



XI TECHNOLOGIES INC.

Industry Update:

What Crown Land Sales Can Tell Us About the State of the Industry

By Jim Eistetter
& XI Technologies



NOTE: the opinions expressed in this paper do not represent legal guidance, but are intended for information and to stimulate discussion only.

XI teams up with leading industry experts to provide thought-provoking content and unique industry insights. Recently, we worked with Jim Eistetter of Seaton-Jordan & Associates who, using data pulled from XI's AssetBook, presented a market analysis comparing 2016 to 2017 Crown land sale results, with a focus on Alberta. Jim addressed how current market conditions are affecting land sales and posed some questions regarding how trends may unfold in the near future.

British Columbia

Over the past two years, British Columbia Crown land sales collected a relatively low amount of dollars (\$29MM), but 2017 has signaled a turnaround. Proceeds so far in 2017 are \$172MM with two sales remaining at time of publishing. In addition, 2017 bonus dollars collected are up almost 900% while the number of hectares acquired is surprisingly flat. The boost could be due to a combination of optimism in the industry and the availability of prospective land.

British Columbia – Yearly Comparison

	Total Bonus \$	Total HA	\$/HA AVG
*2016 (12 sales)	\$17.7 MM	87,992	\$201
**2017 (12 sales)	\$176 MM	97,418	\$1,807
% Change	+894.0%	+10.7%	+797.9%

*Oct. 1/15 – Oct. 1/16
 ** Oct. 1/16 – Oct. 1/17

Sources: AssetBook and the Government of B.C. website

A large proportion of B.C. proceeds came from two of the ten sales held so far this year. The first sale of 2017, on January 18th, yielded almost \$40MM, which is more than the two previous years combined. In this sale, one purchase of a nine-section license in 78-14W6 amounted to \$35MM at \$15,000/ha. This bold move is evidence that the Montney continues to be a very competitive play, even when confronted with low natural gas prices and the cancellation of LNG projects. With abundantly large reserves, the B.C. Montney will continue to be developed for many years to come, so activity in this area is a trend we will see well into 2018.

The second significant B.C. sale was July 26th, wherein the sum collected was almost \$85MM on a total of 17,000 ha. This sale included a large 5,500 ha parcel which sold for \$77MM at \$13,890/ha. Operators in the area include ARC Resources, Shell, Petronas, and Encana. This may be an indication of what we can expect for B.C.'s two remaining land sales this year. Operators in the area have found markets in Canada and the US for their gas and liquids and, as a result, the Montney continues to be a jewel of the WCSB.

July 26 B.C. Land Sale

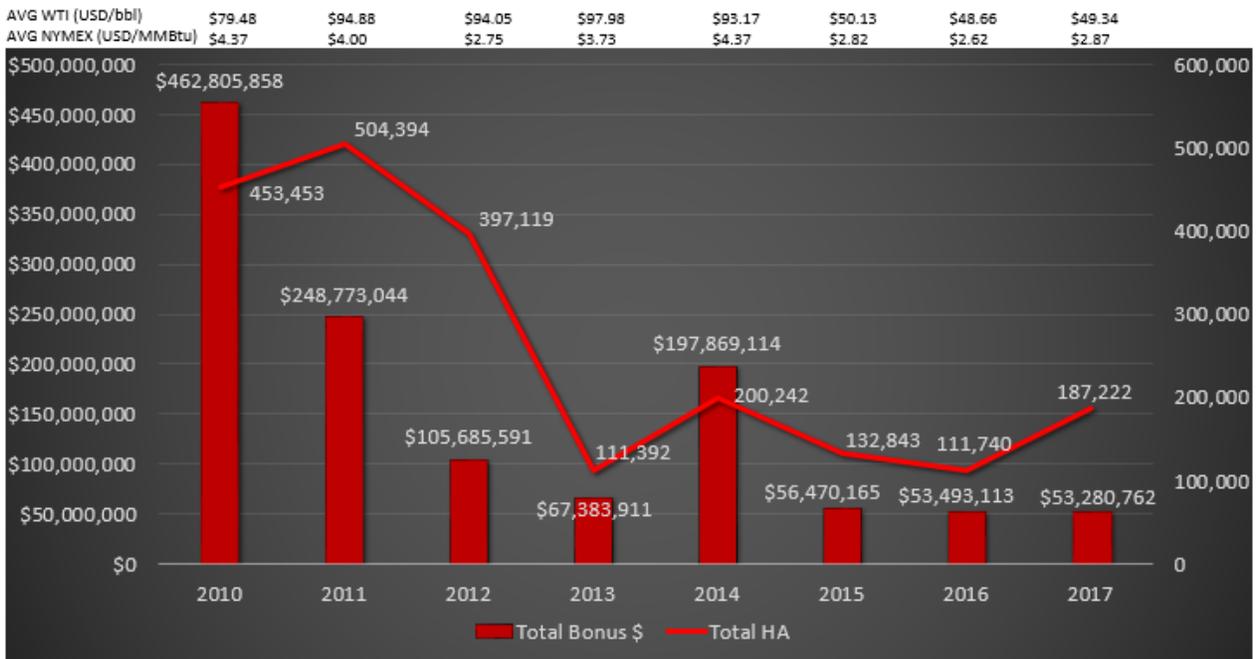


Sources: AssetBook and the Government of B.C. website

Saskatchewan

For most of 2017, Saskatchewan Crown land sales showed very few signs of change. Bonus dollars collected were quite flat compared to 2016 but, during the October 3rd sale, definite signs of hope appeared. Prior to that, the number of hectares acquired was down 23%, with a 40% increase in the dollar per hectare average. But on October 3rd, 112,000 hectares in exploration licenses in 2-21-W2 near Big Muddy were sold for \$17MM, at an average of \$159/ha. It is interesting that we are seeing large exploration licenses sold in an area where there has not been significant oil and gas development. It is difficult to say with any certainty what factors drove this sudden October turn-around. Perhaps it is a newly discovered extension of an existing resource play, which could translate into significant capital being spent in the area. It will be exciting to observe Saskatchewan's final land sale of 2017 to see if any similar transactions signal a trend.

Saskatchewan – Annual Bonus by Year



Sources: AssetBook, the Government of Saskatchewan website & U.S Energy Information Administration

Manitoba

Overall, Manitoba’s numbers are very small when compared to the rest of Western Canada. A 50% decrease in \$/ha tells us that interest in Manitoba has likely faded, at least for the time being. The most prolific properties would have been acquired during a period of higher oil prices or more active exploration in the province. The upside for operators who are well-versed and established in the province is that moderately good properties appear to be available now at a significant discount.

Manitoba – Yearly Comparison

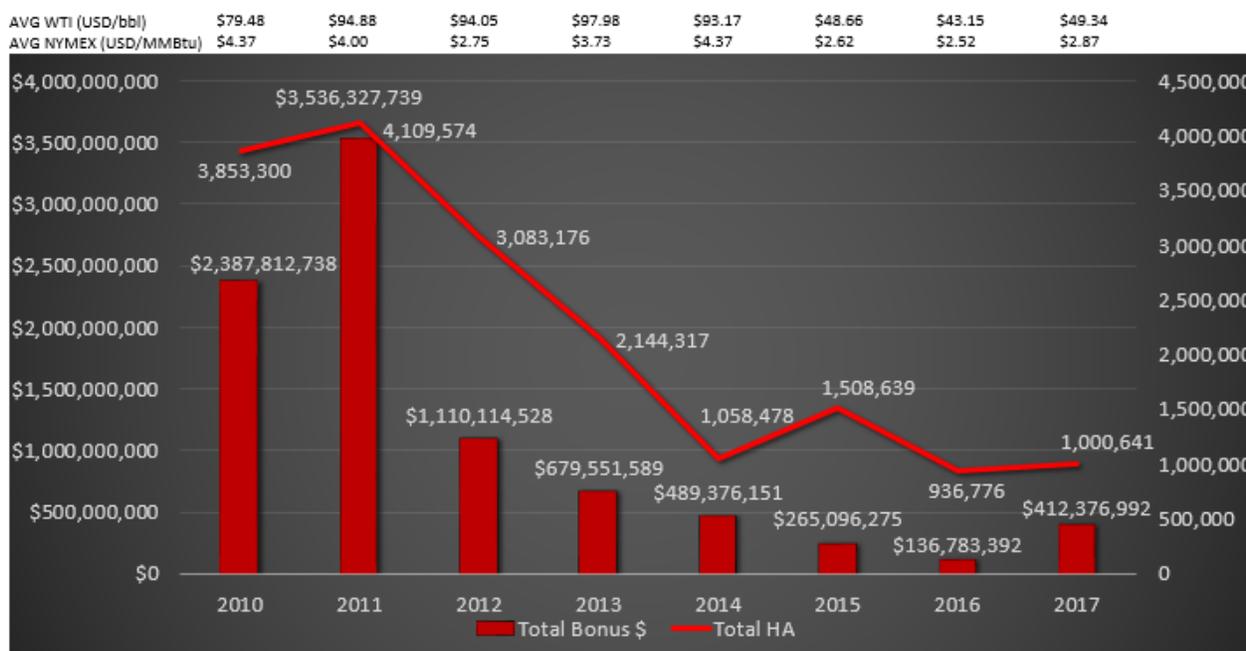
	Total Bonus \$	Total Hectares	\$/Ha Average
2016 (4 sales)	\$978,194	3,029	\$323
2017 (4 sales)	\$734,862	4,618	\$159
% Change	-24.9%	+52.5%	-50.7%

Source: The Government of Manitoba website

Alberta

In 2017 Alberta Crown land sales, bonus dollars doubled and the dollars per hectare average per sale increased 66% if we exclude the October 11th sale. This is contradictory to the trend which we saw from 2011 to 2016, where there were five years of steady decline in bonus dollars collected. 2015 saw a rise in acreage acquired, but this was mostly due to land prospecting and these were likely lands from the big land grab in 2010 which were expiring.

Alberta – Annual Bonus by Year



Sources: AssetBook, the Alberta Energy website & U.S Energy Information Administration

Interestingly, while overall optimism is up in Alberta, the East Duvernay is responsible for most of the huge increase we see in the province. The sale on February 8th was the largest in two years, and much of it went towards the East Duvernay play near Sylvan Lake. Several months later, the October 11th sale was massive at \$142MM. Almost half of that also went towards the East Duvernay play, this time near Three Hills. That sale brought 2017 proceeds to over \$400MM for an approximate total of one million hectares. With each of these sales, dollars per hectare has been rising. In November there are more land postings in this area and the price is already at \$6,000 per hectare, signaling a growing confidence within some segments of the Alberta energy sector.

It remains to be seen how high prices will go, but it is not surprising to see this surge of interest in the East Duvernay. The East Duvernay is shallower than the Duvernay in the western part of the province, thus drilling

and completions costs are lower here. This combined with the large reserves in place are driving interest in the area. Another contributing factor to East Duvernay prices may well be that some of the biggest players in the area are privately funded exploration companies.

For example, recent news reports have stated that Vesta Energy Ltd. – a big player in the East Duvernay, especially near Sylvan Lake, has closed \$300MM in equity financing to develop the lands. Likewise, Artis Exploration, another privately funded exploration company with money to spend, is one of the big drillers/operators in the Three Hills area

February 8th Land Sale

\$16MM collected in 37-1W5 at an average of \$2,745/ha

March 22nd Land Sale

\$10MM collected in 40-4W5 & 39-28W4 at an average of \$3,500/ha

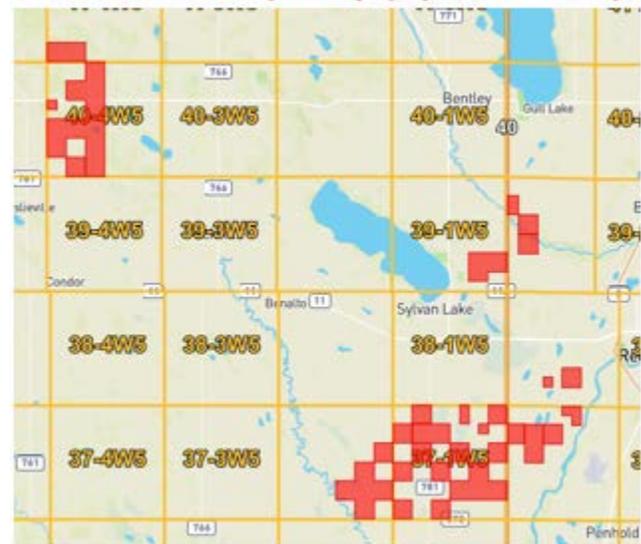
June 7th Land Sale

\$6.8MM collected in 39-1W5 at an average of \$4,022/ha

June 22nd Land Sale

\$5.2MM collected in 37-28W4 at an average of \$5,175/ha

East Duvernay Play (Sylvan Lake)



Sources: AssetBook and the Alberta Energy website

East Duvernay Play (Three Hills)



Sources: AssetBook and the Alberta Energy website

April 26th Land Sale

\$20MM out of \$26.5 MM total bonus is collected on this map, average \$/ha for these properties was \$4,025

July and August Land Sales

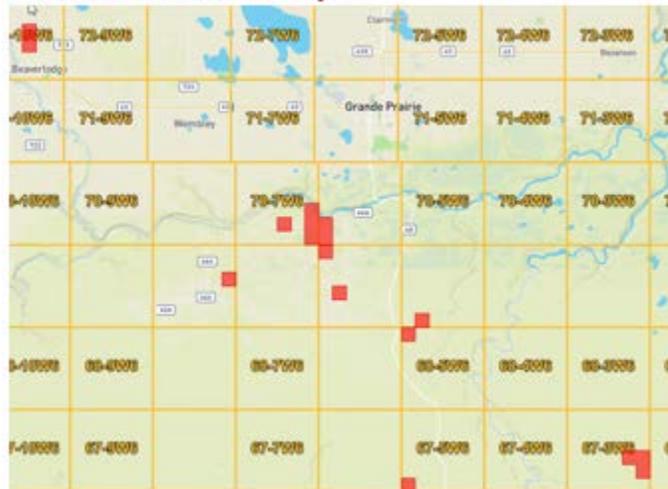
3 contiguous sections in 31-25W4 sold for \$3,081/ha, 2 sections in same township sold for \$5,109/ha

October 11th Land Sale

\$54 MM out of \$124 MM in this area, license in 30-24W4 sold for \$22 MM or \$6,180/ha, license in 33-22W4 sold for \$11 MM or \$6,010/ha

Another area to watch in Alberta is the Montney. While much of it is tied up and there is very little acreage available, the pieces that are selling are collecting up to \$8,000 per hectare.

Alberta Montney



Sources: AssetBook and the Alberta Energy website

\$16 MM in 2017 sales but only 3,800 ha has been leased or licensed

Average price paid was \$4,200/ha

2 sections in 68-5W6 sold for \$4.1 MM in the Aug. 30th sale at an average of \$8,000/ha

Large transactions for contiguous Land have occurred – POU/PMT sale for \$200 MM

Summarizing 2017 and looking forward

Over the past few years, there has been a lot of money sitting on the sidelines while we wait for signs of recovery and more favourable conditions. As those positive signs have begun to appear and money has been finding its way in from the sidelines, one interesting change has taken place. Whereas historically, exploration was largely funded by publicly traded junior companies, private equity is now the chief source of exploration funding. While the door appears to have closed for public exploration companies, privately funded companies are flinging that door open and stepping into the market in a big way.

Based on the movement we're seeing in Crown Land sale activity across B.C., Alberta, and Saskatchewan in 2017, it is not unreasonable to expect to see more companies jumping into the action and investing in specific plays such as the East Duvernay and the Alberta Montney.

At time of writing, there are already more postings in the East Duvernay for the November sale. Based on the data so far in 2017, we can expect prices for lands in the heart of the play to rise until the best locations are tied up. We may see \$8,000/ha later this month (November). As more wells are drilled, we may start to see the lands surrounding the play begin to get leased as well. It is still early days for this play, but the results so far have been very encouraging.

In this age of low commodity prices, operators have been forced to do more with less. This has created much leaner companies with a focus on cost savings. Advancements in technology have made drilling, and particularly completions, more efficient. Efficiency in the field has been passed along to the operators and, as a result, plays that were previously seen as uneconomic are now being reconsidered.

With commodity prices projected to increase gradually in the coming years, now may be the time to build a land position in a yet-to-be-discovered resource play. If efficiencies in the field continue to improve, it's very possible we will see plays such as Spirit River, Second White Specks, or Alberta Bakken begin to emerge.

At any rate, there is no denying that the industry has begun to come back from its lowest point, and recent predictions of a tightening market are adding to the cautious optimism for the future.