

# 2018 Annual General Meeting



## Managing Director's presentation

Andrew Stocks

23 November 2018



# Notice

## Forward Looking Statements

This announcement contains certain statements with respect to future matters which may constitute "forward-looking statements". Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, results, performance or outcomes to differ materially from those expressed, implied or projected. Investors are cautioned that such statements are not guarantees of future performance and accordingly not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

## Competent Persons' Statements

The information in this report that relates to the Inferred Mineral Resources (Oxide and Transitional) estimated for the Murphy South - Boo-Loo/Dolphin prospect is based on and fairly represents information and supporting documentation compiled by Mr Iain MacFarlane, who was a Fellow of the Australasian Institute of Mining and Metallurgy. Mr MacFarlane at the time of release was a full time employee of Coffey Mining Limited. There has been no material change and as such this resource is reported as it was released in 2011. Mr MacFarlane had sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity which he was 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 MacFarlane has consented to the inclusion in reports of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Resources estimated in 2013 for the Murphy South/Rob Roy (Fresh) prospect is based on and fairly represents information and supporting documentation compiled by Ms Heather Pearce, who is a member of the Australasian Institute of Mining and Metallurgy, and was a full-time employee of Iron Road Limited. This estimation was peer reviewed by Dr Isobel Clark, who is a member of the Australasian Institute of Mining and Metallurgy and who at the time of release was employed by Xstract Mining Consultants. Dr Clark has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity which she 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". Dr Clark consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to Mineral Resources (Fresh) estimated for the Boo-Loo/Dolphin prospect is based on and fairly represents information and supporting documentation compiled by Ms Heather Pearce, who is a member of the Australasian Institute of Mining and Metallurgy, and was a full-time employee of Iron Road Limited at the time of release. This estimation was peer reviewed by Mr Alex Virisheff, who is a member of the Australasian Institute of Mining and Metallurgy and employed by AMC Consultants. Mr Virisheff has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Virisheff consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The Ore Reserves estimated for CEIP involving mine planning is based on and fairly represents information and supporting documentation compiled by Mr Bob McCarthy, a Member of the Association of Professional Engineers and Geoscientists of British Columbia (Canada) and a full time employee of SRK Consulting (North America). Mr McCarthy has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr McCarthy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Ore Reserves estimated for the CEIP involving aspects other than mine planning is based on and fairly represents information and supporting documentation compiled by Mr Larry Ingle, a Member of the Australian Institute of Mining and Metallurgy and a full time employee of Iron Road Limited. Mr Ingle has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Ingle consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## Iron Ore Market

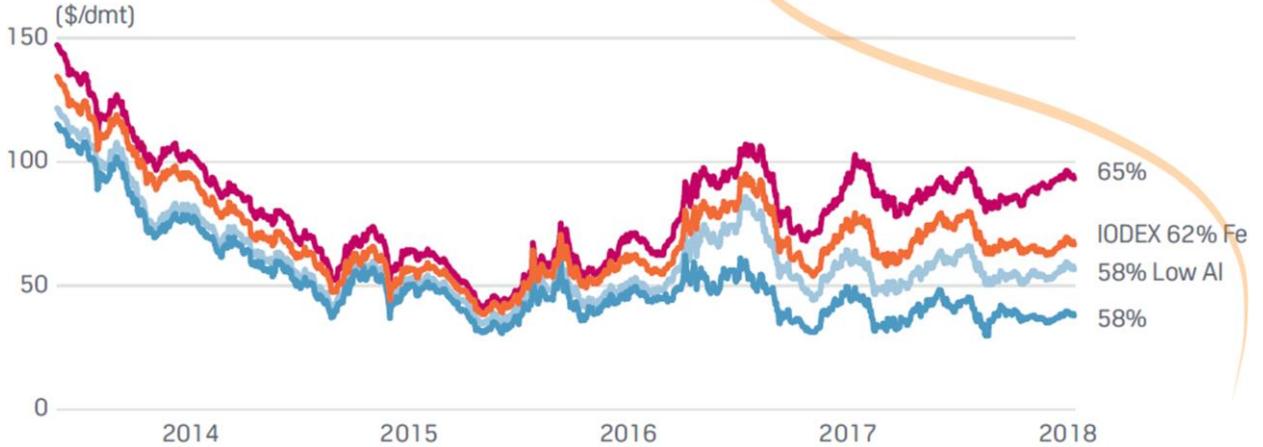


Before moving onto current activities, an update on the seaborne iron ore trade

- Steel industry has restructured
- Efforts continue to be made to reduce pollution
- Iron ore market has stabilised
- Reduction of steel manufacturing capacity, while maintaining or increasing steel production levels
- China's crude steel production up 6.1% year-on-year (Jan-Sep 2018) and comfortably on track to reach a new annual record
  - Utilisation rates continue to climb assisting steel margins in a consolidating industry
- 2018 Chinese iron ore imports also on track to total in excess of 1.05 billion tonnes, closely matching 2017 imports
  - High quality domestic Chinese concentrate output continues to fall underpinning strong price premiums.

# Customer Preference for High Quality

## IRON ORE BENCHMARKS



Source: S&P Global Platts



Recent market pricing showing clear preference for high quality product

- Higher to lower grade price range around 62% iron index
- Relative discount for both lower grade and premium for high grade fines ores widening

# Customer Preference Increasing for High Quality



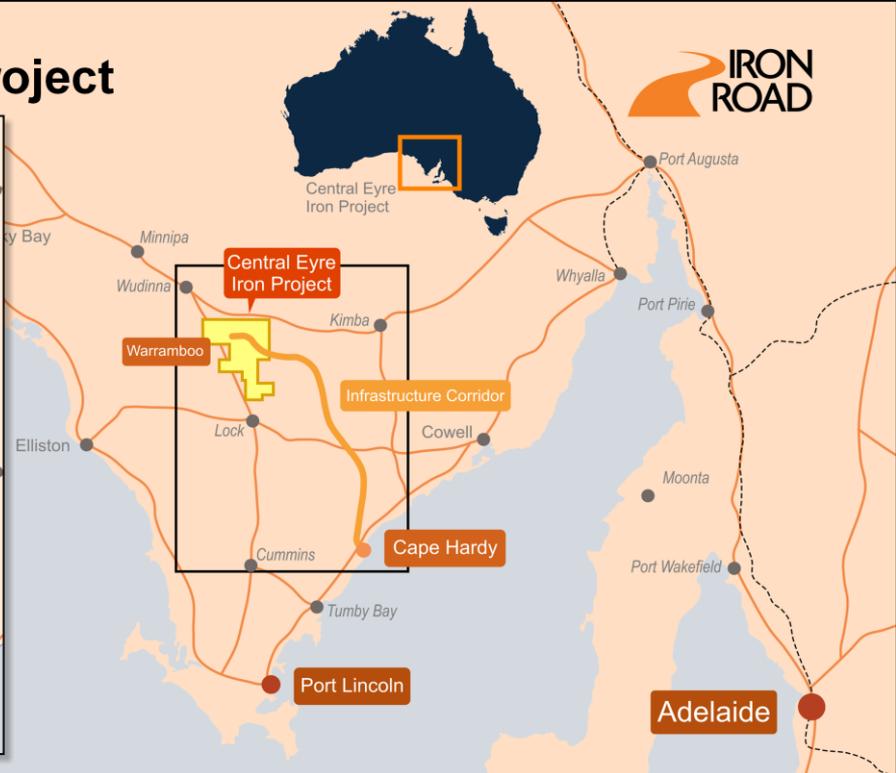
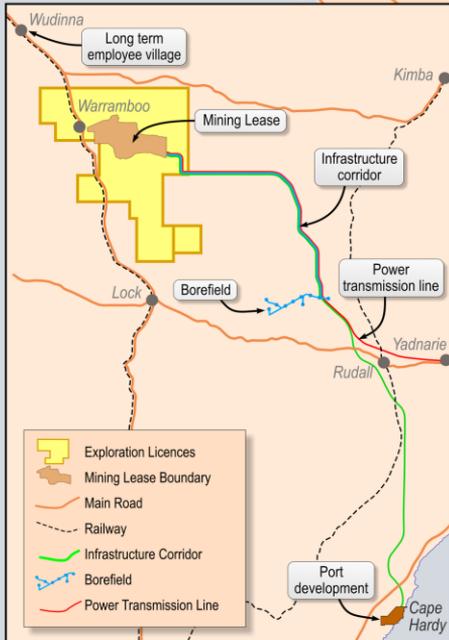
Source: S&P Global Platts



Premium and discount to the 62% iron index

- Relative discount for lower grade fines and premium for high grade ores both diverging as mills value production

# Central Eyre Iron Project



The Central Eyre Iron Project (CEIP) is located on the Eyre Peninsula, South Australia

- The Mine comprises a large open pit, beneficiation plant, integrated waste landform and rail loadout facility
- The Infrastructure Corridor comprises ~148km of standard gauge heavy rail and associated services such as power and water.
- The deep sea port at Cape Hardy comprises two Capesize berths, a ship loader and other facilities

The railway and port are designed for third party use and the rail has potential to connect to the national rail network

# State of Play

## Setting

- High quality iron concentrates and pellets trading at high premiums to benchmark prices
- China's SOE's constrained by past practices and investment policy
- Corporate strategies favouring replacement/sustaining projects in preference to growth
- National electricity market dynamics resulting in uncertainty for large users

## Iron Road Response

- Seeking to encourage project participation by credible parties
- New investor strategy underway
- Necessitates a less capital intensive start-up approach
- 'Grain First' port development option
- Smaller mine results in lower pre-strip, lower waste:ore ratio
- Truck and shovel reduces reliance on electricity



## Iron Road Response

- Seeking to encourage project participation by credible parties
- New investor strategy underway
- Necessitates a less capital intensive start-up approach
- Staging both infrastructure and mining where practicable
- 'Grain First' port development option
- Smaller mine results in lower pre-strip, lower waste:ore ratio
- Truck and shovel reduces reliance on electricity
- Existing plans and approvals remain valid

## Staged Infrastructure – ‘Grain First’ Option



Strategically located deep water port

- Only naturally protected deep water port in the State
- Not hampered by population centres
- Within established agriculture region and close to mining

The staged infrastructure option consists of building the port ahead of mining operations

- Based on the export for grain, an existing industry – ‘Grain First’ strategy
- Agreement with Eyre Peninsula Cooperative Bulk Handling (EPCBH) to examine establishing a grains export business with facilities at Cape Hardy
- Requires one Panamax berth and dedicated grains conveyor and ship loader
- Preliminary engineering work undertaken in-house by Iron Road and reviewed externally
- The supplementary government approvals required, over those already secured for the CEIP, have been identified.

Discussions with EPCBH are at an advanced stage

- EPCBH is currently seeking expressions of interest from grain traders
- Generating meaningful interest from several parties

## Staged Infrastructure – *Grain and Iron Concentrates*



Port facilities will be extended to the original design once the mine is operational

- Two Capesize berths, single ship loader
- Roll-on, roll-off capabilities allow for the unloading of large modules and consumables

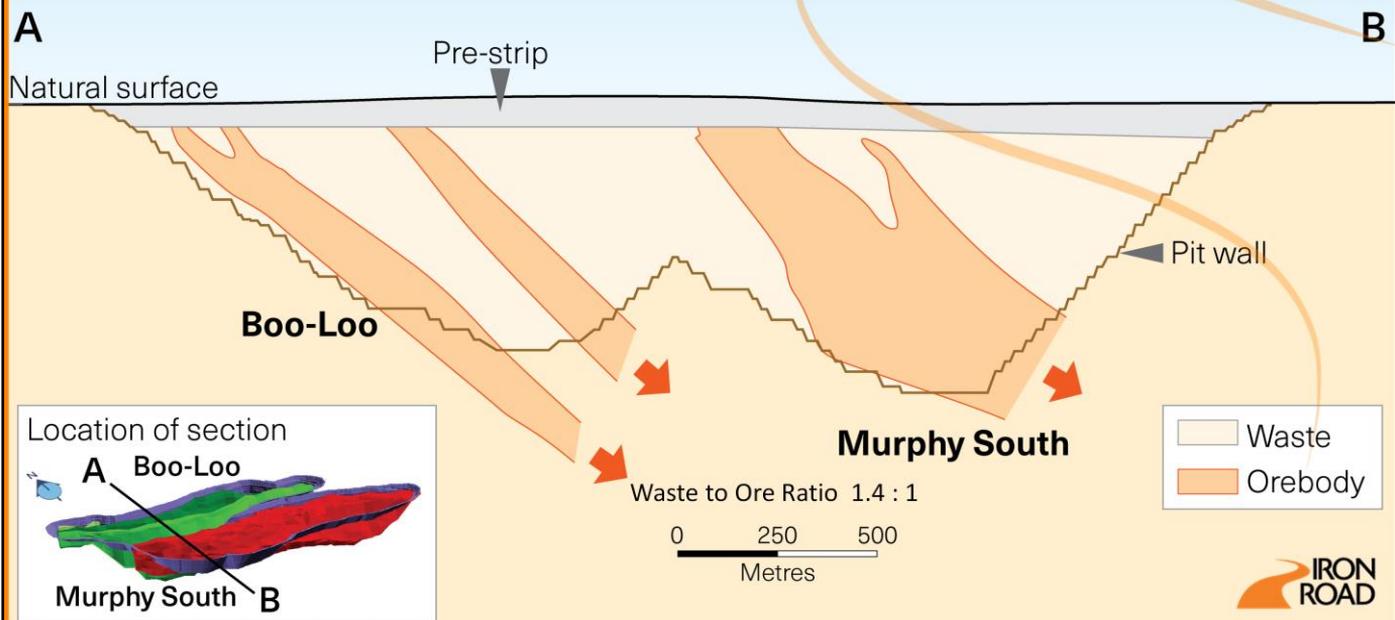
# Mining Operations



Existing mine plan was designed to achieve highly efficient movement of large volumes of ore and waste to deliver high concentrate production rate

- Significantly reducing the immense scale of annual material movements is now the focus of IRD in partnership with Thiess-RWE
- This allows for the use of (diesel-based) truck and shovel

## 24Mtpa Scenario – Design cross-section looking east



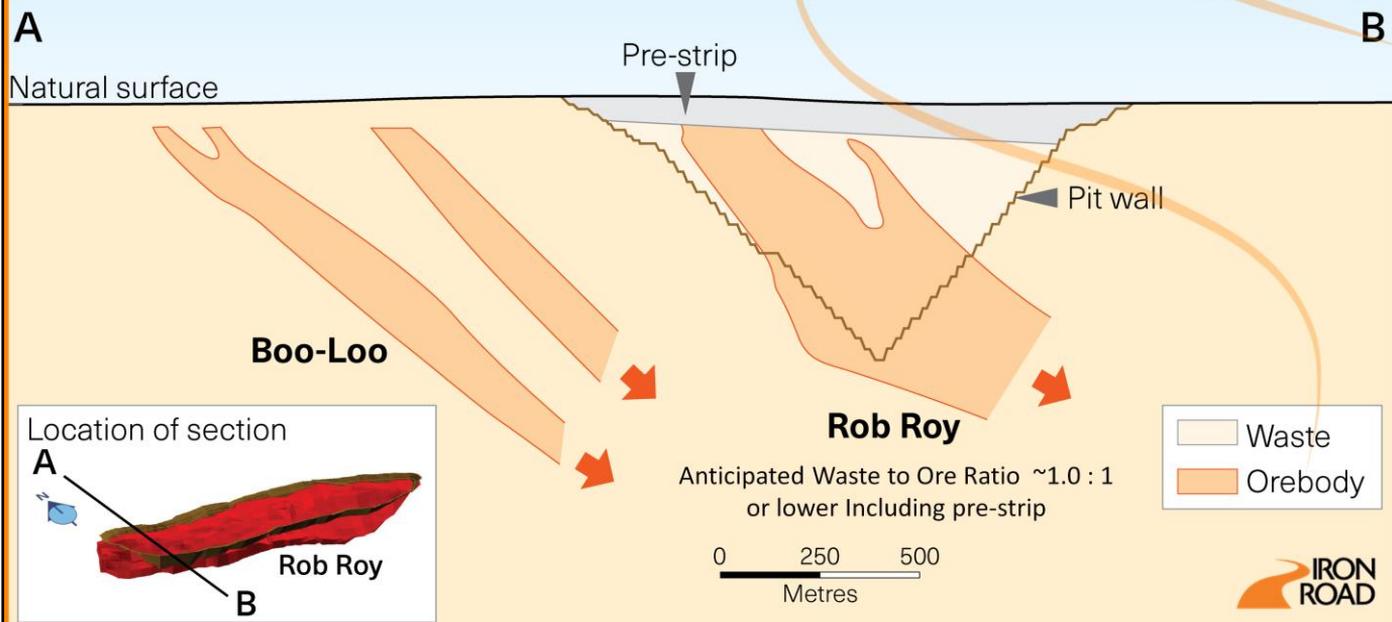
The original high concentrate production rate objective requires:

- A large scale mine
- High volume of ore and waste movement
- Significant pre-strip

With respect to attracting a development partner, the challenge of that plan is funding the ticket price required in a sector that is still cautious in deploying growth capital:

- Initial development capital
- Working capital commitments during ramp-up phase
- Significant life of mine sustaining capital requirements

# Staged Mining – Concept cross-section looking east



Currently examining a smaller initial ‘starter’ mine, with anticipated

- Lower set-up capital
- Dramatically reduced up front pre-strip requirement
- Early lower waste:ore ratio
- Reduction in strip ratio results in greater proportional reduction in material handled versus reduction in concentrate
- Substantial reduction in electrical power requirement
- Aiming for Stage 1 concentrate production of 12-16Mtpa – requires 2 of the 3 planned beneficiation trains

Does not compromise Boo-Loo orebody

- Boo-Loo and Hambidge remain as later stage expansion opportunities

# Conclusion

- Structural shift in demand towards higher quality products continues
- Encouraging project participation necessitates new strategy
- Scaled down production objective and less capital intensive start-up
- Selective mining with reduced pre-strip and waste : ore ratio
- Truck and shovel approach reduces reliance on uncertain national electricity market
- 'Grain First' development objective pursued to highlight strategically located deep water port site
- Existing plans, approvals, mining lease and Indigenous Land Use Agreement remain valid



## Conclusion and strategy

- Structural shift in demand towards higher quality products resulting in strong and sustained premiums to benchmark prices
- Scaled down production objective and less capital intensive start-up required to stimulate project partner participation
- Selective mining with reduced pre-strip and waste:ore ratio reduces capital expenditure
- National electricity market dynamics causing short, medium and long-term uncertainty for energy intensive users
- Truck and shovel approach reduces reliance on electricity and tailored to large reduction in annual ore and waste movement objectives
- 'Grain First' development objective pursued to highlight strategically located deep water port site
- Existing plans, approvals, mining lease and indigenous land use agreement remain valid

# Appendix

**Table 1 – CEIP Ore Reserve Summary**

Resource Classification	Metric Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)
Proved	2,131	15.55	53.78	12.85
Probable	1,550	14.40	53.58	12.64
<b>Total</b>	<b>3,681</b>	<b>15.07</b>	<b>53.70</b>	<b>12.76</b>

The Ore Reserves estimated for CEIP involving mine planning is based on and fairly represents information and supporting documentation compiled by Mr Bob McCarthy, a Member of the Association of Professional Engineers and Geoscientists of British Columbia (Canada) and a full time employee of SRK Consulting (North America). Mr McCarthy has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr McCarthy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Ore Reserves estimated for the CEIP involving aspects other than mine planning is based on and fairly represents information and supporting documentation compiled by Mr Larry Ingle, a Member of the Australian Institute of Mining and Metallurgy and a full time employee of Iron Road Limited. Mr Ingle has sufficient experience relevant to the style of mineralisation and the type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Ingle consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This report includes results that have previously been released under JORC 2012 by the Company on 2 May 2016. The Company is not aware of any new information or data that materially affects the information included in this announcement and all material assumptions and technical parameters underpinning the Ore Reserve continue to apply and have not materially changed.

# Appendix

**Table 2 – CEIP Global Mineral Resource**

Location	Classification	Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P (%)	LOI (%)
Murphy South/Rob Roy	Measured	2,222	15.69	53.70	12.84	0.08	4.5
	Indicated	474	15.6	53.7	12.8	0.08	4.5
	Inferred	667	16	53	12	0.08	4.3
Boo-Loo/Dolphin	Indicated	796	16.0	53.3	12.2	0.07	0.6
	Inferred	351	17	53	12	0.09	0.7
<b>Total</b>		<b>4,510</b>	<b>16</b>	<b>53</b>	<b>13</b>	<b>0.08</b>	<b>3.5</b>

The Murphy South/Rob Roy Mineral Resource estimate was carried out following the guidelines of the JORC Code (2004) by Iron Road Limited and peer reviewed by Xstract Mining Consultants. The Murphy South - Boo-Loo/Dolphin oxide and transition Resource estimate was carried out following the guidelines of the JORC Code (2004) by Coffey Mining Limited. The Boo-Loo/Dolphin fresh Mineral Resource estimate was carried out following the guidelines of the JORC Code (2012) by Iron Road Limited and peer reviewed by AMC Consultants. This report includes results that have previously been released under JORC 2004 and JORC 2012 by the Company on 30 June 2010, 28 May 2013 and 27 February 2015. The Company is not aware of any new information or data that materially affects the information included in this announcement and all material assumptions and technical parameters underpinning the Mineral Resource continue to apply and have not materially changed.

**Table 3 – CEIP Indicative Concentrate Specification – 100 micron (p80)\***

Iron (Fe)	Silica (SiO <sub>2</sub> )	Alumina (Al <sub>2</sub> O <sub>3</sub> )	Phosphorous (P)
66.7%	3.36%	1.90%	0.009%

\* The concentrate specifications given here are based on current data from metallurgical test work, bulk samples and simulation modelling designed specifically to emulate the proposed beneficiation plant.