

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL022421\
 Data File : VL036366.D
 Acq On : 25 Feb 2021 1:24
 Operator : SY/AP
 Sample : M1463-09
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-7

Manual Integrations
 APPROVED

MMDadoda
 2/26/2021 4:17:54 PM

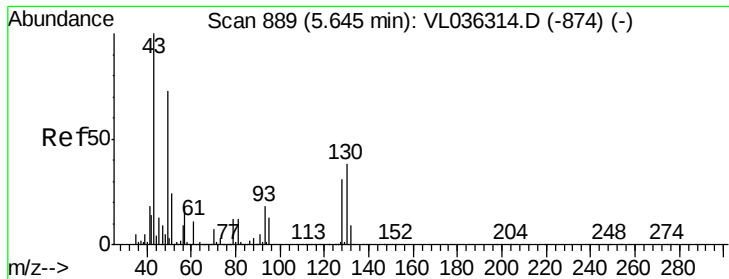
Quant Time: Feb 26 14:29:46 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL021021AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 10
 QLast Update : Wed Feb 10 16:04:02 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1654861	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	3637066	10.00	ppbv	0.04
55) Chlorobenzene-d5	12.10	117	3358905	10.00	ppbv	0.05

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.43	95	2683702	9.71	ppbv	0.04	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.10%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	43305m	0.175	ppbv	
3) Chlorodifluoromethane	2.99	51	76568	0.372	ppbv #	86
4) Chloromethane	3.15	50	53008	0.534	ppbv	90
9) Propene	3.02	41	207521	2.707	ppbv	92
10) Heptane	8.14	43	264175m	1.169	ppbv	
11) Trichlorofluoromethane	3.96	101	50009m	0.207	ppbv	
13) Ethanol	3.63	45	5028589	349.224	ppbv	91
15) Acetone	3.86	43	1651581	8.165	ppbv	98
17) tert-Butyl alcohol	4.33	59	49959	0.318	ppbv #	88
19) Isopropyl Alcohol	3.99	45	4823644	43.041	ppbv #	98
20) Methylene Chloride	4.36	84	78419m	1.202	ppbv	
26) Hexane	5.70	57	271091	1.690	ppbv #	47
27) Carbon Disulfide	4.56	76	99754	0.676	ppbv #	89
30) Cyclohexane	7.15	84	47024m	0.352	ppbv	
34) 2-Butanone	5.27	43	124194m	0.514	ppbv	
35) Carbon Tetrachloride	7.03	117	13647m	0.056	ppbv	
36) Benzene	6.90	78	160653	0.520	ppbv #	90
44) 2,2,4-Trimethylpentane	7.89	57	1542818	2.746	ppbv #	89
52) Tetrachloroethene	11.24	164	8314m	0.074	ppbv	
53) Toluene	9.82	91	2363596	7.063	ppbv	100
58) Ethyl Benzene	12.73	91	561289	1.220	ppbv	96
59) m/p-Xylene	12.99	91	1590850	3.938	ppbv	95
60) o-Xylene	13.71	91	587838	1.522	ppbv	98
64) n-propylbenzene	15.59	120	42557m	0.299	ppbv	
72) 4-Ethyltoluene	15.86	105	190023m	0.442	ppbv	
73) 1,3,5-Trimethylbenzene	16.01	105	111799	0.268	ppbv #	76
74) 1,2,4-Trimethylbenzene	16.79	105	561412	1.320	ppbv #	71

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. 0.03 min

Lab File: VL036366.D

Acq: 25 Feb 2021 1:24

Instrument :

MSVOA_L

ClientSampleId :

NS-7

Tot Ion: 49 Resp: 1654861

Ion Ratio Lower Upper

49 100

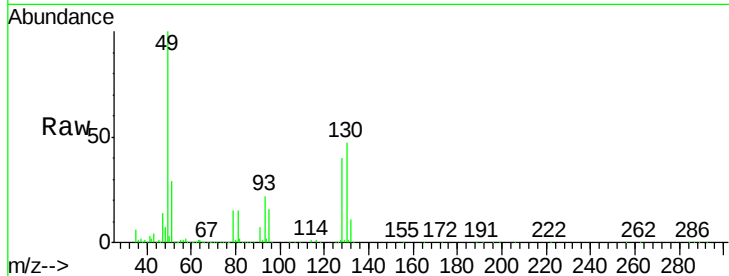
128 42.0 20.8 62.5

130 53.4 26.7 80.1

Manual Integrations
APPROVED

MMDadoda

2/26/2021 4:17:54 PM



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

5.68

800000

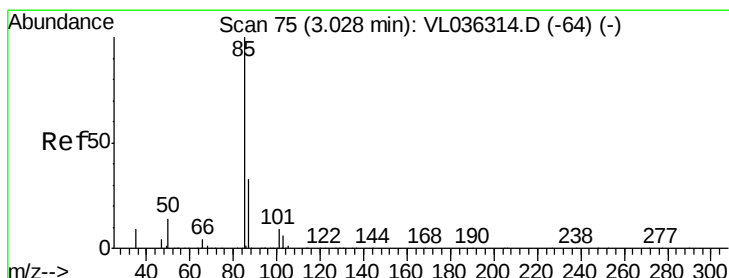
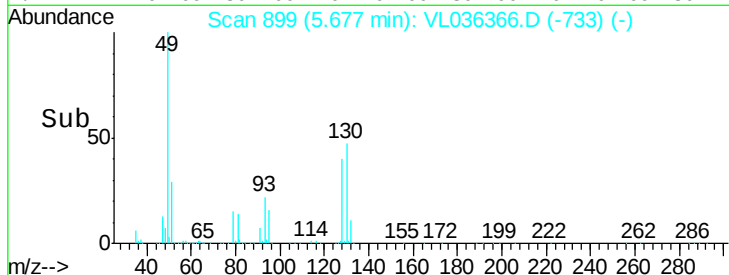
600000

400000

200000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.175 ppbv m

RT: 3.05 min Scan# 83

Delta R.T. 0.03 min

Lab File: VL036366.D

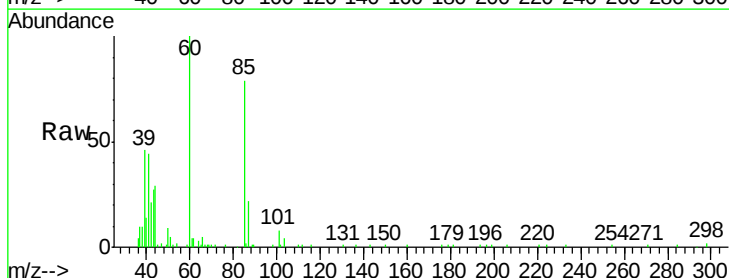
Acq: 25 Feb 2021 1:24

Tgt Ion: 85 Resp: 43305

Ion Ratio Lower Upper

85 100

87 27.9 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.05

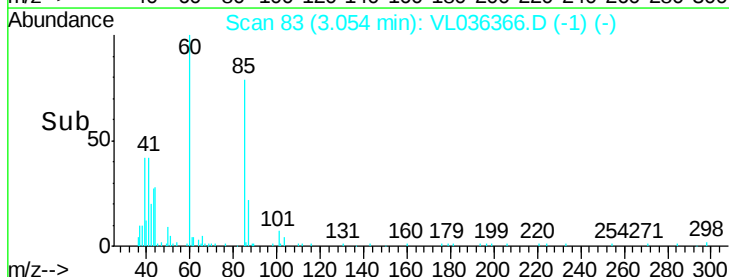
30000

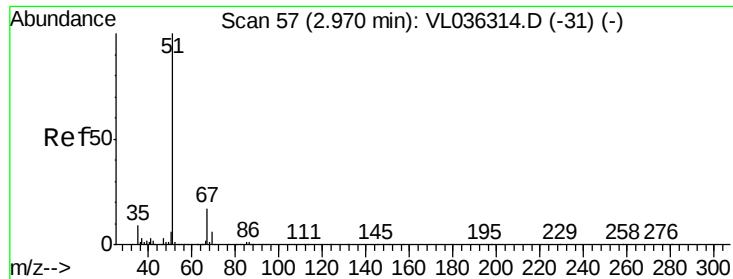
20000

10000

0

Time-->





#3

Chlorodifluoromethane

Concen: 0.372 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.02 min

Lab File: VL036366.D

Acq: 25 Feb 2021 1:24

Instrument :

MSVOA_L

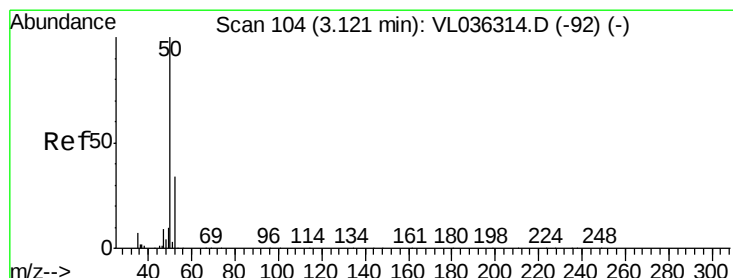
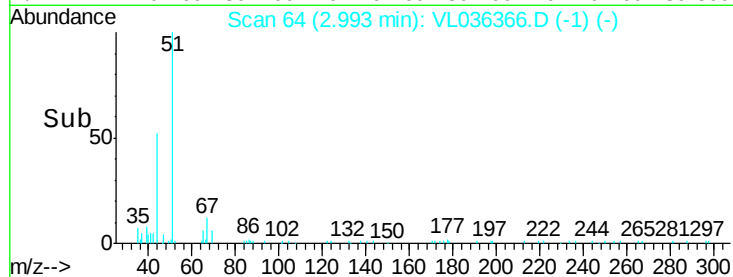
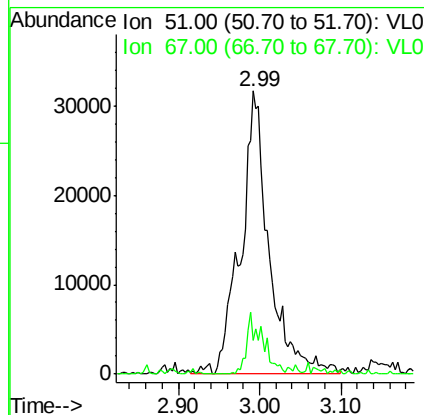
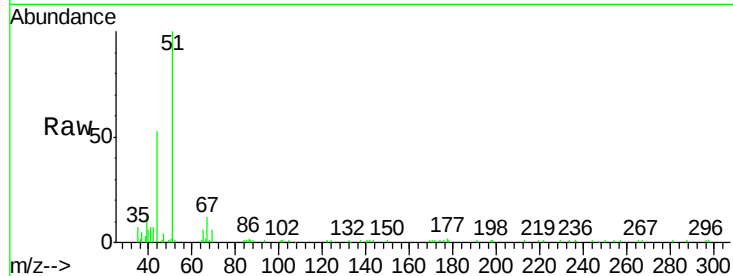
ClientSampleId :

NS-7

Tot Ion: 51 Resp: 76568
 Ion Ratio Lower Upper
 51 100
 67 12.0 14.7 22.1#

Manual Integrations
 APPROVED

MMDadoda
 2/26/2021 4:17:54 PM



#4

Chloromethane

Concen: 0.534 ppbv

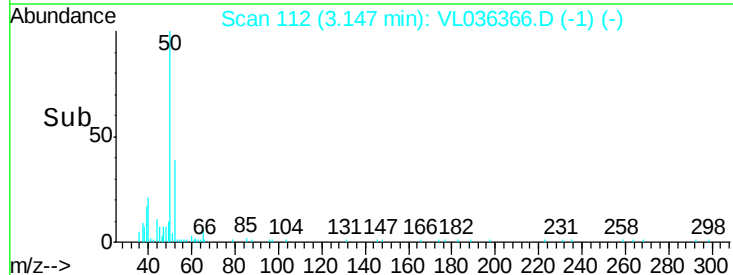
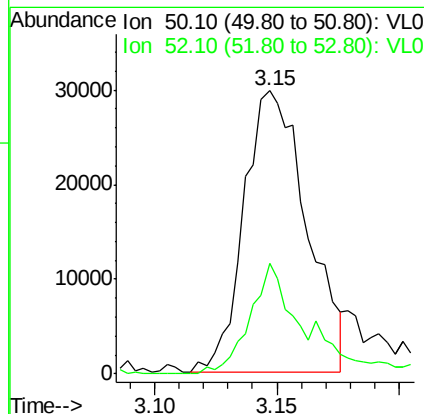
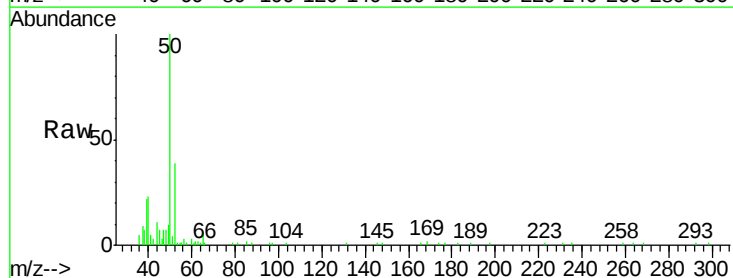
RT: 3.15 min Scan# 112

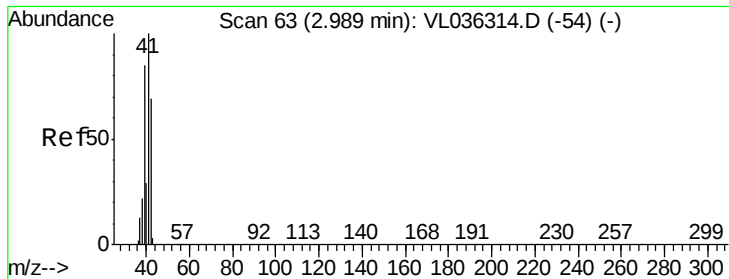
Delta R.T. 0.03 min

Lab File: VL036366.D

Acq: 25 Feb 2021 1:24

Tgt Ion: 50 Resp: 53008
 Ion Ratio Lower Upper
 50 100
 52 39.4 27.0 40.4





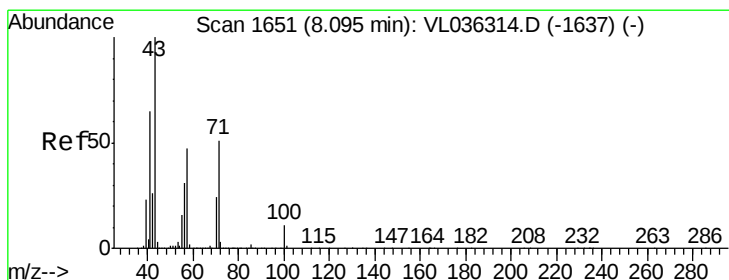
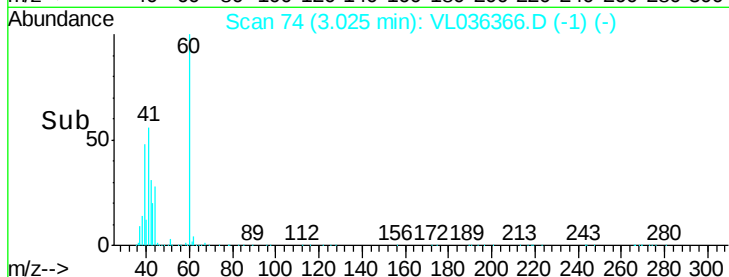
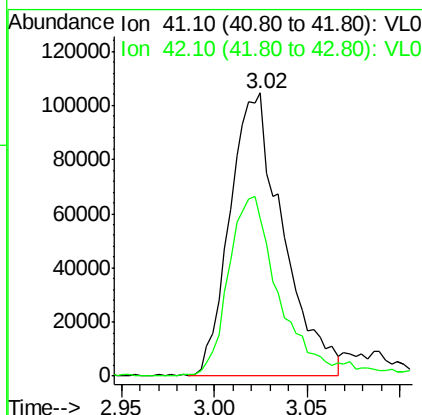
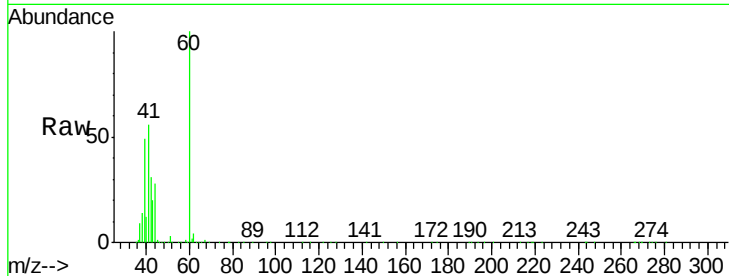
#9
 Propene
 Concen: 2.707 ppbv
 RT: 3.02 min Scan# 74
 Delta R.T. 0.04 min
 Lab File: VL036366.D
 Acq: 25 Feb 2021 1:24

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-7

Tot Ion	Ratio	Lower	Upper
41	100		
42	63.4	56.2	84.2

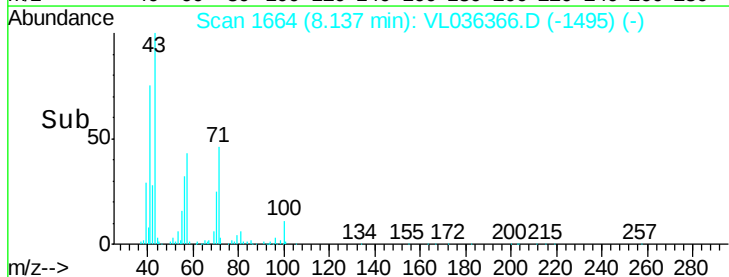
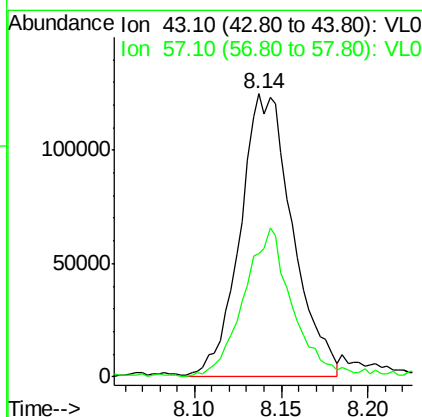
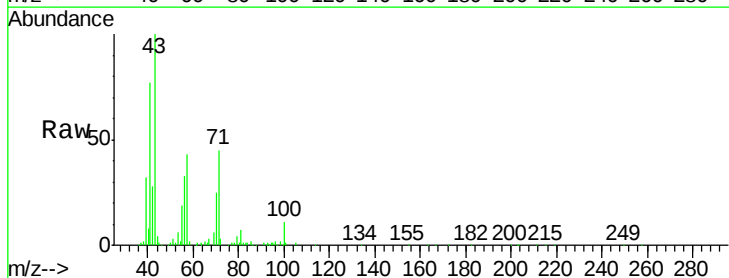
Manual Integrations
 APPROVED

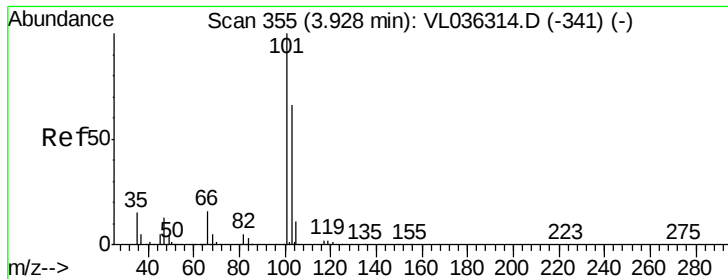
MMDadoda
 2/26/2021 4:17:54 PM



#10
 Heptane
 Concen: 1.169 ppbv m
 RT: 8.14 min Scan# 1664
 Delta R.T. 0.04 min
 Lab File: VL036366.D
 Acq: 25 Feb 2021 1:24

Tgt Ion	Ratio	Lower	Upper
43	100		
57	48.8	39.4	59.2





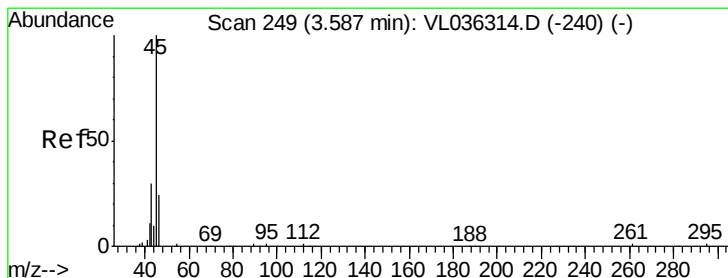
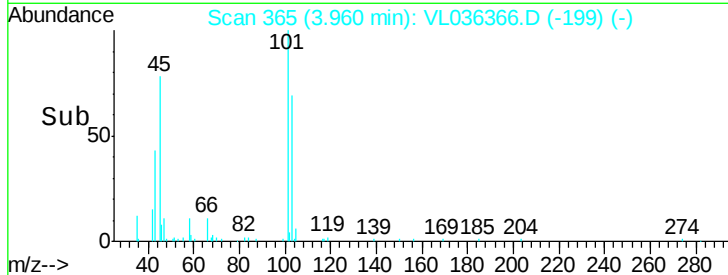
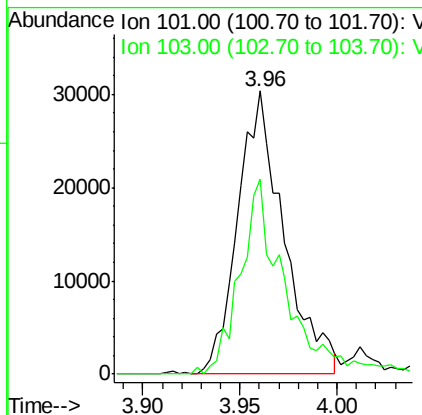
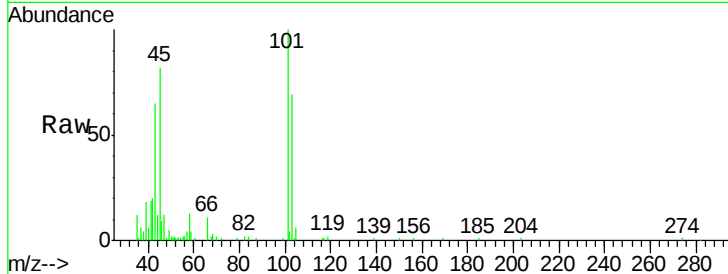
#11
 Trichlorofluoromethane
 Concen: 0.207 ppbv m
 RT: 3.96 min Scan# 365
 Delta R.T. 0.03 min
 Lab File: VL036366.D
 Acq: 25 Feb 2021 1:24

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-7

Tot Ion	Ratio	Lower	Upper
101	100		
103	69.0	52.9	79.3

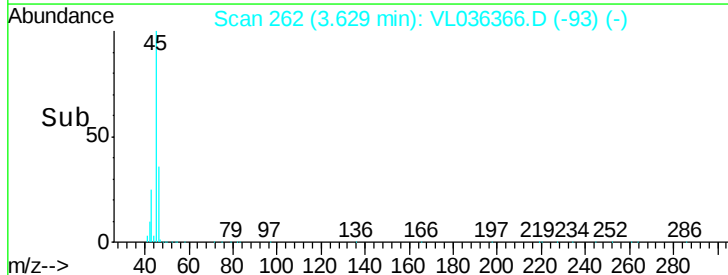
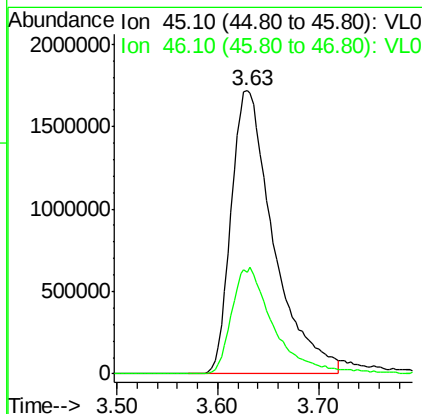
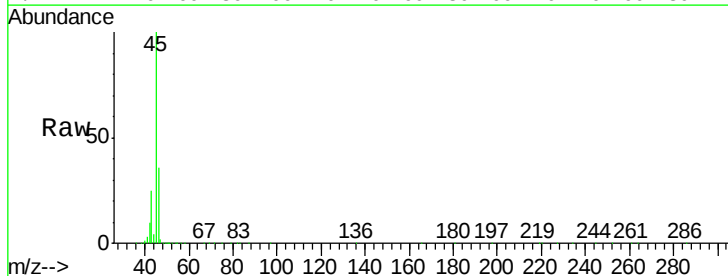
Manual Integrations
 APPROVED

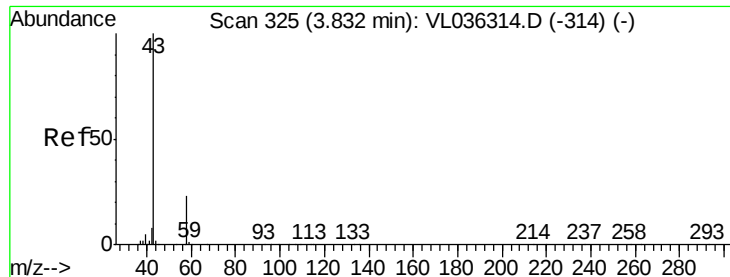
MMDadoda
 2/26/2021 4:17:54 PM



#13
 Ethanol
 Concen: 349.224 ppbv
 RT: 3.63 min Scan# 262
 Delta R.T. 0.04 min
 Lab File: VL036366.D
 Acq: 25 Feb 2021 1:24

Tgt Ion	Ratio	Lower	Upper
45	100		
46	38.2	17.7	70.7





#15

Acetone

Concen: 8.165 ppbv

RT: 3.86 min Scan# 333

Delta R.T. 0.03 min

Lab File: VL036366.D

Acq: 25 Feb 2021 1:24

Instrument :

MSVOA_L

ClientSampled :

NS-7

Tot Ion: 43 Resp: 1651581

Ion Ratio Lower Upper

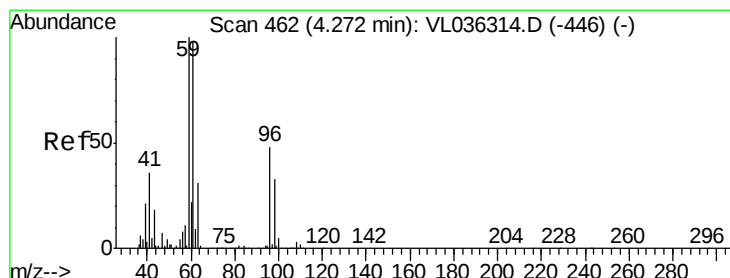
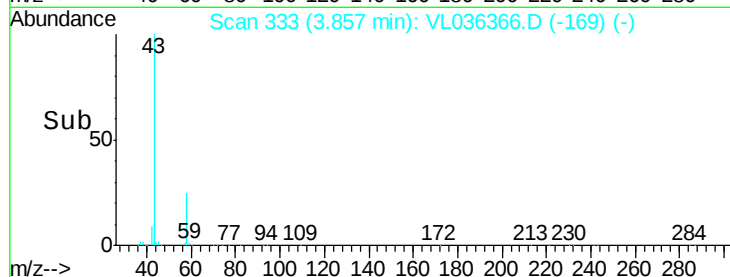
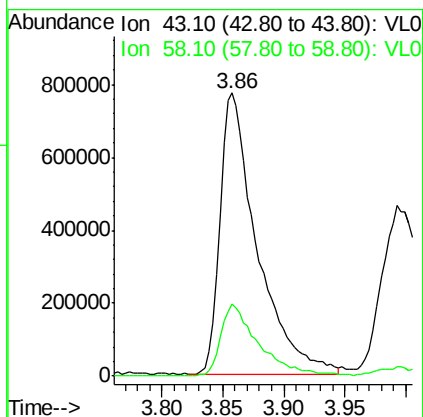
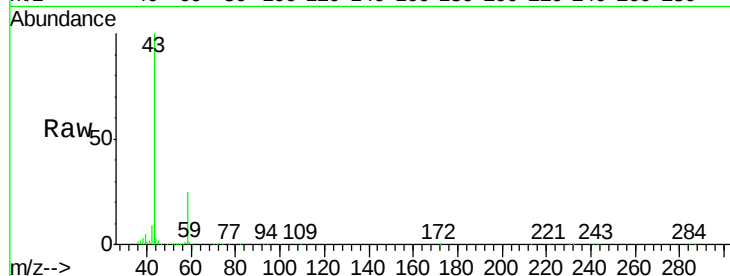
43 100

58 26.2 20.3 30.5

Manual Integrations
APPROVED

MMDadoda

2/26/2021 4:17:54 PM



#17

tert-Butyl alcohol

Concen: 0.318 ppbv

RT: 4.33 min Scan# 479

Delta R.T. 0.05 min

Lab File: VL036366.D

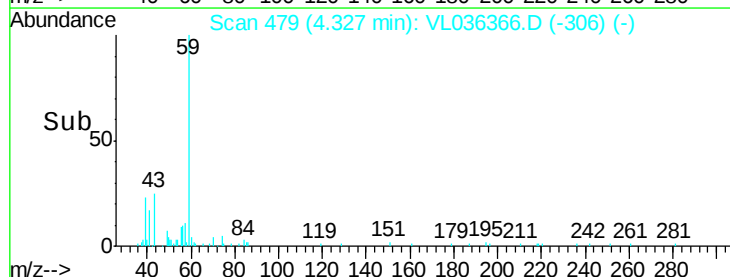
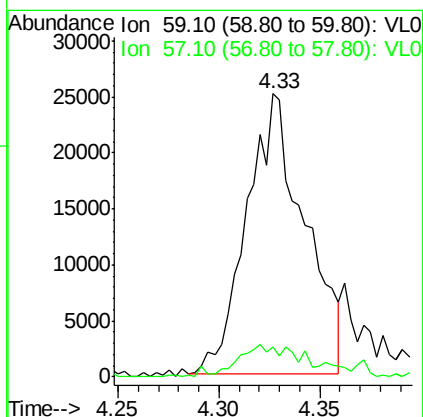
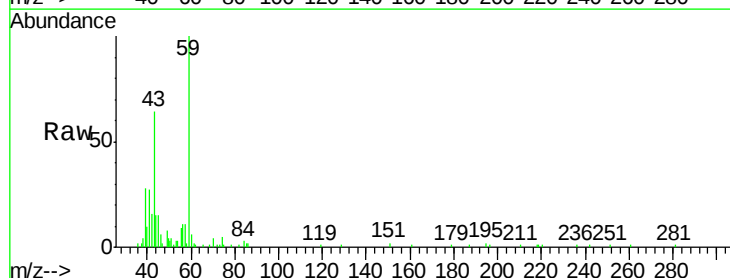
Acq: 25 Feb 2021 1:24

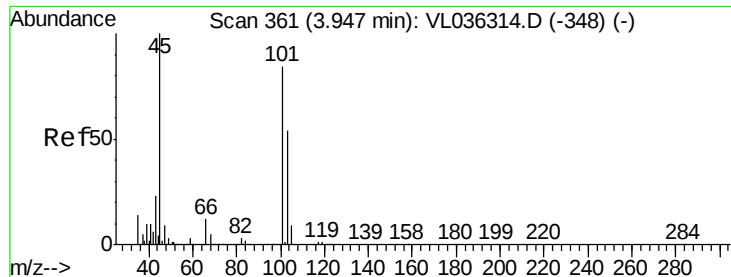
Tgt Ion: 59 Resp: 49959

Ion Ratio Lower Upper

59 100

57 15.6 9.0 13.4#





#19

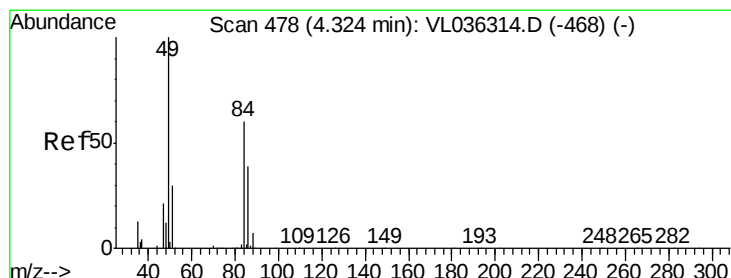
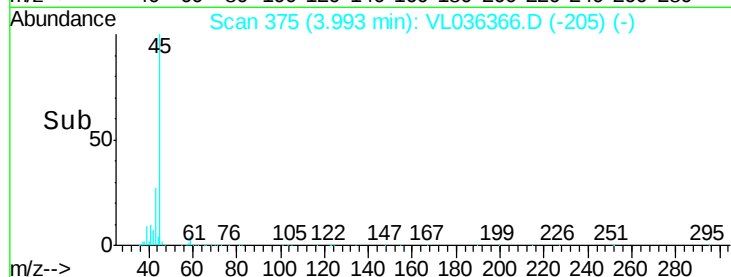
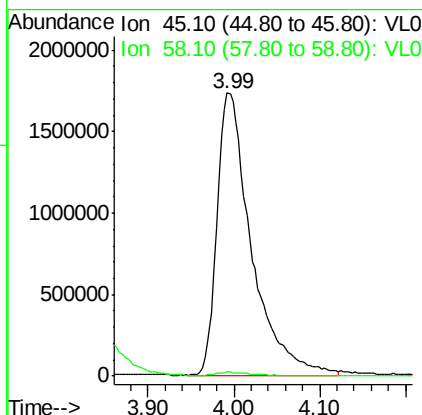
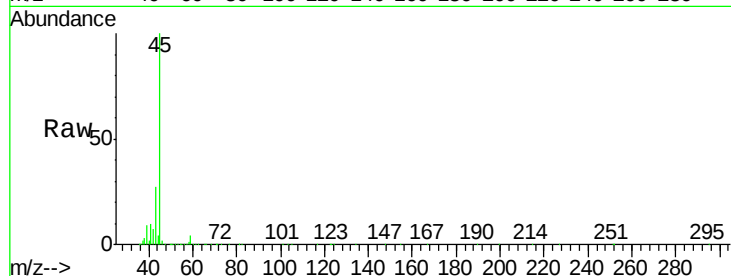
Isopropyl Alcohol
 Concen: 43.041 ppbv
 RT: 3.99 min Scan# 375
 Delta R.T. 0.05 min
 Lab File: VL036366.D
 Acq: 25 Feb 2021 1:24

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-7

Tot Ion: 45 Resp: 4823644
 Ion Ratio Lower Upper
 45 100
 58 1.7 1.9 2.9#

Manual Integrations
 APPROVED

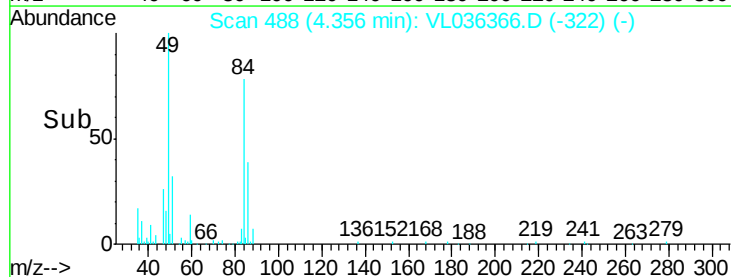
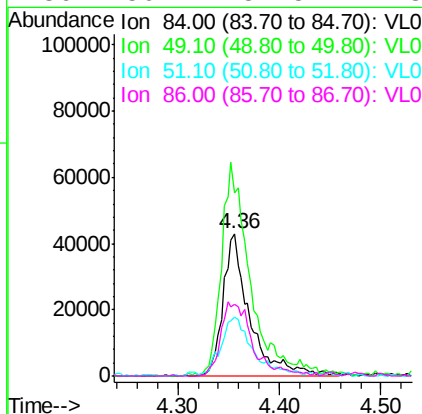
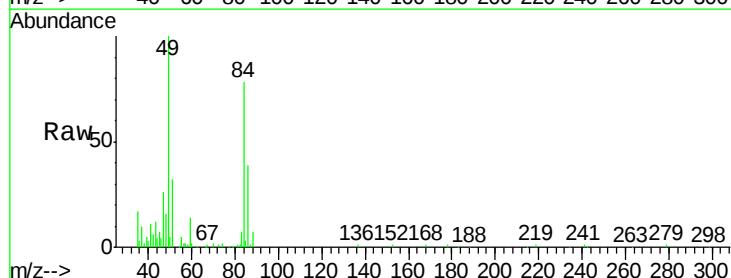
MMDadoda
 2/26/2021 4:17:54 PM

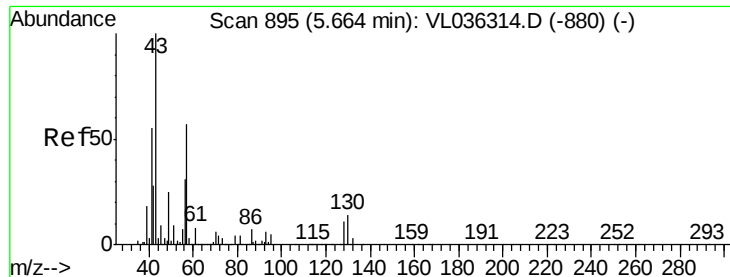


#20

Methylene Chloride
 Concen: 1.202 ppbv m
 RT: 4.36 min Scan# 488
 Delta R.T. 0.03 min
 Lab File: VL036366.D
 Acq: 25 Feb 2021 1:24

Tgt Ion: 84 Resp: 78419
 Ion Ratio Lower Upper
 84 100
 49 128.3 133.8 200.8#
 51 41.5 41.4 62.0
 86 50.2 51.5 77.3#





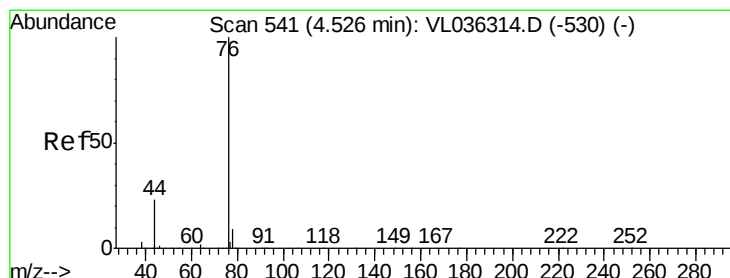
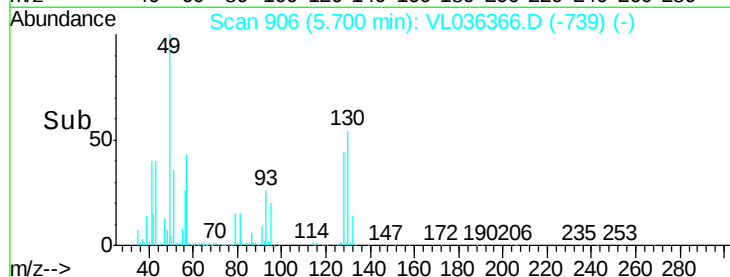
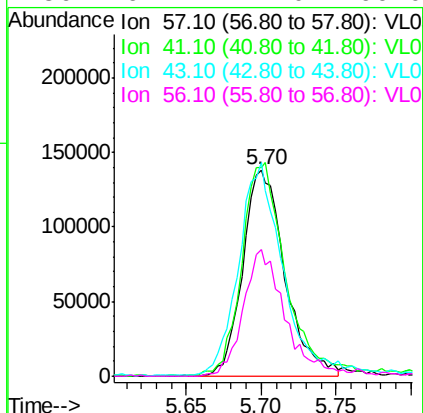
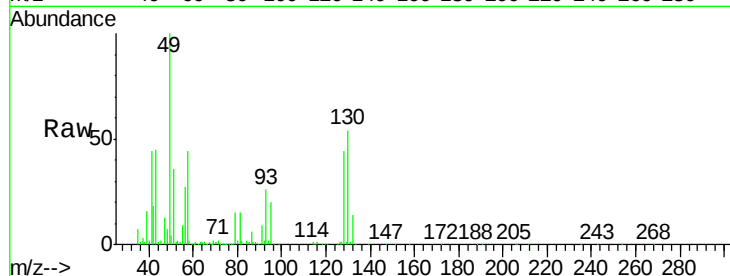
#26
Hexane
Concen: 1.690 ppbv
RT: 5.70 min Scan# 906
Delta R.T. 0.04 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Instrument :
MSVOA_L
ClientSampled :
NS-7

Tot Ion	Ratio	Lower	Upper
57	100		
41	110.6	81.7	122.5
43	109.7	199.1	298.7#
56	62.7	44.0	66.0

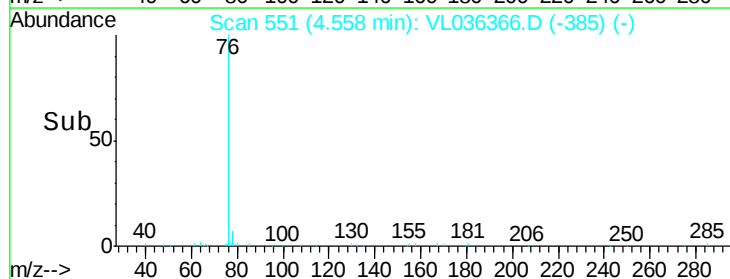
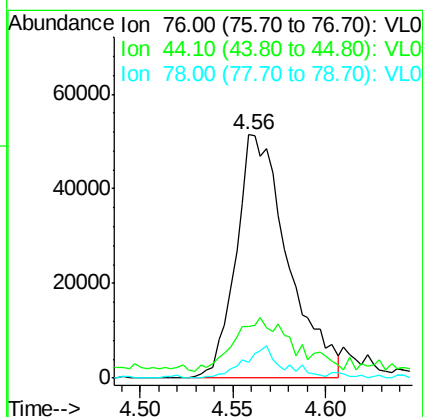
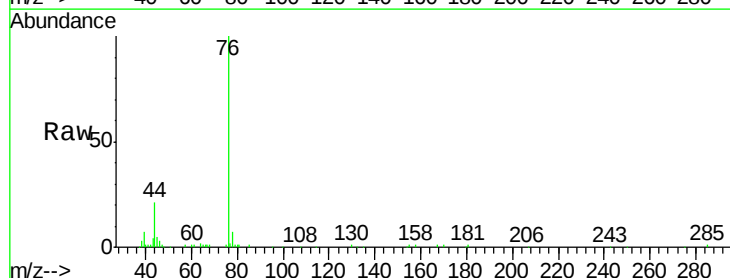
Manual Integrations
APPROVED

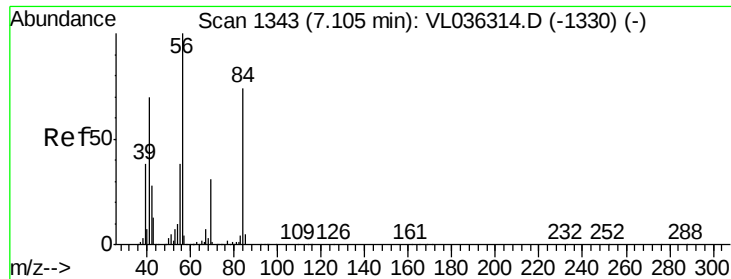
MMDadoda
2/26/2021 4:17:54 PM



#27
Carbon Disulfide
Concen: 0.676 ppbv
RT: 4.56 min Scan# 551
Delta R.T. 0.03 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Tgt Ion	Ratio	Lower	Upper
76	100		
44	30.6	18.4	27.6#
78	10.0	8.0	12.0





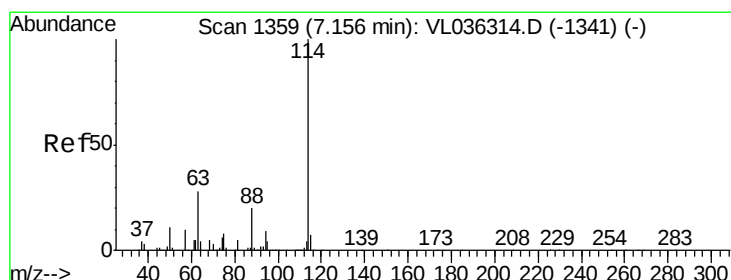
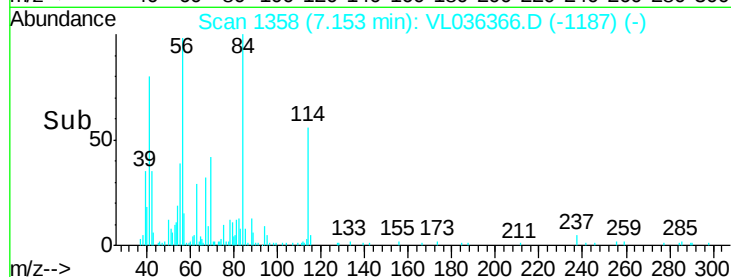
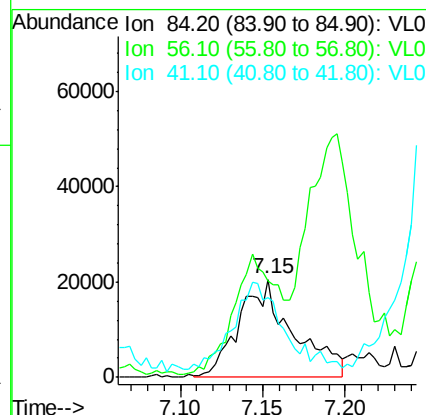
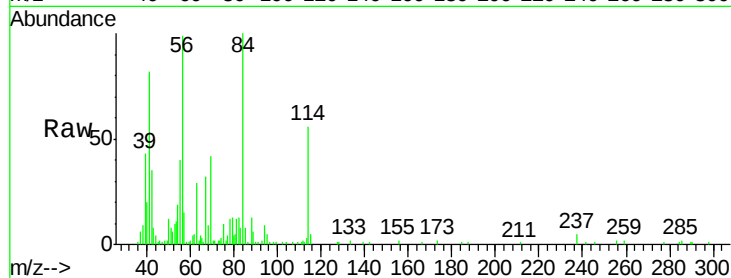
#30
Cvclohexane
Concen: 0.352 ppbv m
RT: 7.15 min Scan# 1358
Delta R.T. 0.05 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Instrument :
MSVOA_L
ClientSampleId :
NS-7

Tot Ion	Ratio	Lower	Upper
84	100		
56	95.0	120.2	180.4#
41	81.3	79.7	119.5

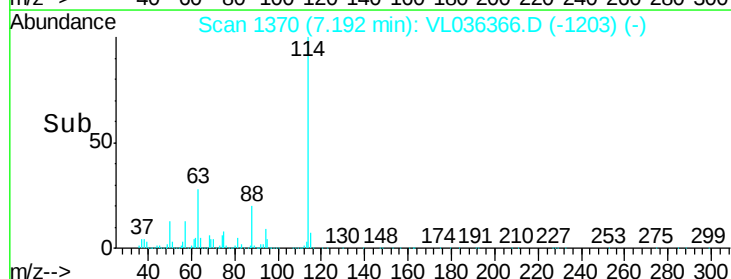
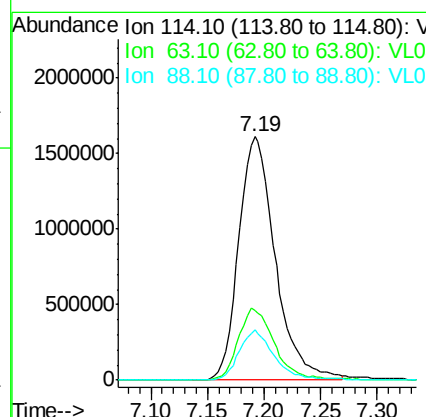
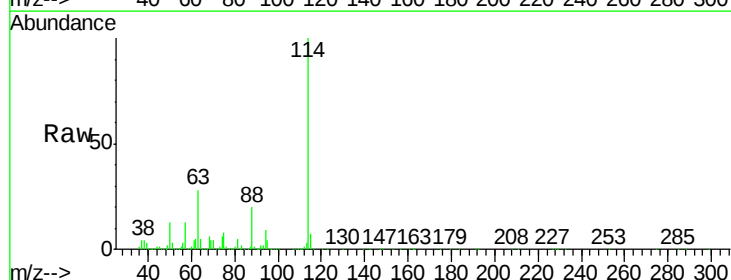
Manual Integrations
APPROVED

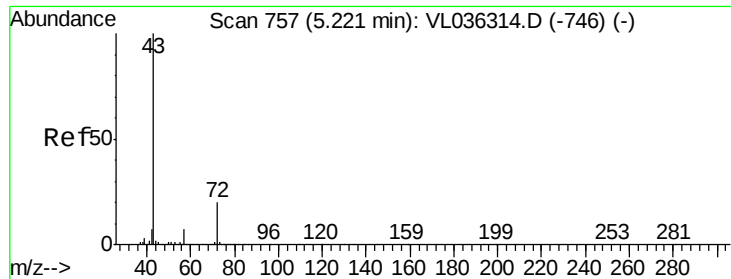
MMDadoda
2/26/2021 4:17:54 PM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.19 min Scan# 1370
Delta R.T. 0.04 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Tgt Ion	Ratio	Lower	Upper
114	100		
63	29.5	24.1	36.1
88	19.9	16.0	24.0





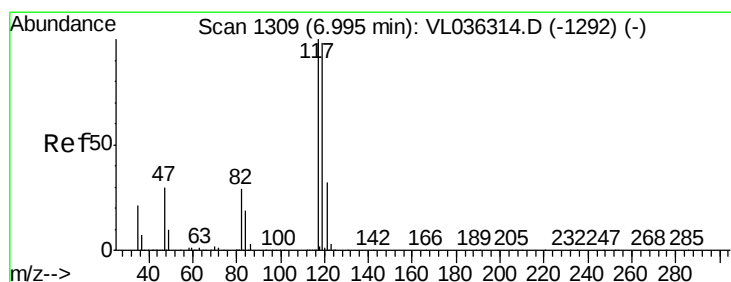
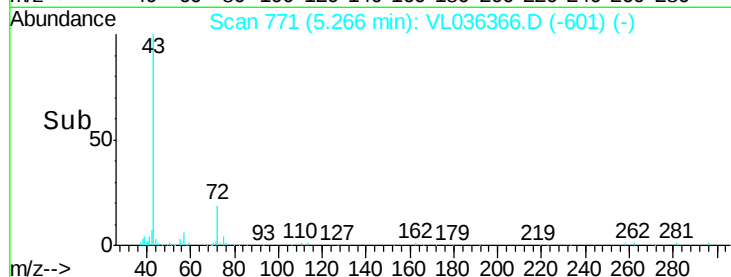
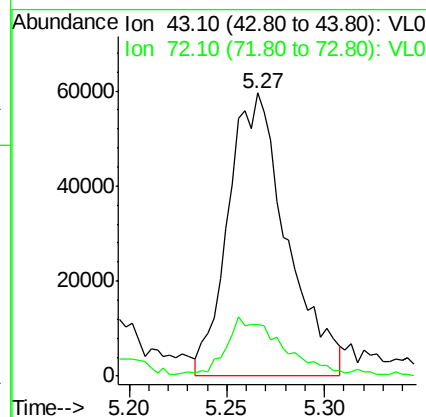
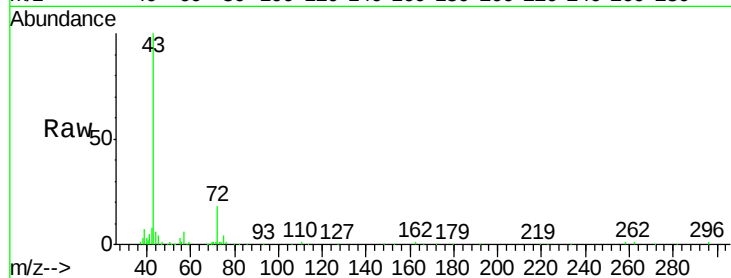
#34
2-Butanone
Concen: 0.514 ppbv m
RT: 5.27 min Scan# 771
Delta R.T. 0.05 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Instrument :
MSVOA_L
ClientSampleId :
NS-7

Tot Ion	43	Resp	124194
Ion Ratio	Lower	Upper	
43	100		
72	21.3	16.7	25.1

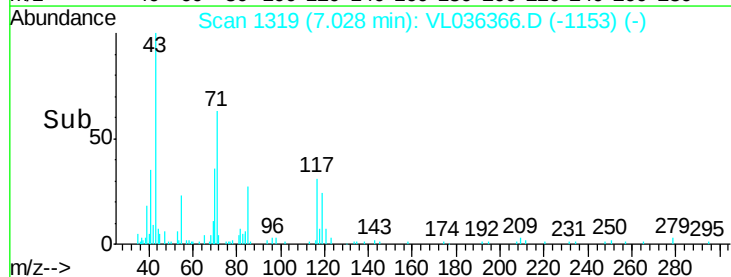
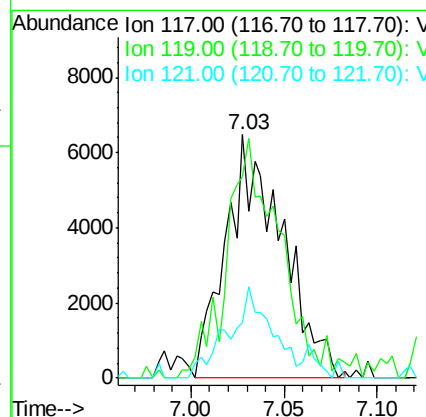
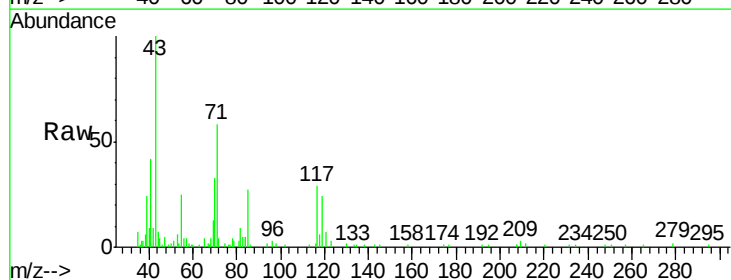
Manual Integrations
APPROVED

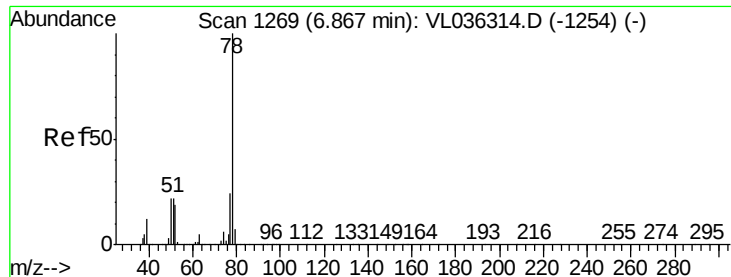
MMDadoda
2/26/2021 4:17:54 PM



#35
Carbon Tetrachloride
Concen: 0.056 ppbv m
RT: 7.03 min Scan# 1319
Delta R.T. 0.03 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Tgt Ion	117	Resp	13647
Ion Ratio	Lower	Upper	
117	100		
119	82.6	78.1	117.1
121	22.7	25.8	38.8#





#36

Benzene

Concen: 0.520 ppbv

RT: 6.90 min Scan# 1280

Delta R.T. 0.04 min

Lab File: VL036366.D

Acq: 25 Feb 2021 1:24

Instrument :

MSVOA_L

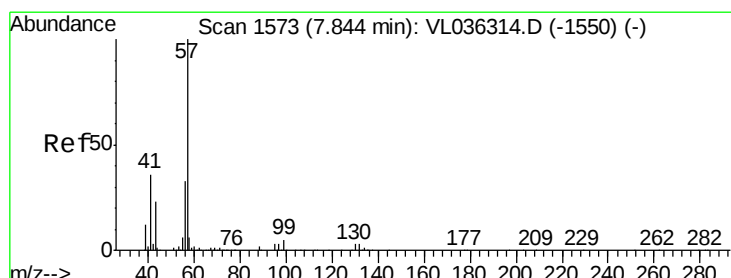
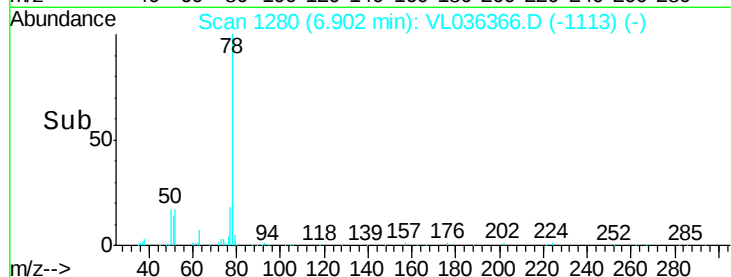
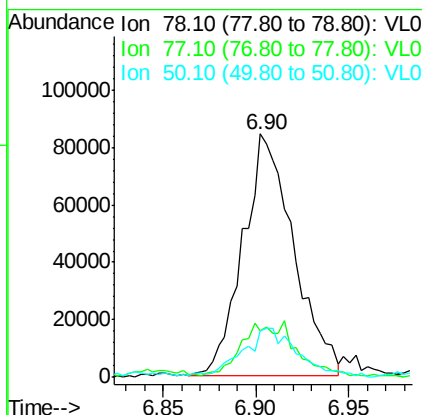
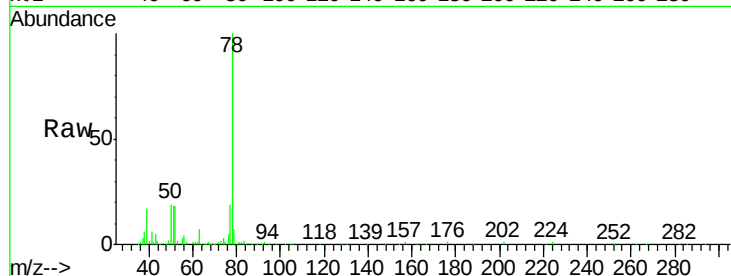
ClientSampled :

NS-7

Tot Ion:	78	Resp:	160653
Ion Ratio		Lower	Upper
78	100		
77	17.8	18.9	28.3#
50	18.0	17.3	25.9

Manual Integrations
APPROVED

MMDadoda
2/26/2021 4:17:54 PM



#44

2,2,4-Trimethylpentane

Concen: 2.746 ppbv

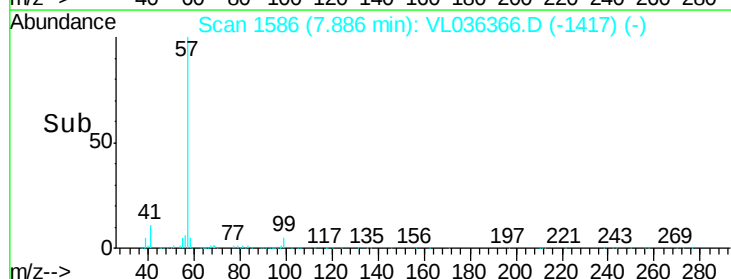
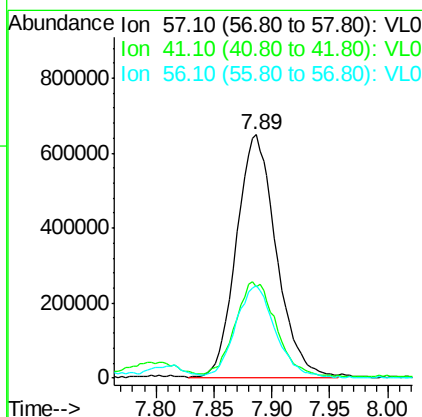
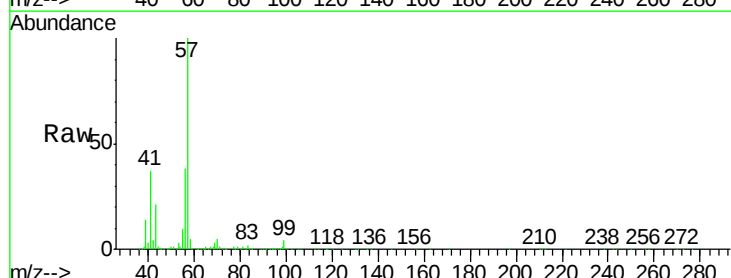
RT: 7.89 min Scan# 1586

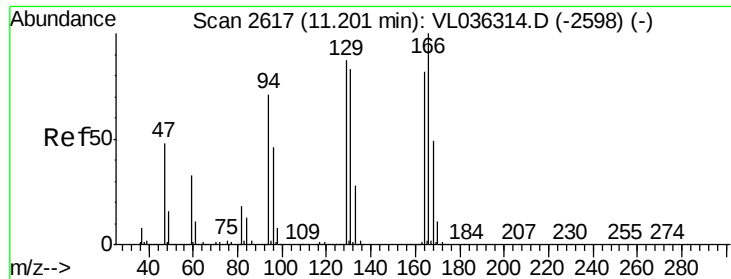
Delta R.T. 0.04 min

Lab File: VL036366.D

Acq: 25 Feb 2021 1:24

Tgt Ion:	57	Resp:	1542818
Ion Ratio		Lower	Upper
57	100		
41	41.8	28.8	43.2
56	38.8	25.8	38.6#





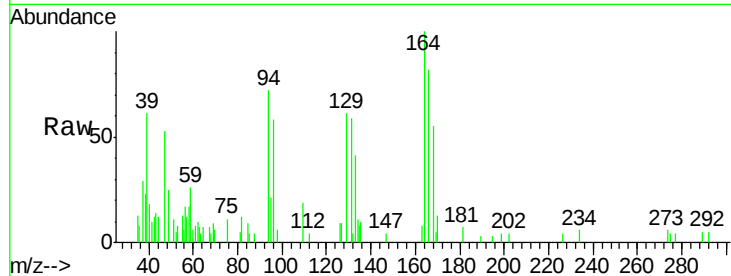
#52
Tetrachloroethene
Concen: 0.074 ppbv m
RT: 11.24 min Scan# 2630
Delta R.T. 0.04 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Instrument :
MSVOA_L
ClientSampled :
NS-7

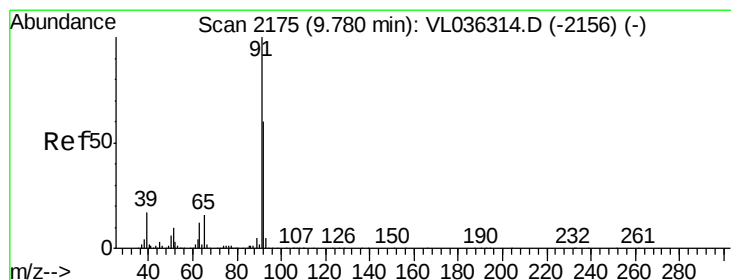
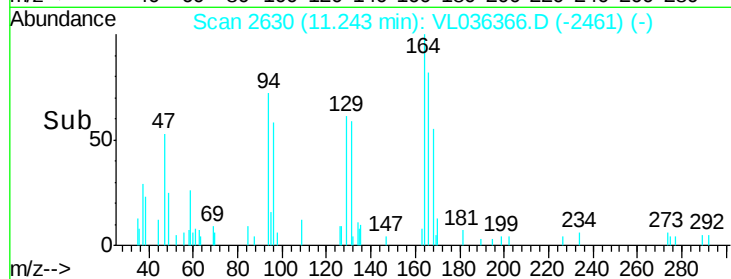
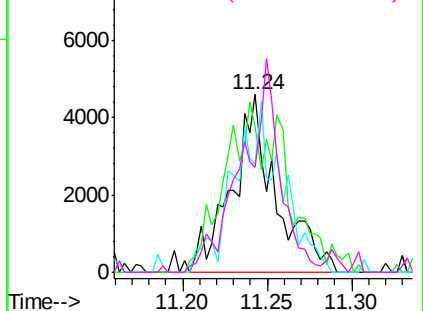
Tot Ion	Ratio	Lower	Upper
164	100		
166	82.1	97.8	146.8#
129	60.8	84.9	127.3#
131	58.9	81.4	122.2#

Manual Integrations
APPROVED

MMDadoda
2/26/2021 4:17:54 PM

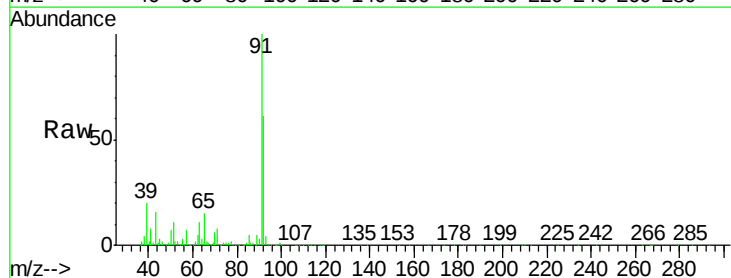


Abundance Ion 163.90 (163.60 to 164.60): V
Ion 165.90 (165.60 to 166.60): V
Ion 129.00 (128.70 to 129.70): V
Ion 131.00 (130.70 to 131.70): V

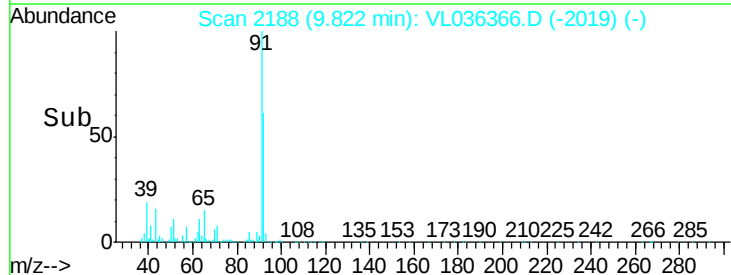
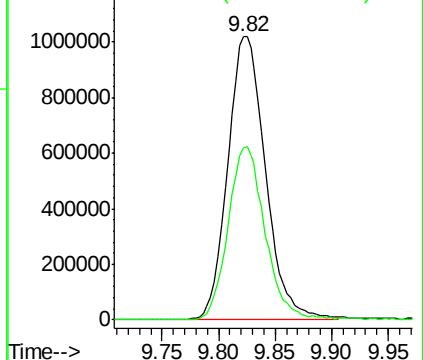


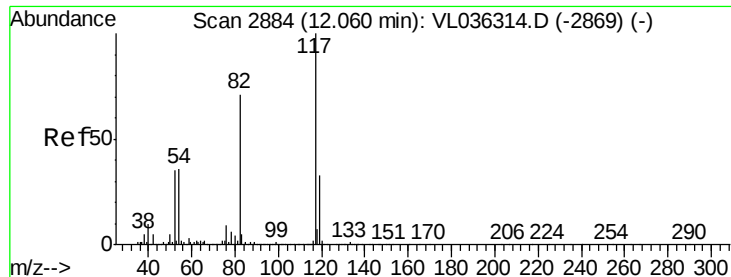
#53
Toluene
Concen: 7.063 ppbv
RT: 9.82 min Scan# 2188
Delta R.T. 0.04 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Tgt Ion	Ratio	Lower	Upper
91	100		
92	60.5	48.6	72.8



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0





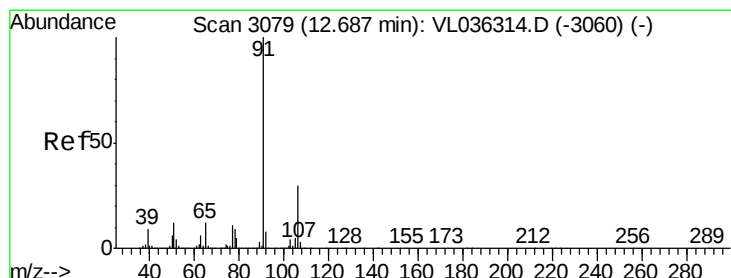
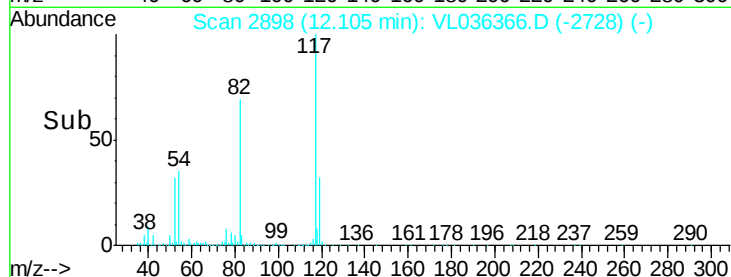
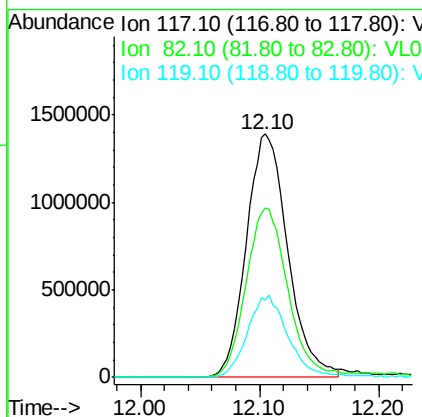
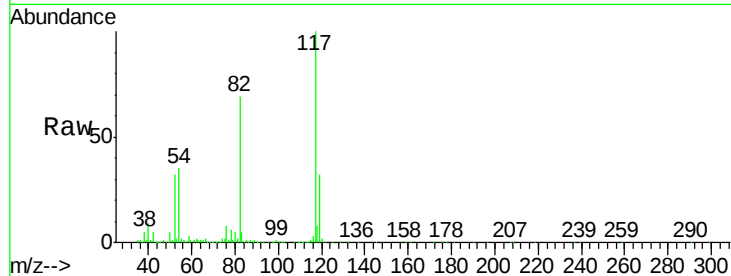
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2898
Delta R.T. 0.05 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Instrument :
MSVOA_L
ClientSampled :
NS-7

Tot Ion	Ratio	Lower	Upper
117	100		
82	73.2	59.1	88.7
119	33.5	46.3	69.5

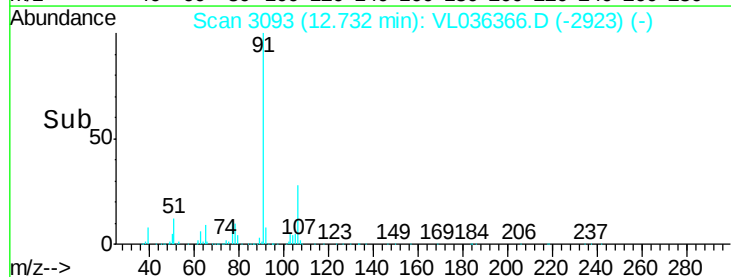
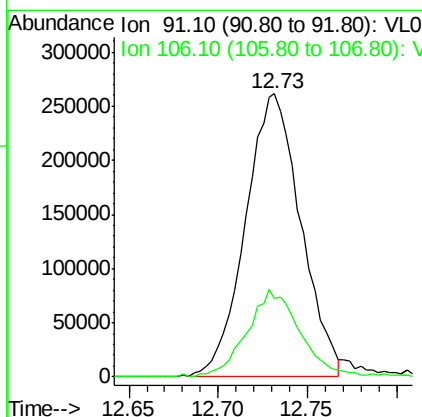
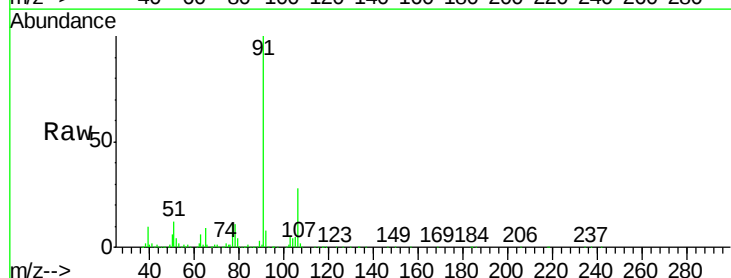
Manual Integrations
APPROVED

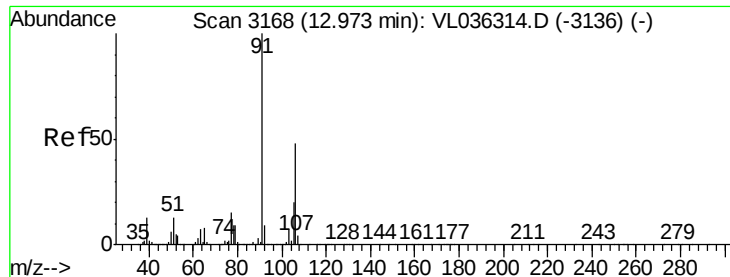
MMDadoda
2/26/2021 4:17:54 PM



#58
Ethyl Benzene
Concen: 1.220 ppbv
RT: 12.73 min Scan# 3093
Delta R.T. 0.05 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Tgt Ion	Ratio	Lower	Upper
91	100		
106	27.8	23.8	35.6





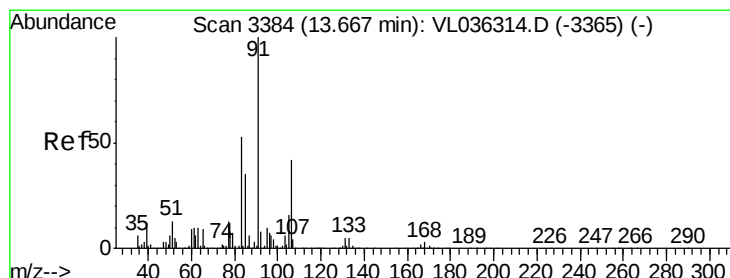
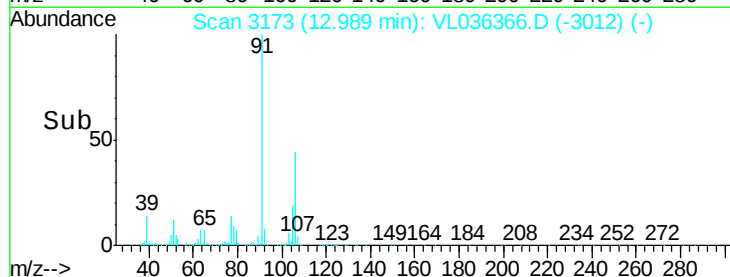
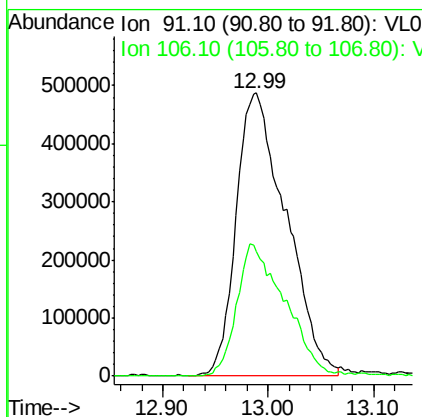
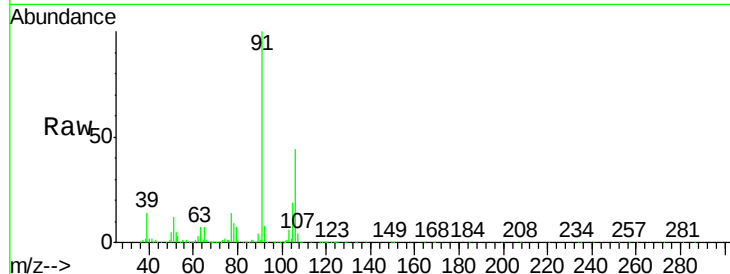
#59
m/p-Xylene
Concen: 3.938 ppbv
RT: 12.99 min Scan# 3173
Delta R.T. 0.02 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Instrument :
MSVOA_L
ClientSampled :
NS-7

Tot Ion: 91 Resp: 1590850
Ion Ratio Lower Upper
91 100
106 45.7 34.2 51.2

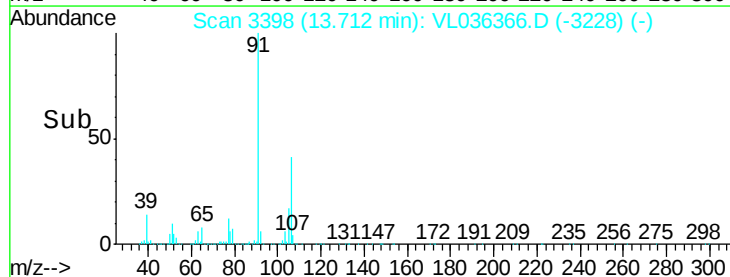
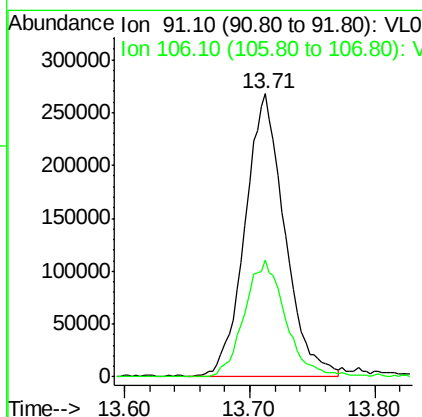
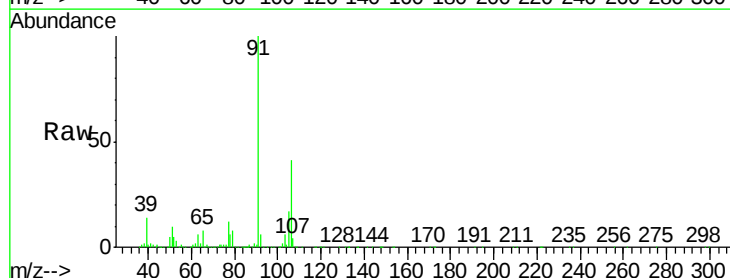
Manual Integrations
APPROVED

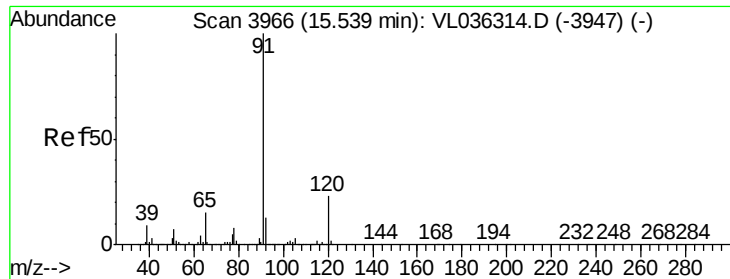
MMDadoda
2/26/2021 4:17:54 PM



#60
o-Xylene
Concen: 1.522 ppbv
RT: 13.71 min Scan# 3398
Delta R.T. 0.05 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Tgt Ion: 91 Resp: 587838
Ion Ratio Lower Upper
91 100
106 42.6 22.0 66.0





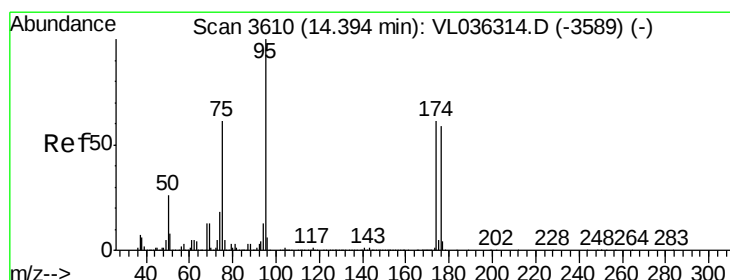
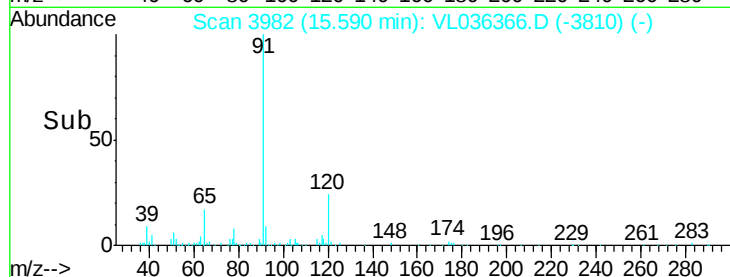
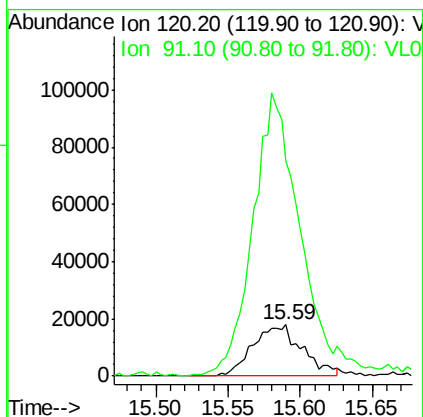
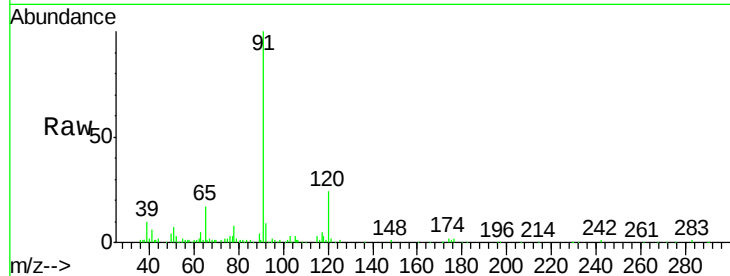
#64
n-propylbenzene
Concen: 0.299 ppbv m
RT: 15.59 min Scan# 3982
Delta R.T. 0.05 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Instrument :
MSVOA_L
ClientSampled :
NS-7

Tot Ion:120 Resp: 42557
Ion Ratio Lower Upper
120 100
91 0.0 387.2 580.8#

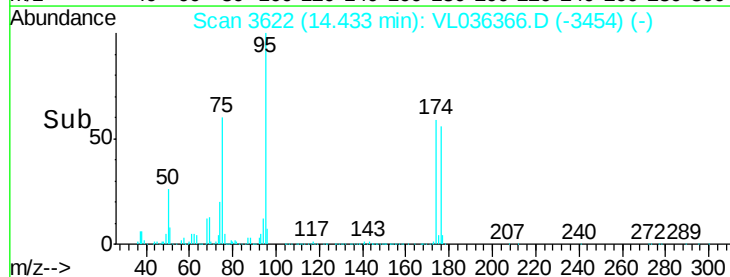
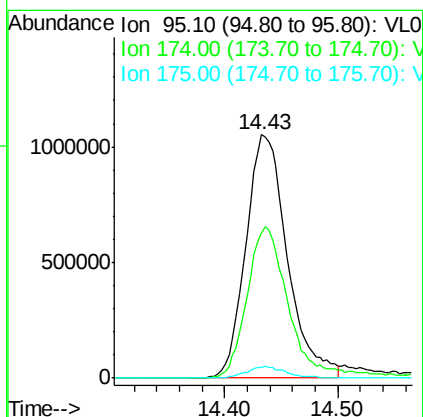
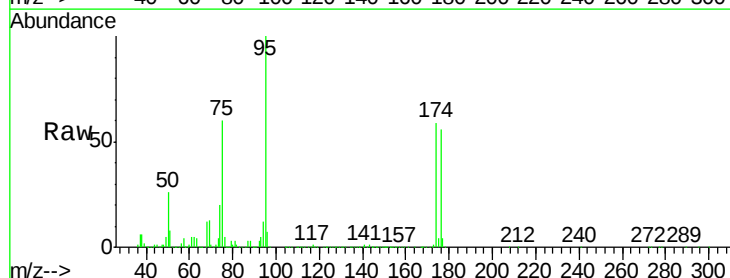
Manual Integrations
APPROVED

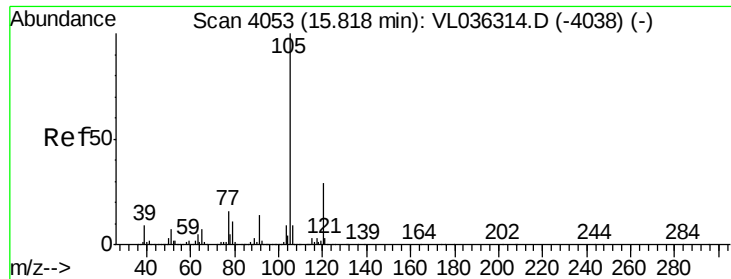
MMDadoda
2/26/2021 4:17:54 PM



#68
1-Bromo-4-Fluorobenzene
Concen: 9.711 ppbv
RT: 14.43 min Scan# 3622
Delta R.T. 0.04 min
Lab File: VL036366.D
Acq: 25 Feb 2021 1:24

Tgt Ion: 95 Resp: 2683702
Ion Ratio Lower Upper
95 100
174 64.6 49.8 74.6
175 4.5 3.7 5.5





#72

4-Ethyltoluene

Concen: 0.442 ppbv m

RT: 15.86 min Scan# 4065

Delta R.T. 0.04 min

Lab File: VL036366.D

Acq: 25 Feb 2021 1:24

Instrument :

MSVOA_L

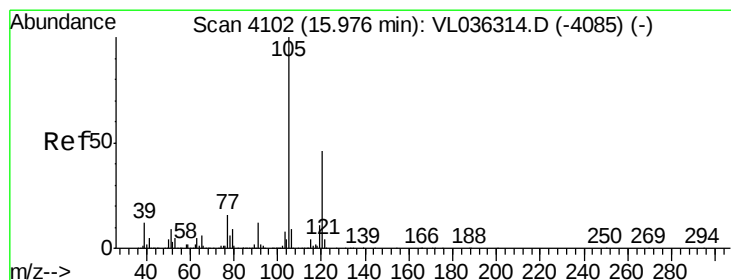
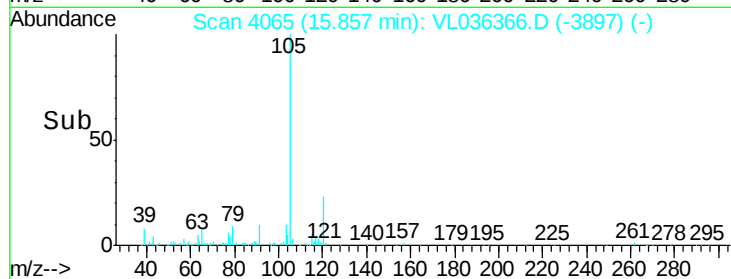
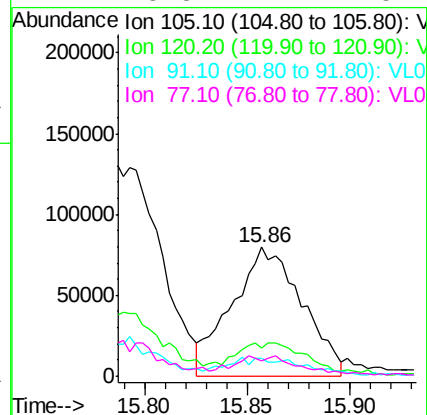
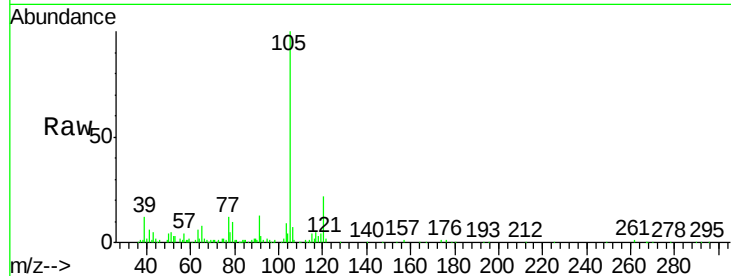
ClientSampleId :

NS-7

Tot Ion	Ratio	Resp	Lower	Upper
105	100	190023		
120	30.0	23.2	34.8	
91	0.0	11.0	16.4	
77	15.8	12.2	18.4	

Manual Integrations
APPROVED

MMDadoda
2/26/2021 4:17:54 PM



#73

1,3,5-Trimethylbenzene

Concen: 0.268 ppbv

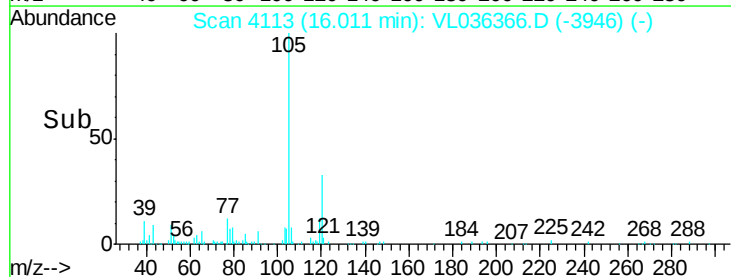
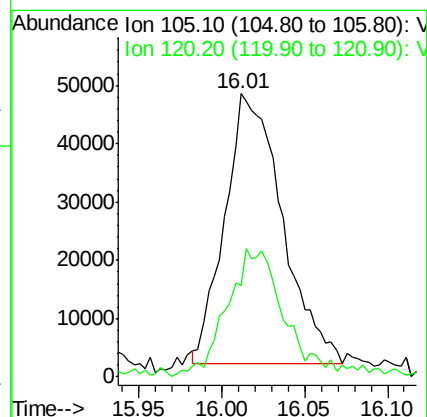
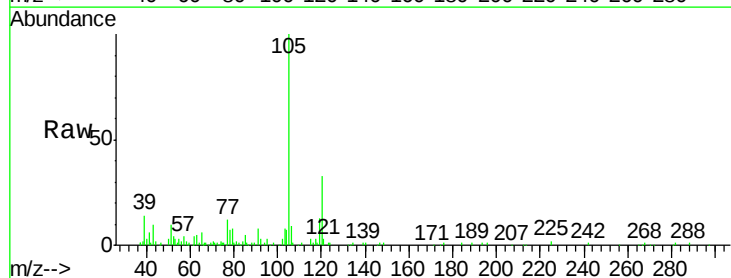
RT: 16.01 min Scan# 4113

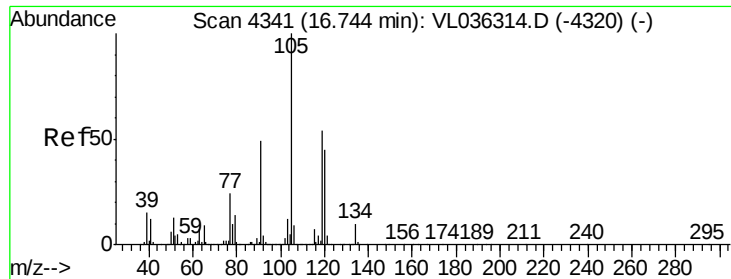
Delta R.T. 0.04 min

Lab File: VL036366.D

Acq: 25 Feb 2021 1:24

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	111799		
120	30.1	36.9	55.3	





#74
 1,2,4-Trimethylbenzene
 Concen: 1.320 ppbv
 RT: 16.79 min Scan# 4354
 Delta R.T. 0.04 min
 Lab File: VL036366.D
 Acq: 25 Feb 2021 1:24

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-7

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	39.2	35.8	53.6
91	11.2	39.8	59.6#
77	17.2	19.1	28.7#

Manual Integrations
 APPROVED

MMDadoda
 2/26/2021 4:17:54 PM

