

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062722\
 Data File : VL039381.D
 Acq On : 28 Jun 2022 6:32
 Operator : SY/AP
 Sample : N3508-02 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-6-20220624

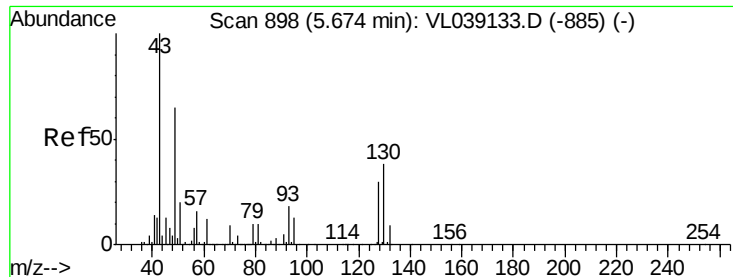
Quant Time: Jun 28 08:46:11 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL053122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jun 01 01:22:18 2022
 QLast Update : Wed Jun 01 01:22:18 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1020521	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.17	114	2917481	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	2654162	10.00	ppbv	-0.02

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.40	95	1961946	8.94	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	89.40%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	17614	0.098	ppbv	96
3) Chlorodifluoromethane	2.98	51	15450	0.119	ppbv #	82
4) Chloromethane	3.13	50	6273	0.094	ppbv #	87
6) Bromomethane	3.46	94	970	0.032	ppbv #	49
9) Propene	2.99	41	12117	0.214	ppbv #	35
10) Heptane	8.10	43	7689	0.058	ppbv #	1
11) Trichlorofluoromethane	3.94	101	9271	0.057	ppbv	92
13) Ethanol	3.60	45	196467	63.628	ppbv #	100
15) Acetone	3.83	43	7892509	74.243	ppbv	94
16) 1,3-Butadiene	3.29	39	470713	8.237	ppbv #	15
17) tert-Butyl alcohol	4.28	59	110870	1.345	ppbv #	93
19) Isopropyl Alcohol	3.95	45	1403332	28.145	ppbv #	93
20) Methylene Chloride	4.33	84	139428	3.112	ppbv	90
21) Allyl Chloride	4.36	41	3384	0.047	ppbv #	29
23) Vinyl Acetate	5.06	43	43180	0.491	ppbv #	94
25) Ethyl Acetate	5.67	43	56468	0.236	ppbv #	87
26) Hexane	5.67	57	66078	0.628	ppbv #	38
27) Carbon Disulfide	4.54	76	7171	0.066	ppbv #	1
29) Chloroform	5.74	83	12894	0.073	ppbv	98
34) 2-Butanone	5.24	43	425750	2.686	ppbv	98
36) Benzene	6.88	78	13306	0.056	ppbv #	91
39) 1,2-Dichloropropane	7.23	63	12671	0.134	ppbv #	37
52) Tetrachloroethene	11.21	164	8263	0.089	ppbv #	76
53) Toluene	9.79	91	32527	0.119	ppbv #	21
58) Ethyl Benzene	12.69	91	14182	0.039	ppbv	98
60) o-Xylene	13.67	91	11887	0.039	ppbv #	31
74) 1,2,4-Trimethylbenzene	16.74	105	16043	0.045	ppbv #	64
75) 1,3-Dichlorobenzene	16.97	146	37764	0.187	ppbv #	1

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 28 Jun 2022 8:32

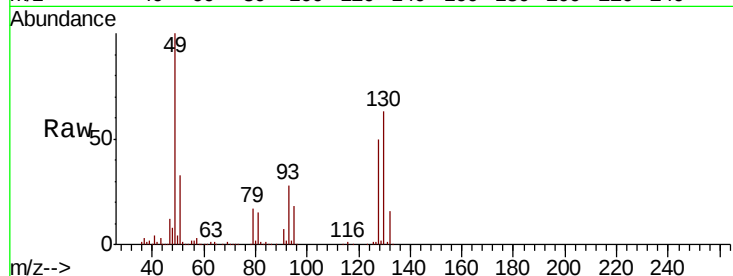
Tot Ion: 49 Resp: 1020521

Ion Ratio Lower Upper

49 100

128 53.3 24.7 74.1

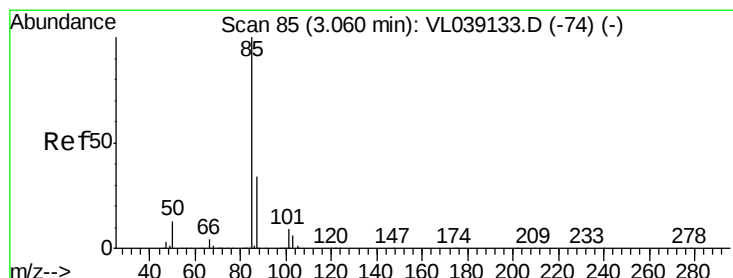
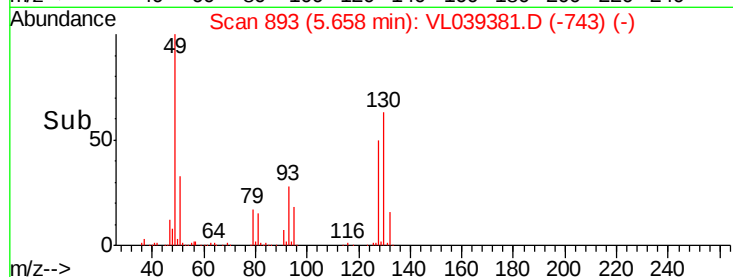
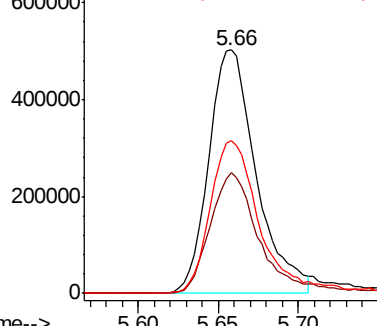
130 68.7 31.4 94.0



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: 0.098 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.03 min

Lab File: VL039381.D

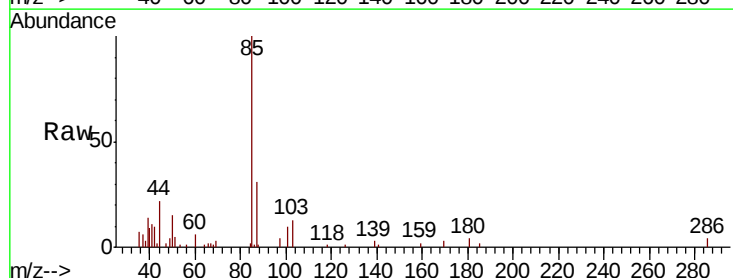
Acq: 28 Jun 2022 6:32

Tgt Ion: 85 Resp: 17614

Ion Ratio Lower Upper

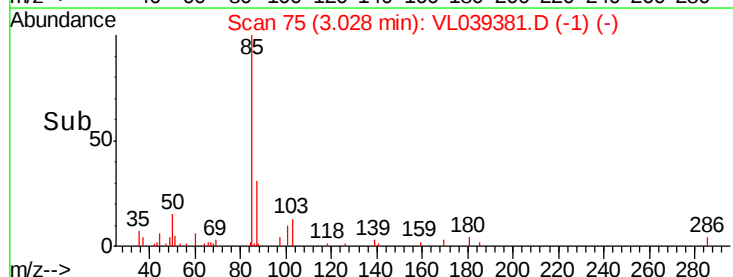
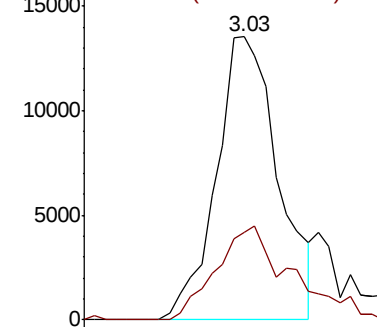
85 100

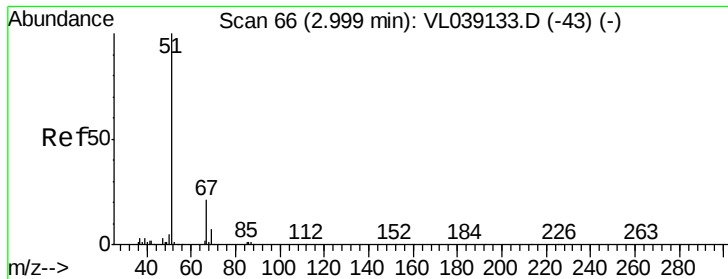
87 31.1 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.119 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId: SV-6-20220624

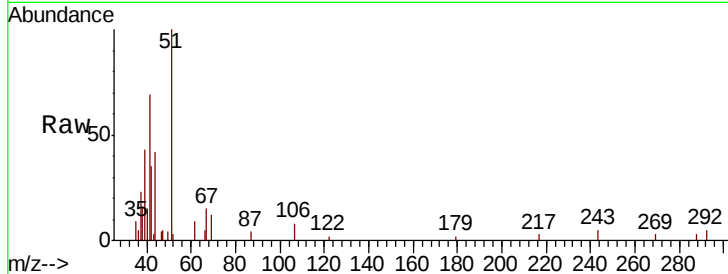
Acq: 28 Jun 2022 6:32

Tot Ion: 51 Resp: 15450

Ion Ratio Lower Upper

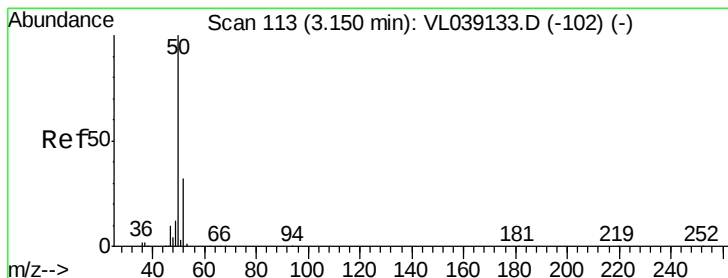
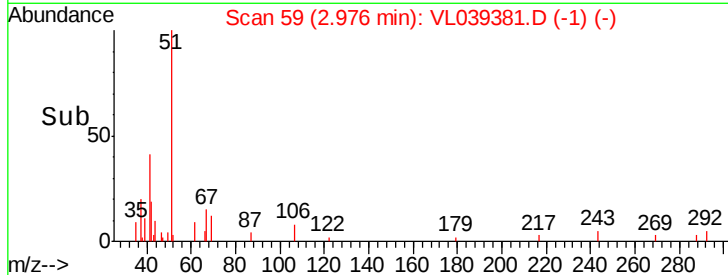
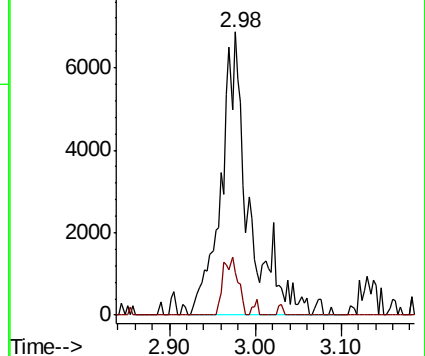
51 100

67 11.9 16.2 24.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.094 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.02 min

Lab File: VL039381.D

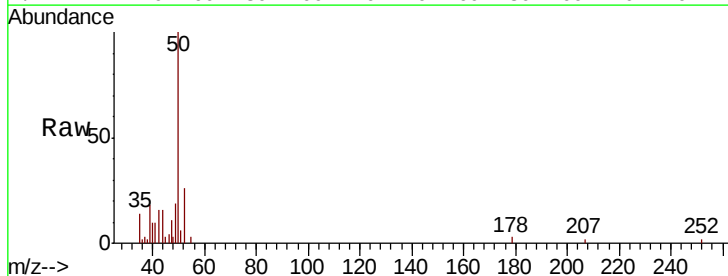
Acq: 28 Jun 2022 6:32

Tgt Ion: 50 Resp: 6273

Ion Ratio Lower Upper

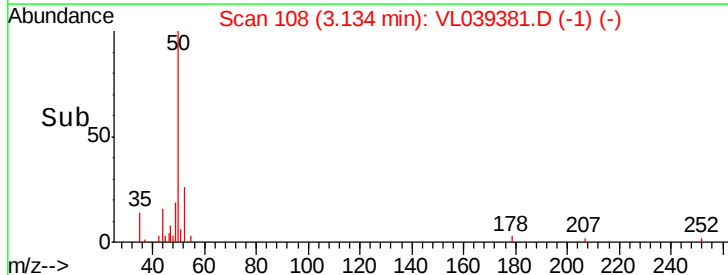
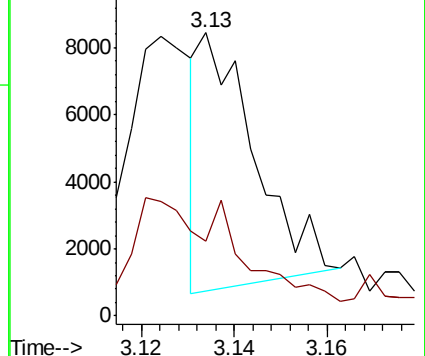
50 100

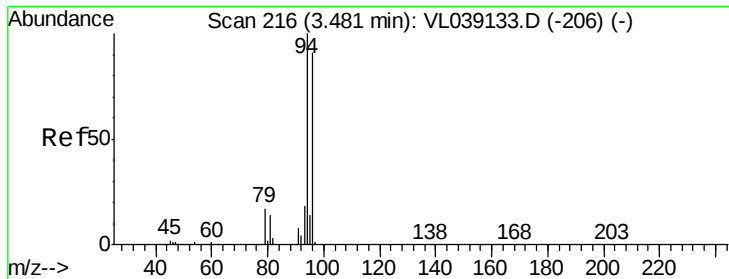
52 25.2 25.9 38.9#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#6

Bromomethane

Concen: 0.032 ppbv

RT: 3.46 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV-6-20220624

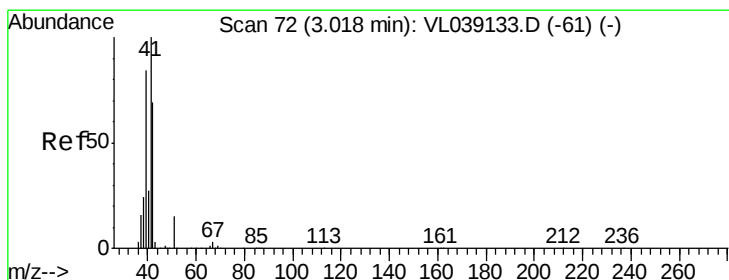
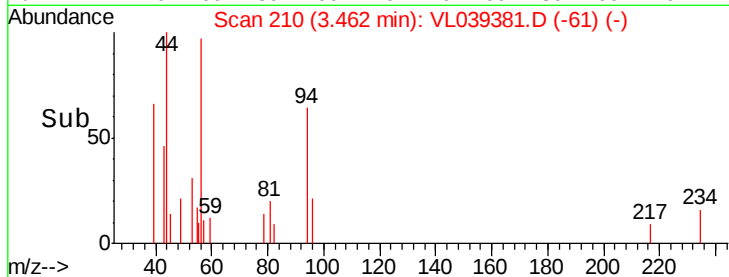
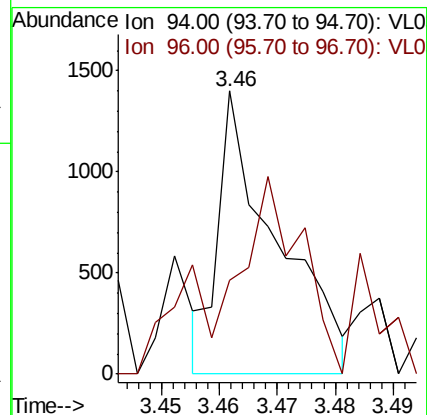
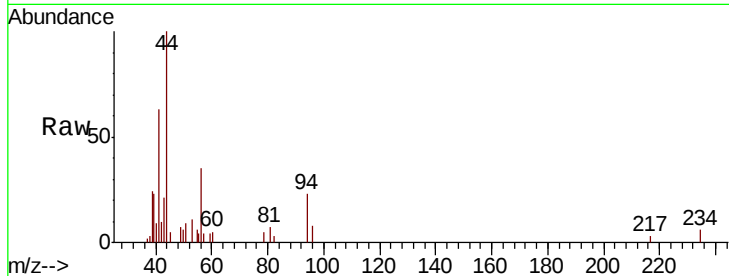
Acq: 28 Jun 2022 8:32

Tot Ion: 94 Resp: 970

Ion Ratio Lower Upper

94 100

96 42.4 73.0 109.4#



#9

Propene

Concen: 0.214 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.03 min

Lab File: VL039381.D

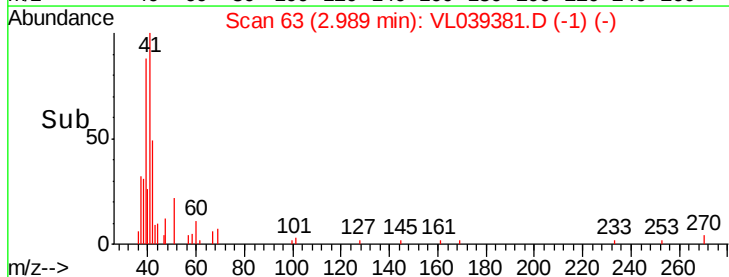
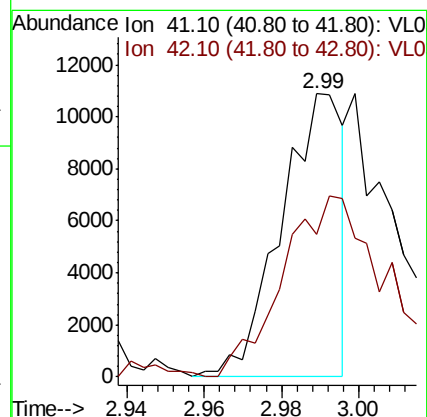
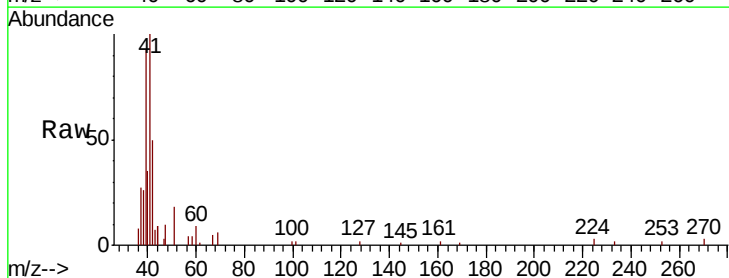
Acq: 28 Jun 2022 6:32

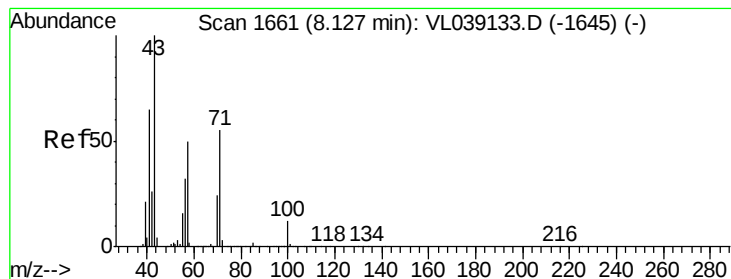
Tgt Ion: 41 Resp: 12117

Ion Ratio Lower Upper

41 100

42 122.5 55.4 83.2#





#10

Heptane

Concen: 0.058 ppbv

RT: 8.10 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

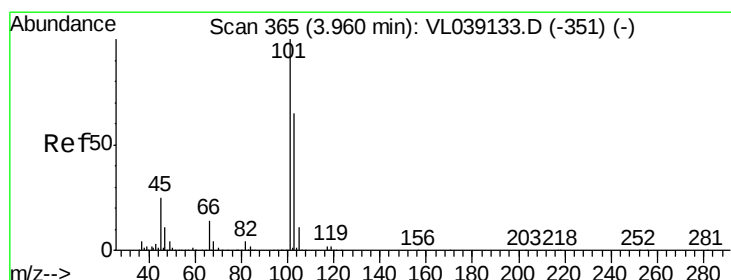
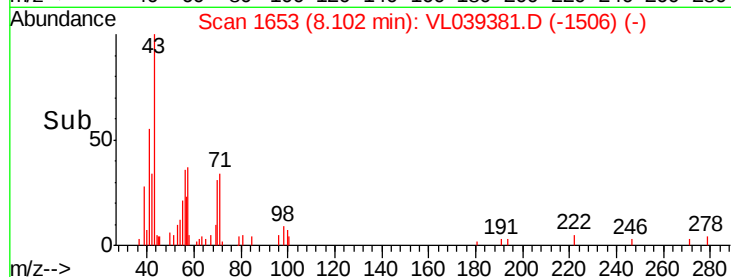
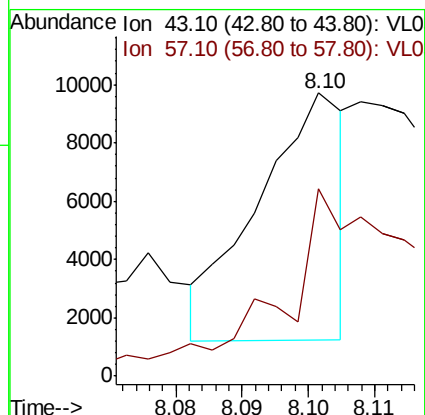
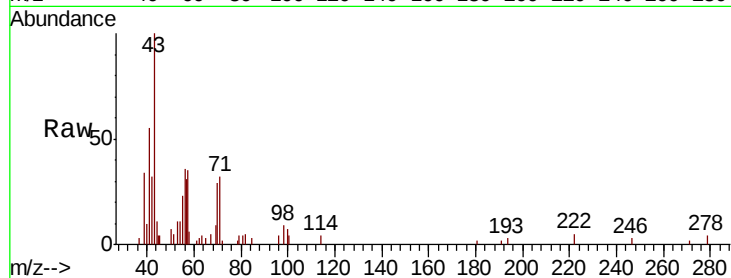
Acq: 28 Jun 2022 8:32 SV-6-20220624

Tot Ion: 43 Resp: 7689

Ion Ratio Lower Upper

43 100

57 152.2 41.4 62.2#



#11

Trichlorofluoromethane

Concen: 0.057 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.02 min

Lab File: VL039381.D

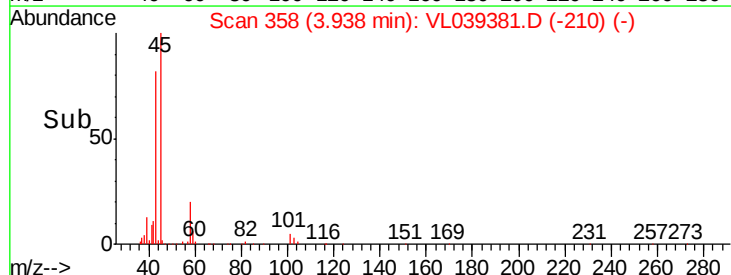
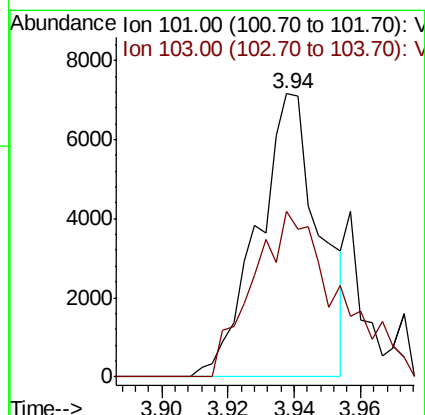
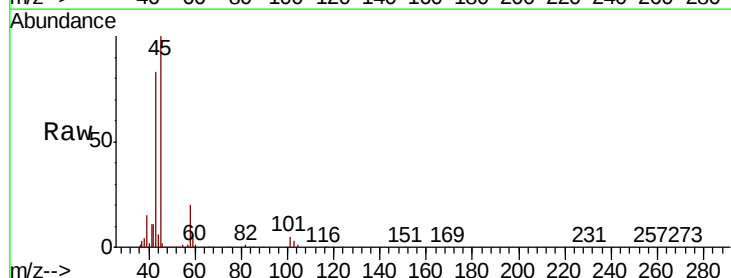
Acq: 28 Jun 2022 6:32

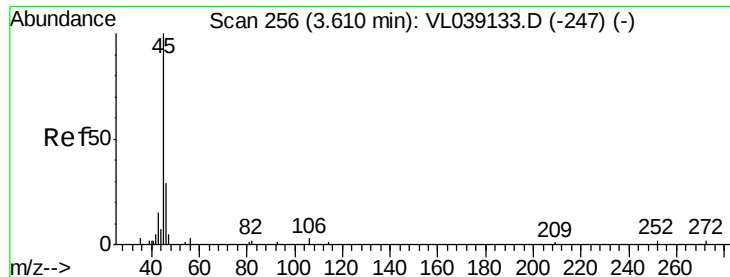
Tgt Ion: 101 Resp: 9271

Ion Ratio Lower Upper

101 100

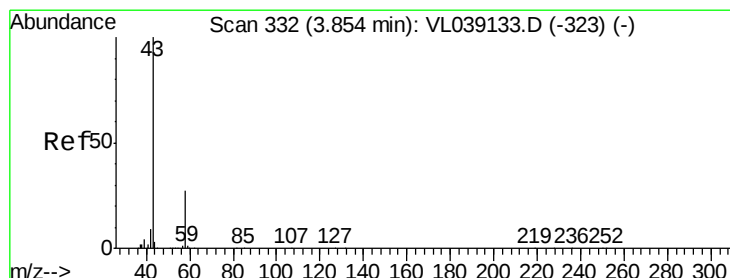
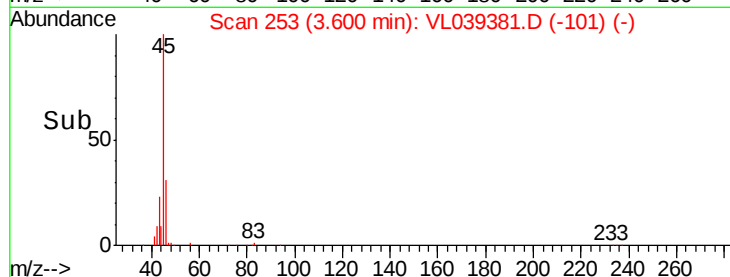
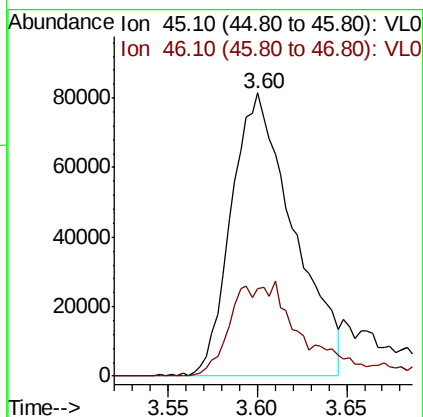
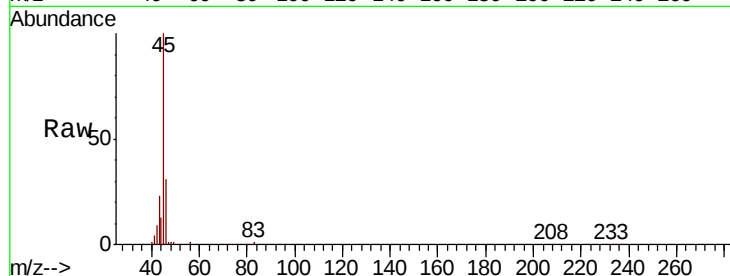
103 58.5 51.7 77.5





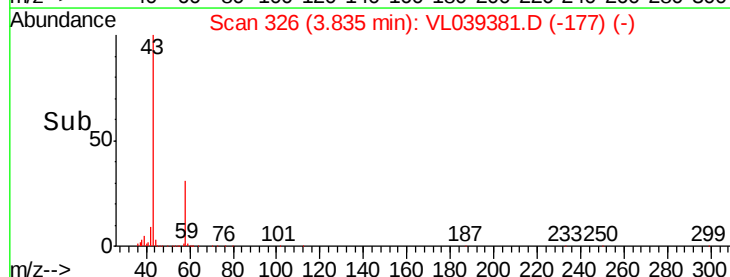
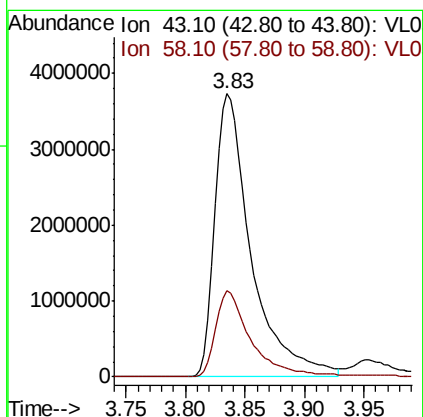
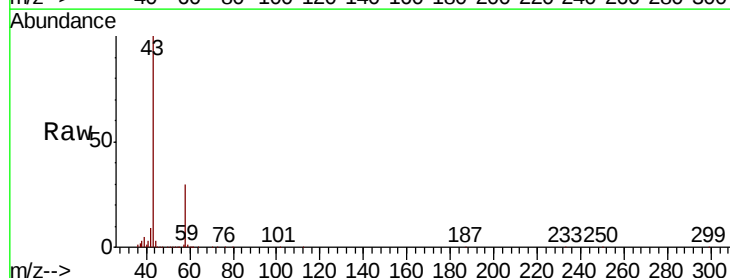
#13
Ethanol
Concen: 63.628 ppbv
RT: 3.60
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-6-20220624
Acq: 28 Jun 2022 6:32

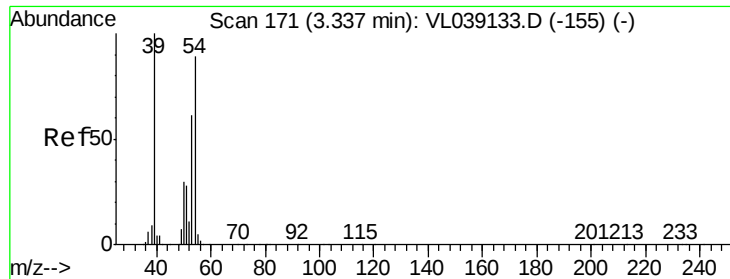
Tot Ion: 45 Resp: 196467
Ion Ratio Lower Upper
45 100
46 42.8 0.0 0.0#



#15
Acetone
Concen: 74.243 ppbv
RT: 3.83 min Scan# 326
Delta R.T. -0.02 min
Lab File: VL039381.D
Acq: 28 Jun 2022 6:32

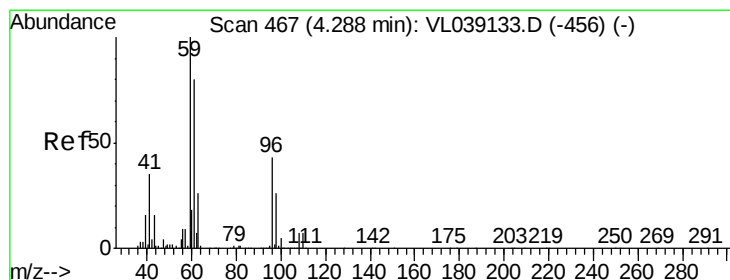
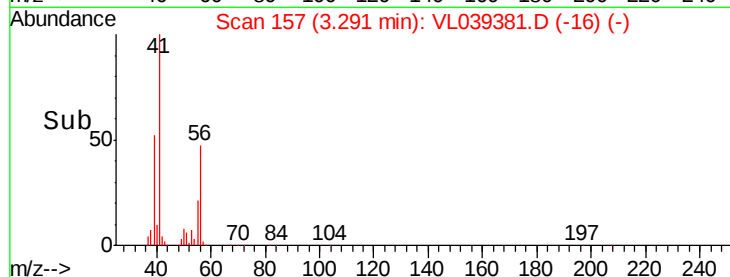
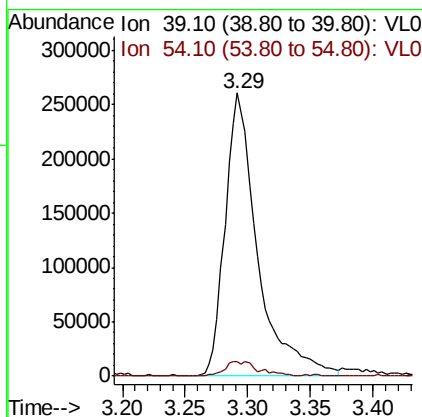
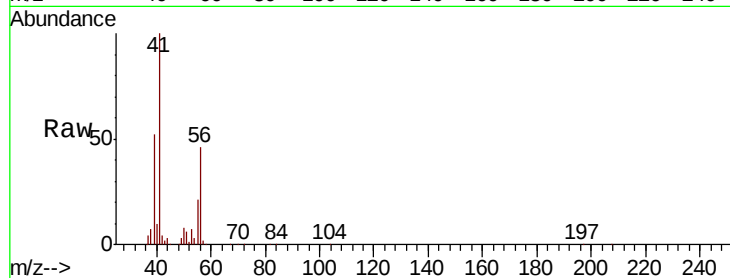
Tgt Ion: 43 Resp: 7892509
Ion Ratio Lower Upper
43 100
58 31.1 22.5 33.7





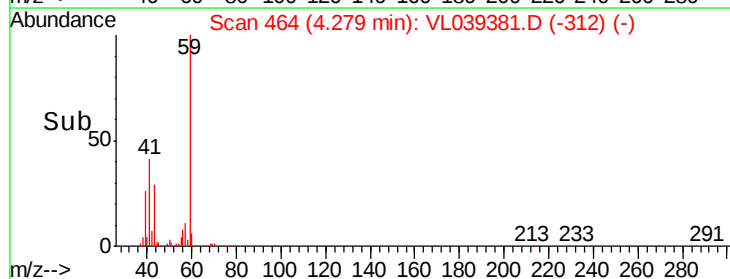
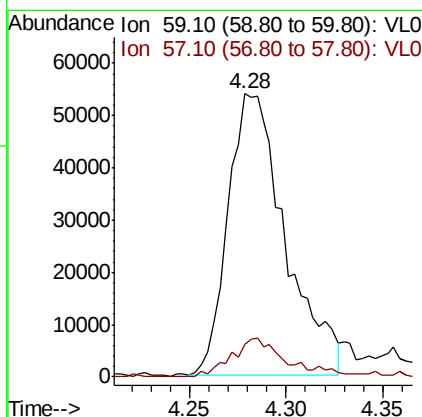
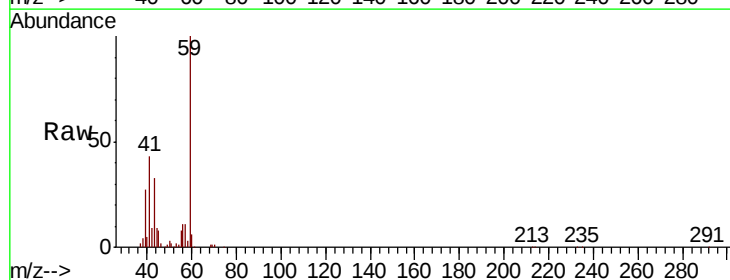
#16
 1,3-Butadiene
 Concen: 8.237 ppbv
 RT: 3.29
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-6-20220624
 Acq: 28 Jun 2022 6:32

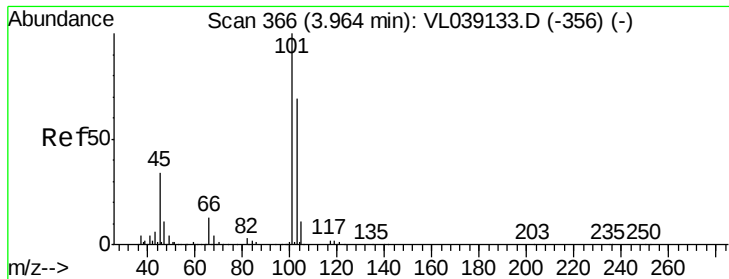
Tot Ion: 39 Resp: 470713
 Ion Ratio Lower Upper
 39 100
 54 5.8 65.8 98.6#



#17
 tert-Butyl alcohol
 Concen: 1.345 ppbv
 RT: 4.28 min Scan# 464
 Delta R.T. -0.01 min
 Lab File: VL039381.D
 Acq: 28 Jun 2022 6:32

Tgt Ion: 59 Resp: 110870
 Ion Ratio Lower Upper
 59 100
 57 14.0 9.1 13.7#





#19

Isopropyl Alcohol

Concen: 28.145 ppbv

RT: 3.95 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

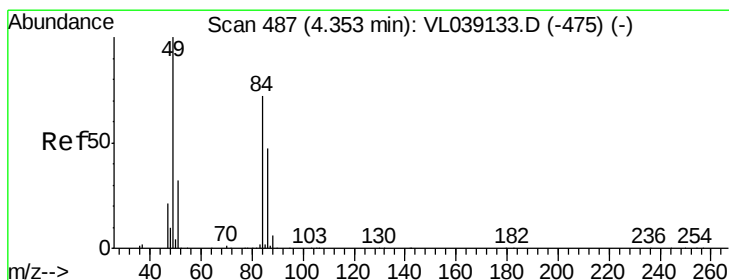
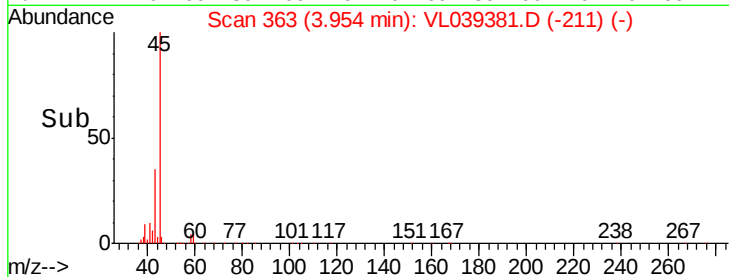
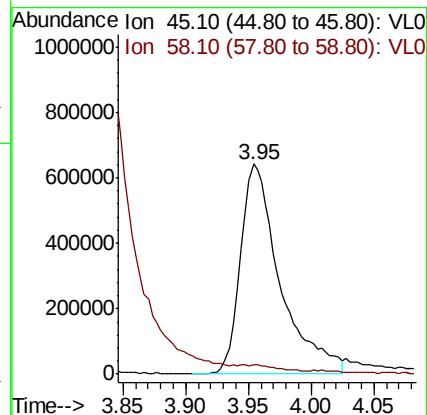
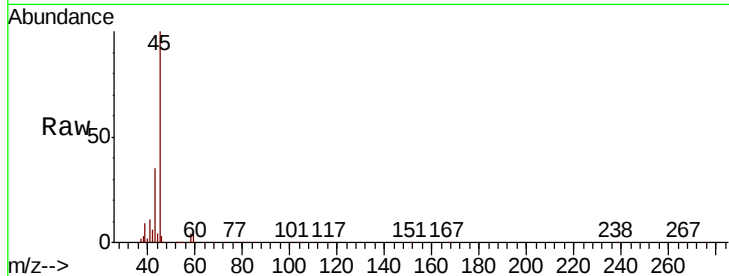
Acq: 28 Jun 2022 8:32 SV-6-20220624

Tot Ion: 45 Resp: 1403332

Ion Ratio Lower Upper

45 100

58 0.0 1.8 2.8#



#20

Methylene Chloride

Concen: 3.112 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.02 min

Lab File: VL039381.D

Acq: 28 Jun 2022 6:32

Tgt Ion: 84 Resp: 139428

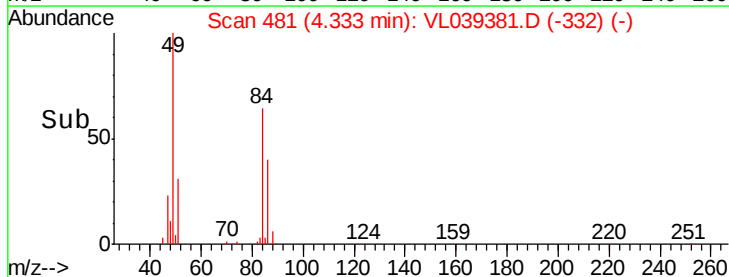
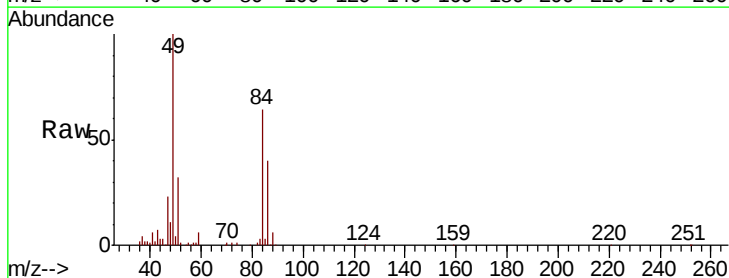
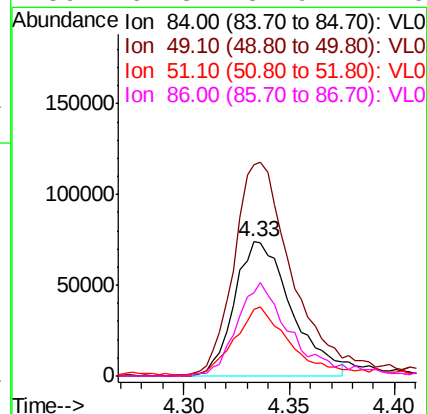
Ion Ratio Lower Upper

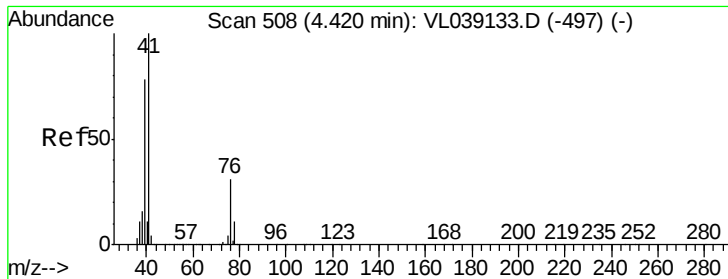
84 100

49 155.7 111.1 166.7

51 48.3 35.3 52.9

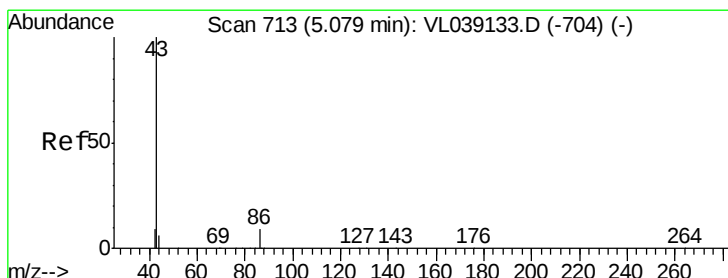
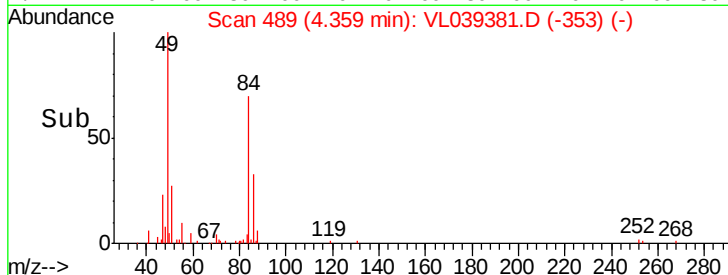
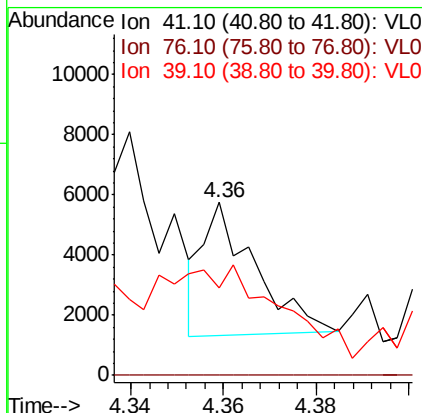
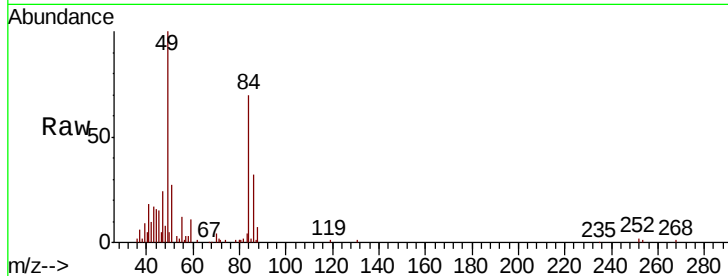
86 61.8 51.9 77.9





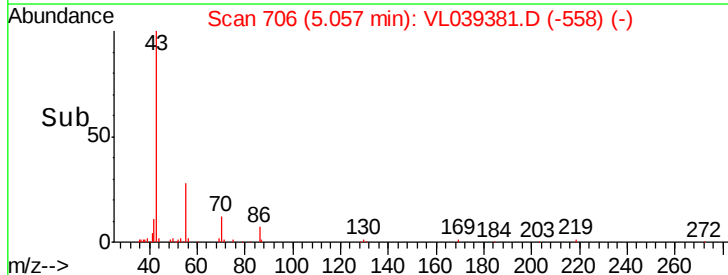
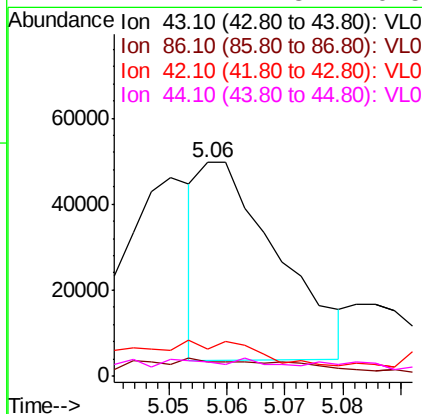
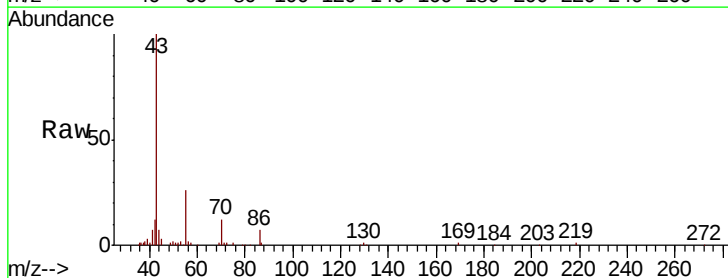
#21
 Allvl Chloride
 Concen: 0.047 ppbv
 RT: 4.36
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-6-20220624
 Acq: 28 Jun 2022 0:32

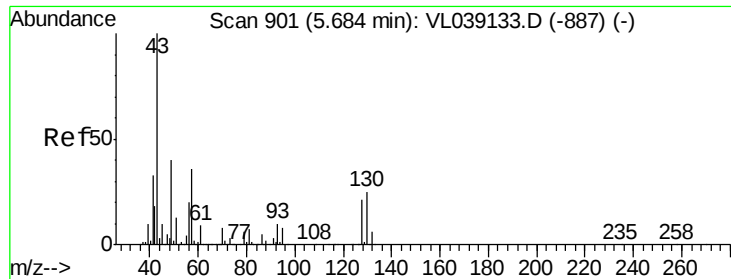
Tot Ion: 41 Resp: 3384
 Ion Ratio Lower Upper
 41 100
 76 0.0 24.2 36.2#
 39 144.9 62.2 93.2#



#23
 Vinyl Acetate
 Concen: 0.491 ppbv
 RT: 5.06 min Scan# 706
 Delta R.T. -0.02 min
 Lab File: VL039381.D
 Acq: 28 Jun 2022 6:32

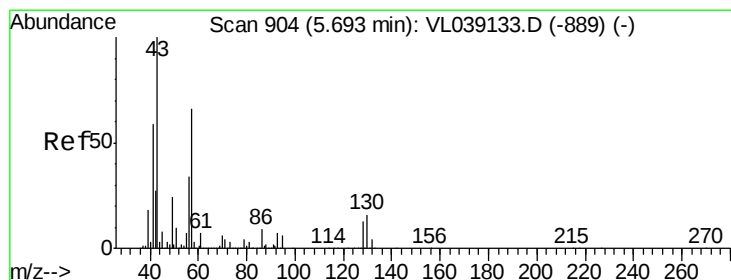
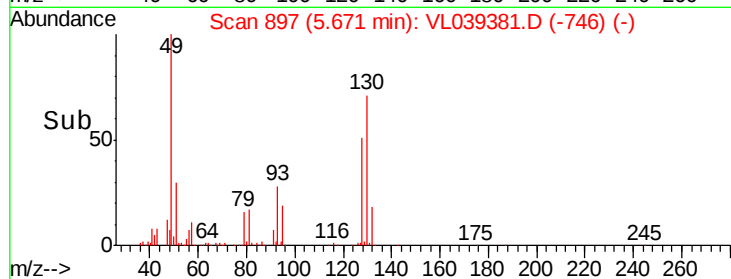
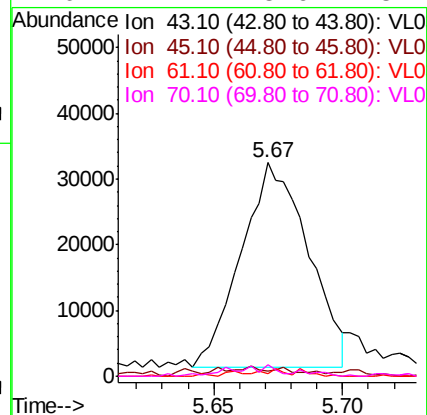
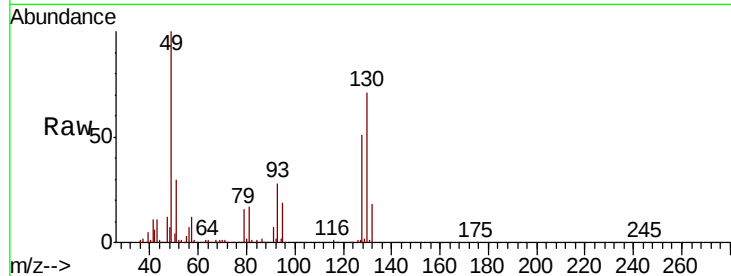
Tgt Ion: 43 Resp: 43180
 Ion Ratio Lower Upper
 43 100
 86 4.1 6.0 9.0#
 42 10.6 8.2 12.4
 44 2.4 4.3 6.5#





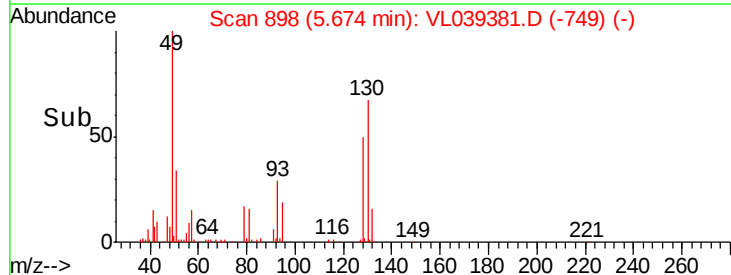
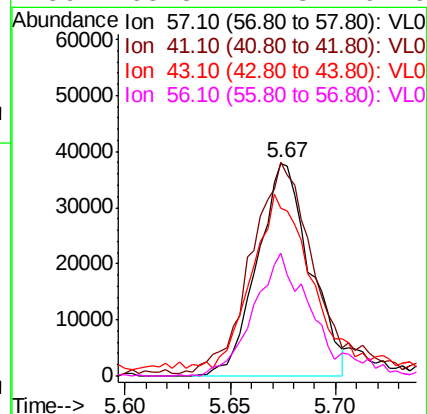
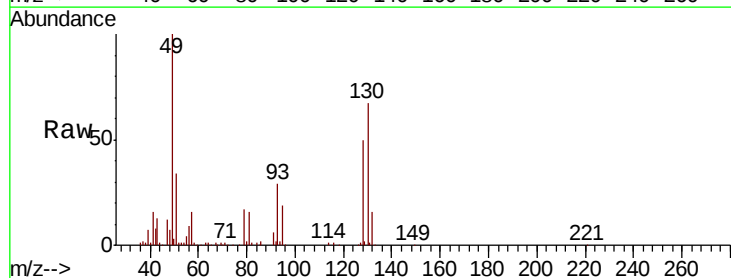
#25
Ethyl Acetate
Concen: 0.236 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-6-20220624
Acq: 28 Jun 2022 6:32

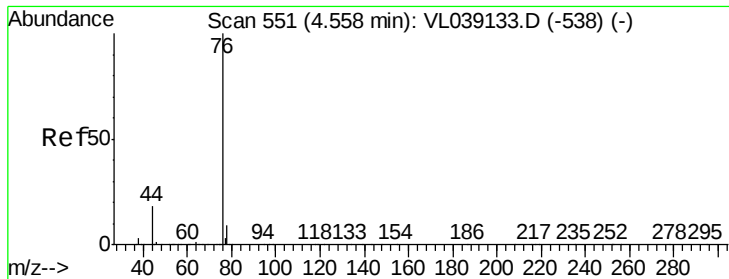
Tot Ion:	43	Resp:	56468
Ion	Ratio	Lower	Upper
43	100		
45	7.1	8.2	12.2#
61	2.7	8.4	12.6#
70	4.7	5.6	8.4#



#26
Hexane
Concen: 0.628 ppbv
RT: 5.67 min Scan# 898
Delta R.T. -0.02 min
Lab File: VL039381.D
Acq: 28 Jun 2022 6:32

Tgt Ion:	57	Resp:	66078
Ion	Ratio	Lower	Upper
57	100		
41	125.2	72.4	108.6#
43	98.3	187.0	280.6#
56	65.8	41.8	62.6#





#27

Carbon Disulfide

Concen: 0.066 ppbv

RT: 4.54 Instrument: MSVOA_L

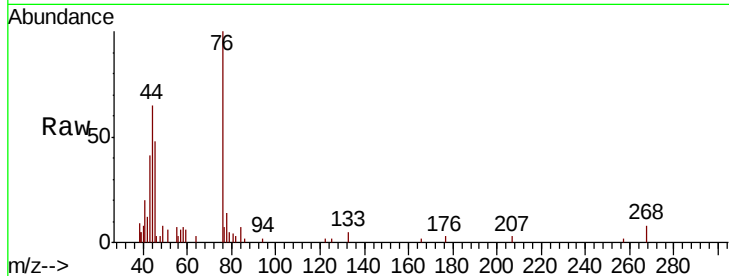
Delta R.T. ClientSampleId:

Lab File: SV-6-20220624

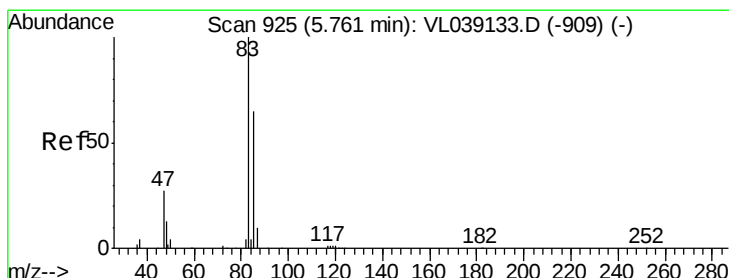
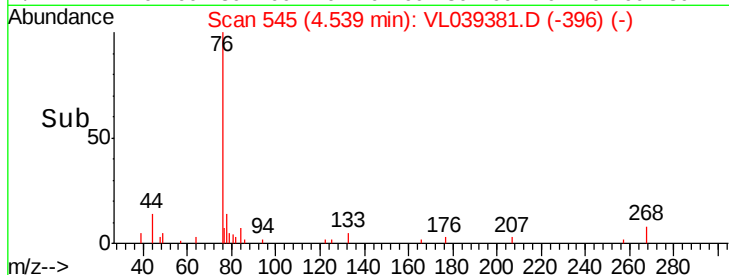
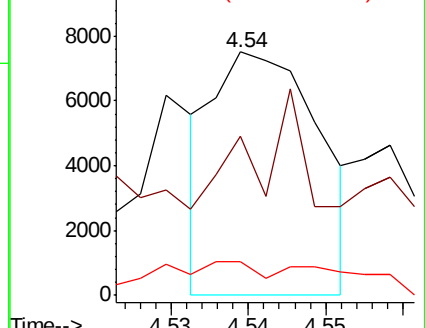
Acq: 28 Jun 2022 8:32

Tot Ion: 76 Resp: 7171

Ion	Ratio	Lower	Upper
76	100		
44	99.9	14.4	21.6#
78	27.6	7.7	11.5#



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#29

Chloroform

Concen: 0.073 ppbv

RT: 5.74 min Scan# 919

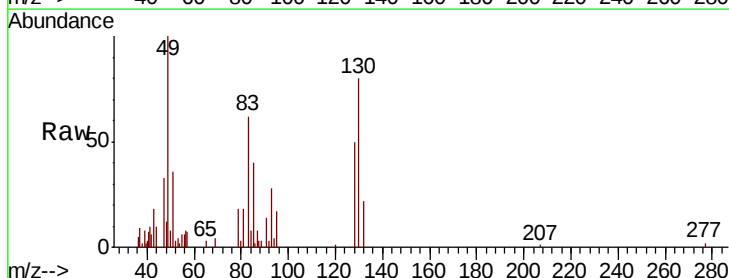
Delta R.T. -0.02 min

Lab File: VL039381.D

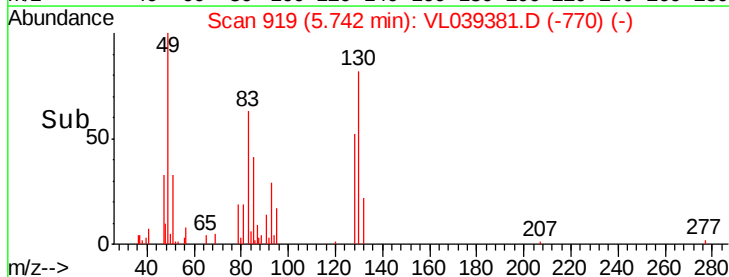
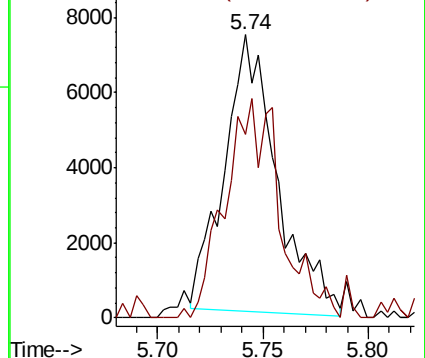
Acq: 28 Jun 2022 6:32

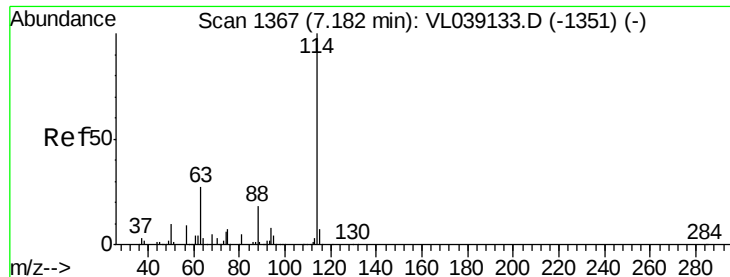
Tgt Ion: 83 Resp: 12894

Ion	Ratio	Lower	Upper
83	100		
85	67.2	52.4	78.6



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0

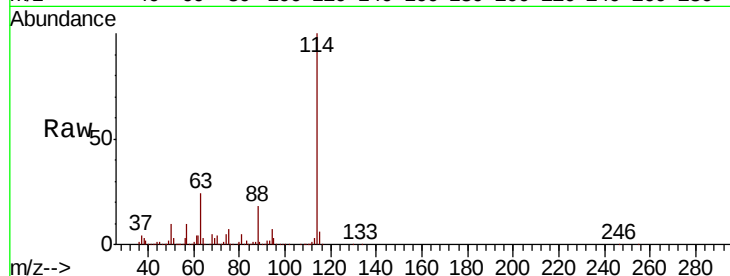




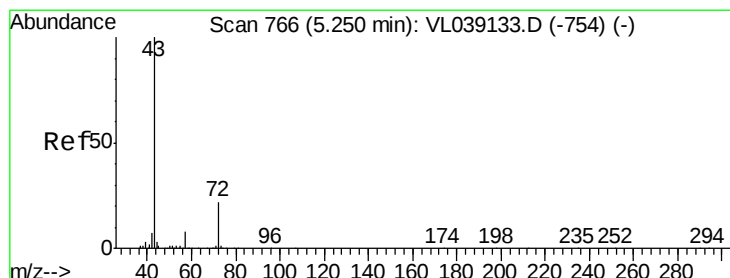
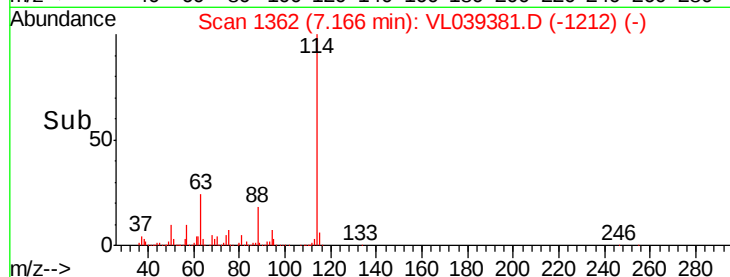
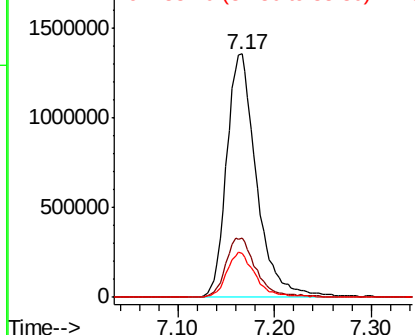
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-6-20220624
 Acq: 28 Jun 2022 6:32

Tot Ion:114 Resp: 2917481

Ion	Ratio	Lower	Upper
114	100		
63	25.0	21.7	32.5
88	17.9	14.8	22.2



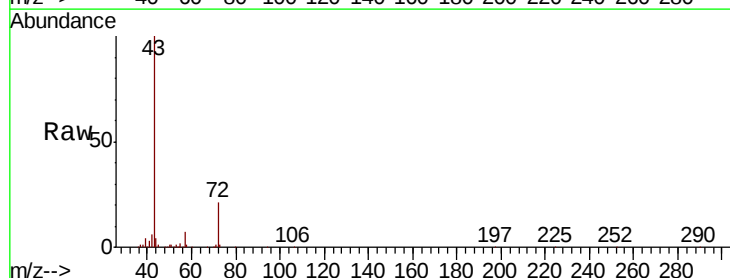
Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0



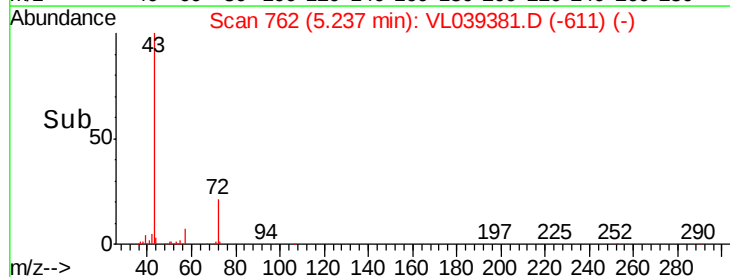
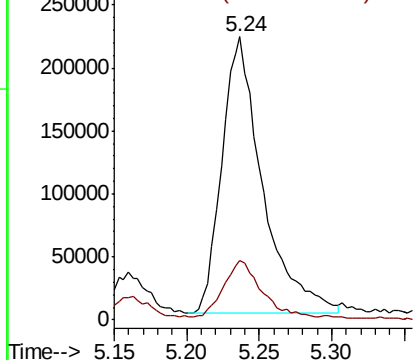
#34
 2-Butanone
 Concen: 2.686 ppbv
 RT: 5.24 min Scan# 762
 Delta R.T. -0.01 min
 Lab File: VL039381.D
 Acq: 28 Jun 2022 6:32

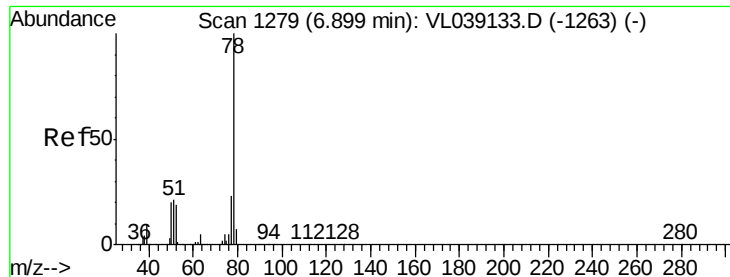
Tgt Ion: 43 Resp: 425750

Ion	Ratio	Lower	Upper
43	100		
72	23.6	18.2	27.2



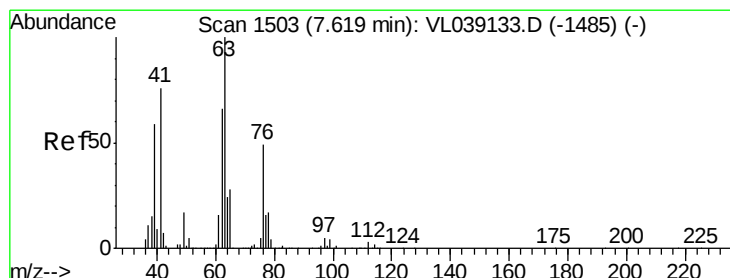
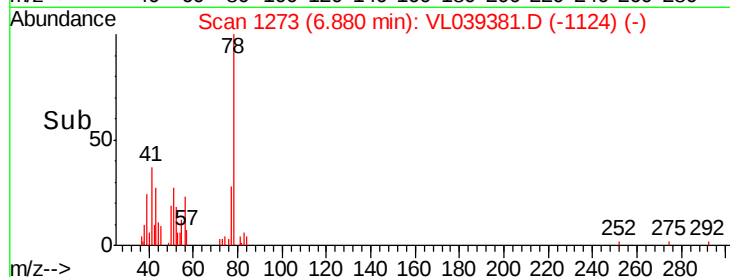
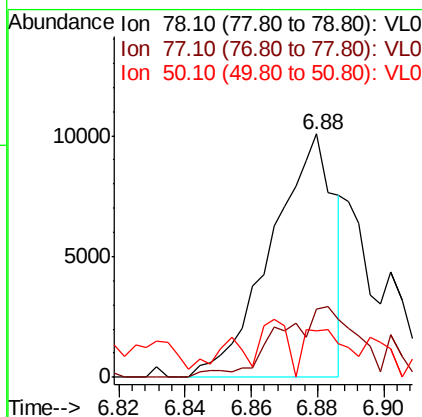
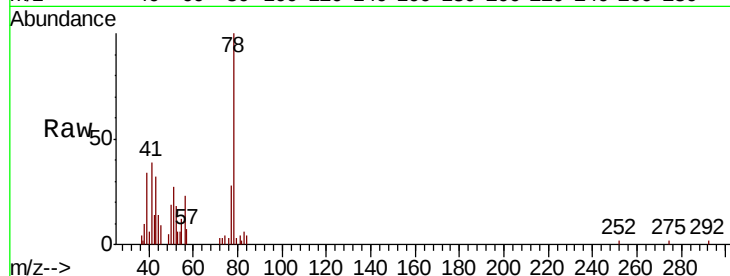
Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





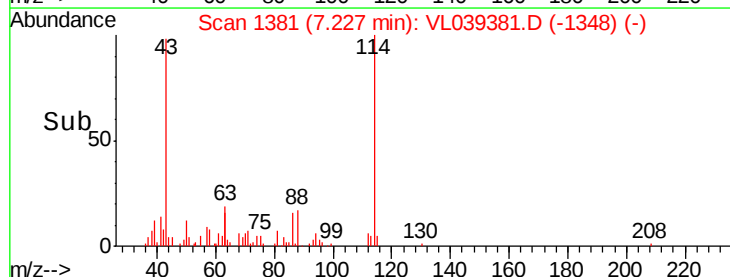
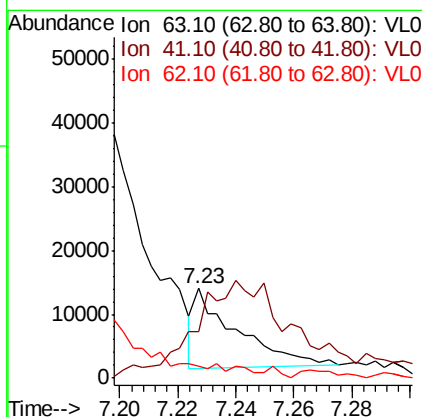
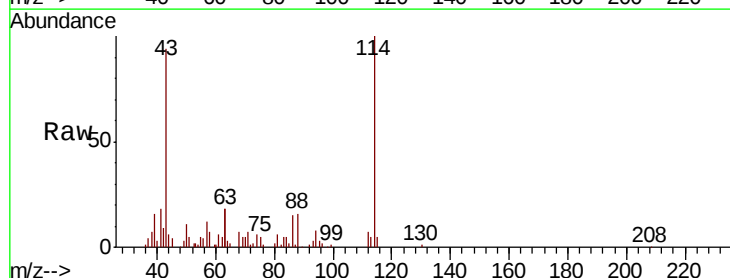
#36
Benzene
Concen: 0.056 ppbv
RT: 6.88
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-6-20220624
Acq: 28 Jun 2022 6:32

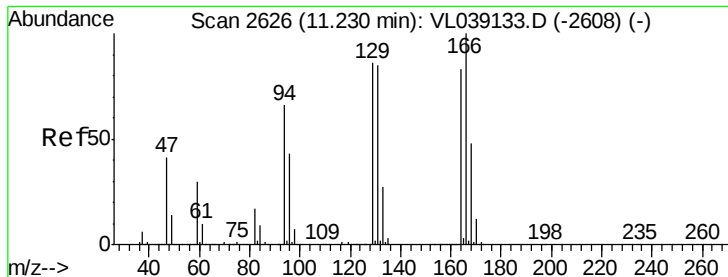
Tot Ion	Ratio	Lower	Upper
78	100		
77	27.9	18.6	27.8#
50	15.6	15.8	23.8#



#39
1,2-Dichloropropane
Concen: 0.134 ppbv
RT: 7.23 min Scan# 1381
Delta R.T. -0.39 min
Lab File: VL039381.D
Acq: 28 Jun 2022 6:32

Tgt Ion	Ratio	Lower	Upper
63	100		
41	26.9	60.8	91.2#
62	11.2	52.9	79.3#





#52

Tetrachloroethene

Concen: 0.089 ppbv

RT: 11.21

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Jun 2022 8:32

Tot Ion:164 Resp: 8263

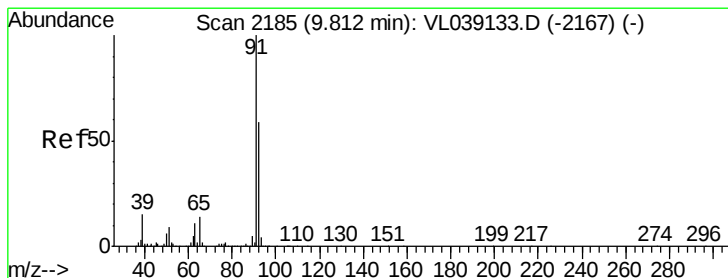
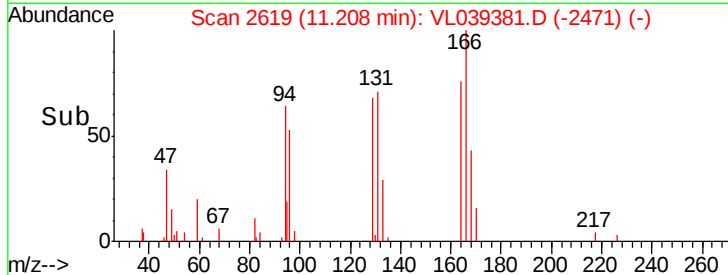
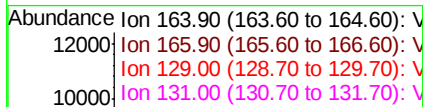
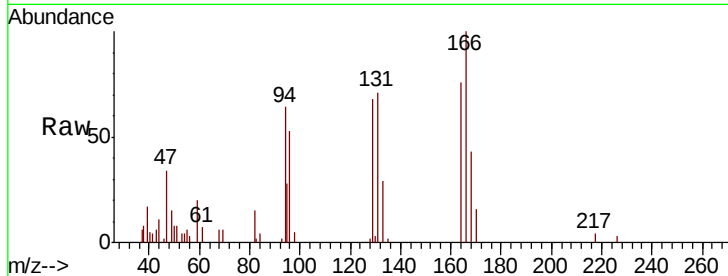
Ion Ratio Lower Upper

164 100

166 129.8 96.3 144.5

129 60.9 82.5 123.7#

131 78.2 82.1 123.1#



#53

Toluene

Concen: 0.119 ppbv

RT: 9.79 min Scan# 2178

Delta R.T. -0.02 min

Lab File: VL039381.D

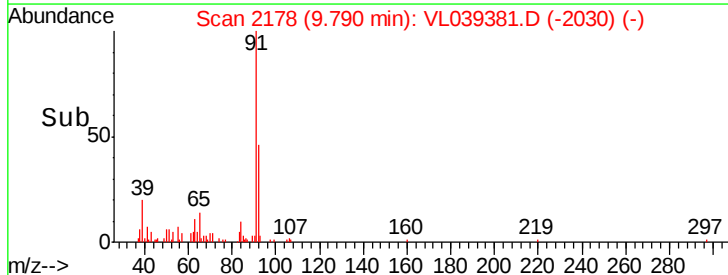
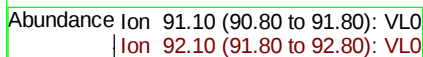
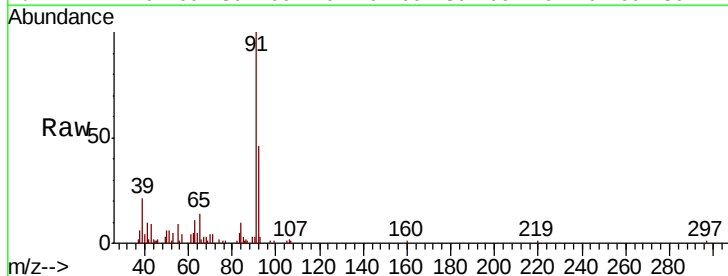
Acq: 28 Jun 2022 6:32

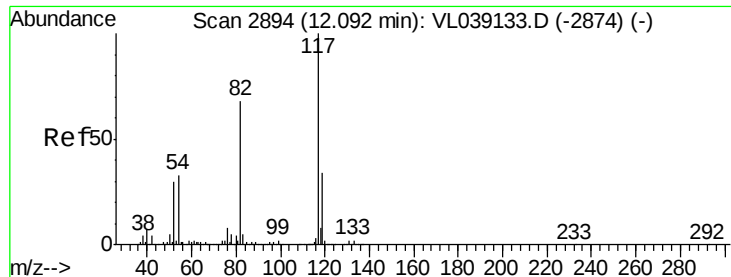
Tgt Ion: 91 Resp: 32527

Ion Ratio Lower Upper

91 100

92 0.0 48.1 72.1#

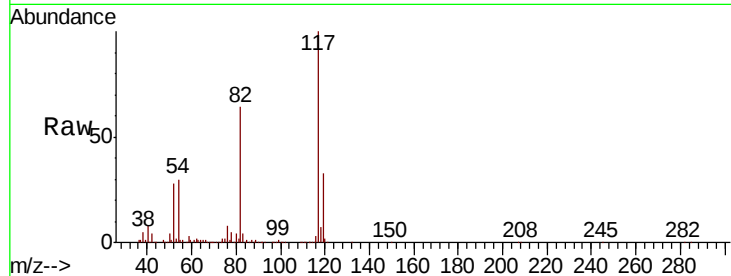




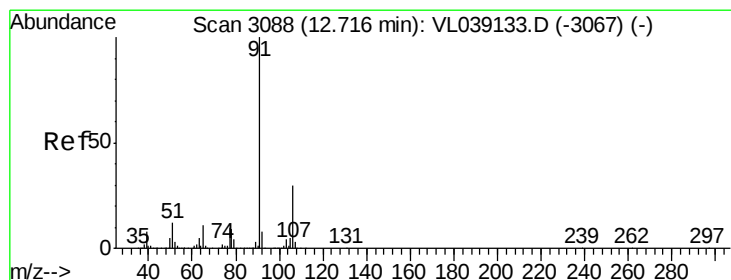
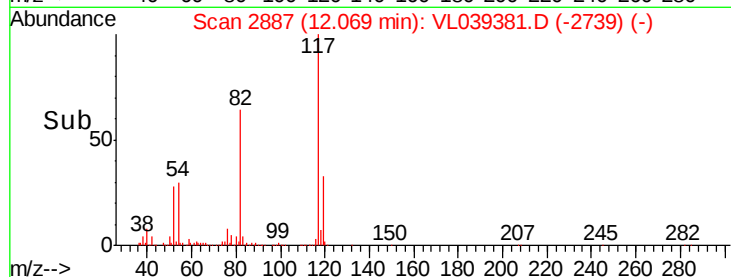
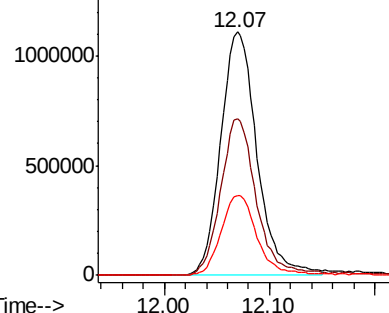
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
SV-6-20220624
Acq: 28 Jun 2022 6:32

Tot Ion: 117 Resp: 2654162

Ion	Ratio	Lower	Upper
117	100		
82	64.5	55.1	82.7
119	32.7	24.7	37.1



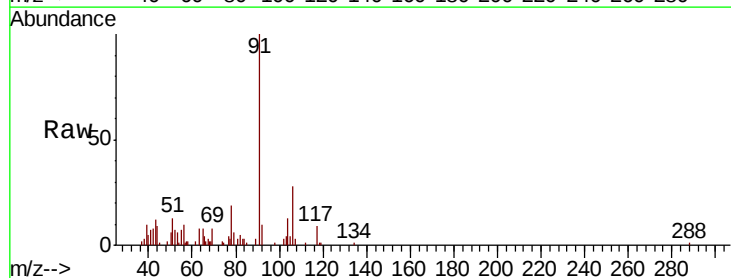
Abundance Ion 117.10 (116.80 to 117.80): V
1500000
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V



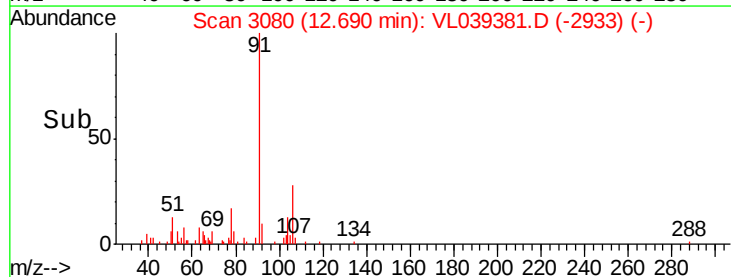
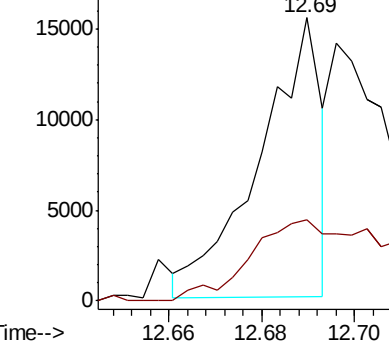
#58
Ethyl Benzene
Concen: 0.039 ppbv
RT: 12.69 min Scan# 3080
Delta R.T.: -0.03 min
Lab File: VL039381.D
Acq: 28 Jun 2022 6:32

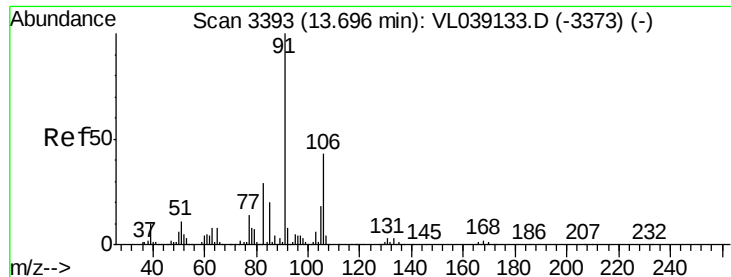
Tgt Ion: 91 Resp: 14182

Ion	Ratio	Lower	Upper
91	100		
106	31.5	24.2	36.4



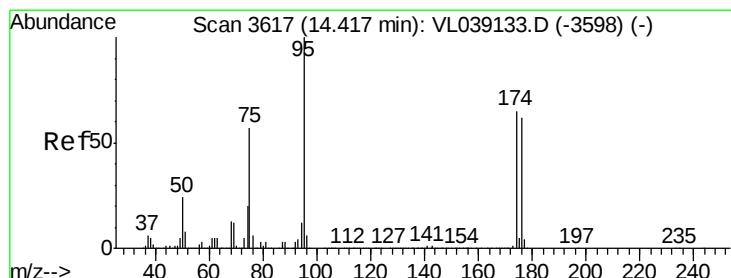
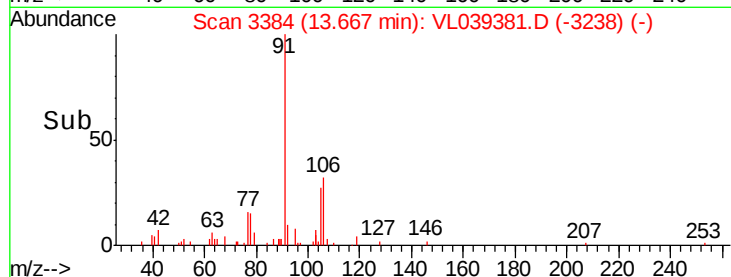
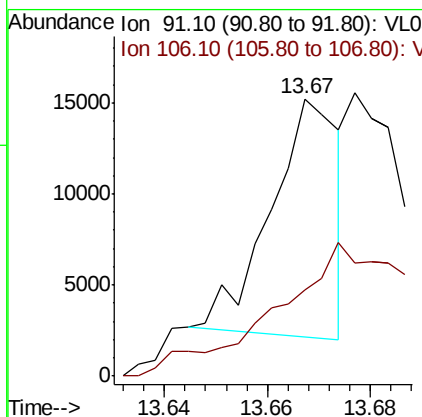
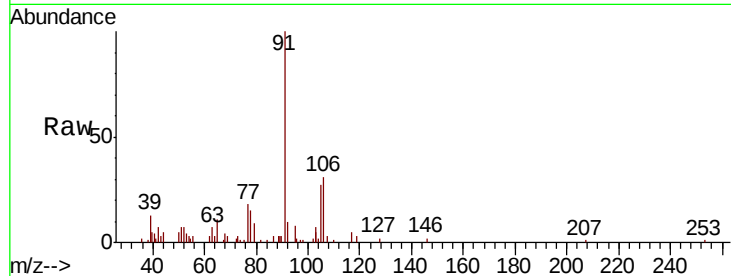
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





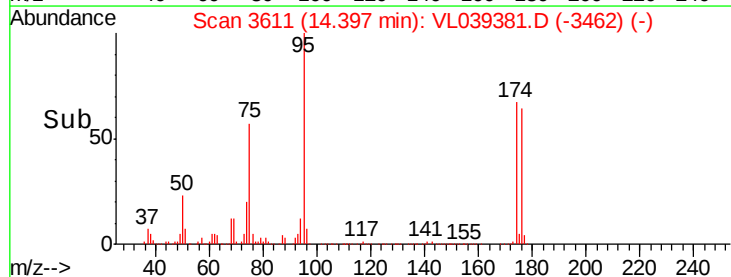
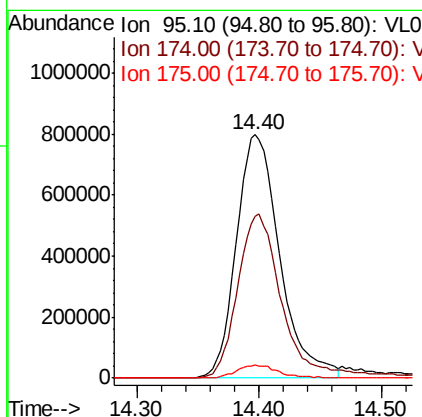
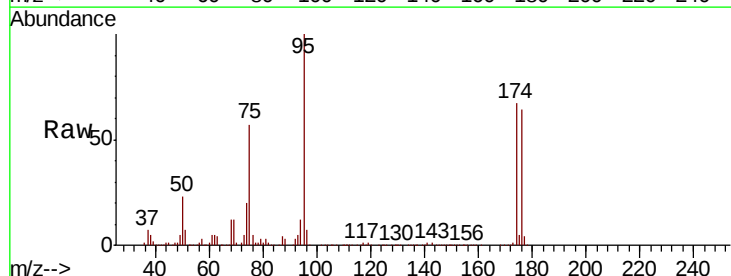
#60
o-Xylene
Concen: 0.039 ppbv
RT: 13.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId:
SV-6-20220624
Acq: 28 Jun 2022 6:32

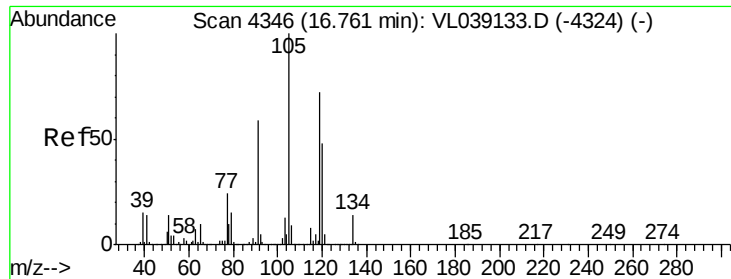
Tot Ion: 91 Resp: 11887
Ion Ratio Lower Upper
91 100
106 0.0 22.3 66.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 8.941 ppbv
RT: 14.40 min Scan# 3611
Delta R.T. -0.02 min
Lab File: VL039381.D
Acq: 28 Jun 2022 6:32

Tgt Ion: 95 Resp: 1961946
Ion Ratio Lower Upper
95 100
174 71.1 53.8 80.8
175 5.5 4.1 6.1





#74

1,2,4-Trimethylbenzene

Concen: 0.045 ppbv

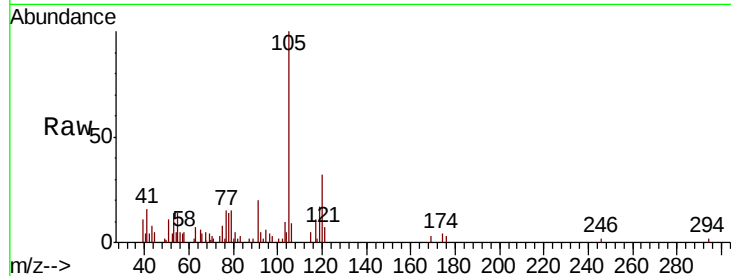
RT: 16.74

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Jun 2022 8:32

Tot Ion:	105	Resp:	16043
Ion Ratio	Lower	Upper	
105	100		
120	32.1	38.1	57.1#
91	20.5	47.4	71.0#
77	13.4	19.5	29.3#

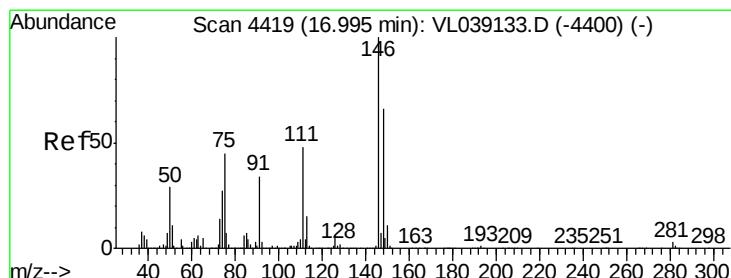
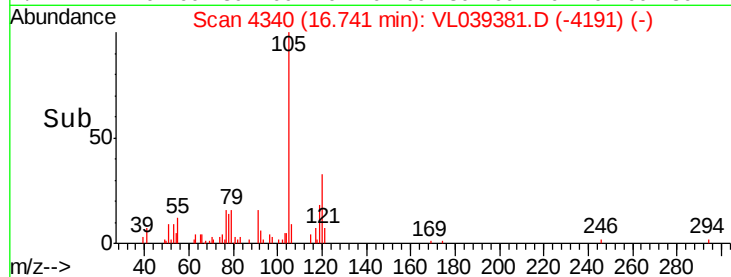
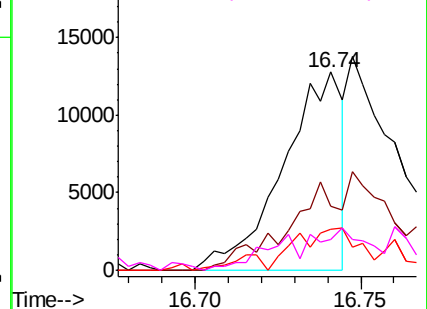


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VLO

Ion 77.10 (76.80 to 77.80): VLO



#75

1,3-Dichlorobenzene

Concen: 0.187 ppbv

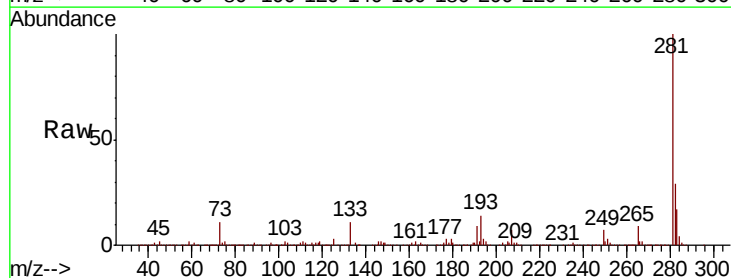
RT: 16.97 min Scan# 4412

Delta R.T. -0.02 min

Lab File: VL039381.D

Acq: 28 Jun 2022 6:32

Tgt Ion:	146	Resp:	37764
Ion Ratio	Lower	Upper	
146	100		
111	202.8	23.8	71.4#
148	170.7	32.4	97.0#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

