

Sample tube [ug/cig]      Used std. curve (0.10, 0.25, 0.50, 1.0, and 5.0 ug/ml stds.)  
 T1      0.5      Test samples fall at midpoint to upper part of std. curve  
 T2      0.3

Blank tube [ng/ml]      Used std. curve (5, 10, 25, 50, and 100 ng/ml stds.)  
 1      0.9      0.36      Same level of 162 ion in the I.S. solution as in the blank tubes  
 2      0.7      0.28  
 3      3.7      1.48  
 4      0.8      0.32  
 5      1.4      0.56

Mean = 1.50       $1.6 \pm 0.504$   
 Stdev. = 1.26  
 Mean + 3(stdev.) = 5.3      Limit of detection  
 Mean + 10(stdev.) = 14.1      Limit of quantitation

$$\text{LOD} = 3 \times 0.504 = 1.5 \text{ ng/cig.}$$

$$\text{LOQ} = 10 \times 0.504 = 5.0 \text{ ng/cig.}$$

Based on  
m/e 162      Interfer @ m/e 84

Impurity from Carvone  
 Separated w/ Temp Prof.

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