

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL092418\
 Data File : VL032532.D
 Acq On : 25 Sep 2018 6:18
 Operator : SY/AP
 Sample : J5034-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-092018

Manual Integrations
 APPROVED

MMDadoda
 9/27/2018 12:31:39 PM

Quant Time: Sep 26 17:49:19 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Sep 26 17:49:19 2018
 QLast Update : Tue Sep 25 05:17:15 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.79	49	1425260	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.32	114	3229780	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.27	117	2962720	10.00	ppbv	-0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.61	95	2238937	10.02	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.09	85	40218	0.305	ppbv	95
3) Chlorodifluoromethane	3.03	51	52125m	0.440	ppbv	
4) Chloromethane	3.19	50	45036	0.652	ppbv	95
5) Vinyl Chloride	3.31	62	23086	0.331	ppbv #	84
7) Chloroethane	3.62	64	16882	0.678	ppbv	91
9) Propene	3.07	41	241763m	4.701	ppbv	
11) Trichlorofluoromethane	4.02	101	157186	1.003	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.58	101	128907	1.006	ppbv	98
13) Ethanol	3.67	45	927215	59.985	ppbv	96
15) Acetone	3.92	43	771751m	6.169	ppbv	
18) 1,1-Dichloroethene	4.37	96	16650	0.278	ppbv #	69
19) Isopropyl Alcohol	4.05	45	228168m	2.618	ppbv	
20) Methylene Chloride	4.43	84	154468	2.550	ppbv	99
22) trans-1,2-Dichloroethene	4.99	96	14111	0.250	ppbv #	66
24) 1,1-Dichloroethane	5.11	63	1542387	8.378	ppbv	99
26) Hexane	5.81	57	210820	1.537	ppbv #	69
29) Chloroform	5.87	83	464635	2.208	ppbv	98
30) Cyclohexane	7.28	84	562911	5.042	ppbv	99
31) cis-1,2-Dichloroethene	5.67	61	1391351	10.654	ppbv	98
32) 1,1,1-Trichloroethane	6.65	97	4821374	21.504	ppbv	99
34) 2-Butanone	5.36	43	105412	0.548	ppbv	96
35) Carbon Tetrachloride	7.16	117	42632	0.190	ppbv	88
38) Trichloroethene	7.99	130	5441348	54.464	ppbv	99
41) Tetrahydrofuran	6.19	42	82824	0.793	ppbv	95
52) Tetrachloroethene	11.41	164	4265m	0.047	ppbv	

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

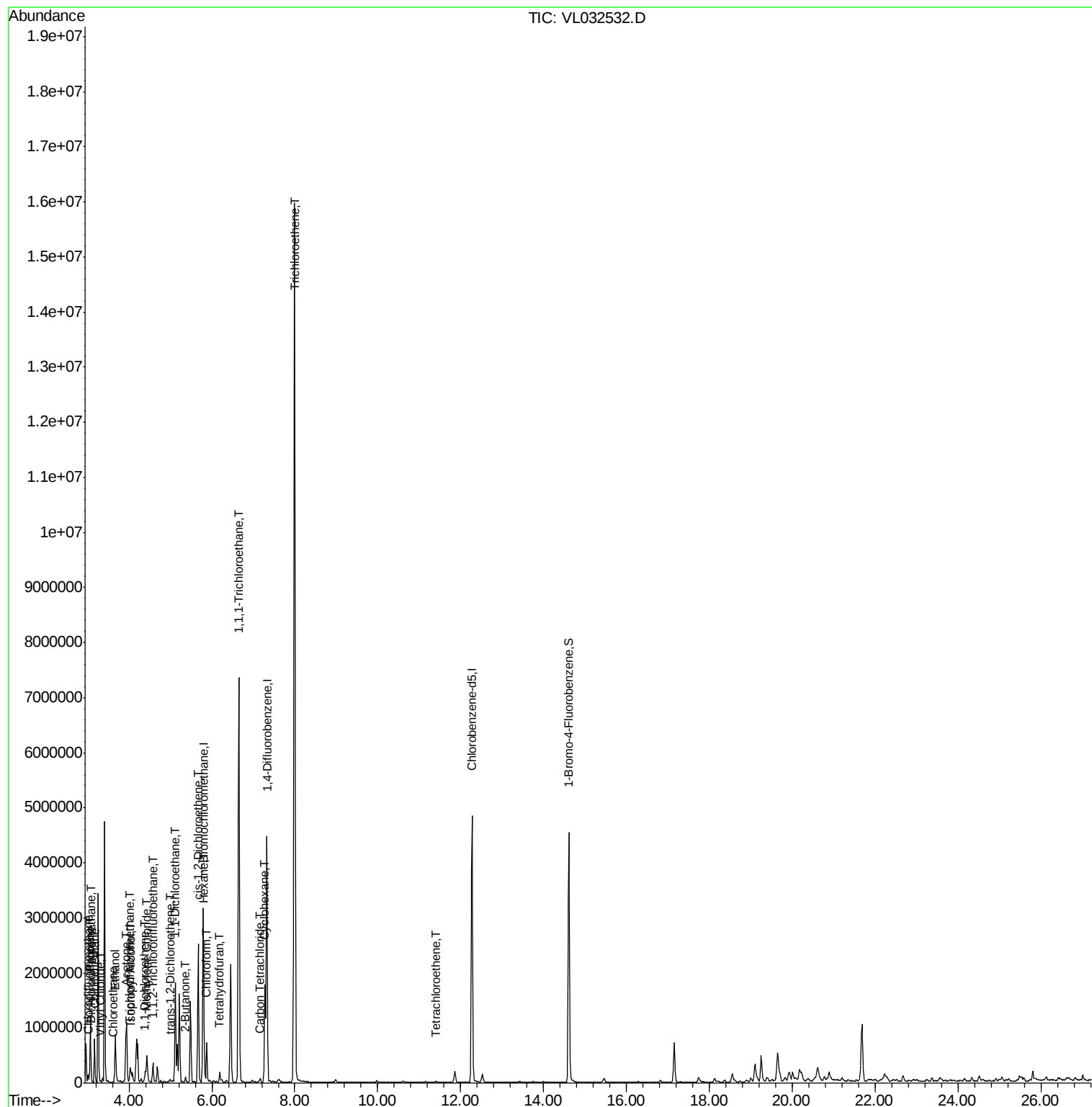
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL092418\
Data File : VL032532.D
Acq On : 25 Sep 2018 6:18
Operator : SY/AP
Sample : J5034-02
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

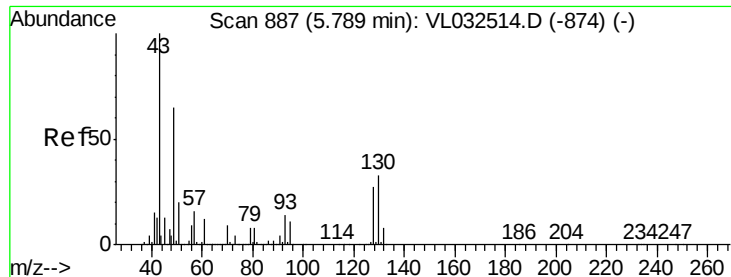
Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-092018

Manual Integrations
APPROVED

MMDadoda
9/27/2018 12:31:39 PM

Quant Time: Sep 26 17:49:19 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL092418AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Sep
QLast Update : Tue Sep 25 05:17:15 2018
Response via : Initial Calibration





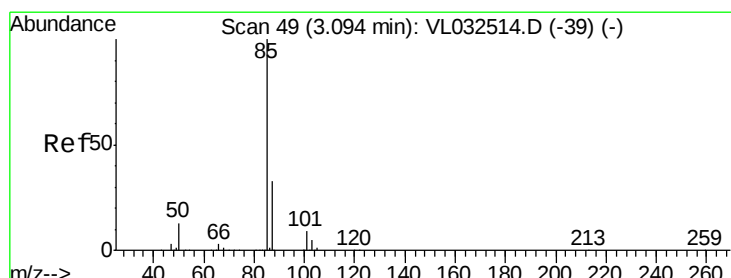
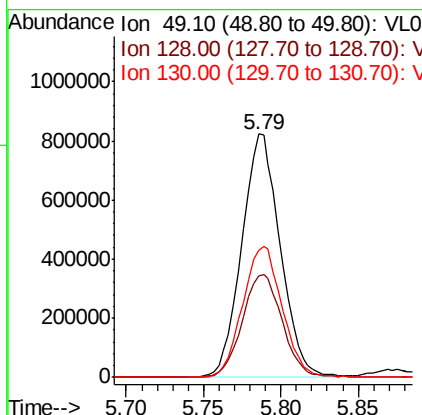
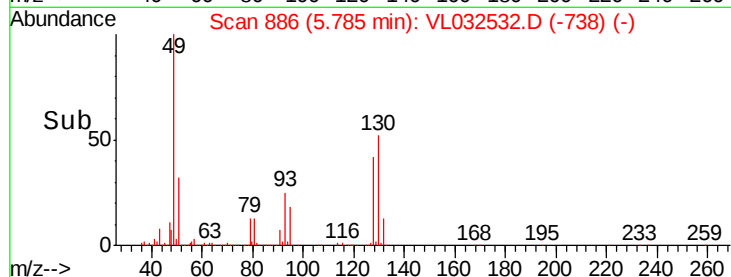
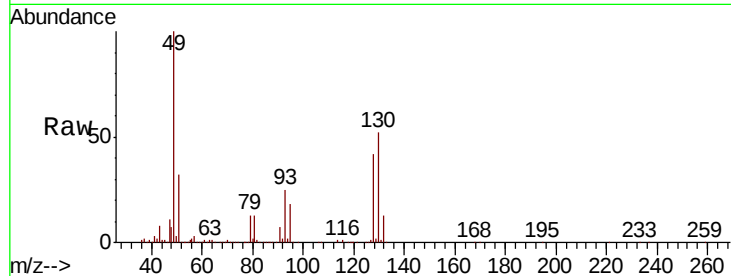
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.79 min Scan# 886
 Delta R.T. -0.02 min
 Lab File: VL032532.D
 Acq: 25 Sep 2018 6:18

Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-092018

Tot Ion: 49 Resp: 1425260
 Ion Ratio Lower Upper
 49 100
 128 44.0 20.7 62.1
 130 55.6 26.6 79.7

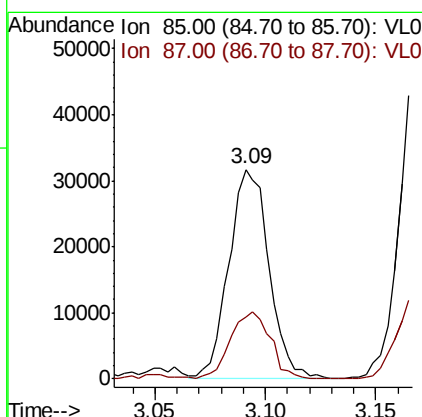
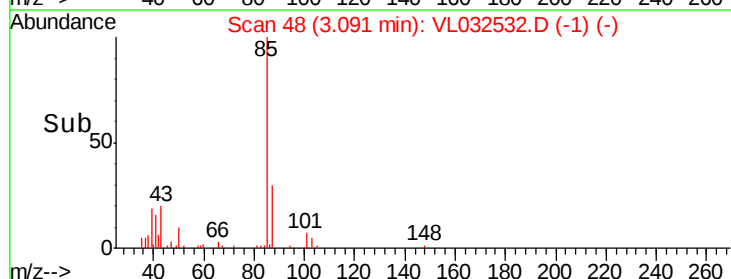
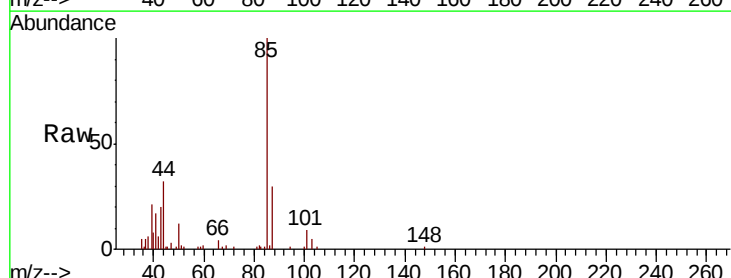
Manual Integrations
 APPROVED

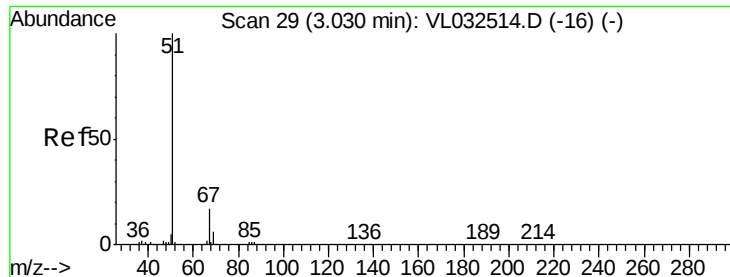
MMDadoda
 9/27/2018 12:31:39 PM



#2
 Dichlorodifluoromethane
 Concen: 0.305 ppbv
 RT: 3.09 min Scan# 48
 Delta R.T. -0.02 min
 Lab File: VL032532.D
 Acq: 25 Sep 2018 6:18

Tgt Ion: 85 Resp: 40218
 Ion Ratio Lower Upper
 85 100
 87 29.8 26.2 39.4





#3

Chlorodifluoromethane

Concen: 0.440 ppbv

RT: 3.03 min Scan# 28

Delta R.T. -0.02 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-092018

Tot Ion: 51 Resp: 52125

Ion Ratio Lower Upper

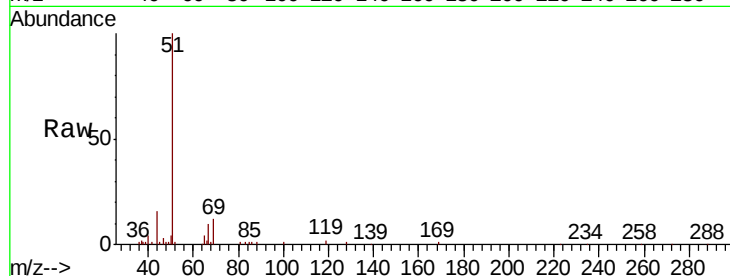
51 100

67 18.3 13.8 20.8

Manual Integrations
APPROVED

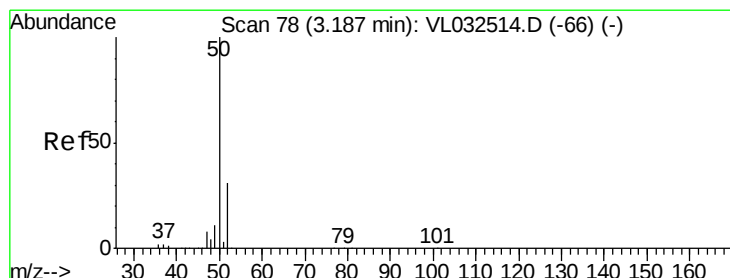
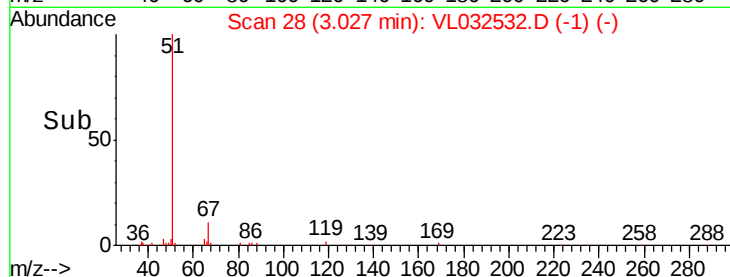
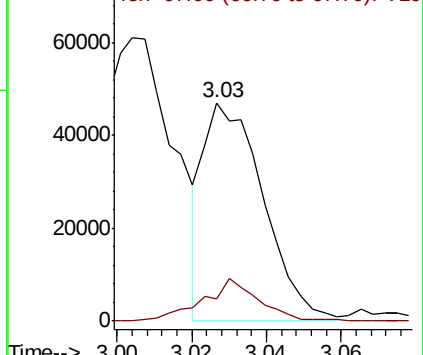
MMDadoda

9/27/2018 12:31:39 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.652 ppbv

RT: 3.19 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL032532.D

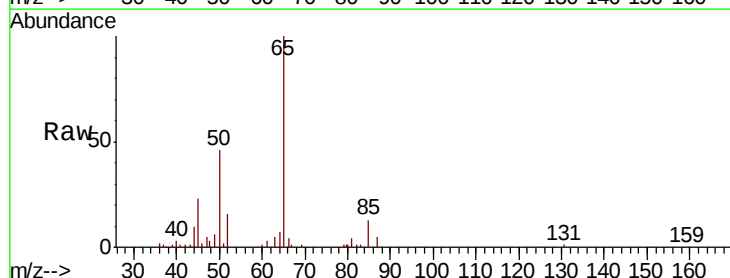
Acq: 25 Sep 2018 6:18

Tgt Ion: 50 Resp: 45036

Ion Ratio Lower Upper

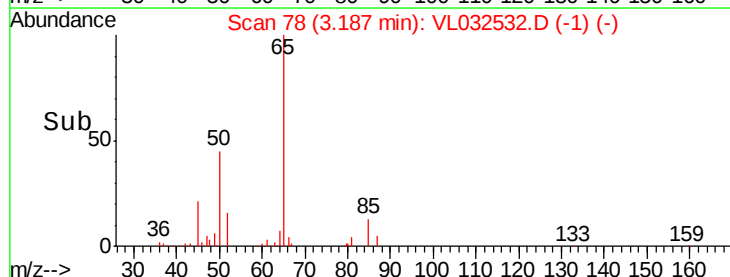
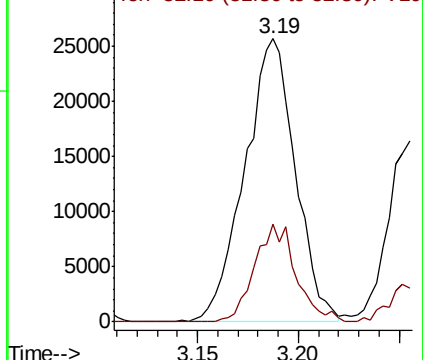
50 100

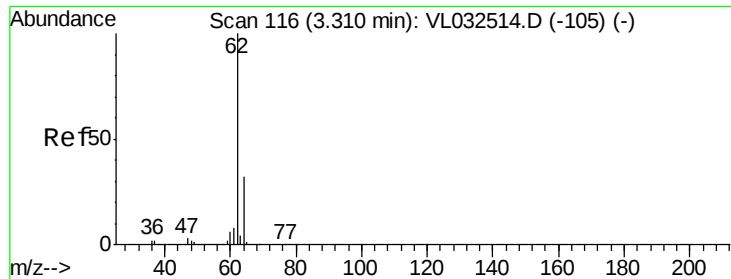
52 34.7 25.6 38.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.331 ppbv

RT: 3.31 min Scan# 116

Delta R.T. -0.01 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

Instrument :

MSVOA_L

ClientSampleID :

GAC-EFF-092018

Tot Ion: 62 Resp: 23086

Ion Ratio Lower Upper

62 100

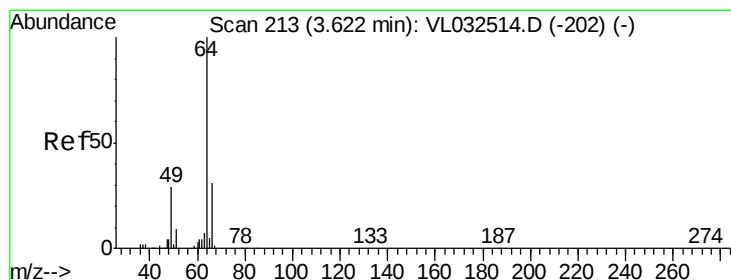
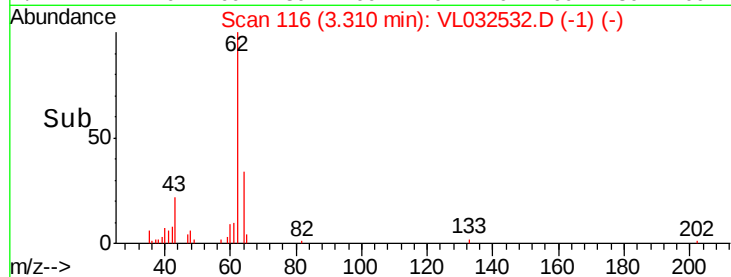
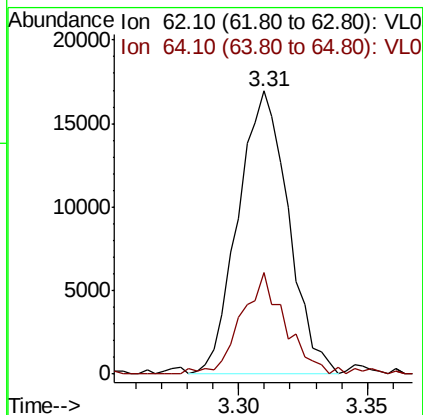
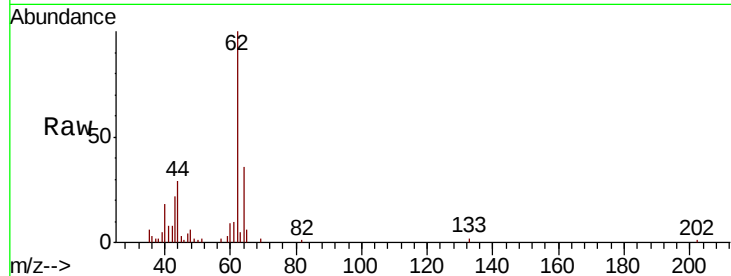
64 40.3 25.0 37.6#

Manual Integrations

APPROVED

MMDadoda

9/27/2018 12:31:39 PM



#7

Chloroethane

Concen: 0.678 ppbv

RT: 3.62 min Scan# 213

Delta R.T. -0.01 min

Lab File: VL032532.D

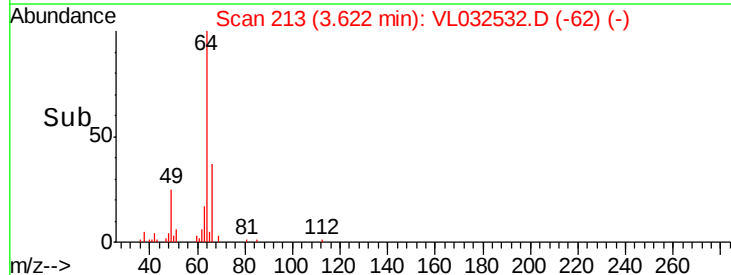
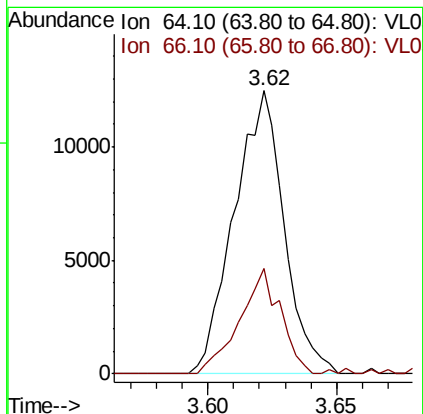
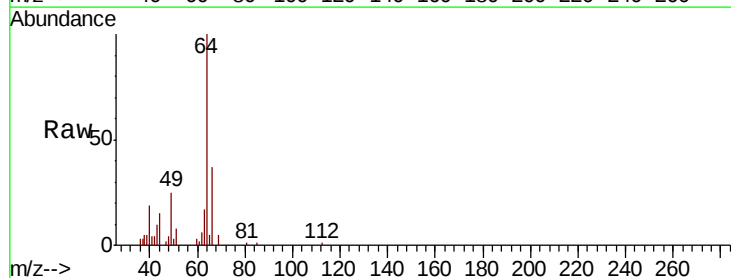
Acq: 25 Sep 2018 6:18

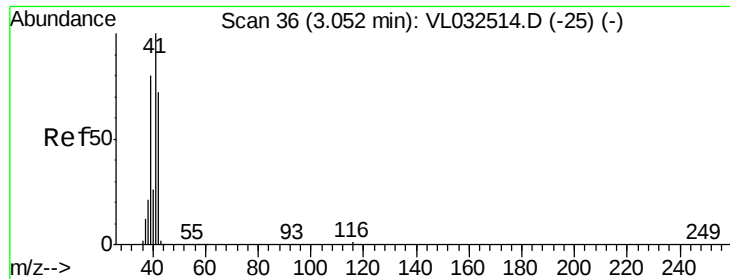
Tgt Ion: 64 Resp: 16882

Ion Ratio Lower Upper

64 100

66 37.5 25.8 38.6





#9

Propene

Concen: 4.701 ppbv m

RT: 3.07 min Scan# 40

Delta R.T. -0.00 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-092018

Tot Ion: 41 Resp: 241763

Ion Ratio Lower Upper

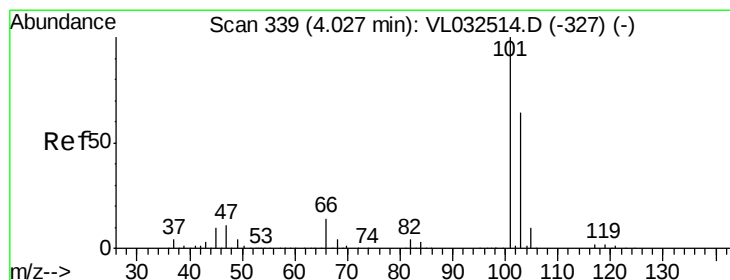
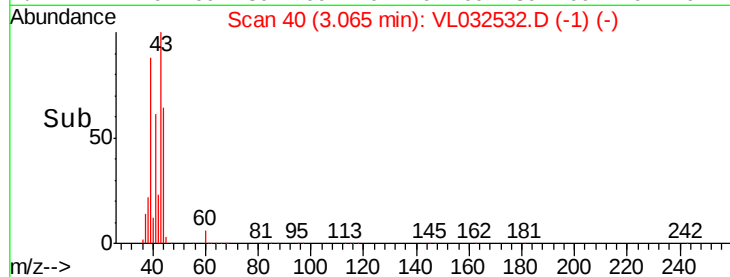
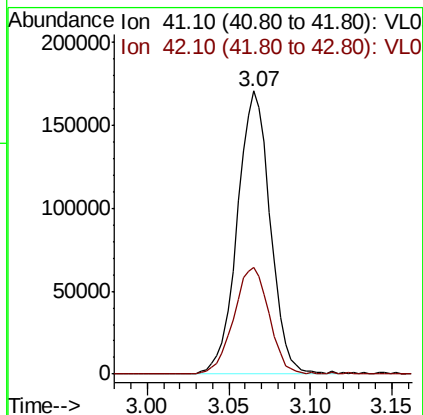
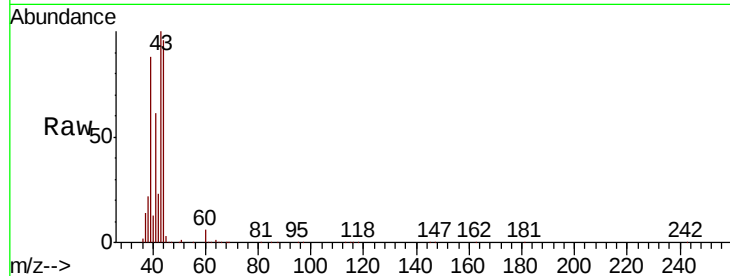
41 100

42 261.5 56.6 84.8#

Manual Integrations
APPROVED

MMDadoda

9/27/2018 12:31:39 PM



#11

Trichlorofluoromethane

Concen: 1.003 ppbv

RT: 4.02 min Scan# 338

Delta R.T. -0.02 min

Lab File: VL032532.D

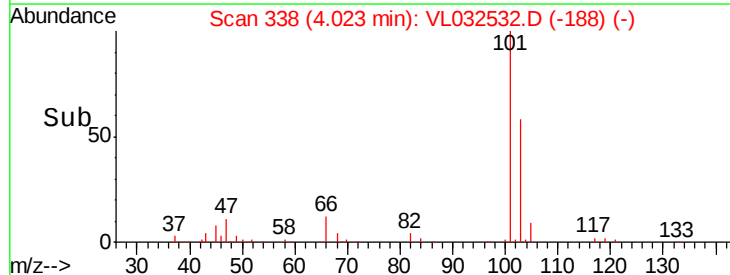
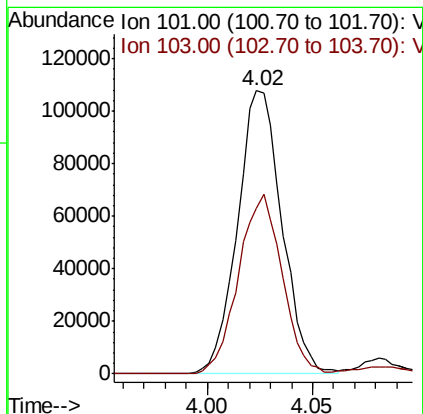
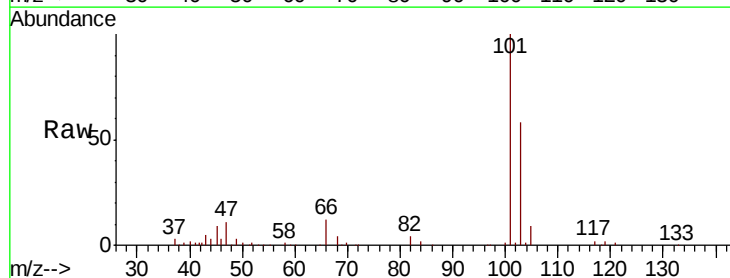
Acq: 25 Sep 2018 6:18

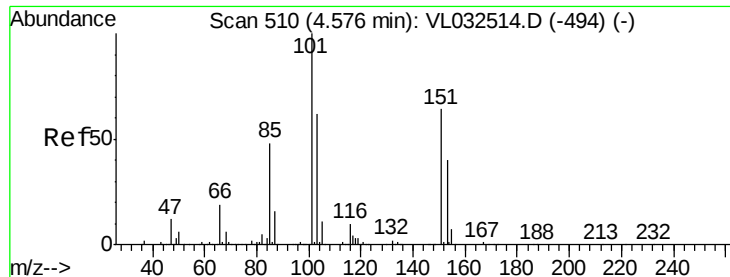
Tgt Ion: 101 Resp: 157186

Ion Ratio Lower Upper

101 100

103 58.5 52.8 79.2





#12

1,1,2-Trichlorotrifluoroethane

Concen: 1.006 ppbv

RT: 4.58 min Scan# 510

Delta R.T. -0.02 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-092018

Tot Ion:101 Resp: 128907

Ion Ratio Lower Upper

101 100

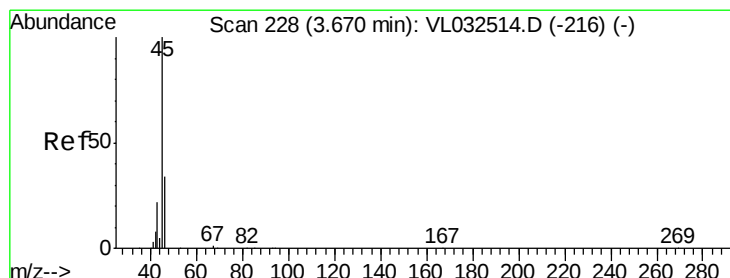
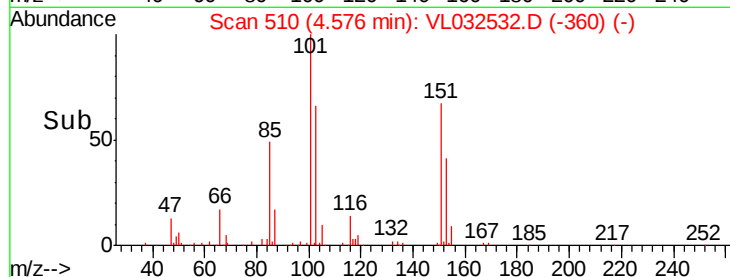
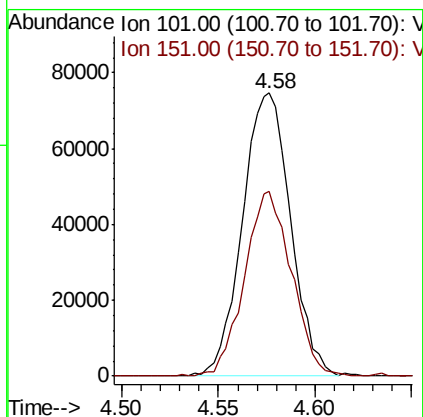
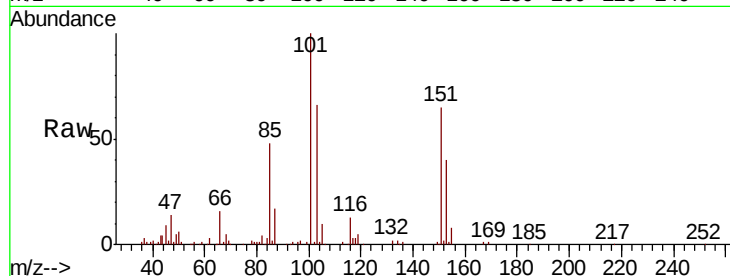
151 63.8 52.6 78.8

Manual Integrations

APPROVED

MMDadoda

9/27/2018 12:31:39 PM



#13

Ethanol

Concen: 59.985 ppbv

RT: 3.67 min Scan# 227

Delta R.T. -0.02 min

Lab File: VL032532.D

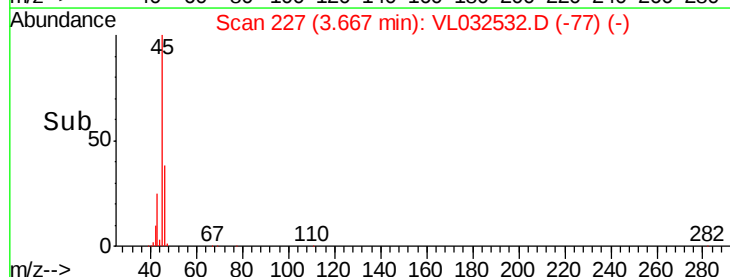
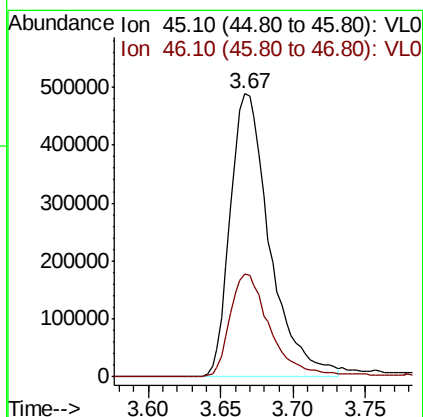
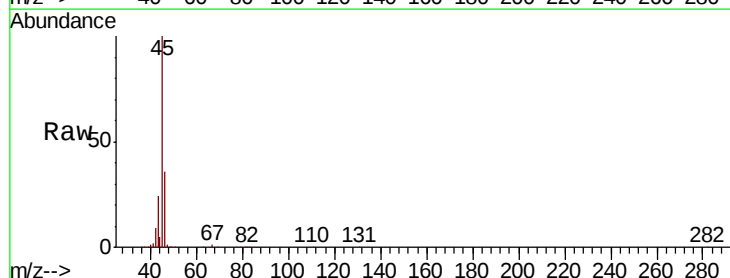
Acq: 25 Sep 2018 6:18

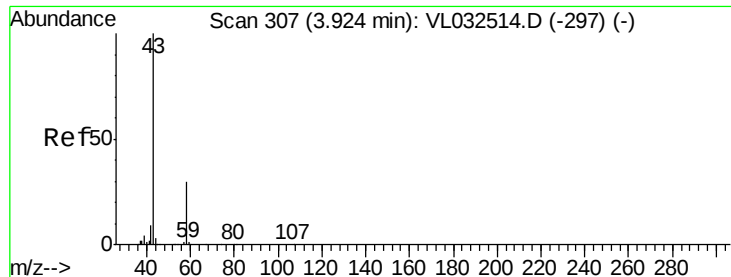
Tgt Ion: 45 Resp: 927215

Ion Ratio Lower Upper

45 100

46 37.6 14.2 56.8





#15

Acetone

Concen: 6.169 ppbv m

RT: 3.92 min Scan# 307

Delta R.T. -0.01 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

Tot Ion: 43 Resp: 771751

Ion Ratio Lower Upper

43 100

58 32.3 22.6 33.8

Instrument :

MSVOA_L

ClientSampleId :

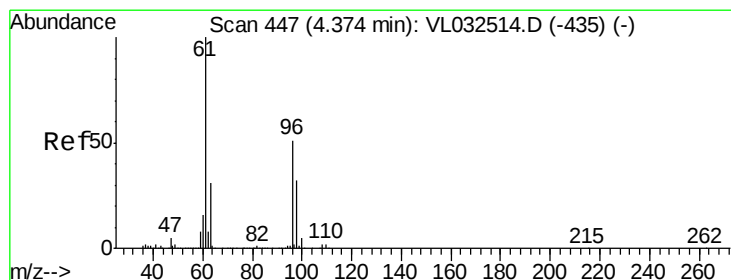
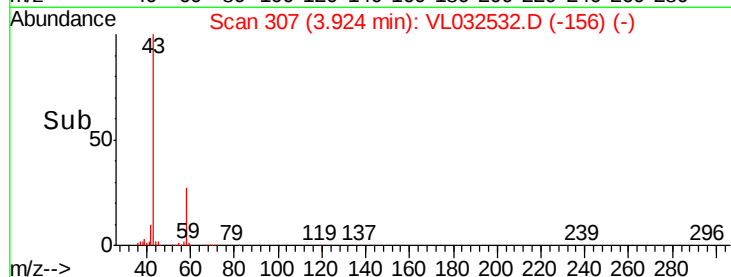
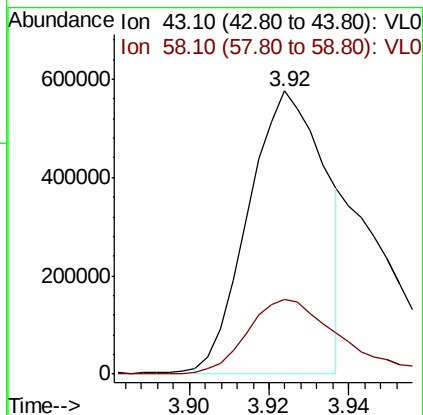
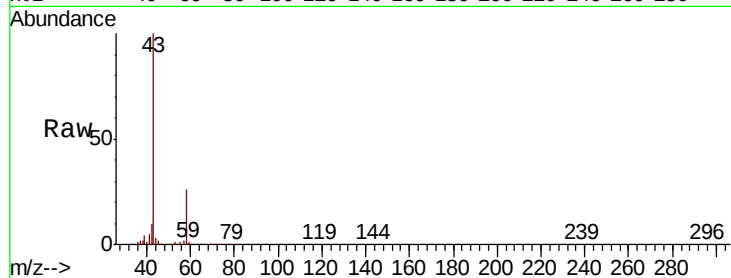
GAC-EFF-092018

Manual Integrations

APPROVED

MMDadoda

9/27/2018 12:31:39 PM



#18

1,1-Dichloroethene

Concen: 0.278 ppbv

RT: 4.37 min Scan# 447

Delta R.T. -0.02 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

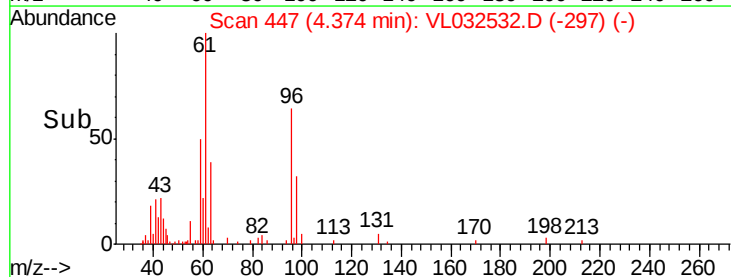
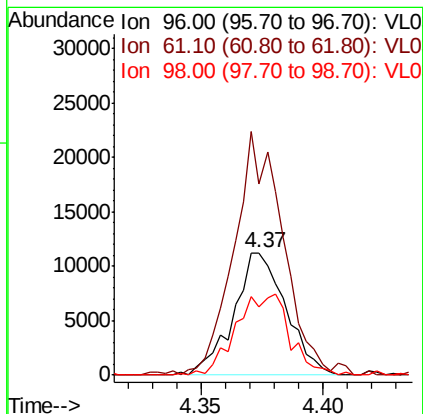
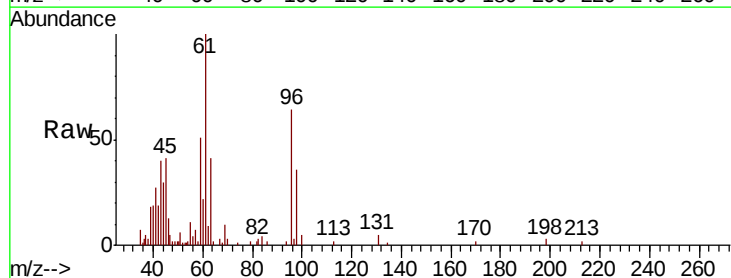
Tgt Ion: 96 Resp: 16650

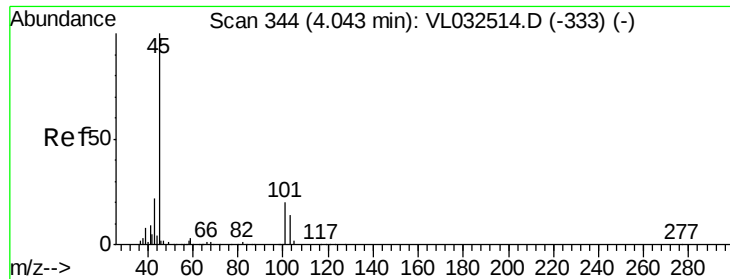
Ion Ratio Lower Upper

96 100

61 144.4 159.2 238.8#

98 53.4 51.0 76.4





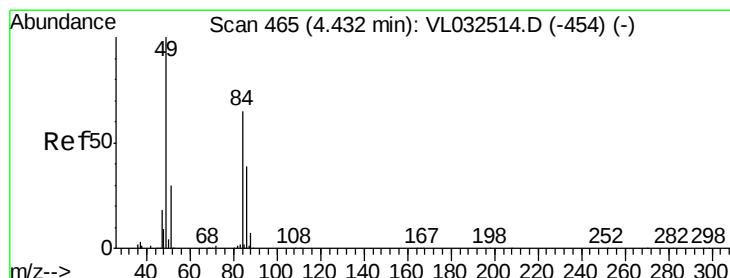
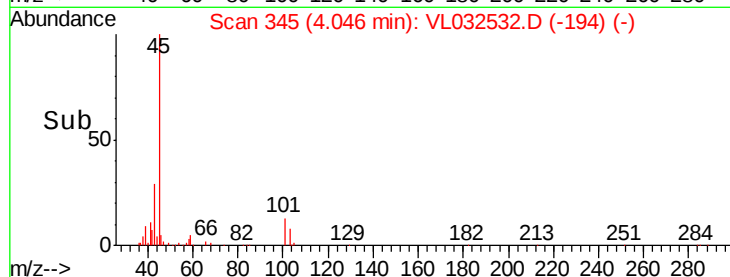
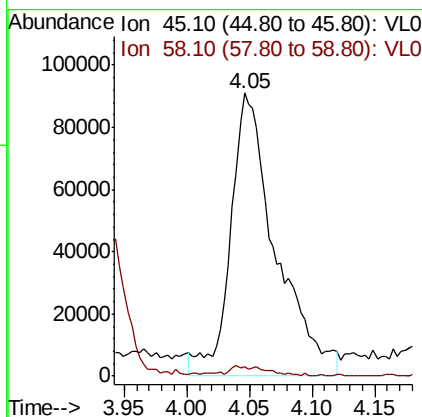
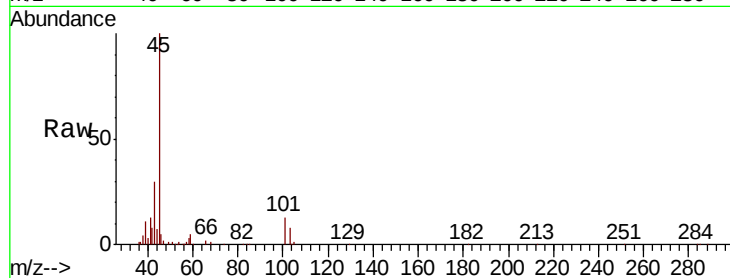
#19
Isopropyl Alcohol
Concen: 2.618 ppbv m
RT: 4.05 min Scan# 345
Delta R.T. -0.01 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-092018

Tot Ion	Ratio	Lower	Upper
45	100		
58	0.0	2.0	3.0#

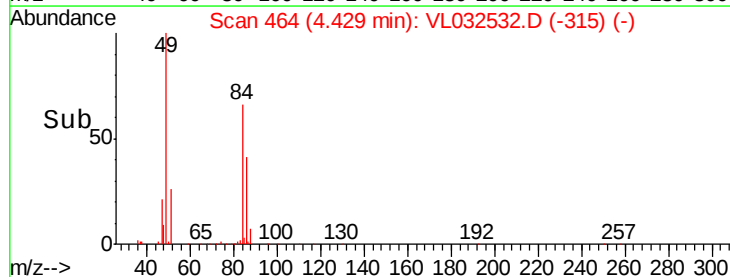
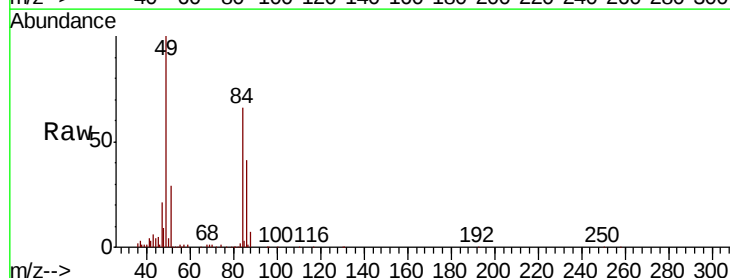
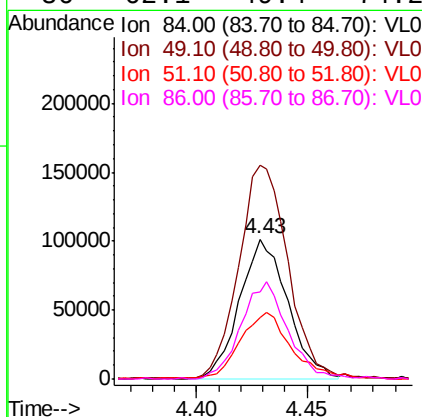
Manual Integrations
APPROVED

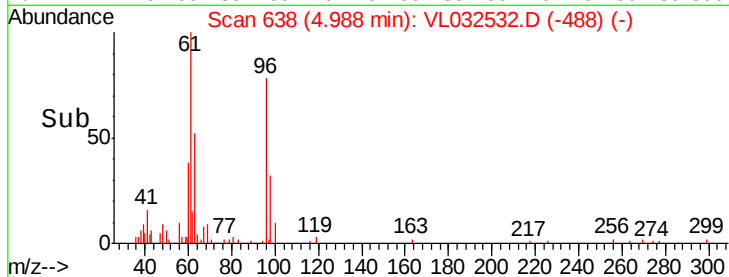
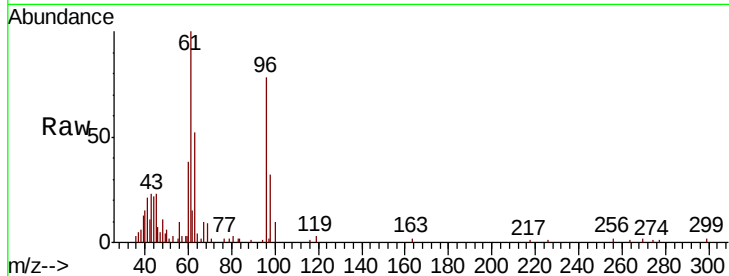
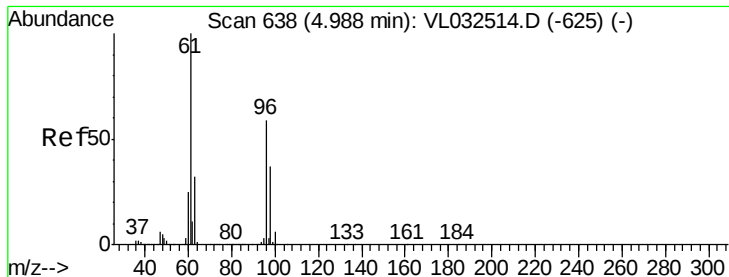
MMDadoda
9/27/2018 12:31:39 PM



#20
Methylene Chloride
Concen: 2.550 ppbv
RT: 4.43 min Scan# 464
Delta R.T. -0.02 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Tgt Ion	Ratio	Lower	Upper
84	100		
49	151.2	119.1	178.7
51	43.0	35.2	52.8
86	62.1	49.4	74.2





#22

trans-1,2-Dichloroethene

Concen: 0.250 ppbv

RT: 4.99 min Scan# 638

Delta R.T. -0.02 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

Tot Ion:	96	Resp:	14111
Ion Ratio	Lower	Upper	
96	100		
61	121.8	136.2	204.4#
98	39.1	50.4	75.6#

Instrument :

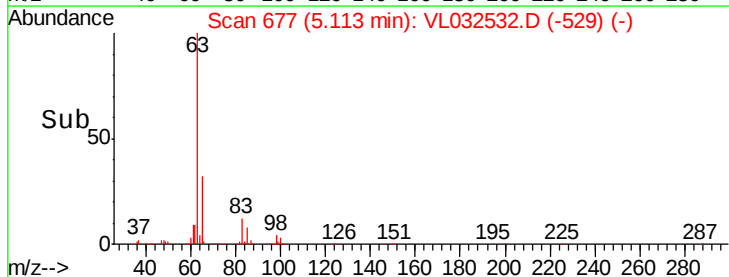
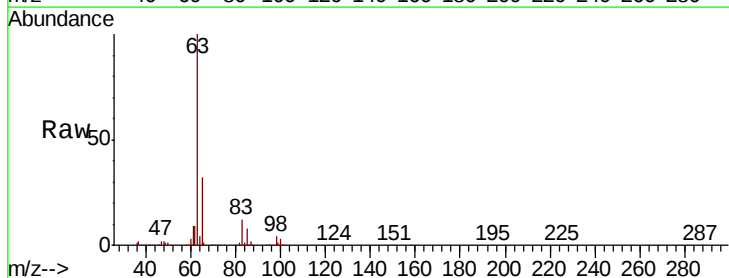
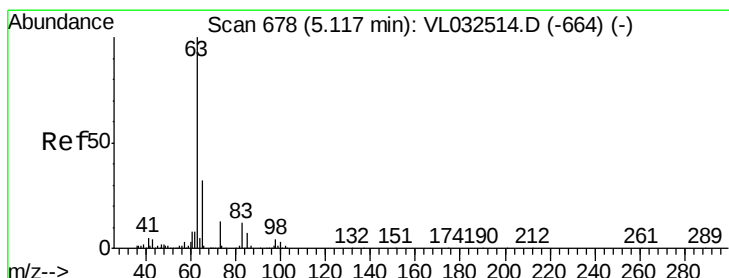
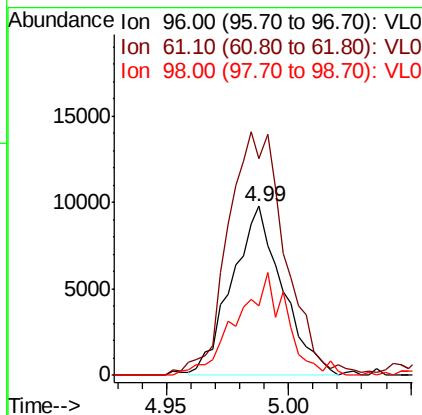
MSVOA_L

ClientSampleId :

GAC-EFF-092018

Manual Integrations
APPROVED

MMDadoda
9/27/2018 12:31:39 PM



#24

1,1-Dichloroethane

Concen: 8.378 ppbv

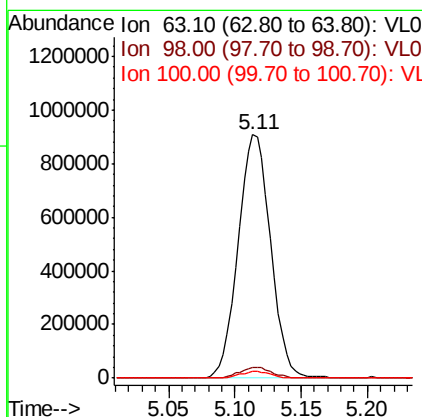
RT: 5.11 min Scan# 677

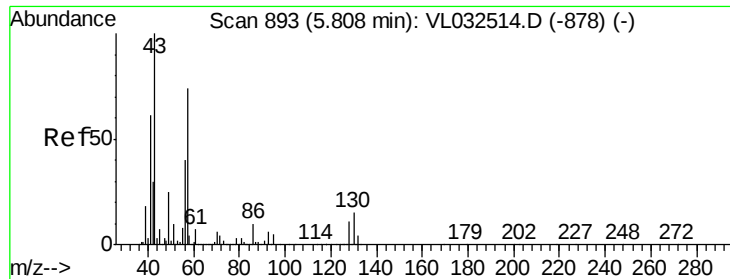
Delta R.T. -0.02 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

Tgt Ion:	63	Resp:	1542387
Ion Ratio	Lower	Upper	
63	100		
98	4.4	2.1	6.5
100	2.6	1.5	4.4





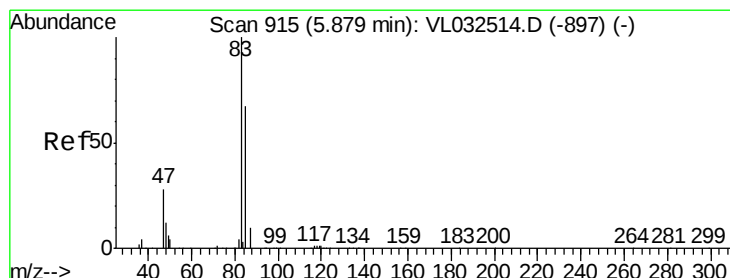
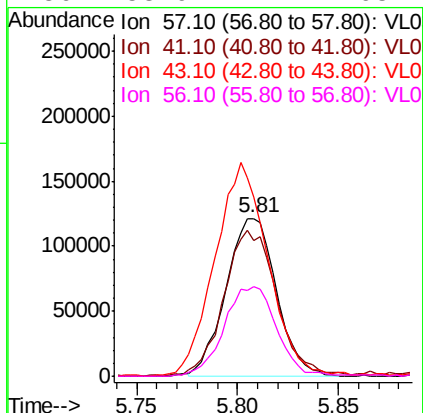
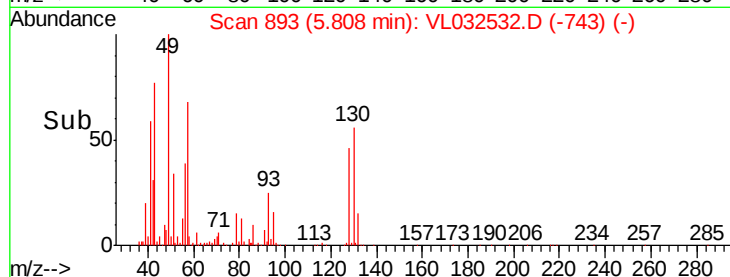
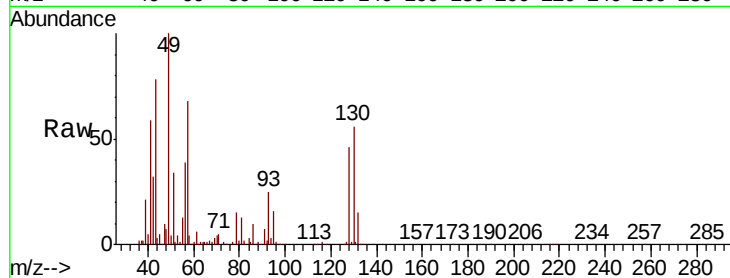
#26
Hexane
Concen: 1.537 ppbv
RT: 5.81 min Scan# 893
Delta R.T. -0.02 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-092018

Tot Ion	Ratio	Lower	Upper
57	100		
41	97.0	69.0	103.4
43	144.5	172.1	258.1#
56	58.9	42.2	63.2

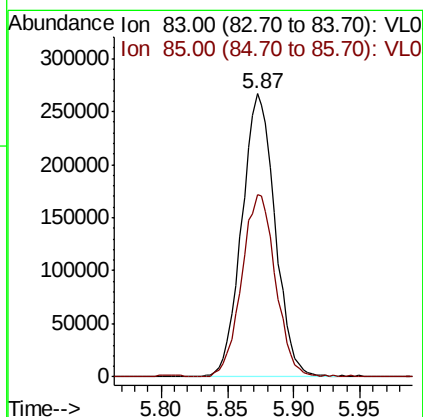
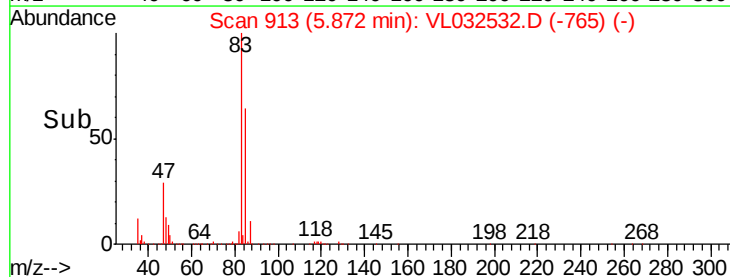
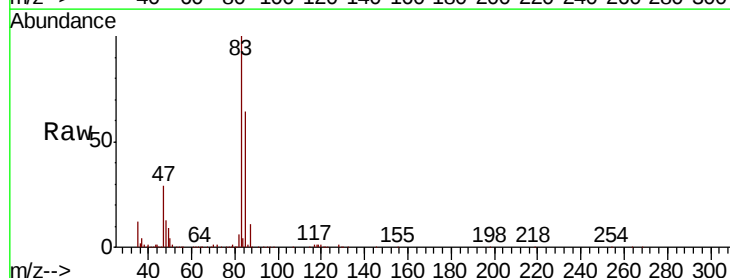
Manual Integrations
APPROVED

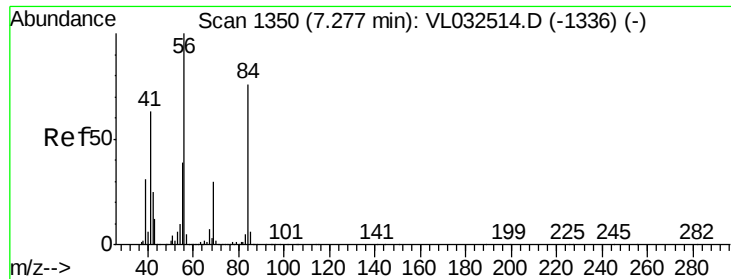
MMDadoda
9/27/2018 12:31:39 PM



#29
Chloroform
Concen: 2.208 ppbv
RT: 5.87 min Scan# 913
Delta R.T. -0.02 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Tgt Ion	Ratio	Lower	Upper
83	100		
85	64.1	52.5	78.7





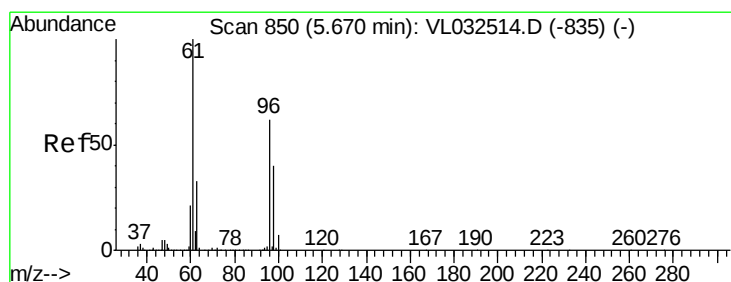
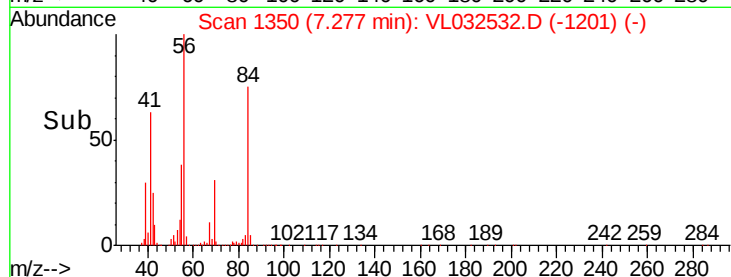
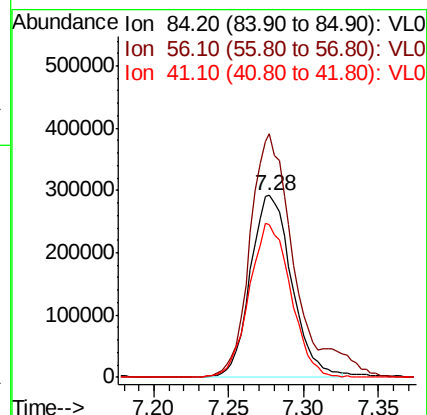
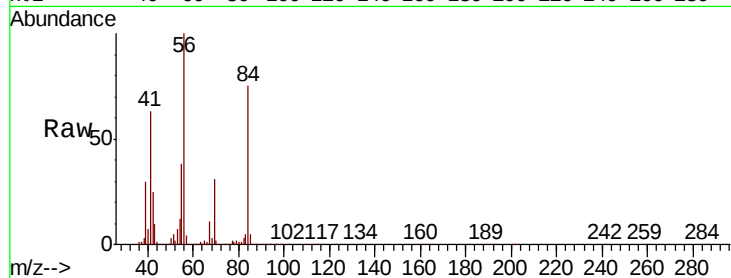
#30
Cvclohexane
Concen: 5.042 ppbv
RT: 7.28 min Scan# 1350
Delta R.T. -0.02 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-092018

Tot Ion	Ratio	Lower	Upper
84	100		
56	144.3	113.5	170.3
41	84.8	68.1	102.1

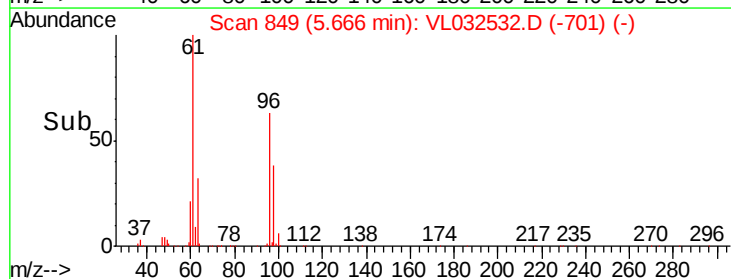
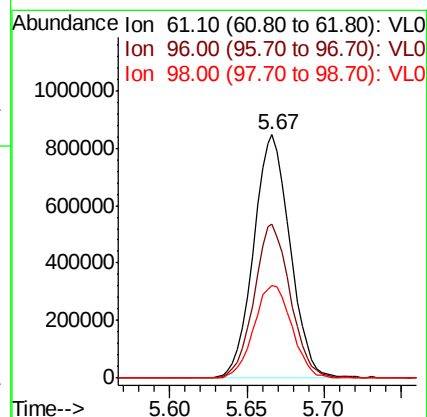
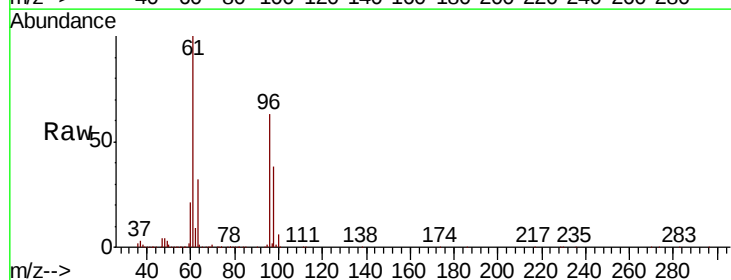
Manual Integrations
APPROVED

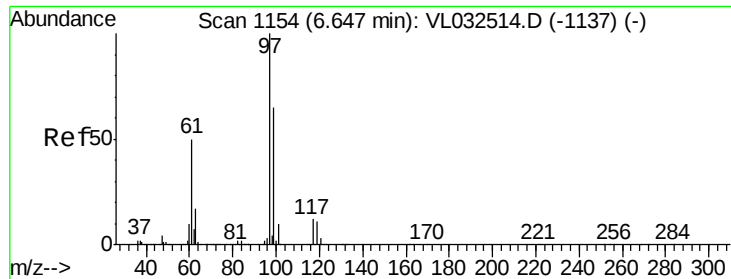
MMDadoda
9/27/2018 12:31:39 PM



#31
cis-1,2-Dichloroethene
Concen: 10.654 ppbv
RT: 5.67 min Scan# 849
Delta R.T. -0.02 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Tgt Ion	Ratio	Lower	Upper
61	100		
96	63.2	49.2	73.8
98	38.2	30.7	46.1





#32

1,1,1-Trichloroethane

Concen: 21.504 ppbv

RT: 6.65 min Scan# 1154

Delta R.T. -0.02 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

Instrument :

MSVOA_L

ClientSampleId :

GAC-EFF-092018

Tot Ion: 97 Resp: 4821374

Ion Ratio Lower Upper

97 100

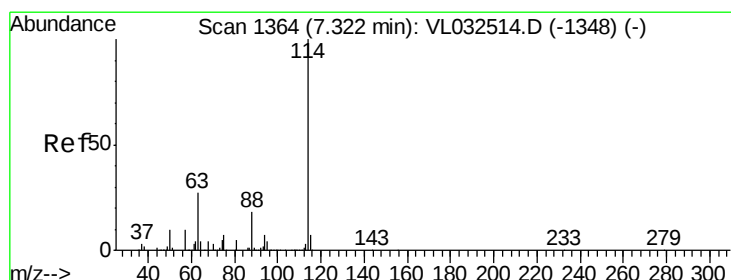
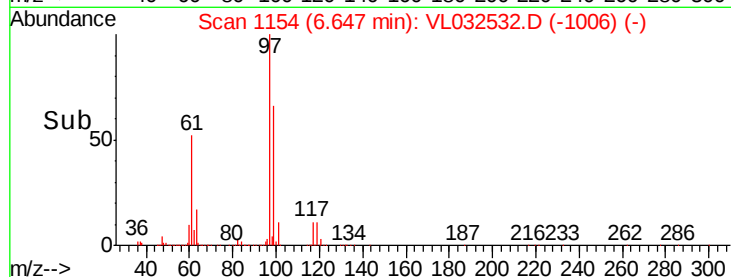
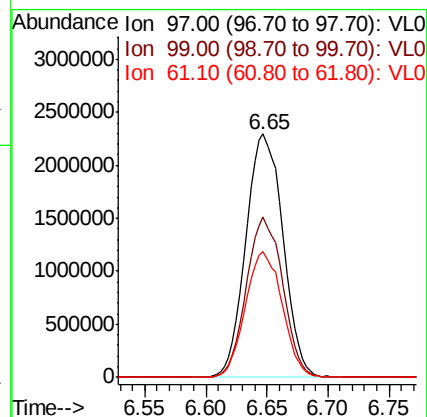
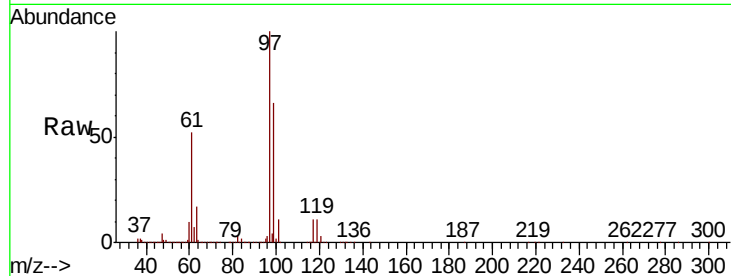
99 64.7 52.1 78.1

61 51.3 42.5 63.7

Manual Integrations
APPROVED

MMDadoda

9/27/2018 12:31:39 PM



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.32 min Scan# 1364

Delta R.T. -0.02 min

Lab File: VL032532.D

Acq: 25 Sep 2018 6:18

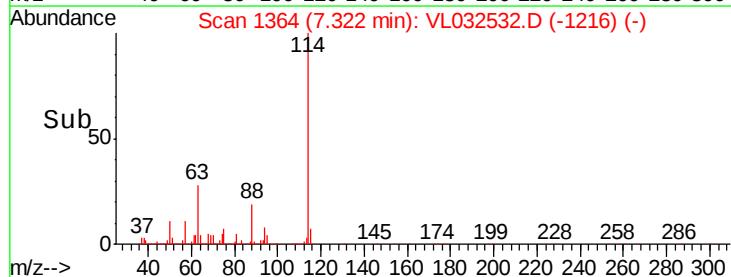
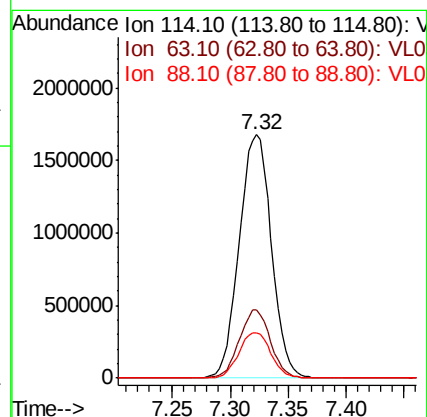
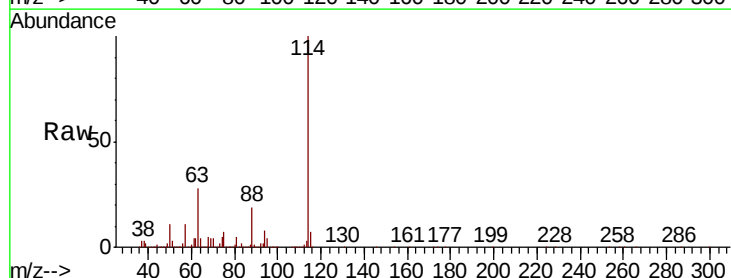
Tgt Ion: 114 Resp: 3229780

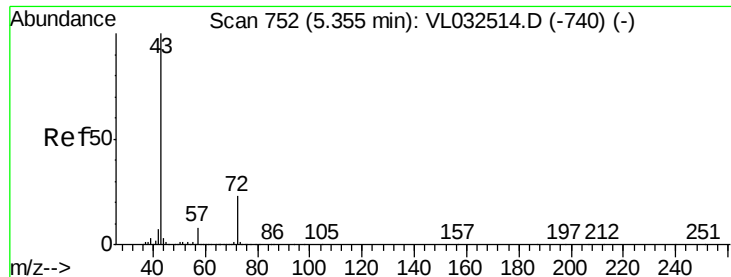
Ion Ratio Lower Upper

114 100

63 27.3 22.2 33.4

88 18.6 15.0 22.4





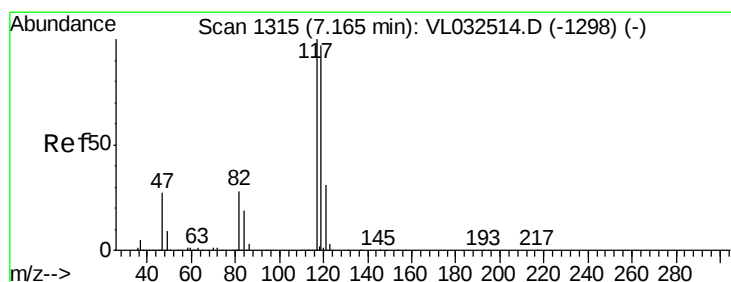
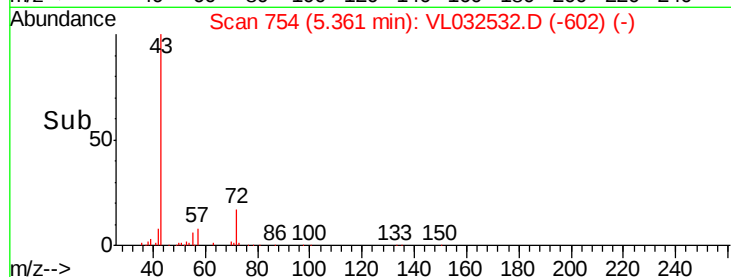
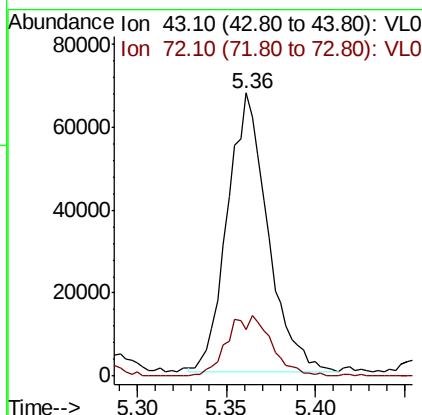
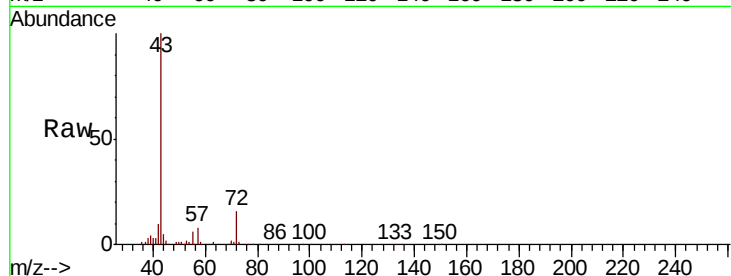
#34
2-Butanone
Concen: 0.548 ppbv
RT: 5.36 min Scan# 754
Delta R.T. -0.01 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-092018

Tot Ion	Ratio	Lower	Upper
43	100		
72	24.2	17.8	26.6

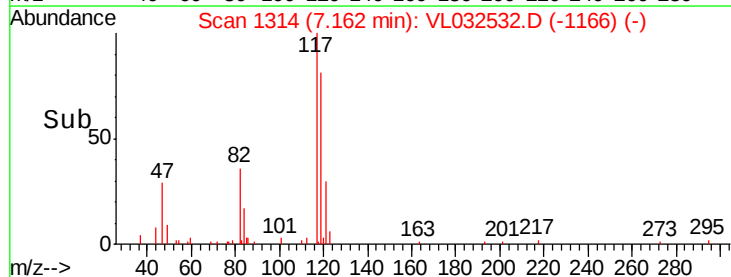
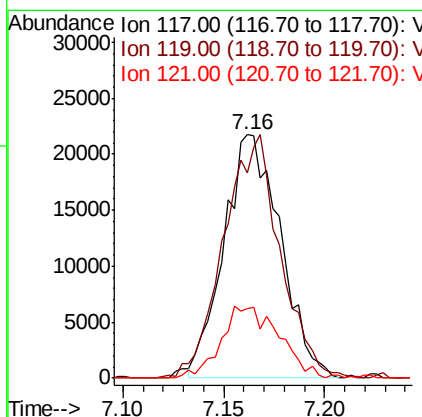
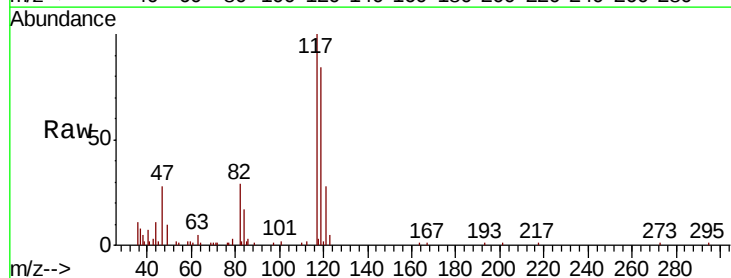
Manual Integrations
APPROVED

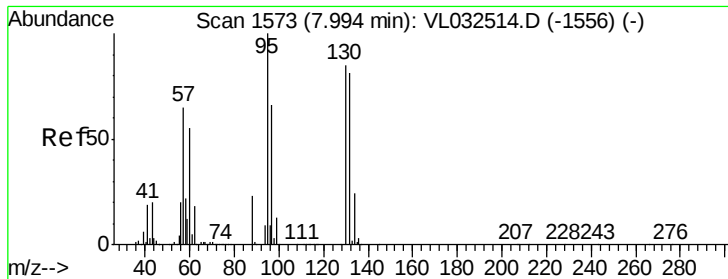
MMDadoda
9/27/2018 12:31:39 PM



#35
Carbon Tetrachloride
Concen: 0.190 ppbv
RT: 7.16 min Scan# 1314
Delta R.T. -0.02 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Tgt Ion	Ratio	Lower	Upper
117	100		
119	82.0	76.6	115.0
121	27.2	24.6	36.8





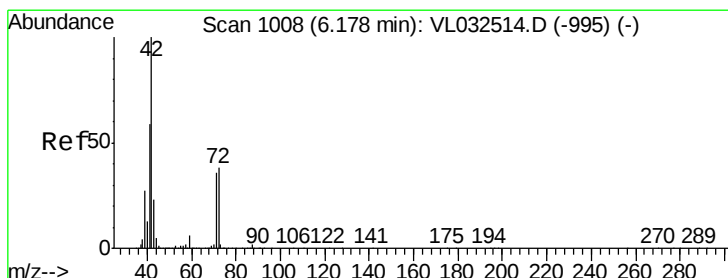
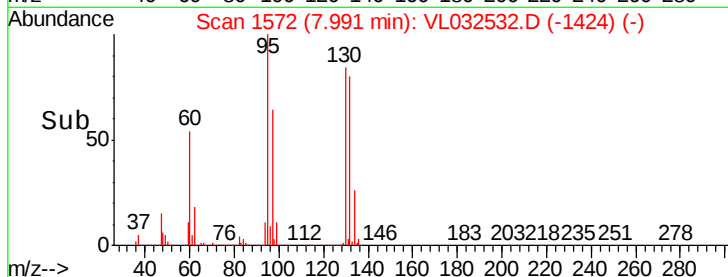
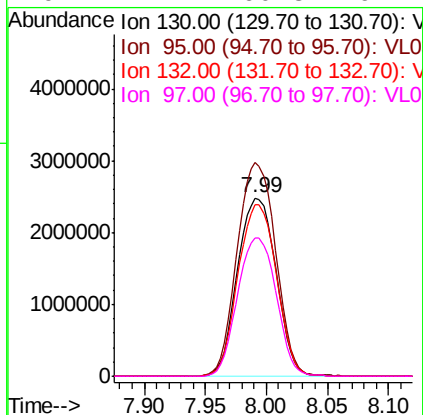
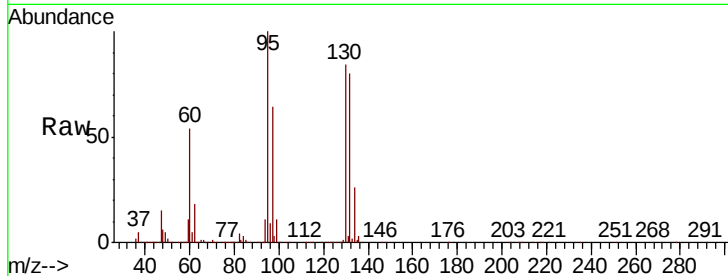
#38
 Trichloroethene
 Concen: 54.464 ppbv
 RT: 7.99 min Scan# 1572
 Delta R.T. -0.02 min
 Lab File: VL032532.D
 Acq: 25 Sep 2018 6:18

Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-092018

Tot Ion	Ratio	Lower	Upper
130	100		
95	119.7	94.2	141.4
132	96.1	76.2	114.4
97	77.2	60.8	91.2

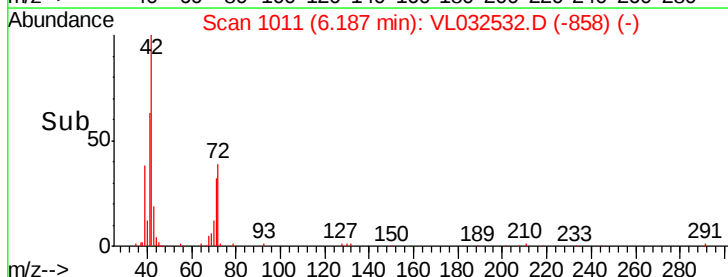
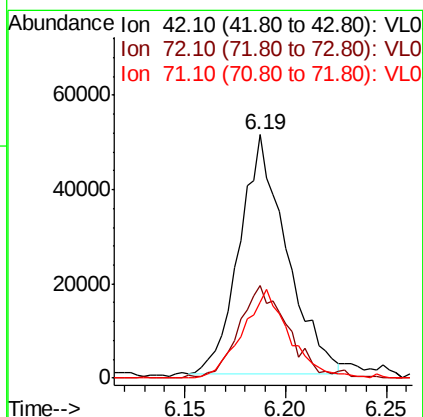
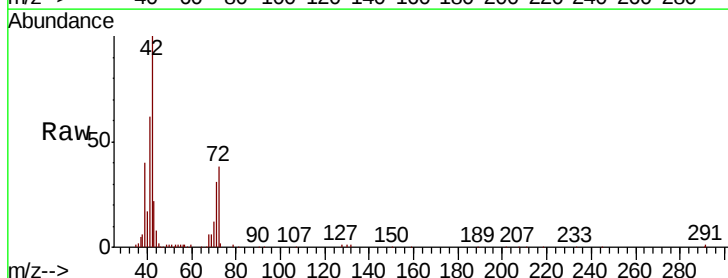
Manual Integrations
 APPROVED

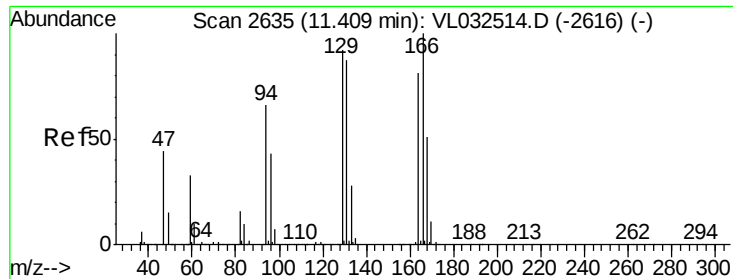
MMDadoda
 9/27/2018 12:31:39 PM



#41
 Tetrahydrofuran
 Concen: 0.793 ppbv
 RT: 6.19 min Scan# 1011
 Delta R.T. -0.01 min
 Lab File: VL032532.D
 Acq: 25 Sep 2018 6:18

Tgt Ion	Ratio	Lower	Upper
42	100		
72	41.0	29.5	44.3
71	37.2	28.3	42.5





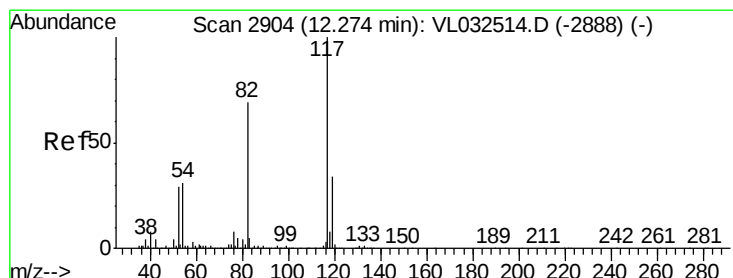
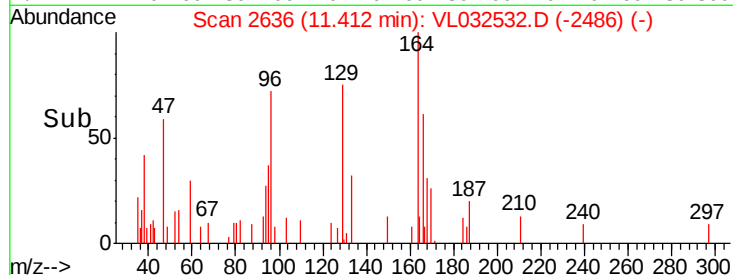
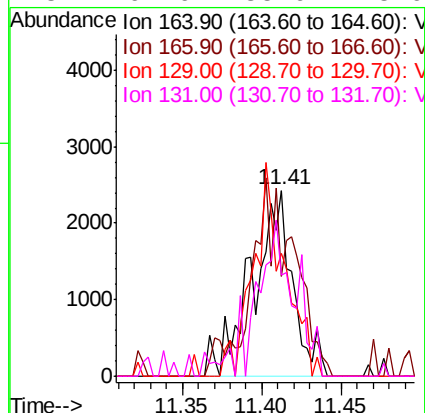
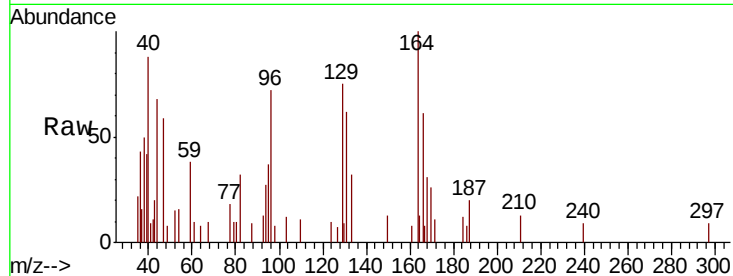
#52
Tetrachloroethene
Concen: 0.047 ppbv m
RT: 11.41 min Scan# 2636
Delta R.T. -0.02 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Instrument :
MSVOA_L
ClientSampleId :
GAC-EFF-092018

Tot Ion	Ratio	Lower	Upper
164	100		
166	60.8	100.6	150.8#
129	74.7	89.9	134.9#
131	61.6	85.9	128.9#

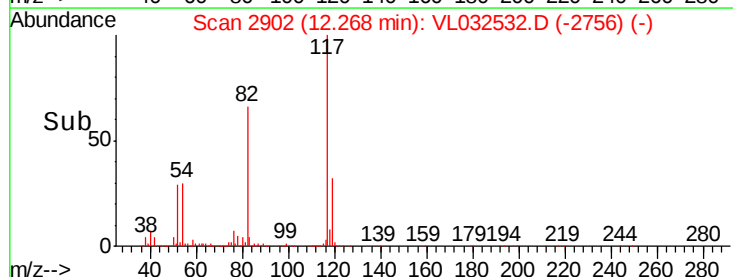
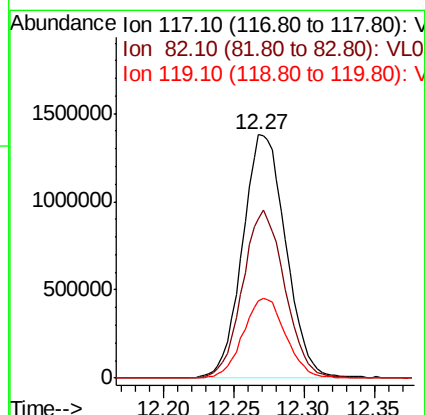
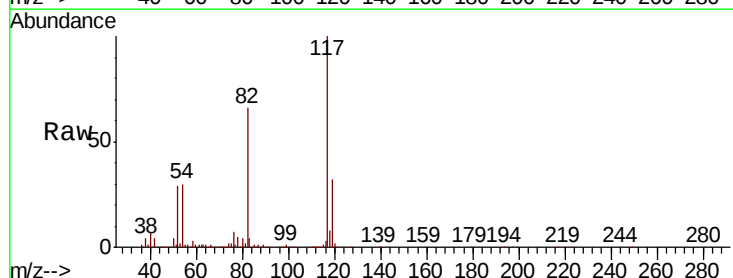
Manual Integrations
APPROVED

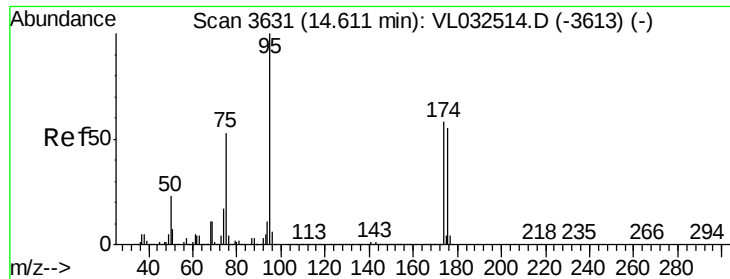
MMDadoda
9/27/2018 12:31:39 PM



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.27 min Scan# 2902
Delta R.T. -0.03 min
Lab File: VL032532.D
Acq: 25 Sep 2018 6:18

Tgt Ion	Ratio	Lower	Upper
117	100		
82	67.6	53.0	79.6
119	32.5	45.9	68.9#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.021 ppbv
 RT: 14.61 min Scan# 3629
 Delta R.T. -0.03 min
 Lab File: VL032532.D
 Acq: 25 Sep 2018 6:18

Instrument :
 MSVOA_L
 ClientSampleId :
 GAC-EFF-092018

Tot Ion	Ratio	Lower	Upper
95	100		
174	58.3	46.3	69.5
175	4.1	3.4	5.0

Manual Integrations
 APPROVED

MMDadoda
 9/27/2018 12:31:39 PM

