

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120919\
 Data File : VL034480.D
 Acq On : 10 Dec 2019 1:27
 Operator : SY/AP
 Sample : K6181-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 1A-1

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Quant Time: Dec 11 11:44:00 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	5.68	49	844195	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1692930	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.14	117	1744553	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.47	95	1521618	10.37	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	78780m	0.516	ppbv	
3) Chlorodifluoromethane	2.96	51	47174m	0.448	ppbv	
4) Chloromethane	3.11	50	25522	0.411	ppbv #	85
9) Propene	2.98	41	177129	3.788	ppbv	95
10) Heptane	8.15	43	195702	1.622	ppbv	100
11) Trichlorofluoromethane	3.94	101	37147	0.244	ppbv	94
13) Ethanol	3.60	45	247054	18.966	ppbv	96
15) Acetone	3.83	43	515386	4.263	ppbv	100
19) Isopropyl Alcohol	3.97	45	232267	2.998	ppbv #	95
20) Methylene Chloride	4.34	84	55216	1.288	ppbv	98
26) Hexane	5.69	57	163748	1.767	ppbv #	39
30) Cyclohexane	7.15	84	41722m	0.595	ppbv	
34) 2-Butanone	5.25	43	106026	0.761	ppbv	97
35) Carbon Tetrachloride	7.04	117	9516	0.065	ppbv #	81
36) Benzene	6.91	78	311798	1.842	ppbv #	91
38) Trichloroethene	7.86	130	31266	0.450	ppbv	97
41) Tetrahydrofuran	6.08	42	22244	0.285	ppbv	96
44) 2,2,4-Trimethylpentane	7.90	57	257162	0.831	ppbv #	59
52) Tetrachloroethene	11.27	164	9547m	0.130	ppbv	
53) Toluene	9.84	91	930925	4.843	ppbv	98
58) Ethyl Benzene	12.76	91	386878	1.429	ppbv	90
59) m/p-Xylene	13.02	91	986952	4.217	ppbv	99
60) o-Xylene	13.74	91	350970	1.517	ppbv	96
62) Isopropylbenzene	14.72	105	44146m	0.144	ppbv	
72) 4-Ethyltoluene	15.90	105	160697	0.601	ppbv #	96
73) 1,3,5-Trimethylbenzene	16.06	105	175413m	0.670	ppbv	
74) 1,2,4-Trimethylbenzene	16.82	105	638731	2.298	ppbv #	65
79) Naphthalene	22.28	128	48712m	0.202	ppbv	

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

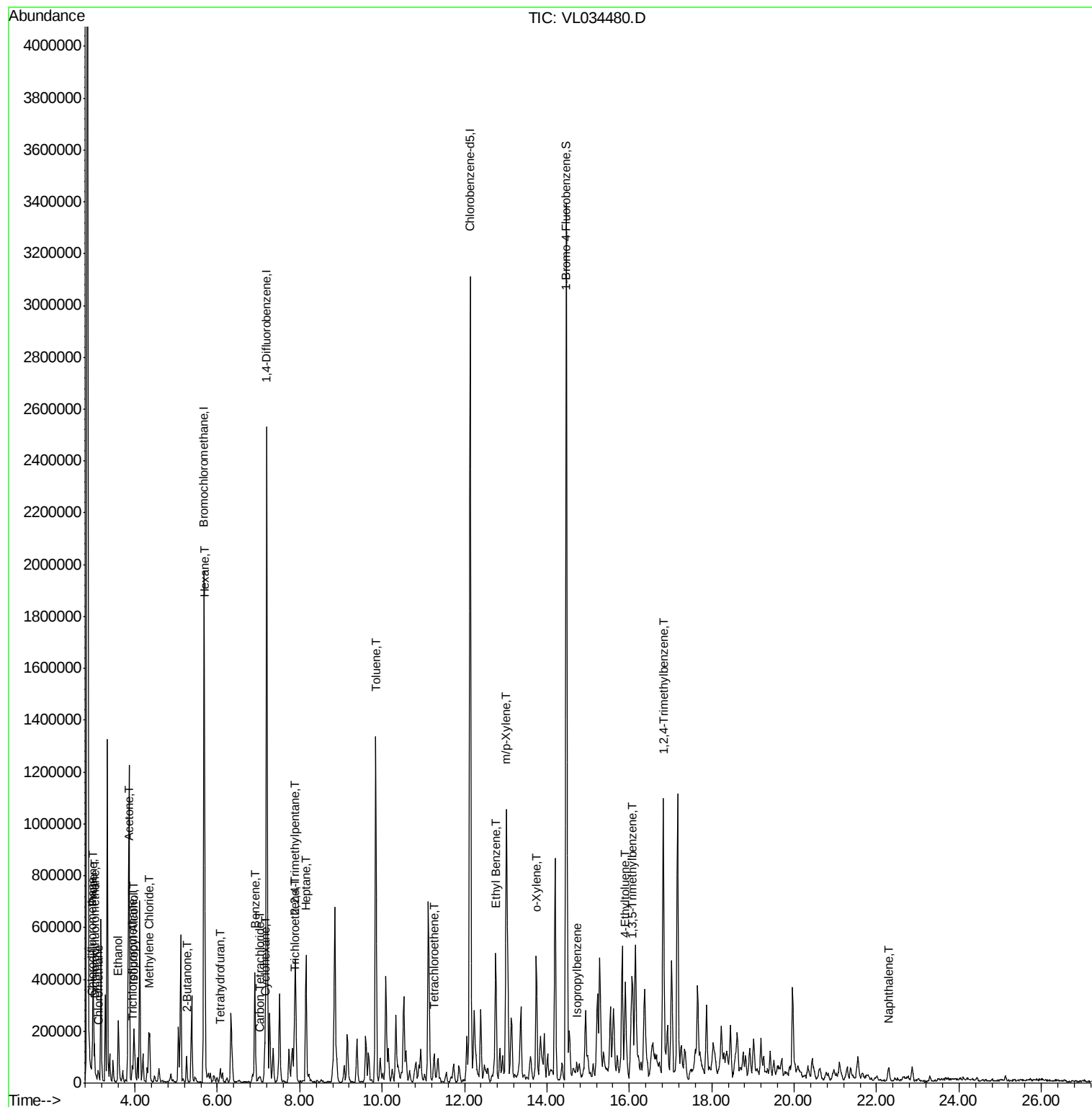
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120919\
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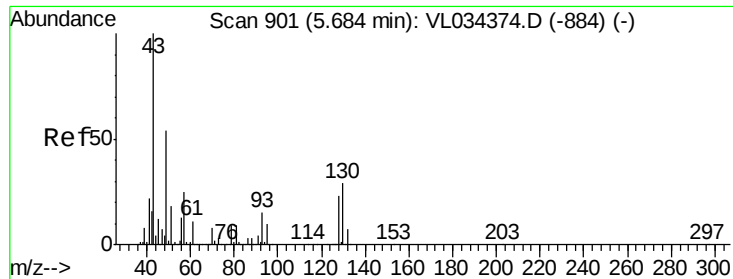
Instrument :
MSVOA_L
ClientSampleId :
1A-1

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Quant Time: Dec 11 11:44:00 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Nov
QLast Update : Tue Nov 19 14:15:35 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.01 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Instrument :

MSVOA_L

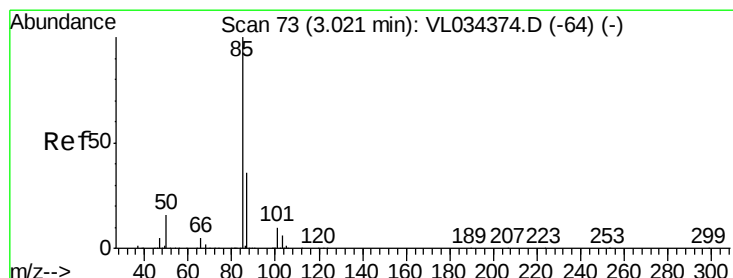
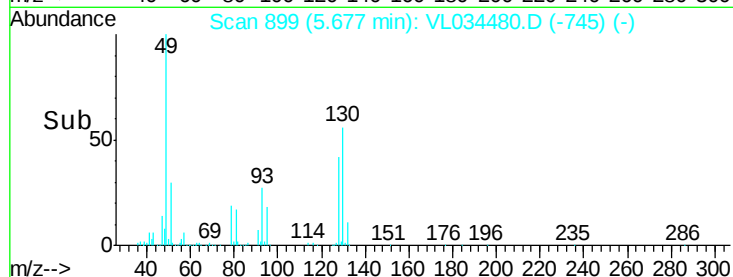
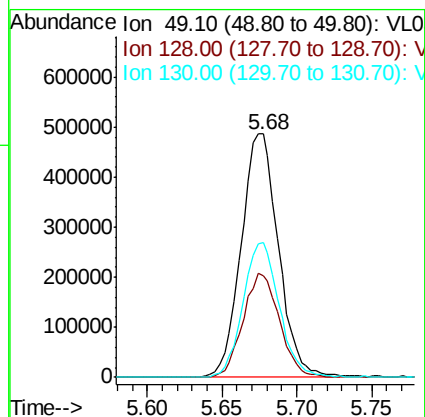
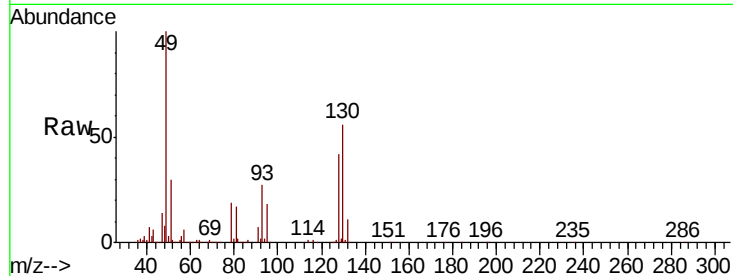
ClientSampled :

1A-1

Tot Ion:	49	Resp:	844195
Ion	Ratio	Lower	Upper
49	100		
128	42.1	21.8	65.3
130	54.2	28.0	84.0

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#2

Dichlorodifluoromethane

Concen: 0.516 ppbv m

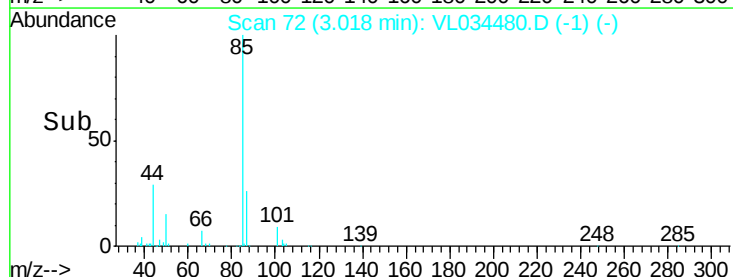
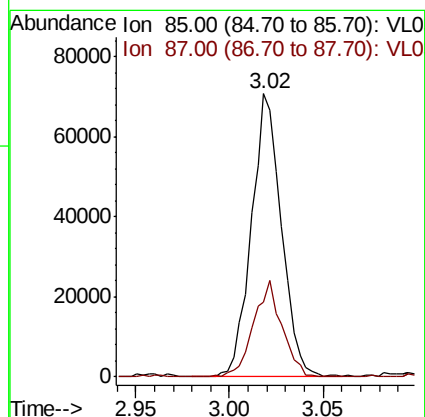
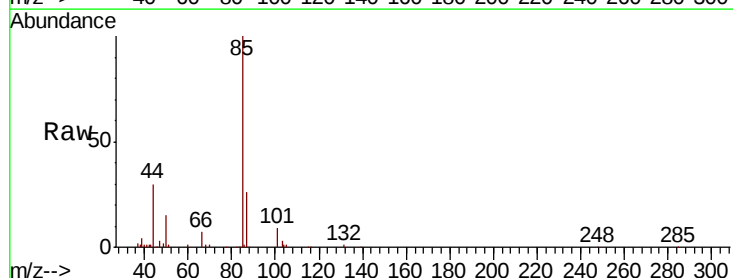
RT: 3.02 min Scan# 72

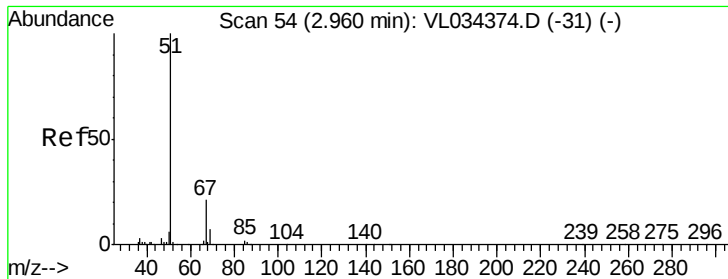
Delta R.T. -0.00 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Tgt Ion:	85	Resp:	78780
Ion	Ratio	Lower	Upper
85	100		
87	26.2	28.5	42.7#





#3

Chlorodifluoromethane

Concen: 0.448 ppbv

RT: 2.96 min Scan# 53

Delta R.T. -0.00 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Instrument :

MSVOA_L

ClientSampled :

1A-1

Tot Ion: 51 Resp: 47174

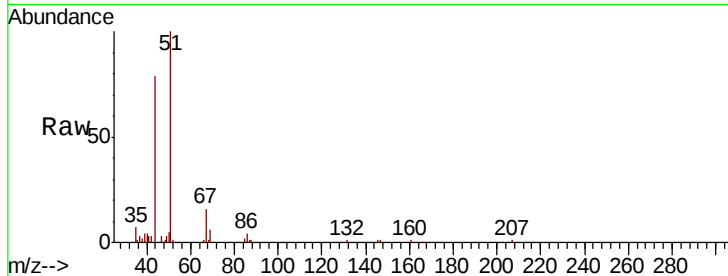
Ion Ratio Lower Upper

51 100

67 19.9 16.2 24.2

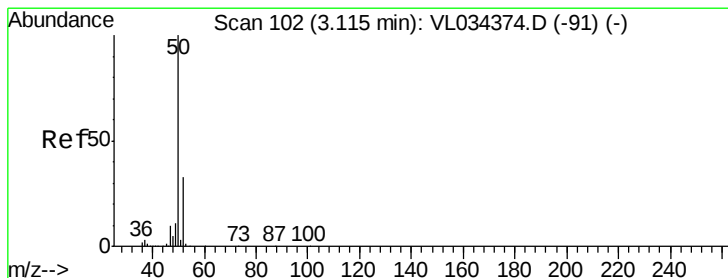
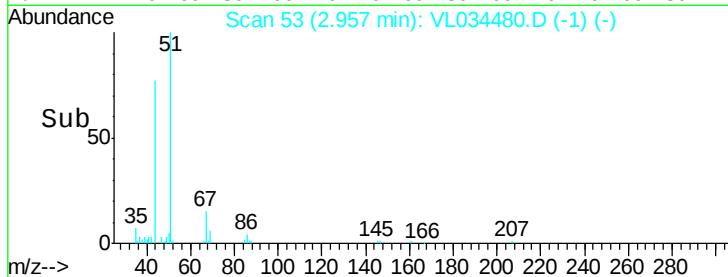
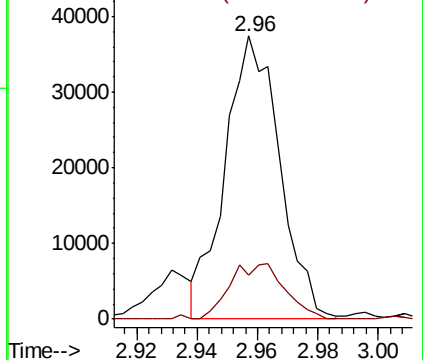
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.411 ppbv

RT: 3.11 min Scan# 100

Delta R.T. -0.01 min

Lab File: VL034480.D

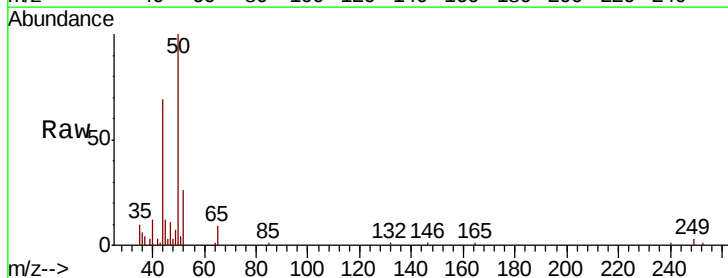
Acq: 10 Dec 2019 1:27

Tgt Ion: 50 Resp: 25522

Ion Ratio Lower Upper

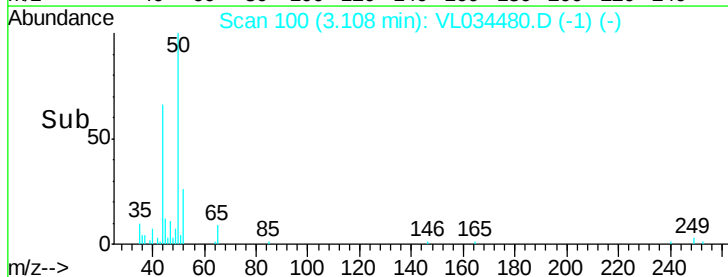
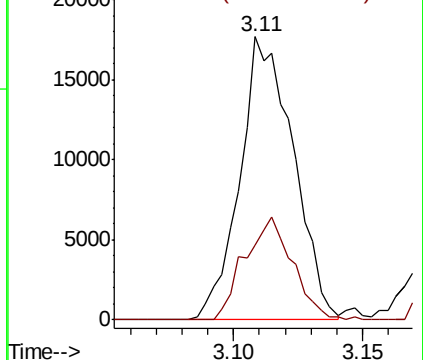
50 100

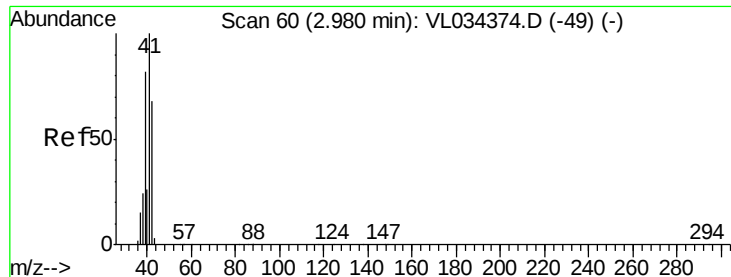
52 25.2 26.8 40.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 3.788 ppbv

RT: 2.98 min Scan# 61

Delta R.T. 0.00 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Instrument :

MSVOA_L

ClientSampled :

1A-1

Tot Ion: 41 Resp: 177129

Ion Ratio Lower Upper

41 100

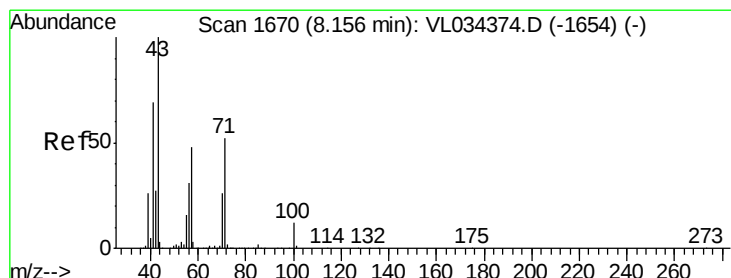
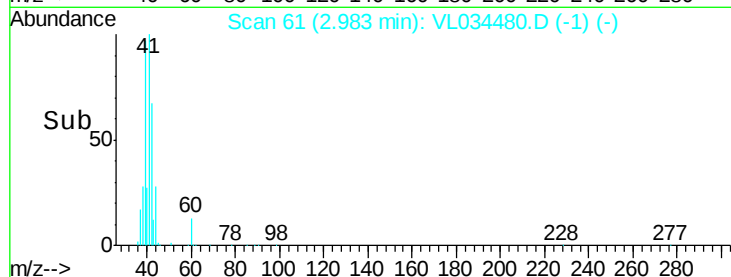
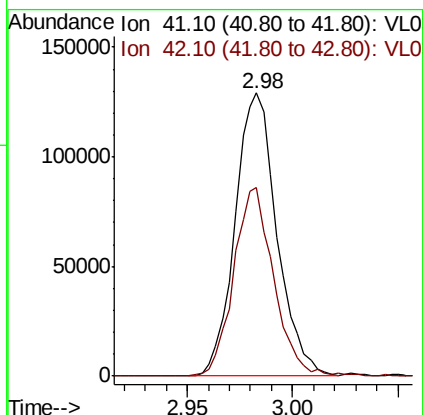
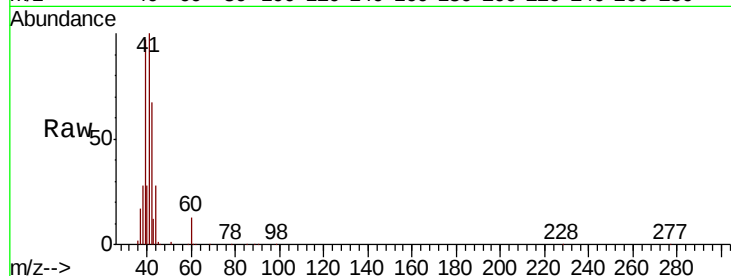
42 64.2 54.6 82.0

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#10

Heptane

Concen: 1.622 ppbv

RT: 8.15 min Scan# 1669

Delta R.T. -0.00 min

Lab File: VL034480.D

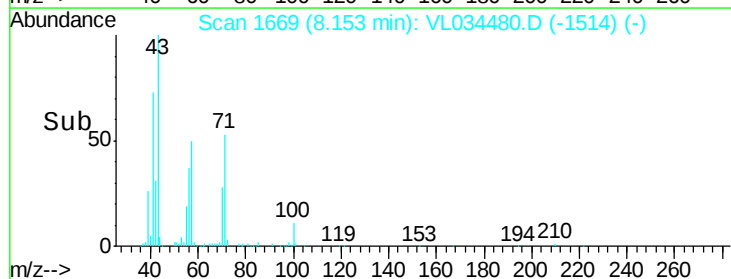
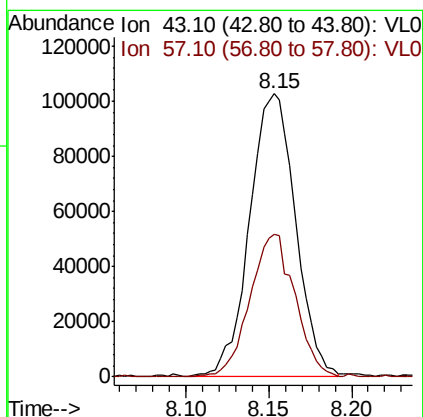
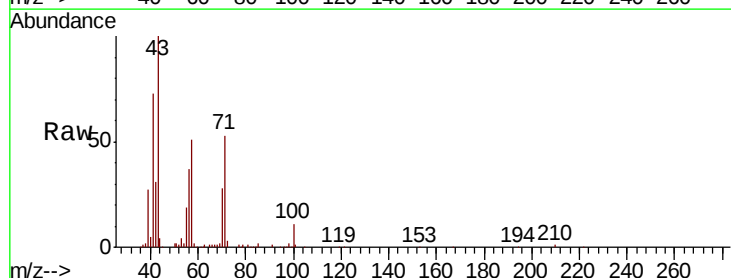
Acq: 10 Dec 2019 1:27

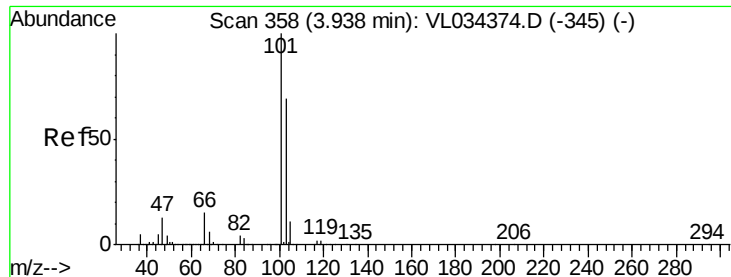
Tgt Ion: 43 Resp: 195702

Ion Ratio Lower Upper

43 100

57 50.2 40.2 60.2





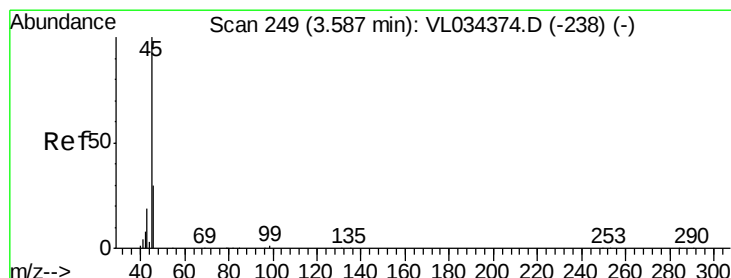
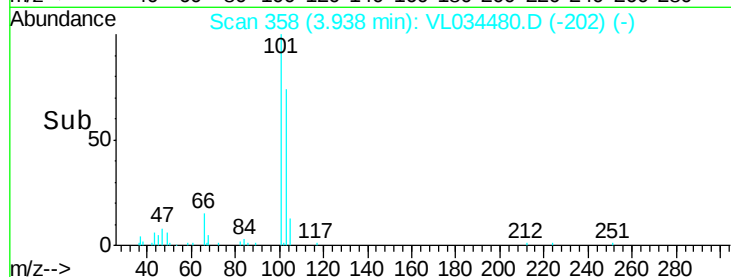
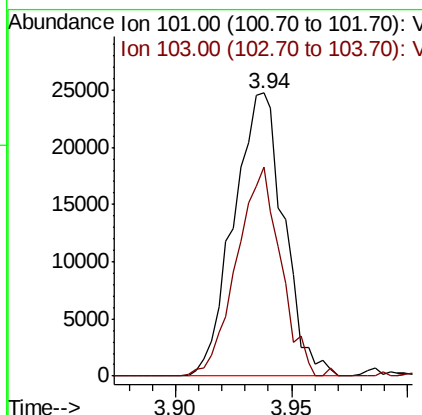
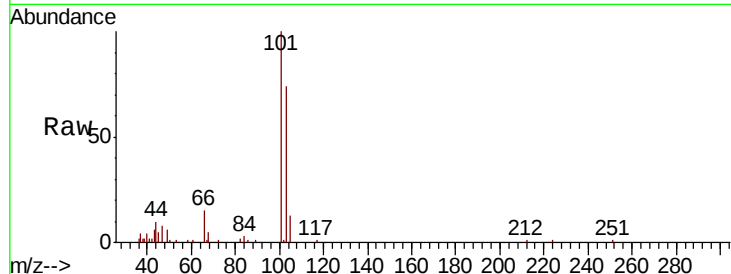
#11
 Trichlorofluoromethane
 Concen: 0.244 ppbv
 RT: 3.94 min Scan# 358
 Delta R.T. 0.00 min
 Lab File: VL034480.D
 Acq: 10 Dec 2019 1:27

Instrument :
 MSVOA_L
 ClientSampleId :
 1A-1

Tot Ion	Ratio	Lower	Upper
101	100		
103	74.0	55.4	83.0

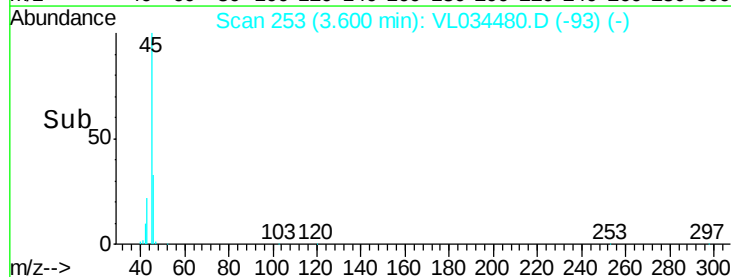
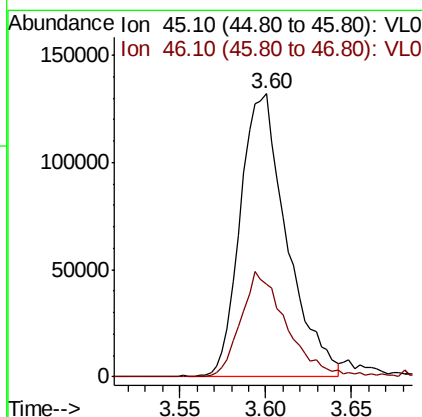
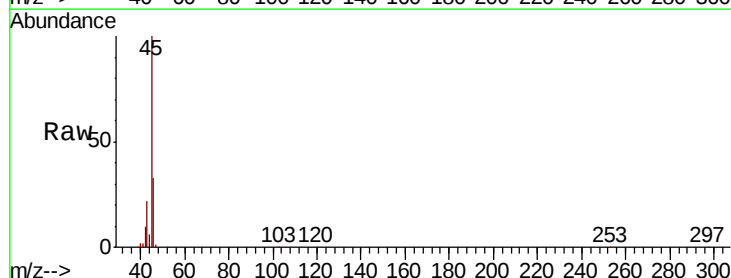
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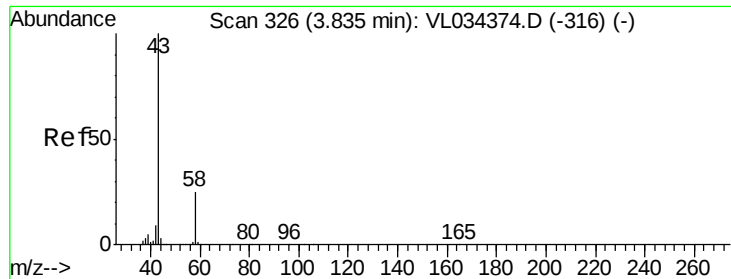
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#13
 Ethanol
 Concen: 18.966 ppbv
 RT: 3.60 min Scan# 253
 Delta R.T. 0.01 min
 Lab File: VL034480.D
 Acq: 10 Dec 2019 1:27

Tgt Ion	Ratio	Lower	Upper
45	100		
46	36.9	13.8	55.4





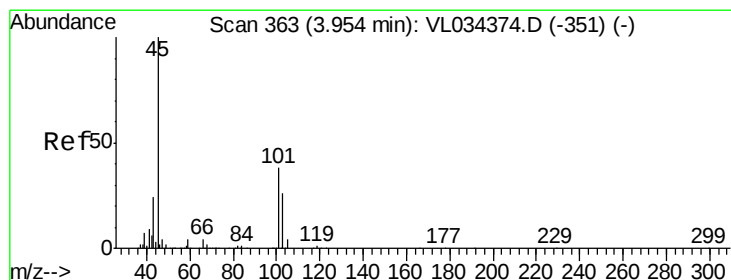
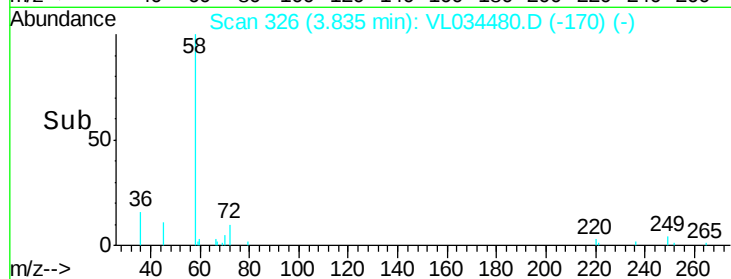
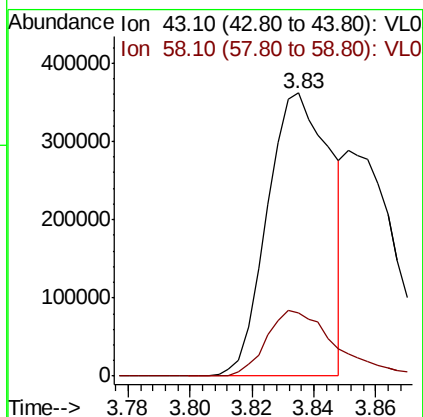
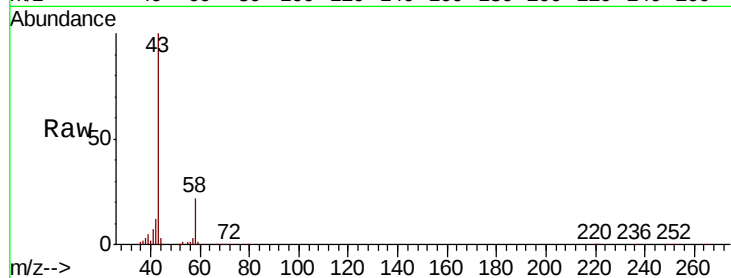
#15
Acetone
Concen: 4.263 ppbv
RT: 3.83 min Scan# 326
Delta R.T. 0.00 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Instrument :
MSVOA_L
ClientSampled :
1A-1

Tot Ion	43	58	Ratio	Lower	Upper
Resp:	515386				
Ion	43	58	100	20.2	30.4

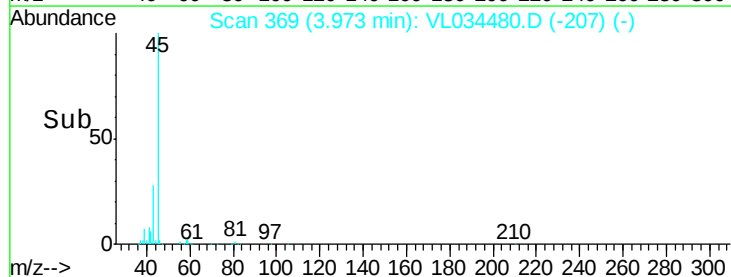
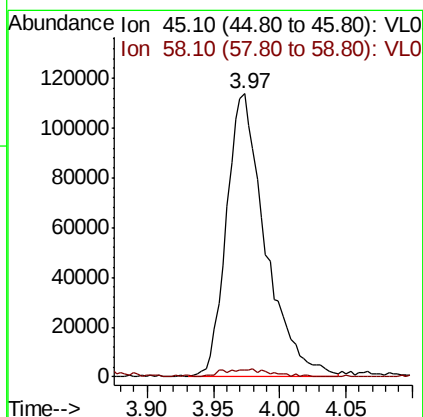
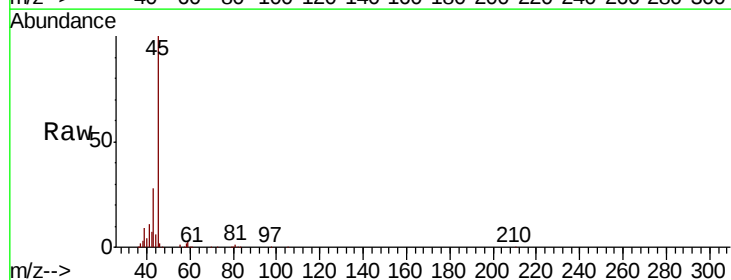
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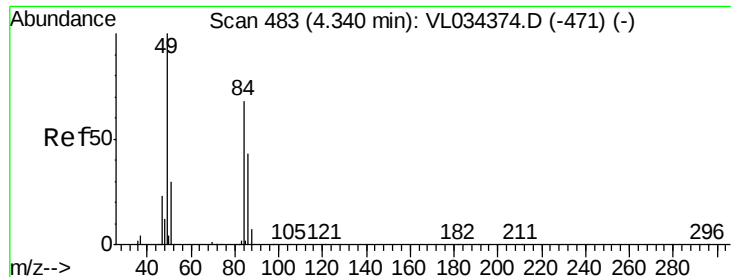
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#19
Isopropyl Alcohol
Concen: 2.998 ppbv
RT: 3.97 min Scan# 369
Delta R.T. 0.02 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Tgt Ion	45	58	Ratio	Lower	Upper
Resp:	232267				
Ion	45	58	100	1.3	1.9#





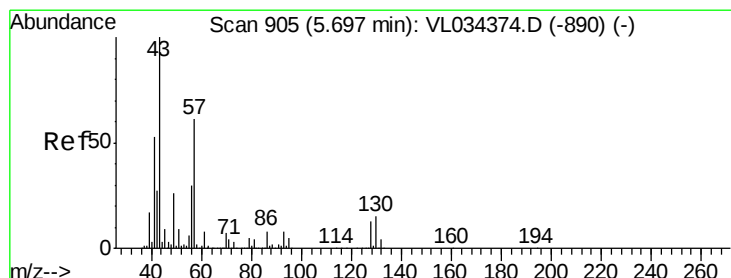
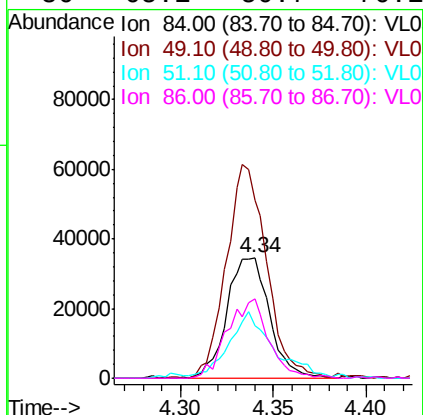
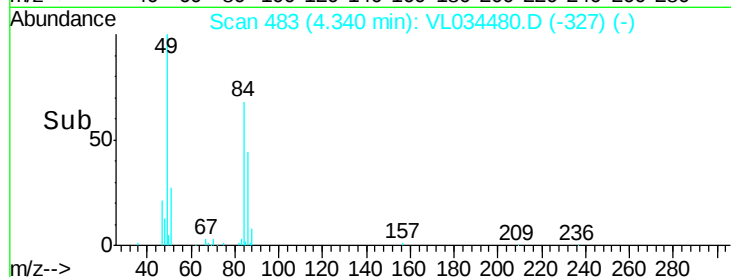
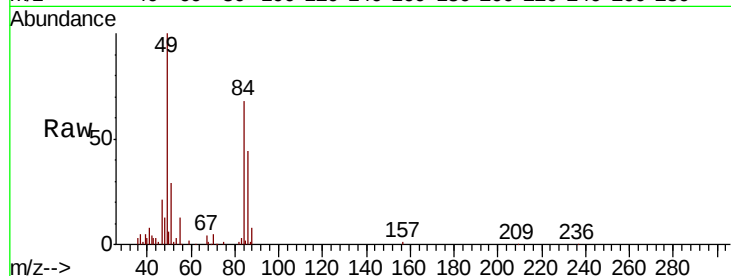
#20
Methvlene Chloride
Concen: 1.288 ppbv
RT: 4.34 min Scan# 483
Delta R.T. 0.00 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Instrument :
MSVOA_L
ClientSampled :
1A-1

Tot Ion	Ratio	Lower	Upper
84	100		
49	147.5	116.8	175.2
51	41.4	35.6	53.4
86	65.1	50.7	76.1

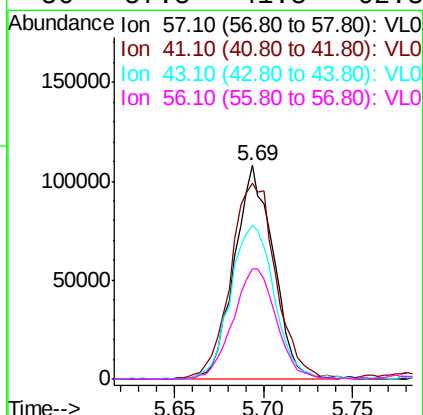
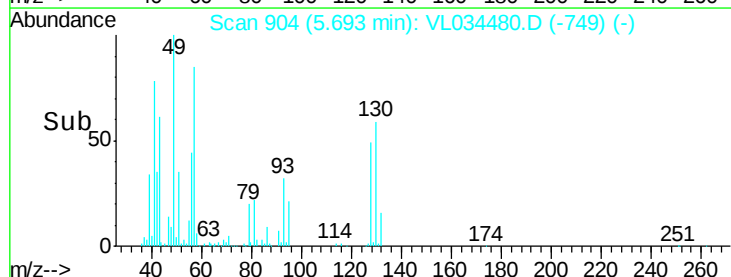
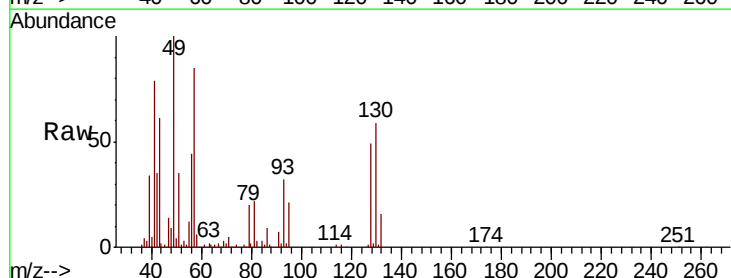
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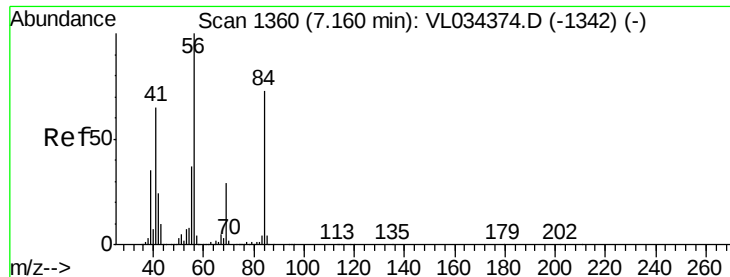
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#26
Hexane
Concen: 1.767 ppbv
RT: 5.69 min Scan# 904
Delta R.T. -0.00 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Tgt Ion	Ratio	Lower	Upper
57	100		
41	107.3	75.0	112.4
43	81.5	186.6	279.8
56	57.5	41.5	62.3





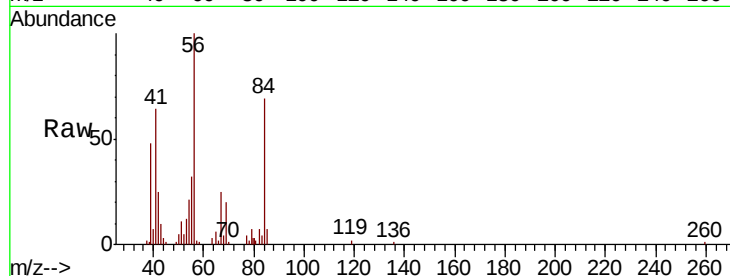
#30
Cyclohexane
Concen: 0.595 ppbv m
RT: 7.15 min Scan# 1357
Delta R.T. -0.01 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Instrument :
MSVOA_L
ClientSampled :
1A-1

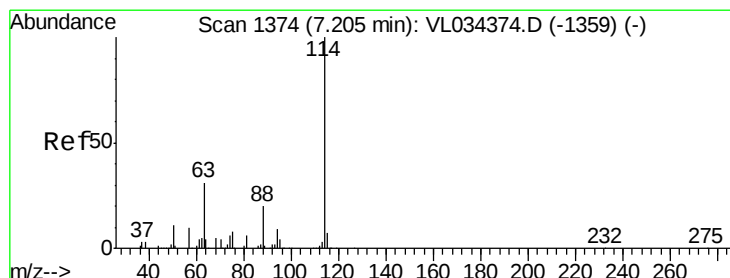
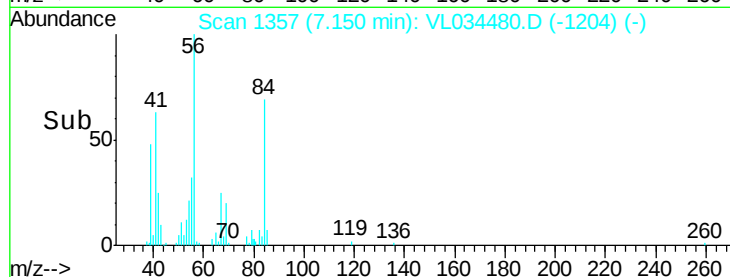
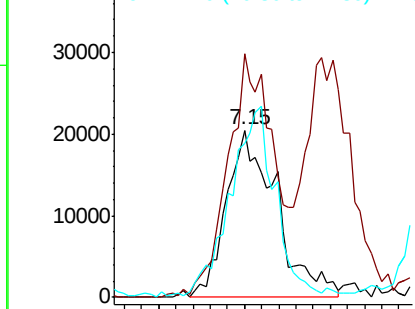
Tot Ion	Ratio	Lower	Upper
84	100		
56	125.3	112.6	169.0
41	0.0	73.4	110.2#

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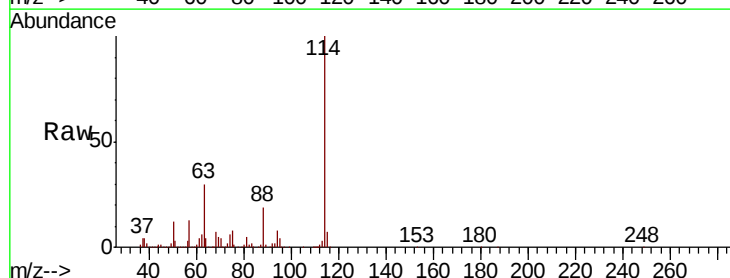


Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0

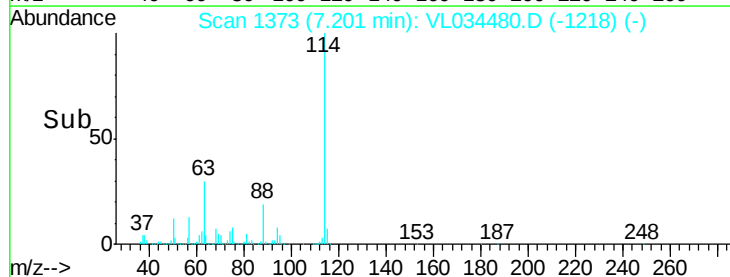
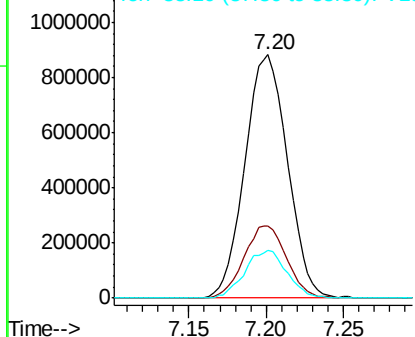


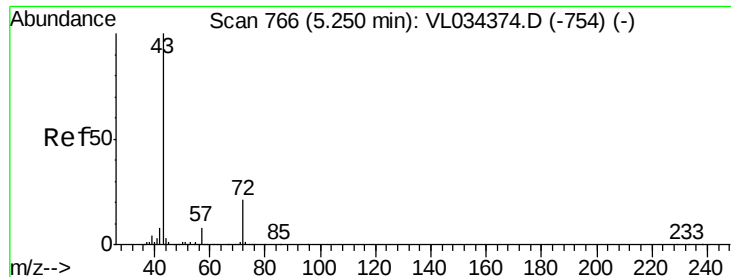
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.20 min Scan# 1373
Delta R.T. -0.00 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Tgt Ion	Ratio	Lower	Upper
114	100		
63	29.8	24.2	36.4
88	19.4	15.9	23.9



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





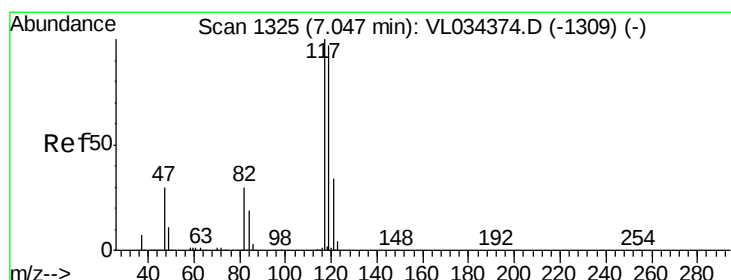
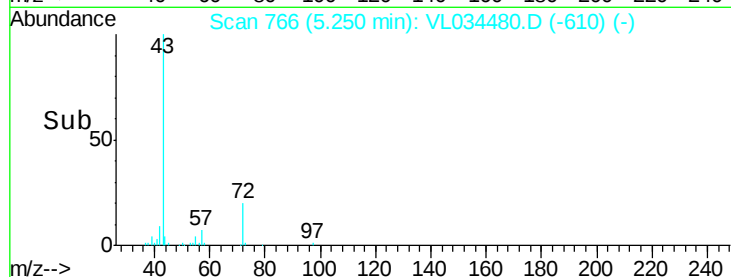
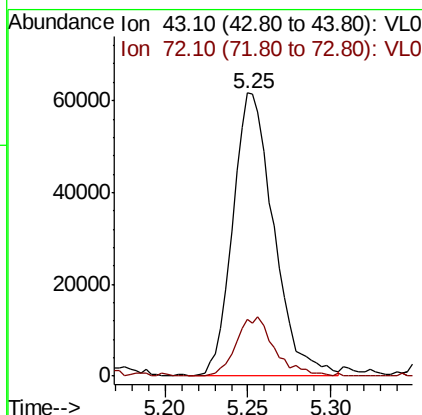
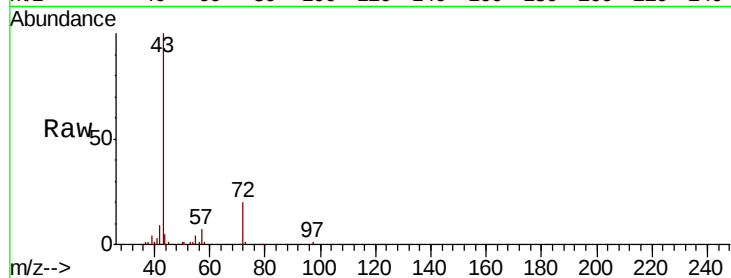
#34
2-Butanone
Concen: 0.761 ppbv
RT: 5.25 min Scan# 766
Delta R.T. 0.00 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Instrument :
MSVOA_L
ClientSampled :
1A-1

Tot Ion	Ratio	Lower	Upper
43	100		
72	19.7	17.0	25.6

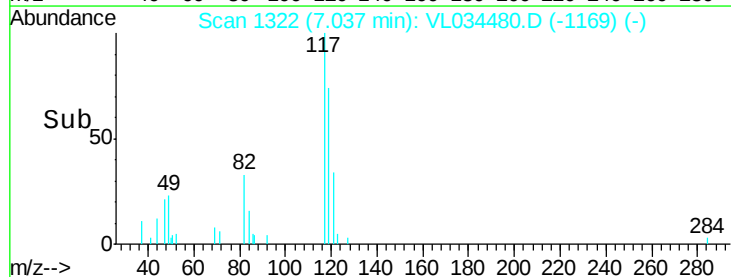
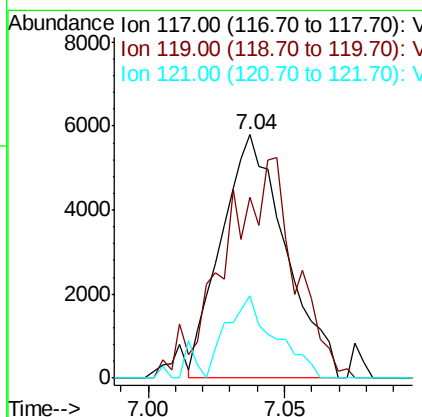
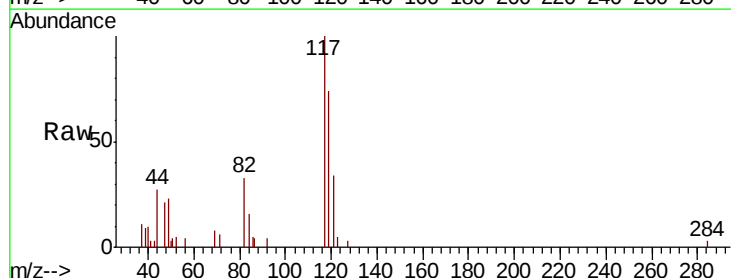
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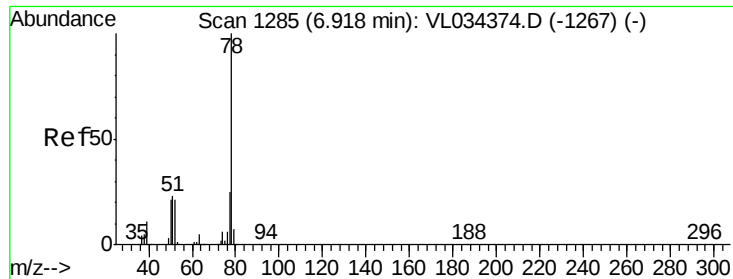
apatel
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#35
Carbon Tetrachloride
Concen: 0.065 ppbv
RT: 7.04 min Scan# 1322
Delta R.T. -0.01 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Tgt Ion	Ratio	Lower	Upper
117	100		
119	71.3	77.3	115.9#
121	34.0	27.4	41.2





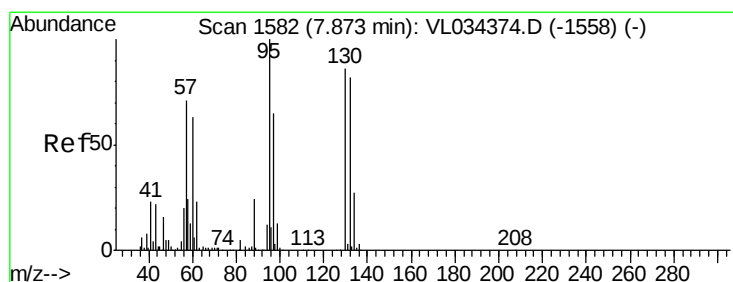
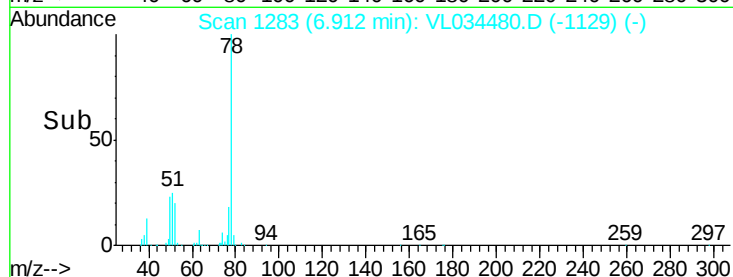
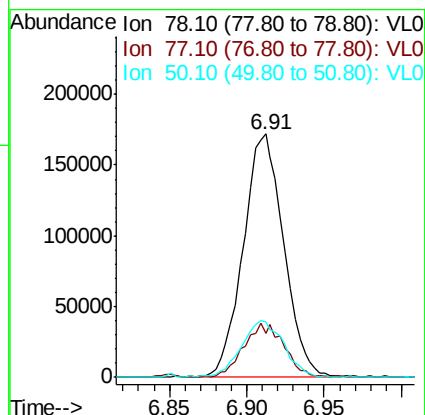
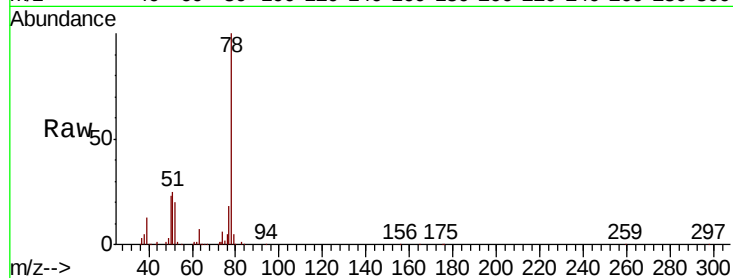
#36
Benzene
Concen: 1.842 ppbv
RT: 6.91 min Scan# 1283
Delta R.T. -0.01 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Instrument :
MSVOA_L
ClientSampled :
1A-1

Tot Ion	Ratio	Lower	Upper
78	100		
77	17.7	20.2	30.4#
50	22.5	17.1	25.7

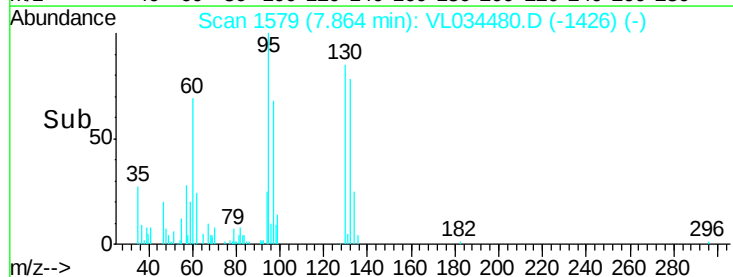
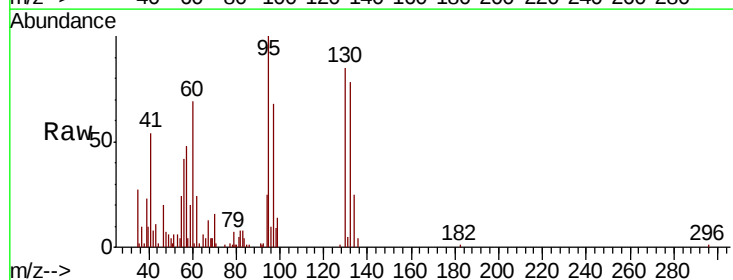
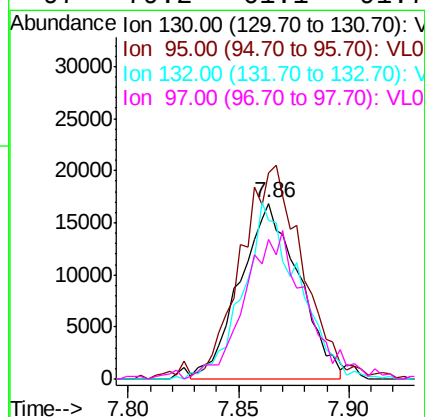
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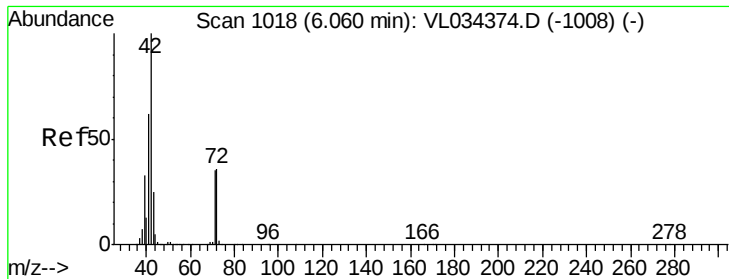
apatel
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#38
Trichloroethene
Concen: 0.450 ppbv
RT: 7.86 min Scan# 1579
Delta R.T. -0.01 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Tgt Ion	Ratio	Lower	Upper
130	100		
95	116.4	93.4	140.0
132	88.6	76.4	114.6
97	79.2	61.1	91.7





#41

Tetrahydrofuran

Concen: 0.285 ppbv

RT: 6.08 min Scan# 1023

Delta R.T. 0.02 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Instrument :

MSVOA_L

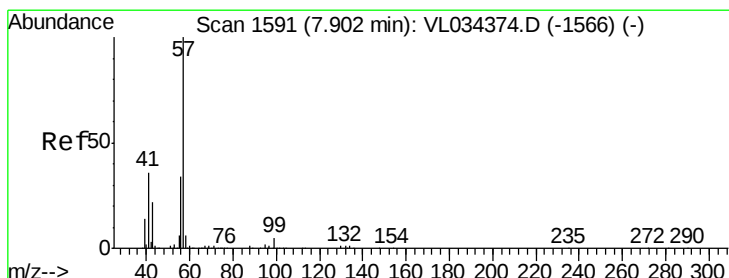
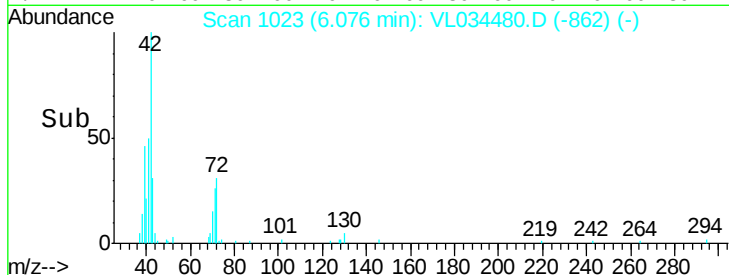
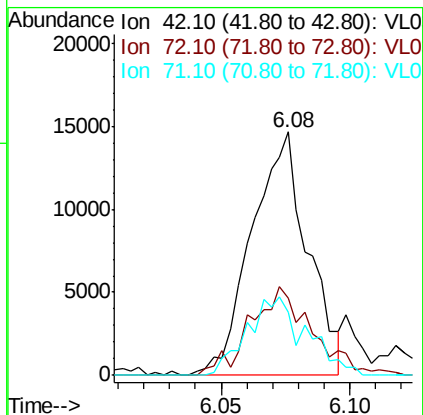
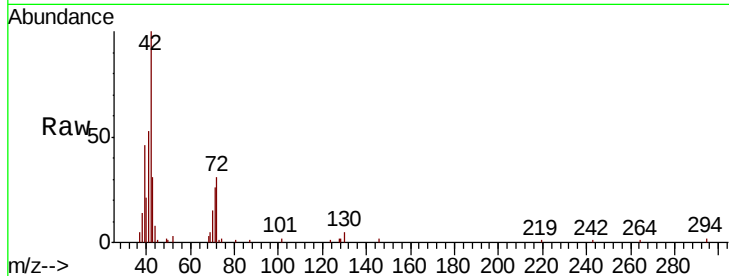
ClientSampled :

1A-1

Tot Ion:	42	Resp:	22244
Ion Ratio	Lower	Upper	
42	100		
72	40.3	30.2	45.4
71	34.0	29.4	44.2

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#44

2,2,4-Trimethylpentane

Concen: 0.831 ppbv

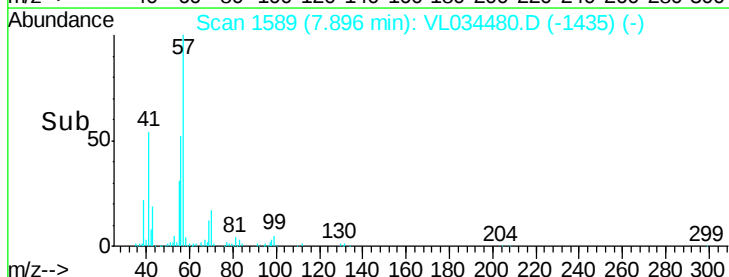
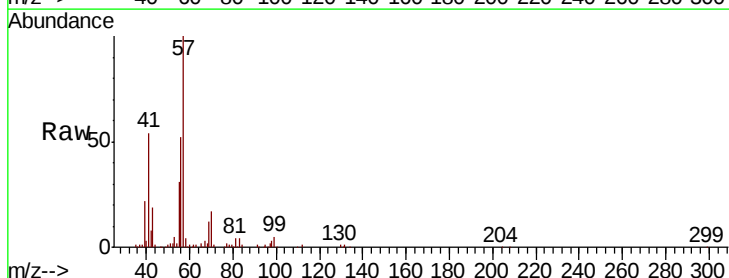
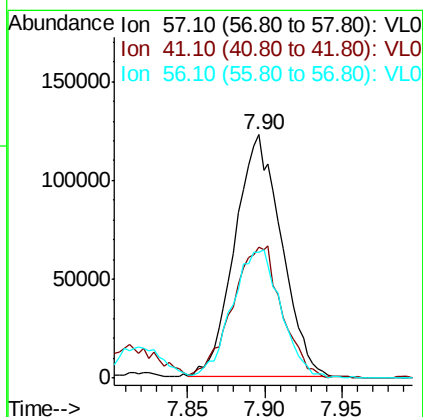
RT: 7.90 min Scan# 1589

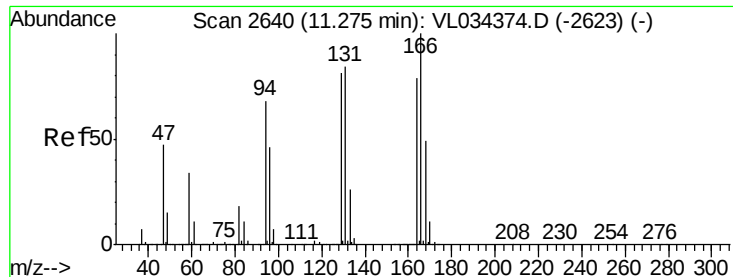
Delta R.T. -0.01 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Tgt Ion:	57	Resp:	257162
Ion Ratio	Lower	Upper	
57	100		
41	58.5	28.6	42.8#
56	55.8	25.3	37.9#





#52

Tetrachloroethene

Concen: 0.130 ppbv m

RT: 11.27 min Scan# 2639

Delta R.T. -0.00 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Instrument :

MSVOA_L

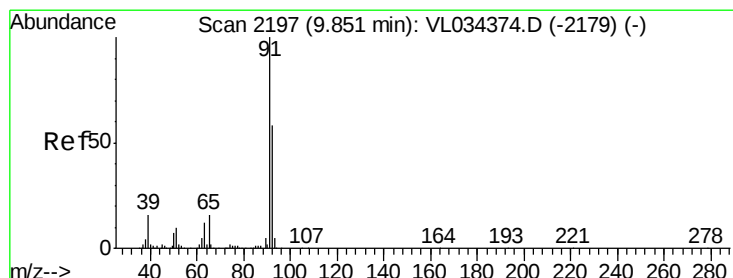
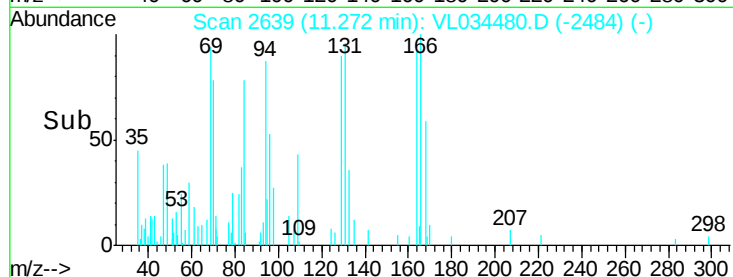
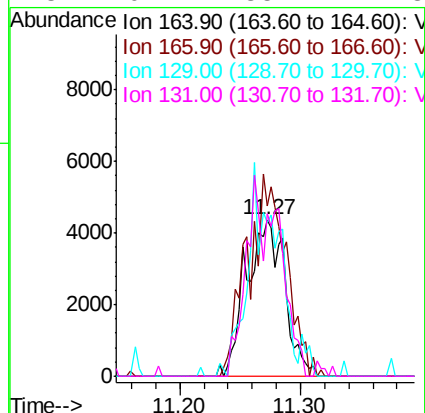
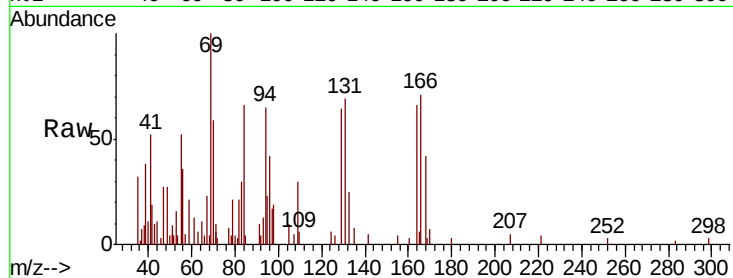
ClientSampleId :

1A-1

Tot Ion:	164	Resp:	9547
Ion	Ratio	Lower	Upper
164	100		
166	108.6	101.7	152.5
129	97.9	82.6	123.8
131	104.4	85.2	127.8

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#53

Toluene

Concen: 4.843 ppbv

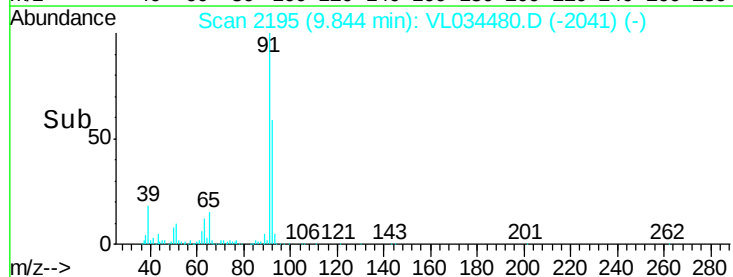
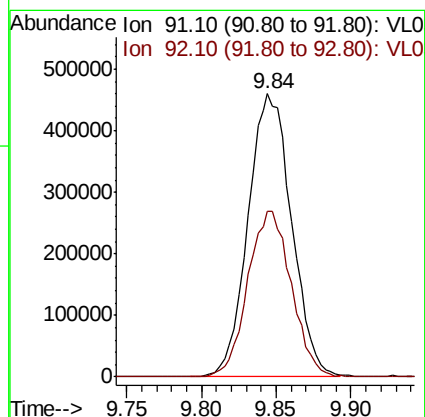
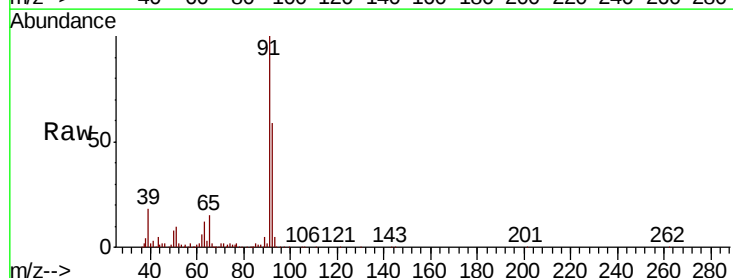
RT: 9.84 min Scan# 2195

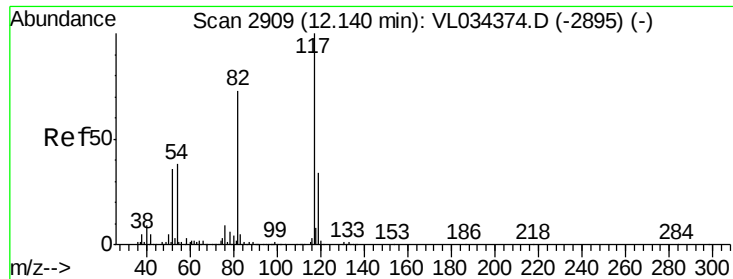
Delta R.T. -0.01 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Tgt Ion:	91	Resp:	930925
Ion	Ratio	Lower	Upper
91	100		
92	58.5	47.9	71.9





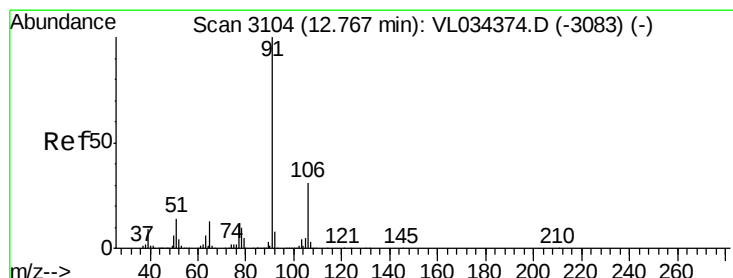
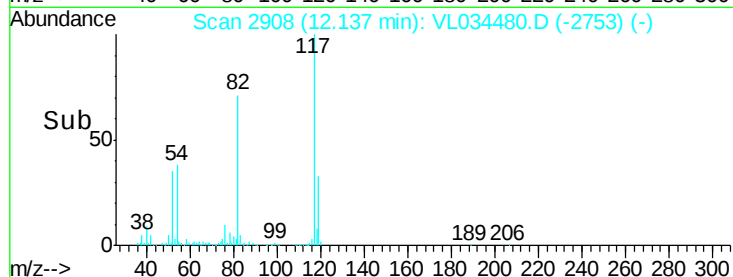
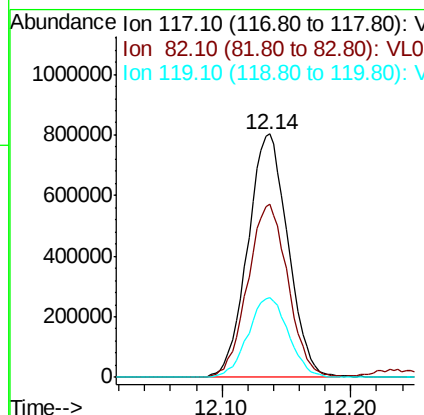
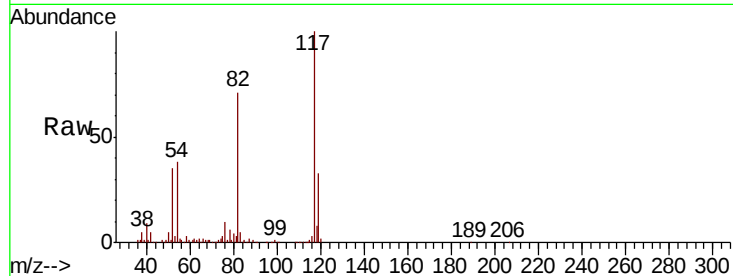
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.14 min Scan# 2908
Delta R.T. -0.00 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Instrument :
MSVOA_L
ClientSampled :
1A-1

Tot Ion:117 Resp: 1744553
Ion Ratio Lower Upper
117 100
82 71.0 57.5 86.3
119 33.1 25.4 38.2

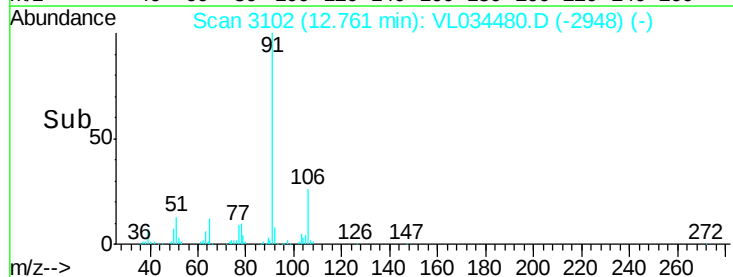
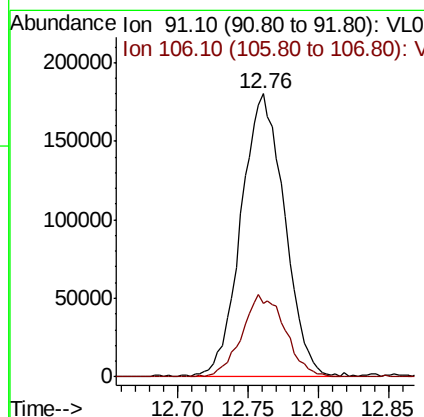
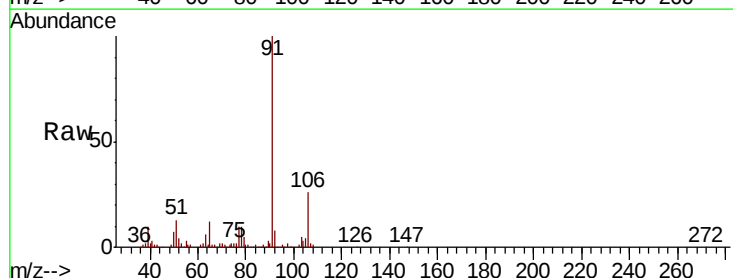
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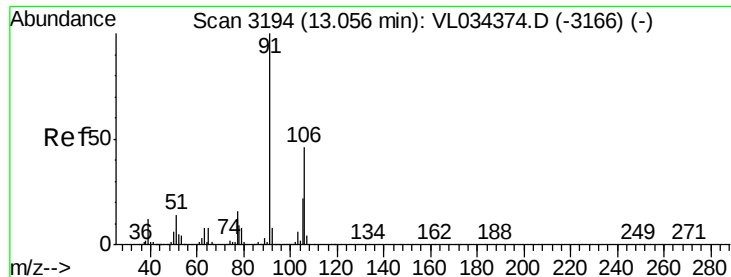
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#58
Ethyl Benzene
Concen: 1.429 ppbv
RT: 12.76 min Scan# 3102
Delta R.T. -0.01 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Tgt Ion: 91 Resp: 386878
Ion Ratio Lower Upper
91 100
106 25.7 24.8 37.2





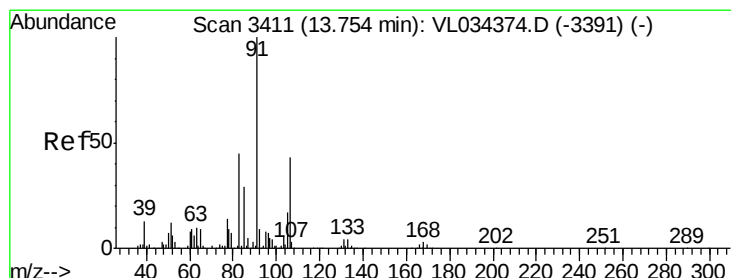
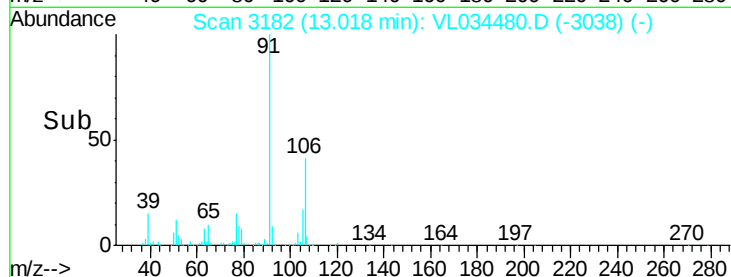
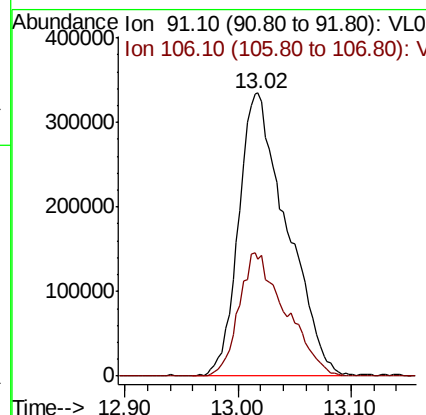
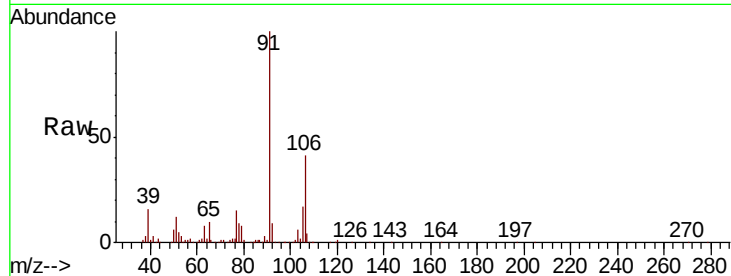
#59
m/p-Xylene
Concen: 4.217 ppbv
RT: 13.02 min Scan# 3182
Delta R.T. -0.04 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Instrument :
MSVOA_L
ClientSampled :
1A-1

Tot Ion: 91 Resp: 986952
Ion Ratio Lower Upper
91 100
106 42.5 34.6 51.8

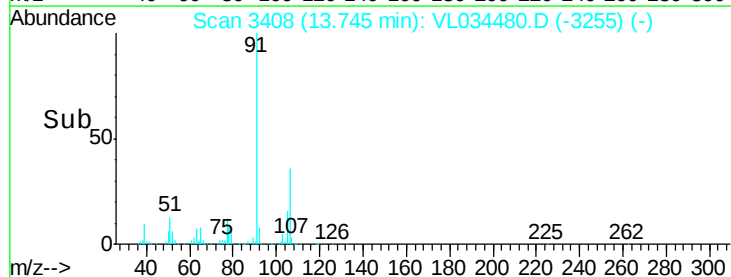
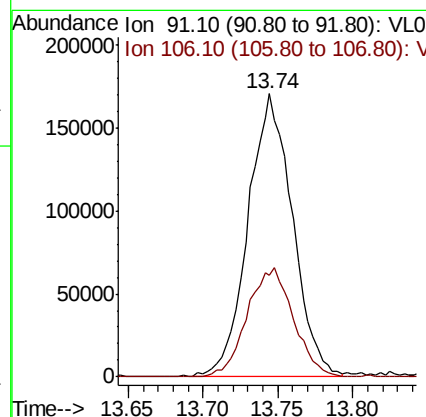
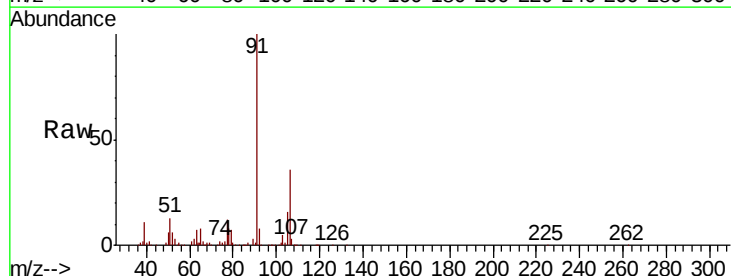
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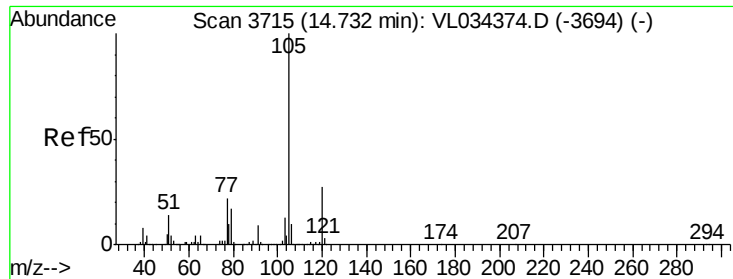
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#60
o-Xylene
Concen: 1.517 ppbv
RT: 13.74 min Scan# 3408
Delta R.T. -0.01 min
Lab File: VL034480.D
Acq: 10 Dec 2019 1:27

Tgt Ion: 91 Resp: 350970
Ion Ratio Lower Upper
91 100
106 40.1 21.3 64.0





#62

Isopropylbenzene

Concen: 0.144 ppbv m

RT: 14.72 min Scan# 3712

Delta R.T. -0.01 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Instrument :

MSVOA_L

ClientSampled :

1A-1

Tot Ion: 105 Resp: 44146

Ion Ratio Lower Upper

105 100

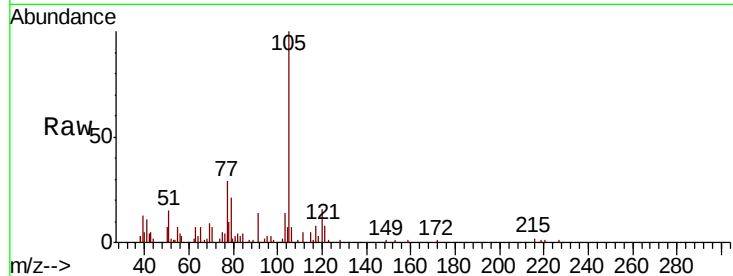
120 22.5 20.2 30.4

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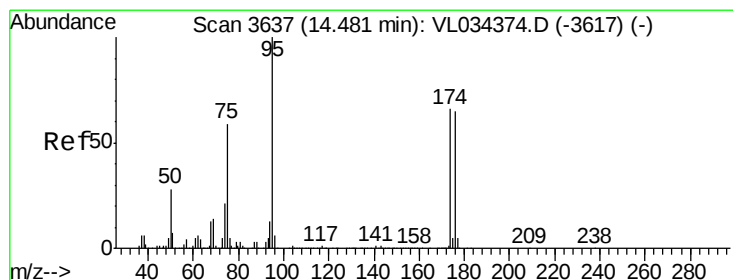
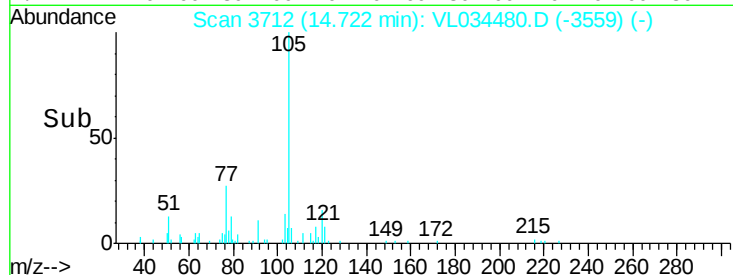
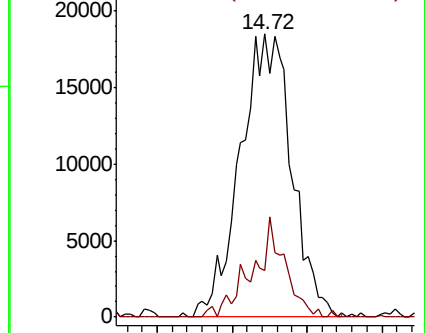
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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.368 ppbv

RT: 14.47 min Scan# 3635

Delta R.T. -0.01 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

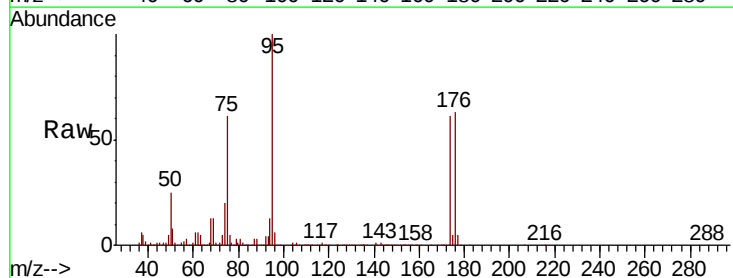
Tgt Ion: 95 Resp: 1521618

Ion Ratio Lower Upper

95 100

174 64.2 52.2 78.2

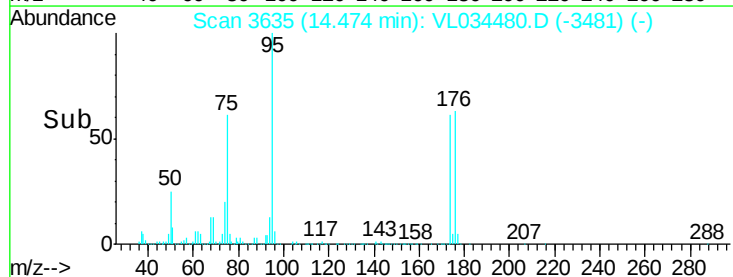
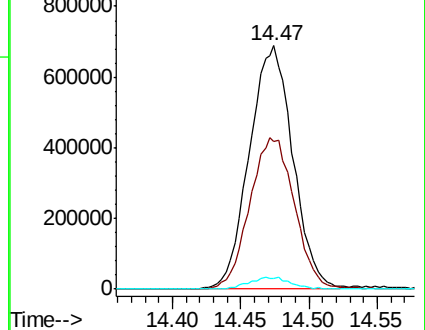
175 4.7 3.8 5.8

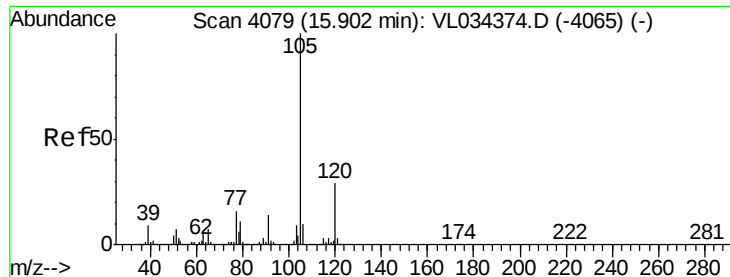


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#72

4-Ethyltoluene

Concen: 0.601 ppbv

RT: 15.90 min Scan# 4078

Delta R.T. -0.00 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Instrument :

MSVOA_L

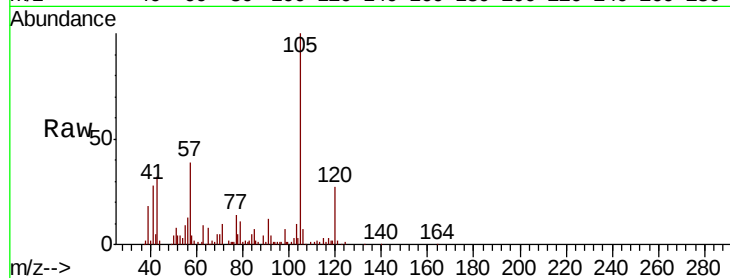
ClientSampleId :

1A-1

Tot Ion:	105	Resp:	160697
Ion Ratio		Lower	Upper
105	100		
120	30.3	23.5	35.3
91	16.0	11.4	17.0
77	19.3	12.6	19.0

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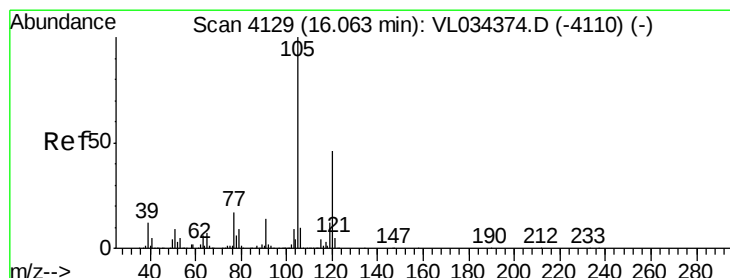
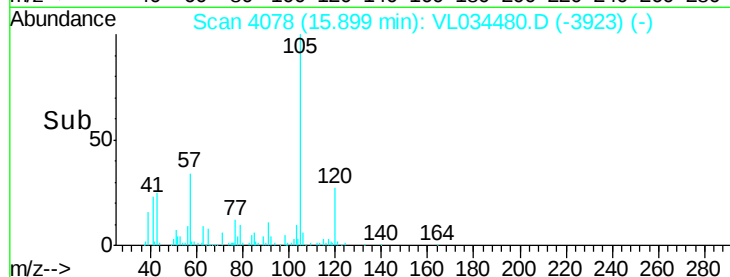
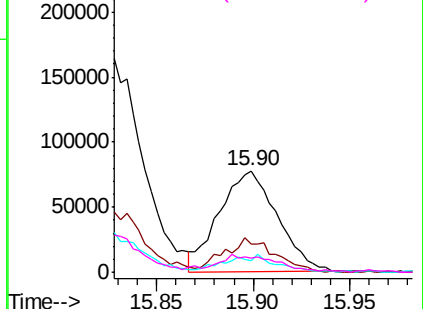
Abundance

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



#73

1,3,5-Trimethylbenzene

Concen: 0.670 ppbv m

RT: 16.06 min Scan# 4127

Delta R.T. -0.01 min

Lab File: VL034480.D

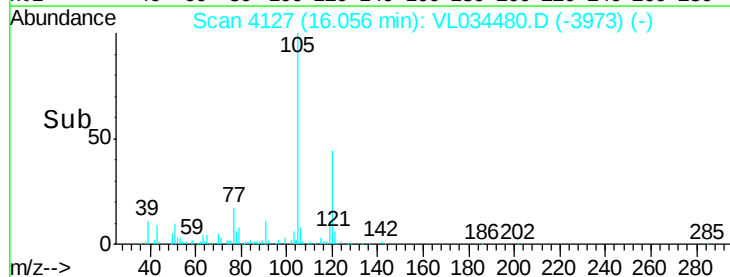
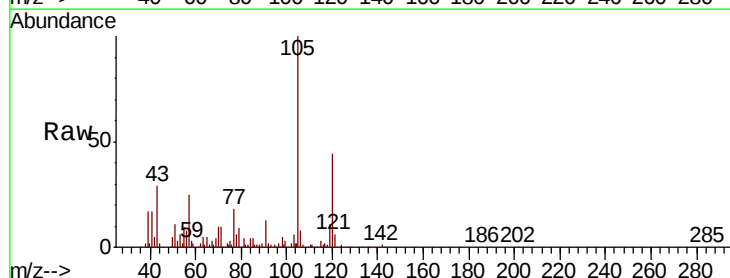
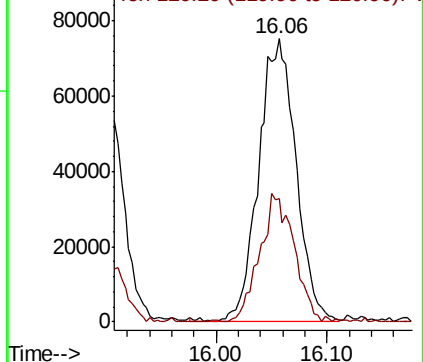
Acq: 10 Dec 2019 1:27

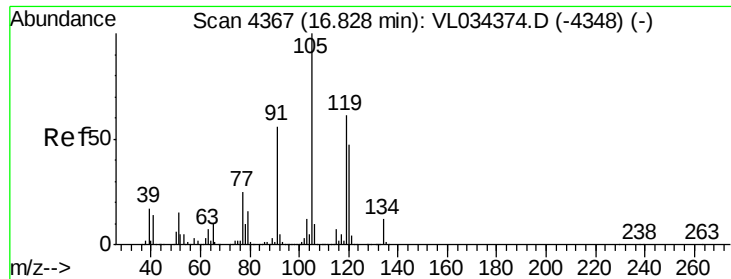
Tgt Ion:	105	Resp:	175413
Ion Ratio		Lower	Upper
105	100		
120	43.8	37.1	55.7

Abundance

Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#74

1,2,4-Trimethylbenzene

Concen: 2.298 ppbv

RT: 16.82 min Scan# 4366

Delta R.T. -0.00 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Instrument :

MSVOA_L

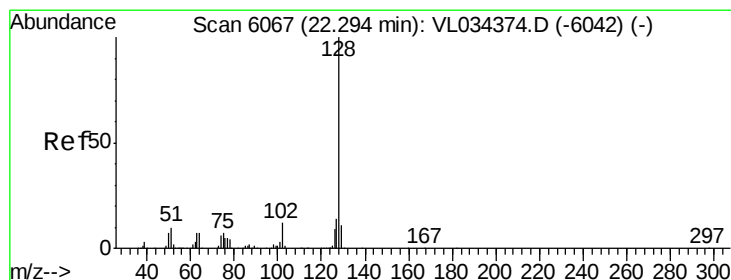
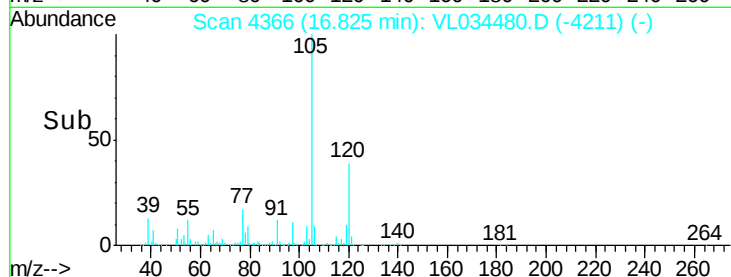
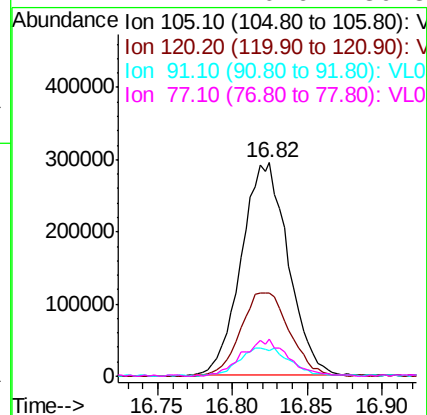
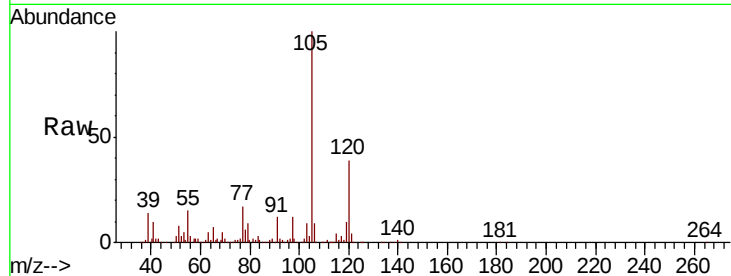
ClientSampled :

1A-1

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	38.6	37.4	56.0
91	11.7	46.3	69.5#
77	17.2	20.6	30.8#

Manual Integrations
APPROVED

apatel
12/11/2019 2:13:00 PM



#79

Naphthalene

Concen: 0.202 ppbv m

RT: 22.28 min Scan# 6064

Delta R.T. -0.01 min

Lab File: VL034480.D

Acq: 10 Dec 2019 1:27

Tgt Ion	Ratio	Resp Lower	Upper
128	100		
127	16.1	11.0	16.6
129	17.2	8.9	13.3#

