



LIM files Technical Report on its DSO Iron ore Projects in Labrador and Quebec

For Immediate Release

Toronto, Ontario. March 17, 2011. **Labrador Iron Mines Holdings Limited** (“LIM”) or (the “Company”) (TSX: LIM) reports the filing on SEDAR of a Technical Report addressing the ongoing exploration and development of its DSO iron ore projects on the Company’s various deposits in Western Labrador and North Eastern Quebec.

The Technical Report has been prepared as a result of additional metallurgical testwork and process design and following the completion of the construction of the Silver Yards processing plant facility and other associated infrastructure and the commencement of initial mining at the James deposit.

The Report proposes various additions to the Silver Yards plant as a result of the recent metallurgical testwork and discusses a preliminary production schedule for the current resources together with the future development of the further twelve deposits containing historic resources through to the year 2028. The Report also makes recommendations for further exploration on the various deposits and other associated work required to advance the deposits towards production.

The Technical Report notes the recent new resource estimates for the Houston and Denault deposits as a result of additional exploration drilling carried out in 2010. [See LIM Press Release dated February 11, 2011 and Houston Technical Report filed on SEDAR February 21, 2011. See also LIM Press Release dated March 4, 2011 and Denault Technical Report filed on SEDAR March 14, 2011].

LIM has now defined 37 million tonnes of current NI 43-101 compliant direct shipping hematite iron ore resources at the first four deposits that it intends to develop. In addition, a further 125 million tons of historical resources exist on LIM’s other properties that were defined by IOC during their historical operations in the area.

The current resource estimates for the James, Redmond, Houston and Denault deposits are summarized in following table.

Total NI 43-101 Compliant Resources, NL and QC

| Area | Classification | Tonnes (x1000) | Fe% | P% | Mn% | SiO ₂ % | Al ₂ O ₃ % |
|-------------------------|----------------|----------------|-------|-------|------|--------------------|----------------------------------|
| James ¹ | Indicated | 8,098,000 | 57.7 | 0.027 | 0.7 | 14.1 | 0.5 |
| James ¹ | Inferred | 111,000 | 53.6 | 0.036 | 0.1 | 19.9 | 0.5 |
| Redmond 2B ¹ | Indicated | 849,000 | 59.86 | 0.12 | 0.37 | 5.05 | 2.09 |
| Redmond 2B ¹ | Inferred | 30,000 | 57.27 | 0.133 | 0.64 | 5.87 | 4.09 |
| Redmond 5 ¹ | Indicated | 2,084,000 | 54.95 | 0.048 | 1.17 | 10.97 | 0.81 |
| Redmond 5 ¹ | Inferred | 78,000 | 52.34 | 0.068 | 1.95 | 10.84 | 0.96 |
| Houston ² | Measured | 10,439,000 | 58.93 | 0.060 | 0.91 | 11.34 | 0.78 |
| Houston ² | Indicated | 9,060,000 | 57.55 | 0.060 | 0.96 | 13.48 | 0.68 |

| | | | | | | | |
|----------------------|---------------------------------|-------------------|--------------|-------------|-------------|--------------|-------------|
| Houston ² | Inferred | 1,024,000 | 55.8 | 0.055 | 1 | 16.5 | 0.5 |
| Denault ³ | Measured | 4,456,000 | 55.1 | 0.077 | 2.4 | 7.5 | 1.1 |
| Denault ³ | Indicated | 1,928,000 | 54.2 | 0.074 | 2.3 | 9.0 | 1.0 |
| Denault ³ | Inferred | 369,000 | 53.9 | 0.069 | 2.7 | 9.4 | 0.9 |
| Total | Measured & Indicated | 36,914,000 | 57.41 | 0.06 | 1.09 | 11.71 | 0.75 |
| Total | Inferred | 1,612,000 | 55.07 | 0.06 | 0.76 | 14.64 | 0.68 |

(1) "Technical Report Resource Estimation of the James, Redmond 2B and Redmond 5 Mineral Deposits Located in Labrador, Canada for Labrador Iron Mines Limited" by Maxime Dup  r  , geo, of SGS Geostat Ltd. dated December 18, 2009; [SEDAR filed December 23, 2009].

(2) See Technical Report on the Houston Iron Ore Deposit Western Labrador, Province of Newfoundland and Labrador, Canada" by T. N. McKillen, B.A.(Mod), M.A., M.Sc., P.Geo, D. William Hooley, B.Sc(Eng.), FAusIMM and Daniel Dufort, (P.Eng.) concerning the Houston property in Labrador dated February 21, 2011; [SEDAR filed February 21, 2011].

(3) "Technical Report and Resources Estimate on the Denault Iron Ore Deposit Province of Qu  bec Canada" by T. N. McKillen, B.A.(Mod), M.A., M.Sc., P.Geo; dated March 11, 2011 [SEDAR filed March 14, 2011].

The historical resources referred to in this document are based on work completed and estimates prepared by the Iron Ore Company of Canada ("IOC") prior to 1983 and were not prepared in accordance with NI 43-101. These historical estimates are not current and do not meet NI 43-101 Definition Standards. A qualified person has not done sufficient work to classify the historical estimate as current mineral reserves. These historical results provide an indication of the potential of the properties and are relevant to ongoing exploration. The historical estimates should not be relied upon.

Preliminary Development Schedule

LIM intends to develop all these resources in five separate stages. The first four stages will see the various deposits treated in three beneficiation plants, to be built adjacent to several of the deposits that comprise the Central, South Central and North Central Zones.

Stage 1 incorporates the James and Redmond deposits at the Silver Yards plant which is now constructed and where production is expected to commence in the spring of 2011. This stage also contemplates the treatment of other nearby deposits (Central Zone) and is expected to continue until 2021.

Stage 2 contemplates a new plant at the Redmond Mine site initially treating Houston ore, commencing in 2013, and will continue until about 2022 (South Central Zone). Stage 3 is based on a third plant near Howse, (North Central Zone) which will treat ore from Barney and Howse, commencing in 2015 and will continue until about 2028. Stage 4 treating ore from the southern deposits Sawyer Lake and Astray Lake (South Zone) through the Redmond plant will continue until about 2028. Stage 5 based on ore from the Northern deposits (North Zone) will follow the first 4 stages.

Overall production of saleable iron ore product is planned to commence at around 1.5 million tonnes annually (mta) in 2011 and will build up to about 5 mta by 2015 and, based on the future development of all other deposits, stages 1 to 4 will continue at this level until about 2028 when stage 5 is expected to commence.

Only the James and Redmond Deposits and the Silver Yards plant have completed environmental assessment and permitting. Further environmental assessment and permitting will be required for all the other deposits. Detailed mine design and metallurgical testwork has been carried out on those deposits that will form the basis of production for the initial years but further exploration, testwork and design is required for all the remaining resources. A Feasibility Study has not been completed on any of these Projects.

The first plant at Silver Yards and mine construction at James are essentially complete and initial production is expected in the spring of 2011.

Plant Upgrade and Expansion

Based on the current testwork, a program of plant enhancement on the Silver Yards plant is now planned for 2011 and 2012 with the objective to increase both the plant throughput and recovery.

The current Silver Yards plant installation (Phase I) consists of a washing and screening plant to produce lump and sinter fines. The plan for the first year is to only wash and screen the higher grade blue ore material, while higher silica blue and yellow ore will be stockpiled for later treatment.

It is intended that the Silver Yards plant will be upgraded and expanded to improve recoveries, treat lower grade and higher silica ores and increase throughput and output.

Phase II will consist of the installation of a fines recovery system and pan filter. This installation will be completed during the summer of 2011 and should commence operation in September 2011.

Phase III of the Silver Yards Plant will be the installation of an additional line which will increase the plant throughput capacity and improve recoveries.

This work is currently being planned and will entail the installation of jigs to upgrade the final products and the installation of a magnetic separation stage on the slimes fraction to produce ultra-fines. Testing and design of the Phase III expansion is currently in progress and, dependent on the results of that program, the Phase III expansion should be installed for operation in mid-2012. The additional line when installed will initially be used to process the higher silica ore and the yellow ore will also be processed when the equipment in Phase 3 is fully installed.

South Central Zone

The South Central Zone comprises the Houston and Malcolm deposits. The Houston deposits located in Labrador some 20kms south-east of Silver Yard currently comprises 19.5 million tonnes of compliant resource.

It was originally planned to treat Houston ore at the Silver Yards plant but the increased Houston resource suggests that a new stand-alone plant to treat Houston and other nearby deposits should be constructed. Subject to completion of environmental assessment and permitting, this plant is now planned to be built adjacent to the site of the currently permitted Redmond mine and to commence production in 2013.

The Houston deposits remain open and an additional drill program will take place in 2011 with the aim of increasing the size of these deposits and enhancing the resource estimate.

Capital Costs Estimate

The additional capital costs for the Silver Yards plant projects are estimated to be \$3 million in 2011 for additional processing equipment to improve fines recovery and approximately \$35 million in 2012 for plant expansion and enhancement.

The initial capital cost of the Houston Mine Project for mine site preparation, overburden removal and road construction is estimated to be approximately \$5 million in 2012/2013.

The capital cost of the new Redmond Plant is estimated to be approximately \$35 million in 2012/13 based on the actual cost incurred by LIM on the construction of the Silver Yard plant but modified to incorporate the single line design now planned for the Redmond plant. An additional \$8 to \$10 million is estimated for the cost of re-laying the Redmond rail spur line. These cost estimates are subject to final permitting and detailed engineering and design.

Operating Cost Estimates

The average operating costs for the James-Redmond Silver Yards Project are estimated to be in the range of approximately CAD\$50 per tonne, with all mining and processing activities carried out by contractors, and with rail transportation and port handling costs collectively accounting for approximately half of the total operating costs. The year 2011 is considered to be a start-up year and initial unit operating costs are expected to be about 10% higher than average.

Qualified Persons

The authors of the Technical Report (T.N. McKillen, D.W. Hooley and D. Dufort) are either directors and/or officers of LIM and/or its subsidiaries. The authors are “qualified persons” within the meaning of National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators and have approved this Press Release. The authors are not independent as described in section 1.4 of NI 43-101. D.W. Hooley approves the contents of this Press Release.

About Labrador Iron Mines Holdings Limited (LIM)

LIM’s Schefferville Area project involves 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 stages, the first phase of Stage 1 comprising the James and Redmond deposits, which are located in close proximity to existing infrastructure, and for which all operating permits have been issued and plant construction and mine development is nearing completion.

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 iron ore and steel, 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 reach agreements with any potentially impacted aboriginal groups or 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 Area project. Caution should be exercised on placing undue reliance on forward looking information.