

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120919\
 Data File : VL034468.D
 Acq On : 9 Dec 2019 17:27
 Operator : SY/AP
 Sample : K6195-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-1

Manual Integrations
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Quant Time: Dec 11 11:26:26 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Nov 19 14:15:35 2019
 QLast Update : Tue Nov 19 14:15:35 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	858337	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.20	114	1720954	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.13	117	1811392	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.47	95	1510354	9.91	ppbv	-0.01	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.10%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	19268	0.124	ppbv	96
3) Chlorodifluoromethane	2.96	51	23699m	0.221	ppbv	
4) Chloromethane	3.11	50	23300	0.369	ppbv #	84
9) Propene	3.00	41	22854m	0.481	ppbv	
10) Heptane	8.14	43	20193m	0.165	ppbv	
11) Trichlorofluoromethane	3.93	101	42375	0.274	ppbv	97
13) Ethanol	3.59	45	1207125	91.142	ppbv	96
15) Acetone	3.83	43	573638	4.667	ppbv	100
17) tert-Butyl alcohol	4.29	59	27327m	0.265	ppbv	
19) Isopropyl Alcohol	3.96	45	737880	9.366	ppbv	99
20) Methylene Chloride	4.33	84	21941	0.503	ppbv	98
26) Hexane	5.69	57	65255	0.692	ppbv #	45
27) Carbon Disulfide	4.55	76	26588	0.259	ppbv #	67
30) Cyclohexane	7.15	84	7061m	0.099	ppbv	
34) 2-Butanone	5.25	43	65193	0.460	ppbv	96
35) Carbon Tetrachloride	7.04	117	10583m	0.072	ppbv	
36) Benzene	6.91	78	50168	0.292	ppbv #	84
38) Trichloroethene	7.86	130	26289m	0.372	ppbv	
44) 2,2,4-Trimethylpentane	7.89	57	95712	0.304	ppbv #	79
50) 4-Methyl-2-Pentanone	8.78	43	64732m	0.316	ppbv	
52) Tetrachloroethene	11.26	164	3554m	0.048	ppbv	
53) Toluene	9.84	91	139528m	0.714	ppbv	
58) Ethyl Benzene	12.76	91	77043	0.274	ppbv	95
59) m/p-Xylene	13.01	91	288496m	1.187	ppbv	
60) o-Xylene	13.75	91	38147m	0.159	ppbv	
72) 4-Ethyltoluene	15.89	105	60796m	0.219	ppbv	
73) 1,3,5-Trimethylbenzene	16.05	105	56435m	0.208	ppbv	
74) 1,2,4-Trimethylbenzene	16.82	105	179350	0.621	ppbv #	64

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

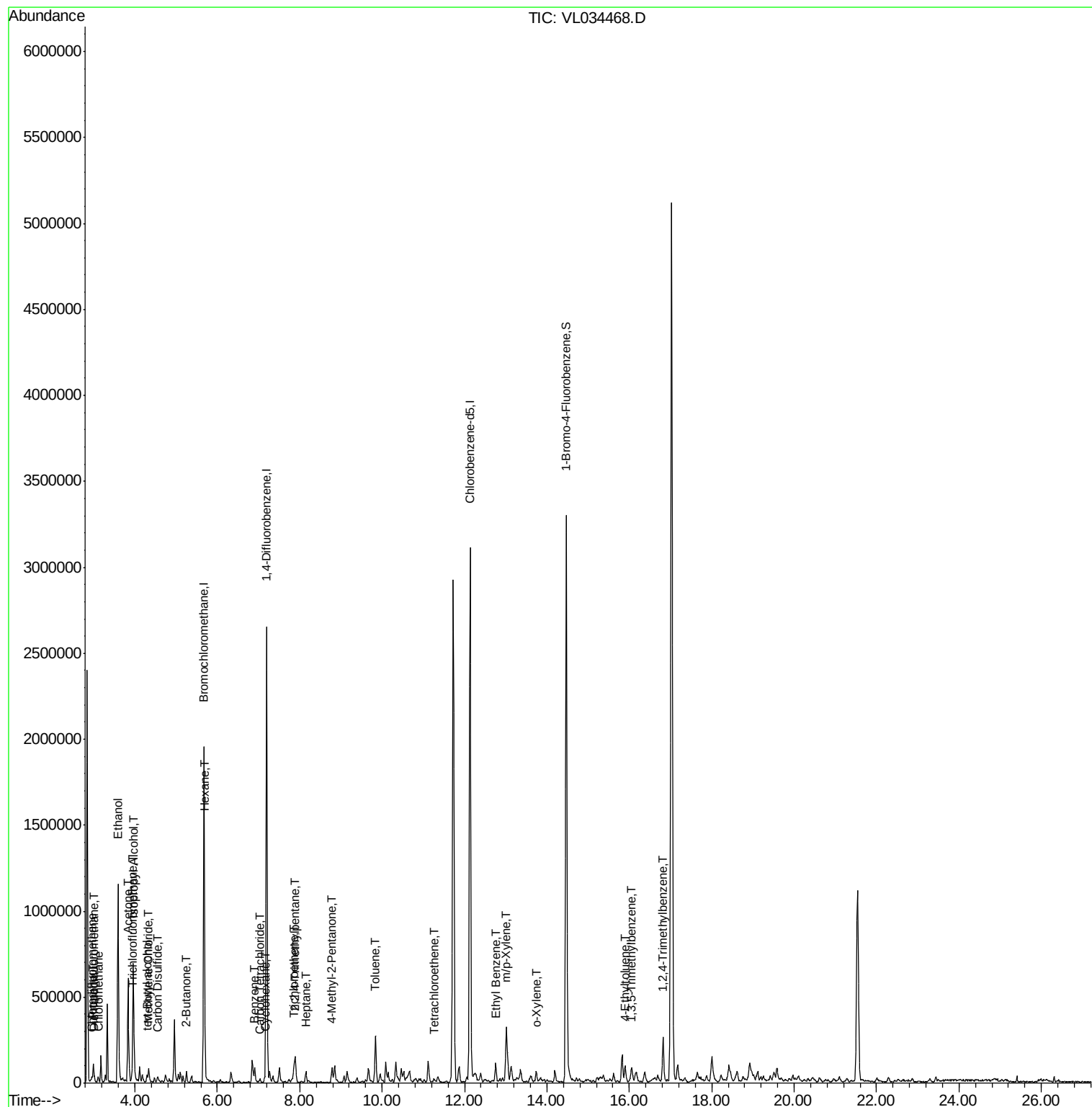
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120919\
Data File : VL034468.D
Acq On : 9 Dec 2019 17:27
Operator : SY/AP
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Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

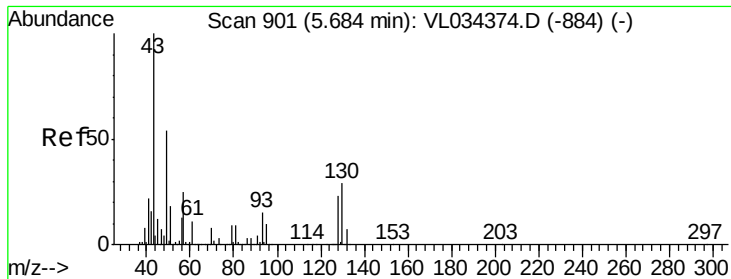
Instrument :
MSVOA_L
ClientSampleId :
NS-1

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Quant Time: Dec 11 11:26:26 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Nov
QLast Update : Tue Nov 19 14:15:35 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.01 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Instrument :

MSVOA_L

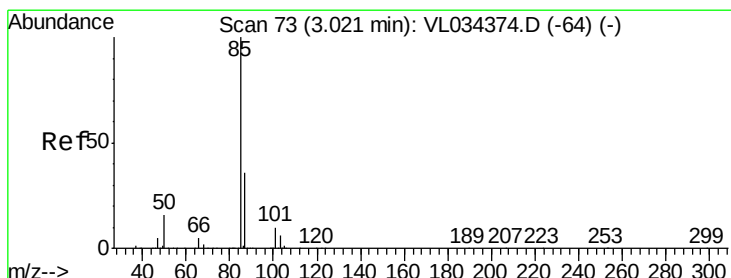
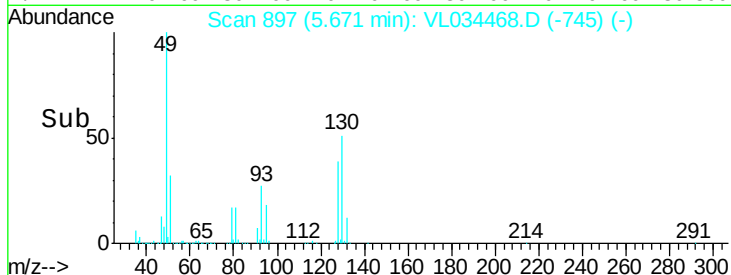
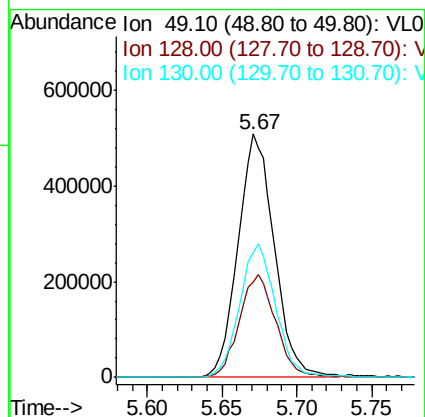
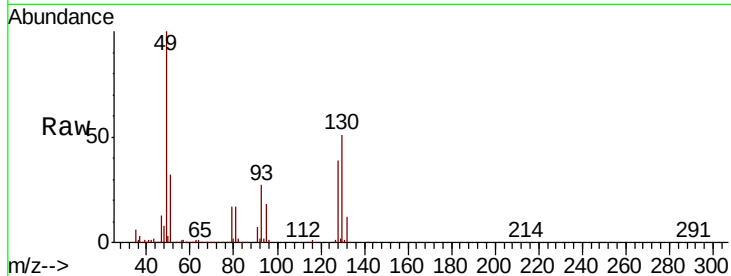
ClientSampled :

NS-1

Tot Ion:	49	Resp:	858337
Ion	Ratio	Lower	Upper
49	100		
128	43.0	21.8	65.3
130	55.0	28.0	84.0

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#2

Dichlorodifluoromethane

Concen: 0.124 ppbv

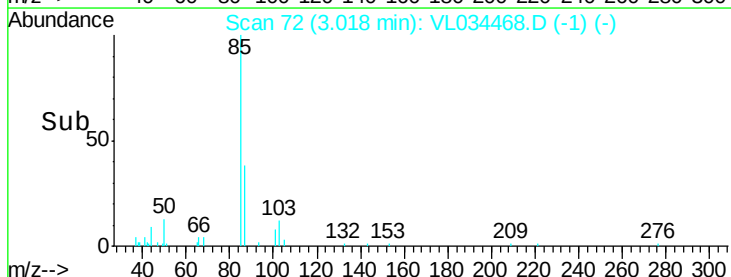
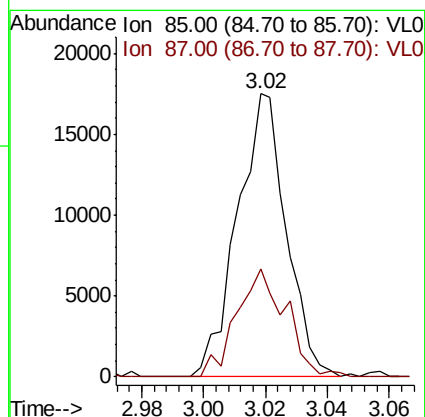
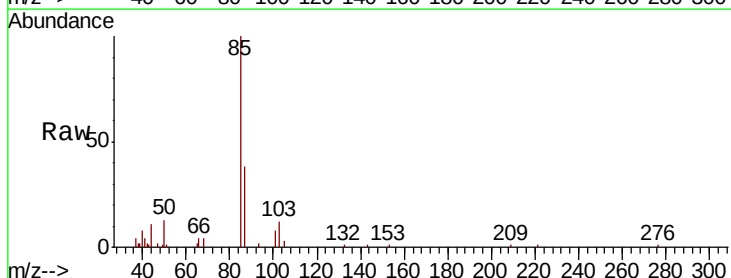
RT: 3.02 min Scan# 72

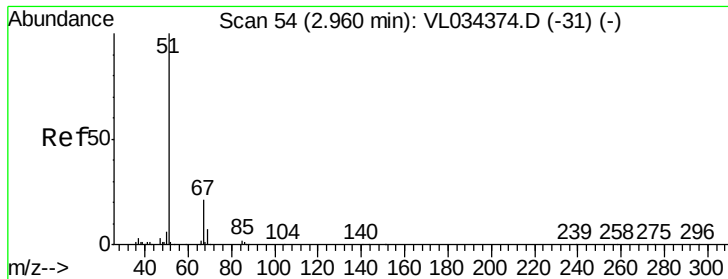
Delta R.T. -0.00 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Tgt Ion:	85	Resp:	19268
Ion	Ratio	Lower	Upper
85	100		
87	38.2	28.5	42.7





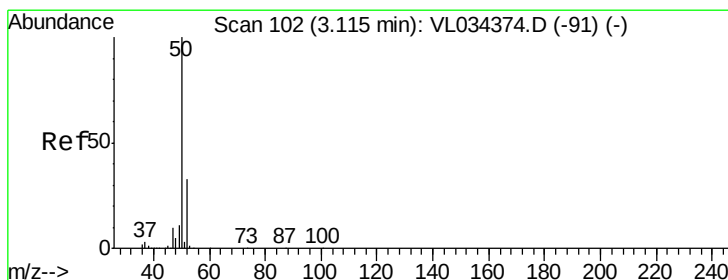
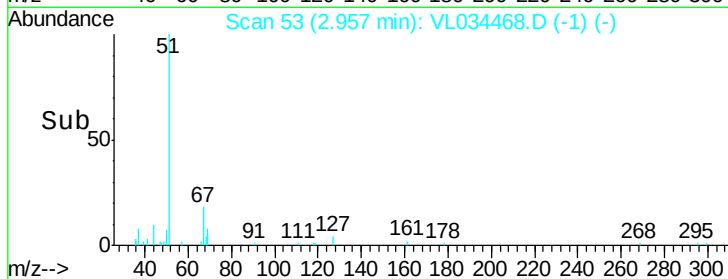
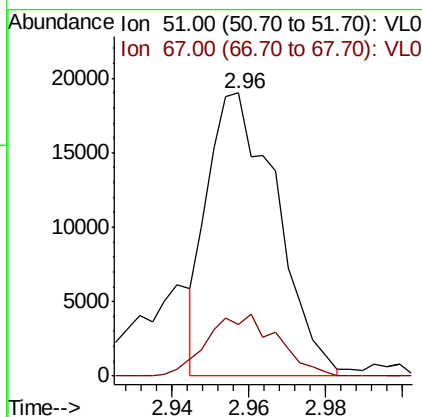
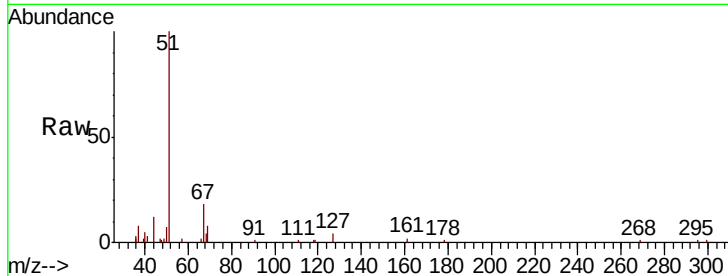
#3
Chlorodifluoromethane
Concen: 0.221 ppbv
RT: 2.96 min Scan# 53
Delta R.T. -0.00 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Instrument :
MSVOA_L
ClientSampled :
NS-1

Tot Ion: 51 Resp: 23699
Ion Ratio Lower Upper
51 100
67 22.4 16.2 24.2

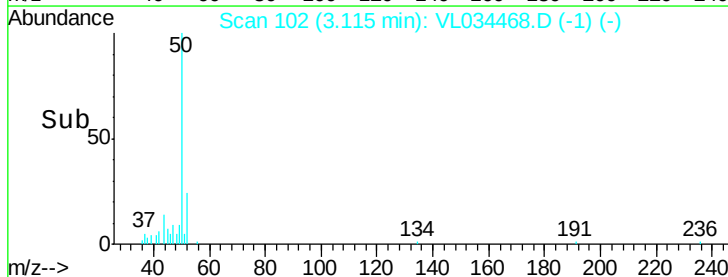
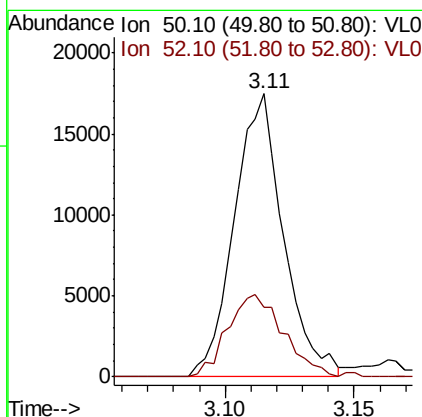
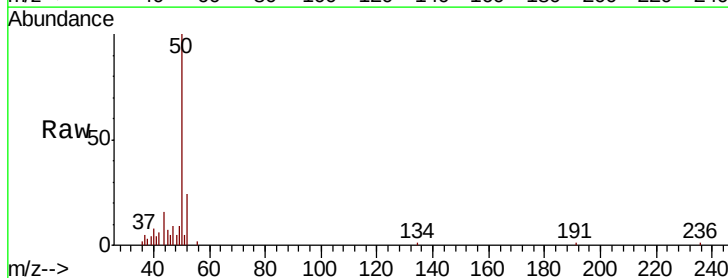
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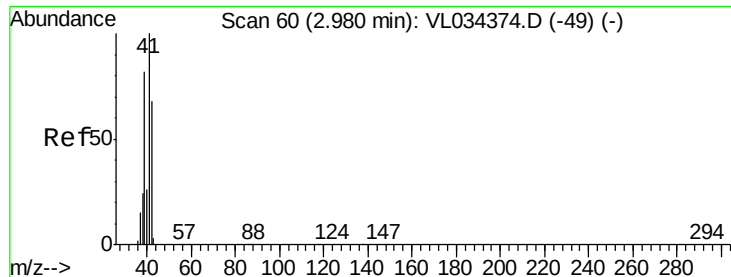
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#4
Chloromethane
Concen: 0.369 ppbv
RT: 3.11 min Scan# 102
Delta R.T. 0.00 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Tgt Ion: 50 Resp: 23300
Ion Ratio Lower Upper
50 100
52 24.4 26.8 40.2#





#9

Propene

Concen: 0.481 ppbv m

RT: 3.00 min Scan# 65

Delta R.T. 0.02 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Instrument :

MSVOA_L

ClientSampled :

NS-1

Tot Ion: 41 Resp: 22854

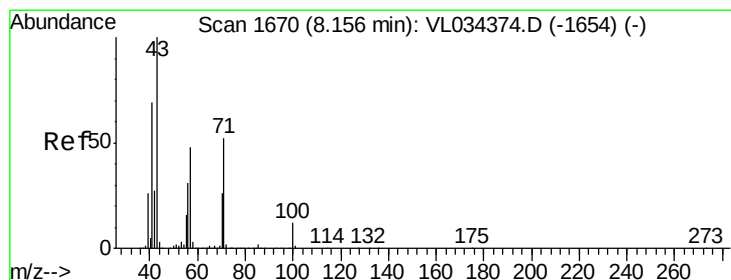
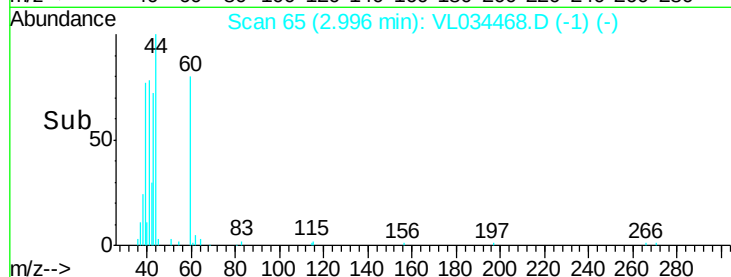
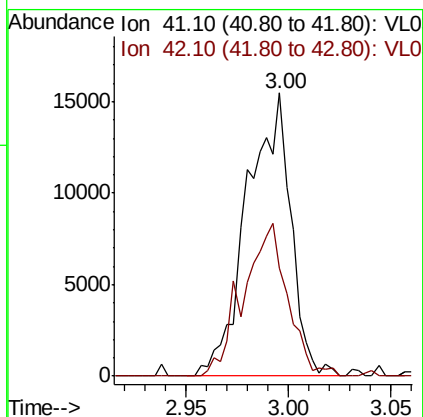
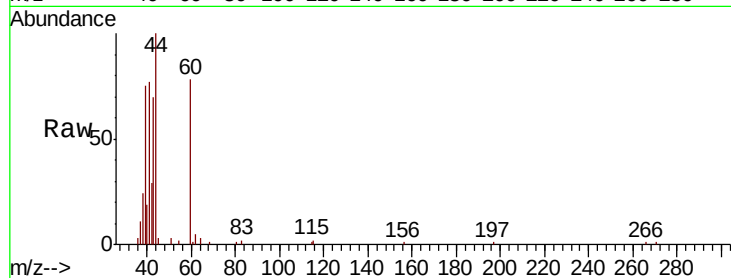
Ion Ratio Lower Upper

41 100

42 55.5 54.6 82.0

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#10

Heptane

Concen: 0.165 ppbv m

RT: 8.14 min Scan# 1666

Delta R.T. -0.01 min

Lab File: VL034468.D

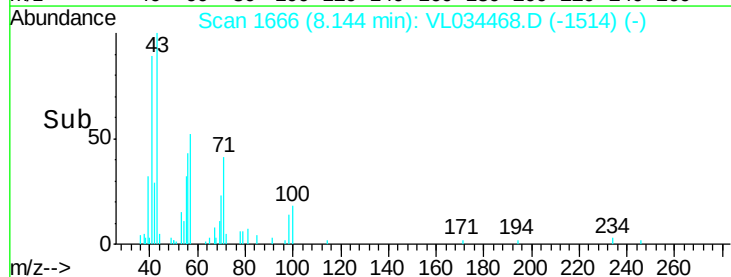
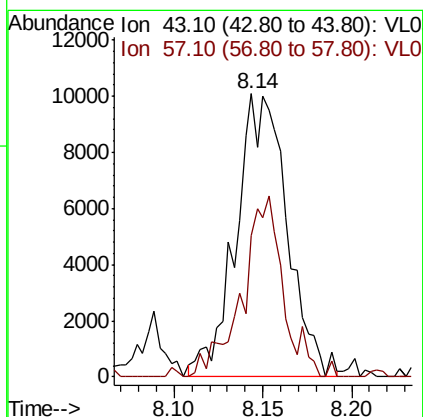
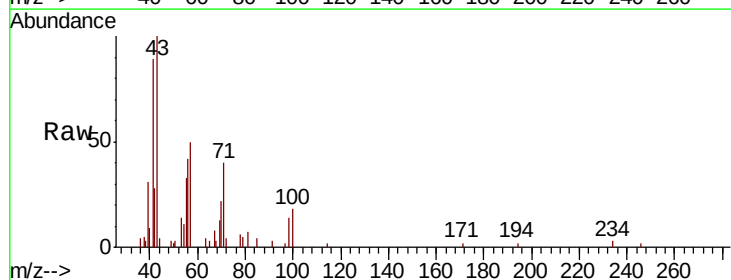
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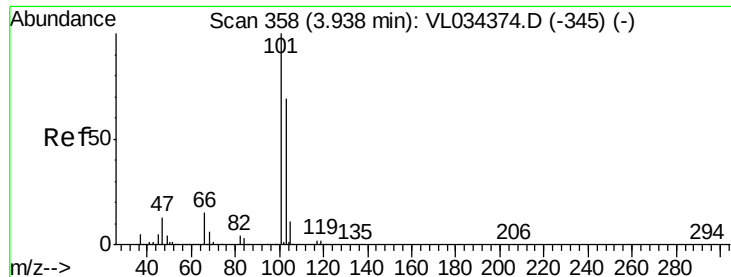
Tgt Ion: 43 Resp: 20193

Ion Ratio Lower Upper

43 100

57 0.0 40.2 60.2#





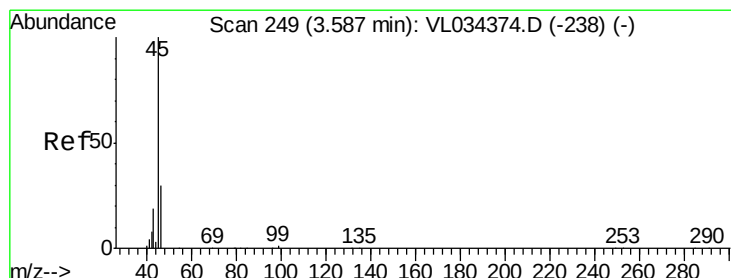
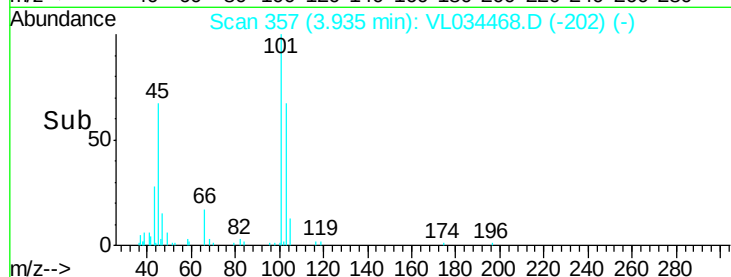
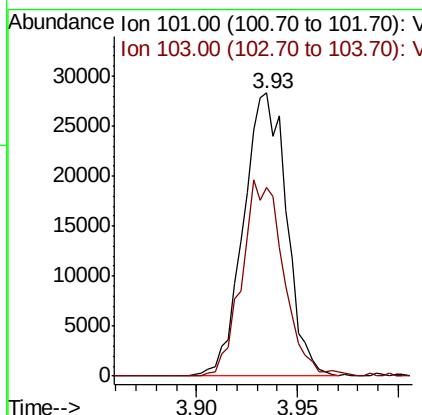
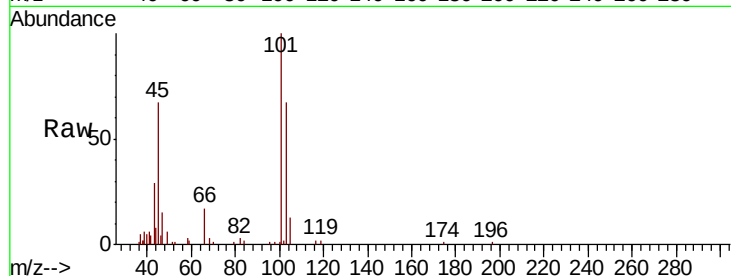
#11
Trichlorofluoromethane
Concen: 0.274 ppbv
RT: 3.93 min Scan# 357
Delta R.T. -0.00 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Instrument :
MSVOA_L
ClientSampled :
NS-1

Tot Ion:101 Resp: 42375
Ion Ratio Lower Upper
101 100
103 66.7 55.4 83.0

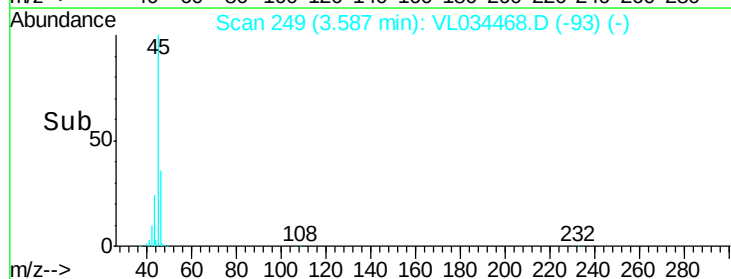
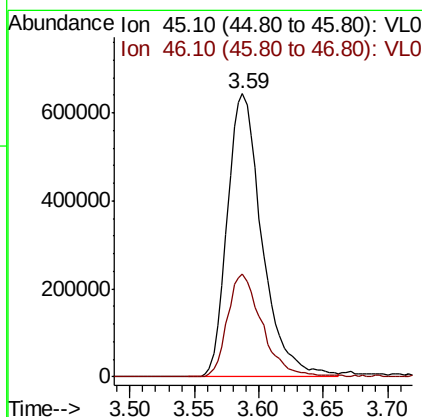
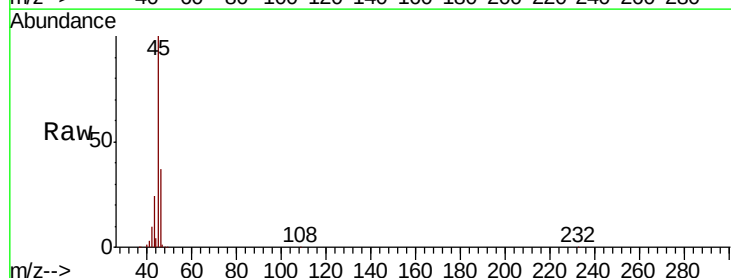
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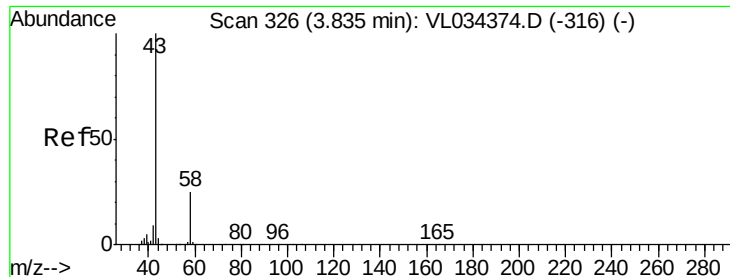
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#13
Ethanol
Concen: 91.142 ppbv
RT: 3.59 min Scan# 249
Delta R.T. 0.00 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Tgt Ion: 45 Resp: 1207125
Ion Ratio Lower Upper
45 100
46 36.7 13.8 55.4





#15

Acetone

Concen: 4.667 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.00 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Instrument :

MSVOA_L

ClientSampled :

NS-1

Tot Ion: 43 Resp: 573638

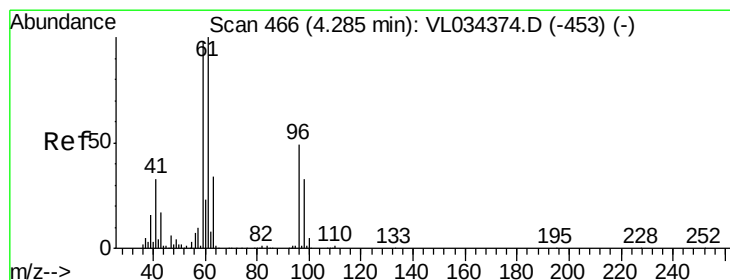
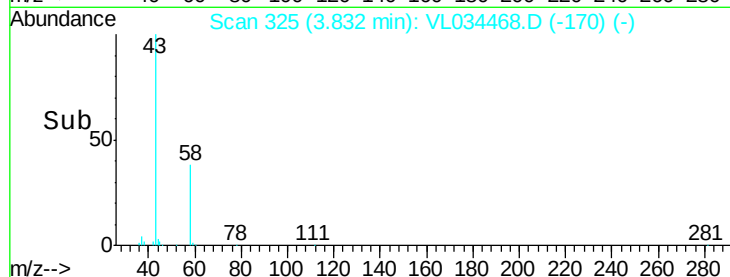
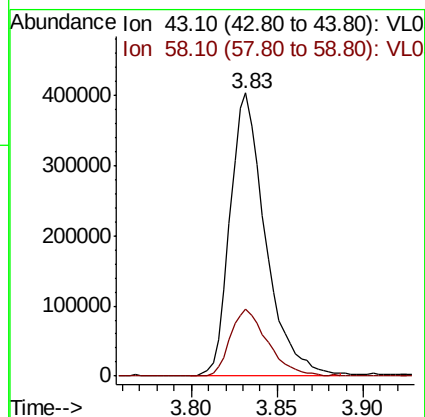
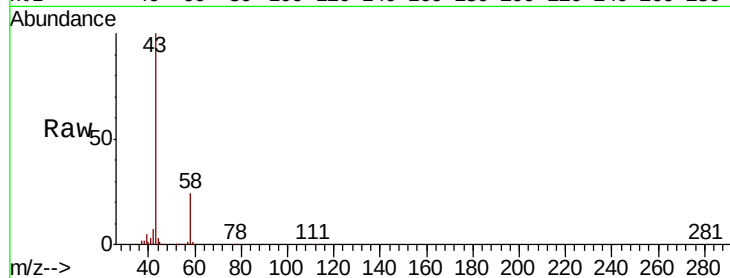
Ion Ratio Lower Upper

43 100

58 25.5 20.2 30.4

Manual Integrations
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#17

tert-Butyl alcohol

Concen: 0.265 ppbv m

RT: 4.29 min Scan# 469

Delta R.T. 0.01 min

Lab File: VL034468.D

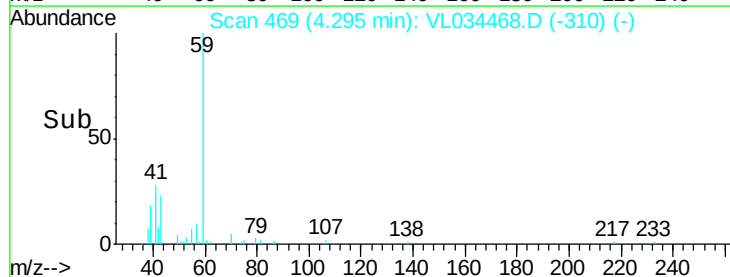
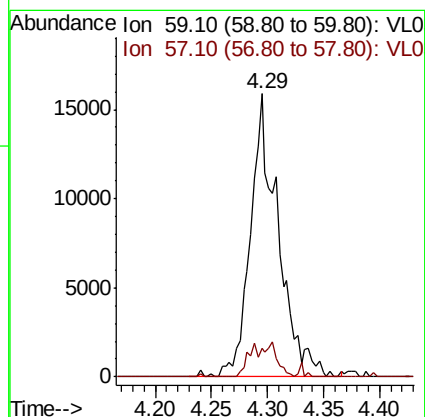
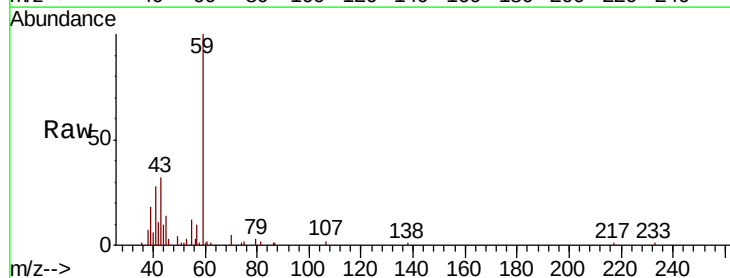
Acq: 9 Dec 2019 17:27

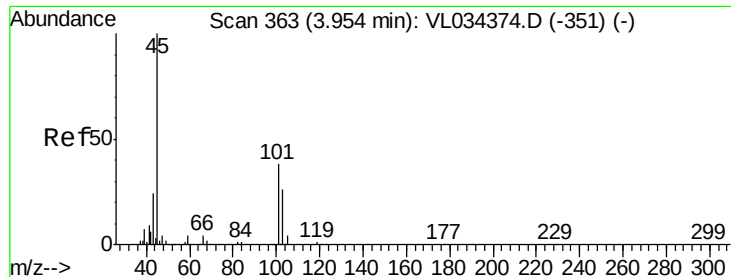
Tgt Ion: 59 Resp: 27327

Ion Ratio Lower Upper

59 100

57 0.0 8.8 13.2#





#19

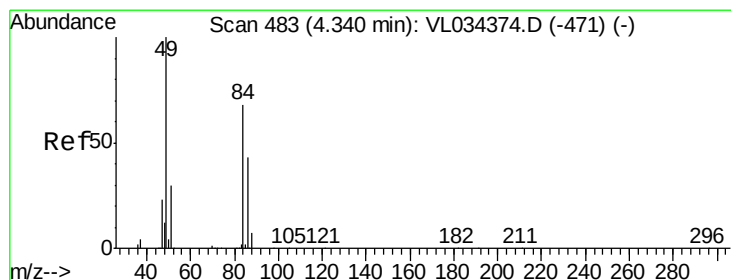
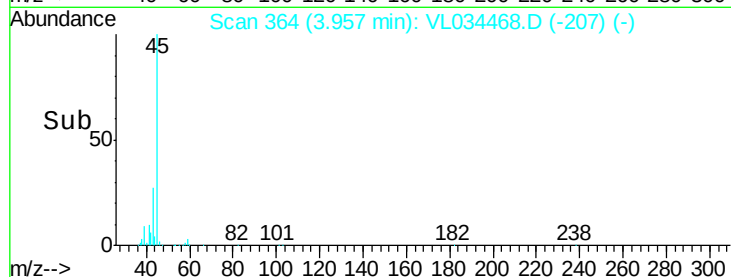
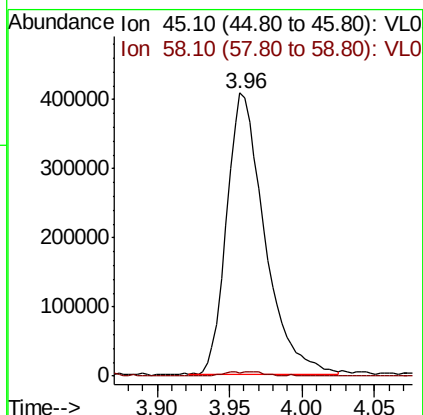
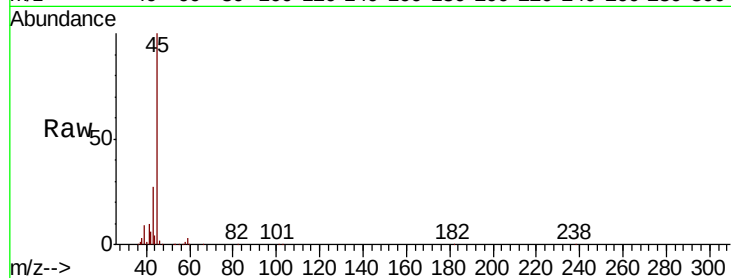
Isopropyl Alcohol
 Concen: 9.366 ppbv
 RT: 3.96 min Scan# 364
 Delta R.T. 0.00 min
 Lab File: VL034468.D
 Acq: 9 Dec 2019 17:27

Instrument :
 MSVOA_L
 ClientSampled :
 NS-1

Tot Ion	Ratio	Lower	Upper
45	100		
58	1.9	1.3	1.9

Manual Integrations
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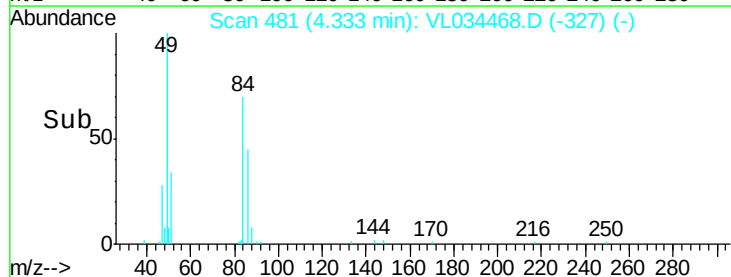
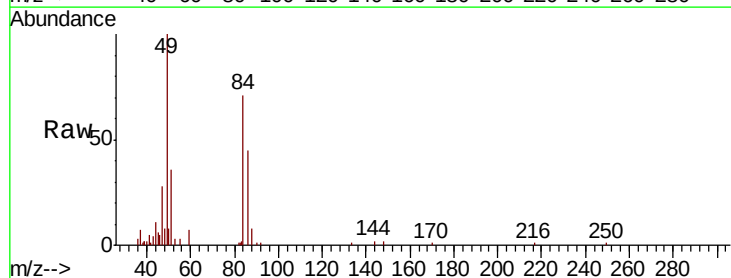
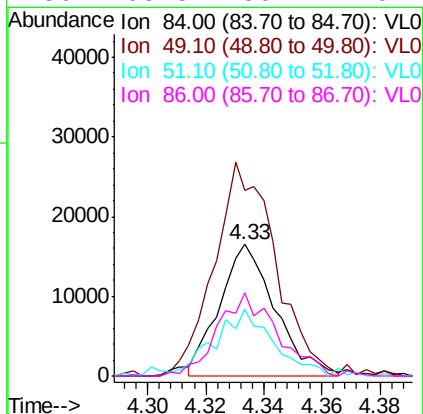
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 12/11/2019 2:12:11 PM

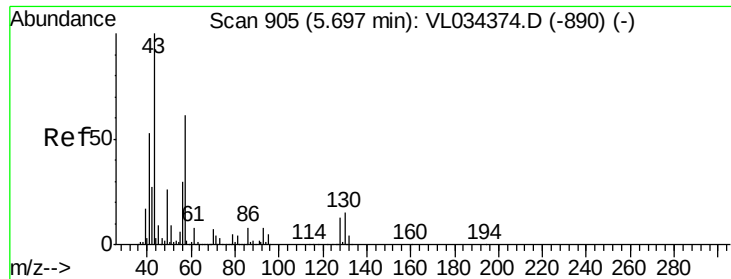


#20

Methylene Chloride
 Concen: 0.503 ppbv
 RT: 4.33 min Scan# 481
 Delta R.T. -0.01 min
 Lab File: VL034468.D
 Acq: 9 Dec 2019 17:27

Tgt Ion	Ratio	Lower	Upper
84	100		
49	144.3	116.8	175.2
51	46.9	35.6	53.4
86	65.5	50.7	76.1





#26

Hexane

Concen: 0.692 ppbv

RT: 5.69 min Scan# 904

Delta R.T. -0.00 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Instrument :

MSVOA_L

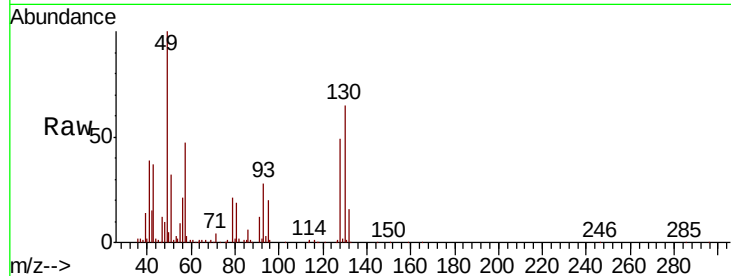
ClientSampled :

NS-1

Tot Ion:	57	Resp:	65255
Ion	Ratio	Lower	Upper
57	100		
41	102.8	75.0	112.4
43	93.6	186.6	279.8#
56	57.9	41.5	62.3

Manual Integrations
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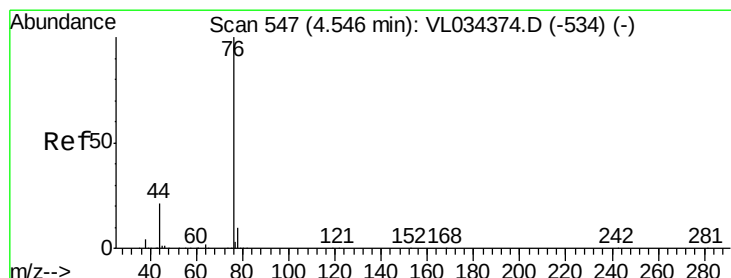
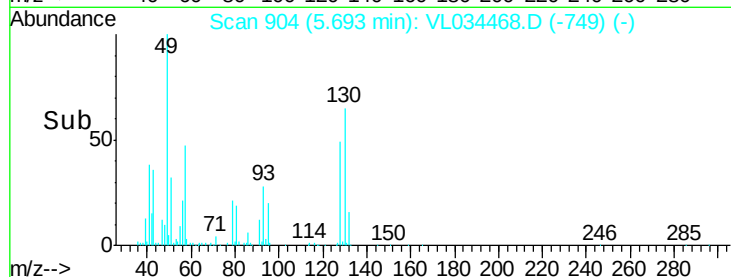
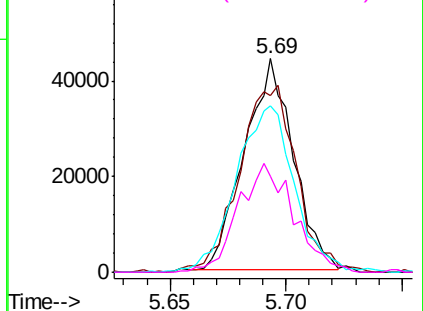


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.259 ppbv

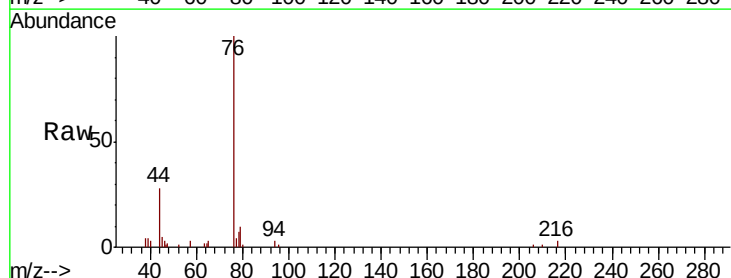
RT: 4.55 min Scan# 547

Delta R.T. 0.00 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

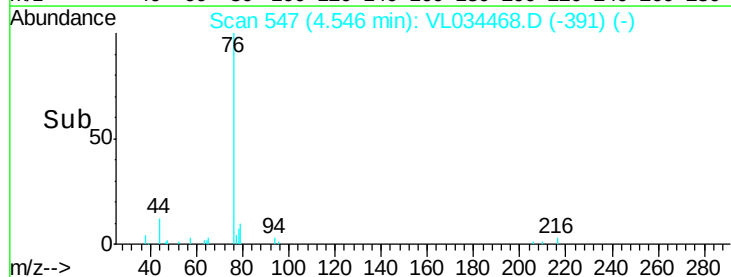
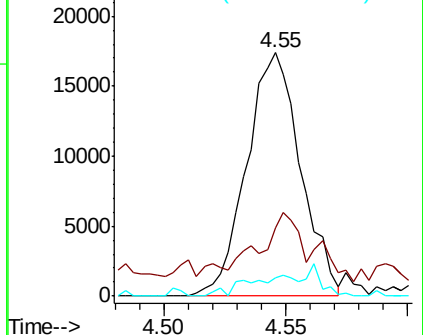
Tgt Ion:	76	Resp:	26588
Ion	Ratio	Lower	Upper
76	100		
44	38.2	17.0	25.4#
78	0.0	7.6	11.4#

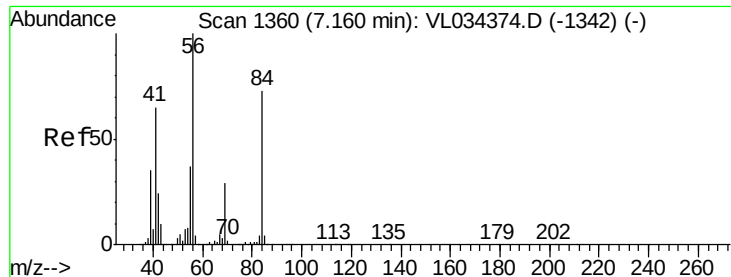


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





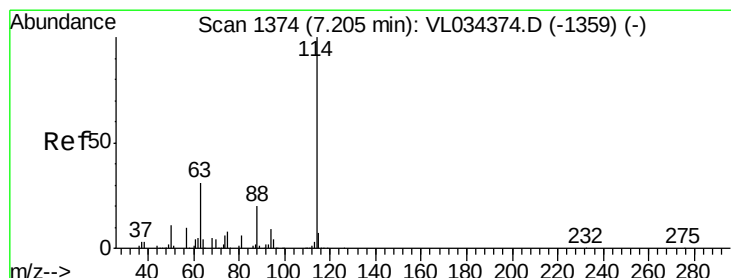
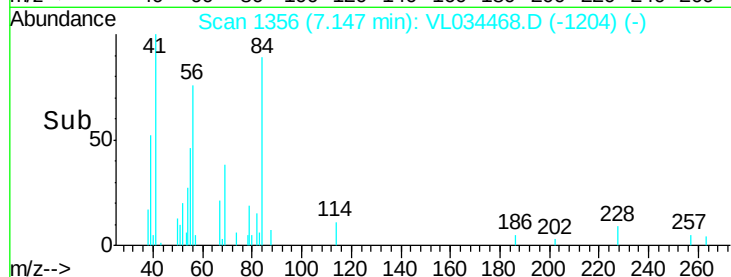
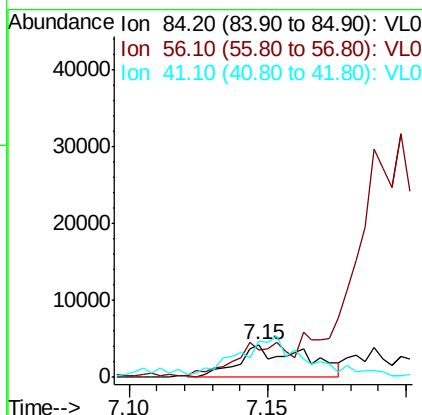
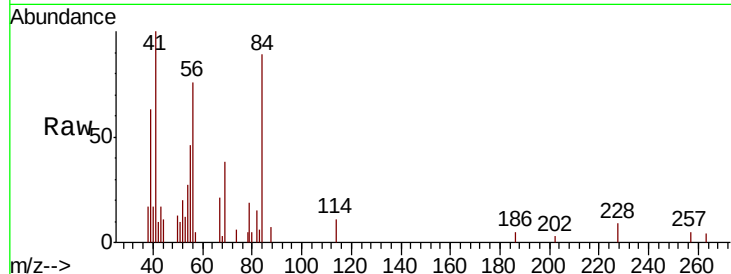
#30
Cyclohexane
Concen: 0.099 ppbv m
RT: 7.15 min Scan# 1356
Delta R.T. -0.01 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Instrument :
MSVOA_L
ClientSampled :
NS-1

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	112.6	169.0#
41	136.9	73.4	110.2#

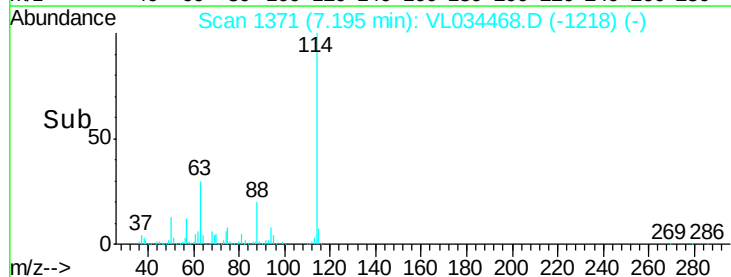
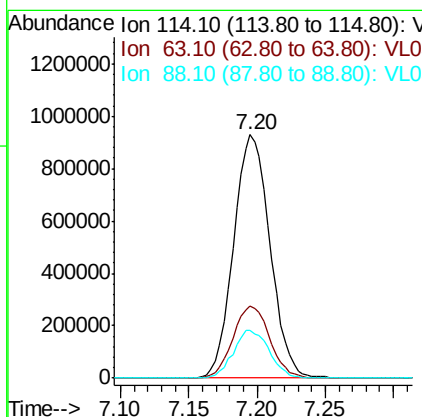
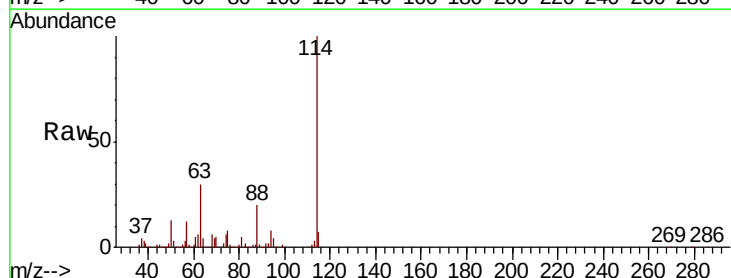
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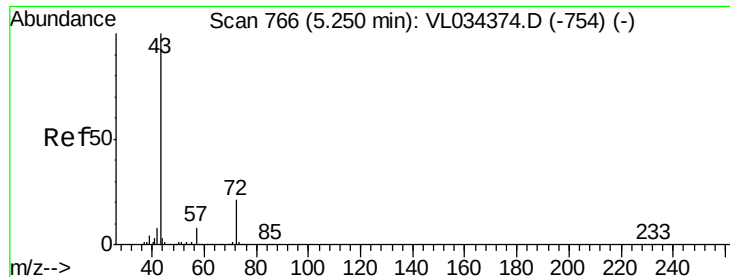
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.20 min Scan# 1371
Delta R.T. -0.01 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Tgt Ion	Ratio	Lower	Upper
114	100		
63	30.2	24.2	36.4
88	19.6	15.9	23.9





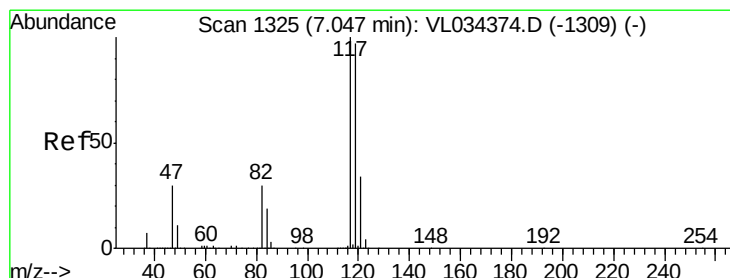
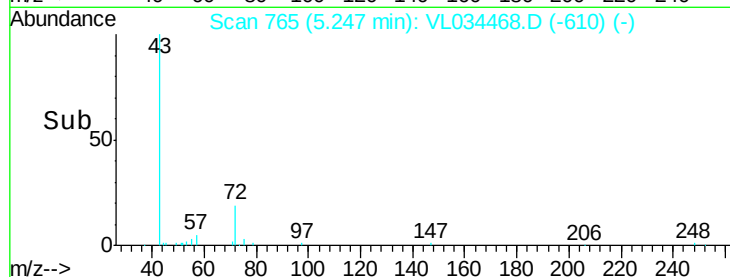
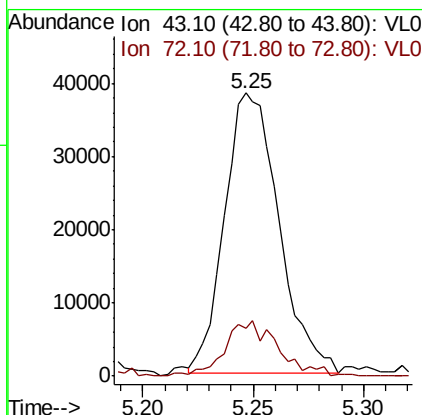
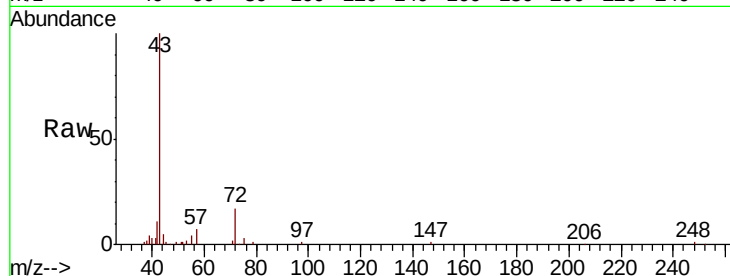
#34
2-Butanone
Concen: 0.460 ppbv
RT: 5.25 min Scan# 765
Delta R.T. -0.00 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Instrument :
MSVOA_L
ClientSampled :
NS-1

Tot Ion: 43 Resp: 65193
Ion Ratio Lower Upper
43 100
72 19.6 17.0 25.6

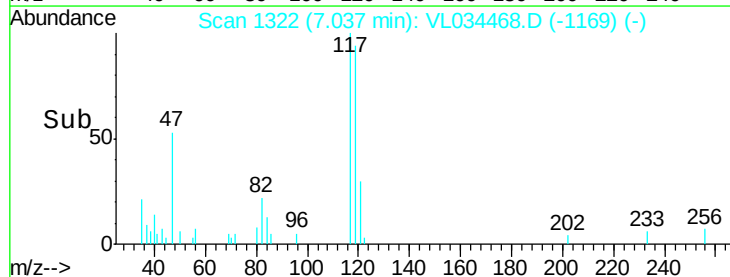
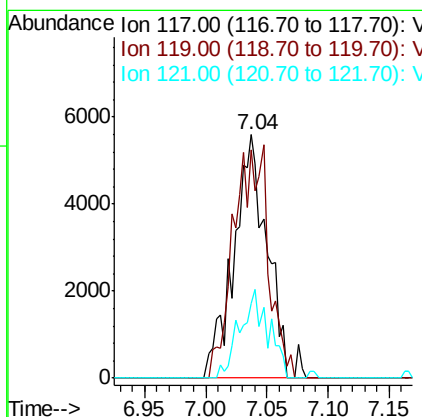
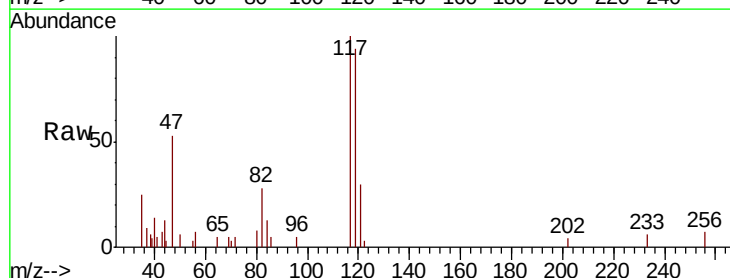
Manual Integrations
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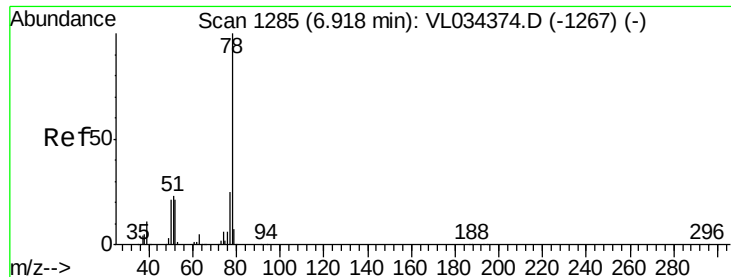
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#35
Carbon Tetrachloride
Concen: 0.072 ppbv m
RT: 7.04 min Scan# 1322
Delta R.T. -0.01 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Tgt Ion: 117 Resp: 10583
Ion Ratio Lower Upper
117 100
119 93.7 77.3 115.9
121 30.4 27.4 41.2





#36

Benzene

Concen: 0.292 ppbv

RT: 6.91 min Scan# 1281

Delta R.T. -0.01 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Instrument :

MSVOA_L

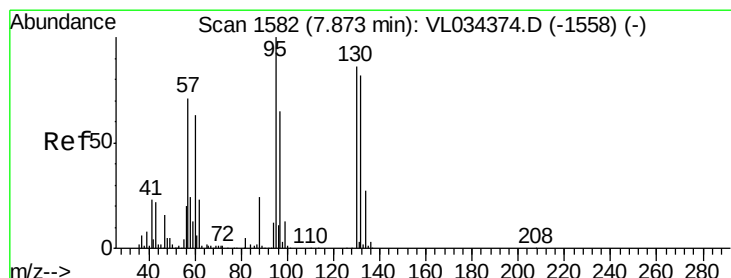
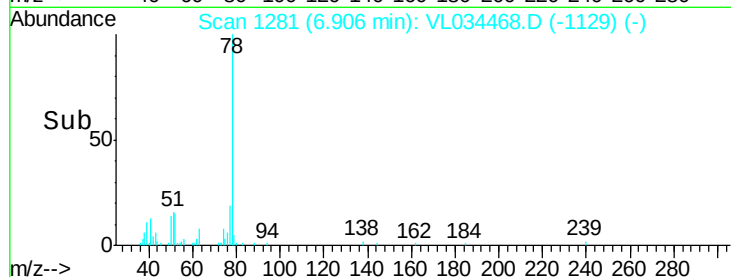
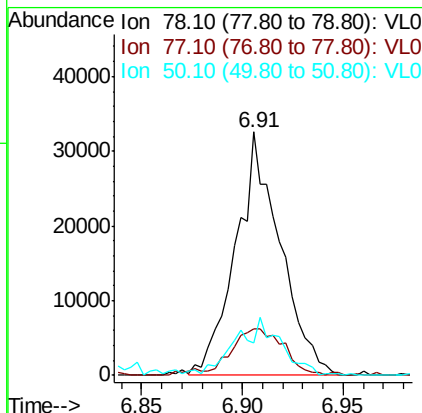
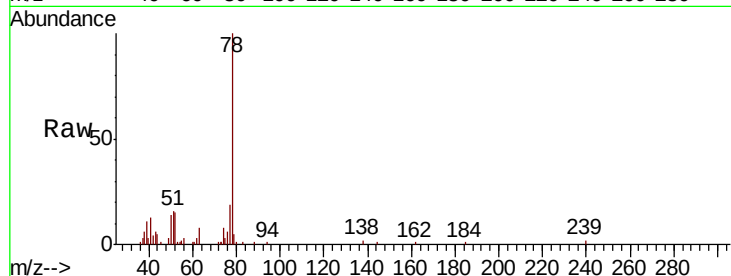
ClientSampled :

NS-1

Tot Ion:	78	Resp:	50168
Ion Ratio	Lower	Upper	
78	100		
77	17.9	20.2	30.4#
50	12.7	17.1	25.7#

Manual Integrations
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#38

Trichloroethene

Concen: 0.372 ppbv m

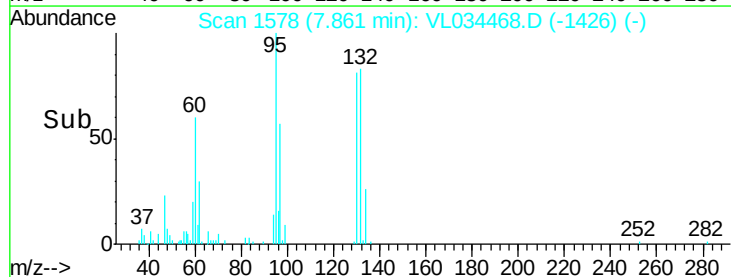
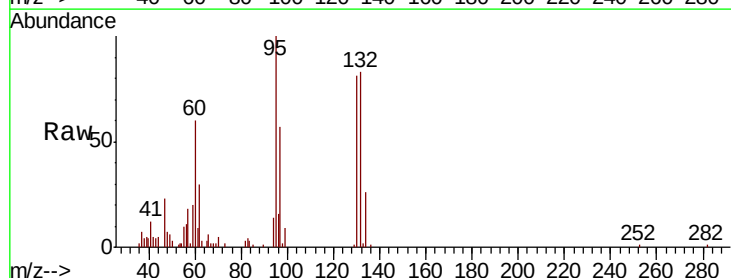
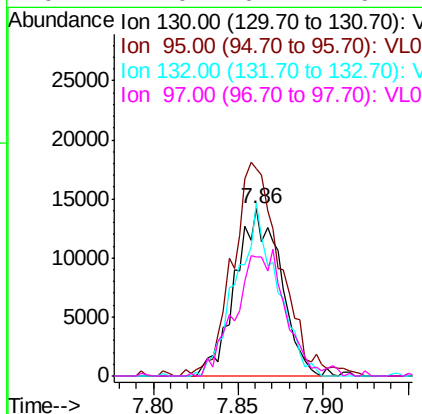
RT: 7.86 min Scan# 1578

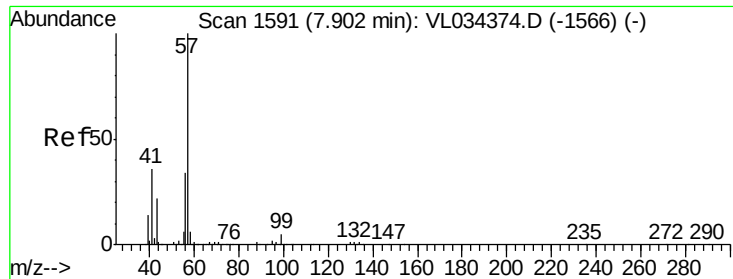
Delta R.T. -0.01 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Tgt Ion:	130	Resp:	26289
Ion Ratio	Lower	Upper	
130	100		
95	124.1	93.4	140.0
132	103.1	76.4	114.6
97	71.0	61.1	91.7





#44

2,2,4-Trimethylpentane

Concen: 0.304 ppbv

RT: 7.89 min Scan# 1588

Delta R.T. -0.01 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Instrument :

MSVOA_L

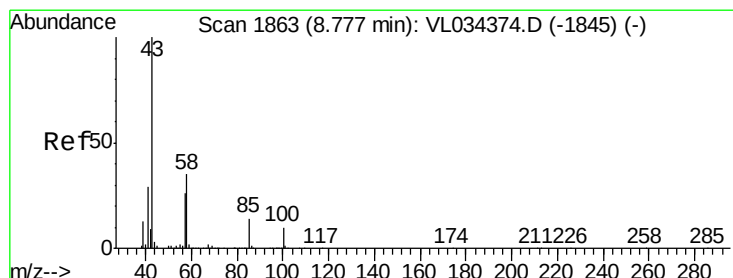
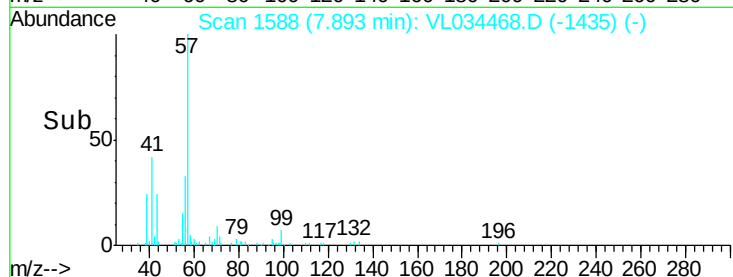
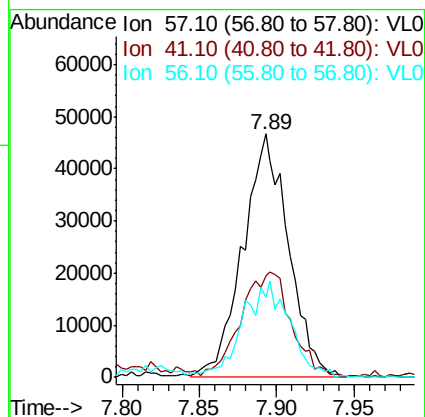
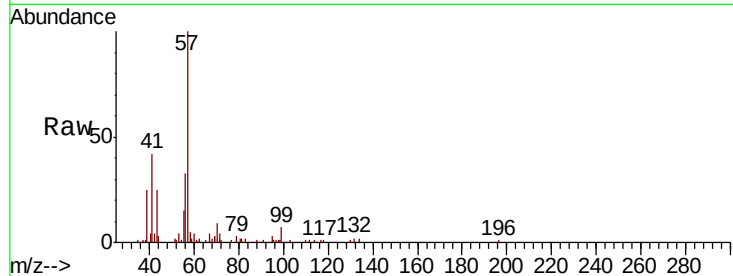
ClientSampled :

NS-1

Tot Ion:	57	Resp:	95712
Ion Ratio	Lower	Upper	
57	100		
41	50.9	28.6	42.8#
56	40.7	25.3	37.9#

Manual Integrations
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#50

4-Methyl-2-Pentanone

Concen: 0.316 ppbv m

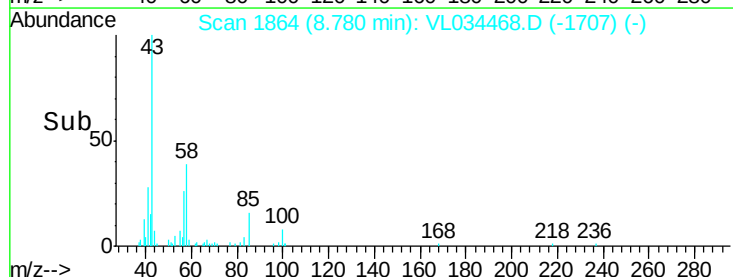
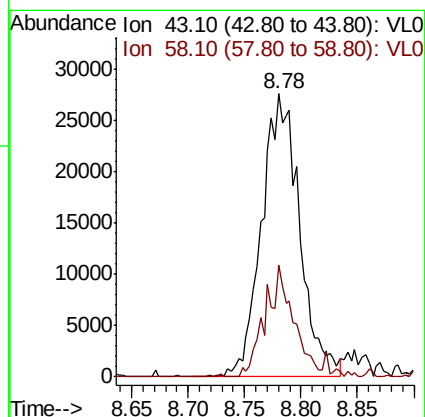
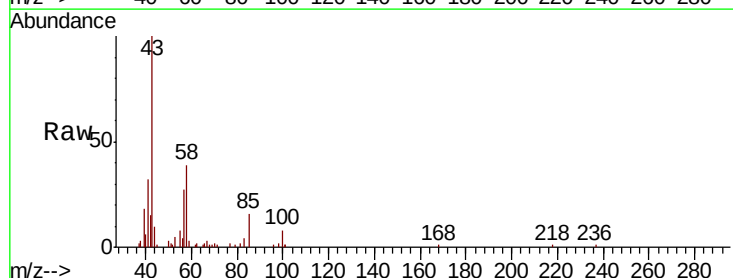
RT: 8.78 min Scan# 1864

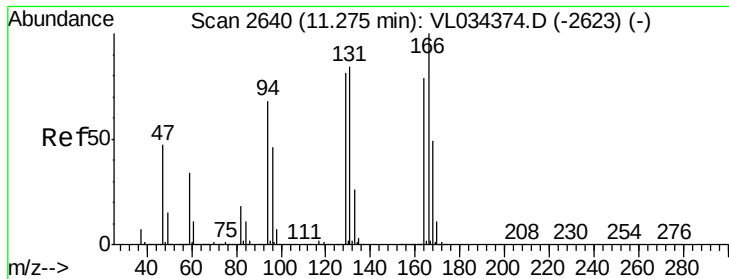
Delta R.T. 0.00 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Tgt Ion:	43	Resp:	64732
Ion Ratio	Lower	Upper	
43	100		
58	0.0	27.9	41.9#





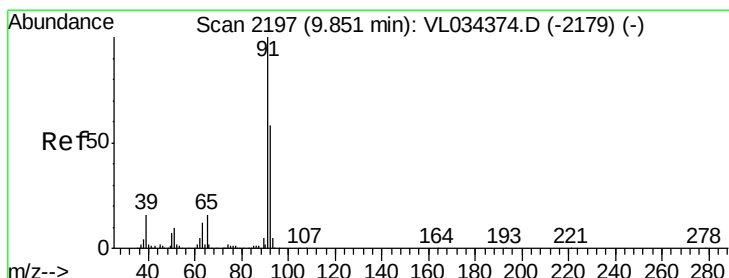
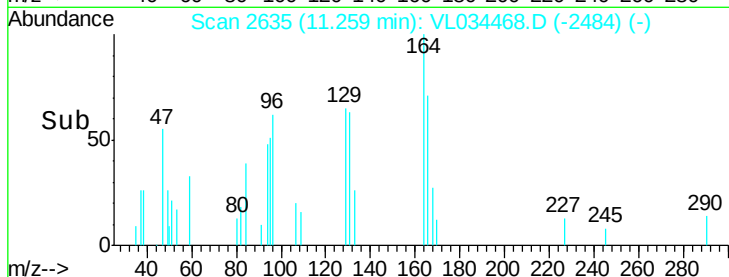
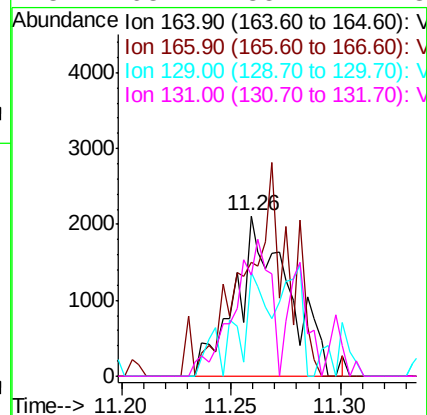
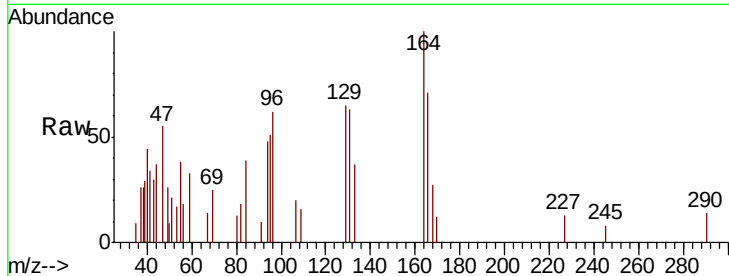
#52
Tetrachloroethene
Concen: 0.048 ppbv m
RT: 11.26 min Scan# 2635
Delta R.T. -0.02 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Instrument :
MSVOA_L
ClientSampled :
NS-1

Tot Ion	Ratio	Lower	Upper
164	100		
166	71.1	101.7	152.5#
129	64.8	82.6	123.8#
131	63.1	85.2	127.8#

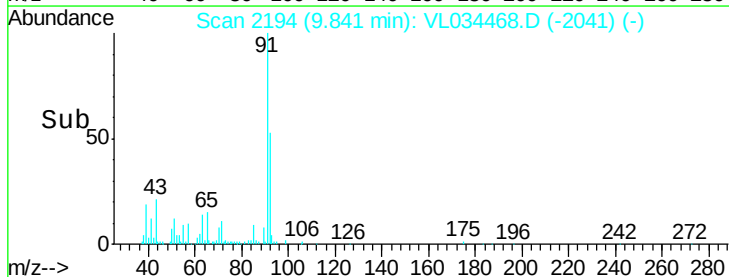
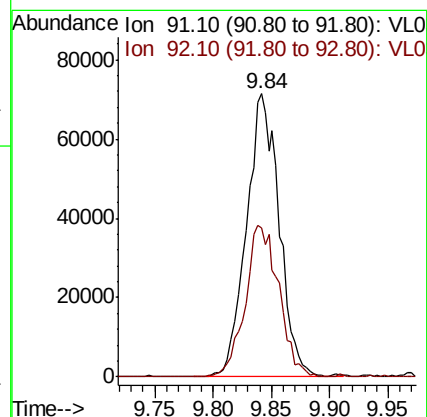
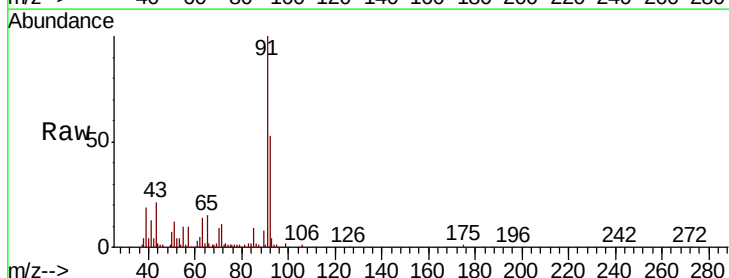
Manual Integrations
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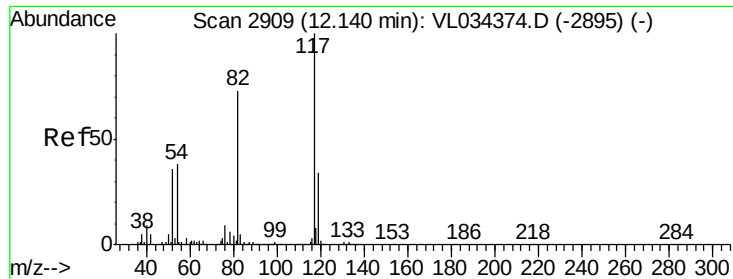
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#53
Toluene
Concen: 0.714 ppbv m
RT: 9.84 min Scan# 2194
Delta R.T. -0.01 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Tgt Ion	Ratio	Lower	Upper
91	100		
92	54.9	47.9	71.9





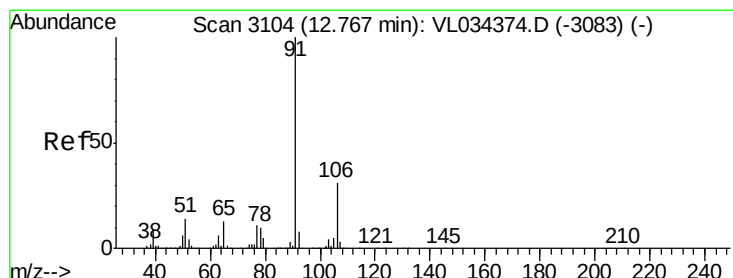
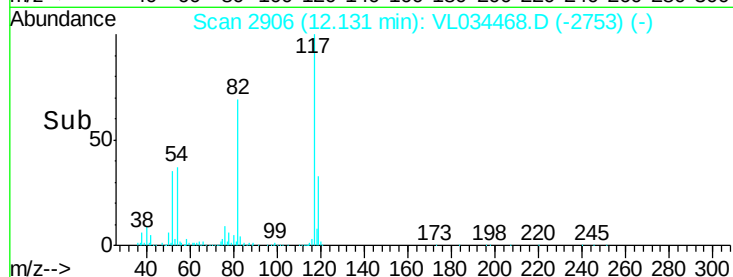
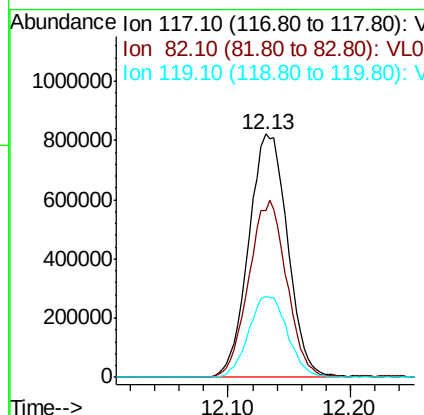
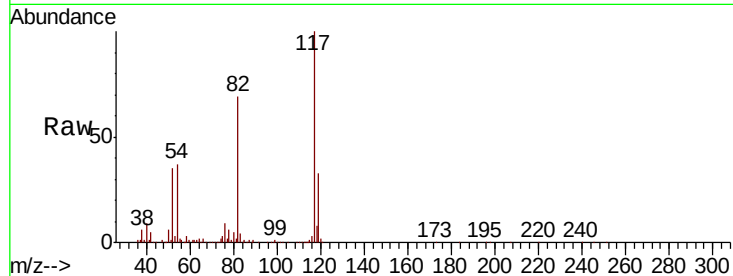
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.13 min Scan# 2906
Delta R.T. -0.01 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Instrument :
MSVOA_L
ClientSampleId :
NS-1

Tot Ion:117 Resp: 1811392
Ion Ratio Lower Upper
117 100
82 70.8 57.5 86.3
119 33.4 25.4 38.2

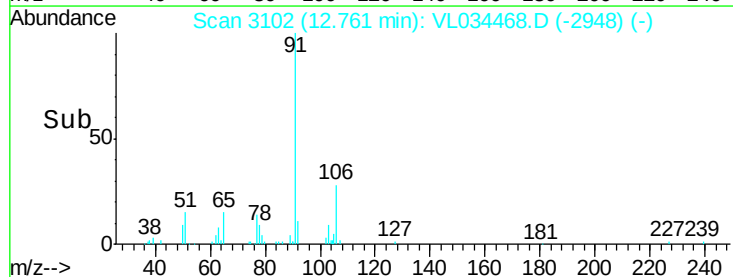
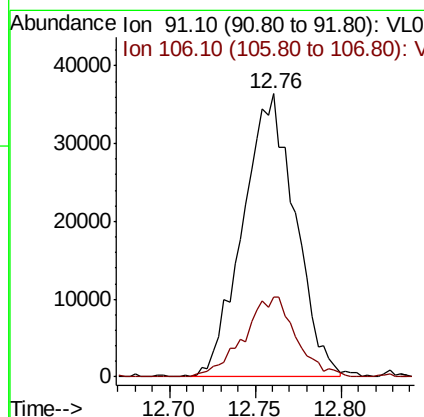
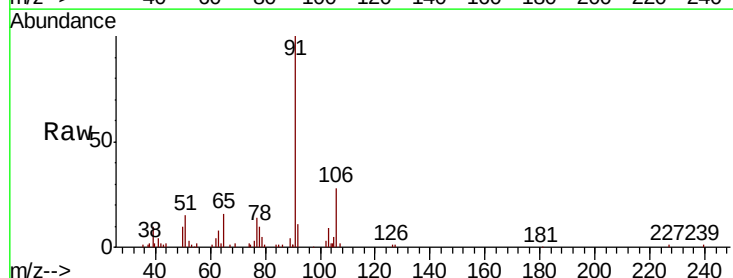
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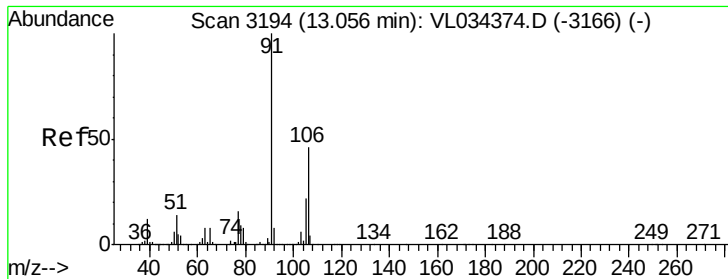
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#58
Ethyl Benzene
Concen: 0.274 ppbv
RT: 12.76 min Scan# 3102
Delta R.T. -0.01 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Tgt Ion: 91 Resp: 77043
Ion Ratio Lower Upper
91 100
106 28.3 24.8 37.2





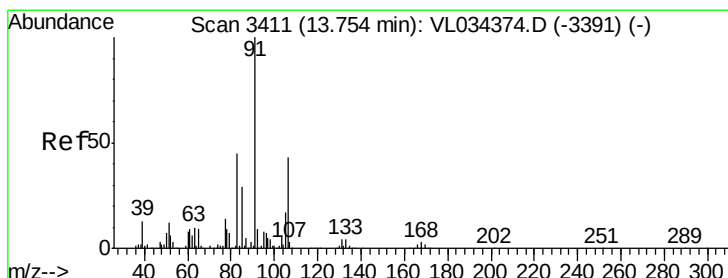
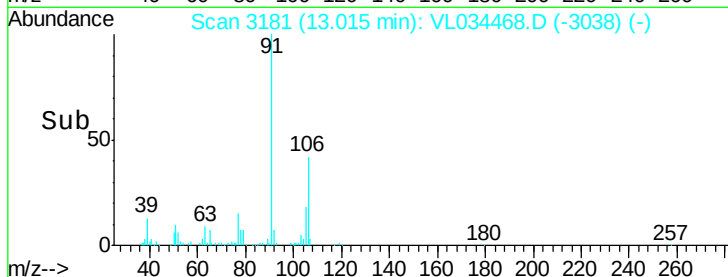
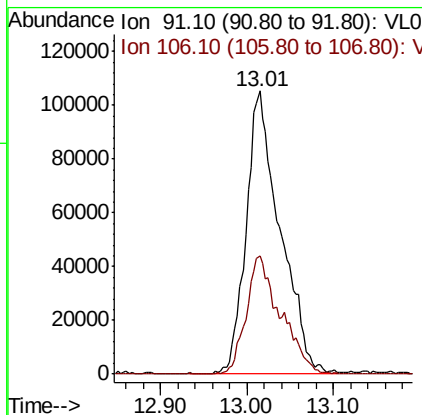
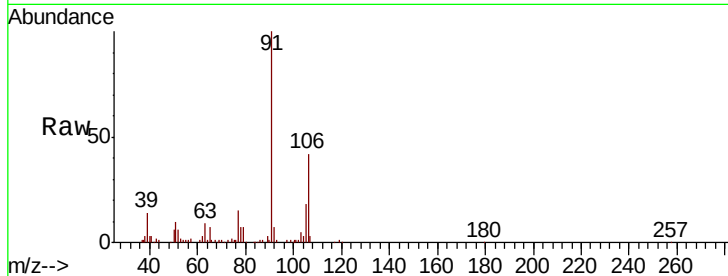
#59
m/p-Xylene
Concen: 1.187 ppbv m
RT: 13.01 min Scan# 3181
Delta R.T. -0.04 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Instrument :
MSVOA_L
ClientSampled :
NS-1

Tot Ion: 91 Resp: 288496
Ion Ratio Lower Upper
91 100
106 42.3 34.6 51.8

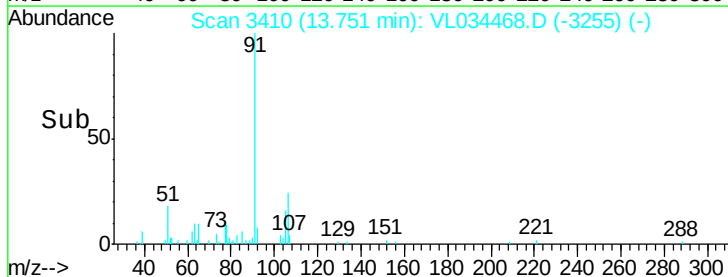
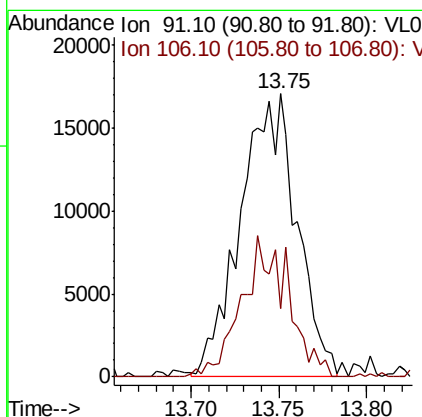
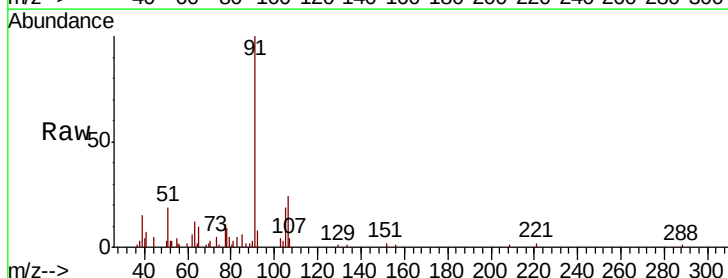
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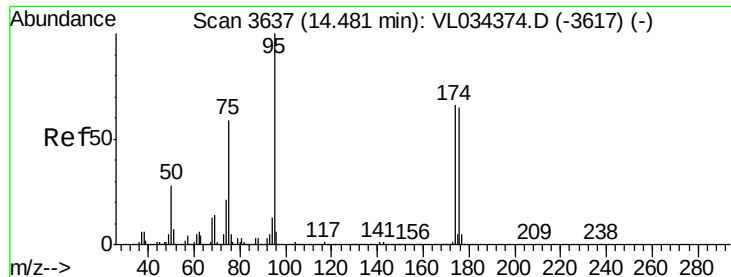
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#60
o-Xylene
Concen: 0.159 ppbv m
RT: 13.75 min Scan# 3410
Delta R.T. -0.00 min
Lab File: VL034468.D
Acq: 9 Dec 2019 17:27

Tgt Ion: 91 Resp: 38147
Ion Ratio Lower Upper
91 100
106 0.0 21.3 64.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.911 ppbv

RT: 14.47 min Scan# 3633

Delta R.T. -0.01 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Instrument :

MSVOA_L

ClientSampled :

NS-1

Tot Ion: 95 Resp: 1510354

Ion Ratio Lower Upper

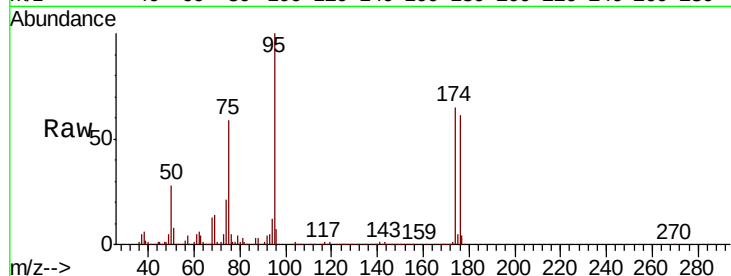
95 100

174 64.7 52.2 78.2

175 4.7 3.8 5.8

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12/11/2019 2:12:11 PM

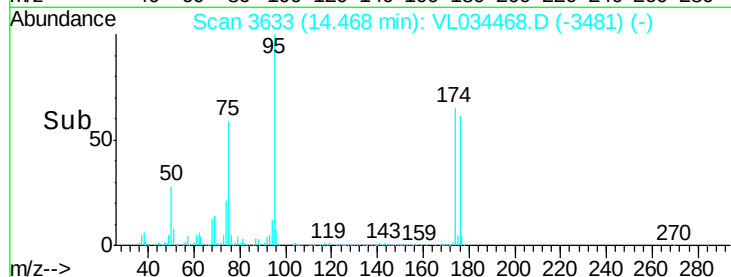


Abundance Ion 95.10 (94.80 to 95.80): VL0

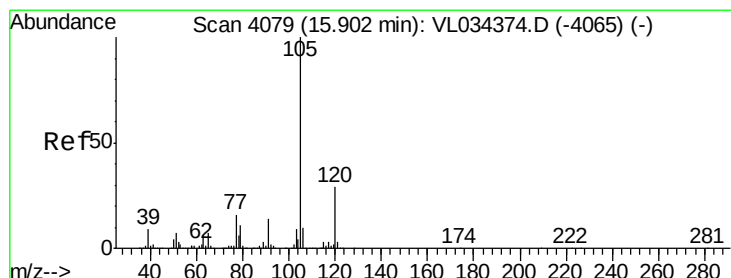
Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

14.47



Time-->



#72

4-Ethyltoluene

Concen: 0.219 ppbv m

RT: 15.89 min Scan# 4076

Delta R.T. -0.01 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Tgt Ion: 105 Resp: 60796

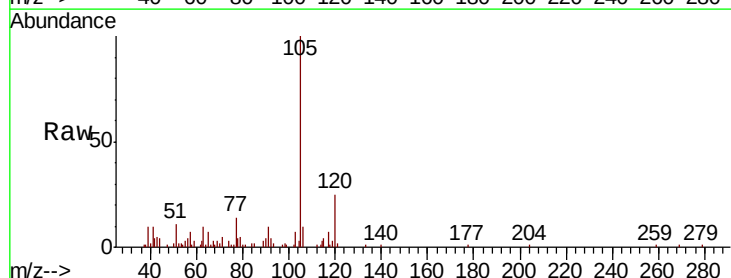
Ion Ratio Lower Upper

105 100

120 0.0 23.5 35.3#

91 16.0 11.4 17.0

77 16.6 12.6 19.0



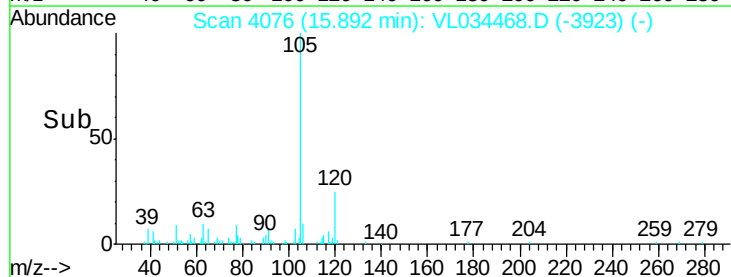
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

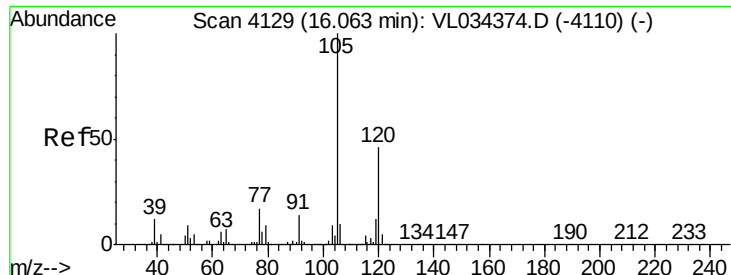
Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

15.89



Time-->



#73

1,3,5-Trimethylbenzene

Concen: 0.208 ppbv m

RT: 16.05 min Scan# 4125

Delta R.T. -0.01 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Instrument :

MSVOA_L

ClientSampled :

NS-1

Tot Ion:105 Resp: 56435

Ion Ratio Lower Upper

105 100

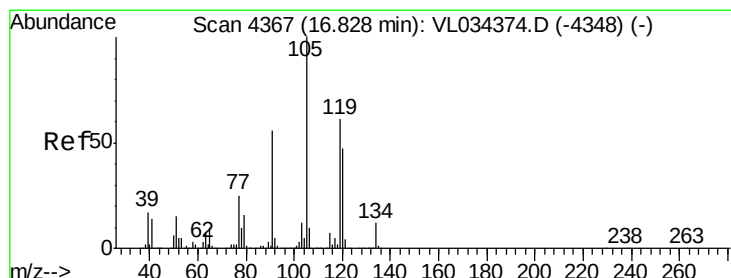
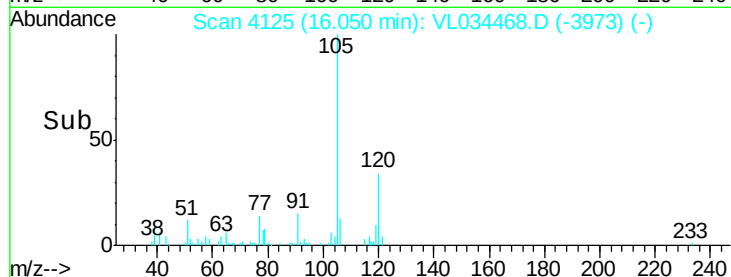
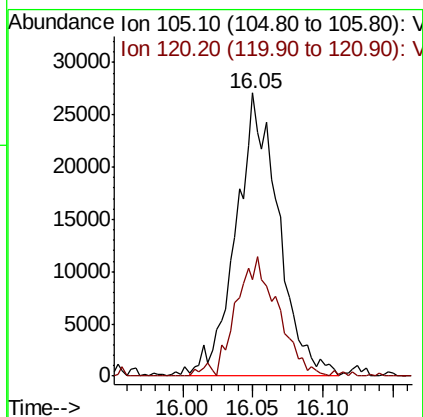
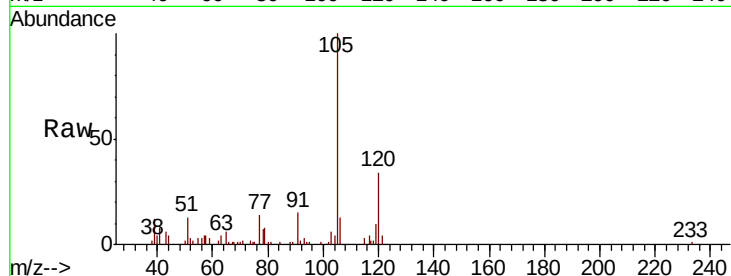
120 33.9 37.1 55.7#

Manual Integrations

APPROVED

apatel

12/11/2019 2:12:11 PM



#74

1,2,4-Trimethylbenzene

Concen: 0.621 ppbv

RT: 16.82 min Scan# 4365

Delta R.T. -0.01 min

Lab File: VL034468.D

Acq: 9 Dec 2019 17:27

Tgt Ion:105 Resp: 179350

Ion Ratio Lower Upper

105 100

120 36.8 37.4 56.0#

91 12.7 46.3 69.5#

77 15.1 20.6 30.8#

