

Mar. 11, 2008

Hydrocarbon Energy from the Arctic: Holy Grail or Pipe Dream?

SPEAKER

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ABSTRACT

It is only a matter of time before industry embarks seriously on exploration and development of Canada's Arctic energy resources. With conventional natural gas production already in decline in the mature Western Canada Sedimentary Basin, the stubbornly low price of gas will recover before long. Oil currently hovers near \$100 a barrel and could well pass that benchmark within the year, getting ever closer, in absolute dollars, to levels not reached since the oil shocks of the 1970's.

At a time when the world's largest fields are in decline, only remote frontier areas like Canada's Arctic offer any hope for large discoveries. And while China and India are rising, our U.S. neighbour shows no sign of losing its thirst for energy any time soon. Supply, demand, and the price of commodities will be high on the mind of industry decision-makers the day they decide to go north, but a flurry of other factors will also weigh heavily on industry's decision-makers before they commit billions of dollars in capital investment to go after Arctic resources.

One of the least worrisome aspects of Arctic energy development is probably the resource itself. Large gas discoveries were made during the first round of exploration three decades ago. There is enough gas in the large three fields of the Mackenzie Delta–Taglu, Ninglirtgak and Parsons Lake—to feed the yet elusive Mackenzie Valley pipeline for the next 20 years. Huge quantities of gas were also found in the Arctic islands, and shipping this gas to market is within the realm of possibilities if one is to believe a recent study by the Calgary-based Canadian Energy Research Institute (CERI).

While oil was the prime reason for the early round of exploration, the paucity of sizeable oil discoveries was a disappointment for early explorers. However, the recent discovery of 250 million barrels beneath the Beaufort Sea by Devon Canada in 2006 and the massive \$585 million bid for a huge offshore block by Imperial Oil and Exxon Mobil Canada this past summer may have rekindled the oil flame. Beyond the known discoveries, the vast area that extends from the Delta and the Arctic islands, including both continental shelves to north and east, holds much promises for many large and medium-size discoveries.

A handful of companies did not wait for the starting gun before taking a leadership position. One of them is MGM Energy, an offspring of Paramount Energy, which sees the recent pull back from the North as an opportunity to get in early. The same probably can be said of ConocoPhillips Canada and Chevron Canada, which also acquired some offshore land dispositions in the summer of 2007.

But beyond finding the resources in the ground, above or below the sea, these gutsy companies all face a seemingly endless list of challenges: a regulatory process that is seen as overly complicated and in the throes of too many interests, an environment

that is harsh and unforgiving, a warming climate that is playing havoc with infrastructures, and political ramifications that seem far more complicated than they used to be.

Still, the conditions may not be insurmountable when compared with the earth's other last remaining areas with substantial potential. These are often war-torn countries, forsaken by democracy and where corruption and terrorism rule the day. In the end, the loathed regulatory problems in the North may pale relative to dealing with war lords or with governments with a propensity to renege on sealed deals. No matter what and where, going after the big ones in the 21st century will be costly and risky.

BIOGRAPHY

Dr. Benoit Beauchamp is an established scientist who joined the University of Calgary as a Full Professor in the Department of Geoscience in April 2005. Until then, he was a Research Scientist with the Geological Survey of Canada (GSC), where he conducted energy-related basin analysis in the Canadian Arctic Archipelago.

In addition to leading more than a dozen major field expeditions to one of Canada's most remote, but also most promising petroleum provinces, he established himself as a solid scientist with a rich track record of government and academic publications. His curriculum vitae speaks volume of his leadership quality, excellence as a researcher and stature in the local, national and international scientific community.

Upon joining the University of Calgary, he was seconded to the position of Executive Director of the Arctic Institute of North America, a position that allows him to direct a vibrant research program.

He is currently on the Scientific Board of the French Petroleum Institute (IFP). He was co-Chair of the 2007 Gussow Conference on Arctic Energy Exploration and gave the 2007 CSPG Honorary Address at the Jubilee Auditorium in November 2007 to commemorate the International Polar Year.