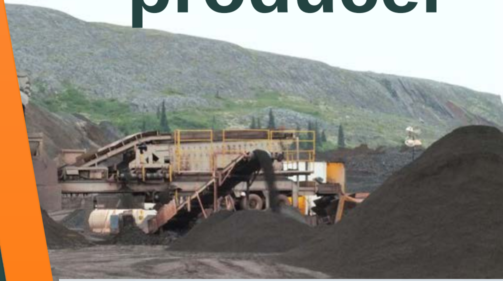
LABRADOR IRON MINES

Canada's **newest iron ore** producer

Q3 Conference Call

(for the quarter ended December 31, 2012)



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

February 15, 2013

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.

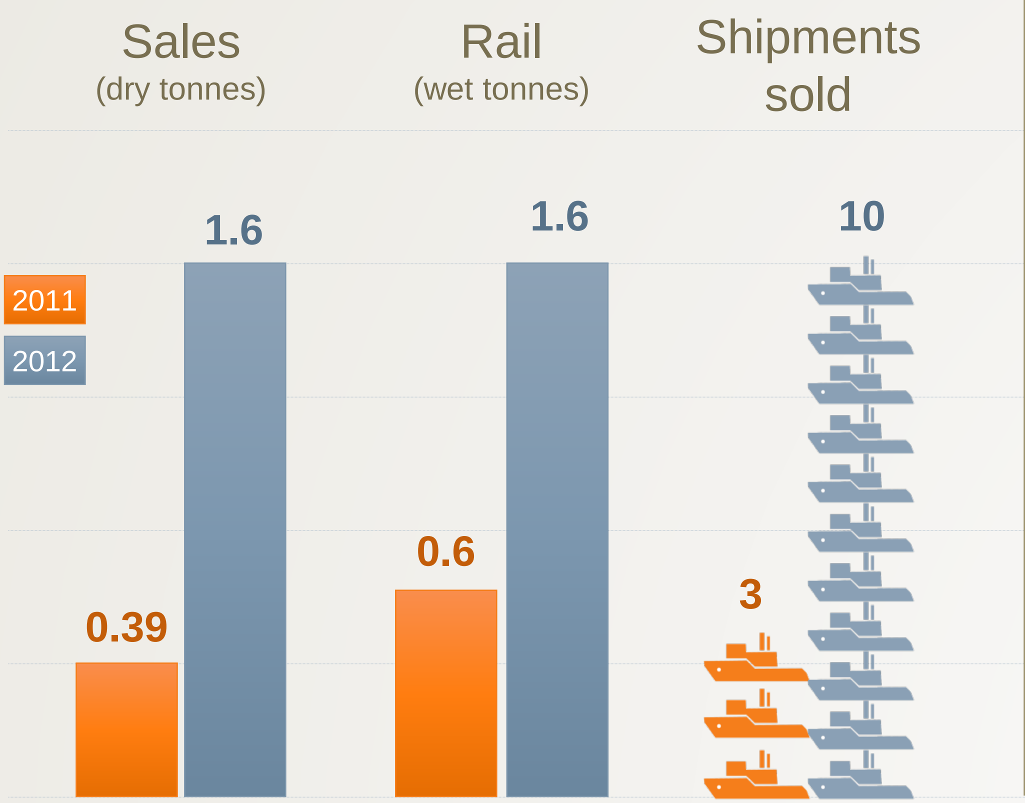
Forward-looking information may include reserve and resource estimates, estimates of future production, unit costs, costs of capital projects and timing of commencement of operations, and is based on current expectations that involve a number of business risks and uncertainties. Factors that could cause 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.

Forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results to differ materially from expected results. There can be no assurance that the Company will be successful in 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.

Shareholders and prospective investors should be aware that these statements are subject to known and unknown risks uncertainties and other factors that could cause actual results to differ materially from those suggested by the forward-looking statements. Shareholders are cautioned not to place undue reliance on forward-looking information. By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties, both general and specific, that contribute to the possibility that the predictions, forecasts, projections and various future events will not occur. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking information whether as a result of new information, future events or other such factors which affect this information, except as required by law.

2012 Operating Season

Highlights




Aerial view of Silver Yards (foreground) and James mine (background)

2012 Results
(nine months ended Dec 31, 2012)

4x Increase in **tonnes sold**

2.5x Increase in **tonnes railed**

10 Ships sold despite challenging market conditions in H2-12

Reported revenue of **$95.8 million** (9M ended Dec 31)

Note: Commercial production achieved at the James Mine in April 2012

Q3 Operations

Highlights

Sold 3 shipments totalling 425,500 dry tonnes	✓
Recognized revenue of $24.7 million (FOB Sept-Îles)	✓
Successfully wrapped up operating season in November	✓
Completed exploration program in December: 14,000 m drilled	✓

LIM Q3 & 9M Financial Results

($ millions, except per share data)	Three Months Ended Dec 31 '12	Nine Months Ended Dec 31 '12
Net income (loss)	$ (16.1)	$ (58.4)
per share	(0.19)	(0.79)
Depreciation and Depletion	(5.1)	(29.3)
	At December 31, 2012	
Cash and cash equivalents (unrestricted)	$ 10.2	
Accounts receivable and prepaids	24.1	
Inventory	12.8	
Total assets	$ 358.8	

- Revenue from three shipments in Q3 (425,500 dry tonnes): $24.7 million
- Revenue from 10 shipments in 2012 (1.6 million dry tonnes): $95.8 million
- Q3 net loss includes $5.1 million or $0.06 per share amortization charge
- Completed $29 million equity financing in February 2013

James Mine

Excellent 2012 operating results:

» 5 million tonnes mined (ore + waste):

Over 1.8 mt ore mined @ 61.3% + over 3.1 mt waste removed

Q3 Results (prior to seasonal closure in November):

» 198,500 tonnes ore mined + 224,500 tonnes waste removed

» Finished with good safety record: no lost time incidents in Q3 (one for all of 2012)

View of the James Mine (August 2012)

Silver Yards Processing Plants

Dry process
Ore processed by crushing and screening

Dry process used exclusively in Q3: 183,000 tonnes ore processed and screened, yielding **168,000 tonnes of sinter and lump**

New dry screening unit delivered in Q3 to complement dry process stream in 2013

Wet process
Ore beneficiated by crushing, washing and screening

Remaining inventory will be used as initial wet plant feed for 2013 for operational flexibility

Commissioning of Phase 3 and new contractor planned for 2013 season

Connection to grid power in 2013

Rail Operations

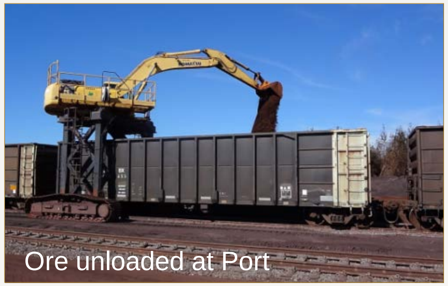
2012: ~1.5 million tonnes railed to Port of Sept-Îles:
2.5x increase over 2011

Q3 Results (Oct – Nov 7): **254,000 tonnes railed to Port**

Q3 Rail operations completed earlier than plan:

- Heavy rain fall / colder weather (potential freezing of sinter)
- Take-or-pay obligations

Final loaded iron ore train in 2012 (November)



Ore unloaded at Port

Life-of-Mine Rail Agreements

TSH	to Emeril Junction in Labrador	~200 km
QNS&L	to Port of Sept-Îles	~360 km

Four train sets planned for 2013 (120 cars each)

CN feasibility study suspension has no adverse impact on LIM; $1.5 million to be reimbursed

Currently in discussions with Arnaud Railway (connects QNS&L to Pointe Noire)

2012 Sales

Quarters referenced are fiscal quarters

LIM's sales in challenging market conditions

Q1
3 shipments
486,000 tonnes (all DRO)
Avg realized price[1]
$122/tonne
Cash operating cost[2]
$72/tonne

Q2
4 shipments
648,000 tonnes (2 DRO, 2 sinter)
Avg realized price[1]
$96/tonne
Cash operating cost[2]
$70/tonne

Q3
3 shipments
425,500 tonnes (2 sinter; 1 lump)
Avg realized price[1]
$107/tonne
Cash operating cost[2]
$77/tonne
includes $8.00 take-or-pay cost (lower rail volume due to scaleback in production + weather)

Q2: Sharp decline to below US$90/t in August (62% Fe CFR China)

Q3: Sales occurred in Oct / early November, before increase in iron ore prices

VIU adjustments in Q2 & Q3

2012
10 shipments
1.6 million tonnes
Avg realized price[1]
$107/tonne
Cash operating cost[2]
$72/tonne
includes $4.50 take-or-pay cost and one-time charges

1 Weighted average actual realized price (i.e. CFR China spot price less value in use adjustments), before ocean freight and IOC allocation
2 Consists of mining, processing, rail and transportation and site administration costs, unloaded at the Port

LIM Sales Agreement with IOC

Iron Ore Company of Canada Sales Agreements (IOC)

100% production sold to IOC (majority owned by Rio Tinto) in 2011 and 2012

Product re-sold in China based on spot, less ocean freight and IOC participation for handling, loading and sales costs

13 Shipments totalling ~2 million tonnes sold to Chinese steel mills and customers through IOC


IOC Port Facility

- ✓ **Use of ore handling facilities at Port of Sept-Îles**
- ✓ **Access to cape-size vessels** (170,000 dwt)
- ✓ **Rio Tinto targeted customers**
- ✓ **Counterparty and shipping risk mitigated**

IOC Sales Agreement › Currently in advanced discussions with IOC to renew sales agreement

Current Strong Recovery in Iron Ore Prices

Strong recovery in prices may have favourable impact on LIM's early sales revenues in 2013

- Severe winter in China, reducing domestic iron ore production and increasing demand for seaborne iron ore
- Demand in China: **imported record 71 million tonnes** in Dec 2012[1]

1 Source: General Administration of Customs of the People's Republic of China

Support for Iron Ore Price Recovery

Near-Term Factors (Six Months)

Inventory	**Replenishing: declining / lower than typical inventories** at Chinese ports and steel mills
Seasonality	**Seasonally strong period** for Chinese steel production: + seasonally weak period for domestic iron ore supply
Supply disruptions	Weather **impacting iron ore output/supply** in China, Brazil and Australia
Export restrictions	Restrictions expected to **further decrease** India exports

Mid to Long-Term Factors

Stimulus	Stimulus spending announcement (Sep'12) by Chinese Government: **¥800 billion to ¥1 trillion**[1]
GDP	China's GDP **forecast to grow ~8%** in 2013 and 2014[2]
Demand	Other countries demand **stronger than expected;** growth from emerging markets: Brazil, India, Russia, middle East
Supply	New projects / expansions postponed; expected to reduce long-term supply

1 Management's understanding from a September 2012 Chinese Government announcement
2 Source: Bloomberg

Resuming 2013 (FY 2014) Operations

2013E Sales Targetting 1.7 to 2.0 million tonnes

Re-start requirements	Status
At least $110/tonne spot iron ore price ✓	Current spot price above $150/tonne[1]
Working capital of ~$40 million (re-start expenses $30M; planned capex $10M)	Proceeds from Feb 2013 financing[1] sufficient to fund re-start of operations Additional working capital / advance sales payment to fund planned capex
Maintain $65 to $70 per tonne cash cost ✓	Operating experience + execution of strategies to ensure cash costs remain at or below this level

1 As of February 14, 2013
2 Financing closed February 13, 2013

LIM Stage 1

Goal: 10 mt saleable iron ore

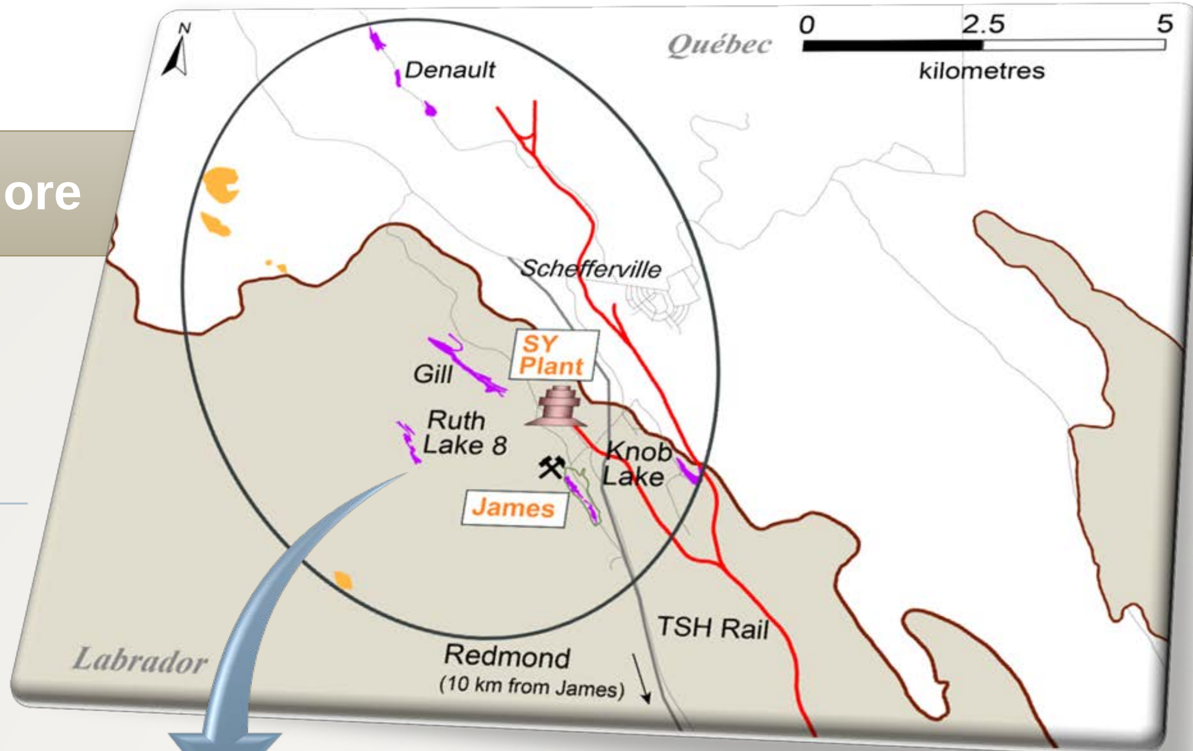
5 Years of ~2.0 mtpa iron ore production from[1]:

21 mt NI 43-101 resources[2]

5 mt historical resources[3]

~10 mt stockpiles (historical)[3]

- Crushed, >50% Fe
- Resource conversion expected 2013



5 smaller satellite deposits + stockpiles within ~15 km radius of James / Silver Yards

Stage 1 enhanced by

- » Silver Yards Phase 3
- » Grid power connection
- » Four train sets

Stage 1A and 1B NI 43-101 Compliant[1]	Indicated (000t)
James (Central)	6,700
Redmond (Central)	2,900
Denault (Central)	6,400
Knob Lake (Central)	5,700
TOTAL (1A & 1B)	**21,700**

Stage 1B Historical (Non NI 43-101)[2]	(000t)
Stage 1B	
Gill (Central)	4,600
Ruth Lake (Central)	400
Total (1B Historical)	**5,000**

1 Subject to detailed engineering, design, environmental assessment and permitting
2 NI 43-101 compliant resource as at Mar 31, 2012
3 Historical resources identified by IOC prior to 1983 were not prepared in accordance with NI 43-101

Stage 2 Houston Flagship Deposit

- Simple Development Plan
- Received surface and mining leases and construction permit haul road

Phase 1 Development
$57 million (Year 1 – $37M and Year 2 – $20M)

- Access road (10km) + bridge (permits received)
- New dedicated rail siding (6km)
- In-pit crushing and screening

Phase 2 (Year 3)

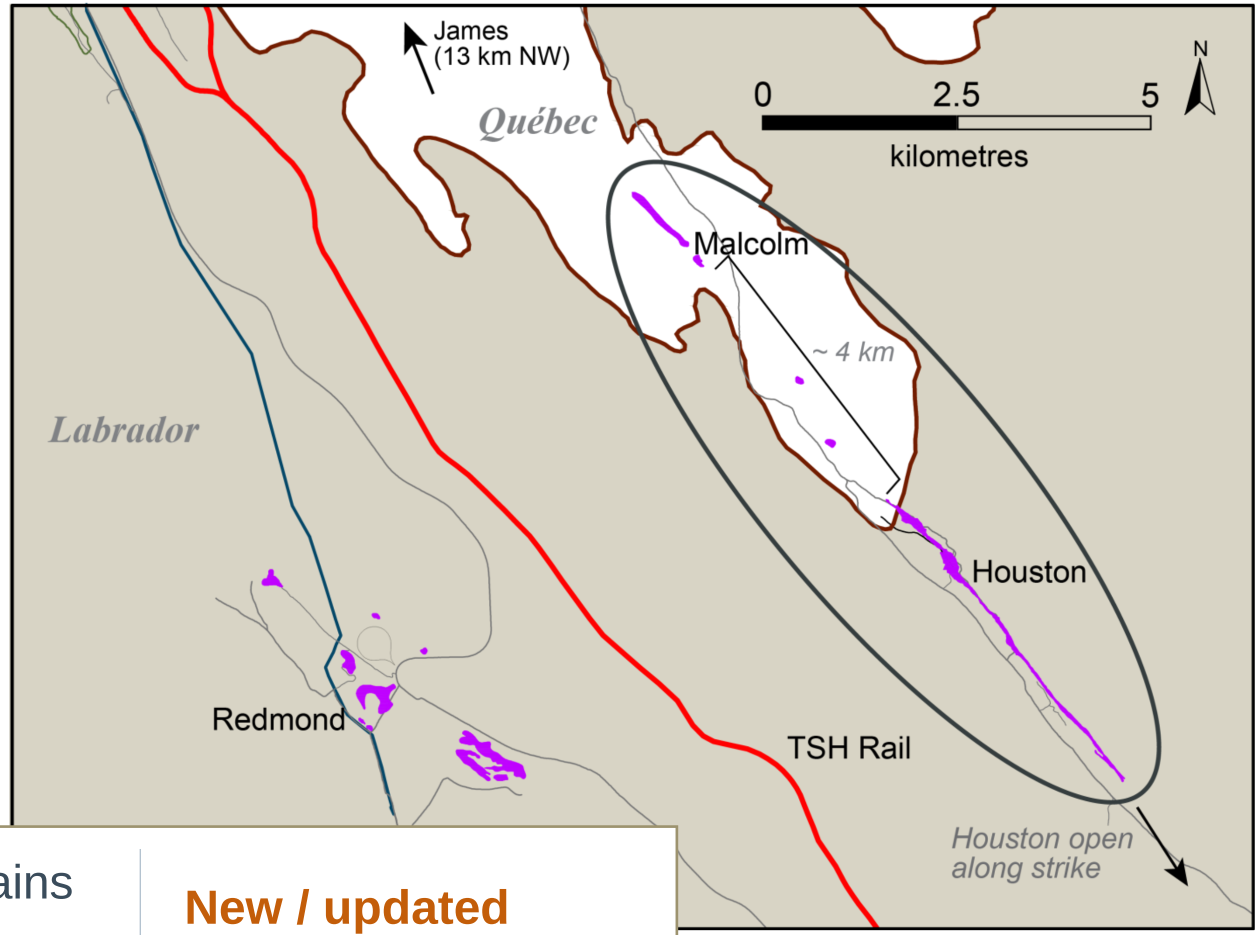
- Addition of wet process plant
- Registration documents filed (CEAA) Feb ‘13

1 Subject to detailed engineering , design, environmental assessment, permitting and financing

Stage 2 Houston Flagship Deposit

Next Steps

- Advancing the planning, engineering and design in 2013
- Receipt of remaining permits (rail siding)
- Potential strategic partnerships, credit facilities, and/or off-take agreements



Potential Upside

- Houston Deposit remains open along strike
- Nearby Malcolm Deposit (Quebec) NW extension: historical 2.9 mt resource[1]

New / updated NI 43-101 resource estimates expected by fiscal year-end

1 Historical resources identified by IOC prior to 1983 were not prepared in accordance with NI 43-101.

Successful Exploration Program

Largest drill program completed in 2012

14,000 m of drilling: 40% more than 10,000 m plan
despite reducing budget to $7 million (from $8.6 million)

Drill programs on Houston (remains open), Malcolm (remains open), James North, James South extension (remains open) and historic stockpiles for:

- » Further technical information for more detailed mine planning
- » New / updated NI 43-101 resource estimates by fiscal year-end

Initial resource also on Elizabeth taconite target in spring 2013

Upcoming

5 new / updated NI 43-101 compliant resource estimates in 2013

2012 Technical Achievement

Generated core samples through diamond drilling; provides greater technical information for detailed mine planning

Guidance + Outlook



2013E Production: 1.7 million – 2 million tonnes
Stage 1: Current sustainable production of ~2.0 mtpa for 5 years

Detailed Planning and Budget to be finalized (FY 2014)

Sales Agreement: Currently in advanced discussions with IOC

Financing: working capital/off-take/other to fund various 2013 expenditures

2013 process plant enhancements: Commissioning SY Phase 3 + additional dry screen + grid (hydro) power

Resource Conversion: New/updated resource estimates in 2013

Stage 2 Houston (potential to double production): permitting, detailed engineering, metallurgy, Phase 1 development (Phase 1 subject to financing)

Note: Guidance and Outlook subject to market conditions, permitting and/or financing.

Canada's newest iron ore producer

LIM

Q&A