



Courtesy of Labrador Iron Mines

The plant is located one kilometre from the first deposit to be mined.

# Future growth built on iron ore legacy

by | Correy Baldwin

Sixty years ago, the town of Schefferville, Quebec, was built to support the nearby mine in the Labrador Trough. Thirty years later, mine operations ceased. The management at Labrador Iron Mines has scraped the rust from the once-thriving projects – complete with roads, rail connection and power station – and added new life to the iron rich region.

“The best place to look for a new mine is beside an old mine,” says John Kearney, CEO of Labrador Iron Mines (LIM). Following this strategy, LIM is developing the Schefferville Projects, an area operated by the Iron Ore Company of Canada (IOC) for over 25 years.

The Projects lie in the iron-rich Labrador Trough that runs through western Labrador and northeastern Quebec. The Trough region has long been the centre of iron mining in

Canada and is one of the major iron ore-producing regions of the world.

IOC moved into the area in 1950 and over the next four years completed one of the largest civil construction projects in Canadian history. They developed a mine site and the company town of Schefferville, constructed the Sept-Îles shipping terminal on the Gulf of St. Lawrence, and built a 565-kilometre rail line connecting the two sites.

"There was absolutely nothing there before IOC arrived," explains Kearney. "There was no town; there was not even a camp. IOC built everything – from the roads to the railroad, the power station, the airport, the hospital, the schools and the gymnasium – everything." But then IOC shut down operations in 1982, leaving behind the extensive infrastructure, as well as 250 million tonnes of mineable reserves.

When Kearney came across the Projects in 2004, he immediately saw an opportunity. "I was attracted to this historic mining area that still had a significant resource and infrastructure and was not mined out," he says. "I also was intrigued by iron ore. I can't claim that I foresaw the increase in demand that it has reached today, but I certainly thought the future for iron ore was going to be pretty good." And he was right. Global demand for iron ore is on the rise, in large part because of growing markets like China and India.

At the time, Kearney was chairman of the UK company Anglesey Mining. After conducting an early exploration, drilling and sampling program in 2005 and 2006, Anglesey set up Labrador Iron Mines, which acquired a 100 per cent interest in the project under an initial price offering in 2007.

### Building on a strong foundation

Labrador Iron Mines is set to begin operations in April, and during this initial production year expects to mine about two million tonnes of iron ore. Subsequent years should see this amount increase to about four million tonnes and then later to six million tonnes per year.

The company carried out an extensive exploration program throughout 2008 and 2009, with 5,364 metres drilled and 2,459 metres trenched, increasing the 150 million tonnes of historical resources on the property and qualifying about a fifth of it to date as NI 43-101 compliant. They also completed an environmental baseline analysis, as well as studies on railway and shipping port use.

The environmental assessment and mine permitting process for the first-stage James and Redmond deposits were

LIM has benefited from existing infrastructure and pre-stripped sites.



Photo courtesy of Labrador Iron Mines

completed within two years. "A rather remarkable progress record," says Donna Yoshimatsu, vice-president and head of investor relations for LIM. "Permits for future phases and stages will be sought in due course and NI 43-101 reports will be prepared in sequence."

The existing infrastructure gave LIM a huge advantage. Access roads, water supply and sewage facilities were already available when LIM moved in, as was access to an airport, railway and shipping port. "The make or break of any bulk commodity mining operation is infrastructure," says Yoshimatsu. "The existing infrastructure here was put in place by IOC for these very deposits. That's why we're here today, and why we can keep our capital expenditures in the lowest quartile."

Some upgrades have been required. LIM uses expert contractors skilled in construction in the northern climates. The first major construction activity was re-establishing a 4.5-kilometre spur line to connect the processing site to the Schefferville-Sept-Îles main line. Installation of the new track along the existing rail bed was completed in 2010 and then used to bring in the main components of the processing plant and accommodation camp. The track will be used to move the initial shipments of sample ore and to move the iron ore when the mine goes into full production. To reduce capital costs, LIM will lease the railway cars.

LIM is also planning to improve processing plant features that will increase capacity, recover fines and lower grade ore. Ore will be crushed and washed at a beneficiation plant, with expected recoveries of 70 to 80 per cent. It is also a very

## project profile



Photo courtesy of Labrador Iron Mines



From left to right: Bulk sample shipment in transit; a 4.5-kilometre rail spur was completed last June.

clean operation that will not produce any tailings. The beneficiation plant has a design capacity to process 10,000 tonnes of ore per day. Processing will increase the product grade from 57 per cent to at least 62 to 63 per cent iron, and will produce both coarse lump ore and a finer sinter feed.

LIM will be developing 20 direct shipping ore (DSO) deposits – the first time in nearly three decades that the Trough region has seen DSO production. The property features several brownfield sites, which are stripped but not mined. LIM plans to develop and mine the deposits in four stages, starting with those located closest to existing infrastructure.

The James deposit, located just one kilometre from the processing area, and the Redmond deposit are slated to be mined first. They are accessible by existing gravel roads and have combined Indicated Resources of 11 million tonnes. The Houston deposit, 18 kilometres southeast of Schefferville and also connected by gravel roads, has Indicated Resources of 19.57 million tonnes.

The rest of the deposits on the property, with a combined historical resource of 125 million tonnes, are less accessible. Some of the larger later stage deposits are currently only accessible by helicopter or float plane. The iron ore will be shipped out by rail to the port at Sept-Îles, where it will most likely be sent to steel mills in Europe or Asia.

The mine will initially employ 60 workers in the early stages and increase to 110 once production is in full swing. LIM has engaged Innu Municipal to handle the hiring and training of the hourly wage workforce.

The only snag is the difficult local winter weather conditions, which will squeeze the processing schedule into a tight seven- to eight-month period (between 212 and 240 days) from April to November.

### A northern renaissance

IOC's original rail line is still in use, although the northern section has seen a change in ownership. It is now run by Tshiuetin Rail Transportation (TSH), a consortium of First Nations communities and Canada's first Aboriginal-owned railway. LIM recently finalized a haulage agreement with TSH for 2011.

"Our location has a rather unique situation," explains Kearney. "There are a number of different First Nations, each of whom have Aboriginal rights in the area." In fact, there are four First Nations communities in the area. LIM has negotiated IBAs with the Labrador Innu, the Naskapi Nation of Kawawachikamach, and two Quebec Innu nations, the Matimekush-Lac John and the Uashat and Mani-Utenam (the Uashaunnuat) **are in progress.**

Much effort has gone into gaining the support of the First Nations communities, and LIM is keen to see that local people get the most out of the employment and business opportunities that come with mine operations. "Our objective and policy is to partner with these communities to ensure that they participate and benefit to the greatest extent possible from the development of the Projects," says Kearney. "There's also a value that they can bring. They have traditional knowledge, and they know how to work in this part of the country."




Photo courtesy of Labrador Iron Mines

A resurgence in iron mining in the area is also good news for the town of Schefferville, which lost two-thirds of its population and fell into an economic depression when IOC moved out. "At that time, IOC was owned by the major U.S. steel companies, and their main objective was to make sure that the steel companies had enough iron ore," explains Kearney. "Once they had enough iron ore from their Carol Lake Mine near Labrador City to supply their requirements, they didn't need the Schefferville Projects."

"They were motivated by the requirements of the steel company and not by the motivations of a mining company," Kearney adds. "In my opinion, a mining company would never have walked away from Schefferville."

Kearney believes that Schefferville will once again become the gateway to northeastern Quebec, helping to play a vital role in Plan Nord, the Quebec government's economic development plan for its northern region.

Yoshimatsu echoes these expectations. "LIM's restart of these operations should create significant jobs and training for the local people, which in turn will engender other services and industries. It will undoubtedly energize the economy of the region." 

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Courtesy of Tshiuetin Rail

Tshiuetin rail is the first railway in Canada to be owned by Aboriginal communities.

## A vital artery

When the Iron Ore Company of Canada (IOC) moved into the Schefferville area in the early 1950s, they built the entire infrastructure for the region, including a 565-kilometre rail line that stretched north from the Gulf of St. Lawrence into what could have been called the middle of nowhere.

The rail line was laid to carry the iron ore from their Schefferville mine to a shipping port that they also constructed at Sept-Îles. It was part of a massive civil construction project that lasted from 1951 until 1954.

The operation of the rail line was placed under the control of the IOC's Quebec North Shore & Labrador Railway (QNSL). IOC shut down its mining operations near Schefferville in 1982, but rail service continued to be operated by QNSL.

QNSL eventually shifted its priority to the southern section of line between Labrador City and Sept-Îles. Heavy freight was moved on this 360-kilometre stretch of rail, while the northern line, a 217-kilometre stretch from Schefferville to Emeril Junction, was downgraded to carrying only passengers and light freight.

The First Nations communities that had come to rely heavily on the railway joined together in 2005 and formed Tshiuetin Rail Transportation (TSH) to ensure their long-term economic and social development. These communities included the Innu Nation of Matimekush-Lac John, the Innu Takuaikan Uashat mak Mani-Utenam and the Naskapi Nation of Kawawachikamach.

Tshiuetin Rail purchased the northern line from IOC in the fall of 2005 and re-opened the line on December 1 of that year. It is the first railway in Canada to be owned by Aboriginal people.