

Excerpts from Fewer Seismic Firms Could Taint Recovery: Executives by: James Mahony: Daily Oil Bulletin: Nov 28, 2016

While raising few problems in the current downturn, a dwindling stable of Alberta seismic firms could pose problems later, when a recovery starts to take shape, seismic industry leaders said recently.

For seismic acquisition firms in particular, activity in Western Canada has been at a low ebb for the past two years, three, according to some executives. When oil and gas producers once again turn to exploration, as they likely will, the fear is that the ensuing rush will overwhelm the few surviving firms, leaving many producers hanging.

“Our initial [concern] is that there won’t be enough [acquisition contractors] left to put out the number of crews that could be required,” said **Mike Doyle**, head of the **Canadian Association of Geophysical Contractors (CAGC)**. While the market will eventually catch up, a key question is just how long that will take, he said.

Doyle estimated that in 2002, Alberta had about 20 seismic acquisition companies. By 2006, the number was down to 15, and has fallen steadily ever since. Today, only a handful survive, compared to the many that worked the rural landscape 20 years ago. For the roughly four or five Calgary-based contractors remaining, the world is a different place since the 1990s.

In those days, a local industry supplier tracked Alberta’s seismic crews, sending out a weekly fax, indicating which crews were active and where. At the time, so many crews were at work, the active crew list typically ran to several pages, an industry veteran recalls.

“It wasn’t uncommon to have 110 crews on that [list] in the 1990s,” **Forrest Burkholder**, vice-president, operations, for seismic acquisition firm **SA Exploration Ltd.**, told the *Bulletin*. As it turns out, those years were likely the high watermark for Alberta’s seismic contractors over the past 30 years.

The heyday for seismic contractors is likely over. According to some in the industry, the Western Canada Sedimentary Basin will never again be what it was in the 1980s and ‘90s. Even when the industry emerges from the downturn, as many expect, few think activity will return to levels seen in the ‘golden’ years, when contractors could barely keep pace with business.

The basin has changed over the last 10 to 15 years. It’s [no longer] an exploration, but an engineering basin, so the use of seismic has definitely diminished.

Now in its second year, the downturn has taken a toll on acquisition companies. Like oilfield services, the seismic industry has lost plenty of workers, many returning to their home provinces after layoffs, while others, frustrated they can’t find steady work, have simply left the sector for more stable jobs elsewhere.

In the 1990s, seismic workers were often farm boys off the prairies. With some exceptions, that’s no longer true. Today, most workers come from the east, often Quebec

or the Maritimes, said **Stuart Gall**, a partner with **LXL Consulting Ltd.**, a prime contractor that manages seismic surveys, typically for producers.

Until about two years ago, some Alberta acquisition firms were paying airfares for seismic workers heading west, a trend that was problematic, since consistent work was hard to come by. “If you can’t string together a season of three or four months, it’s not worth it for [the workers] or the seismic companies,” Gall said. As a result, most firms have discontinued the practice.

The industry is still losing workers, many of whom will not be returning. “We’re losing a skillset as well,” Gall added. “[Acquisition companies] are losing the skilled field workers and supervisors. We’re pretty much down to the bone now.”

At project management firm **RPS Canada Energy Ltd.**, which also handles seismic surveys, the view was similar. The steady decline in work “has resulted in a lot of talent — veteran people — leaving the industry,” said **Orrin Foster**, RPS operations manager. When the long-awaited industry turnaround eventually begins, “it’s going to be a hard squeeze to find qualified people to do the work,” he added.

The sharp drop in seismic during the downturn has made for brutal competition, since producers typically invite several project management firms to bid on a job. “We see a lot of bids, but we also find out ... that they’re seeing the same bid from five companies,” said Foster. “...Every single contractor has the opportunity to bid on the work, so it has driven prices right into the ground.”

In the heyday of Canadian seismic, acquisition companies in Western Canada far outnumbered management firms, a situation that is reversed today. “It’s [been] weaned down to four acquisition companies and 12 or 13 management companies trying to manage them,” said **Brian Hale**, technical services manager for acquisition firm **GeoStrata Resources Inc.** “[But] there’s not enough work for even the four acquisition companies.”

In the 1990s, many seismic firms in Western Canada were local, but that too is changing. While one local firm remains, most are now international, often U.S.-based, with an ability to shift crews — and equipment — in and out of Canada at will, giving them an edge over local firms that may be less mobile globally.

“Anybody that’s left [in Western Canada] is an international company that, at a minimum, works in the Lower 48 [states] as well,” said Forrest Burkholder. “There’s not a single seismic company left in Canada that doesn’t operate outside of Canada to help offset ...and utilize their people and equipment.”

The last acquisition firm to fall in Alberta was **Tesla Exploration Ltd.**, for which a receiver was appointed in August, although some in the industry wonder if other insolvencies will further deplete the small pool of recording firms before the downturn ends.

Traditionally the bread and butter for seismic firms, exploration in Western Canada is clearly on the wane, but other seismic work is giving the industry a much-needed shot in

the arm. SAGD operators, for example, often need a new survey each year, partly to track reservoir changes and gauge how well steam-injection is working, according to the CAGC's Mike Doyle.

On this score, acquisition firms in particular have benefited, since surveys are often shot in '4D' mode, also known as 'time-lapse' 3D. "A lot of [our] work is 4D surveys" in oilsands and heavy oil regions, from Lloydminster all the way up to north of Fort McMurray, said **Trent Middleton**, general manager (Canada) for **Geokinetics Inc.**, another acquisition contractor.

Indirectly, Alberta seismic contractors benefited from a 2006 incident in which a producer blew through the caprock on a SAGD project, due to excessive steam injection pressure. In response, the **Alberta Energy Regulator** (AER) became more stringent in requiring that SAGD operators have evidence that the caprock affected by their projects can bear steam injection pressures. Seismic is one of the methods used in raising that evidence, providing work for some contractors.

Despite the grim mood that has prevailed in the seismic sector for much of the past year or two, some in the industry already see signs of a better day ahead. "There will definitely be an improvement [in activity]," said SA Exploration's Burkholder. "It's just starting to pick back up now."

Others in the business are finding that, while few producers are yet committing, the phone is ringing more often now. With crude oil inching up toward \$50 (WTI), "we have seen a lot more ...producers at least experimenting with the idea of putting out questions as to how much it would cost to acquire seismic," said Orrin Foster.

"I think we're getting close, and that's usually a key indicator for us," he added. "Once the [oil] price starts to go up, you see more wells being licensed, and they might not be production wells. We started seeing a little bit of that in September. Usually, the next step is [companies] looking for seismic exploration."

From the Thursday Files:

If. The only word that is a thousand letters long.
- **Stephen King**