

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051220\
 Data File : VL035014.D
 Acq On : 13 May 2020 9:17
 Operator : SY/AP
 Sample : L2566-07 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-OFF-SITE

Quant Time: May 14 00:44:19 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed May 06 14:49:39 2020
 QLast Update : Wed May 06 14:49:39 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	807622	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.17	114	1945444	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.11	117	1808925	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.44	95	1442471	9.85	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.50%	

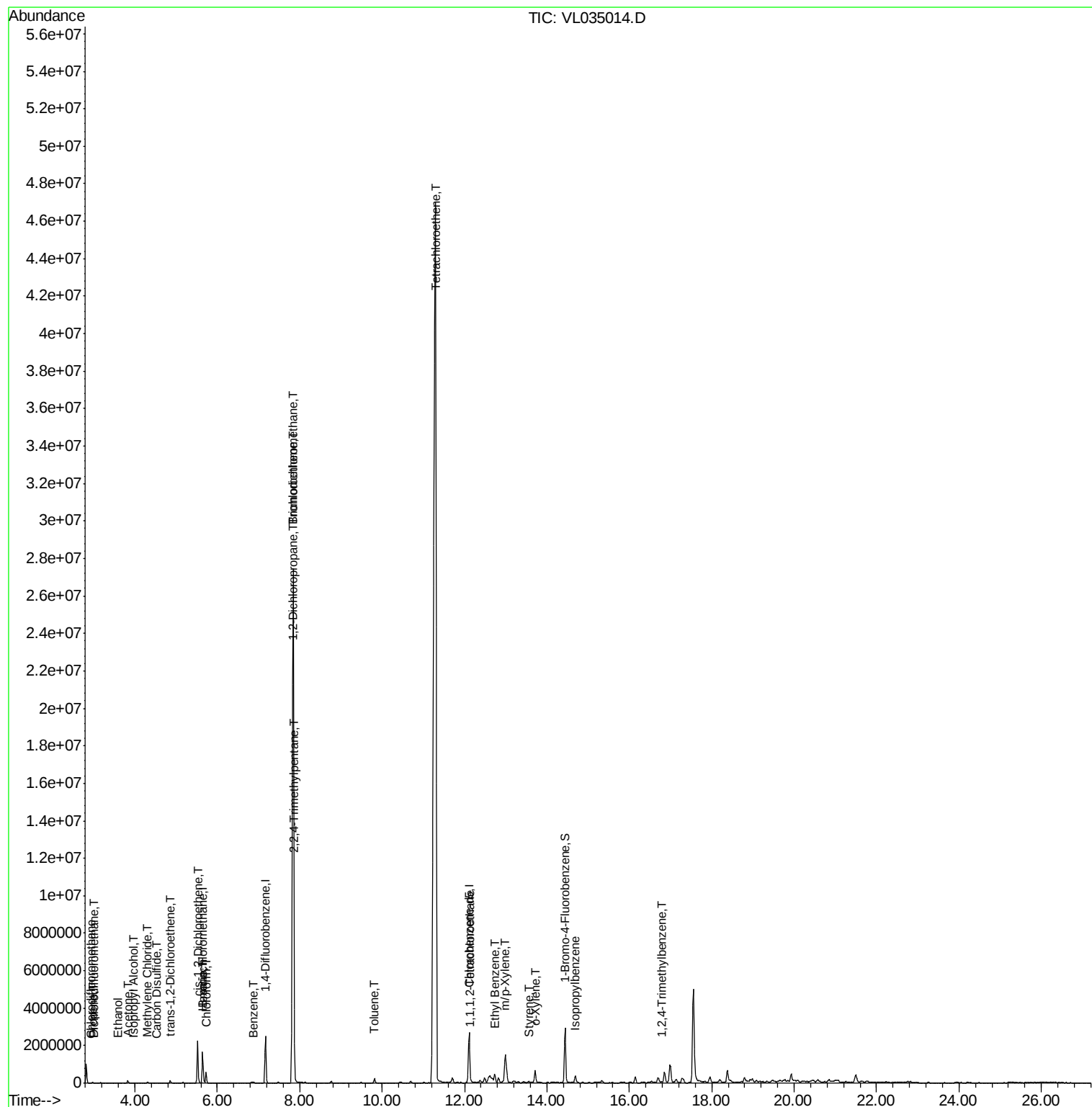
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.00	85	6669	0.058	ppbv #	87
3) Chlorodifluoromethane	2.94	51	3331	0.036	ppbv	99
9) Propene	2.96	41	2165	0.054	ppbv #	47
13) Ethanol	3.58	45	6854	0.519	ppbv #	47
15) Acetone	3.83	43	124801	1.169	ppbv	95
19) Isopropyl Alcohol	3.96	45	9002	0.126	ppbv #	94
20) Methylene Chloride	4.31	84	20276	0.574	ppbv #	75
22) trans-1,2-Dichloroethene	4.85	96	34717	0.960	ppbv	98
26) Hexane	5.66	57	15628	0.201	ppbv #	46
27) Carbon Disulfide	4.52	76	2791	0.030	ppbv #	1
29) Chloroform	5.73	83	397761	3.127	ppbv	97
31) cis-1,2-Dichloroethene	5.52	61	1263885	16.660	ppbv	96
36) Benzene	6.89	78	9038	0.056	ppbv #	85
38) Trichloroethene	7.84	130	10455073	168.256	ppbv	91
39) 1,2-Dichloropropane	7.82	63	12250	0.191	ppbv #	1
42) Bromodichloromethane	7.84	83	190614	1.428	ppbv #	93
44) 2,2,4-Trimethylpentane	7.87	57	11897	0.042	ppbv #	50
52) Tetrachloroethene	11.30	164	20529875	359.964	ppbv	91
53) Toluene	9.81	91	199061	1.171	ppbv	99
56) 1,1,1,2-Tetrachloroethane	12.15	131	4092	0.050	ppbv #	41
58) Ethyl Benzene	12.73	91	436284	1.950	ppbv	95
59) m/p-Xylene	12.99	91	1532030	7.784	ppbv #	60
60) o-Xylene	13.71	91	486419	2.505	ppbv	98
61) Styrene	13.56	104	5968	0.049	ppbv #	1
62) Isopropylbenzene	14.69	105	355998	1.228	ppbv	98
74) 1,2,4-Trimethylbenzene	16.79	105	34123	0.148	ppbv #	67

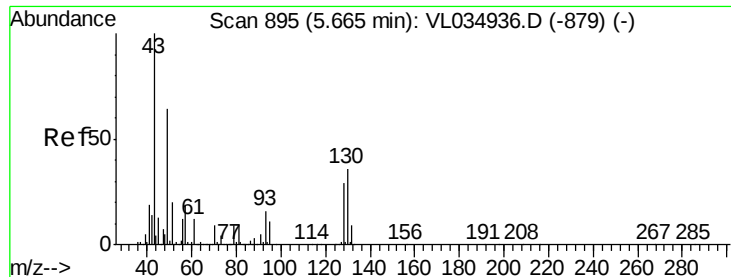
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed May 06 14:49:39 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 888

Delta R.T. -0.02 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

SG-OFF-SITE

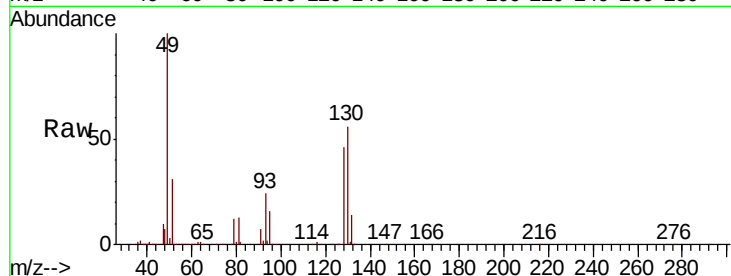
Tot Ion: 49 Resp: 807622

Ion Ratio Lower Upper

49 100

128 46.0 22.1 66.5

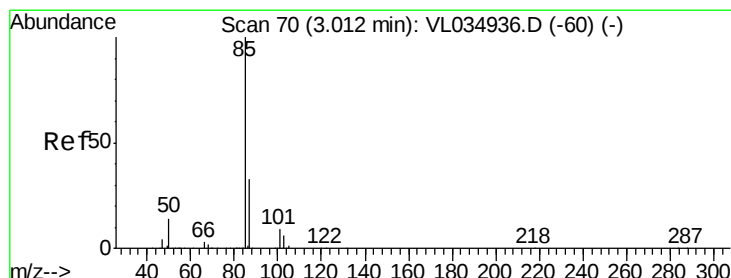
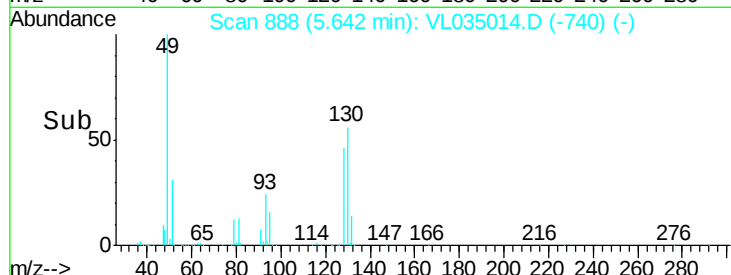
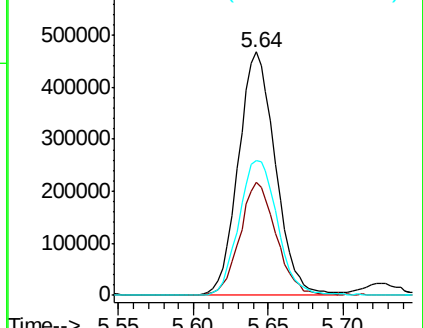
130 58.3 29.1 87.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.058 ppbv

RT: 3.00 min Scan# 66

Delta R.T. -0.01 min

Lab File: VL035014.D

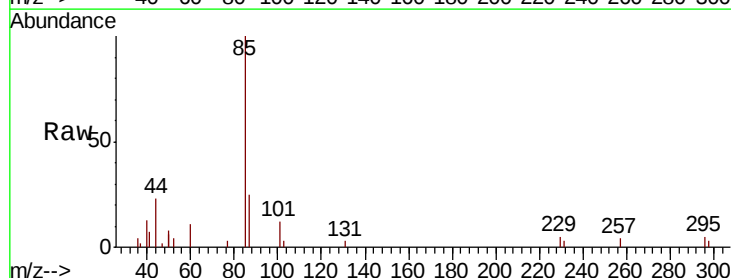
Acq: 13 May 2020 9:17

Tgt Ion: 85 Resp: 6669

Ion Ratio Lower Upper

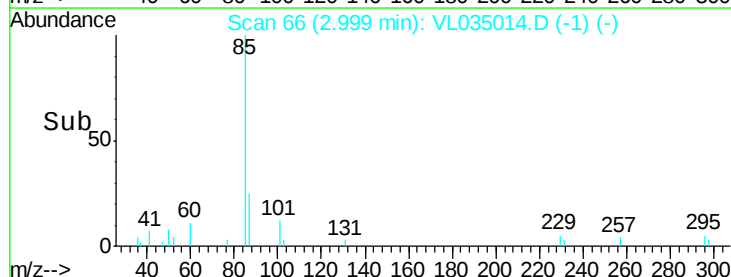
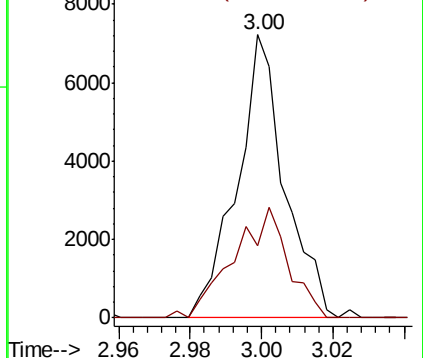
85 100

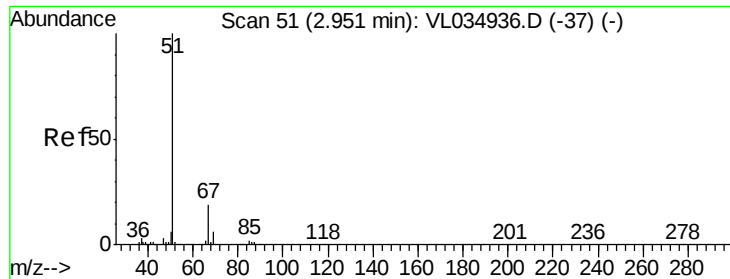
87 25.3 26.2 39.2#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.036 ppbv

RT: 2.94 min Scan# 48

Delta R.T. -0.01 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

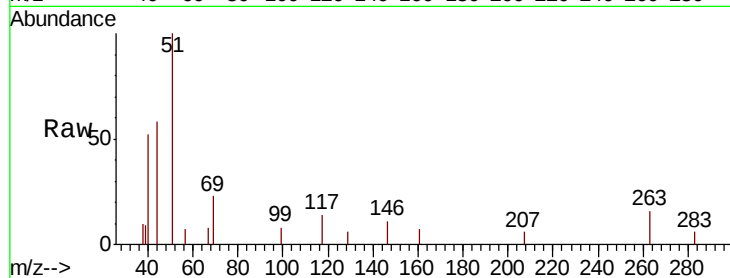
SG-OFF-SITE

Tot Ion: 51 Resp: 3331

Ion Ratio Lower Upper

51 100

67 19.3 15.0 22.6



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.94

2500

2000

1500

1000

500

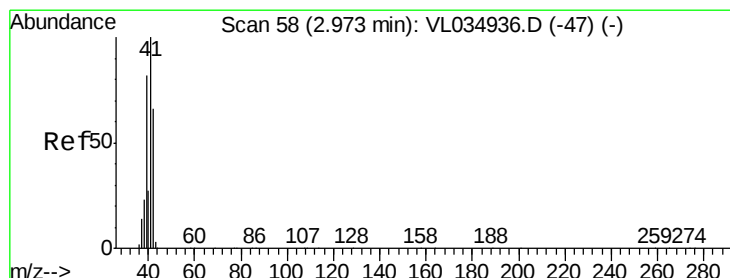
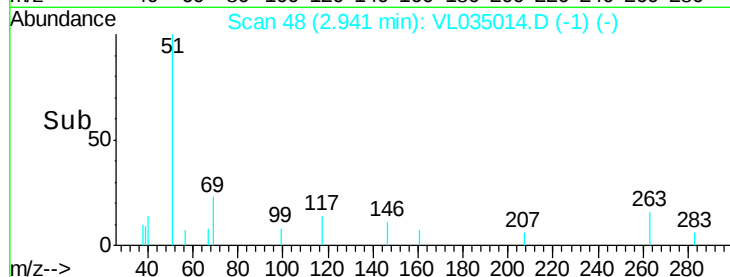
0

2.90

2.95

3.00

Time-->



#9

Propene

Concen: 0.054 ppbv

RT: 2.96 min Scan# 55

Delta R.T. -0.01 min

Lab File: VL035014.D

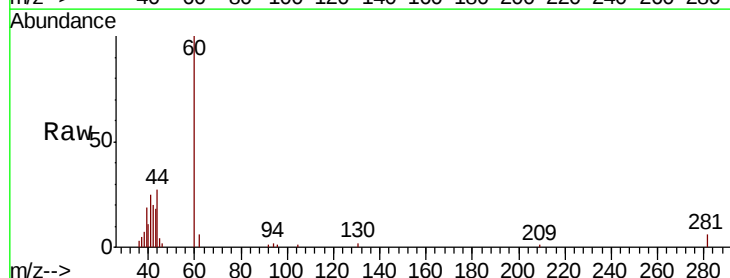
Acq: 13 May 2020 9:17

Tgt Ion: 41 Resp: 2165

Ion Ratio Lower Upper

41 100

42 110.9 54.5 81.7#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

2.96

3000

2000

1000

0

2.93

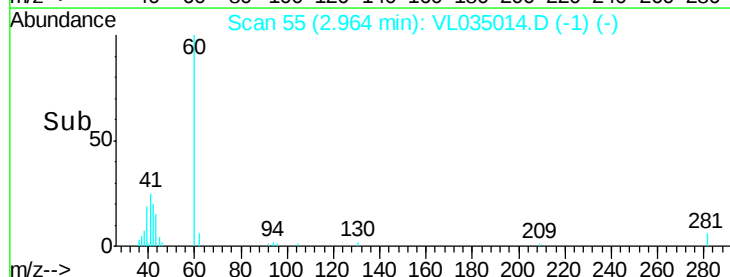
2.94

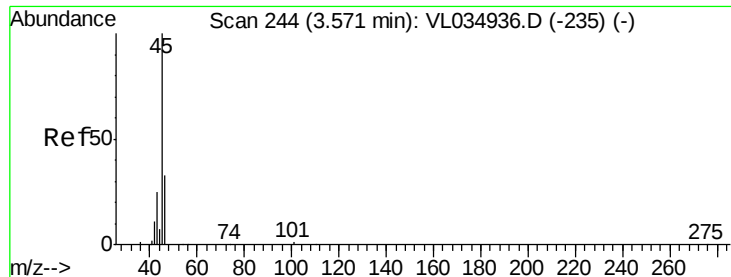
2.95

2.96

2.97

Time-->





#13

Ethanol

Concen: 0.519 ppbv

RT: 3.58 min Scan# 246

Delta R.T. 0.01 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

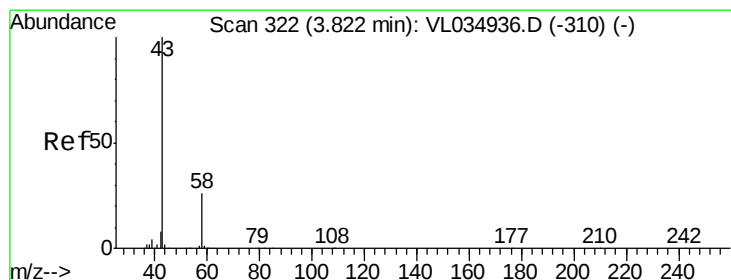
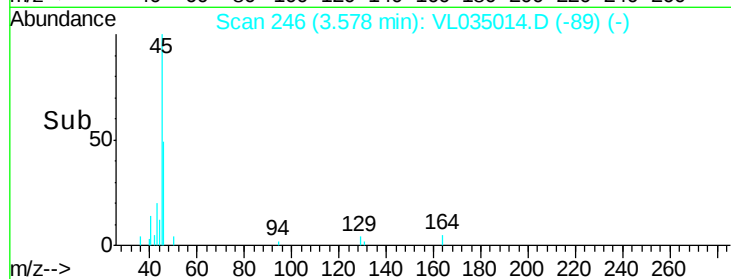
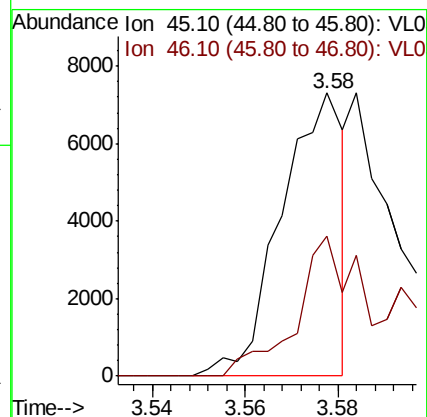
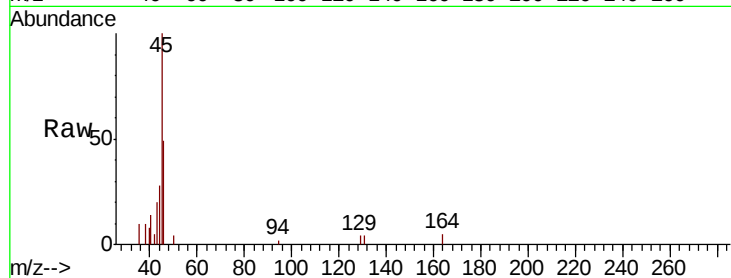
SG-OFF-SITE

Tot Ion: 45 Resp: 6854

Ion Ratio Lower Upper

45 100

46 66.9 14.3 57.3#



#15

Acetone

Concen: 1.169 ppbv

RT: 3.83 min Scan# 323

Delta R.T. 0.00 min

Lab File: VL035014.D

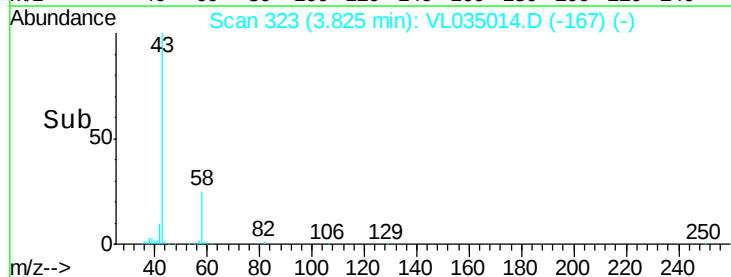
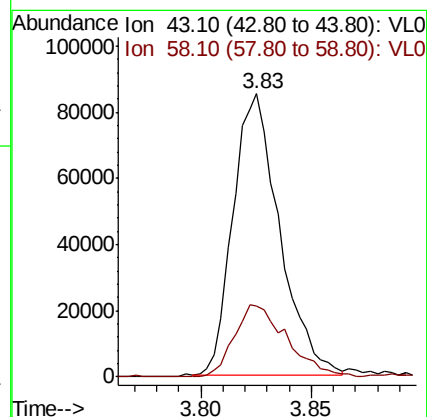
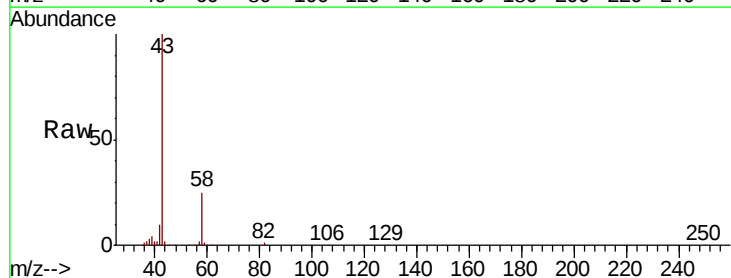
Acq: 13 May 2020 9:17

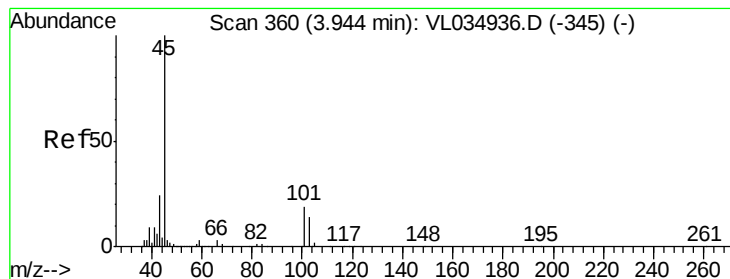
Tgt Ion: 43 Resp: 124801

Ion Ratio Lower Upper

43 100

58 29.7 21.7 32.5





#19

Isopropyl Alcohol

Concen: 0.126 ppbv

RT: 3.96 min Scan# 365

Delta R.T. 0.02 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

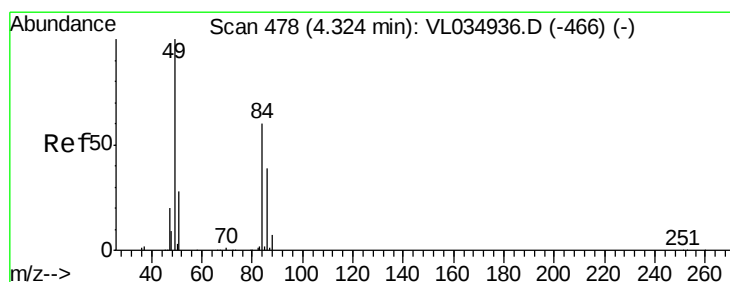
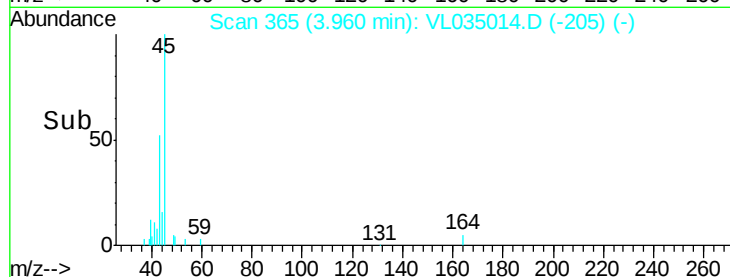
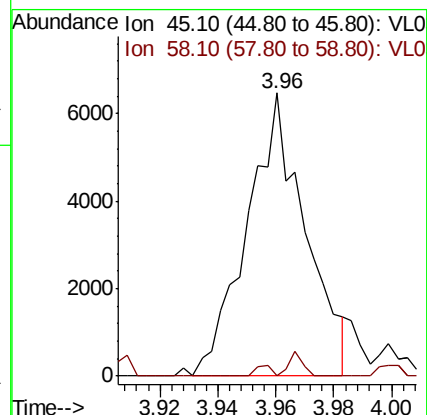
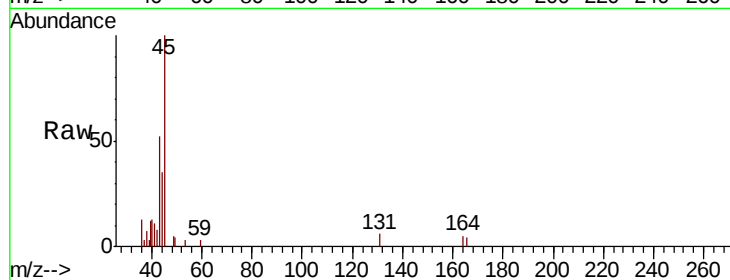
SG-OFF-SITE

Tot Ion: 45 Resp: 9002

Ion Ratio Lower Upper

45 100

58 0.0 1.7 2.5#



#20

Methylene Chloride

Concen: 0.574 ppbv

RT: 4.31 min Scan# 473

Delta R.T. -0.02 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Tgt Ion: 84 Resp: 20276

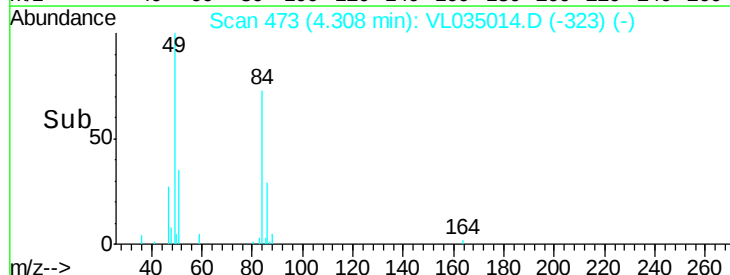
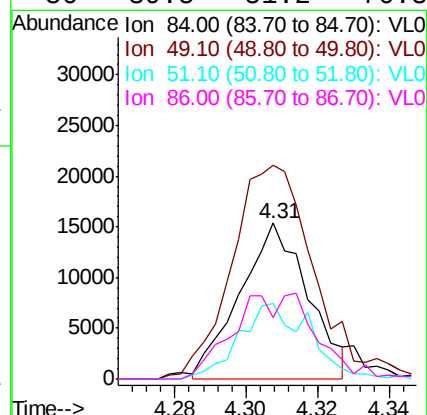
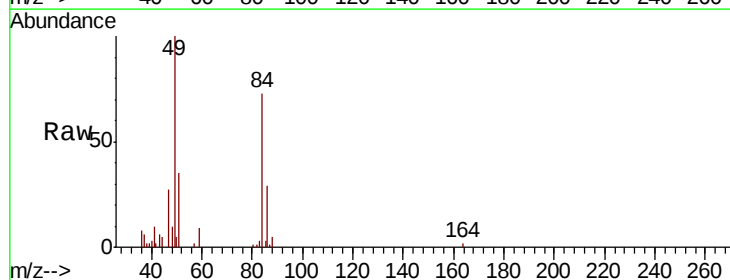
Ion Ratio Lower Upper

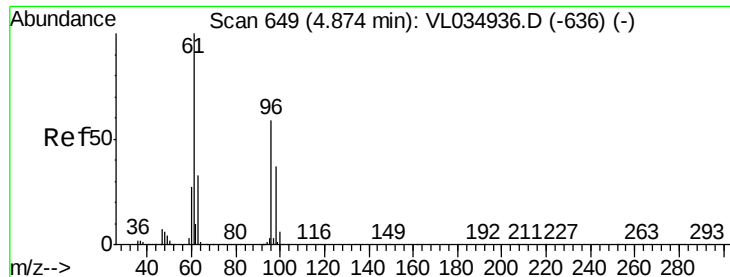
84 100

49 126.4 132.5 198.7#

51 47.9 38.4 57.6

86 39.5 51.2 76.8#





#22

trans-1,2-Dichloroethene

Concen: 0.960 ppbv

RT: 4.85 min Scan# 643

Delta R.T. -0.02 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

SG-OFF-SITE

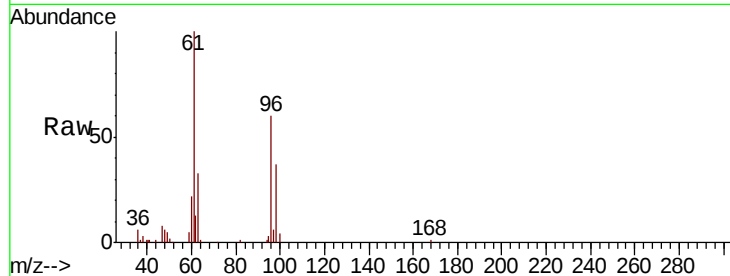
Tot Ion: 96 Resp: 34717

Ion Ratio Lower Upper

96 100

61 166.2 135.3 202.9

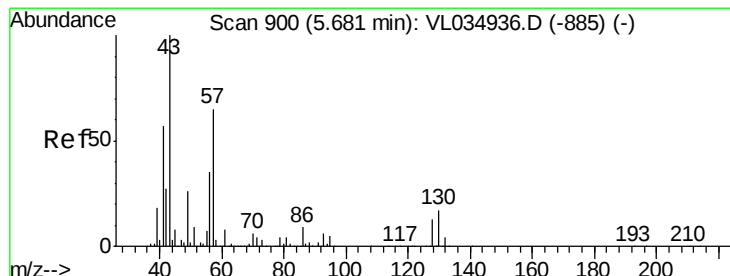
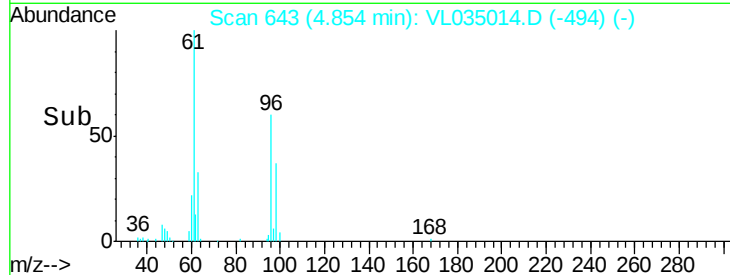
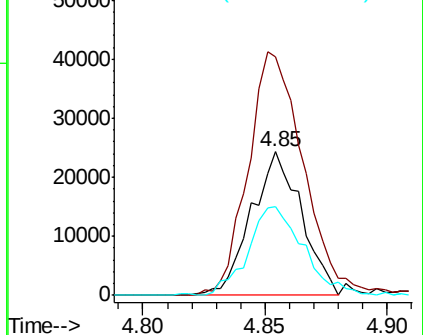
98 60.5 50.4 75.6



Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#26

Hexane

Concen: 0.201 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.02 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Tgt Ion: 57 Resp: 15628

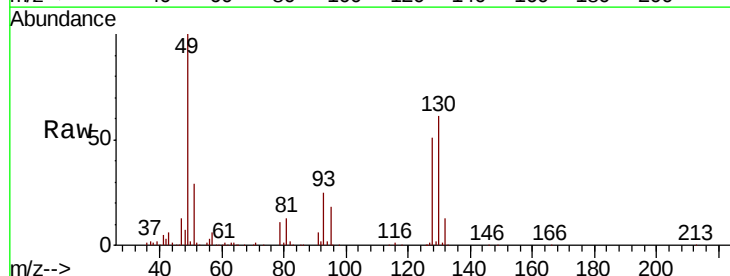
Ion Ratio Lower Upper

57 100

41 114.2 72.7 109.1#

43 107.1 182.1 273.1#

56 67.4 42.2 63.2#

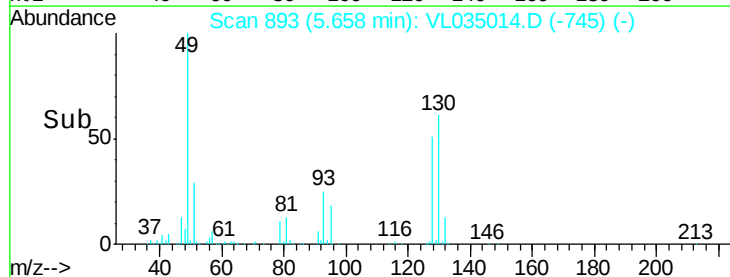
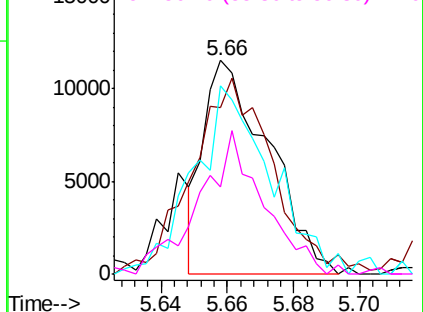


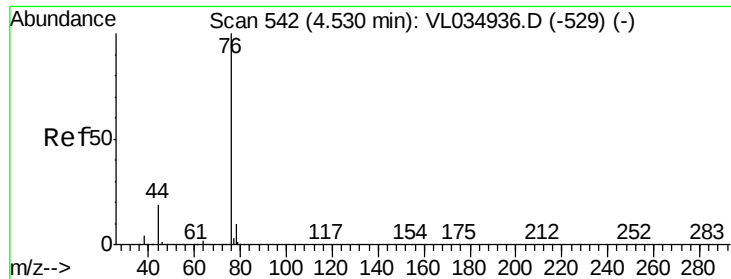
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 0.030 ppbv

RT: 4.52 min Scan# 538

Delta R.T. -0.01 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

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SG-OFF-SITE

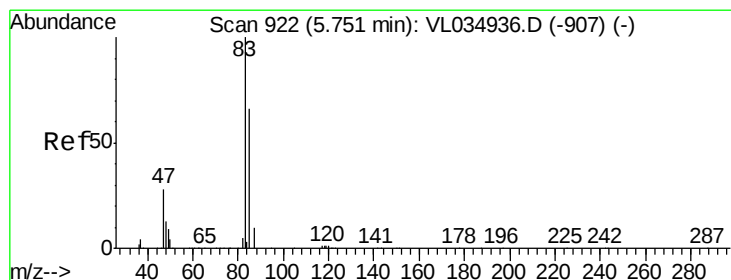
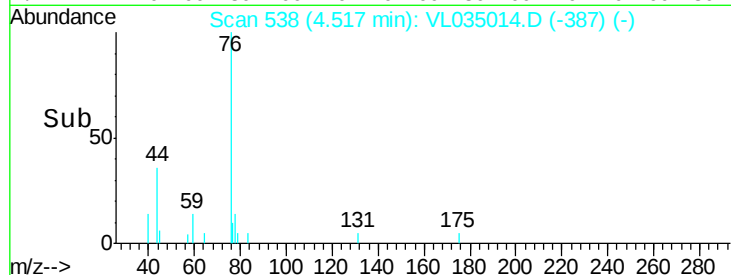
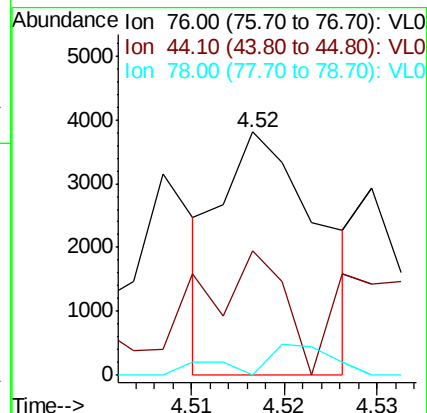
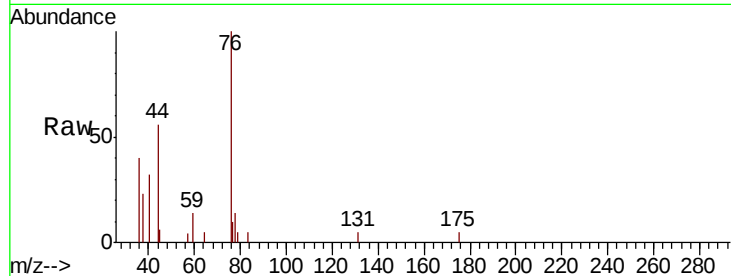
Tot Ion: 76 Resp: 2791

Ion Ratio Lower Upper

76 100

44 164.7 15.2 22.8#

78 10.7 7.7 11.5



#29

Chloroform

Concen: 3.127 ppbv

RT: 5.73 min Scan# 914

Delta R.T. -0.03 min

Lab File: VL035014.D

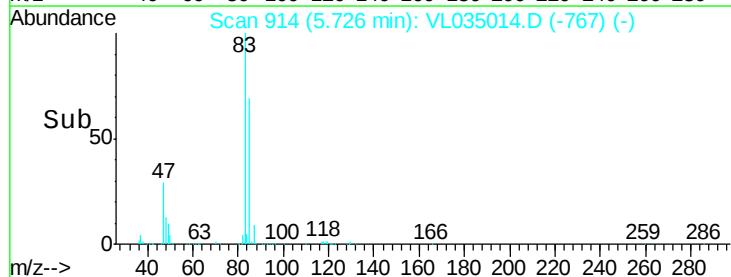
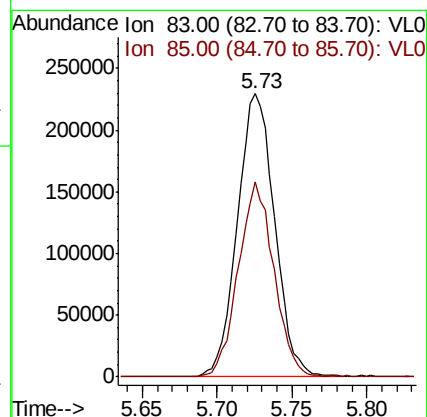
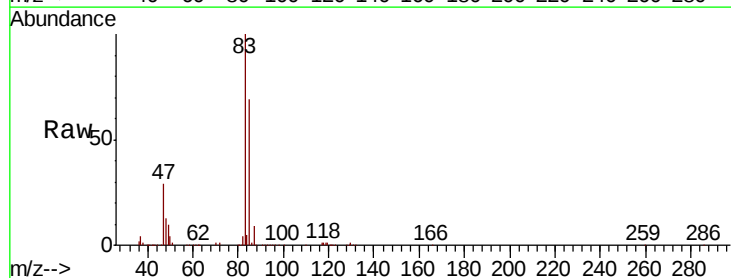
Acq: 13 May 2020 9:17

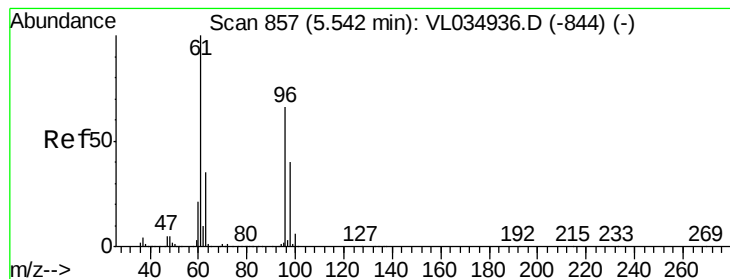
Tgt Ion: 83 Resp: 397761

Ion Ratio Lower Upper

83 100

85 68.7 53.0 79.6



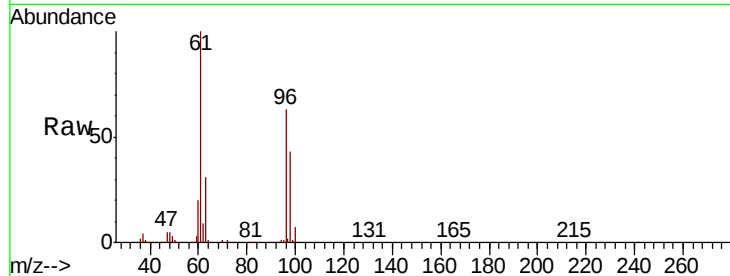


#31

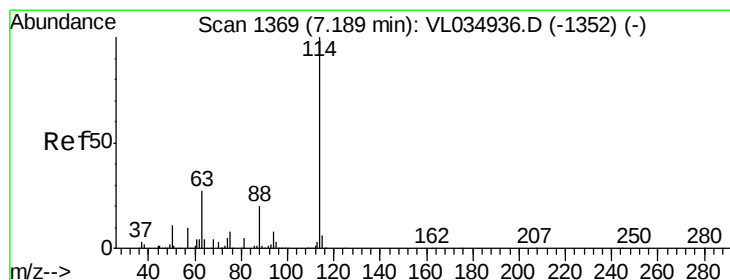
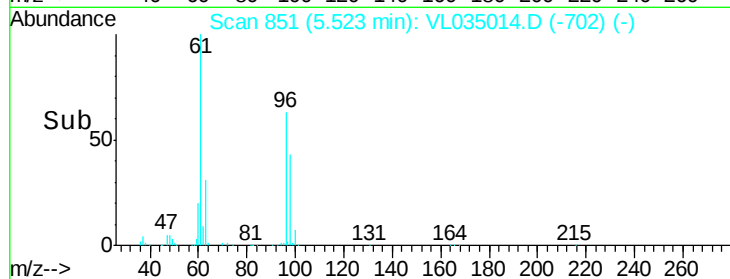
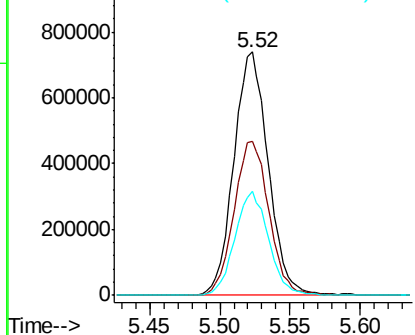
cis-1,2-Dichloroethene
 Concen: 16.660 ppbv
 RT: 5.52 min Scan# 851
 Delta R.T. -0.02 min
 Lab File: VL035014.D
 Acq: 13 May 2020 9:17

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-OFF-SITE

Tot Ion: 61 Resp: 1263885
 Ion Ratio Lower Upper
 61 100
 96 63.3 53.0 79.6
 98 42.6 32.2 48.2



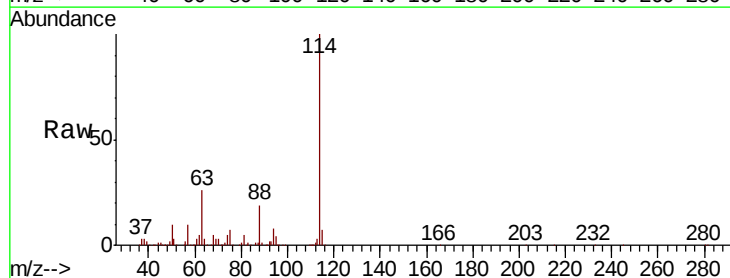
Abundance Ion 61.10 (60.80 to 61.80): VL0
 Ion 96.00 (95.70 to 96.70): VL0
 Ion 98.00 (97.70 to 98.70): VL0



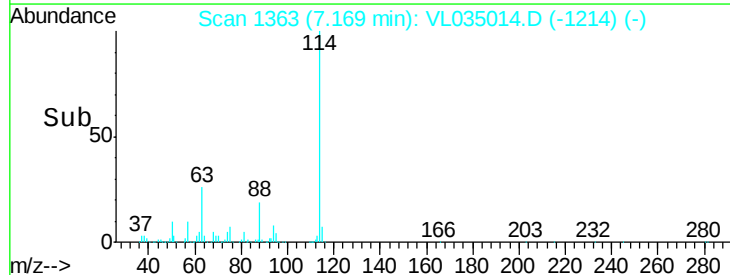
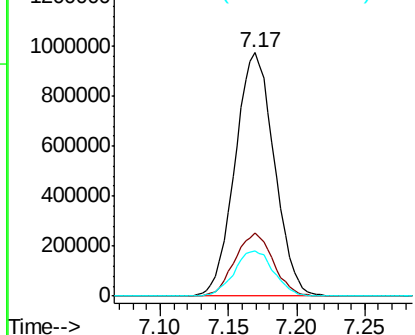
#33

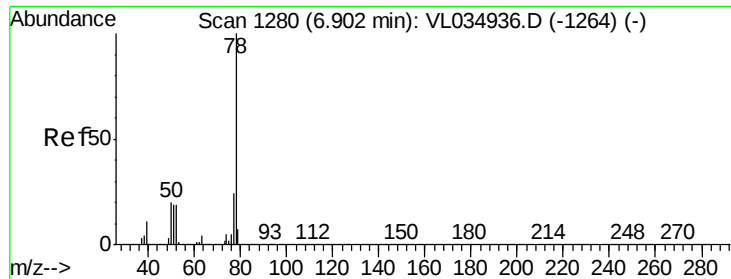
1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.02 min
 Lab File: VL035014.D
 Acq: 13 May 2020 9:17

Tgt Ion: 114 Resp: 1945444
 Ion Ratio Lower Upper
 114 100
 63 25.4 22.2 33.4
 88 18.7 15.5 23.3



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





#36

Benzene

Concen: 0.056 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.01 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

SG-OFF-SITE

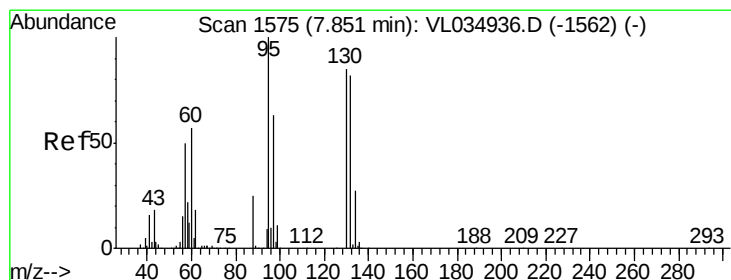
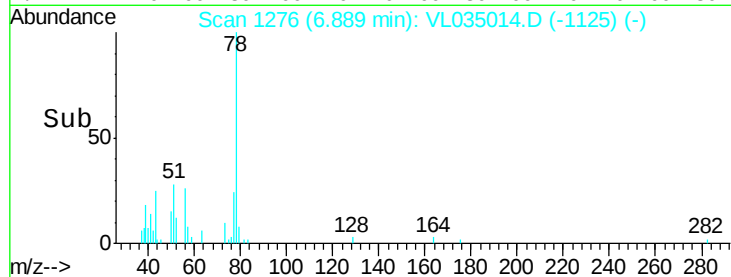
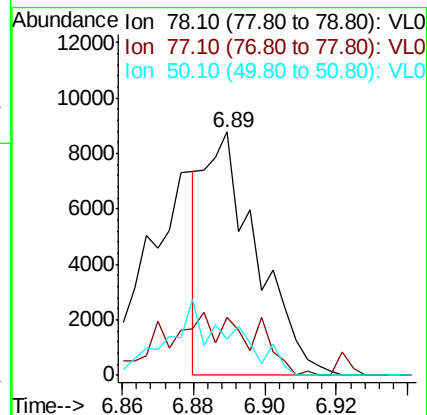
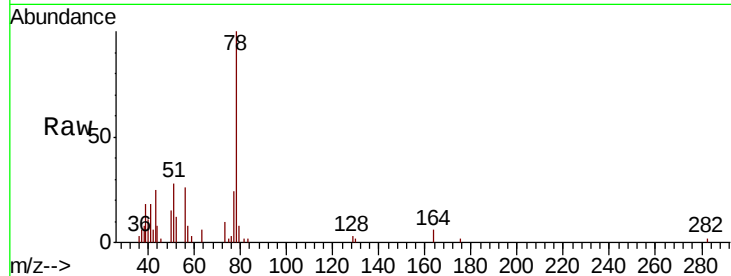
Tot Ion: 78 Resp: 9038

Ion Ratio Lower Upper

78 100

77 14.2 19.0 28.6#

50 15.0 15.8 23.8#



#38

Trichloroethene

Concen: 168.256 ppbv

RT: 7.84 min Scan# 1572

Delta R.T. -0.01 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Tgt Ion:130 Resp:10455073

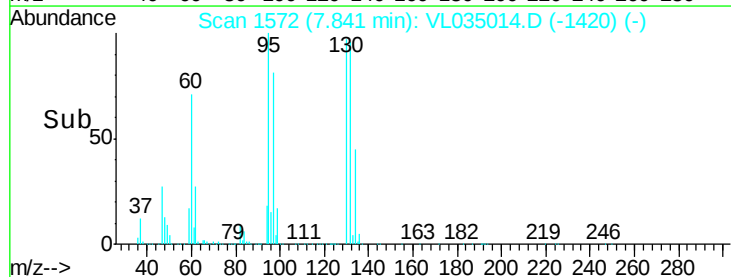
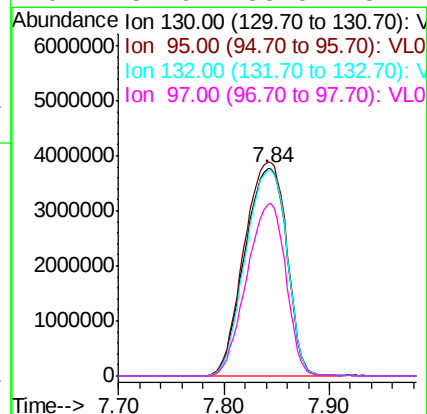
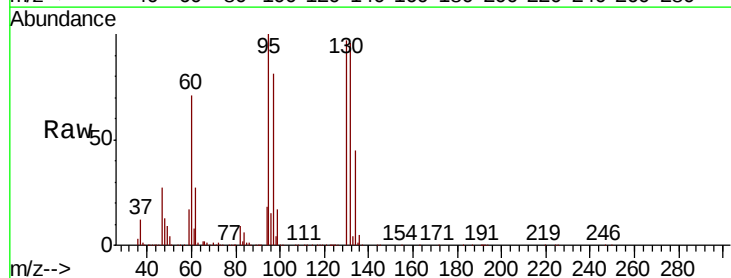
Ion Ratio Lower Upper

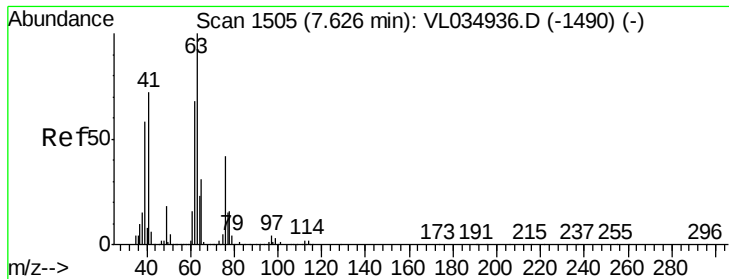
130 100

95 102.8 93.4 140.0

132 99.1 76.4 114.6

97 82.9 58.5 87.7





#39

1,2-Dichloropropane

Concen: 0.191 ppbv

RT: 7.82 min Scan# 1565

Delta R.T. 0.19 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

SG-OFF-SITE

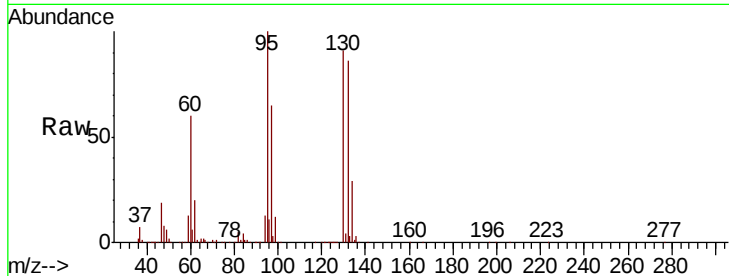
Tot Ion: 63 Resp: 12250

Ion Ratio Lower Upper

63 100

41 10.6 57.8 86.8#

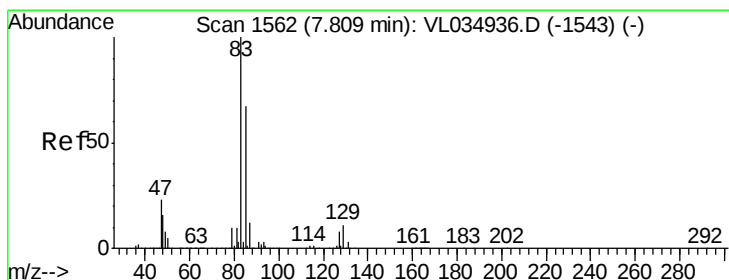
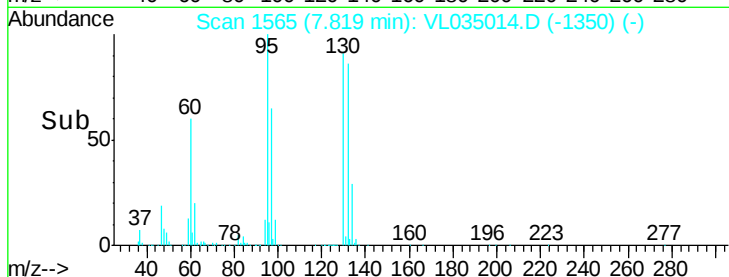
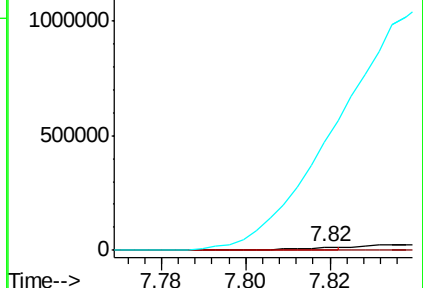
62 3239.4 54.2 81.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#42

Bromodichloromethane

Concen: 1.428 ppbv

RT: 7.84 min Scan# 1571

Delta R.T. 0.03 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

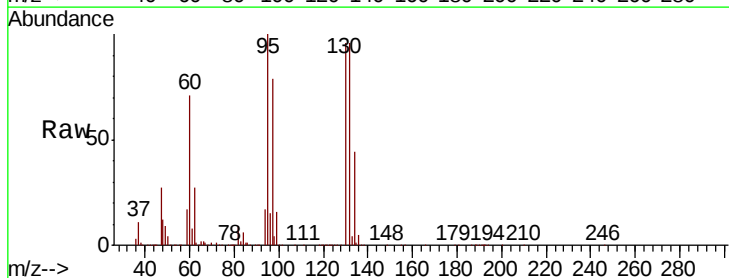
Tgt Ion: 83 Resp: 190614

Ion Ratio Lower Upper

83 100

85 61.1 53.4 80.0

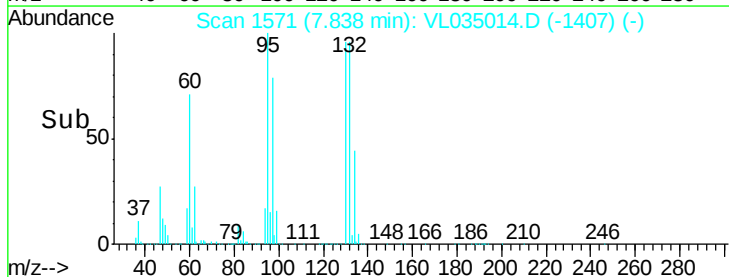
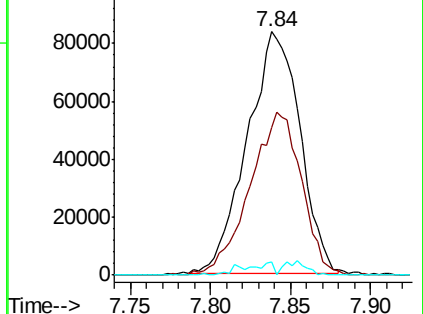
127 5.4 6.1 9.1#

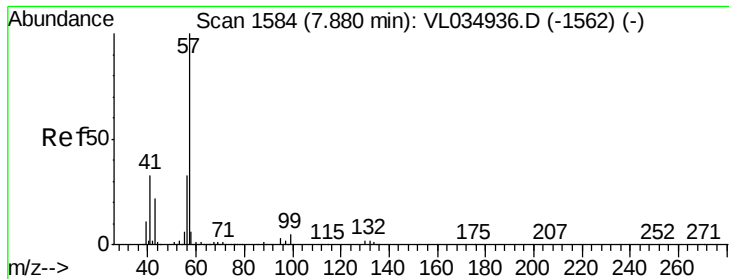


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): V

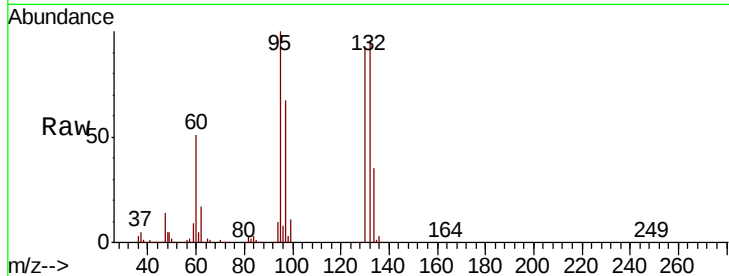




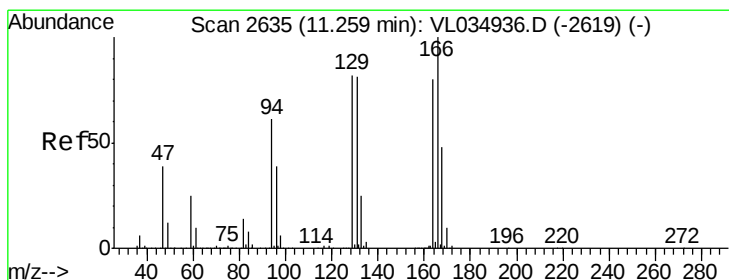
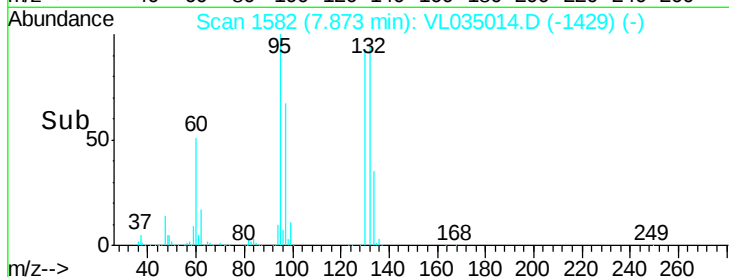
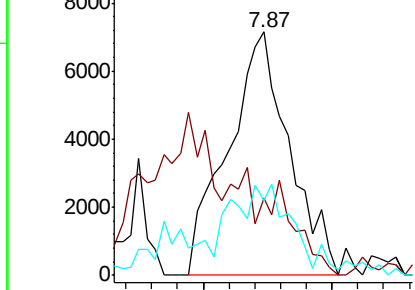
#44
 2,2,4-Trimethylpentane
 Concen: 0.042 ppbv
 RT: 7.87 min Scan# 1582
 Delta R.T. -0.01 min
 Lab File: VL035014.D
 Acq: 13 May 2020 9:17

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-OFF-SITE

Tot Ion: 57 Resp: 11897
 Ion Ratio Lower Upper
 57 100
 41 0.0 26.4 39.6#
 56 54.6 25.5 38.3#

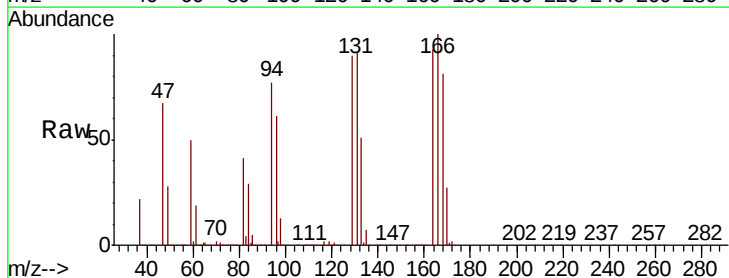


Abundance Ion 57.10 (56.80 to 57.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 56.10 (55.80 to 56.80): VL0

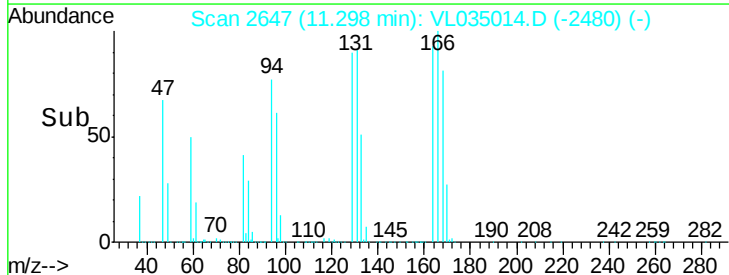
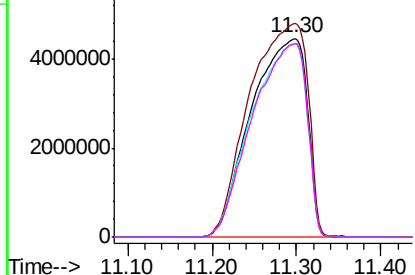


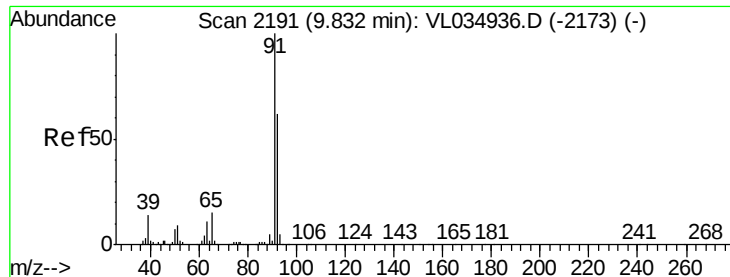
#52
 Tetrachloroethene
 Concen: 359.964 ppbv
 RT: 11.30 min Scan# 2647
 Delta R.T. 0.04 min
 Lab File: VL035014.D
 Acq: 13 May 2020 9:17

Tgt Ion:164 Resp:20529875
 Ion Ratio Lower Upper
 164 100
 166 107.3 100.7 151.1
 129 97.1 83.0 124.4
 131 97.4 81.0 121.4



Abundance Ion 163.90 (163.60 to 164.60): V
 Ion 165.90 (165.60 to 166.60): V
 Ion 129.00 (128.70 to 129.70): V
 Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 1.171 ppbv

RT: 9.81 min Scan# 2185

Delta R.T. -0.02 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

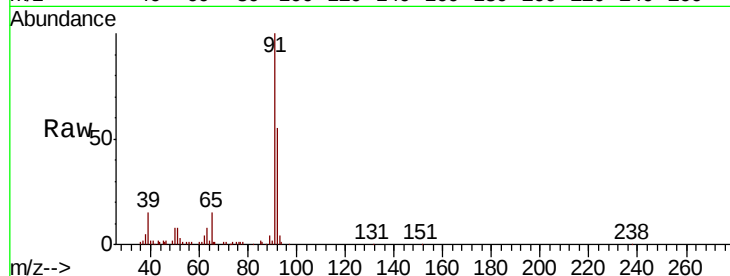
SG-OFF-SITE

Tot Ion: 91 Resp: 199061

Ion Ratio Lower Upper

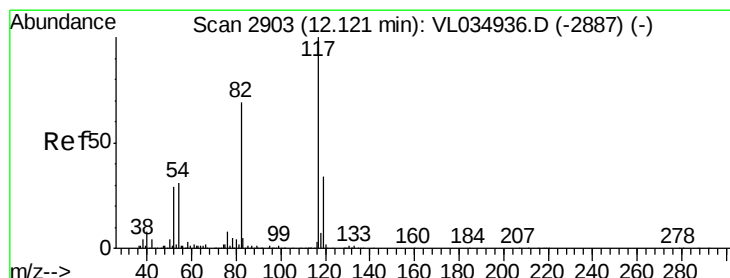
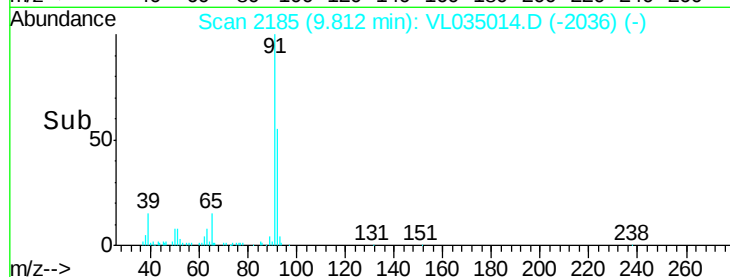
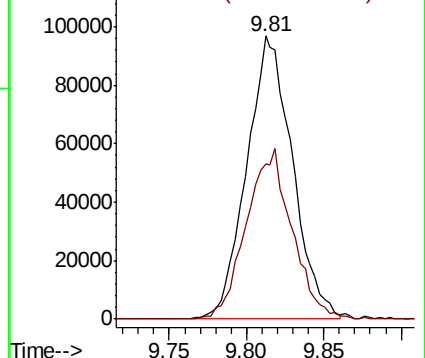
91 100

92 60.2 48.6 73.0



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: 12.11 min Scan# 2900

Delta R.T. -0.01 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

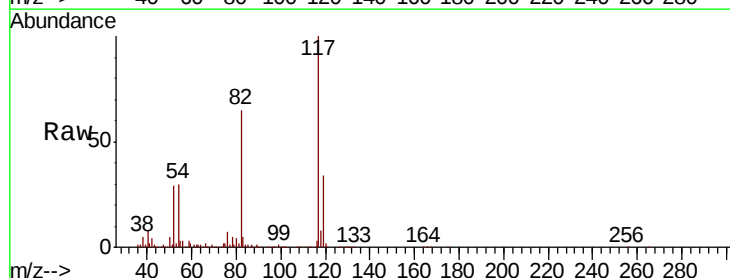
Tgt Ion: 117 Resp: 1808925

Ion Ratio Lower Upper

117 100

82 65.9 53.1 79.7

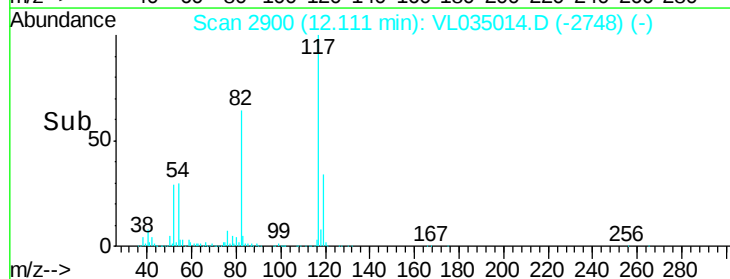
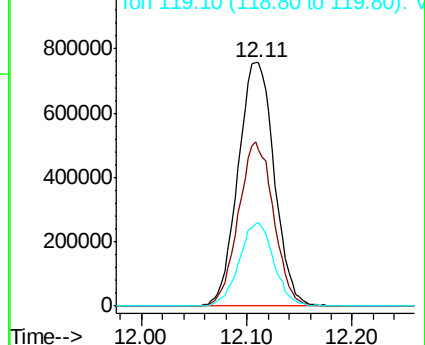
119 32.7 26.7 40.1

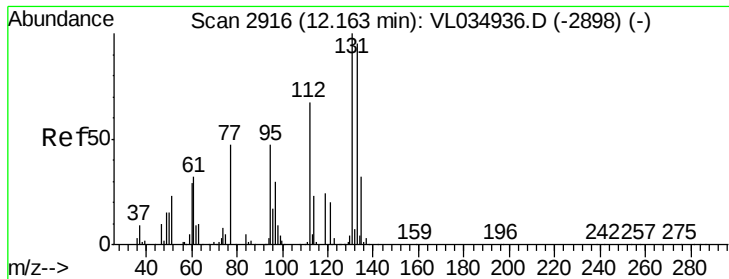


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#56

1,1,1,2-Tetrachloroethane

Concen: 0.050 ppbv

RT: 12.15 min Scan# 2911

Delta R.T. -0.02 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

SG-OFF-SITE

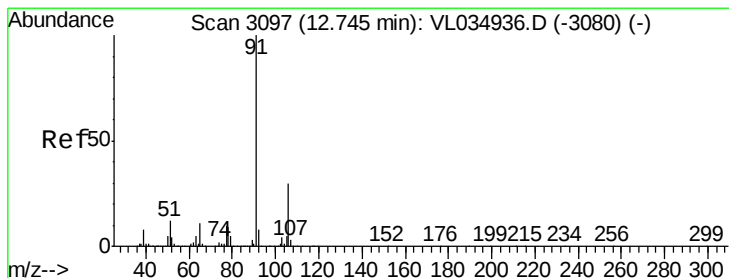
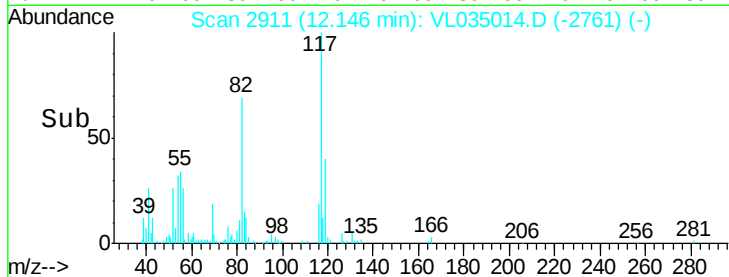
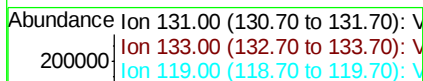
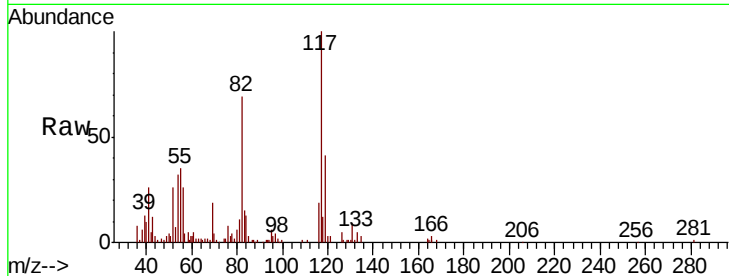
Tot Ion:131 Resp: 4092

Ion Ratio Lower Upper

131 100

133 141.0 77.7 116.5#

119 0.0 49.8 74.6#



#58

Ethyl Benzene

Concen: 1.950 ppbv

RT: 12.73 min Scan# 3094

Delta R.T. -0.01 min

Lab File: VL035014.D

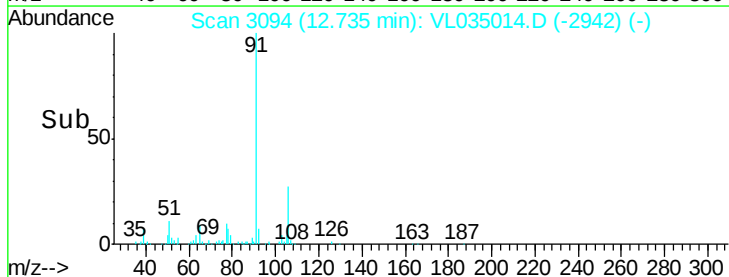
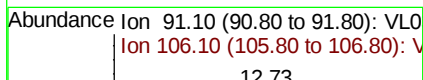
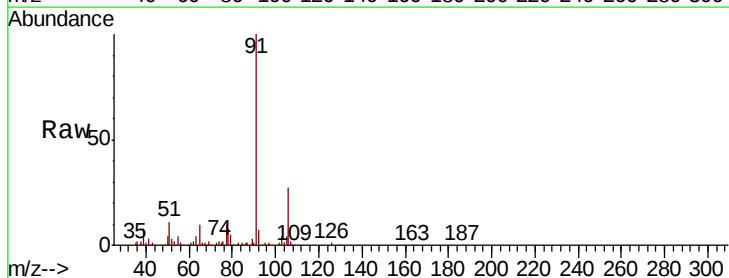
Acq: 13 May 2020 9:17

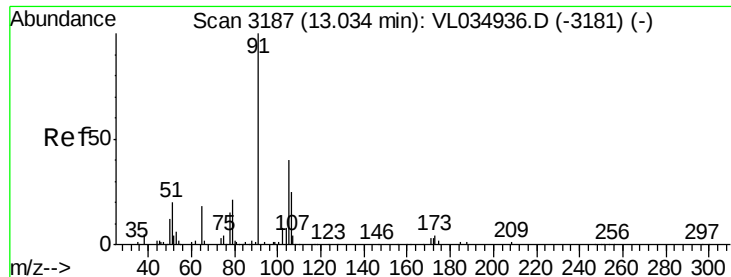
Tgt Ion: 91 Resp: 436284

Ion Ratio Lower Upper

91 100

106 27.4 24.2 36.4





#59

m/p-Xylene

Concen: 7.784 ppbv

RT: 12.99 min Scan# 3173

Delta R.T. -0.05 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

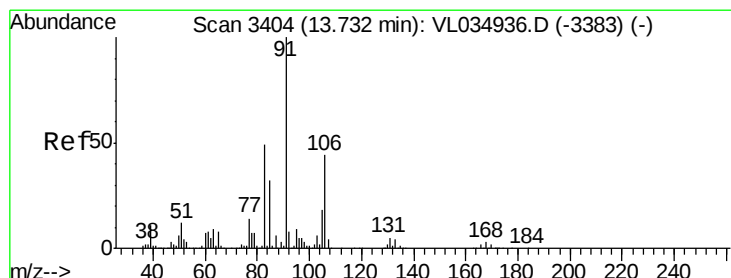
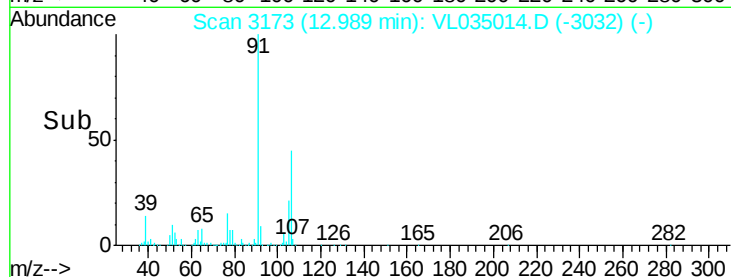
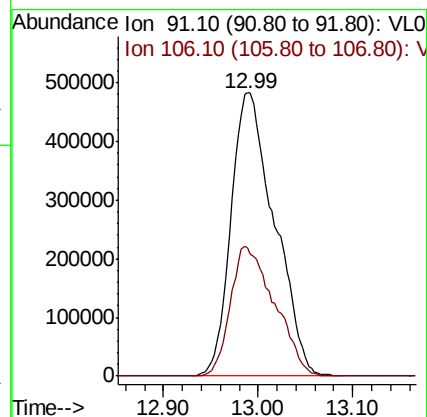
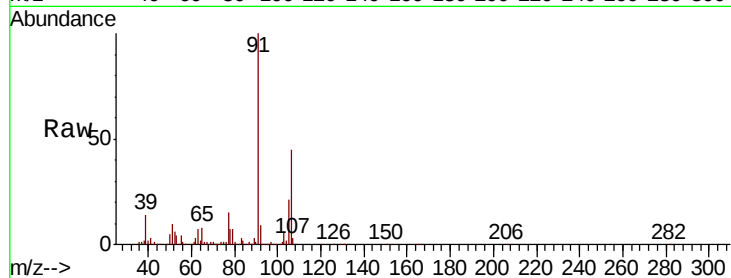
SG-OFF-SITE

Tot Ion: 91 Resp: 1532030

Ion Ratio Lower Upper

91 100

106 46.9 66.0 99.0#



#60

o-Xylene

Concen: 2.505 ppbv

RT: 13.71 min Scan# 3398

Delta R.T. -0.02 min

Lab File: VL035014.D

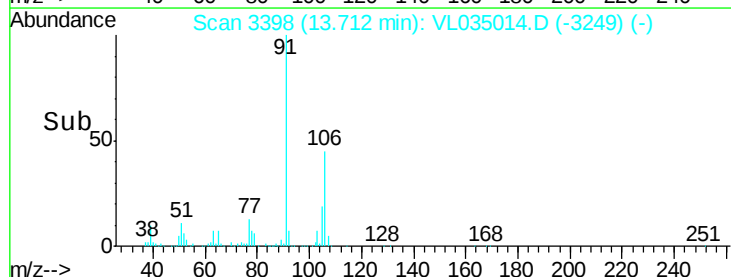
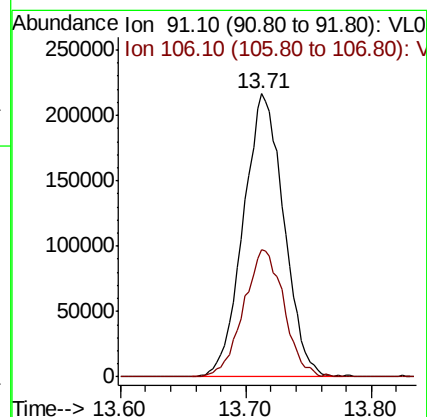
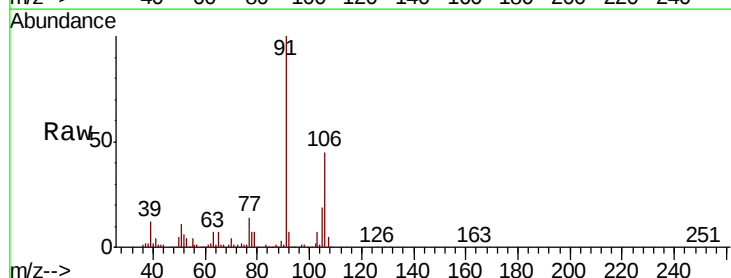
Acq: 13 May 2020 9:17

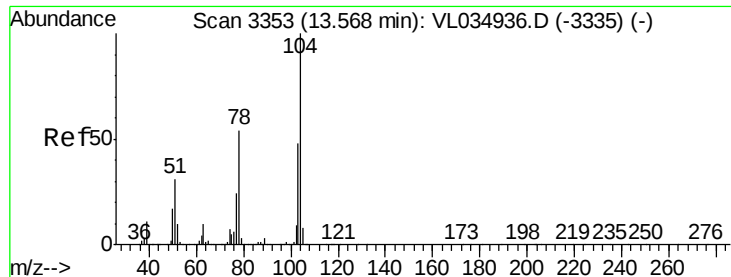
Tgt Ion: 91 Resp: 486419

Ion Ratio Lower Upper

91 100

106 44.7 21.9 65.5





#61

Stvrene

Concen: 0.049 ppbv

RT: 13.56 min Scan# 3352

Delta R.T. -0.00 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

SG-OFF-SITE

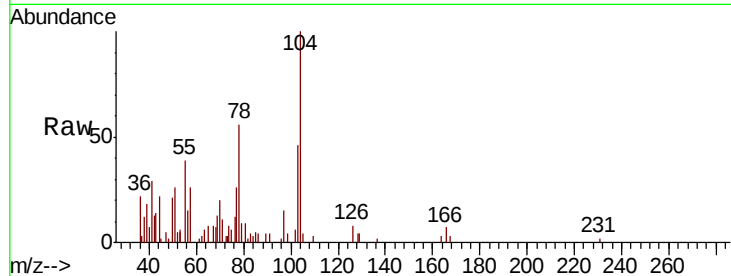
Tot Ion:104 Resp: 5968

Ion Ratio Lower Upper

104 100

78 0.0 43.7 65.5#

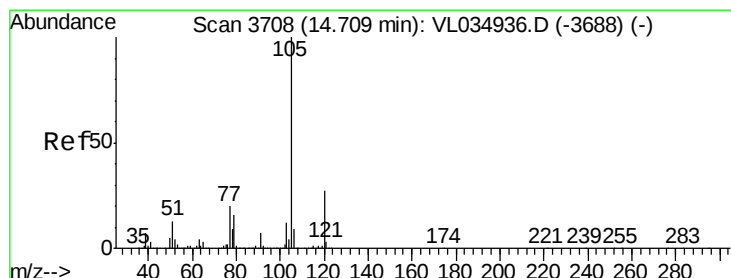
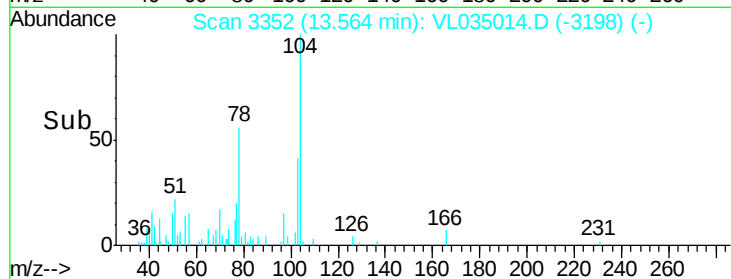
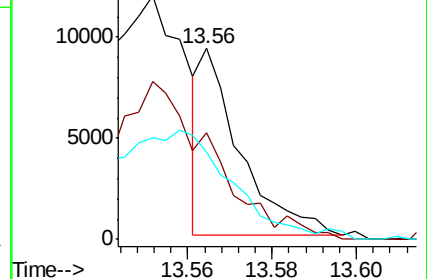
103 225.1 38.8 58.2#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 1.228 ppbv

RT: 14.69 min Scan# 3703

Delta R.T. -0.02 min

Lab File: VL035014.D

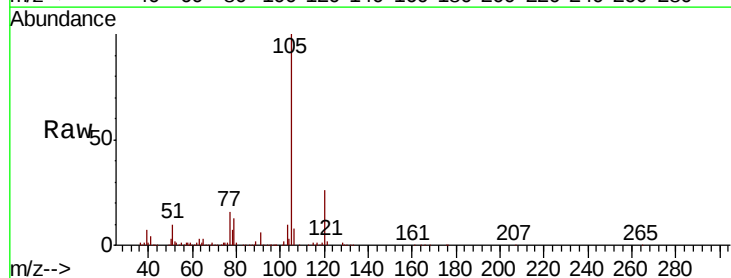
Acq: 13 May 2020 9:17

Tgt Ion:105 Resp: 355998

Ion Ratio Lower Upper

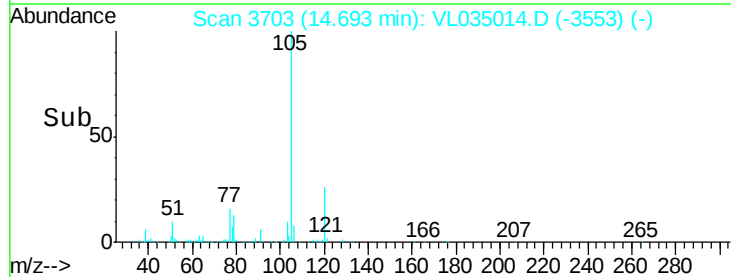
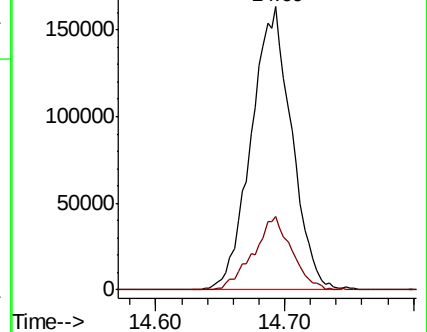
105 100

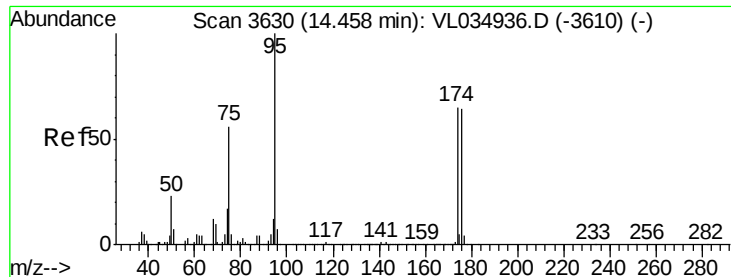
120 24.6 20.6 31.0



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#68

1-Bromo-4-Fluorobenzene

Concen: 9.851 ppbv

RT: 14.44 min Scan# 3624

Delta R.T. -0.02 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Instrument :

MSVOA_L

ClientSampleId :

SG-OFF-SITE

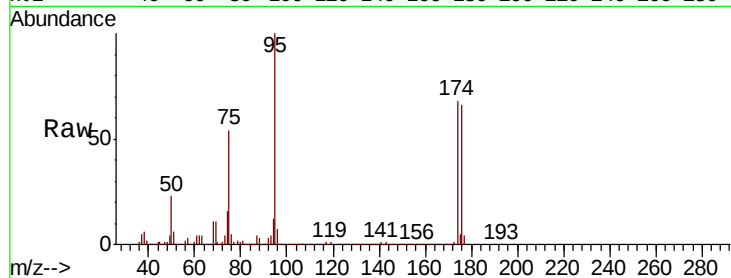
Tot Ion: 95 Resp: 1442471

Ion Ratio Lower Upper

95 100

174 68.2 51.5 77.3

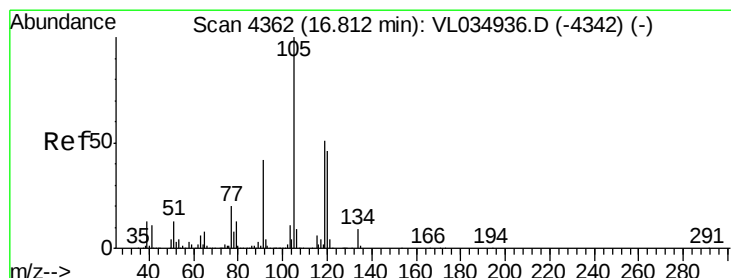
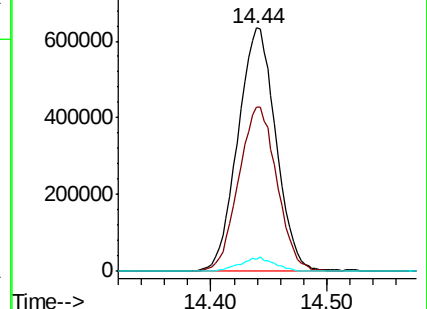
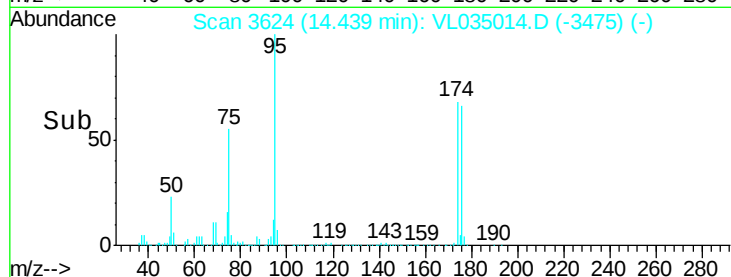
175 5.2 3.8 5.8



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.148 ppbv

RT: 16.79 min Scan# 4354

Delta R.T. -0.03 min

Lab File: VL035014.D

Acq: 13 May 2020 9:17

Tgt Ion: 105 Resp: 34123

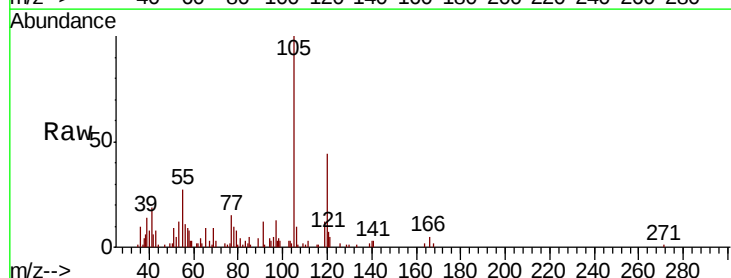
Ion Ratio Lower Upper

105 100

120 51.6 36.8 55.2

91 3.6 35.4 53.0#

77 8.8 16.2 24.2#



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

