Appendix 2 Jimmawurrada Table 1
6 March 2015

The following table provides a summary of important assessment and reporting criteria used at the Jimmawurrada deposit for the reporting of Mineral Resources and Ore Reserves in accordance with the Table 1 checklist in *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition)*. Criteria in each section apply to all preceding and succeeding sections.

**SECTION 1 SAMPLING TECHNIQUES AND DATA**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sampling techniques</strong></td>
<td>• Samples for geological logging, assay, metallurgical and density test work are collected via drilling.</td>
</tr>
<tr>
<td></td>
<td>• Drilling for collection of samples for assay is conducted on a regularly spaced grid. For drilling prior to 2011, all mineralised intervals (&gt; 50% Fe) are sampled and waste intervals (&lt; 50% Fe) are sampled for several intervals when adjacent to mineralised intervals. From 2011 onwards, the entire drill hole is sampled.</td>
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<td></td>
<td>• Mineralisation is determined by a combination of geological logging and assay results.</td>
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<tr>
<td><strong>Drilling techniques</strong></td>
<td>• Drilling is predominantly by reverse circulation with a lesser proportion of percussion and diamond drill core. Diamond core drilling up until the year 2000 used dual rotary drilling to get through the alluvial cover, with the diamond section being a ‘tail’ section of each hole. (Refer to Section 2, Drill Hole Information, for a detailed breakdown of drilling by method and year).</td>
</tr>
<tr>
<td></td>
<td>• All diamond drill core uses wireline triple tube to retrieve the core.</td>
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<tr>
<td></td>
<td>• Diamond drill core was not oriented.</td>
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<tr>
<td><strong>Drill sample recovery</strong></td>
<td>• No direct recovery measurements of reverse circulation samples are performed. Sample weights are recorded from laboratory splits and the recovery at the rig is visually estimated for loss per drilling interval.</td>
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<tr>
<td></td>
<td>• Diamond drill hole core recovery is recorded using standard recovery measurements, with all cavities and core loss captured in the logging database.</td>
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<tr>
<td></td>
<td>• Based on analysis of field duplicates and twinned reverse circulation/diamond drill core holes, it is unlikely that any significant bias exists between sample recovery and grades or material characteristics.</td>
</tr>
<tr>
<td><strong>Logging</strong></td>
<td>• 100% of reverse circulation and diamond drill holes are geologically logged.</td>
</tr>
<tr>
<td></td>
<td>• Geological and material type logging is performed on each interval for all reverse circulation drilling and at either 1 m or 2 m intervals for all diamond core drilling.</td>
</tr>
<tr>
<td></td>
<td>• All diamond drill core is photographed.</td>
</tr>
<tr>
<td></td>
<td>• All reverse circulation drill holes from 2011 onwards are logged using down-hole geophysical tools for gamma trace, calliper, gamma density, resistivity, magnetic susceptibility and magnetic deviation.</td>
</tr>
<tr>
<td><strong>Sub-sampling techniques and sample</strong></td>
<td>• 2011 – 2012 reverse circulation drilling sampled at 2 m intervals utilising a rotary cone splitter to produce two sub-samples representing 6.25% of the total sample. Diamond core crushed over 1 m or 2 m intervals and samples split with a rotary splitting device to produce 2-3 kg samples.</td>
</tr>
<tr>
<td><strong>techniques and sample</strong></td>
<td>• 1988-2000 – Reverse circulation drilling sampled at 1.5 m or 2 m intervals, and split with riffle splitter to produce two 2-3 kg samples. Diamond drill core sampled at various intervals, crushed on-site and split with riffle splitter. Dual rotary samples were collected in 20 l plastic buckets at 1 m intervals after being passed through a chisel splitter. Once dry the samples were composited according to geology, at 4-10 m intervals by spear sampling. Waste intervals commonly not sampled.</td>
</tr>
<tr>
<td><strong>sample preparation</strong></td>
<td>• 1975-1981 – 2 m samples collected in a 20 l plastic bucket. Samples dried and then riffle split.</td>
</tr>
</tbody>
</table>
### Quality of assay data and laboratory tests

- 1991-2012: Analysis of samples by thermo-gravimetric analyser (TGA) and X-ray fluorescence (XRF) for a 24 analyte suite yielded total assay values of ~100% and accounts for virtually all elements present in the samples.

Quality is assured by the following measures:

- Standards are inserted randomly by the rig geologist into the sample sequence at the time of drilling as the reverse circulation samples are being prepared, or immediately after completing a drill hole. Check standards are inserted at a rate of one per hole. Check standards contain a trace of strontium carbonate that is added at the time of preparation.
- Field duplicates are collected at the same time as parent samples at a rate of one duplicate every 20 samples. This process is overseen by the rig geologist. Trace zinc is included in the duplicate sample for later identification.
- Internal laboratory splits (after crushing) and sample repeats (from pulps) are performed at a rate of 1 in 20 samples.
- Internal laboratory standards and blanks (not available for pre-1988 data).
- No duplicate or standard data is available for 1975-1991 drilling data.
- 1988-2000 drilling campaigns utilised the internal Cape Lambert laboratory for a nine analyte suite by XRF.
- 1975-1981 drilling campaigns utilised Australian Iron and Steel Laboratories for a 16 analyte suite by XRF.
- Quality control analysis indicates acceptable quality of precision and accuracy between 1991 and 2012. Analyses of the duplicate dataset do not detect any bias in the field duplicate data.

### Verification of sampling and assaying

- Comparison of reverse circulation and twinned diamond drill core assay data distributions show that the drilling methods have similar grade distributions verifying the suitability of reverse circulation samples in the Mineral Resource estimate.
- Twinned diamond drill holes have been completed throughout the deposit for the purpose of metallurgical assessment.
- Written procedures outline the processes of geological logging and data importing, QA/QC validation and assay importing, etc. A robust, restricted-access database is in place to ensure that any requests to modify existing data go through appropriate channels and approvals, and that changes are tracked by date, time, and user.

### Location of data points

- From 1988 onwards, all drill hole collar locations at the Jimmawurrada deposit are surveyed to Geocentric Datum of Australia 1994 (GDA94) grid by qualified surveyors using Differential Global Positioning System survey equipment.
- Prior to 1988, all drill hole collar locations are approximate and no survey was conducted.
- No down-hole surveys were completed due to shallow drilling with an average depth of 57 m.

### Data spacing and distribution

- The Jimmawurrada deposit has a strike length of 19 km northwest - southeast. The northern 4km of this strike length is drilled at 200 m × 100 m spacing and the remainder is drilled at 400 m × 200 m.
- The drill spacing is deemed appropriate for sufficient deposit knowledge by the Competent Person for the Mineral Resource classification applied.
- Samples were composited to a 2 m length.

### Orientation of data in relation to geological structure

- Reserve circulation drilling is completed along northeast-southwest trending lines perpendicular to the deposit strike.
- All drill holes are vertical.

### Sample security

For samples collected from 2011 onwards:

- Laboratory samples (A splits) are collected by field assistants and transported to Ultra Trace Laboratories in Perth, Western Australia for analysis. Retention samples (B splits) are collected and stored in drums for two years at the Rio Tinto Iron Ore Resource Evaluation camp located on-site.
- Assay pulps are retained indefinitely at Rio Tinto Iron Ore facilities located at either Pannawonica or Dampier, Western Australia.
Audits or reviews

- No external audits have been performed.
- Internal Rio Tinto Iron Ore peer review processes and internal Rio Tinto technical reviews have been completed. These reviews concluded that the fundamental data collection techniques are appropriate.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria Commentary

Mineral tenement and land tenure status
- 100% owned by Robe River Mining Ltd (53% Rio Tinto Limited), held under Mining Lease (ML) 248SA.

Exploration done by other parties
- The Jimmawurrada deposit was granted to Broken Hill Propriety Company Limited (BHP) in 1962 as Temporary Reserve 2348H. The area was converted to ML 254SA Section 4 in 1976.
- BHP carried out mapping and completed the first drilling campaign targeting pisolite mineralisation in 1972.

Geology
- The Jimmawurrada deposit is classified as a Channel Iron Deposit with mineralisation between 15 m and 70 m thick overlain by unconsolidated alluvium that is between 0 m and 50 m thick.
- The deposit is subdivided into stratigraphic domains based on the abundance of clay. A unit of predominantly clay grades downwards into a unit of mixed clay and Fe-rich pisolite. This is typically underlain by a predominantly hard, competent pisolite unit.
- Drilling has demonstrated that basement rocks are dolomite and shale of the Wittenoom Formation.

Drill hole Information
- Drilling data summary:

<table>
<thead>
<tr>
<th>Year</th>
<th>Dual Rotary/Diamond</th>
<th>Reverse Circulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Holes</td>
<td>Metres</td>
</tr>
<tr>
<td>1975-1981</td>
<td>32</td>
<td>1,745</td>
</tr>
<tr>
<td>1988-1991</td>
<td>56(HQ)</td>
<td>2,135</td>
</tr>
<tr>
<td>1999-2000</td>
<td>85(HQ)</td>
<td>3,573</td>
</tr>
<tr>
<td>2011</td>
<td>39(PQ)</td>
<td>2,269</td>
</tr>
<tr>
<td>2012</td>
<td>126</td>
<td>7,494</td>
</tr>
</tbody>
</table>

Data aggregation methods
- Sample data has been composited to 2 m for Mineral Resource estimation.
- No maximum or minimum grade truncations were performed.

Relationship between mineralisation widths and intercept lengths
- Down-hole interval lengths reported are essentially true width due to vertical drilling and gently dipping or horizontal strata.
Balanced reporting

- Not applicable. Rio Tinto has not released exploration results for this deposit.

Other substantive exploration data

- The area surrounding Mesa J deposit, including lower Jimmawurrada, was geologically mapped at 1:5,000 scale in 2003. The remainder of Jimmawurrada has been mapped from aerial photography with limited reconciliation by field checks.

Further work

- Further infill reverse circulation drilling is planned. The initial focus of this work is to collect data at the northwestern end of the deposit, near the Mesa J deposit.
- Further diamond core drilling is planned for dry density test work.
# SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

### Criteria Commentary

| Database integrity | All drilling data is securely stored in an acQuire™ geoscientific information management system managed by a dedicated team within Rio Tinto Iron Ore. The system is backed up nightly on servers located in Perth, Western Australia. The backup system has been tested in 2014, demonstrating that it is effective.  
- The drilling database used for Mineral Resource estimation has been internally validated by Rio Tinto Iron Ore personnel. Data is validated using acQuire™ scripts for relational integrity, duplicates, total assay and missing / blank assay values.  
- Data was exported from the acQuire™ database and imported into a Vulcan database.  
- The drill hole database is validated by/for:  
  - acQuire™ scripts for relational integrity, duplicates, total assay and missing / blank assay values;  
  - Grade ranges in each domain;  
  - Domain names and tags;  
  - Survey data down-hole consistency;  
  - Null and negative grade values;  
  - Missing or overlapping intervals;  
  - Duplicate data.  
- Drill hole data is validated visually by domain compared to the geological model. |

| Site visits | The Competent Person visited Jimmawurrada in 2013. |

| Geological interpretation | Overall the Competent Person’s confidence in the geological interpretation of the area is good, based on the quantity and quality of data available, and the continuity and nature of the mineralisation.  
- Geological modelling is undertaken by Rio Tinto Iron Ore geologists. The method involves interpretation of down-hole stratigraphy using surface geological mapping, lithological logging data, down-hole gamma data, and assay data.  
- Cross-sectional interpretation of each stratigraphic unit is performed followed by interpretation of mineralisation boundaries. Three-dimensional wireframes of the sectional interpretations are created to produce the geological model.  
- The geological model is subdivided into domains and the composites are coded with these domains.  
- In the Competent Person’s opinion the continuity of mineralisation is generally good. Mineralisation at Jimmawurrada is affected by stratigraphy, structure and weathering. The drill hole spacing is sufficient to capture grade and geology changes at a broad scale. |

| Dimensions | The mineralisation extends 18,000 m, is approximately 3,000 m wide, and is typically 15-70 m thick. |

| Estimation and modelling techniques | Mineralised domains are estimated by ordinary kriging and non-mineralised domains are estimated by inverse distance weighting to the first power. These methods are deemed appropriate by the Competent Person for estimating the tonnes and grade of the reported Mineral Resources.  
- The estimation process was completed using Isatis and Vulcan computer software.  
- Grades are extrapolated to a maximum distance of approximately 500 m from data points.  
- The block model was rotated to align with the strike orientation of the deposit.  
- No grade capping or cutting was used, as analysis of the grade distributions of the attributes demonstrated it was not required.  
- The estimated model was validated using a combination of visual, statistical and multivariate global change of support techniques in the absence of any production data.  
- The block size used was 100 m (X) × 50 m (Y) × 4 m (Z) for parent blocks. |

| Moisture | All Mineral Resource tonnages are reported on a dry basis. |

| Cut-off parameters | The criteria for Mineral Resources were that geology must be either mixed clay and pisolite or hard competent pisolite. |
**Mining factors or assumptions**
- Development of this Mineral Resource estimate assumes future mining using standard Rio Tinto Iron Ore equipment. The assumed mining method is conventional truck and shovel open pit mining at an appropriate bench height. Mining practices will include grade control utilising blast hole data.

**Metallurgical factors or assumptions**
- Metallurgical testing was completed in 2014 that concluded the mixed clay and pisolite will process favourably, thus this geological domain is included as Mineral Resources.
- It is assumed that standard crushing and screening processes used by Rio Tinto Iron Ore will be applicable for the processing of the Jimmawurrada deposit.

**Environmental factors or assumptions**
- Rio Tinto Iron Ore has an extensive environmental and heritage approval process. A detailed review of these requirements has been undertaken in a recent Pre-Feasibility Study. No issues were identified that would impact on the Mineral Resource estimate.

**Bulk density**
- Dry bulk density was estimated using PQ3 diamond drillcore density measurements.
- Bulk density was assigned to mineralised blocks based on an average density for mineralised material.

**Classification**
- The Mineral Resource classification is 100% Inferred.
- The Competent Person is satisfied that the stated Mineral Resource classification reflects the geological controls interpreted and the estimation constraints of the deposits.

**Audits or reviews**
- All stages of Mineral Resource estimation have undergone an internal peer review process, which has documented all phases of the process. The Mineral Resource estimate has been accepted by the Competent Person.

**Discussion of relative accuracy/confidence**
- The spacing of data at this stage only supports an Inferred Resource.
- Further density data needs to be collected to improve confidence in the estimated bulk density.
- The accuracy and confidence of Mineral Resource estimation is consistent with the current level of study (Order of Magnitude).