

Breaking Down the Austin Chalk Core

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9.29.2020 - 10.1.2020 – AAPG Annual Convention and Exhibition 2020, Online/Virtual

Abstract

The Austin Chalk of the Gulf Coast region has produced some of the most prolific horizontal oil wells within the Lower 48 in recent years. Repeatability and economic viability of the interval are highly dependent on its complex geologic properties, which create isolated pay zones and localized areas of strong production. Recently in Texas, operators have focused Austin Chalk drilling in Karnes, Washington and Fayette counties. This analysis focuses on the core of the Austin Chalk in Karnes County and quantifies the remaining inventory in this area that is economic in today's oil price environment. The Upper Cretaceous Austin Chalk is a regionally extensive platform carbonate which unconformably overlies its source rock, the Eagle Ford Shale. The onset of sea-level highstand and structural influence from Mesozoic tectonism led to syn- and post-depositional controls on facies and pay distribution within the strata of the Austin Chalk. Gross thickness of the rock can range from 100 feet to over 500 feet. However, the targeted interval within this platform carbonate is generally less than 150 feet. We believe net resistivity and structure are the main drivers of production within the core, and these factors help determine the optimal area of economically viable drilling locations below \$35/bbl WTI.