

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032719\
 Data File : VL033493.D
 Acq On : 28 Mar 2019 7:35
 Operator : SY/AP
 Sample : K1991-11
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VMP-6

Manual Integrations
 APPROVED

MMDadoda
 4/1/2019 1:26:12 AM

Quant Time: Mar 28 09:07:47 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 28 09:07:47 2019
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.75	49	752897	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1961749	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1972183	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	1486906	9.62	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	35105	0.320	ppbv	96
3) Chlorodifluoromethane	3.00	51	25212m	0.291	ppbv	
4) Chloromethane	3.17	50	13456	0.293	ppbv	92
9) Propene	3.05	41	64199m	1.764	ppbv	
11) Trichlorofluoromethane	4.00	101	163798	1.210	ppbv	95
13) Ethanol	3.65	45	227812	24.185	ppbv	63
15) Acetone	3.89	43	441217	4.874	ppbv #	84
20) Methylene Chloride	4.40	84	330647	8.604	ppbv	92
26) Hexane	5.77	57	354373	4.745	ppbv #	60
27) Carbon Disulfide	4.62	76	89690	1.010	ppbv #	92
29) Chloroform	5.84	83	63597	0.497	ppbv	98
30) Cyclohexane	7.24	84	18480m	0.313	ppbv	
32) 1,1,1-Trichloroethane	6.61	97	17429m	0.143	ppbv	
34) 2-Butanone	5.33	43	73559	0.624	ppbv	95
35) Carbon Tetrachloride	7.13	117	7976m	0.057	ppbv	
36) Benzene	6.99	78	24669	0.150	ppbv #	90
37) 1,2-Dichloroethane	6.40	62	12357m	0.112	ppbv	
38) Trichloroethene	7.96	130	16397m	0.265	ppbv	
52) Tetrachloroethene	11.37	164	6990m	0.113	ppbv	
53) Toluene	9.94	91	1540180	8.052	ppbv	99
58) Ethyl Benzene	12.86	91	49845	0.189	ppbv	100
59) m/p-Xylene	13.11	91	108455m	0.461	ppbv	
60) o-Xylene	13.84	91	47787	0.210	ppbv	97
61) Styrene	13.68	104	33771m	0.216	ppbv	
74) 1,2,4-Trimethylbenzene	16.92	105	28702	0.109	ppbv #	70
76) 1,4-Dichlorobenzene	17.30	146	55176m	0.349	ppbv	

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

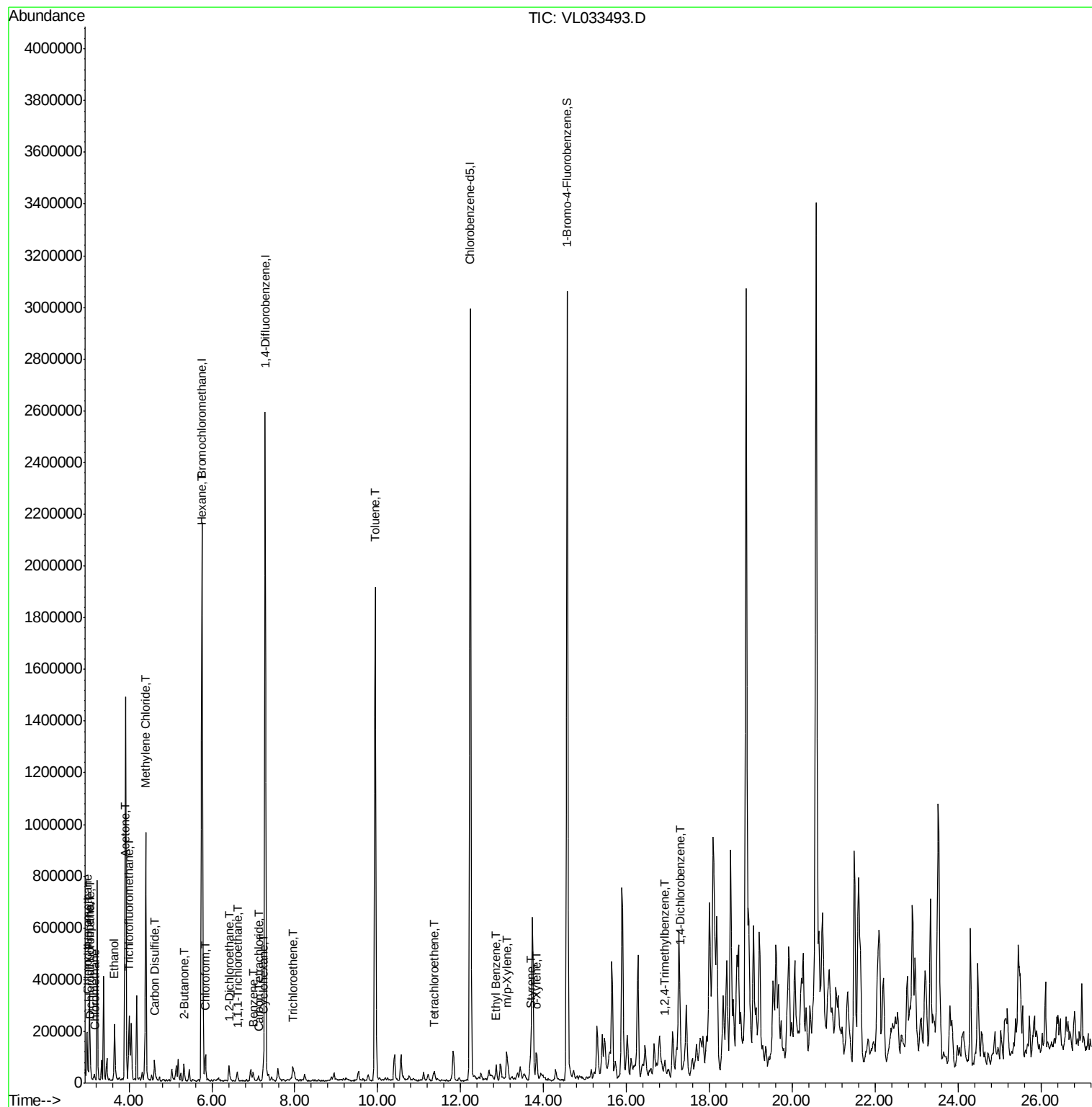
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032719\
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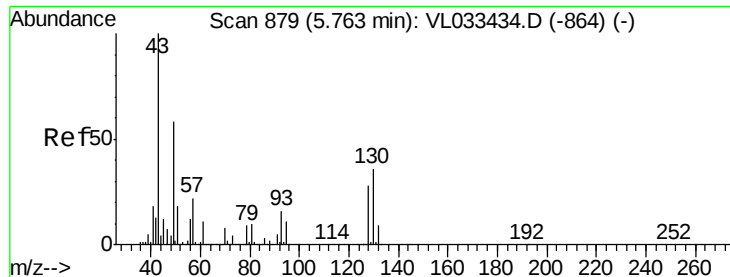
Instrument :
MSVOA_L
ClientSampleId :
VMP-6

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Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 876

Delta R.T. -0.01 min

Lab File: VL033493.D

Acq: 28 Mar 2019 7:35

Instrument :

MSVOA_L

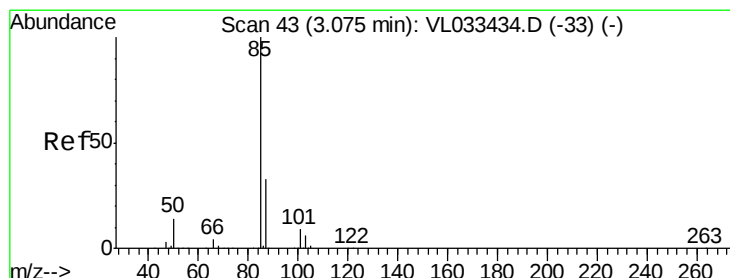
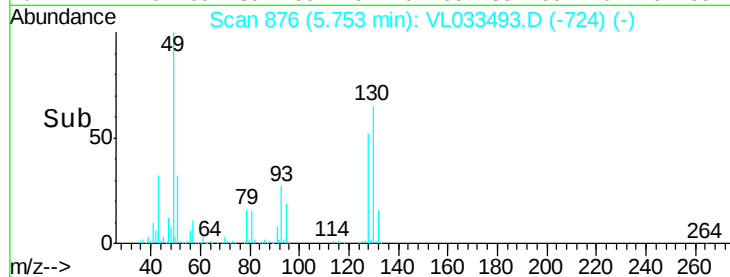
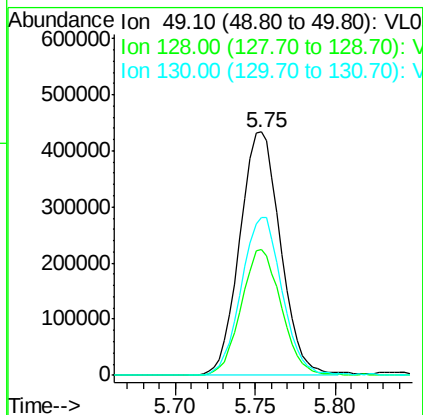
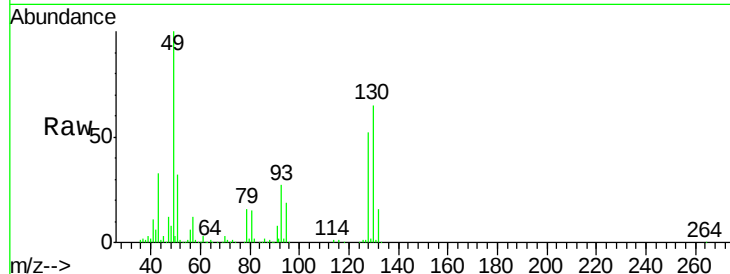
ClientSampleId :

VMP-6

Tot Ion:	49	Resp:	752897
Ion	Ratio	Lower	Upper
49	100		
128	51.2	24.0	72.0
130	65.8	31.2	93.6

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#2

Dichlorodifluoromethane

Concen: 0.320 ppbv

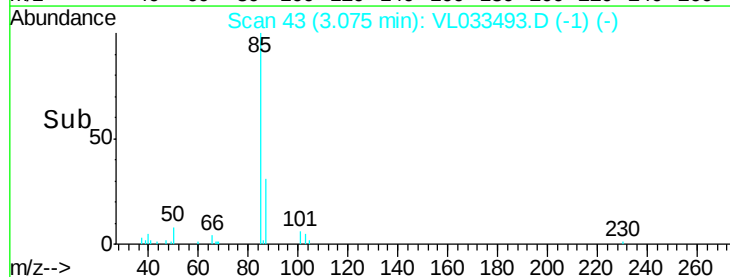
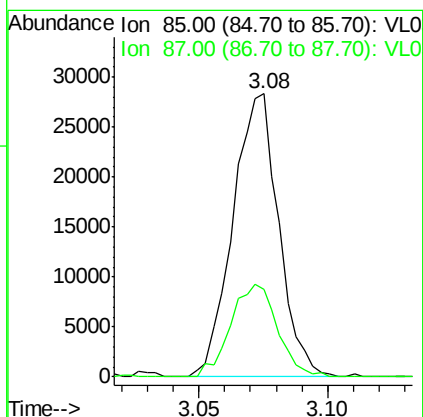
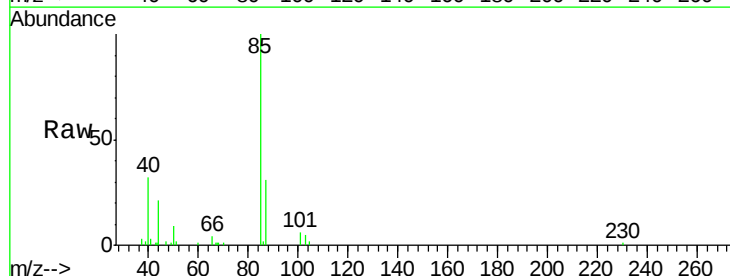
RT: 3.08 min Scan# 43

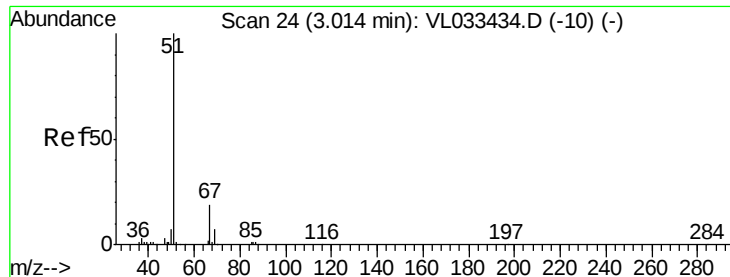
Delta R.T. -0.00 min

Lab File: VL033493.D

Acq: 28 Mar 2019 7:35

Tgt Ion:	85	Resp:	35105
Ion	Ratio	Lower	Upper
85	100		
87	30.8	26.7	40.1





#3

Chlorodifluoromethane

Concen: 0.291 ppbv

RT: 3.00 min Scan# 19

Delta R.T. -0.02 min

Lab File: VL033493.D

Acq: 28 Mar 2019 7:35

Instrument :

MSVOA_L

ClientSampleId :

VMP-6

Tot Ion: 51 Resp: 25212

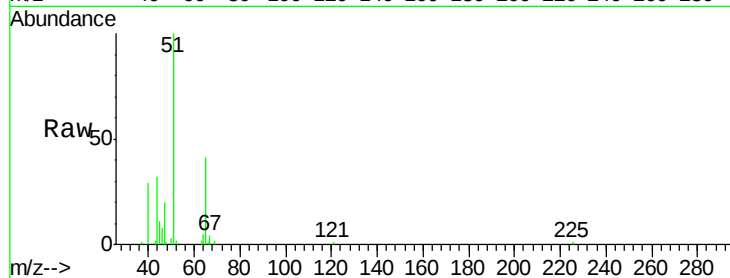
Ion Ratio Lower Upper

51 100

67 17.3 15.7 23.5

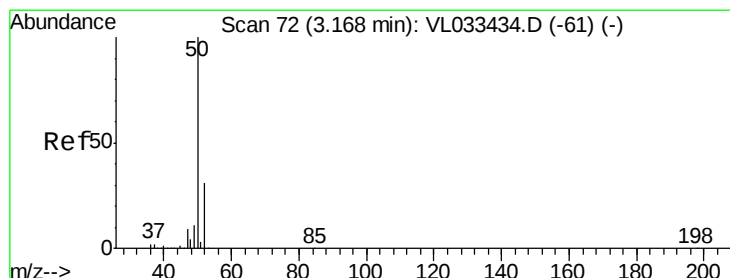
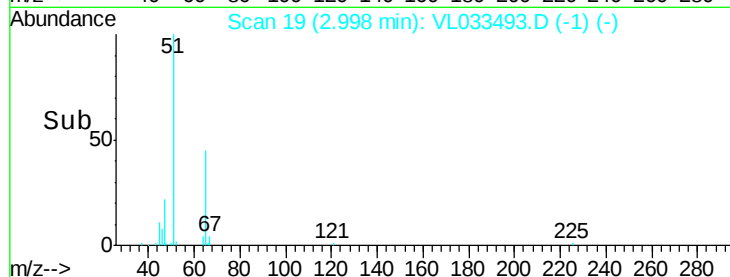
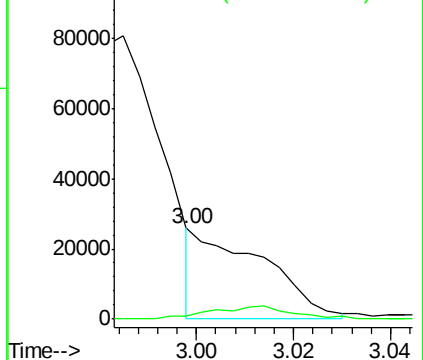
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.293 ppbv

RT: 3.17 min Scan# 73

Delta R.T. 0.00 min

Lab File: VL033493.D

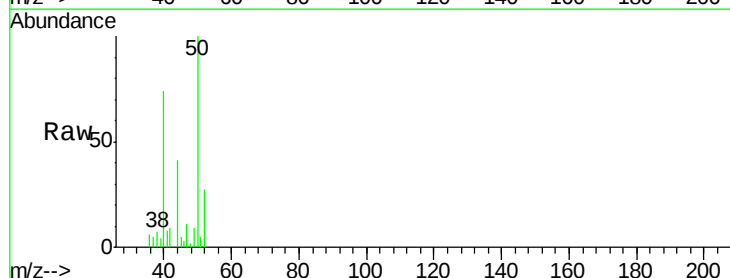
Acq: 28 Mar 2019 7:35

Tgt Ion: 50 Resp: 13456

Ion Ratio Lower Upper

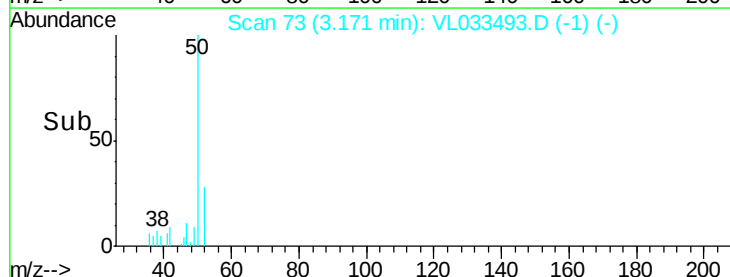
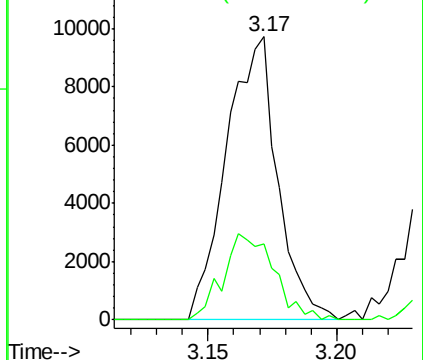
50 100

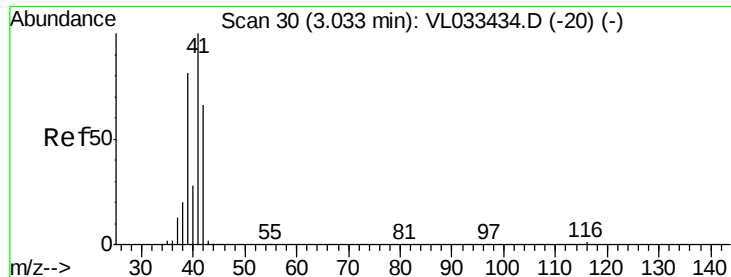
52 26.8 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.764 ppbv m

RT: 3.05 min Scan# 34

Delta R.T. 0.01 min

Lab File: VL033493.D

Acq: 28 Mar 2019 7:35

Instrument :

MSVOA_L

ClientSampleId :

VMP-6

Tot Ion: 41 Resp: 64199

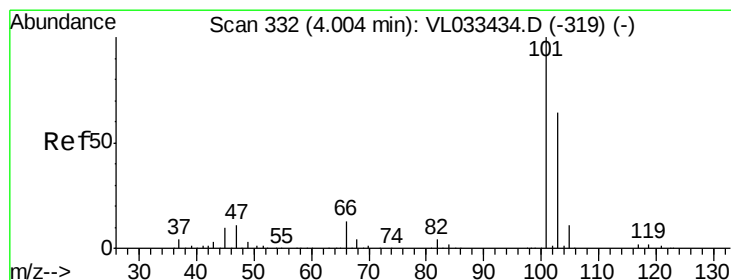
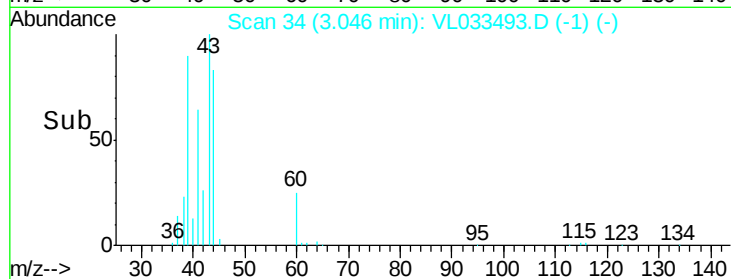
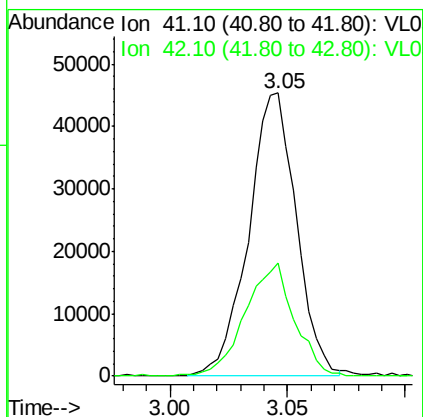
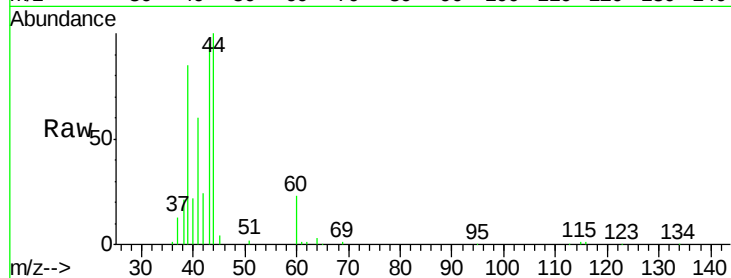
Ion Ratio Lower Upper

41 100

42 204.9 53.9 80.9#

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#11

Trichlorofluoromethane

Concen: 1.210 ppbv

RT: 4.00 min Scan# 330

Delta R.T. -0.01 min

Lab File: VL033493.D

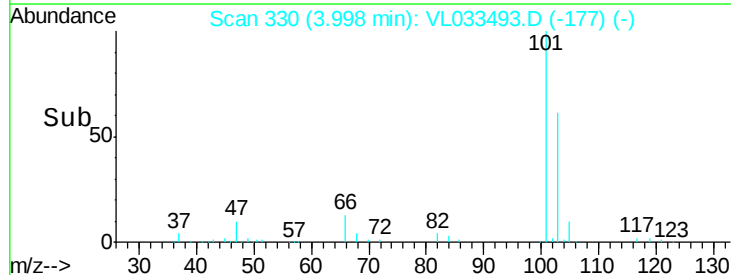
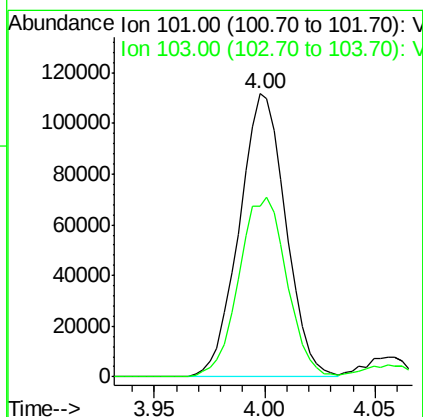
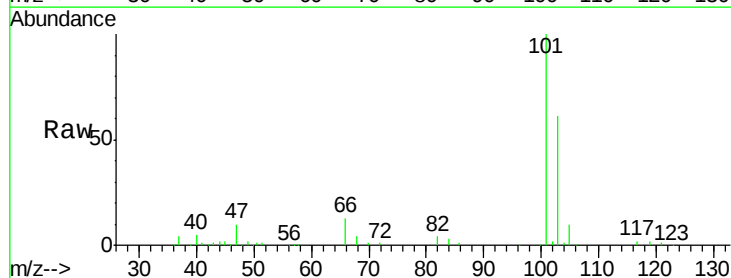
Acq: 28 Mar 2019 7:35

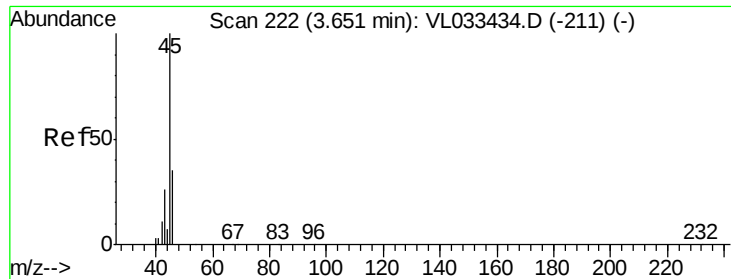
Tgt Ion: 101 Resp: 163798

Ion Ratio Lower Upper

101 100

103 60.4 51.3 76.9





#13

Ethanol

Concen: 24.185 ppbv

RT: 3.65 min Scan# 222

Delta R.T. -0.00 min

Lab File: VL033493.D

Acq: 28 Mar 2019 7:35

Instrument :

MSVOA_L

ClientSampled :

VMP-6

Tot Ion: 45 Resp: 227812

Ion Ratio Lower Upper

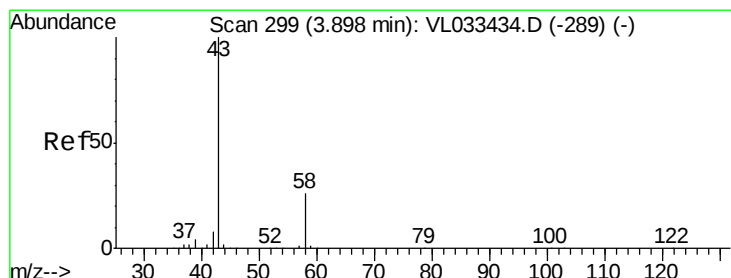
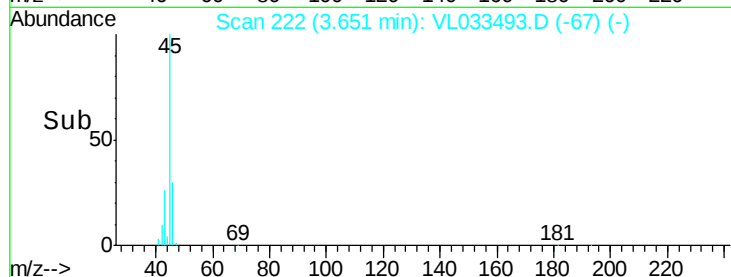
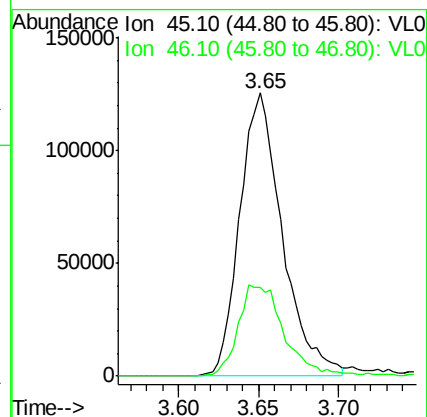
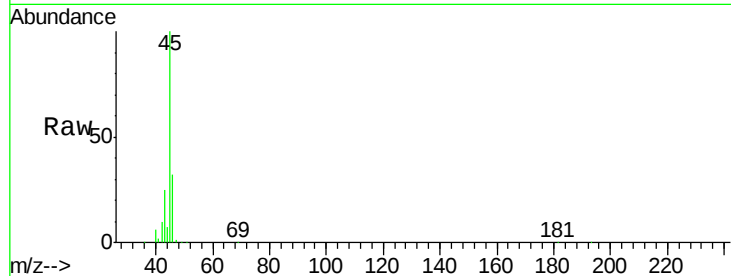
45 100

46 34.8 25.4 101.8

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#15

Acetone

Concen: 4.874 ppbv

RT: 3.89 min Scan# 298

Delta R.T. -0.00 min

Lab File: VL033493.D

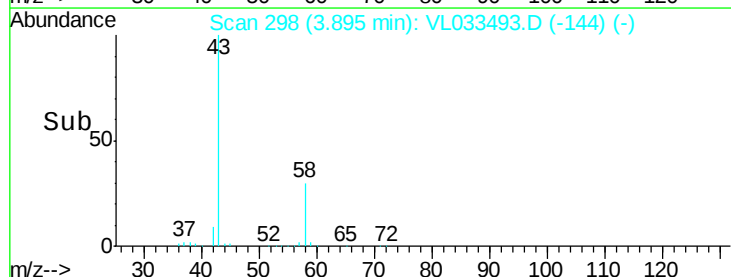
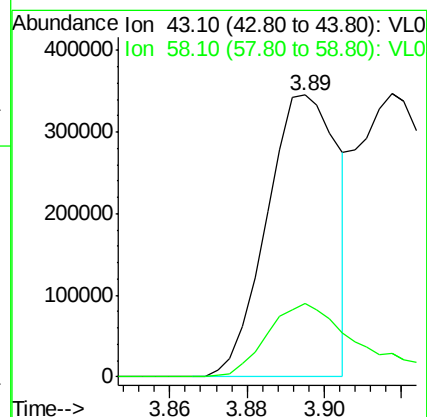
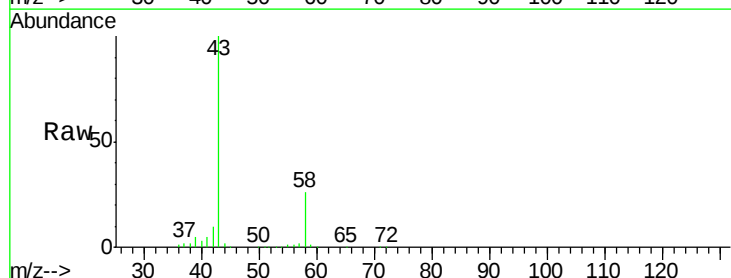
Acq: 28 Mar 2019 7:35

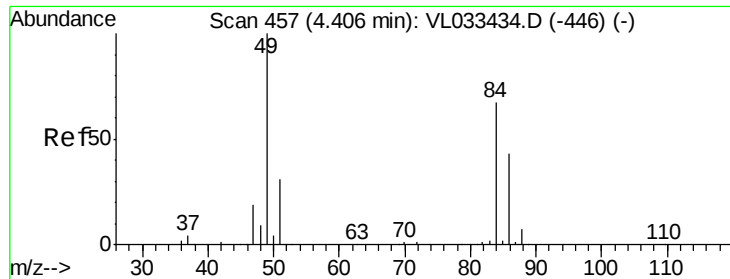
Tgt Ion: 43 Resp: 441217

Ion Ratio Lower Upper

43 100

58 33.9 20.5 30.7#





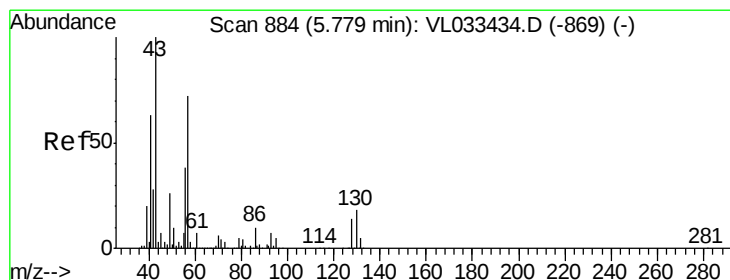
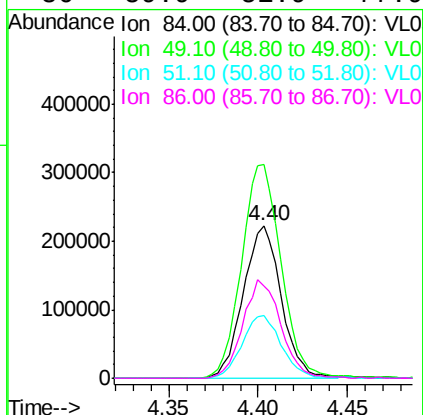
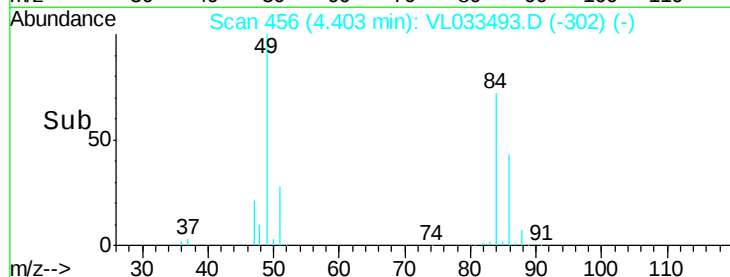
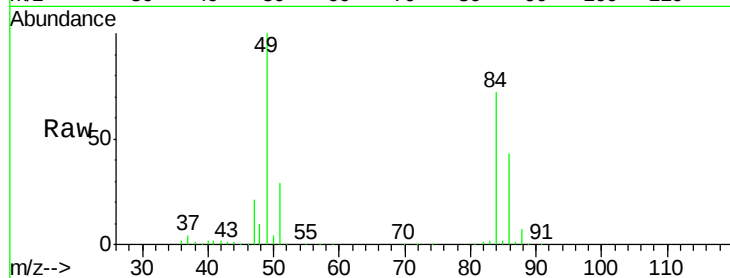
#20
Methvlene Chloride
Concen: 8.604 ppbv
RT: 4.40 min Scan# 456
Delta R.T. -0.00 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Instrument :
MSVOA_L
ClientSampleId :
VMP-6

Tot Ion:	84	Resp:	330647
Ion Ratio	Lower	Upper	
84	100		
49	139.5	120.0	180.0
51	41.0	36.7	55.1
86	59.9	51.9	77.9

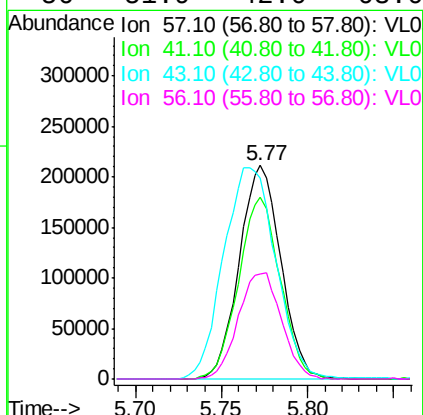
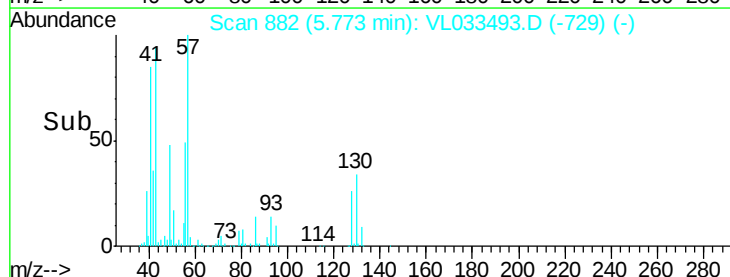
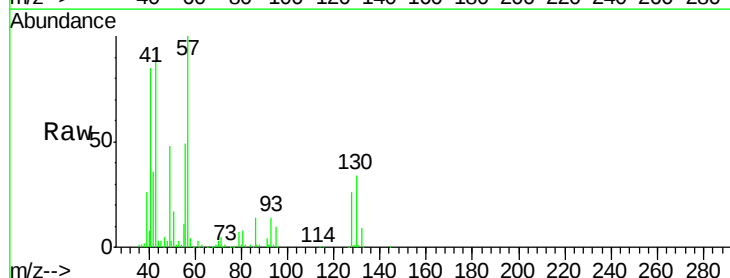
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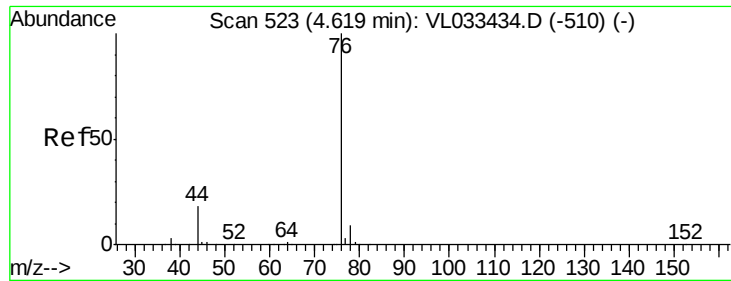
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#26
Hexane
Concen: 4.745 ppbv
RT: 5.77 min Scan# 882
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Tgt Ion:	57	Resp:	354373
Ion Ratio	Lower	Upper	
57	100		
41	85.4	70.7	106.1
43	125.5	182.6	274.0#
56	51.9	42.0	63.0





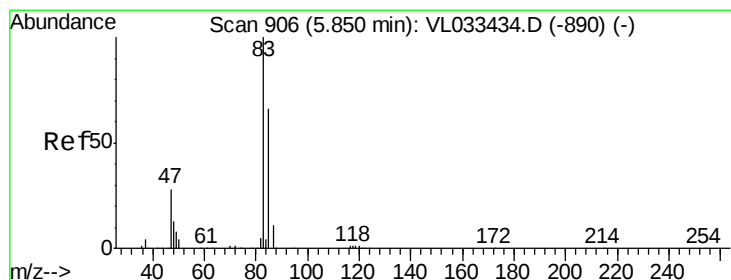
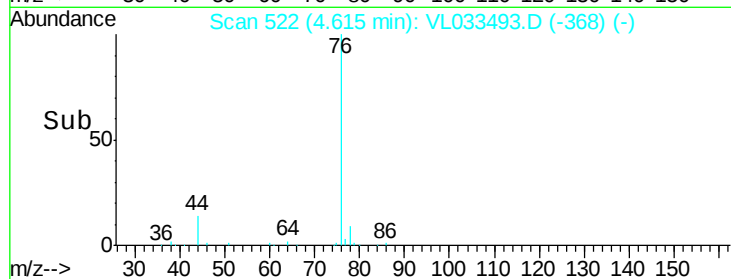
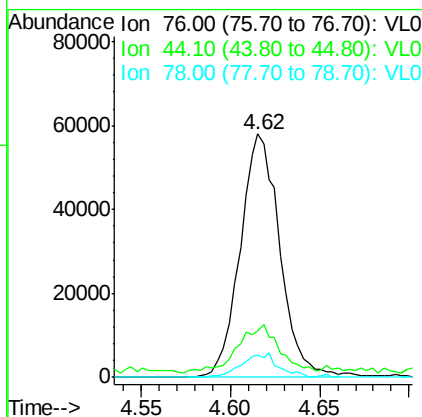
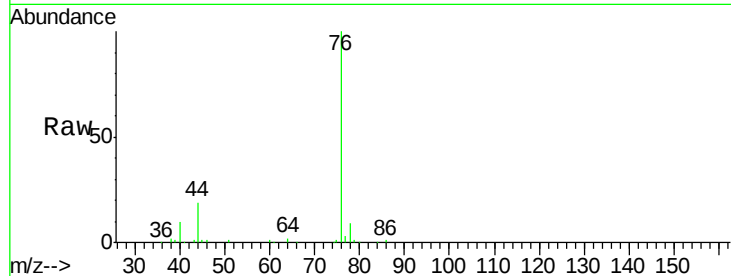
#27
Carbon Disulfide
Concen: 1.010 ppbv
RT: 4.62 min Scan# 522
Delta R.T. -0.00 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Instrument :
MSVOA_L
ClientSampleId :
VMP-6

Tot Ion	Ratio	Lower	Upper
76	100		
44	23.6	14.8	22.2#
78	9.4	7.6	11.4

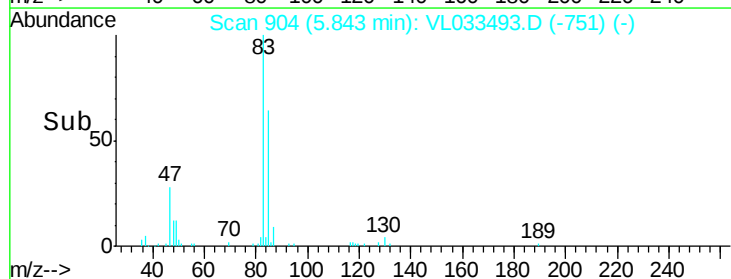
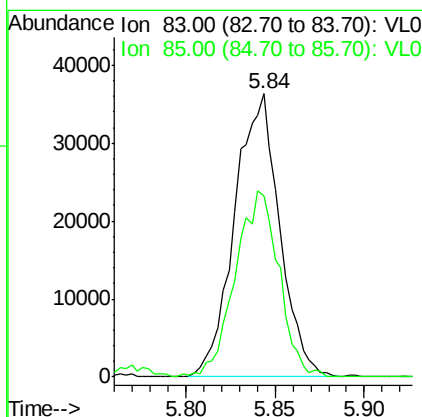
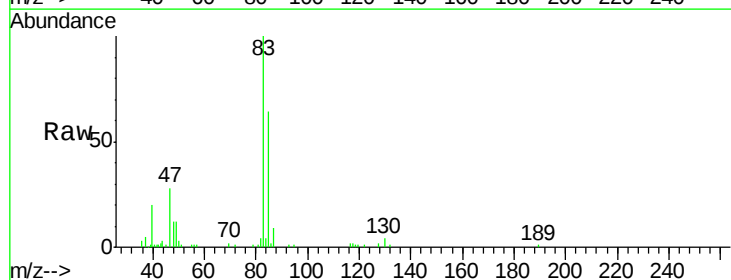
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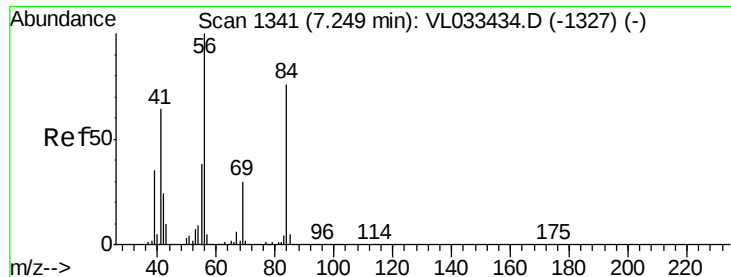
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#29
Chloroform
Concen: 0.497 ppbv
RT: 5.84 min Scan# 904
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Lower	Upper
83	100		
85	63.9	52.6	79.0





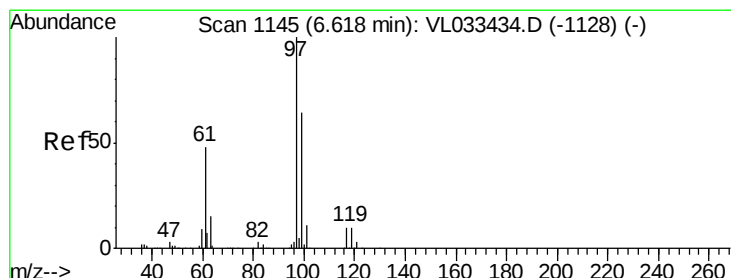
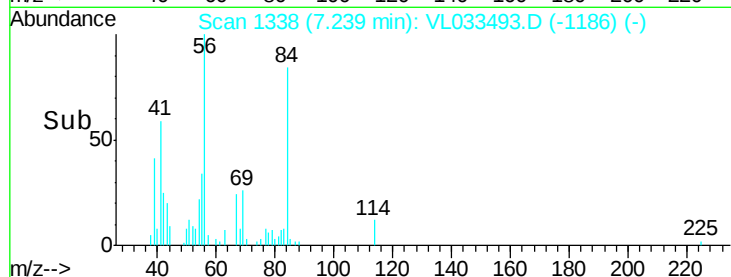
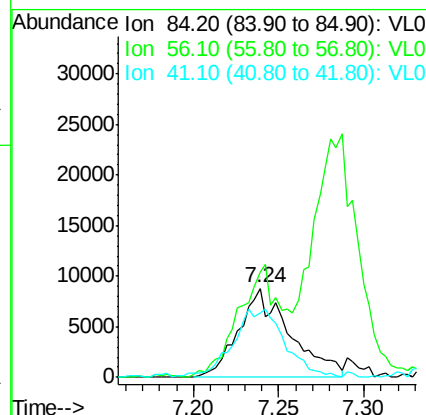
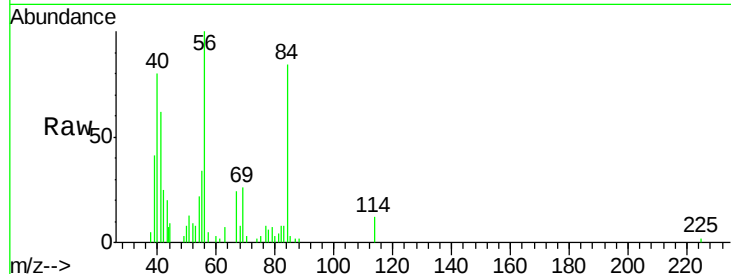
#30
Cyclohexane
Concen: 0.313 ppbv m
RT: 7.24 min Scan# 1338
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Instrument :
MSVOA_L
ClientSampleId :
VMP-6

Tot Ion	Ratio	Lower	Upper
84	100		
56	107.0	109.7	164.5#
41	79.8	68.2	102.2

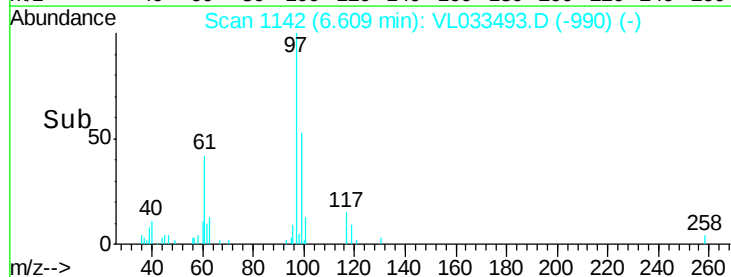
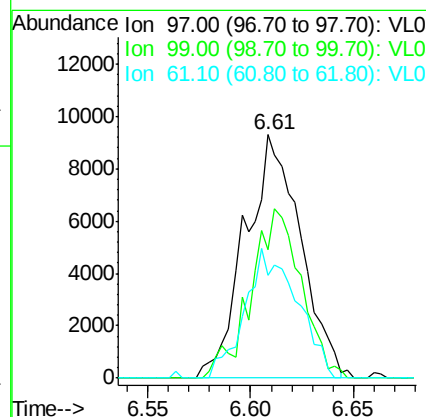
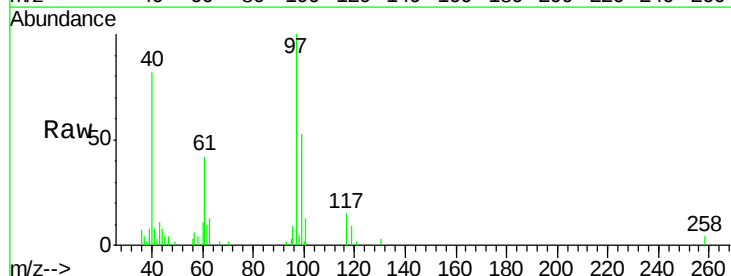
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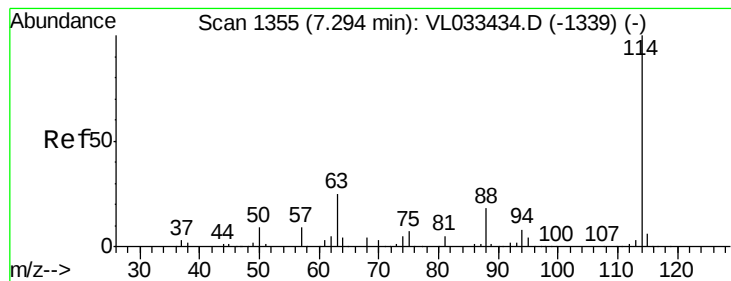
MMDadoda
4/1/2019 1:26:12 AM



#32
1,1,1-Trichloroethane
Concen: 0.143 ppbv m
RT: 6.61 min Scan# 1142
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Lower	Upper
97	100		
99	63.4	51.5	77.3
61	49.8	38.8	58.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.28 min Scan# 1352

Delta R.T. -0.01 min

Lab File: VL033493.D

Acq: 28 Mar 2019 7:35

Instrument :

MSVOA_L

ClientSampleId :

VMP-6

Tot Ion:114 Resp: 1961749

Ion Ratio Lower Upper

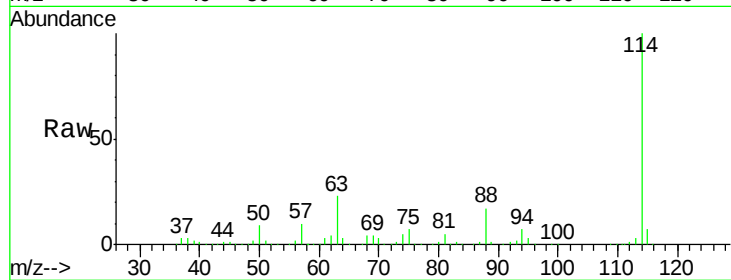
114 100

63 24.6 21.5 32.3

88 17.7 14.5 21.7

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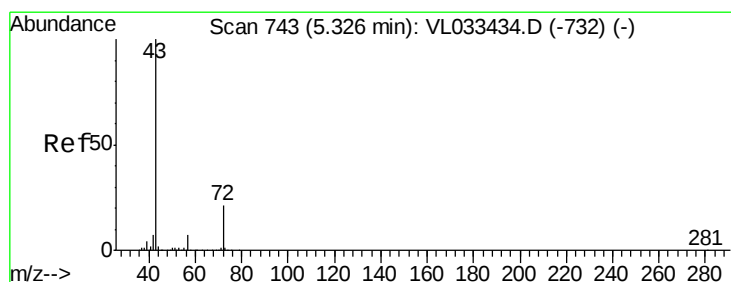
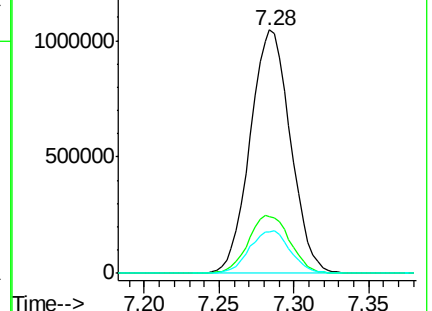
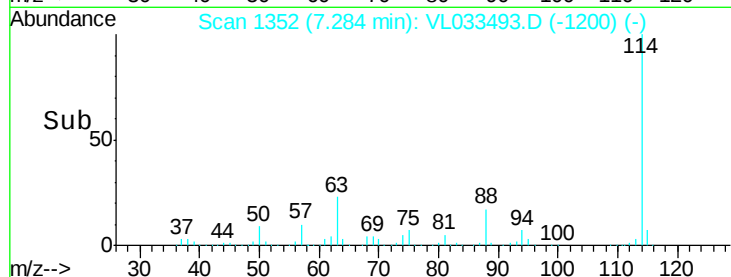
MMDadoda
4/1/2019 1:26:12 AM



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: 0.624 ppbv

RT: 5.33 min Scan# 743

Delta R.T. -0.00 min

Lab File: VL033493.D

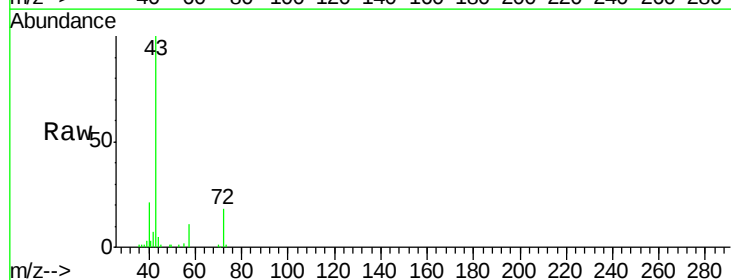
Acq: 28 Mar 2019 7:35

Tgt Ion: 43 Resp: 73559

Ion Ratio Lower Upper

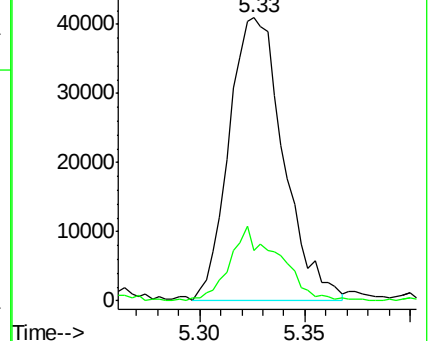
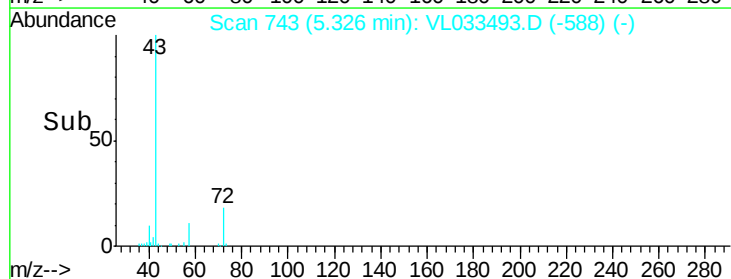
43 100

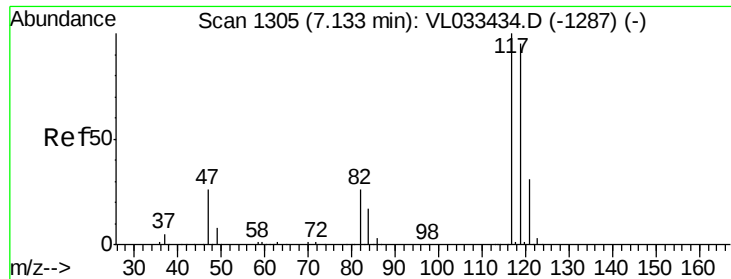
72 24.2 17.4 26.2



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.057 ppbv

RT: 7.13 min Scan# 1303

Delta R.T. -0.01 min

Lab File: VL033493.D

Acq: 28 Mar 2019 7:35

Instrument :

MSVOA_L

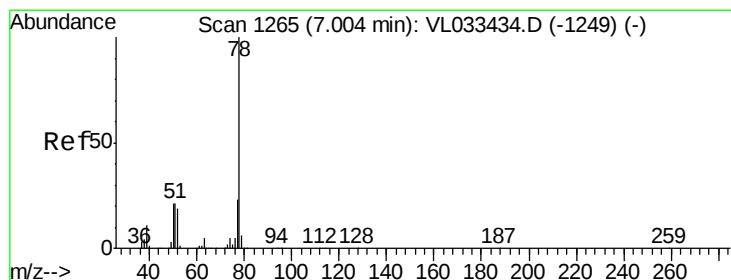
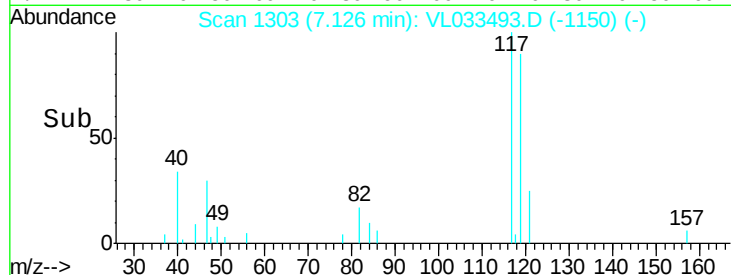
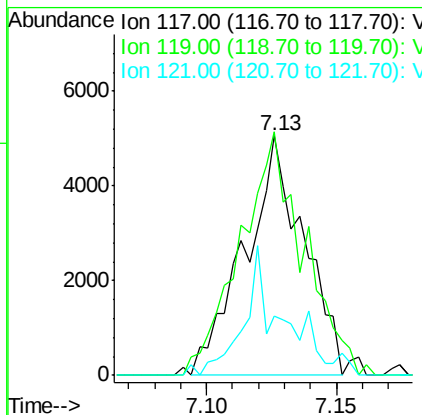
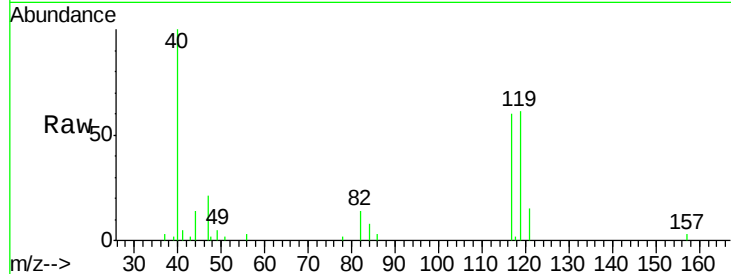
ClientSampleId :

VMP-6

Tot Ion	Ratio	Lower	Upper
117	100		
119	101.6	75.8	113.8
121	24.7	24.7	37.1#

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#36

Benzene

Concen: 0.150 ppbv

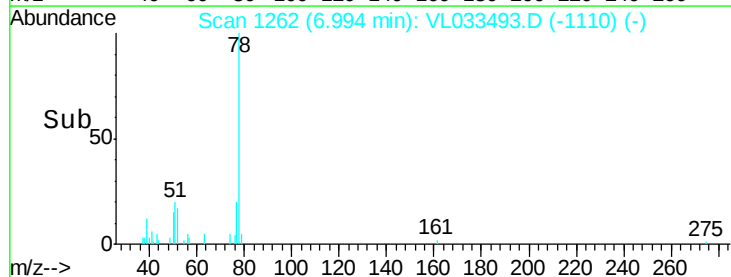
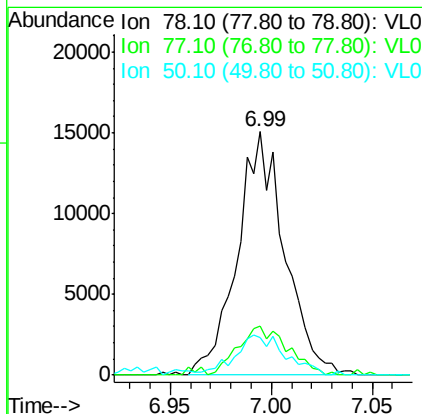
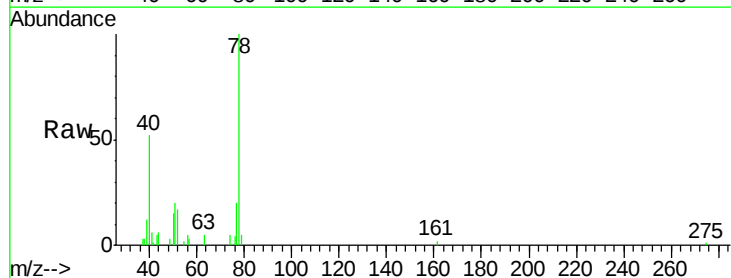
RT: 6.99 min Scan# 1262

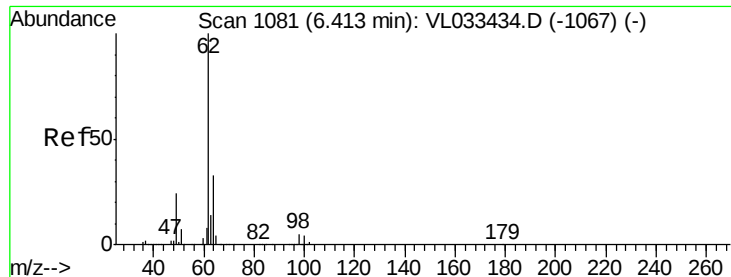
Delta R.T. -0.01 min

Lab File: VL033493.D

Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Lower	Upper
78	100		
77	20.4	18.1	27.1
50	13.9	16.7	25.1#





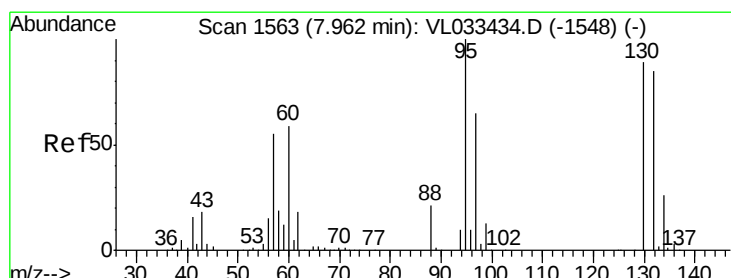
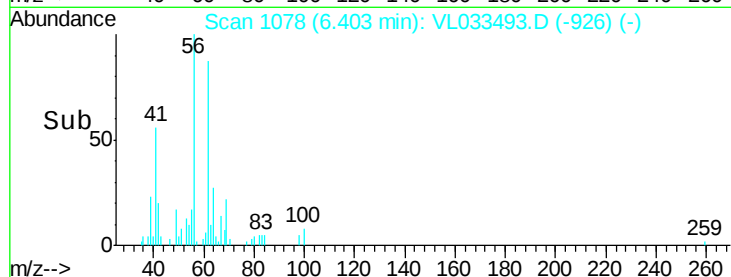
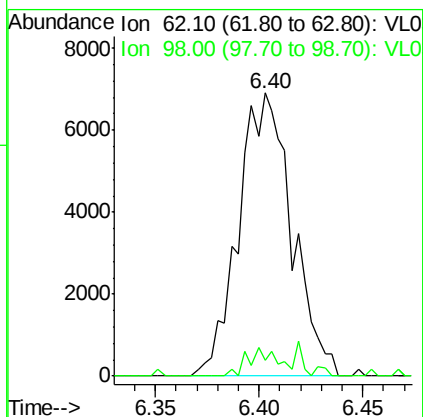
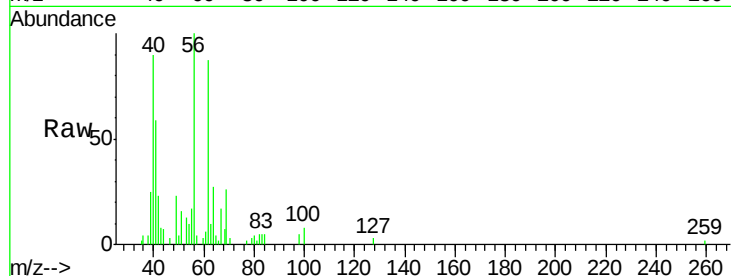
#37
 1,2-Dichloroethane
 Concen: 0.112 ppbv m
 RT: 6.40 min Scan# 1078
 Delta R.T. -0.01 min
 Lab File: VL033493.D
 Acq: 28 Mar 2019 7:35

Instrument :
 MSVOA_L
 ClientSampleId :
 VMP-6

Tot Ion	Ratio	Lower	Upper
62	100		
98	0.0	4.4	6.6#

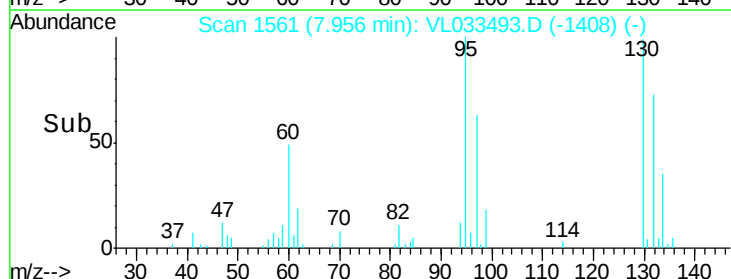
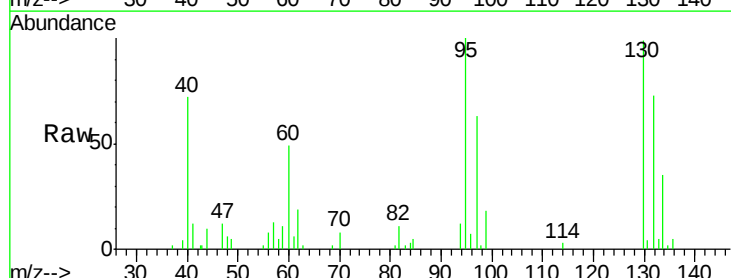
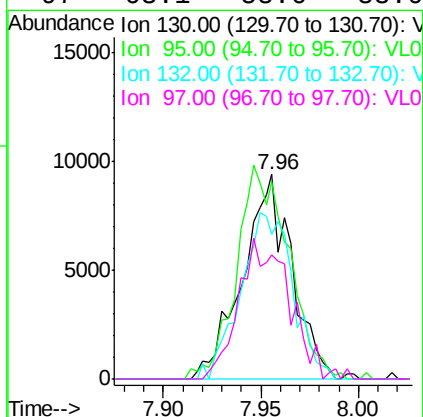
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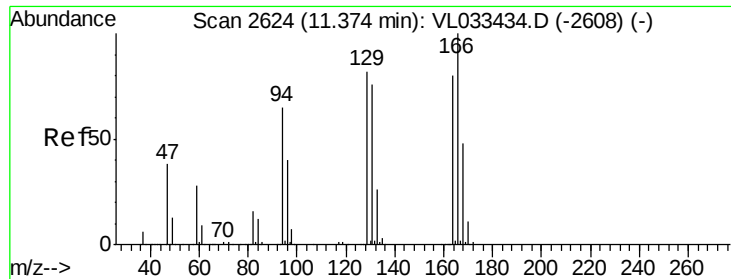
MMDadoda
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#38
 Trichloroethene
 Concen: 0.265 ppbv m
 RT: 7.96 min Scan# 1561
 Delta R.T. -0.01 min
 Lab File: VL033493.D
 Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Lower	Upper
130	100		
95	100.6	89.8	134.8
132	73.9	76.6	115.0#
97	63.1	58.6	88.0





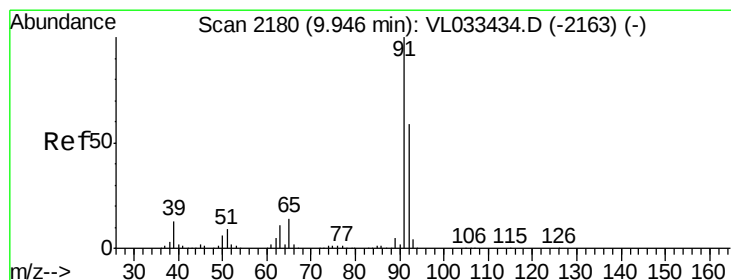
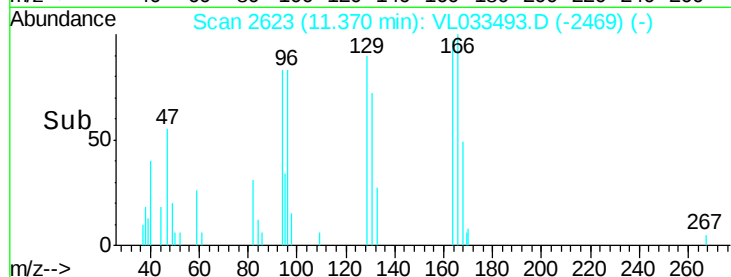
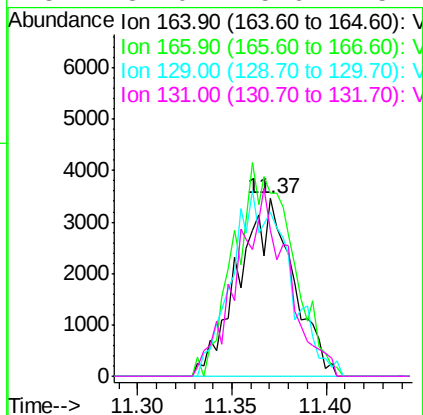
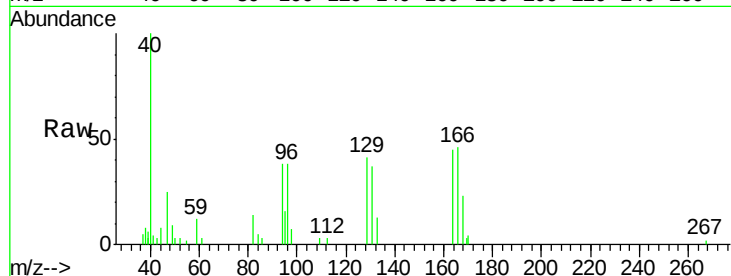
#52
Tetrachloroethene
Concen: 0.113 ppbv m
RT: 11.37 min Scan# 2623
Delta R.T. -0.00 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Instrument :
MSVOA_L
ClientSampled :
VMP-6

Tot Ion	Ratio	Lower	Upper
164	100		
166	102.7	99.5	149.3
129	92.1	81.4	122.2
131	82.0	75.6	113.4

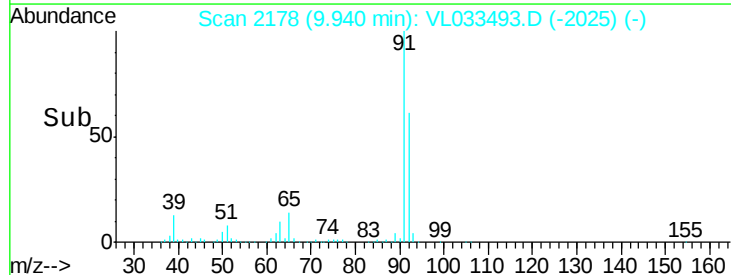
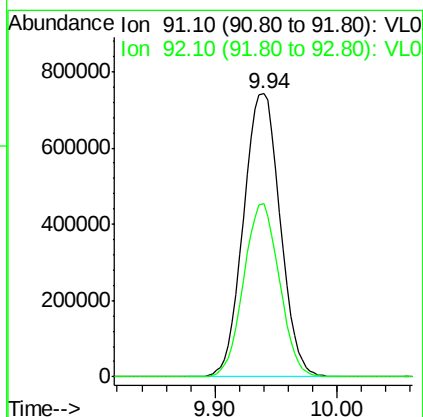
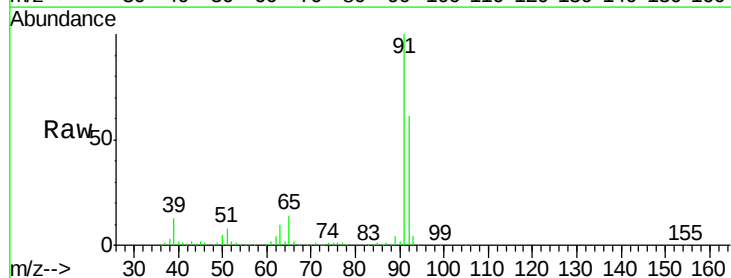
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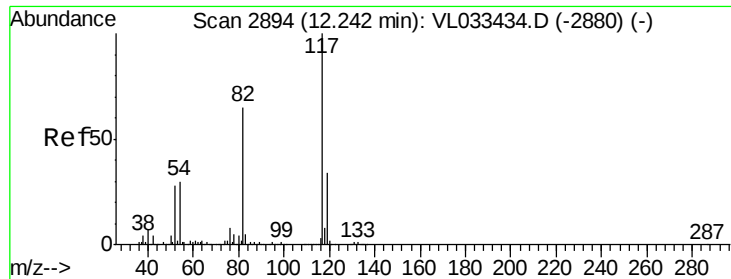
MMDadoda
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#53
Toluene
Concen: 8.052 ppbv
RT: 9.94 min Scan# 2178
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.7	47.4	71.0





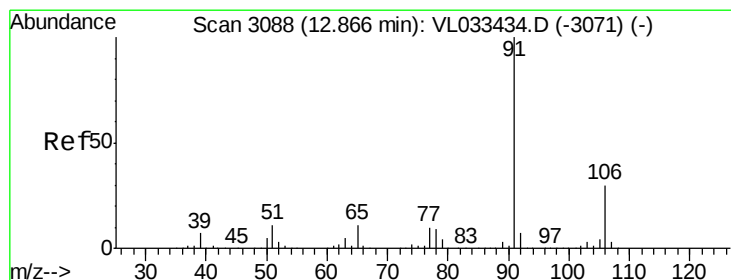
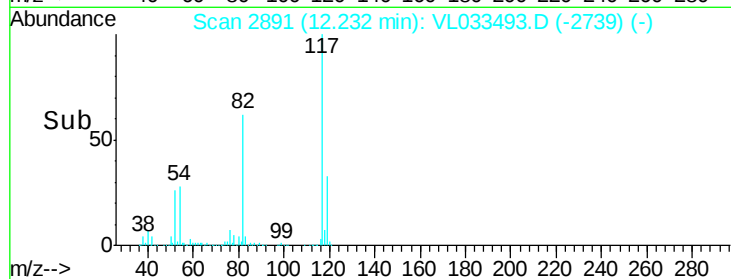
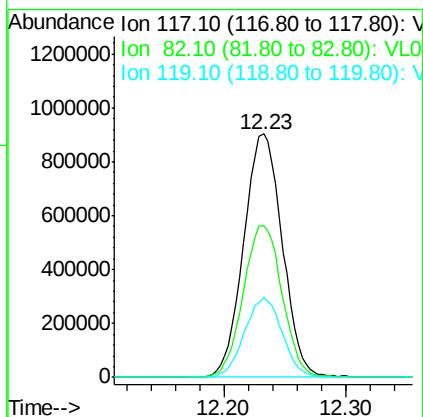
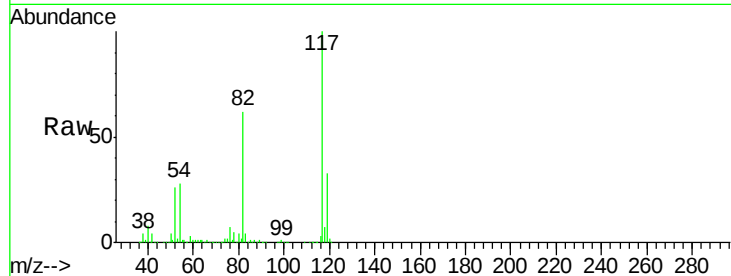
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Instrument :
MSVOA_L
ClientSampleId :
VMP-6

Tot Ion	Ratio	Lower	Upper
117	100		
82	63.3	51.5	77.3
119	32.2	25.5	38.3

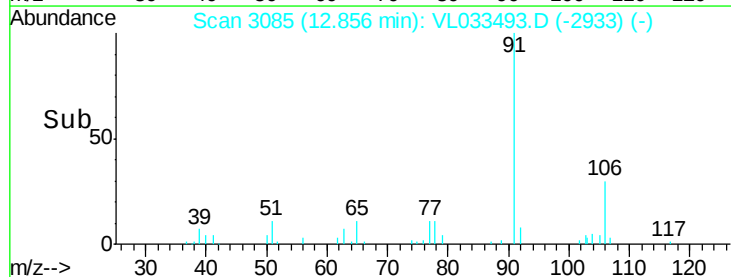
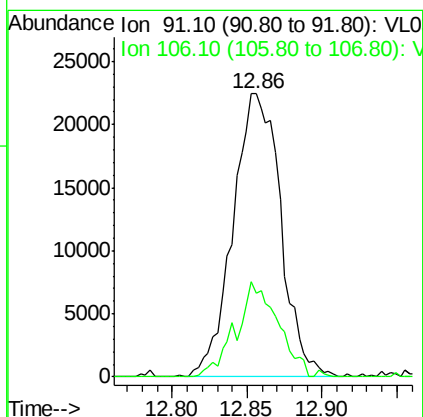
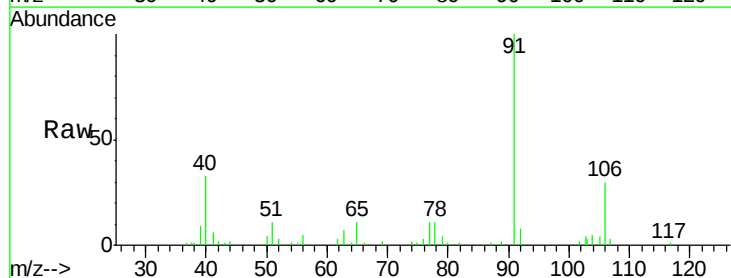
Manual Integrations
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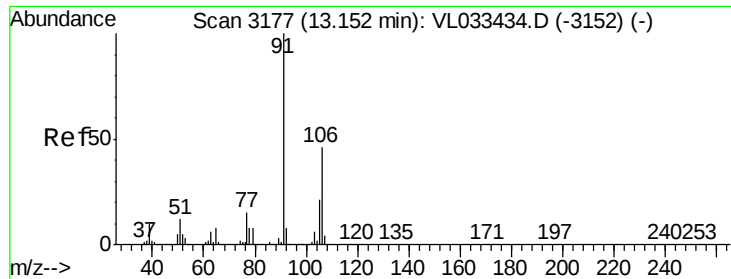
MMDadoda
4/1/2019 1:26:12 AM



#58
Ethyl Benzene
Concen: 0.189 ppbv
RT: 12.86 min Scan# 3085
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Lower	Upper
91	100		
106	29.7	23.8	35.6





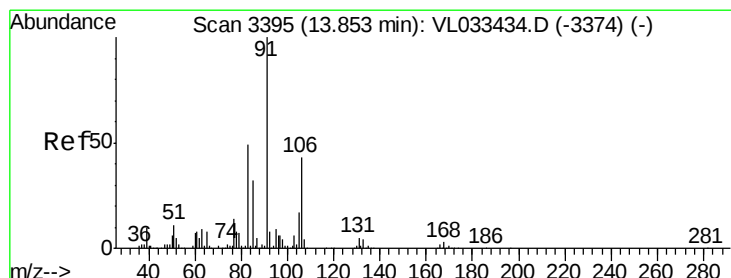
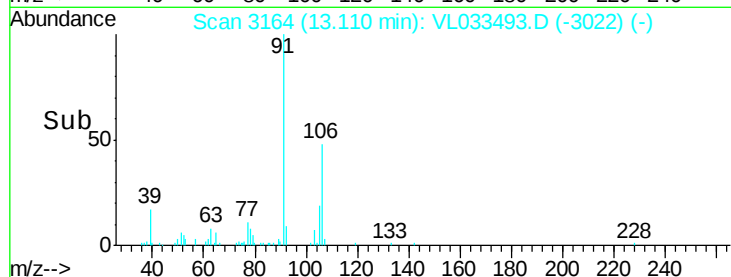
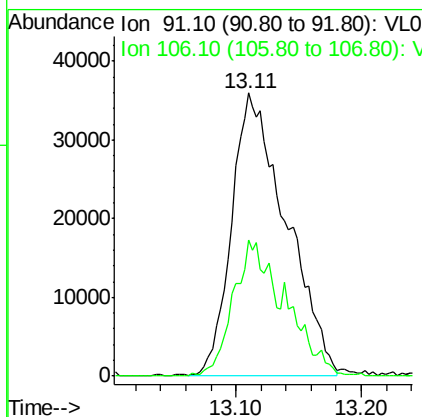
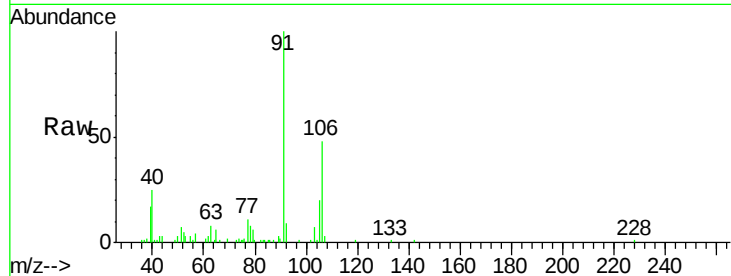
#59
m/p-Xylene
Concen: 0.461 ppbv m
RT: 13.11 min Scan# 3164
Delta R.T. -0.04 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Instrument :
MSVOA_L
ClientSampled :
VMP-6

Tot Ion	Ratio	Resp	Lower	Upper
91	100	108455		
106	0.0	0.0	0.0	0.0

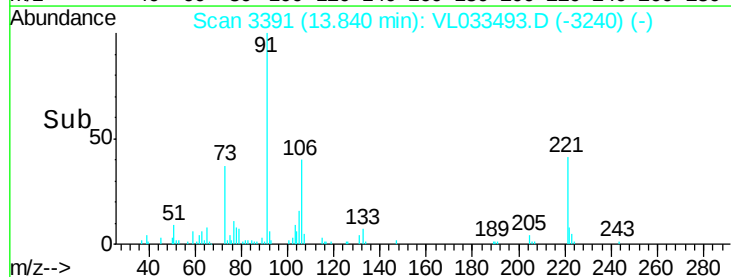
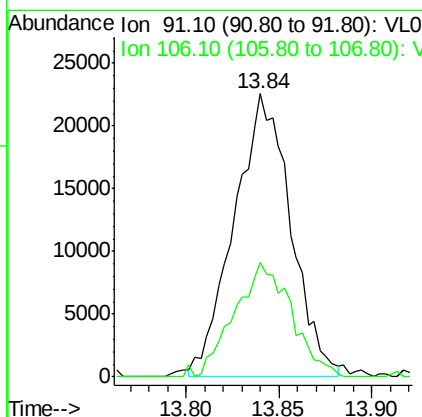
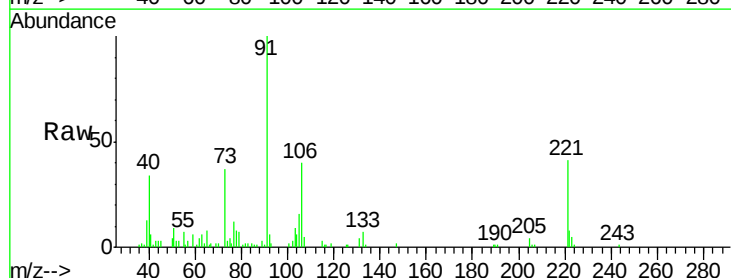
Manual Integrations
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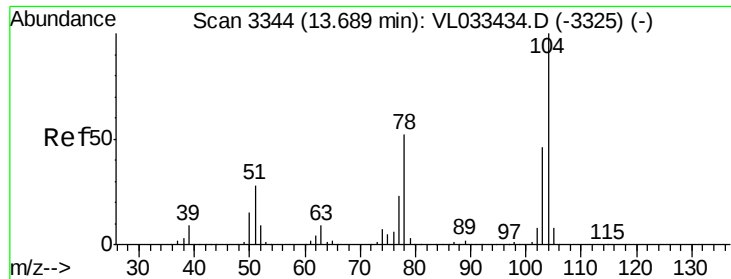
MMDadoda
4/1/2019 1:26:12 AM



#60
o-Xylene
Concen: 0.210 ppbv
RT: 13.84 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Resp	Lower	Upper
91	100	47787		
106	40.9	21.4	64.3	





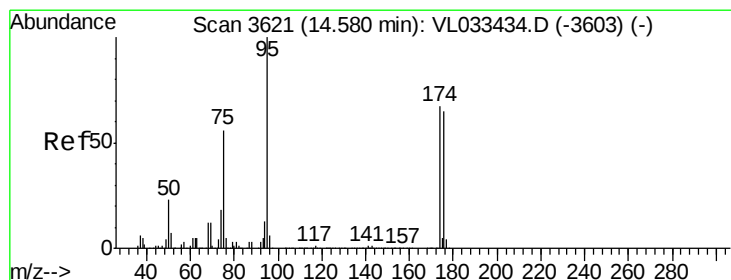
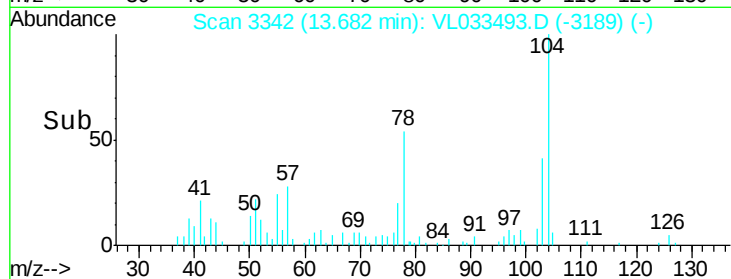
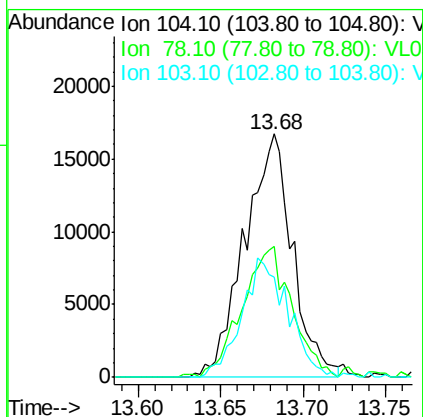
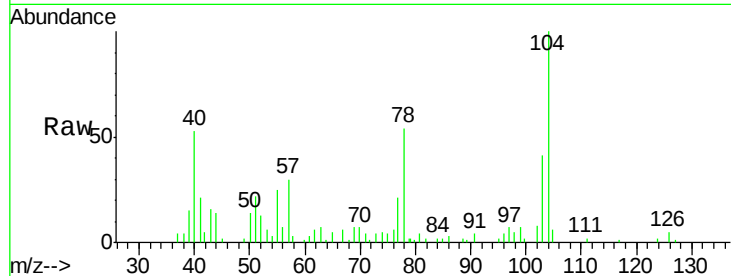
#61
Stvrene
Concen: 0.216 ppbv m
RT: 13.68 min Scan# 3342
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Instrument :
MSVOA_L
ClientSampleId :
VMP-6

Tot Ion	Ratio	Lower	Upper
104	100		
78	58.2	43.2	64.8
103	47.9	37.8	56.8

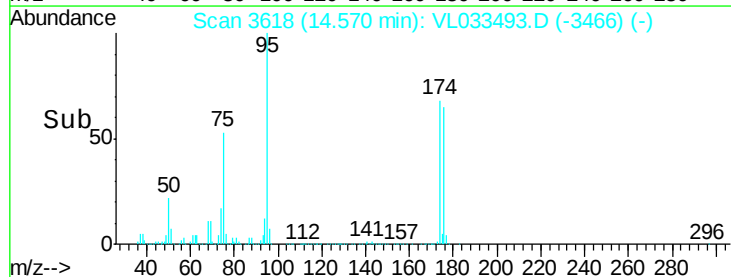
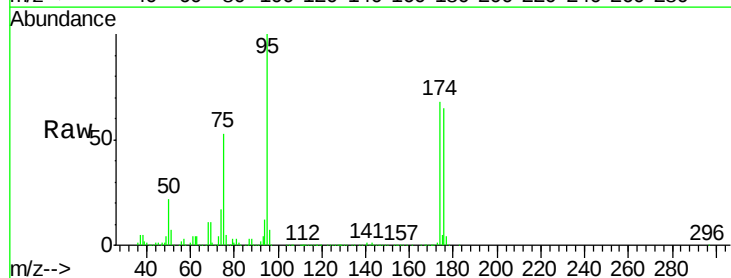
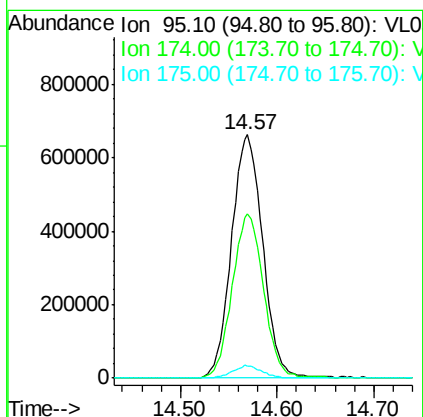
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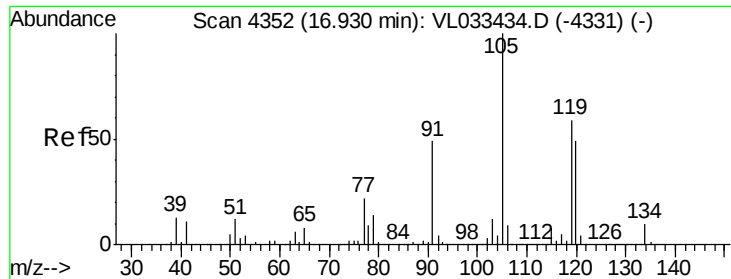
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#68
1-Bromo-4-Fluorobenzene
Concen: 9.617 ppbv
RT: 14.57 min Scan# 3618
Delta R.T. -0.01 min
Lab File: VL033493.D
Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Lower	Upper
95	100		
174	68.0	52.9	79.3
175	4.9	3.8	5.6





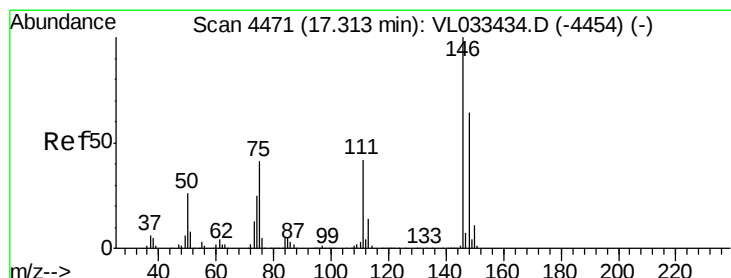
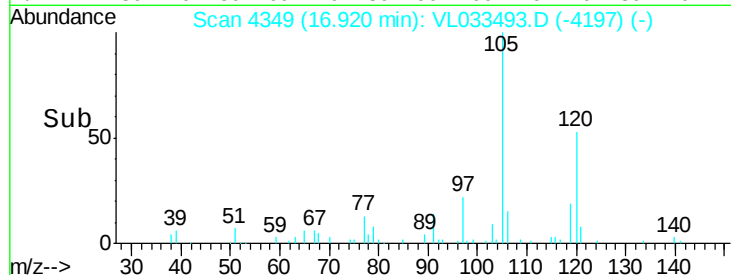
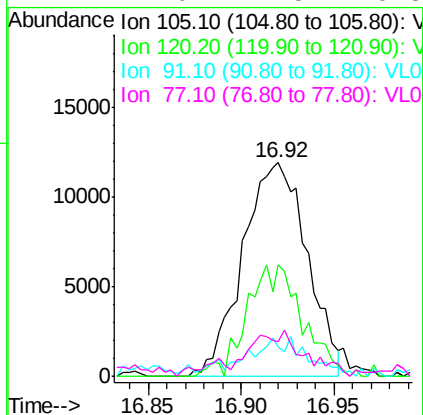
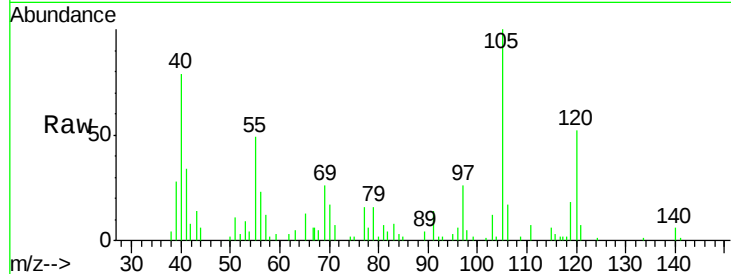
#74
 1,2,4-Trimethylbenzene
 Concen: 0.109 ppbv
 RT: 16.92 min Scan# 4349
 Delta R.T. -0.01 min
 Lab File: VL033493.D
 Acq: 28 Mar 2019 7:35

Instrument :
 MSVOA_L
 ClientSampleId :
 VMP-6

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	52.1	39.0	58.6
91	9.3	40.0	60.0#
77	12.0	17.5	26.3#

Manual Integrations
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 4/1/2019 1:26:12 AM



#76
 1,4-Dichlorobenzene
 Concen: 0.349 ppbv m
 RT: 17.30 min Scan# 4466
 Delta R.T. -0.02 min
 Lab File: VL033493.D
 Acq: 28 Mar 2019 7:35

Tgt Ion	Ratio	Resp Lower	Upper
146	100		
111	0.0	21.7	65.1#
148	63.6	32.0	96.2

