



Wood mats for the oil patch

A mid-sized B.C. Interior sawmill, Woodco Management, is finding solid success producing wooden mats and mat components for Alberta's oil patch, using a Micromill system and a new Select band saw.

By Paul MacDonald

A healthy energy industry in Alberta is proving to be key to success for a mid-sized sawmill operation in B.C.'s Southern Interior region.

Woodco Management Ltd. operates a sawmill operation in the small town of Barriere, about 70 kilometres north of Kamloops, that is seeing healthy sales these days meeting the needs of Alberta's oil patch for wooden mats and mat components.

Woodco Management owner John Drew, who is a professional forester and also owns forestry consulting firm Forsite, explained that the origins of the company date back to just after Tolko Industries' Louis Creek sawmill in Barriere was destroyed in the McLure-Barriere wildfire, in 2003.

"The B.C. government put out some salvage timber licences and we won some of the licences," explained Drew. "At that time, we were pretty focused on logging."

Through the process of selling the salvage wood, they realized that there would be benefits to ramping things up the value chain, and set up a sort yard, to view and extract the best value of the logs. Woodco was set up in 2005, on site just off the Yellowhead Highway, in Barriere.

"We were supplying a lot of specialty logs to home builders," he said. But in the economic downturn beginning in 2008, that market virtually disappeared.

"We were looking at how we could position ourselves to keep the business going," Drew explained. "I grew up in a milling family, so I just naturally gravitated towards milling the wood and selling the lumber.

"We had some connections into the oil industry in Alberta through Forsite, and there seemed to be some markets there and we went out and purchased the canter mill."

They purchased a Micromill from Micromill System Inc of Summerland, B.C. The Micromill is a compact saw box and combines a four head chipping process with double arbor rip sawing. The mill processes logs from 6" and generates 1 inch to 8 inch squares and boards. In front of the Micromill is a used Cambio 18" debarker they picked up at auction.

The thinking is that Woodco would run its smaller logs through the Micromill, and sell the larger wood. "We started doing that, but it's like any milling operation—it evolves over time, and you move with the markets. There was a fair amount of demand for timbers—4 X 6, 6 x 6 and 6 x 8—mainly in the industrial market. There was also a market for 10 x 10, 12 x 12 and larger pieces, so we went out and leased a Select band mill."

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The Select sawmill, which can cut larger logs 14” to 28”, has worked out well. So well, in fact, that the company recently purchased a new 4221 6” double cut band saw, from Select Sawmill, in Ontario.

“The Select model that we bought is a bit bigger than the mill that we leased—it will cut a larger log, and it has some features that will allow us to handle the wood a bit differently on the infeed and outfeed.”

With the new mill, they will be able to handle up to 42-inch logs, and cut to 24 feet vs. the 20 feet with the previous mill.

The new mill also has a built-in edger system, so producing boards will become part of their regular production process. This should help them supply remaners with product on a more consistent basis.

Although the Micromill now works well for Woodco, Drew said they initially had some learning to do with the mill.

“We bought the Micromill, which is kind of a mill in a box, and made our own add-on modifications. I call it a Micromill-plus, because we’ve done a lot of the modifications ourselves. These include changing the infeed system to make it more controlled, and the installation of the debarker ahead of the mill.

“The concept with the Micromill has fit really well for us, though. We were looking to process short, smaller logs, and it is a quick one-process type machine, that involved relatively low capital. It’s performed to our expectations.”

Woodco purchases 40,000 to 50,000 cubic metres of logs per year and manufactures about nine million board feet of timber and lumber products annually.

They mainly run two main species sorts, hem/fir and a SPF, which is mainly spruce/balsam. “We try to avoid the dry pine,” says Drew. “The big sawmills, like Interfor’s Adams Lake operation, like to run the dry pine. If we end up having some dry pine, we will trade it to other mills, and try to get back balsam that we can use.”

Woodco sources wood through timber sales and works with the major forest companies, such as Interfor and Tolko, community forests and First Nations groups to secure log supply and ensure a consistent supply of wood products for customers. The company gets about 20 per cent of what they need through timber sales, and the rest is sourced through direct purchases and trades. The mill operation consumes about six logging trucks of timber a day.

Although Drew comes from a sawmilling family, he says events drew him back into milling, rather than it being any part of a big plan. “The situation took me back into sawmilling, more than anything. I did not have any master plan.

“I saw what the big companies were doing, making dimensional lumber, and they do it extremely well. But there was also a bit of an opportunity for some specialty products that people weren’t addressing—and that’s where we’ve tried to focus.”

The initial connection to the oil patch and the markets for wood mats came through Forsite’s then-office in Grande Prairie, Alberta.

“People don’t realize it, but it’s phenomenal how much wood is used in the oil industry,” says Drew. “Environmental concerns have driven them to use wood in many things.”



The products include three-ply wood matting, made up of 2 x 8s, which is used for roads and platforms for camps. Then there are the rig mats and the support structures for the drill rigs, made up of 4 x 6 and 6 x 6 pieces. And the big cranes will require 12 by 12 pieces, for stability.

“Wood matting is actually used all over the world, wherever there is oil,” says Drew. “It’s a big market and it’s well serviced, but we try to pick the areas where it’s the best fit for the species we work with, and our business. For example, we focus on the hem/fir for the structural market, and that’s something the Alberta guys can’t do, with the spruce they are working with.”

Product is sold into Alberta, but also into the U.S., and into Saskatchewan, as well.

They are even extending the production process, and have started manufacturing wood mats themselves. “A customer approached us to do this, so we thought we’d try it out. So instead of freighting the wood around for the mats, we can now build the wood mats at the mill site in Barriere.”

Getting into the mat manufacturing process involved some additional equipment, including from L-M Equipment Co. Ltd., of Surrey, B.C. They have purchased and will soon install an L-M Equipment package saw that will be used to trim to length full lumber packages. It will also be used to end trim the crane mat products.

“We’re really just getting started in building mats,” says Drew. “We’re putting some rudimentary equipment in right now. If it takes hold and there is something there, we have plans to go further. But we want to take it a step at a time, to see if the demand is truly there, and the market is there.” This past summer, they built about 600 mats. “So far, it’s gone well.” Sending the companies operating in the oil patch mats directly means they are better meeting customer needs for a finished product, he noted.

Besides producing components for wood mats, some of the sideboards are collected and sold, mostly to remanners. Residual wood suitable for grinding is handled by Ledcor, which grinds the wood material with its own equipment, and then sells it down on the B.C. coast. Domtar’s pulp mill in Kamloops also handles some of their residual material.

Initially, some of their residual material was going to produce wood pellets in Kamloops, but that facility has since ceased operations. Lately, there is talk about setting up a wood pellet mill in Chase, about 120 kilometres away, which could offer opportunities.

The energy industry Woodco serves is demanding—customers need wood ASAP, and if Woodco is not able to supply it in a timely manner, they will contact another supplier. To meet customer needs, Woodco keeps both a good supply of timber and finished product on hand.

“The first question customers have is do we have the product in inventory. Our customers are looking for just-in-time delivery, or as close as possible to that.” Drillers are often looking to catch a narrow time window, and they need supplies, such as wood mats, quickly to do that.

“We have to closely manage our inventory in logs and our lumber inventory—it’s a bit of a dance,” says Drew. “Logistics management is a big part of any business like this, and you have to put energy into co-ordinating that all the time.”



On the timber side, they will generally have six weeks' supply, or enough to carry them through break-up, three months' supply.

“And you have to have enough variety to satisfy the market,” he added. “Sometimes the hem/fir market is hot, and the SPF less hot. There are a lot of different diameters we do on the band mill, a lot of custom projects. Having a variety of logs allows us to hit the order quickly.”

These days, only about 15 per cent of their market is in residential. The balance is made up, of course, by the oil patch, but also by other markets, such as for bridge timbers, and special orders, such as wood blocking for utilities. “It’s all about matching the logs through the mills to the markets that are out there,” says Drew.

He admits that without tenure, it can be a scramble at times for logs. “We’ve been down to a couple of weeks’ of logs at times.”

Even if you are not going to use a particular species of wood, you need wood in general to deal with the large forest companies, he notes. “It’s not about money, it’s about timber,” he says. “You can’t go have a conversation with them unless you have wood to bring to the table.”

Woodco tries to work with the larger companies, in effect complementing what they are doing. “With our regional neighbor here, Interfor, for example, they have a limitation on how large a log they can cut at their sawmill. So there is part of their logging profile they need to sell or trade. So if they can sell that or trade that, and get some wood back from us that they can use, that’s ideal for them.

“We’re trying to become part of that, to create synergies with different companies. We try to find out what they need, combine it with what we need, and work something out.”

The Woodco mill operation runs a single shift, four days a week, and is managed by John Drew. John’s son, Jason, who is a millwright, operates the Micromill and is production supervisor. They will sometimes schedule an extra shift on Fridays, if they need to meet some orders. “Sometimes the market will want one-and-a-half shifts, not a full two shifts, so we will push into an extra day once in a while to meet customer needs when the energy industry is busy,” says Drew.

That said, they have to be careful, too, as the energy industry is subject to the ups and downs of the market. For example, Woodco felt it when the market for natural gas was oversupplied. “The drop in natural gas prices affected how much drilling they were doing in Alberta, and it came back and impacted our business,” says Drew.

Still, Drew thrives on the changes and dynamic nature of the business. Every day is truly different, and brings its own set of challenges. “You have to look at it as a challenge or else it will drive you crazy,” he jokes.

“You have to move all the time—you can’t rest a whole lot in this business.”

That includes moving with further mill improvements. He has a used Morbark debarker sitting out back of the mill site that could be installed in front of the band mill, improving production. And he’d like to install some improved handling systems on the back end, and on the stackers.