Abstract Submitted
for the MAS16 Meeting of
The American Physical Society

Surface metallurgical study of corrosion and surface residuals due to cleansing agents on four collector coins scanned via XRD, wavelength-dispersive XRF, and SEM fifty years after cleaning ANNE TABOR-MORRIS, MARILYN DILLON, Georgian Court University — Surface metallurgical techniques were used on several coins struck at dates ranging from antiquity to the late 1800s. Coins were of the same trove, likely a forgotten buried family treasure, unearthed in the 1960s. The prospectors heavily cleaned the coins using various agents, then stored them with only occasional handling, allowing the coins to re-oxidize over a period of nearly 50 years. The purpose of this study is to report the results of surface analysis via X-Ray Diffraction (XRD), wavelength-dispersive X-ray Fluorescence (XRF), and Scanning Electron Microscopy (SEM) to examine corrosion and surprising surface residuals of such cleaning, years later.

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Date submitted: 05 Sep 2016 Electronic form version 1.4