TEST REPORT – Sample Handler Rinsing Efficiency of the Bubble Stirrer During Sample Preparation

Introduction:

The following test is a study of the Sample Handler's effectiveness at rinsing the probe and preventing cross-contamination when using the bubble stirrer function.

Sample Type:

• 1000 ppm Strontium standard 140-051-38x S130930015

Supplies and Reagents:

1) *Easy***PREP** Sample Handler *
2) 50ml *Digi***TUBE**s *
3) **PlasmaPURE** HNO_3 at 2% v/v concentration
4) Perkin Elmer ELAN 6100*
5) Quartz 1.8mm injector*
6) Cyclonic baffled spray chamber*
7) Mini X-Flow nebulizer*

* Manufactured by **SCP SCIENCE**

Test Procedure:

- The probe and tubing of the Sample Handler are cleaned and primed with a 2% HNO_3 rinsing solution.
- A 10ml volume of this solution were dispensed to a 50ml *Digi***TUBE** for an initial system blank value.
- A 0.5 ml aliquot of 1000 ppm Strontium standard was picked up and dispensed into a 50ml *Digi***TUBE**, and diluted to 50 ml with the 2% HNO_3 for a final concentration of 10ppm.
- The diluted solution is mixed with the air bubbler (5 seconds duration).
- The probe and bubble stirrer were rinsed at the washing station (5ml rinsing volume).
- The procedure is repeated and the results listed below following analysis by ICP-MS.

Results:

Sample	Concentration ppm
Blank	<0.003
Sr-10ppm	10.12
Blank	<0.003
Sr-10ppm	10.04
Blank	<0.003

Discussion:

Test results are shown above. Blank strontium concentration remains the same before and after contact with the strontium standard solution. All blank results remain below the instrument detection limit of 3ppb and are generally below 1ppb

EasyPREP

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