

Department of Natural Resources Mines Branch

CALL FOR PROPOSALS ON Exempt Mineral Land

THE JULIENNE LAKE IRON ORE DEPOSIT, WESTERN LABRADOR NEWFOUNDLAND AND LABRADOR, CANADA

October 10, 2012

Government of Newfoundland and Labrador Department of Natural Resources 7th Floor, 50 Elizabeth Avenue St. John's, NL A1A 1W5

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1.0 INTRODUCTION

An Exempt Mineral Land ("EML" - meaning that the mineral rights are reserved for the Crown) enclosing approximately 334 hectares encompasses the Julienne Lake iron ore deposit in western Labrador. The area was designated EML under the Mineral Act of Newfoundland and Labrador when the Act came into effect on June 21, 1977. (See Appendix 1 for the EML boundary description)

The Government of Newfoundland and Labrador through the Minister of Natural Resources invites expressions of interest in submitting proposals for the mineral development of all or part of the EML. The deadline for receipt of such expressions is November 14, 2012.

Detailed proposals will be solicited from those who have provided expressions of interest and who have a demonstrated ability to bring the Julienne Lake project to, at a minimum, a completed feasibility study stage. The proponent with the successful detailed proposal will be granted exclusive mineral rights under the Mineral Act either as an Extended Map Staked Licence or a Mining Lease, as appropriate. The proponent's commitments will be incorporated as terms and conditions of the licence or lease.

Full details of the location, access, geology, history of development, recent exploration work and resources are provided in the report by on exploration work on the property MPH Consulting Limited, available on-line on the Natural Resources website or by request.

A web page listing known technical information of the Julienne Lake EML can be found at: <u>http://www.nr.gov.nl.ca/nr/mines/Julienne/index.html</u>.

The following is a brief summary of the report to provide background information.

1.1 Location and Access

The Julienne Lake property is located in the province of Newfoundland and Labrador in western Labrador, approximately 25 km by road north of Labrador City / Wabush. Labrador City / Wabush are connected by road to Baie Comeau, Quebec (590 km), and Happy Valley-Goose Bay, Labrador (530 km). Labrador west is an important centre for the iron ore industry, with two major mining operations (the Iron Ore Company of Canada's Carol Lake mine, and Cliffs Natural Resources Wabush Mines), and is serviced by Wabush airport, and the QNS & L rail line. The property is readily accessible by road from Wabush. (See Appendix 2 for location of the Julienne EML)

1.2 Aboriginal Considerations

It should be noted that there are assertions of Aboriginal rights with respect to this area.

1.3 History of Development

The deposit was discovered in 1953 by the Newfoundland and Labrador Company (Nalco). In 1960, a mining lease was issued to Nalco, who sub-leased the rights to Julco Iron Corporation, a wholly owned subsidiary of Canadian Javelin Limited. In 1975 the rights to the deposit reverted to the crown under the Julienne Lake Deposit (Reversion Act) 1975, due to failure by Canadian Javelin to meet requirements of the Mining and Mineral Rights Tax Act. The property was made an EML and has remained under that status to this date. As of 1970, "ore reserves" were estimated at about 500 million long tons grading 34.2% iron, with a further 400 million tons thought to be present in extensions under Wabush and Julienne lakes. However, this estimate was based chiefly upon only 9 diamond drill holes of questionable merit.

In 2009, government initiated a multi-phased further evaluation of the potential of the deposit. Phase I consisted of a review of previous work and development of a program and budget for improving the resource definition to the level of Inferred and Indicated Mineral Resources as defined by the Canadian Institute of Mining and Metallurgy (completed in December 2009). Phase II was an exploration program that consisted largely of 9200 metres of diamond drilling, followed by interpretation of the drill results to produce a 3D resource model (completed in May 2011).

2.0 GEOLOGY, RESOURCES AND MINE PLANNING

2.1 Geology

The deposit is contained within the Sokoman Formation of the Lower Proterozoic Knob Lake Group. The Sokoman Formation hosts numerous other iron ore deposits throughout the Labrador Trough. The MPH report states that the area is structurally complex but the deposit itself forms a shallowly-to-moderately dipping sequence truncated by a sub-vertical fault, however there is conflicting opinion that the deposit itself "is structurally complex, with multiple phases of folding and faulting" (Conliffe 2012). The Sokoman Formation in the Julienne Lake area is dominantly quartz-specular hematite or quartz-specularite schists that contain approximately 50% quartz and 50% iron-bearing minerals. Massive quartzite of the Wishart Formation is exposed and intersected in diamond drill holes on both sides of the Sokoman Formation at Julienne Lake, with the southeastern contact being a steep northeasterly trending fault, and the southwestern contact, conformable in nature.

The mineralogy of the deposit is dominated by hematite and quartz having a fairly uniform grain size with 80% of the hematite grains ranging between 200-330 microns. (Actlabs 2011)

Only traces of impurities are present in the iron ore, and metallurgical test work returned favourable results.

2.2 Resources

The 2010 exploration program showed that the Julienne Lake deposit is significantly larger than historical work had indicated, with the resource potential nearly doubling without appreciable difference in average grade. MPH provided a resource estimate based on 42 diamond drill holes and 104 surface trench records. These show the following:

- Measured: 66 million tonnes at 34.7% iron
- Indicated: 801 million tonnes at 33.6% iron
- Total Measured and Indicated: 867 million tonnes at 33.7% iron
- Inferred : 299 million tonnes at 34.1% iron

2.3 Mine Feasibility

MPH Consulting prepared a notional mine plan although the detail is not yet at the level required for a pre-feasibility study as defined by NI-43-101. The deposit is amenable to open pit mining, with a very favourable stripping ratio, and consistent grade over a thick mineralized interval. The report suggests an open pit mine, with minable resources of 580 million tonnes at around 33% total iron. The minable resources were calculated excluding the ore contained within a 100m buffer to surrounding water bodies. Preliminary work suggests conventional mining methods and processing could produce a concentrate with an iron content of more than 66% and a silica content of less than 5%.

3.0 INFRASTRUCTURE

3.1 Communities

The communities of Labrador City and Wabush are located approximately 25 km south-southwest of the Julienne Lake deposit. These towns were constructed to support the open pit iron ore mines at Rio Tinto's (IOCC) Carol Lake Project and the Wabush Mines (owned by Cliffs Natural Resources). These mines have operated, virtually without interruption, for 45 to 50 years. The combined population of the two communities is around 9,000. The Labrador West area has a strong mining culture and is well-served by modern amenities including a hospital and airport, and abundant recreational opportunities.

3.2 Rail Transport

The Quebec North Shore and Labrador Railway (QNS&L) is the main rail service provider to the area. The line was constructed to service IOCC's mines in western Labrador. It is a commoncarrier railway, and provides service to other mining operations in the area. Secondary rail lines haul ore from the Wabush Mines, the Bloom Lake Mine in Quebec, and from Menihek area mines to points of intersection with the QNS&L. Ore trains of up to 240 cars transport material a distance of about 420 km to the port of Sept Îles on the ice-free St. Lawrence sea way. The QNS&L hauled about 23 million tonnes of iron ore products to port in 2011.

Annual demand for ore movement may increase as new mines open and existing mines expand. A 2010 report commissioned by the Government of Newfoundland and Labrador suggested that,

with identified capital improvement, at least 88 million tonnes per year of iron ore production can be hauled over the QNS&L.

The Canadian National Railway Company, acting jointly with the Caisse de dépôt et placement du Québec, is conducting a feasibility study on the construction of a new railway from the Sept Îles area to points further north in the Labrador Trough that would expand rail service to existing and future mines. Several companies with developing projects in the area have agreed to support the feasibility study with financial contributions.

3.3 Power

Labrador West is provided with power from the Churchill Falls hydro-electric plant. There is currently 525 MW of Churchill Falls power available to meet demand in Labrador. After Newfoundland and Labrador Hydro's residential customers and industrial contracts are supplied, there currently is 80 MW of firm recall power available. This power is currently being exported by Nalcor's energy marketing division, until such time that it is required to meet demand in Labrador.

The Muskrat Falls hydroelectric project, if sanctioned, has a target completion date of 2017 and a maximum generating capacity of 824 MW. The amount of power available for industrial expansion is based on excess generating capacity when demand is at its highest (usually in winter when heating requirements are greatest). About 40% of Muskrat Falls energy would be available to supply industrial customers in Labrador.

3.4 Port

Ports at Sept Îles Bay, Quebec, including Pointe Noire, currently handle shipment of all iron ore produced in the Labrador part of the Labrador Trough. In 1999, the port became a Canada Port Authority as stipulated under the Canada Marine Act. Shipments (exports) of iron ore products from Sept Îles Bay in 2011 totaled about 23 million tonnes which represents 94% of all exports from the ports. In the 1970s the port handled up to 30 million long tons per year. Exports to Asia currently represent about half of all shipments.

Anticipated increases in iron ore product exports from the Labrador Trough prompted the Sept Îles Port Authority to plan for port expansion. In February 2012 the Port Authority announced a \$55 million dollar investment by the Government of Canada to help in this expansion. The expansion is expected to cost \$220 million and add 50 million tonnes of capacity at the port; many producing and developing iron ore companies in the Labrador Trough have committed funds to reserve future capacity at this facility.

4.0 DEVELOPMENT POTENTIAL

Project development work performed to date, while not considered adequate for a pre-feasibility study, has not identified any major negative factors and strongly suggests that Julienne Lake can be developed as an economically attractive project. Its advantages include:

- A politically, economically, and socially stable environment.
- Availability of a skilled workforce.
- Located in a world-wide recognized iron ore region with a proven track record of successful mine development.
- Clearly defined and stable environmental regulations.
- Low technical risk. The project is based on proven mining, processing, and transportation methods.
- A relatively high grade with a very low stripping ratio.
- Only traces of impurities, and metallurgical test work that returned favourable results.
- Large resource with a project length possibly exceeding 30 years when considering measured, indicated and inferred resources.
- Production at a cost efficient rate with relatively low operating costs.
- A close physical location to a common carrier railroad.

MPH concludes that "the Julienne Lake iron deposit represents a very rare and unusual opportunity to develop a major new mining project in the heart of an established mining camp in a politically stable country".

To move this project forward, it is expected that a developer will be required to perform additional diamond drilling to upgrade resources to indicated or measured status, conduct more thorough ore characterization work, and complete engineering work to bring the project to feasibility status.

5.0 TERMS OF REFERENCE

The Government of Newfoundland and Labrador invites proposals to develop the Exempt Mineral Land described herein. Experienced and financially competent companies may apply to the Minister of the Department of Natural Resources. The department will not reimburse Respondents for any costs incurred in the preparation and/or presentation of a Proposal. The proposal process will consist of two stages: submission of Expressions of Interest (current stage) and submission of Detailed Proposals.

The initial stage will consist of submission of an expression of interest in submitting a detailed proposal. The expression of interest should address the following:

- List all principals involved, including corporate financial background, ownership, capabilities in mining, or other industrial activities;
- Specific involvement with other projects of similar nature;
- Current operations involving the transportation and/or consumption of iron ore;
- Ability to raise funds for the project; and
- Brief outlines of proposed development plans.

Detailed proposals will be solicited from those who have provided expressions of interest and who have a demonstrated ability to bring the Julienne Lake project to, at a minimum, a

completed feasibility study stage. Ability to develop the deposit into a mine will also be a major factor in the government's consideration of expressions of interest.

Expressions of interest should be received by November 14, 2012 and invitations to submit detailed proposals combined with terms of reference will be issued by December 14, 2012. Government is not obliged to proceed to a request for proposals.

Expressions of interest should be submitted in electronic form (pdf format preferred) to <u>dliverman@gov.nl.ca</u> and copied to <u>asmith@gov.nl.ca</u>

with paper copies to

Assistant Deputy Minister Mineral Resources Department of Natural Resources, P.O. Box 8700 St. John's, Newfoundland Canada A1B 4J6

The deadline for receipt of expressions of interest is November 14, 2012.

6.0 REFERENCES

Actlabs Report A11-0031, 2011. Petrographic and MLA Characterization of Thin Sections of Iron Ore Samples – Julienne Project by Actlabs Geometallurgy-MLA Department

Coates, H., Thein, A., and Cote, M., 2012. Report on the 2010 exploration program Julienne Lake iron deposit, western Labrador, Newfoundland & Labrador, for Department of Natural Resources, Government of Newfoundland and Labrador by MPH Consulting Limited.

Conliffe, James, 2012. Preliminary Geological Assessment of the Julienne Lake Iron Ore Deposit, Western Labrador by Geological Survey of Newfoundland and Labrador

A web page with these references and listing known technical information of the Julienne Lake EML can be found at: <u>http://www.nr.gov.nl.ca/nr/mines/Julienne/index.html</u>.

APPENDIX 1 – Description of Julienne Lake EML

Call for Expressions of Interest in the Julienne Lake EML Western Labrador, Newfoundland & Labrador, Canada

Mineral Regulations, Schedule A

All that piece or parcel of land, subtitled Julienne Lake, described in Schedule B to Appendix C to the Statutory Agreement annexed to the Nalco-Javelin, Mineral Lands Act, 1957 as amended (Amdt. Nfld. Reg, 5/78).

Schedule B to Appendix C to the Statutory Agreement annexed to the Nalco-Javelin, Mineral Lands Act, 1957 as amended (Amdt. Nfld. Reg, 5/78):

A piece or parcel of land containing an area of approximately one and twenty-nine hundredths (1.29) square miles situated in Labrador in the Province of Newfoundland as generally delineated and outlined in grey upon the Plan annexed to this Schedule and being more particularly described as follows:

Beginning at Point A (Point A being a point on the east side of the peninsula separating Wabush Lake from Julienne Lake, said point being on the West shore line of Julienne Lake at the intersection of Parallel fifty-three degrees seven minutes twenty-three seconds (53° 7' 23") North Latitude with the West Shore line of Julienne Lake); thence running true West along Parallel fifty-three degrees seven minutes twenty-three seconds (53° 7' 23") North Latitude to Point B (Point B being a point on the East shore line of W a bush Lake and being the intersection of the aforesaid Parallel with the East Shore line of Wabush Lake); thence following the sinuosities of the aforementioned East shore line of Wabush Lake in a general Northerly direction to Point C (Point C being the most Northerly point on the peninsula separating Wabush Lake from Julienne Lake); thence following the sinuosities of the aforement of beginning; all bearings being referred to the True Meridian and the aforesaid parallel being interpolated from Topographic Survey of Canada Map Sheet No. 23 G/2 (Wabush Lake, Newfoundland, Quebec, Scale 1:40,000, Advance Information December 1956).



APPENDIX 2 – Figures Call for Expressions of Interest in the Julienne Lake EML Western Labrador, Newfoundland & Labrador, Canada



Figure 1. Location of Julienne Lake deposit, western Labrador



Figure 2. Surface Plan Map showing main iron formation contacts (MPH 2012)