

ARMA Lunch & Learn

Introduction to North American Unconventional Geochemical Evaluation: Geochemistry and Basin Modeling in Unconventional Exploration, Development, and Production Evaluations

Speakers: Michael Dolan & Nicholas Rosenau, PhD

**Wednesday, September 10th @ 11:45 am
Marquez Hall, Room 108**



Source rock maturity maps are becoming critical tools that define the success or failure in unconventional resource evaluations. Evaluating petroleum systems, whether unconventional or conventional, requires a robust understanding of source rock richness, maturity and the overall input to the hydrocarbon charge history. We are afforded many historical data sets that can build the proper framework for understanding the unconventional petroleum system. All maturity data are not created equal. A comprehensive understanding of geochemical sampling and analytical methods combined with integration of multiple geological inputs allows for regional basin genetics to be considered. Source rock maturity can be derived from rock, oil, and gas data. These data can be derived from sampling programs administered before, during, and after the drilling of a well.

We will introduce some of the geochemical evaluation techniques for unconventional accumulations. The emphasis of maturity is exemplified in exploration, development and production geochemical techniques. Direct measurements can calibrate models or stand entirely on their own. Utilizing rock, oil and gas geochemical data can help in unconventional success.