

### **QUARTERLY ACTIVITIES REPORT**

For the period ending December 31, 2008

#### **HIGHLIGHTS**

### NULLAGINE IRON ORE PROJECT (Pilbara, WA - 100% BCI)

#### Substantial Increase in High Quality DSO Resources

- Measured, Indicated and Inferred DSO resource of 46Mt grading 57.0% Fe (64.8% CaFe) at Outcamp, Coongan and Warrigal deposits
- 64% increase in DSO resource from the March 2008 Inferred Resource
- Total Channel Iron Deposit (CID) mineral resource increased to 80Mt @ 54.0% Fe (61.9% CaFe)
- Low impurities and sintering qualities greatly enhance the marketability of the product as a 'premium fines sinter feed'

### **Low-Cost Capital Start-Up Development Option**

- Feasibility Study continues with a shift to a low capital cost 1.5Mtpa production option for Bonnie Creek CID Project.
- Revised development involves crushing 'in pit' with road haulage to FMG's nearby operations
- Potential for significant savings on capital expenditure with initial set-up cost estimates of A\$20 – 30 million

### **Metallurgical Testing**

- Sintering test work carried out by a Chinese steel company determines that blending with BC Iron fines increases quality, quantity and metallurgical properties of sinter product
- Findings underscore the specialised nature of BC Iron's ore and marketing advantage of 'premium fines sinter feed'

### **CORPORATE**

 Strong financial position with approximately \$5.1M in cash and commercial bills at the end of the Quarter

## **OVERVIEW**

During the December Quarter, BC Iron Limited (ASX: BCI – "BC Iron") took further key steps towards its core objective of commencing production at the 100%-owned Nullagine Iron Ore Project in Western Australia's Pilbara as rapidly and efficiently as possible.

BC IRON LIMITED

Head Office

Registered Office

ABN 21 120 646 924

Unit 8, 8 Clive Street West Perth WA 6005 Unit 8, 8 Clive Street West Perth WA 6005

ASX Code: BCI Shares On Issue: 59.4m Listed: 15 December 2006 GPO 2811 Perth WA 6001 Tel: (08) 9324 3200 Fax: (08) 9324 3111

Web: www.bciron.com.au

While a further deterioration in global financial and credit markets was experienced during the Quarter, BC Iron has effectively positioned itself to weather the current market turmoil and achieve its objectives in a changed financial and economic environment. Central to the repositioning of the Company's strategy was a revision to the current Feasibility Study on the Nullagine Project to include the option to develop a smaller-scale 1.5Mtpa start-up operation at a significantly reduced capital cost. Though start-up tonnages are less than those proposed in the Scoping Study, the revised plan provides the Company with an opportunity to fast-track development and maintain its schedule despite the market downturn.

The Company is on track to complete the revised Feasibility Study during the first half of 2009.

In parallel with ongoing Feasibility Studies, BC Iron in conjunction with its independent consultants completed resource modelling during the Quarter based on the results of in-fill and resource extension drilling undertaken during 2008.

Subsequent to the end of the Quarter, the Company announced a revised Direct Shipping Ore (DSO) resource of **46 million tonnes grading 57%** Fe. This represents the most significant milestone for the Company since the delivery of its maiden JORC resource in March 2008 of 28Mt at 57.4% Fe.

#### **RESOURCE UPGRADE - BONNIE CREEK CID PROJECT**

Following highly successful in-fill and extensional drilling programs completed during 2008, on 8 January 2009 the Company announced a **64% increase** in the high-quality DSO resources for the Bonnie Creek CID Project to a Measured, Indicated and Inferred **46.2 Mt grading 57.0% Fe (64.7% calcined Fe or CaFe)**.

This DSO resource compares with the previous March 2008 DSO resource of 28.0Mt grading 57.4% Fe and is contained within an updated global resource totalling **80.2 Mt grading 54.0% Fe (61.9% CaFe)** of mineralised Channel Iron Deposit (CID).

The new resource includes a maiden JORC Code compliant resource estimate for the **Warrigal Deposit** of **16.4 Mt grading 57.0% Fe (64.5% CaFe)**, as well as an upgrade in the classification of the resource for the Outcamp and Coongan Deposits from Inferred to mostly Indicated class.

The mineral resource estimate, which is set out in Tables 1 and 2 below, was based on data collated and interpreted by BC Iron staff and prepared and estimated by Golder Associates. The resource was estimated in accordance with the guidelines of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2004).

Resource Class	Mt	Fe	CaFe	SiO <sub>2</sub>	$Al_2O_3$	S	Р	LOI <sub>1000</sub>
Measured	1.7	57.0	64.8	3.5	2.1	0.0	0.0	12.0
Indicated	41.2	57.0	64.7	3.1	2.1	0.0	0.0	12.0
Inferred	3.3	56.8	64.5	3.4	2.1	0.0	0.0	11.9
TOTAL	46.2	57.0	64.7	3.18	2.11	0.011	0.016	12.0

Table 1 – Mineral Resource Estimate for DSO, Bonnie Creek CID

Table 2 – Mineral Resource Estimate for Mineralised CID, Bonnie Creek CID

Resource Class	Mt	Fe	CaFe	SiO <sub>2</sub>	$Al_2O_3$	S	Р	LOI <sub>1000</sub>
Measured	2.0	55.9	63.6	4.1	2.8	0.0	0.0	12.1
Indicated	72.8	54.0	61.8	4.5	3.1	0.0	0.0	12.7
Inferred	5.3	53.8	61.6	4.6	3.2	0.0	0.0	12.6
TOTAL	80.2	54.0	61.9	4.46	3.08	0.012	0.018	12.7

The resource estimate comprises a Direct Shipping Ore (DSO) zone, which was modelled based on interpretations from drill hole data using a 55% Fe down-hole cut-off grade. The mineralised

CID Zone, which includes the DSO Zone, was modelled based on chemical and geological boundaries and comprises the DSO zone as well as the surrounding iron mineralised material.

Tables 3 and 4 at the end of this release comprise a detailed breakdown of each Prospect by Resource classification.

The resource upgrade represents a major milestone for BC Iron. Within just over two years of its initial public offering and listing on the ASX, the Company has established a high-quality JORC Code compliant resource base at the Nullagine Project, which positions it at the forefront of the emerging Australian junior iron ore sector.

### FEASIBILITY STUDY - REVISED 1.5MT DEVELOPMENT OPTION

During the Quarter, BC Iron announced that it was assessing a low capital cost, 1.5Mtpa start-up project development option for the Nullagine Project based on the currently identified resources comprising the Bonnie Creek CID Project. The Company is on target to complete the current Feasibility Study in the first half of 2009.

As outlined in November last year, preliminary estimates have indicated that the 1.5Mtpa development scenario would have an approximate capital cost of A\$20-30 million, representing a significant reduction on the A\$85-100 million capital cost estimated for the original 3Mtpa start-up production rate envisaged in BC Iron's Scoping Study. Importantly, the 1.5Mtpa option would have an estimated operating cost in the region of A\$40/tonne assuming a successful haulage agreement is negotiated with FMG, providing the Company with early cash flow with minimal capital outlay. The Company has a Memorandum of Understand in place with The Pilbara Infrastructure Pty Ltd (TPI) for rail haulage and ship loading services. TPI is wholly owned by FMG.

To achieve the cost savings, BC Iron has developed a process model where ore crushing and screening would be conducted 'in pit' using a mobile crushing plant. Ore would then be hauled by road to the nearby rail infrastructure operations owned by The Pilbara Infrastructure Pty Ltd (TPI).

BC Iron is currently considering several off take options for its ore and expects to finalise these in the very near future.

#### **DEVELOPMENT SCHEDULE**

The proposed completion dates for the various elements of the path to production are as follows:

Infill & Resource Extension Drilling → September Quarter 2008 Resource Estimates December Quarter 2008 Metallurgical testwork (sinter) December Quarter 2008 **Bulk Sampling** March Quarter 2009 Feasibility Study First Half 2009 Second Half 2009 Mining Agreements Mining Approvals Second Half 2009 Construction Commences Second Half 2009 Production Commences First Half 2010

#### SINTER TESTWORK

The final report on sinter test work carried out independently by a large steel company at a Chinese university was delivered to the Company during the Quarter. The research found that BC Iron's fines ore can be categorised as 'First Class' in terms of its sintering characteristics. This is of particular importance as it differentiates BC Iron's product from that of others and adds exceptional value by enhancing sinter quality. Furthermore, the test work highlighted the **ultra-low phosphorus** levels in BC Iron's ore.

Ongoing work by BC Iron has shown that the low impurities, particularly  $Al_2O_3$  and P together with the sintering qualities, greatly enhance the marketability of the product as a 'premium fines sinter feed'.

A summary of the sintering test work and qualities of BCI ore is as follows:

- Blended with a 'typical' fines sinter feed,
- Tested on 10%, 20%, and 30% BC Iron fines blend in the sinter blend,
- Resulted in increased quantity and quality of sinter "First Class"
  - Increased Yield
  - o Improved sintering time
  - o Improved tumble index (strength)
  - Improved productivity

The steel plant also commended the ultra-low phosphorus level in the BC Iron fines (0.016% P).

The results of the sinter test work indicate that BC Iron Fines improves both sinter quality and sintering efficiency to our future customers and has the potential to be a sought after 'value-add product'.

### **ONGOING EXPLORATION**

Exploration during the Quarter will include geological modelling and resource estimation of the Bonnie East, Dandy and Shaw River deposits – all of which have potential for further DSO and mineralised CID. The Company will also establish revised Exploration Targets for all of these areas as the basis for future drilling.

The Company also plans to assess the potential of the extensive detrital deposits which have been identified at the Shaw River CID Project, located some 25km west of Bonnie Creek. These deposits have the potential to add substantial weight to BC Iron's resource inventory, but further exploration is required to confirm the potential to upgrade this material through beneficiation.

#### **CORPORATE INFORMATION**

Cash and commercial bills at the end of the Quarter amounted to approximately A\$5.1 million.

- ENDS -

Mike Young Managing Director BC Iron Limited

#### **About BC Iron Limited**

BC Iron Limited (ASX: BCI) is an emerging iron ore exploration and development company focused on Western Australia's Pilbara region. The Company's 100%-owned Nullagine Project is strategically located north east of the Cloud Break operation, part of Fortescue Metal Group's Chichester Iron Project. The Nullagine Project is proximal to the open access railway line owned by Fortescue between Chichester and Fortescue's dedicated iron ore berths at Port Hedland, 260km to the north west.

Development drilling has been completed at five prospects including Outcamp, Coongan and Warrigal Well to upgrade and add to the current resource estimate. Resource modelling is underway and is expected to begin providing results by the end of the December and January Quarters.

Following the completion of a successful Scoping Study, BC Iron has moved quickly into a Feasibility Study to examine a potential start-up operation in 2010 at the Bonnie Creek CID Project (46.2Mt grading 57.0% Fe) at an initial production rate of 1.5 Mtpa of DSO (ramping up to 3 then 5 Mtpa). This low tonne start-up option is intended to deliver first ore at a low capital intensity with growth being funded from cash flows.

The Company has entered into an MOU with Fortescue Metals Group facilitating negotiation over bulk transport for its material. BC Iron is a founding member of the North West Iron Ore Alliance which has successfully reserved export capacity at Port Hedland and is currently carrying out a scoping study on a multi-user facility at Port Hedland.

**Key Statistics:** 

**Shares on Issue:** 63.7 million (fully diluted)

Cash & equivalents: December 31, 2008 - \$5.1 M

**Board and Management:** Tony Kiernan – Chairman

Mike Young – Managing Director

Garth Higgo - Non-Executive Director

Terry Ransted - Non-Executive Director

Steven Chadwick - Non-Executive Director

**Major Shareholders:** Consolidated Minerals Limited 26%

Alkane Resources Ltd 15%

UBS Wealth Management Aus. Nom 5%

Table 3 – Mineral Resource Estimate for DSO, Bonnie Creek CID

## **DSO Mineral Resource - Outcamp Well**

Res Cat	Mt	Fe	CaFe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	S	Р	LOI <sub>1000</sub>
Measured	1.7	57.0	64.8	3.47	2.13	0.016	0.018	12.0
Indicated	19.6	57.0	64.8	3.08	2.03	0.009	0.013	12.1
Inferred	0.0	0.0	0.0	0.00	0.00	0.000	0.000	0.0
TOTAL	21.3	57.0	64.8	3.11	2.04	0.010	0.013	12.1

## **DSO Mineral Resource - Warrigal Well**

Res Cat	Mt	Fe	CaFe	SiO <sub>2</sub>	$Al_2O_3$	S	P	LOI <sub>1000</sub>
Measured	0.0	0.0	0.0	0.00	0.00	0.000	0.000	0.0
Indicated	13.9	57.0	64.5	3.61	2.34	0.013	0.022	11.6
Inferred	2.4	56.7	64.2	3.83	2.26	0.013	0.027	11.7
TOTAL	16.4	57.0	64.5	3.64	2.33	0.013	0.023	11.6

# **DSO Mineral Resource - Coongan Well**

Res Cat	Mt	Fe	CaFe	SiO <sub>2</sub>	$Al_2O_3$	S	P	LOI <sub>1000</sub>
Measured	0.0	0.0	0.0	0.00	0.00	0.000	0.000	0.0
Indicated	7.7	57.0	65.1	2.49	1.88	0.012	0.011	12.4
Inferred	0.9	57.2	65.3	2.26	1.79	0.008	0.011	12.5
TOTAL	8.6	57.0	65.1	2.46	1.87	0.012	0.011	12.4

## **Total DSO Mineral Resource - Nullagine Project**

Res Cat	Mt	Fe	CaFe	SiO <sub>2</sub>	$Al_2O_3$	S	P	LOI <sub>1000</sub>
Measured	1.7	57.0	64.8	3.47	2.13	0.016	0.018	12.0
Indicated	41.2	57.0	64.7	3.14	2.11	0.011	0.016	12.0
Inferred	3.3	56.8	64.5	3.40	2.13	0.012	0.023	11.9
TOTAL	46.2	57.0	64.7	3.18	2.11	0.011	0.016	12.0

Table 4 – Mineral Resource Estimate for Mineralised CID, Bonnie Creek CID

## **CID Mineral Resource - Outcamp Well**

Res Cat	Mt	Fe	CaFe	SiO <sub>2</sub>	$Al_2O_3$	S	P	LOI <sub>1000</sub>
Measured	2.0	55.9	63.6	4.12	2.78	0.016	0.018	12.1
Indicated	38.3	53.7	61.7	4.45	2.82	0.010	0.015	12.9
Inferred	0.0	0.0	0.0	0.00	0.00	0.000	0.000	0.0
TOTAL	40.4	53.9	61.8	4.43	2.82	0.010	0.015	12.9

## **CID Mineral Resource - Warrigal Well**

Res Cat	Mt	Fe	CaFe	$SiO_2$	$Al_2O_3$	S	P	LOI <sub>1000</sub>
Measured	0.0	0.0	0.0	0.00	0.00	0.000	0.000	0.0
Indicated	22.1	54.6	62.1	4.67	3.46	0.013	0.024	12.0
Inferred	3.6	54.5	62.0	4.72	3.21	0.013	0.026	12.1
TOTAL	25.6	54.6	62.1	4.68	3.43	0.013	0.024	12.0

## CID Mineral Resource - Coongan Well

Res Cat	Mt	Fe	CaFe	SiO <sub>2</sub>	$Al_2O_3$	S	P	LOI <sub>1000</sub>
Measured	0.0	0.0	0.0	0.00	0.00	0.000	0.000	0.0
Indicated	12.4	53.7	61.7	4.12	3.21	0.013	0.013	13.0
Inferred	1.7	52.5	60.8	4.43	3.13	0.007	0.013	13.7
TOTAL	14.2	53.5	61.6	4.16	3.20	0.012	0.013	13.1

## **Total CID Mineral Resource - Nullagine Project**

Res Cat	Mt	Fe	CaFe	SiO <sub>2</sub>	$Al_2O_3$	S	P	LOI <sub>1000</sub>
Measured	2.0	55.9	63.6	4.12	2.78	0.016	0.018	12.1
Indicated	72.8	54.0	61.8	4.46	3.08	0.011	0.017	12.7
Inferred	5.3	53.8	61.6	4.63	3.18	0.011	0.022	12.6
TOTAL	80.2	54.0	61.9	4.46	3.08	0.012	0.018	12.7

#### **Disclaimer & JORC Information**

The information relating to the terms "iron ore", "exploration target", "direct shipping ore" and "upgrade" should not be misunderstood or misconstrued as an estimate of Mineral Resources and Reserves as defined by the JORC Code (2004) and therefore the terms have not been used in this context. It is uncertain if further exploration or feasibility study will result in the determination of a Mineral Resource or Mining Reserve.

The information that relates to exploration targets, the drilling data and geological interpretations is based on information compiled by Michael Young who is a Member of The Australian Institute of Geoscientists and a Director of the Company. The information that relates to the Mineral Resource Estimate has been compiled by Mr Richard Gaze who is a member of the Australasian Institute of Mining and Metallurgy and an employee of Golder Associates. Both Mr Young and Mr Gaze have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that they are undertaking to qualify as a Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Gaze and Mr Young consent to the inclusion in their names in the matters based on their information in the form and context in which it appears.

This release may include forward-looking statements. These forward-looking statements are based on BC Iron's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of BC Iron Limited, which could cause actual results to differ materially from such statements. BC Iron Limited makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect events or circumstances after the date of this release.

Further information relating to the Mineral Resource Estimate is available in the release to the ASX dated January 8, 2009.