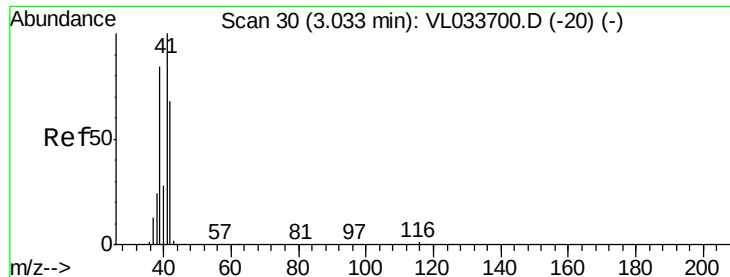
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#4
 Chloromethane
 Concen: 0.980 ppbv
 RT: 3.17 min Scan# 71
 Delta R.T. -0.00 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Tgt Ion: 50 Resp: 58097
 Ion Ratio Lower Upper
 50 100
 52 38.1 25.7 38.5





#9

Propene

Concen: 3.263 ppbv

RT: 3.03 min Scan# 29

Delta R.T. -0.00 min

Lab File: VL033746.D

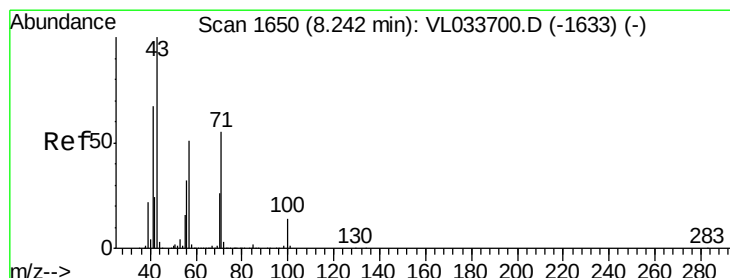
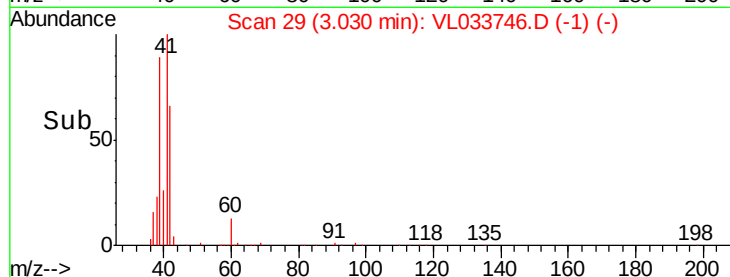
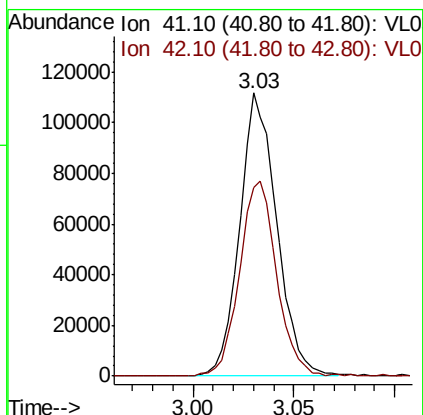
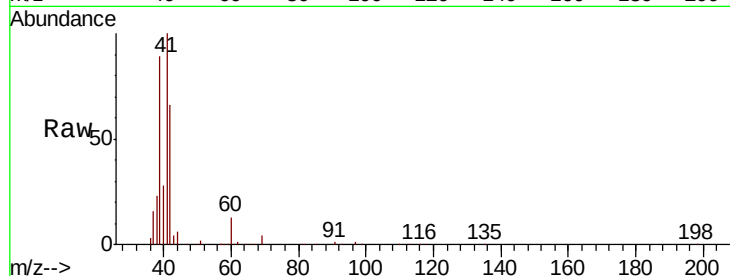
Acq: 22 May 2019 16:11

Instrument :
MSVOA_L
ClientSampleId :
BPS1-ODA-3001-04

Tot Ion	41	Resp	143851
Ion Ratio	100	Lower	Upper
42	69.8	56.1	84.1

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#10

Heptane

Concen: 1.689 ppbv

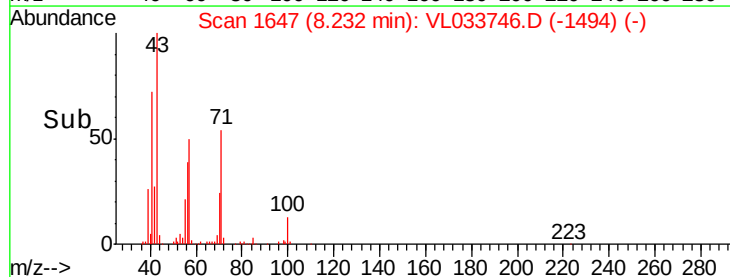
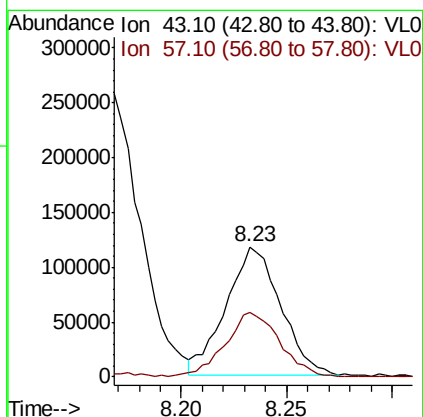
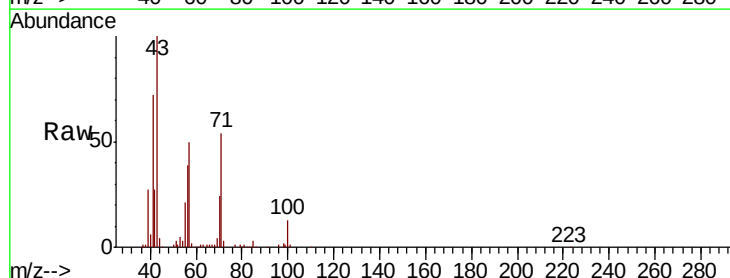
RT: 8.23 min Scan# 1647

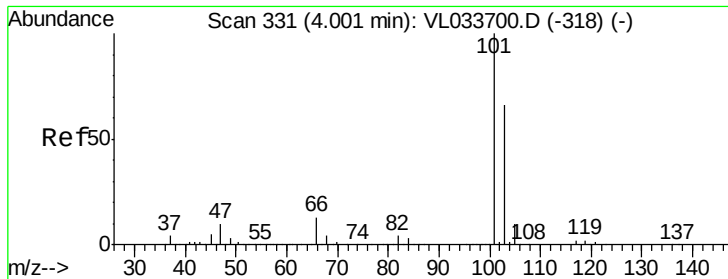
Delta R.T. -0.01 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Tgt Ion	43	Resp	210899
Ion Ratio	100	Lower	Upper
57	50.5	41.4	62.0





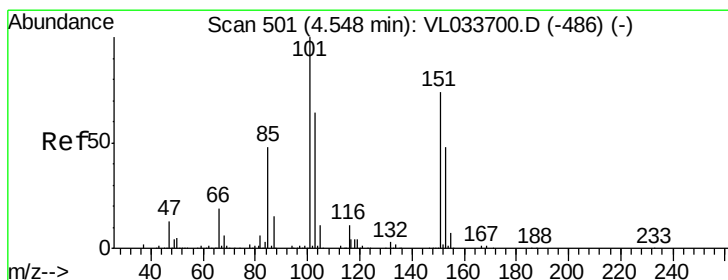
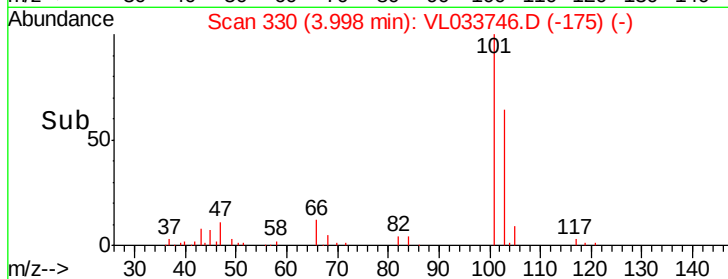
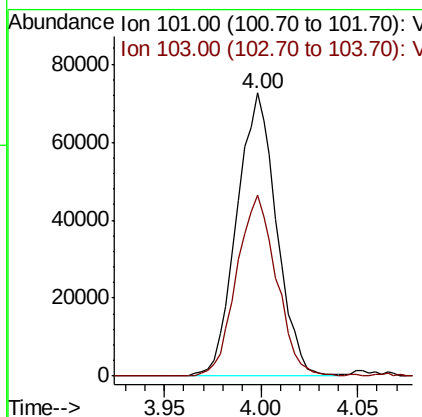
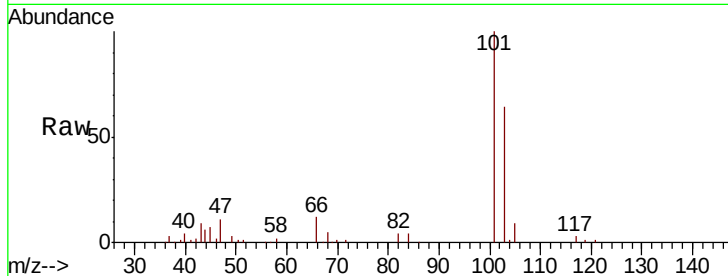
#11
 Trichlorofluoromethane
 Concen: 0.570 ppbv
 RT: 4.00 min Scan# 330
 Delta R.T. -0.00 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-ODA-3001-04

Tot Ion	Ion	Ratio	Resp	Lower	Upper
101	100		103687		
103	64.2	52.6	78.8		

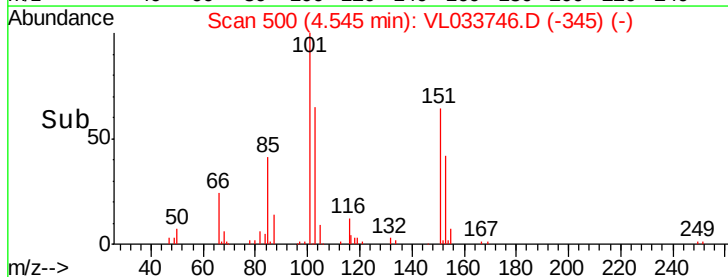
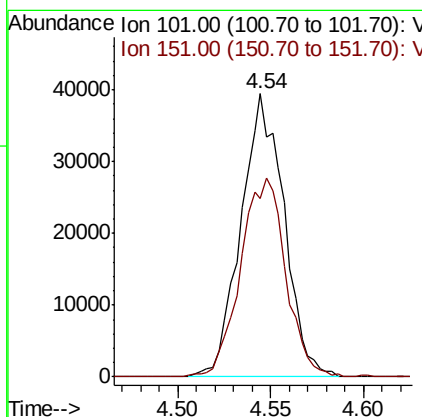
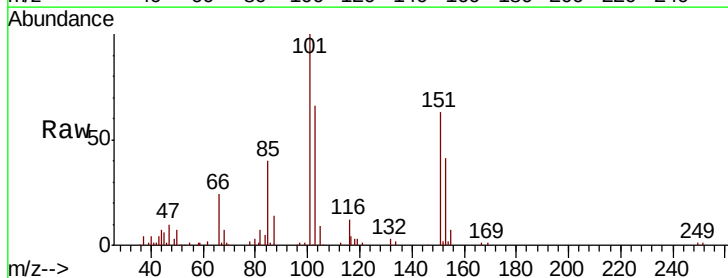
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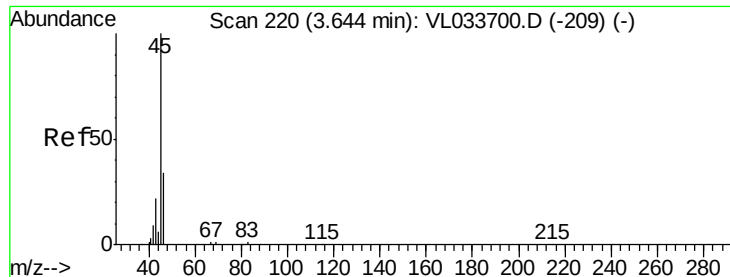
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#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.502 ppbv
 RT: 4.54 min Scan# 500
 Delta R.T. -0.00 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
101	100		63770		
151	74.0	58.2	87.4		





#13

Ethanol

Concen: 359.250 ppbv

RT: 3.67 min Scan# 227

Delta R.T. 0.02 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Instrument :

MSVOA_L

ClientSampleId :

BPS1-ODA-3001-04

Tot Ion: 45 Resp: 5118535

Ion Ratio Lower Upper

45 100

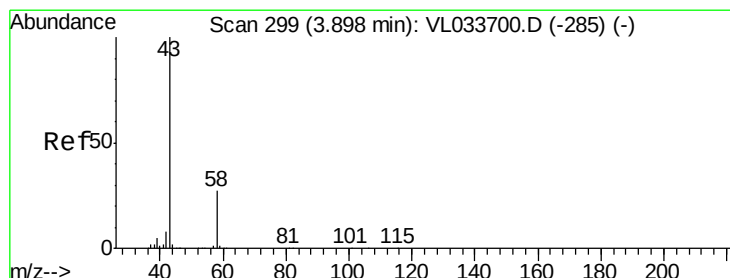
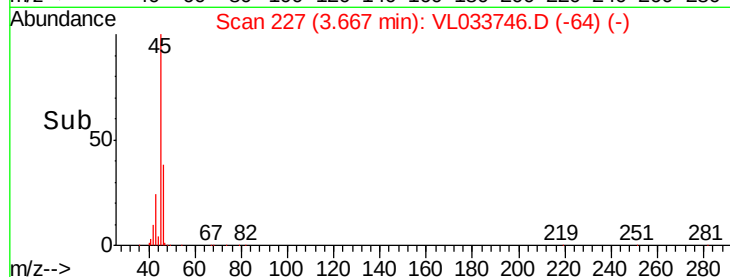
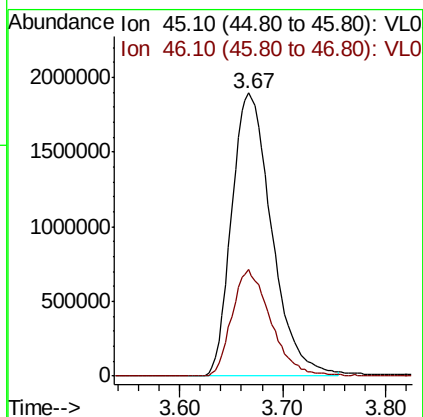
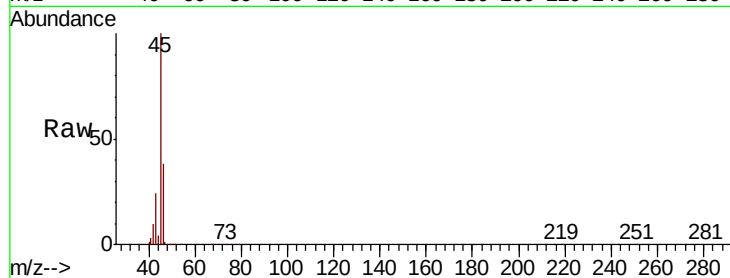
46 36.9 14.8 59.0

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#15

Acetone

Concen: 40.856 ppbv

RT: 3.89 min Scan# 296

Delta R.T. -0.01 min

Lab File: VL033746.D

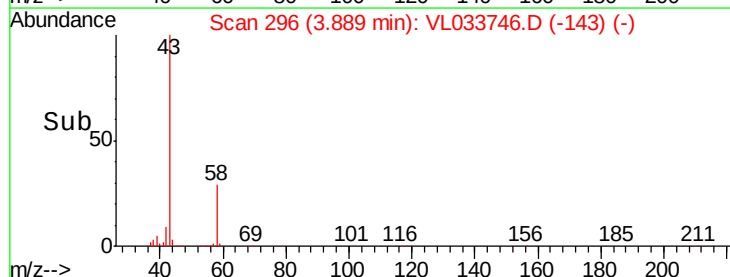
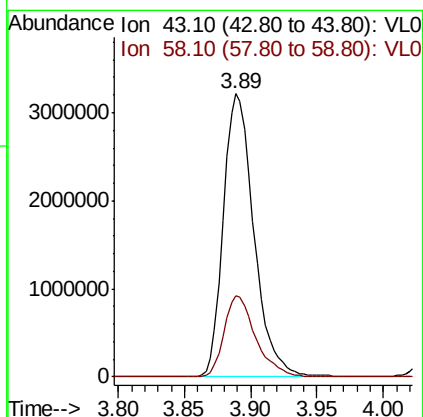
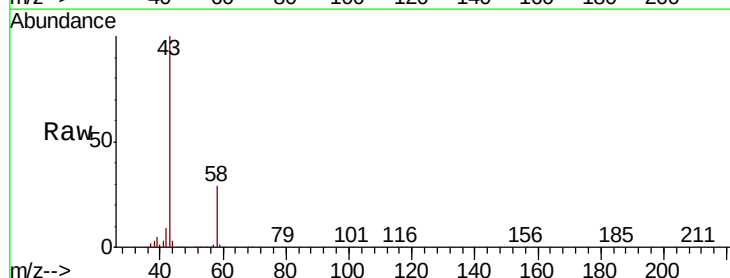
Acq: 22 May 2019 16:11

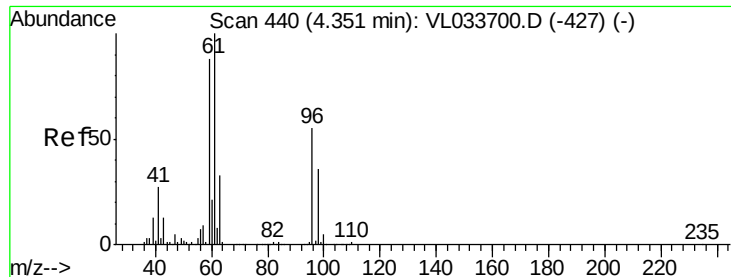
Tgt Ion: 43 Resp: 5128856

Ion Ratio Lower Upper

43 100

58 29.9 21.3 31.9





#17

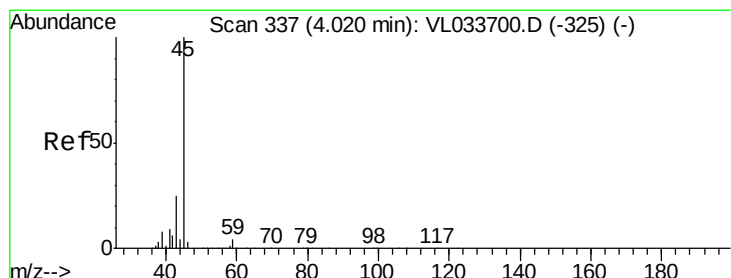
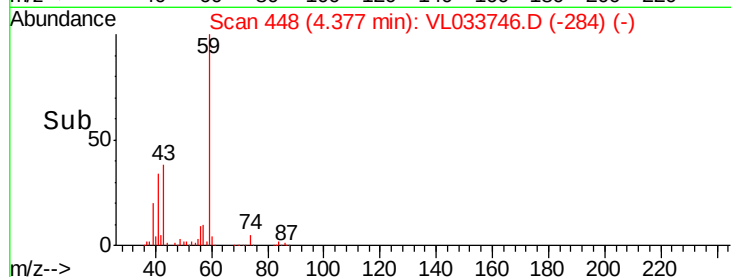
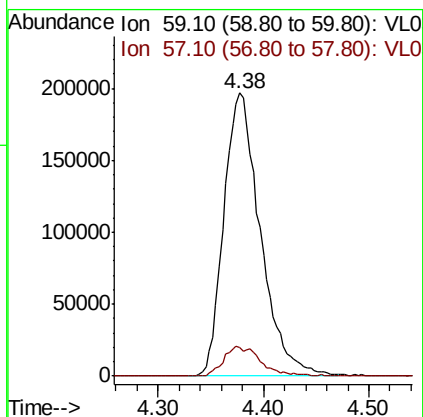
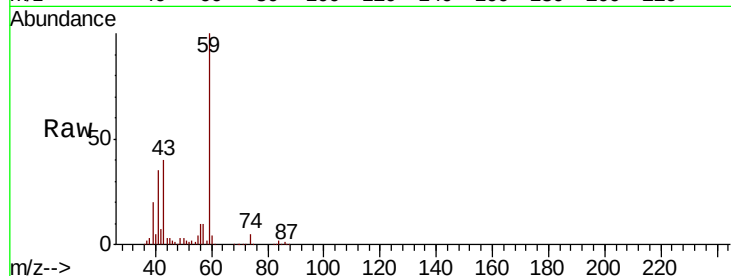
tert-Butyl alcohol
Concen: 4.655 ppbv
RT: 4.38 min Scan# 448
Delta R.T. 0.03 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Instrument :
MSVOA_L
ClientSampleId :
BPS1-ODA-3001-04

Tot Ion: 59 Resp: 472502
Ion Ratio Lower Upper
59 100
57 10.7 8.4 12.6

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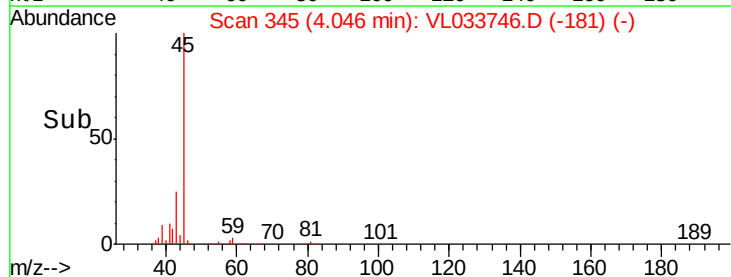
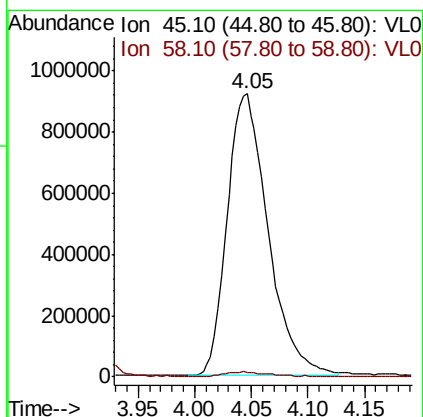
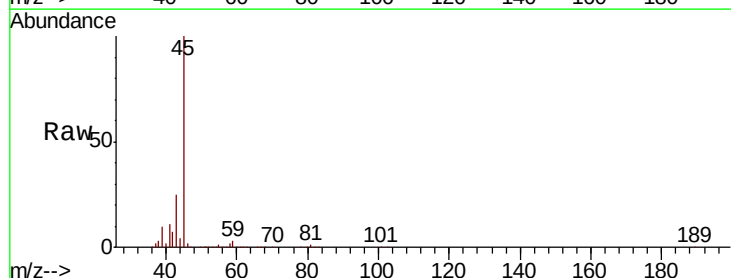
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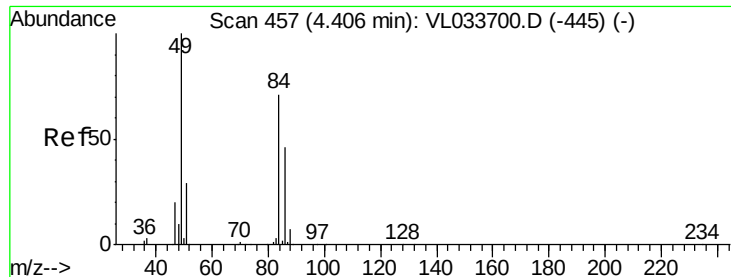


#19

Isopropyl Alcohol
Concen: 28.615 ppbv
RT: 4.05 min Scan# 345
Delta R.T. 0.03 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Tgt Ion: 45 Resp: 2316127
Ion Ratio Lower Upper
45 100
58 2.2 1.6 2.4





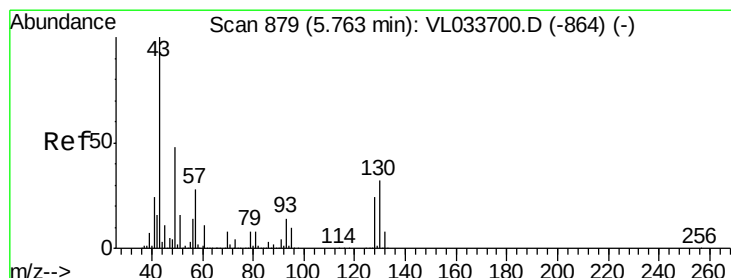
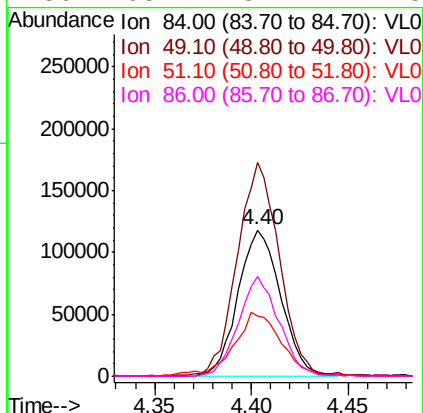
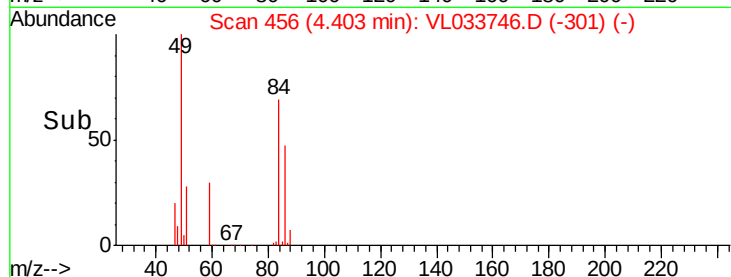
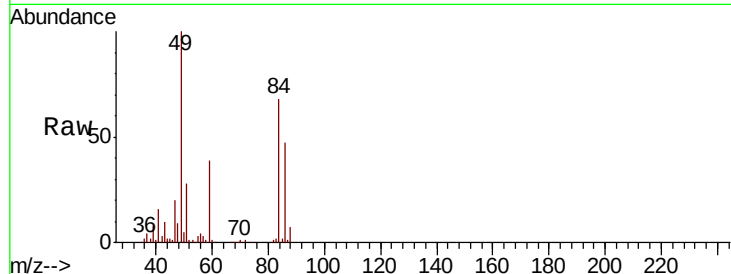
#20
Methvlene Chloride
Concen: 3.730 ppbv
RT: 4.40 min Scan# 456
Delta R.T. -0.00 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Instrument :
MSVOA_L
ClientSampleId :
BPS1-ODA-3001-04

Tot Ion:	84	Resp:	180292
Ion	Ratio	Lower	Upper
84	100		
49	145.7	112.8	169.2
51	39.5	33.4	50.0
86	68.2	51.7	77.5

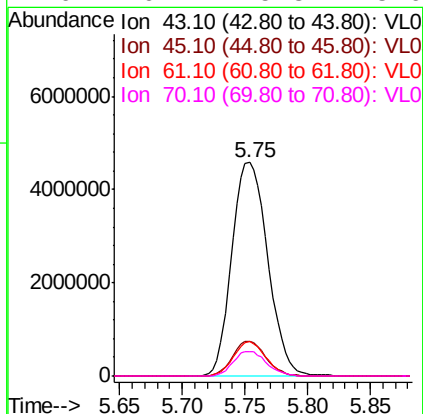
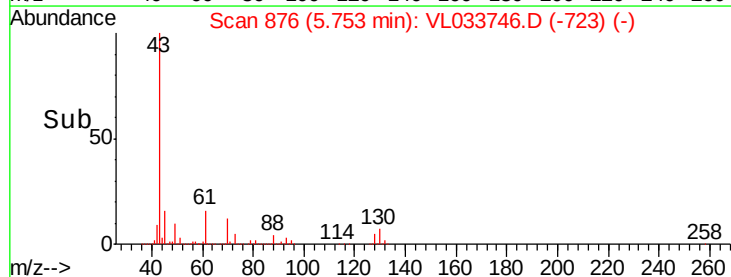
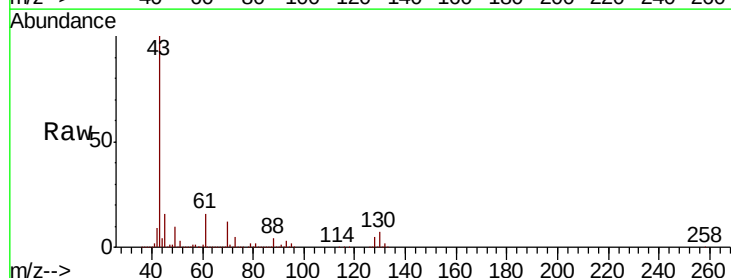
Manual Integrations
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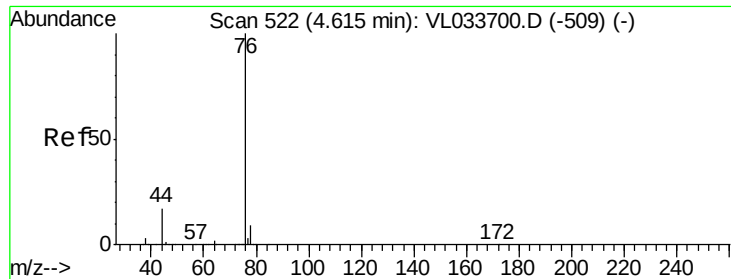
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#25
Ethyl Acetate
Concen: 41.416 ppbv
RT: 5.75 min Scan# 876
Delta R.T. -0.01 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Tgt Ion:	43	Resp:	9133215
Ion	Ratio	Lower	Upper
43	100		
45	15.1	7.9	11.9#
61	14.6	7.7	11.5#
70	10.7	5.8	8.6#





#27

Carbon Disulfide

Concen: 3.476 ppbv

RT: 4.61 min Scan# 521

Delta R.T. -0.00 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Instrument :

MSVOA_L

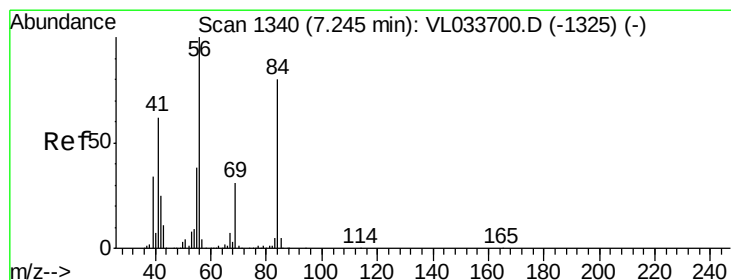
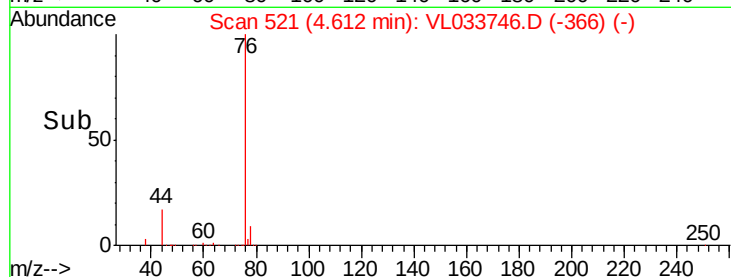
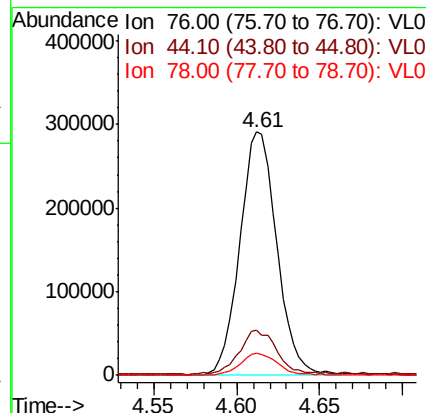
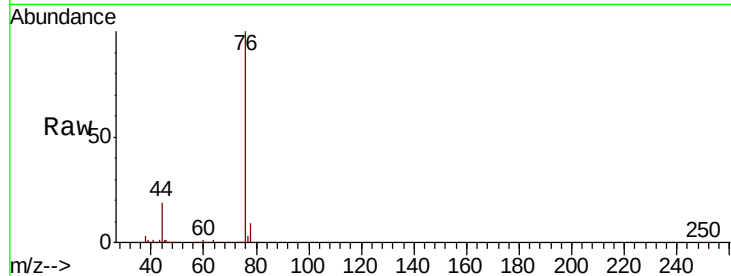
ClientSampleId :

BPS1-ODA-3001-04

Tot Ion:	76	Resp:	452076
Ion	Ratio	Lower	Upper
76	100		
44	17.8	13.8	20.8
78	9.6	7.4	11.0

Manual Integrations
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MMDadoda
5/28/2019 2:50:50 AM



#30

Cyclohexane

Concen: 1.338 ppbv

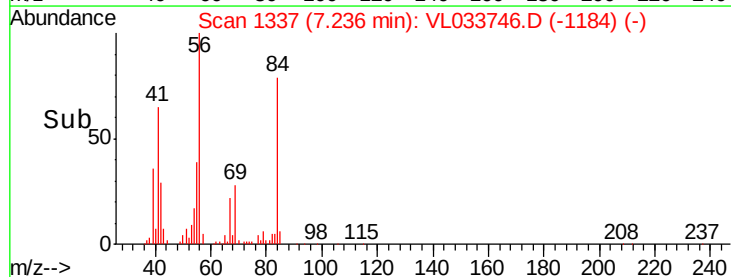
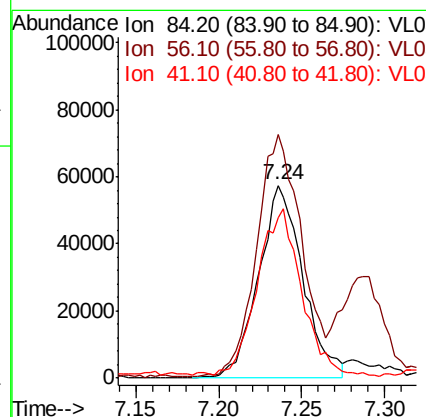
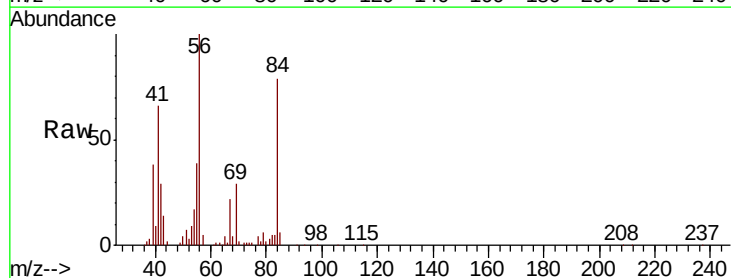
RT: 7.24 min Scan# 1337

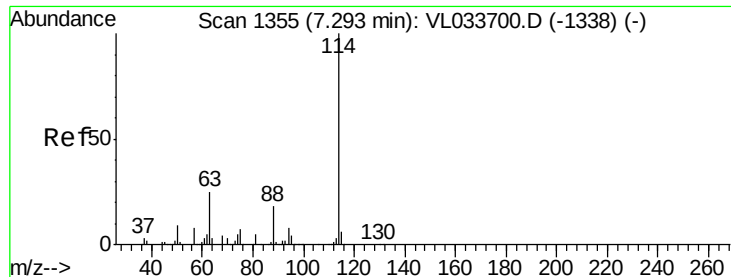
Delta R.T. -0.01 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Tgt Ion:	84	Resp:	106648
Ion	Ratio	Lower	Upper
84	100		
56	126.0	107.7	161.5
41	86.3	66.0	99.0





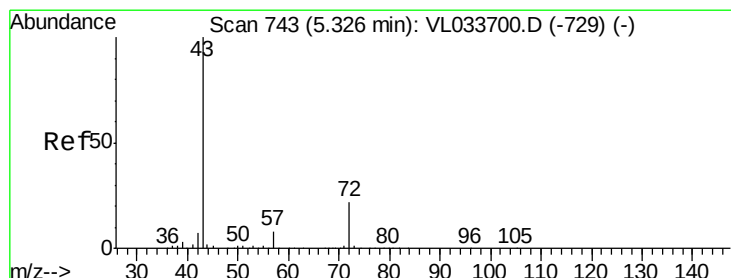
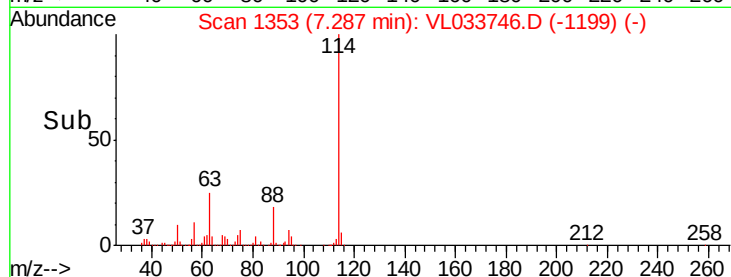
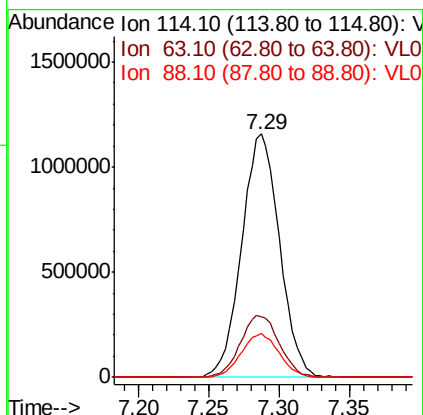
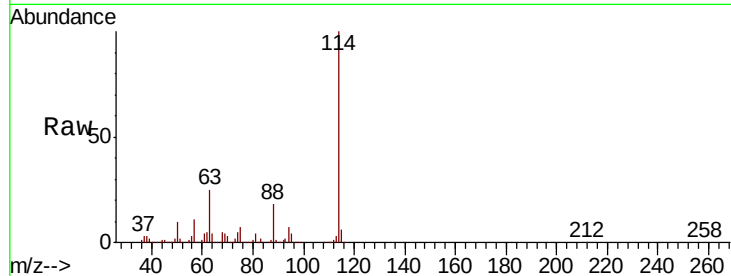
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-ODA-3001-04

Tot Ion	Ratio	Lower	Upper
114	100		
63	26.3	20.9	31.3
88	18.0	14.3	21.5

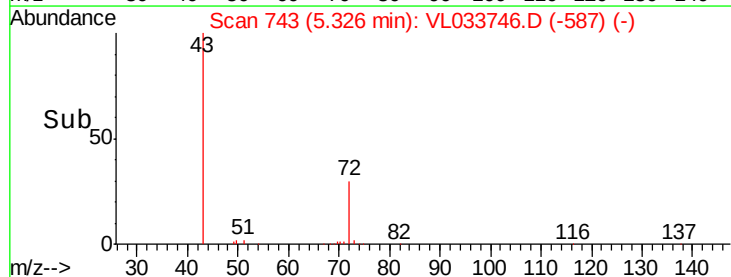
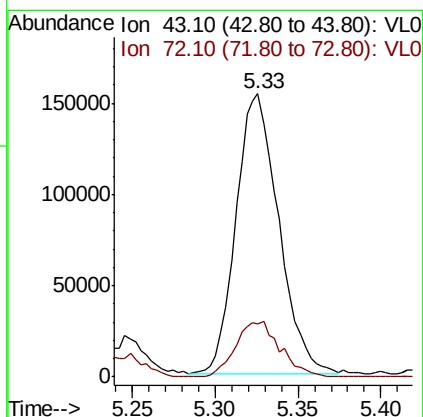
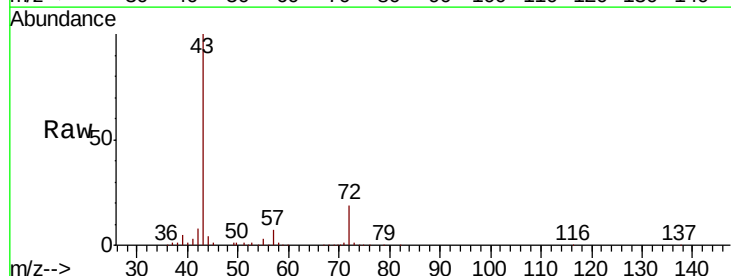
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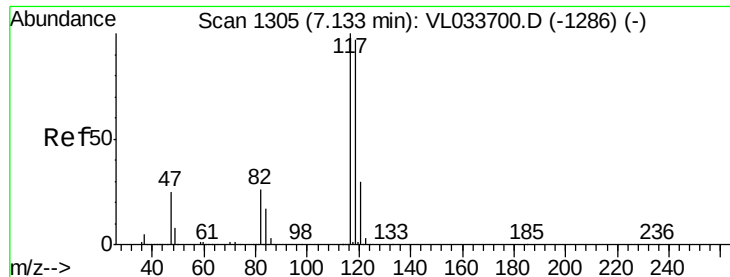
MMDadoda
 5/28/2019 2:50:50 AM



#34
 2-Butanone
 Concen: 2.038 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. 0.00 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Tgt Ion	Ratio	Lower	Upper
43	100		
72	20.9	17.8	26.6





#35

Carbon Tetrachloride

Concen: 0.056 ppbv m

RT: 7.13 min Scan# 1303

Delta R.T. -0.01 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Instrument :

MSVOA_L

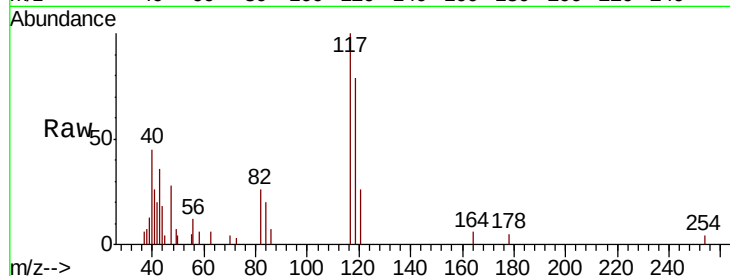
ClientSampleId :

BPS1-ODA-3001-04

Tot Ion	Ratio	Lower	Upper
117	100		
119	78.7	77.2	115.8
121	25.7	24.1	36.1

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MMDadoda
5/28/2019 2:50:50 AM

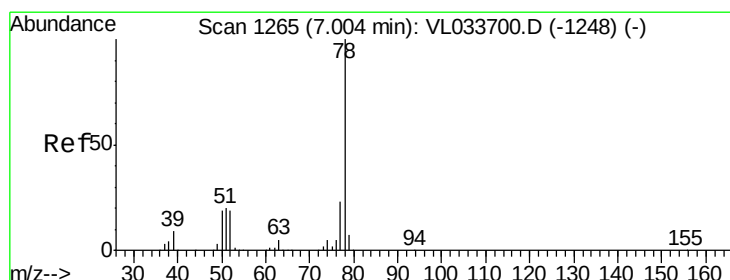
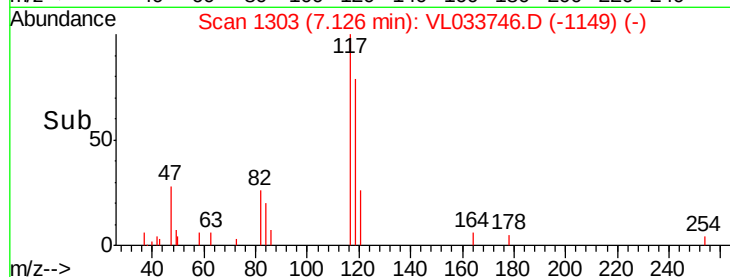
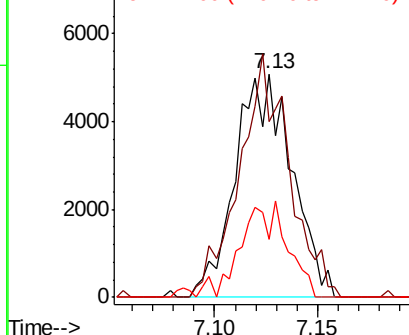


Abundance

Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.185 ppbv m

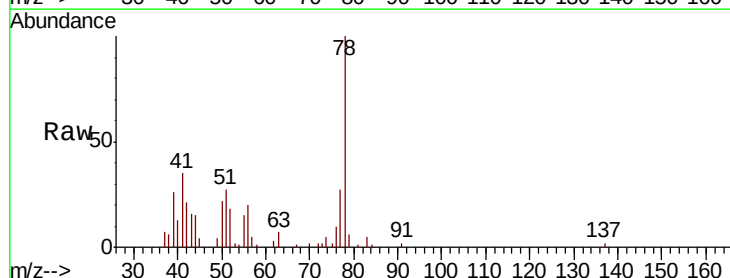
RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Tgt Ion	Ratio	Lower	Upper
78	100		
77	27.3	18.4	27.6
50	22.5	15.5	23.3

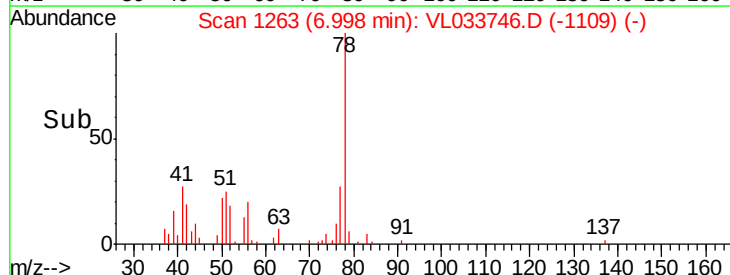
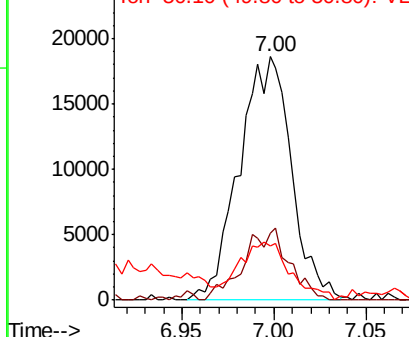


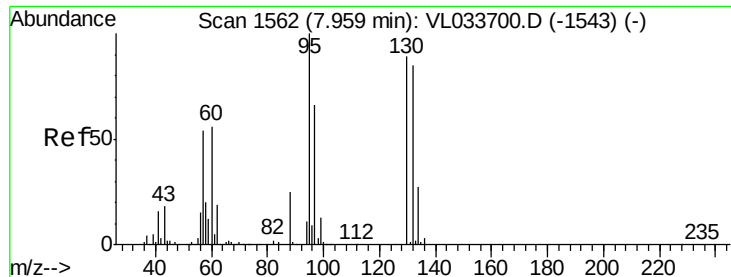
Abundance

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





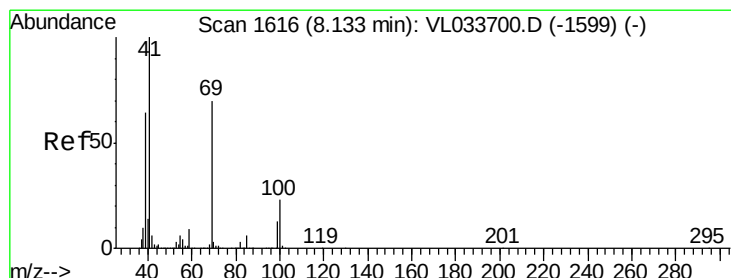
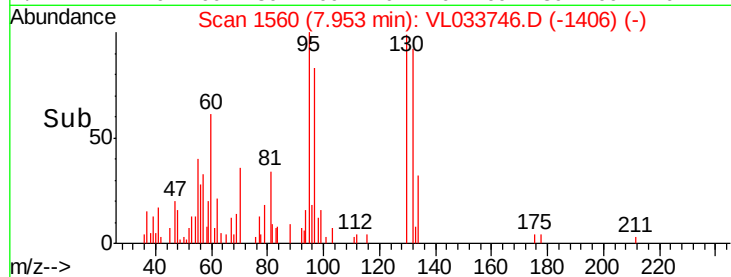
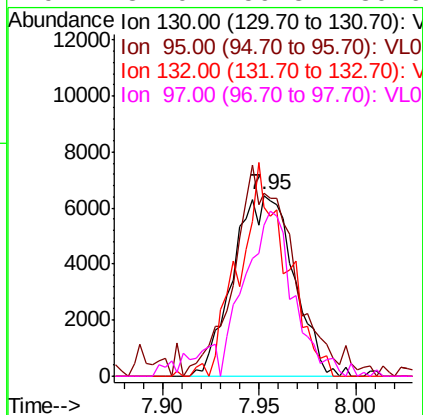
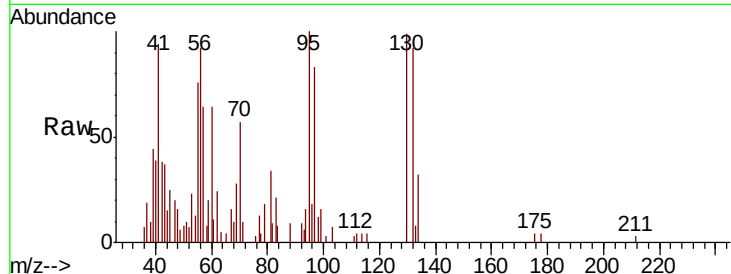
#38
 Trichloroethene
 Concen: 0.190 ppbv m
 RT: 7.95 min Scan# 1560
 Delta R.T. -0.01 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-ODA-3001-04

Tot Ion	Ratio	Resp	Lower	Upper
130	100	13953		
95	101.3	90.2	135.4	
132	93.4	76.4	114.6	
97	84.0	59.8	89.6	

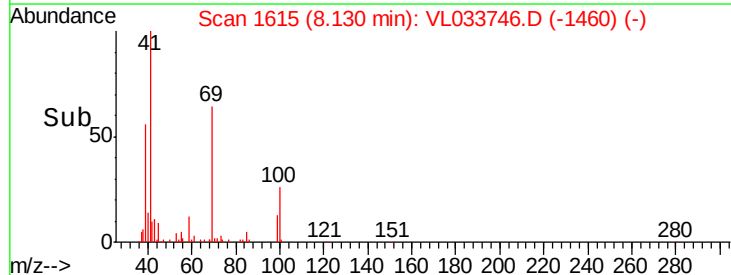
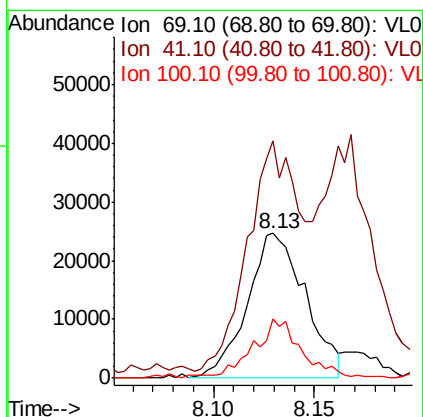
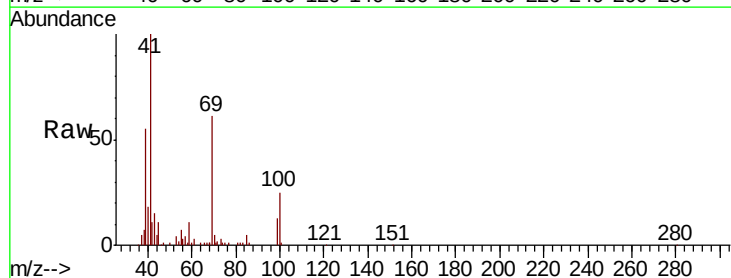
Manual Integrations
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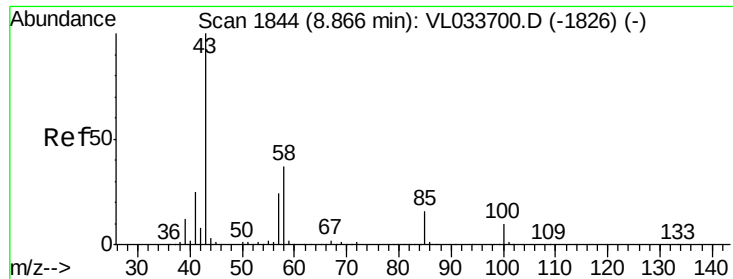
MMDadoda
 5/28/2019 2:50:50 AM



#43
 Methyl Methacrylate
 Concen: 0.679 ppbv
 RT: 8.13 min Scan# 1615
 Delta R.T. -0.00 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Tgt Ion	Ratio	Resp	Lower	Upper
69	100	49528		
41	137.7	116.3	174.5	
100	35.2	25.3	37.9	





#50

4-Methyl-2-Pentanone

Concen: 0.196 ppbv m

RT: 8.86 min Scan# 1843

Delta R.T. -0.00 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Instrument :

MSVOA_L

ClientSampleId :

BPS1-ODA-3001-04

Tot Ion: 43 Resp: 40777

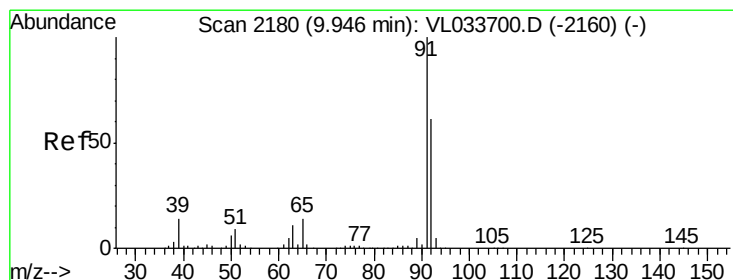
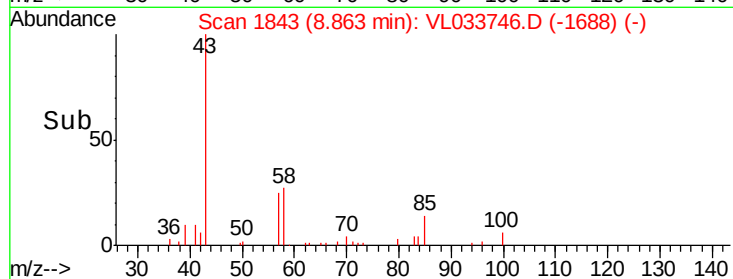
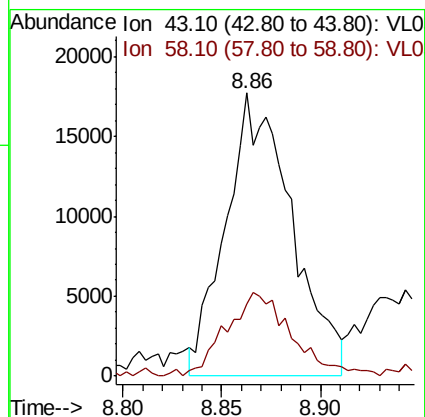
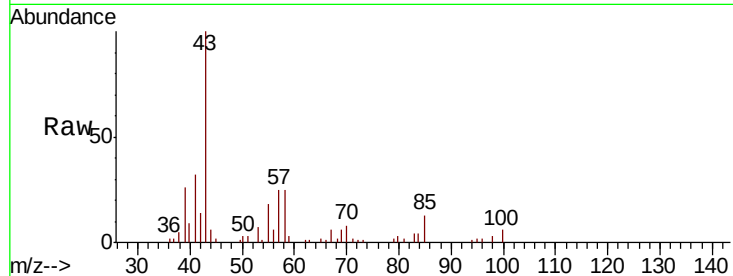
Ion Ratio Lower Upper

43 100

58 29.4 28.6 43.0

Manual Integrations
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MMDadoda
5/28/2019 2:50:50 AM



#53

Toluene

Concen: 31.771 ppbv

RT: 9.94 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL033746.D

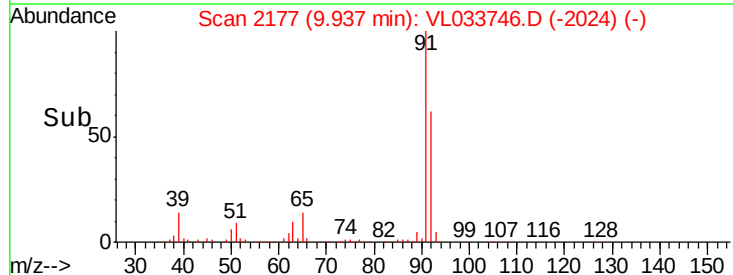
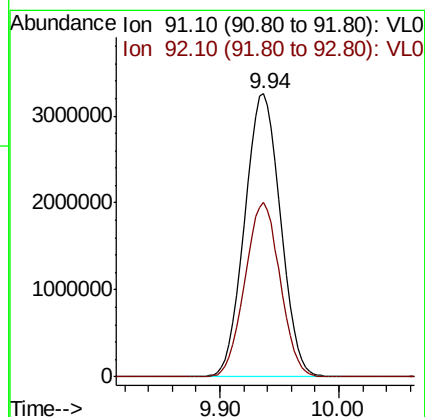
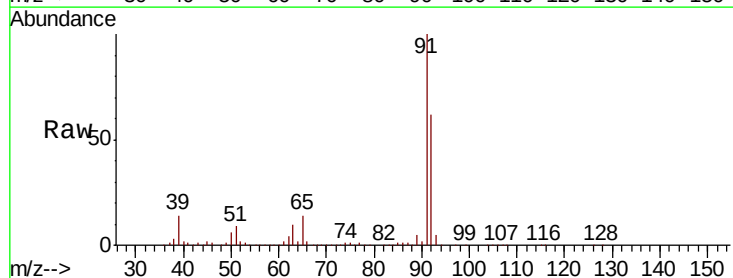
Acq: 22 May 2019 16:11

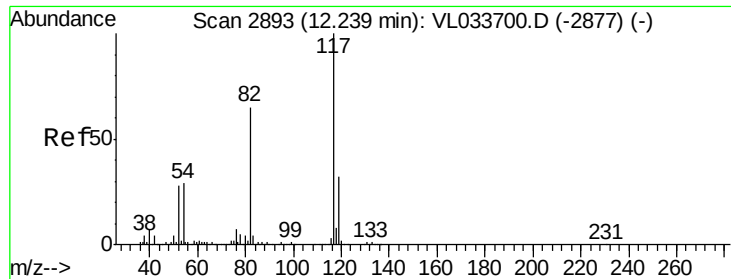
Tgt Ion: 91 Resp: 6795627

Ion Ratio Lower Upper

91 100

92 60.6 47.6 71.4





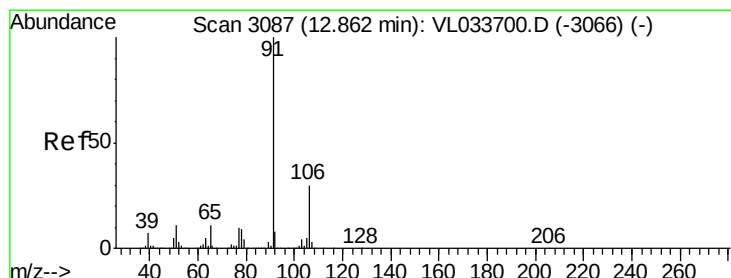
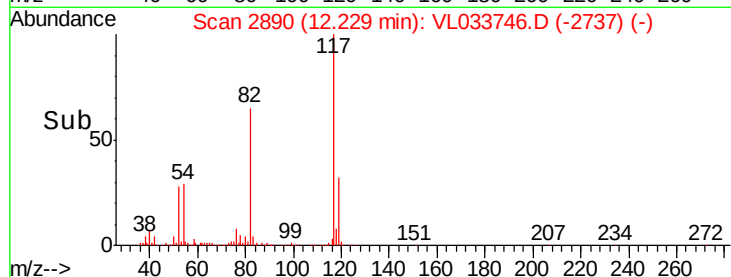
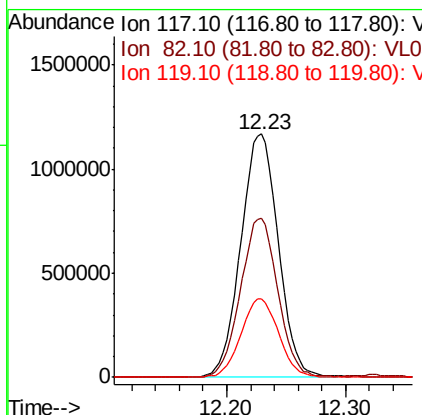
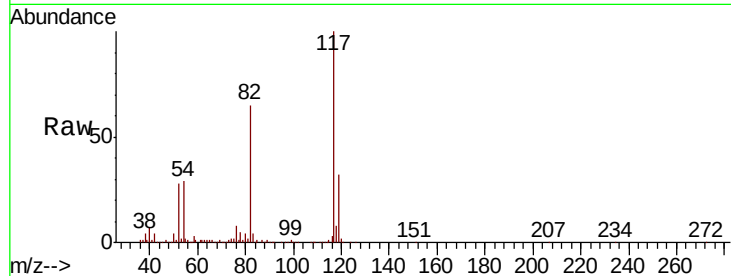
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2890
Delta R.T. -0.01 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Instrument :
MSVOA_L
ClientSampleId :
BPS1-ODA-3001-04

Tot Ion	Ratio	Lower	Upper
117	100		
82	65.1	49.4	74.0
119	32.5	24.9	37.3

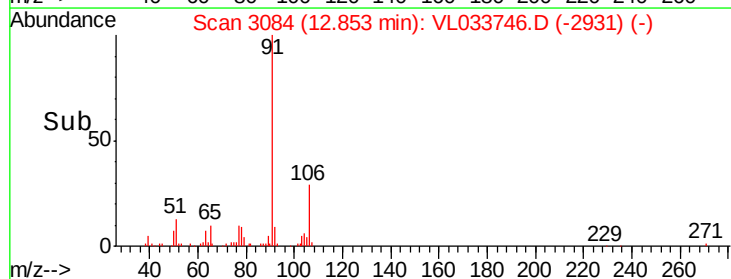
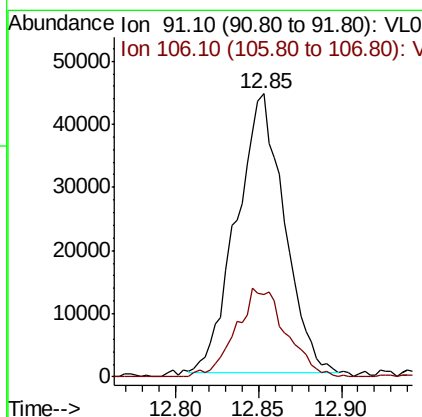
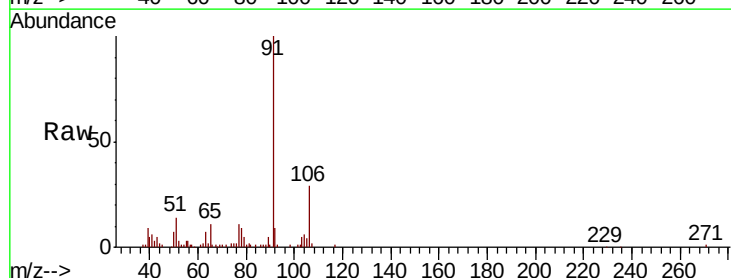
Manual Integrations
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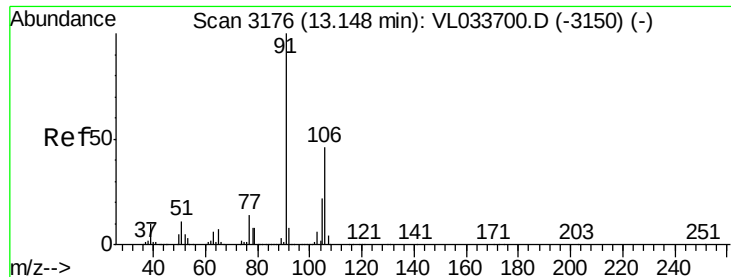
MMDadoda
5/28/2019 2:50:50 AM



#58
Ethyl Benzene
Concen: 0.263 ppbv
RT: 12.85 min Scan# 3084
Delta R.T. -0.01 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Tgt Ion	Ratio	Lower	Upper
91	100		
106	29.2	23.9	35.9





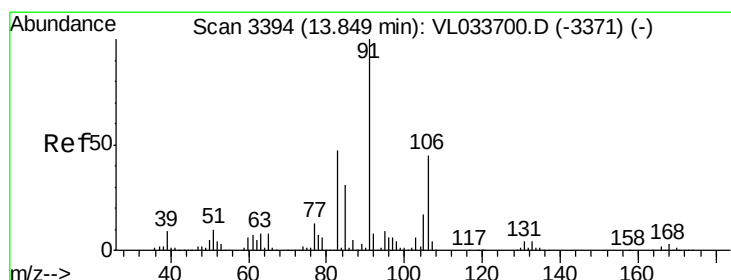
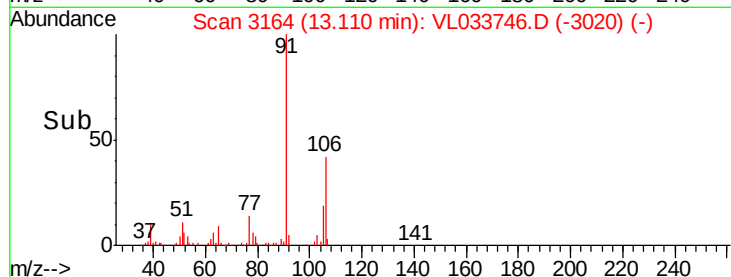
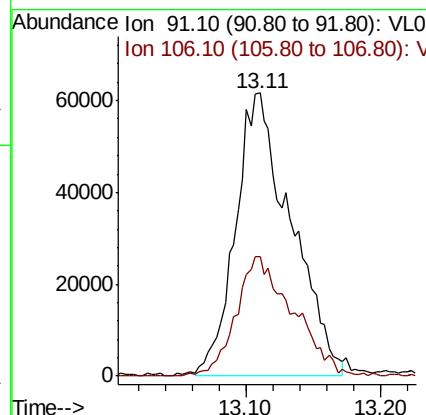
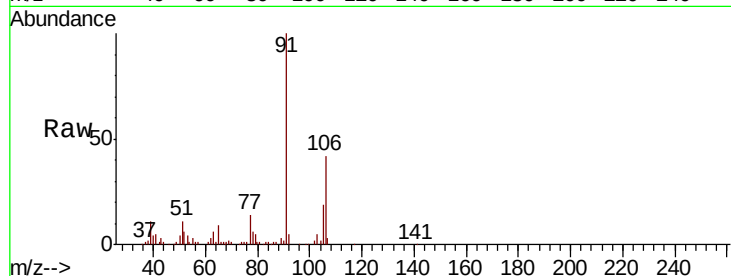
#59
m/p-Xylene
Concen: 0.596 ppbv m
RT: 13.11 min Scan# 3164
Delta R.T. -0.04 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Instrument :
MSVOA_L
ClientSampleId :
BPS1-ODA-3001-04

Tot Ion: 91 Resp: 176051
Ion Ratio Lower Upper
91 100
106 0.0 35.8 53.6#

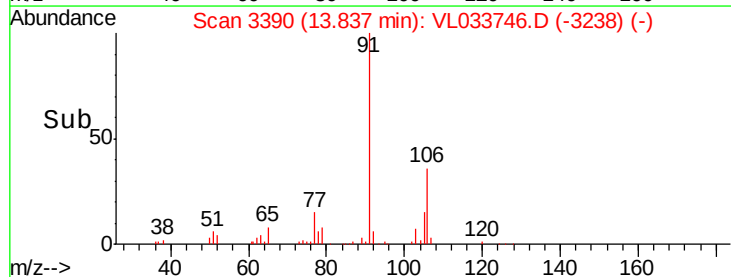
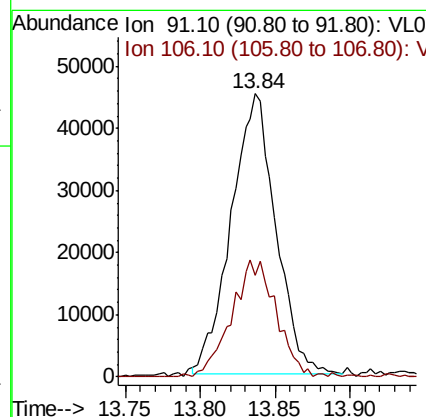
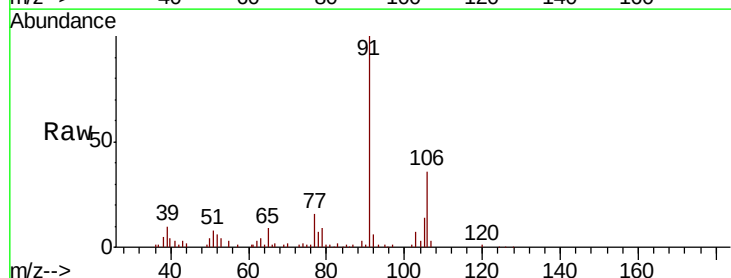
Manual Integrations
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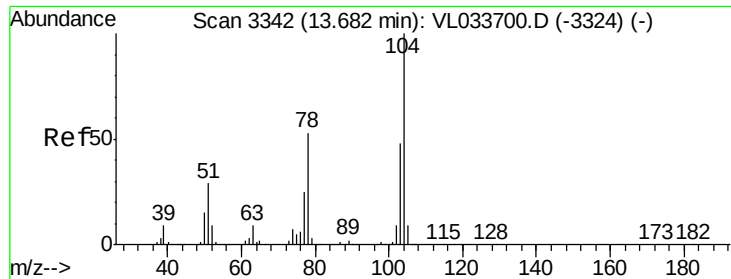
MMDadoda
5/28/2019 2:50:50 AM



#60
o-Xylene
Concen: 0.313 ppbv
RT: 13.84 min Scan# 3390
Delta R.T. -0.01 min
Lab File: VL033746.D
Acq: 22 May 2019 16:11

Tgt Ion: 91 Resp: 93240
Ion Ratio Lower Upper
91 100
106 42.2 21.6 64.8





#61

Stvrene

Concen: 0.156 ppbv m

RT: 13.68 min Scan# 3341

Delta R.T. -0.00 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Instrument :

MSVOA_L

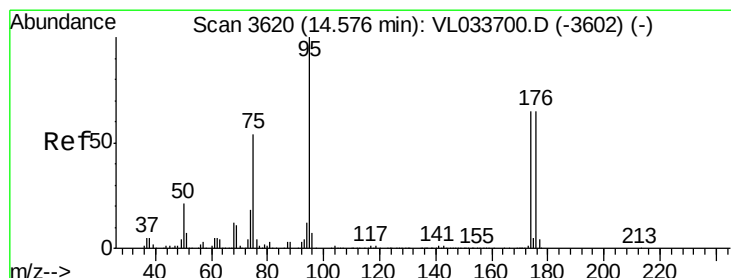
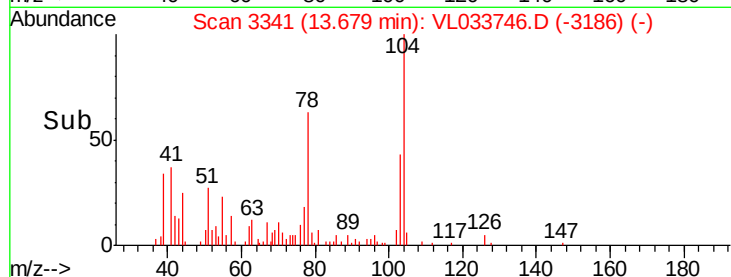
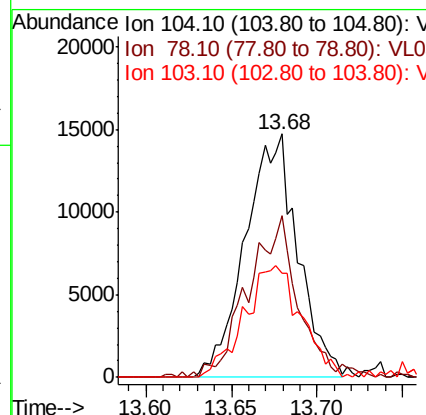
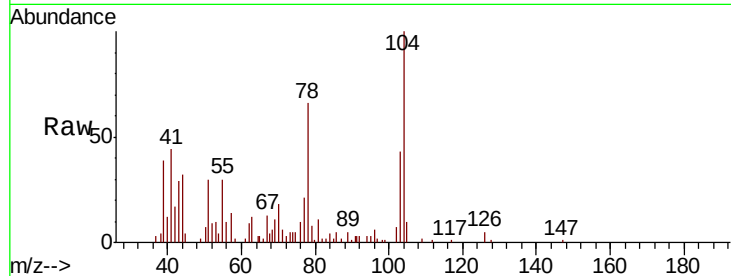
ClientSampleId :

BPS1-ODA-3001-04

Tot Ion:	104	Resp:	31341
Ion Ratio	Lower	Upper	
104	100		
78	0.0	42.6	64.0#
103	0.0	37.8	56.6#

Manual Integrations
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MMDadoda
5/28/2019 2:50:50 AM



#68

1-Bromo-4-Fluorobenzene

Concen: 9.092 ppbv

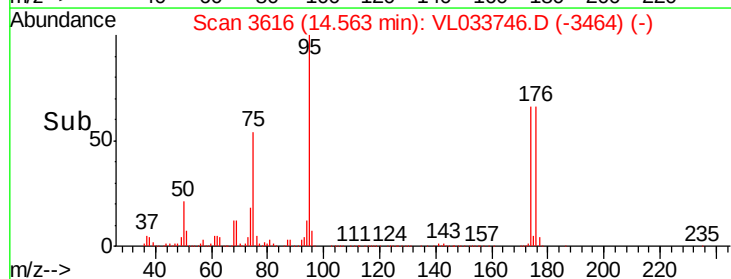
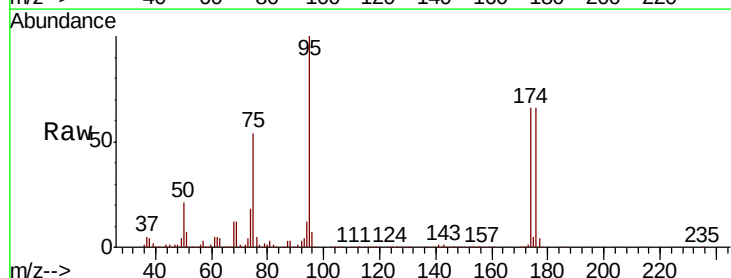
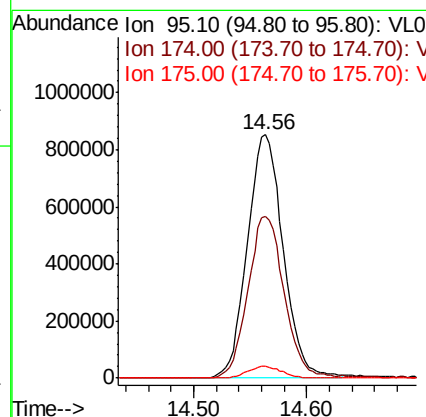
RT: 14.56 min Scan# 3616

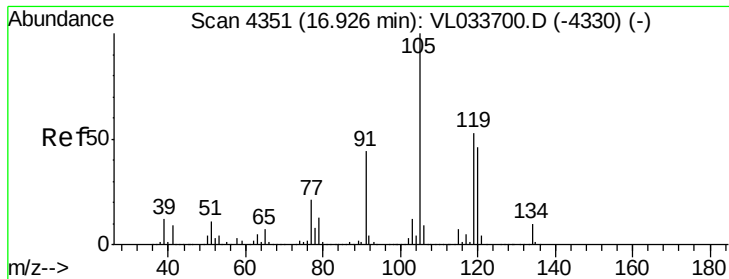
Delta R.T. -0.01 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Tgt Ion:	95	Resp:	1879954
Ion Ratio	Lower	Upper	
95	100		
174	68.2	53.9	80.9
175	4.8	3.8	5.8





#74

1,2,4-Trimethylbenzene

Concen: 0.170 ppbv

RT: 16.91 min Scan# 4347

Delta R.T. -0.01 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Instrument :

MSVOA_L

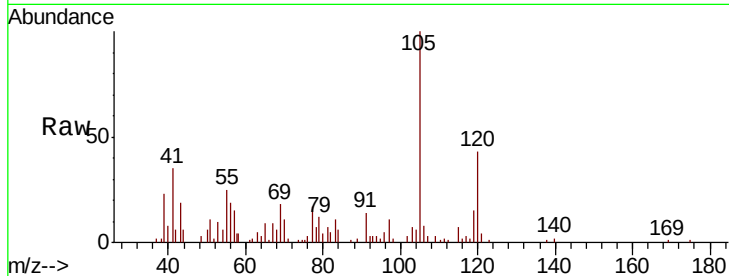
ClientSampleId :

BPS1-ODA-3001-04

Tot Ion:	105	Resp:	61407
Ion Ratio	Lower	Upper	
105	100		
120	47.7	36.8	55.2
91	13.1	35.4	53.0#
77	16.2	16.8	25.2#

Manual Integrations
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MMDadoda
5/28/2019 2:50:50 AM



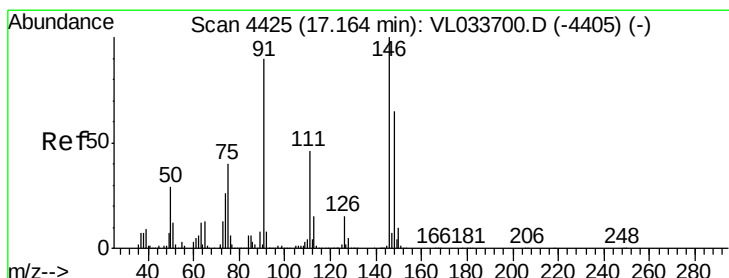
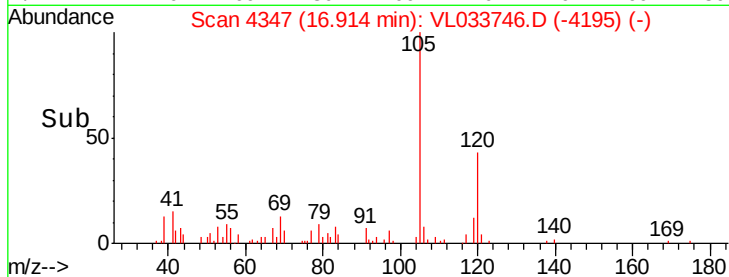
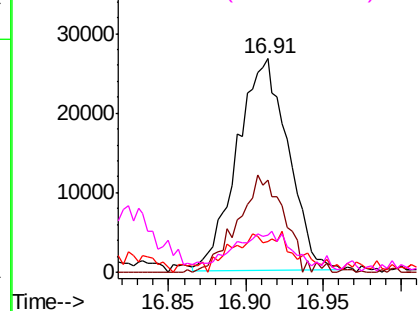
Abundance

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



#75

1,3-Dichlorobenzene

Concen: 0.327 ppbv

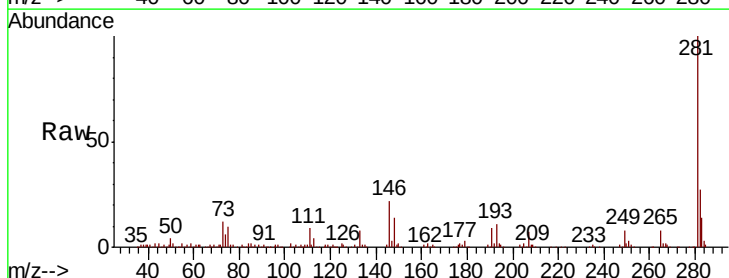
RT: 17.15 min Scan# 4420

Delta R.T. -0.02 min

Lab File: VL033746.D

Acq: 22 May 2019 16:11

Tgt Ion:	146	Resp:	72470
Ion Ratio	Lower	Upper	
146	100		
111	80.2	22.9	68.8#
148	76.2	32.0	96.2

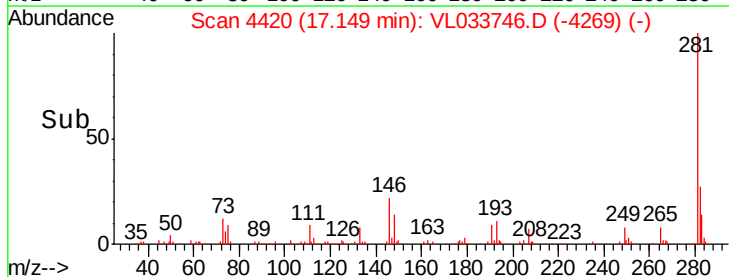
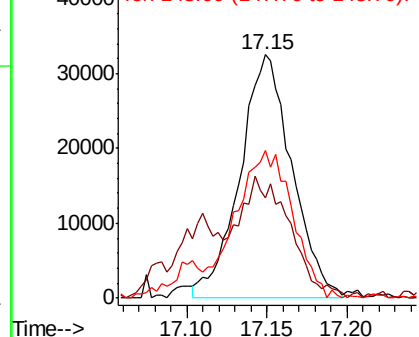


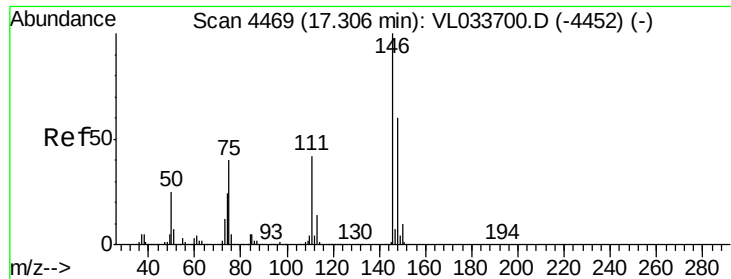
Abundance

Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





#76
 1,4-Dichlorobenzene
 Concen: 0.140 ppbv m
 RT: 17.30 min Scan# 4467
 Delta R.T. -0.01 min
 Lab File: VL033746.D
 Acq: 22 May 2019 16:11

Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-ODA-3001-04

Tot Ion	Ratio	Resp Lower	Upper
146	100		
111	56.8	21.9	65.8
148	0.0	32.1	96.3

Manual Integrations
 APPROVED

MMDadoda
 5/28/2019 2:50:50 AM

