



## ASX ANNOUNCEMENT

Iron Road Limited (Iron Road, ASX:IRD)



# IRON ROAD ACHIEVES 4.5 BILLION TONNES IN GLOBAL MINERAL RESOURCES AT CEIP

**Sets Foundation for Long Life Operation with Australia's Largest Measured + Indicated Magnetite Mineral Resource**

## Highlights

- Global CEIP Mineral Resource increases by 22% from 3.7Bt to 4.5Bt at a grade of 16% iron;
- 77% of the Mineral Resource (3.5Bt) now in the Measured and Indicated categories;
- CEIP has the largest Measured + Indicated magnetite Mineral Resource in Australia and globally ranks amongst the largest known today;
- Mine planning work is well advanced for an expanded open pit, with greater operational flexibility embedding low cost, high efficiency mining and materials handling methods;
- Metallurgical studies and expanded Mineral Resource reinforce the expectation of a long life operation producing 24 million tonnes per annum of high quality 67% iron concentrate;
- Potential for significant additional Mineral Resources associated with the southern down-dip extension of the Boo-Loo/Dolphin orebody is expected to result in a global resource exceeding 5Bt;
- Capital expenditure re-evaluation nearing completion indicating significant reduction for the increased production case compared with the February 2014 DFS summary release;
- Optimisation and value engineering programme has validated the diligent and innovative approach, positioning the CEIP as the next credible, independent, long-life iron concentrate producer – robust project returns are maintained under conservative long-term iron ore price assumptions.



Figure 1  
Mineral Resource  
drilling at the  
Central Eyre Iron  
Project

**Iron Road Limited** (Iron Road, ASX: IRD) is pleased to announce an additional 819 million tonnes in Mineral Resources have been added to the Central Eyre Iron Project (CEIP), increasing the global inventory from 3.7 billion tonnes to 4.5 billion tonnes at a grade of 16% iron. More importantly the Measured and Indicated categories now make up 3.5 billion tonnes or 77% of the overall Mineral Resource.

Iron Road Managing Director, Mr Andrew Stocks, said that the large size of the resource, particularly the Measured and Indicated components which are used in the determination of a Mining Reserve, reaffirmed the CEIP not only as South Australia's leading resources development, but as a project of global significance.

"The Central Eyre Iron Project continues to deliver with a 250% increase in resources at the Boo-Loo area or a 22% increase in global resources to 4.5 billion tonnes, cementing its place as Australia's largest combined Measured and Indicated magnetite Mineral Resource.

"The general attitude of the orebody lends itself to large scale, efficient extraction and due to the distinctive nature of the mineralogy; we believe it will be one of the most straightforward magnetite deposits to process in the world today. This project has clear advantages over the extremely hard and fine-grained banded iron formations typical of many other magnetite deposits," Mr Stocks said.

With the progression of mineral exploration at Warramboos that commenced in late 2008, Iron Road has consistently and successfully converted Exploration Potential to Mineral Resources and in turn, to Mining Reserves. Iron Road has gained a thorough understanding of the geology specific to the area and has built upon this knowledge to produce a predictive exploration model that allows for well targeted and highly successful drilling programmes. Information from the latest drilling programme confirms the down-dip potential for the Boo-Loo/Dolphin orebody and Iron Road is confident that this potential, once proven through additional exploratory drilling, will result in a global Mineral Resource at the CEIP that comfortably exceeds the 5 billion tonne mark.

"We are close to achieving the upper end of our original exploration target established back in 2009, when we stated the exploration potential at CEIP to be 2.8-5.7 billion tonnes.

"Declining capital costs, current mine planning work incorporating mobile crushers, an expected sizable increase in mining reserves and high quality concentrate specification are together expected to underpin the robust nature of the CEIP.

"Our optimisation and value engineering programme over the past twelve months validates our diligent and innovative approach in positioning the CEIP as the next credible and long-life producer of high quality iron concentrates. Our confidence in a low operating costs profile has been enhanced during this programme," said Mr Stocks.

**Table 1 - 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 (see Appendix).

**Table 2 - Iron Road Ore Reserve Summary (CEIP)**

Resource Classification	Dry Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P (%)	LOI (%)
Proved	1,871	15.6	53.9	12.8	0.08	4.5
Probable	200	15.1	58.5	13.8	0.08	5.6
<b>Total</b>	<b>2,071</b>	<b>15.5</b>	<b>54.3</b>	<b>12.9</b>	<b>0.08</b>	<b>4.6</b>

The Reserves estimated for Murphy South / Rob Roy (MSRR) is based on and fairly represents information and supporting documentation compiled by Mr Harry Warries, a Fellow of the Australasian Institute of Mining and Metallurgy, and an employee of Coffey Mining Limited. Mr Warries 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 Warries consents to the inclusion in the report of the matters based on his information in the form and context in which it appears (see Appendix).

**Table 3 - CEIP Indicative Concentrate Specification – 120 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 and simulation modelling designed specifically to emulate the proposed beneficiation plant.

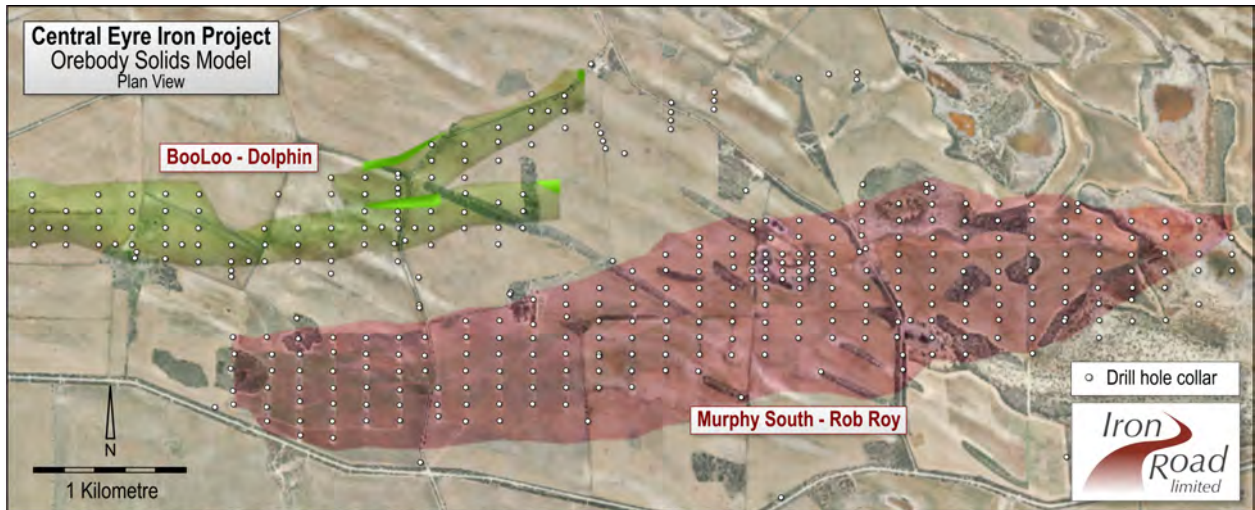


Figure 2 Superseded Warramboe Mineral Resource area, as published 28 May 2013

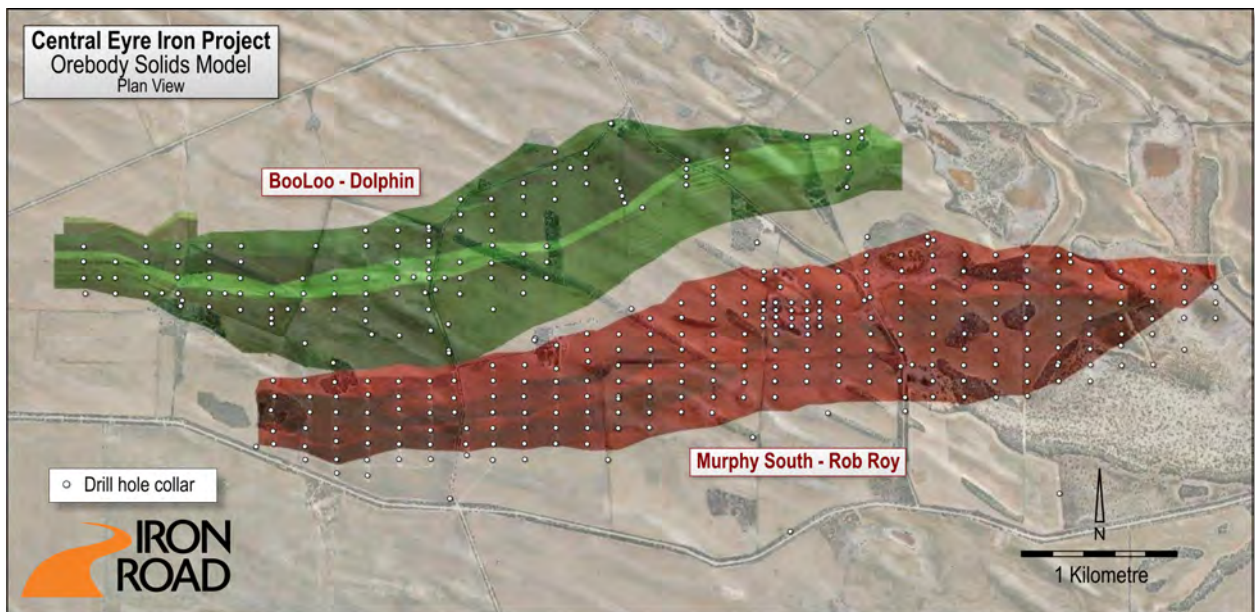


Figure 3 Current Warramboe Mineral Resource area, showing drill hole locations

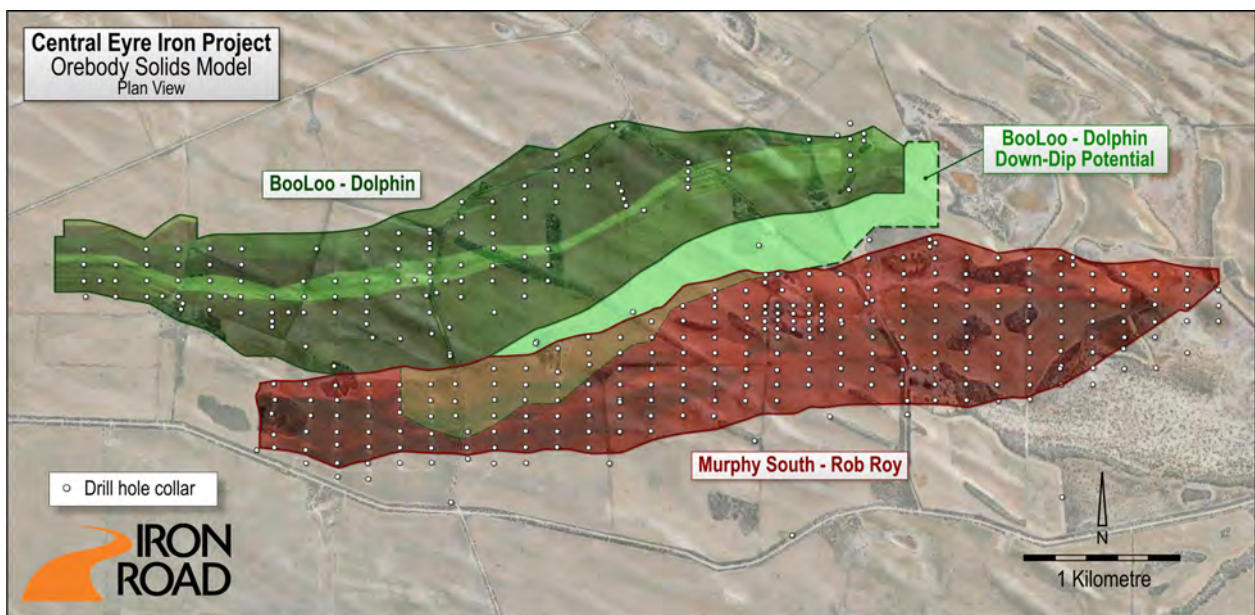


Figure 4 Current Warramboe Mineral Resource area, showing projected area of Exploration Potential

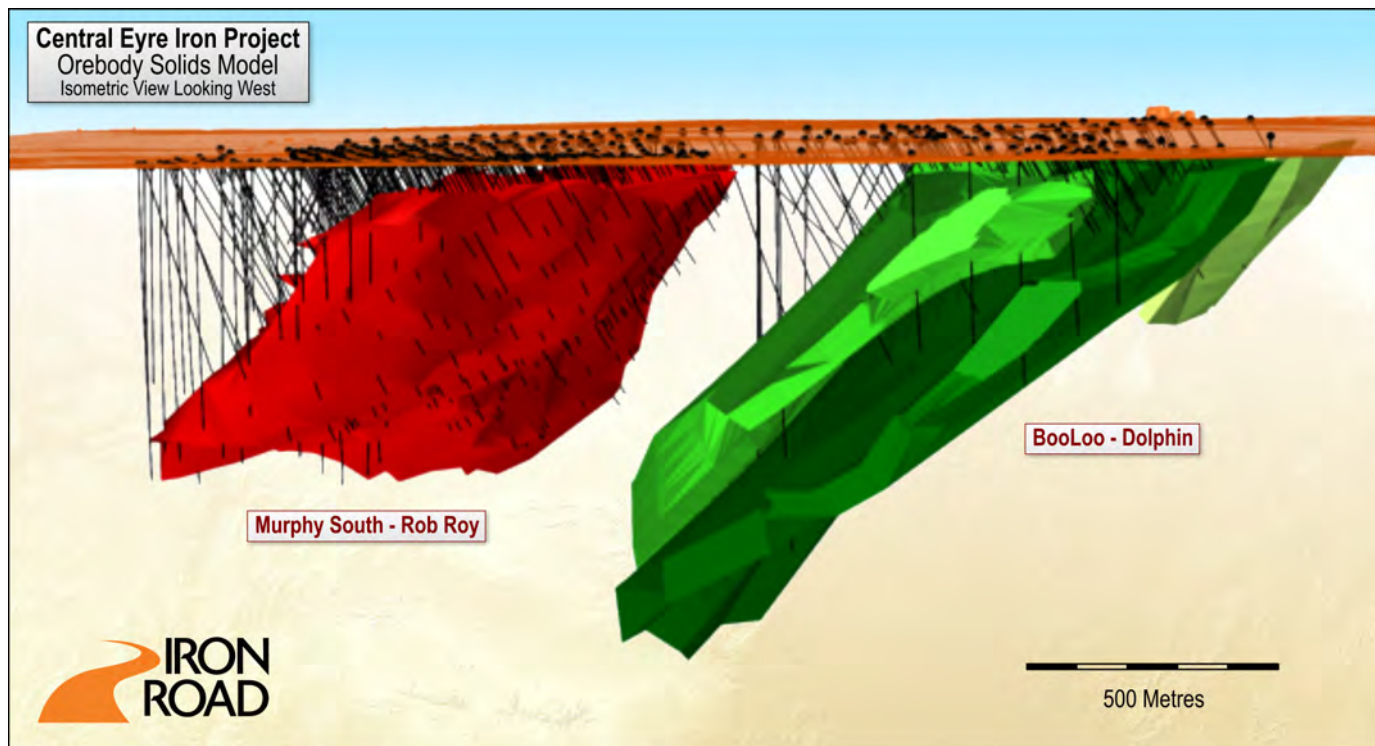


Figure 5 Cross section through Murphy South/Rob Roy and Boo-Loo/Dolphin areas

The revised Boo-Loo/Dolphin Mineral Resource were estimated by Iron Road Limited and peer reviewed by AMC Consultants and are summarised in the table below. Full details may be found in the Appendix.

Table 4 - Boo-Loo / Dolphin Mineral Resource							
Resource Classification	Oxidation	Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P (%)	LOI (%)
Inferred	Fresh	300	17	53	12	0.08	0.7
	Transitional	13	17	52	12	0.09	10.7
	Oxide	38	17	52	12	0.09	10.8
Indicated	Fresh	796	16.0	53.3	12.2	0.07	0.63
<b>Total</b>		<b>1,147</b>	<b>16</b>	<b>53</b>	<b>12</b>	<b>0.08</b>	<b>0.7</b>

The 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 (see Appendix).

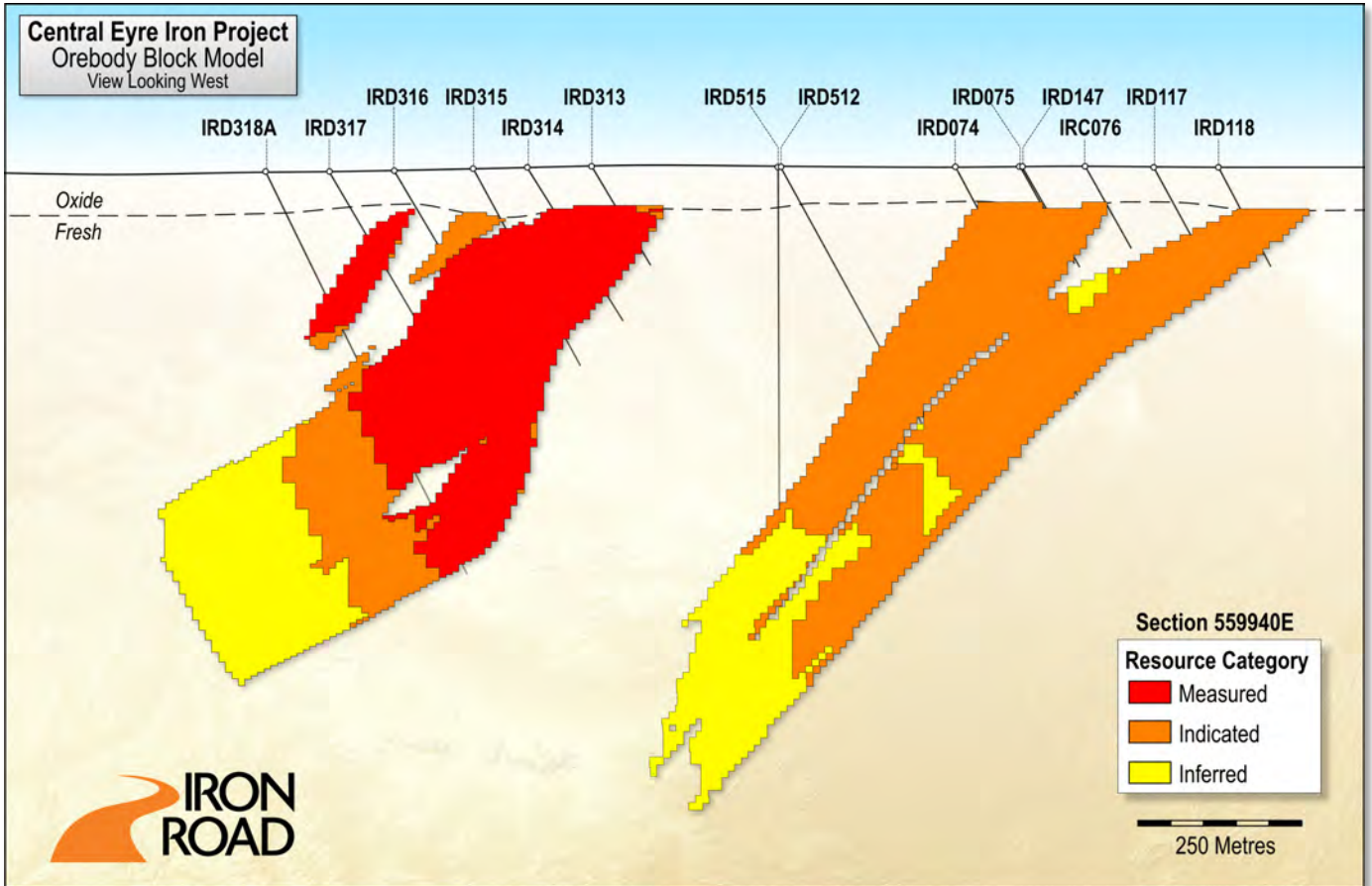


Figure 6 Cross section through Murphy South and Boo-Loo Mineral Resource block model

In addition to supporting the overall resource base at CEIP and the objective of building a 25+ year mine life at an annual output of 24Mtpa, the information will be used to refine and update the mine plan.

Iron Road has engaged the Thiess-RWE Joint Venture (TRWE) to complete the updated detailed mining model, building upon the original detailed work undertaken as part of the CEIP Definitive Feasibility Study. Experienced TRWE mining personnel have been embedded within Iron Road and bring world class mine planning and mining operations expertise, including extensive involvement in the successful application of in-pit crushing and conveying (IPCC) processes to improve material movement efficiencies.

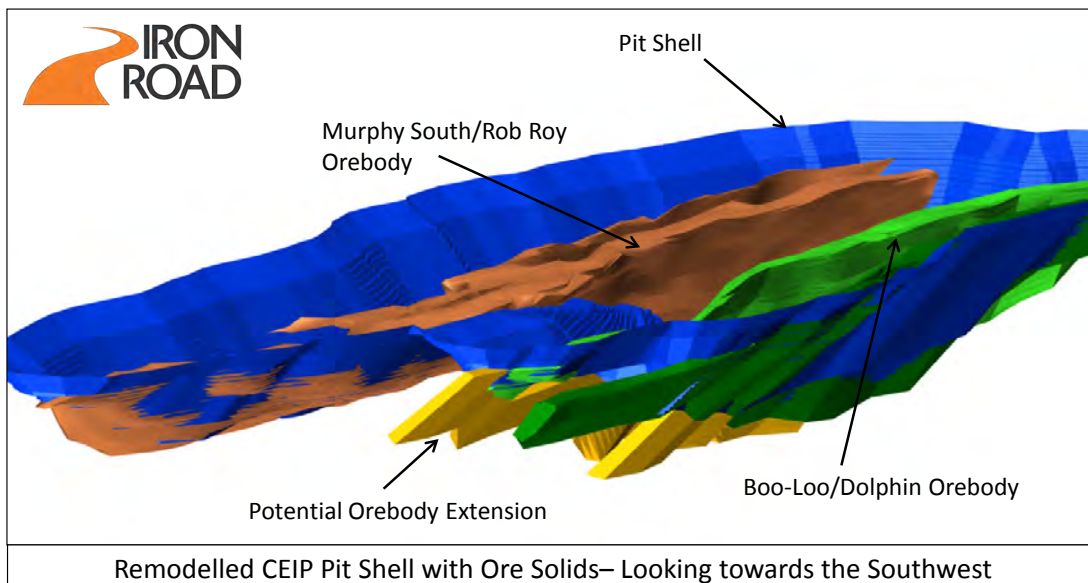


Figure 7  
Remodelled CEIP pit shell

RWE is one of Europe’s leading lignite miners and power generators. As an international asset developer, owner and operator, RWE is well versed in mining technologies and has 50 years’ experience in providing technical expertise and operational know how to mines based on continuous mining equipment, including IPCC. Thiess is one of Australia’s leading mining services contractors. With 70 years’ mining experience, Thiess has a proven capability of integrating delivery of large-scale mine development projects and contract mining services.

The Thiess-RWE Joint Venture combines RWE’s world-leading technical and operational expertise in open-cast continuous mining systems with Thiess’ proven performance in delivery of large scale mine infrastructure and full-service contract mining.

Continuous mining equipment is used successfully around the world to mine bulk commodities, including RWE’s own lignite operations in Germany. A key benefit of in-pit crushing and conveying (IPCC), in particular, is its ability to move large volumes of material very efficiently. Semi-mobile IPCC operations, as described in Iron Road’s Definitive Feasibility Study, are used in Boliden’s Aitik copper mine in Sweden and Tata Steel’s Noamundi magnetite iron ore mine in India. Mobile crushers, being evaluated currently by Iron Road and the Thiess-RWE Joint Venture, are used at Vale’s N4E iron ore mine in Brazil and China Coal’s Pingshuo coal mine in China.

- ENDS -

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## APPENDIX

### Competent Persons' statements

The information in this report that relates to the Exploration Target within the EL4849 is based on and fairly represents information and supporting documentation compiled by Mr Milo Res, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Res was an employee of Iron Road Limited at the time when the Exploration Target was compiled. Mr Res has sufficient experience that is relevant to the style of mineralisation and the type of deposits under consideration and to the activity being undertaken 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 Res consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results is based on information compiled by Ms Heather Pearce, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy. Ms Pearce has sufficient experience that is relevant to the style of mineralisation and the type of deposits under consideration and to the activity being undertaken 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". Ms Pearce is a full-time employee of Iron Road Limited and 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 the 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 is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr MacFarlane was an employee of Coffey Mining Limited at the time when the resource estimate was compiled. Mr MacFarlane 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr MacFarlane consents to the inclusion in the report of the matters based on his 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 a full-time employee of Iron Road Limited. 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 information in this report that relates to Resources estimated in 2013 for the Murphy South/Rob Roy (MSRR) 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 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 whom at the time 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 Mining Reserves estimated for Murphy South/Rob Roy is based on and fairly represents information and supporting documentation compiled by Mr Harry Warries, a Fellow of the Australasian Institute of Mining and Metallurgy, and an employee of Coffey Mining Limited. Mr Warries 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 Warries consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**JORC TABLE 1**  
**Section 1 Sampling Techniques and Data**  
 (Criteria in this section apply to all succeeding sections.)

Criteria	Explanation	
<p><b>Sampling techniques</b></p>	<ul style="list-style-type: none"> <li>• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>• Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>• The Boo-Loo/Dolphin deposit was delineated with a combination of Reverse Circulation (RC) and Mud rotary/Diamond Drilling (DD) on a nominal 200m x 100m drilling pattern. A total of 22 RC and 100 DD holes were drilled for a total of 3,208m and 30,433m respectively. The initial holes were angled -60 degrees to the North with later holes drilled vertically.</li> <li>• The drill holes and collars were surveyed by a contract surveying company (Direct Systems). All drill hole collar positions (Easting, Northing and Elevation) were picked up by DGPS. The equipment used for the Surveying was a Leica GPS1200 RTK (Real time Kinetic) system which has a reported operational range of 40km providing positional accuracy for the surface positions to +/-0.03m. The primary base stations used were South Australian Government stations. All drill holes were downhole surveyed using a north seeking DS-HA Gyroscope where entry was possible. The operations were performed according to the contractor's internal procedures. These procedures include calibrations for density, gamma, and magnetic susceptibility tools. Onsite calibration for the gyroscope tool is undertaken using a designated hole. The depth encoder is calibrated at the Adelaide Calibration Pits prior to departure to site. All DD core for angled holes was orientated at the time of drilling using the Reflex ACT II orientation tool. All core was metre marked and recovery data obtained before being logged for lithology, geotechnical attributes, structures and other attributes. All core was photographed before being cut to obtain half core samples for geochemical analysis.</li> <li>• The NQ diamond core was sampled on nominal 4m intervals and cut to provide half core samples. However shorter intervals were taken to maintain lithological boundaries. These samples were submitted for XRF analysis. Samples were crushed, dried and pulverized to produce XRF fusion discs that were prepared by casting in robotic fusion cells at 1050°C using 0.66g of sample and 7.20g of 12:22 flux. The analysis undertaken was the Fe Ore Suite which includes the following elements (lower limit of detection in brackets):Fe% (0.01), SiO<sub>2</sub>% (0.01), Al<sub>2</sub>O<sub>3</sub>% (0.01), TiO<sub>2</sub>% (0.01), MnO% (0.001), CaO% (0.01), P% (0.001), S% (0.001), MgO% (0.01), K<sub>2</sub>O% (0.01), Na<sub>2</sub>O% (0.001). LOI was analysed by thermogravimetric methods at 1000°C. Samples were also analysed for As, Sn, Ba, Sr, Cl, Ni, V, Co, Zn, Cr, Pb, Zr and Cu. RC samples were collected every meter and combined to form a 4m composite. This composite was riffle split to form a 2kg split. This sample was then crushed, dried and pulverized to produce XRF fusion discs that were prepared by casting in robotic fusion cells at 1050°C using 0.66g of sample and 7.20g of 12:22 flux. The analysis undertaken was the Fe Ore Suite which includes the following elements (lower limit of detection in brackets):Fe% (0.01), SiO<sub>2</sub>% (0.01), Al<sub>2</sub>O<sub>3</sub>% (0.01), TiO<sub>2</sub>% (0.01), MnO% (0.001), CaO% (0.01), P% (0.001), S% (0.001), MgO% (0.01), K<sub>2</sub>O% (0.01), Na<sub>2</sub>O% (0.001). LOI was analysed by thermogravimetric</li> </ul>

Criteria	Explanation	
		methods at 1000°C. Samples were also analysed for As, Sn, Ba, Sr, Cl, Ni, V, Co, Zn, Cr, Pb, Zr and Cu.
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drilling accounts for 99% of the drilling in the resource area. All diamond holes used for the estimation were NQ2 size. Pre collars were a combination of RC or Rotary Mud drilling and on average 40m but up to 70m in depth to reach the fresh rock. RC holes in the project area were from 100 - 190m in depth.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>• Recoveries are all recorded and entered into the Geological database. Overall recovery for NQ2 core in the fresh rock was greater than 98%. There were no significant issues with recovery.</li> <li>• The core is laid out on a cradle for the placing of orientation marks and meter marking. The core is checked against the drillers' blocks and the runs sheets are regularly checked.</li> <li>• The coarse grained nature of the mineralisation is considered to preclude any sample bias due to material loss or gain.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• Whether logging is qualitative or quantitative in nature. Core photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• The geotechnical logging process was designed by the consultant engaged to interpret the data (Coffey Mining). This consultant audited the process with several site visits. All geotechnical data is stored in the Geological database.</li> <li>• All core was photographed wet and dry. The lithological logs include rock type, oxidation, mineralisation, colour and other distinguishing features.</li> <li>• All core recovered was logged both lithologically and geotechnically.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</li> </ul>	<ul style="list-style-type: none"> <li>• NQ2 core was half cut using the orientation line with the left side selected for assay. Duplicate samples were quarter cored this side.</li> <li>• RC samples were collected from the rig using a 50:50 riffle splitter. Wet samples were air dried and then split.</li> <li>• All samples were oven dried and coarsely crushed to &lt;10mm. A 150g sample was then pulverized for 90 seconds in a (150ml bowl) ring mill pulveriser. Wet screen the sample at 75 micron and record oversize weights. If less than 15g of oversize is produced then client to be contacted. Dry and regrind the oversize for 4 seconds for every 5g of sample oversize. Repeat the screening, until less than 5g is above 75 micron. Filter press total sample, dry and homogenise.</li> <li>• A range of certified field standards were used in conjunction with duplicates and inserted every 20 samples.</li> <li>• Duplicates were quarter cored.</li> </ul>

Criteria	Explanation	
	<p>duplicate/second-half sampling.</p> <ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>The sample sizes are considered to be appropriate to the disseminated style of the mineralisation, the thickness and consistency of the intersections yield predictable grade ranges for the primary element.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>The assaying regime of XRF Fusion is the standard for the determination of Iron.</li> <li>No Geophysical tools were used to determine any elemental concentrations in this resource estimation.</li> <li>A total of 315 field duplicate samples from Boo-Loo/Dolphin were analysed by ALS. Results showed acceptable levels of precision for Fe which were above 90% precision level for the assay pairs. A total 219 of certified field standards were analysed. The average of the standards fell within two standard deviations of the certified mean for Fe.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Significant intersections were viewed by Senior IRD Staff on regular site visits.</li> <li>No twinned holes were drilled.</li> <li>Lithological, geotechnical and sample information is logged onto a laptop with excel spreadsheets. This data is sent to Roredata for validation and compilation into a SQL database. Raw assay files are also sent to Roredata.</li> <li>No calibrations were undertaken however early data had Mn converted to MnO.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All drill hole collar positions (Easting, Northing and Elevation) were picked up by DGPS. The equipment used for the Surveying was a Leica GPS1200 RTK (Real time Kinetic) system which has a reported operational range of 40km providing positional accuracy for the surface positions to +/-0.03m. The primary base stations used were South Australian Government stations. All drill holes were downhole surveyed using a north seeking DS-HA Gyroscope where entry was possible. The operations were performed according to the contractor's internal procedures. Onsite calibration for the gyroscope tool is undertaken using a designated calibration hole. The depth encoder is calibrated at the Adelaide Calibration Pits prior to departure to site.</li> <li>The grid system used is MGA_GDA94, Zone 53.</li> <li>Topographic surface uses 2011 Lidar 50cm spacing.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and</li> </ul>	<ul style="list-style-type: none"> <li>The nominal drill spacing is 200m (Northing) x 100m (Easting).</li> <li>The mineralisation has demonstrated sufficient geological and grade continuity to support the definition of a Mineral Resource under the JORC Code (2012).</li> </ul>

Criteria	Explanation	
	<p>classifications applied.</p> <ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No DD samples were composited. RC samples were composited in the field to 2m intervals.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The initial drilling was based on the geophysical interpretations and drilled -60° to the North. Further interpretation suggested that vertical holes would provide sufficient angles of intercept with the mineralisation as the orebody flattens.</li> <li>No orientation based sampling bias has been identified.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The samples are prepared and dispatched to the laboratory from the site core processing facility. The remnant half core is stored at the core processing facility and the coarse rejects and pulps are stored in a secure industrial shed in Adelaide.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>A review of the sampling and data collection techniques was undertaken in 2011 by Coffey. The processes are continually reviewed internally with regular site visits from senior IRD staff.</li> </ul>

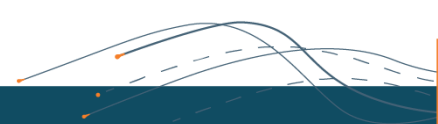
### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Explanation	
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Data templates with lookup tables and fixed formatting were used for the lithological and geotechnical logging and sample data. The completed files are transferred electronically. The sample numbers are unique and throw up a flag if duplicate numbering is attempted. The digital raw assay data obtained from the laboratory is sent directly for uploading into the database negating transcription errors.</li> <li>Data validation is undertaken on many levels from database queries to checks for missing data to visual comparisons of original and output data. The mining software also has several auto validation routines the check imported data.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>No visit to the site by the competent person was undertaken. At the time of the preparation of the resource estimation all work on site had been completed. The drilling however was designed and supervised by Ms Pearce who prepared the Mineral Resource for peer review by the Competent Person. The extensive cover at the site obscures any exposure of the mineralisation. Core photos were available for review.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any</li> </ul>	<ul style="list-style-type: none"> <li>The geology of the Boo-Loo/Dolphin deposit is only known from the drilling data. There is no surface expression of the mineralisation. The mineralisation within the drilled area has a high degree of predictability both geologically and grade continuity and conforms to the geophysical interpretations.</li> <li>Petrology has been used to assist in the development of</li> </ul>

Criteria	Explanation	
	<p>assumptions made.</p> <ul style="list-style-type: none"> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<p>logging codes.</p> <ul style="list-style-type: none"> <li>The magnetite occurrences provide clear delineations for the mineralisation.</li> <li>The occurrence of Magnetite distinguishes the bounding gneiss from the magnetite gneiss.</li> <li>The distribution of the Fe is relatively homogenous with an increase in grade near margins. Only 4% of the estimated Fe assays have a grade &gt;20%.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The Boo-Loo/Dolphin mineralisation has an approximate strike of 5km and is 0.5km wide with upper limit of fresh rock mineralisation is 40 – 70m below the surface. The fresh rock extends to 1,000m below the surface.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed</li> <li>Any assumptions behind modelling of selective mining units.</li> </ul>	<ul style="list-style-type: none"> <li>All estimation and interpretation work was undertaken using Micromine V12.5.5.896 software package. The grade estimation using Ordinary Kriging (OK) was completed for 10 variables. The drill spacings were predominately 200m x 100m. The assay data was composited on several intervals. The 4m interval was found to most faithfully represent the raw data and was used for the estimation. There was no top or bottom cut applied to the data as the occurrence of extreme outliers was negligible. The mineralised domains were encapsulated within three dimensional wireframes. All wireframes were snapped to the drill holes and the oxidation surface. These wireframes were flagged into the composited assay file. No material above the oxidation surface was considered. Semi-variogram models were produced for the estimation of the model variables. 70% of the range distances were used to designate the search ellipse. This search ellipse was factored run at 1x, 2x and 3x resulting in three grade interpolation runs.</li> <li>No previous extraction of this mineralisation has been undertaken. This estimation correlates well with the global tonnages produced from the initial wireframe.</li> <li>No economic by-products have been identified.</li> <li>Variables other than Fe that were estimated were AL<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, P, LOI_100, CaO, MgO, MnO, S and TiO<sub>2</sub>.</li> <li>The block model was constructed using a 40m x 20m x 10m parent block size. This correlates with a fifth of the sample spacing in the northerly and easterly direction with the vertical dimension capturing at least two of the four meter sample intervals.</li> <li>No assumptions have been made on selective mining units. Bench height and wall slope angles are to be determined.</li> </ul>
<b>Estimation and modelling techniques (continued)</b>	<ul style="list-style-type: none"> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not</li> </ul>	<ul style="list-style-type: none"> <li>All variables other than Fe were considered to be correlated and estimated using the same parameters.</li> <li>The presence or absence of magnetite was use to distinguish the wireframe boundaries.</li> <li>The statistical analysis of the grade distribution indicated</li> </ul>

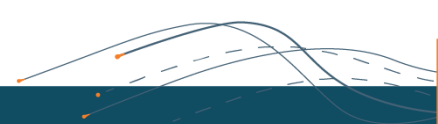
Criteria	Explanation	
	<p>using grade cutting or capping.</p> <ul style="list-style-type: none"> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<p>that grade cutting was unwarranted.</p> <ul style="list-style-type: none"> <li>Validation of the model was undertaken both visually and statistically. A cross validation analysis was performed for the resulting block model and LG variogram and produced an error statistic of -0.001 and a standard deviation of 0.7 indicating that the variograms used are a good representation of the raw data. A visual inspection was made slicing through the model and comparing the drill hole data with the blocks colour coded for Fe.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>The tonnages are estimated on a dry basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The natural cutoff was used for the construction of the wireframes and identified as 8% Fe</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>It is envisaged that the Boo-Loo/Dolphin will be developed as an open cut mine. The shape of the orebody lends itself to this style of mining. Currently underway is an optimisation study to determine the economics of this approach.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary metallurgical investigation including petrology, release analysis and DTR analysis has been undertaken. The DTR analysis of 605 samples has indicated that an average recovery of 65.9% of the contained magnetite should be achieved with an average magnetite concentrate grade of 69% Fe.</li> </ul>



Criteria	Explanation	
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No environmental assumptions have been considered in the estimation.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>Density measurements were taken routinely from the drill core. This was done by weighing the sampling in air and in water. The results were then flagged for the wireframe in which they occurred. The results for the 1,834 samples indicated that the density for the main wireframe was 3.12 t/m<sup>3</sup>. This was then used when reporting from the block model.</li> <li>The high grade metamorphism event that is pervasive throughout the region has resulted in a very competent rock mass with a very low porosity. This reduces the influence of void spaces that could affect the SG determinations.</li> <li>The bulk density data was investigated by an independent consultant (Hawke Geophysics) and found to have the rigor required for the use in the estimation process.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource classification was based on the geological continuities and the quality of grade estimates as reflected in the number of supporting holes and the kriging variances. Each category had minimum criteria that had to be met.  Run 1 – The initial search ellipse parameters was set to 1x the search ellipse with the minimum number of holes set to three and the maximum number of samples restricted to 20. This run was coded as 1 in the Rescat variable for consistency with the IRD global resource model.  Run 2 – The second search was increased to 2x the search ellipse with the minimum number of holes required set to three and the maximum number of samples restricted to 20. This run was coded as 2 in the Rescat variable for consistency with the IRD global resource model.  Run 3 – The third search was set to 4x the search ellipse with the minimum number of holes required set to three and the maximum number of samples restricted to 20. This run was coded as 3 in the Rescat variable for consistency with the IRD global resource model.  The Rescat codes 1 &amp; 2 were considered to be Indicated</li> </ul>



Criteria	Explanation	
	<ul style="list-style-type: none"> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<p>with Rescat code 3 being classified as Inferred</p> <ul style="list-style-type: none"> <li>The data set used for the estimation had comprehensive coverage over the project area and does not favour or misrepresent the in-situ mineralisation. The validation of the block model shows a good correlation to raw data.</li> <li>The Mineral Resource estimate appropriately reflects the view of the competent person.</li> </ul>
<b>Audits or reviews.</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No independent third party review has been undertaken.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource in accordance with the guidelines as outlined in the JORC Code (2012).</li> <li>The statement relates to a global estimate for the Boo-Loo/Dolphin project.</li> <li>No production data is available.</li> </ul>





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## Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and  
Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

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### Report name

Resource Re-Estimation And Upgrade For Booloo-Dolphin, January 2015

*(insert name or heading of report to be publicly released)* ("Report")

Iron Road Limited

*(insert name of company releasing the Report)*

Booloo – Dolphin deposit of Central Eyre Iron Project

*(insert name of the deposit to which the Report refers)*

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

20 February 2015

*(Date of Report)*

### Statement

I, Alexander Virisheff, confirm that I am the Competent Person for the Report and:  
*(insert full name)*

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").
- I am a Competent Person as defined by the 2012 JORC Code, having five years experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of the Australasian Institute of Mining and Metallurgy.
- I have reviewed the Report to which this Consent Statement applies.
- I am a consultant working for AMC Consultants Pty Ltd and have been engaged by Iron Road Limited to prepare the documentation for Booloo-Dolphin deposit on which the Report is based, for the period ended 31 January 2015.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Mineral Resources.

# Competent Person's Consent Form

Resource Re-Estimation And Upgrade For Booloo-Dolphin

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## Consent

I consent to the release of the Report and this Consent Statement by the directors of:

Iron Road Limited

*(insert reporting company name)*

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Signature of Competent Person:

20 February 2015

Date:

Fellow, Australasian Institute of Mining and  
Metallurgy

Professional Membership:

*(insert organisation name)*

106005

Membership Number:



Signature of Witness:

Peter Stoker, Brisbane, Queensland

Print Witness Name and Residence (e.g. Town/suburb):