

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052021\
 Data File : VL037032.D
 Acq On : 20 May 2021 20:27
 Operator : SY/AP
 Sample : M2424-09 2X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-09

Manual Integrations
 APPROVED

MMDadoda
 5/24/2021 3:27:18 PM

Quant Time: May 21 03:15:05 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	1264695	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.14	114	3602753	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.05	117	3266984	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.37	95	2439888	9.94	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	33141	0.154	ppbv	99
3) Chlorodifluoromethane	2.96	51	26834	0.116	ppbv	92
4) Chloromethane	3.11	50	33808	0.429	ppbv #	83
9) Propene	2.98	41	309825	3.734	ppbv	100
10) Heptane	8.08	43	199243	0.964	ppbv	100
11) Trichlorofluoromethane	3.92	101	37561	0.189	ppbv #	82
13) Ethanol	3.59	45	343148	30.999	ppbv	100
15) Acetone	3.82	43	16468313	127.130	ppbv #	84
17) tert-Butyl alcohol	4.28	59	250549	2.112	ppbv	96
19) Isopropyl Alcohol	3.95	45	288262	4.140	ppbv #	30
20) Methylene Chloride	4.32	84	790620	11.386	ppbv	99
26) Hexane	5.65	57	981968	6.175	ppbv #	31
27) Carbon Disulfide	4.52	76	193241	1.206	ppbv	93
29) Chloroform	5.73	83	24038	0.107	ppbv	87
30) Cyclohexane	7.09	84	68667	0.508	ppbv #	71
34) 2-Butanone	5.21	43	1716881	13.087	ppbv	99
36) Benzene	6.85	78	92593	0.298	ppbv	96
50) 4-Methyl-2-Pentanone	8.72	43	63395m	0.293	ppbv	
51) 2-Hexanone	10.10	43	165256	1.444	ppbv #	90
52) Tetrachloroethene	11.19	164	12178m	0.099	ppbv	
53) Toluene	9.77	91	477228	1.292	ppbv	98
58) Ethyl Benzene	12.67	91	123044	0.267	ppbv	99
59) m/p-Xylene	12.93	91	262689	0.689	ppbv	97
60) o-Xylene	13.65	91	96872	0.266	ppbv	94
61) Styrene	13.49	104	44945	0.219	ppbv #	85
64) n-propylbenzene	15.53	120	14949m	0.111	ppbv	
72) 4-Ethyltoluene	15.80	105	75100	0.174	ppbv #	87
73) 1,3,5-Trimethylbenzene	15.96	105	75838	0.187	ppbv	89
74) 1,2,4-Trimethylbenzene	16.73	105	255903	0.611	ppbv #	70

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

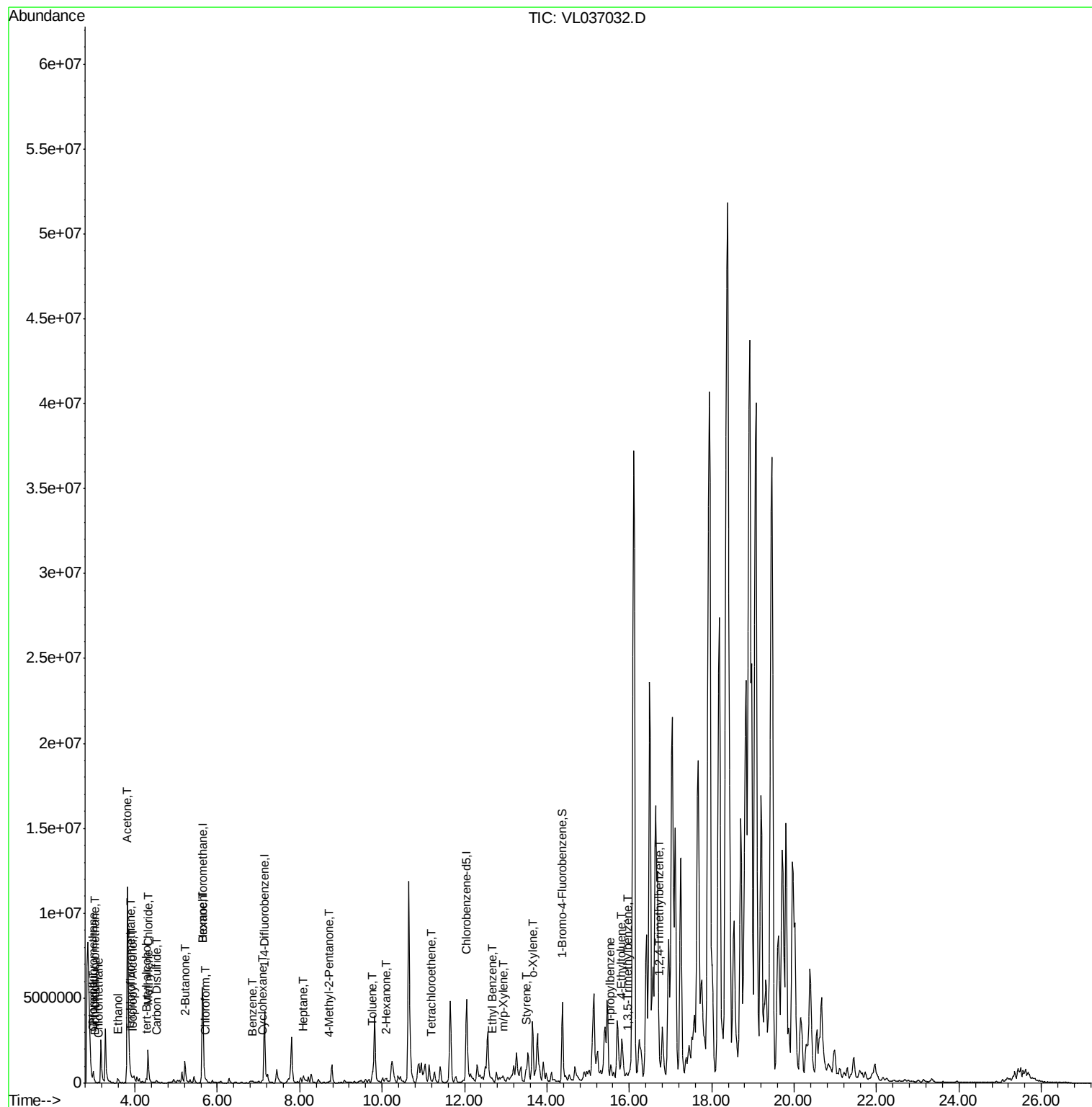
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL052021\
Data File : VL037032.D
Acq On : 20 May 2021 20:27
Operator : SY/AP
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Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

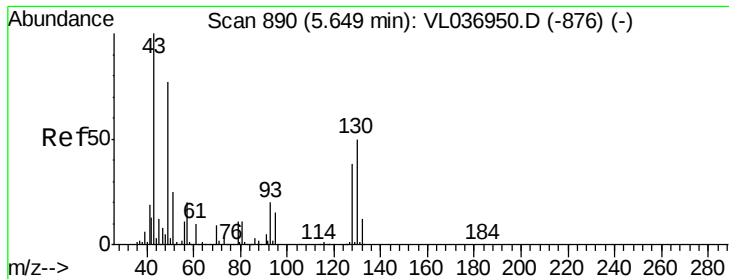
Instrument :
MSVOA_L
ClientSampleId :
KSV-09

Manual Integrations
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Quant Time: May 21 03:15:05 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May
QLast Update : Tue May 18 12:00:15 2021
Response via : Initial Calibration





#1

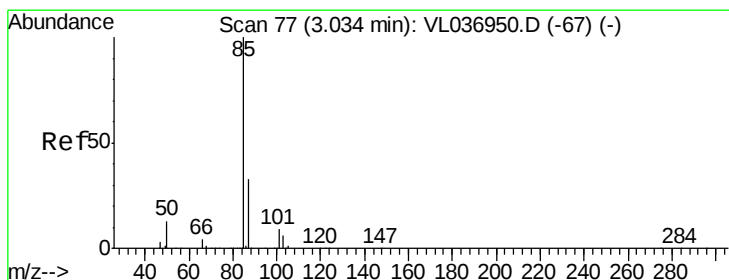
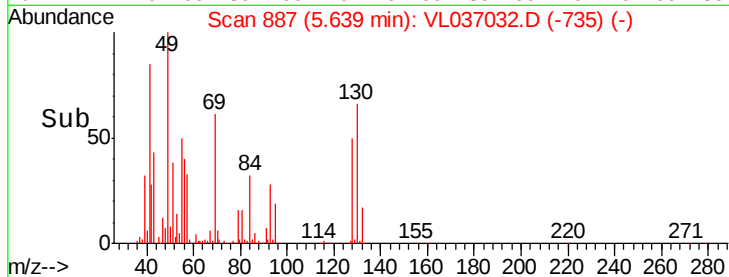
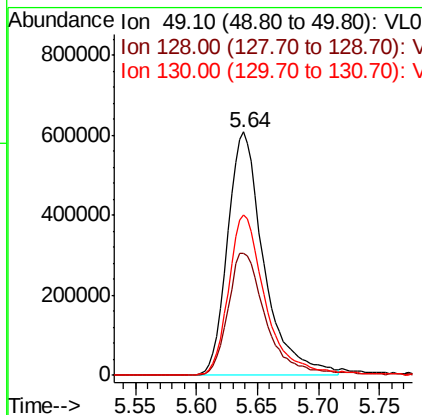
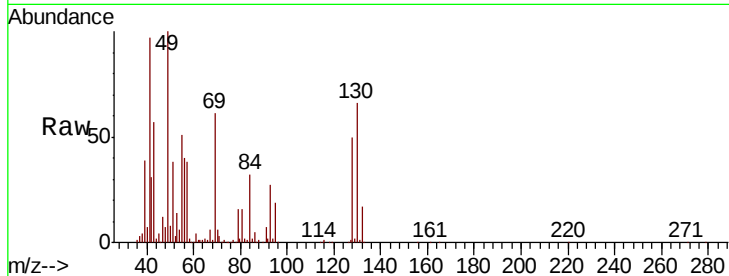
Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.64 min Scan# 887
 Delta R.T. -0.01 min
 Lab File: VL037032.D
 Acq: 20 May 2021 20:27

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-09

Tot Ion: 49 Resp: 1264695
 Ion Ratio Lower Upper
 49 100
 128 53.4 26.9 80.7
 130 68.6 33.8 101.4

Manual Integrations
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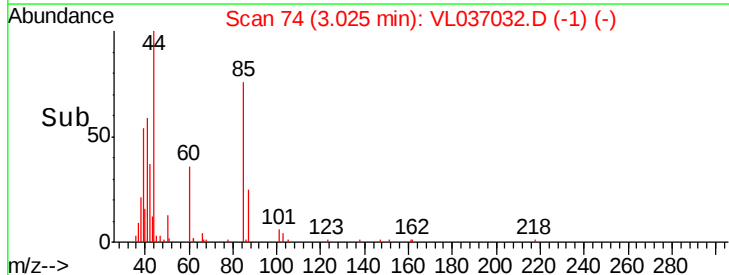
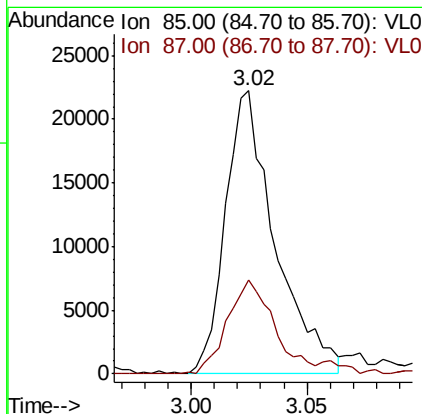
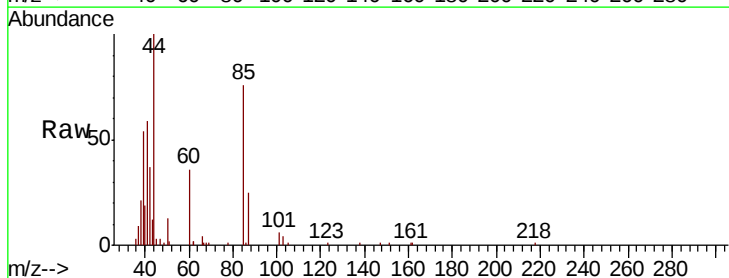
MMDadoda
 5/24/2021 3:27:18 PM

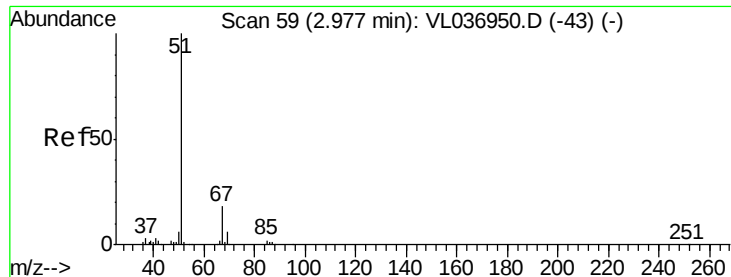


#2

Dichlorodifluoromethane
 Concen: 0.154 ppbv
 RT: 3.02 min Scan# 74
 Delta R.T. -0.01 min
 Lab File: VL037032.D
 Acq: 20 May 2021 20:27

Tgt Ion: 85 Resp: 33141
 Ion Ratio Lower Upper
 85 100
 87 32.7 26.6 39.8





#3

Chlorodifluoromethane

Concen: 0.116 ppbv

RT: 2.96 min Scan# 55

Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Instrument :

MSVOA_L

ClientSampled :

KSV-09

Tot Ion: 51 Resp: 26834

Ion Ratio Lower Upper

51 100

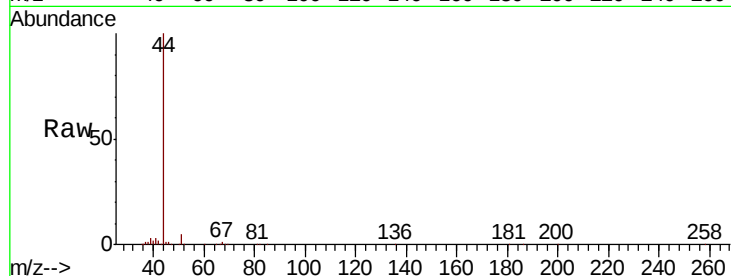
67 14.8 14.6 21.8

Manual Integrations

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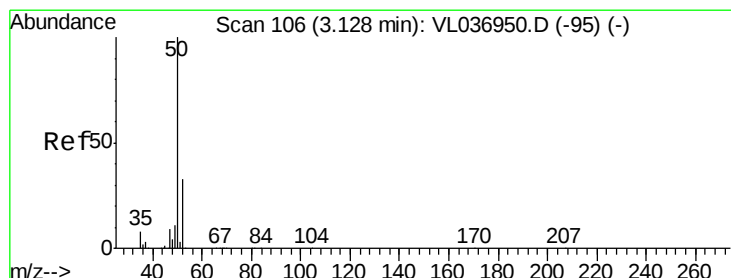
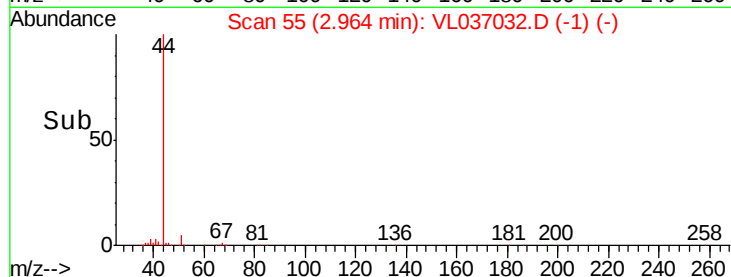
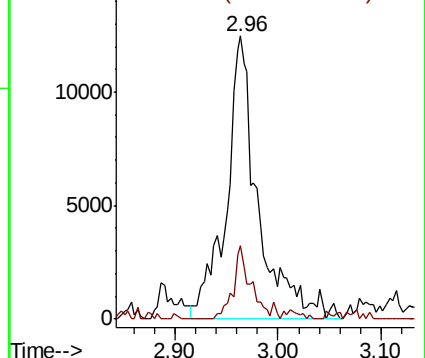
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.429 ppbv

RT: 3.11 min Scan# 102

Delta R.T. -0.01 min

Lab File: VL037032.D

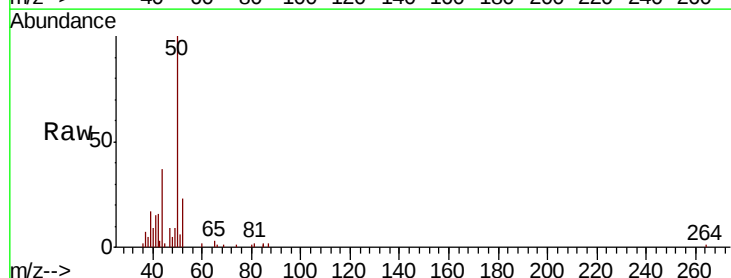
Acq: 20 May 2021 20:27

Tgt Ion: 50 Resp: 33808

Ion Ratio Lower Upper

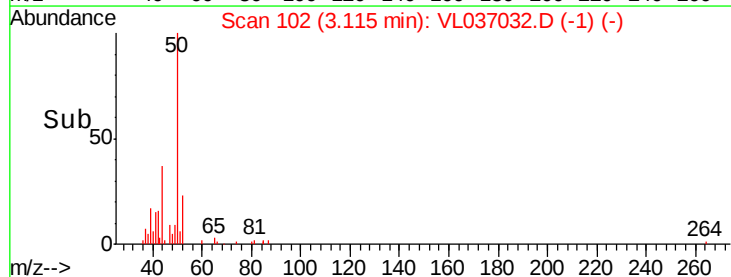
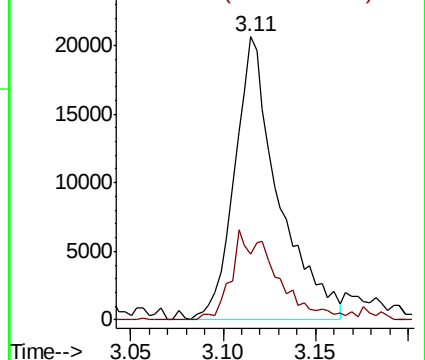
50 100

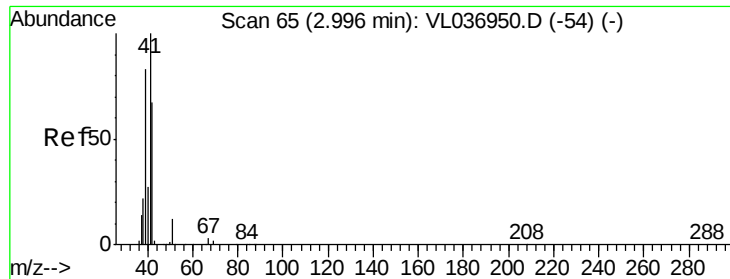
52 23.2 26.1 39.1#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 3.734 ppbv

RT: 2.98 min Scan# 61

Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Instrument :

MSVOA_L

ClientSampleId :

KSV-09

Tot Ion: 41 Resp: 309825

Ion Ratio Lower Upper

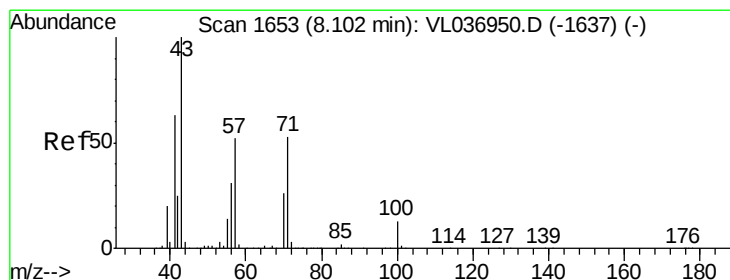
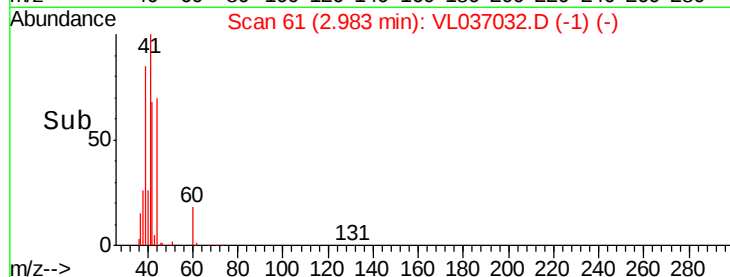
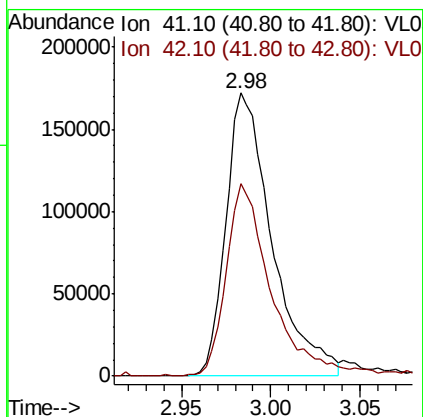
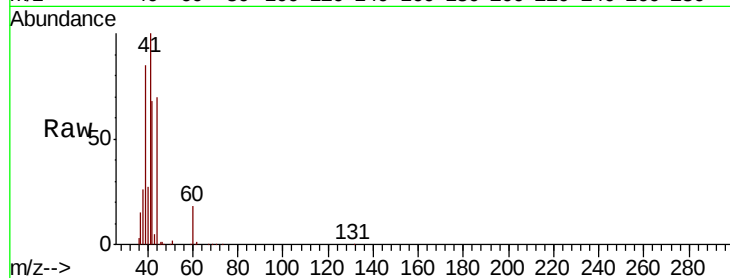
41 100

42 67.6 53.9 80.9

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#10

Heptane

Concen: 0.964 ppbv

RT: 8.08 min Scan# 1647

Delta R.T. -0.02 min

Lab File: VL037032.D

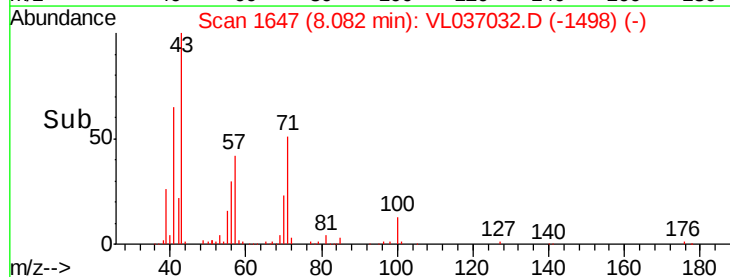
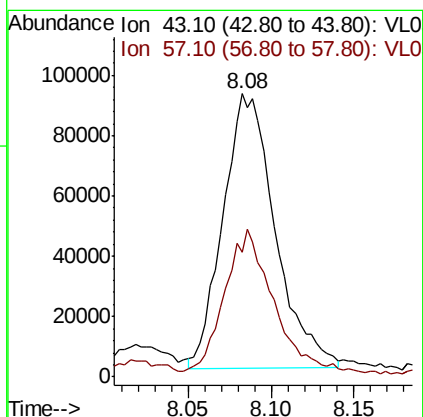
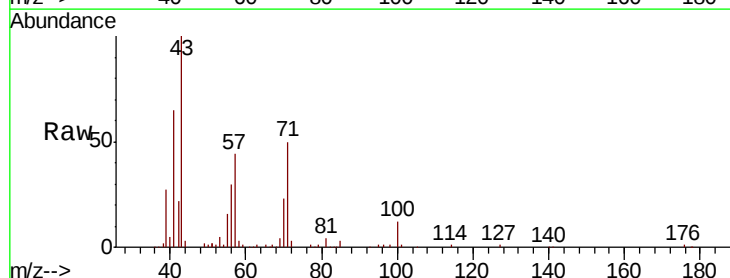
Acq: 20 May 2021 20:27

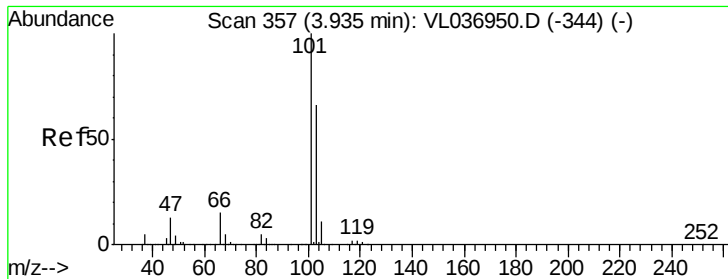
Tgt Ion: 43 Resp: 199243

Ion Ratio Lower Upper

43 100

57 51.5 41.0 61.6





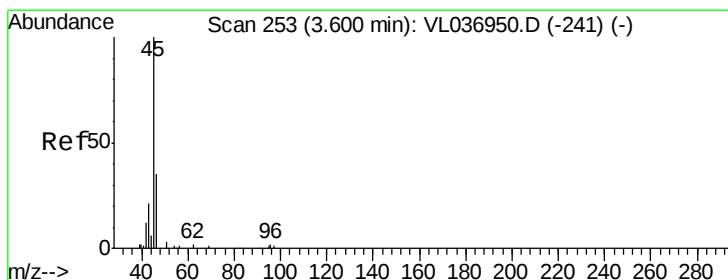
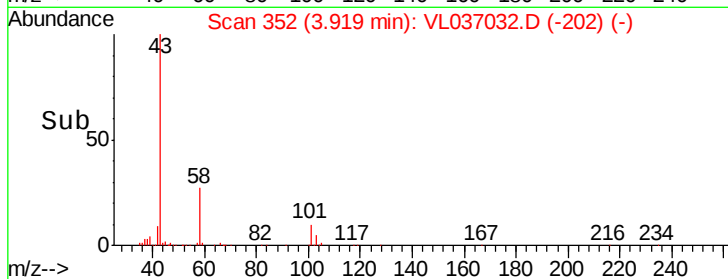
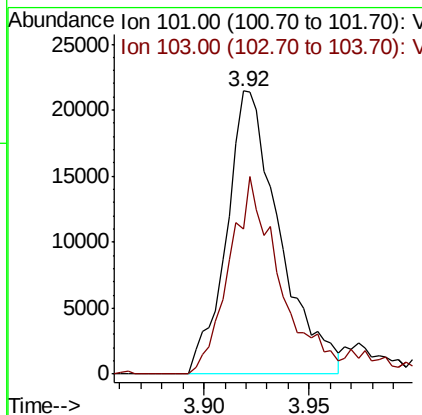
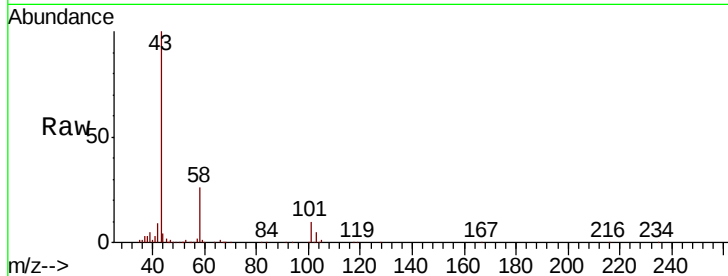
#11
 Trichlorofluoromethane
 Concen: 0.189 ppbv
 RT: 3.92 min Scan# 352
 Delta R.T. -0.02 min
 Lab File: VL037032.D
 Acq: 20 May 2021 20:27

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-09

Tot Ion	Ion	Ratio	Resp	Lower	Upper
101	100		37561		
103	51.2	52.6	79.0#		

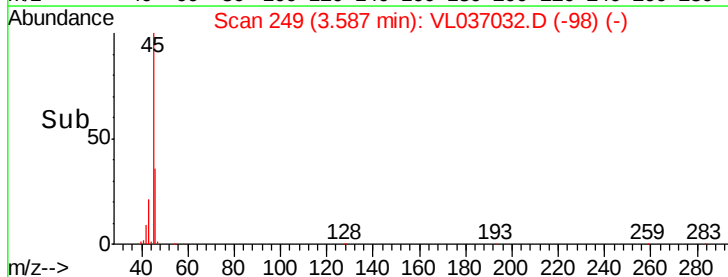
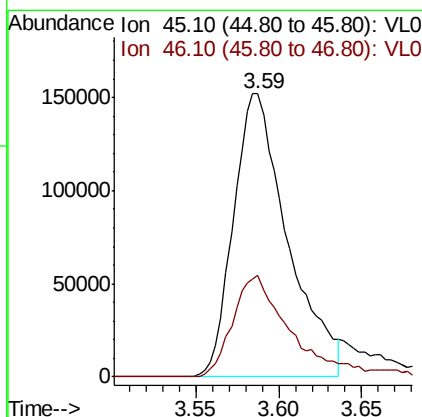
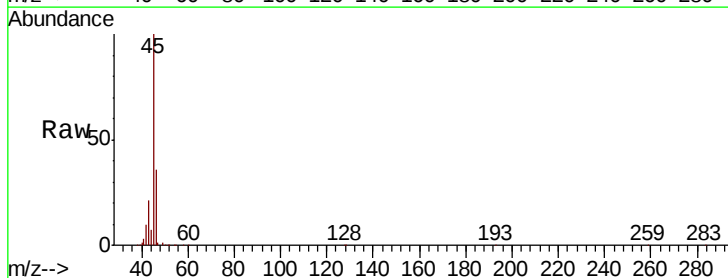
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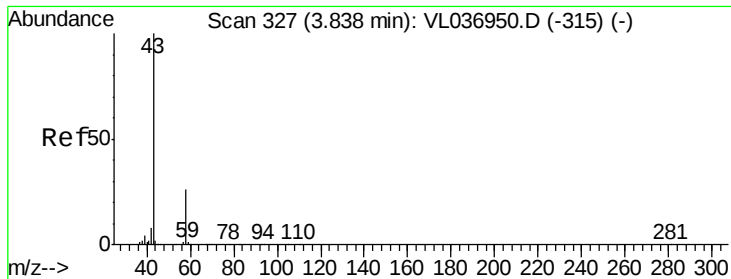
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#13
 Ethanol
 Concen: 30.999 ppbv
 RT: 3.59 min Scan# 249
 Delta R.T. -0.01 min
 Lab File: VL037032.D
 Acq: 20 May 2021 20:27

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
45	100		343148		
46	40.7	16.3	65.3		





#15

Acetone

Concen: 127.130 ppbv

RT: 3.82 min Scan# 321

Delta R.T. -0.02 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Instrument :

MSVOA_L

ClientSampleId :

KSV-09

Tot Ion: 43 Resp:16468313

Ion Ratio Lower Upper

43 100

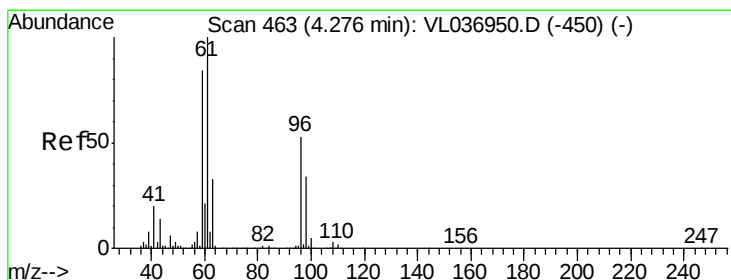
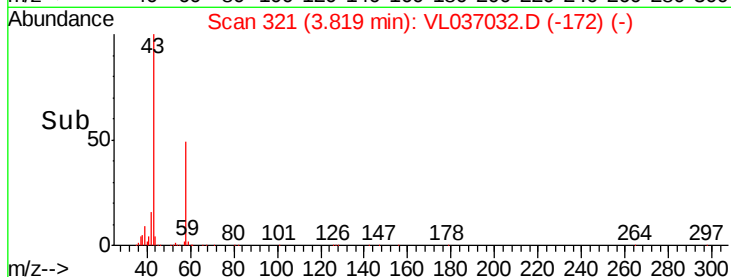
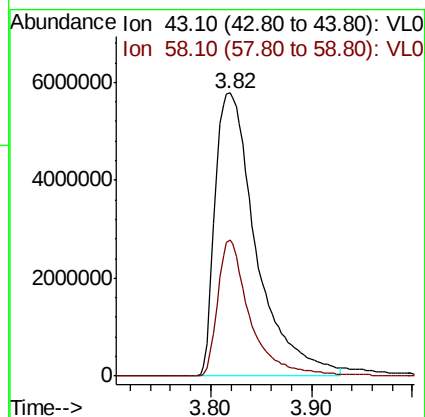
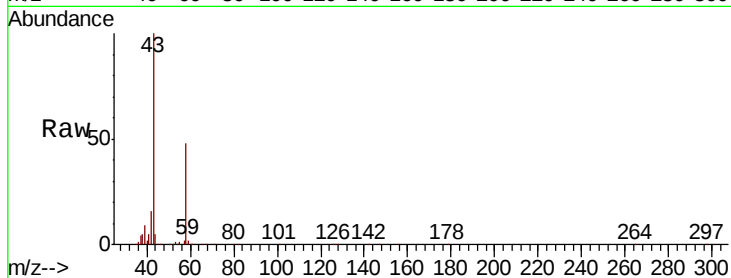
58 38.6 24.0 36.0#

Manual Integrations

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#17

tert-Butyl alcohol

Concen: 2.112 ppbv

RT: 4.28 min Scan# 463

Delta R.T. -0.00 min

Lab File: VL037032.D

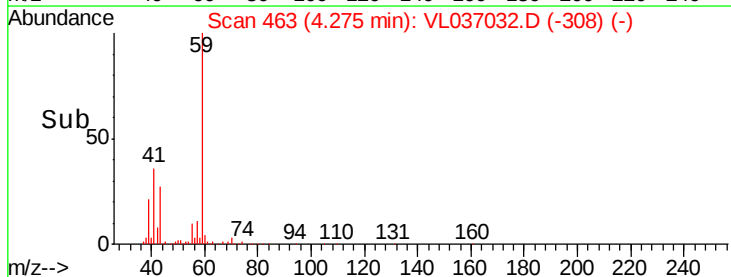
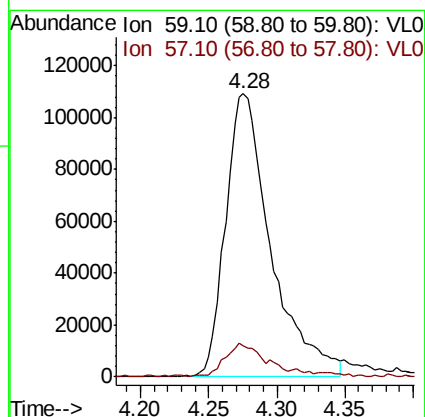
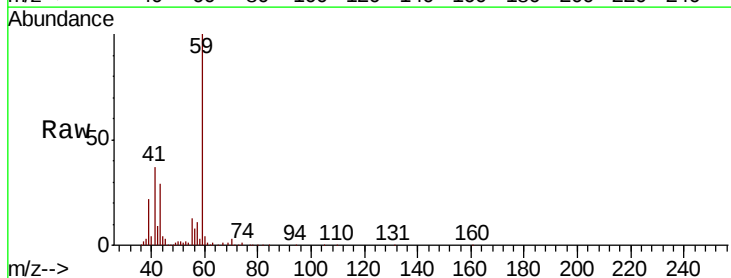
Acq: 20 May 2021 20:27

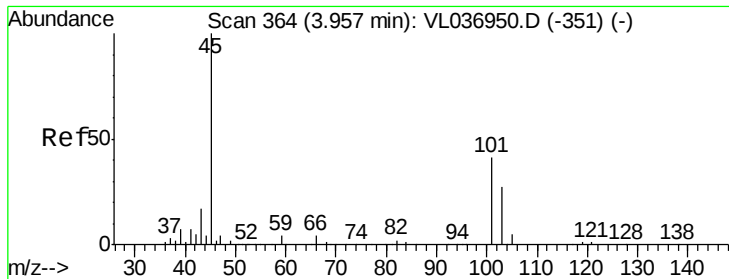
Tgt Ion: 59 Resp: 250549

Ion Ratio Lower Upper

59 100

57 11.7 8.3 12.5





#19

Isopropyl Alcohol

Concen: 4.140 ppbv

RT: 3.95 min Scan# 362

Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Instrument :

MSVOA_L

ClientSampled :

KSV-09

Tot Ion: 45 Resp: 288262

Ion Ratio Lower Upper

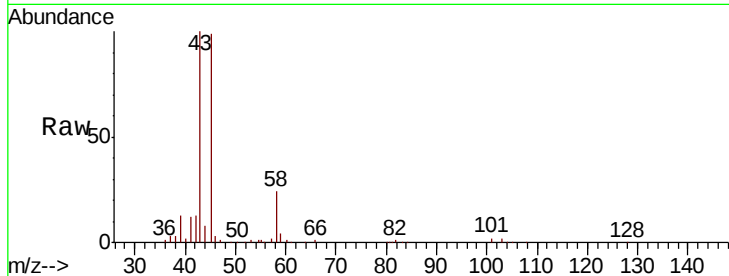
45 100

58 0.0 37.2 55.8#

Manual Integrations
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Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

300000

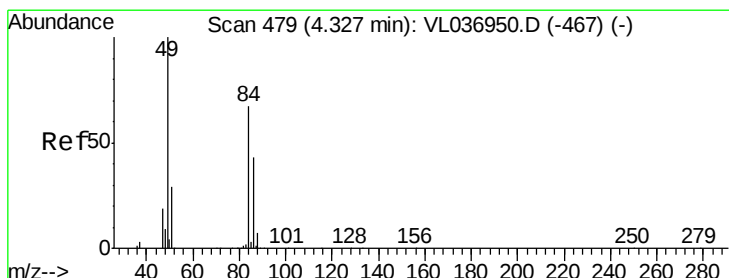
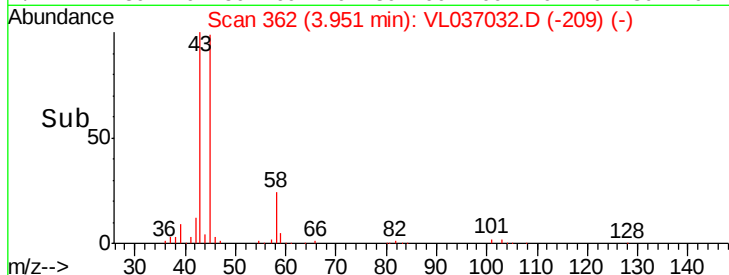
200000

100000

0

3.90 3.95 4.00

Time-->



#20

Methylene Chloride

Concen: 11.386 ppbv

RT: 4.32 min Scan# 476

Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Tgt Ion: 84 Resp: 790620

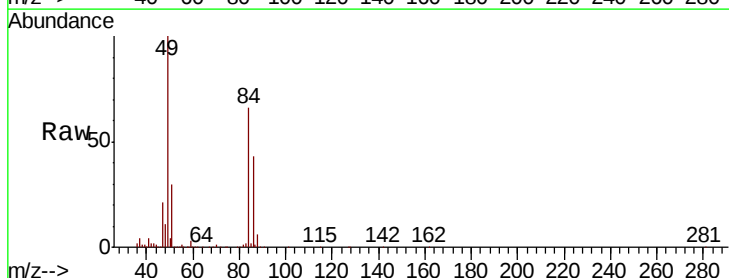
Ion Ratio Lower Upper

84 100

49 151.5 119.8 179.6

51 45.0 35.1 52.7

86 64.5 50.9 76.3



Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

800000

600000

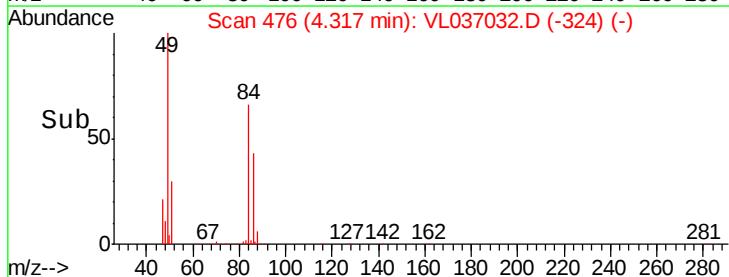
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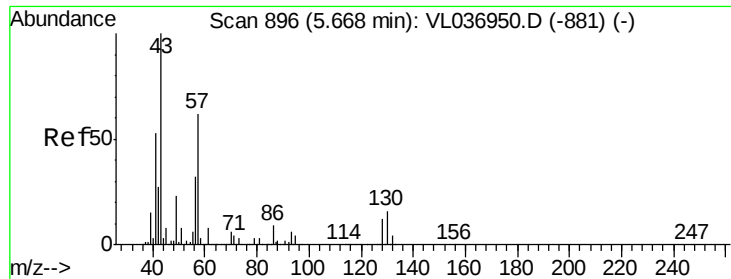
200000

0

4.25 4.30 4.35 4.40

Time-->





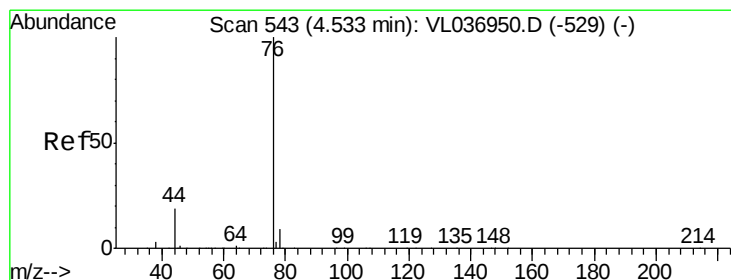
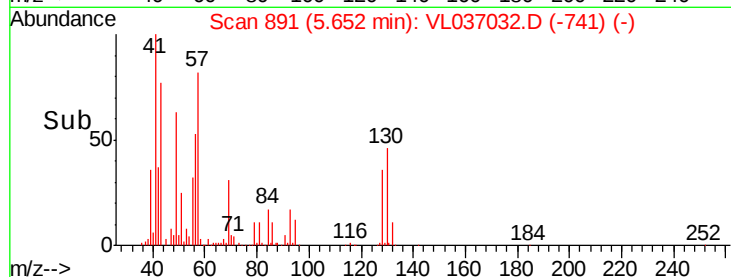
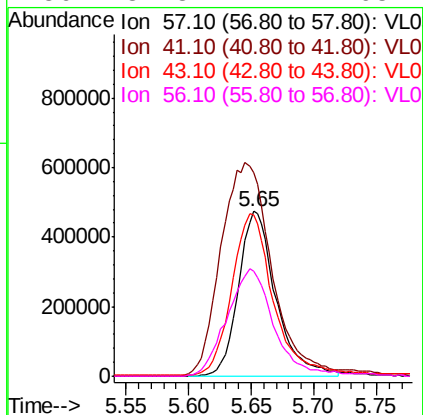
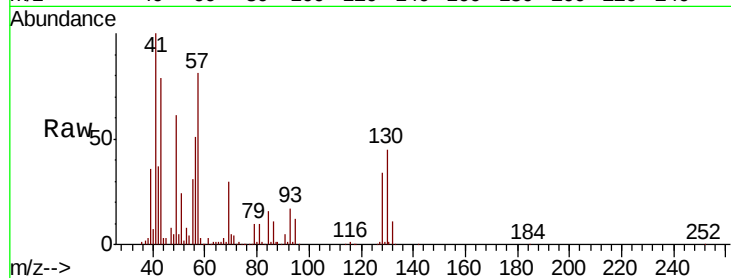
#26
Hexane
Concen: 6.175 ppbv
RT: 5.65 min Scan# 891
Delta R.T. -0.02 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Instrument :
MSVOA_L
ClientSampleId :
KSV-09

Tot Ion	Ratio	Lower	Upper
57	100		
41	180.7	70.5	105.7#
43	110.3	165.8	248.8#
56	82.8	42.2	63.4#

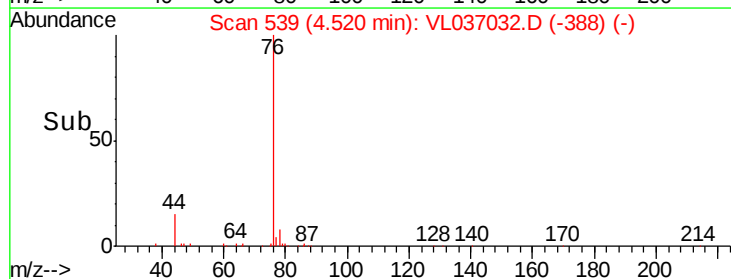
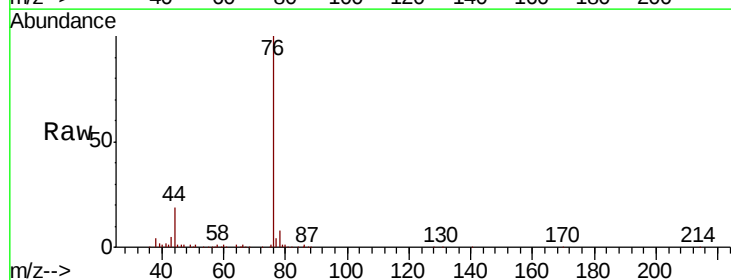
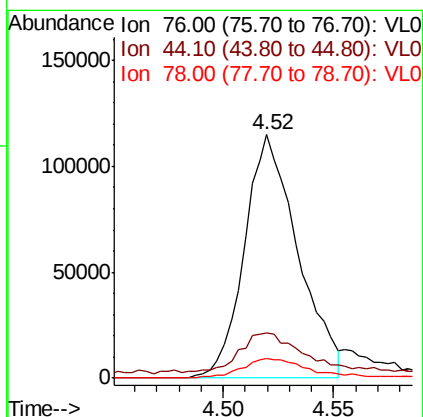
Manual Integrations
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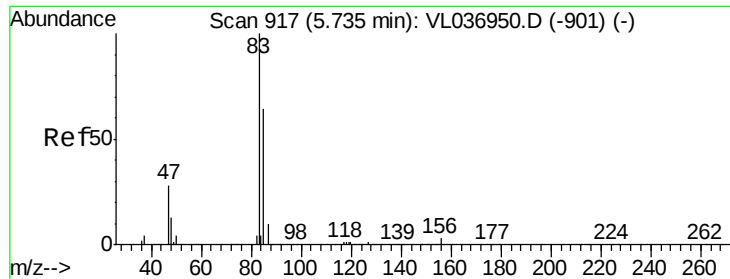
MMDadoda
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#27
Carbon Disulfide
Concen: 1.206 ppbv
RT: 4.52 min Scan# 539
Delta R.T. -0.01 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Tgt Ion	Ratio	Lower	Upper
76	100		
44	23.2	15.5	23.3
78	11.2	7.8	11.6





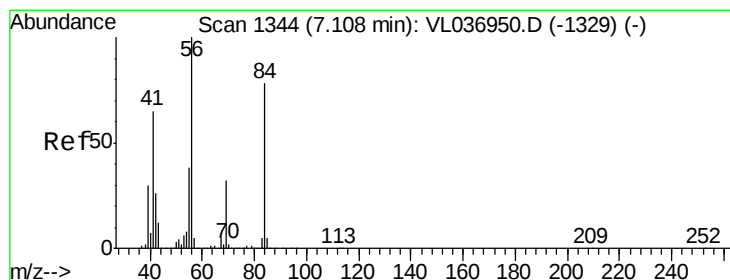
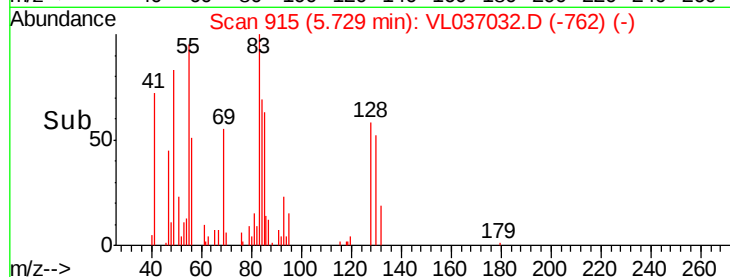
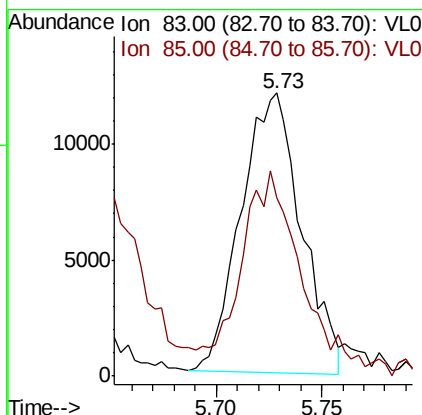
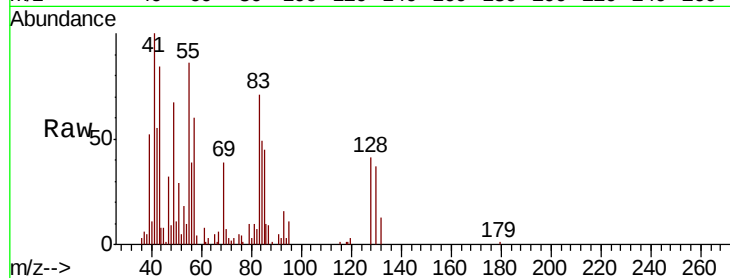
#29
Chloroform
Concen: 0.107 ppbv
RT: 5.73 min Scan# 915
Delta R.T. -0.01 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Instrument :
MSVOA_L
ClientSampled :
KSV-09

Tot Ion: 83 Resp: 24038
Ion Ratio Lower Upper
83 100
85 54.1 51.1 76.7

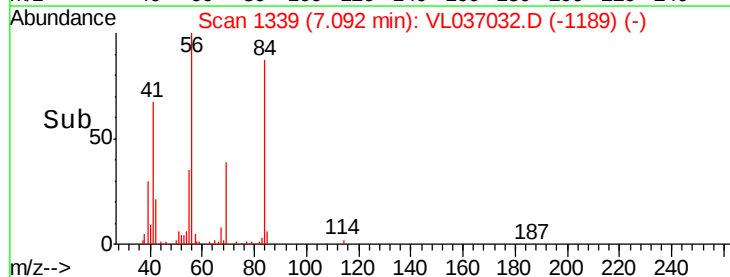
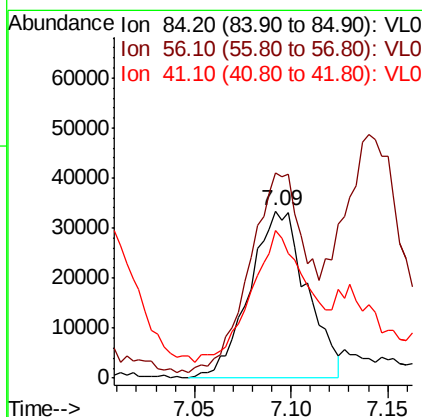
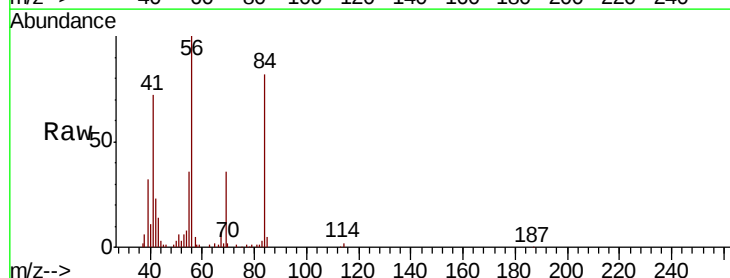
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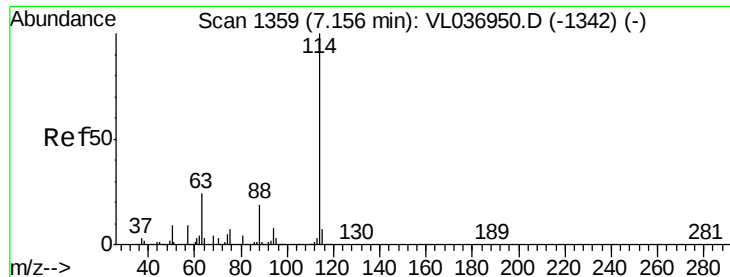
MMDadoda
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#30
Cyclohexane
Concen: 0.508 ppbv
RT: 7.09 min Scan# 1339
Delta R.T. -0.02 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Tgt Ion: 84 Resp: 68667
Ion Ratio Lower Upper
84 100
56 109.6 107.9 161.9
41 120.4 65.5 98.3#





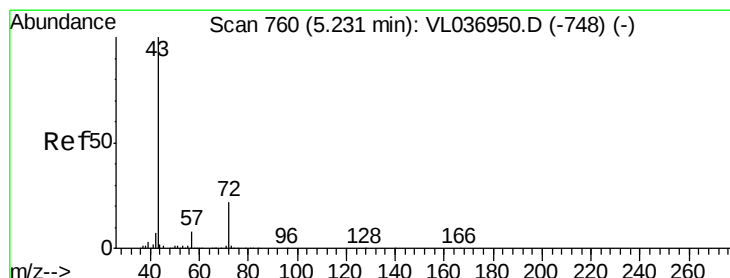
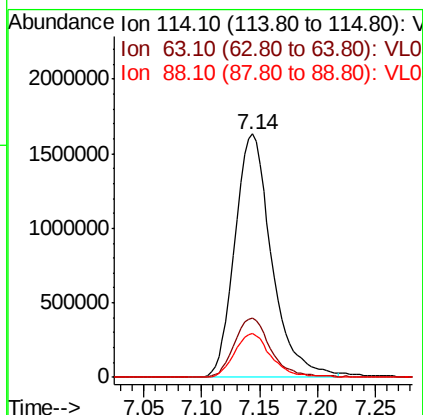
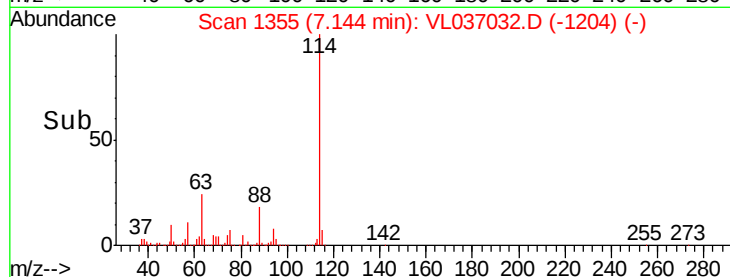
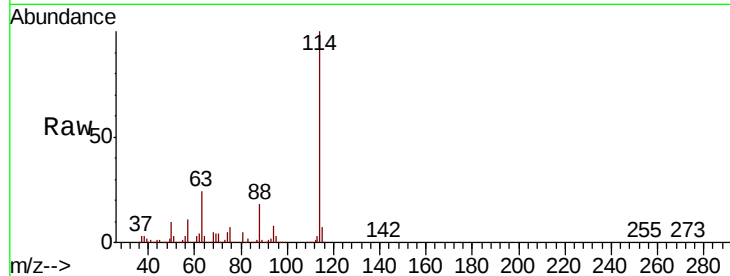
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.14 min Scan# 1355
 Delta R.T. -0.01 min
 Lab File: VL037032.D
 Acq: 20 May 2021 20:27

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-09

Tot Ion	Ratio	Lower	Upper
114	100		
63	24.5	19.6	29.4
88	18.1	14.6	21.8

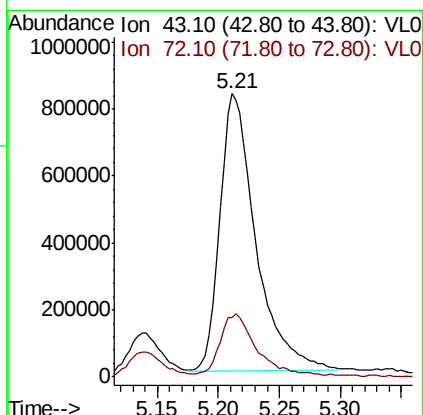
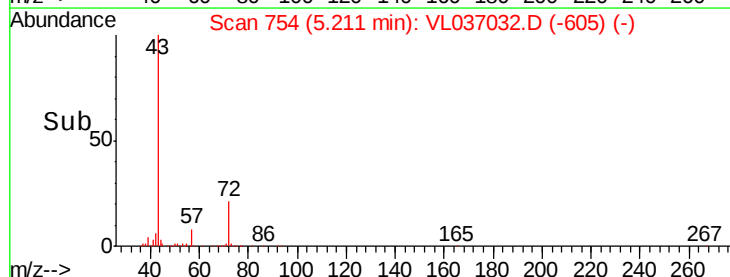
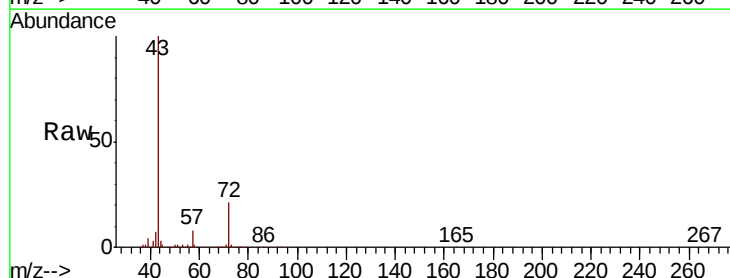
Manual Integrations
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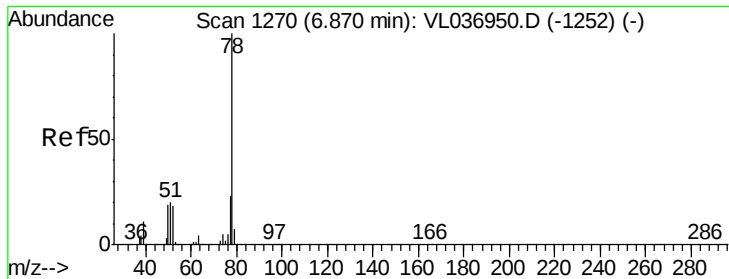
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#34
 2-Butanone
 Concen: 13.087 ppbv
 RT: 5.21 min Scan# 754
 Delta R.T. -0.02 min
 Lab File: VL037032.D
 Acq: 20 May 2021 20:27

Tgt Ion	Ratio	Lower	Upper
43	100		
72	24.3	19.0	28.4





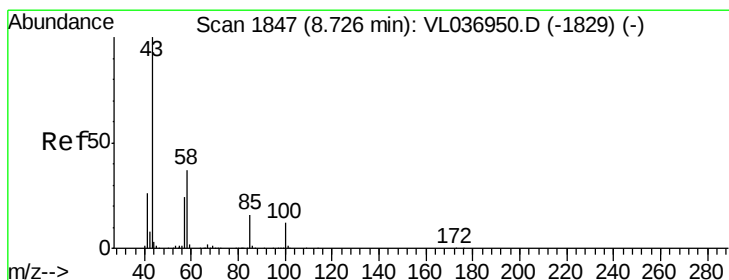
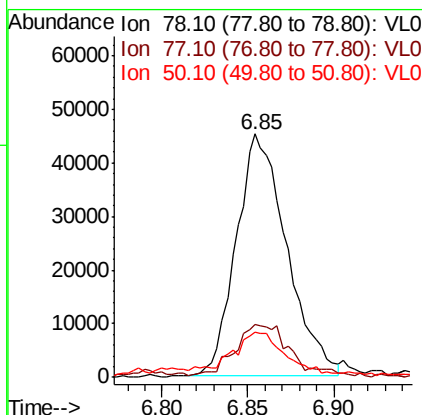
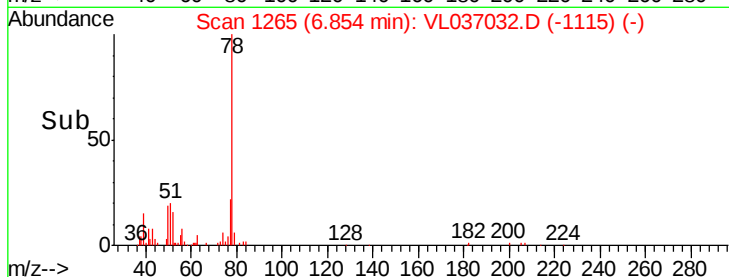
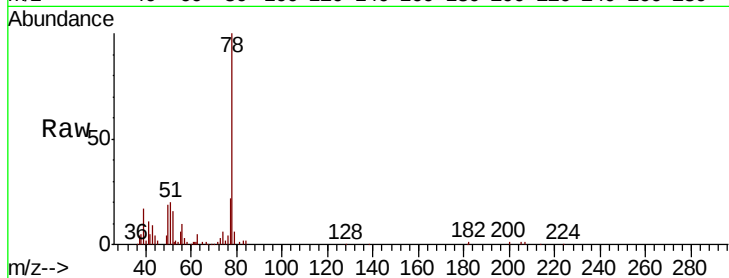
#36
Benzene
Concen: 0.298 ppbv
RT: 6.85 min Scan# 1265
Delta R.T. -0.02 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Instrument :
MSVOA_L
ClientSampleId :
KSV-09

Tot Ion	Ratio	Lower	Upper
78	100		
77	21.3	18.6	28.0
50	17.0	15.0	22.4

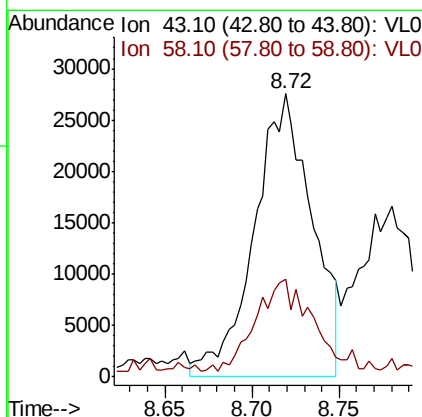
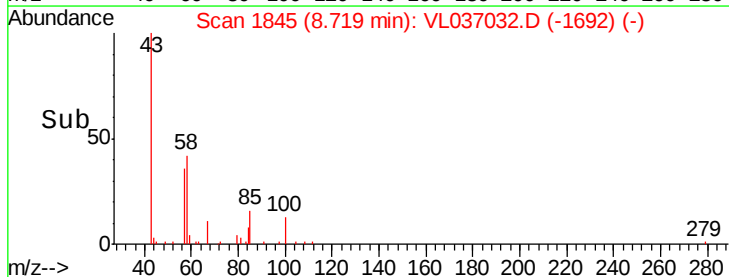
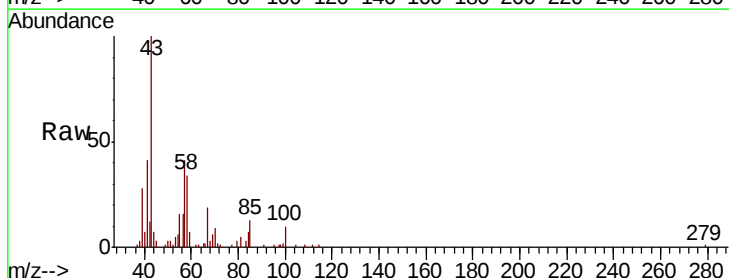
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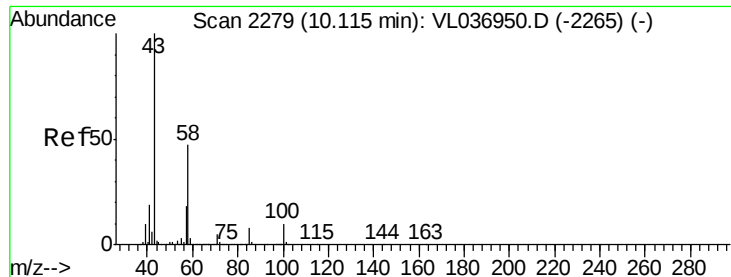
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#50
4-Methyl-2-Pentanone
Concen: 0.293 ppbv m
RT: 8.72 min Scan# 1845
Delta R.T. -0.01 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	29.4	44.2#





#51

2-Hexanone

Concen: 1.444 ppbv

RT: 10.10 min Scan# 2276

Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Instrument :

MSVOA_L

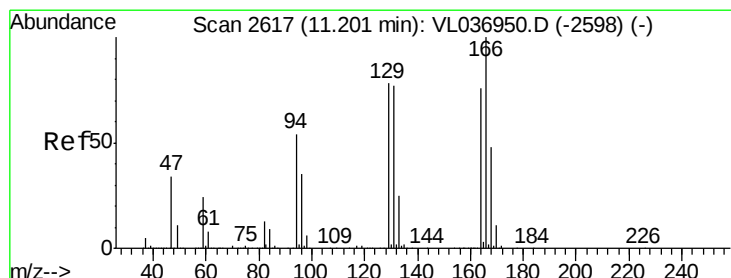
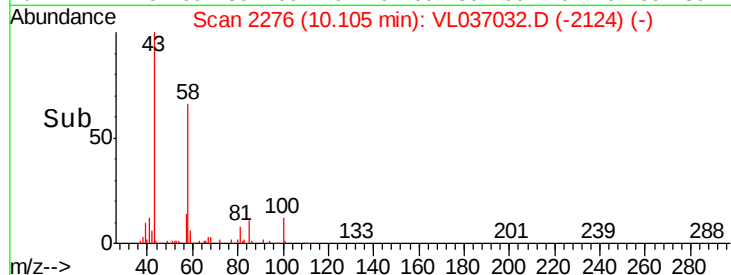
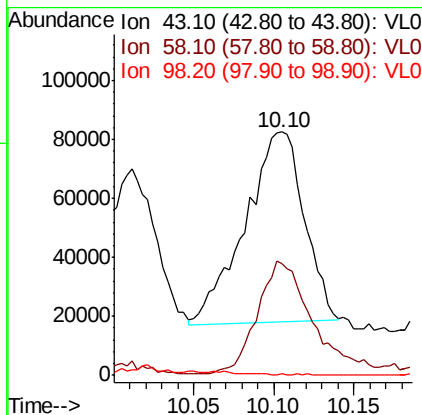
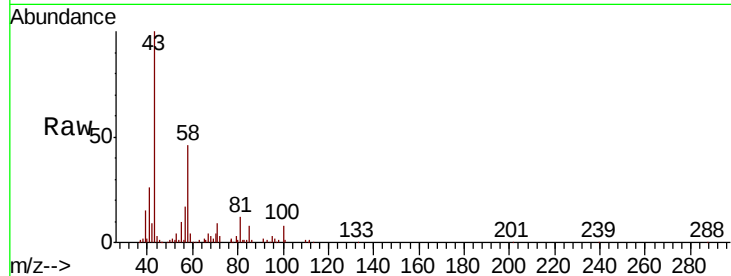
ClientSampleId :

KSV-09

Tot Ion:	43	Resp:	165256
Ion	Ratio	Lower	Upper
43	100		
58	58.7	41.1	61.7
98	2.2	0.1	0.1#

Manual Integrations
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#52

Tetrachloroethene

Concen: 0.099 ppbv m

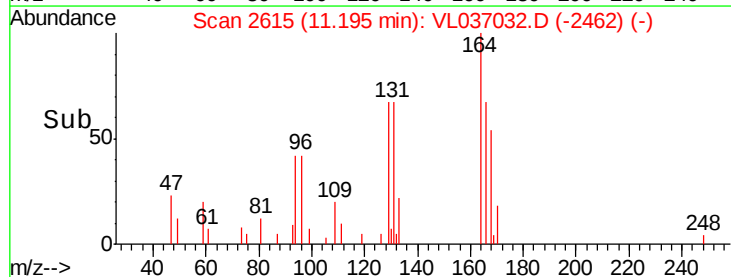
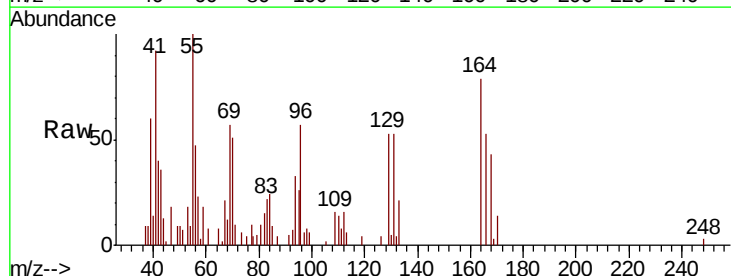
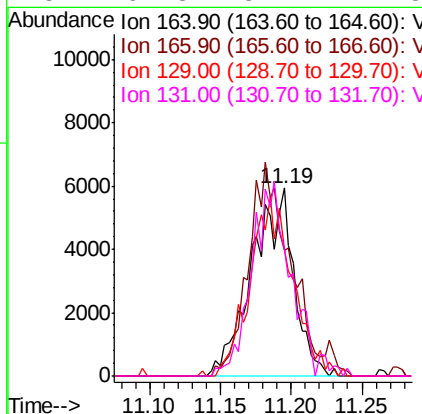
RT: 11.19 min Scan# 2615

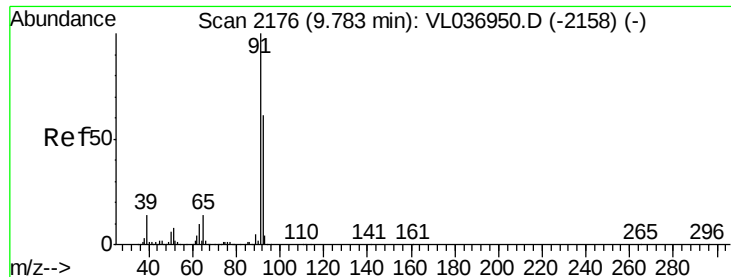
Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Tgt Ion:	164	Resp:	12178
Ion	Ratio	Lower	Upper
164	100		
166	67.0	105.5	158.3#
129	67.2	81.8	122.8#
131	67.3	81.2	121.8#





#53

Toluene

Concen: 1.292 ppbv

RT: 9.77 min Scan# 2171

Delta R.T. -0.02 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Instrument :

MSVOA_L

ClientSampleId :

KSV-09

Tot Ion: 91 Resp: 477228

Ion Ratio Lower Upper

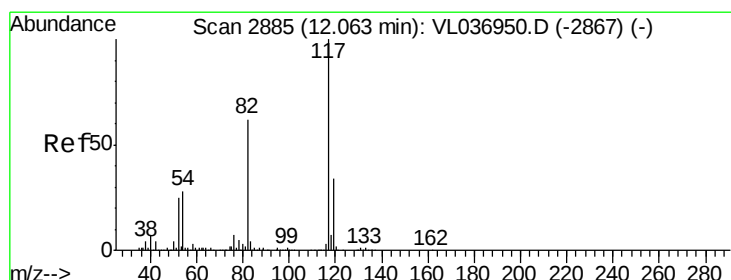
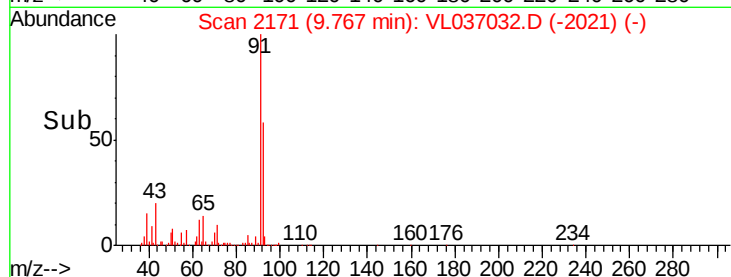
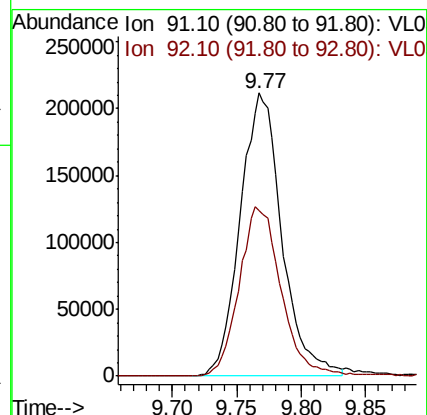
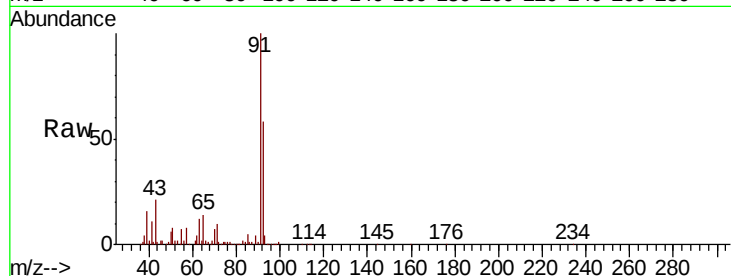
91 100

92 60.4 49.5 74.3

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.05 min Scan# 2880

Delta R.T. -0.02 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

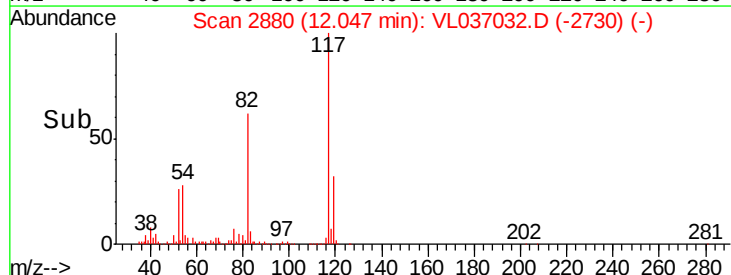
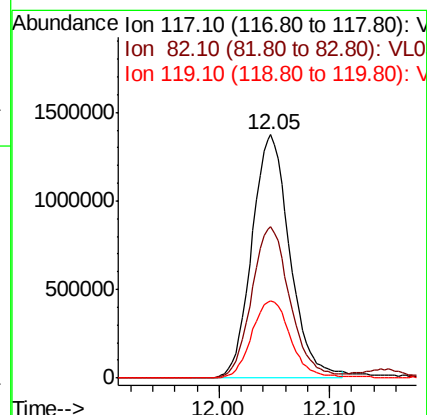
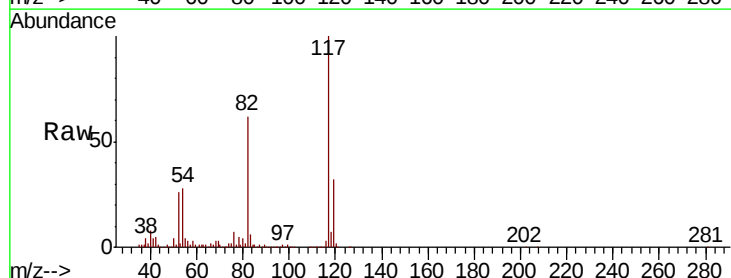
Tgt Ion: 117 Resp: 3266984

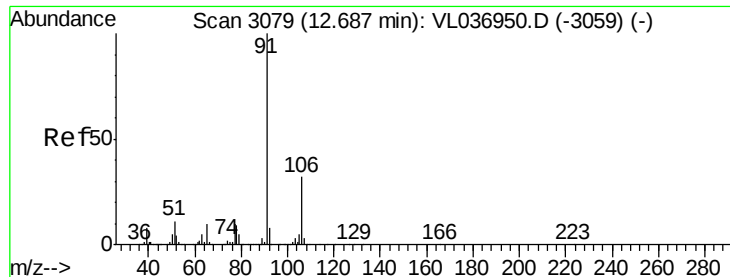
Ion Ratio Lower Upper

117 100

82 63.2 52.6 79.0

119 33.6 46.6 70.0#





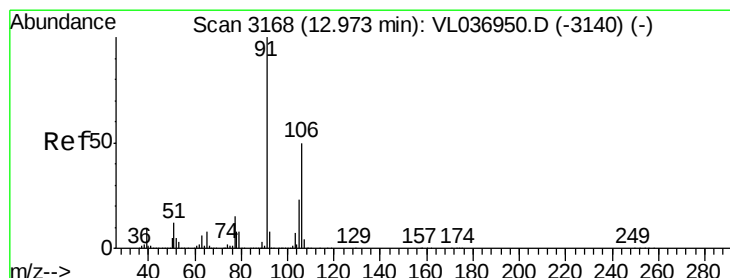
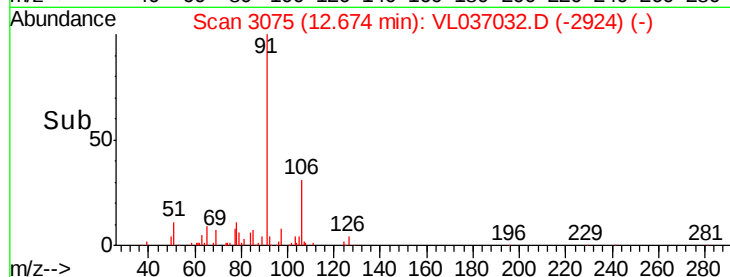
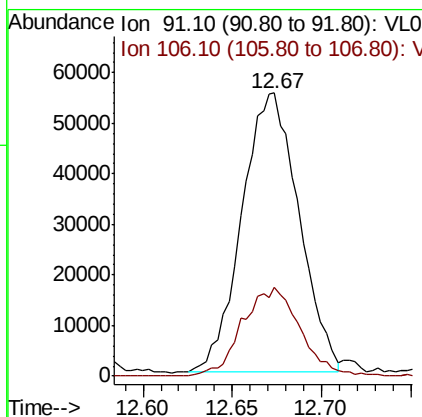
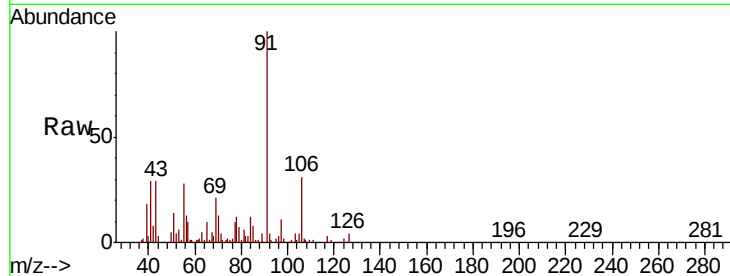
#58
Ethyl Benzene
Concen: 0.267 ppbv
RT: 12.67 min Scan# 3075
Delta R.T. -0.01 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Instrument :
MSVOA_L
ClientSampled :
KSV-09

Tot Ion: 91 Resp: 123044
Ion Ratio Lower Upper
91 100
106 31.7 25.6 38.4

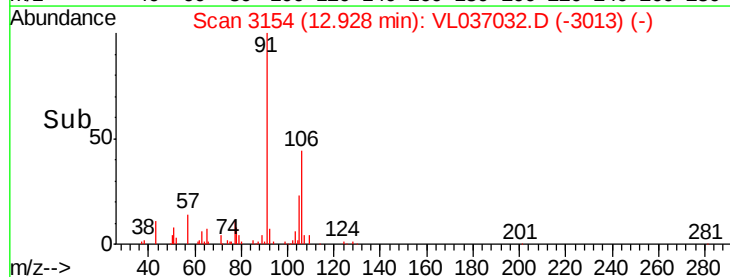
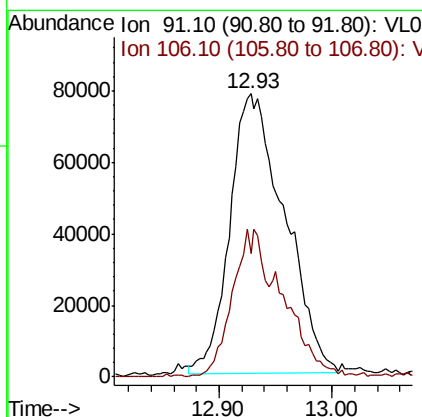
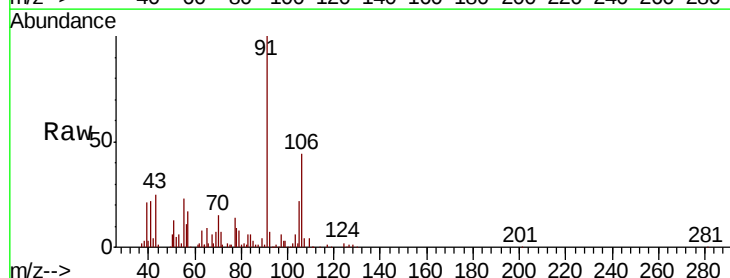
Manual Integrations
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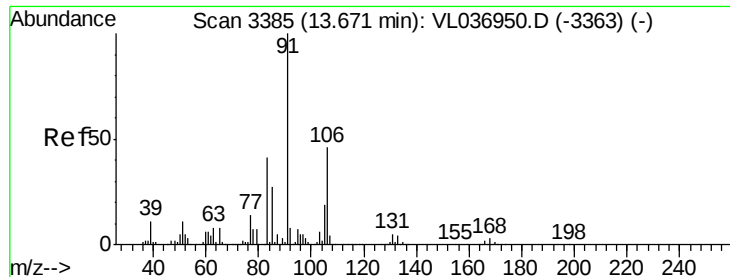
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#59
m/p-Xylene
Concen: 0.689 ppbv
RT: 12.93 min Scan# 3154
Delta R.T. -0.05 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Tgt Ion: 91 Resp: 262689
Ion Ratio Lower Upper
91 100
106 48.6 37.4 56.2





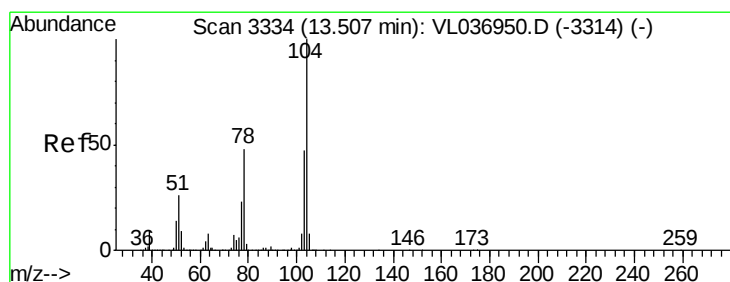
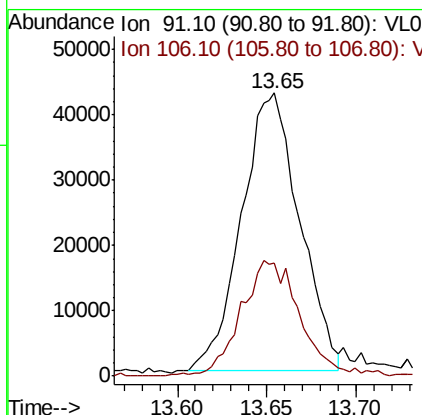
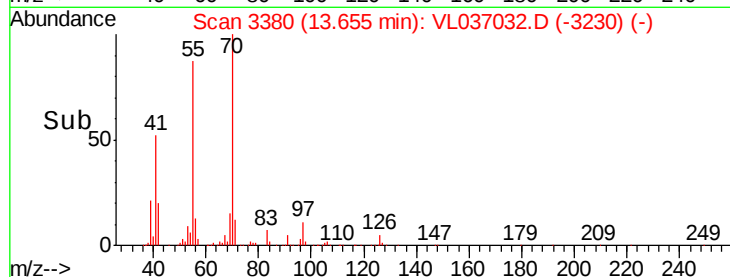
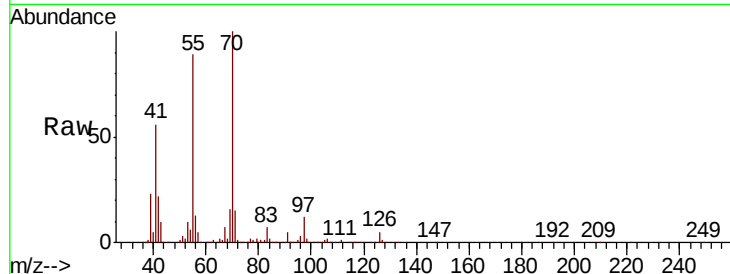
#60
o-Xylene
Concen: 0.266 ppbv
RT: 13.65 min Scan# 3380
Delta R.T. -0.02 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Instrument :
MSVOA_L
ClientSampled :
KSV-09

Tot Ion: 91 Resp: 96872
Ion Ratio Lower Upper
91 100
106 42.6 23.4 70.3

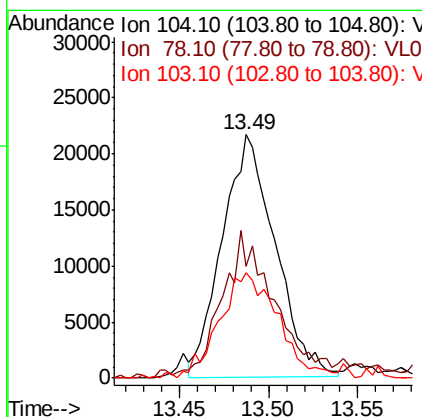
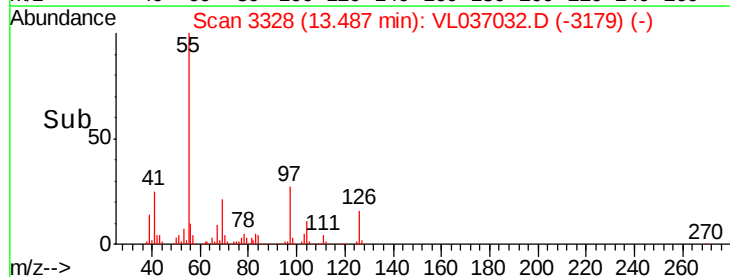
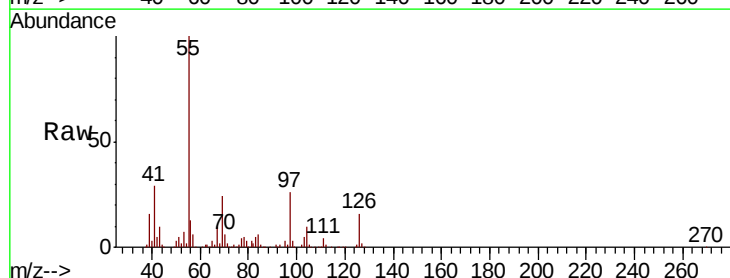
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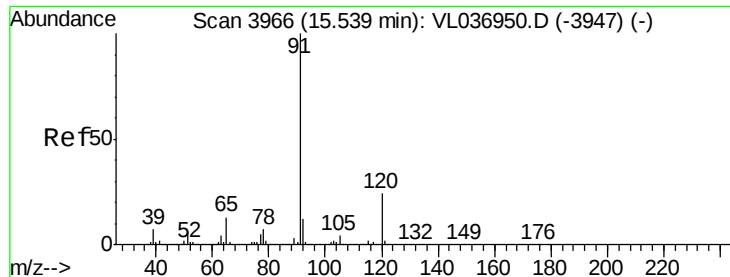
MMDadoda
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#61
Styrene
Concen: 0.219 ppbv
RT: 13.49 min Scan# 3328
Delta R.T. -0.02 min
Lab File: VL037032.D
Acq: 20 May 2021 20:27

Tgt Ion: 104 Resp: 44945
Ion Ratio Lower Upper
104 100
78 66.8 39.0 58.6#
103 50.3 38.0 57.0





#64

n-propylbenzene

Concen: 0.111 ppbv m

RT: 15.53 min Scan# 3962

Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Instrument :

MSVOA_L

ClientSampled :

KSV-09

Tot Ion:120 Resp: 14949

Ion Ratio Lower Upper

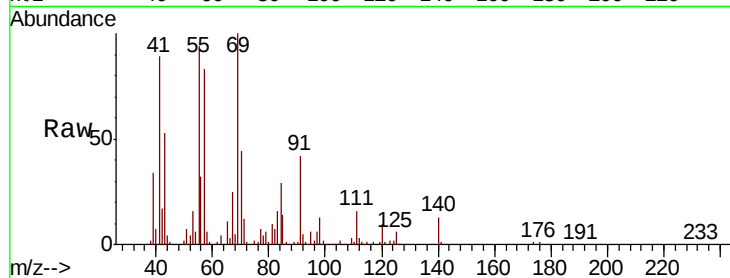
120 100

91 436.8 343.8 515.6

Manual Integrations
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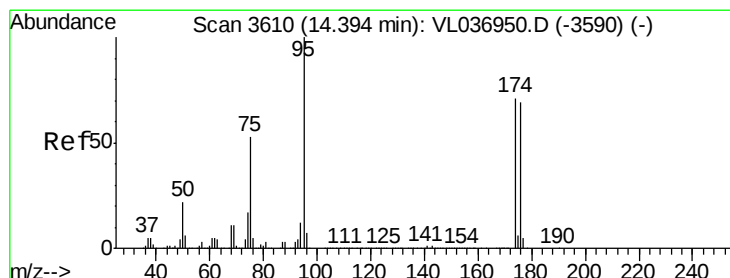
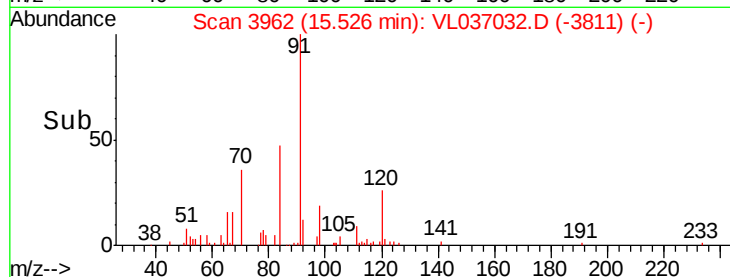
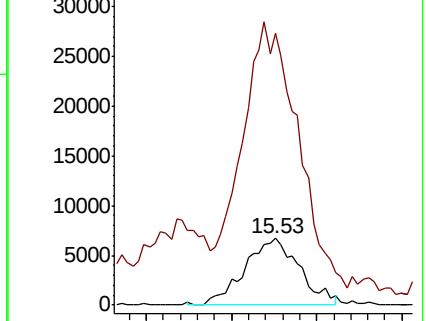
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Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



#68

1-Bromo-4-Fluorobenzene

Concen: 9.942 ppbv

RT: 14.37 min Scan# 3604

Delta R.T. -0.02 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

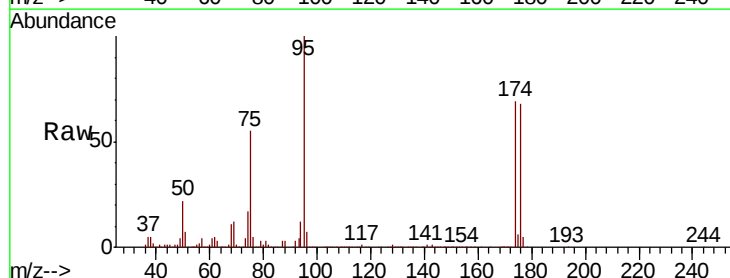
Tgt Ion: 95 Resp: 2439888

Ion Ratio Lower Upper

95 100

174 75.2 58.4 87.6

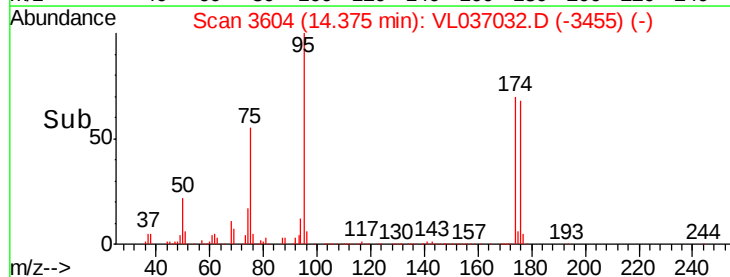
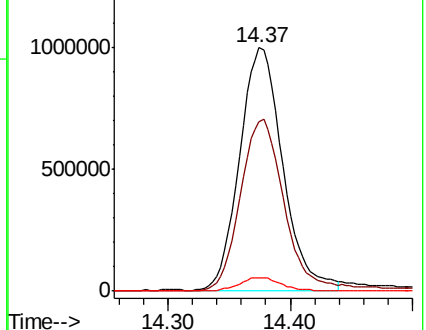
175 5.7 4.4 6.6

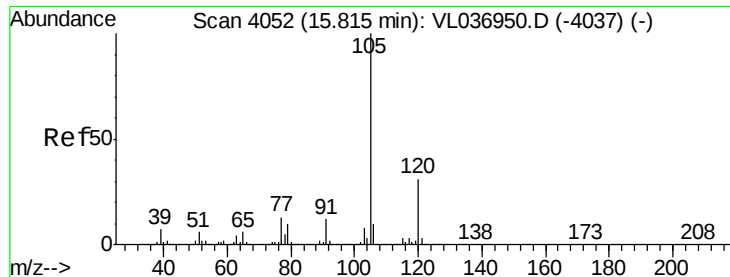


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#72

4-Ethyltoluene

Concen: 0.174 ppbv

RT: 15.80 min Scan# 4048

Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Instrument :

MSVOA_L

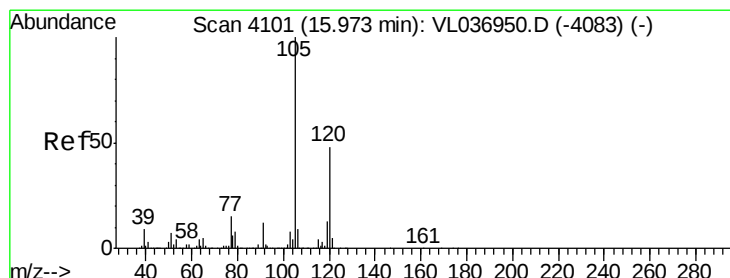
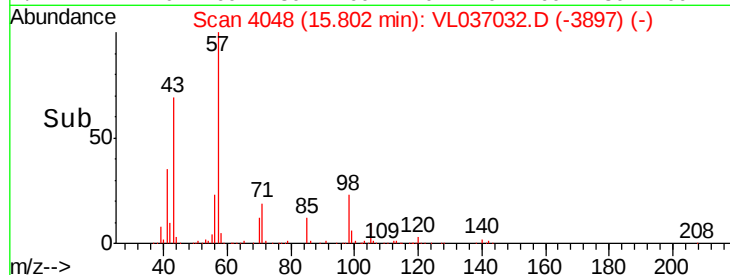
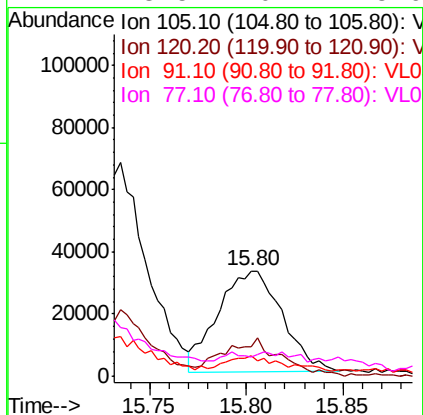
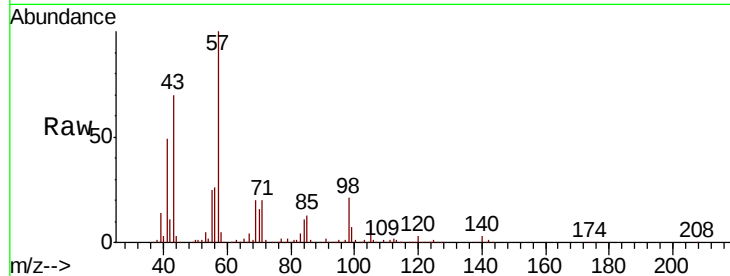
ClientSampled :

KSV-09

Tot Ion:	105	Resp:	75100
Ion Ratio	Lower	Upper	
105	100		
120	33.9	24.6	37.0
91	13.1	9.8	14.6
77	28.5	10.4	15.6

Manual Integrations
APPROVED

MMDadoda
5/24/2021 3:27:18 PM



#73

1,3,5-Trimethylbenzene

Concen: 0.187 ppbv

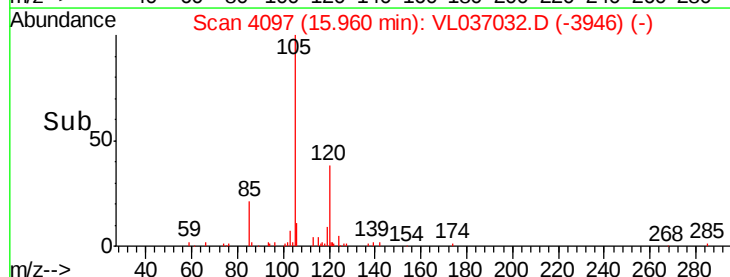
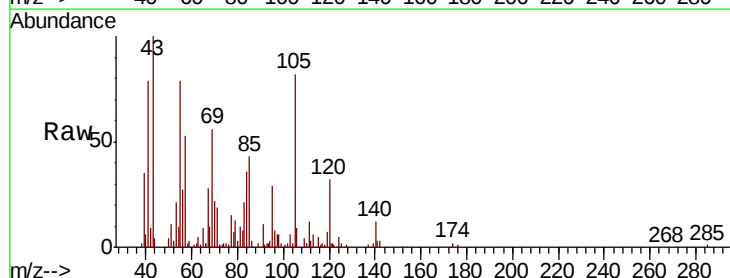
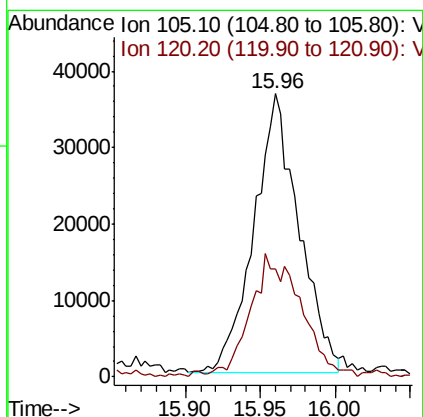
RT: 15.96 min Scan# 4097

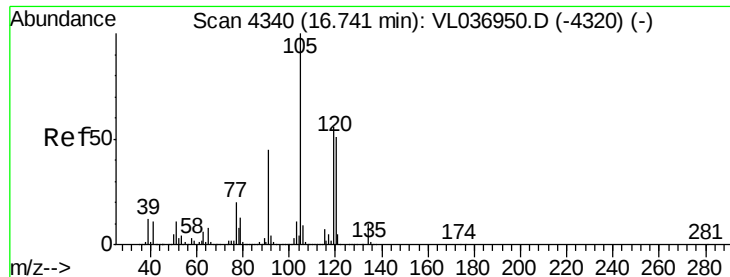
Delta R.T. -0.01 min

Lab File: VL037032.D

Acq: 20 May 2021 20:27

Tgt Ion:	105	Resp:	75838
Ion Ratio	Lower	Upper	
105	100		
120	40.9	38.6	58.0





#74
 1,2,4-Trimethylbenzene
 Concen: 0.611 ppbv
 RT: 16.73 min Scan# 4335
 Delta R.T. -0.02 min
 Lab File: VL037032.D
 Acq: 20 May 2021 20:27

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-09

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	40.0	40.6	61.0#
91	9.7	37.4	56.0#
77	15.8	16.2	24.4#

Manual Integrations
 APPROVED

MMDadoda
 5/24/2021 3:27:18 PM

