Montney Resource Characterization in Northeastern B.C. Kobes–Blair Creek Area

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The Montney unconventional play in northeastern B.C. has developed rapidly over the last several years. The play started more than five years ago near the B.C.–Alberta border in the Dawson and Swan fields and has recently been extended northwest to the Kobes–Blair Creek area, where Unconventional Gas Resources has its land base. The Montney Formation is a tight organic siltstone reservoir and unraveling its reservoir complexities is challenging. We will discuss methods and results of the multifaceted resource characterization of the Montney Formation.

Log-based correlations indicate four zones in the 250-350 m thick Montney Formation that extend from the Unconventional Gas Resources land base in the west to the fields near Alberta border in the east; a distance of approximately 200 miles.

In the vicinity of our lands (Kobes-Blair) we will describe the stratigraphy of these four units and include a comparison of core properties with logs. We'll also describe the general properties of the resource in place, including permeability, and the sorbed gas component (calculated from isotherm data) and its impact on resource in place and recovery.

A discussion of this resource will include:

- Gas-in-place estimates, including quantification of the sorbed phase. We will show how these estimates were derived.

- an estimate of potential recovery in the area

- a summary of Montney development and completion practices

- some of the best wells in the entire unconventional play are in this area; we will provide an overview of well performance

- how core-derived stress-dependent permeability data were used to develop type curves, and

- an example full-scale development scenario.

Finally, we will discuss economics of the Montney unconventional play in the Kobes-Blair Creek Area.