



Labrador Iron Mines Holdings Limited

PRESS RELEASE

LIM reports first quarter 2010 financial results and update at its Schefferville iron ore projects

For Immediate Release

Toronto, Ontario. August 16, 2010. **Labrador Iron Mines Holdings Limited** (TSX: LIM) is pleased to report first quarter financial results for the period ended June 30, 2010 and provide an update on developments at its wholly-owned Schefferville iron ore projects located in the western central part of the Labrador Trough.

This press release should be read in conjunction with the Company's unaudited Financial Statements and related Management's Discussion and Analysis for the quarter ended June 30, 2010, available on the Company's website and on SEDAR.

The Company reported a loss for the quarter of \$0.6 million (\$0.01 per share), compared to a loss of \$0.3 million (\$0.01 per share), for the same period in the prior year. During the quarter the Company invested over \$6.8 million in property, plant and equipment compared to \$0.1 million during the same period last year, the increase attributed to the significant investment in processing equipment and rail spur line construction materials in preparation for the commencement of construction.

With over \$41 million in cash and cash equivalents and no debt as at June 30, 2010, the Company is in sound financial condition and believes that it has sufficient funding to complete the commissioning of the first phase of its iron ore mining projects and to commence shipments of iron ore to begin generating operating cash flows.

Progress on the Schefferville Projects

Environmental and Permitting

During the quarter ended June 30, 2010, and subsequently to date, the Company has made significant progress in advancing its permitting activities with the Government of Newfoundland and Labrador.

In June 2010, LIM received numerous permits and authorizations from the Government of Newfoundland and Labrador, including the Mining Leases for the first stage James and Redmond deposits and Surface Use Leases over the Silver Yards beneficiation area, the accommodation camp, Redmond roads and pipeline. Final approvals were received from the Department of Fisheries and Oceans, the Department of Environment and Conservation's Real Time Water Monitoring Program, and programs encompassing surface water quality sampling have been authorized and completed.

In addition, the Environmental Protection Plans for Mine Construction and Operation, which was a final condition of the environmental assessment release, was approved by the Minister of Environment and Conservation and the Company's Development Plan for the Schefferville Area Iron Ore Mine (Western Labrador) was approved pursuant to Section 6.(1) of the Mining Act by the Department of Natural Resources.

Subsequent to the quarter, in July 2010, LIM received Certificates of Approval for the construction of its James and Redmond Mines and associated mining facilities. LIM has also received approval of its

Rehabilitation and Closure Plan from the Department of Natural Resources. These approvals provide for the construction of open pit mining and treatment facilities at the James North, James South, Redmond 2B and Redmond 5 deposits, and include the beneficiation facility, ore, waste rock and overburden stockpiles, settling ponds, access roads, accommodation camp and other associated works. The approvals also include authorization for the installation and operation of power generators at the James deposit, the Silver Yards beneficiation area and the accommodation camp.

The Company has not yet received the permits for the operation of the rail spur and operation of the mine as of the date hereof. The Government of Newfoundland and Labrador has engaged in consultation with potentially affected First Nations with regard to the Company's various permits and this consultation process is continuing. The receipt of permits has taken longer than anticipated, which has resulted in a delay in the Company's originally planned construction and production timeline. However, the Company expects the remaining permits and approvals to be issued in the near future.

Project Construction

All major items of the beneficiation plant and other infrastructure have now been procured and have been assembled at rail heads in Labrador City and Sept-Iles awaiting transport to site. Some preassembly work has taken place at Labrador City to reduce the construction time.

A contract was signed in June 2010 for the installation of camp accommodation facilities. The new accommodation camp, which has been built offsite, will be brought to site and assembled.

A contract has been signed with a Labrador City based contractor for the mining and beneficiation activities. Once the mine operating permit has been issued, the mining contractor will be mobilized to site to commence mining activities, including stockpiling of iron ore ahead of the crusher pad. Water use approvals for the process water system have been approved by the Department of Environment and Conservation.

Rail and Port - Transportation Infrastructure

LIM received the Construction Permit for laying the new rail spur track at the beginning of May 2010 and construction of the rail spur was completed in early June. The new rail spur line will be used to move to site the main components of the processing plant and the accommodation camp and subsequently will be used to move iron ore from the Silver Yards to the Tshueticin Rail Transportation Inc. ("TSH") main line for onward transport to the Port of Sept-Iles.

Most recently, LIM has negotiated arrangements with TSH regarding inward transport of the beneficiation plant, accommodation camp and construction materials to Schefferville and Silver Yards and has negotiated freight rate terms for the transport of any ore produced in calendar 2010.

A new railway loading ramp was constructed at Emeril Junction on the TSH main rail line in early August 2010 and will be used to load freight and materials delivered from Labrador City.

Discussions with First Nations and Government

Negotiations are continuing with the Quebec Innu towards the completion of Impact Benefit Agreements although agreements have not yet been reached. To date and pending the issue of permits, the Company has respected the barrier set up by the Innu Strategic Alliance on June 11, 2010 restricting normal access from the town of Schefferville to mining properties in Labrador as part of their campaign to protect their rights and other political issues. The Government of Newfoundland and Labrador has engaged in consultation with potentially affected First Nations with regard to the Company's various permits and this consultation process is continuing. In addition, discussions are continuing with the Government of

Quebec and with the Federal Government. Restriction of normal access to the Company's properties has impacted the development of the Company's projects. The Company hopes that the ongoing discussions with both the Quebec Innu and with Governments will result in satisfactory agreements whereby the barrier will be removed and the Company's projects can be operated in a positive way for the benefit of all.

OUTLOOK

The Company expects the remaining permits and approvals to be issued in the near future, and, assuming normal access to the properties can be achieved, the Company plans to undertake site construction of the mine and beneficiation facilities as soon as possible and hopes to achieve plant start-up before the seasonal shut down of operations at the end of November 2010. The Company is targeting full scale commercial production in April 2011 and plans production of 2 million tonnes of iron ore during that calendar year.

Labrador Iron Mines Holdings Limited (LIM)

LIM's Schefferville iron ore projects involve the development of twenty direct shipping iron ore deposits in western Labrador and north-eastern Quebec near Schefferville, Quebec. The Company's properties are part of the historic Schefferville area iron ore district where mining of adjacent deposits was previously carried out by the Iron Ore Company of Canada from 1954 to 1982. Labrador Iron Mines contemplates mining in four stages, the first phase of Stage 1 comprising the James and Redmond deposits, which are located in close proximity to existing infrastructure.

For further information, please view the Company's website at www.labradorironmines.ca or contact:

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Cautionary Statements:

Some of the statements contained herein may be forward-looking statements which involve known and unknown risks and uncertainties. Without limitation, statements regarding potential mineralization and resources, exploration results, and future plans and objectives of the Company are forward looking statements that involve various degrees of risk. The following are important factors that could cause the Company's actual results to differ materially from those expressed or implied by such forward looking statements: changes in the world wide price of mineral commodities, general market conditions, the uncertainty of future profitability and access to additional capital, risks inherent in mineral exploration and risks associated with development, construction and mining operations, delays in obtaining or failures to obtain required governmental, environmental or other project approvals. There can be no assurance that the Company will be successful in reaching any agreement with any First Nations groups who may assert aboriginal rights or may have a claim which affects the Company's properties or may be impacted by the Schefferville Projects and the delay or failure to reach an agreement would have an adverse impact on the Company's ability to develop the Schefferville Projects. Caution should be exercised on placing undue reliance on forward looking information. For more detailed information on the risks factors, see the "Risks and Uncertainties" section in the Company's latest MD&A filed on Sedar and its website.