

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL072715\
 Data File : VL025770.D
 Acq On : 28 Jul 2015 2:20
 Operator : SY/MD
 Sample : G3040-09 120X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 DIN46-EFFLUENT-072315

Quant Time: Jul 28 04:13:26 2015
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL070715AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jul 08 02:22:55 2015
 QLast Update : Wed Jul 08 02:22:55 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.65	49	799868	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	8.33	114	2146694	10.00	ppbv	0.00
55) Chlorobenzene-d5	13.74	117	2596950	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	16.29	95	2203400	10.06	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.60%

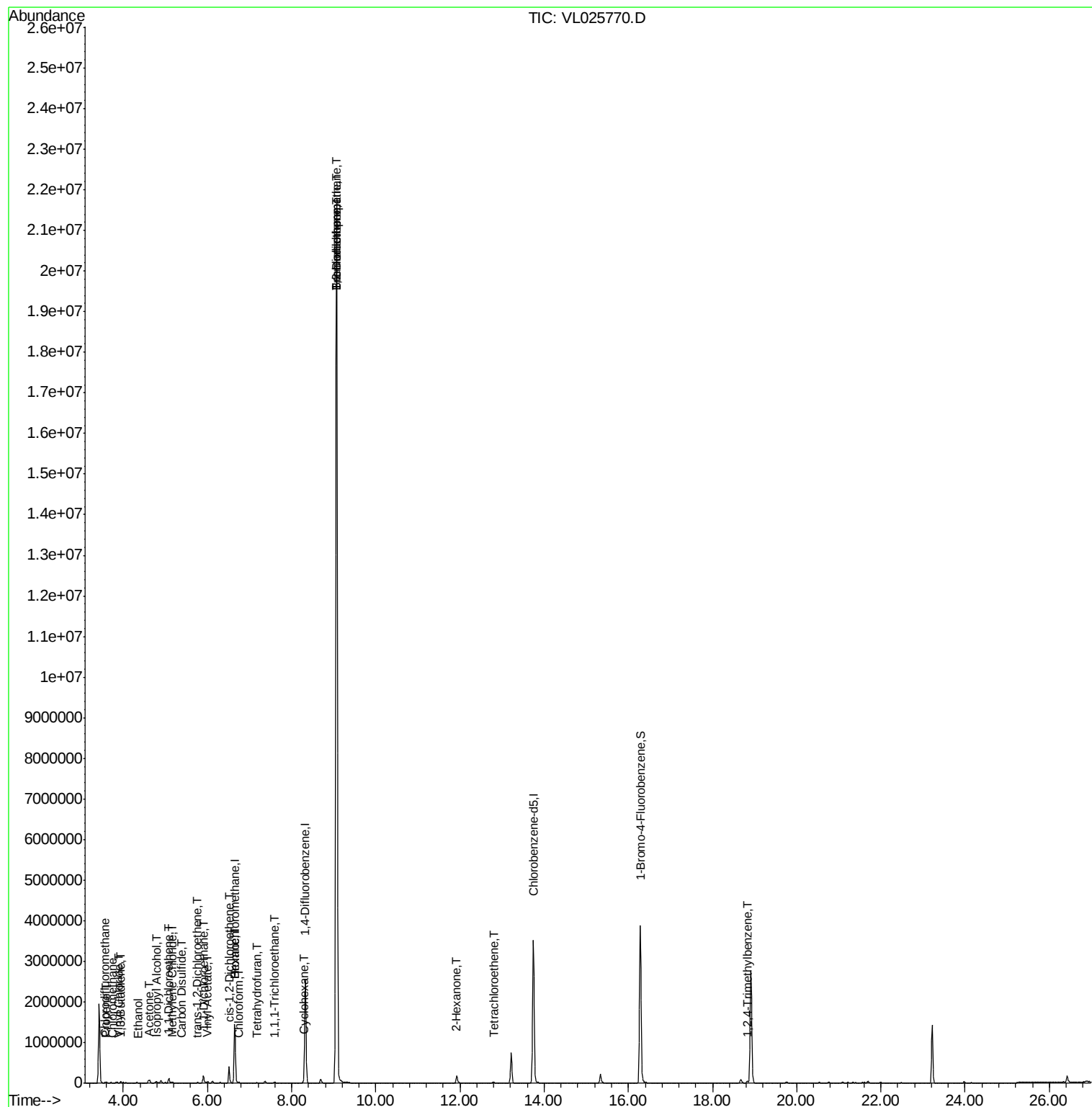
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	3.56	51	6915	0.06	ppbv #	81
4) Chloromethane	3.75	50	1566	0.03	ppbv #	77
5) Vinyl Chloride	3.89	62	3301	0.06	ppbv	98
9) Propene	3.59	41	4553	0.12	ppbv #	66
13) Ethanol	4.35	45	597	0.10	ppbv #	35
15) Acetone	4.63	43	100821	0.71	ppbv #	89
16) 1,3-Butadiene	3.94	39	11969	0.21	ppbv #	17
18) 1,1-Dichloroethene	5.08	96	36919	0.63	ppbv	87
19) Isopropyl Alcohol	4.80	45	2215	0.04	ppbv #	1
20) Methylene Chloride	5.15	84	9814	0.17	ppbv	98
22) trans-1,2-Dichloroethene	5.76	96	4504	0.07	ppbv #	62
23) Vinyl Acetate	6.01	43	17967	0.08	ppbv #	40
24) 1,1-Dichloroethane	5.90	63	167217	1.17	ppbv	99
26) Hexane	6.65	57	4206	0.04	ppbv #	45
27) Carbon Disulfide	5.39	76	12509	0.08	ppbv #	28
29) Chloroform	6.74	83	6445	0.03	ppbv	88
30) Cyclohexane	8.28	84	17963	0.19	ppbv #	34
31) cis-1,2-Dichloroethene	6.51	61	267430	2.67	ppbv	96
32) 1,1,1-Trichloroethane	7.59	97	18800	0.09	ppbv	97
38) Trichloroethene	9.07	130	8836215	92.44	ppbv	94
39) 1,2-Dichloropropane	9.06	63	45338	0.60	ppbv #	1
41) Tetrahydrofuran	7.18	42	7315	0.12	ppbv	89
42) Bromodichloromethane	9.07	83	145528	0.69	ppbv #	95
51) 2-Hexanone	11.92	43	39721	0.25	ppbv #	50
52) Tetrachloroethene	12.80	164	10364	0.10	ppbv	88
74) 1,2,4-Trimethylbenzene	18.83	105	43222	0.09	ppbv #	65

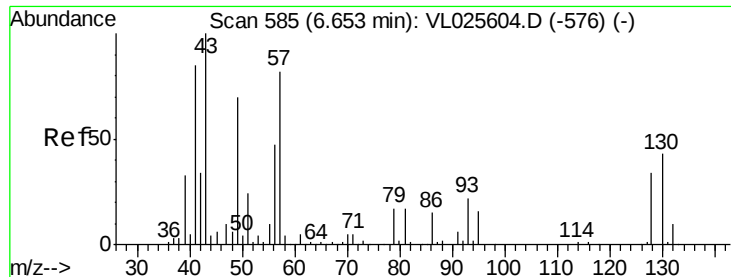
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jul 08 02:22:55 2015
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.65 min Scan# 584

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

DIN46-EFFLUENT-072315

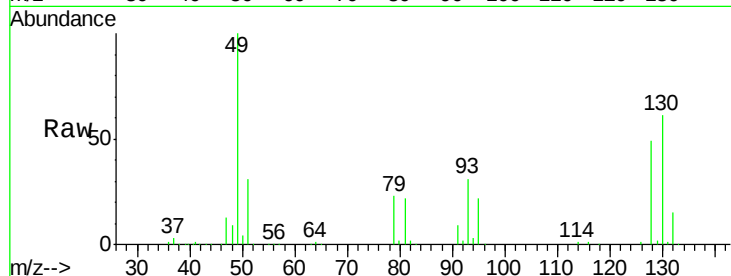
Tot Ion: 49 Resp: 799868

Ion Ratio Lower Upper

49 100

128 50.7 25.4 76.0

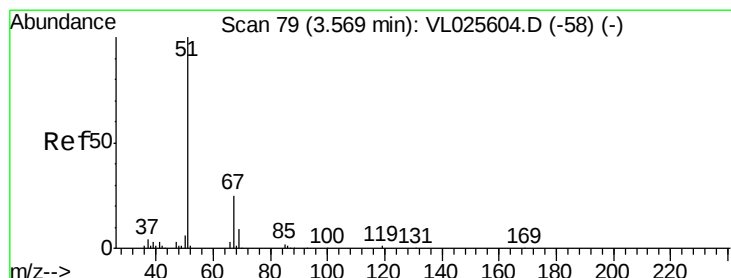
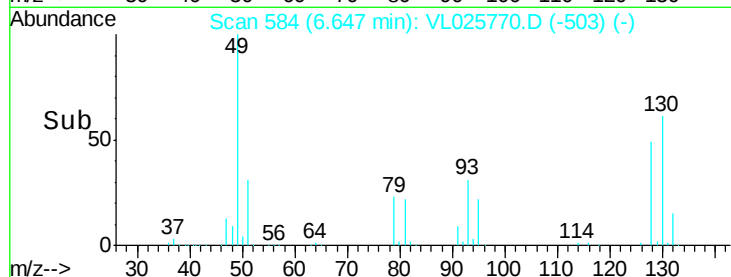
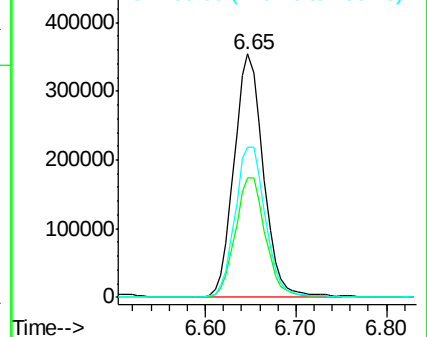
130 64.6 31.9 95.9



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



#3

Chlorodifluoromethane

Concen: 0.06 ppbv

RT: 3.56 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL025770.D

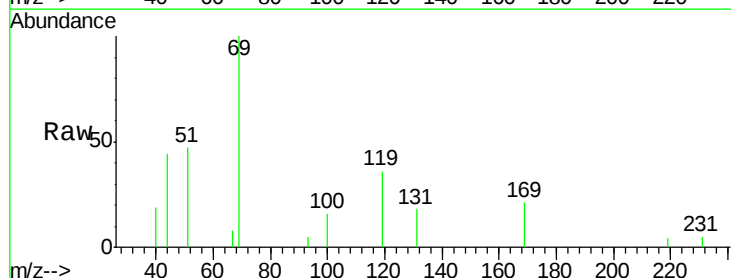
Acq: 28 Jul 2015 2:20

Tgt Ion: 51 Resp: 6915

Ion Ratio Lower Upper

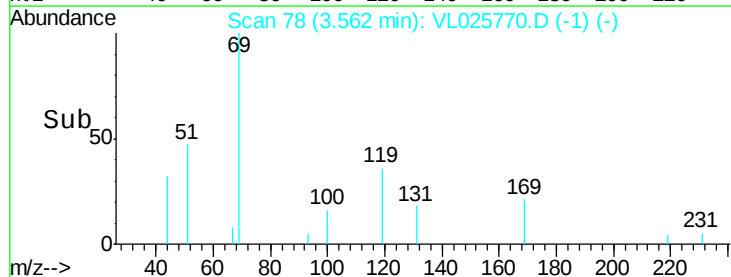
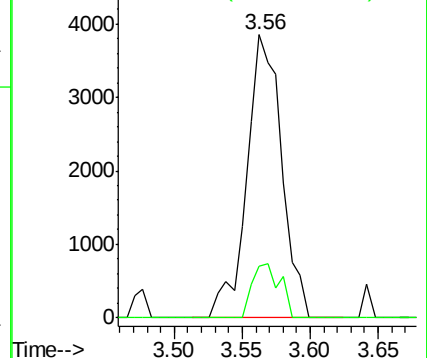
51 100

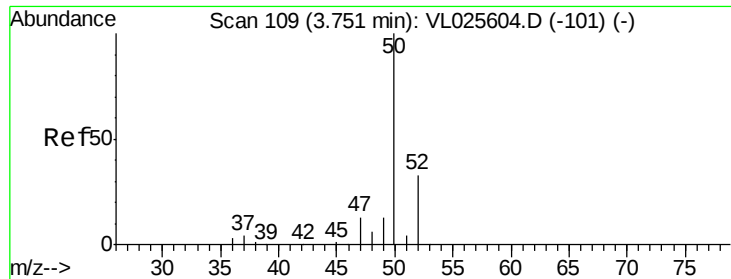
67 15.1 19.5 29.3#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

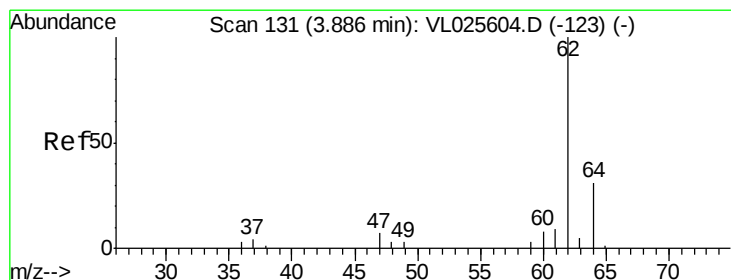
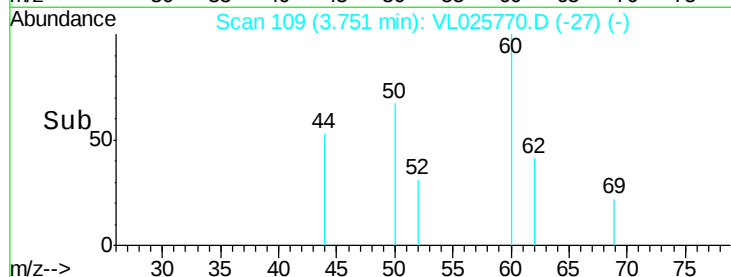
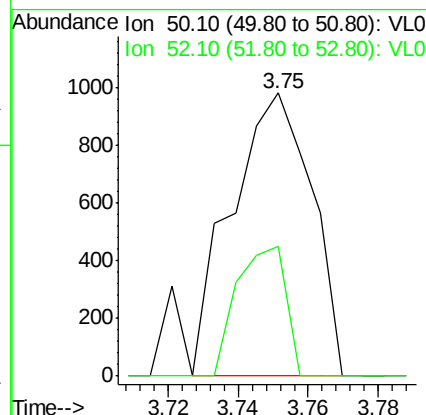
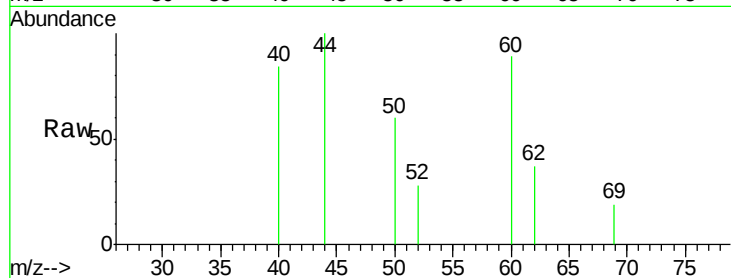




#4
 Chloromethane
 Concen: 0.03 ppbv
 RT: 3.75 min Scan# 109
 Delta R.T. -0.00 min
 Lab File: VL025770.D
 Acq: 28 Jul 2015 2:20

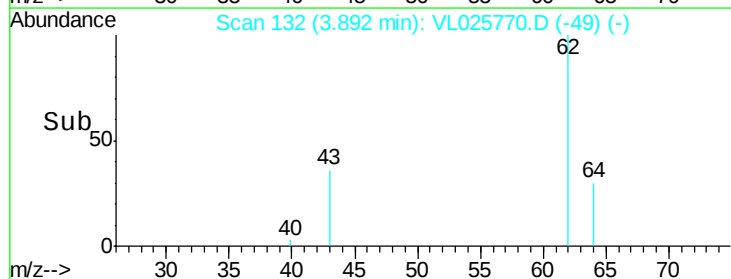
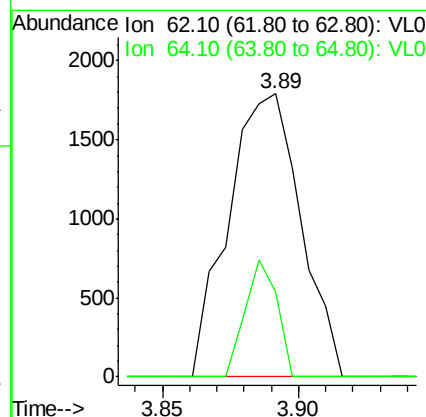
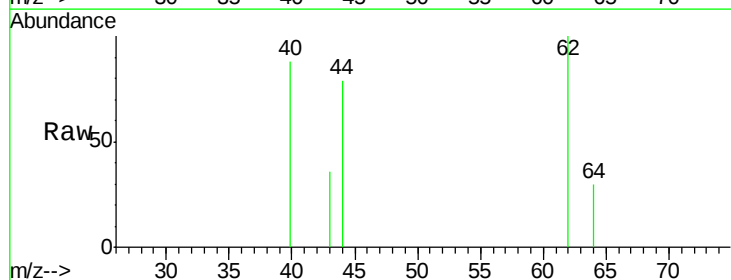
Instrument :
 MSVOA_L
 ClientSampleId :
 DIN46-EFFLUENT-072315

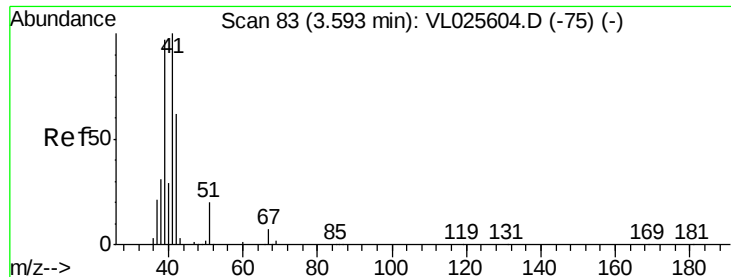
Tot Ion: 50 Resp: 1566
 Ion Ratio Lower Upper
 50 100
 52 45.9 26.2 39.2#



#5
 Vinyl Chloride
 Concen: 0.06 ppbv
 RT: 3.89 min Scan# 132
 Delta R.T. 0.01 min
 Lab File: VL025770.D
 Acq: 28 Jul 2015 2:20

Tgt Ion: 62 Resp: 3301
 Ion Ratio Lower Upper
 62 100
 64 30.2 25.0 37.6





#9

Propene

Concen: 0.12 ppbv

RT: 3.59 min Scan# 83

Delta R.T. -0.00 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

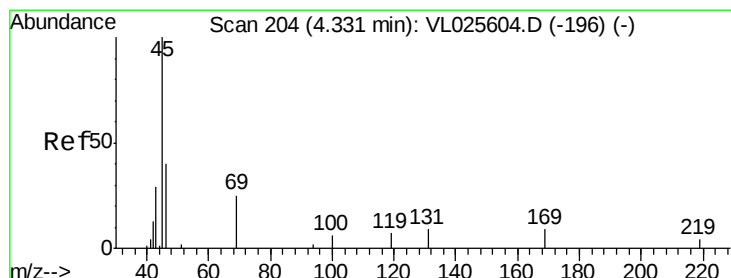
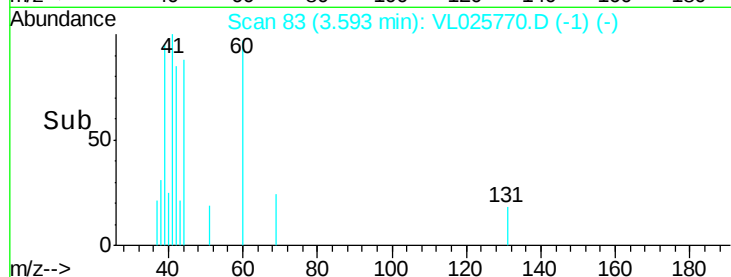
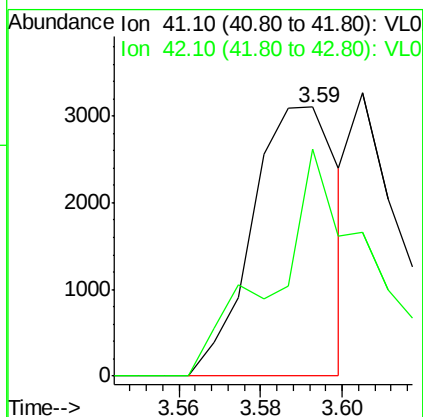
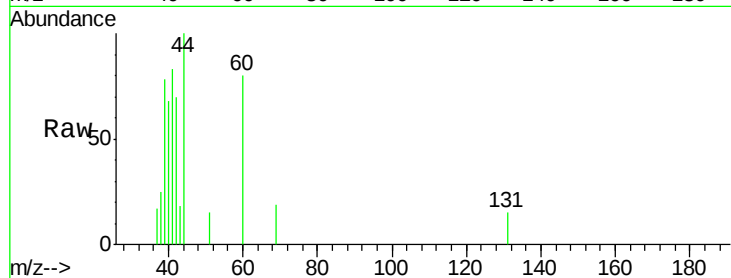
DIN46-EFFLUENT-072315

Tot Ion: 41 Resp: 4553

Ion Ratio Lower Upper

41 100

42 92.8 52.4 78.6#



#13

Ethanol

Concen: 0.10 ppbv

RT: 4.35 min Scan# 207

Delta R.T. 0.02 min

Lab File: VL025770.D

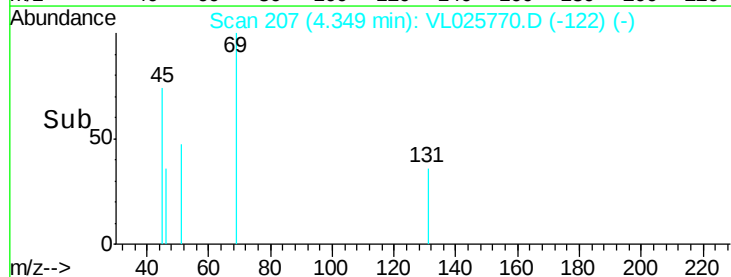
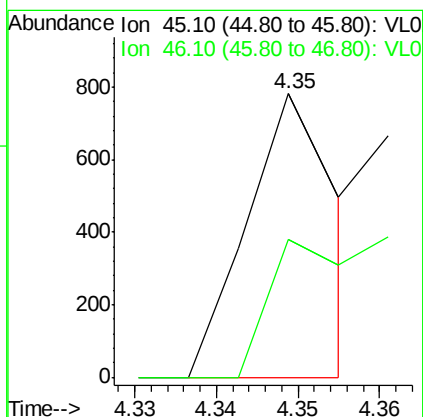
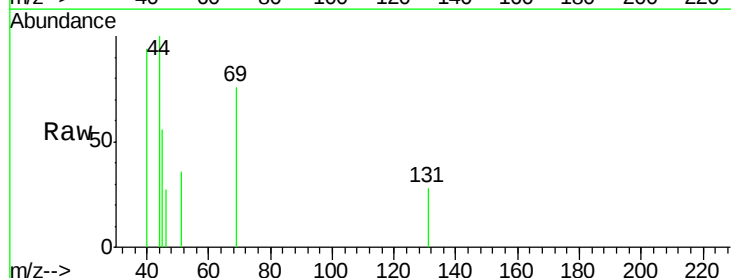
Acq: 28 Jul 2015 2:20

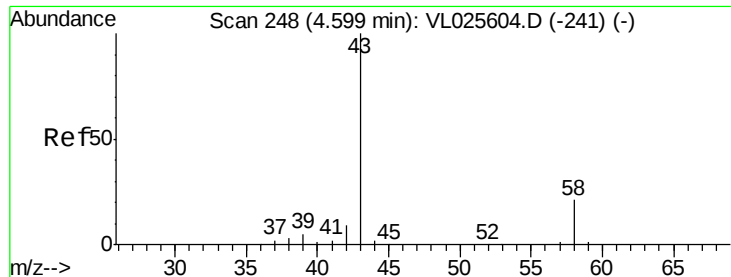
Tgt Ion: 45 Resp: 597

Ion Ratio Lower Upper

45 100

46 0.0 16.0 64.0#





#15

Acetone

Concen: 0.71 ppbv

RT: 4.63 min Scan# 253

Delta R.T. 0.03 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

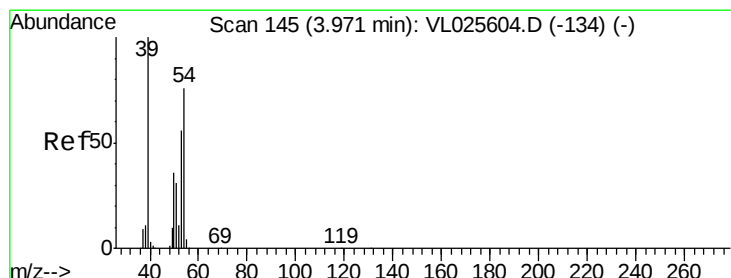
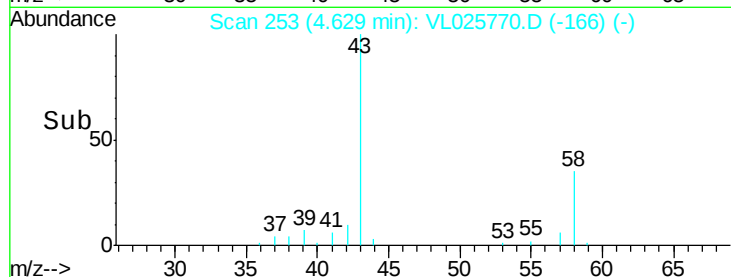
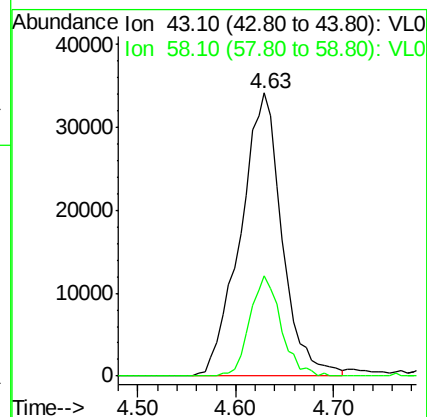
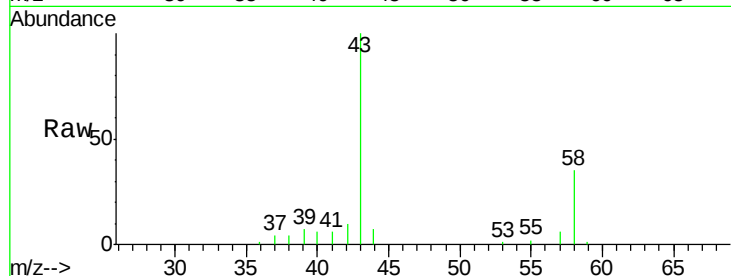
DIN46-EFFLUENT-072315

Tot Ion: 43 Resp: 100821

Ion Ratio Lower Upper

43 100

58 26.6 17.2 25.8#



#16

1,3-Butadiene

Concen: 0.21 ppbv

RT: 3.94 min Scan# 140

Delta R.T. -0.03 min

Lab File: VL025770.D

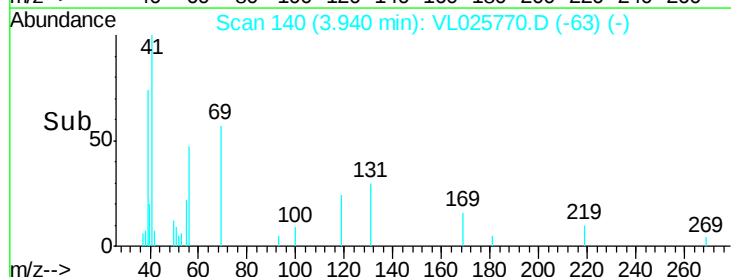
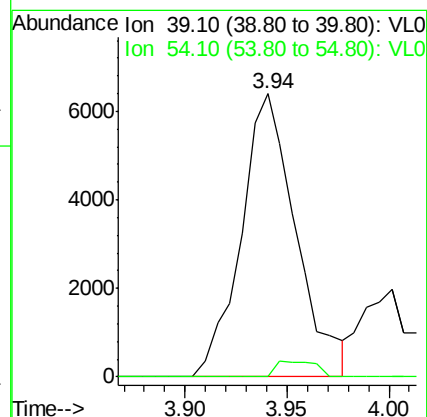
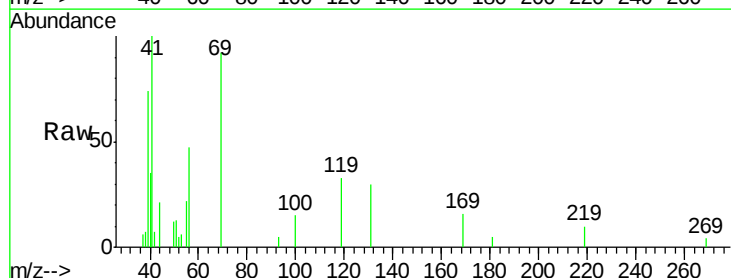
Acq: 28 Jul 2015 2:20

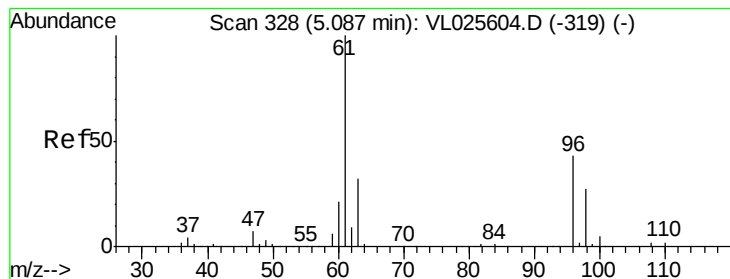
Tgt Ion: 39 Resp: 11969

Ion Ratio Lower Upper

39 100

54 4.0 59.3 88.9#





#18

1,1-Dichloroethene

Concen: 0.63 ppbv

RT: 5.08 min Scan# 327

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

DIN46-EFFLUENT-072315

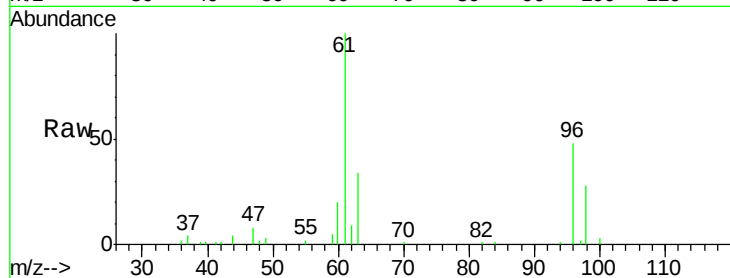
Tot Ion: 96 Resp: 36919

Ion Ratio Lower Upper

96 100

61 206.1 184.1 276.1

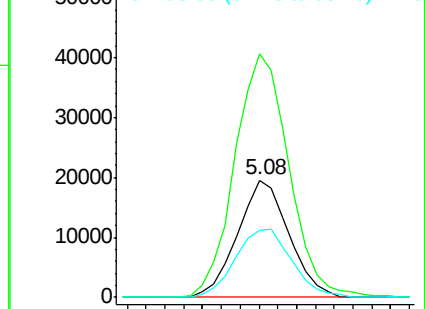
98 57.4 50.0 75.0



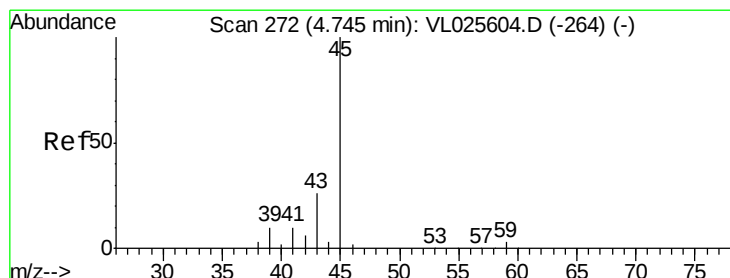
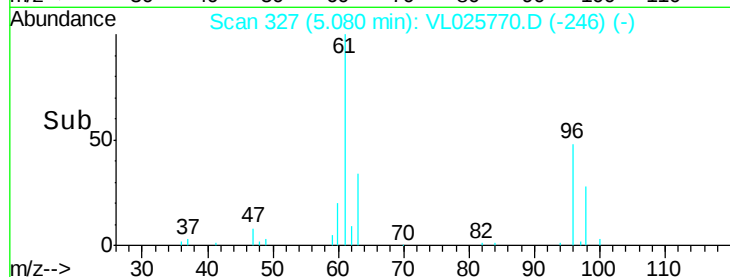
Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



Time-->



#19

Isopropyl Alcohol

Concen: 0.04 ppbv

RT: 4.80 min Scan# 281

Delta R.T. 0.05 min

Lab File: VL025770.D

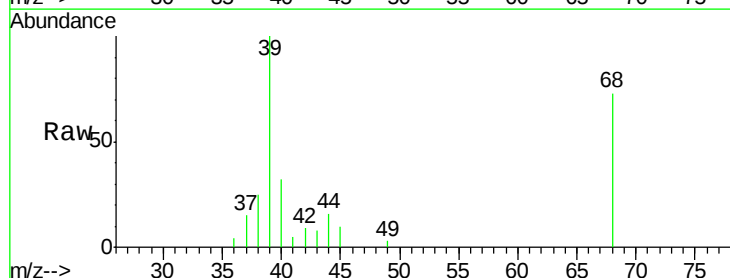
Acq: 28 Jul 2015 2:20

Tgt Ion: 45 Resp: 2215

Ion Ratio Lower Upper

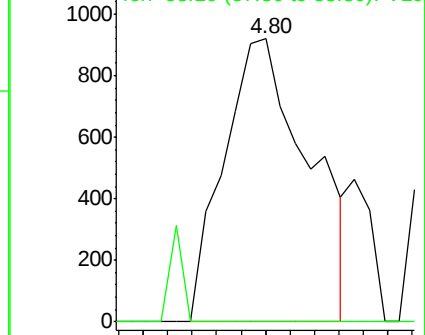
45 100

58 1209.0 1.1 1.7#

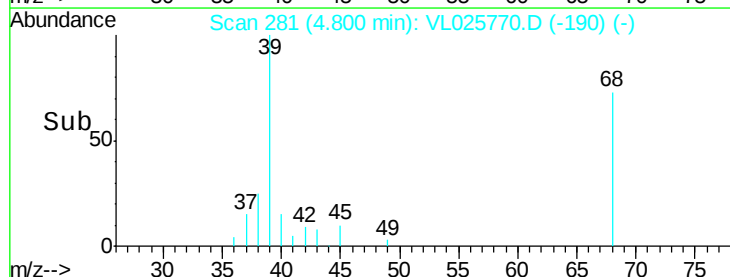


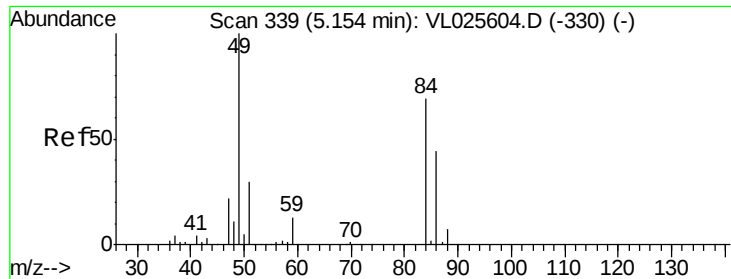
Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



Time-->

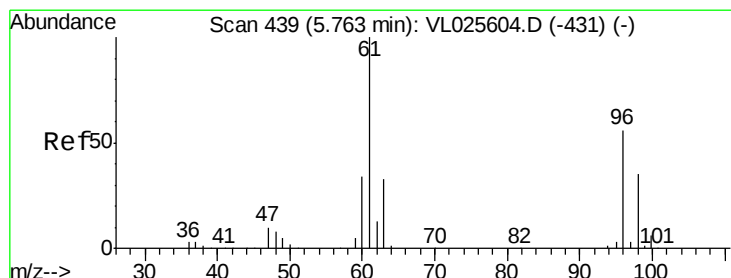
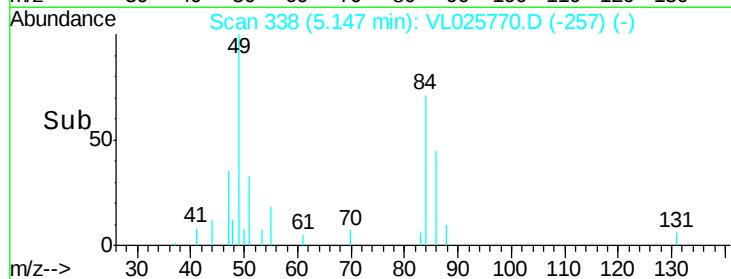
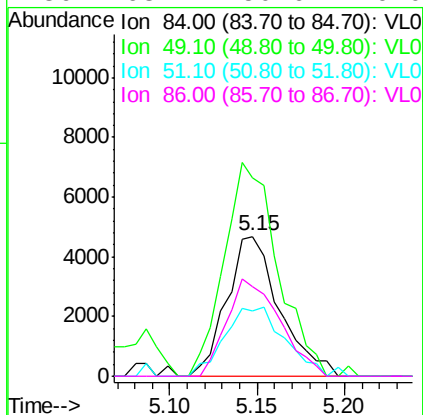
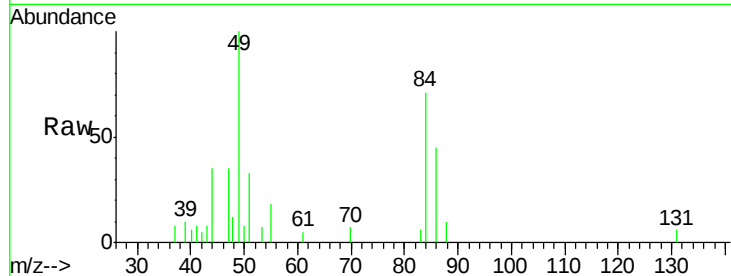




#20
Methylene Chloride
Concen: 0.17 ppbv
RT: 5.15 min Scan# 338
Delta R.T. -0.01 min
Lab File: VL025770.D
Acq: 28 Jul 2015 2:20

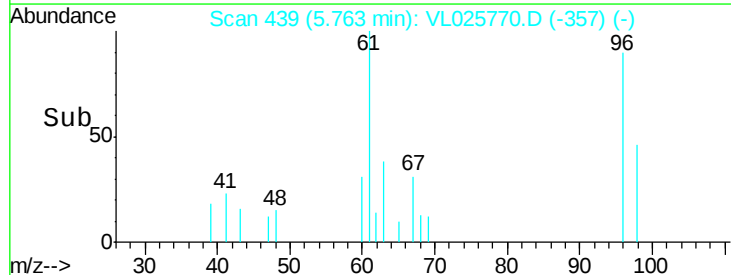
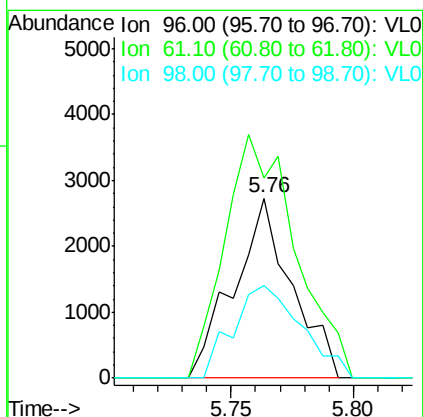
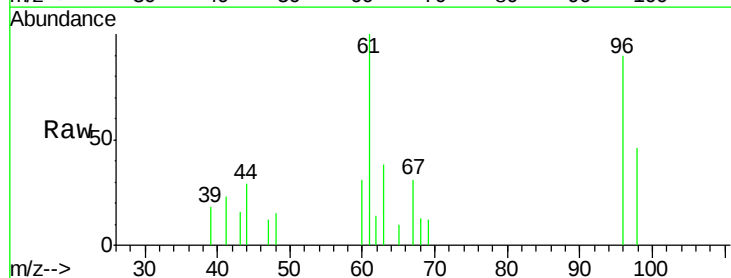
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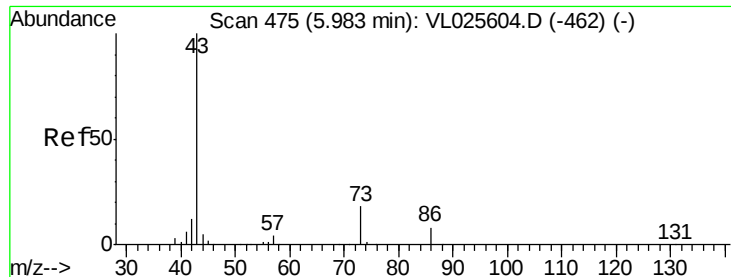
Tot Ion:	84	Resp:	9814
Ion	Ratio	Lower	Upper
84	100		
49	141.6	115.2	172.8
51	46.6	35.0	52.6
86	63.7	50.6	76.0



#22
trans-1,2-Dichloroethene
Concen: 0.07 ppbv
RT: 5.76 min Scan# 439
Delta R.T. -0.00 min
Lab File: VL025770.D
Acq: 28 Jul 2015 2:20

Tgt Ion:	96	Resp:	4504
Ion	Ratio	Lower	Upper
96	100		
61	111.3	141.8	212.6#
98	51.4	49.0	73.6





#23

Vinyl Acetate

Concen: 0.08 ppbv

RT: 6.01 min Scan# 479

Delta R.T. 0.02 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

DIN46-EFFLUENT-072315

Tot Ion: 43 Resp: 17967

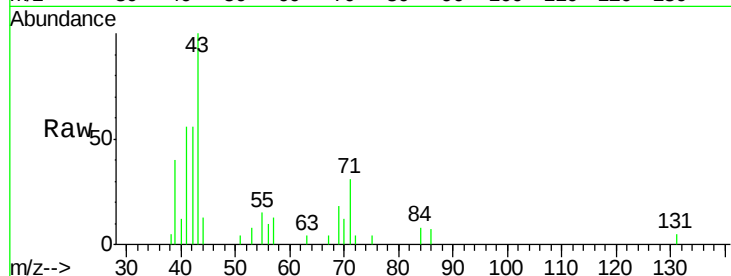
Ion Ratio Lower Upper

43 100

86 7.0 6.7 10.1

42 60.0 9.8 14.6#

44 5.4 4.1 6.1

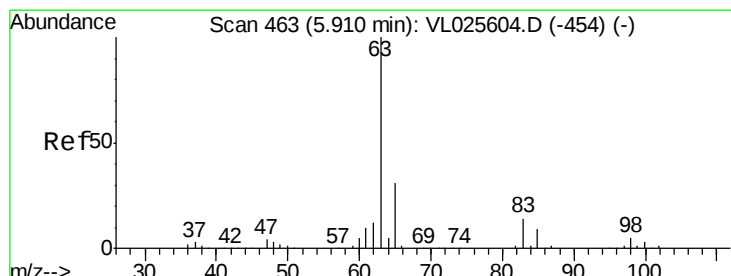
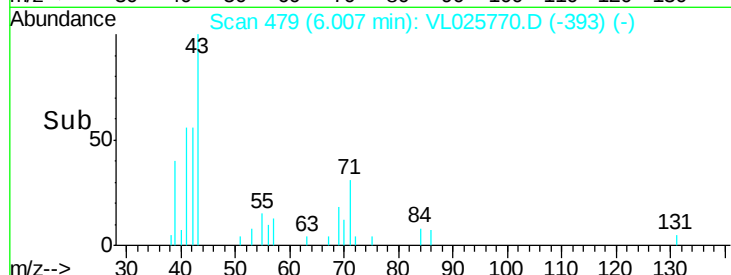
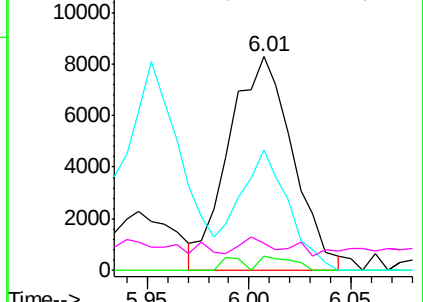


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 1.17 ppbv

RT: 5.90 min Scan# 462

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

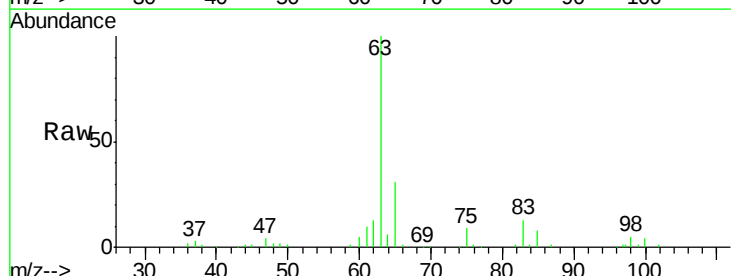
Tgt Ion: 63 Resp: 167217

Ion Ratio Lower Upper

63 100

98 5.2 2.6 8.0

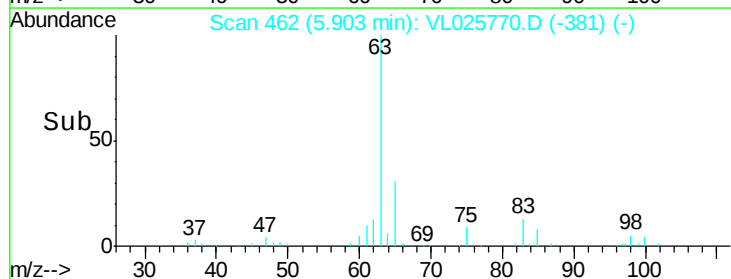
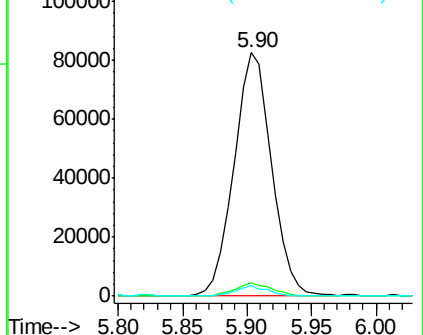
100 4.2 1.6 4.7

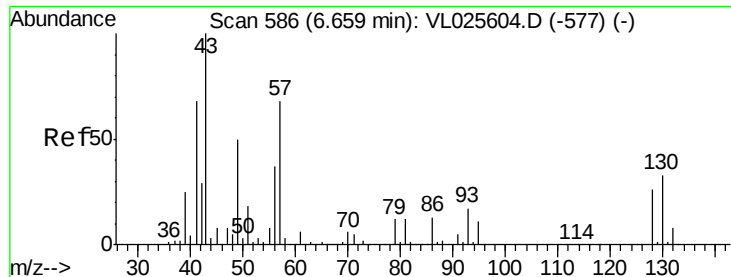


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0

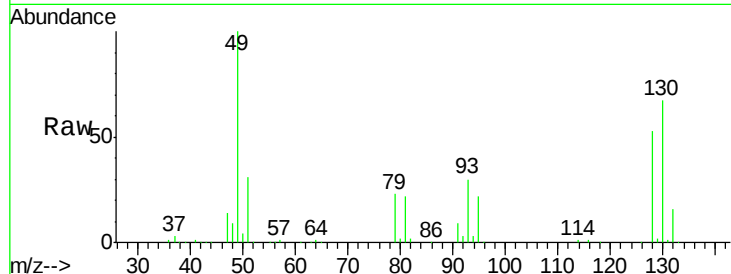




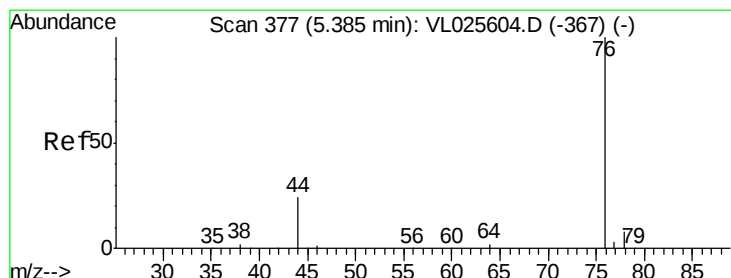
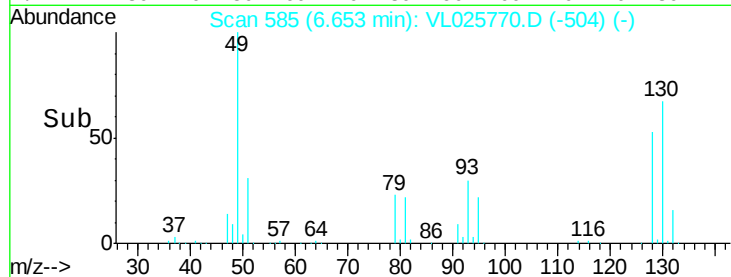
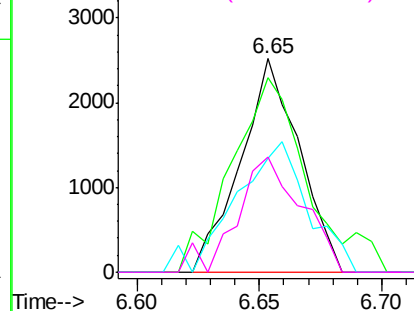
#26
Hexane
Concen: 0.04 ppbv
RT: 6.65 min Scan# 585
Delta R.T. -0.01 min
Lab File: VL025770.D
Acq: 28 Jul 2015 2:20

Instrument :
MSVOA_L
ClientSampleId :
DIN46-EFFLUENT-072315

Tot Ion: 57 Resp: 4206
Ion Ratio Lower Upper
57 100
41 116.9 81.4 122.2
43 76.0 171.4 257.2#
56 59.4 44.5 66.7

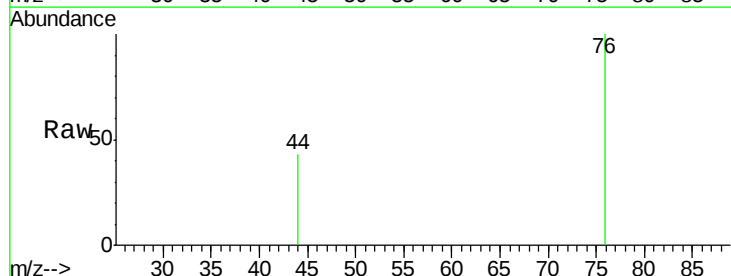


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

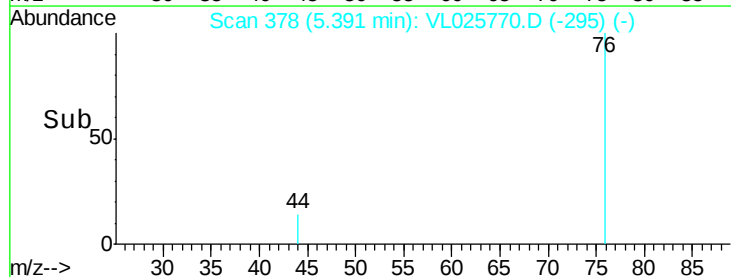
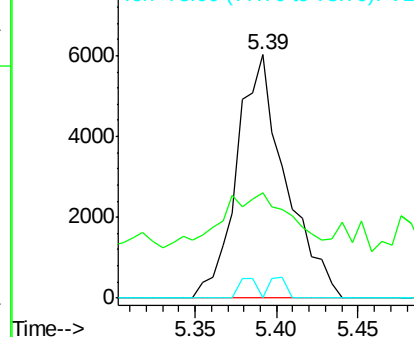


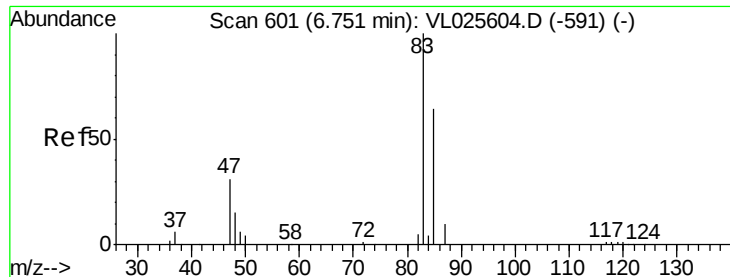
#27
Carbon Disulfide
Concen: 0.08 ppbv
RT: 5.39 min Scan# 378
Delta R.T. 0.01 min
Lab File: VL025770.D
Acq: 28 Jul 2015 2:20

Tgt Ion: 76 Resp: 12509
Ion Ratio Lower Upper
76 100
44 70.0 20.2 30.4#
78 0.0 7.4 11.2#



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: 0.03 ppbv

RT: 6.74 min Scan# 599

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

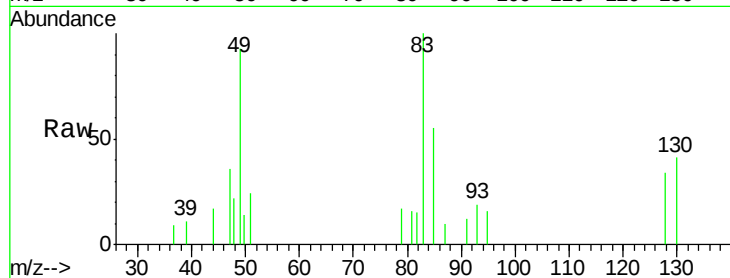
DIN46-EFFLUENT-072315

Tot Ion: 83 Resp: 6445

Ion Ratio Lower Upper

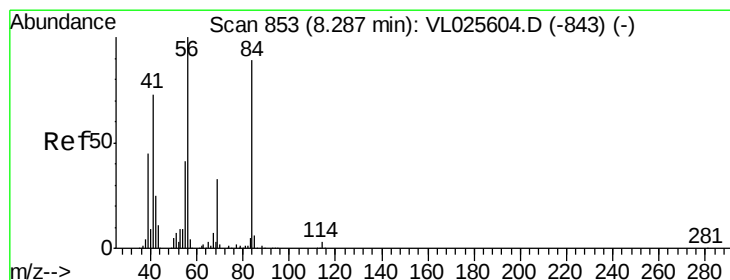
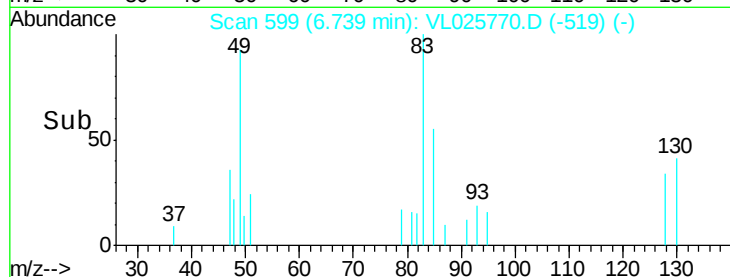
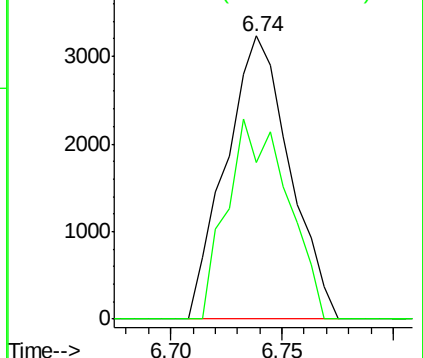
83 100

85 55.1 51.6 77.4



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#30

Cyclohexane

Concen: 0.19 ppbv

RT: 8.28 min Scan# 852

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

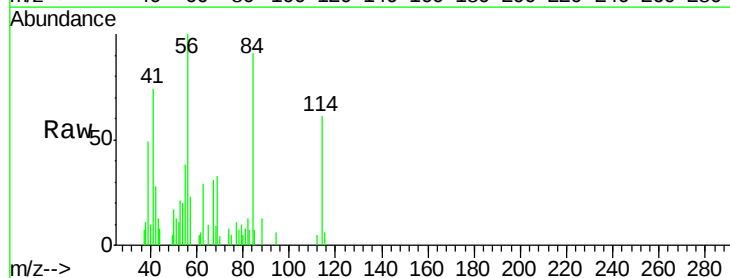
Tgt Ion: 84 Resp: 17963

Ion Ratio Lower Upper

84 100

56 0.0 97.5 146.3#

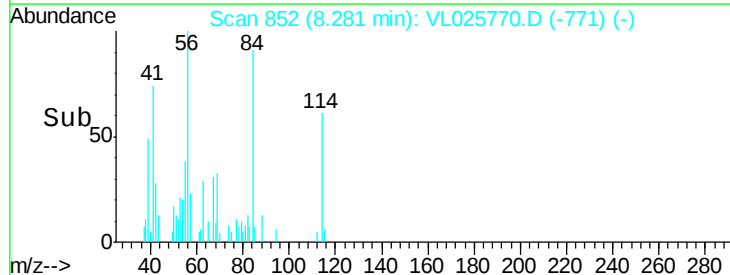
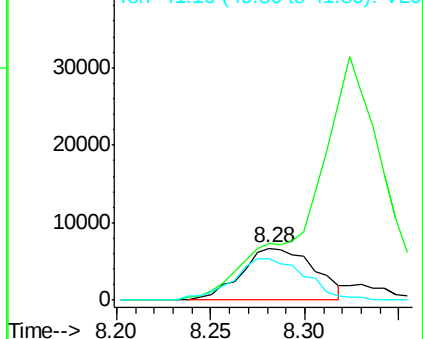
41 80.0 65.4 98.2

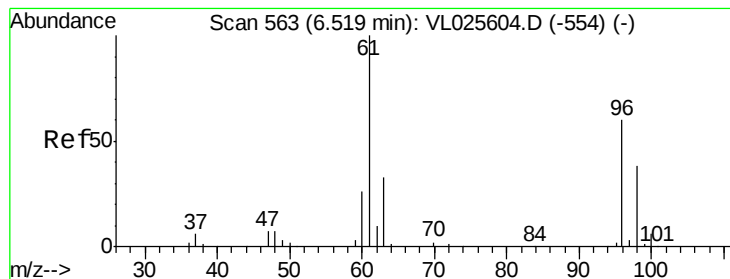


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0





#31

cis-1,2-Dichloroethene

Concen: 2.67 ppbv

RT: 6.51 min Scan# 562

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

DIN46-EFFLUENT-072315

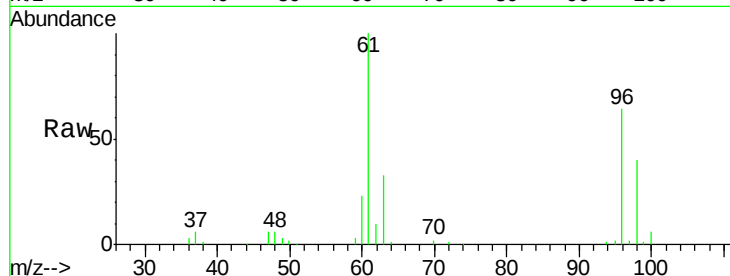
Tot Ion: 61 Resp: 267430

Ion Ratio Lower Upper

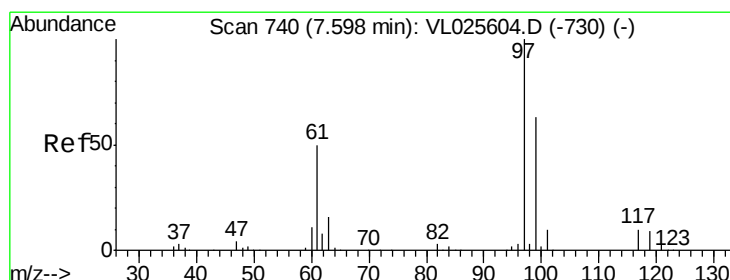
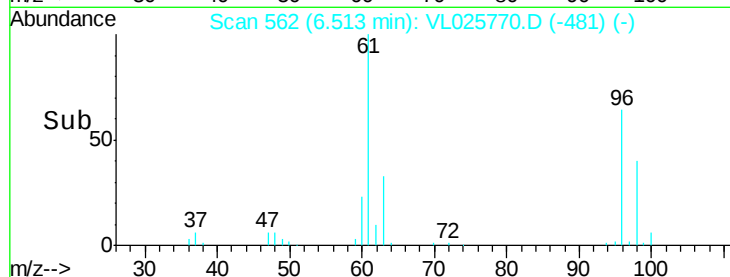
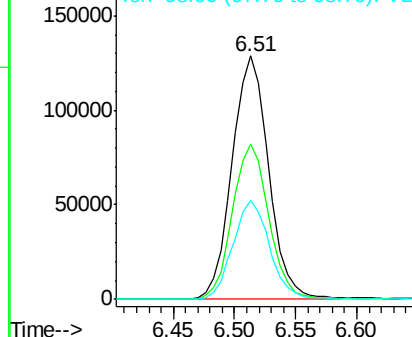
61 100

96 63.9 48.1 72.1

98 40.4 30.7 46.1



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



#32

1,1,1-Trichloroethane

Concen: 0.09 ppbv

RT: 7.59 min Scan# 738

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

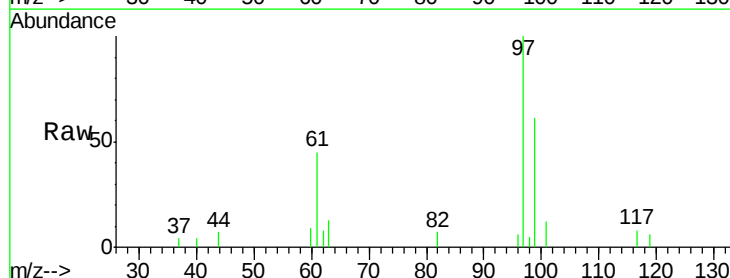
Tgt Ion: 97 Resp: 18800

Ion Ratio Lower Upper

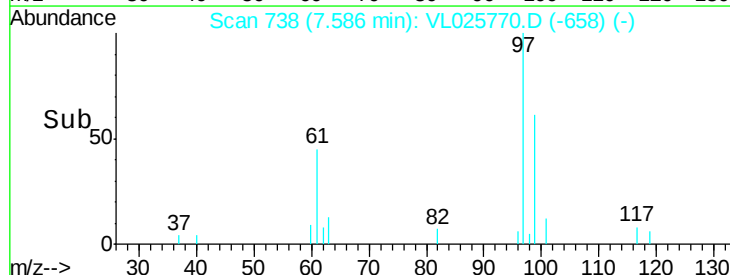
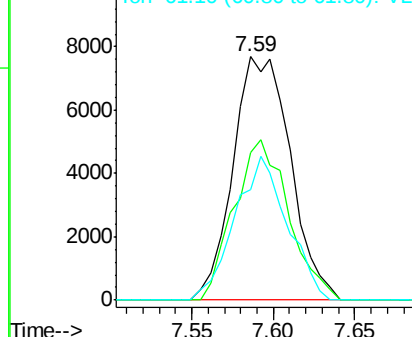
97 100

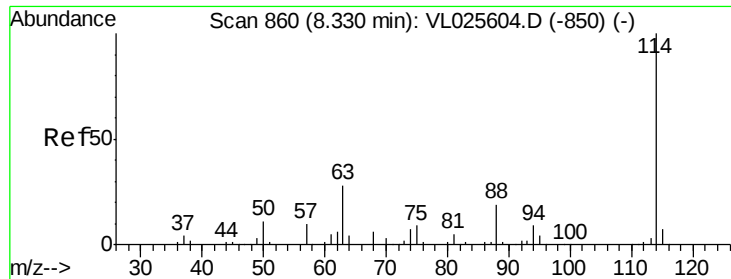
99 62.9 51.2 76.8

61 54.0 40.4 60.6



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0

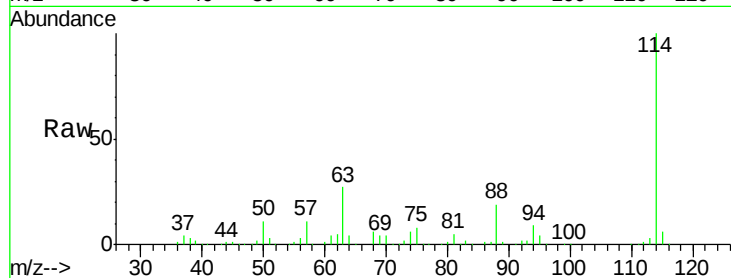




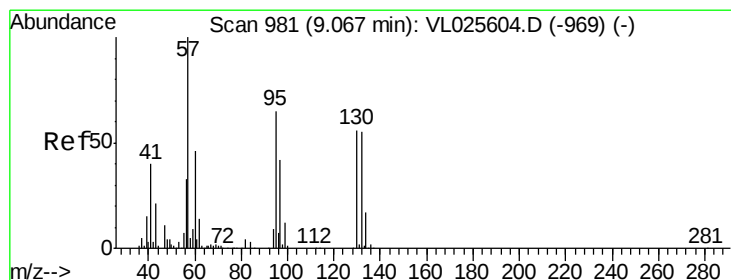
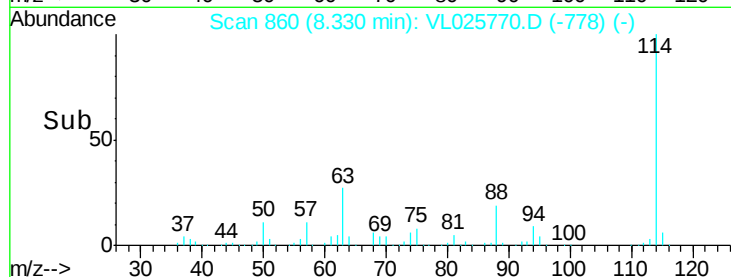
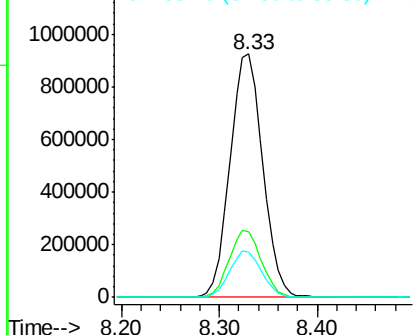
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 8.33 min Scan# 860
 Delta R.T. -0.00 min
 Lab File: VL025770.D
 Acq: 28 Jul 2015 2:20

Instrument :
 MSVOA_L
 ClientSampleId :
 DIN46-EFFLUENT-072315

Tot Ion:114 Resp: 2146694
 Ion Ratio Lower Upper
 114 100
 63 27.2 22.4 33.6
 88 18.6 15.0 22.4

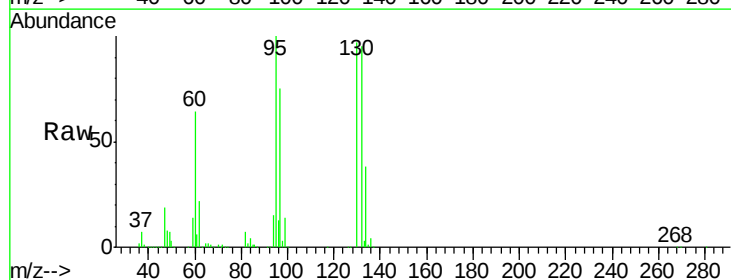


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

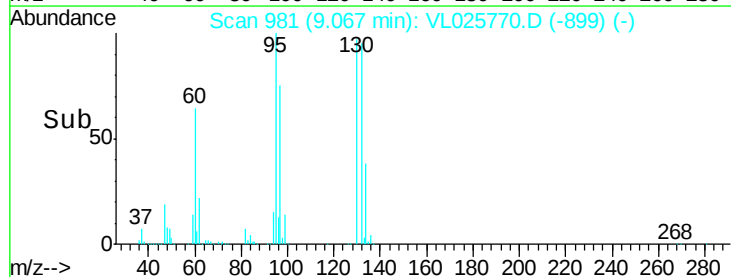
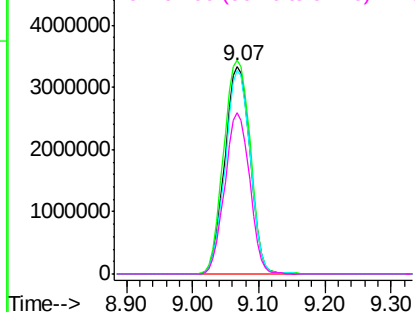


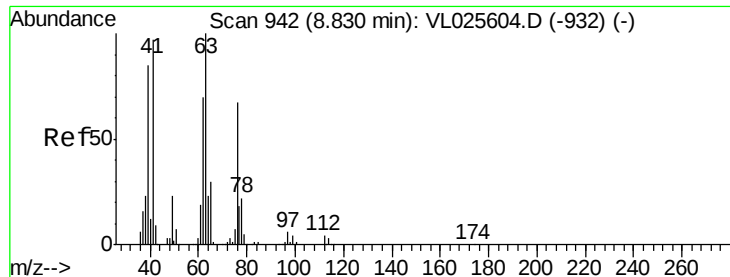
#38
 Trichloroethene
 Concen: 92.44 ppbv
 RT: 9.07 min Scan# 981
 Delta R.T. -0.00 min
 Lab File: VL025770.D
 Acq: 28 Jul 2015 2:20

Tgt Ion:130 Resp: 8836215
 Ion Ratio Lower Upper
 130 100
 95 102.9 94.2 141.4
 132 98.2 78.6 118.0
 97 77.7 60.6 90.8



Abundance Ion 130.00 (129.70 to 130.70): V
 Ion 95.00 (94.70 to 95.70): VL0
 Ion 132.00 (131.70 to 132.70): V
 Ion 97.00 (96.70 to 97.70): VL0

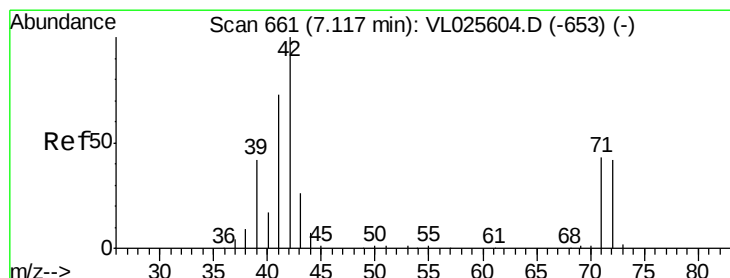
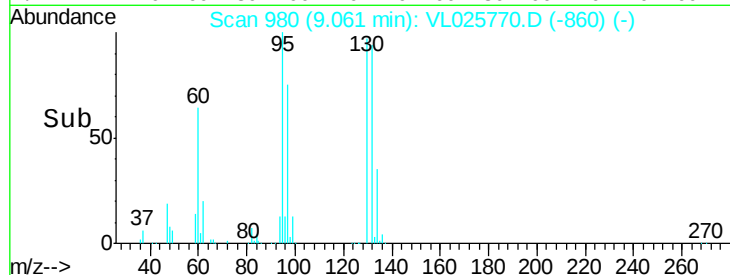
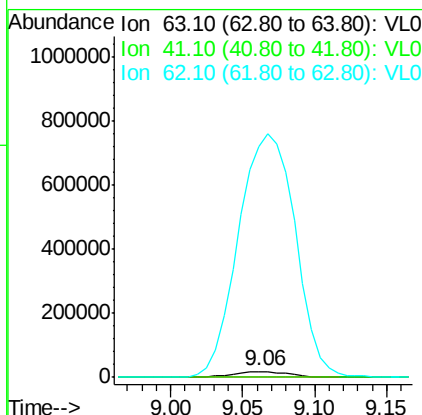
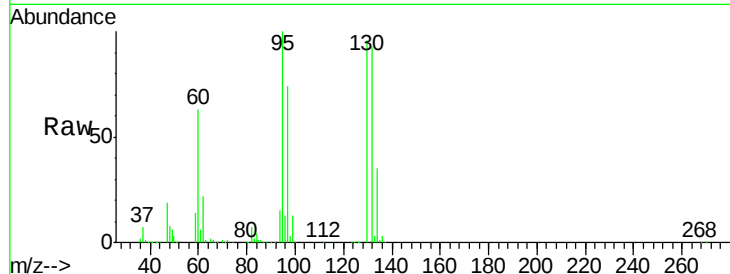




#39
 1,2-Dichloropropane
 Concen: 0.60 ppbv
 RT: 9.06 min Scan# 980
 Delta R.T. 0.23 min
 Lab File: VL025770.D
 Acq: 28 Jul 2015 2:20

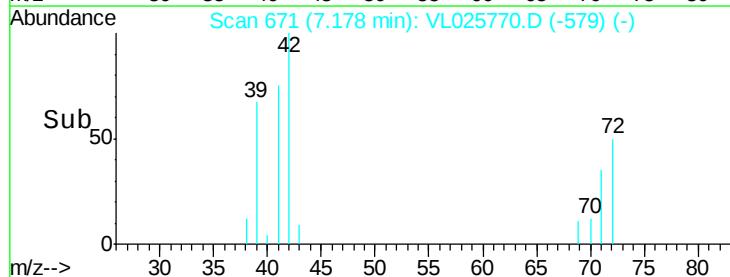
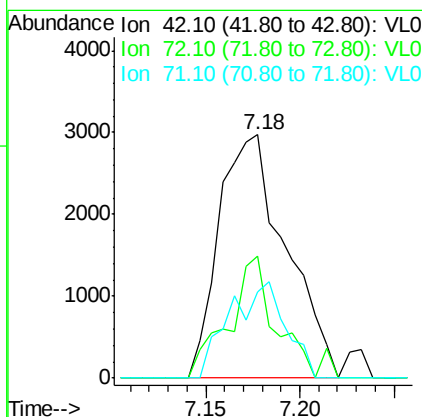
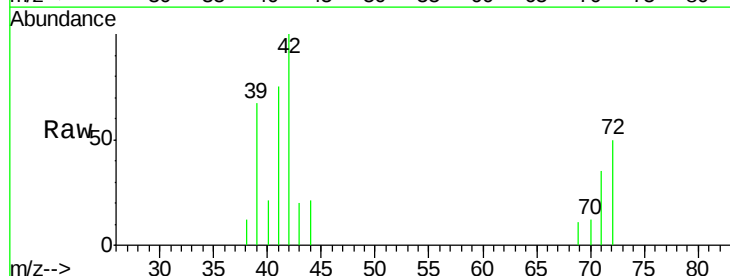
Instrument :
 MSVOA_L
 ClientSampleId :
 DIN46-EFFLUENT-072315

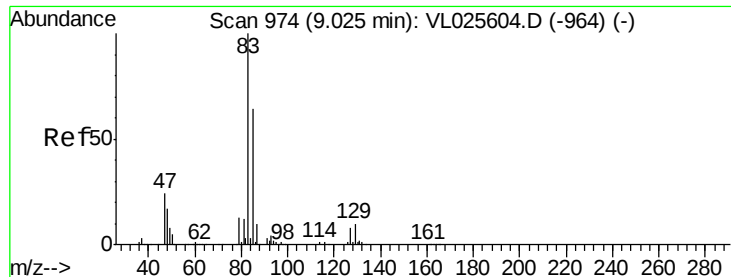
Tot Ion: 63 Resp: 45338
 Ion Ratio Lower Upper
 63 100
 41 11.9 78.0 117.0#
 62 4081.1 55.7 83.5#



#41
 Tetrahydrofuran
 Concen: 0.12 ppbv
 RT: 7.18 min Scan# 671
 Delta R.T. 0.06 min
 Lab File: VL025770.D
 Acq: 28 Jul 2015 2:20

Tgt Ion: 42 Resp: 7315
 Ion Ratio Lower Upper
 42 100
 72 36.5 34.0 51.0
 71 33.2 33.0 49.6





#42

Bromodichloromethane

Concen: 0.69 ppbv

RT: 9.07 min Scan# 981

Delta R.T. 0.04 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

DIN46-EFFLUENT-072315

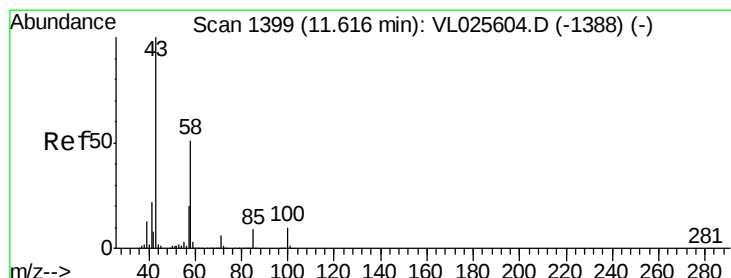
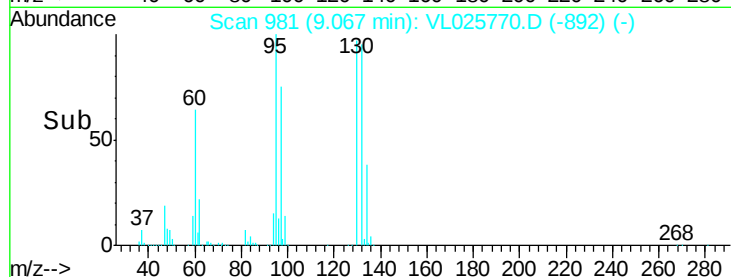
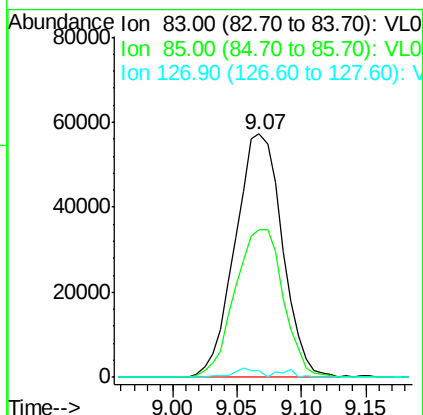
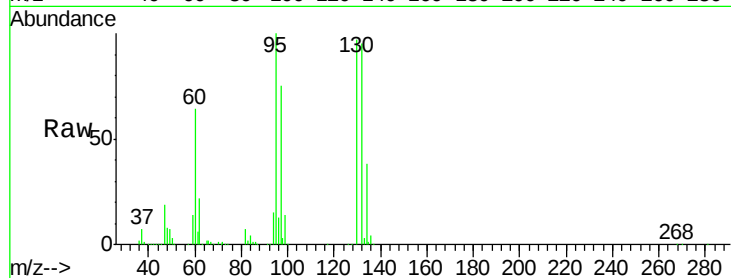
Tot Ion: 83 Resp: 145528

Ion Ratio Lower Upper

83 100

85 60.5 51.3 76.9

127 3.0 6.0 9.0#



#51

2-Hexanone

Concen: 0.25 ppbv

RT: 11.92 min Scan# 1449

Delta R.T. 0.30 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

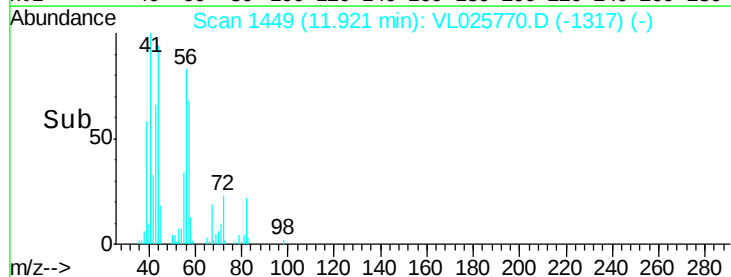
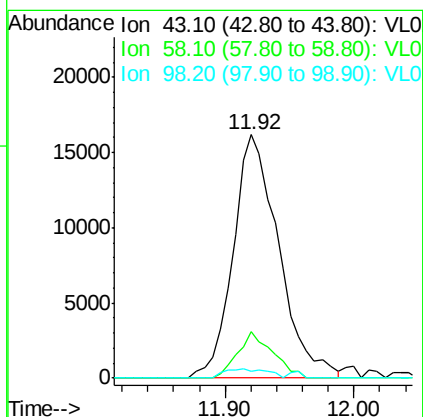
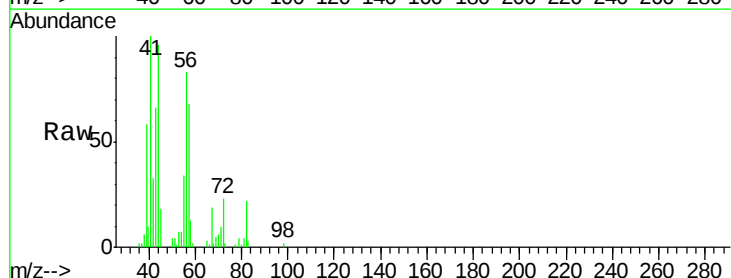
Tgt Ion: 43 Resp: 39721

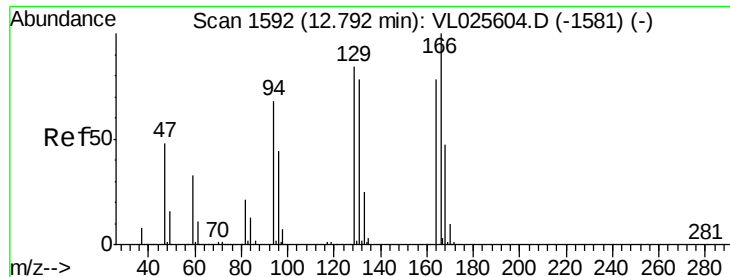
Ion Ratio Lower Upper

43 100

58 14.7 39.0 58.6#

98 4.2 0.2 0.4#





#52

Tetrachloroethene

Concen: 0.10 ppbv

RT: 12.80 min Scan# 1593

Delta R.T. 0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

DIN46-EFFLUENT-072315

Tot Ion:164 Resp: 10364

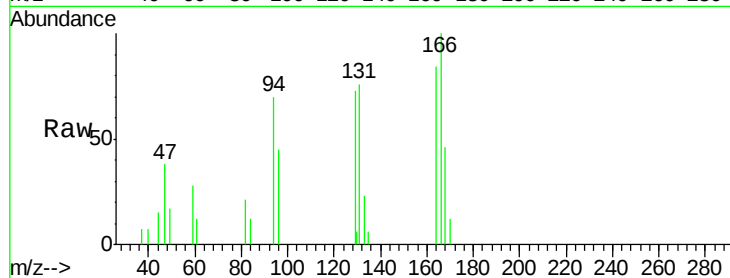
Ion Ratio Lower Upper

164 100

166 119.1 102.3 153.5

129 86.8 86.2 129.4

131 90.2 80.3 120.5

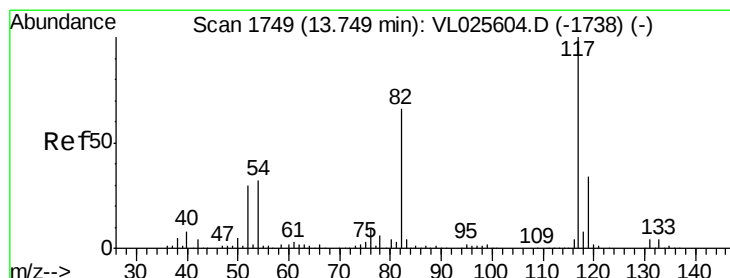
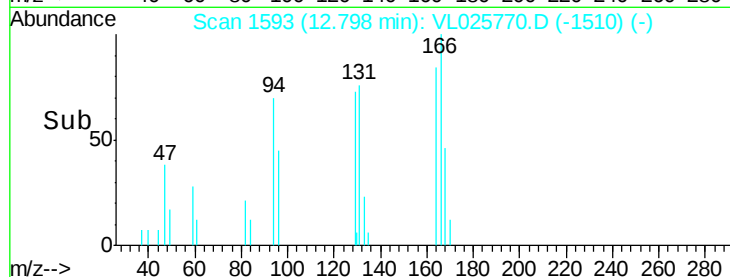
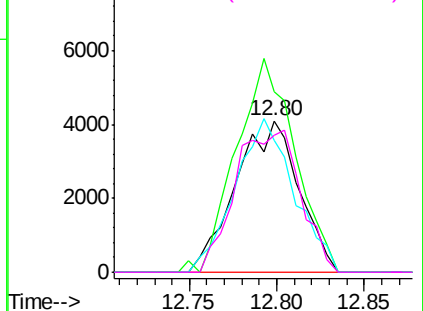


Abundance Ion 163.90 (163.60 to 164.60): V

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



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 13.74 min Scan# 1748

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

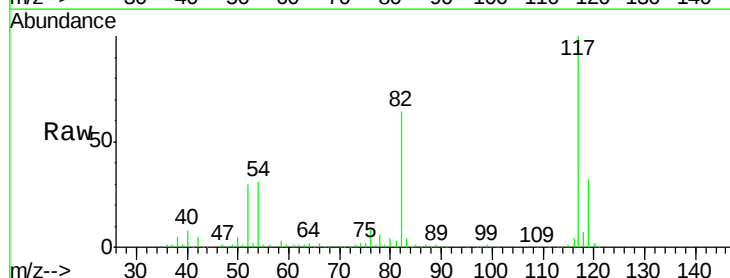
Tgt Ion:117 Resp: 2596950

Ion Ratio Lower Upper

117 100

82 65.7 50.5 75.7

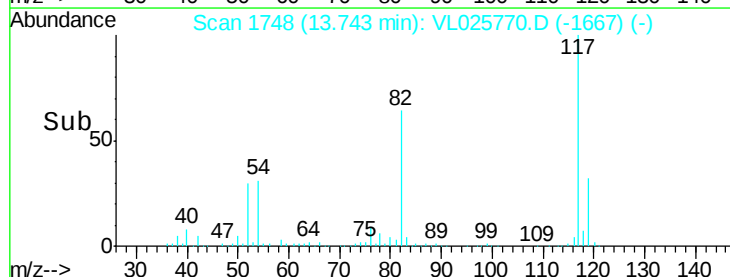
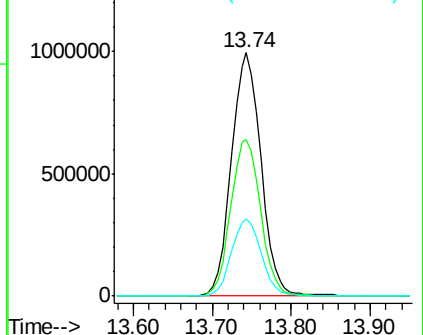
119 32.3 45.1 67.7#

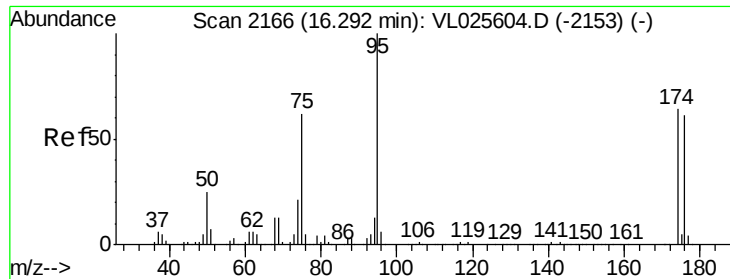


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): V

Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.06 ppbv

RT: 16.29 min Scan# 2165

Delta R.T. -0.01 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Instrument :

MSVOA_L

ClientSampleId :

DIN46-EFFLUENT-072315

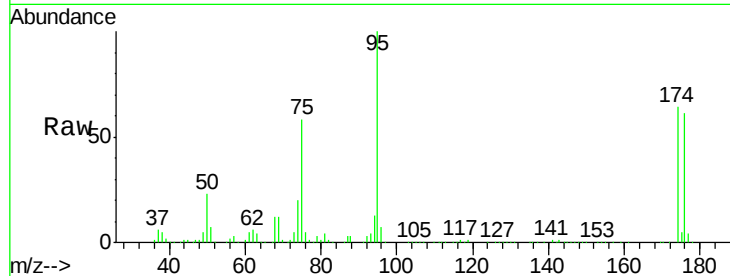
Tot Ion: 95 Resp: 2203400

Ion Ratio Lower Upper

95 100

174 64.6 52.0 78.0

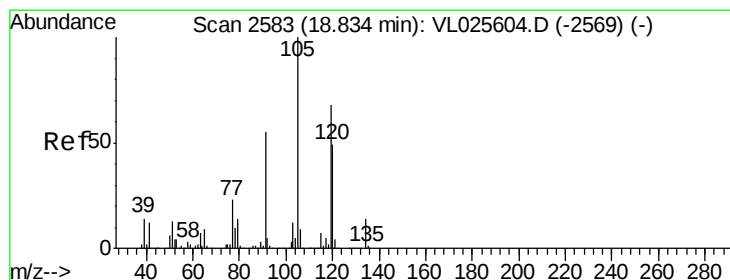
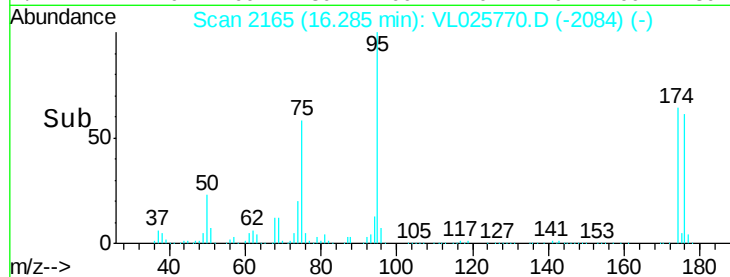
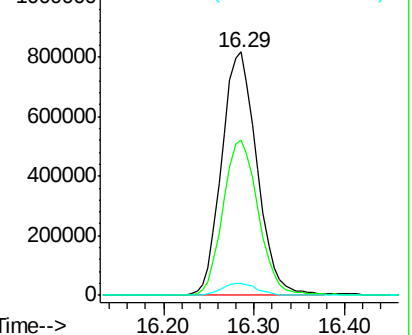
175 5.0 3.9 5.9



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: 0.09 ppbv

RT: 18.83 min Scan# 2583

Delta R.T. -0.00 min

Lab File: VL025770.D

Acq: 28 Jul 2015 2:20

Tgt Ion:105 Resp: 43222

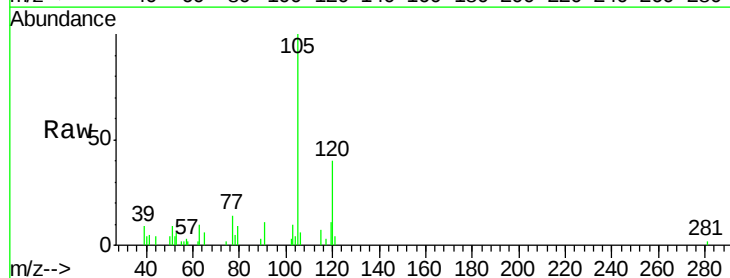
Ion Ratio Lower Upper

105 100

120 39.7 39.3 58.9

91 11.1 43.8 65.6#

77 14.2 18.3 27.5#



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

