Others in his industry have largely ignored the wide swath of New Brunswick that so intrigues Steve Mueller. They've never bet on lucrative reserves of oil and gas deep in the rock.

The president and CEO of Southwestern Energy Co. (NYSE:SWN), a Houston-based company famous for discovering a massive natural gas resource in a shale deposit in Arkansas, has committed to spend about $47 million exploring for oil and gas on about one million hectares in New Brunswick.

Mueller says it was commonly believed the land his company now has rights to explore - about one-seventh of the province in central and southeastern New Brunswick - did not have the kind of rock rich with oil and gas.

"In New Brunswick, where we've got our acreage, the industry logic was it's not going to be deep enough," Mueller says in an interview with the Telegraph-Journal, explaining that rocks have to be buried deep in the earth to be hot enough to "basically cook," to produce oil and gas.
"We re-looked at some of the old data that was accumulated several years ago, reprocessed it and did several different things with the data and came to the conclusion that it may be deeper than people thought it was."

The New Brunswick venture is what they call wildcat - high risk.

"A frontier exploration," John Thaeler chimes in. Southwestern Energy's senior vice-president of new ventures is seated beside Mueller on a couch in Fredericton's Crowne Plaza hotel lobby.

The executives are on their first trip to the province about a year after the firm began covertly looking into data and collecting samples of shale rock outcroppings, which line the roadside in some parts of the province.

Last August, the company approached the Department of Natural Resources to ask for more information and for the lands to go up for nomination.

Very little is known about the two patches of land, one which amounts to about 85,000 hectares around Cocagne in the province's southeast and the other which adds up to nearly 935,000 hectares stretching from the Richibucto area southwest past Fredericton and almost to St. Stephen.

The three-year exploration program will serve to fill in the blanks in the data, Thaeler says.

The first step is to launch an aerial magnetic and gravity survey by plane over both licences to get a sense of whether oil and gas basins exist and where they might be.

Later, the firm will do geochemical surveys by putting sensors in the ground for about three weeks at a time to record what gases may have seeped up from basins into the soil.

Then, two-dimensional seismic surveys - about 1,000 kilometres worth - will show the company how the rocks in the ground are layered, through technology that functions much like an ultrasound on a human body.

Near the end of the three-year program, Southwestern Energy might be able to drill one to two horizontal wells, at a price tag of likely $7 million each, to test how the gas flows, if the shale rock is there.

The New Brunswick program - Southwestern Energy's first move outside the United States - is part of a massive increase in spending on new ventures for the oil and gas firm, eager to snatch up undiscovered shale gas reservoirs across the continent.

"Last year we invested about (US)$25 million in new ventures. This year, our budget is about $180 million," Mueller says, unwilling to disclose where else the firm is looking so competitors don't move in.

"We like to keep it very secretive," he says. "If you think about New Brunswick, we came up with the idea and we worked as fast and as hard as we could to get to a point where we could talk to the province, get it nominated and hopefully bid on it before anyone could figure out what was going on."

Southwestern Energy's strategy, which jives with its reputation, is to be the first to bet on a risky prospect, hoping it will pay off.

"We don't do the acquisition strategy. We're either drilling what we've found or we're looking for new (land) and getting in very early," Mueller says.
Since new land is not a sure bet - as in the case of New Brunswick - it costs a fraction of what Southwestern Energy would pay in established basins, Mueller says, pointing to the Marcellus shale in Pennsylvania where his company got in early.

If the firm were to invest $47 million in Pennsylvania, now that the shale is established, it would get about 1,600 hectares, he says. The same cash spent to explore in New Brunswick nets the company more than one million hectares.

"It's a risk-reward," Thaeler says.

The company, which formed in 1929, grew from primarily a utility company worth US$187 million in 1998 to an exploration and production company worth more than $14 billion today.

It all started with a bet in East Texas on the Overton gas field and growth ramped up with another risky move in northern Arkansas.

"For a long time we were just in northern Arkansas doing conventional work," Mueller says.

A decade ago, new management came in and the utility bought about 4,450 hectares in the Overton field in East Texas to produce natural gas.

"Then we found the Fayetteville shale," Mueller says.

The firm started looking at an old well in Arkansas and thought the shale rock might produce gas, too. Nearly five years of science proved that theory right and the company began drilling new well holes in the area to develop the resource.

Production at Southwestern Energy's flagship Fayetteville shale play exceeded one billion cubic feet per day last July.

"Our company in northern Arkansas has gone from basically one employee seven years ago to last week we were at a celebration where we had our 1,000th employee for our company," Mueller says, adding that the spinoff in job creation for service companies is more than 2,000 in the area.

Mueller, 57, moved into the top job at Southwestern Energy last May with more than three decades in the oil and gas industry under his belt, having worked in nearly every North American producing basin, as well as in Romania, Oman, New Zealand, Peru, Brazil, Venezuela and Trinidad.

The industry first reeled him when he took a geology course at the Colorado School of Mines, an engineering college.

Mueller explains that when someone drills a well into the earth, they're the first person ever to see that rock.

"It's like going to the moon, or the deepest parts of the ocean," he says. "And I just fell in love with it in school and from there on in, I went in that direction."

Southwestern Energy released its financial and operating results for the first quarter of 2010 this week, announcing that net income was US$171.8 million, up 37 per cent from adjusted net income in the same period last year.

Net cash from operations before changes in operating assets and liabilities was $417.8 million.
The company's production of natural gas and crude oil jumped by 41 per cent over the same period last year, amounting to 90 billion cubic feet of equivalent (Bcfe).

Mueller told a conference call with analysts Friday that he was happy with the results, but disappointed by operational and weather-related delays in the Fayetteville shale play, which impacted production volumes.

The executive was asked by an analyst why his company was attracted to New Brunswick when on the hunt for new oil and gas plays.

"We started working on New Brunswick almost a year ago after looking at several different shales in a lot of different places in the United States and Canada," he said, explaining there is evidence of oil and gas in two fields in the southern part of the province, referring to the Stoney Creek and McCully fields.

"Really those two first tell you there's gas and oil in the system," he said.

In New Brunswick, it's still "early innings" for Southwestern Energy, according to Dan McSpirit, a Denver-based analyst with BMO Capital Markets who covers the firm.

"It's a new chapter to the Southwestern story and it is a new, albeit longer-term growth opportunity for Southwestern," McSpirit says, adding that the company "proved itself" and its ability in finding and developing the Fayetteville shale play in Arkansas.

"The plan is to do the same in New Brunswick," the analyst says. "It's probably one of the last areas where they can establish a presence of size that lends to a scalable operation."

Mike Dawson, president of the Canadian Society for Unconventional Gas, says Southwestern Energy is a company with the know-how and experience to take a look at whether there is a resource to exploit on such a large unexplored piece of land in New Brunswick.

"Very little is known about these rocks as to what kinds of hydrocarbons may be present, if any," Dawson says.

His association is a not-for-profit industry group that advocates for the responsible development of Canada's resource of gas from unconventional sources such as shale, coal, tight sands and gas hydrate.

"I think they understand very much the whole philosophical approach about resource plays. Land is king in a resource play," he says, explaining that statistically speaking, if something is there, Southwestern Energy has a better chance at finding "the sweet spots" with so much land at play.

"They have a history and a track record of doing things right, of spending money where necessary," Dawson says. "I would classify them as early explorers."