



**CHAMPION MINERALS INC.**

**FIRE LAKE NORTH RAILWAY**

REGISTRATION PURSUANT TO PART 3 of the  
NEWFOUNDLAND AND LABRADOR REGULATION  
54/03

March 2012

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Appendix A     Fire Lake North Railway location

## **Name of Undertaking:**

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**Fire Lake North Railway**

## **Proponent**

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i) **Name of Corporate Body:**

Champion Minerals Inc. (Champion)

ii) **Address :**

20 Adelaide Street East, Suite 301

Toronto, ON

Canada, M5C 2T6

iii) **Chief Executive Officer**

Name: Thomas Larsen

Official Title: Chairman of the Board, President and CEO

Address: 20 Adelaide Street East, Suite 301

Toronto, ON

Canada, M5C 2T6

Telephone No. : (416) 866-2200

iv) **Principal contact person for purposes of environmental assessment:**

Name: Jean-Luc Chouinard

Official Title: Project Director

Address: 630 René-Lévesque West,

18th Floor – 1860

Montréal, Qc,

H3B 1S6

Telephone No.: (514) 316-4858

## The Undertaking

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### i) Nature of the Undertaking:

Champion intend to mine and process iron ore mineral from the Fire Lake North (FLN) iron ore project located approximately 40 km southwest from the city of Fermont in north-eastern Quebec. As part of this project, a new 62 km long single-track railway line will connect to existing railways in Labrador for the transportation of hematite concentrate from the Fire Lake North project to the anticipated multi-user iron ore ship loading facility to be located at Pointe-Noire in the Sept-Îles area (Quebec).

The FLN rail line and load out facilities will be located nearly all within the Province of Quebec. Only a four (4) km rail line portion and a three (3) km long siding rail will be located within the Province of Newfoundland and Labrador. Location of the FLN railway within the Province of Newfoundland and Labrador is presented in Appendix.

This new rail line will connect to the Bloom Lake Railway (BLR) in Labrador West, after which the route will continue on public tracks (Northern Lands Co. Railway, Quebec North Shore & Labrador Railway Co. and Chemin de Fer Arnaud) from BLR to Sept-Îles (Quebec).

The alignment of the new main track connecting FLN to the public carrier tracks was designed using the drawings from the National Topographic Data Base at 1:50,000 scale. The choice of rail alignment is based upon natural elements, such as land profiles and watercourses, as well as in field experience and expertise of Rail Cantech's professionals. The decision was also based upon less physical elements such as land ownership and the proximity of railways or roads. Operational constraint such as maximum allowable grade needs to be considered. Topographic highs which are numerous in the area on the divide line between Labrador and Québec have been avoided.

The optimized routing and the original corridor of the railway are shown in Appendix. The railway is located south-west of the road which is located south-west of Huguette Lake. This road is used for operation of various quarries/sand pits. Some cabins located on Huguette Lake shore are used by quarries/pits employees. Furthermore, if cross-country/snowmobile trails are identified, underpass culverts will be installed at crossings to ensure safety.

### i) Purpose/Rationale/Need for the Undertaking:

The rail connection is necessary to deliver iron ore concentrate to the port of Sept-Îles for trans-shipment by ship to domestic and overseas customers.

## Description of the Undertaking

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### i) Geographical Location:

The part of the Fire Lake North Railway located in Western Labrador is centered at Latitude 52°52'30"N and Longitude 67°8'8"W (UTM NAD83, Zone 19, 625 475 E and 5 859 995 N) on the National Topographic System map sheet 23B/14. The municipalities of Fermont and Labrador City are located approximately 8 km and 16 km to the site (Map in Appendix).

The optimized routing and the original corridor of the railway are shown in Appendix. The railway is located south-west of the road which is located south-west of Huguette Lake. This road is used for operation of various quarries/sand pits. Some cabins located on Huguette Lake shore are used by quarries/pits employees. The road connects to Highway 500 near ( $\pm$  400 m) the Quebec/Labrador border.

### i) Physical Features :

The proposed site is a very prominent shrub area, scattered black spruce trees with some marshy areas and covered with caribou moss. Most of the summits of the surrounding ridges are barren due to short warm summers and cold winters which last from October to April. The topographic surface elevation of FLR in Labrador is approximately 650 m.

Small clear span bridges or open bottom culverts will be built across small watercourses, including a stream draining into Huguette Lake. An environmental baseline study will be carried in summer 2012 along all the railway corridor.

### i) Construction

Construction activities could involve the following main items of work:

- Surveying and land clearing along the right of way
- Blasting, excavation and filling
- Construction of small clear span bridges and/or installation of culverts
- Ballasting, track laying and rail installation
- Installation of signal lights and communication systems

The existing road will be used as a temporary access road during the construction period only. The rail bed itself will be used for primary access during construction.

Potential sources of pollutants during the construction period will include: noise, dust generated during blasting and by vehicular traffic, heavy equipment exhaust gases and potentially small spillages of fuel and lubricants from fuel storage facilities and construction equipment. Construction activities will follow all applicable rules and regulations. Contingency plans will be employed should small spillages occur to minimize any effect on the environment.

Mitigation measures will also be employed on a full-time basis to reduce potential disturbance of water bodies and wetlands. In particular, an environmental management specialist will be present on site at all times to be a key liaison between Champion Minerals, contractors and the government on all environmental issues that may arise. This person will have a primary responsibility to monitor mitigation measures and to ensure these measures are appropriate and efficient.

i) Railway Operations

The railway, owned and operated by Champion will be in operation year-round. The expected life of the mine is in excess of forty (40) years.

The mine production rate for the first 25 years at 23 Million tons per year (Mtpa) of Run of Mine (ROM) producing an average of 8.7 Mtpa of hematite concentrate. As production is expanded the train frequency may increase proportionally. To transport the annual volume of iron ore from FLN to Sept-Îles, between one (1) and 1.5 trains per day will be required. In other words, each day, either one or two trains would be sent out.

Potential sources of pollutants during the operation period include: noise, diesel engine exhaust gases and potential spillage or leakage of fuels and lubricants. Champion will have a detailed contingency plan to address emergency events related to weather (p.e.: track damaged due to flooding and erosion) or operations (p.e.: train derailment or fuel spillage). Measures outlined in the contingency plan will be at industry standards and will be employed with safety first followed by minimizing impact on environment as a key focus.

i) Occupations for the construction phase

Staff will comprise:

- Superintendent
- Engineers
- Surveyors, Rod and Chainman
- Equipment Operator
- Railway Labourer
- Technicians
- Heavy Equipment Operator
- Electricians
- Welders
- Blaster
- Truck Drivers

i) Project-Related Documents

These documents have been produced for the Proponent:

- Update of the Preliminary Economic Assessment - Fire Lake North Project - Fermont Area, Quebec, Canada, NI 43-101 Technical Report. January 04, 2012
- Technical Report and Updated Resource estimate on Fire Lake North Property Fermont Project - Quebec, Canada, NI 43-101 & 43-101F1. November 17, 2011

## Approval of the Undertaking

Following is a list of the principal permits, licenses and approvals which could be required for the project:

<u>Permit/Licence/Approval</u>	<u>Issuing body</u>
Environmental Registration	Department of Environment & Conservation Environmental Assessment Division
Certificate of Environmental Approval	Department of Environment & Conservation Environment Management Division
Authorization for Works or Undertakings Affecting Fish Habitat	Fisheries and Oceans Canada
Permit to Occupy Crown Land	Department of Environment & Conservation Crown Lands Division
Water Course Alterations Certificate	Department of Environment & Conservation Water Resources Division
Permit to Cut Timber	Department of Forest Resources & Agrifoods
Blasters Certification	Department of Government Services Occupational Health & Safety Division
Quarry Development Permit	Department of Mines & Energy Mineral Lands Division
Flag Persons Certification	Department of Government Services Occupational Health & Safety Division
Bridges – Certificate of Approval	Department of Environment & Conservation Water Resources Division
Culvert Installation	Department of Environment & Conservation Water Resources Division
Magazine Licence	Mines & Energy Canada
Waste Disposal Approval	Department of Government Services
Fuel Storage & Handling (GAP Regulations)	Department of Government Services
Fuel Storage & Handling	Department of Government Services

## **Appendix A**

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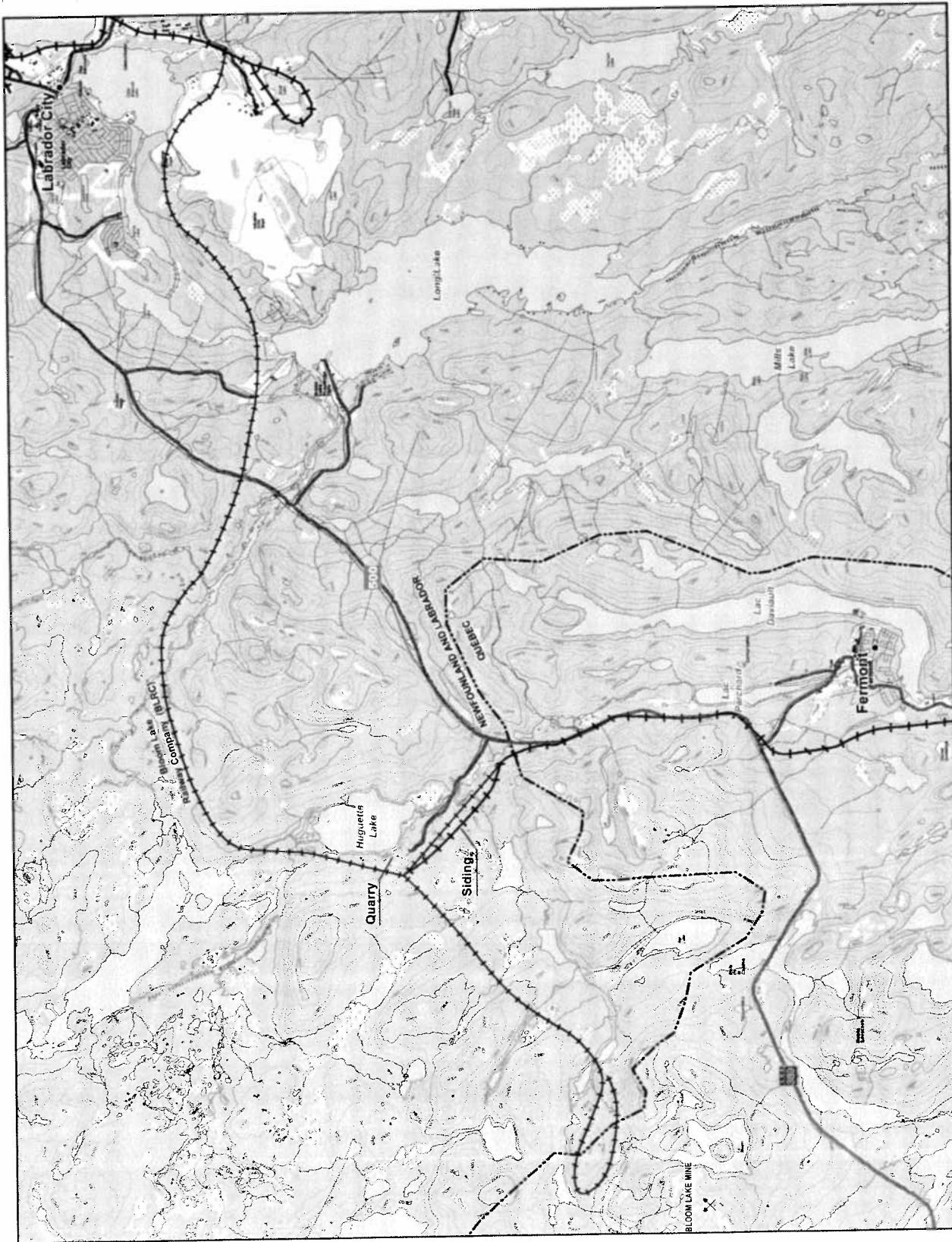
### **Fire Lake North Railway location**

— Road  
+ Existing Railway  
+ Fire Lake North Railway

0 1.0 2.0 km  
Scale 1:75 000

Base Map: Génie, 1:50 000 23814 and 23815 (2004) and 2010  
Railway Network: BGR, 1:50 000  
FW: Génie, 1:50 000 (2004) and 2010 WGR  
Registration

Map 1  
Fire Lake North Railway  
ROCHE March 2012



## Schedule

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The FLR construction is scheduled to begin at the end third quarter of 2013 or immediately following receipt of Ministerial approval. Construction is expected to be completed by mid 2015. The railway will be operated for at least 40 years.

## Funding

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The total cost of construction will be approximately CAN\$ 275 million (including section on Quebec side). Sources of funding are covered by private debt and public equity placements.

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Date Submitted

Tom G. Larsen

Name: Thomas Larsen  
Title: Chairman of the Board, President  
and CEO