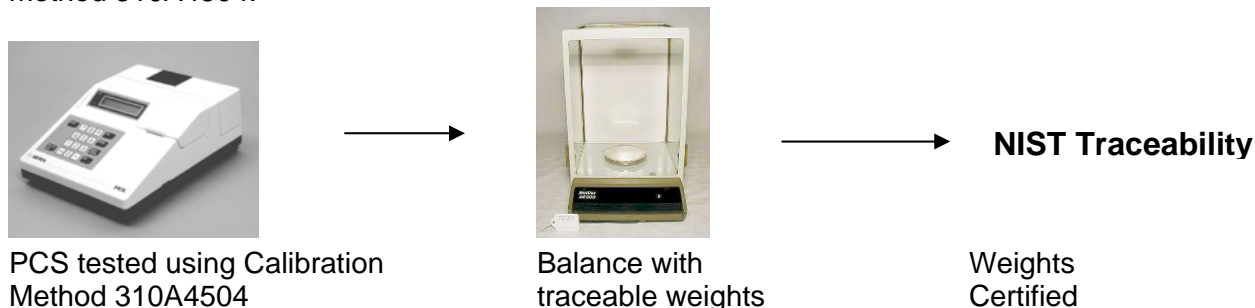


# NIST Traceability of ARTEL PCS® Results

This document outlines the methods by which the results of a pipette calibration using the ARTEL PCS® Pipette Calibration System are traceable to NIST standards. All Test and Calibration methods are carried out in the ARTEL Laboratory. The methods below are accredited to ISO 17025:2005 General Requirements for the competence of testing and calibration laboratories. Calibration Certificates are also available for the PCS Instrument and the Instrument Calibrator Kit if needed.

## PCS Instrument (Calibration method)

The ARTEL Laboratory performs photometric absorbance calibrations of liquid volume via comparison to gravimetry that are traceable to international standards, using the PCS test method 310A4504.



## PCS Instrument Calibrator Kit (Calibration method)

The PCS Instrument Calibrator Kit is calibrated using method 310A2997. Each kit contains four photometric standards that are individually tested using a reference spectrophotometer that is traceable to international standards via neutral density filter sets. The calibrated values and the individual PCS instrument measured values are compared and must meet manufacturer specifications to obtain a passing result.



## PCS Standard and Bulk Reagent Kit (Test method)

The ARTEL Laboratory performs photometric absorbance testing of all critical components of the PCS Reagent Kits via methods 310A3232 and 310A3501 that are traceable to international standards. The volume in the Blank vial is a vital aspect of method traceability and is confirmed via method 310A4512. In addition, each Sample Solution is tested gravimetrically using method 310A3279.

