

Is it Time to Revisit the Eastern Overthrust Belt of New York and New England?

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In the early 1980s, Columbia Gas Company began a significant exploration of the Eastern Overthrust Belt in eastern New York and western New England. The result of this effort were two test wells, one in New York and one in Vermont. No further work occurred. Exploration in nearby Quebec, in pursuit of both carbonates (St. Flavien field) and shale gas (Utica/Lorraine), has identified quality reservoirs in the para- autochthonous zone of the Taconic overthrust. The existence of reservoir rocks to the north begs the question: is it time to revisit the Eastern Overthrust Belt in New York and New England?

The Taconic overthrust belt is defined by a significant continental-scale thrust (Logan's Line) and a number of regional thrusts. This suture separates the highly deformed sediments of the Taconic Sequence with the with the normal Tippecanoe and Sauk sequences so prevalent in the Appalachian Basin. Evidence provided by Gerald Friedman and others suggests that the rocks of the Taconic sequence are thermally-overmature but the rocks below the thrust are likely similar to those identified in Quebec and further west in New York. Potential reservoir rocks include the Ordovician Utica Shale, the Trenton and Black River carbonates and erosional remnants in the Sauk Sequence. Even with limited data, several compelling play concepts can be developed.

Though the risk is high, the pursuit may be lucrative. This area is within the eastern gas market and producers can expect a sales price premium over NYMEX.