

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL070218\
 Data File : VL032182.D
 Acq On : 2 Jul 2018 15:09
 Operator : SY/AP
 Sample : J3601-11
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OUTDOOR-2

Manual Integrations
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 7/3/2018 5:17:09 PM

Quant Time: Jul 03 15:14:31 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL062918AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 29 2018
 QLast Update : Fri Jun 29 22:27:58 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.85	49	1435537	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.38	114	3862328	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.34	117	3480888	10.00	ppbv	-0.02

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.67	95	2686070	10.10	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.13	85	46866	0.25	ppbv	99
3) Chlorodifluoromethane	3.07	51	110143m	0.63	ppbv	
4) Chloromethane	3.23	50	52448	0.56	ppbv	97
9) Propene	3.11	41	60120m	0.74	ppbv	
10) Heptane	8.34	43	199435	0.84	ppbv	96
11) Trichlorofluoromethane	4.07	101	55008	0.27	ppbv	95
13) Ethanol	3.72	45	518057	20.90	ppbv	96
15) Acetone	3.96	43	1907261	11.36	ppbv #	86
19) Isopropyl Alcohol	4.10	45	327883m	2.35	ppbv	
20) Methylene Chloride	4.48	84	301540	4.92	ppbv	95
26) Hexane	5.86	57	598255	3.74	ppbv	99
27) Carbon Disulfide	4.69	76	48226	0.30	ppbv #	53
30) Cyclohexane	7.34	84	143630	0.95	ppbv	98
34) 2-Butanone	5.41	43	421596	1.72	ppbv	98
35) Carbon Tetrachloride	7.22	117	16740m	0.06	ppbv	
36) Benzene	7.09	78	62540	0.17	ppbv	96
44) 2,2,4-Trimethylpentane	8.08	57	104000	0.16	ppbv #	24
50) 4-Methyl-2-Pentanone	8.97	43	765939	1.91	ppbv	99
52) Tetrachloroethene	11.47	164	22494m	0.17	ppbv	
53) Toluene	10.04	91	4097963	9.07	ppbv	98
58) Ethyl Benzene	12.96	91	555926	0.99	ppbv	90
59) m/p-Xylene	13.22	91	1290805	2.87	ppbv	96
60) o-Xylene	13.95	91	596847	1.33	ppbv	95
61) Styrene	13.79	104	161106	0.44	ppbv	94
72) 4-Ethyltoluene	16.09	105	120774m	0.21	ppbv	
73) 1,3,5-Trimethylbenzene	16.26	105	118757	0.22	ppbv	88
74) 1,2,4-Trimethylbenzene	17.02	105	374542m	0.68	ppbv	

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

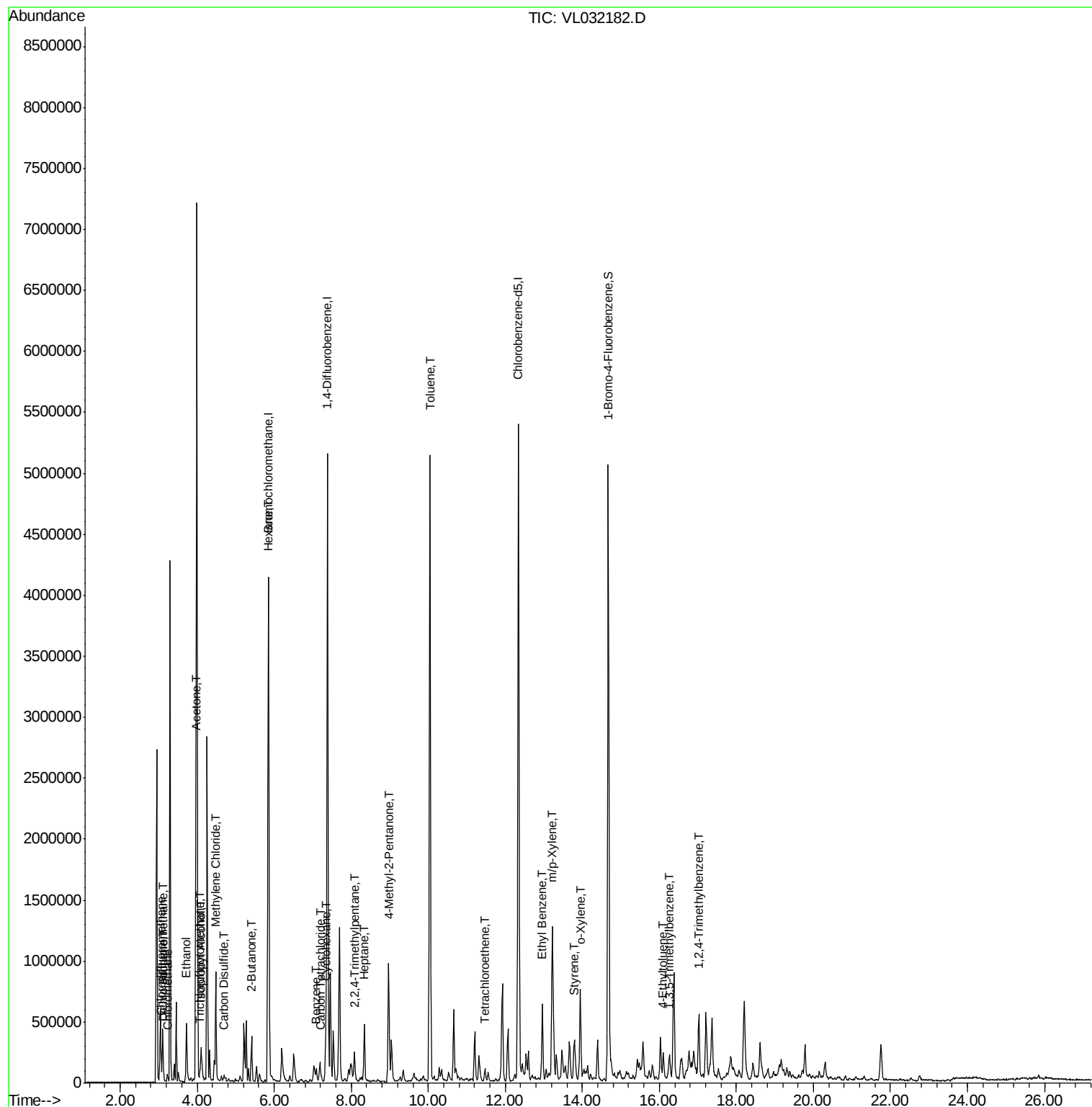
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL070218\
Data File : VL032182.D
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Operator : SY/AP
Sample : J3601-11
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

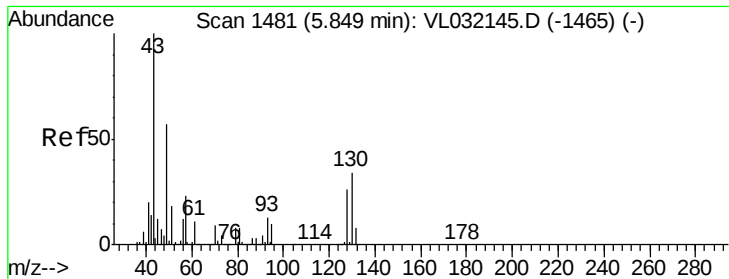
Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-2

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Quant Time: Jul 03 15:14:31 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL062918AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun
QLast Update : Fri Jun 29 22:27:58 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.85 min Scan# 1480

Delta R.T. -0.02 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-2

Tot Ion: 49 Resp: 143537

Ion Ratio Lower Upper

49 100

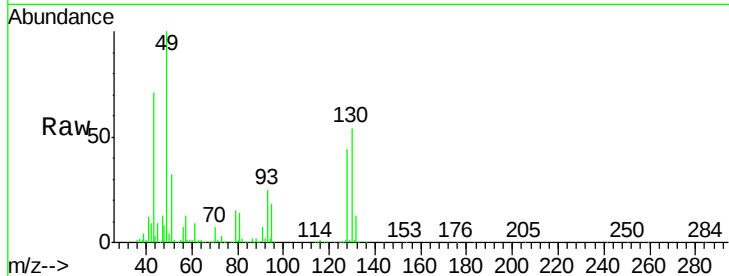
128 45.0 23.4 70.0

130 56.9 30.3 90.9

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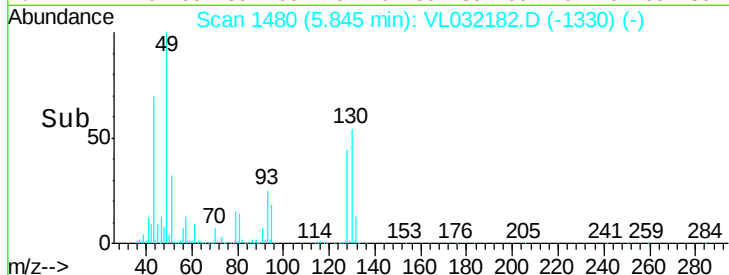


Abundance Ion 49.10 (48.80 to 49.80): VL0

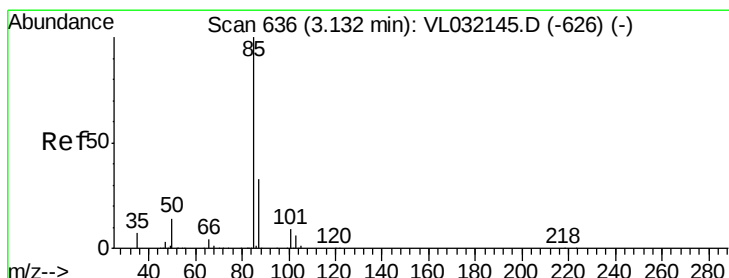
Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

Time-->



Time-->



#2

Dichlorodifluoromethane

Concen: 0.25 ppbv

RT: 3.13 min Scan# 636

Delta R.T. -0.01 min

Lab File: VL032182.D

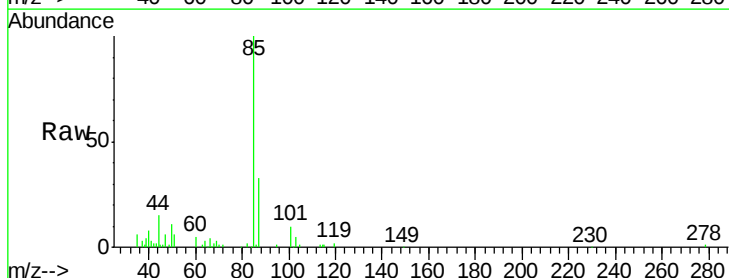
Acq: 2 Jul 2018 15:09

Tgt Ion: 85 Resp: 46866

Ion Ratio Lower Upper

85 100

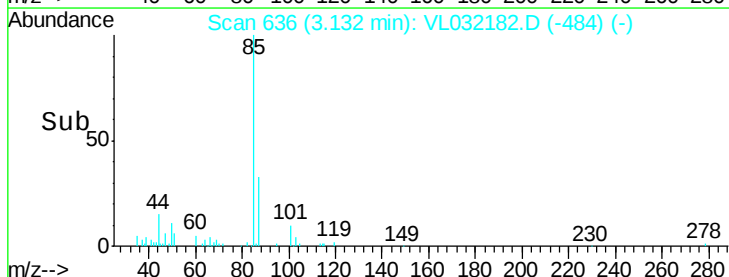
87 32.9 26.7 40.1



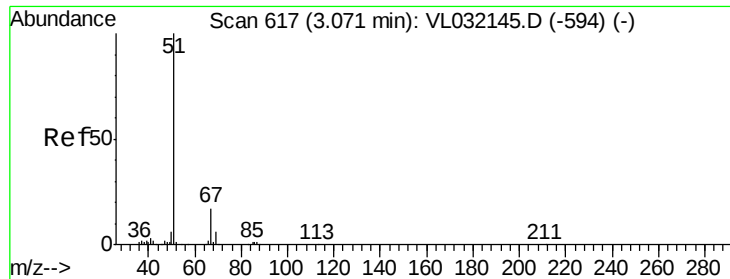
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

Time-->



Time-->



#3

Chlorodifluoromethane

Concen: 0.63 ppbv m

RT: 3.07 min Scan# 617

Delta R.T. -0.01 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-2

Tot Ion: 51 Resp: 110143

Ion Ratio Lower Upper

51 100

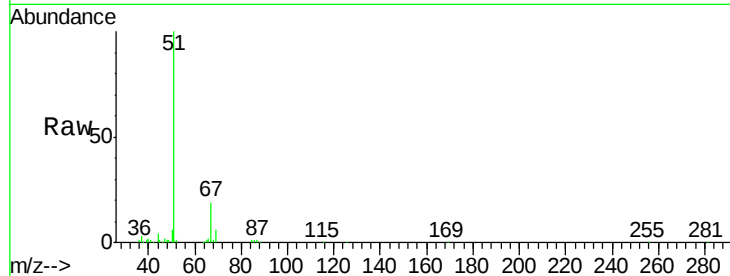
67 23.5 13.2 19.8#

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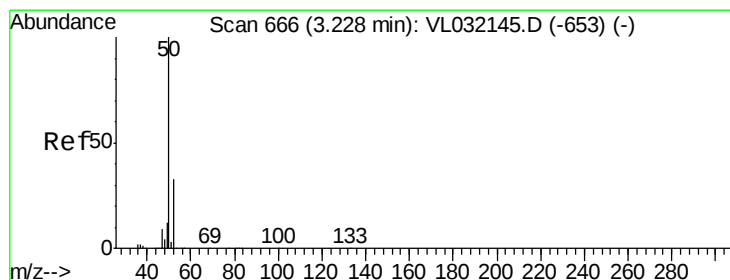
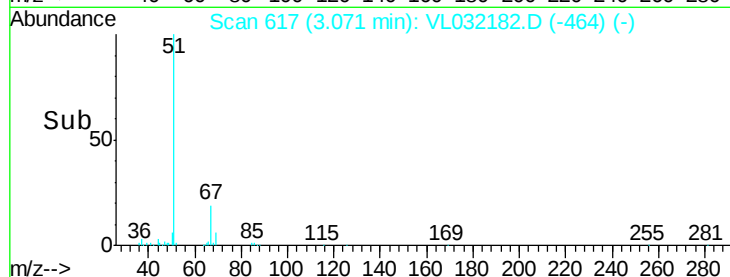
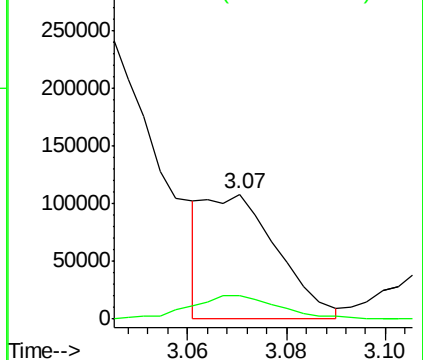
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.56 ppbv

RT: 3.23 min Scan# 666

Delta R.T. -0.01 min

Lab File: VL032182.D

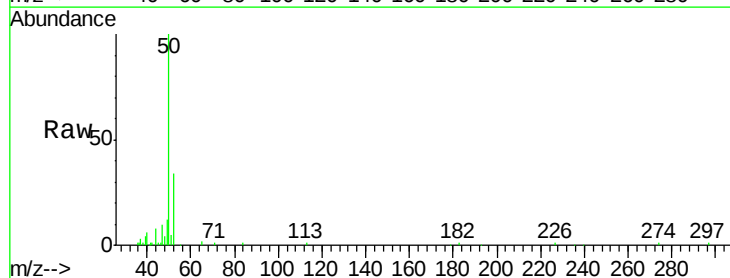
Acq: 2 Jul 2018 15:09

Tgt Ion: 50 Resp: 52448

Ion Ratio Lower Upper

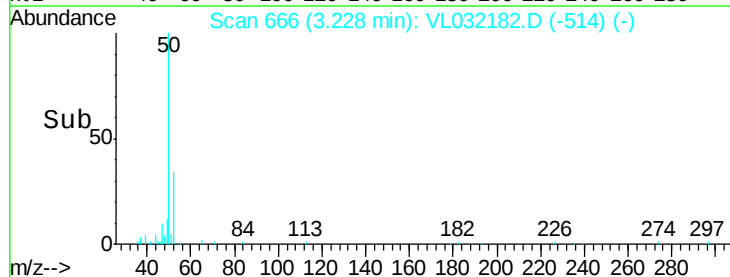
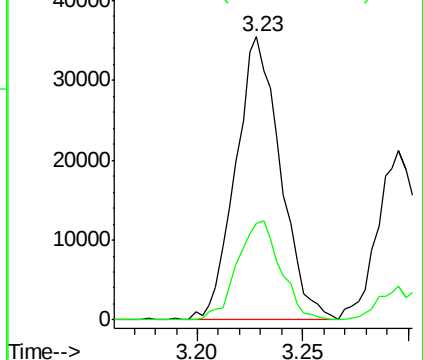
50 100

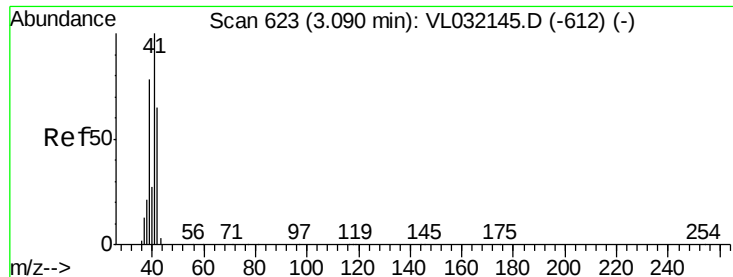
52 34.0 26.0 39.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

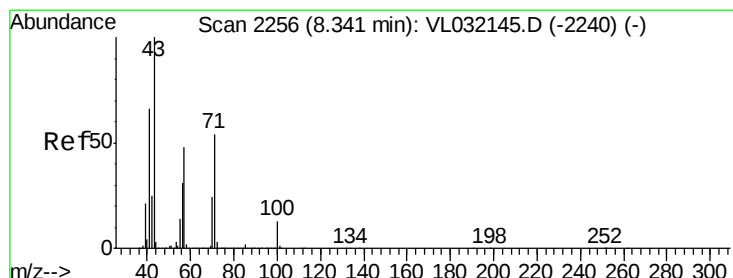
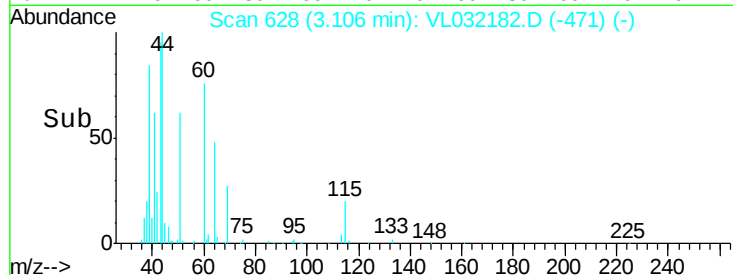
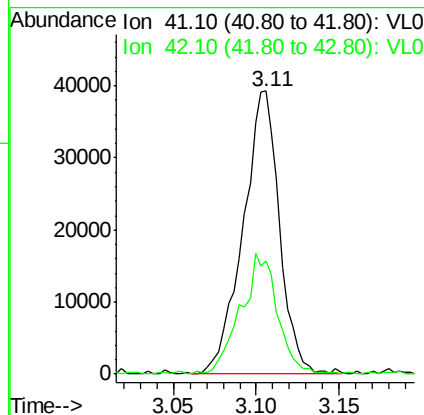
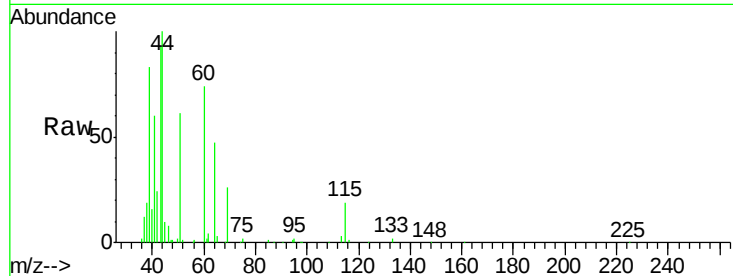
Concen: 0.74 ppbv m
 RT: 3.11 min Scan# 628
 Delta R.T. 0.01 min
 Lab File: VL032182.D
 Acq: 2 Jul 2018 15:09

Instrument :
 MSVOA_L
 ClientSampleId :
 OUTDOOR-2

Tot Ion: 41 Resp: 60120
 Ion Ratio Lower Upper
 41 100
 42 1302.5 56.2 84.4

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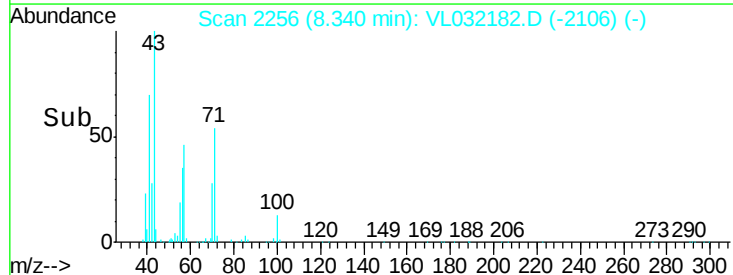
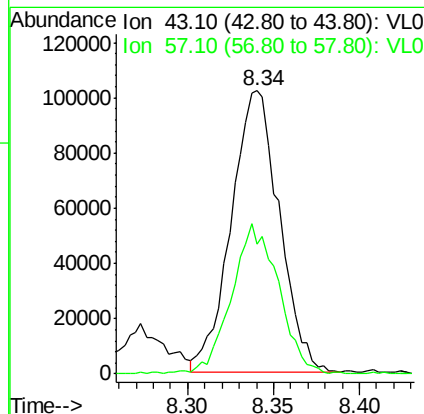
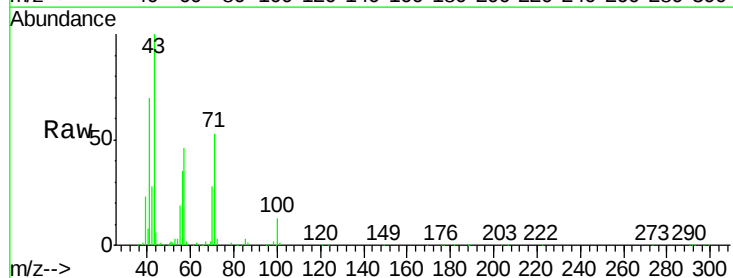


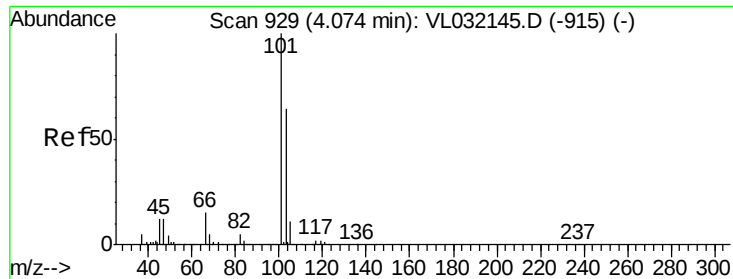
#10

Heptane

Concen: 0.84 ppbv
 RT: 8.34 min Scan# 2256
 Delta R.T. -0.02 min
 Lab File: VL032182.D
 Acq: 2 Jul 2018 15:09

Tgt Ion: 43 Resp: 199435
 Ion Ratio Lower Upper
 43 100
 57 52.2 39.8 59.8





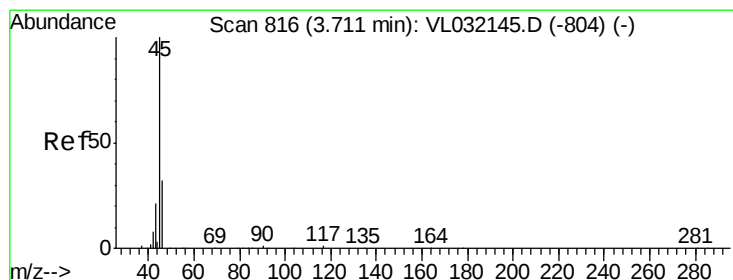
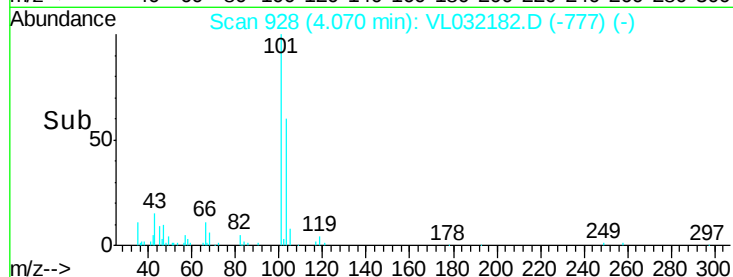
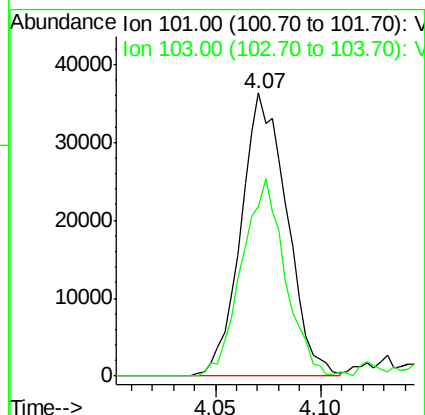
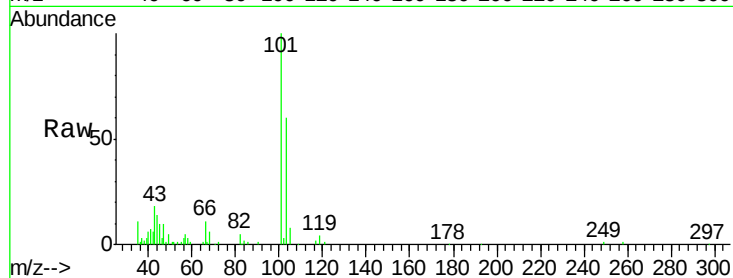
#11
Trichlorofluoromethane
Concen: 0.27 ppbv
RT: 4.07 min Scan# 928
Delta R.T. -0.01 min
Lab File: VL032182.D
Acq: 2 Jul 2018 15:09

Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-2

Tot Ion:101 Resp: 55008
Ion Ratio Lower Upper
101 100
103 59.9 51.4 77.0

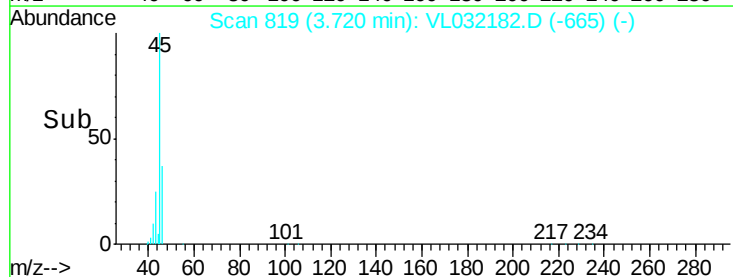
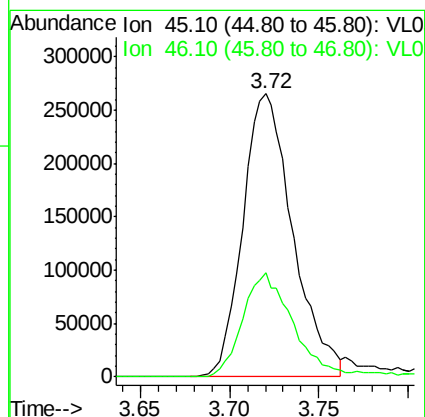
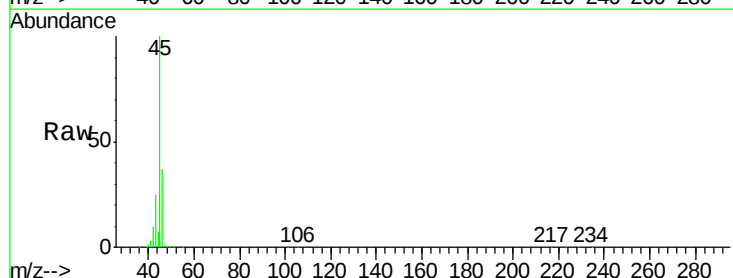
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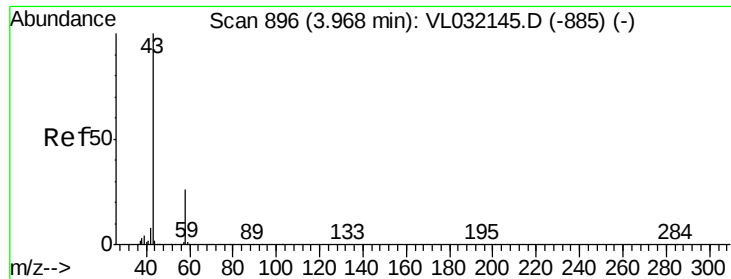
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#13
Ethanol
Concen: 20.90 ppbv
RT: 3.72 min Scan# 819
Delta R.T. -0.00 min
Lab File: VL032182.D
Acq: 2 Jul 2018 15:09

Tgt Ion: 45 Resp: 518057
Ion Ratio Lower Upper
45 100
46 38.9 14.6 58.4





#15

Acetone

Concen: 11.36 ppbv

RT: 3.96 min Scan# 895

Delta R.T. -0.01 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-2

Tot Ion: 43 Resp: 1907261

Ion Ratio Lower Upper

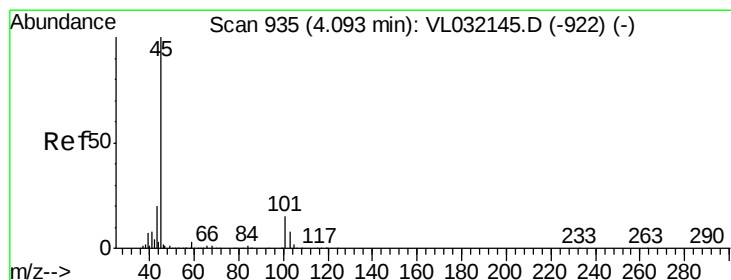
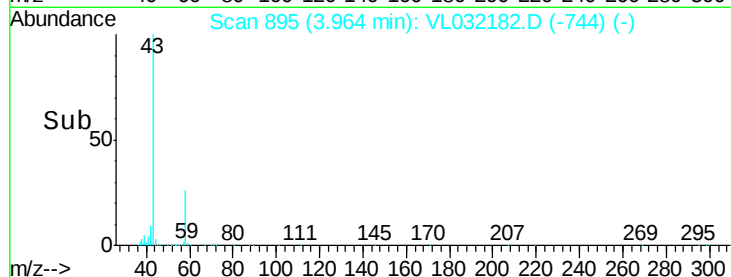
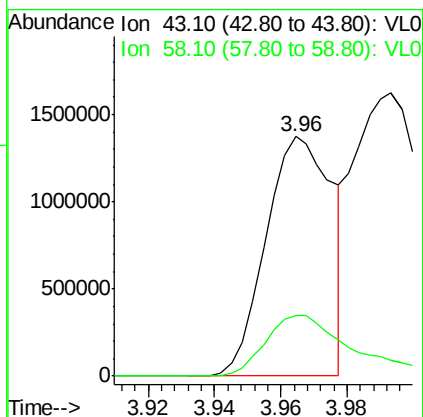
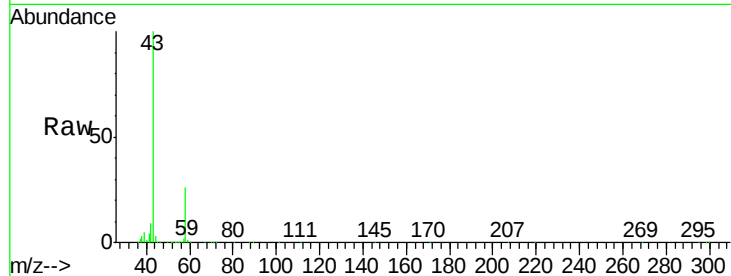
43 100

58 33.8 21.4 32.0#

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#19

Isopropyl Alcohol

Concen: 2.35 ppbv m

RT: 4.10 min Scan# 938

Delta R.T. -0.00 min

Lab File: VL032182.D

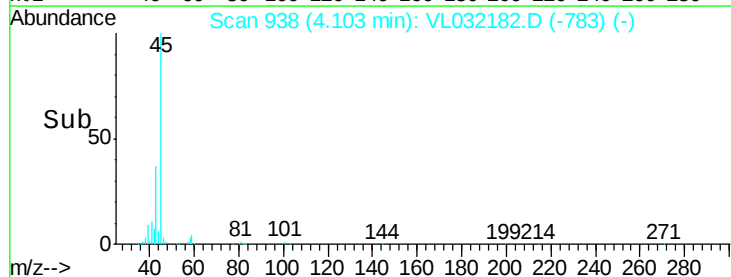
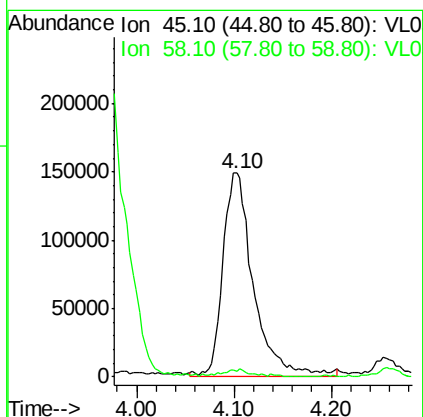
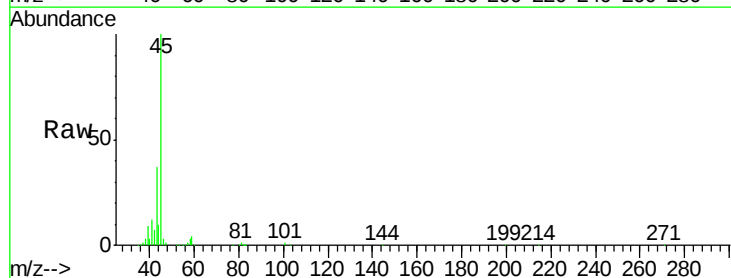
Acq: 2 Jul 2018 15:09

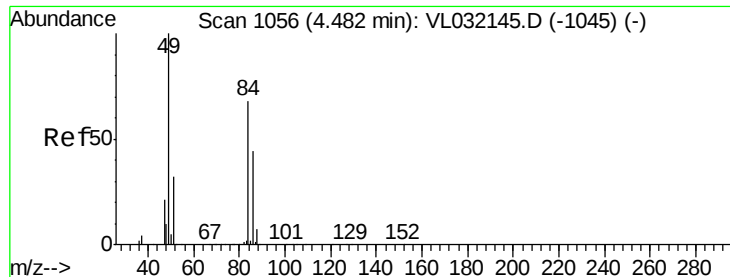
Tgt Ion: 45 Resp: 327883

Ion Ratio Lower Upper

45 100

58 0.0 29.4 44.0#





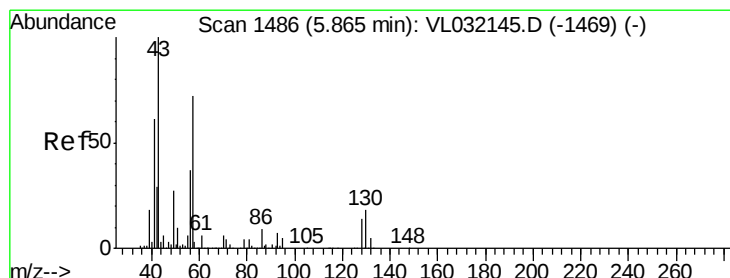
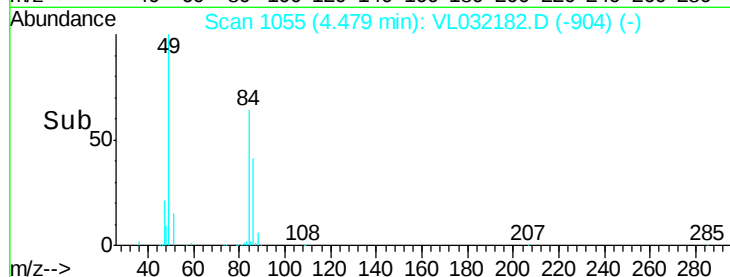
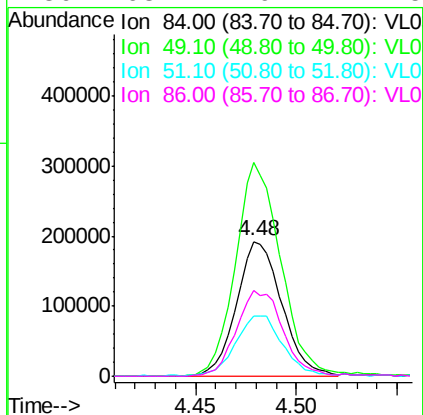
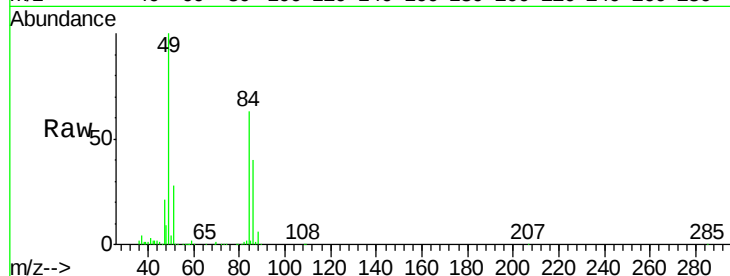
#20
Methvlene Chloride
Concen: 4.92 ppbv
RT: 4.48 min Scan# 1055
Delta R.T. -0.01 min
Lab File: VL032182.D
Acq: 2 Jul 2018 15:09

Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-2

Tot Ion	Ratio	Lower	Upper
84	100		
49	157.7	119.6	179.4
51	44.0	36.3	54.5
86	63.4	49.7	74.5

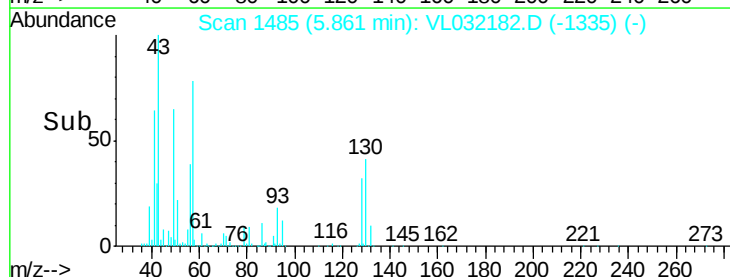
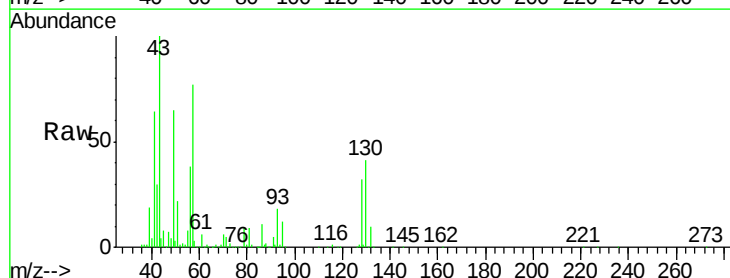
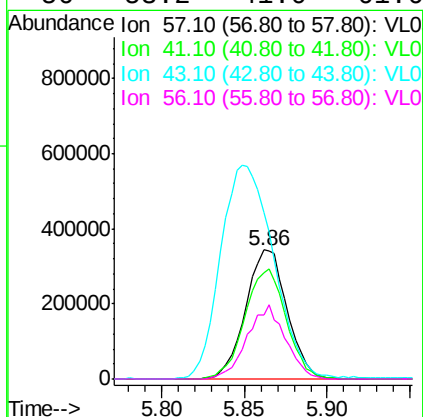
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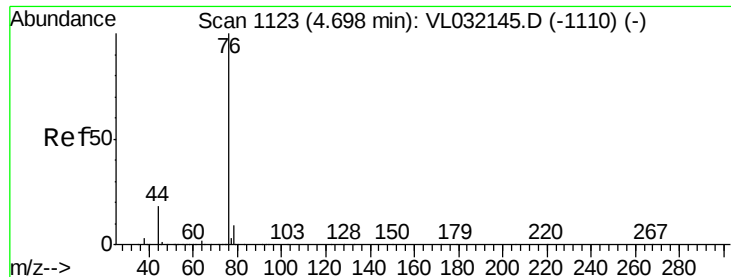
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#26
Hexane
Concen: 3.74 ppbv
RT: 5.86 min Scan# 1485
Delta R.T. -0.02 min
Lab File: VL032182.D
Acq: 2 Jul 2018 15:09

Tgt Ion	Ratio	Lower	Upper
57	100		
41	85.5	68.6	103.0
43	213.1	168.6	252.8
56	53.2	41.0	61.6





#27

Carbon Disulfide

Concen: 0.30 ppbv

RT: 4.69 min Scan# 1122

Delta R.T. -0.01 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Instrument :

MSVOA_L

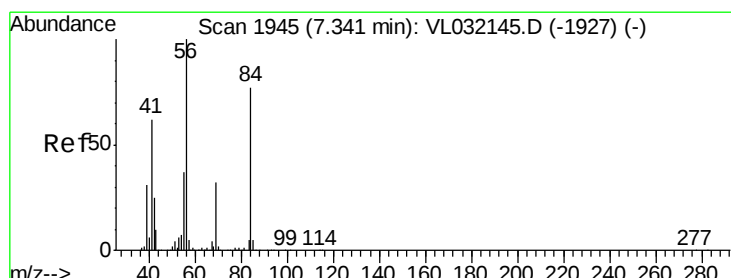
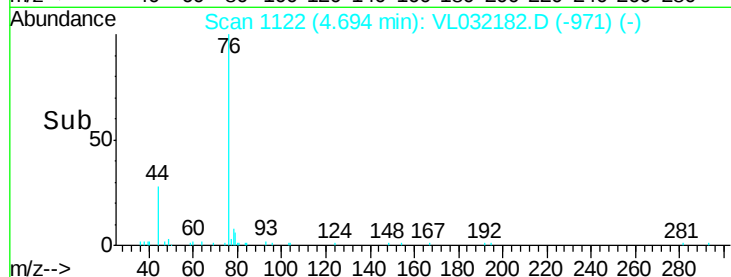
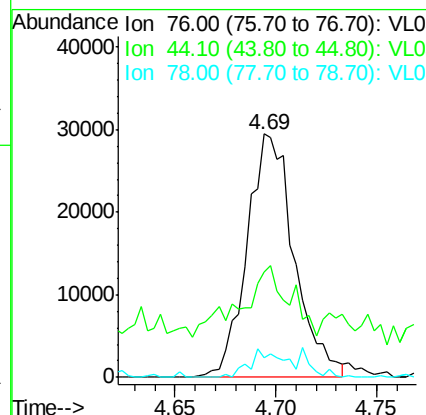
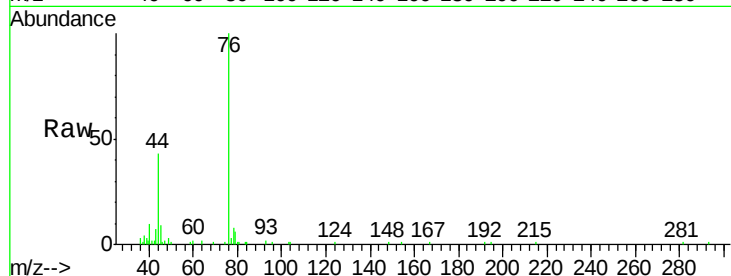
ClientSampleId :

OUTDOOR-2

Tot Ion:	76	Resp:	48226
Ion	Ratio	Lower	Upper
76	100		
44	49.1	15.1	22.7#
78	11.2	7.2	10.8#

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#30

Cyclohexane

Concen: 0.95 ppbv

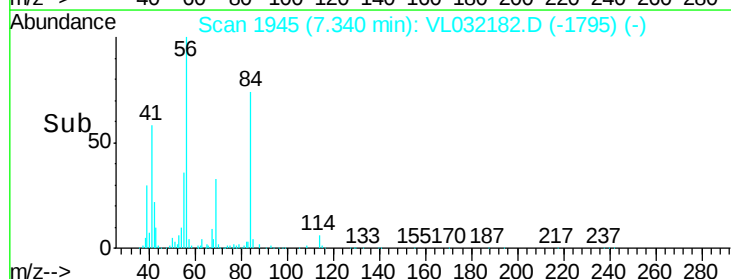
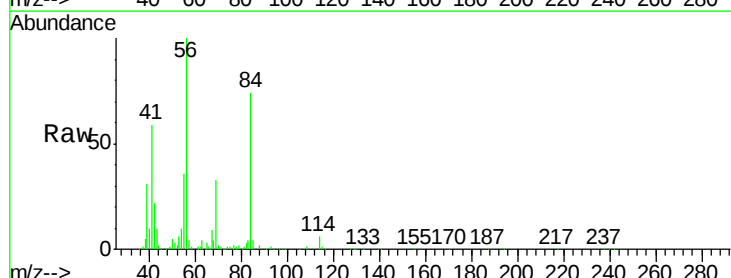
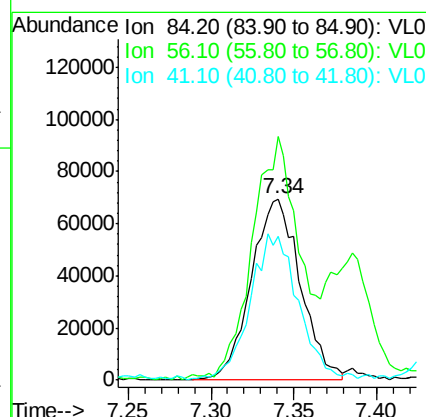
RT: 7.34 min Scan# 1945

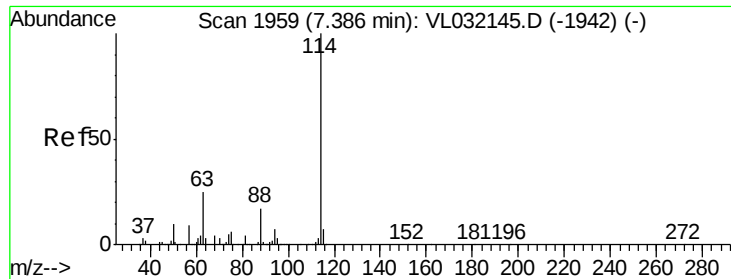
Delta R.T. -0.02 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Tgt Ion:	84	Resp:	143630
Ion	Ratio	Lower	Upper
84	100		
56	135.1	109.1	163.7
41	77.8	64.6	96.8





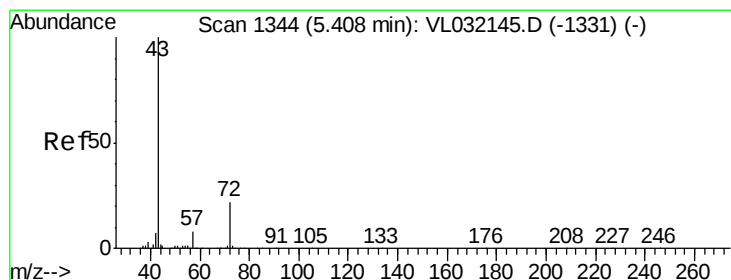
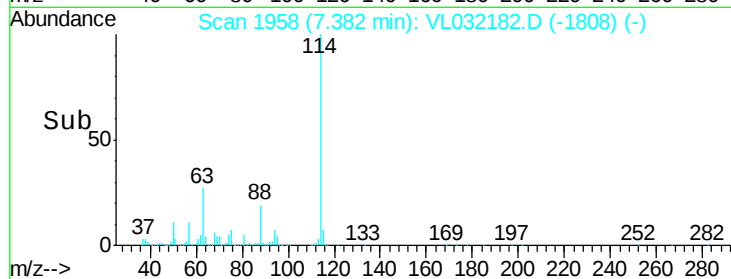
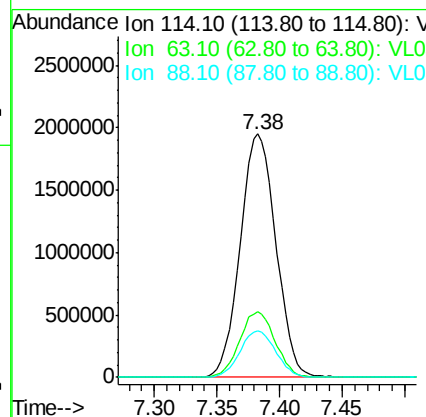
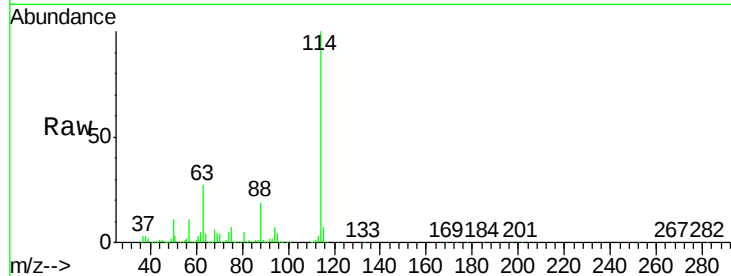
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.38 min Scan# 1958
 Delta R.T. -0.02 min
 Lab File: VL032182.D
 Acq: 2 Jul 2018 15:09

Instrument :
 MSVOA_L
 ClientSampleId :
 OUTDOOR-2

Tot Ion	Ratio	Lower	Upper
114	100		
63	26.9	19.1	28.7
88	19.2	13.9	20.9

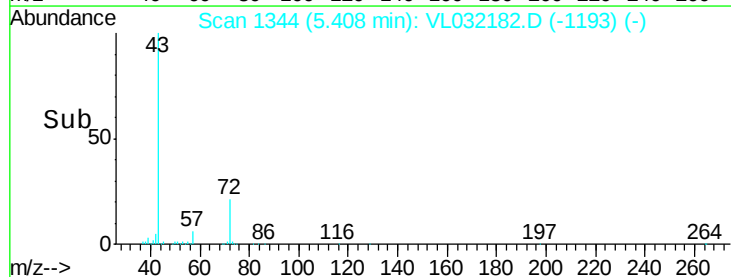
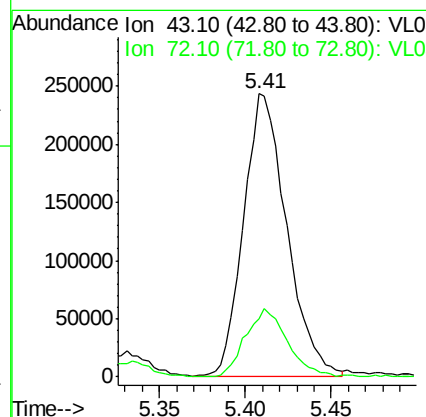
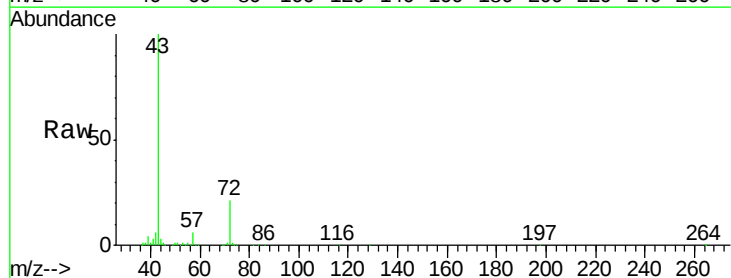
Manual Integrations
 APPROVED

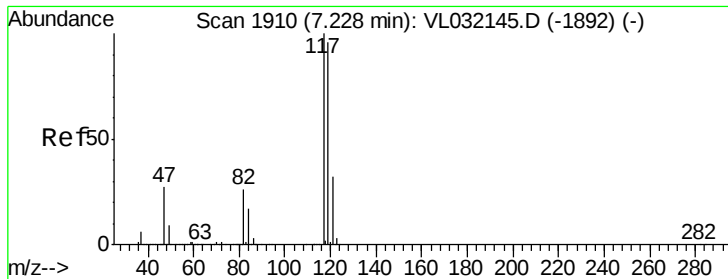
MMDadoda
 7/3/2018 5:17:09 PM



#34
 2-Butanone
 Concen: 1.72 ppbv
 RT: 5.41 min Scan# 1344
 Delta R.T. -0.01 min
 Lab File: VL032182.D
 Acq: 2 Jul 2018 15:09

Tgt Ion	Ratio	Lower	Upper
43	100		
72	24.0	18.4	27.6





#35

Carbon Tetrachloride

Concen: 0.06 ppbv m

RT: 7.22 min Scan# 1908

Delta R.T. -0.02 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Instrument :

MSVOA_L

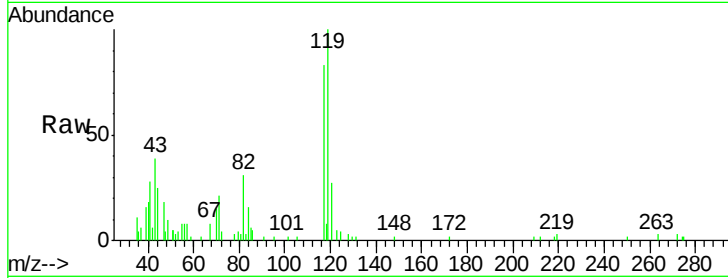
ClientSampleId :

OUTDOOR-2

Tot Ion	Ratio	Lower	Upper
117	100		
119	120.2	74.8	112.2#
121	32.5	24.0	36.0

Manual Integrations
APPROVED

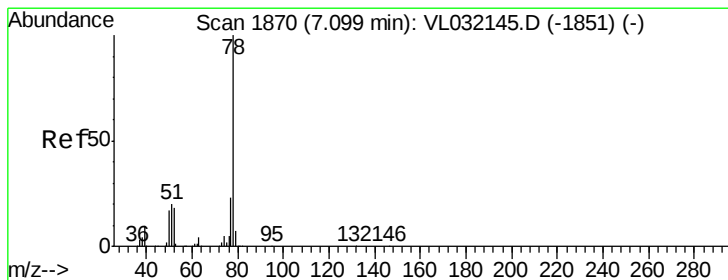
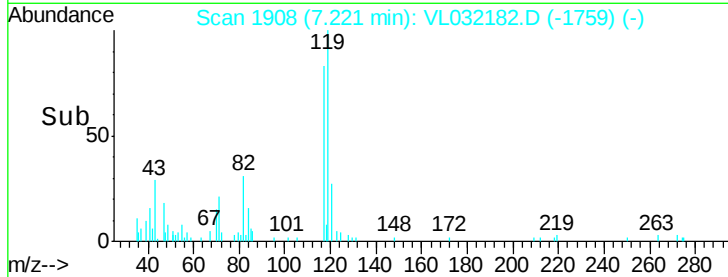
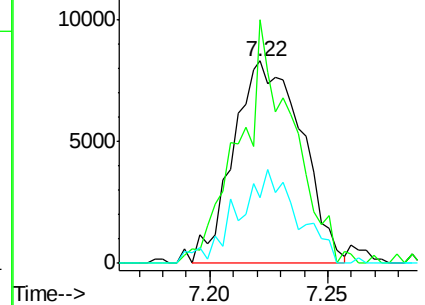
MMDadoda
7/3/2018 5:17:09 PM



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.17 ppbv

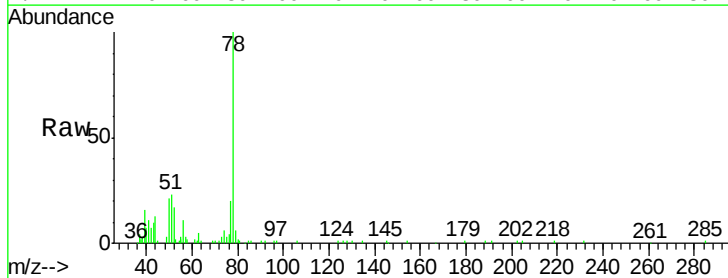
RT: 7.09 min Scan# 1868

Delta R.T. -0.02 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

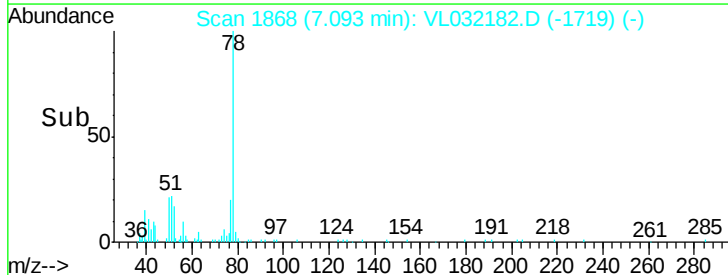
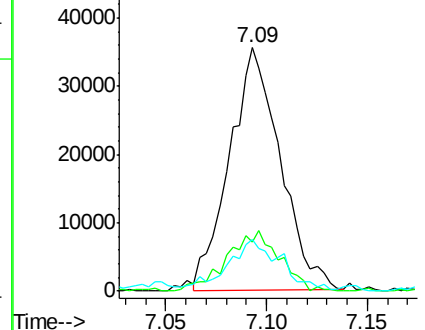
Tgt Ion	Ratio	Lower	Upper
78	100		
77	20.2	17.7	26.5
50	19.5	14.0	21.0

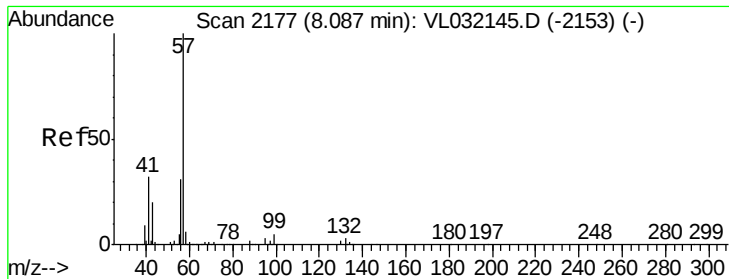


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





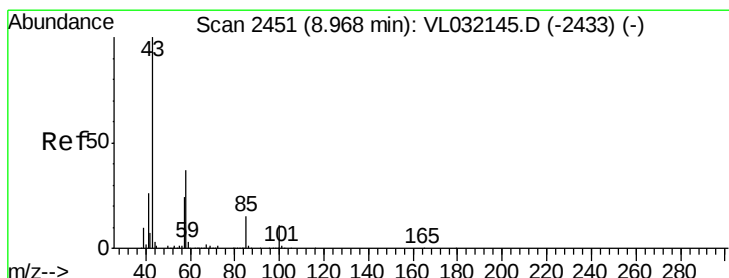
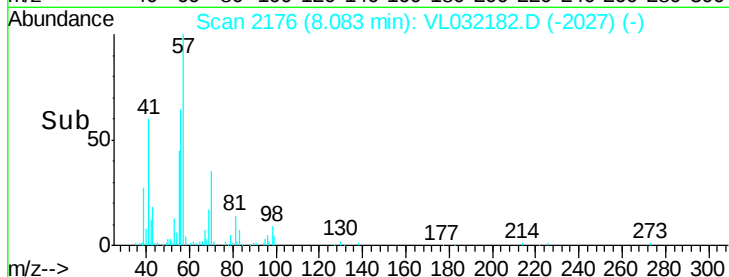
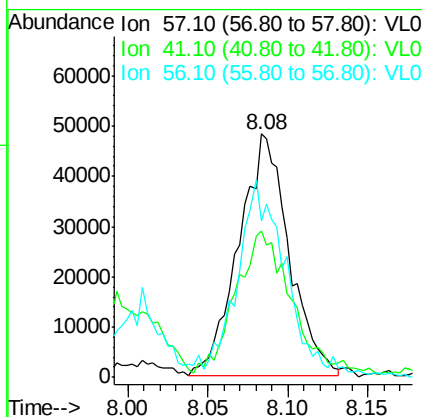
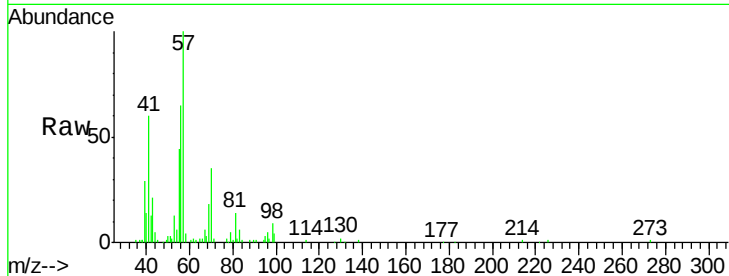
#44
 2,2,4-Trimethylpentane
 Concen: 0.16 ppbv
 RT: 8.08 min Scan# 2176
 Delta R.T. -0.02 min
 Lab File: VL032182.D
 Acq: 2 Jul 2018 15:09

Instrument :
 MSVOA_L
 ClientSampleId :
 OUTDOOR-2

Tot Ion	Ratio	Lower	Upper
57	100		
41	65.4	24.3	36.5#
56	79.3	25.1	37.7#

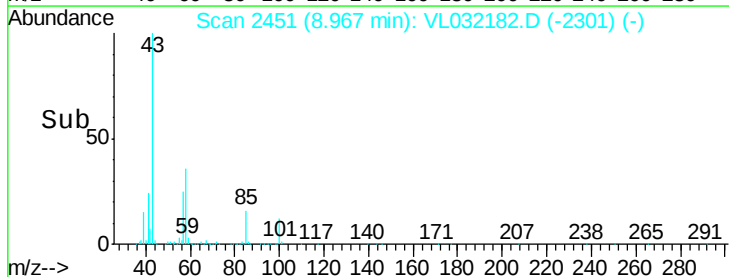
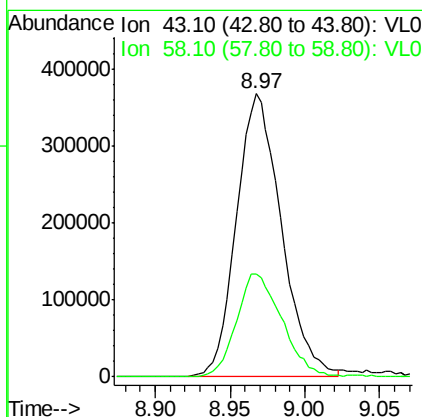
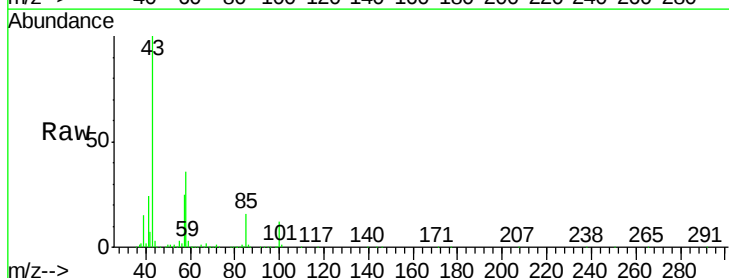
Manual Integrations
 APPROVED

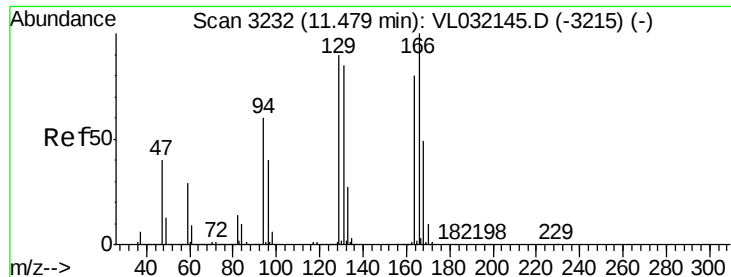
MMDadoda
 7/3/2018 5:17:09 PM



#50
 4-Methyl-2-Pentanone
 Concen: 1.91 ppbv
 RT: 8.97 min Scan# 2451
 Delta R.T. -0.02 min
 Lab File: VL032182.D
 Acq: 2 Jul 2018 15:09

Tgt Ion	Ratio	Lower	Upper
43	100		
58	37.7	29.8	44.6





#52

Tetrachloroethene

Concen: 0.17 ppbv m

RT: 11.47 min Scan# 3230

Delta R.T. -0.02 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-2

Tot Ion:164 Resp: 22494

Ion Ratio Lower Upper

164 100

166 112.8 100.6 151.0

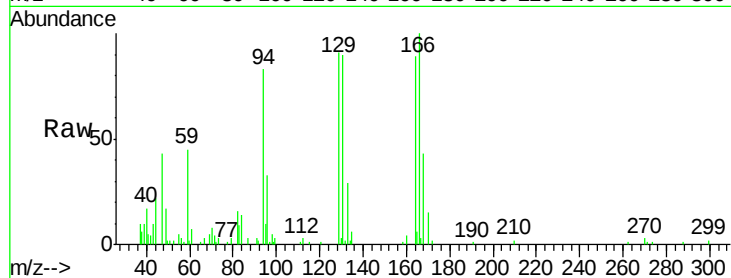
129 103.1 84.0 126.0

131 101.7 82.7 124.1

Manual Integrations
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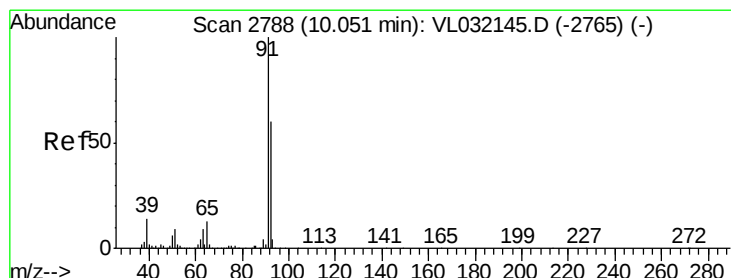
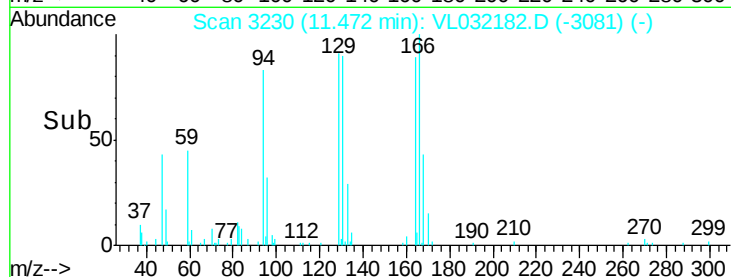
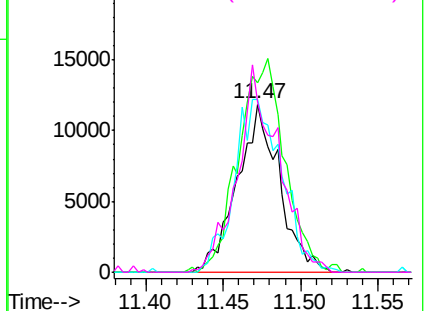


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 9.07 ppbv

RT: 10.04 min Scan# 2786

Delta R.T. -0.02 min

Lab File: VL032182.D

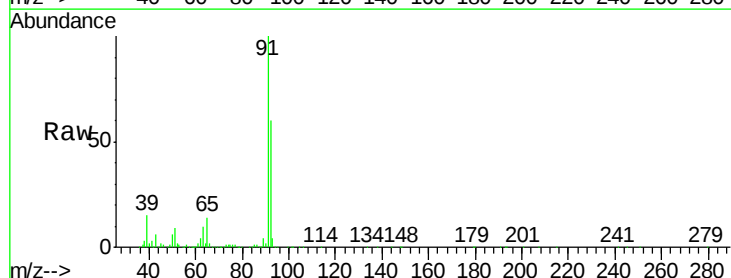
Acq: 2 Jul 2018 15:09

Tgt Ion: 91 Resp: 4097963

Ion Ratio Lower Upper

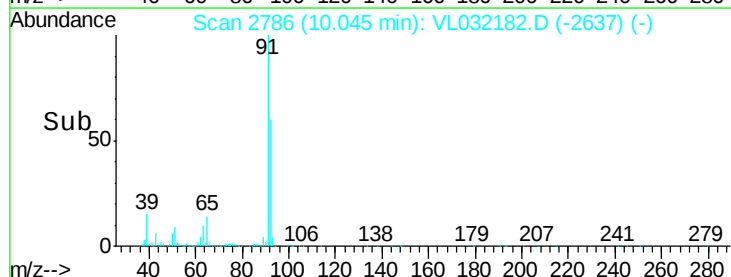
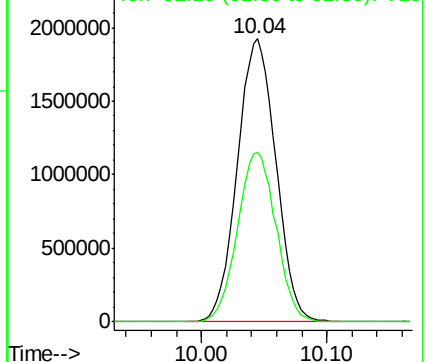
91 100

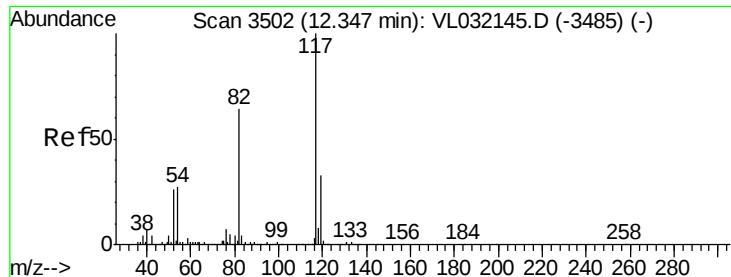
92 60.3 49.2 73.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





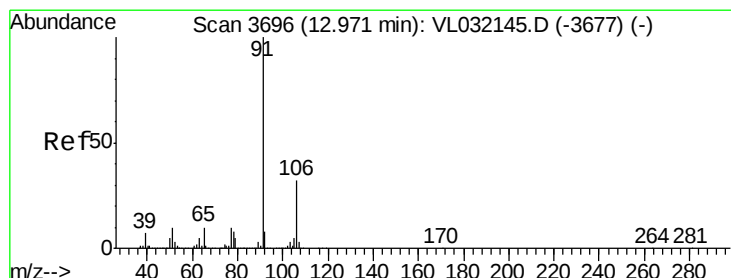
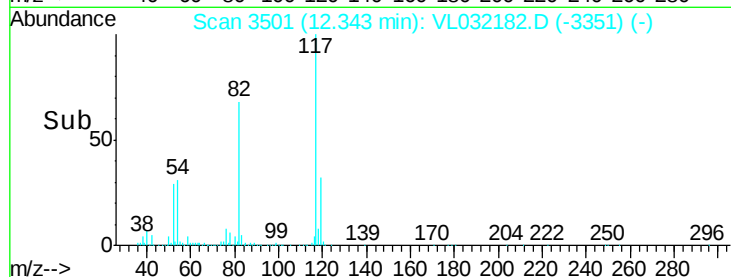
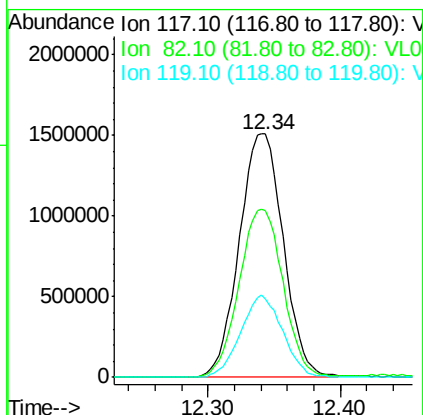
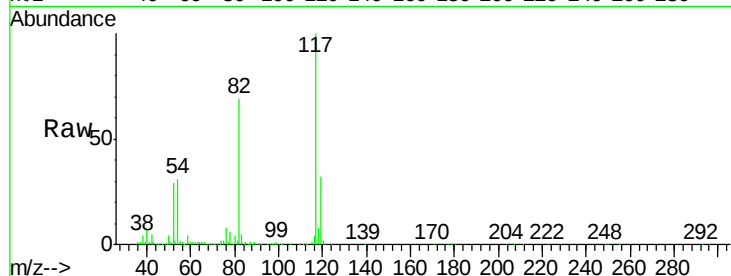
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.34 min Scan# 3501
Delta R.T. -0.02 min
Lab File: VL032182.D
Acq: 2 Jul 2018 15:09

Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-2

Tot Ion	Ratio	Lower	Upper
117	100		
82	69.2	47.8	71.8
119	32.4	43.3	64.9

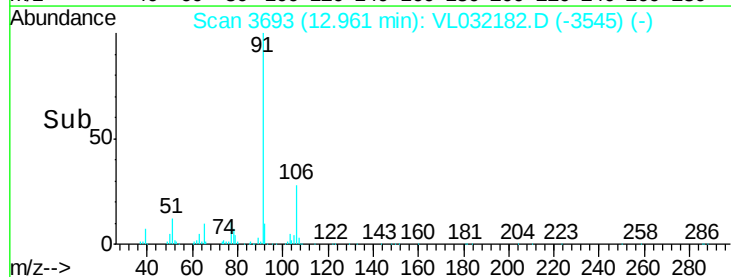
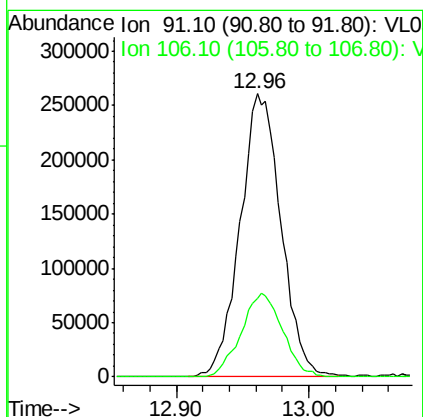
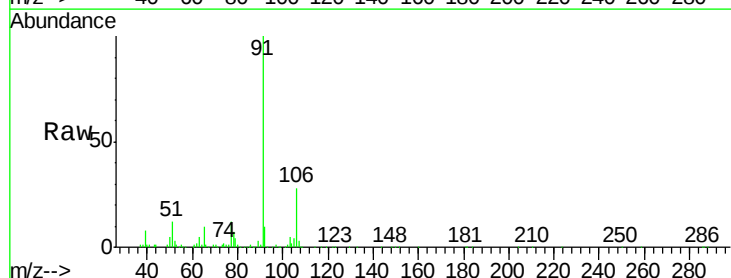
Manual Integrations
APPROVED

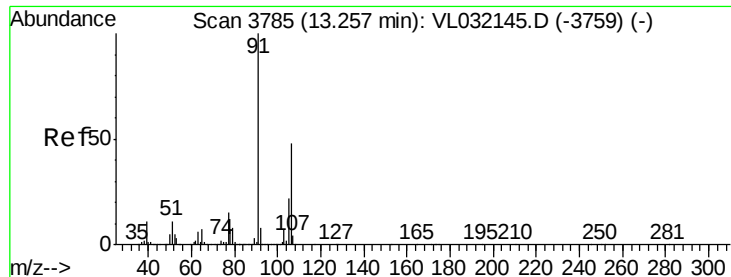
MMDadoda
7/3/2018 5:17:09 PM



#58
Ethyl Benzene
Concen: 0.99 ppbv
RT: 12.96 min Scan# 3693
Delta R.T. -0.02 min
Lab File: VL032182.D
Acq: 2 Jul 2018 15:09

Tgt Ion	Ratio	Lower	Upper
91	100		
106	27.6	26.5	39.7





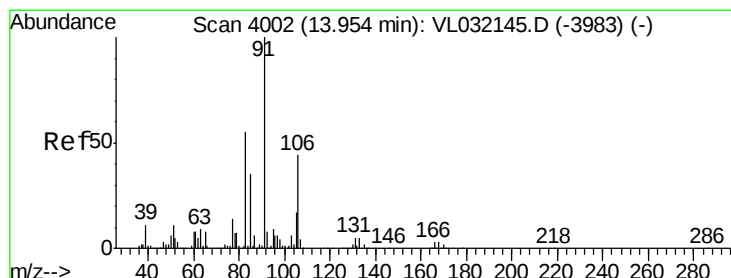
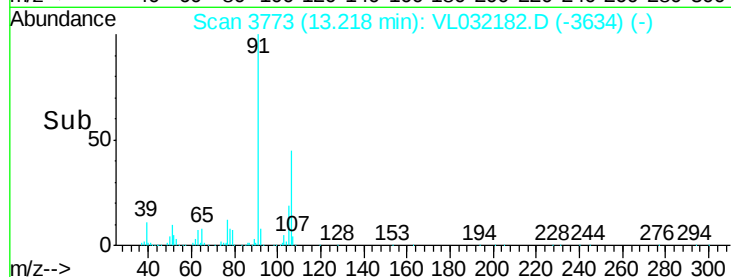
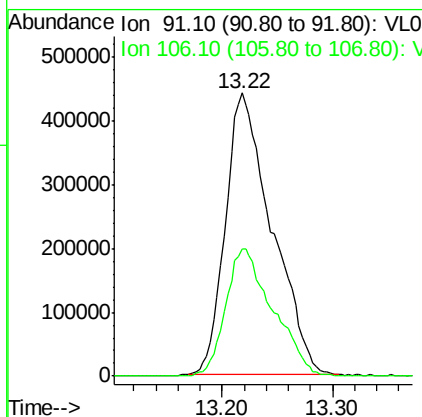
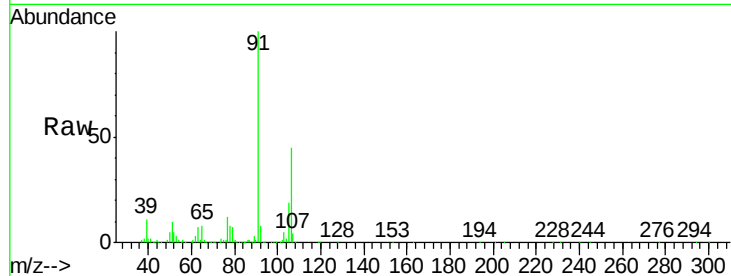
#59
m/p-Xylene
Concen: 2.87 ppbv
RT: 13.22 min Scan# 3773
Delta R.T. -0.05 min
Lab File: VL032182.D
Acq: 2 Jul 2018 15:09

Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-2

Tot Ion: 91 Resp: 1290805
Ion Ratio Lower Upper
91 100
106 45.9 38.6 58.0

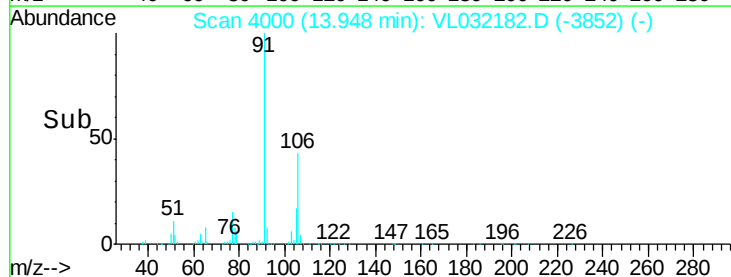
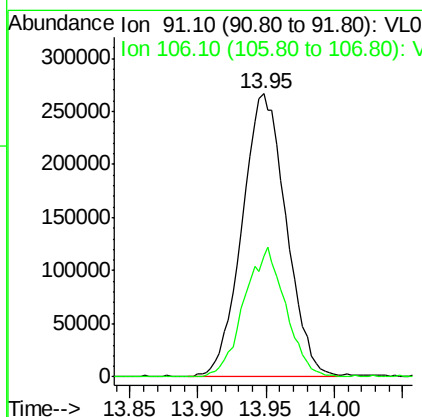
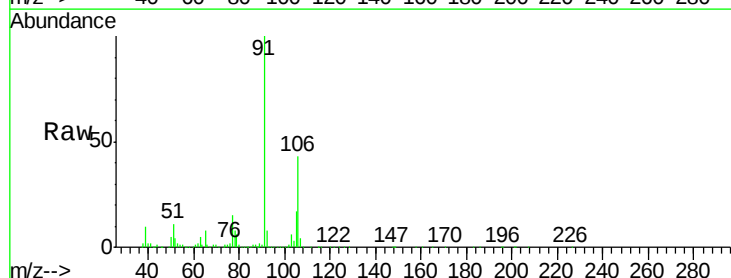
Manual Integrations
APPROVED

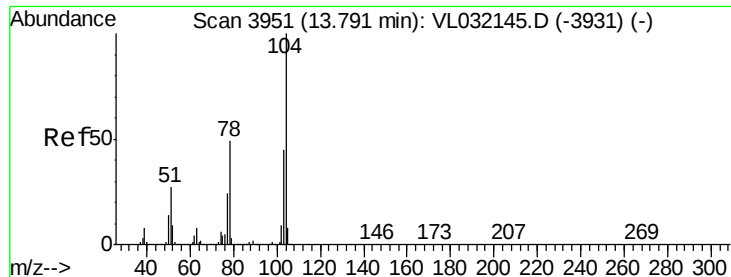
MMDadoda
7/3/2018 5:17:09 PM



#60
o-Xylene
Concen: 1.33 ppbv
RT: 13.95 min Scan# 4000
Delta R.T. -0.02 min
Lab File: VL032182.D
Acq: 2 Jul 2018 15:09

Tgt Ion: 91 Resp: 596847
Ion Ratio Lower Upper
91 100
106 43.3 23.3 69.8





#61

Stvrene

Concen: 0.44 ppbv

RT: 13.79 min Scan# 3950

Delta R.T. -0.02 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Instrument :

MSVOA_L

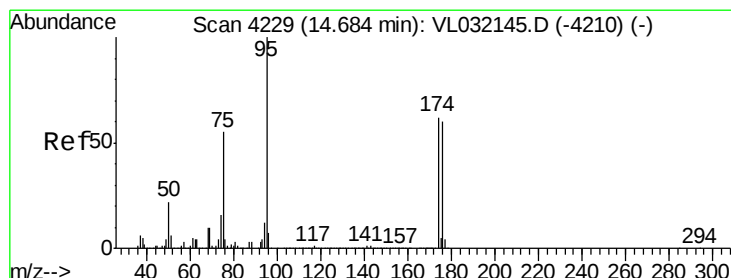
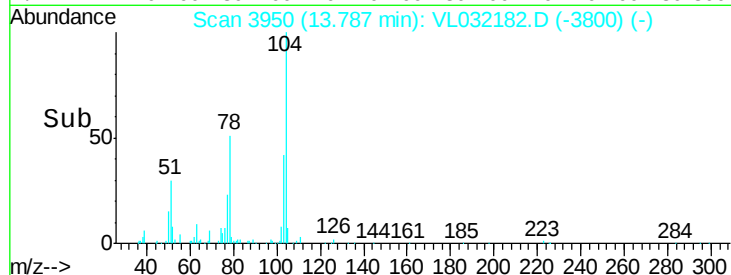
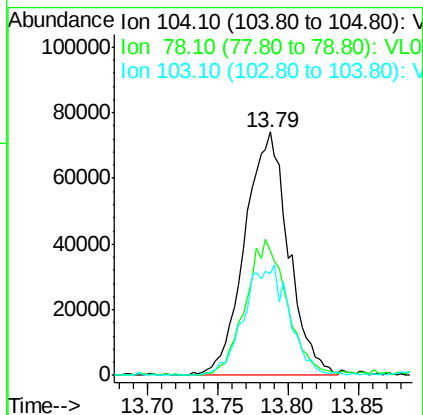
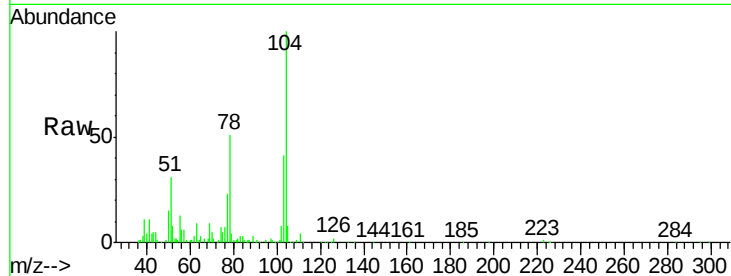
ClientSampleId :

OUTDOOR-2

Tot Ion:	104	Resp:	161106
Ion Ratio	Lower	Upper	
104	100		
78	54.6	37.9	56.9
103	47.1	36.6	55.0

Manual Integrations
APPROVED

MMDadoda
7/3/2018 5:17:09 PM



#68

1-Bromo-4-Fluorobenzene

Concen: 10.10 ppbv

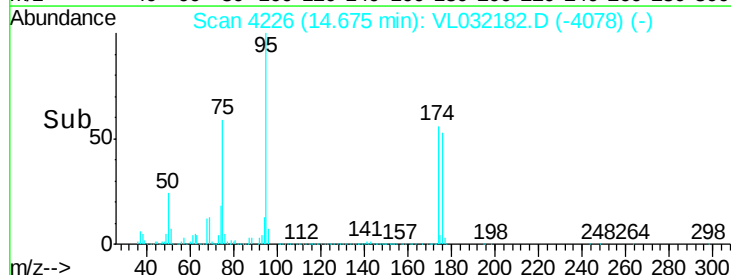
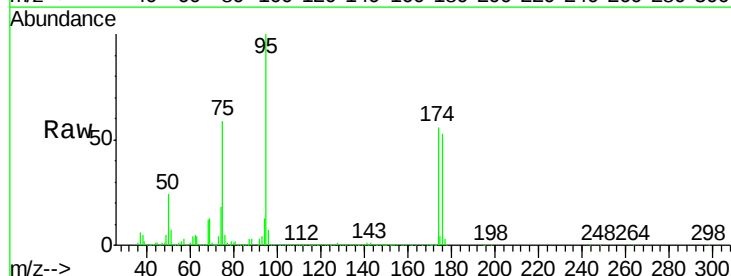
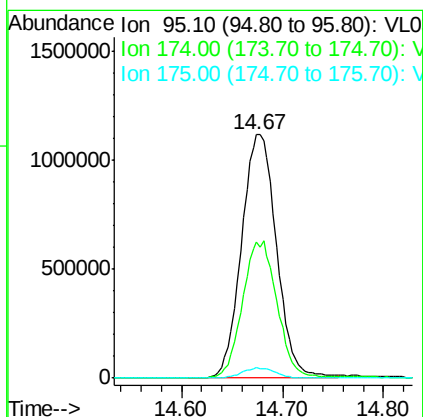
RT: 14.67 min Scan# 4226

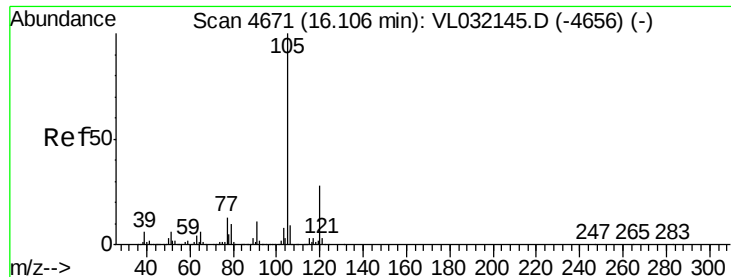
Delta R.T. -0.02 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Tgt Ion:	95	Resp:	2686070
Ion Ratio	Lower	Upper	
95	100		
174	55.4	52.1	78.1
175	4.1	4.0	6.0





#72

4-Ethyltoluene

Concen: 0.21 ppbv m

RT: 16.09 min Scan# 4667

Delta R.T. -0.03 min

Lab File: VL032182.D

Acq: 2 Jul 2018 15:09

Instrument :

MSVOA_L

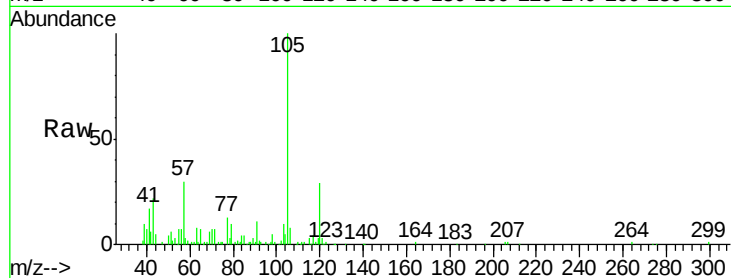
ClientSampleId :

OUTDOOR-2

Tot Ion:	105	Resp:	120774
Ion Ratio	Lower	Upper	
105	100		
120	29.4	24.3	36.5
91	13.5	9.4	14.0
77	14.5	10.2	15.2

Manual Integrations
APPROVED

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7/3/2018 5:17:09 PM

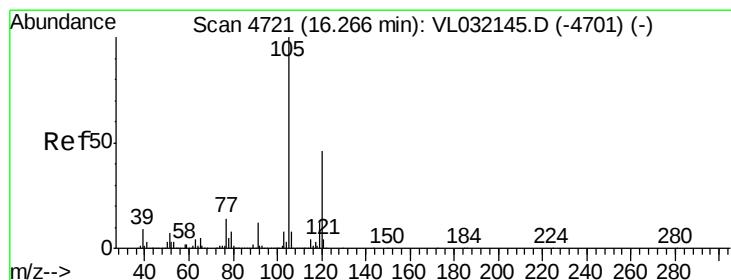
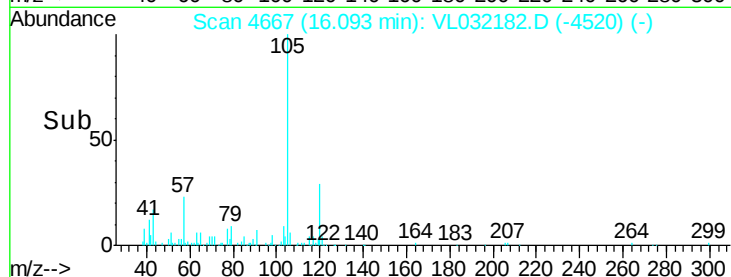
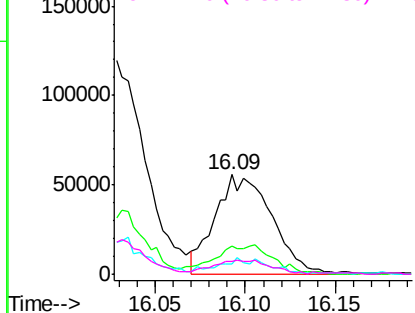


Abundance Ion 105.10 (104.80 to 105.80): V

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: 0.22 ppbv

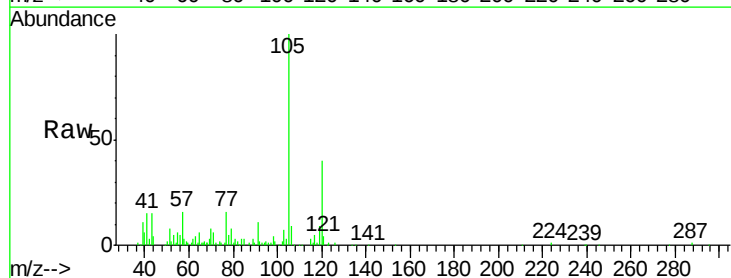
RT: 16.26 min Scan# 4718

Delta R.T. -0.02 min

Lab File: VL032182.D

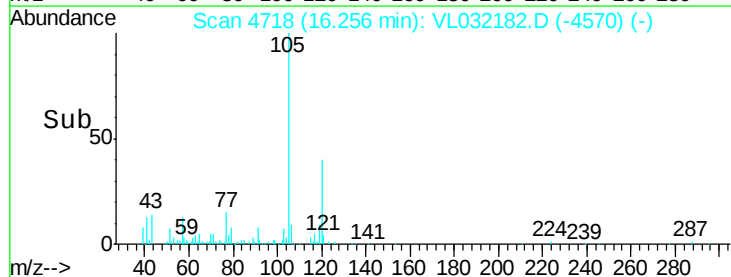
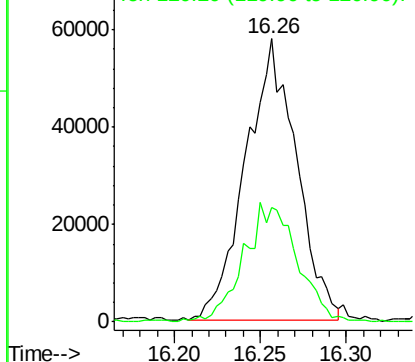
Acq: 2 Jul 2018 15:09

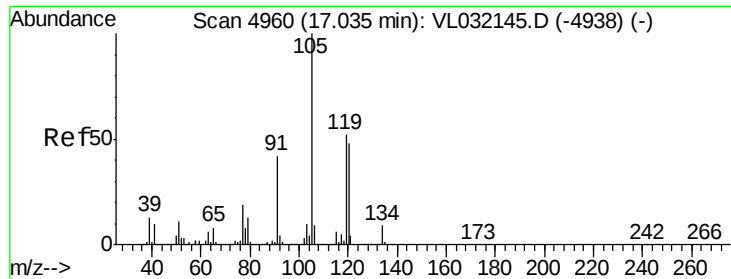
Tgt Ion:	105	Resp:	118757
Ion Ratio	Lower	Upper	
105	100		
120	40.1	38.6	57.8



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: 0.68 ppbv m
 RT: 17.02 min Scan# 4956
 Delta R.T. -0.03 min
 Lab File: VL032182.D
 Acq: 2 Jul 2018 15:09

Instrument :
 MSVOA_L
 ClientSampleId :
 OUTDOOR-2

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	38.3	38.8	58.2#
91	12.4	33.6	50.4#
77	15.1	16.0	24.0#

Manual Integrations
 APPROVED

MMDadoda
 7/3/2018 5:17:09 PM

