

Call for Expressions of Interest

The Julianne Lake Iron Ore Deposit

Exempt Mineral Land

Western Labrador

Newfoundland and Labrador, Canada

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INTRODUCTION

The Government of Newfoundland and Labrador, through the Minister of Industry, Energy and Technology, invites Expressions of Interest in submitting proposals towards obtaining the mineral rights and advancing development of the Julienne Lake Exempt Mineral Land (EML). The deadline for receipt of such expressions is December 6, 2024 4:30 pm NST.

The Julienne Lake iron ore deposit in western Labrador, in the province of Newfoundland and Labrador, Canada, has a National Instrument 43-101 (NI 43-101) compliant mineral resource estimate of total Measured and Indicated resources of 867 million tonnes at 33.7 per cent iron, plus an Inferred resource of 299 million tonnes at 34.1 per cent. It is located in an established iron ore mining district with modern towns, supported by clean renewable hydroelectric energy and accessible shipping infrastructure, in a province ranked as one of the top 10 mining jurisdictions in the world.

Newfoundland and Labrador's mineral industry is a key economic driver as the industry continues to grow. In 2023, there were 8,500 persons employed, \$4.4 billion in mineral shipments, and \$220 million in exploration expenditures. The iron ore industry in western Labrador is the most significant contributor to the provincial mineral industry, contributing over \$3.7 billion in mineral shipments and 2,600 person years of employment annually. Within Labrador City and Wabush (collectively known as Labrador West) there is an established iron ore mining supply and service sector supporting existing and developing projects in the region. Approximately 30 per cent of Canada's iron ore is produced from Labrador (see Appendix A for a detailed overview of the iron ore sector in western Labrador).

Current global steel production represents about eight per cent of global greenhouse gas emissions and high-purity iron ore comprises only 15 per cent of the world's supply. In addition to existing steel manufacturing, significant steel production will be required for the green energy transition with some order-of-magnitude projections into the billions of tonnes.

These factors, combined with preliminary exploration and test work completed to date, position the Julienne Lake deposit as a new strategic feedstock for green steel manufacturing to support global demand for decarbonized steel.

EML indicates an area where the mineral rights are reserved for the Crown (Government of Newfoundland and Labrador). The Julienne Lake iron ore deposit, encompassing approximately 334 hectares, was designated EML under the *Mineral Act* of Newfoundland and Labrador when the act came into effect in 1977 (see Appendix B for the EML boundary description).

Detailed Proposals will be solicited from those who have provided successful Expressions of Interest and demonstrated the ability to bring the Julienne Lake project to, at a minimum, a completed feasibility study stage. Preference is, however, to see the property

developed into an operating mine with dedicated processing, utilizing best available technologies. The ability to add further value-added facilities for development of a green steel supply chain, in a timely manner, confers a distinct advantage.

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 towards development 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 technical report by MPH Consulting Limited (MPH), and any new geoscience data collected are available online on the Department of Industry, Energy and Technology (IET) website. A web page listing known technical information of the Julienne Lake EML can be found at www.gov.nl.ca/iet/mines/julienne/.

1.1 Location and Access

The Julienne Lake property is located in the province of Newfoundland and Labrador in western Labrador, approximately 25 kilometres by road north of the towns of Labrador City and Wabush. Labrador West is connected by road to Baie-Comeau, Quebec (590 kilometres), and Happy Valley-Goose Bay, Labrador (530 kilometres). Labrador West is an important centre for the iron ore industry, with two major mining operations (Carol Lake, Rio Tinto's Iron Ore Company of Canada (IOC) and Scully Mine, Tacora Resources), and is serviced by Wabush Airport and the Quebec North Shore and Labrador Railway (QNS&L). The property is readily accessible by road from Wabush. There are also two operating iron ore mines (Mont-Wright, ArcelorMittal Mining Canada and Bloom Lake, Champion Iron) in the adjacent province of Quebec (see Appendix C for location and images of the Julienne Lake EML).

1.2 History of Development

The deposit was discovered in 1953 by the Newfoundland and Labrador Corporation (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. 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 per cent 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 nine

diamond drill holes of questionable merit.

In 2009, the Government of Newfoundland and Labrador initiated a multi-phased further evaluation of the deposit's potential. 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 9,200 metres of diamond drilling, followed by interpretation of the drill results to produce a 3D resource model (completed in May 2011).

Drill core from the Julienne Lake deposit is located at provincial core storage facilities in Happy Valley-Goose Bay, Labrador and will be available for viewing by request.

In addition, a number of drill cores were recently scanned using the College of the North Atlantic's Hyperspectral Scanning Unit. This data can be searched under Julienne Lake at [Spectroscopy Drillcores Database](#).

Site visits to the Julienne Lake deposit can be arranged upon request.

1.3 Indigenous Considerations

It is noted that there are assertions of Indigenous rights with respect to this area. The Government of Newfoundland and Labrador is committed to consulting Indigenous organizations when it contemplates making land and resource development decisions that have the potential to adversely impact asserted rights. As such, and in accordance with the [Government of Newfoundland and Labrador's Aboriginal Consultation Policy on Land and Resource Development Decisions](#), Indigenous consultation may be required in relation to development in this area. Early engagement with Indigenous organizations is encouraged.

GEOLOGY, RESOURCES, AND MINE PLANNING

2.1 Geology

The Julienne Lake deposit is one of a number of large iron ore deposits in the Labrador West area, and the geological setting for these deposits is described in detail by Conliffe (2019). It is in the Labrador Trough, a region whose iron ore is reported as one of the purest natural resources in the world. All deposits are hosted in the Paleoproterozoic Sokoman Formation iron formation and were metamorphosed and deformed during the Grenville Orogeny at circa one billion years ago. Three broadly defined end-member facies describe the Sokoman Formation: oxide facies (the main ore-bearing unit), silicate facies, and carbonate facies. The iron formation recrystallized during regional metamorphism, and the oxide-facies iron formation consists of medium-to coarse-grained magnetite, specular hematite, and quartz, and is easily beneficiated into high-grade iron concentrates (approximately 66 per cent iron) ideal for pellet production and upgrading for supply of ore for the green steel industry. Deformation and associated structural thickening during the Grenville Orogeny were also important in the development of mineable thicknesses of oxide-facies iron formation.

The Sokoman Formation outcrops extensively in the centre of the Julienne Peninsula, and diamond drilling has recognized a thick (up to 575 metres) sequence of oxide-facies iron formation (dominantly coarse-grained, friable quartz-specularite schist) interbedded with thin (generally less than five metres) layers of lean white quartzite and manganese-rich oxide-facies iron formation (Conliffe, 2013). Regional airborne magnetic surveys (Cotnoir et al., 2001) and ground magnetometer surveys (Seymour and Churchill, 2011; Coates et al., 2012) clearly outline the extent of the Julienne Lake deposit and show that the iron formation extends into Julienne Lake to the east and Wabush Lake to the west (see Figure 5 in Appendix C).

Based on variations in structural complexity, lithology, and alteration the deposit has been subdivided into southeastern and northwestern zones (Conliffe, 2013), separated by a north-northeast trending vertical fault which can be identified on regional aeromagnetic data. The southeastern zone is interpreted as an overturned syncline with a maximum thickness of iron formation of 320 metres. The northwestern zone is more structurally complex, with complicated folding and thrust repetition responsible for thickening of the iron formation to greater than 575 metres. In all drillholes examined, the lower contact of the Sokoman Formation is strongly brecciated and commonly faulted, possibly representing a basal thrust (Conliffe, 2013). Coates et al. (2013) indicated that the southern margin of the deposit was marked by a high angle fault.

The mineralogy of the oxide-facies iron formation is predominantly composed of medium to coarse-grained specular hematite (80 per cent of the hematite grains ranging between

200–330 microns; Actlabs 2011) and quartz (with minor red granular hematite, goethite, and limonite). Magnetite is generally rare, although several magnetite-rich horizons have been identified (Conliffe, 2013). Alteration ranges from minor hematization to intense and pervasive alteration to hematite, goethite, and limonite. Metallurgical test work on a bulk sample from drillholes JL-10-05 and JL-10-05A (total of 190 kilograms of core) was included in the MPH report (Coates et al., 2013). This work demonstrated that it is possible to produce an iron ore concentrate with an iron content of greater than 66 per cent iron and a silica content of less than five per cent, with approximately 75 per cent iron recovery and approximately 40 per cent iron weight recovery. Bond Work Index results show that the ore is soft, and autogenous or semi-autogenous grinding was proposed as the preferred approach to milling the ore (see Figure 6 in Appendix C).

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 an NI 43-101 compliant resource estimate based on 42 diamond drill holes and 104 surface trench records. Summary results are contained in Table 1 below.

Table 1. Summary of MPH Resource Estimate

Category	Tonnes	Per cent Iron
Measured	66 million	34.7
Indicated	801 million	33.6
Total Measured and Indicated	867 million	33.7
Inferred	299 million	34.1

Table.1. MPH Resource Estimate Notes:

Mineral resources are not mineral reserves and do not have demonstrated economic viability. Confidence in the estimate of Inferred mineral resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent mineral resource estimates.

Mineral Resource Estimate Mineral resources were classified in accordance with guidelines established by the Canadian Institute of Mining, Metallurgy and Petroleum, November 11, 2005:

Inferred Mineral Resource: "An "Inferred Mineral Resource" is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes."

Indicated Mineral Resource: "An "Indicated Mineral Resource" is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough for geological and grade continuity to be reasonably assumed."

Measured Mineral Resource: "A "Measured Mineral Resource" is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough to confirm both geological and grade continuity."

The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues. The mineral resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

2.3 Mine Feasibility

While a notional mine plan prepared by MPH is not at the level of detail 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 mineable resources of 580 million tonnes at around 33 per cent total iron. The mineable resources were calculated using a 100-metre 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 per cent and a silica content of less than five per cent.

INFRASTRUCTURE

3.1 Communities

The communities of Labrador City and Wabush are located approximately 25 kilometres south-southwest of the Julianne Lake deposit. These towns were constructed to support the open-pit Carol Lake and Scully mines, which 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, is well served by modern amenities including a hospital, college, and airport, and offers abundant recreational opportunities.

3.2 Rail Transport

The [QNS&L](#) is the main rail service provider to the area and was constructed to service IOC's mines in western Labrador. It is a common carrier railway, meaning shippers have the right to access railway services that the QNS&L must provide. In addition to servicing IOC's needs, the QNS&L also provides service to other mining operations in the area. Secondary rail lines haul ore from the Scully Mine, 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 kilometres to the Port of Sept-Îles on the ice-free St. Lawrence Seaway. The QNS&L hauled approximately 31 million tonnes of iron ore products to port in 2022.

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.

3.3 Renewable Power

Renewable, green electrical power to support mining operations and the towns of Labrador City and Wabush is supplied by the Churchill Falls hydroelectric generating facility via high voltage transmission lines.

At present, current winter peak load in Labrador West is approximately 380 megawatts which, due to capacity limits, must be restricted by curtailing industrial customer operations during peak load conditions and during the maintenance season.

A system impact study has been conducted for Labrador West that provides several options for transmission system upgrades to deliver additional green power to the region. The next stage of study, a facilities study, will further refine the design and cost estimate and is expected to start in 2024. Generation expansion alternatives to supply new industrial load are also under review by [Newfoundland and Labrador Hydro](#) (NL Hydro) including upgrading of existing hydroelectric facilities at Churchill Falls, future possible development of additional hydroelectric resources, and potential integration of wind energy to serve the region's green energy needs.

NL Hydro is currently working with all parties that have expressed interest in recent years in becoming new or expanding customers in Labrador to determine the amount of new firm energy needed to serve the Labrador interconnected system.

IET will participate in the new facilities study to ensure that the renewable electricity needs for Julienne Lake EML development are being considered in new transmission and generation planning by NL Hydro.

New transmission will need to be built to facilitate development of the Julienne Lake deposit and other potential iron ore projects in the region.

3.4 Port

Ports at Sept-Îles Bay, Quebec, including Pointe-Noire, facilitate the shipment of all iron ore produced in western Labrador. In 1999, the port became a Canada Port Authority as stipulated under the *Canada Marine Act*. The port is a state-of-the-art facility, including a multi-user dock capable of handling 50 million tonnes of bulk cargo annually, making it the highest capacity dock in North America. Iron ore accounts for more than 90 per cent of the volume of cargo handled by the [Port of Sept-Îles](#) each year. Approximately 33.4 million tonnes of cargo was handled by Port of Sept-Îles in 2022.

Terminals at the Port of Sept-Îles are divided into two sectors, City sector and Pointe-Noire sector. IOC's privately owned dock is within the City sector. Pointe-Noire facilities include the unloading and laydown area operated by [Société Ferroviaire et Portuaire de Pointe-Noire](#) (SFPPN) and the ship loading and dock facility operated by the Port of Sept-Îles. Multiple iron ore companies in the region have committed funds to reserve capacity at both. Investments totaling over \$500 million during the past two decades have positioned the Port of Sept-Îles as North America's leading iron-ore-handling port.

The Port of Sept-Îles cites a 100 million metric tonne annual overall (City sector including IOC private and Pointe-Noire sector) combined ship loading capacity. Railcar dumping capacity is constrained at SFPPN and would need to be expanded to facilitate significant increases in iron ore volume.

3.5 Infrastructure Summary

Questions regarding access, current capacity, any necessary upgrades, and costs for access to renewable power, rail transport, and port facilities for the development of the Julienne Lake iron ore deposit will require interested parties to engage directly with the requisite authorities identified above. IET officials can facilitate establishing contact with these authorities.

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 the Julienne Lake deposit can be developed as an economically attractive project. Its advantages include:

- A large resource with a project length possibly exceeding 30 years when considering Measured, Indicated and Inferred resources.
- Low technical risk as the project is based on proven mining, processing and transportation methods.
- A relatively high grade with a very low stripping ratio.
- Metallurgical test work that returned favourable results with only trace impurities.
- Availability of renewable, clean power.
- Availability of a skilled workforce.
- Proximity to a common carrier railroad.
- A politically, economically, and socially stable environment.
- Location in a worldwide recognized iron ore region with a proven track record of successful mine development.
- A clearly defined and stable regulatory framework.

In 2012, MPH concluded 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.”

Since this time, steel manufacturers of signatory countries to the 2015 Paris Climate Accord have been operating under increasingly stringent greenhouse gas emission reduction requirements. High-purity iron ore is recognized to reduce greenhouse gas emissions during steel manufacturing. Electric arc furnace technology used in low-carbon steel manufacturing requires high-purity iron inputs such as the type of iron ore produced from the Labrador West region.

Current global steel production represents about eight per cent of global greenhouse gas emissions and high-purity iron ore comprises only 15 per cent of the world’s supply. In addition to existing steel manufacturing, significant steel production will be required for the green energy transition with some order-of-magnitude projections into the billions of tonnes.

Green steel is produced using the most sustainable methods and lowest carbon emissions possible. With high-purity iron ore and using hydrogen in direct iron reduction and electric arc furnaces, instead of coal in traditional steel making, emissions can be reduced by up to 95 per cent.

For these reasons, and the economic importance of the iron ore sector to the province, the Government of Newfoundland and Labrador has designated high-grade, low-impurity

iron ore (high-purity iron ore) as a critical mineral in its [Critical Minerals Plan](#). Similarly, the Government of Canada [recently added](#) high-purity iron to [Canada's Critical Minerals List](#) in recognition that it is essential to green steel and integral to decarbonization.

In summary, preliminary work to date suggests that iron ore produced from Julianne Lake (greater than 66 per cent iron and less than five per cent silica) could potentially serve as a new feedstock for green steel manufacturing. Taken together with the potential for new renewable power delivery to Labrador West, potential hydrogen development in the province, other supporting infrastructure in the region, and growing demand for low-carbon steel, the Julianne Lake iron ore deposit could represent a significant and strategic new opportunity for production of high-purity iron ore and development of green steel supply chains.

4.1 Permitting, Legislative and Regulatory Requirements

Mining in Newfoundland and Labrador will require registration under Section 10 of the [Environmental Protection Act](#) and may require assessment under Canada's [Impact Assessment Act](#). On release from the environmental assessment process, prior to start of construction, a project requires a Mining Lease and Surface Lease under the [Mineral Act](#) and approval under the [Mining Act](#). The Mining Act requires an acceptable development plan, outlining the proposed project construction and development sequence, and rehabilitation and closure plan, outlining measures to be taken to rehabilitate the project and the costs associated with undertaking those measures. Financial assurance is required.

Meetings with regulators overseeing these requirements can be convened during the Detailed Proposals phase.

Newfoundland and Labrador is ranked ninth globally by the Fraser Institute for mineral investment attractiveness. The province is a stable jurisdiction with responsible regulatory requirements and its mining and critical minerals policies are aligned with a global focus on environmental, social, and corporate governance and addressing gaps in critical mineral supply chains.

TERMS OF REFERENCE

The Government of Newfoundland and Labrador invites Expressions of Interest to develop the Exempt Mineral Land described herein. Experienced and financially competent companies may apply to the Minister of Industry, Energy and Technology. The department will not reimburse respondents for any costs incurred in the preparation and/or presentation of an Expression of Interest or any future proposals.

The proposal process will consist of two stages:

- Expressions of Interest (current stage)
- Detailed Proposals (to follow by invitation only)

The initial stage will consist of the submission of an Expression of Interest to submit a Detailed Proposal.

The Expressions of Interest stage review will include a Category A (pass/fail) scoring system and a percentage weighting for categories B and C as identified in Table 2 on the following page.

Table 2. Expression of Interest Evaluation Criteria

EOI Review Stage	Information Required	Pass/Fail
<p>A. Financial Information - Good Standing</p>	<p>Provide details of ownership and management of the company or new consortium/entity.</p> <p>Provide a copy of the shareholders' agreement or draft agreement in principle for any new consortium/entity being considered.</p> <p>Provide audited financial statements for the most recent five years of existing company's operations including notes to the financial statements and most recent interim statements.</p> <p>Including for each of the five years, as well as the average of the five-year period: debt to equity ratio, debt ratio, current ratio, return on assets, and asset turnover ratio.</p> <p>If a company has not been in operation for five years, a minimum of the two previous years of audited financial statements and associated annual and average financial statements must be provided.</p> <p>If a consortium/entity is newly formed with fewer than two years of completed operations, audited financial statements are required for the most recent two years of any companies owned by any shareholder that holds a 25 per cent or greater stake in the new entity or consortium.</p> <p>Provide details about any health and safety violations, or other convictions, and notices in any court or tribunal in any jurisdiction against you or any of your partners. The respondent must note if there are any outstanding charges or investigations of a health, safety, criminal, or other nature (e.g., regulatory) in any jurisdiction. Please outline corporate occupational health and safety policies and how above noted issues are addressed.</p> <p>Provide details about any outstanding legal matters pertaining to the company, including any ongoing financial-related proceedings, convictions, and notices in any court or tribunal in any jurisdictions against you or any of your partners, and note if there are any outstanding charges or investigations related to financial matters (e.g., banking, fraud, financing, stock market regulation). Please also outline ways these issues have been addressed.</p> <p>Indicate if there has been a human rights, equity, or other similar violation against you or your partners, and whether they have been addressed to the satisfaction of the citing jurisdiction.</p>	

EOI Review Stage	Information Required	Percentage of Total
B. Project team/ Capabilities/ Ability to finance the project	Provide details of proposed project team, including key roles and personnel, and identify any specific involvement with other projects of similar nature.	20%
	Provide details on capabilities in mining, processing, and other industrial activities.	10%
	Provide details of any proposed project partners and their role in the project (i.e., exploration, feasibility studies, financing, mine development, material handling, marketing and offtake).	20%
	Identify any current operations involving the exploration, mining, processing, transportation, and/or consumption of iron ore.	10%
	Provide details on ability to raise funds to finance the project (i.e., exploration, feasibility studies, mine development).	20%
C. Development plans	Provide plans for examining the EML, plans for continued future involvement in the project, and an overview/outline of what a future Detailed Proposal would include.	20%
Total		100%

Detailed Proposals will be solicited from those who have provided Expressions of Interest, have passed Category A and met a minimum score of 70 per cent in Categories B and C above, and have a demonstrated ability to bring the Julianne Lake project to, at a minimum, a completed feasibility study stage. Ability to develop the deposit into a mine and a respondent's continued involvement in the project will also be major factors in the government's consideration of Expressions of Interest.

The Government of Newfoundland and Labrador is committed to ensuring that the people of the province benefit from the development of its natural resources.

Detailed Proposals will be evaluated based on criteria of providing the best likelihood of the project being carried through to mine development and maximizing benefits to Newfoundland and Labrador as set out in Table 3.

Table 3. Detailed Proposal Evaluation Criteria

Category	Percentage of Total
Financial capacity	20%
Experience	10%
Exploration program including feasibility studies and expenditure commitments	20%
Mine development and marketing strategy, and commitments to timelines and decision gate milestones	30%
Supplementary contributions to the provincial economy including value-added processing	10%
Contribution to provincial revenues including incremental remuneration in recognition of the value of the iron ore resource that has been identified	10%
Total	100%

Information pertaining to this Call for Expressions of Interest will be subject to provincial laws of general application respecting information management, including the *Access to Information and Protection of Privacy Act, 2015*. Should a respondent have questions regarding access, privacy and confidentiality, please contact IET's Access and Privacy team at atipp-iet@gov.nl.ca.

The deadline for Expressions of Interest is December 6, 2024 4:30p.m. NST and invitations to submit Detailed Proposals combined with terms of reference will be issued by February 14, 2025.

Government is not obliged to proceed to a request for proposals or to award any manner of rights or access to this EML. Government further reserves the right to withdraw or modify this Call for Expressions of Interest at any time at its own discretion prior to or after the deadline, and to invite Detailed Proposals from entities in addition to those who submitted Expressions of Interest.

Queries on any matters related to this Call for Expressions of Interest can be directed to EMLproposals@gov.nl.ca

Expressions of Interest should be submitted in electronic form (pdf format preferred) to EMLproposals@gov.nl.ca with paper copies to:

**Assistant Deputy Minister
Mining and Mineral Development
Department of Industry, Energy and Technology
P.O. Box 8700
St. John's, Newfoundland and Labrador
Canada A1B 4J6**

REFERENCES

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- Pendon, R., 2011: [Petrographic and MLA Characterization of Thin Sections of Iron Ore Samples – Julienne Project](#). Actlabs. Newfoundland and Labrador Geological Survey, Internal Collection, Company or Consultant Report, 19 pages [GeoFile Number: 023G/02/0288].
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- Conliffe, J., 2019: [Iron-ore Deposits of Southwestern Labrador](#). Government of Newfoundland and Labrador, Department of Natural Resources, Geological Survey, St. John's, Occasional Paper 2019-01, 210 pages [GeoFile Number: LAB/1755].

APPENDICES

Appendix A – Iron Ore Sector Overview



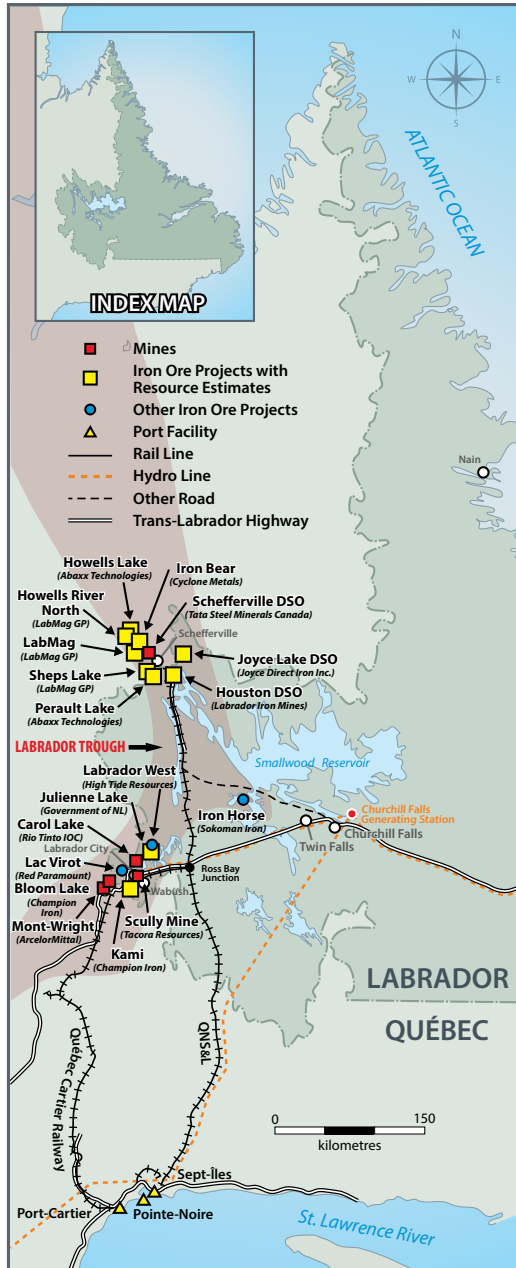
**EXPLORE
DISCOVER
DEVELOP**

IRON

The Labrador Trough of western Labrador and adjoining Québec is host to world-class deposits of Proterozoic iron ore that have been mined for more than half a century. This 1,100-km-long belt contains several major open pit deposits which together have produced in excess of 2 billion tonnes of iron ore. Existing reserves and resources suggest the region could see production for many decades to come.

The Labrador Trough's high-quality iron ore consistently commands premium prices. Its high iron concentration and low levels of impurities allow steel production with reduced carbon emissions and lower costs.

Newfoundland
&
Labrador



The towns of Labrador City and Wabush, situated within the Labrador Trough, represent a strategically located provincial gateway supported by a year-round air, road and rail transportation network. The area has a stable, highly skilled and productive workforce with a strong mining tradition.

IRON IN LABRADOR

The adjacent geological map shows the large number of iron showings, prospects and deposits that occur within the region. The largest of the deposits are summarized in the table, overleaf. The opportunities and potential for future mineral development in this region of the Labrador Trough are very significant.

The producing and past-producing deposits are primarily oxide-facies Superior-type iron formation, formed as a chemical sediment in a shallow-marine environment. In the Labrador City mining camp, Proterozoic iron formation was refolded and metamorphosed during the Grenvillian orogeny. The resultant metamorphic grades, higher than seen elsewhere in the Labrador Trough to the north, allow for easier beneficiation due to coarser grain size. The development of major deposits, such as Iron Ore Company of Canada's Carol project, is the result, in part, of hinge-thickening in syncline cores and repetition by folds.

Detailed descriptions of the ores, their origin and their setting are given in Gross, 1972 (GSC Economic Geology Report 22) and reviewed in Neal, 2000 (Exploration and Mining Geology, volume 9) and Conliffe et al., 2012 (Geological Survey, Mineral Commodity Series #7). Another useful summary is that prepared by Hatch and Associates (1980) for the Government of Newfoundland and Labrador.

In general, three types of iron ores are known: high-grade ores (hematite, goethite, limonite) locally with supergene enrichment (Schefferville); weakly metamorphosed magnetite iron formation or taconite (LabMag, KeMag), and metamorphosed coarse-grained (specularite-magnetite) iron formation (Carol Lake-Wabush).

In the southern part of the Labrador Trough, two major iron ore mines lie in close proximity to the Labrador-Québec border: Iron Ore Company of Canada (IOC) and ArcelorMittal Mining Canada. The Scully and Bloom Lake mines are also in operation in this region. The IOC deposits alone have produced in excess of 1.3 billion tonnes of iron ore.

Farther north in the Menihek area, Tata Steel Minerals Canada has several deposits of direct shipping ores (DSO), some of which were explored and previously mined by IOC. Joyce Direct Iron is developing the Joyce Lake DSO project here as well, and Labrador Iron Mines has the Houston project.

Also near Menihek, two very large deposits of magnetite iron ore (taconite) have been outlined: LabMag in Labrador and KeMag in Québec. Other deposits are shown on the map.

In the Labrador City-Wabush area, Champion Iron is developing the Kamistiasusset (Kami) project, while the Government of Newfoundland and Labrador currently controls the rights to the Julieanne Lake iron ore deposit.



LEGEND

EARLY MESOPROTEROZOIC

- M₁ga** Olivine gabbro and metamorphic equivalents, including coronitic varieties
- M₁aq** Arkose, quartzite and minor conglomerate

LATE PALEOPROTEROZOIC

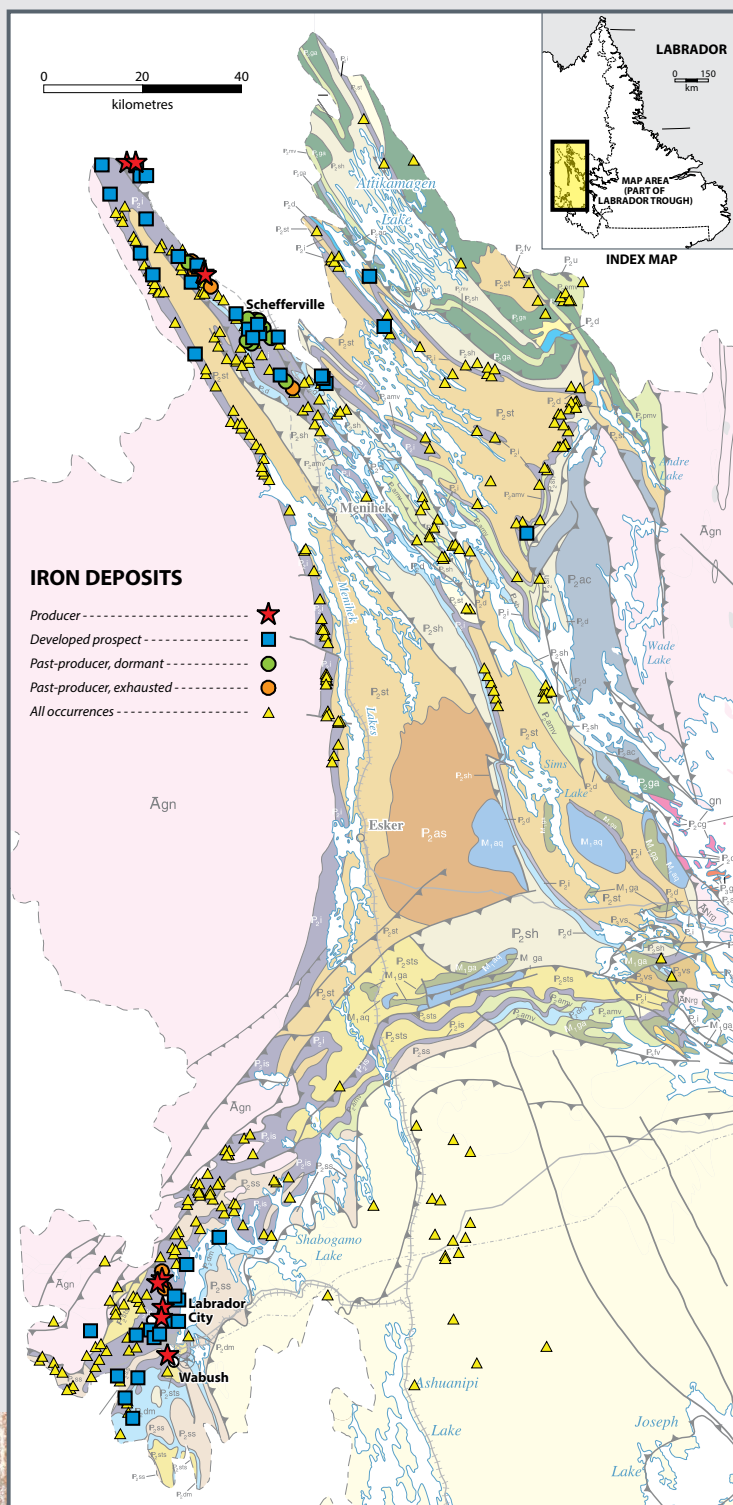
- P₃lv** Rhyolitic to andesitic volcanic rocks including ash-flow tuff and agglomerate
- P₃gr** Granite, quartz monzonite, granodiorite, syenite and minor quartz diorite
- P₃vs** Volcaniclastic sandstone, arkose and conglomerate
- P₃ga** Mafic intrusive suites (gabbro, lesser diorite), some metamorphosed at amphibolite to granulite facies
- P₃sgn** Pelitic, migmatitic metasedimentary gneiss and minor psammitic gneiss at amphibolite to granulite facies

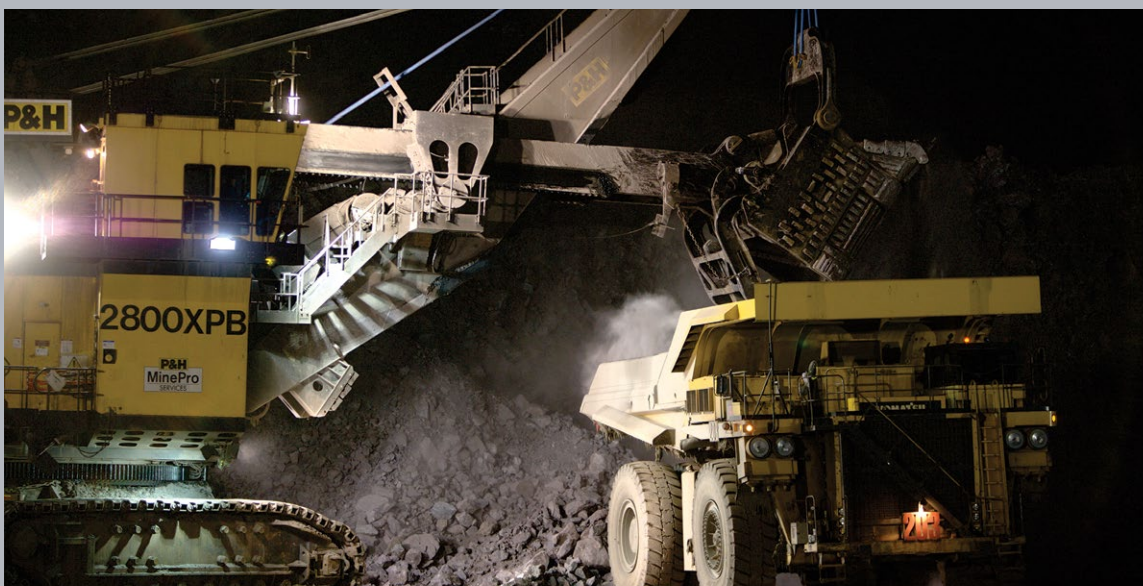
MIDDLE PALEOPROTEROZOIC

- P₂lv** Rhyolite, ash-flow tuff, breccia and hypabyssal rhyolite intrusions; volcaniclastic siltstone and sandstone; minor basalt
- P₂cg** Orthopyroxene-bearing tonalite to granite plutons
- P₂pmv** Pillow basalt, basaltic pyroclastic rocks; minor siltstone and greywacke
- P₂amv** Alkaline basalt flows, pyroclastic rocks and local peralkaline felsic volcanic rocks; minor ultramafic rocks
- P₂u** Ultramafic sills
- P₂ga** Gabbro and leucogabbro sills
- P₂as** Arkosic siltstone and sandstone, locally dolomitic
- P₂st** - Siltstone - shale - greywacke sequences of deep water, turbiditic origin
- P₂sts** - Schistose equivalent rocks
- P₂i / is** P₂i - Cherty ironstone and underlying quartzite
P₂is - Schistose to gneissic equivalent rocks
- P₂d/dm** P₂d - Dolomite and chert breccia
P₂dm - Equivalent dolomitic marble
- P₂mv** Massive to pillowed basalt flows
- P₂sh** - Shale and sandstone of shallow- to deep-water origin
- P₂ss** - Equivalent pelitic schist
- P₂ac** Arkose and conglomerate

ARCHEAN

- Agn** Tonalitic orthogneiss and lesser metasedimentary gneiss





Owner/Optionee/Contact	Project	Resource
CURRENT PRODUCERS		
Labrador		
Rio Tinto IOC	Carol Lake	Reserves: 1,144 Mt @ 38.3% Fe Resources: 786 Mt measured and indicated @ 39% Fe
Tata Steel Minerals Canada Ltd.	Schefferville DSO	85.1 Mt measured and indicated @ 59.2% Fe
Tacora Resources Inc.	Scully Mine	Reserves: 478.9 Mt @ 34.89% Fe and 2.62% Mn Resources: 723.6 Mt measured and indicated @ 34.7 % Fe
Québec		
ArcelorMittal Mining Canada G.P.	Mont-Wright	Total resource >1,000 Mt @ 30% Fe
Champion Iron Limited	Bloom Lake	807 Mt @ 29% Fe (reserve) and 879 Mt (resource) @ 29.5% Fe
ADVANCED PROJECTS WITH RESOURCE ESTIMATES		
Champion Iron Limited	Kamistatusset (Kami)	(Rose Central) 457.5 Mt measured and indicated @ 29.0% Fe (Rose North) 420.2 Mt measured and indicated @ 30.1% Fe (Mills Lake) 97.8 Mt measured and indicated @ 30.4% Fe
Joyce Direct Iron Inc.	Joyce Lake DSO	17.4 Mt proven and probable @ 59.94% Fe; 24 Mt measured and indicated @ 58.63% Fe
Cyclone Metals Ltd.	Iron Bear	2,150 Mt indicated @ 28.68% Fe; 14,510 Mt inferred @ 29.44% Fe
LabMag GP Inc.	LabMag	3,932 Mt proven and probable @ 29.7% Fe; 1,063 Mt measured and indicated @ 29.6% Fe
	Howells River North	1,129 Mt indicated @ 30.87% Fe; 2,576 Mt inferred @ 29.77% Fe
	Sheps Lake	2,039 Mt indicated @ 32.54% Fe; 310 Mt inferred @ 32.16% Fe
Abaxx Technologies Inc.	Howells Lake	6,502 Mt indicated @ 30.31% Fe; 734 Mt inferred @ 30.07% Fe
	Perault Lake	2,031 Mt indicated @ 28.77% Fe; 695 Mt inferred @ 28.73% Fe
Labrador Iron Mines Holdings Ltd.	Houston DSO	17.9 Mt measured and indicated @ 62.7% Fe; 9.7 Mt inferred @ 55.5% Fe
Government of Newfoundland and Labrador (Exempt Mineral Land)	Julienne Lake	867 Mt measured and indicated @ 33.7% Fe; 299 Mt inferred @ 34.1% Fe
Red Paramount Iron Ltd.	Lac Virot	527.1 Mt inferred @ 23.23% Fe
High Tide Resources Corp.	Labrador West	654.9 Mt inferred @ 28.84% Fe

June 2024

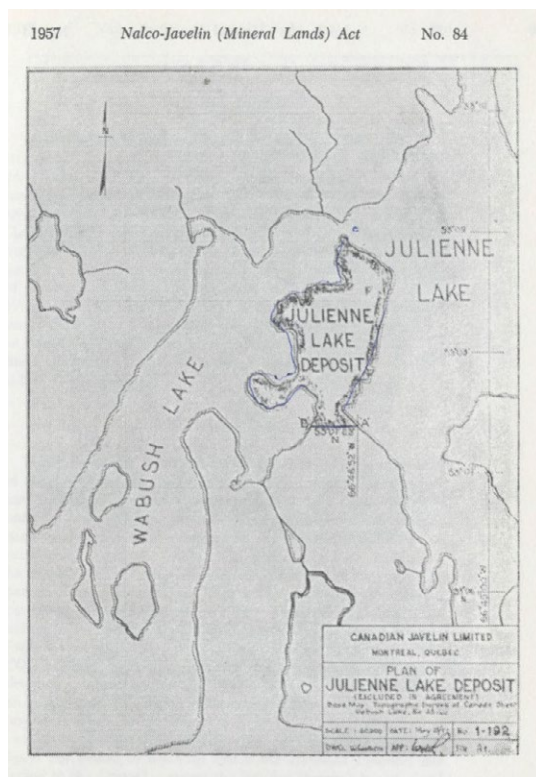
Appendix B – Description of Julianne Lake EML

Schedule A to the [Mineral Regulations under the Mineral Act](#):

All that piece or parcel of land, subtitled Julianne 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 Julianne Lake, said point being on the West shore line of Julianne 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 Julianne Lake); thence

running true West along Parallel fifty-three degrees seven minutes twenty-three seconds ($53^{\circ} 7' 23''$) North Latitude to Point B (Point B being a point on the East shore line of Wabush 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 Julianne Lake); thence following the sinuosities of the West shore line of Julianne Lake in a Southerly direction to Point A, the point 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 C – Figures

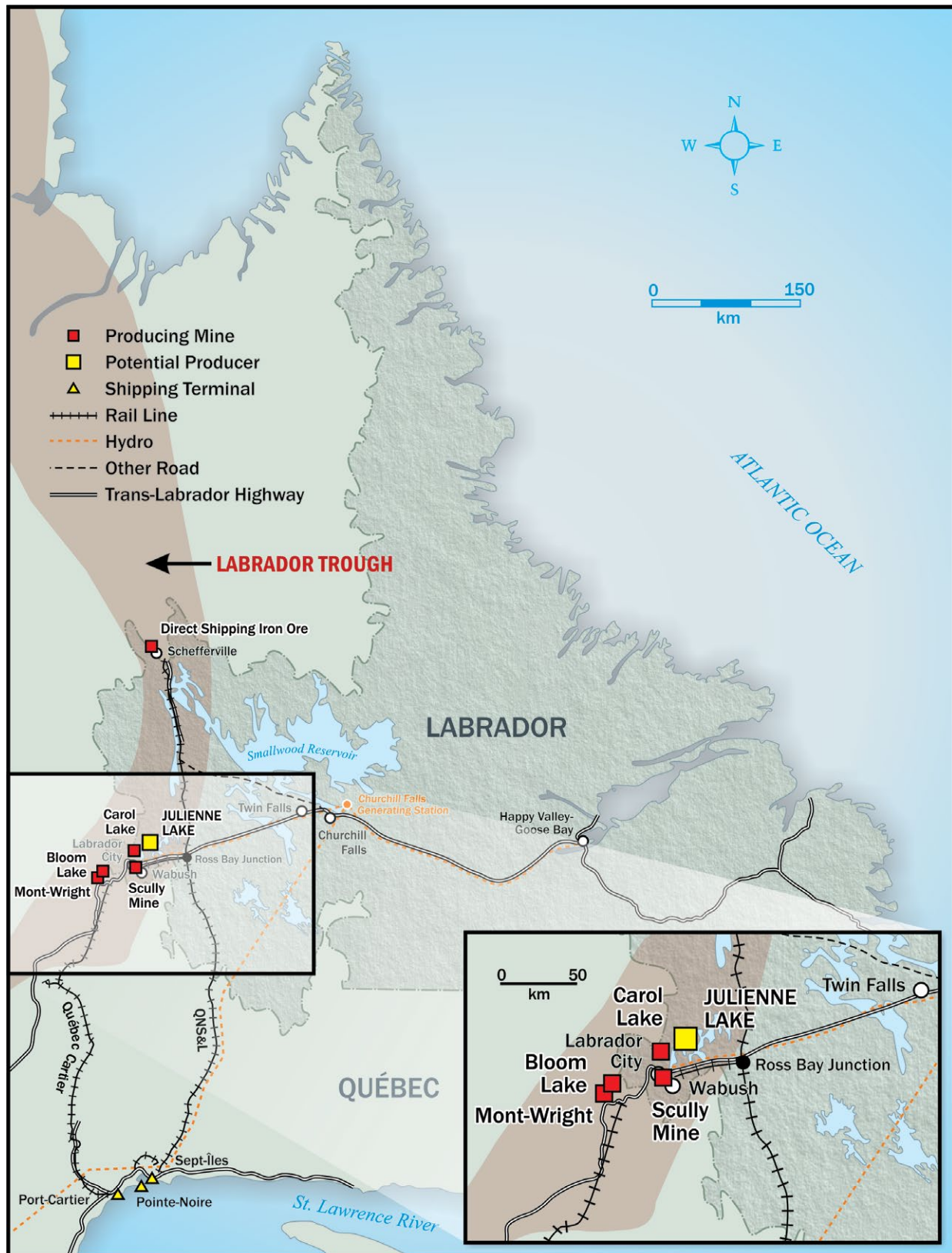


Figure 1. Location of Julienne Lake deposit, western Labrador

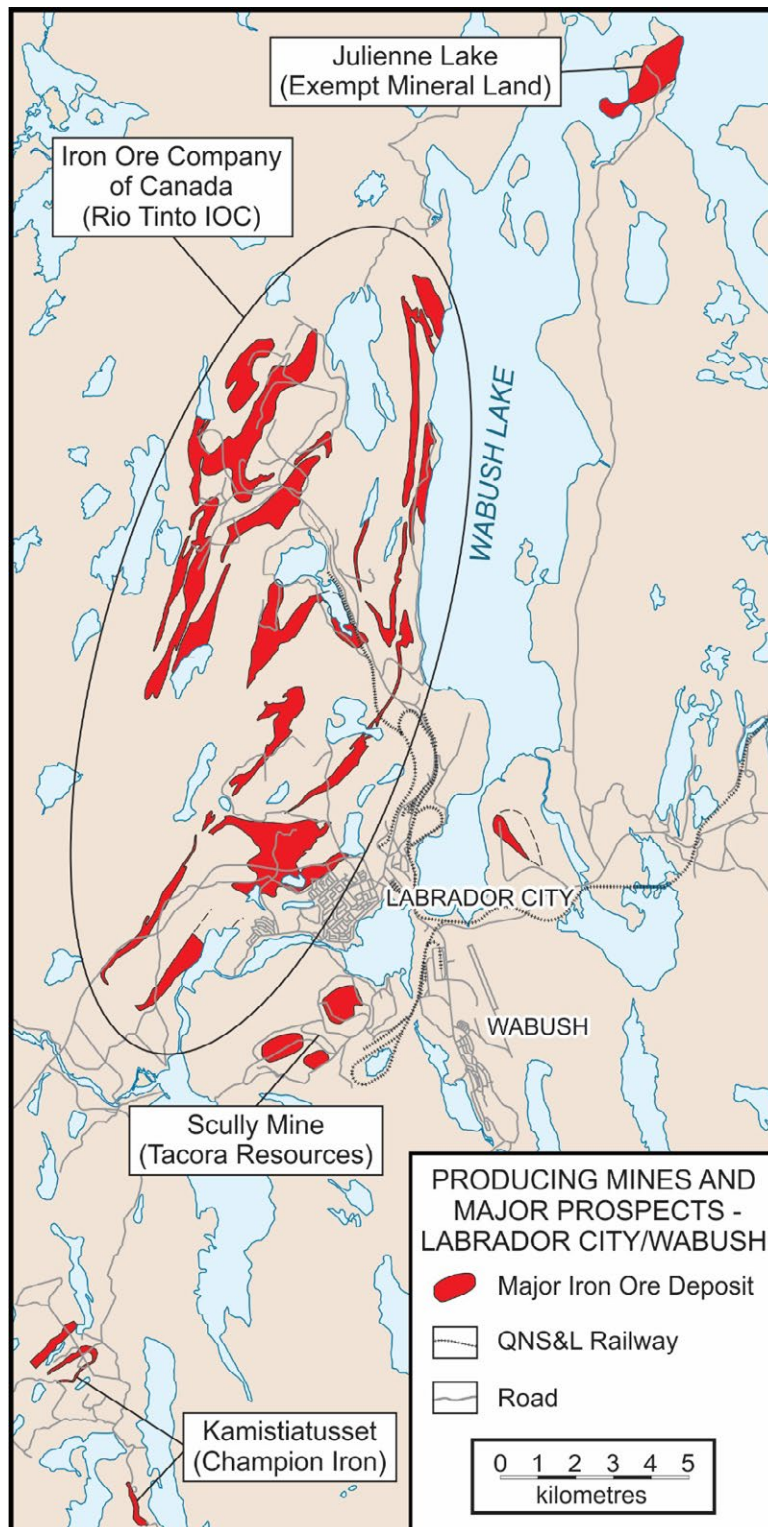


Figure 2. Producing Mines and Major Prospects - Labrador City/Wabush



Figure 3. Aerial image of the Julienne Lake deposit looking south

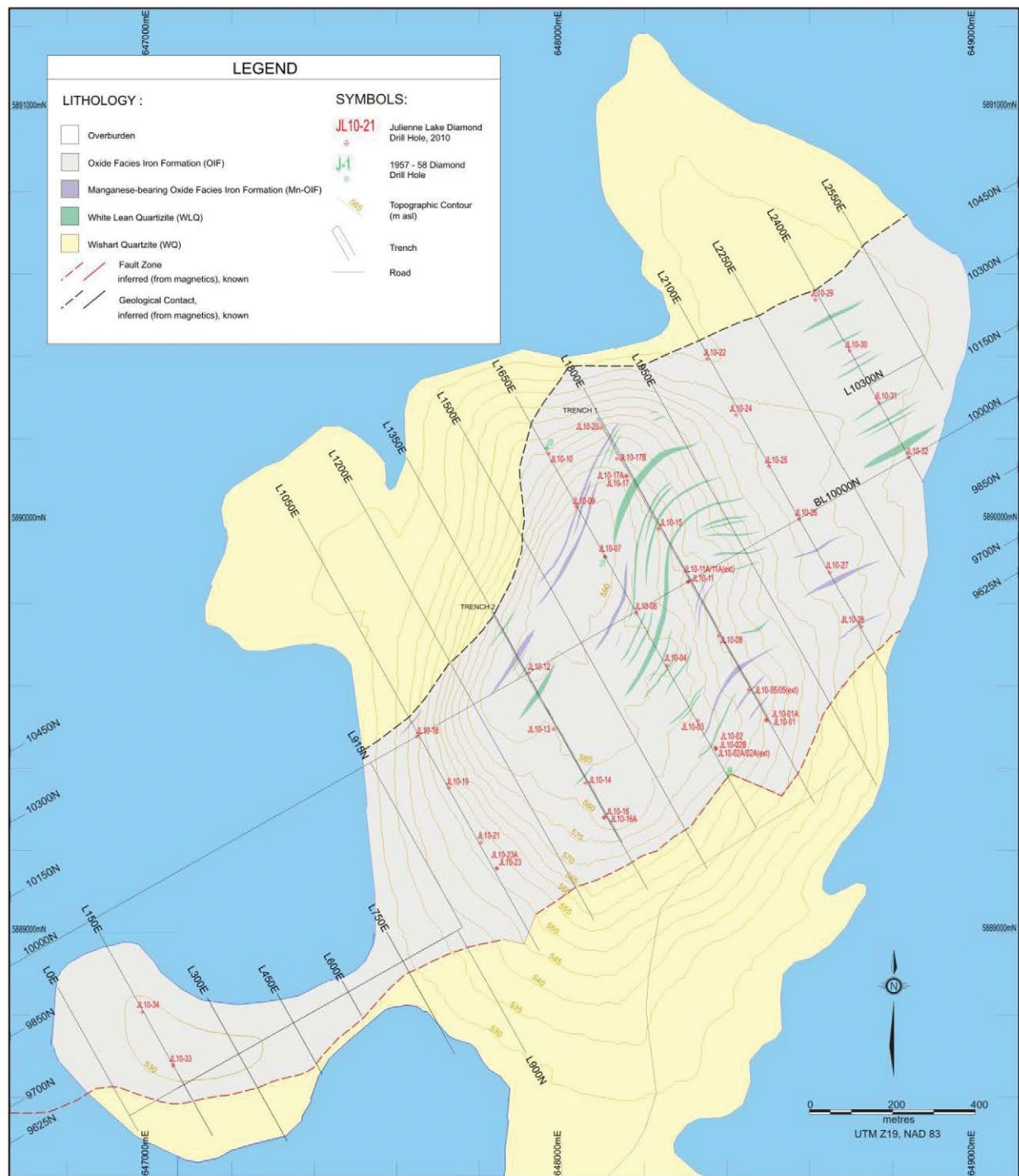


Figure 4. Surface Plan Map showing main iron formation contacts (MPH 2012)

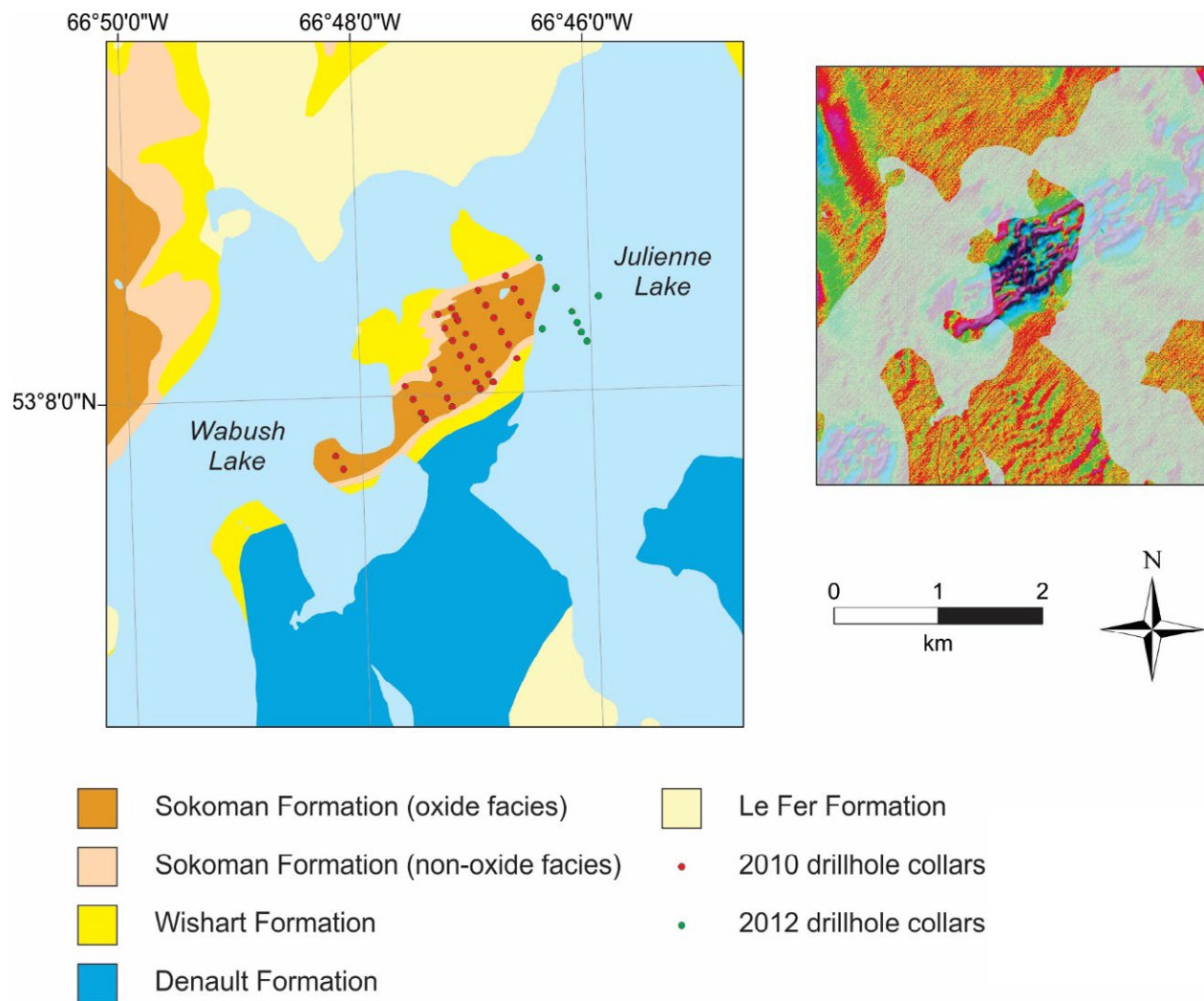


Figure 5: Geological map of the Julianne Lake deposit (adapted from Cotnoir et al., 2002), showing location of drillholes from 2010 Government of Newfoundland Labrador exploration program (from Coates et al., 2012). Also included are drill collars in the Julianne Lake Extension Deposit (Seymour et al., 2012). Small map of airborne magnetics (second vertical derivative) of Julianne Lake Peninsula, showing extent of iron formation and extension of the deposit into Julianne Lake (data from Cotnoir et al., 2002).



A



B



C

Figure 6: (A) Historical Trench T62-01, with large boulder of folded oxide-facies iron formation. (B) Massive, friable oxide-facies iron formation. (C) Banded oxide-facies iron formation, with quartz rich and hematite rich layers (drillhole JL10-16 @ 53.6 m).

Appendix D – Document Quick Links

[Julienne Lake EML](#)

[Spectroscopy Drillcores Database](#)

[Aboriginal Consultation Policy](#)

[Labrador West](#)

[Quebec North Shore and Labrador Railway](#)

[Newfoundland and Labrador Hydro](#)

[Port of Sept-Îles](#)

[Pointe-Noire Railway and Port](#)

[Newfoundland and Labrador Critical Minerals Plan](#)

[Government of Canada Releases Updated Critical Minerals List](#)

[Canada's Critical Minerals List](#)

[Environmental Protection Act](#)

[Impact Assessment Act](#)

[Mineral Act](#)

[Mining Act](#)

[Mineral Regulations under the Mineral Act](#)



2024

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