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## EnCana's Resource Plays: High Profits From Low Grade Reserves

By Mike Byfield

When EnCana Corporation staked its future on resource-type plays, the concept of massive capital commitments to the lowest-grade reservoirs startled many investors. Emblematic of the Calgary-based company's innovative strategy were its tight gas plays in Wyoming and Colorado. Jeff Wojahn, executive vice-president responsible for EnCana's American subsidiary, says the resource-focused program was not really a gamble so much as straight-forward strategic thinking based on EnCana's unusual depth of experience with this type of target. "Frankly, our more conventional plays were not successful enough to grow the company in a sustainable way," he comments.

The Milk River-Medicine Hat trend, in contrast, was EnCana's bread-and-butter play. "Our management put a long collective effort into the southern Alberta shallow gas corridor, which has many characteristics of a resource play and earned our best returns," Wojahn says. And that lesson was taken to heart. One measure of the Canadian operation's current emphasis on resource plays is the fact that just 5.5% of its 2006 wells in were classified as exploration, even though it's an active player in the foothills. The remaining 1,558 wells were development drilling.



**Randy Eresman**

**Jeff Wojahn**

As the Western Canadian Sedimentary Basin matured and its conventional prospects waned, independent producers reacted in different ways. Talisman Energy Inc., for example, invested in overseas plays and high-tech exploration techniques within North America. Canadian Natural Resources Limited emerged as a low-cost oilsands developer. In 2000 Renaissance Energy Ltd., an early pioneer in mass-producing wells, merged with Husky Energy Inc., which has extensive assets in heavy oil and the East Coast offshore.

EnCana also resulted from a merger, between Alberta Energy Company (AEC) and PanCanadian Petroleum Limited, in 2002. Both producers had long histories in southern Alberta but faced the need to find expansion opportunities. AEC, which had already plunged into American tight gas, continued that development aggressively. As it happens, the four managers who'd launched the resource play initiative now occupy EnCana's top-rung positions. "Randy [Eresman] was the principal architect of the strategy," Wojahn says, "with contributions from Mike [Graham], Don [Swystun] and myself."



**Don T. Swystun**

**Michael M. Graham**

Eresman, a petroleum engineer trained at the Northern Alberta Institute of Technology and the University of Wyoming, took over as president and CEO last year after his predecessor Gwyn Morgan retired. The other three rank as three of EnCana's 10 executive vice-presidents. Swystun, who earned a petroleum

engineering degree at the University of Alberta, is responsible for the Canadian plains division. Graham, an engineer also educated at the U of Wyoming, supervises foothills operations in Alberta and British Columbia. Wojahn, a Calgary native who studied geophysics at his hometown university, joined AEC in 1990 after stints with Dome and Amoco Canada.

Unconventional prospects were long ignored for understandable reasons. An unstimulated well's daily output is typically very low or non-existent. The volume of oil or gas within reach of the borehole will be modest. But those resources moved gradually within economic reach during the 1990s. Technological advances included better seismic, higher fracturing pressures, improved horizontal and directional drilling, steam-assisted gravity

drainage and coiled tubing. Equally important, commodity prices improved after the turn of the century.

While every reservoir is different, the Eresman-led team absorbed lessons in southern Alberta which apply to many resource plays generally. Exploration risk tends to be minimal. Because the hydrocarbon deposits are typically very large, many wells are needed. "We are able to apply economies of scale in many respects. We take a repeatable manufacturing approach to drilling and research the best methods for each development," Wojahn says. At Jonah, EnCana uses fit-for-purpose rigs created specifically for drilling as many as 16 wells per pad to depths of 8,000-12,000 feet. Production stability is another key advantage of resource plays, whose wells often perform reliably for 30 years. In contrast, conventional gas wells tend to peter out in five to 10 years.

By the late 1990s, EnCana's managerial quartet had unusual confidence that well-executed resource plays could reduce risk and maximize returns. Few major producers had grasped that reality, and few juniors could cope with these capital-intensive, long-term projects. The lack of competitive intensity meant acreage could be acquired relatively cheaply. "We identified some of our best prospects in the Rocky Mountain region," Wojahn says. In 2000, an AEC subsidiary acquired a pivotal early position in Wyoming's Jonah gas field. A year later, it entered the Piceance Basin of western Colorado through another acquisition. In Texas, EnCana has drilling inventories in the prolific Barnett Shale gas play as well as a tight gas project east of Dallas.

The long lifespans of resource plays provide time for the application of new technology as it becomes available, which will often expand recoveries. At Jonah, for instance, gas-in-place was estimated at 200 billion cubic feet per square mile in 2000. Today that figure has nearly doubled, to 350-400 bcf. The company also anticipated correctly that transportation constraints for regional producers would eventually be addressed, leading to improved gas prices. Kinder Morgan is scheduled to bring its Rockies Express Pipeline onstream in early 2008, with capacity of 1.8 bcf per day to eastern markets.

Through early entry, ample spending and careful execution, EnCana has surpassed all other producers in the Rocky Mountain basins, and its American personnel roster has grown to 1,100. The wholly-owned U.S. subsidiary produces about one bcf per day, almost 30% of the company's total output. Wojahn is confident that growth will continue for years to come, on both sides of the border. "Our team cut its teeth on this type of play," he comments. "We've been at the game for a long time."