

# BC IRON INCREASES MINERAL RESOURCE AT NULLAGINE JV

## HIGHLIGHTS

- Updated DSO Resource Estimate of 55.1Mt grading 57.0% Fe (64.7% CaFe) for NJV;
- Includes updated DSO Resource Estimate for Bonnie East a 25% increase:
  - > 10.8Mt grading 57.0% Fe (64.8% CaFe);
- Total CID Mineral Resource of 106.2Mt grading 54.1% Fe (61.8% CaFe);
- "Bonnie Fines" product is a high quality DSO with low contaminants highly valued by customers in China;
- Mining study underway is expected to extend NJV mine life.

Australian iron ore producer BC Iron Limited ("**BC Iron**" or "**the Company**") (**ASX:BCI**) advises of an update to the Mineral Resource Estimate at the Nullagine Iron Ore Joint Venture ("**NJV**"), a 50:50 unincorporated joint venture between BC Iron and Fortescue Metals Group ("**Fortescue**"), following in-fill resource drilling at its Bonnie East Deposit.

The updated Resource Estimate is based on the results of the successful in-fill drilling program at the Bonnie East deposit completed in late 2011, and comprises the following Indicated and Inferred Resources (below and Table A):

- Direct Shipping Ore ("DSO") 10.8Mt @ 57% Fe, (65% CaFe);
- Channel Iron Deposit ("CID") 15.9Mt @ 55% Fe, (63% CaFe)

Bonnie East is a CID hosting DSO located within the same palaeochannel as the Outcamp and Warrigal deposits, and directly south of the operating Outcamp Mine. DSO is material which is mined and processed at an iron grade suitable for direct sale to customers. Other than crushing to the required "fines" sizing, it needs no beneficiation or upgrading. DSO is hosted within the larger, lower grade channel iron formation.

The update (Tables 1 to 5 appended) brings the total Mineral Resource Estimate for the NJV to the following:

- DSO 55.1Mt @ 57.0% Fe (64.7% CaFe); and
- CID 106.2Mt @ 54.1% Fe (61.8% CaFe).

As a result of the upgrade, a mining study is underway and, if successful, will extend the mine life of the Nullagine Project as well as improve the project economics. The proximity of the deposit to the current operation creates an opportunity to optimise the current mine plan before the more distal deposits, such as Coongan and the northern Warrigal mesas, come on line.

"We are very pleased to report these updates for Bonnie East, further enhancing the mine life at Nullagine which underpins our growth plans," said BC Iron's Managing Director, Mike Young.

E info@bciron.com.au W www.bciron.com.au "Once again, we have delivered on guidance and continue to deliver on our stated intention of providing value through the NJV. I am pleased to say that BC Iron continues to expand and we are being presented with many opportunities for growth, all of which we are assessing diligently. We believe in continuing to grow the Company while maintaining value for our shareholders through cash generation from the NJV."

Table A: Mineral Resource Estimate – Bonnie East Deposit

		Total CID Mineral Resource								
Category	Tonnes	Fe	CaFe	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Р	S	LOI <sub>1000</sub>		
		%	%	%	%	%	%	%		
Indicated	13,273,119	54.7	62.6	2.8	4.2	0.015	0.010	12.6		
Inferred	2,583,349	55.3	62.9	3.5	4.1	0.017	0.009	12.1		
Total	15,856,468	54.8	62.6	2.9	4.2	0.015	0.010	12.5		
			Total	DSO Min	eral Res	ource				
Category	Tonnes	Fe	CaFe	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Р	S	LOI <sub>1000</sub>		
		%	%	%	%	%	%	%		
Indicated	8,851,923	57.0	64.8	2.0	3.1	0.014	0.010	12.1		
Inferred	1,916,536	56.8	64.5	2.8	3.1	0.015	0.008	12.0		
Total	10,768,459	57.0	64.8	2.2	3.1	0.014	0.009	12.1		

## Bonnie East - Mineral Resource Estimate Statement

Note:

- Calcined Fe (CaFe) = Fe / (1-LOI) \* 100
- A 45% Fe cut-off grade has been used to report the CID, and
- A 53% Fe cut-off grade has been used for the DSO.

The Resource Estimate was completed using the following parameters and assumptions of risk:

- The Bonnie East resource area extends over a strike length of ~3,500m (from 7,556,810mN to 7,560,300mN) and includes the 25m vertical interval from 485mRL to 460mRL.
- The Bonnie East dataset contains records for 202 drill holes for 3,069m of drilling, of which 126 RC drill holes were used in the resource estimate. All holes were drilled by BC Iron since 2007.
- Drill holes were drilled at nominal 50m spacings on section spacings of approximately 100m north of 7,558,400mN. To the south of 7,558,400mN, the section spacing increases to an average 200m.
- The majority of the drilling was sampled at regular 0.5m intervals.
- Drill hole collar positions were surveyed using a DGPS instrument. Holes are surveyed in the MGA94 grid system.
- As all of the drill holes are vertical, less than 30m deep, and in a flat-lying mineralised ore body, down hole surveying was not required. Lack of down hole surveying does not represent a risk to the Resource Estimate.
- Analysis of Fe, Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, P and S was completed using XRF analysis, while LOI was analysed by Thermo Gravimetric analysis. Assaying was completed by both Genalysis and Ultra Trace laboratories in Perth, Western Australia.
- QAQC programs are in place for all BC Iron drilling. A review of indicates the assay data is suitable for resource estimation.
- Wireframes were constructed using cross sectional interpretations based geological logging and Fe, Al<sub>2</sub>O<sub>3</sub>, and CaO assays.
- High grade cuts were not used in the Resource Estimate.

- A Minesight block model was used for the estimate with a block sizes of 10m NS by 5m EW by 0.25m vertical. Partial blocking is used where blocks intersect wireframes and surfaces.
- All grades were interpolated using the Inverse Distance Squared estimation method which is considered appropriate.
- A bulk density of 2.85t/m<sup>3</sup> has been applied to the Bonnie East resource, based on the results of testwork conducted by BC Iron.
- The Mineral Resource Estimate is classified as Indicated and Inferred based on:
  - o good continuity of grade and channel geomorphology;
  - o the high-quality drill sampling and assaying procedures;
  - good geological understanding gained from 17 months of mining at the proximal Outcamp Deposit; and
  - excellent mine reconciliation at Outcamp against the resource estimate (99% grade, 105% tonnes).

Diagram 1 below shows the location and drill collars for the Bonnie East deposit.



Diagram 1: Bonnie Creek Project Area

- ENDS -

FOR FURTHER INFORMATION:

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## **About BC Iron Limited**

BC Iron is an iron ore development and mining company with key assets in the Pilbara region of Western Australia. The Company's core focus is the Nullagine Iron Ore Project, a 50/50 joint venture with Fortescue Metals Group Limited. The JV uses Fortescue's infrastructure at Christmas Creek, 50km south of the Mine, to rail its ore to Port Hedland from where it is shipped directly to customers overseas. Mining commenced in November 2010 and first ore on ship occurred in February 2011 - just over four years from listing on the ASX.

The JV is currently operating at a production rate of 3Mtpa moving to 5Mtpa during H1 CY2012

### Key Statistics

Shares on Issue:	103.9 million	
Cash & equivalents:	31 December 2011	~\$35.6m
Board and Management:	Tony Kiernan	Chairman & Non-Executive Director
	Mike Young	Managing Director
	Morgan Ball	Finance Director
	Terry Ransted	Non-Executive Director
	Andy Haslam	Non-Executive Director
	Malcolm McComas	Non-Executive Director
	Linda Edge	Company Secretary
Major Shareholders:	Consolidated Minerals:	23.9%
	Regent Pacific Group:	21.9%
	Henghou Group	9.9%

Website: www.bciron.com.au

#### **JORC Competent Persons Statement**

The information that relates to the Mineral Resource Estimate at Outcamp, Warrigal, and Coongan has been compiled by Mr Richard Gaze who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy and an employee of Golder Associates, and Mr Mike Young who is a Member of the Australian Institute of Geoscientists and an employee of BC Iron. The resources were first reported on the ASX on 2 April 2009. 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.

The information that relates to the Mineral Resource Estimate at Bonnie East, Dandy and Shaw River has been compiled by Mr Mike Young who is a Member of the Australian Institute of Geoscientists and an employee of BC Iron. The Bonnie East resources were first reported on the ASX on 2 April 2009, the Shaw River resources were first reported on the ASX on 30 July 2010 and the Dandy resources were first reported on the ASX on 20 September 2011. Mr Young has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Young consents to the inclusion of his name in the matters based on their information in the form and context in which it appears.

The information that relates to the Ore Reserve has been compiled by Mr Blair Duncan who is an employee of the Company and a Member of the Australasian Institute of Mining and Metallurgy. Mr Duncan has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Duncan consents to the inclusion of his name in the matters based on his information in the form and context in which it appears.

## Mineral Resources and Ore Reserves as at 30 March 2012

### Notes to the Mineral Resources and Ore Reserves:

- The Mineral Resources have been estimated using mined surfaces as of June 30, 2011. Since then 1,785,694t of ore has been mined from the Outcamp deposit.
- The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves.
- DSO (Direct Shipping Ore) is a subset of the CID (Channel Iron Deposit)
- Calcined Fe (CaFe) = Fe / (1-LOI) \* 100
- LOI measured at 1000°C
- The CID Mineral Resource is reported using a 45% cut-off grade
- The DSO Mineral Resource is reported using cut-off grades between 53% and 56% Fe. The cut off grades were selected to achieve a 57% Fe specification grade.

Deposit	Probable Ore Reserves									
	Mt	Fe%	CaFe%	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	P%	S%	LOI		
Outcamp	18.3	56.8	64.7	1.9	3.2	0.014	0.010	12.2		
Coongan	6.0	57.0	65.0	1.8	2.5	0.011	0.012	12.4		
Warrigal	10.4	57.0	64.6	2.1	3.7	0.022	0.013	11.7		
Total	34.7	56.9	64.7	2.0	3.2	0.016	0.011	12.1		

#### Table 1: Ore Reserves NJV (BC Iron 50%, Fortescue 50%)

#### Table 2: DSO Mineral Resource Estimate NJV (BC Iron 50%, Fortescue 50%)

Deposit	Measured, Indicated & Inferred Mineral Resources								
	Mt	Fe%	CaFe%	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	P%	S%	LOI	
Outcamp	19.5	56.9	64.8	2.0	3.1	0.014	0.010	12.1	
Warrigal	14.4	57.0	64.5	2.3	3.6	0.023	0.013	11.6	
Coongan	7.6	57.0	65.1	1.9	2.5	0.011	0.012	12.4	
Bonnie East	10.8	57.0	64.8	2.2	3.1	0.014	0.009	12.1	
Shaw River: Gap 11	2.8	57.1	63.4	2.9	4.8	0.021	0.029	10.1	
Total DSO	55.1	57.0	64.7	2.1	3.2	0.016	0.012	11.9	

#### Table 3: CID Mineral Resource Estimate NJV (BC Iron 50%, Fortescue 50%)

Deposit	Measured, Indicated & Inferred Mineral Resources									
	Mt	Fe%	CaFe%	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	Р%	S%	LOI		
Outcamp	37.9	53.8	61.8	2.8	4.4	0.015	0.010	12.9		
Warrigal	23.4	54.5	62.0	3.5	4.7	0.024	0.013	12.0		
Coongan	12.8	53.4	61.5	3.2	4.2	0.013	0.013	13.1		
Bonnie East	15.9	54.8	62.6	2.9	4.2	0.015	0.010	12.5		
Dandy	2.1	53.7	60.2	6.0	5.3	0.023	0.020	10.8		
Shaw River	14.0	54.4	61.2	5.1	4.4	0.021	0.027	11.2		
Total CID	106.2	54.1	61.8	3.4	4.4	0.018	0.013	12.4		

Category	DSO Mineral Resources									
	Mt	Fe%	CaFe%	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	<b>P%</b>	S%	LOI		
Measured	1.4	56.9	64.7	2.2	3.4	0.019	0.016	12.1		
Indicated	46.9	57.0	64.8	2.1	3.1	0.016	0.011	12.0		
Inferred	6.9	57.0	64.1	2.6	3.9	0.020	0.018	11.1		
Total DSO	55.1	57.0	64.7	2.1	3.2	0.016	0.012	11.9		

Table 5: CID Mineral Resource Estimate NJV (BC Iron 50%, Fortescue 50%)

Category	CID Mineral Resources									
	Mt	Fe%	CaFe%	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	P%	S%	LOI		
Measured	1.8	54.1	61.6	4.0	5.1	0.020	0.018	12.3		
Indicated	81.4	54.1	61.9	3.0	4.4	0.017	0.011	12.7		
Inferred	23.0	54.3	61.3	4.7	4.5	0.021	0.021	11.6		
Total DSO	106.2	54.1	61.8	3.4	4.5	0.018	0.013	12.4		