# The Scoop on the Arkoma Stack

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## ABSTRACT

The Arkoma Basin has seen resurgence in activity in the past two years.   Leasing activity in the western portion of the basin has been intense with considerable drilling in the Woodford and Caney Shales. The Woodford Shale was first exploited in the Arkoma Basin and its economic limits were defined by the technology of the day.  Longer laterals, specific landing targets and much greater completion intensity has recently opened the liquids rich fairway.

The relatively low well costs and strong EUR's seen in recent Arkoma drilling result in compelling economics. On the Arkansas side of the Arkoma Basin, the Moorefield Shale is correlative to the Mississippian Meramec producing zones found in Scoop/ Merge/Stack. Early Moorefield Shale production has been demonstrated to be very strong, extending the prospective fairway of Meramec age rocks. Over-pressuring was  considerable during the  development of the Arkoma Basin and some residual over-pressuring remains today.   Paleo over-pressuring was an important mechanism, which enabled the rich Woodford, and Caney source rocks to saturate adjoining low perm lithologies.  A complex history of burial subsequent uplift and convection driven heat flow placed the Woodford, Mayes and Caney in the oil, gas condensate and dry gas windows at a wide range of depths. An important consideration in any low permeability play is having the depth and pressure available to move the hydrocarbon phase saturating a given permeability.

Core analysis indicates that the Mayes Shale is a lithologic equivalent to the Meramec found in Kingfisher Co., OK.  Plugs of certain zones from the Arkoma Basin Mayes Shale are saturated with  movable  oil,  having  an  oil  saturation  index  well  over 100.  Other positive Mayes attributes include, higher permeability and larger pore throats than the Woodford Shale. We expect Mayes to produce more liquids at a given thermal maturity, as is seen with the Meramec Shale overlying the Woodford in the Stack/Cana overlap.