

Downhole Geochemical Analysis of Gas Content and Critical Desorption Pressure for Carbonaceous Reservoirs

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Abstract

This paper describes research directed at developing a new method to determine critical desorption pressure and gas content. This method is facilitated by development of a Ramanspectroscopy based sensor capable of detecting and quantifying trace amounts of solution gas. In this report, we describe the reservoir physics that makes the method possible, we share laboratory results that illustrate and confirm the underlying physics, and we show some representative field surveys.