

## **The Utica Shale Play of Eastern New York**

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Exploratory drilling is underway to begin producing the Utica Shale of eastern New York State. When developed, this field will represent the easternmost natural gas field in the United States. The prospective fairway includes a 17 county region bounded to the by the Hudson River, the Finger Lakes, the Mohawk Valley and the Pennsylvania border. The Utica is a massive, fossiliferous, organic-rich, thermally-mature black to gray-black shale deposited in a subsiding trough that generally trended north-south. The Dolgeville, interpreted as a slope facies peripheral to the Trenton platform, interfingers with the basal Flat Creek black shale member. Source rock for the organic-rich black shale was supplied from the eroding Taconic highlands to the east. As the deep marine trough was filled in, the deposition of the lower members of the group overlapped westward over the carbonate platform. The basal Flat Creek member thickens considerably in the eastern half of New York and uppermost Indian Castle member spreads widely across the Appalachian Basin. The exploration fairway has been defined through an analysis of cuttings and cores defining unit properties, Rock-Eval parameters S<sub>2</sub>, T<sub>max</sub>, HI (Hydrogen Index), and TR (Transformation Ratio). Current drilling activity to date has concentrated on the shallower northern areas but technical evidence supports much deeper drilling depths. Hydraulic fracture designs include the use of acid to take advantage of the high calcite component. Since this play is within the eastern gas market, producers can expect a price premium for their gas.