

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX011223\
 Data File : VX033708.D
 Acq On : 12 Jan 2023 13:15
 Operator : JC/MD
 Sample : 01131-01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 230111062-02-VOA

Quant Time: Jan 13 00:01:57 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X010723W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Jan 07 06:16:21 2023
 Response via : Initial Calibration

Manual Integrations
 APPROVED

Reviewed By : John Carlone 01/13/2023
 Supervised By : Mahesh Dadoda 01/13/2023

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	4.897	128	12830	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.763	114	89871	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.055	117	96947	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.952	65	33359	32.111	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 107.033%			
60) 4-Bromofluorobenzene	11.079	95	51980	29.749	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 99.167%			
63) Toluene-d8	8.646	98	95325	30.724	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 102.400%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	401	0.299	ug/l	99
4) Vinyl Chloride	1.373	62	460	0.354	ug/l #	74
6) Chloroethane	1.690	64	800	1.051	ug/l	94
8) Diethyl Ether	2.135	74	8678	13.294	ug/l	99
21) 1,1-Dichloroethane	3.611	63	1399	0.567	ug/l #	80
22) cis-1,2-Dichloroethene	4.489	96	801m	0.512	ug/l	
23) tert-Butyl Alcohol	3.001	59	76808	287.372	ug/l #	100
24) Methyl tert-Butyl Ether	3.117	73	3120	0.745	ug/l	92
34) Benzene	6.037	78	8983	1.592	ug/l #	95
45) 1,4-Dioxane	7.702	88	7181	201.830	ug/l #	1
62) Toluene	8.720	91	6829	1.119	ug/l	95
64) Chlorobenzene	10.079	112	34360	8.742	ug/l	100
66) Ethyl Benzene	10.195	91	27120	3.985	ug/l	97
67) m/p-Xylenes	10.299	106	10394	3.870	ug/l	100
68) o-Xylene	10.640	106	9102	3.448	ug/l	96
70) Isopropylbenzene	10.963	105	3963	0.580	ug/l	99
74) n-propylbenzene	11.305	91	1558	0.201	ug/l	99
75) 2-Chlorotoluene	11.365	91	3608	0.777	ug/l	91
76) 1,3,5-Trimethylbenzene	11.451	105	2837	0.500	ug/l	99
80) 1,2,4-Trimethylbenzene	11.756	105	7190	1.282	ug/l	96
82) p-Isopropyltoluene	12.006	119	3909	0.643	ug/l	97
84) 1,4-Dichlorobenzene	12.042	146	37068	11.255	ug/l	99
87) 1,2-Dichlorobenzene	12.335	146	2716	0.854	ug/l	94
91) Naphthalene	13.780	128	2696	0.420	ug/l #	95

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

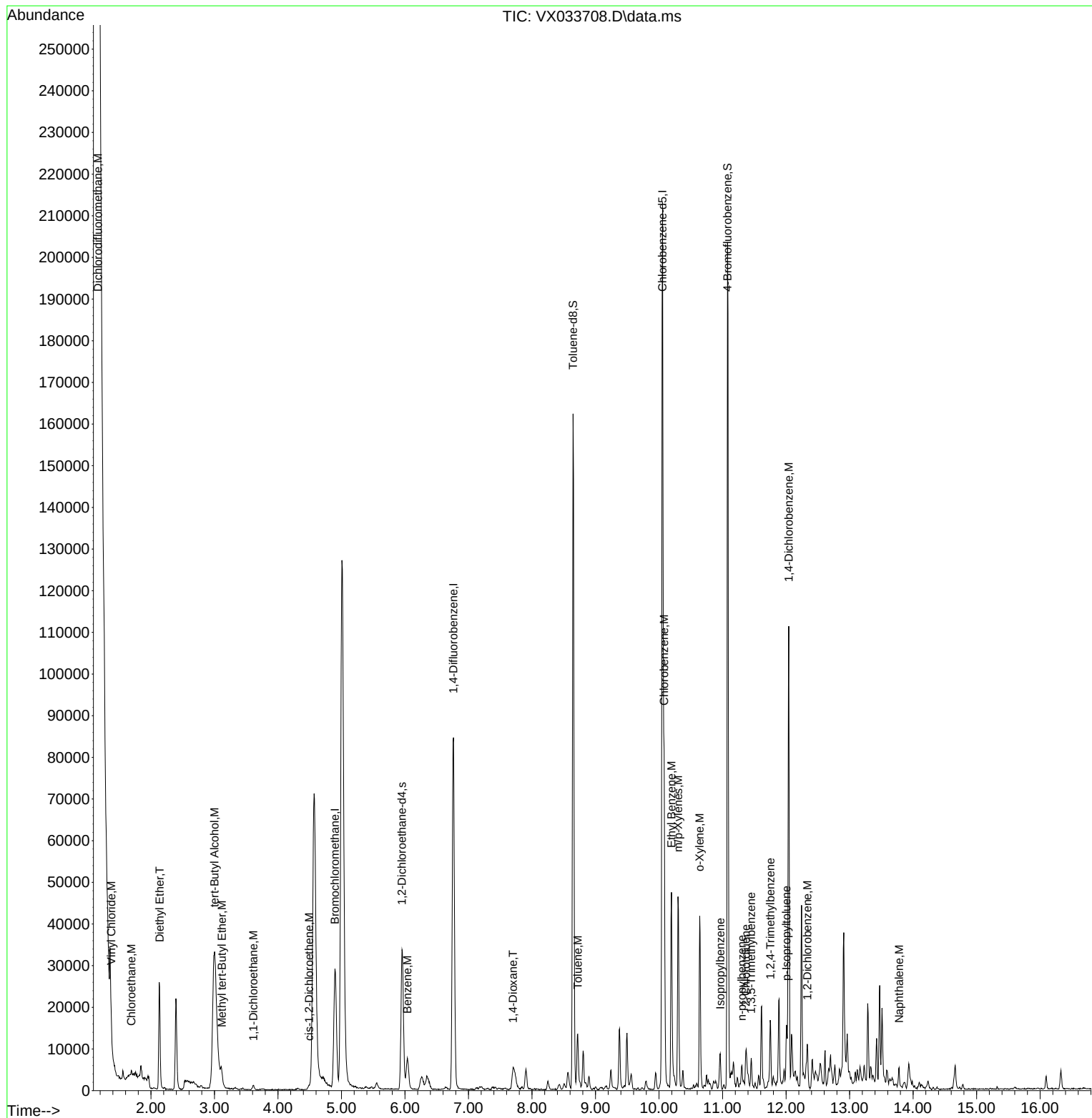
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX011223\
Data File : VX033708.D
Acq On : 12 Jan 2023 13:15
Operator : JC/MD
Sample : 01131-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

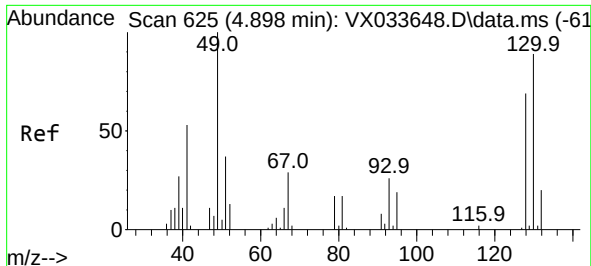
Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA

Quant Time: Jan 13 00:01:57 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X010723W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Jan 07 06:16:21 2023
Response via : Initial Calibration

Manual Integrations
APPROVED

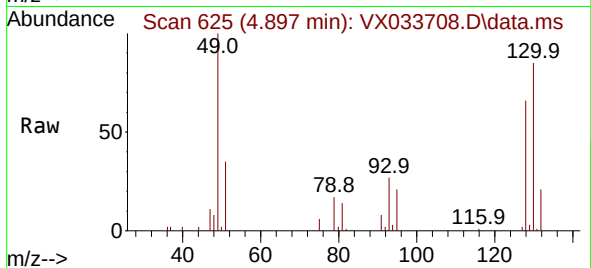
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023





#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 4.897 min Scan# 61
Delta R.T. -0.001 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

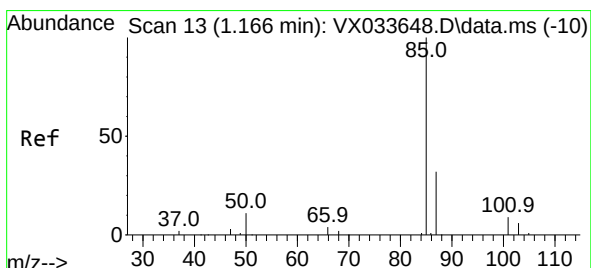
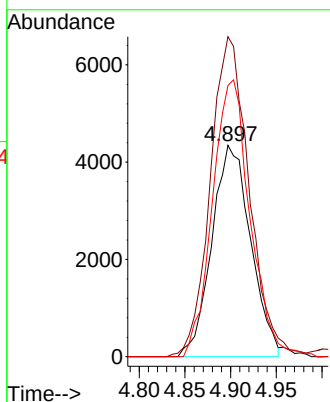
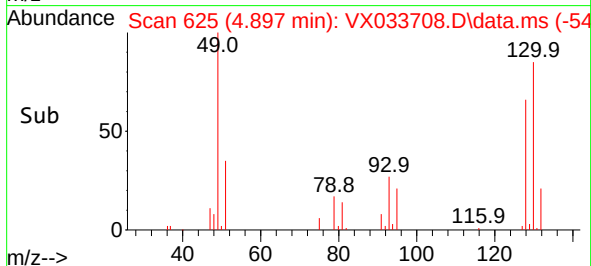
Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA



Tgt Ion:128 Resp: 12830
Ion Ratio Lower Upper
128 100
49 151.7 0.0 398.5
130 127.5 0.0 329.0

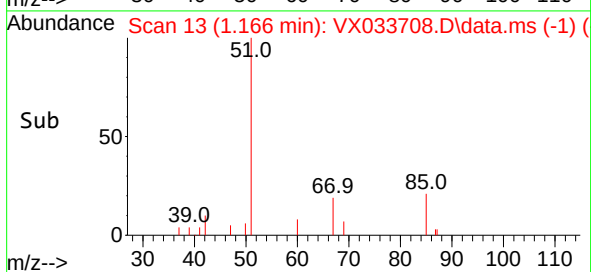
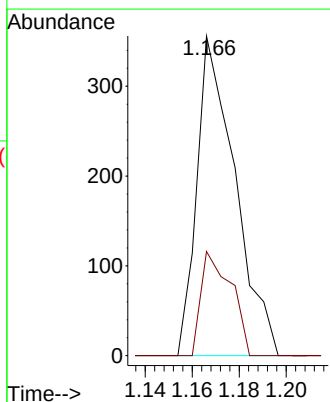
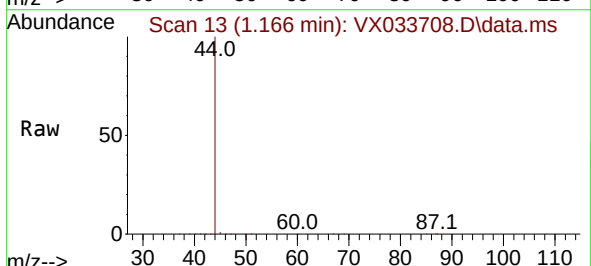
Manual Integrations
APPROVED

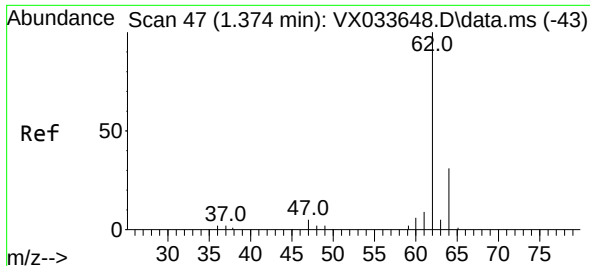
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#2
Dichlorodifluoromethane
Concen: 0.299 ug/l
RT: 1.166 min Scan# 13
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

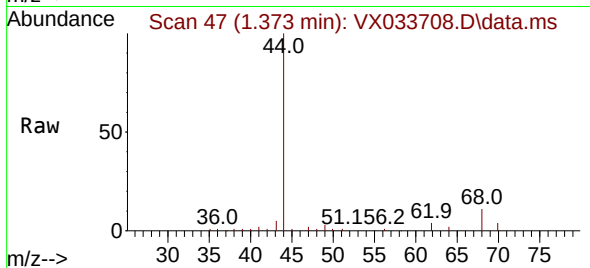
Tgt Ion: 85 Resp: 401
Ion Ratio Lower Upper
85 100
87 32.6 16.0 48.0





#4
 Vinyl Chloride
 Concen: 0.354 ug/l
 RT: 1.373 min Scan# 41
 Delta R.T. -0.000 min
 Lab File: VX033708.D
 Acq: 12 Jan 2023 13:15

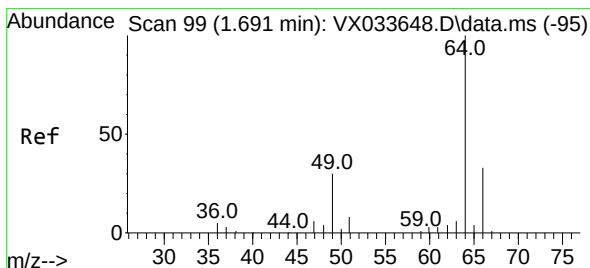
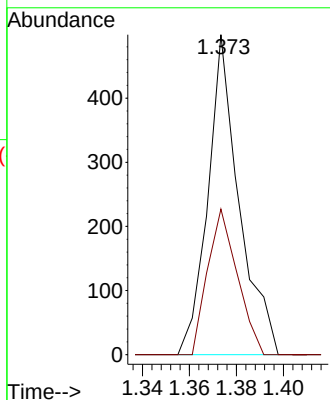
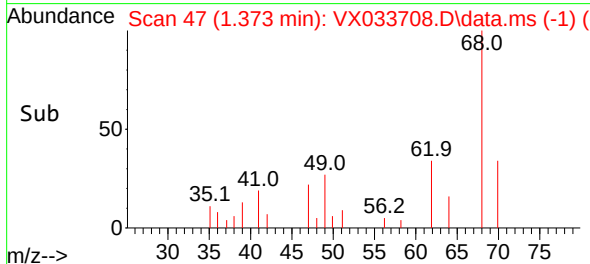
Instrument :
 MSVOA_X
 ClientSampleId :
 230111062-02-VOA



Tgt Ion: 62 Resp: 460
 Ion Ratio Lower Upper
 62 100
 64 45.5 24.9 37.3

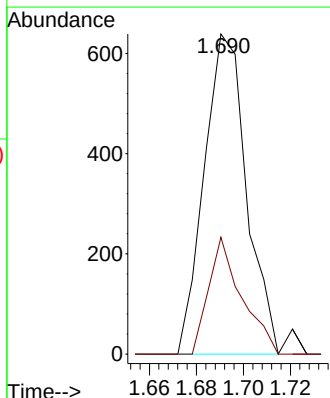
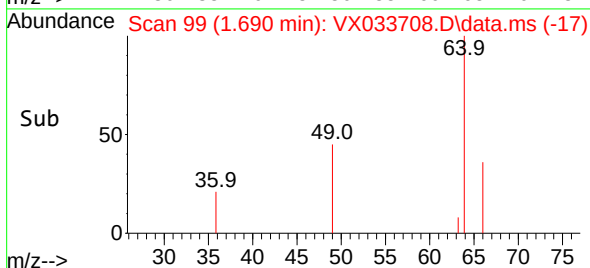
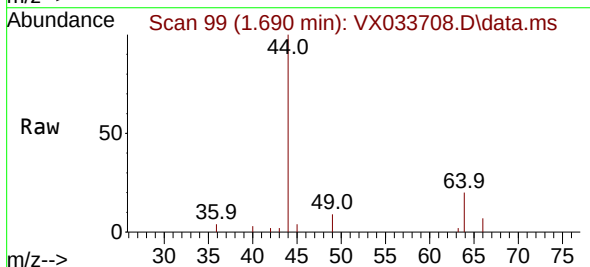
Manual Integrations
 APPROVED

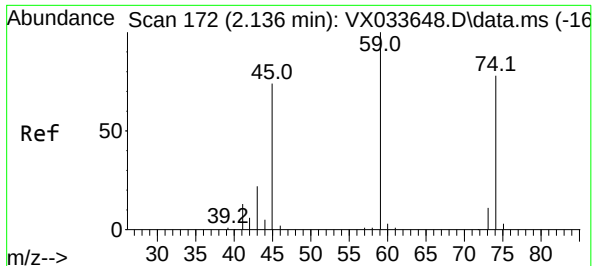
Reviewed By :John Carlone 01/13/2023
 Supervised By :Mahesh Dadoda 01/13/2023



#6
 Chloroethane
 Concen: 1.051 ug/l
 RT: 1.690 min Scan# 99
 Delta R.T. -0.000 min
 Lab File: VX033708.D
 Acq: 12 Jan 2023 13:15

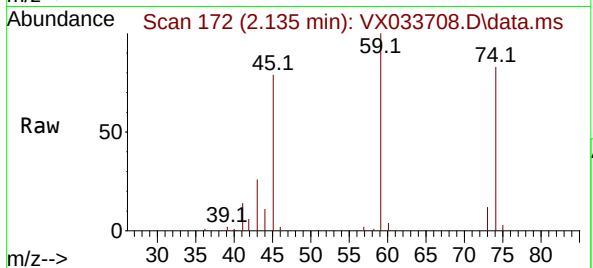
Tgt Ion: 64 Resp: 800
 Ion Ratio Lower Upper
 64 100
 66 36.5 26.6 40.0





#8
Diethyl Ether
Concen: 13.294 ug/l
RT: 2.135 min Scan# 11
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

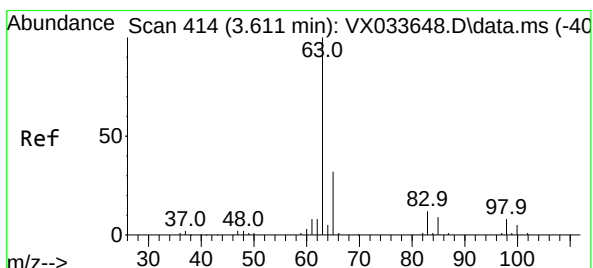
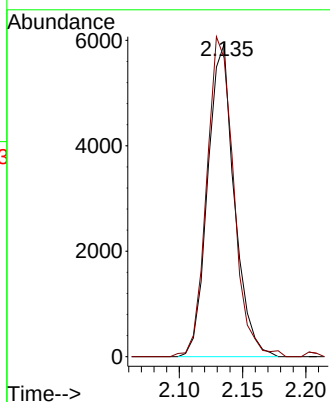
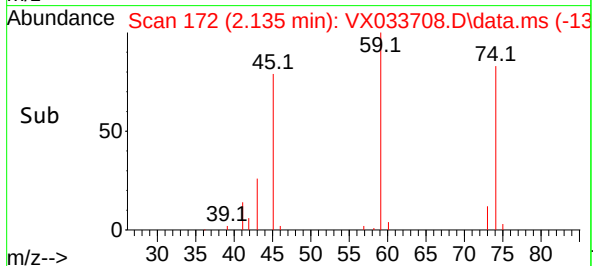
Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA



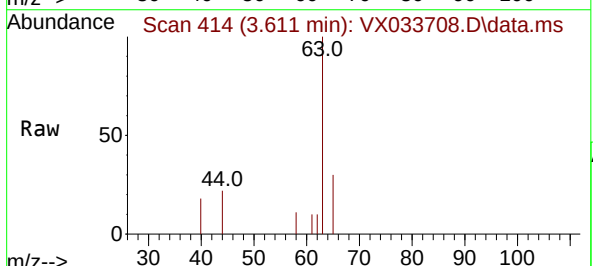
Tgt Ion: 74 Resp: 8678
Ion Ratio Lower Upper
74 100
45 103.0 20.3 182.9

Manual Integrations
APPROVED

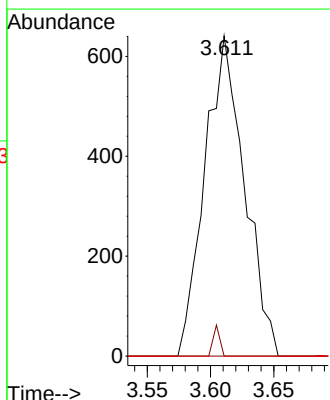
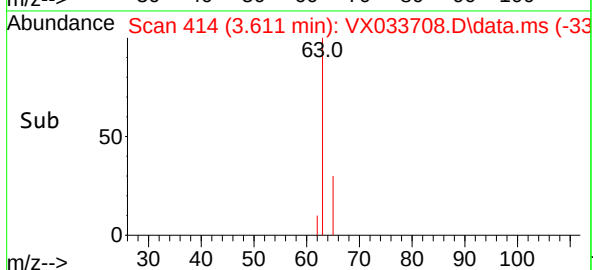
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023

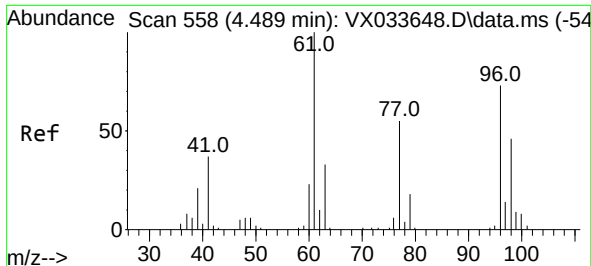


#21
1,1-Dichloroethane
Concen: 0.567 ug/l
RT: 3.611 min Scan# 414
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15



Tgt Ion: 63 Resp: 1399
Ion Ratio Lower Upper
63 100
98 0.0 4.0 12.2#
100 0.0 2.4 7.2#





#22

cis-1,2-Dichloroethene

Concen: 0.512 ug/l m

RT: 4.489 min Scan# 51

Delta R.T. -0.000 min

Lab File: VX033708.D

Acq: 12 Jan 2023 13:15

Instrument :

MSVOA_X

ClientSampleId :

230111062-02-VOA

Tgt Ion: 96 Resp: 80

Ion Ratio Lower Upper

96 100

61 76.0 114.2 171.2

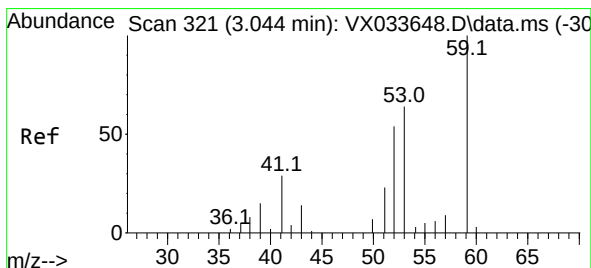
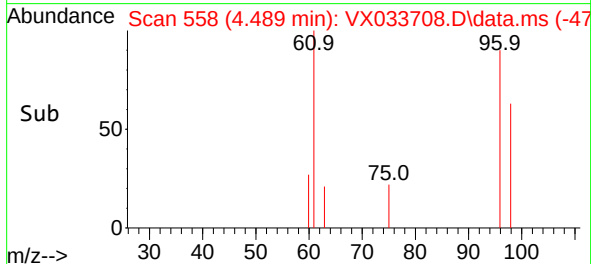
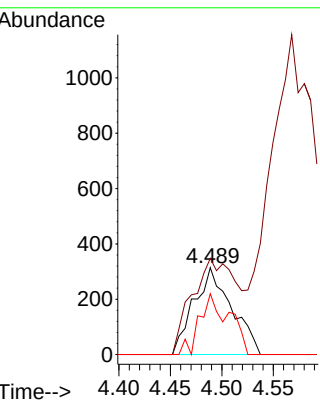
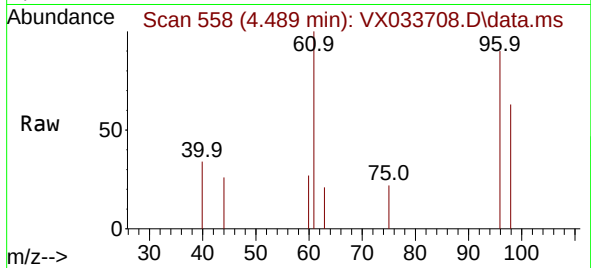
98 35.1 51.4 77.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/13/2023

Supervised By :Mahesh Dadoda 01/13/2023



#23

tert-Butyl Alcohol

Concen: 287.372 ug/l

RT: 3.001 min Scan# 314

Delta R.T. -0.043 min

Lab File: VX033708.D

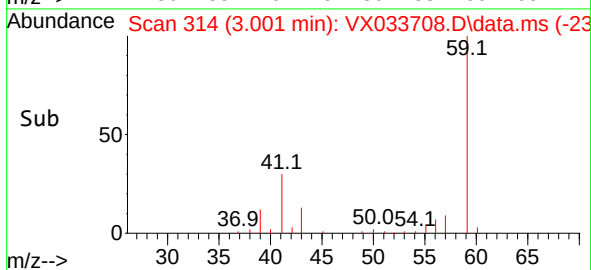
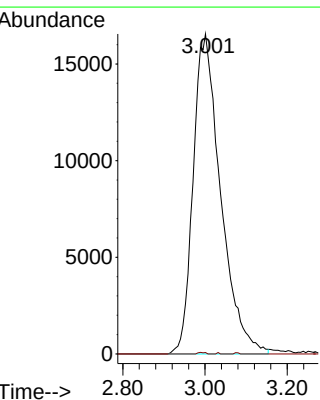
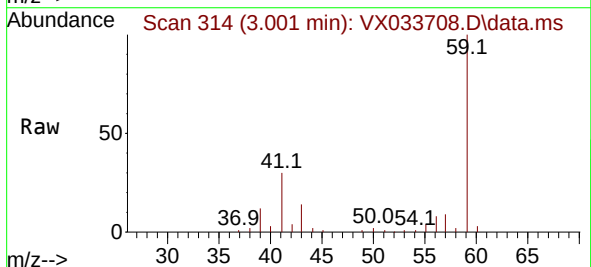
Acq: 12 Jan 2023 13:15

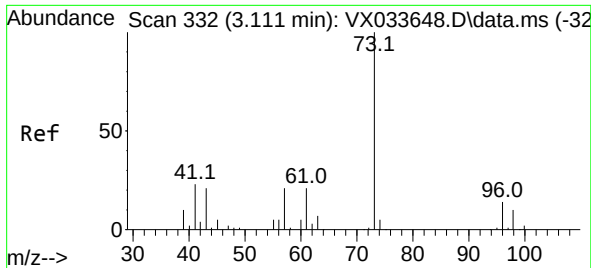
Tgt Ion: 59 Resp: 76808

Ion Ratio Lower Upper

59 100

52 0.1 0.2 0.2





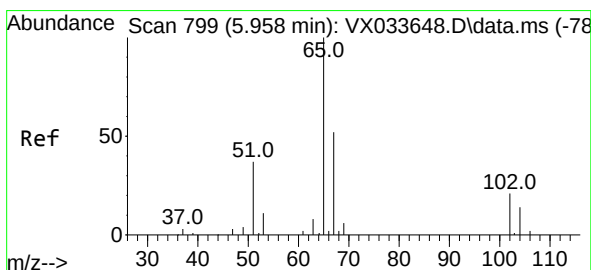
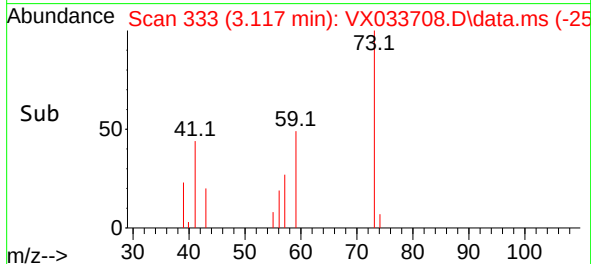
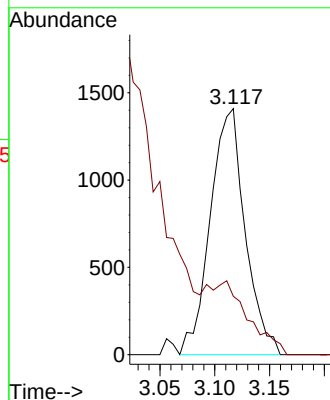
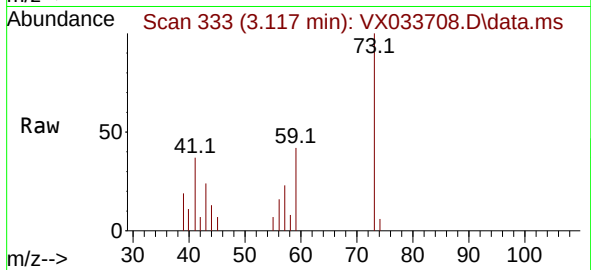
#24
Methyl tert-Butyl Ether
Concen: 0.745 ug/l
RT: 3.117 min Scan# 3120
Delta R.T. 0.006 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA

Tgt Ion: 73 Resp: 3120
Ion Ratio Lower Upper
73 100
43 26.2 18.1 27.1

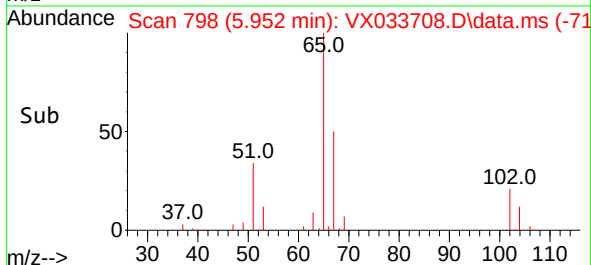
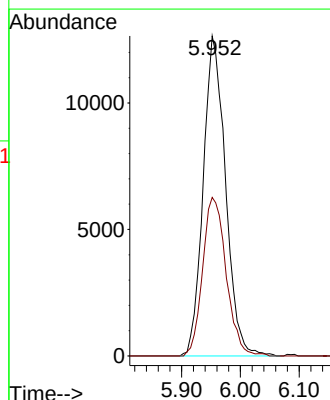
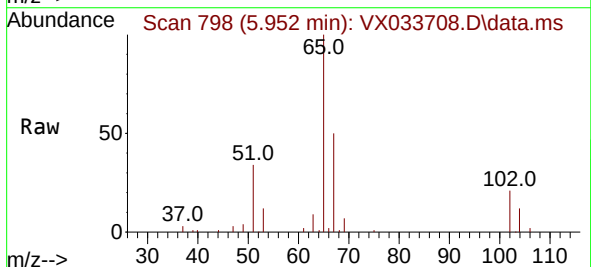
Manual Integrations
APPROVED

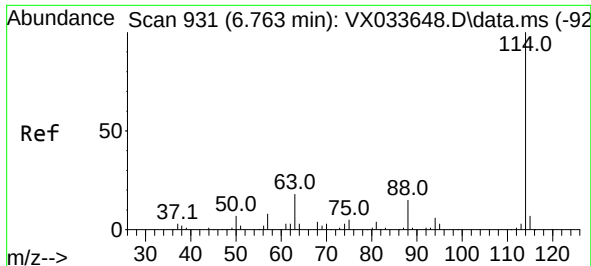
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#27
1,2-Dichloroethane-d4
Concen: 32.111 ug/l
RT: 5.952 min Scan# 798
Delta R.T. -0.006 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Tgt Ion: 65 Resp: 33359
Ion Ratio Lower Upper
65 100
67 51.9 40.4 60.6





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 6.763 min Scan# 91

Delta R.T. -0.000 min

Lab File: VX033708.D

Acq: 12 Jan 2023 13:15

Instrument :

MSVOA_X

ClientSampleId :

230111062-02-VOA

Tgt Ion:114 Resp: 8987

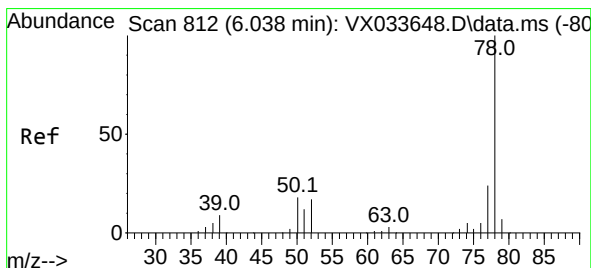
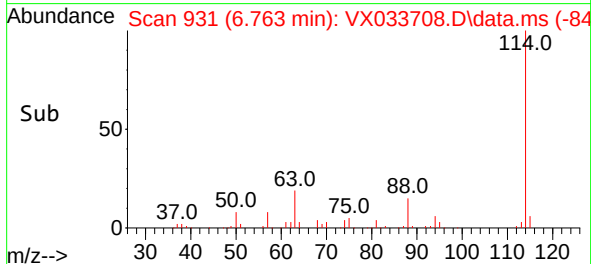
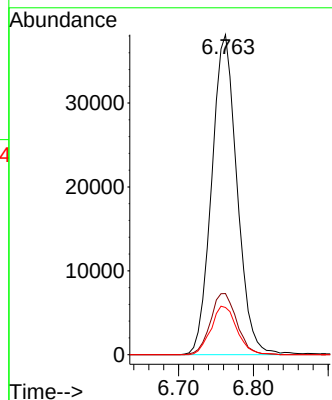
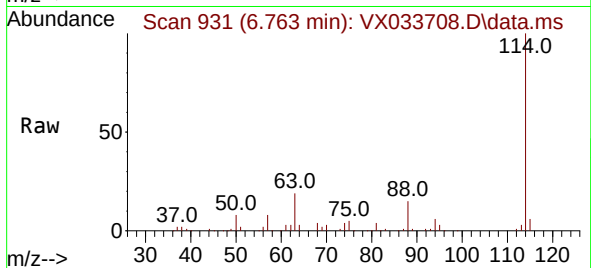
Ion	Ratio	Lower	Upper
114	100		
63	19.9	15.5	23.3
88	15.5	12.4	18.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/13/2023

Supervised By :Mahesh Dadoda 01/13/2023



#34

Benzene

Concen: 1.592 ug/l

RT: 6.037 min Scan# 812

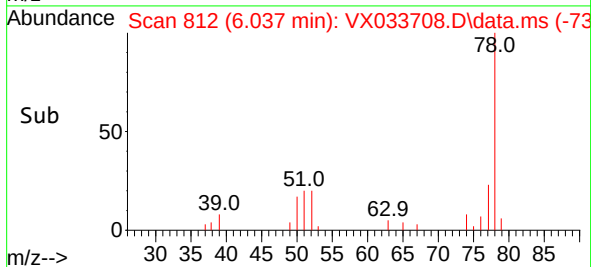
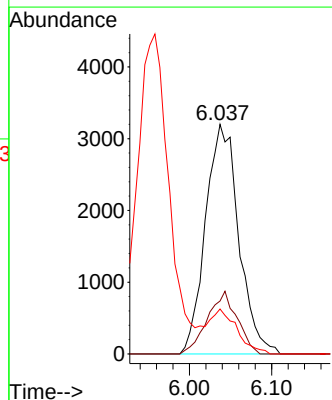
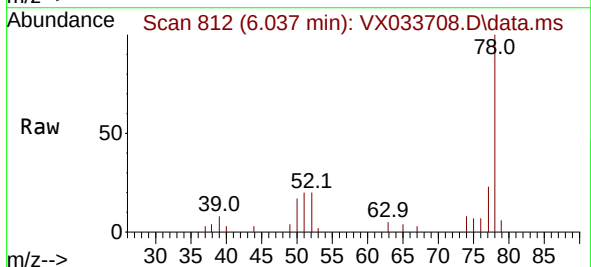
Delta R.T. -0.000 min

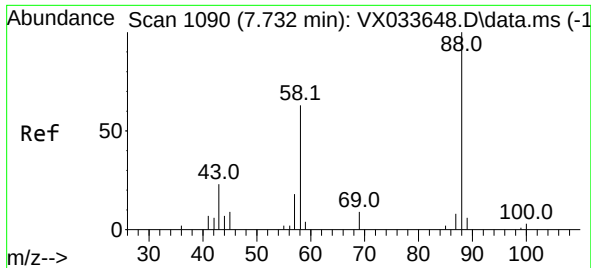
Lab File: VX033708.D

Acq: 12 Jan 2023 13:15

Tgt Ion: 78 Resp: 8983

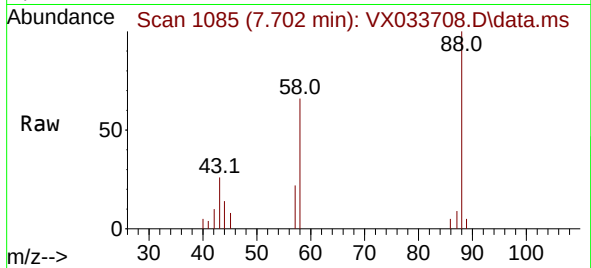
Ion	Ratio	Lower	Upper
78	100		
77	23.0	19.5	29.3
51	19.6	13.0	19.6





#45
1,4-Dioxane
Concen: 201.830 ug/l
RT: 7.702 min Scan# 1085
Delta R.T. -0.031 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

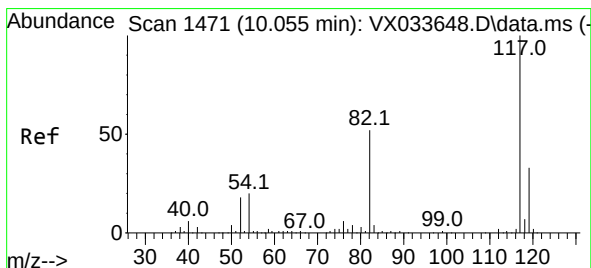
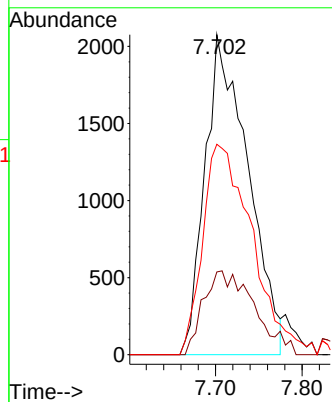
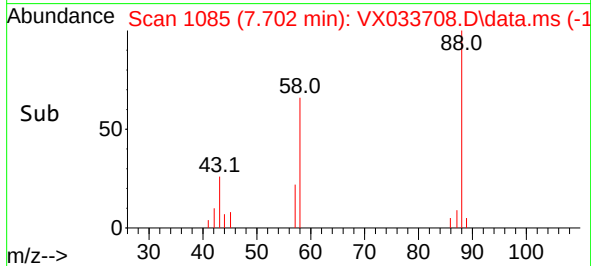
Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA



Tgt Ion: 88 Resp: 718
Ion Ratio Lower Upper
88 100
43 19.6 1.2 1.8
58 74.9 8.5 12.7

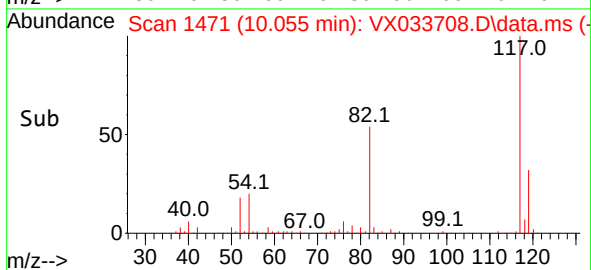
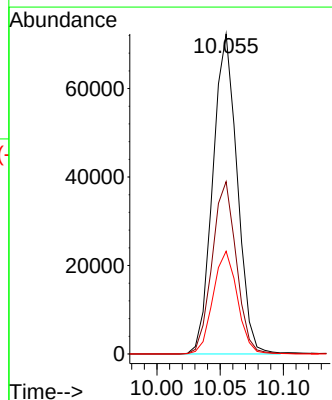
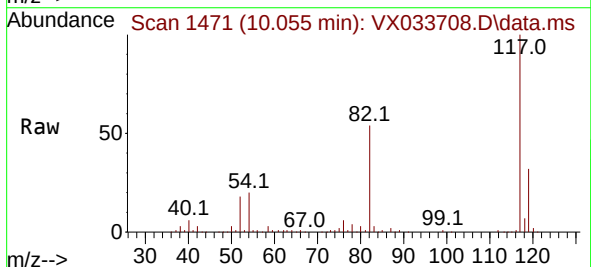
Manual Integrations
APPROVED

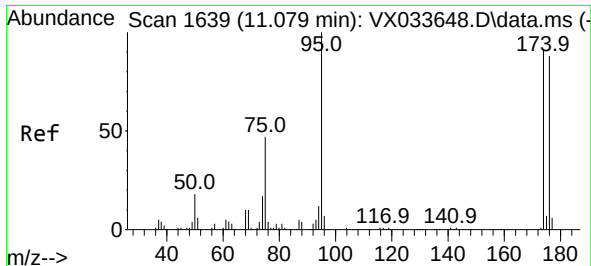
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

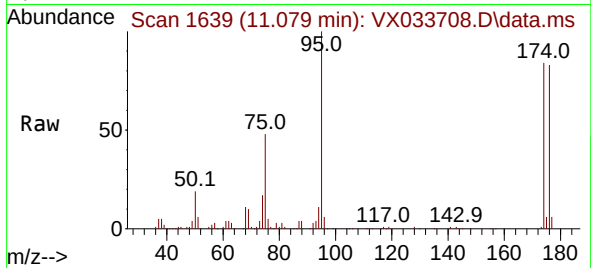
Tgt Ion:117 Resp: 96947
Ion Ratio Lower Upper
117 100
82 53.4 41.9 62.9
119 32.1 25.6 38.4





#60
4-Bromofluorobenzene
Concen: 29.749 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

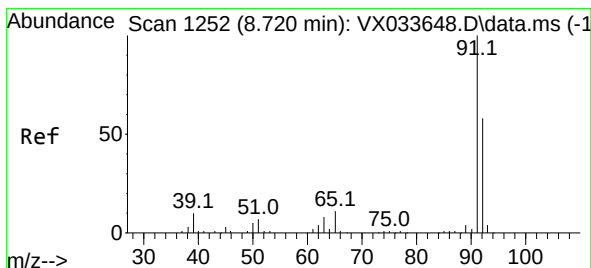
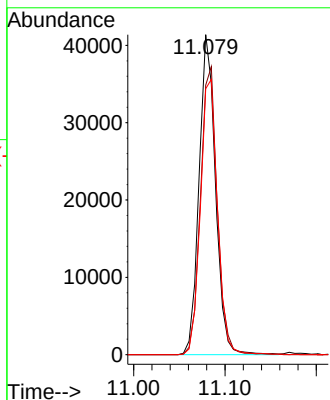
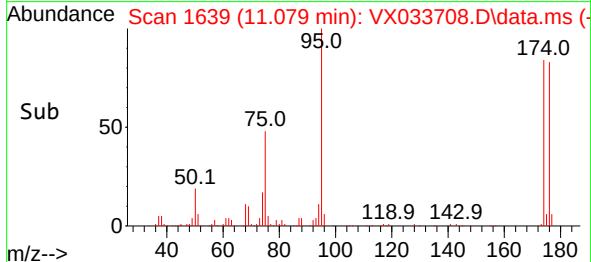
Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA



Tgt Ion: 95 Resp: 51980
Ion Ratio Lower Upper
95 100
174 91.7 73.7 110.5
176 89.3 71.0 106.4

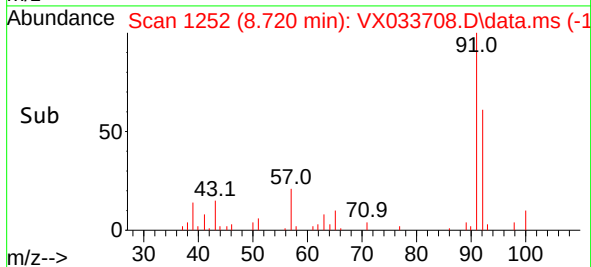
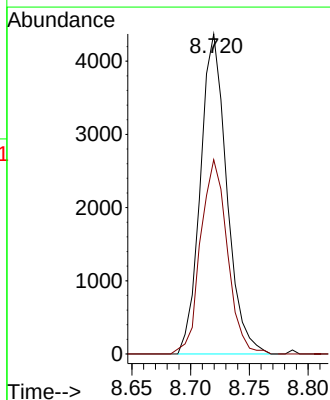
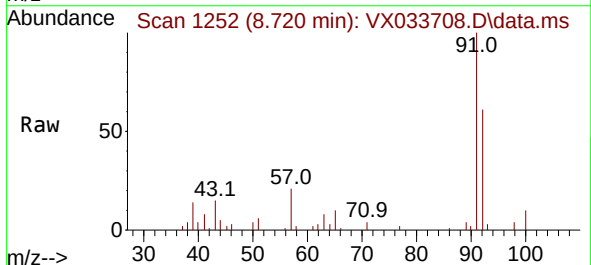
Manual Integrations
APPROVED

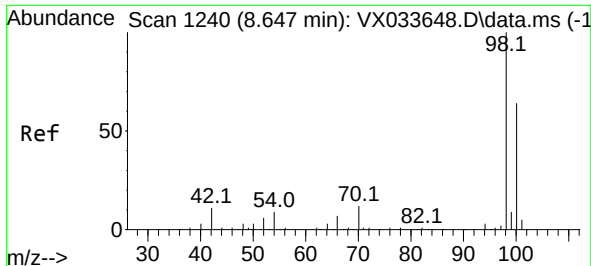
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#62
Toluene
Concen: 1.119 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Tgt Ion: 91 Resp: 6829
Ion Ratio Lower Upper
91 100
92 61.3 45.8 68.8





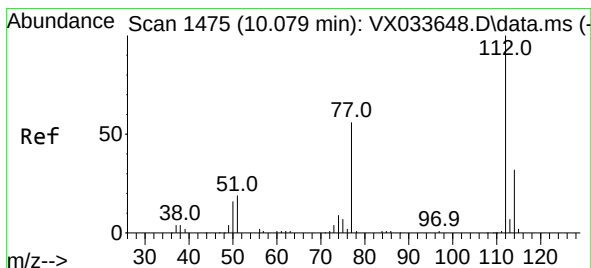
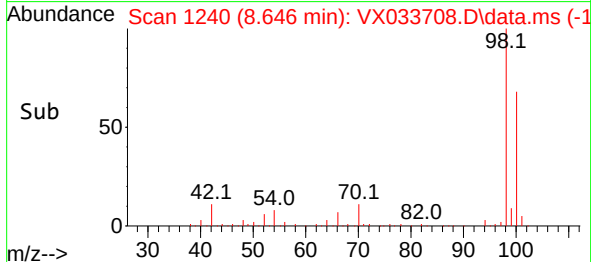
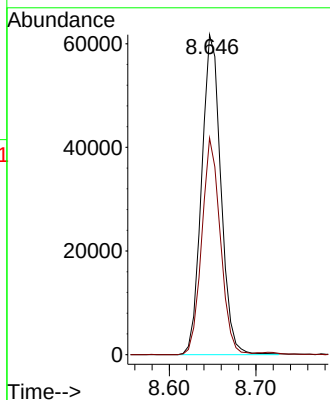
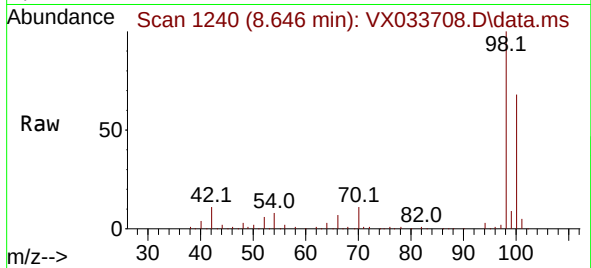
#63
Toluene-d8
Concen: 30.724 ug/l
RT: 8.646 min Scan# 11
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA

Tgt Ion: 98 Resp: 9532
Ion Ratio Lower Upper
98 100
100 65.2 53.1 79.7

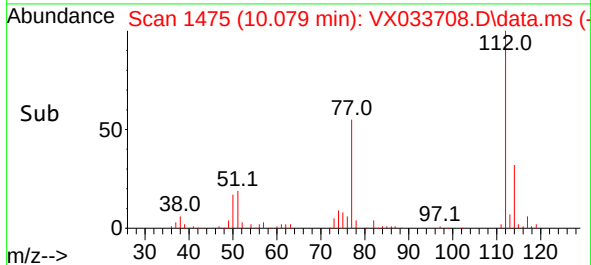
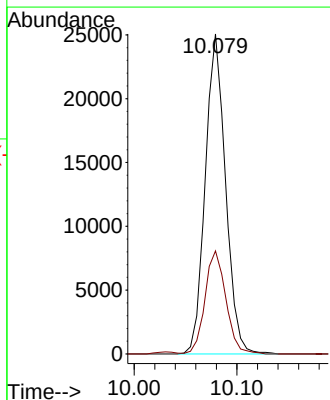
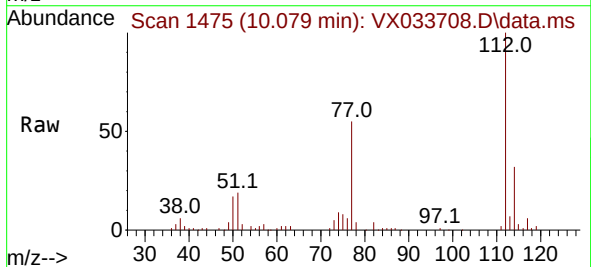
Manual Integrations
APPROVED

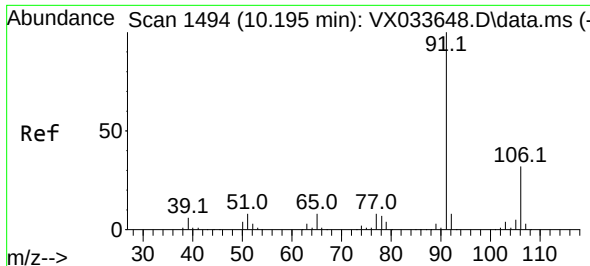
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#64
Chlorobenzene
Concen: 8.742 ug/l
RT: 10.079 min Scan# 1475
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Tgt Ion:112 Resp: 34360
Ion Ratio Lower Upper
112 100
114 32.2 25.6 38.4





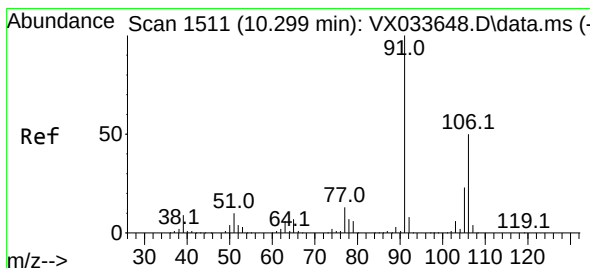
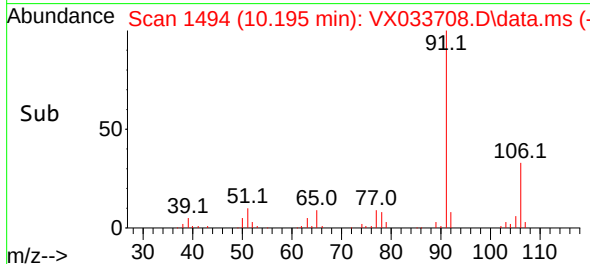
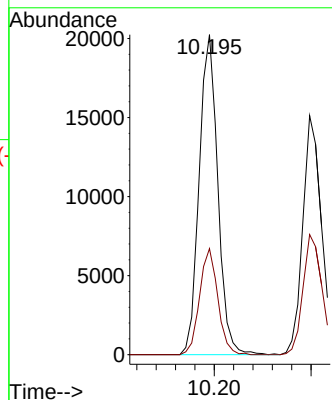
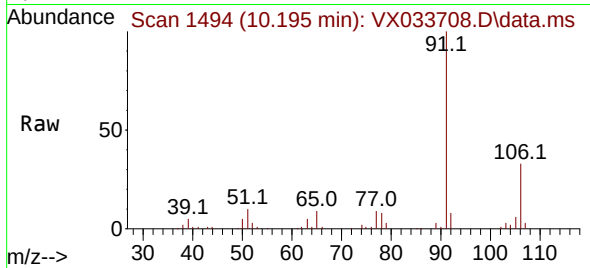
#66
Ethyl Benzene
Concen: 3.985 ug/l
RT: 10.195 min Scan# 1494
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA

Tgt Ion: 91 Resp: 27120
Ion Ratio Lower Upper
91 100
106 33.2 25.2 37.8

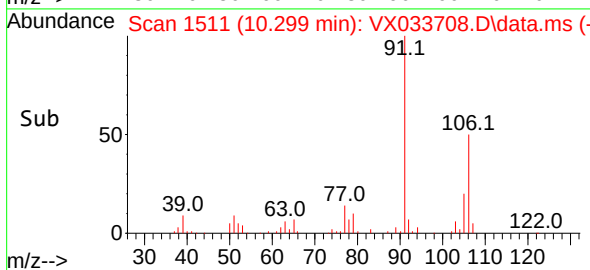
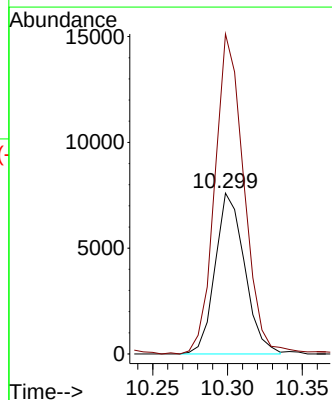
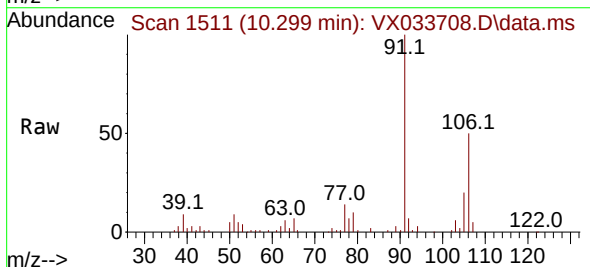
Manual Integrations
APPROVED

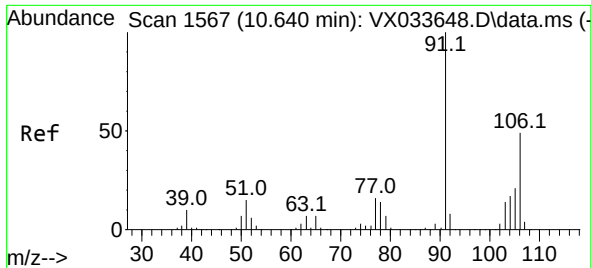
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#67
m/p-Xylenes
Concen: 3.870 ug/l
RT: 10.299 min Scan# 1511
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Tgt Ion:106 Resp: 10394
Ion Ratio Lower Upper
106 100
91 197.0 157.3 235.9





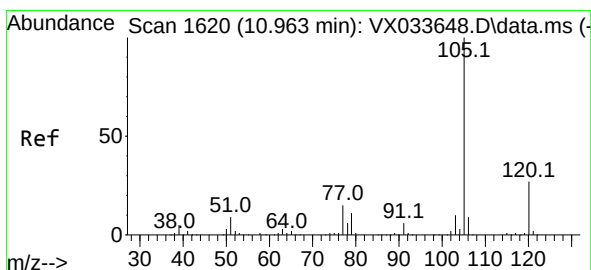
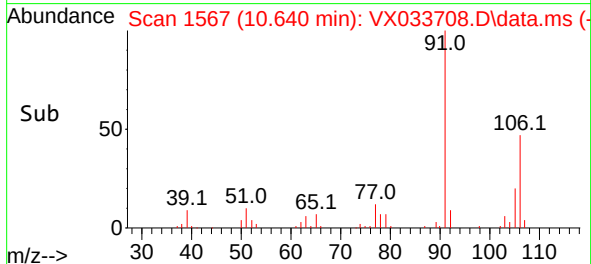
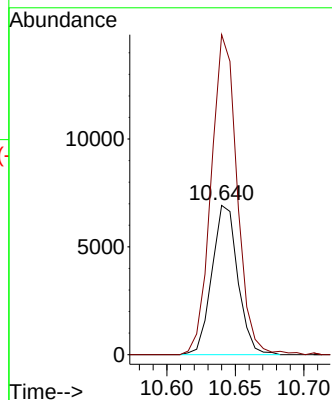
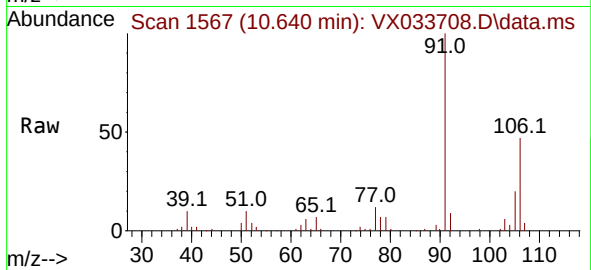
#68
o-Xylene
Concen: 3.448 ug/l
RT: 10.640 min Scan# 110
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA

Tgt Ion:106 Resp: 910
Ion Ratio Lower Upper
106 100
91 215.1 104.6 313.8

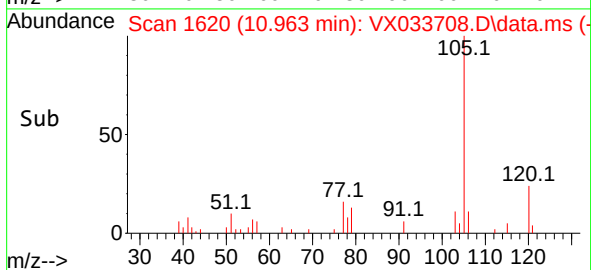
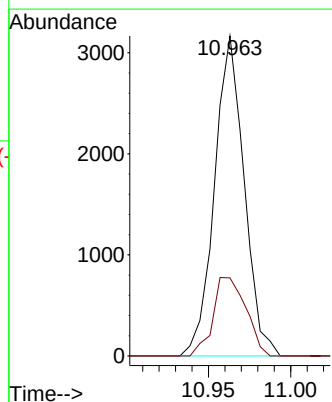
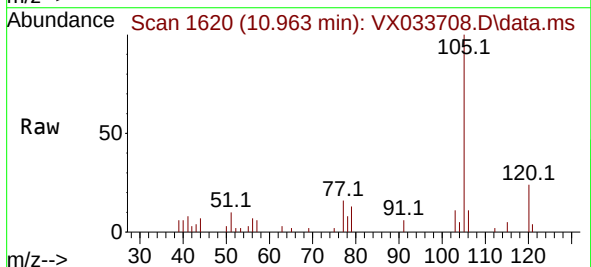
Manual Integrations
APPROVED

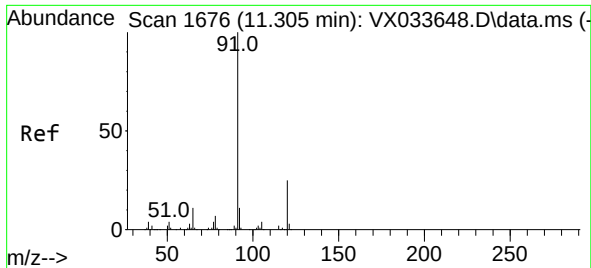
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#70
Isopropylbenzene
Concen: 0.580 ug/l
RT: 10.963 min Scan# 1620
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Tgt Ion:105 Resp: 3963
Ion Ratio Lower Upper
105 100
120 27.3 18.7 34.7





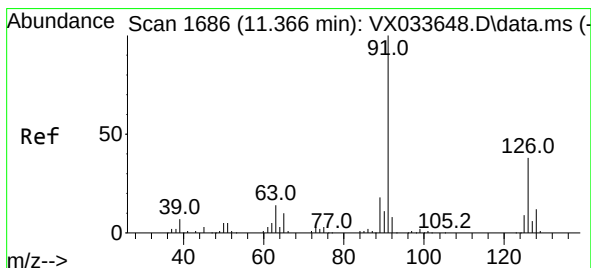
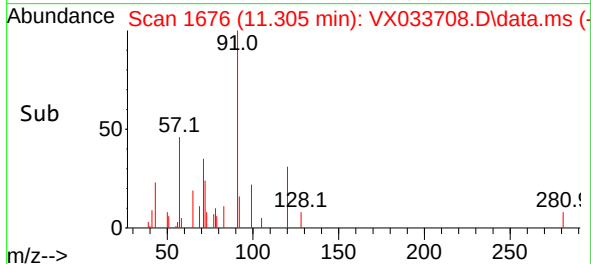
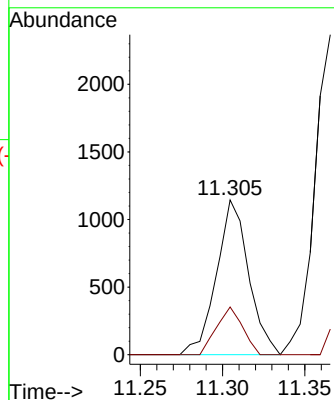
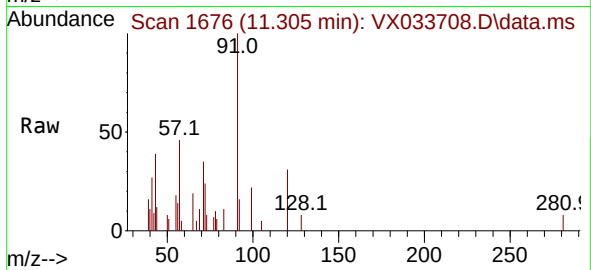
#74
n-propylbenzene
Concen: 0.201 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA

Tgt Ion: 91 Resp: 1558
Ion Ratio Lower Upper
91 100
120 25.0 0.0 48.8

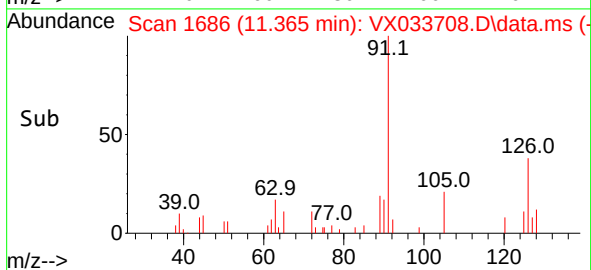
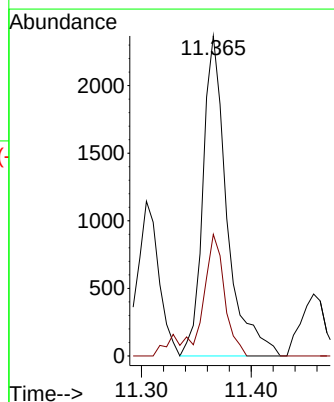
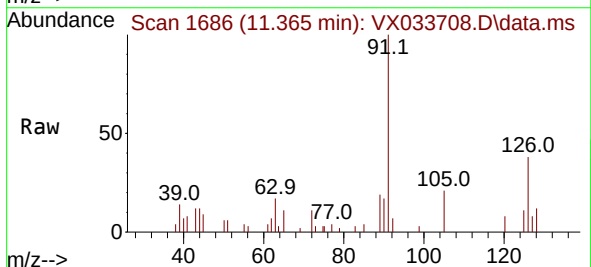
Manual Integrations
APPROVED

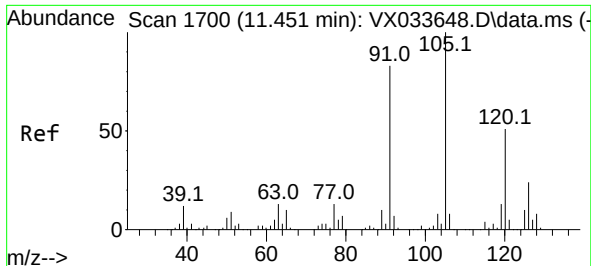
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#75
2-Chlorotoluene
Concen: 0.777 ug/l
RT: 11.365 min Scan# 1686
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

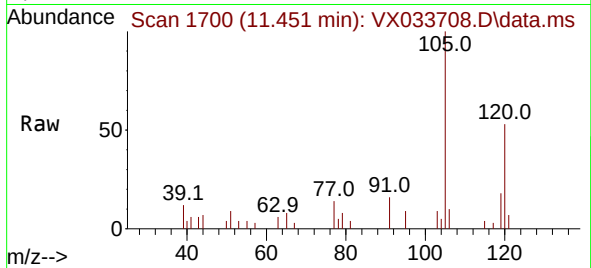
Tgt Ion: 91 Resp: 3608
Ion Ratio Lower Upper
91 100
126 30.5 0.0 72.0





#76
1,3,5-Trimethylbenzene
Concen: 0.500 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

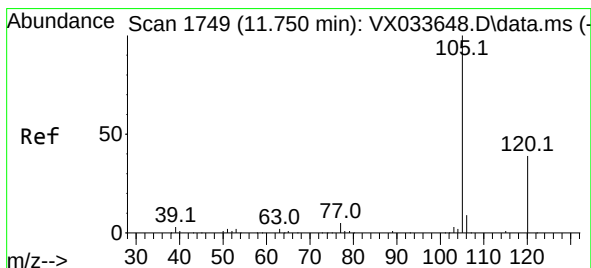
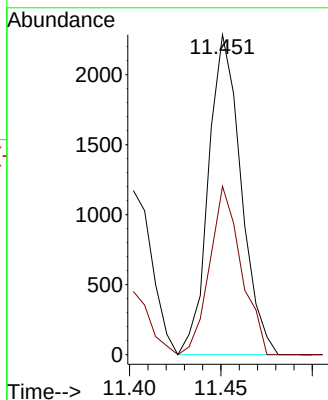
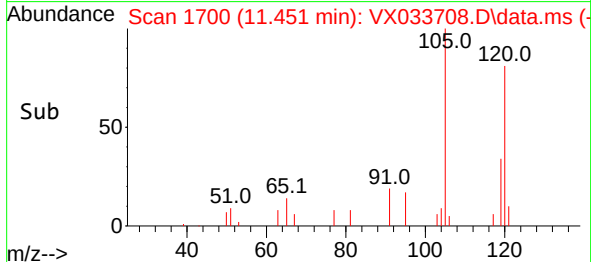
Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA



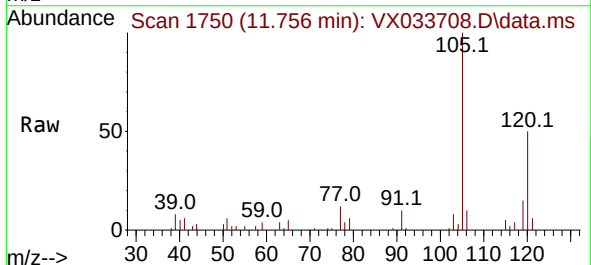
Tgt Ion:105 Resp: 283
Ion Ratio Lower Upper
105 100
120 50.9 0.0 100.4

Manual Integrations
APPROVED

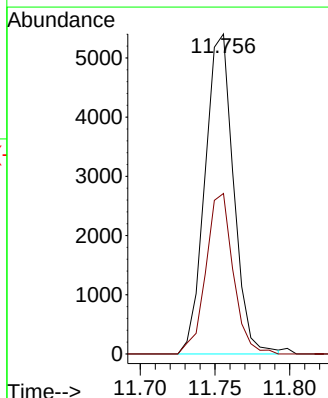
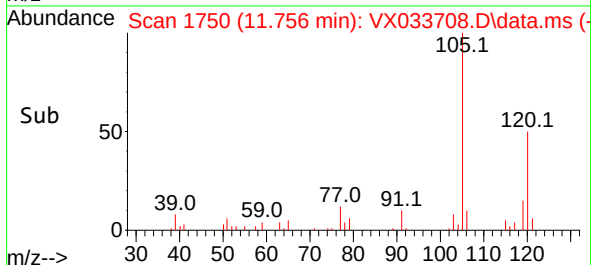
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023

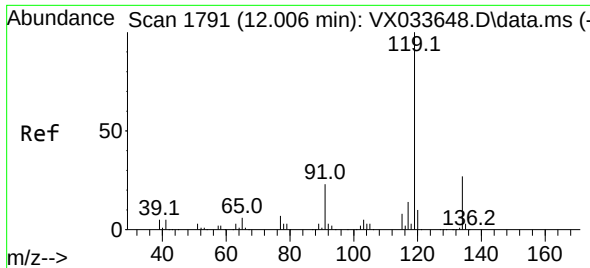


#80
1,2,4-Trimethylbenzene
Concen: 1.282 ug/l
RT: 11.756 min Scan# 1750
Delta R.T. 0.006 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15



Tgt Ion:105 Resp: 7190
Ion Ratio Lower Upper
105 100
120 48.0 0.0 91.2





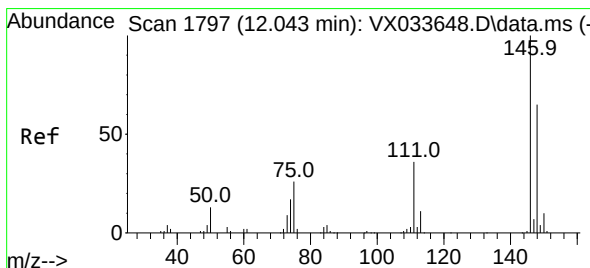
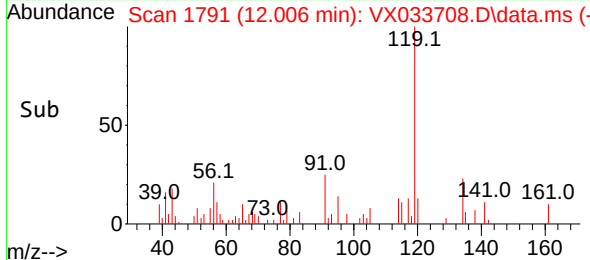
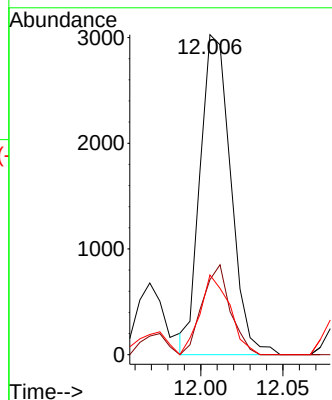
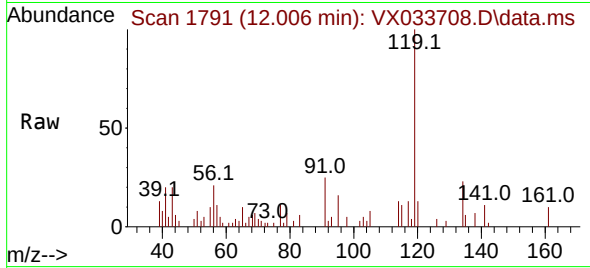
#82
p-Isopropyltoluene
Concen: 0.643 ug/l
RT: 12.006 min Scan# 1791
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA

Tgt Ion:119 Resp: 3909
Ion Ratio Lower Upper
119 100
134 25.7 0.0 54.4
91 24.3 0.0 45.2

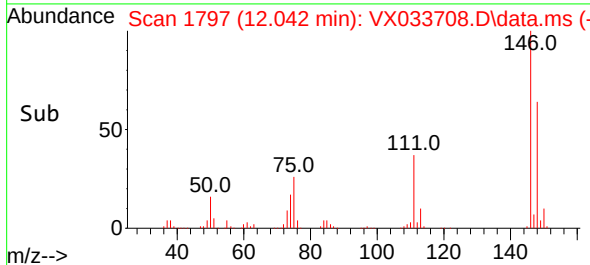
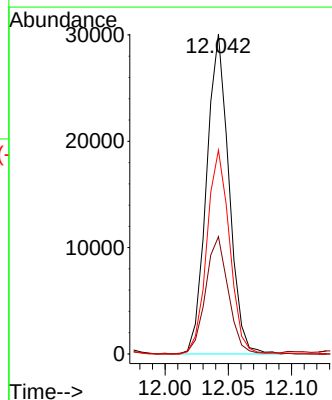
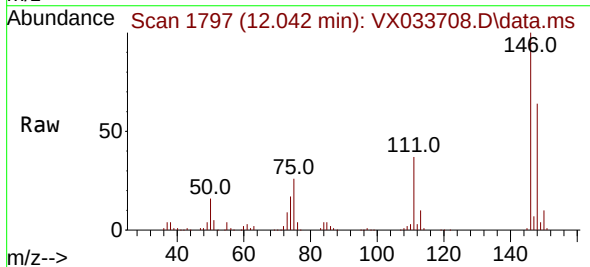
Manual Integrations
APPROVED

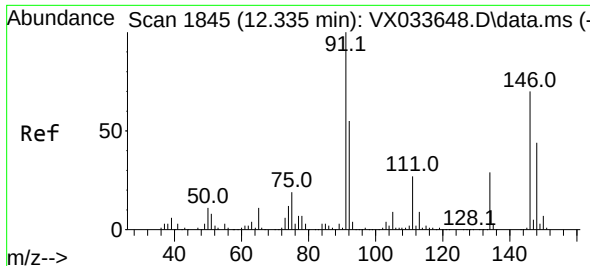
Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#84
1,4-Dichlorobenzene
Concen: 11.255 ug/l
RT: 12.042 min Scan# 1797
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

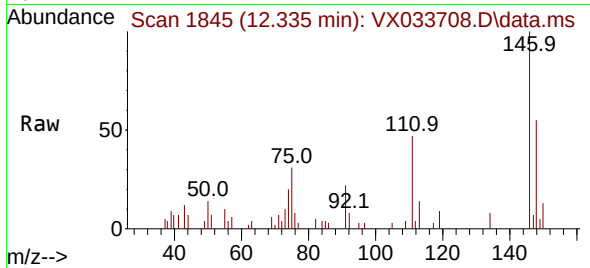
Tgt Ion:146 Resp: 37068
Ion Ratio Lower Upper
146 100
111 37.3 18.3 54.9
148 64.7 31.9 95.7





#87
1,2-Dichlorobenzene
Concen: 0.854 ug/l
RT: 12.335 min Scan# 1845
Delta R.T. -0.000 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15

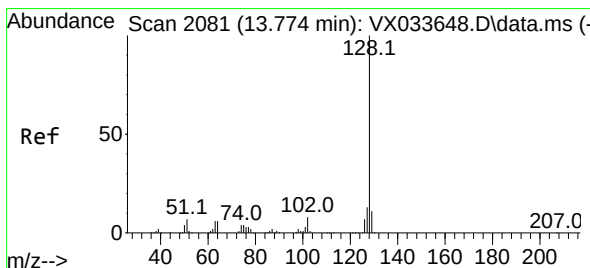
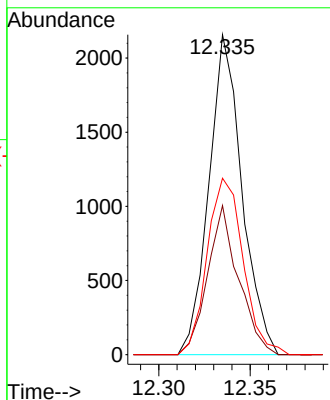
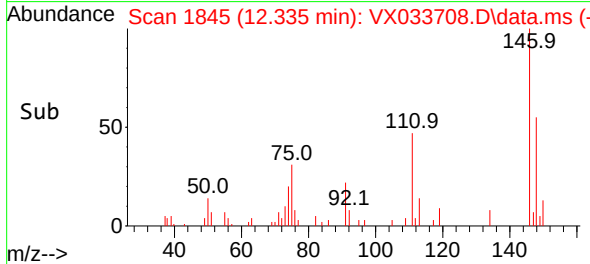
Instrument :
MSVOA_X
ClientSampleId :
230111062-02-VOA



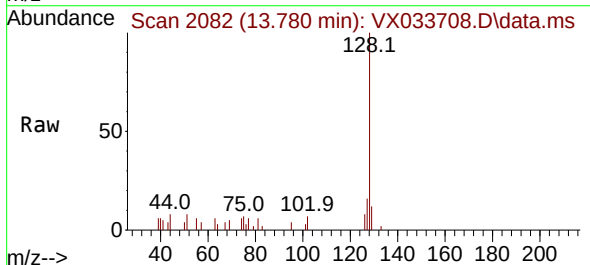
Tgt Ion:146 Resp: 2710
Ion Ratio Lower Upper
146 100
111 43.7 19.7 59.0
148 60.0 31.9 95.9

Manual Integrations
APPROVED

Reviewed By :John Carlone 01/13/2023
Supervised By :Mahesh Dadoda 01/13/2023



#91
Naphthalene
Concen: 0.420 ug/l
RT: 13.780 min Scan# 2082
Delta R.T. 0.006 min
Lab File: VX033708.D
Acq: 12 Jan 2023 13:15



Tgt Ion:128 Resp: 2696
Ion Ratio Lower Upper
128 100
127 14.5 10.4 15.6
129 13.4 8.8 13.2#

