

CHEMOSTRATIGRAPHIC STUDY ON TRENTON GROUP DEPOSITS IN CENTRAL NEW YORK

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The exposed outcrop belt of Ordovician Trenton Group strata in central New York is an ideal location to investigate the applicability of underdeveloped chemostratigraphic tools and techniques for identifying spatial and temporal compositional variability in mudrocks. Data recovered from spectral gamma ray, XRF, XRD, and FTIR analyses will uncover previously overlooked or mismatched stratigraphic boundaries by highlighting minute changes in bulk chemistry and total organic carbon (TOC). These factors also impact mudstone reservoir and completion quality. The results of this study will assist future studies within the Appalachian Basin by resolving a complex depositional history and identifying critical mudstone characteristics that provide ideal conditions for producing a successful shale play. The tools and techniques described in this project will not be limited to the Northeast US. Rather, as continuous research of unconventional resources develops, these techniques will become applicable to shale plays worldwide, progressing the notion of unconventional resources to conventional practice.

AAPG Search and Discovery Article #90249 © 2016 AAPG Foundation 2015 Grants-in-Aid Projects