

First Results on Sequence Stratigraphy, Sedimentary Architecture, Mineralogy and Organic Content in the Montney and Doig Formations (Alberta/British Columbia)

Vincent Crombez¹, Sébastien Rohais¹, François Baudin², Tristan Euzen¹, and Matthew Power³

¹IFP Energies nouvelles, Rueil-Malmaison Cedex, France

²ISTeP, Paris, France

³SGS Canada Inc., Vancouver, British Columbia, Canada

Abstract

In the last decade, rapid increase in the world's hydrocarbon demand has brought the focus on shale resources. Since the 50's, the Lower-Middle Triassic Montney and Doig Formations are well known in the Western Canada for their conventional hydrocarbons resources. In the last five years, they became the focus of numerous studies carrying out a spectacular potential for unconventional resources (NEB, 2013). Within these new plays, the knowledge of TOC and mineralogical heterogeneities distribution in sedimentary basins is one of the key elements that will improve hydrocarbons discovery and production. Numerous QEMSCAN analysis, Rock-Eval analysis, palynofacies studies and thin sections analysis had been done on core samples along a 2D section. This study intends to establish links between sequence stratigraphy, sedimentary architecture, mineralogy and organic content the organic rich Montney and Doig Formations.