

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL082522\
 Data File : VL039587.D
 Acq On : 25 Aug 2022 21:03
 Operator : SY/AP
 Sample : N4351-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Quant Time: Aug 26 06:26:26 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081722AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Aug 26 06:05:16 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.20	49	988686	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	6.66	114	2479512	10.00	ppbv	0.00
55) Chlorobenzene-d5	11.47	117	2233955	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.78	95	1668638	9.90	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.00%

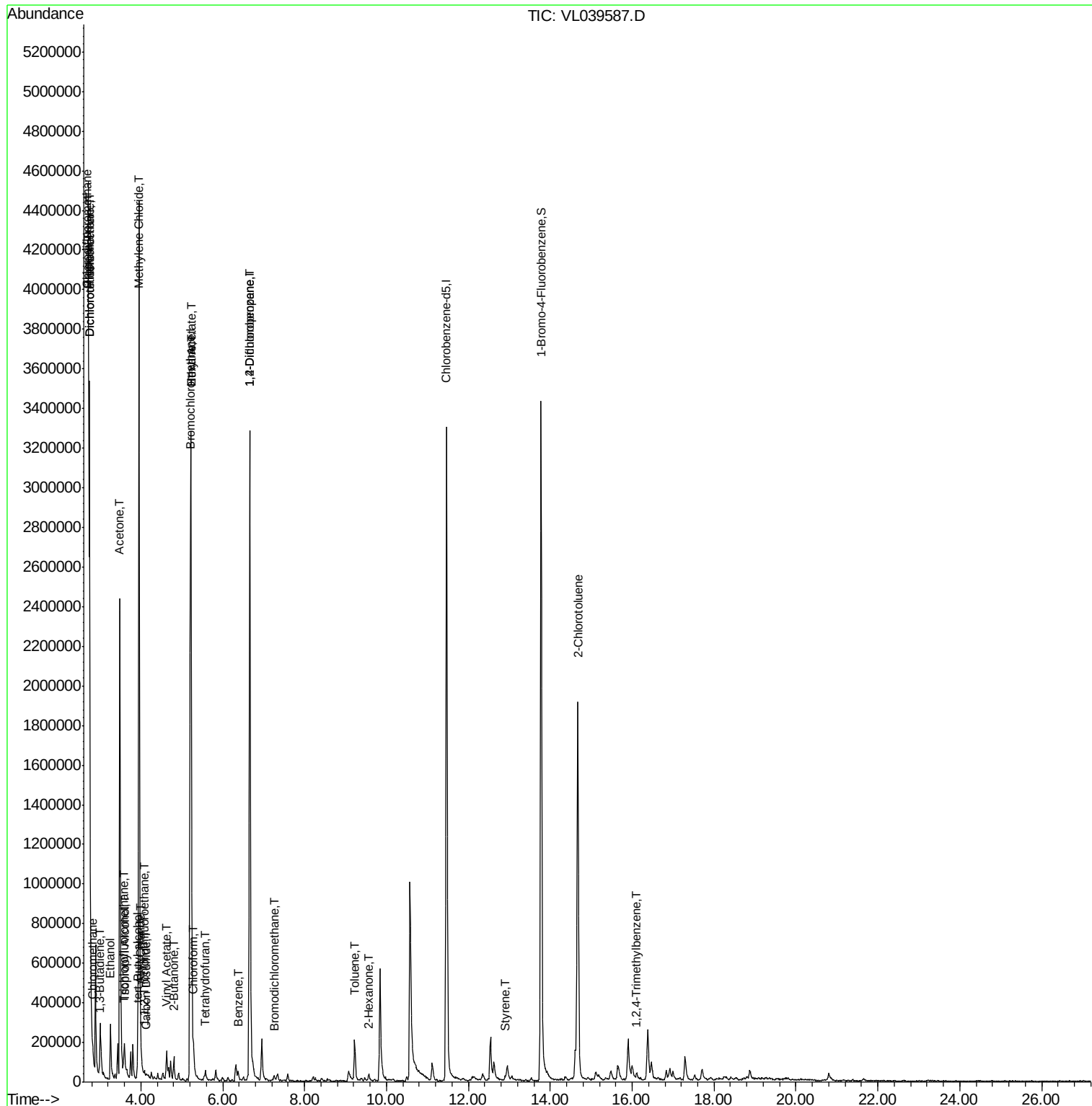
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	2.75	85	1675606	12.736	ppbv	99
3) Chlorodifluoromethane	2.69	51	13055027	110.829	ppbv	94
4) Chloromethane	2.83	50	32482	0.458	ppbv	92
8) Dichlorotetrafluoroethane	2.75	85	1675606	11.905	ppbv #	13
9) Propene	2.72	41	51821	0.961	ppbv #	83
11) Trichlorofluoromethane	3.58	101	39052	0.270	ppbv	88
12) 1,1,2-Trichlorotrifluoroet	4.09	101	5457	0.051	ppbv #	54
13) Ethanol	3.26	45	254904	65.805	ppbv	77
15) Acetone	3.48	43	2504388	22.613	ppbv	99
16) 1,3-Butadiene	2.99	39	11303	0.196	ppbv #	37
17) tert-Butyl alcohol	3.92	59	20630	0.218	ppbv #	93
19) Isopropyl Alcohol	3.60	45	153634	2.852	ppbv #	88
20) Methylene Chloride	3.95	84	1540277	34.233	ppbv	98
21) Allyl Chloride	4.01	41	2724	0.038	ppbv #	69
23) Vinyl Acetate	4.64	43	146206	2.776	ppbv #	93
25) Ethyl Acetate	5.22	43	813771	3.434	ppbv #	76
26) Hexane	5.23	57	1126412	11.646	ppbv #	40
27) Carbon Disulfide	4.14	76	5019	0.049	ppbv #	6
29) Chloroform	5.29	83	60638	0.401	ppbv	92
34) 2-Butanone	4.81	43	122120	0.991	ppbv	96
36) Benzene	6.38	78	23846	0.126	ppbv #	78
39) 1,2-Dichloropropane	6.66	63	606258	8.531	ppbv #	24
41) Tetrahydrofuran	5.58	42	11095	0.151	ppbv #	18
42) Bromodichloromethane	7.26	83	6720	0.047	ppbv #	70
51) 2-Hexanone	9.57	43	17700	0.125	ppbv #	69
53) Toluene	9.22	91	145856	0.690	ppbv	97
61) Styrene	12.90	104	4130	0.035	ppbv #	27
71) 2-Chlorotoluene	14.67	91	487893	2.015	ppbv #	42
74) 1,2,4-Trimethylbenzene	16.10	105	12854	0.049	ppbv #	61

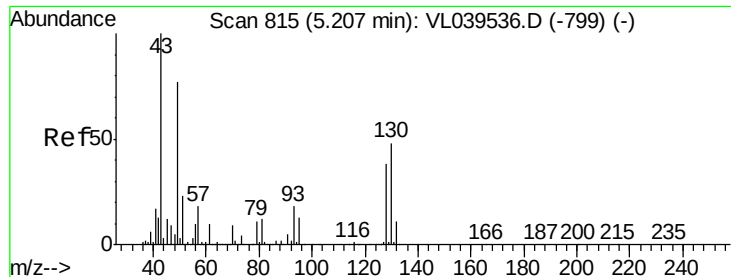
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Aug 26 06:05:16 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.20 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 25 Aug 2022 21:03

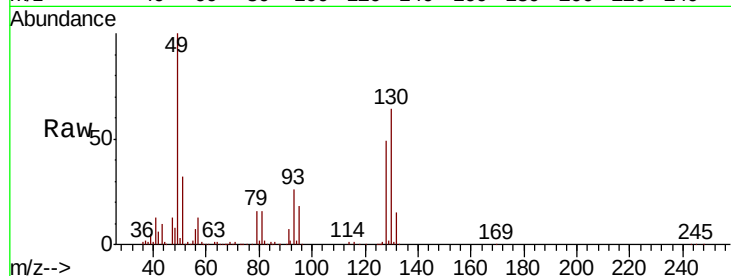
Tot Ion: 49 Resp: 988686

Ion Ratio Lower Upper

49 100

128 50.2 26.7 80.0

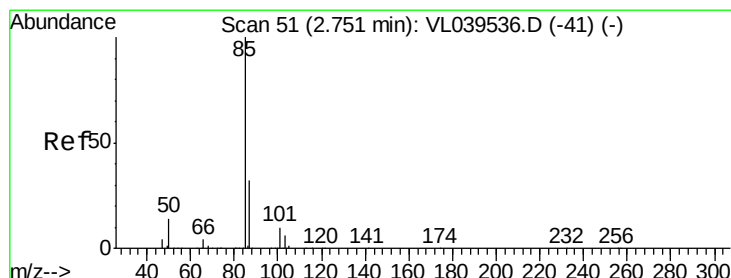
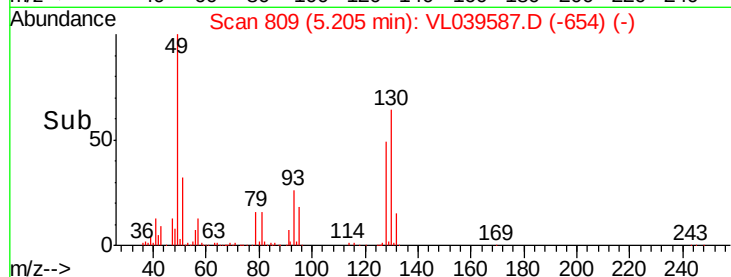
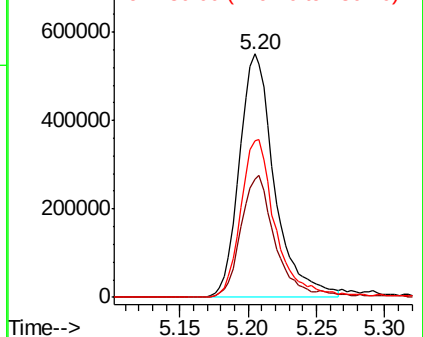
130 65.4 34.3 102.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 12.736 ppbv

RT: 2.75 min Scan# 45

Delta R.T. -0.00 min

Lab File: VL039587.D

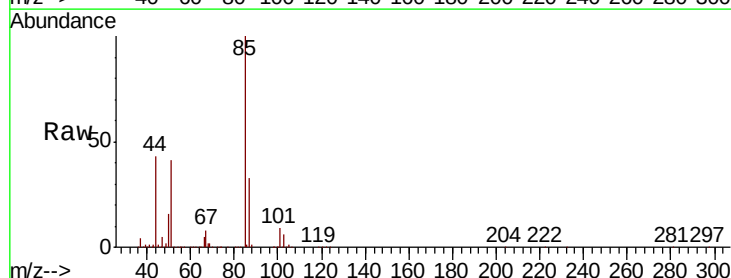
Acq: 25 Aug 2022 21:03

Tgt Ion: 85 Resp: 1675606

Ion Ratio Lower Upper

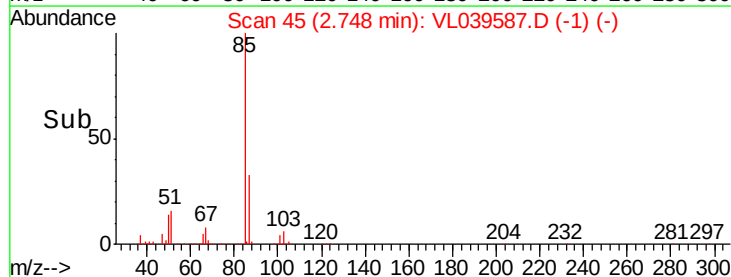
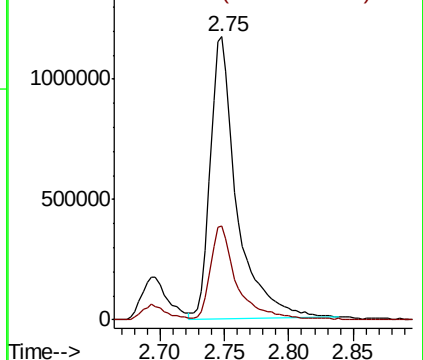
85 100

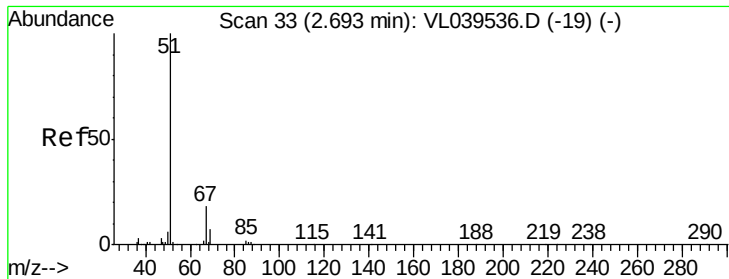
87 33.0 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 110.829 ppbv

RT: 2.69 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

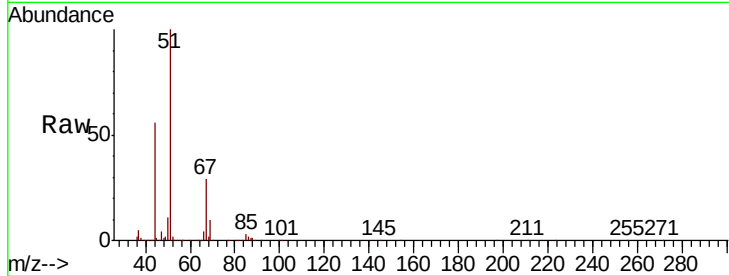
Acq: 25 Aug 2022 21:03

Tot Ion: 51 Resp: 13055027

Ion Ratio Lower Upper

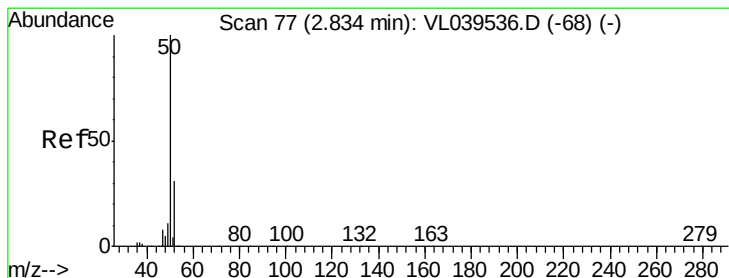
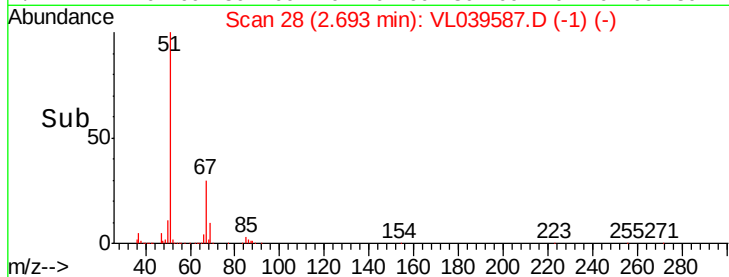
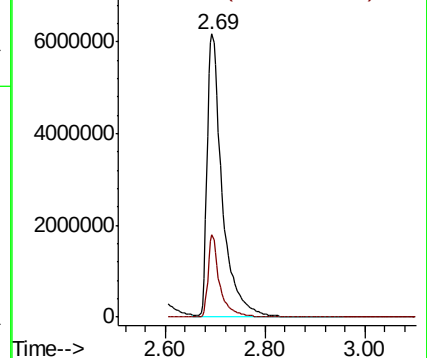
51 100

67 22.5 15.7 23.5



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.458 ppbv

RT: 2.83 min Scan# 71

Delta R.T. -0.00 min

Lab File: VL039587.D

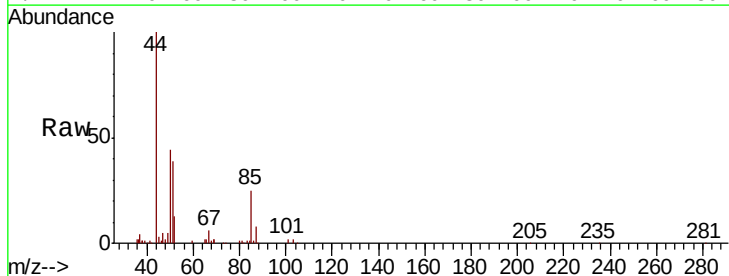
Acq: 25 Aug 2022 21:03

Tgt Ion: 50 Resp: 32482

Ion Ratio Lower Upper

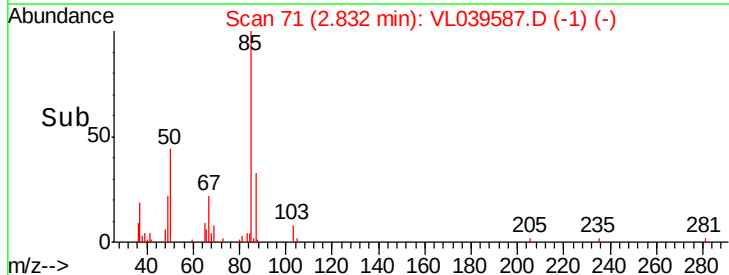
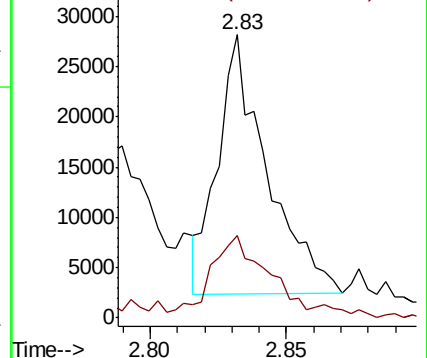
50 100

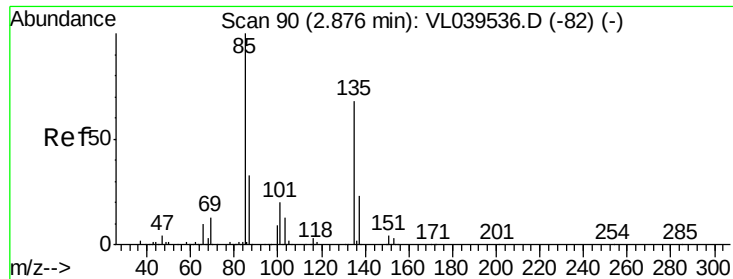
52 28.4 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#8

Dichlorotetrafluoroethane

Concen: 11.905 ppbv

RT: 2.75 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

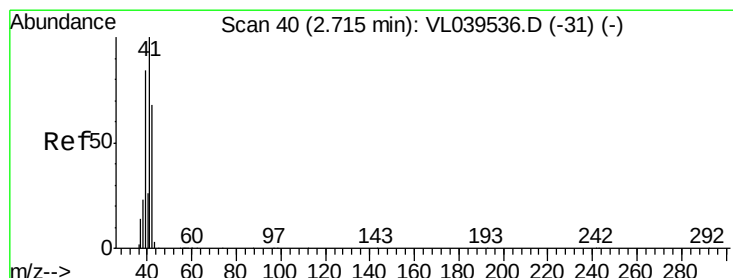
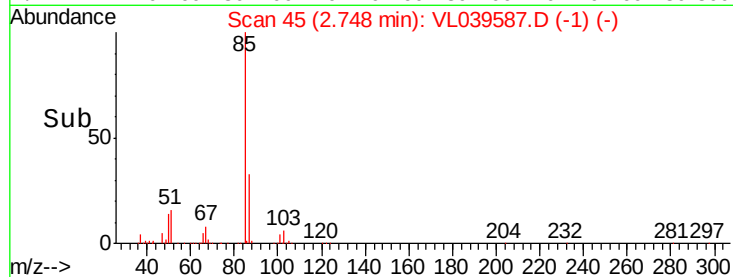
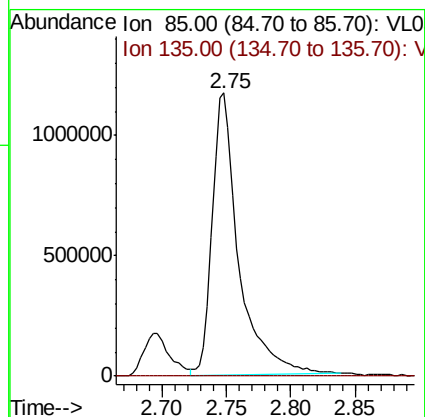
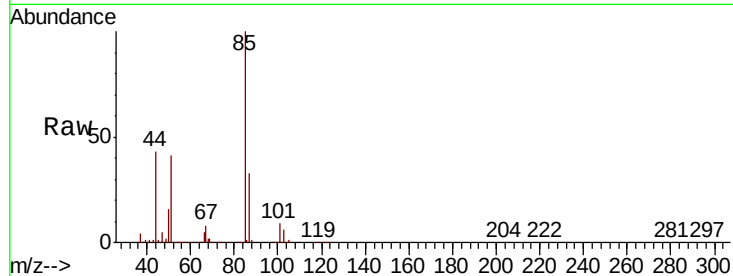
Acq: 25 Aug 2022 21:03

Tot Ion: 85 Resp: 1675606

Ion Ratio Lower Upper

85 100

135 0.2 59.0 88.4#



#9

Propene

Concen: 0.961 ppbv

RT: 2.72 min Scan# 36

Delta R.T. 0.00 min

Lab File: VL039587.D

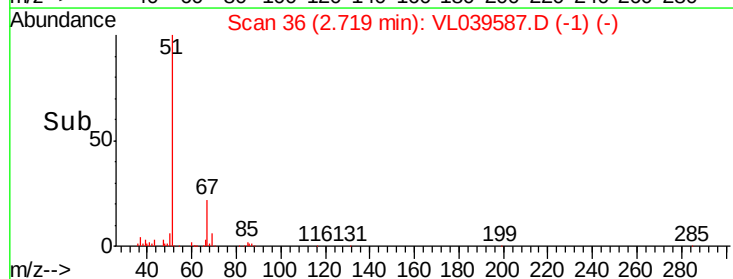
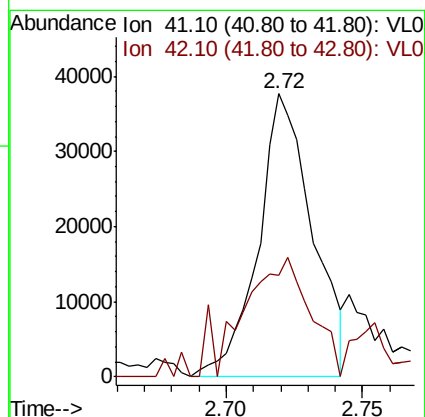
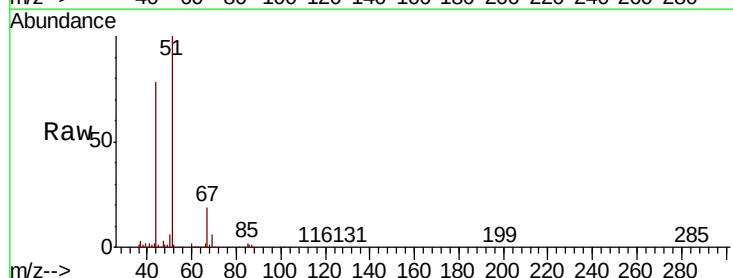
Acq: 25 Aug 2022 21:03

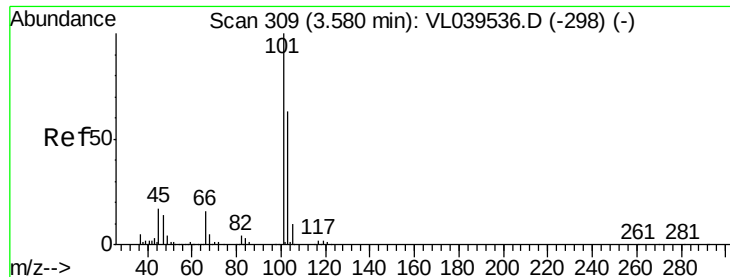
Tgt Ion: 41 Resp: 51821

Ion Ratio Lower Upper

41 100

42 55.0 55.2 82.8#





#11

Trichlorofluoromethane

Concen: 0.270 ppbv

RT: 3.58 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

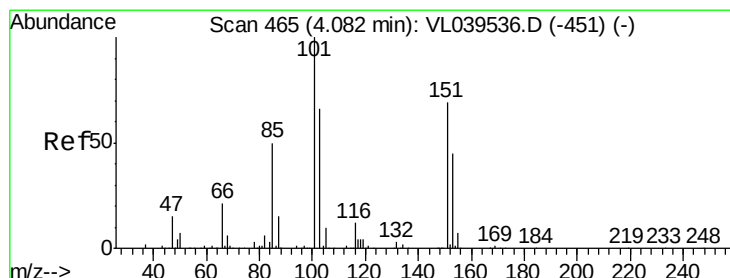
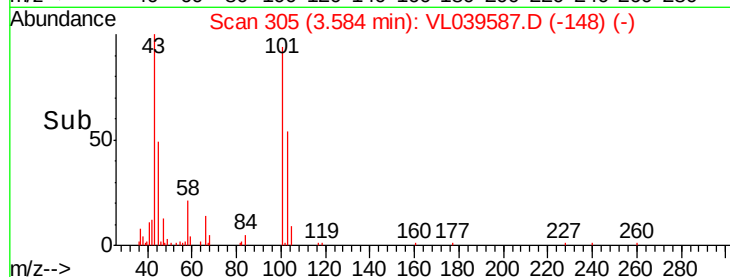
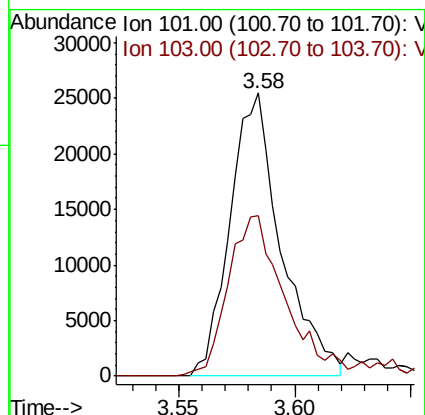
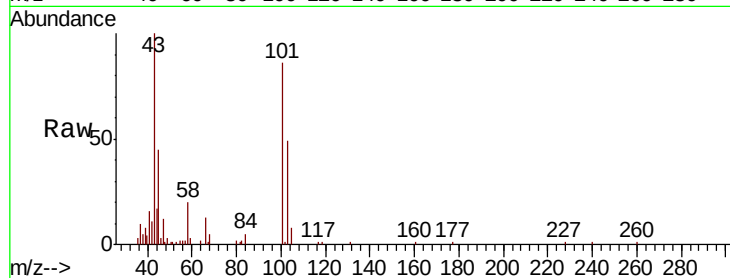
Acq: 25 Aug 2022 21:03

Tot Ion:101 Resp: 39052

Ion Ratio Lower Upper

101 100

103 55.6 51.8 77.8



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.051 ppbv

RT: 4.09 min Scan# 461

Delta R.T. 0.00 min

Lab File: VL039587.D

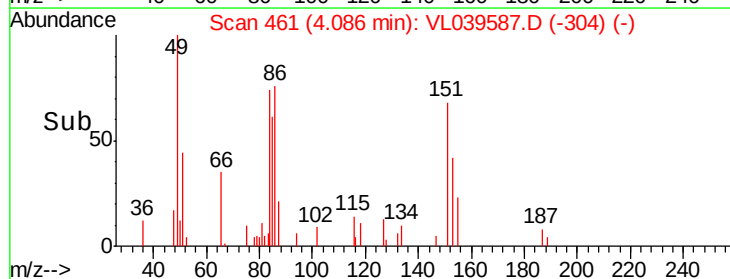
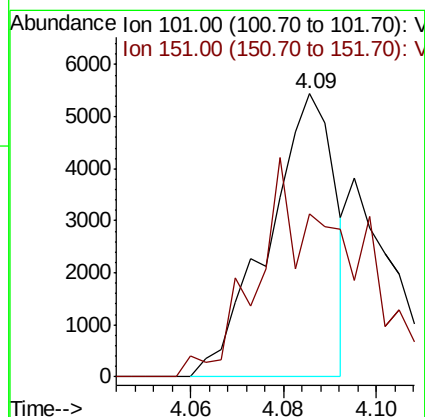
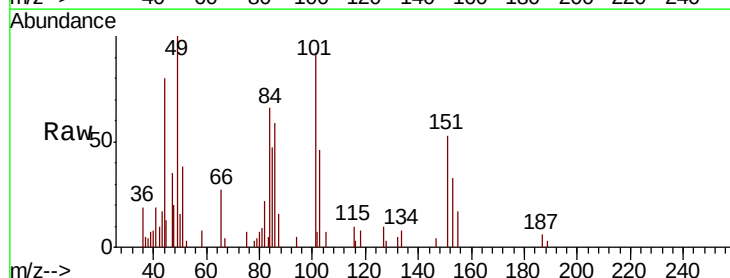
Acq: 25 Aug 2022 21:03

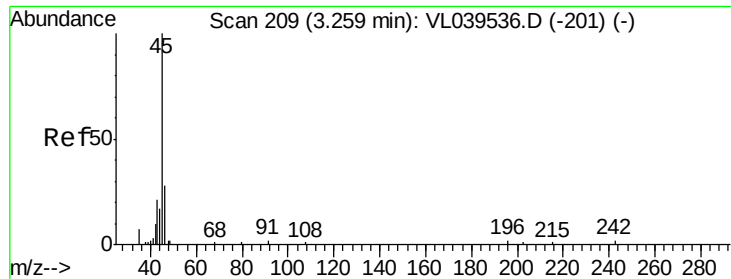
Tgt Ion:101 Resp: 5457

Ion Ratio Lower Upper

101 100

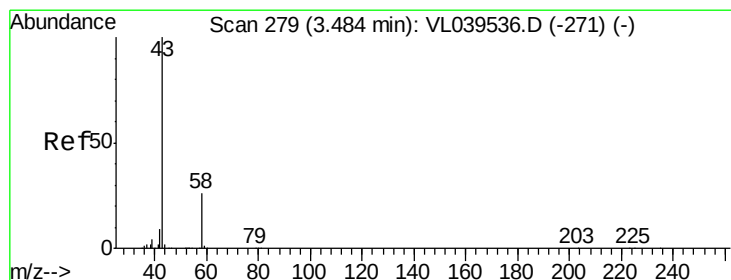
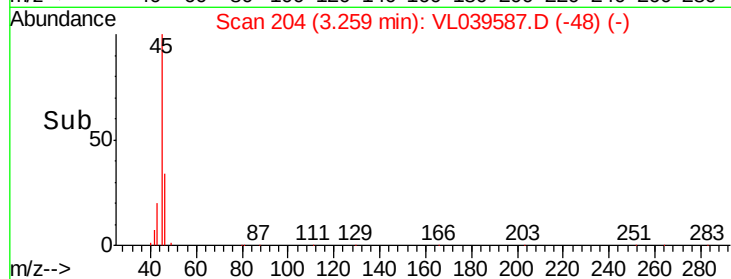
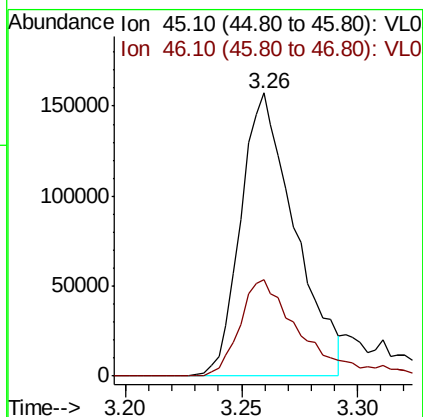
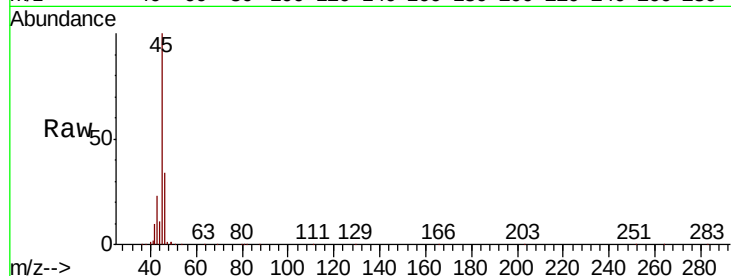
151 112.1 58.9 88.3#





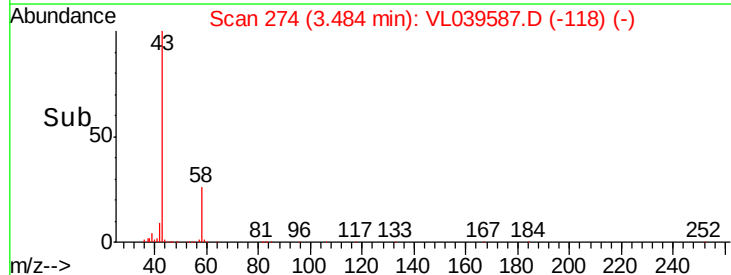
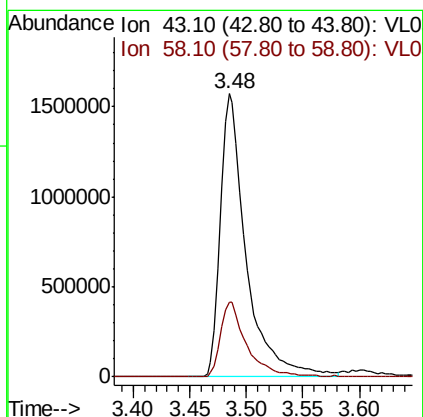
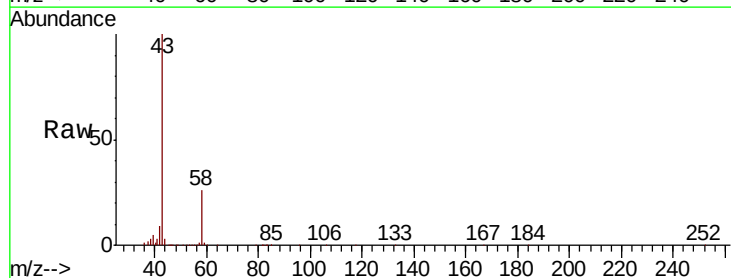
#13
 Ethanol
 Concen: 65.805 ppbv
 RT: 3.26
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 25 Aug 2022 21:03

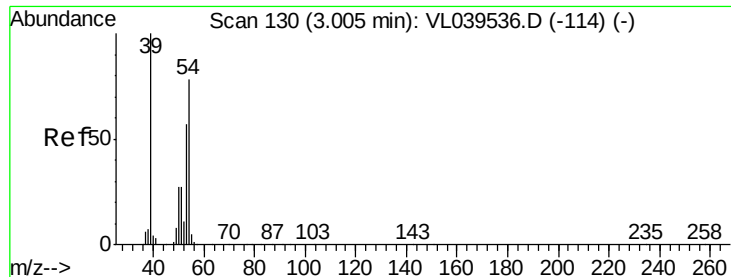
Tot Ion: 45 Resp: 254904
 Ion Ratio Lower Upper
 45 100
 46 40.3 22.8 91.2



#15
 Acetone
 Concen: 22.613 ppbv
 RT: 3.48 min Scan# 274
 Delta R.T. 0.00 min
 Lab File: VL039587.D
 Acq: 25 Aug 2022 21:03

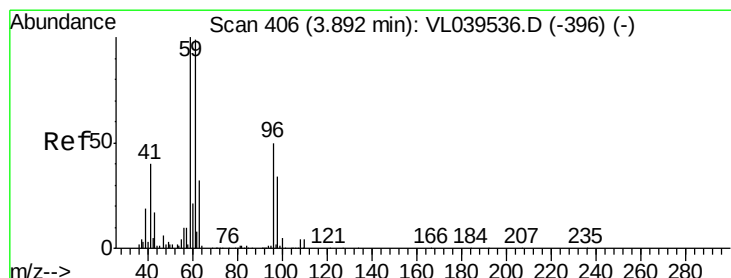
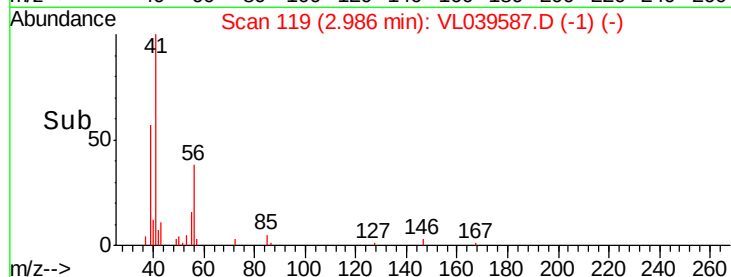
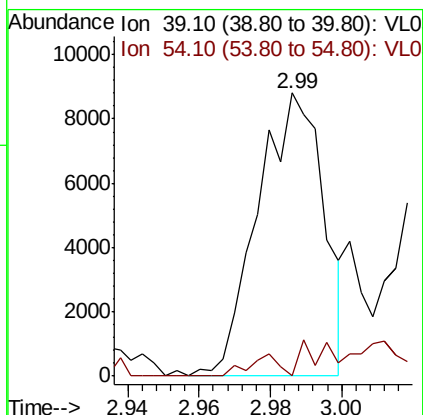
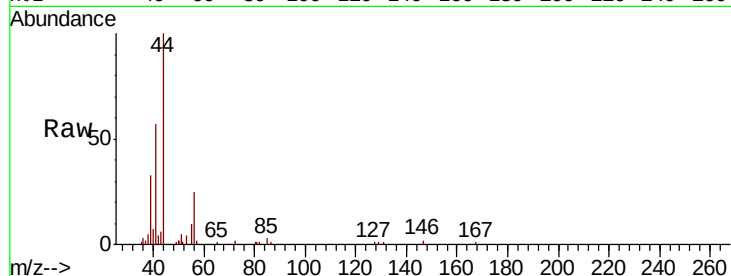
Tgt Ion: 43 Resp: 2504388
 Ion Ratio Lower Upper
 43 100
 58 26.9 21.0 31.6





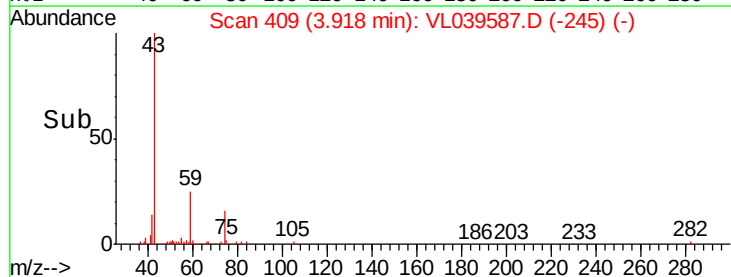
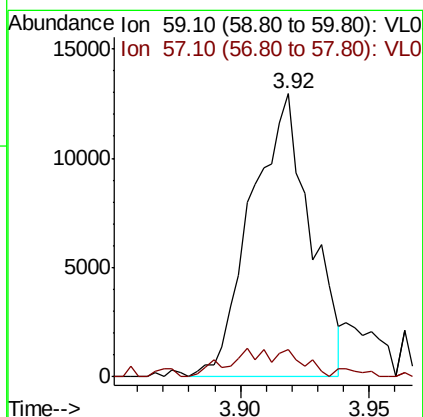
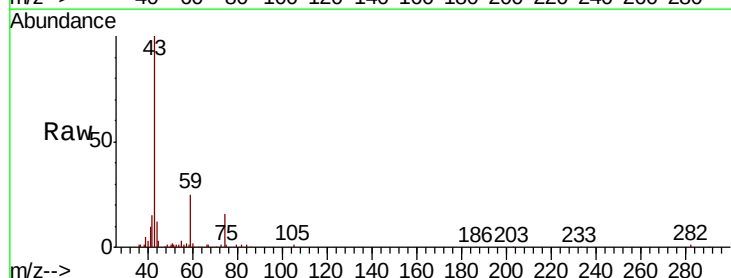
#16
 1,3-Butadiene
 Concen: 0.196 ppbv
 RT: 2.99
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 25 Aug 2022 21:03

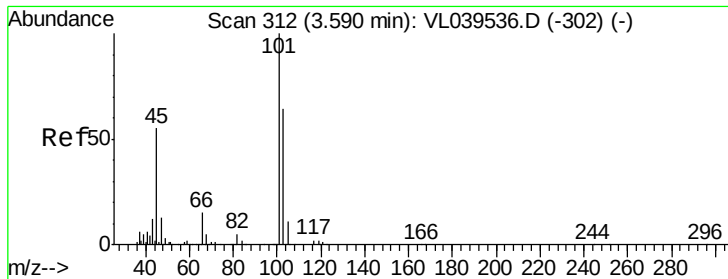
Tot Ion: 39 Resp: 11303
 Ion Ratio Lower Upper
 39 100
 54 23.9 63.7 95.5#



#17
 tert-Butyl alcohol
 Concen: 0.218 ppbv
 RT: 3.92 min Scan# 409
 Delta R.T. 0.03 min
 Lab File: VL039587.D
 Acq: 25 Aug 2022 21:03

Tgt Ion: 59 Resp: 20630
 Ion Ratio Lower Upper
 59 100
 57 13.7 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 2.852 ppbv

RT: 3.60 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

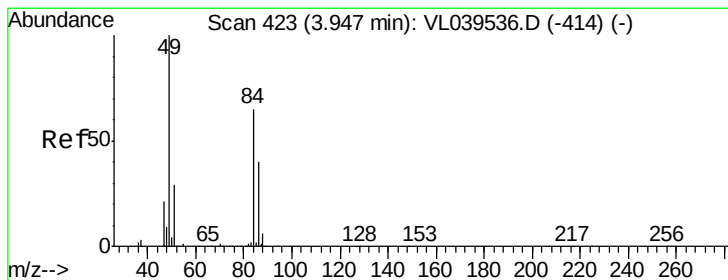
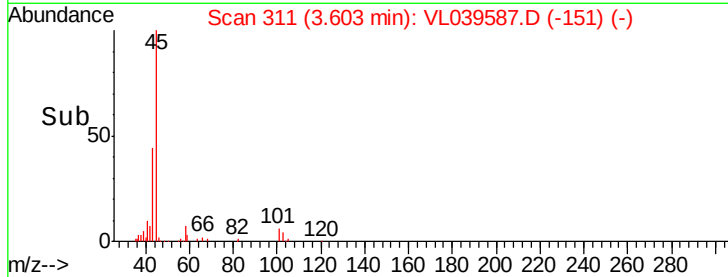
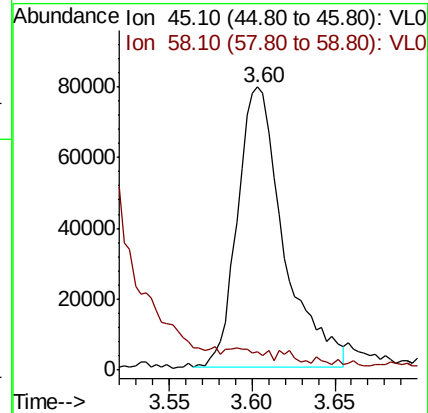
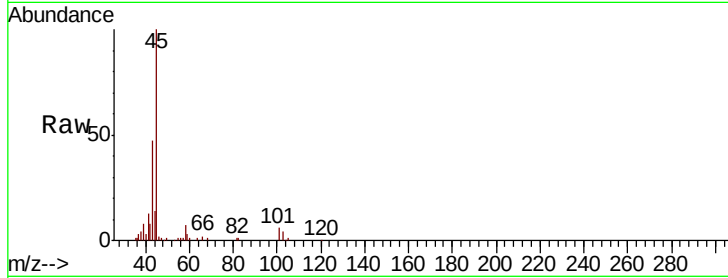
Acq: 25 Aug 2022 21:03

Tot Ion: 45 Resp: 153634

Ion Ratio Lower Upper

45 100

58 0.0 3.2 4.8#



#20

Methylene Chloride

Concen: 34.233 ppbv

RT: 3.95 min Scan# 420

Delta R.T. 0.01 min

Lab File: VL039587.D

Acq: 25 Aug 2022 21:03

Tgt Ion: 84 Resp: 1540277

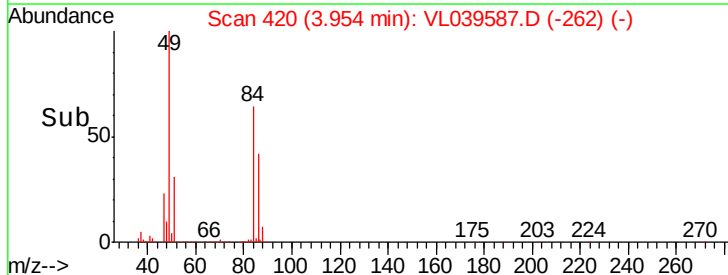
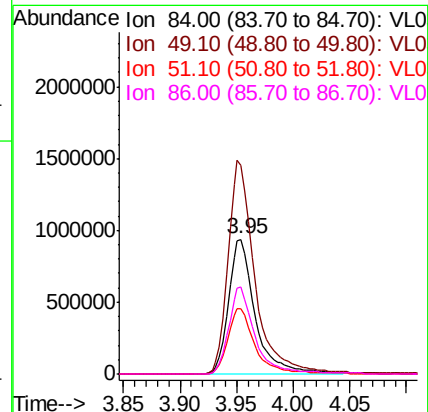
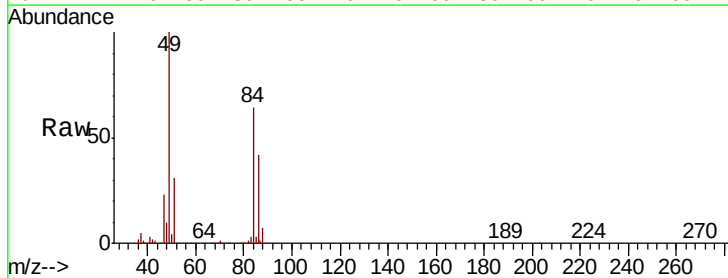
Ion Ratio Lower Upper

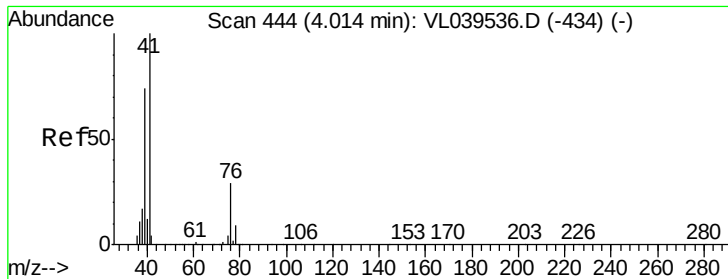
84 100

49 155.3 123.1 184.7

51 48.5 34.4 51.6

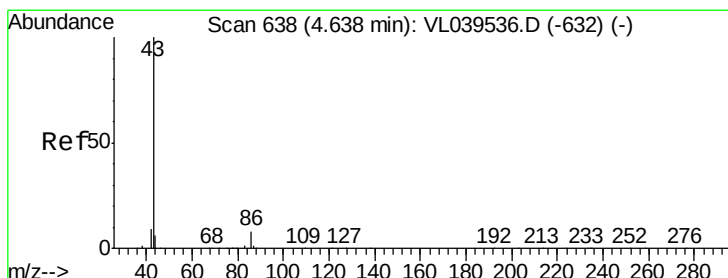
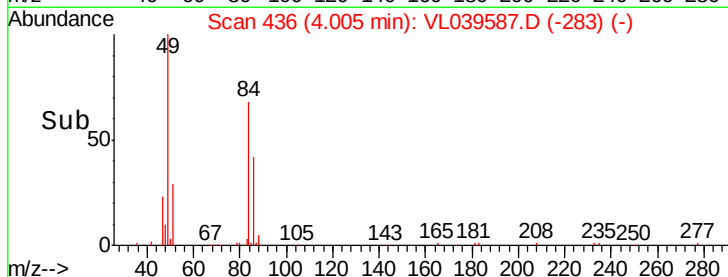
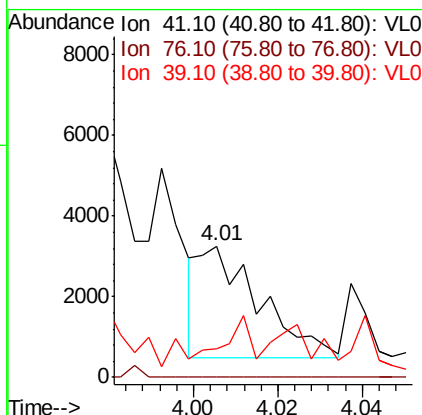
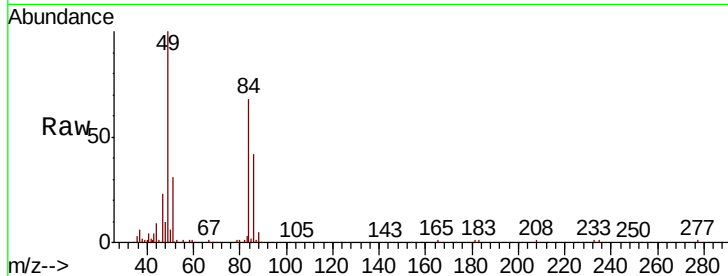
86 64.7 51.1 76.7





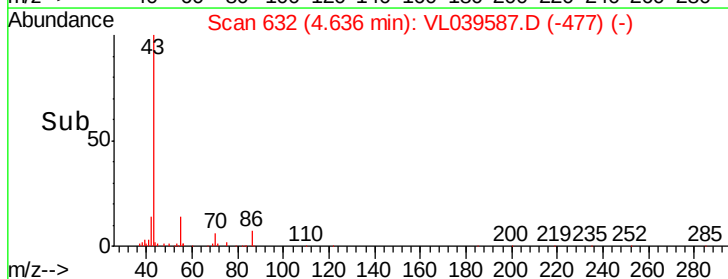
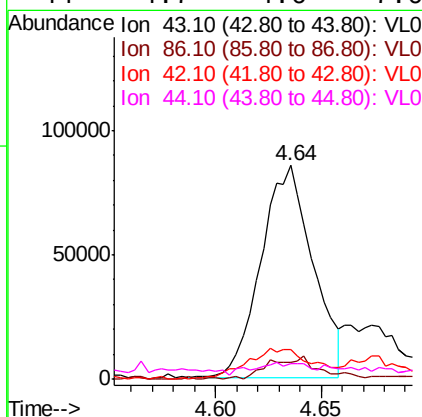
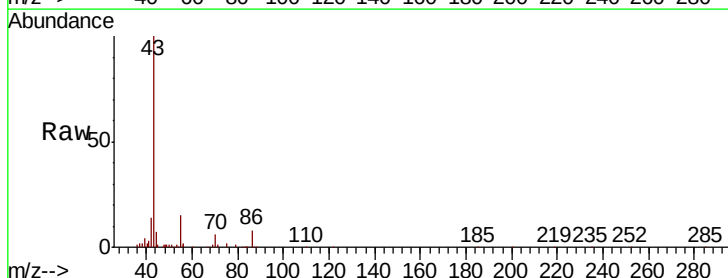
#21
 Allvl Chloride
 Concen: 0.038 ppbv
 RT: 4.01
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 25 Aug 2022 21:03

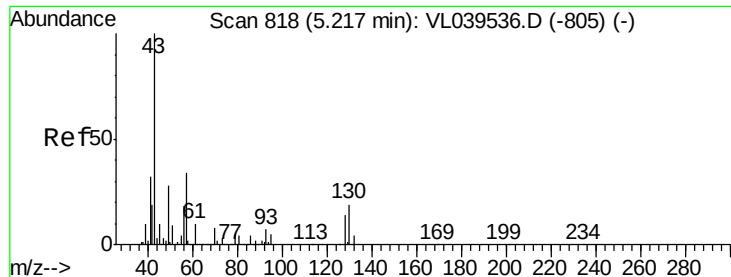
Tot Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.4	36.6#
39	61.0	63.5	95.3#



#23
 Vinyl Acetate
 Concen: 2.776 ppbv
 RT: 4.64 min Scan# 632
 Delta R.T. -0.00 min
 Lab File: VL039587.D
 Acq: 25 Aug 2022 21:03

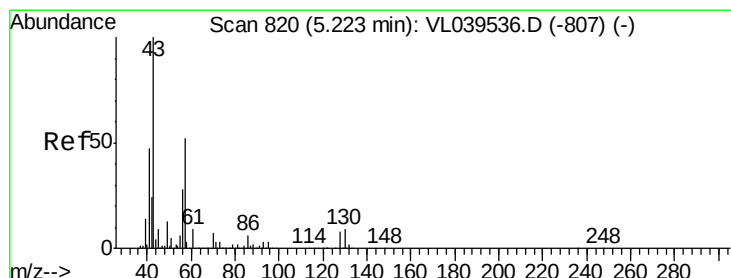
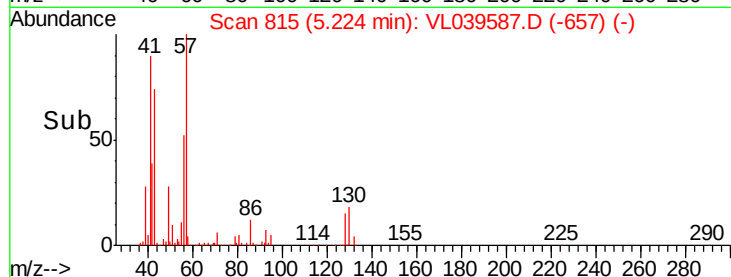
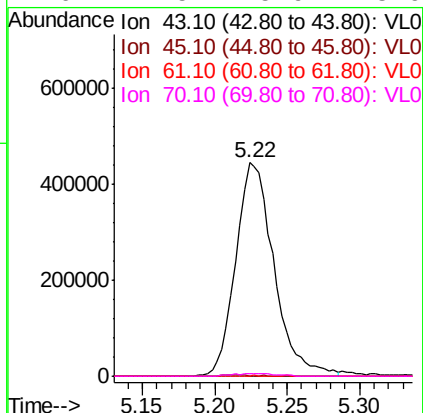
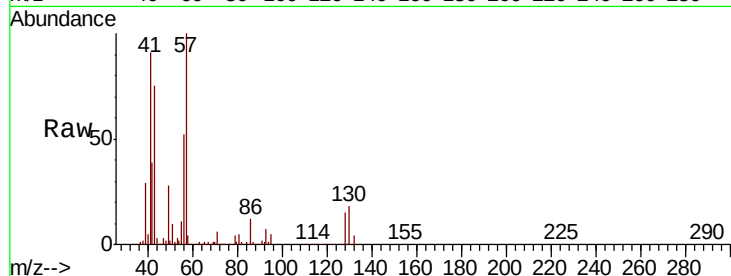
Tgt Ion	Ratio	Lower	Upper
43	100		
86	7.0	5.0	7.6
42	13.8	7.7	11.5#
44	4.7	4.6	7.0





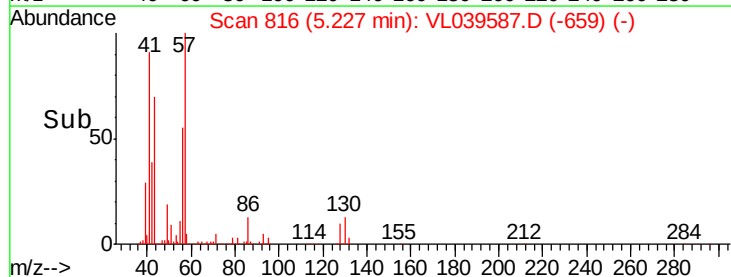
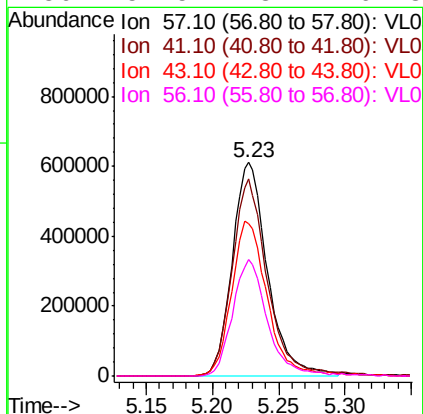
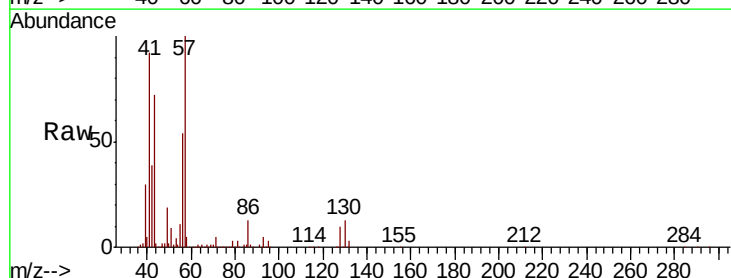
#25
Ethyl Acetate
Concen: 3.434 ppbv
RT: 5.22
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 25 Aug 2022 21:03

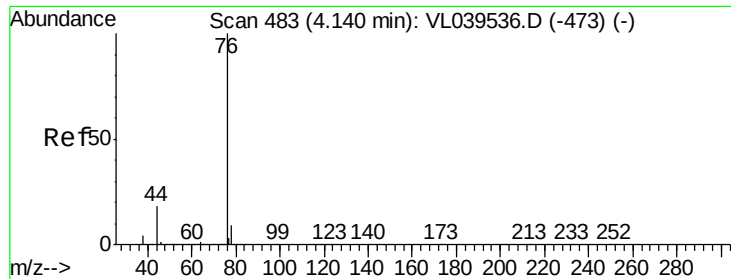
Tot Ion:	43	Resp:	813771
Ion	Ratio	Lower	Upper
43	100		
45	0.7	8.2	12.4#
61	0.4	8.3	12.5#
70	1.5	5.9	8.9#



#26
Hexane
Concen: 11.646 ppbv
RT: 5.23 min Scan# 816
Delta R.T.: 0.00 min
Lab File: VL039587.D
Acq: 25 Aug 2022 21:03

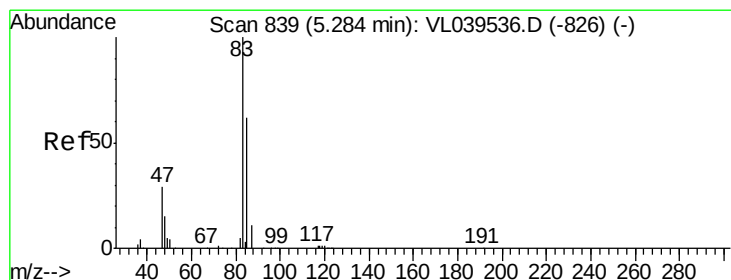
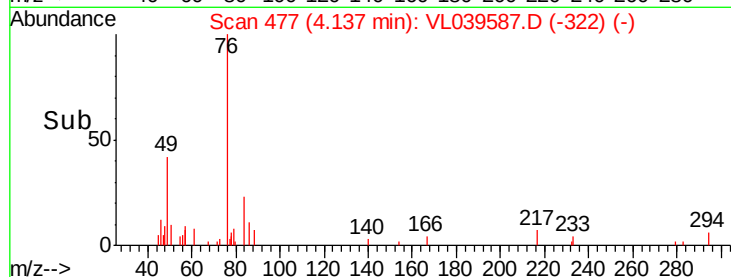
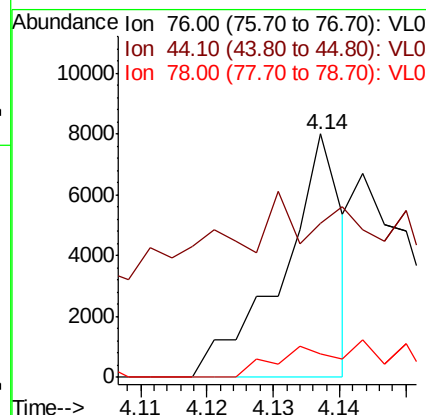
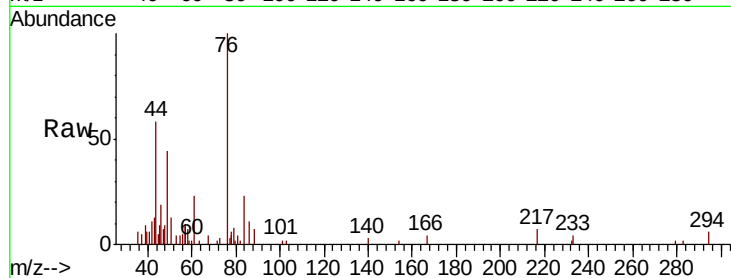
Tgt Ion:	57	Resp:	1126412
Ion	Ratio	Lower	Upper
57	100		
41	93.3	76.9	115.3
43	74.5	191.0	286.6#
56	54.5	43.2	64.8





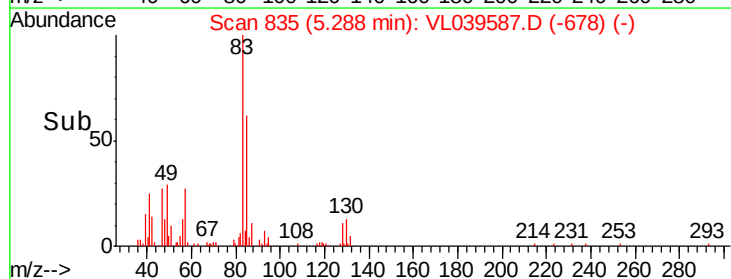
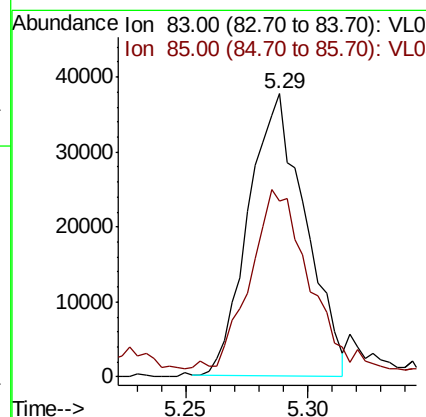
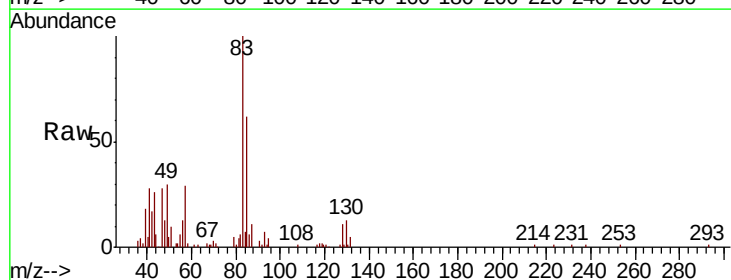
#27
Carbon Disulfide
Concen: 0.049 ppbv
RT: 4.14 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 25 Aug 2022 21:03

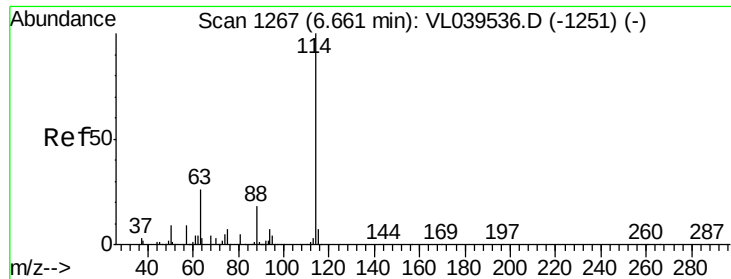
Tot Ion: 76 Resp: 5019
Ion Ratio Lower Upper
76 100
44 75.9 14.6 21.8#
78 0.0 7.8 11.6#



#29
Chloroform
Concen: 0.401 ppbv
RT: 5.29 min Scan# 835
Delta R.T. 0.00 min
Lab File: VL039587.D
Acq: 25 Aug 2022 21:03

Tgt Ion: 83 Resp: 60638
Ion Ratio Lower Upper
83 100
85 59.3 52.8 79.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 25 Aug 2022 21:03

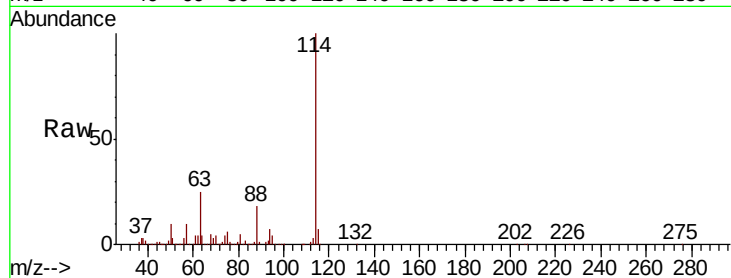
Tot Ion:114 Resp: 2479512

Ion Ratio Lower Upper

114 100

63 24.9 20.2 30.4

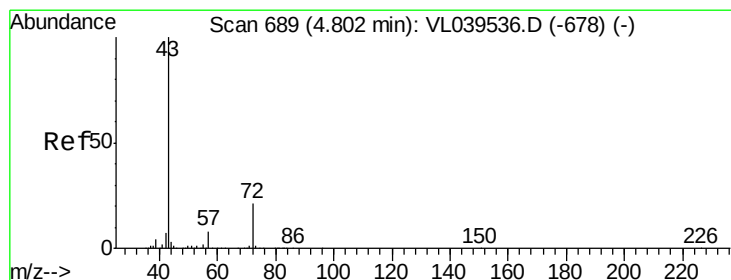
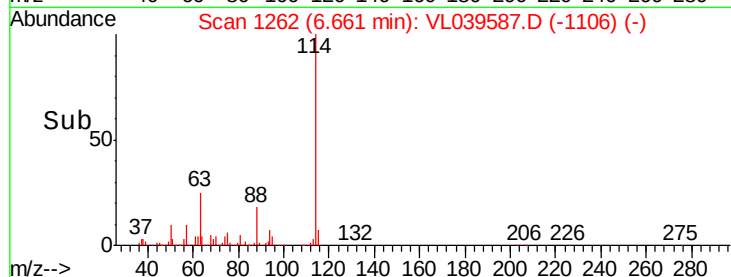
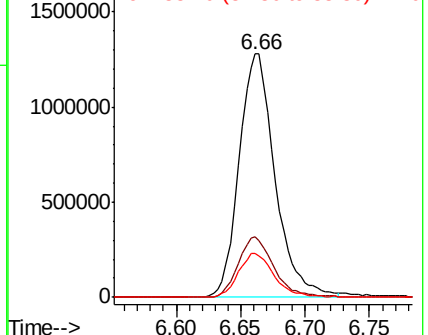
88 18.2 14.5 21.7



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.991 ppbv

RT: 4.81 min Scan# 685

Delta R.T. 0.00 min

Lab File: VL039587.D

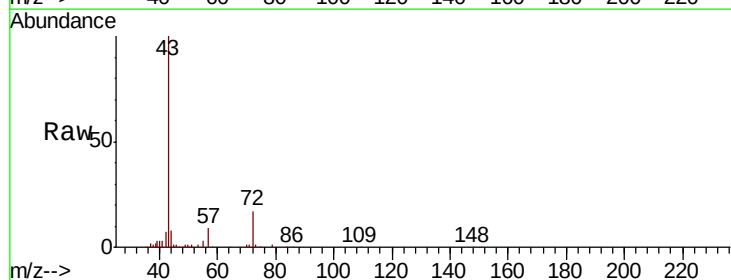
Acq: 25 Aug 2022 21:03

Tgt Ion: 43 Resp: 122120

Ion Ratio Lower Upper

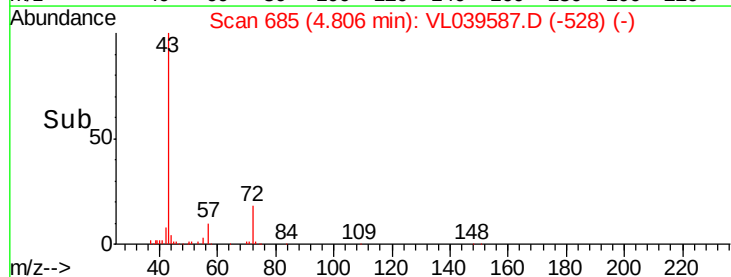
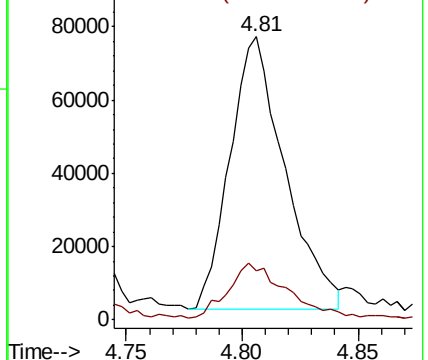
43 100

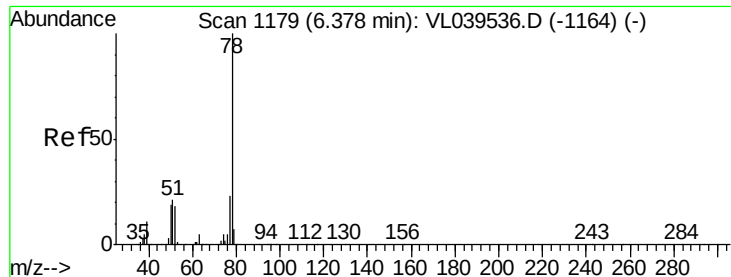
72 24.3 17.9 26.9



Abundance Ion 43.10 (42.80 to 43.80): VL0

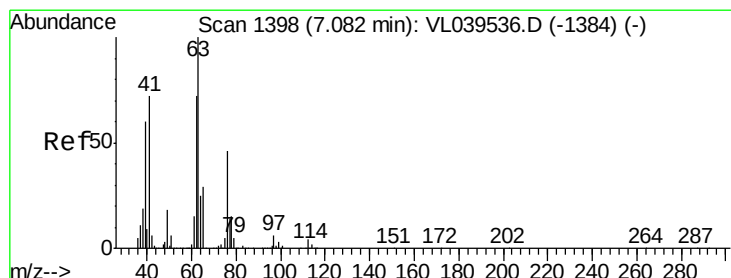
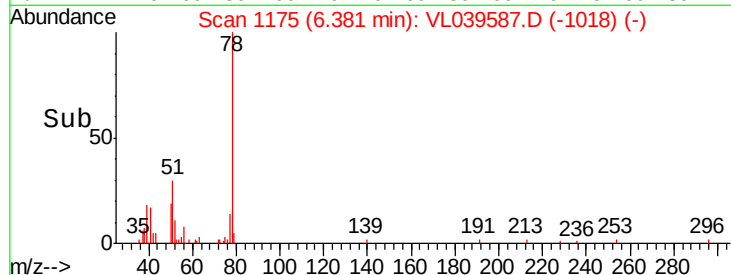
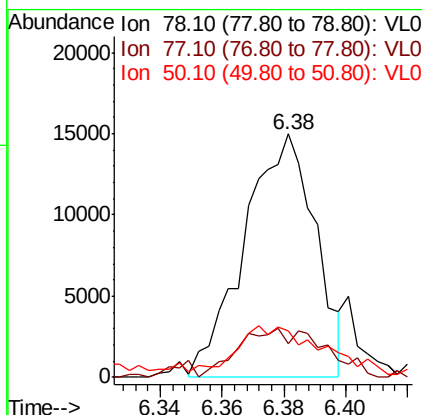
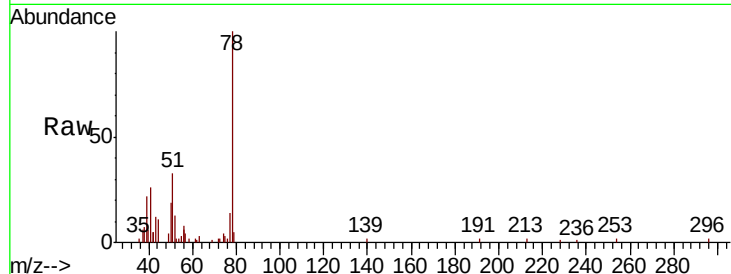
Ion 72.10 (71.80 to 72.80): VL0





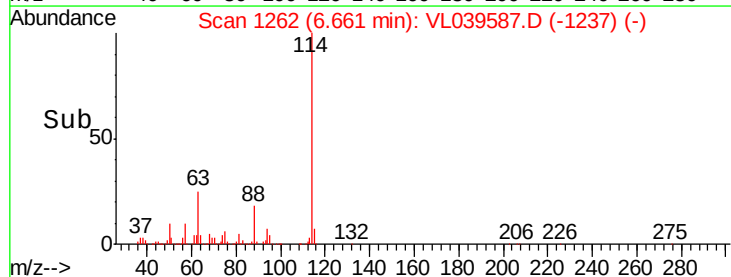
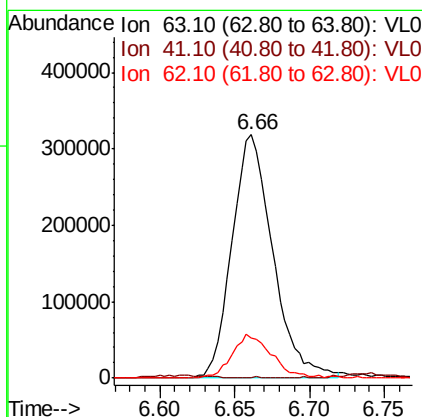
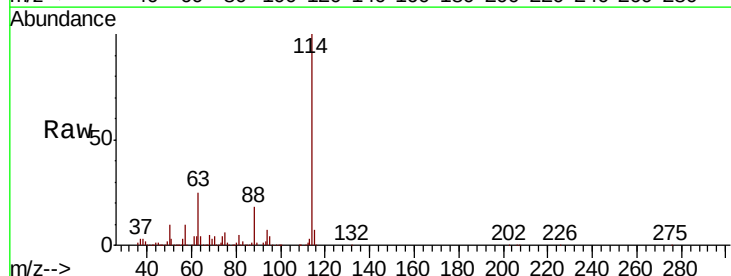
#36
Benzene
Concen: 0.126 ppbv
RT: 6.38
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 25 Aug 2022 21:03

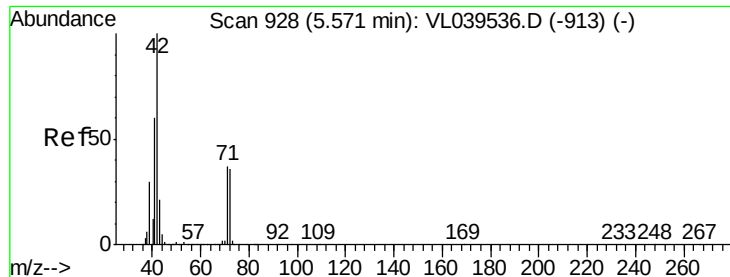
Tot Ion	Ratio	Lower	Upper
78	100		
77	7.4	20.3	30.5#
50	17.3	15.5	23.3



#39
1,2-Dichloropropane
Concen: 8.531 ppbv
RT: 6.66 min Scan# 1262
Delta R.T. -0.42 min
Lab File: VL039587.D
Acq: 25 Aug 2022 21:03

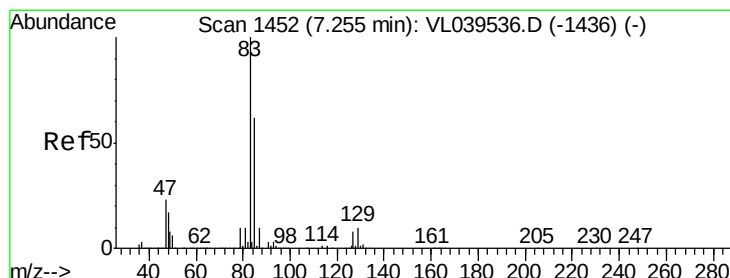
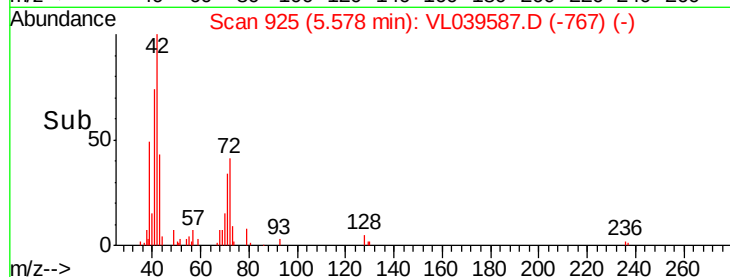
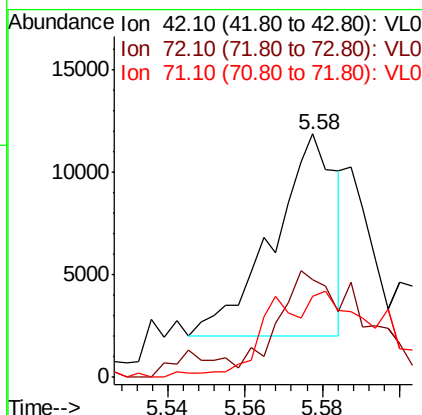
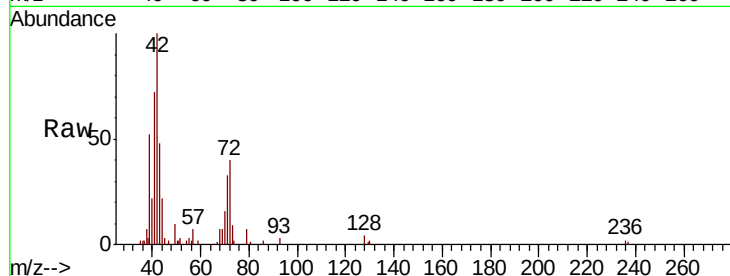
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	59.6	89.4#
62	16.2	51.4	77.0#





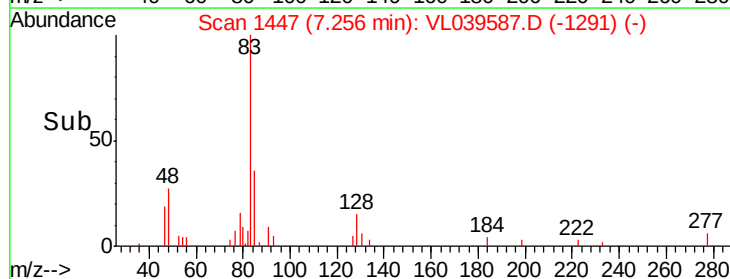
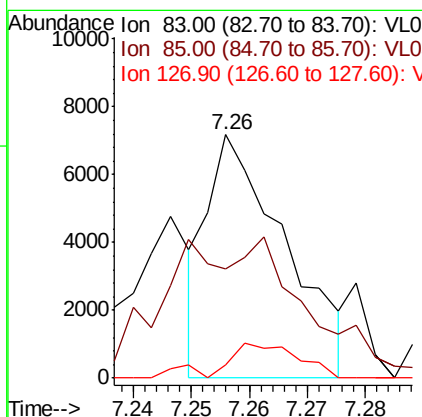
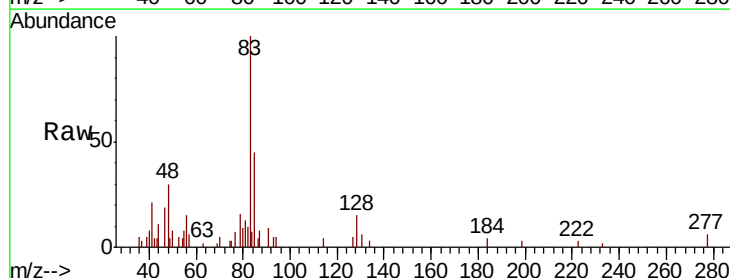
#41
 Tetrahydrofuran
 Concen: 0.151 ppbv
 RT: 5.58
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 25 Aug 2022 21:03

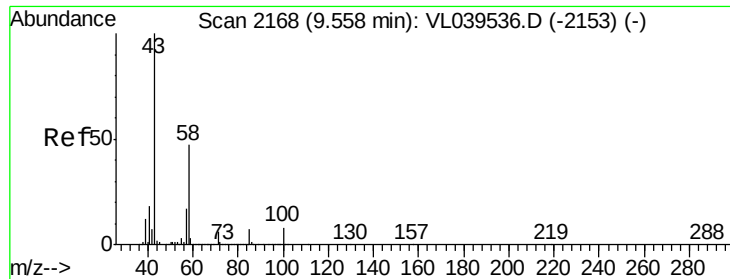
Tot Ion	Ratio	Lower	Upper
42	100		
72	93.7	31.8	47.8#
71	86.6	31.8	47.8#



#42
 Bromodichloromethane
 Concen: 0.047 ppbv
 RT: 7.26 min Scan# 1447
 Delta R.T. 0.00 min
 Lab File: VL039587.D
 Acq: 25 Aug 2022 21:03

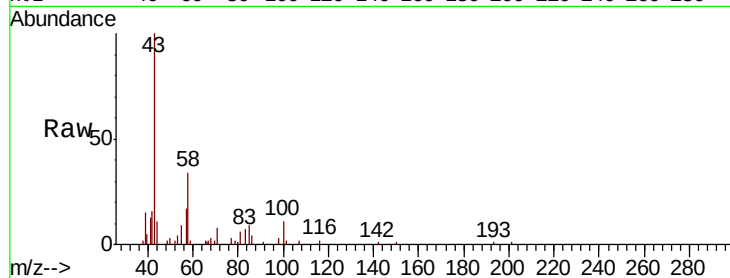
Tgt Ion	Ratio	Lower	Upper
83	100		
85	36.8	50.7	76.1#
127	7.4	6.6	9.8



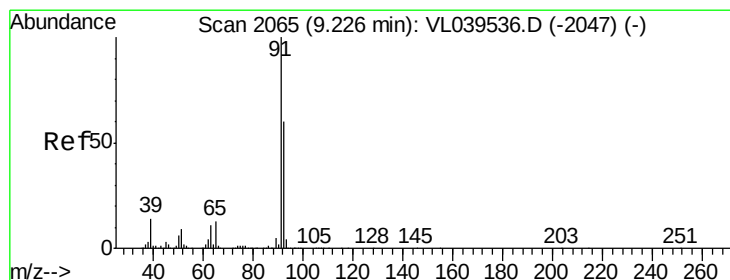
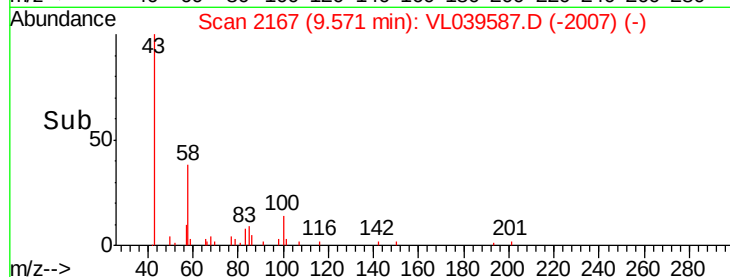
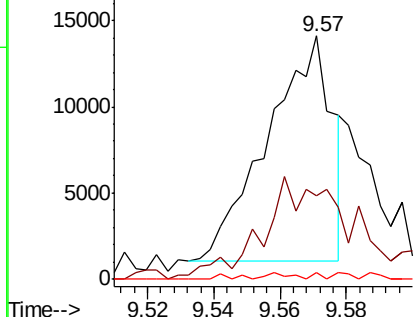


#51
2-Hexanone
Concen: 0.125 ppbv
RT: 9.57
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 25 Aug 2022 21:03

Tot Ion	43	Resp	17700
Ion	Ratio	Lower	Upper
43	100		
58	69.1	38.4	57.6#
98	2.9	0.3	0.5#

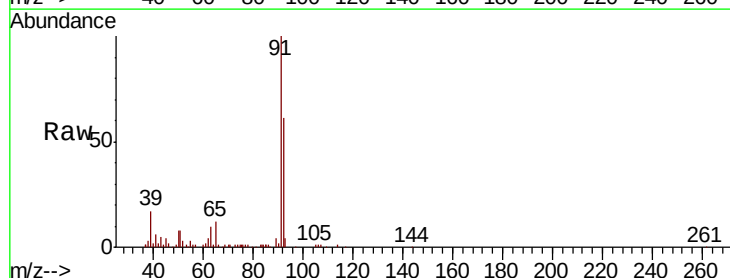


Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0
Ion 98.20 (97.90 to 98.90): VL0

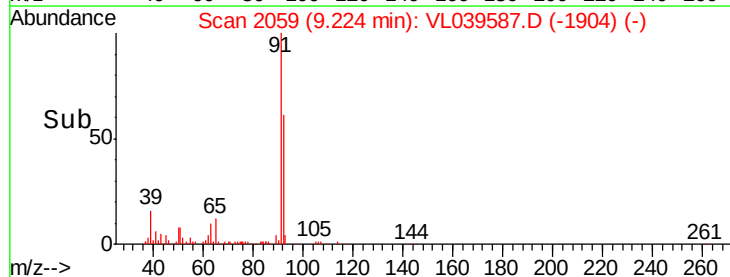
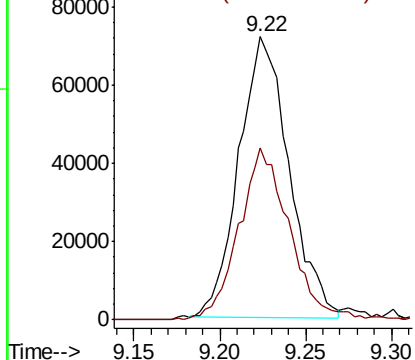


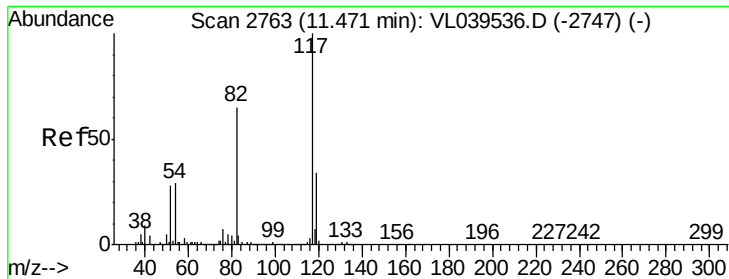
#53
Toluene
Concen: 0.690 ppbv
RT: 9.22 min Scan# 2059
Delta R.T. -0.00 min
Lab File: VL039587.D
Acq: 25 Aug 2022 21:03

Tgt Ion	91	Resp	145856
Ion	Ratio	Lower	Upper
91	100		
92	62.2	48.2	72.2



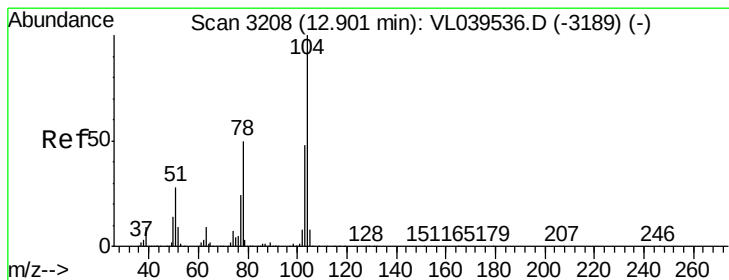
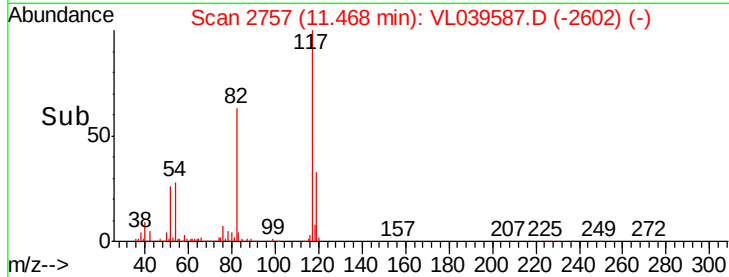
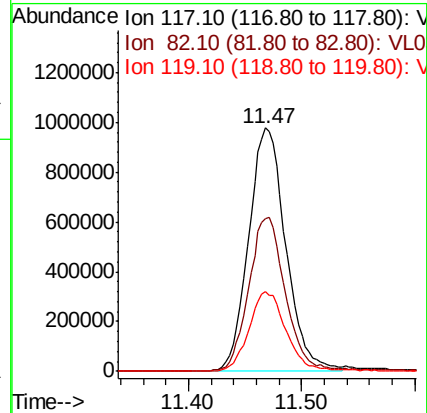
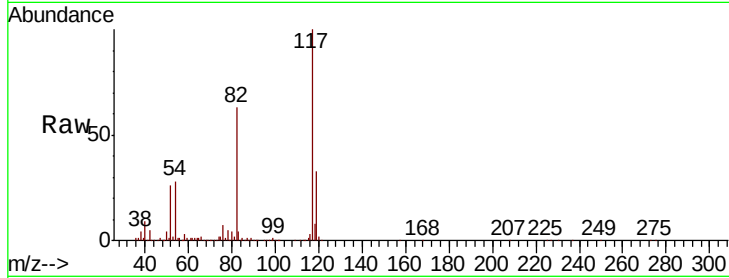
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0





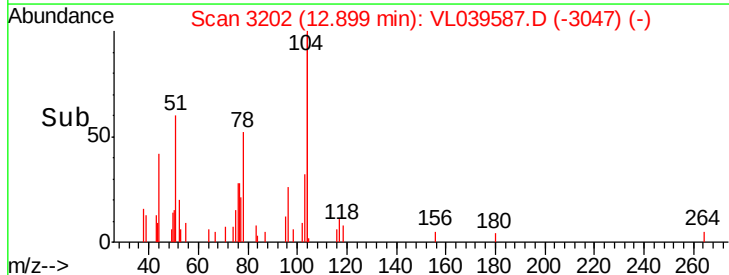
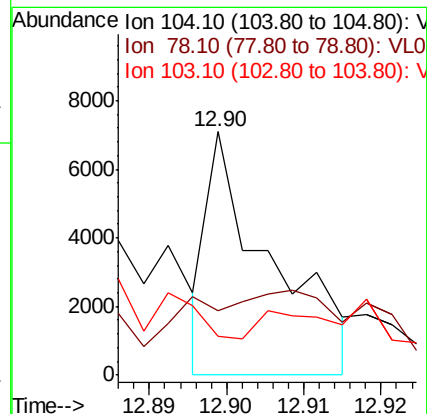
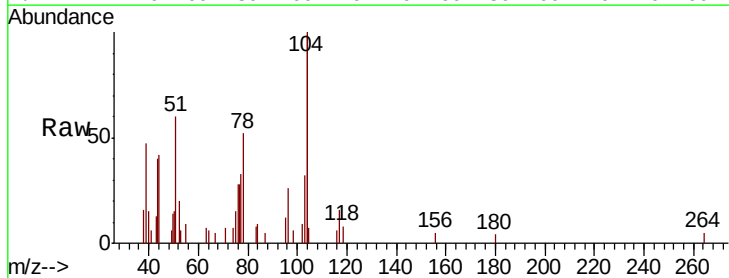
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.47 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 25 Aug 2022 21:03

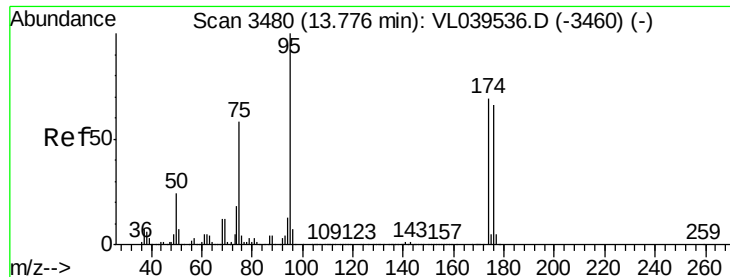
Tot Ion:117 Resp: 2233955
Ion Ratio Lower Upper
117 100
82 63.7 50.8 76.2
119 32.9 24.1 36.1



#61
Styrene
Concen: 0.035 ppbv
RT: 12.90 min Scan# 3202
Delta R.T.: -0.00 min
Lab File: VL039587.D
Acq: 25 Aug 2022 21:03

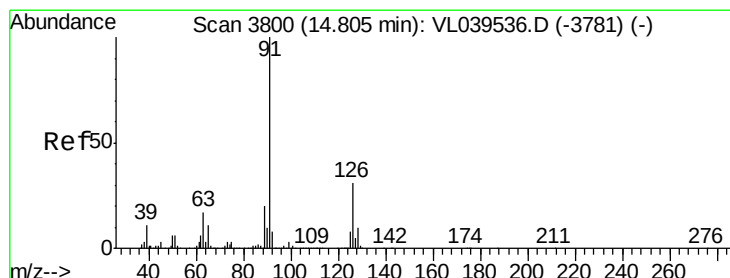
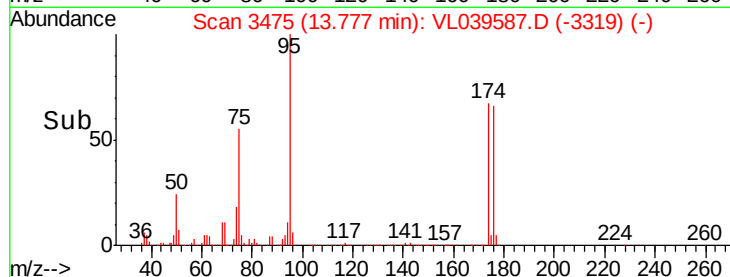
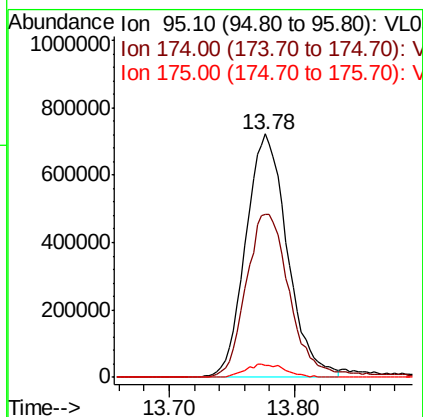
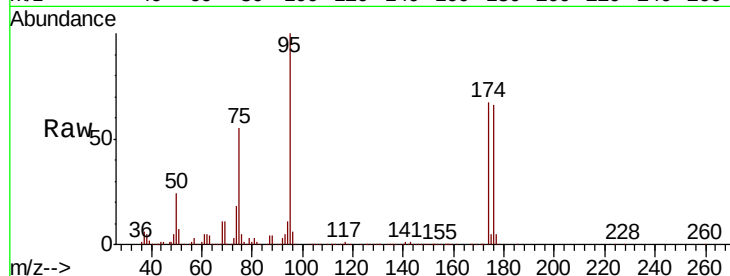
Tgt Ion:104 Resp: 4130
Ion Ratio Lower Upper
104 100
78 0.0 41.2 61.8#
103 0.0 38.7 58.1#





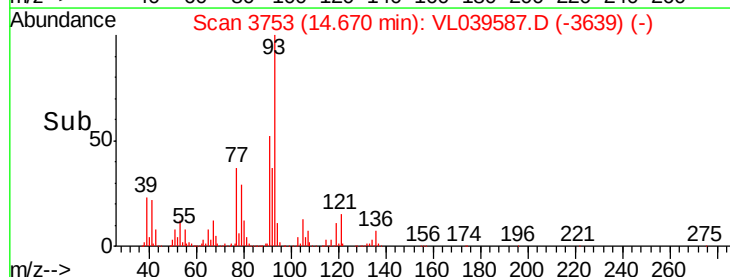
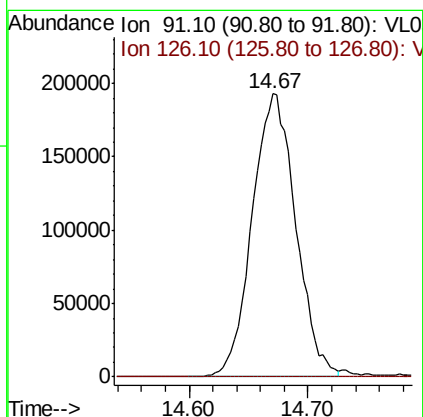
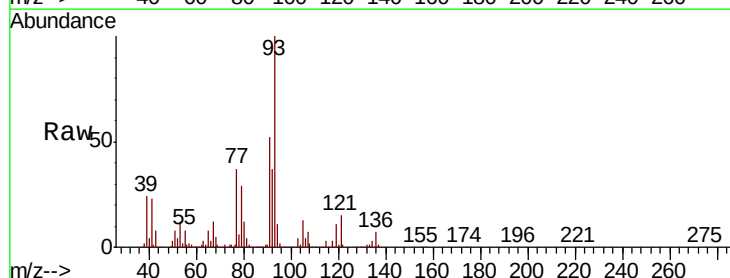
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.901 ppbv
 RT: 13.78 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 25 Aug 2022 21:03

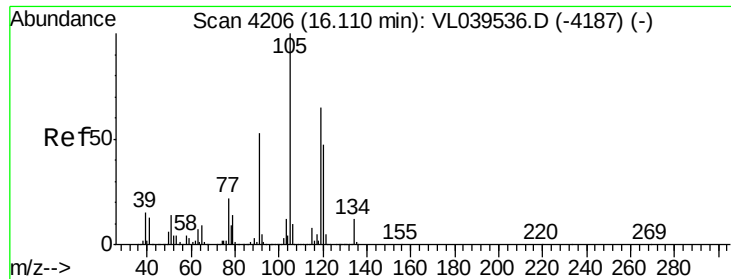
Tot Ion: 95 Resp: 1668638
 Ion Ratio Lower Upper
 95 100
 174 71.9 55.9 83.9
 175 5.4 4.2 6.4



#71
 2-Chlorotoluene
 Concen: 2.015 ppbv
 RT: 14.67 min Scan# 3753
 Delta R.T. -0.13 min
 Lab File: VL039587.D
 Acq: 25 Aug 2022 21:03

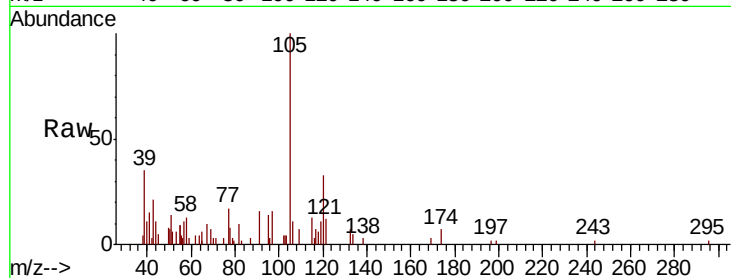
Tgt Ion: 91 Resp: 487893
 Ion Ratio Lower Upper
 91 100
 126 0.0 13.0 51.8#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.049 ppbv
 RT: 16.10
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 25 Aug 2022 21:05

Tot Ion:	105	Resp:	12854
Ion	Ratio	Lower	Upper
105	100		
120	32.9	39.5	59.3#
91	5.7	39.2	58.8#
77	13.7	17.2	25.8#



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

