

Regional Evaluation of the Eagle Ford Formation from South Texas to Southeast Texas with Respect to Variability and Hydrocarbon Potential

Mark Przywara
TriTech Energy Capital, Humble, TX

Since 2008, the Eagle Ford Formation has evolved from “a tight shale with no economic potential” to one of the most prolific new hydrocarbon plays in the United States. The rapid growth and expansion of this play has been fostered by the utilization of a significant historical data base that allows geologists to conduct extensive studies that focus on the variability and heterogeneity of such reservoirs.

Using standard open hole logs and the appropriate analytical technology, one can consistently evaluate key reservoir parameters including effective porosity, bound water, oil and gas saturations, permeability, clay content, present day TOC, textural content and geomechanical properties (e.g. brittleness vs. ductility). Using graphically comprehensive plots of these parameters, one can easily compare and contrast formations over both local and wide ranging areas with a great degree of confidence.

This series of cross sections will clearly illustrate how these key reservoir parameters vary across the present day Eagle Ford oil and gas trend. This work ranges from the prolific South Texas and Karnes / Gonzales / Dewitt County areas to the less than successful Giddings Field area. In addition, this work will extend into the Southeast Texas part of the Eagle Ford trend where a different type of reservoir is being exploited for its hydrocarbon potential.