

Q2 Conference Call

(for the quarter ended September 30, 2012)

November 15, 2012



John Kearney, Chairman & CEO Rod Cooper, President & COO Richard Pinkerton, VP Finance



Forward Looking Information

Labrador Iron Mines Holdings Limited ("LIM") has prepared this presentation for information purposes only. The information contained herein was prepared by management on a best efforts basis and is believed to be accurate. It contains forward-looking statements about the Company's plans for the mining, development and exploration of its properties.

Forward-looking information may include reserve and resource estimates, estimates of future production, unit costs, costs of capital projects and timing of commencement of operations, and is based on current expectations that involve a number of business risks and uncertainties. Factors that could cause actual results to differ materially from any forward-looking statement include, but are not limited to, failure to establish estimated resources and reserves the grade and recovery of ore which is mined varying from estimates, capital and operating costs varying significantly from estimates, delays in obtaining or failures to obtain required governmental, environmental or other project approvals, delays in the development of projects, changes in exchange rates, fluctuations in commodity prices, inflation and other factors.

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LIM Q2 Operating Highlights

Demonstrated LIM's mine-to-port operational ability	✓
Sold 4 shipments totalling 648,000 dry tonnes despite challenging market conditions	✓
Recognized revenue of \$33.0 million	
Consistently achieved planned mining rate of 28,000 tpd (ore + waste) at the James Mine	/
Decisive and quick response to sharp decline in iron ore prices	✓
On track for completion of 13,500 m exploration program	1
Image: James Mine	Personal Property Control

LIM Q2 Financial Results

(\$ millions, except per share data)	Three months ended September 30, 2012	
Net income (loss)	\$ (31.7)	
per share	(0.47)	
Depreciation and Depletion	(14.4)	
Cash and cash equivalents (unrestricted)	0.9	
Accounts receivable and prepaids	34.5	
Inventory	21.4	
Total assets	359.4	

- Proceeds from four shipments in Q2 (648,000 dry tonnes): \$33.0 million
- Net loss includes \$14.4 million amortization charge
- Working capital deficit \$2.6 million
- Completed equity offering for gross proceeds of \$30 million in November.

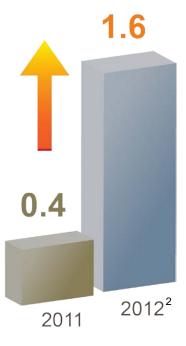
LIM's First Two Years of Production

Valuable experience and market insight



Saleable Iron Ore Production

dry tonnes millions (Mt)





Valuable marketing intelligence from sale of shipments to strategically plan/maximize product revenue in future

²⁰¹²E for the period April to November 2012

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LIM James Mine





- Excellent operating results achieved in Q2
- Mined 962,000 tonnes at 60.8% Fe,
 40%+ increase in tonnes mined from Q1
- James Mine performed at planned operating rate of 28,000 tpd (ore + waste), prior to September decision to scale back production
- Cash operating cost of \$70/tonne of product sold (unloaded at the Port), including \$7/tonne non-recurring charge
- Mining, processing and rail operations to be completed in November

2012 Sales: 10 shipments totaling 1.6 million dry tonnes of iron ore

LIM Processing

Silver Yards Processing Plants

Dry processing

Ore processed by crushing and screening



- Starting in late August, dry process utilized exclusively to produce lump and sinter products
- 1,000 tonnes per hour (20,000 tpd) design capacity;

Wet processing

Ore beneficiated by crushing, washing and screening



- Winterized in August
- Phase 3 construction largely completed
 - » Completion and commissioning deferred to spring 2013; expected to increase recoveries and plant capacity

 In Q2, 644,000 tonnes of ore processed, yielding 572,000 tonnes of lump and sinter fines, for an average mass yield of 89%.

Sharp Decline in Quarterly Iron Ore Prices

- Iron ore spot prices decreased
 33% during the quarter
- Sharp decline in August saw prices below US\$90/tonne (62% Fe CFR China basis)
- In August, LIM sold 3 shipments totaling ~490,000 tonnes in challenging market conditions
- Net prices of three ships sold in August below LIM's cost of production

Iron Ore Spot Price 62% Fe CFR China



LIM's Decisive Response to Market Conditions¹

Cost Reduction

- Focus on cost reduction and cash conservation measures
- Utilize new dry classifying system to produce lump and sinter
- 2 Production
- Scale back production: revised 2012 production target of 1.6 million dry tonnes (1.7 million wet tonnes)
- DRO production discontinued; wet processing suspended
- 3 CAPEX
- ~\$52 million deferred:
 - » Silver Yards Phase 3 plant commissioning now planned for 2013
 - » Houston development deferred (\$37M in 2013 and \$20M in 2014) subject to market conditions
- 2012 exploration budget reduced to \$5.3 million (from \$8.6 million)
- 4 Financing
- Successful completion of \$30 million financing in November

Rapid development of new strategies and execution of revised plans to reduce costs, conserve cash and optimize production

LIM Sales & Operating Costs

- Sold 4 shipments in Q2: 648,000 dry tonnes
 - » Weighted average price of US\$96 per tonne CFR China
- Sold 7 shipments in first 6 months: 1,134,000 dry tonnes
 - » Weighted average price of US\$107 per tonne CFR China
- Value-in-use adjustments on DRO and higher silica content:
 - » Discontinued sale of DRO
 - » Lower silica levels expected with full operation of wet plant
- Q2 operating costs \$70 per tonne sold (unloaded at the Port)
 - » Includes \$7 in non-recurring charges
 - » Excluding these charges: operating costs of \$63 per tonne sold
- Six months operating costs \$71 per tonne sold (unloaded at the Port)

LIM October & November Sales

- 2 shipments sold in October: ~322,000 dry tonnes
 - » Cape-size shipments of sinter fines
- 9 shipments so far in 2012
- 10th shipment (~100,000 dry tonnes of lump ore) anticipated before end of November

2012E sales total of 1.6 million dry tonnes of iron ore



LIM Rail Operations



Milestones achieved in 2012

- Q2-2012: 706,000 wet tonnes railed to the Port
- In August, one millionth wet tonne of LIM iron ore railed in 2012
 In October, two millionth wet tonne of LIM iron ore railed since operations commenced in 2011
- By end of 2012 operating season, ~1,600,000 wet tonnes railed to Port
- Fully established Centre Ferro rail car repair and maintenance facility

Built strong relationships with rail operators for greater efficiencies in future operating seasons

- » Tshiuetin Rail Transportation Inc. Railway (TSH)
- » Quebec North Shore and Labrador Railway (QNS&L)
- » Western Labrador Rail (Genesee & Wyoming)

LIM Successful 2012 Exploration program

- 9,400 m of RC and diamond drilling completed by end of September
- 2012 exploration program expected to achieve 13,500 m of drilling (10,000 m plan), despite reducing budget to \$5.3 million
- Drill programs on Houston (remains open), Malcolm (remains open),
 James North, James South extension (remains open) and stockpiles with the intention of:
 - » Further technical information for more detailed mine planning
 - » New / updated NI 43-101 resource estimates in Q4
- Commenced drilling on Elizabeth taconite target

LIM Recent Developments

Enhanced long-term port access

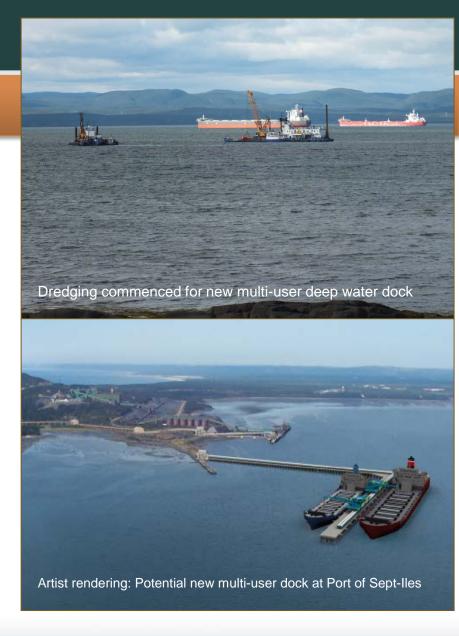
New multi-user berth Estimated \$220 million CAPEX

Expected completion: March 31, 2014

5 million tonne capacity reserved LIM would benefit from first-mover advantage as only current producer

Good progress:

- » Dredging completed this summer
- » Ship-loader contract awarded
- » Major civil / structural contract awarded
- » Mobilization for pile driving completed
- » Port indicates construction on time and on budget



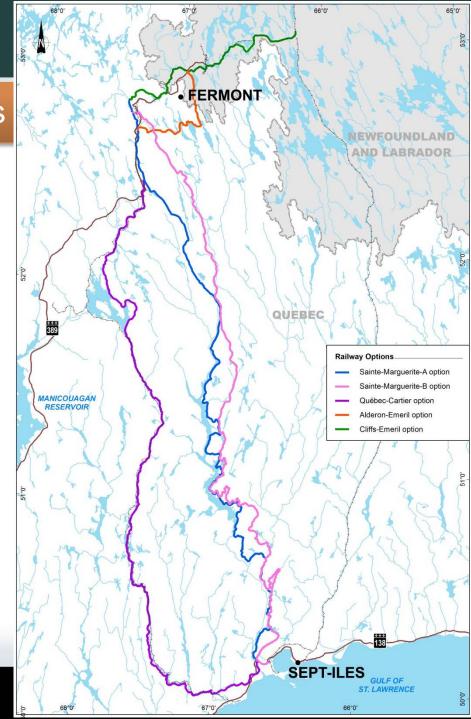
LIM Recent Developments

Enhanced long-term port access



Proposed new CN Railway to serve Iron Ore Companies in Labrador (final route selection by Dec 2012 to support EIS submission in Feb 2013)

Potential multi-user rail terminal at Port of Sept-Îles





Outlook

Iron Ore Signs of Recovery



- US\$110/tonne by end of September
- Continues to improve to US\$120/tonne by mid-November

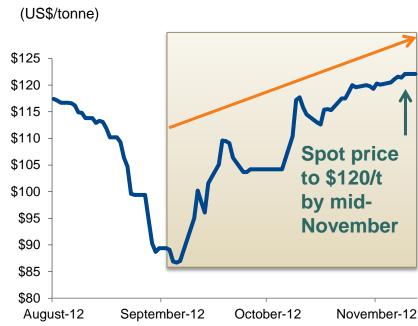


- Replenishing of inventory by Chinese steel mills
- Global crude steel demand to increase 4.5% in 2013E¹



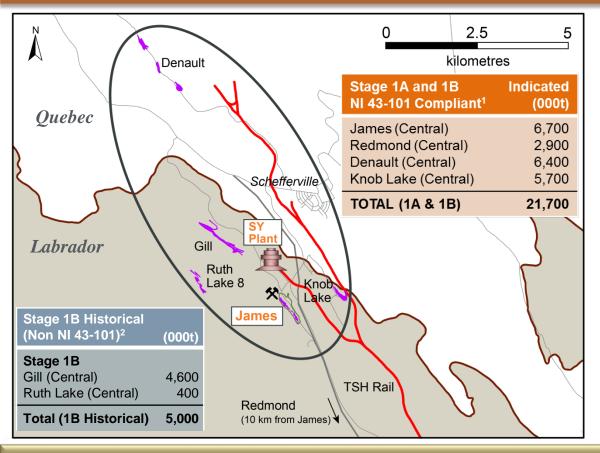
- Recent announcements
 for new infrastructure
 projects totalling ¥800 billion to ¥1 trillion
- Supports continued demand for steel and iron ore in China

Iron Ore Spot Price 62% Fe CFR China



LIM Stage 1

James + Surrounding Deposits near Silver Yards plants



- 5 smaller satellite deposits within ~15 km radius of James / Silver Yards
- 21 mt NI 43-101 Resources
- 5 mt historical resources
- ~10 mt stockpiles (historical)
 - » Crushed and >50% Fe
 - » Potential to convert to resources
- Objective: 5 Years of ~2.0 mt of Annual Iron Ore Production³

Goal: 10 mt of Saleable Iron Ore - James Mine and Surrounding Deposits

¹ NI 43-101 compliant resource as at Mar 31, 2012

² Historical resource identified by IOC prior to 1983 were not prepared in accordance with NI 43-101

³ Subject to detailed engineering, design, environmental assessment and permitting

LIM Stage 2: Houston Flagship Deposit

Potential to more than double current production

Large resource 15+ year mine-life

~2.0 mt potential annual production



Aerial view – Houston Deposit.

Access road tree clearing complete

- Key Development Project
 22 mt M · I © 57 20/ Fo1 · 2.7 mt Inf ©
 - 23 mt M+l @57.2% Fe¹ + 3.7 mt Inf @56.5% Fe¹ (NI 43-101)
 - » More than double the historical resource²
- Consistent high quality iron ore product expected
- Goal:

Establish long-term relationships with steelmakers

Next steps

- Receipt of remaining permits
- Development costs Phase 1 \$57 million;
 (2013 \$37 million and 2014 \$20 million)³
- Potential credit facilities, strategic partnerships and/or off-take agreements



New / updated NI 43-101 resource expected

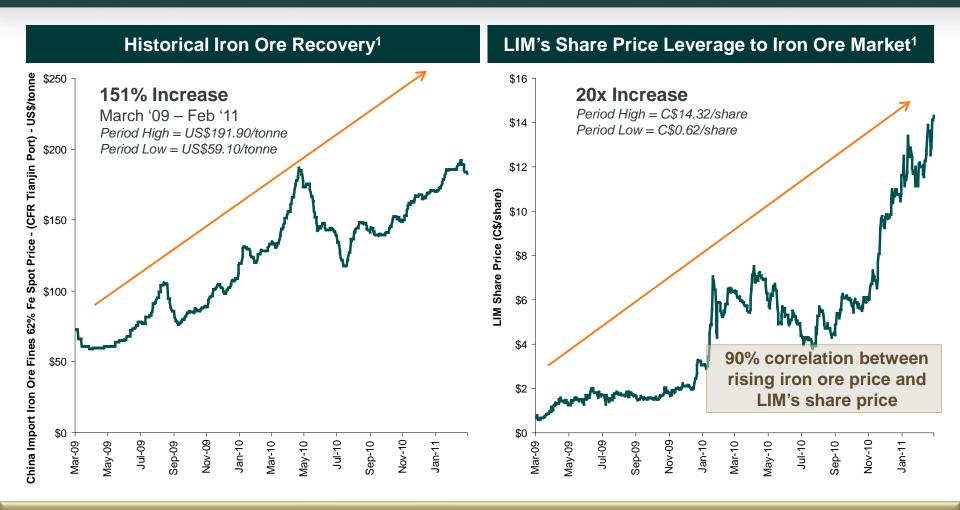
- Houston Deposit remains open along strike
- Nearby Malcolm Deposit (Quebec) extension: historical 2.9 mt resource²

¹ As at March 31, 2012; See Technical Reports filed on SEDAR.

² Historical resource identified by IOC prior to 1983 were not prepared in accordance with NI 43-101 Labrador Iron Mines – TSX: LIM

³ Subject to market conditions, permitting and financing.

LIM Superior Leverage to Iron Ore Prices



LIM offers superior leverage to the recovery in iron ore prices

LIM Guidance & Outlook¹

Operations: concluding successful 2012 operating season, despite challenging market conditions

2012 Iron Ore Sales: 10 shipments totalling 1.6 million dry tonnes anticipated

Exploration: Successful 2012 field program; new / updated resource estimates

Current Sustainable Production: ~2.0 million tonnes/year - Stage 1 resources

Process plant enhancements: Silver Yards Phase 3 completion and commissioning in spring 2013 + dry process stream + grid (hydro) power

Production growth: Potential to double current production with Houston; permitting ongoing; construction planned for 2013¹

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Question & Answer Session