Update on Regional Assessment of Gas Potential in the Devonian Marcellus and Ordovician Utica Shales of New York, Richard Nyahay, James Leone, and Langhorne B. Smith, Reservoir Characterization Group, New York State Museum, Albany, NY; J.P. Martin, New York State Energy Research and Development Authority, Albany, NY; and D.J. Jarvie, D.J., Humble Geochemical Services, Humble, TX

There are at least two potential gas shale plays in New York in the Devonian Marcellus and the Ordovician Utica. A program was initiated to try to characterize both organic rich shales geochemically in New York. To date we have sampled 15 outcrops, 70 wells with well cuttings, and five cores from over 15 counties for our geochemical database. New isopach and structure contour maps have been constructed along with TOC, transformation ratio, and hydrogen index maps. These maps will help define fairways to explore.

Preliminary results show that the Utica has TOC values between 1.5 to 3 percent. The Devonian Marcellus Shale has TOC values between 0.3 and 11 percent. The Utica is a Type III to Type IV kerogen, while the Marcellus is a Type II to Type III kerogen. Fractures are being characterized in outcrop to see what orientations exist to determine the stress field at the time of deposition. XRD data is being run on some samples to determine mineralogy. Samples will also be examined with an SEM to determine if there is any microporosity. All work will be summarized in a final report that will include a database, cross sections, and defined fairways.

The Marcellus may be more favorable to newer completion techniques because of the high-silica Stony Hollow member that overlies the more organic rich Union Springs member. The Utica might have zones of higher porosity at a reasonable depth to create pore pressure in the quartz rich units of the Indian Castle and Dolgeville.