Booth No. 95: AN ICP-MS CALIBRATED XRF GEOCHEMICAL INVENTORY OF THE COLORADO PLATEAU CORING PROJECT

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The Colorado Plateau Coring Project (2013) recovered approximately 850m of core representing the Early to Middle, and Late Triassic Moenkopi and Chinle formations in Petrified Forest National Park (Arizona). This project sought to investigate continental paleontology and paleoenvironments of the region and improve chronology following the Newark Basin Coring Project (1991; New York, New Jersey, and Pennsylvania). At the Rutgers CORES lab, both sets of cores have been scanned by the Minalyze X-ray Fluorescence (XRF) core scanner, producing detailed geochemical data at 1cm resolution. To calibrate the XRF measurements from the Colorado Plateau Coring Project, approximately 11m of core were continuously sampled and analyzed with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) for high-precision geochemical data. Additionally, 5m of core were sampled for density measurements to calibrate X-ray derived specific gravity values. These datasets will be crucial for improving our understanding of Mesozoic depositional systems, as well as provide key insights on modern hydrogeological environments of the Colorado Plateau.