

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL102015\
 Data File : VL026225.D
 Acq On : 21 Oct 2015 3:36
 Operator : SY/MD
 Sample : G4086-02DL 600X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ERD45INFLUENT-101415DL

Quant Time: Oct 21 15:09:49 2015
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL102015AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Oct 21 01:20:55 2015
 QLast Update : Wed Oct 21 01:20:55 2015
 Response via : Initial Calibration

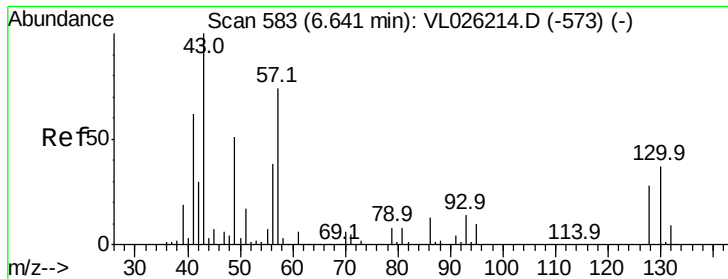
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.63	49	546020	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	8.31	114	1588956	10.00	ppbv	0.00
55) Chlorobenzene-d5	13.71	117	1866194	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	16.25	95	1500146	10.42	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	3.56	51	27004	0.39	ppbv	98
5) Vinyl Chloride	3.87	62	19453	0.50	ppbv	95
7) Chloroethane	3.87	64	6177	0.37	ppbv #	43
9) Propene	3.58	41	3604	0.11	ppbv	83
10) Heptane	9.33	43	4803	0.04	ppbv	92
13) Ethanol	4.35	45	7992	1.65	ppbv	89
15) Acetone	4.59	43	299240	3.72	ppbv	94
16) 1,3-Butadiene	3.92	39	5313	0.15	ppbv #	7
18) 1,1-Dichloroethene	5.07	96	2508	0.07	ppbv	99
19) Isopropyl Alcohol	4.79	45	15008	0.48	ppbv #	27
20) Methylene Chloride	5.14	84	3482	0.11	ppbv	94
22) trans-1,2-Dichloroethene	5.74	96	12181	0.28	ppbv	94
24) 1,1-Dichloroethane	5.74	63	5626	0.06	ppbv #	1
26) Hexane	6.63	57	3988	0.05	ppbv #	71
27) Carbon Disulfide	5.37	76	3930	0.04	ppbv #	1
31) cis-1,2-Dichloroethene	6.49	61	629064	9.20	ppbv	99
34) 2-Butanone	6.21	43	95833	1.07	ppbv	99
36) Benzene	8.00	78	4088	0.03	ppbv #	72
38) Trichloroethene	9.04	130	4811052	61.28	ppbv	95
39) 1,2-Dichloropropane	9.04	63	20484	0.36	ppbv #	1
41) Tetrahydrofuran	7.15	42	2305	0.04	ppbv #	34
42) Bromodichloromethane	9.04	83	66404	0.56	ppbv #	95
47) 1,1,2-Trichloroethane	11.30	97	2925	0.04	ppbv #	16
50) 4-Methyl-2-Pentanone	10.12	43	4737	0.04	ppbv #	79
52) Tetrachloroethene	12.77	164	5436	0.06	ppbv #	76
53) Toluene	11.21	91	12914	0.06	ppbv	97
59) m/p-Xylene	14.66	91	6110	0.03	ppbv #	27
74) 1,2,4-Trimethylbenzene	18.80	105	15141	0.05	ppbv #	75

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



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.63 min Scan# 581

Delta R.T. -0.01 min

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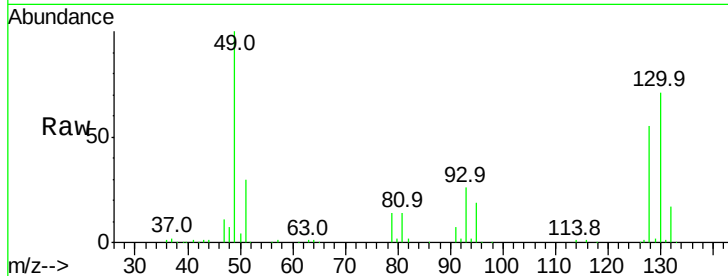
Tot Ion: 49 Resp: 546020

Ion Ratio Lower Upper

49 100

128 56.7 28.2 84.7

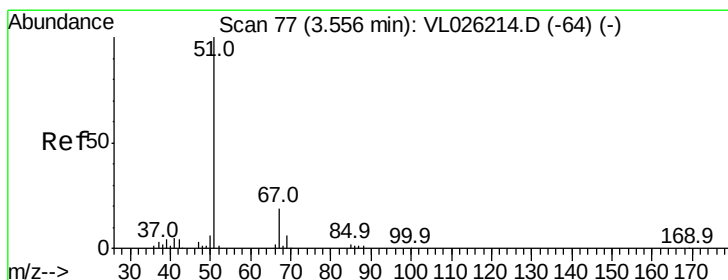
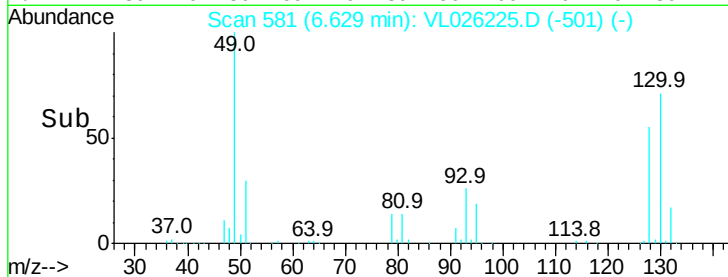
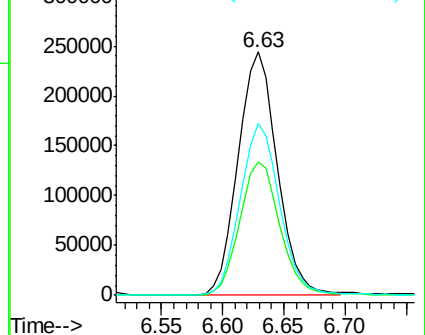
130 72.2 36.0 108.1



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: 0.39 ppbv

RT: 3.56 min Scan# 77

Delta R.T. 0.00 min

Lab File: VL026225.D

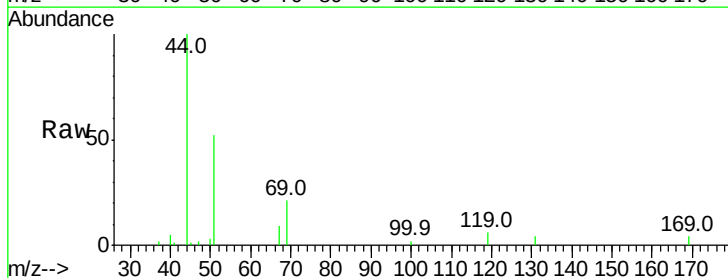
Acq: 21 Oct 2015 3:36

Tgt Ion: 51 Resp: 27004

Ion Ratio Lower Upper

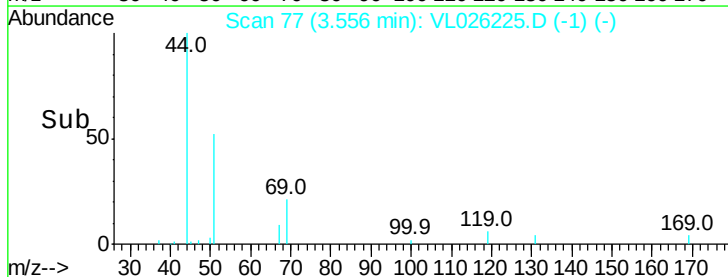
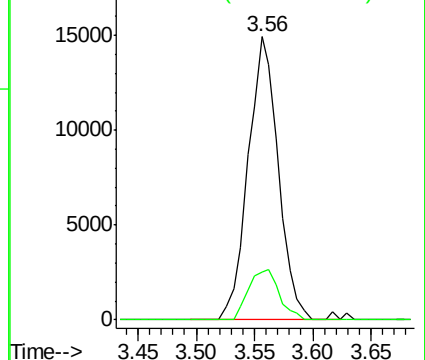
51 100

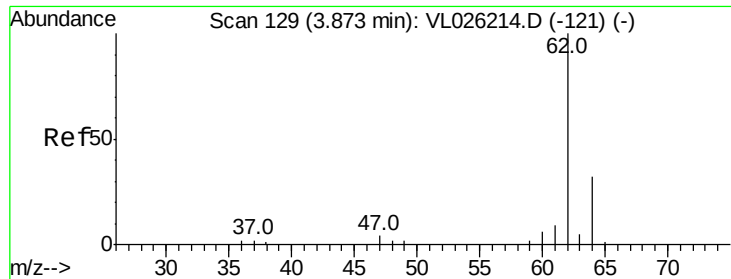
67 18.1 15.3 22.9



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#5

Vinyl Chloride

Concen: 0.50 ppbv

RT: 3.87 min Scan# 129

Delta R.T. 0.00 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

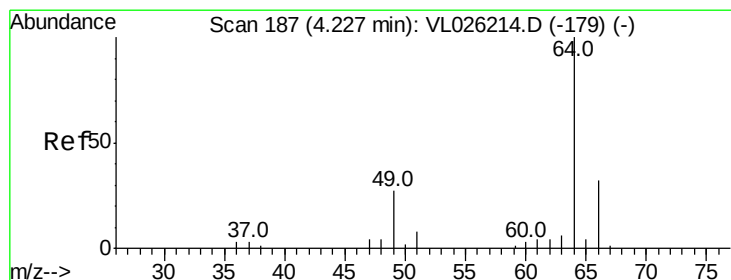
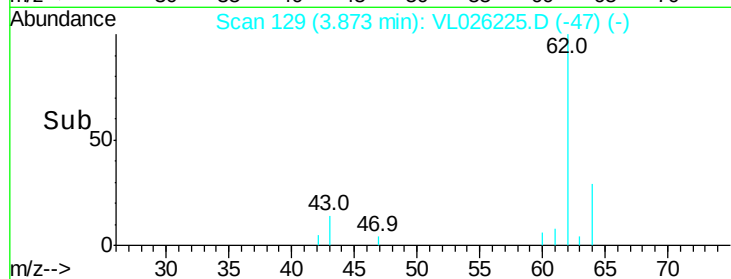
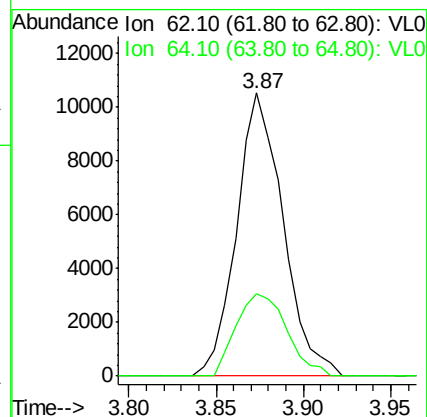
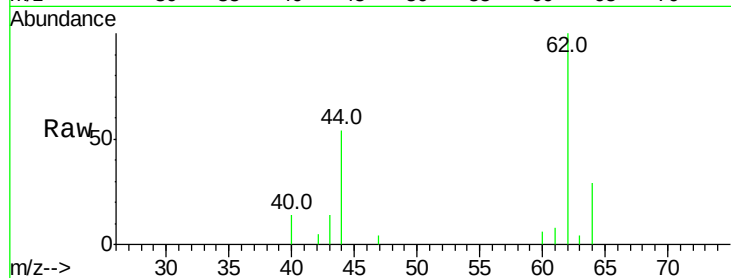
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Tot Ion: 62 Resp: 19453

Ion Ratio Lower Upper

62 100

64 29.0 25.6 38.4



#7

Chloroethane

Concen: 0.37 ppbv

RT: 3.87 min Scan# 129

Delta R.T. -0.35 min

Lab File: VL026225.D

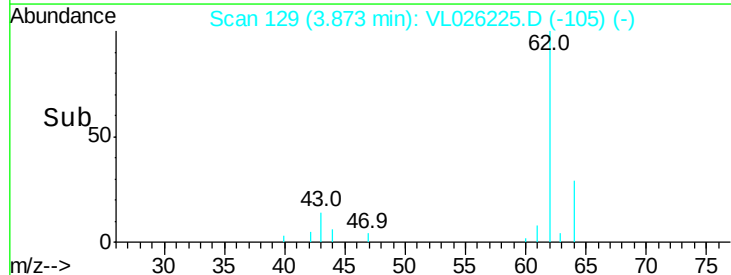
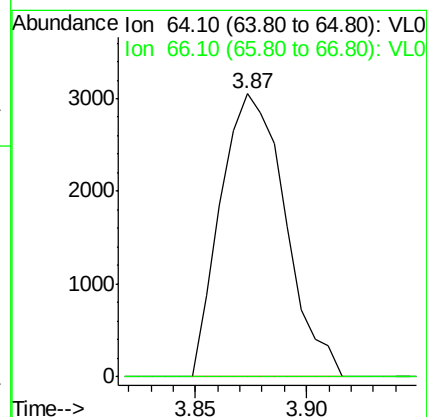
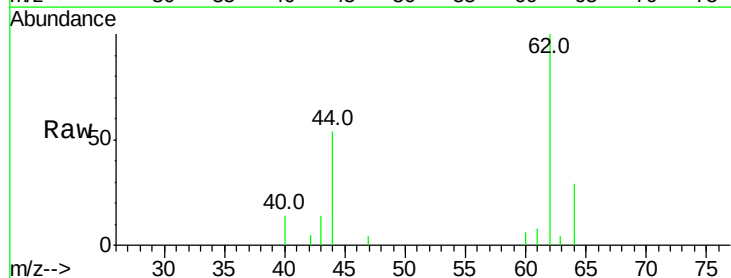
Acq: 21 Oct 2015 3:36

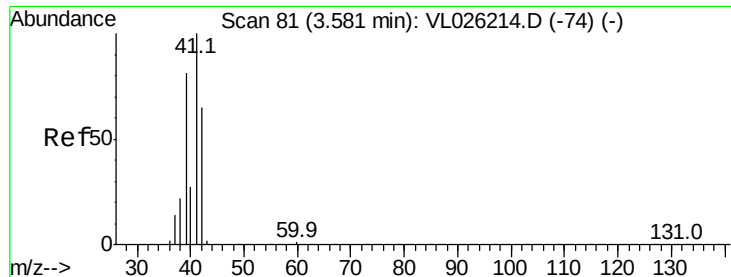
Tgt Ion: 64 Resp: 6177

Ion Ratio Lower Upper

64 100

66 0.0 25.4 38.0#





#9

Propene

Concen: 0.11 ppbv

RT: 3.58 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

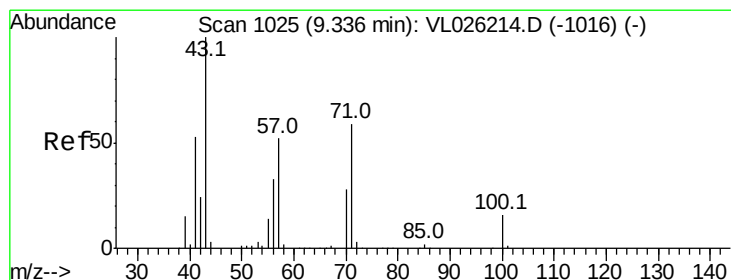
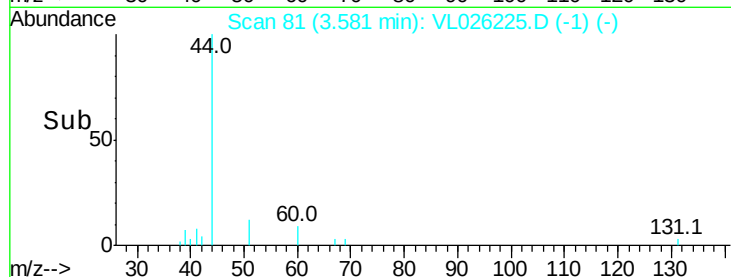
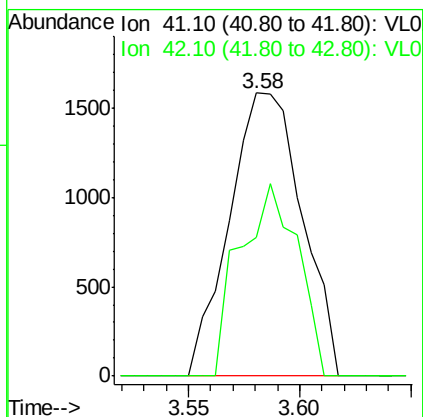
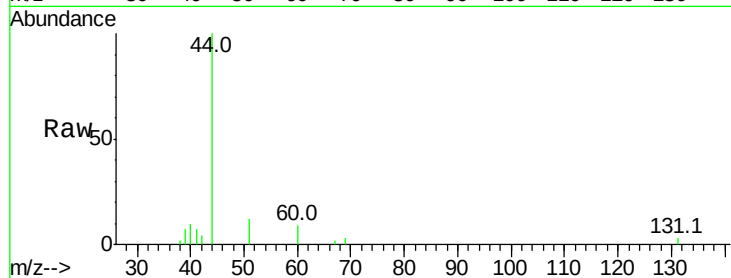
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Tot Ion: 41 Resp: 3604

Ion Ratio Lower Upper

41 100

42 53.9 53.8 80.8



#10

Heptane

Concen: 0.04 ppbv

RT: 9.33 min Scan# 1024

Delta R.T. -0.01 min

Lab File: VL026225.D

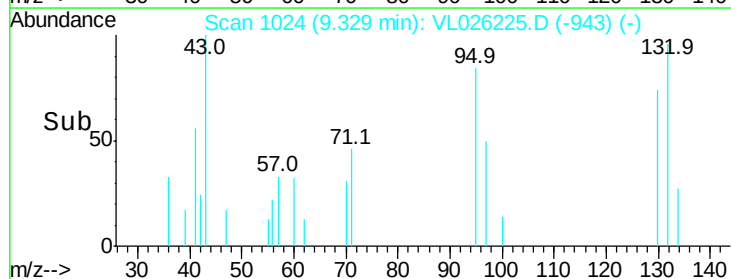
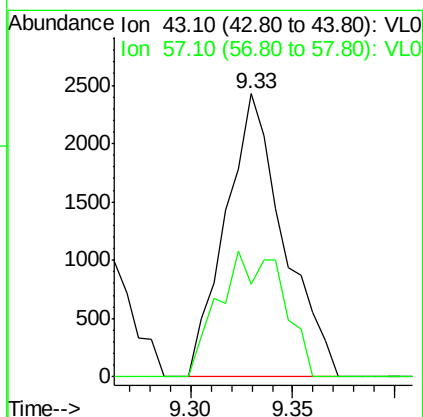
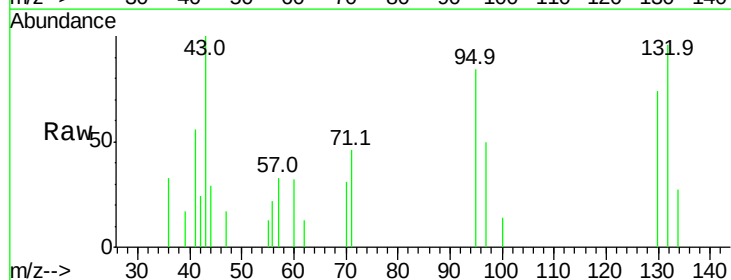
Acq: 21 Oct 2015 3:36

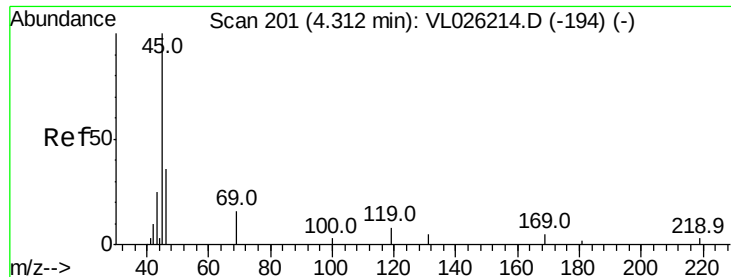
Tgt Ion: 43 Resp: 4803

Ion Ratio Lower Upper

43 100

57 49.0 43.7 65.5





#13

Ethanol

Concen: 1.65 ppbv

RT: 4.35 min Scan# 207

Delta R.T. 0.04 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

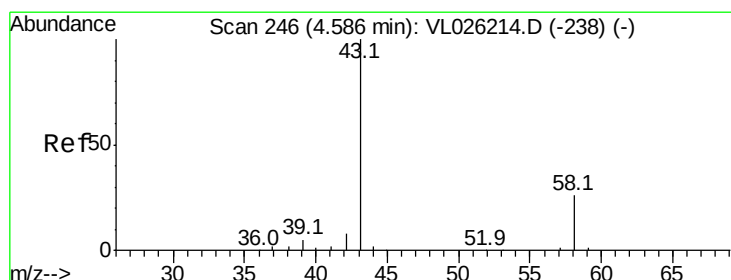
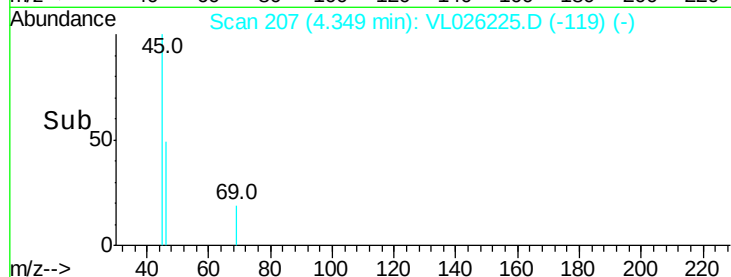
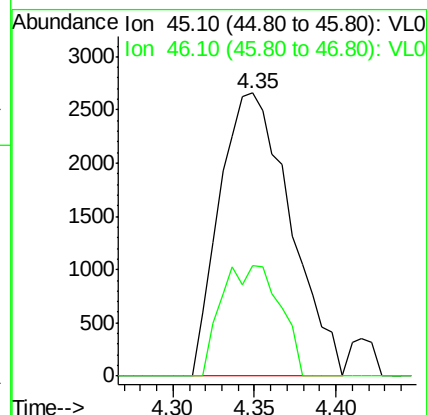
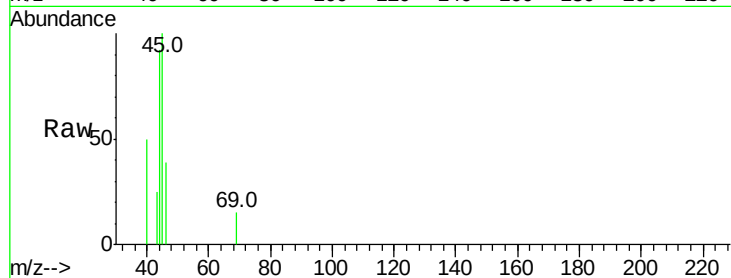
ERD45INFLUENT-101415DL

Tot Ion: 45 Resp: 7992

Ion Ratio Lower Upper

45 100

46 32.6 15.8 63.0



#15

Acetone

Concen: 3.72 ppbv

RT: 4.59 min Scan# 247

Delta R.T. 0.01 min

Lab File: VL026225.D

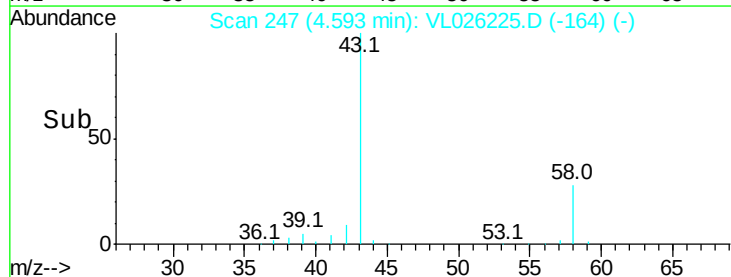
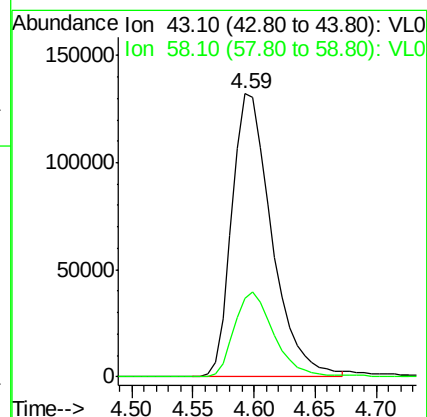
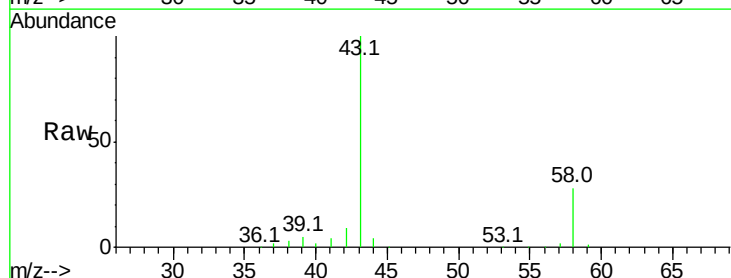
Acq: 21 Oct 2015 3:36

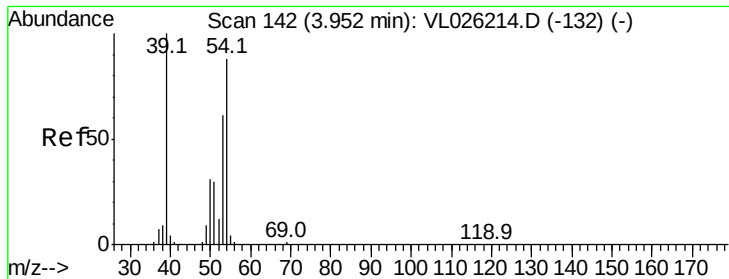
Tgt Ion: 43 Resp: 299240

Ion Ratio Lower Upper

43 100

58 30.2 21.8 32.6





#16

1,3-Butadiene

Concen: 0.15 ppbv

RT: 3.92 min Scan# 137

Delta R.T. -0.03 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

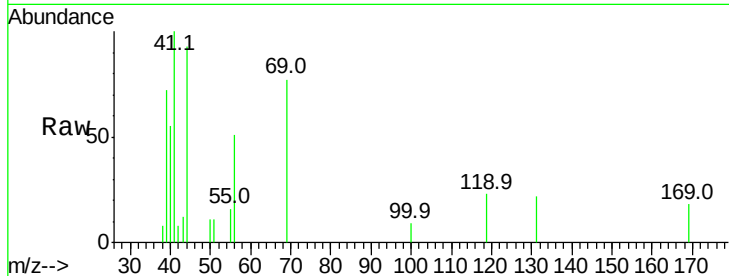
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Tot Ion: 39 Resp: 5313

Ion Ratio Lower Upper

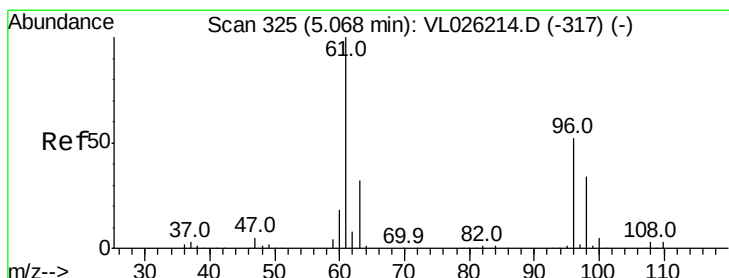
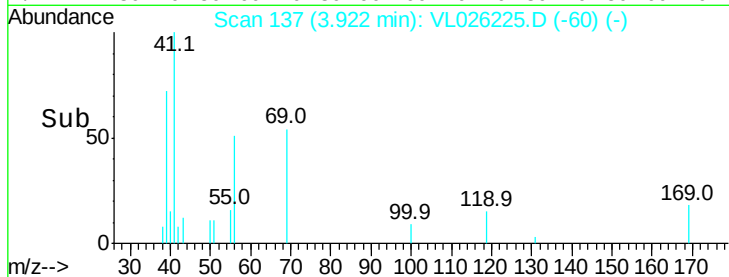
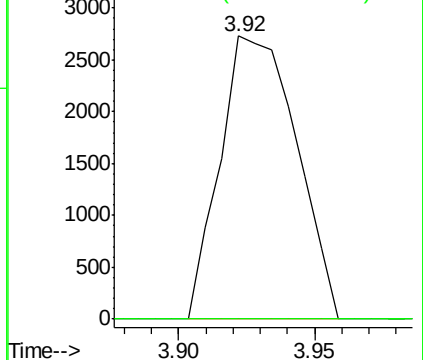
39 100

54 0.0 67.3 100.9#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0



#18

1,1-Dichloroethene

Concen: 0.07 ppbv

RT: 5.07 min Scan# 325

Delta R.T. 0.00 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

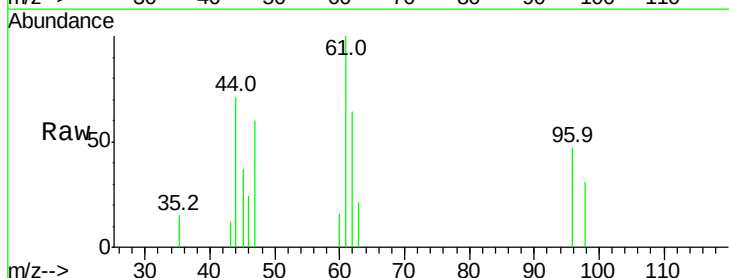
Tgt Ion: 96 Resp: 2508

Ion Ratio Lower Upper

96 100

61 192.6 153.7 230.5

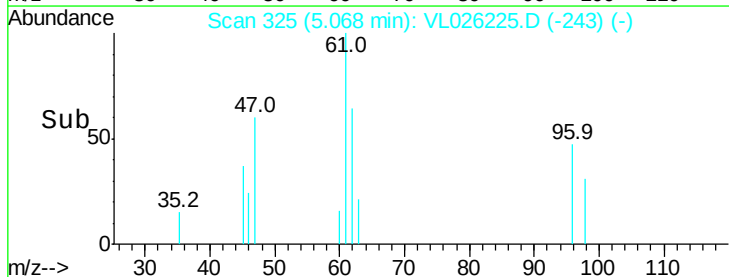
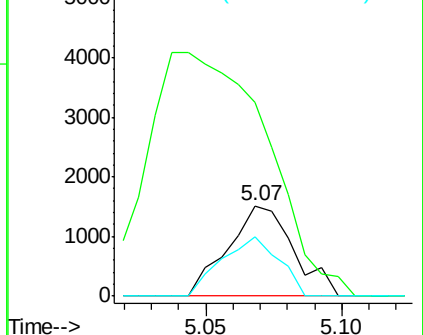
98 66.2 51.6 77.4

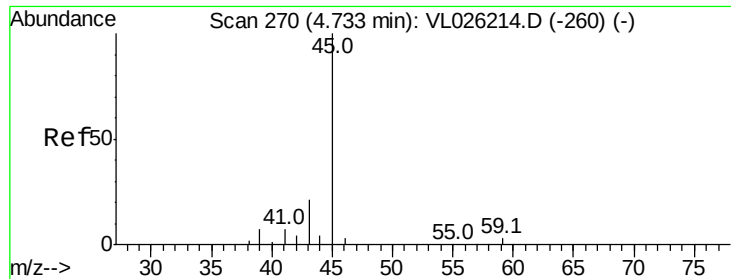


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#19

Isopropyl Alcohol

Concen: 0.48 ppbv

RT: 4.79 min Scan# 279

Delta R.T. 0.05 min

Lab File: VL026225.D

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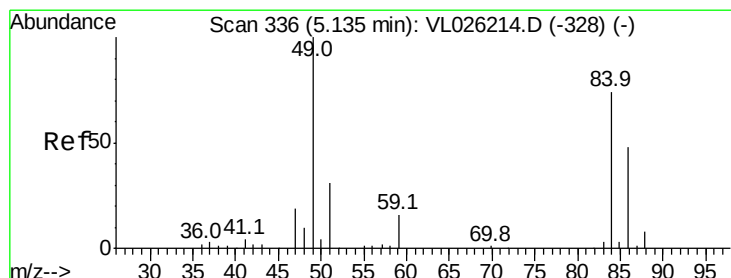
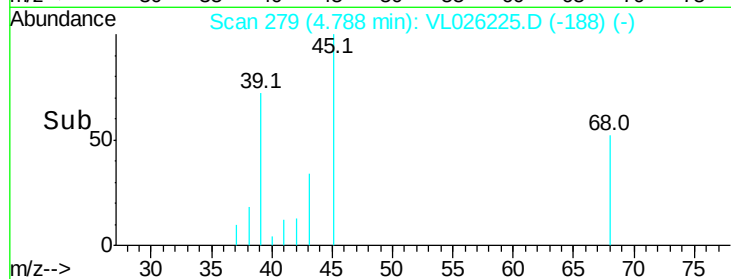
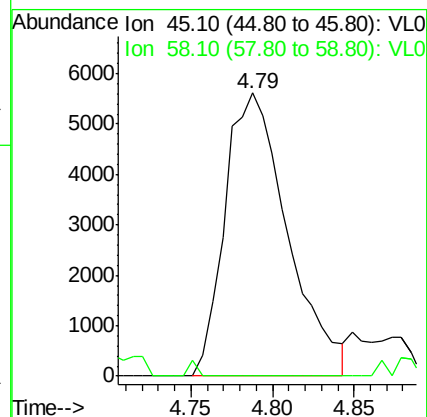
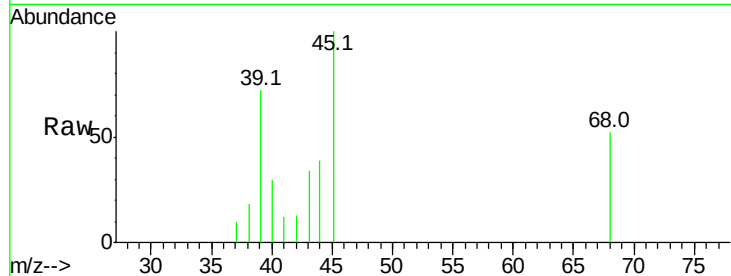
ERD45INFLUENT-101415DL

Tot Ion: 45 Resp: 15008

Ion Ratio Lower Upper

45 100

58 0.0 40.3 60.5#



#20

Methylene Chloride

Concen: 0.11 ppbv

RT: 5.14 min Scan# 336

Delta R.T. 0.00 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Tgt Ion: 84 Resp: 3482

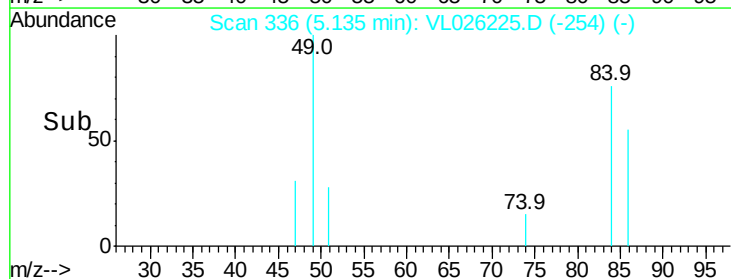
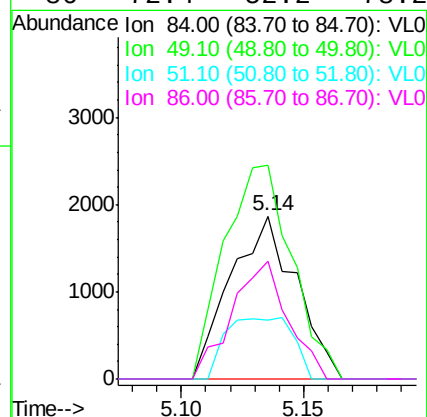
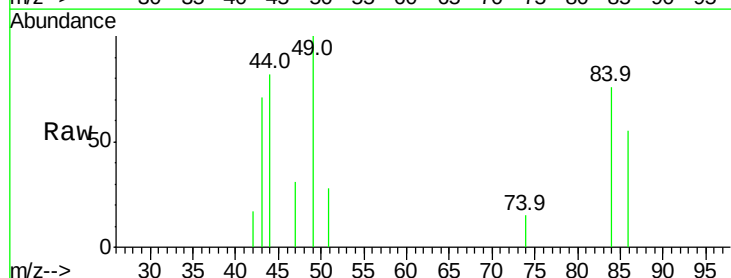
Ion Ratio Lower Upper

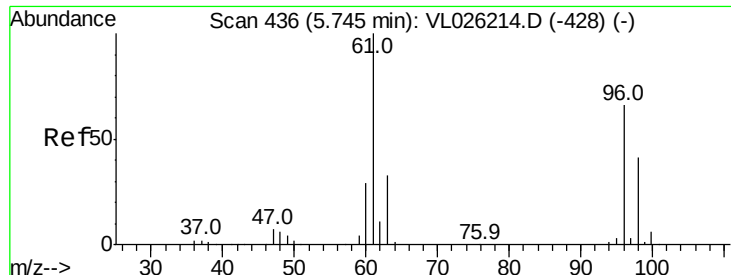
84 100

49 131.4 108.7 163.1

51 36.2 33.7 50.5

86 72.4 52.2 78.2





#22

trans-1,2-Dichloroethene

Concen: 0.28 ppbv

RT: 5.74 min Scan# 436

Delta R.T. 0.00 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

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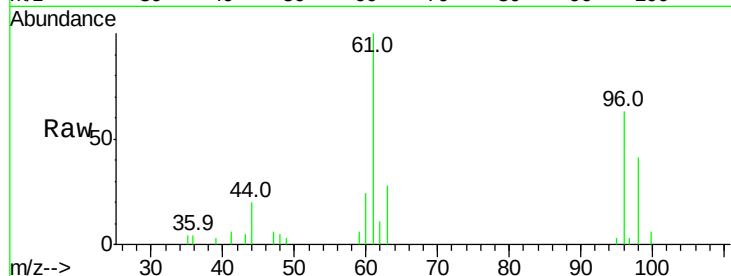
Tot Ion: 96 Resp: 12181

Ion Ratio Lower Upper

96 100

61 159.8 121.5 182.3

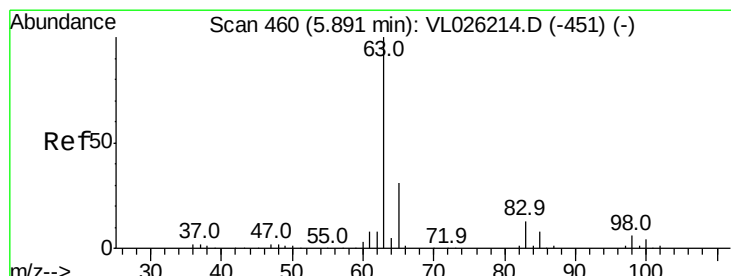
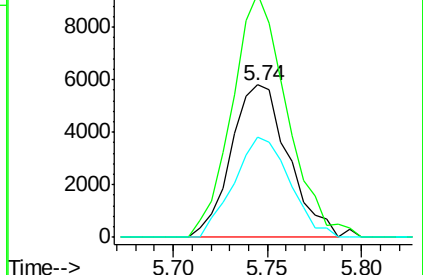
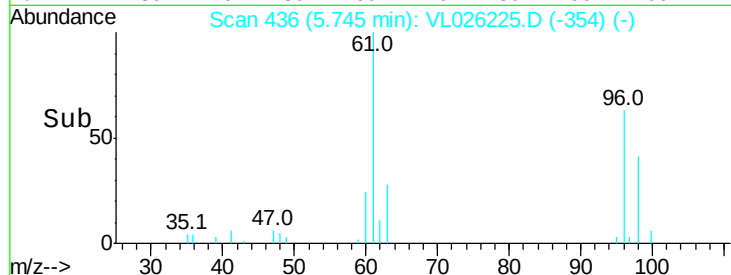
98 65.7 49.7 74.5



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



#24

1,1-Dichloroethane

Concen: 0.06 ppbv

RT: 5.74 min Scan# 436

Delta R.T. -0.15 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

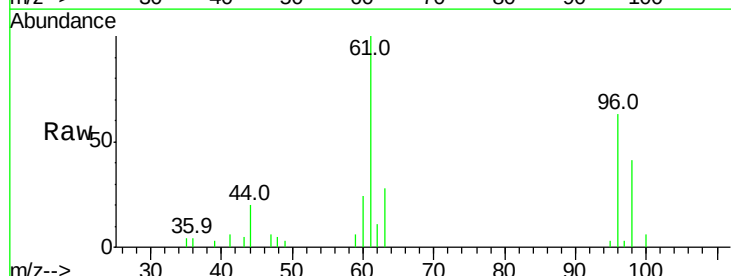
Tgt Ion: 63 Resp: 5626

Ion Ratio Lower Upper

63 100

98 146.4 2.9 8.8#

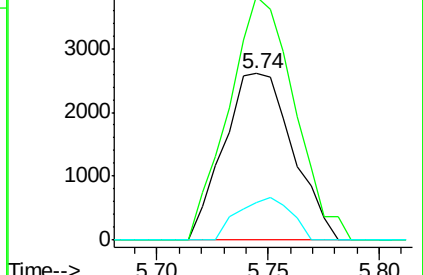
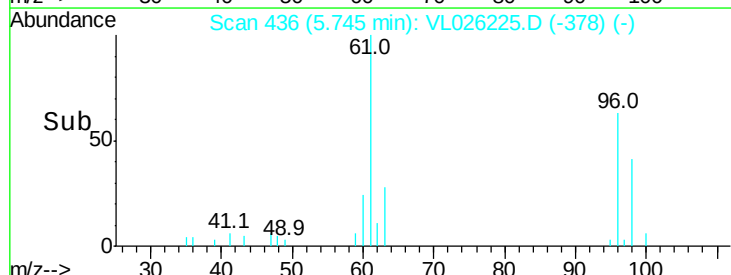
100 22.2 1.8 5.5#

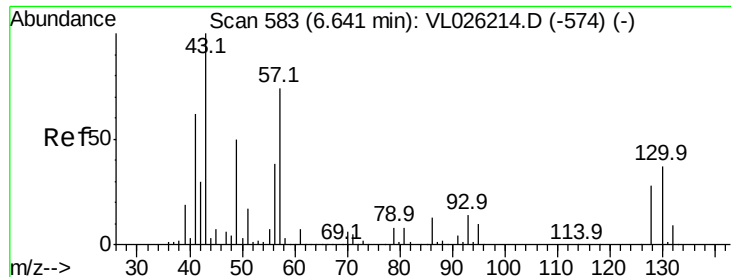


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0

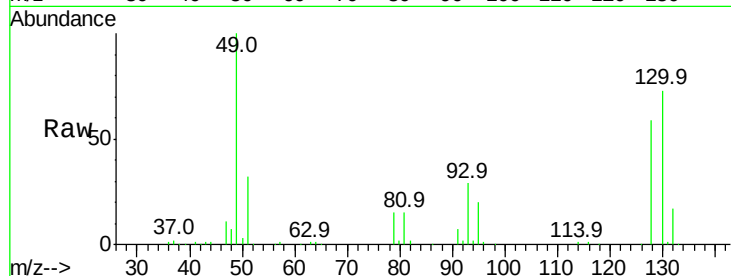




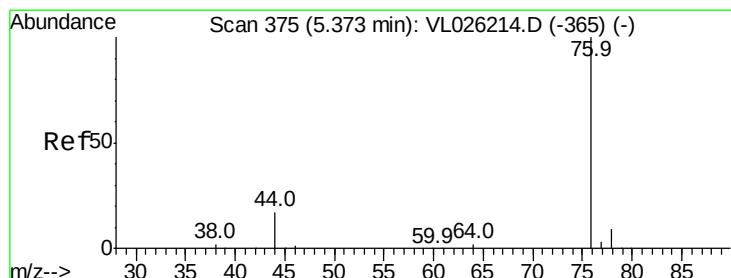
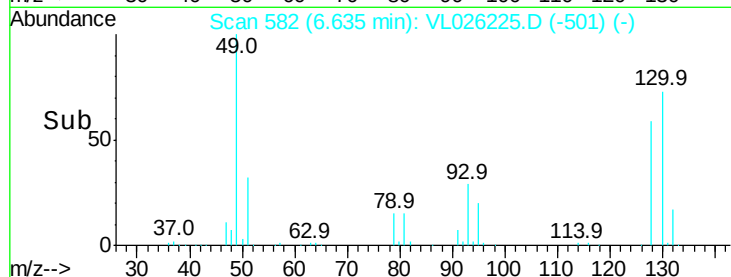
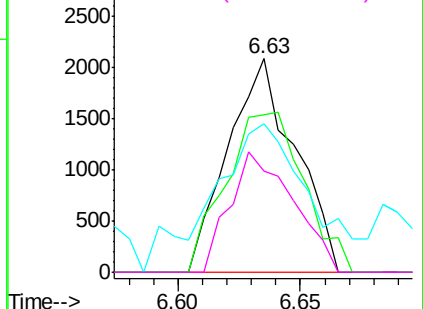
#26
Hexane
Concen: 0.05 ppbv
RT: 6.63 min Scan# 582
Delta R.T. -0.01 min
Lab File: VL026225.D
Acq: 21 Oct 2015 3:36

Instrument :
MSVOA_L
ClientSampleId :
ERD45INFLUENT-101415DL

Tot Ion: 57 Resp: 3988
Ion Ratio Lower Upper
57 100
41 86.8 68.1 102.1
43 130.8 163.4 245.2#
56 53.1 42.2 63.4

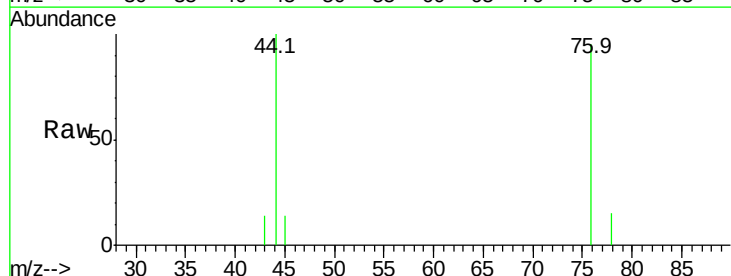


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

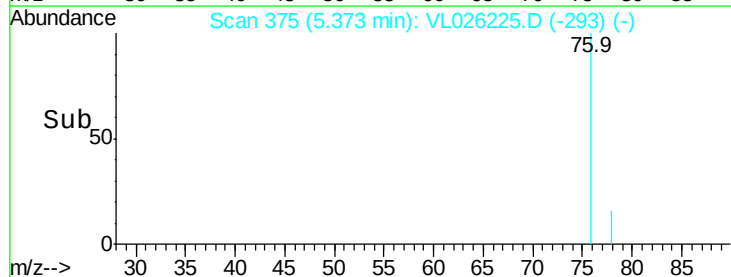
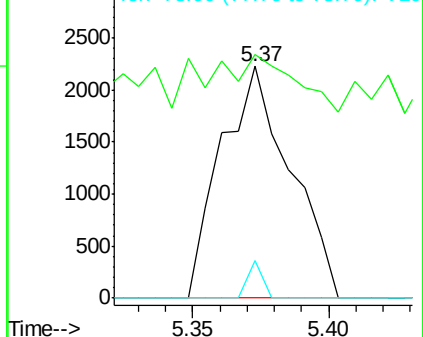


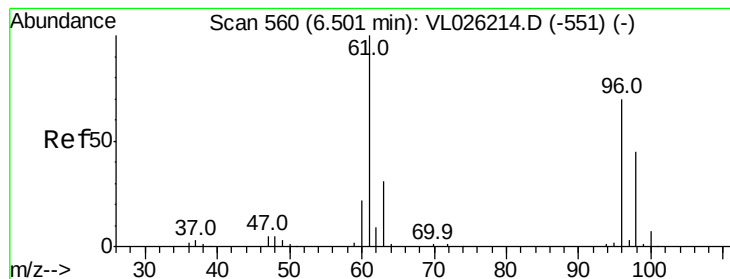
#27
Carbon Disulfide
Concen: 0.04 ppbv
RT: 5.37 min Scan# 375
Delta R.T. 0.00 min
Lab File: VL026225.D
Acq: 21 Oct 2015 3:36

Tgt Ion: 76 Resp: 3930
Ion Ratio Lower Upper
76 100
44 78.7 14.0 21.0#
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





#31

cis-1,2-Dichloroethene

Concen: 9.20 ppbv

RT: 6.49 min Scan# 559

Delta R.T. -0.01 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

ERD45INFLUENT-101415DL

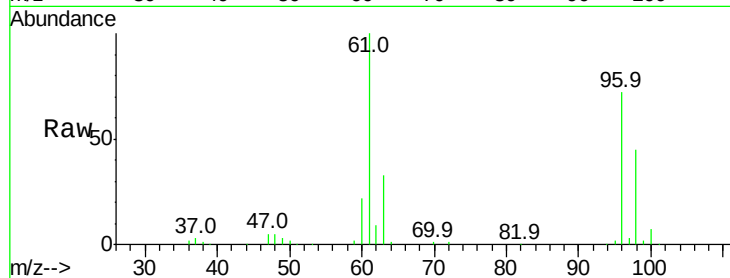
Tot Ion: 61 Resp: 629064

Ion Ratio Lower Upper

61 100

96 71.6 56.0 84.0

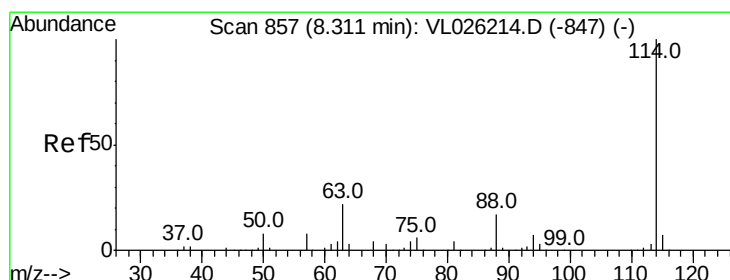
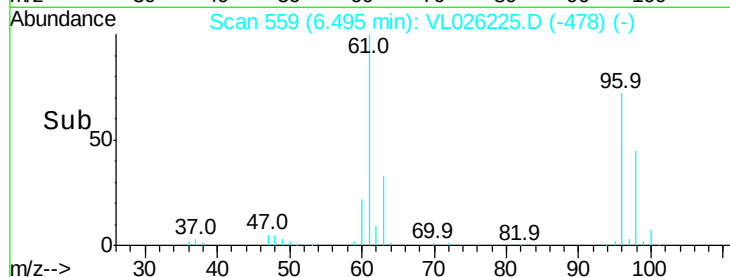
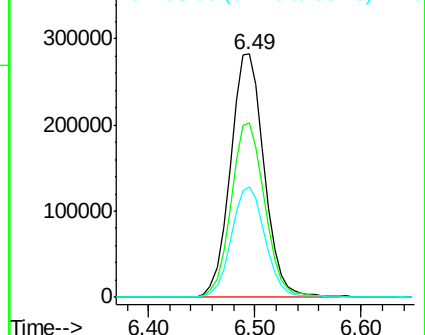
98 45.4 36.1 54.1



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



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 8.31 min Scan# 856

Delta R.T. -0.01 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

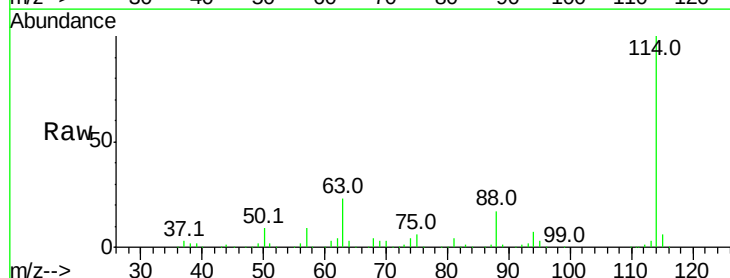
Tgt Ion: 114 Resp: 1588956

Ion Ratio Lower Upper

114 100

63 22.5 18.2 27.4

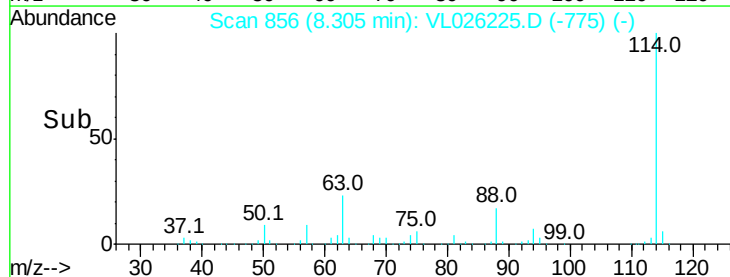
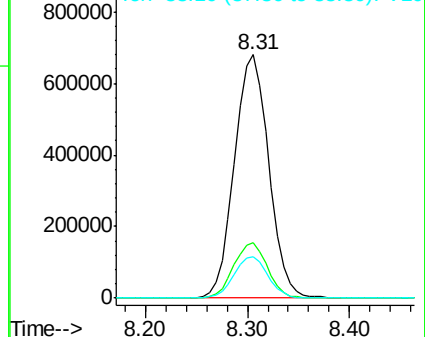
88 16.9 13.5 20.3

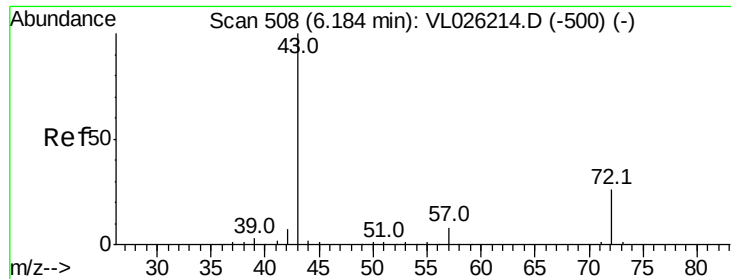


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0

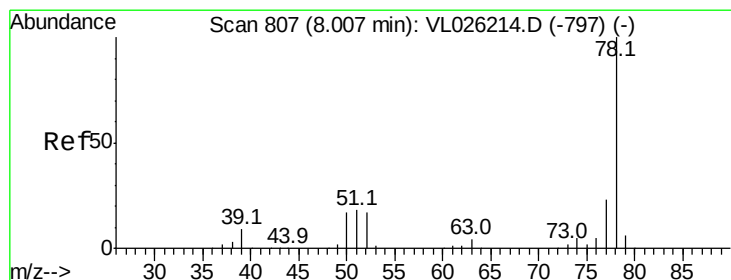
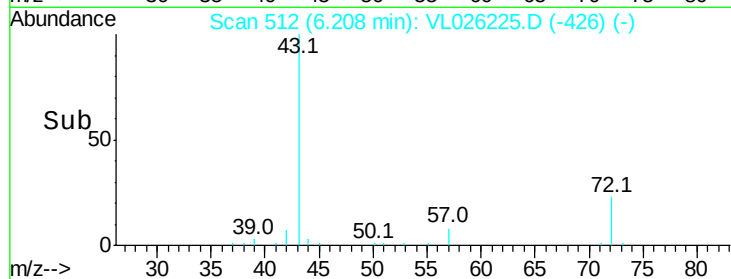
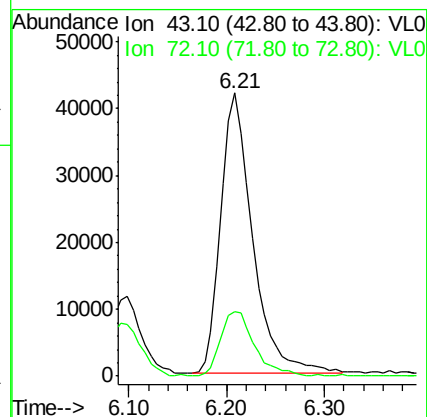
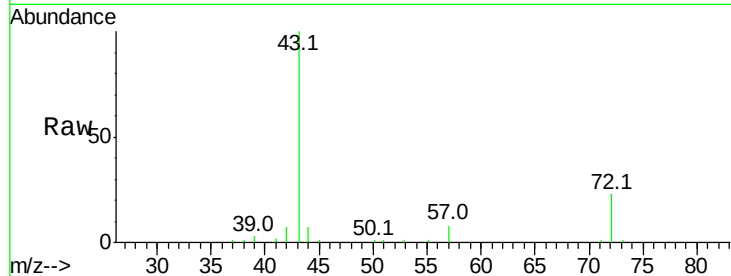




#34
2-Butanone
Concen: 1.07 ppbv
RT: 6.21 min Scan# 512
Delta R.T. 0.02 min
Lab File: VL026225.D
Acq: 21 Oct 2015 3:36

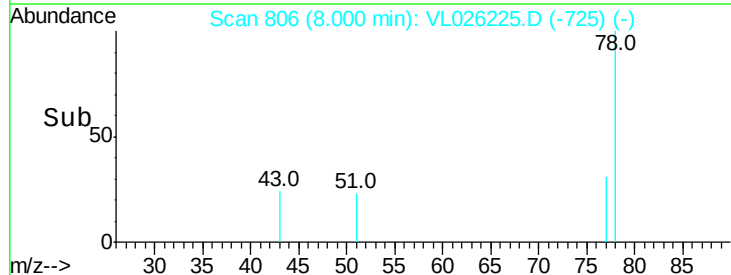
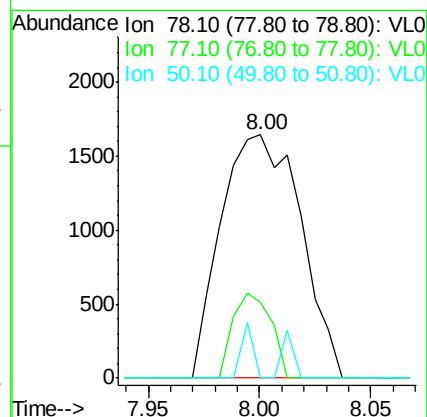
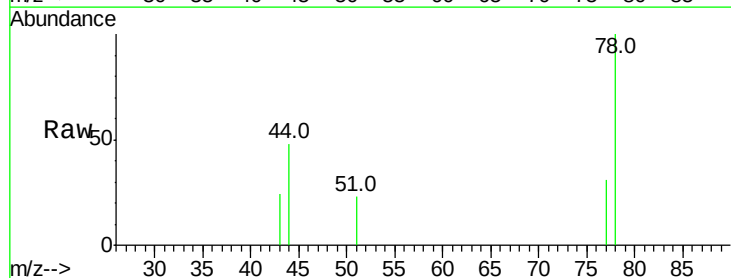
Instrument :
MSVOA_L
ClientSampleId :
ERD45INFLUENT-101415DL

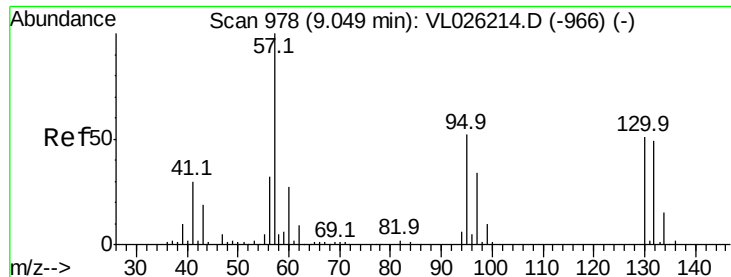
Tot Ion: 43 Resp: 95833
Ion Ratio Lower Upper
43 100
72 24.4 20.1 30.1



#36
Benzene
Concen: 0.03 ppbv
RT: 8.00 min Scan# 806
Delta R.T. -0.01 min
Lab File: VL026225.D
Acq: 21 Oct 2015 3:36

Tgt Ion: 78 Resp: 4088
Ion Ratio Lower Upper
78 100
77 31.4 18.1 27.1#
50 0.0 13.8 20.8#

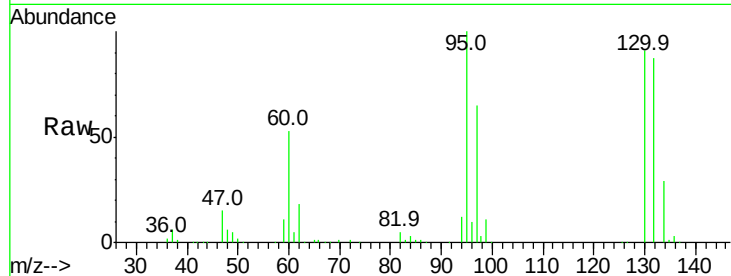




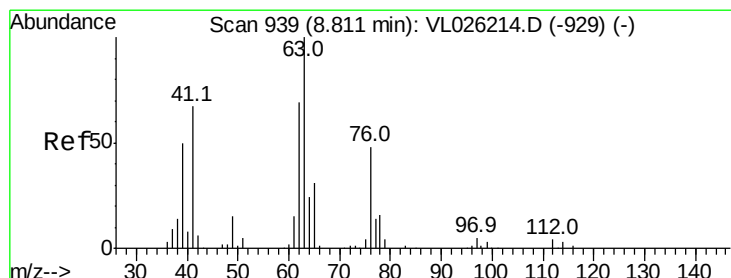
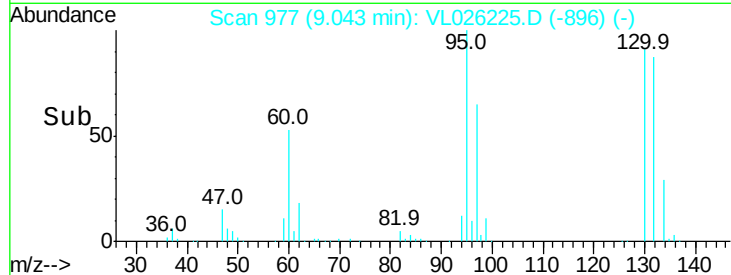
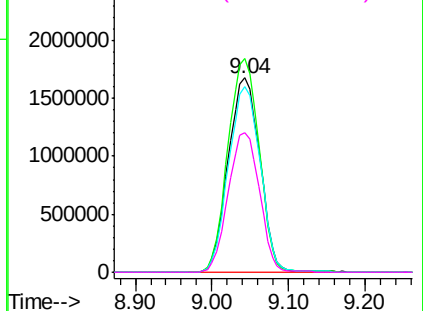
#38
 Trichloroethene
 Concen: 61.28 ppbv
 RT: 9.04 min Scan# 977
 Delta R.T. -0.01 min
 Lab File: VL026225.D
 Acq: 21 Oct 2015 3:36

Instrument :
 MSVOA_L
 ClientSampleId :
 ERD45INFLUENT-101415DL

Tot Ion:130 Resp: 4811052
 Ion Ratio Lower Upper
 130 100
 95 110.0 81.0 121.4
 132 95.7 76.5 114.7
 97 71.9 52.5 78.7

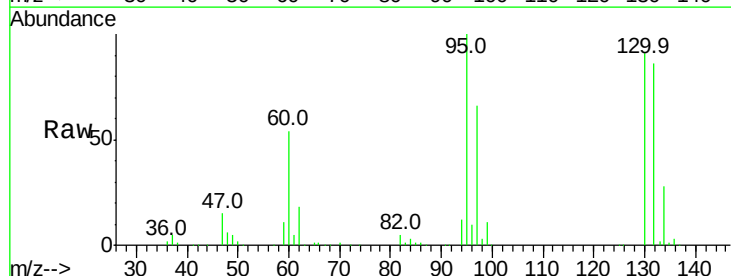


Abundance Ion 130.00 (129.70 to 130.70): V

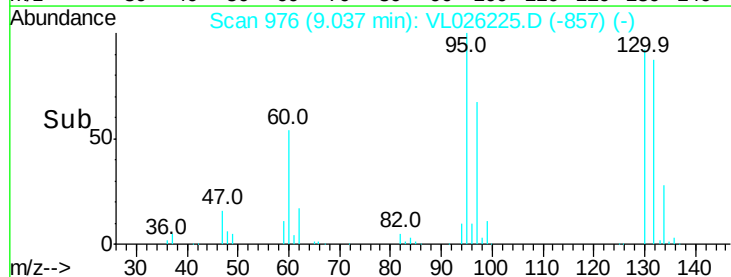
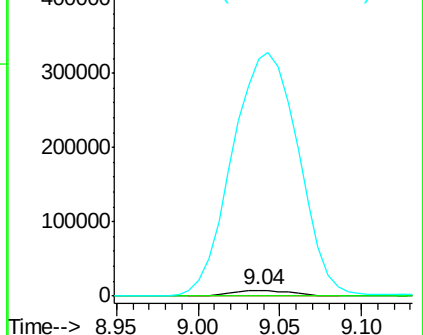


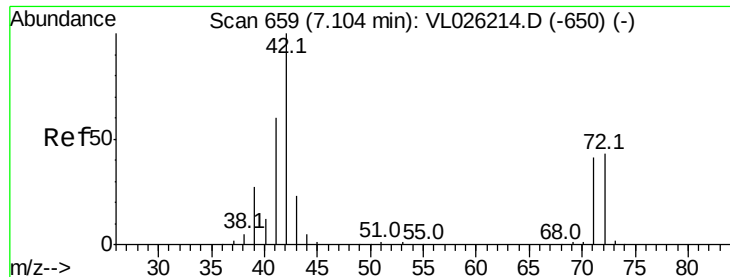
#39
 1,2-Dichloropropane
 Concen: 0.36 ppbv
 RT: 9.04 min Scan# 976
 Delta R.T. 0.23 min
 Lab File: VL026225.D
 Acq: 21 Oct 2015 3:36

Tgt Ion: 63 Resp: 20484
 Ion Ratio Lower Upper
 63 100
 41 8.8 53.2 79.8#
 62 4086.9 55.4 83.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0





#41

Tetrahydrofuran

Concen: 0.04 ppbv

RT: 7.15 min Scan# 667

Delta R.T. 0.05 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

ERD45INFLUENT-101415DL

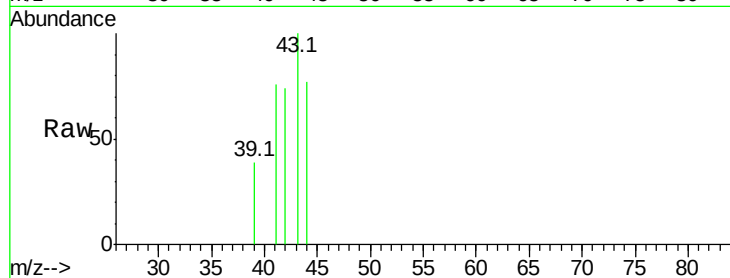
Tot Ion: 42 Resp: 2305

Ion Ratio Lower Upper

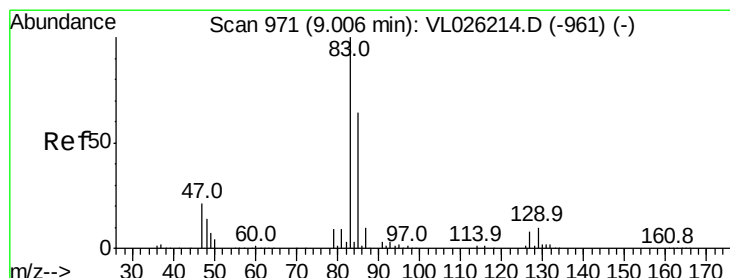
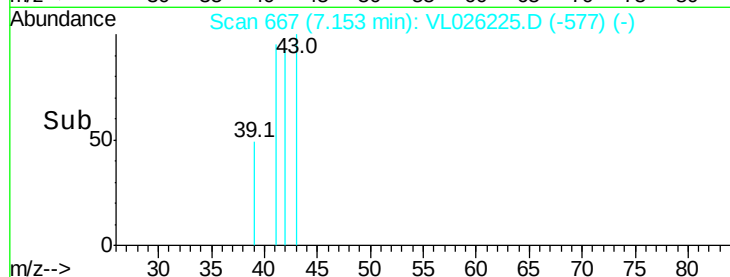
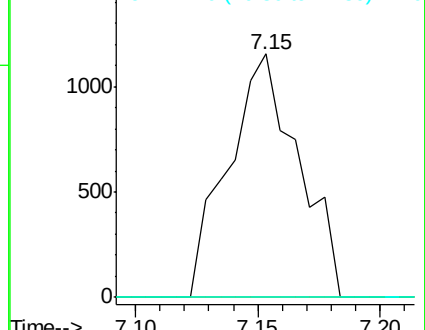
42 100

72 0.0 34.3 51.5#

71 0.0 32.1 48.1#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0



#42

Bromodichloromethane

Concen: 0.56 ppbv

RT: 9.04 min Scan# 976

Delta R.T. 0.03 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

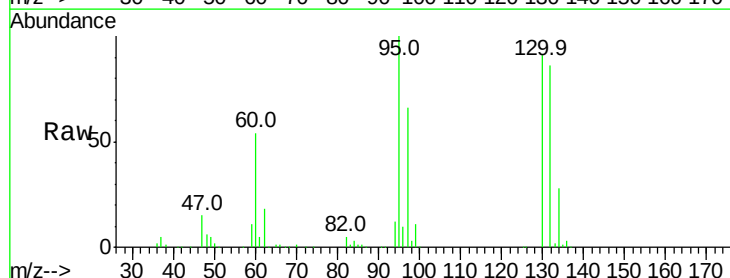
Tgt Ion: 83 Resp: 66404

Ion Ratio Lower Upper

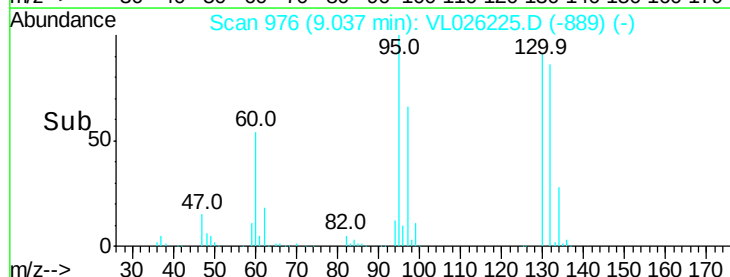
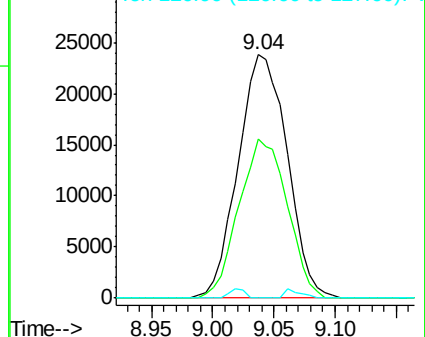
83 100

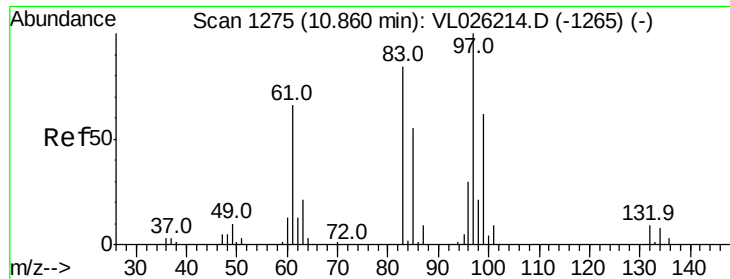
85 65.5 50.9 76.3

127 0.0 6.2 9.4#



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

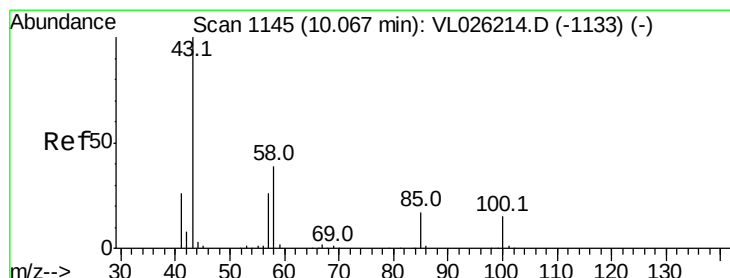
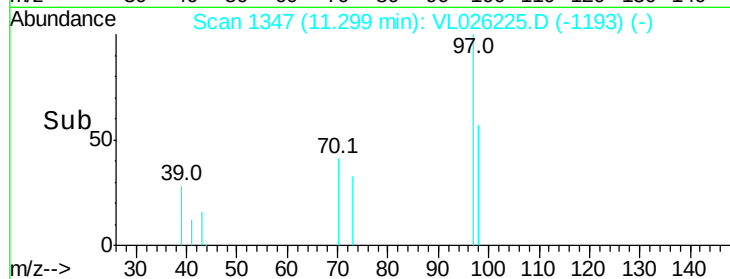
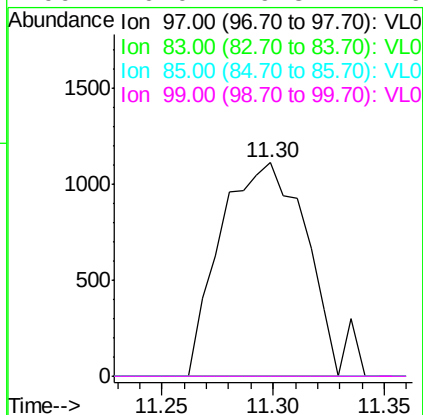
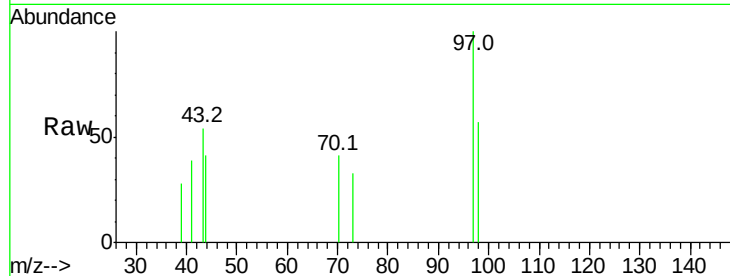




#47
 1,1,2-Trichloroethane
 Concen: 0.04 ppbv
 RT: 11.30 min Scan# 1347
 Delta R.T. 0.44 min
 Lab File: VL026225.D
 Acq: 21 Oct 2015 3:36

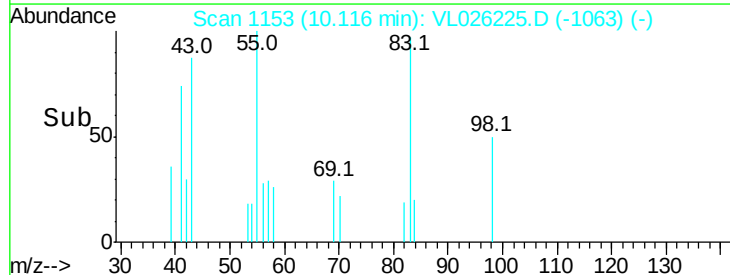
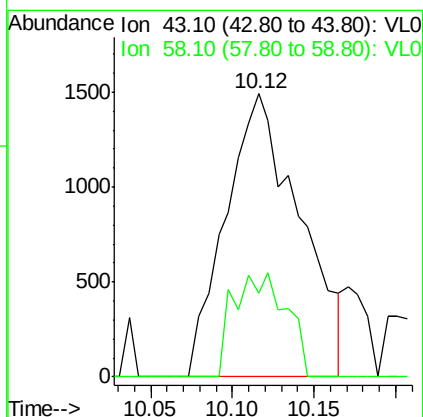
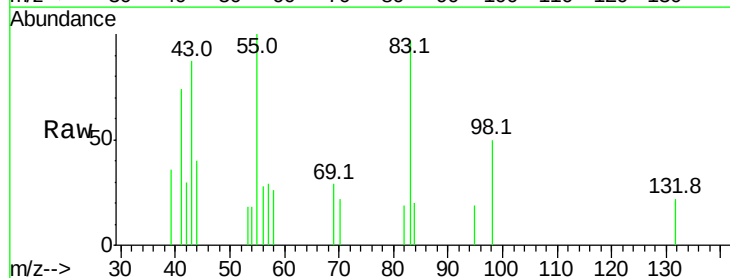
Instrument :
 MSVOA_L
 ClientSampleId :
 ERD45INFLUENT-101415DL

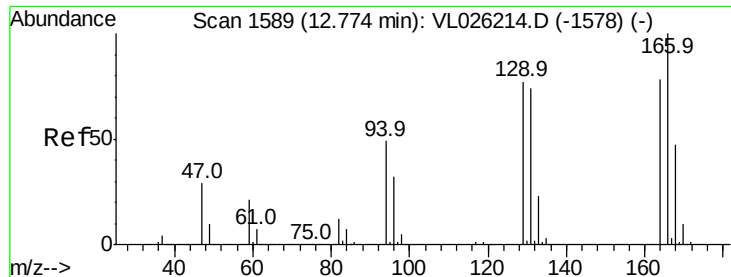
Tot Ion: 97 Resp: 2925
 Ion Ratio Lower Upper
 97 100
 83 0.0 67.4 101.2#
 85 0.0 43.8 65.6#
 99 0.0 49.8 74.6#



#50
 4-Methyl-2-Pentanone
 Concen: 0.04 ppbv
 RT: 10.12 min Scan# 1153
 Delta R.T. 0.05 min
 Lab File: VL026225.D
 Acq: 21 Oct 2015 3:36

Tgt Ion: 43 Resp: 4737
 Ion Ratio Lower Upper
 43 100
 58 25.9 31.1 46.7#





#52

Tetrachloroethene

Concen: 0.06 ppbv

RT: 12.77 min Scan# 1588

Delta R.T. -0.01 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

ERD45INFLUENT-101415DL

Tot Ion:164 Resp: 5436

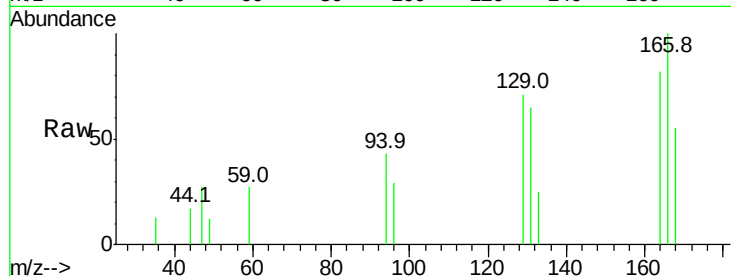
Ion Ratio Lower Upper

164 100

166 106.9 102.3 153.5

129 74.0 78.2 117.4#

131 62.9 75.7 113.5#

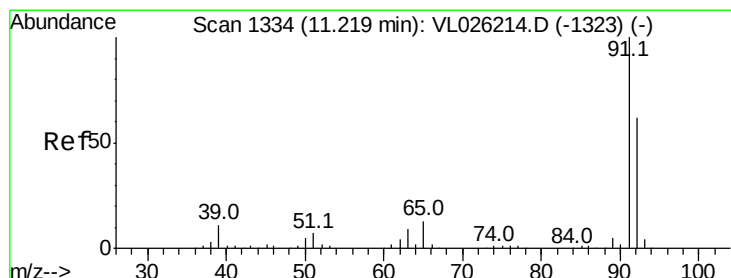
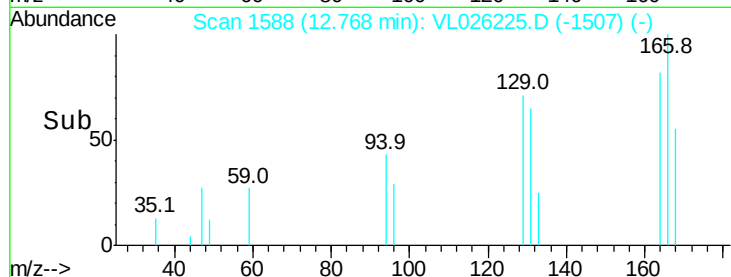
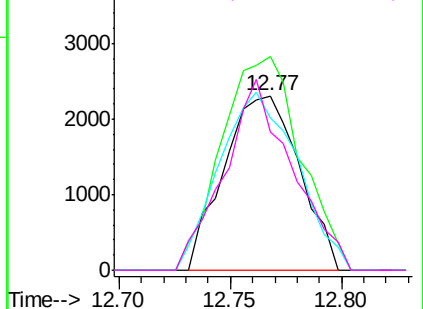


Abundance Ion 163.90 (163.60 to 164.60): V

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



#53

Toluene

Concen: 0.06 ppbv

RT: 11.21 min Scan# 1333

Delta R.T. -0.01 min

Lab File: VL026225.D

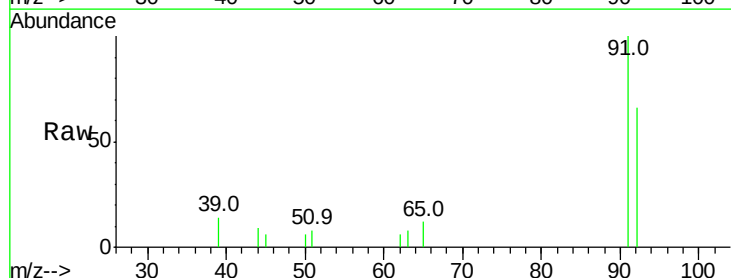
Acq: 21 Oct 2015 3:36

Tgt Ion: 91 Resp: 12914

Ion Ratio Lower Upper

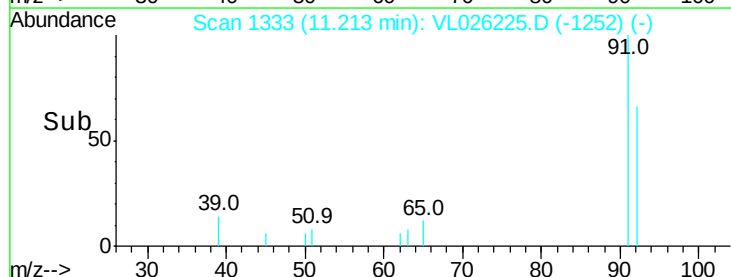
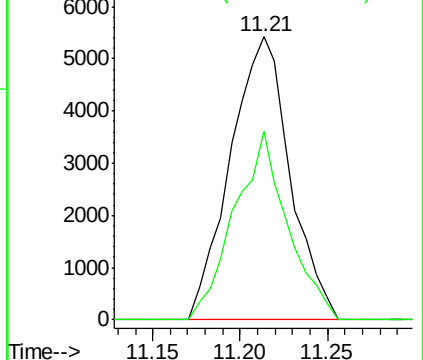
91 100

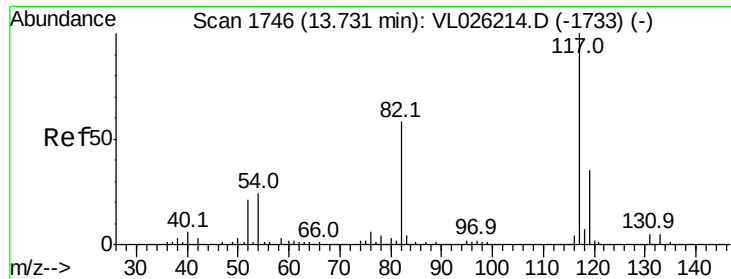
92 59.2 49.2 73.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

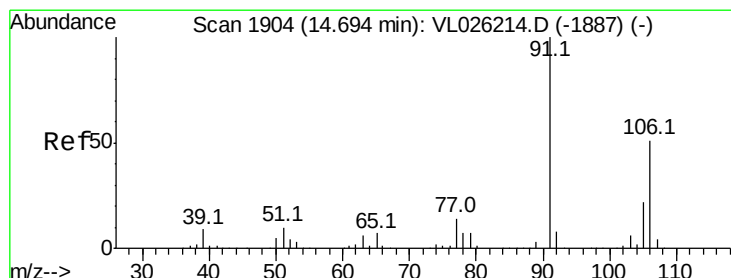
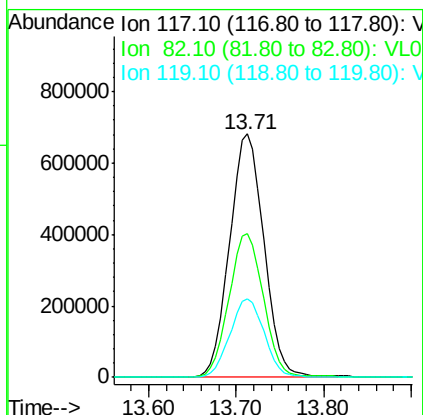
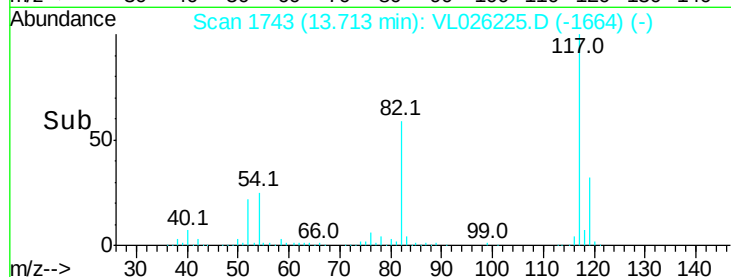
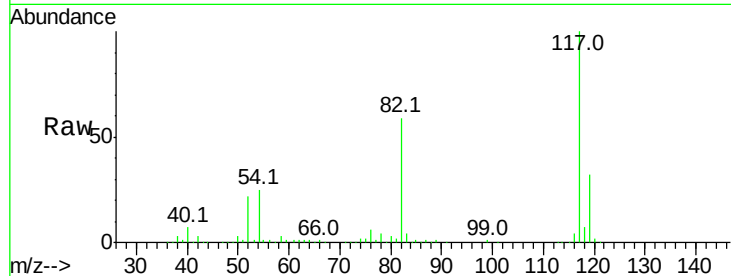




#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 13.71 min Scan# 1743
Delta R.T. -0.02 min
Lab File: VL026225.D
Acq: 21 Oct 2015 3:36

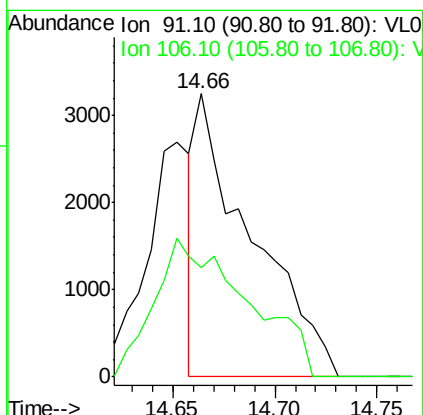
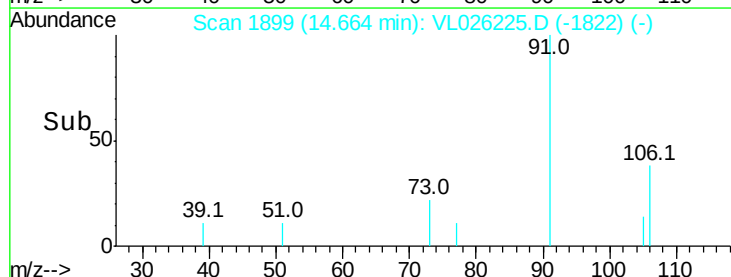
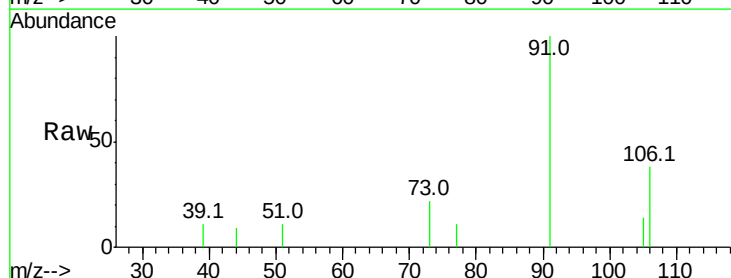
Instrument :
MSVOA_L
ClientSampleId :
ERD45INFLUENT-101415DL

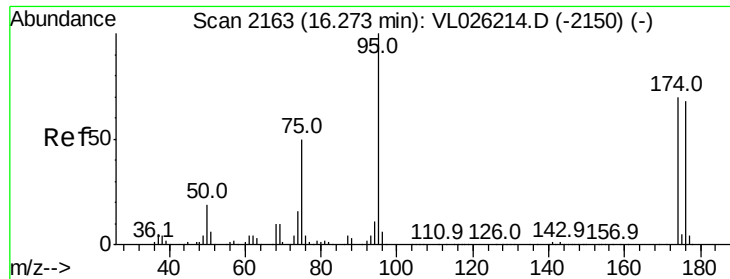
Tot Ion:117 Resp: 1866194
Ion Ratio Lower Upper
117 100
82 59.7 45.8 68.8
119 32.8 45.0 67.4#



#59
m/p-Xylene
Concen: 0.03 ppbv
RT: 14.66 min Scan# 1899
Delta R.T. -0.03 min
Lab File: VL026225.D
Acq: 21 Oct 2015 3:36

Tgt Ion: 91 Resp: 6110
Ion Ratio Lower Upper
91 100
106 0.0 40.6 61.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.42 ppbv

RT: 16.25 min Scan# 2159

Delta R.T. -0.02 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Instrument :

MSVOA_L

ClientSampleId :

ERD45INFLUENT-101415DL

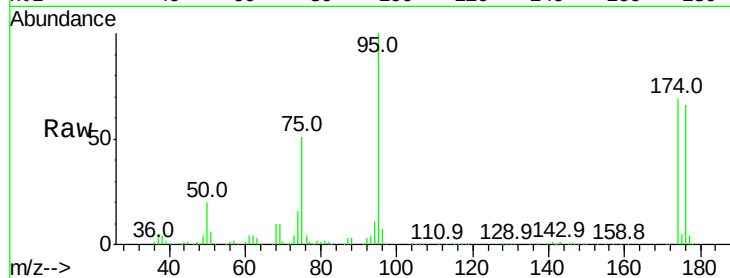
Tot Ion: 95 Resp: 1500146

Ion Ratio Lower Upper

95 100

174 69.7 55.8 83.8

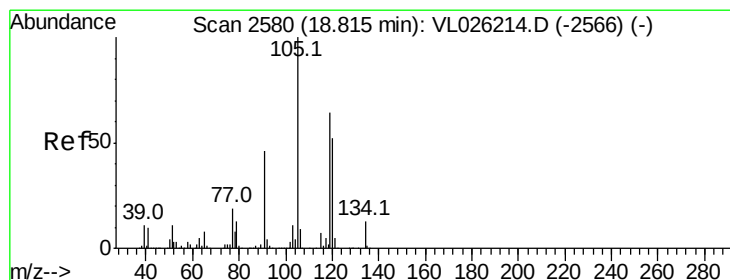
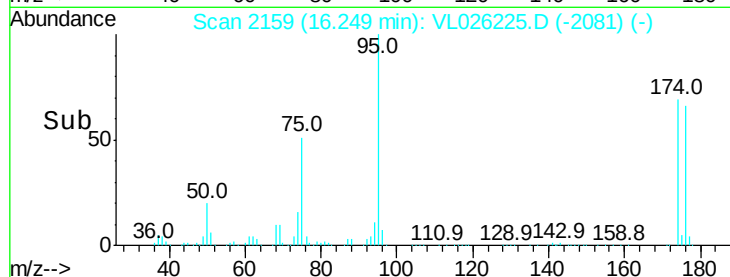
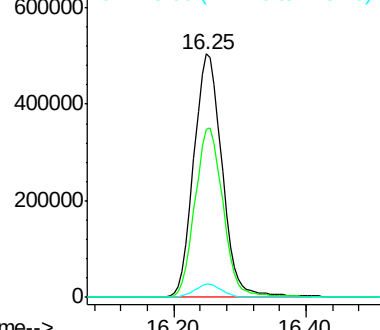
175 5.3 4.3 6.5



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: 0.05 ppbv

RT: 18.80 min Scan# 2578

Delta R.T. -0.01 min

Lab File: VL026225.D

Acq: 21 Oct 2015 3:36

Tgt Ion: 105 Resp: 15141

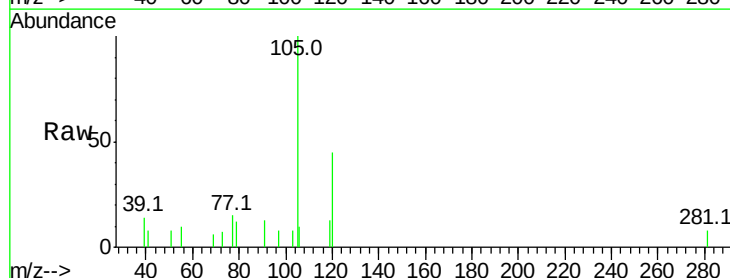
Ion Ratio Lower Upper

105 100

120 45.5 41.2 61.8

91 12.8 37.2 55.8#

77 15.4 15.6 23.4#



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

