

Latest Learnings from the World's Largest "Dry" Coalbed Methane Play: Horseshoe Canyon Coal and Rock Package, Southern Alberta, Canada

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The Horseshoe Canyon Formation hosts Canada's first commercial coalbed methane (CBM) development. The coals are typically thin with low gas measured gas contents; however, 20 or more seams may be present and completed. Driven by new geologic and engineering insights industry re-evaluated the CBM potential for these coals.

Until recently, the Horseshoe Canyon Formation coals were thought to have sub-economic gas concentrations, as for decades, operators routinely drilled through the zone to deeper conventional oil & gas targets. The introduction of accurate gas content measurement techniques, improved drilling practices and novel completion strategies have unlocked the exploration and development model that is employed today. Today, in excess of 3,500 Horseshoe Canyon wells each produce an average of 100 mcf/d in a play area that may encompass 12,000 square miles.

The Horseshoe holds the potential of having far more impact to Canada than all of the CBM basins were to the U.S. in the first 10 years of CBM production. It is estimated that CBM production in Western Canada could one day reach 16% of the total Canadian gas production. With 3,000 forecasted new wells drilled per year, the ultimate potential development could be as many as 30,000 wells delivering a potential 15 Tcf of marketable natural gas.

This presentation will focus on those integrated geologic and engineering practices that were developed to achieve success and will serve as a tool kit for global exploration of analogous coals.