

# **Woodford and VRO: Learning the Scale of the Woodford Petroleum System One Measurement at a Time**

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## **ABSTRACT**

Over the past 9 years there has been a commodity-driven adaptation of horizontal drilling and completion technologies originally implanted in Shale Gas Reservoirs to develop liquid hydrocarbon resources from similar reservoir environments. It has become readily apparent, higher economic value from development of liquid hydrocarbon resources is generated from the ability to predict reservoir fluid phases and forecast required production management practices ahead of the drill bit.

This presentation will provide a definition and contrasts between an unconventional (source rock) reservoir and a lowtransmissibility reservoir based on the primary component of any economic reservoir “the hydrocarbon fluids”. A review of basic geochemistry techniques will be discussed along with the links between geochemistry principles and hydrocarbon fluid phase behavior. A general overview of the benefits of collecting rock and fluid samples during the construction of horizontal wells will be discussed. Practical application of the principles outlined in the talk, applied to both the unconventional Woodford Source Rock and the overlying low-transmissibility Mississippian system will be presented.