

The quest to re-establish iron ore mining in Ontario

by Mike Kachanovsky

In the northwestern Ontario wilderness, near Lake St. Joseph, **Rockex Mining Corp.** [RXM-TSX] has been able to secure ownership of a large property that hosts at least three previously defined iron deposits. The largest deposit has many characteristics that suggest it is a viable candidate for the development of a significant mining operation, but the project was shelved in the 1970s due to the availability of cheaply imported iron from countries like Brazil.

Iron ore mining is very much a part of the mining story in Canada; however, for the last few decades it has been largely confined to a prolific iron belt in the Labrador Trough. Historically, there were several mines active in northwestern Ontario that supplied iron ore during World War II and for a few decades thereafter. Several iron ore mines are in operation to the south in Minnesota. Today, however, it is a tough sell to generate interest in a large capital development project in northwestern Ontario. Rockex hopes to change that.

The Western Lake St. Joseph property covers an area of 6,864 hectares of the rugged Uchi Subprovince of the Canadian Shield. Rockex has acquired 100% ownership of this project area, along with access to data from prior exploration in the district. A former operator of the property had been able to define a large, near surface, iron oxide deposit, located on Eagle Island. This provides a distinct advantage compared to an early stage exploration project, as there is no need to start the exploration process from scratch.

Modern exploration methods and efficient processing technology may provide additional advantages to warrant development of a mine at Eagle Island. Confirmation drilling of the historic deposit area has yielded some positive surprises. A compliant NI 43-101 resource report was filed in January 2011 for the Lake St. Joseph deposit, documenting indicated and inferred resources of more



Rockex Mining's Western Lake St. Joseph iron ore prospect covers an area of 6,864 hectares on Eagle Island, 100 km northeast of Sioux Lookout, northwest Ontario. Photo courtesy Rockex Mining Corp.

than one billion tonnes for the deposit area, with an average grade just below 30% iron.

Further drilling has been completed, since then, to outline additional mineralized zones. Wide intervals of iron oxide alteration have been encountered, including new zones encountered below the previously known deposit. This included one drill hole, reported near the end of 2011, that extended more than 500 metres through mineralization grading 29.93% iron. As more work is completed, Rockex geologists expect that the total resource at Eagle Island will be much larger than the currently defined resource.

Exploration in the surrounding area is also ongoing. An aerial magnetic survey has been completed for a large chunk of the property and the results have outlined at least three new exploration targets for possible deposit areas. Rockex is in the midst of a 9,000-metre drill program with the objective to test some of these new targets.

Of interest is an anomaly known as the Southeast extension, near Fish Island, where a work history by a prior operator indicates iron resources in a similar setting to the Eagle Island deposit could

be defined. The company announced assays from the first drilling at this target in February 2012. A 470-metre section assayed 29.2% iron content with higher grade zones present in two distinct lenses. Rockex management is hopeful that further work in this area will generate a second large iron deposit that could build further resource magnitude to support a development decision.

The company is working towards a preliminary economic assessment for the project. Testing of sample material is currently underway to generate data on metallurgical efficiency that will shed light on processing options. Environmental baseline surveys are underway. Rockex is also working with the leadership of local First Nations groups to communicate its plans and ensure that all stakeholders are involved in the process.

The management team of Rockex includes competent and experienced people who understand the mining business. Pierre Gagne runs a heavy construction company that has participated in intensive mine development projects. Chris Dougherty runs a mining engineering consulting company

in nearby Thunder Bay. Armando Plastino is a former CEO of Essar Steel Algoma, and Bruce Reid is a former CEO for US Silver. These men have a background in the mining industry and understand the challenges of advancing a project through development. Management and insiders own a large percentage of the total outstanding shares of the company.

There are many characteristics of the project that provide cause for optimism. The resources outlined so far, in terms of tonnage and grade, suggest a large open pit mine could operate for decades with positive economics. Despite the outlying location of the deposit area, there is nearby access to transportation and power infrastructure in the district that could be extended to support a mine at Lake St. Joseph. The host rock formation is free of nasty elements or contaminants that may generate environmental liabilities to the pristine wilderness of the region.

While the establishment of a large iron mining operation is the ultimate goal, management has been very clear that the company is committed to operating in a way that is ethical and environmentally sustainable. A profitable mine would generate many benefits for the local economy and the First Nations groups in the region, but the priority will be to ensure that no lasting disruption to the environment would result from their development.

Rockex management would like to carry the ball at Lake St. Joseph all the way to establishing a profitable, long term mining operation. As with most large capital development projects, the ultimate challenge may just be finding the money to get the project into production. At this stage, all options are on the table. The company is considering entering into a prepaid off-take agreement for some of the output of a mine operation, or perhaps bringing in a partner, or even outright vending the entire project to a senior mining company. Much of the outcome will depend on the speculative appeal, as more information is presented on the resource size and potential economic outlook for the project is better defined. ■