# Method 5 - Mercury

**Sample Weight: 0.5 g**

## Summary

Mercury is determined by cold vapor atomic absorption spectrometry (CVAAS). The sample is digested using a mixture of sulfuric and nitric acids, and dilute potassium permanganate and potassium persulfate in a water bath. Excess potassium permanganate is reduced by hydroxylamine sulfate solution, then Hg(II) is reduced by a solution of Tin(II) chloride (or stannous chloride). Mercury vapor is separated and measured with a FIMS 100 Mercury Analysis System.

## Method 5 Reporting Limits

The reporting limit range for Mercury is 1 ppb to 100,000 ppb

## Analytical Performance

Data will be deemed acceptable if recovery of Mercury is ±20% at five times the LOD and the calculated percent RSD of duplicate samples is no greater than 20%.