

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032919\
 Data File : VL033513.D
 Acq On : 29 Mar 2019 22:14
 Operator : SY/AP
 Sample : K2042-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-6-RM-104

Manual Integrations
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 4/2/2019 8:40:19 AM

Quant Time: Mar 31 15:04:57 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar 2
 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	5.76	49	820758	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1930913	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1910885	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.58	95	1487645	9.93	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	51245	0.428	ppbv	95
4) Chloromethane	3.17	50	19963m	0.399	ppbv	
7) Chloroethane	3.60	64	3343	0.183	ppbv #	87
9) Propene	3.04	41	46560m	1.173	ppbv	
10) Heptane	8.25	43	14660m	0.138	ppbv	
11) Trichlorofluoromethane	4.00	101	43600	0.296	ppbv	95
12) 1,1,2-Trichlorotrifluoroet	4.55	101	8561m	0.086	ppbv	
13) Ethanol	3.68	45	4202088	409.220	ppbv	65
15) Acetone	3.90	43	1496187	15.161	ppbv	100
17) tert-Butyl alcohol	4.38	59	25731m	1.418	ppbv	
19) Isopropyl Alcohol	4.05	45	297925	4.773	ppbv #	1
20) Methylene Chloride	4.41	84	922323	22.017	ppbv	95
26) Hexane	5.78	57	1214303	14.915	ppbv #	40
29) Chloroform	5.85	83	64846m	0.465	ppbv	
30) Cyclohexane	7.24	84	8283	0.129	ppbv #	1
31) cis-1,2-Dichloroethene	5.64	61	13784m	0.170	ppbv	
34) 2-Butanone	5.33	43	67270	0.580	ppbv	97
35) Carbon Tetrachloride	7.13	117	9949m	0.073	ppbv	
36) Benzene	7.00	78	63731	0.393	ppbv #	89
38) Trichloroethene	7.96	130	102986	1.689	ppbv	93
44) 2,2,4-Trimethylpentane	7.99	57	59196	0.209	ppbv #	69
52) Tetrachloroethene	11.38	164	3150m	0.052	ppbv	
53) Toluene	9.94	91	365067	1.939	ppbv	97
59) m/p-Xylene	13.12	91	63029m	0.277	ppbv	
60) o-Xylene	13.85	91	21505m	0.098	ppbv	

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

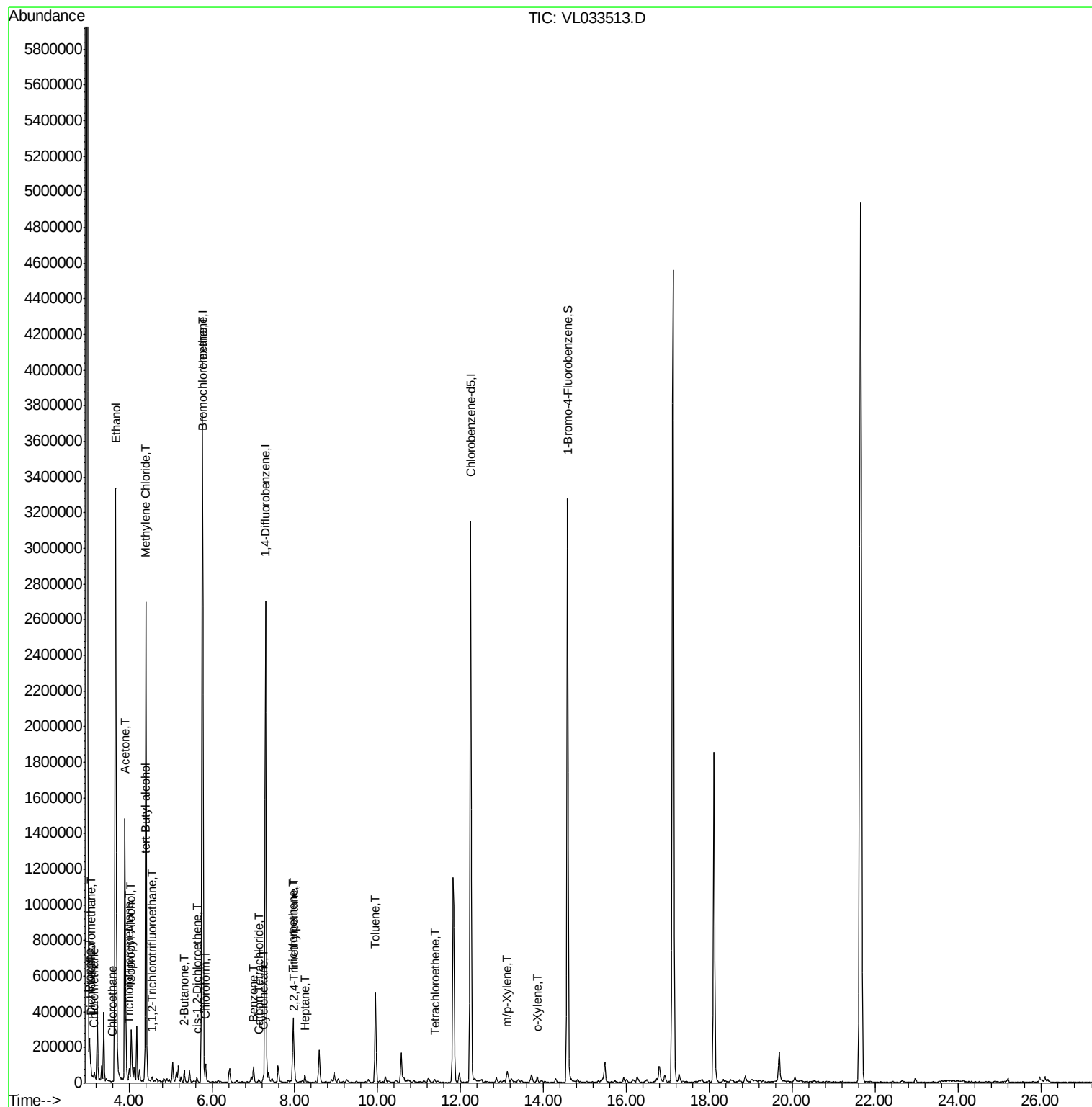
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL032919\
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Quant Time: Mar 31 15:04:57 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

Instrument :

MSVOA_L

ClientSampleId :

SG-6-RM-104

Tot Ion: 49 Resp: 820758

Ion Ratio Lower Upper

49 100

128 48.0 24.0 72.0

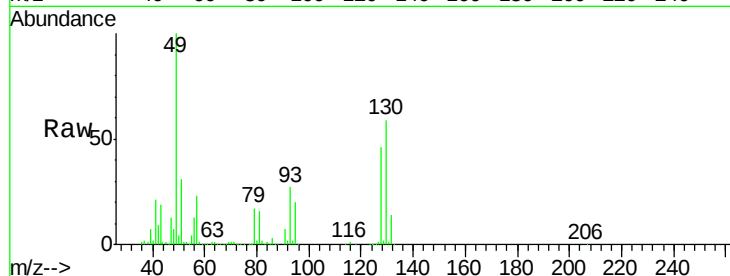
130 62.0 31.2 93.6

Manual Integrations

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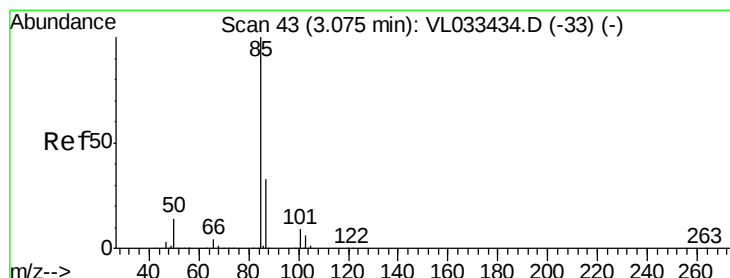
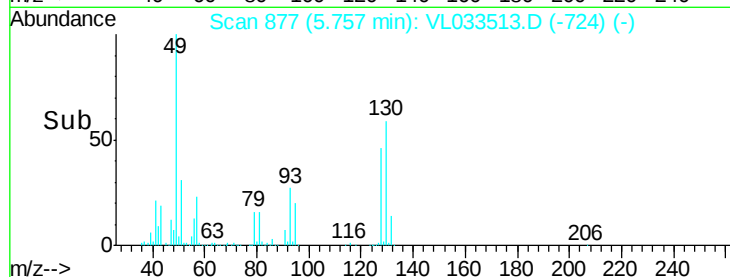
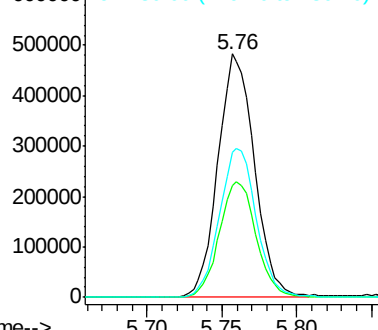
4/2/2019 8:40:19 AM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.428 ppbv

RT: 3.08 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033513.D

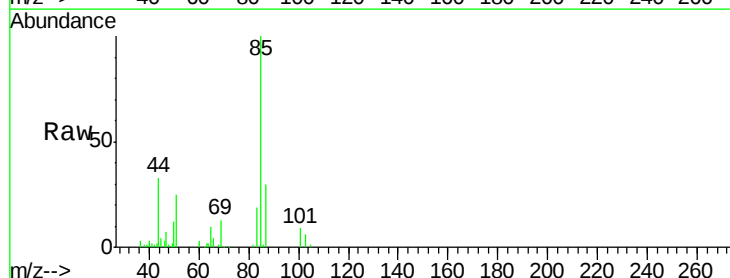
Acq: 29 Mar 2019 22:14

Tgt Ion: 85 Resp: 51245

Ion Ratio Lower Upper

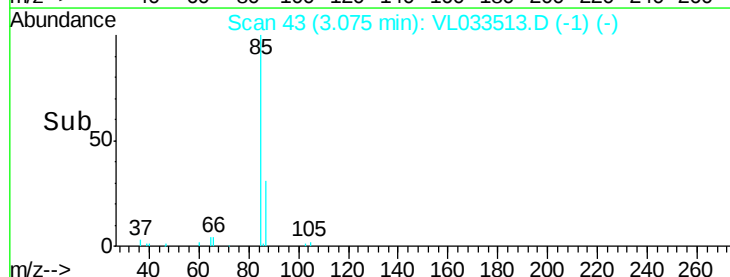
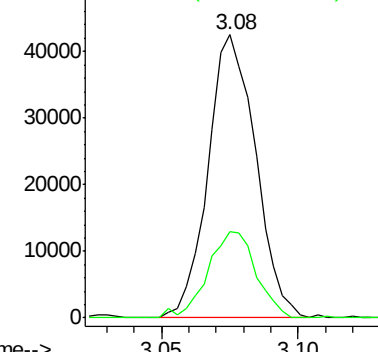
85 100

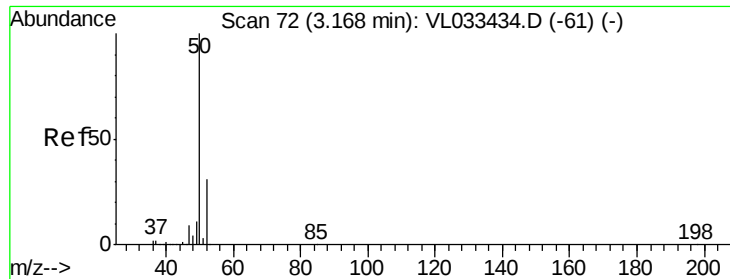
87 30.4 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.399 ppbv m

RT: 3.17 min Scan# 72

Delta R.T. -0.00 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

Instrument :

MSVOA_L

ClientSampleId :

SG-6-RM-104

Tot Ion: 50 Resp: 19963

Ion Ratio Lower Upper

50 100

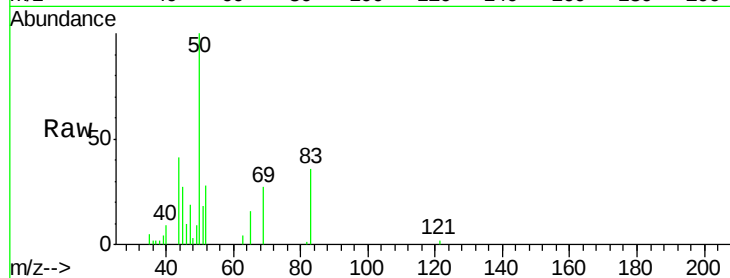
52 28.5 25.0 37.6

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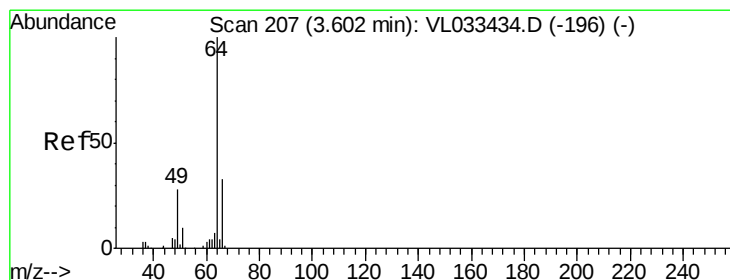
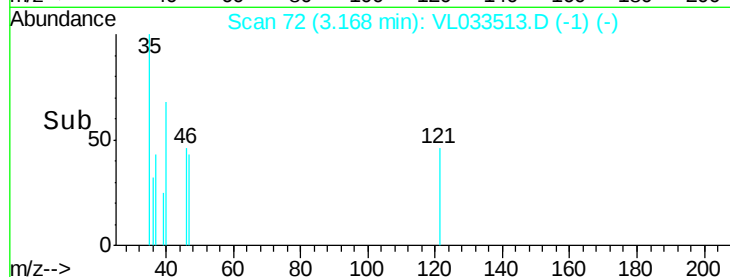
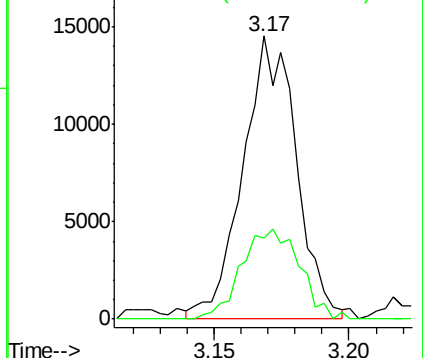
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Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#7

Chloroethane

Concen: 0.183 ppbv

RT: 3.60 min Scan# 207

Delta R.T. -0.00 min

Lab File: VL033513.D

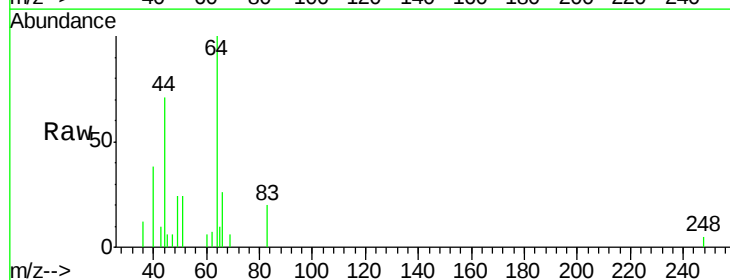
Acq: 29 Mar 2019 22:14

Tgt Ion: 64 Resp: 3343

Ion Ratio Lower Upper

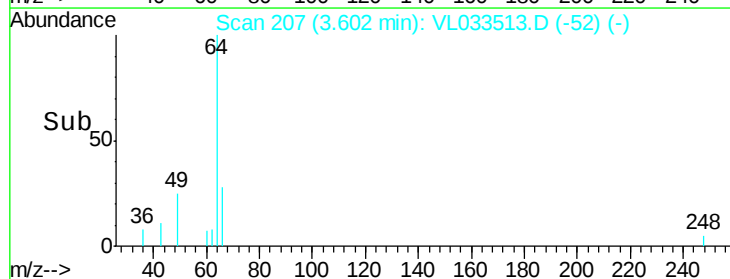
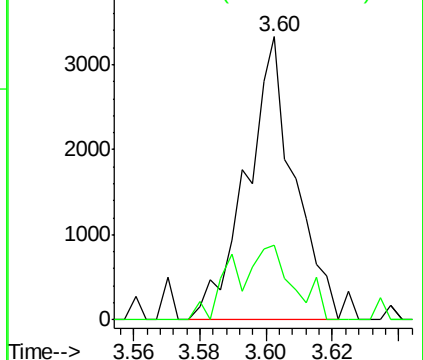
64 100

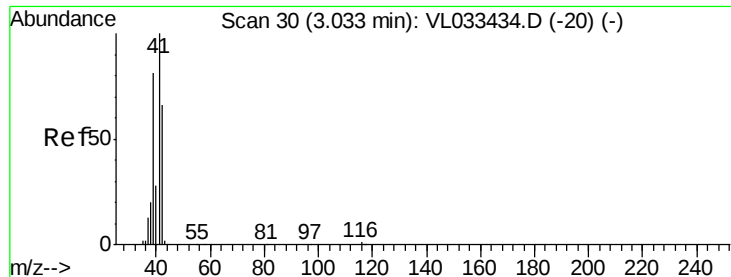
66 26.3 26.7 40.1#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 1.173 ppbv m

RT: 3.04 min Scan# 32

Delta R.T. 0.01 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

Instrument :

MSVOA_L

ClientSampleId :

SG-6-RM-104

Tot Ion: 41 Resp: 46560

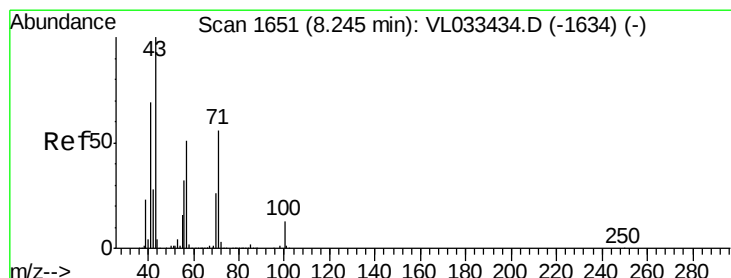
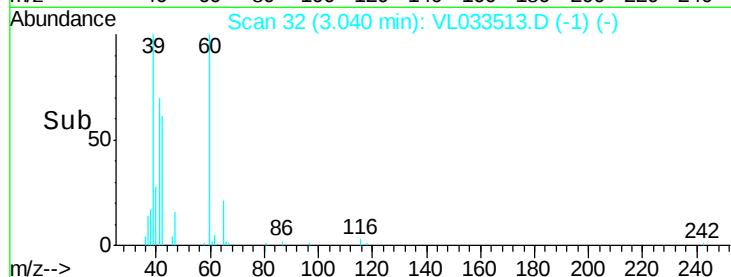
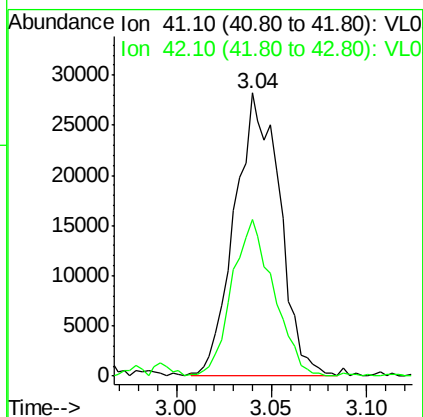
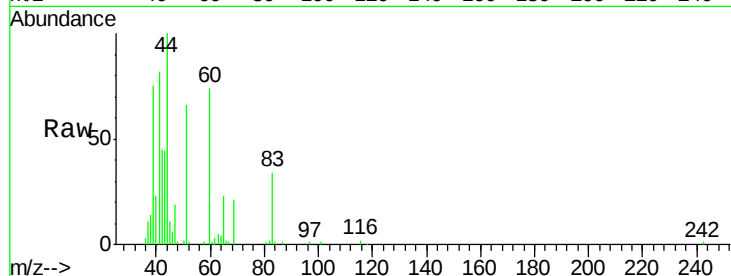
Ion Ratio Lower Upper

41 100

42 51.4 53.9 80.9#

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#10

Heptane

Concen: 0.138 ppbv m

RT: 8.25 min Scan# 1652

Delta R.T. 0.00 min

Lab File: VL033513.D

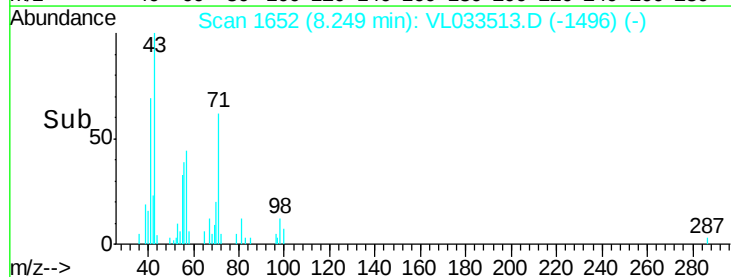
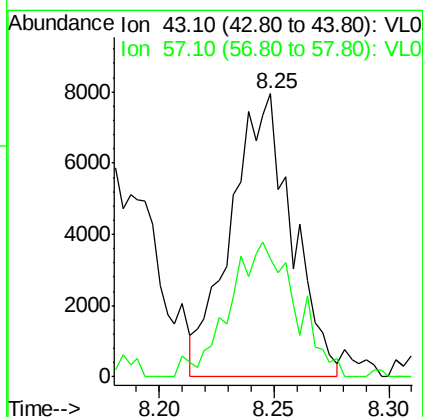
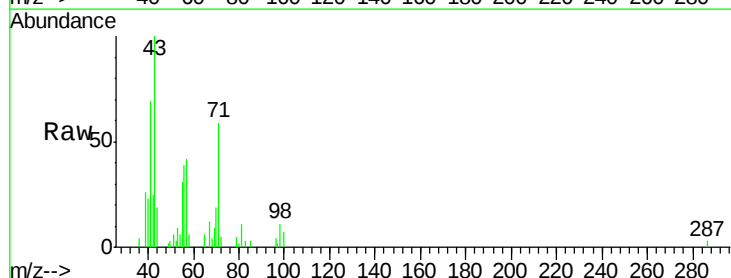
Acq: 29 Mar 2019 22:14

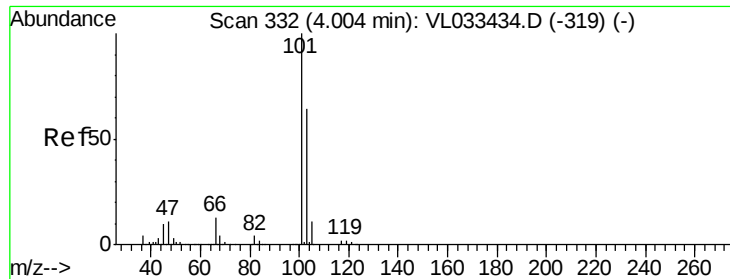
Tgt Ion: 43 Resp: 14660

Ion Ratio Lower Upper

43 100

57 0.0 40.6 60.8#





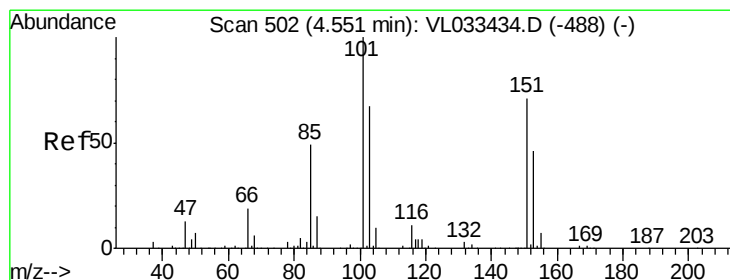
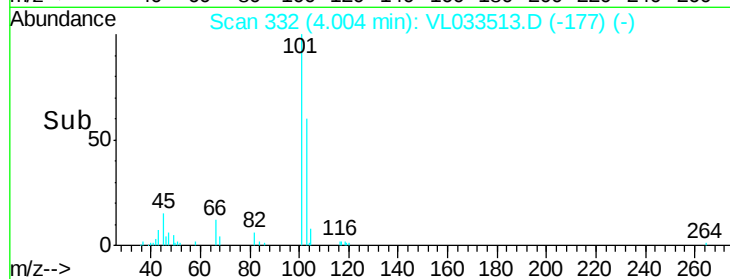
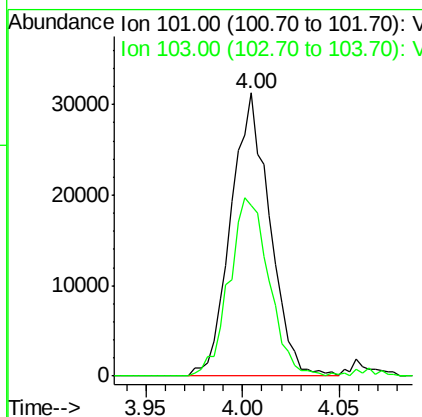
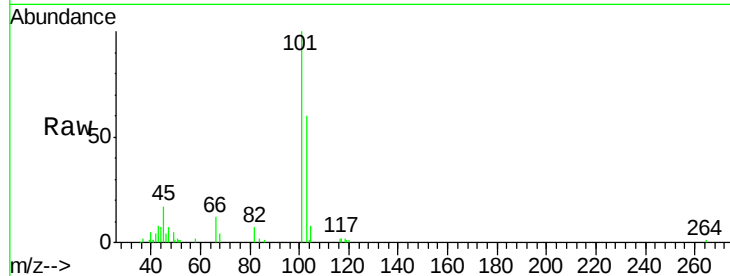
#11
 Trichlorofluoromethane
 Concen: 0.296 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.00 min
 Lab File: VL033513.D
 Acq: 29 Mar 2019 22:14

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-6-RM-104

Tot Ion	Ratio	Lower	Upper
101	100		
103	60.3	51.3	76.9

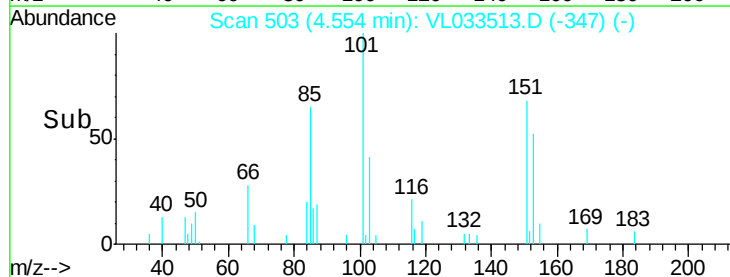
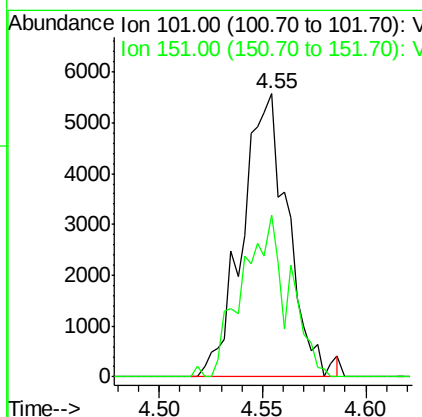
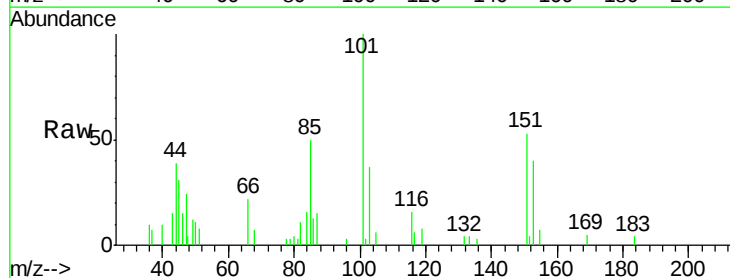
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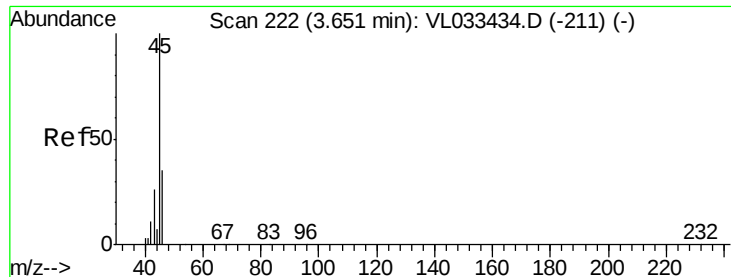
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#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.086 ppbv m
 RT: 4.55 min Scan# 503
 Delta R.T. 0.00 min
 Lab File: VL033513.D
 Acq: 29 Mar 2019 22:14

Tgt Ion	Ratio	Lower	Upper
101	100		
151	58.6	57.7	86.5





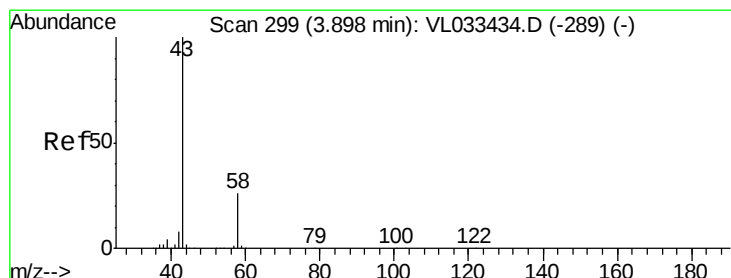
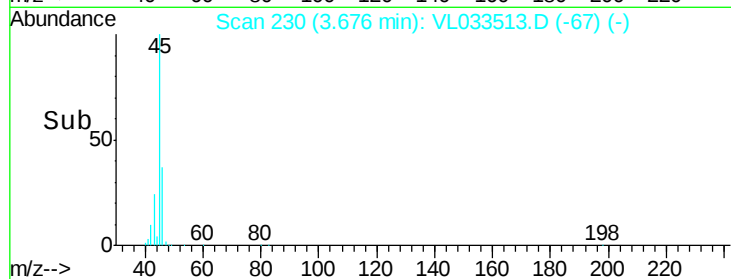
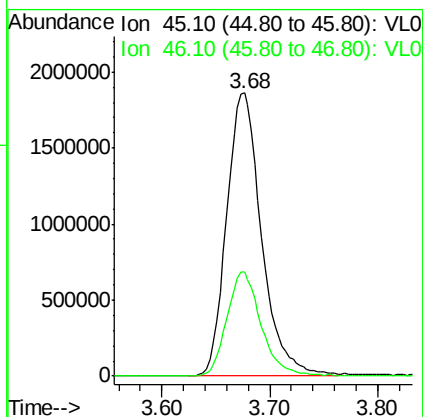
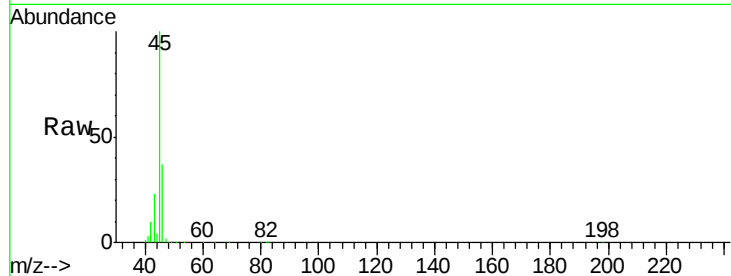
#13
Ethanol
Concen: 409.220 ppbv
RT: 3.68 min Scan# 230
Delta R.T. 0.03 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Instrument :
MSVOA_L
ClientSampleId :
SG-6-RM-104

Tot Ion: 45 Resp: 4202088
Ion Ratio Lower Upper
45 100
46 36.5 25.4 101.8

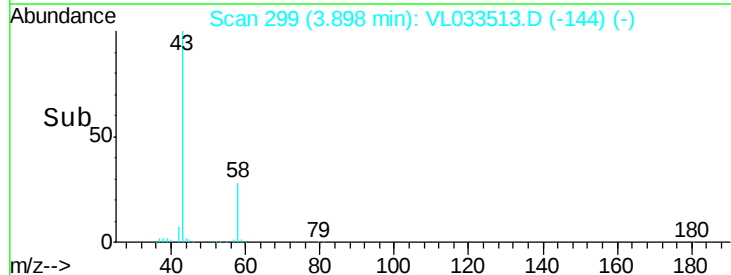
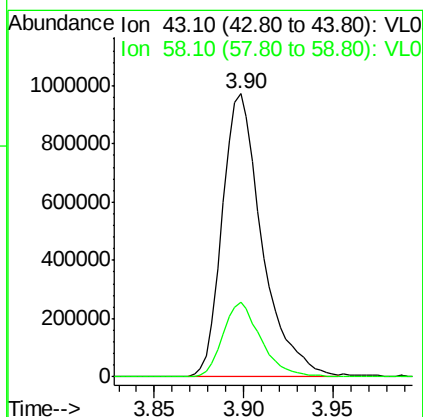
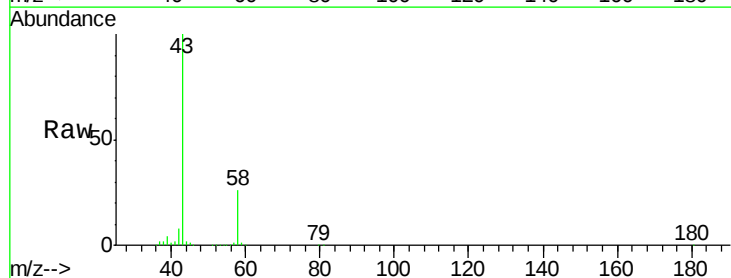
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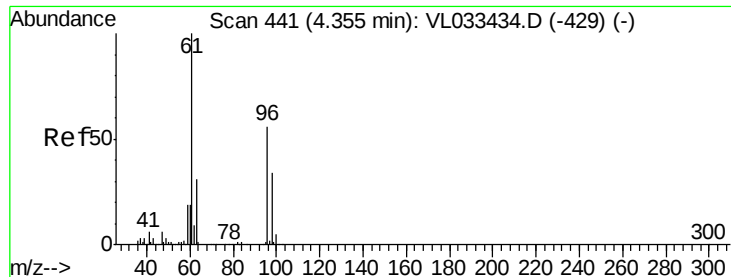
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#15
Acetone
Concen: 15.161 ppbv
RT: 3.90 min Scan# 299
Delta R.T. -0.00 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Tgt Ion: 43 Resp: 1496187
Ion Ratio Lower Upper
43 100
58 25.5 20.5 30.7





#17

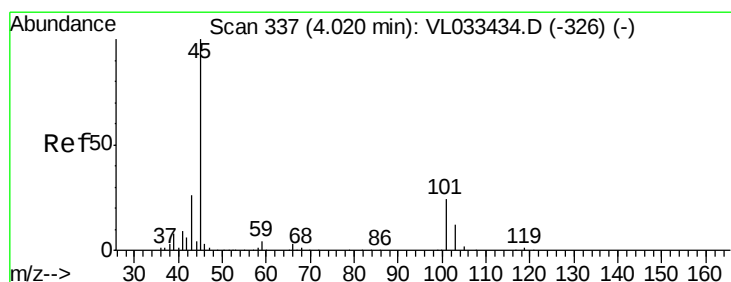
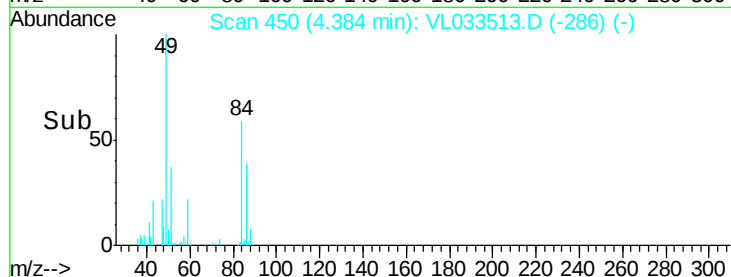
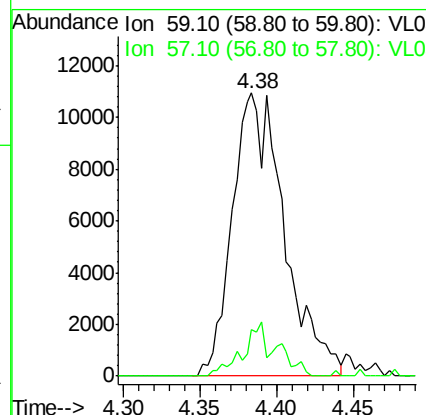
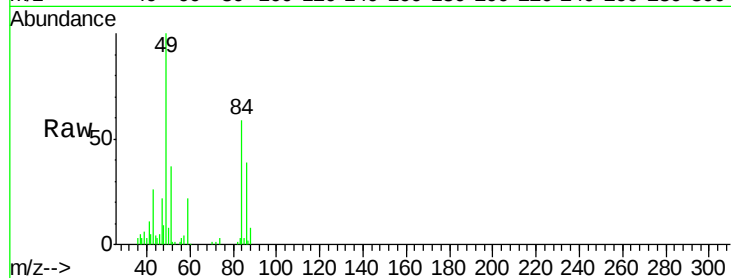
tert-Butyl alcohol
Concen: 1.418 ppbv
RT: 4.38 min Scan# 450
Delta R.T. 0.03 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Instrument :
MSVOA_L
ClientSampleId :
SG-6-RM-104

Tot Ion: 59 Resp: 25731
Ion Ratio Lower Upper
59 100
57 0.0 7.8 11.8#

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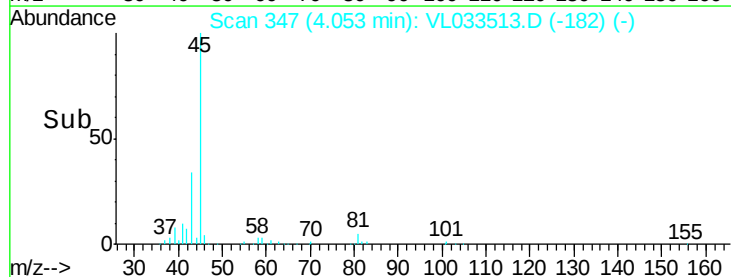
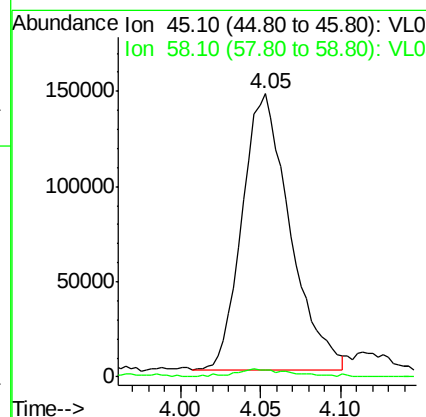
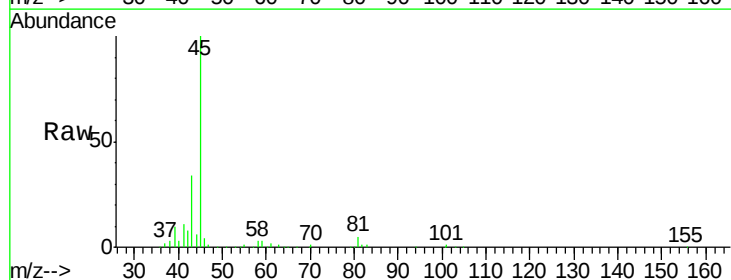
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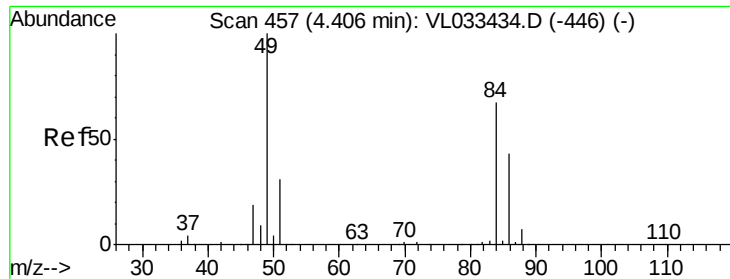


#19

Isopropyl Alcohol
Concen: 4.773 ppbv
RT: 4.05 min Scan# 347
Delta R.T. 0.03 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Tgt Ion: 45 Resp: 297925
Ion Ratio Lower Upper
45 100
58 127.9 1.4 2.2#





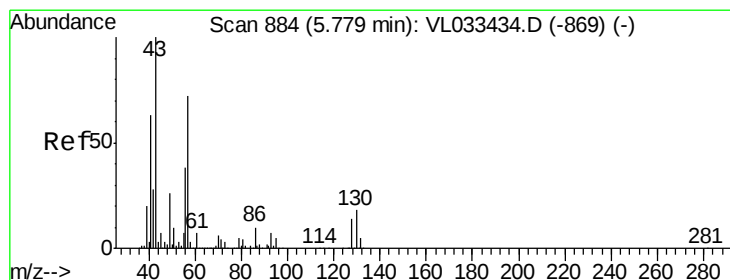
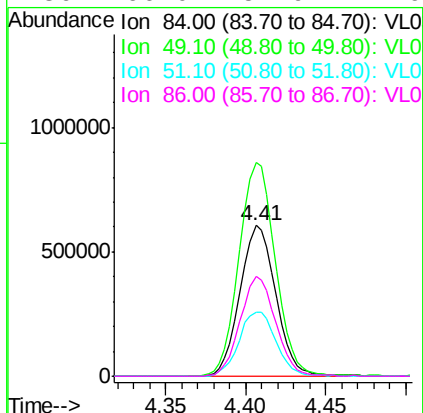
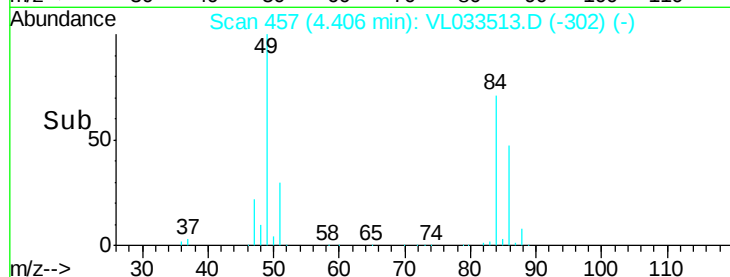
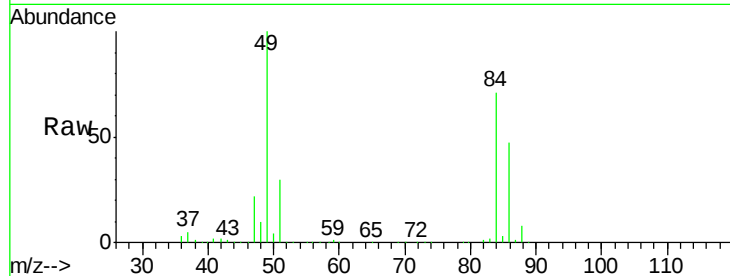
#20
Methvlene Chloride
Concen: 22.017 ppbv
RT: 4.41 min Scan# 457
Delta R.T. -0.00 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Instrument :
MSVOA_L
ClientSampleId :
SG-6-RM-104

Tot Ion:	84	Resp:	922323
Ion	Ratio	Lower	Upper
84	100		
49	141.4	120.0	180.0
51	42.5	36.7	55.1
86	66.0	51.9	77.9

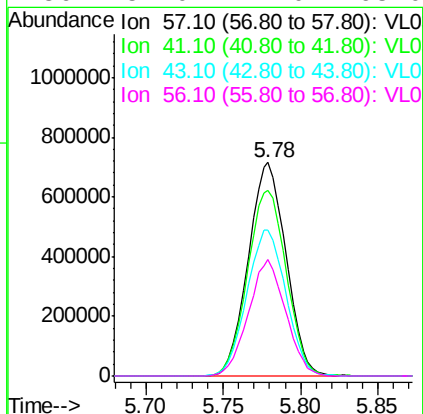
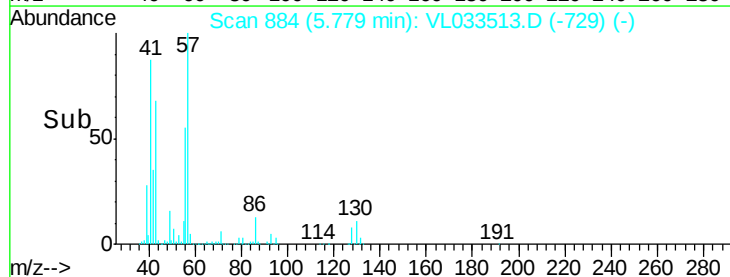
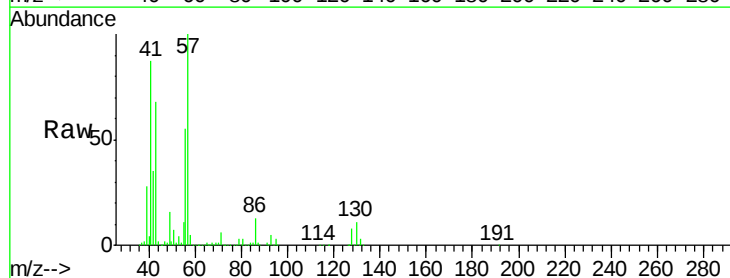
Manual Integrations
APPROVED

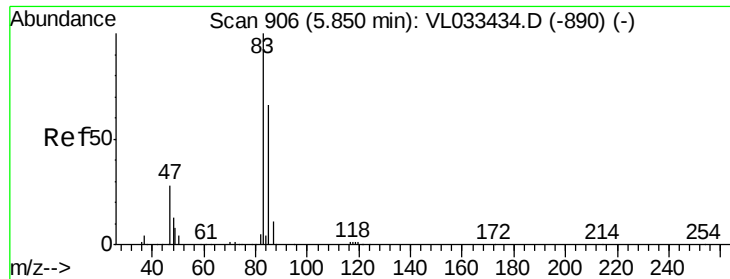
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#26
Hexane
Concen: 14.915 ppbv
RT: 5.78 min Scan# 884
Delta R.T. -0.00 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Tgt Ion:	57	Resp:	1214303
Ion	Ratio	Lower	Upper
57	100		
41	90.0	70.7	106.1
43	71.1	182.6	274.0#
56	54.0	42.0	63.0





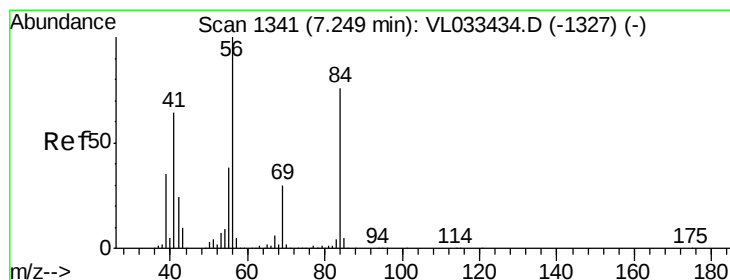
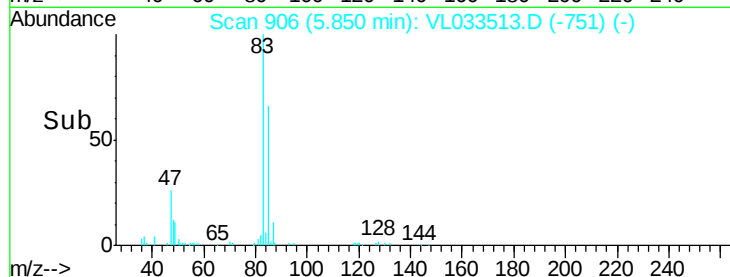
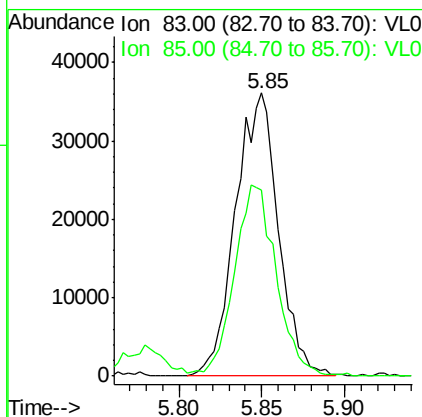
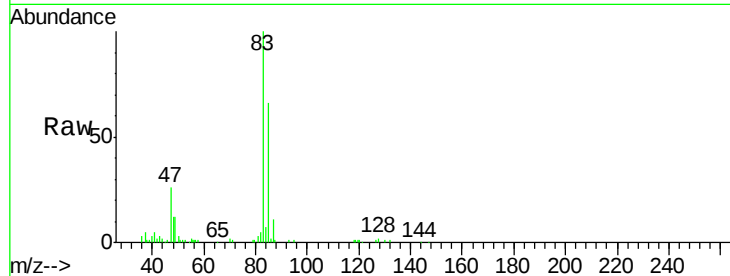
#29
Chloroform
Concen: 0.465 ppbv m
RT: 5.85 min Scan# 906
Delta R.T. -0.00 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Instrument :
MSVOA_L
ClientSampleId :
SG-6-RM-104

Tot Ion: 83 Resp: 64846
Ion Ratio Lower Upper
83 100
85 65.8 52.6 79.0

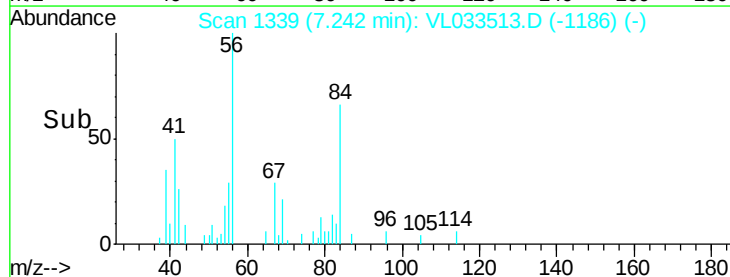
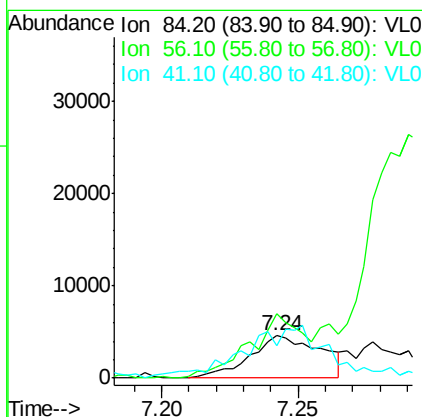
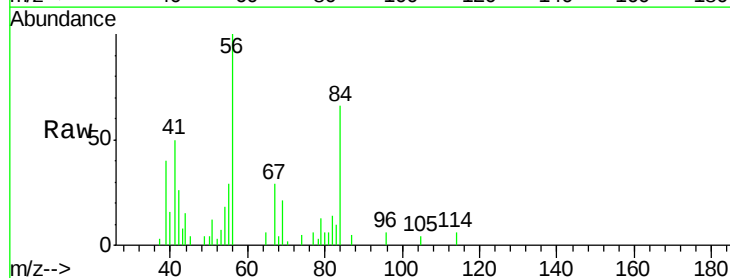
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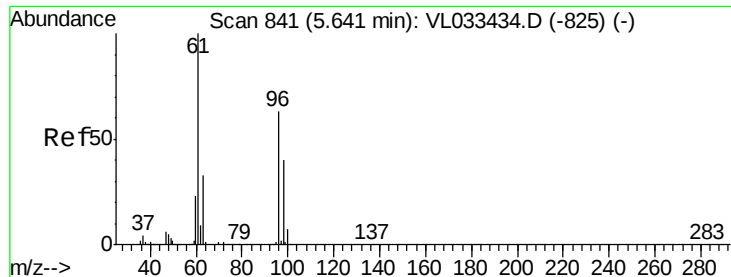
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#30
Cyclohexane
Concen: 0.129 ppbv
RT: 7.24 min Scan# 1339
Delta R.T. -0.01 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Tgt Ion: 84 Resp: 8283
Ion Ratio Lower Upper
84 100
56 0.0 109.7 164.5#
41 157.1 68.2 102.2#





#31

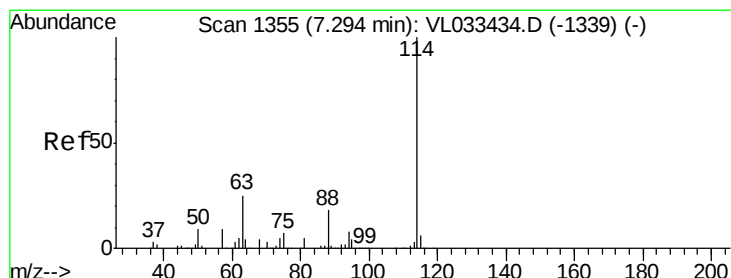
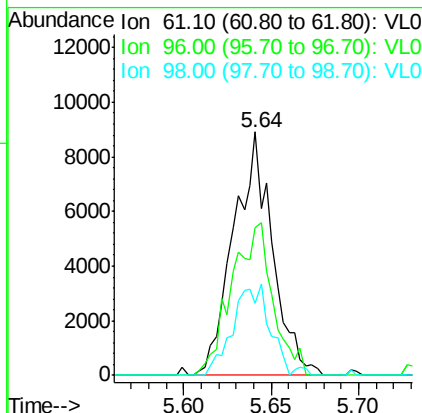
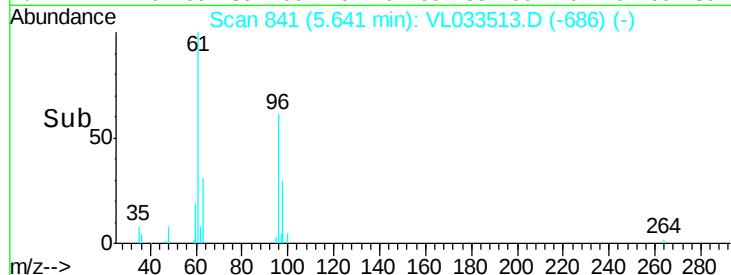
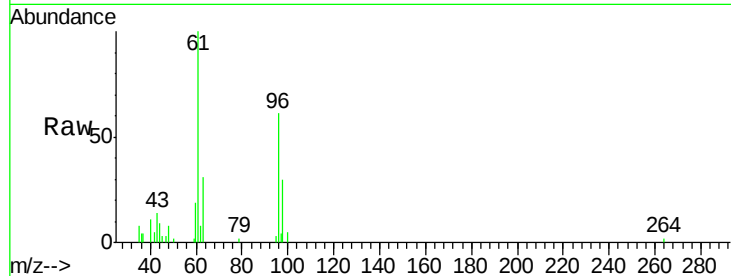
cis-1,2-Dichloroethene
Concen: 0.170 ppbv m
RT: 5.64 min Scan# 841
Delta R.T. -0.00 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Instrument :
MSVOA_L
ClientSampleId :
SG-6-RM-104

Tot Ion	Ratio	Lower	Upper
61	100		
96	60.8	50.6	76.0
98	29.5	32.2	48.2#

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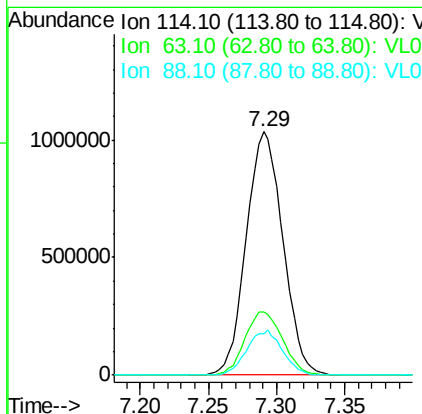
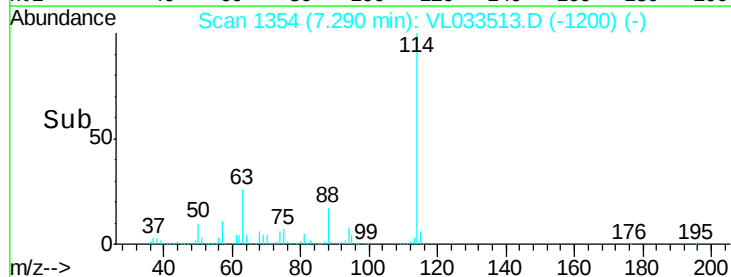
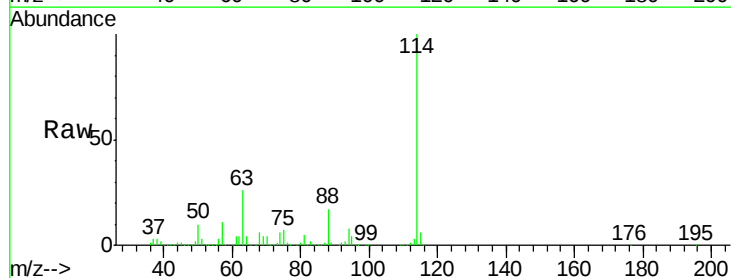
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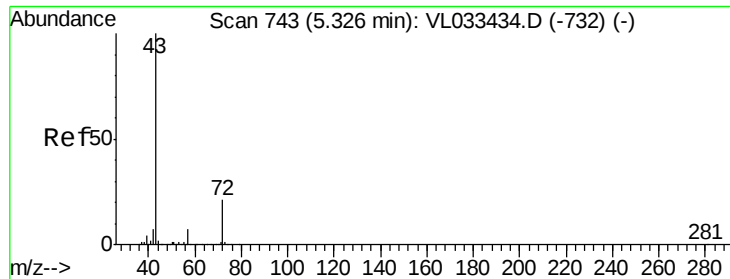


#33

1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1354
Delta R.T. -0.00 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Tgt Ion	Ratio	Lower	Upper
114	100		
63	26.9	21.5	32.3
88	18.0	14.5	21.7





#34

2-Butanone

Concen: 0.580 ppbv

RT: 5.33 min Scan# 745

Delta R.T. 0.01 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

Instrument :

MSVOA_L

ClientSampleId :

SG-6-RM-104

Tot Ion: 43 Resp: 67270

Ion Ratio Lower Upper

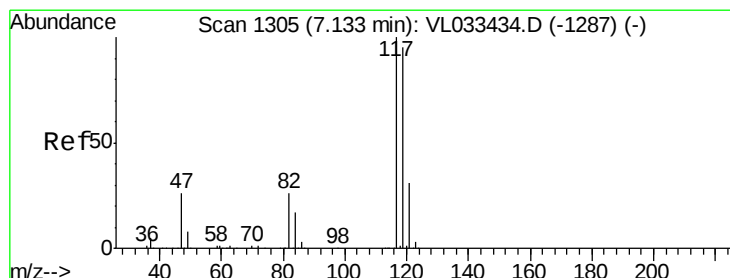
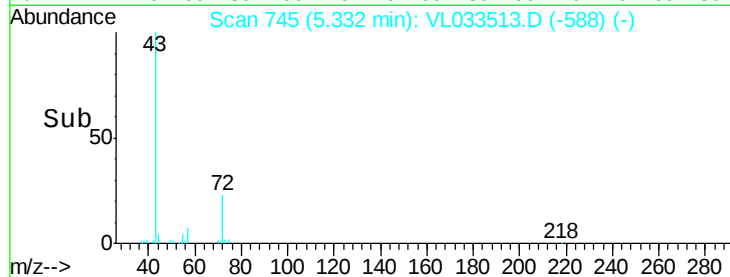
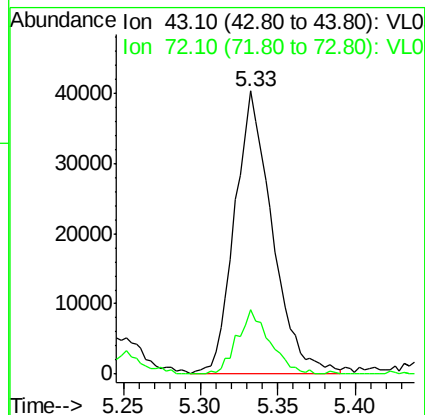
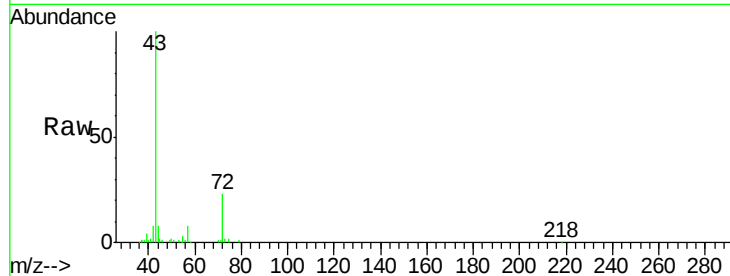
43 100

72 20.1 17.4 26.2

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#35

Carbon Tetrachloride

Concen: 0.073 ppbv m

RT: 7.13 min Scan# 1303

Delta R.T. -0.01 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

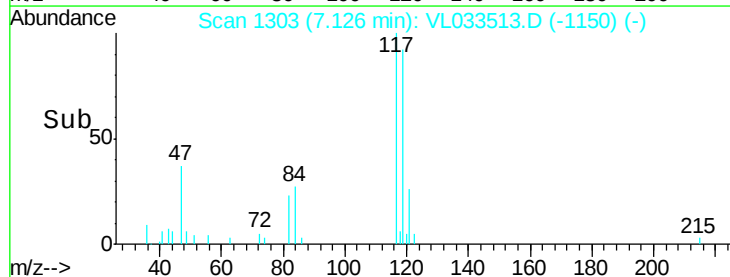
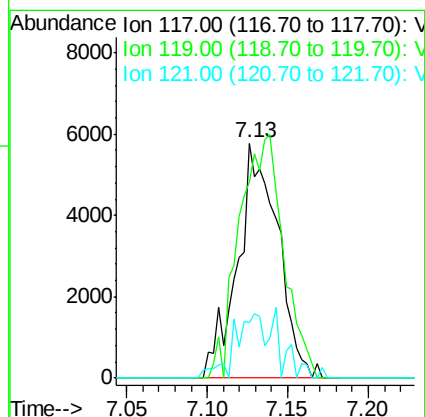
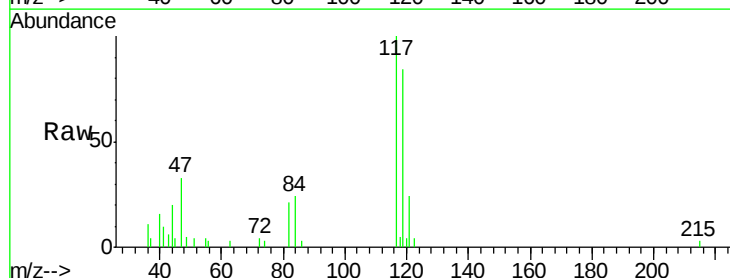
Tgt Ion: 117 Resp: 9949

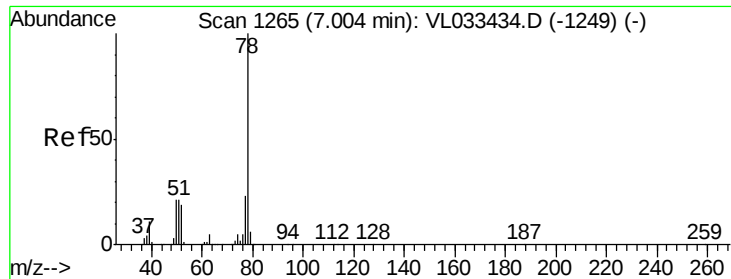
Ion Ratio Lower Upper

117 100

119 83.8 75.8 113.8

121 23.7 24.7 37.1#





#36

Benzene

Concen: 0.393 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. -0.00 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

Instrument :

MSVOA_L

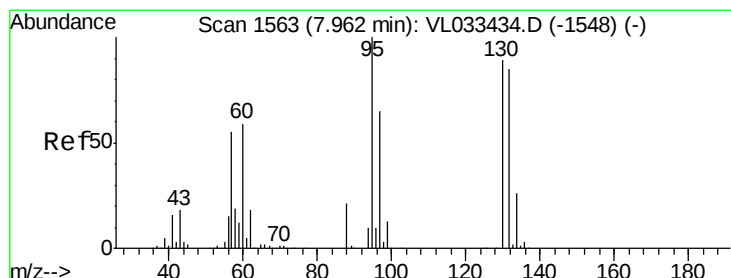
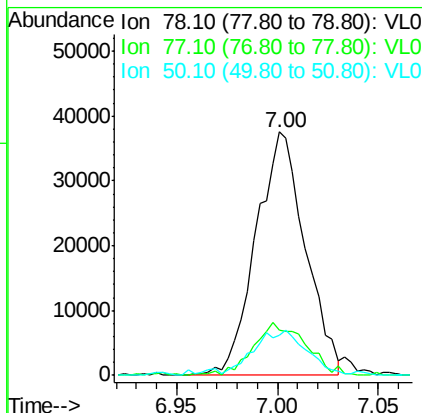
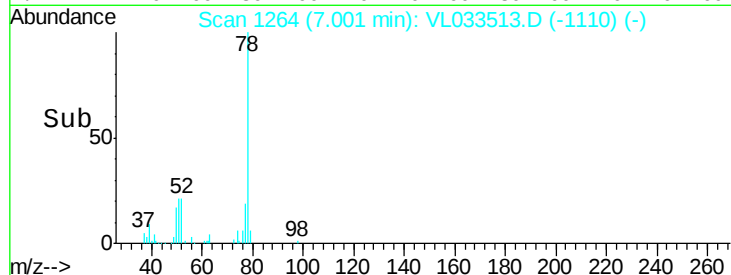
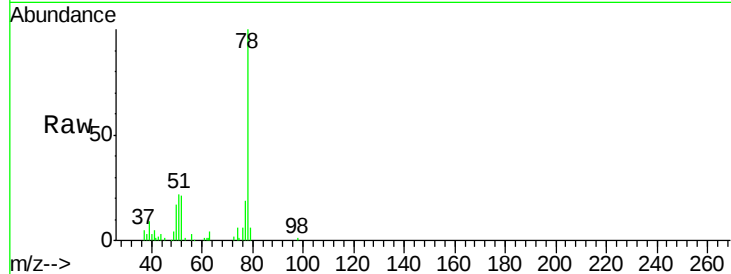
ClientSampleId :

SG-6-RM-104

Tot Ion:	78	Resp:	63731
Ion	Ratio	Lower	Upper
78	100		
77	18.7	18.1	27.1
50	14.5	16.7	25.1#

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#38

Trichloroethene

Concen: 1.689 ppbv

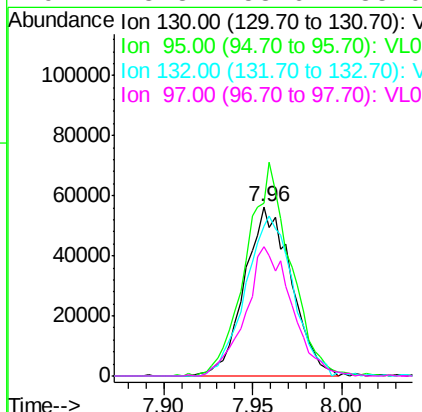
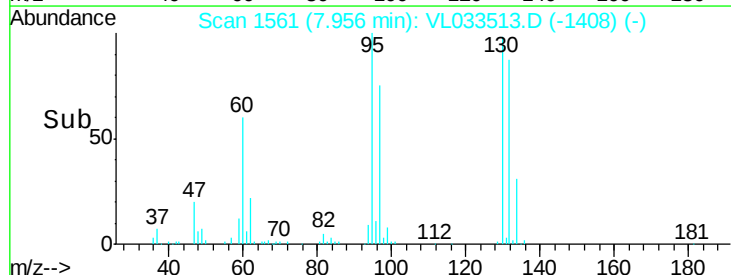
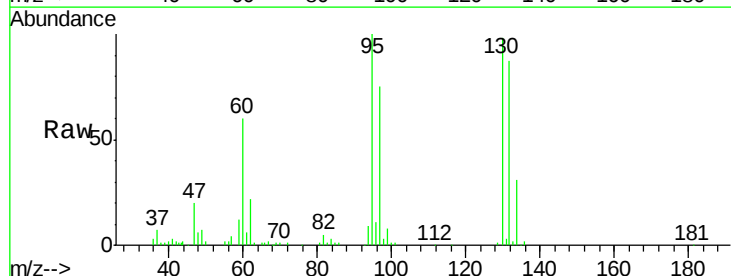
RT: 7.96 min Scan# 1561

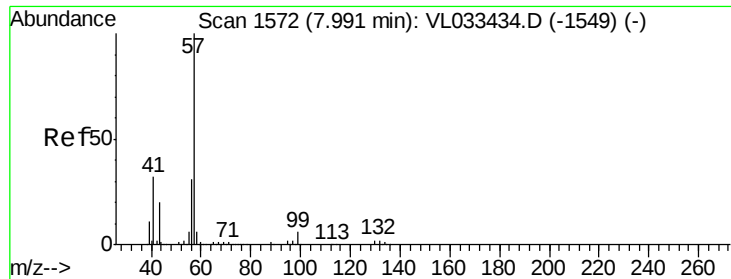
Delta R.T. -0.01 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

Tgt Ion:	130	Resp:	102986
Ion	Ratio	Lower	Upper
130	100		
95	100.8	89.8	134.8
132	90.3	76.6	115.0
97	75.8	58.6	88.0





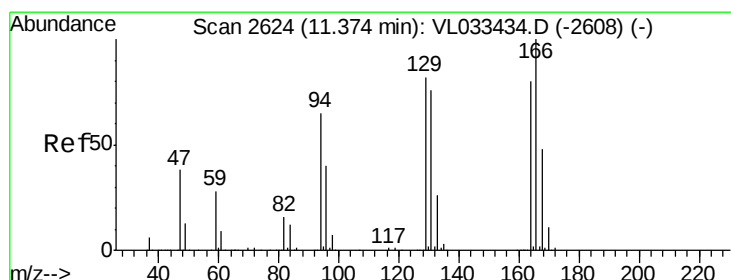
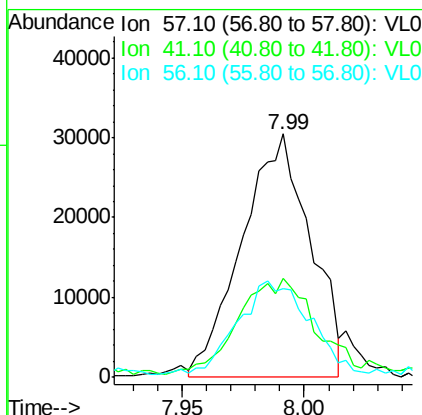
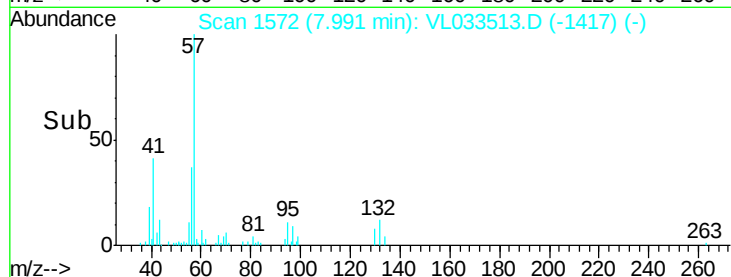
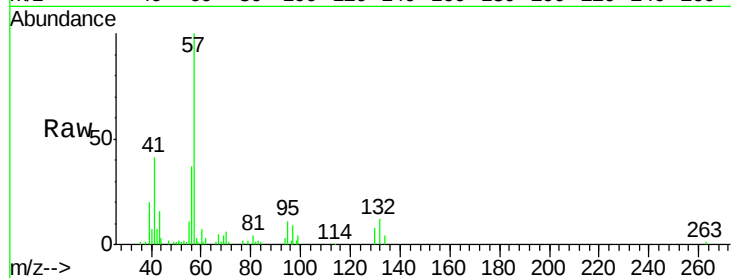
#44
 2,2,4-Trimethylpentane
 Concen: 0.209 ppbv
 RT: 7.99 min Scan# 1572
 Delta R.T. -0.00 min
 Lab File: VL033513.D
 Acq: 29 Mar 2019 22:14

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-6-RM-104

Tot Ion	Ratio	Lower	Upper
57	100		
41	50.9	26.0	39.0#
56	47.1	24.6	37.0#

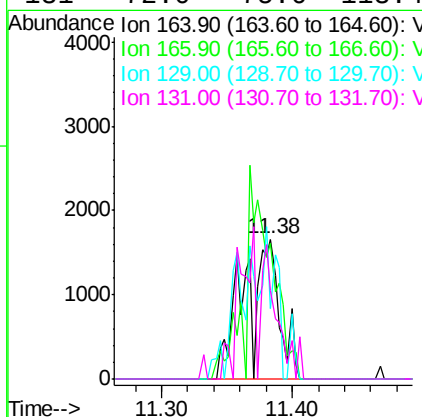
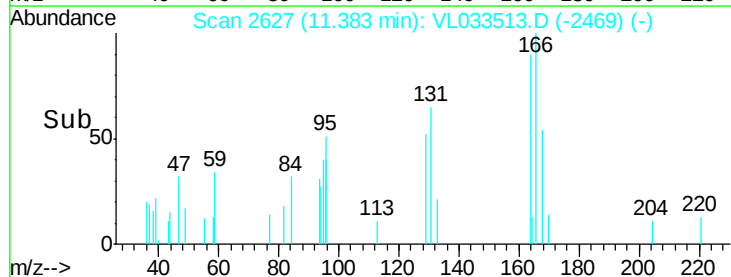
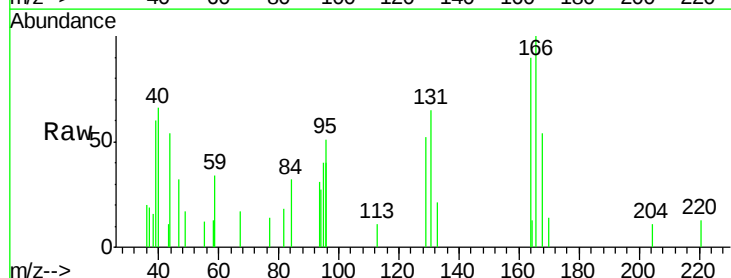
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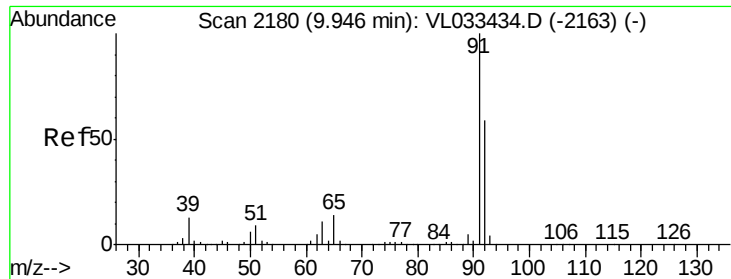
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#52
 Tetrachloroethene
 Concen: 0.052 ppbv m
 RT: 11.38 min Scan# 2627
 Delta R.T. 0.01 min
 Lab File: VL033513.D
 Acq: 29 Mar 2019 22:14

Tgt Ion	Ratio	Lower	Upper
164	100		
166	110.6	99.5	149.3
129	57.2	81.4	122.2#
131	72.0	75.6	113.4#





#53

Toluene

Concen: 1.939 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

Instrument :

MSVOA_L

ClientSampleId :

SG-6-RM-104

Tot Ion: 91 Resp: 365067

Ion Ratio Lower Upper

91 100

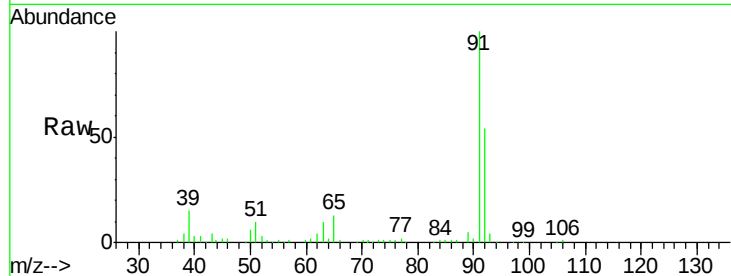
92 56.8 47.4 71.0

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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.94

200000

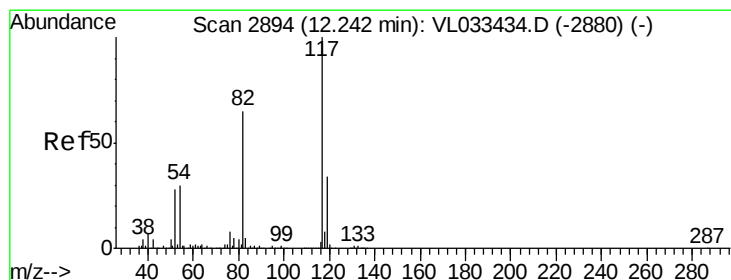
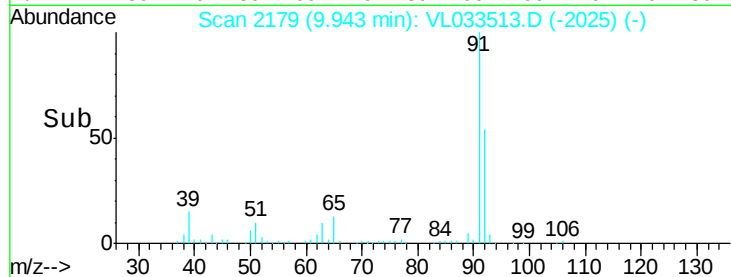
150000

100000

50000

0

Time--> 9.85 9.90 9.95 10.00



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2894

Delta R.T. -0.00 min

Lab File: VL033513.D

Acq: 29 Mar 2019 22:14

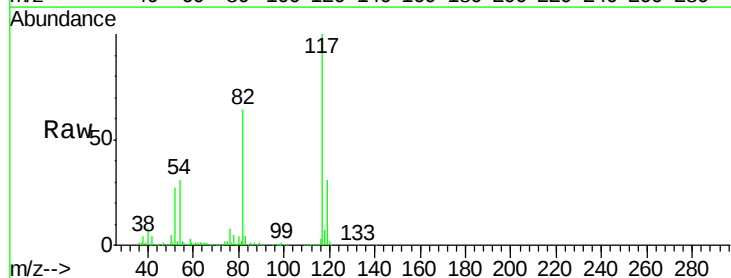
Tgt Ion: 117 Resp: 1910885

Ion Ratio Lower Upper

117 100

82 67.1 51.5 77.3

119 32.2 25.5 38.3



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

12.24

1200000

1000000

800000

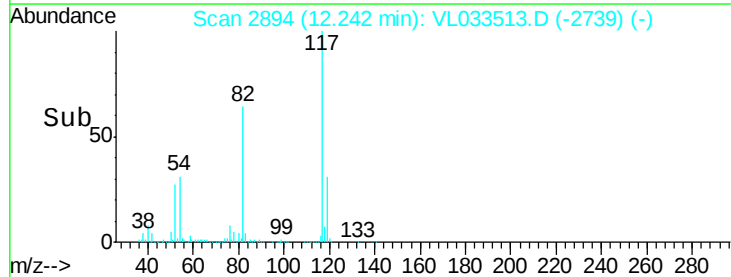
600000

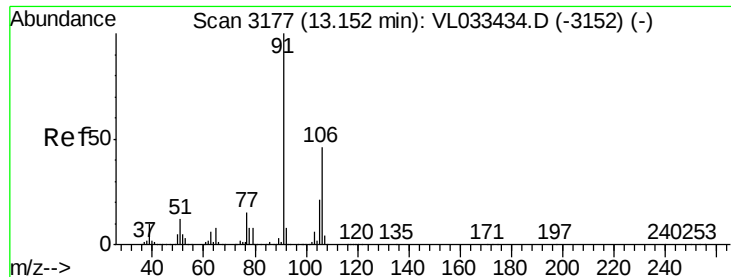
400000

200000

0

Time--> 12.20 12.30





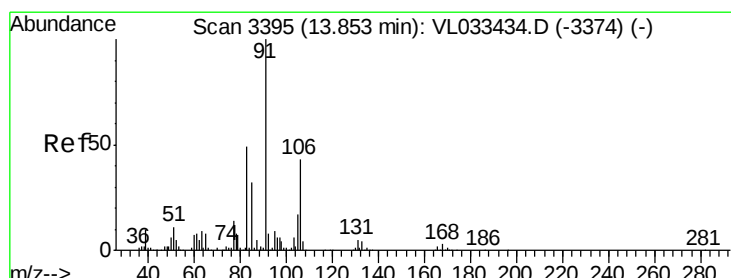
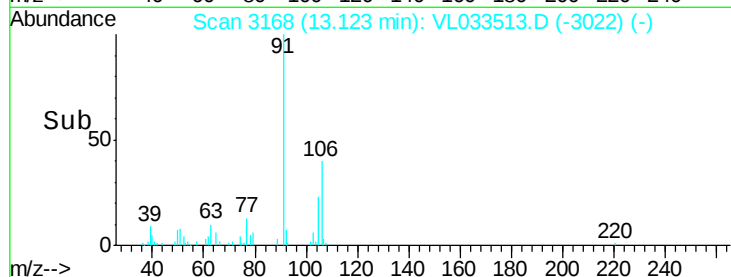
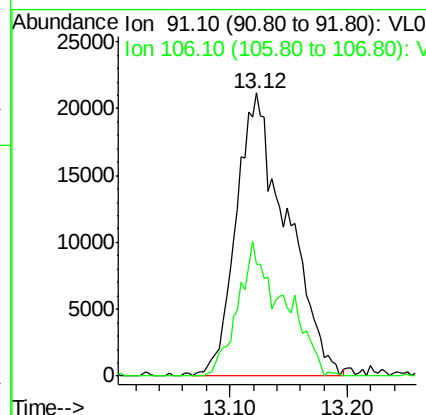
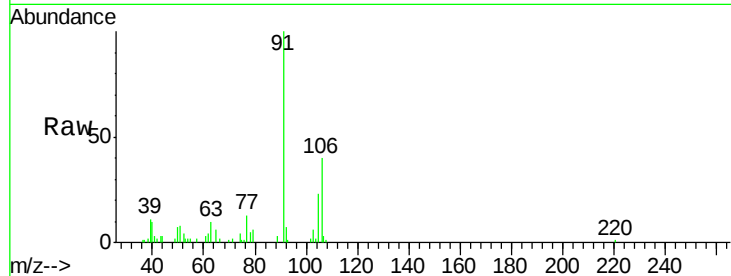
#59
m/p-Xylene
Concen: 0.277 ppbv m
RT: 13.12 min Scan# 3168
Delta R.T. -0.03 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Instrument :
MSVOA_L
ClientSampleId :
SG-6-RM-104

Tot Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.0	0.0

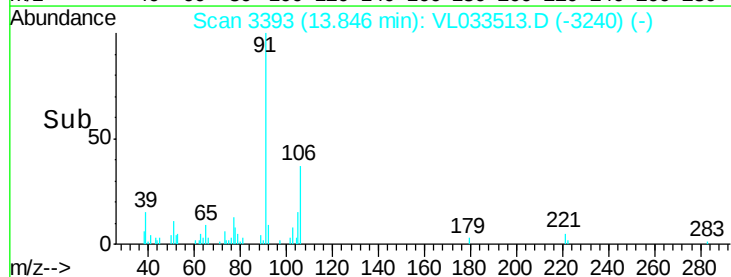
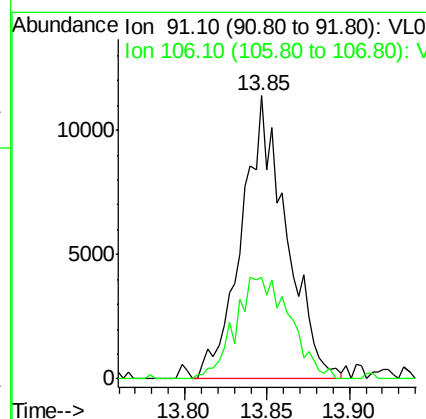
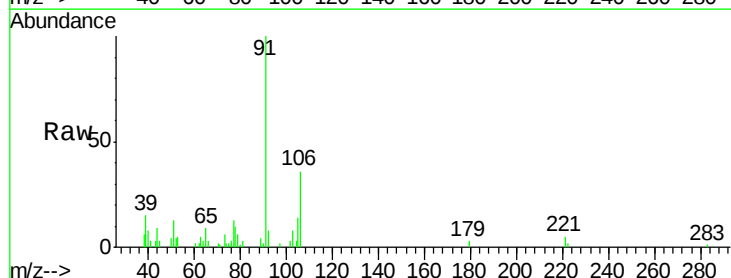
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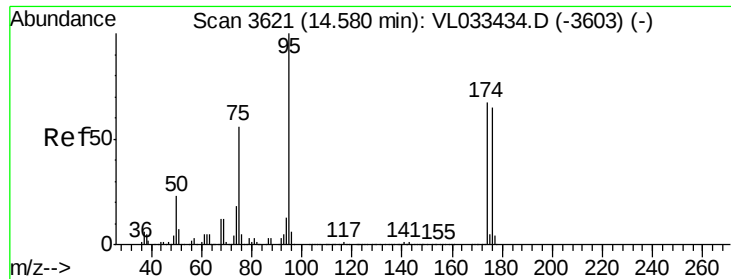
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#60
o-Xylene
Concen: 0.098 ppbv m
RT: 13.85 min Scan# 3393
Delta R.T. -0.01 min
Lab File: VL033513.D
Acq: 29 Mar 2019 22:14

Tgt Ion	Ratio	Lower	Upper
91	100		
106	0.0	21.4	64.3#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.930 ppbv
 RT: 14.58 min Scan# 3620
 Delta R.T. -0.00 min
 Lab File: VL033513.D
 Acq: 29 Mar 2019 22:14

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-6-RM-104

Tot Ion	Ratio	Lower	Upper
95	100		
174	65.9	52.9	79.3
175	4.6	3.8	5.6

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