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# BAUXITE RESOURCES LIMITED

## RIU Conference 21 Feb 2012





## Forward Looking Statements

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# Company Profile



## Stock Code: BAU

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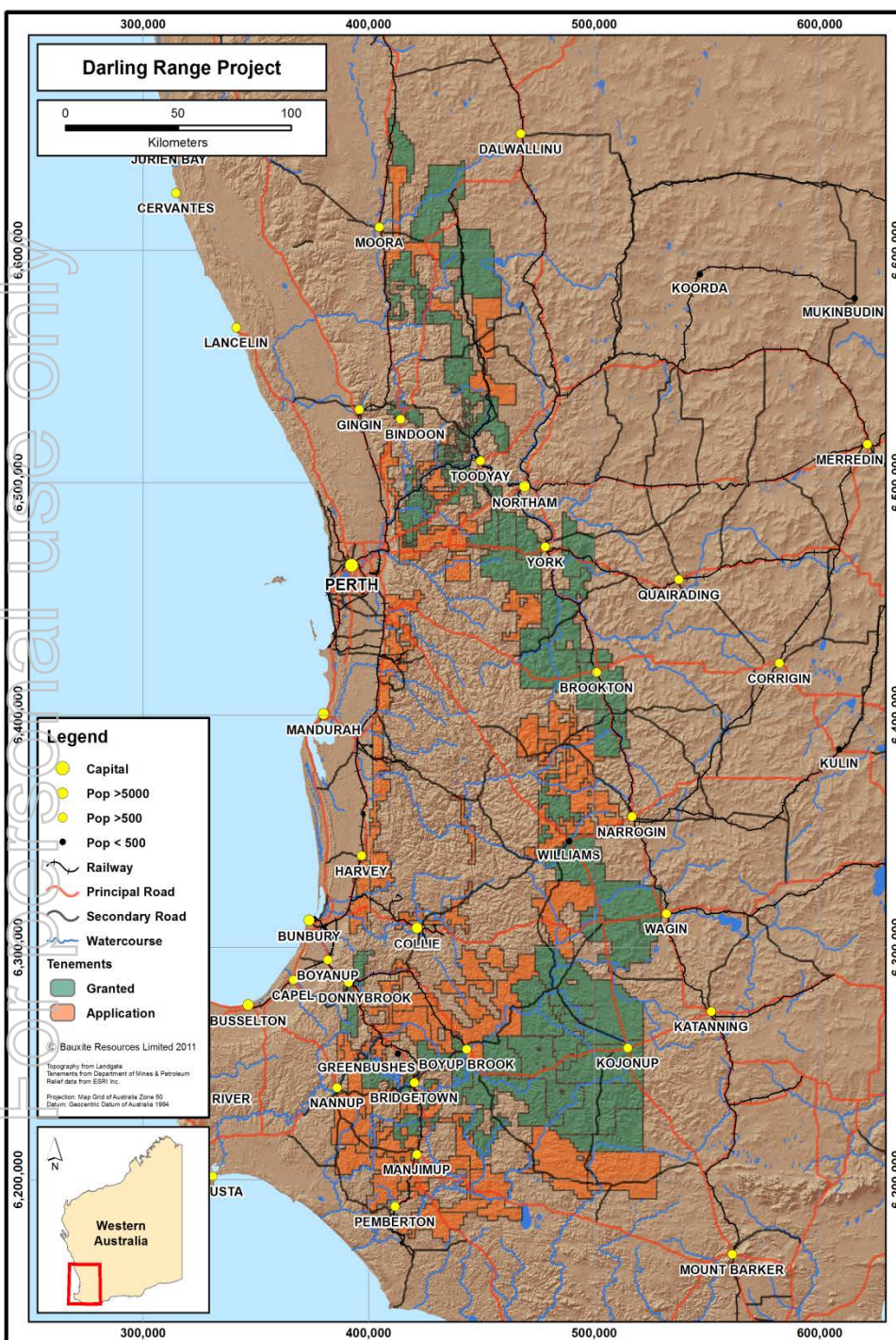
Ordinary	235m
Options	25m
Market Cap	\$31.8m (01/02/12)
Bank Debt	\$ 0
Current cash	\$50.6m (31/12/11)
Scott Donaldson	CEO & Executive Director
Barry Carbon AM	Chairman





## Darling Range, WA Tenements

- ~24,000 km<sup>2</sup> tenement area
- 51 ELs granted, covering 13,000km<sup>2</sup>
- 61 ELs pending
- 150 landowner have signed exploration access agreements covering 352 properties
- Established joint ventures
- Additional resources currently being modelled





# Darling Range Prospectivity

- JVs agreements only cover bauxite rights on BRL tenements
- Ability for BRL to exploit other mineral opportunities
- Tenements largely under explored by modern methods
- Historic mining operations in region include Boddington Gold Mine, Collie coalfields & Greenbushes Tin & Tantalum operations
- Utilization of modern exploration techniques allowing for easier resource identification
- Improved understanding of regional geology and overlying regolith allows faster, easier and therefore potentially cheaper exploration opportunities
- High level review of minerals prospectivity other than bauxite is positive with further work underway



# Priority Minerals

- Gold - numerous historic gold occurrences through the Darling Range, Boddington Gold mine reopened in 2010
- Iron Ore – First historic iron ore production in WA was from deposit within the southwest region prior to the Pilbara operations
- Coal - Collie coalfield supported by Wilga and Boyup basin reserves
- Bauxite – established bauxite production region with BRL current holder of an interest ~51MT of bauxite resource. \*

*\*ASX announcement 2/11/2011 - refer pages 16 & 17 for resource table and JORC List of Assessments and Reporting Criteria*

# Darling Range bauxite Joint Ventures



## 1. Bauxite Alumina Joint Venture (BAJV) with Yankuang Resources (YK)

- Bauxite and Alumina rights only – BRL retains 100% other mineral rights
- YK to fund 70% of all bauxite exploration costs for 70% bauxite rights
- YK will fund 90% of alumina refinery feasibility study costs
- Refinery construction subject to satisfactory bauxite resource and BFS outcome
- BRL will pay 9% of the refinery construction cost and will receive 30% of the alumina product, YK will assist BRL to raise its 9% of capital
- Alumina off take agreement - YK to take 50% of BRL's 30% for 10yrs
  - BRL has 100% of 30% available after 10yrs

# Darling Range bauxite Joint Ventures



## 2. Shandong # 1 Institute of Geology & Minerals Exploration (Shandong )

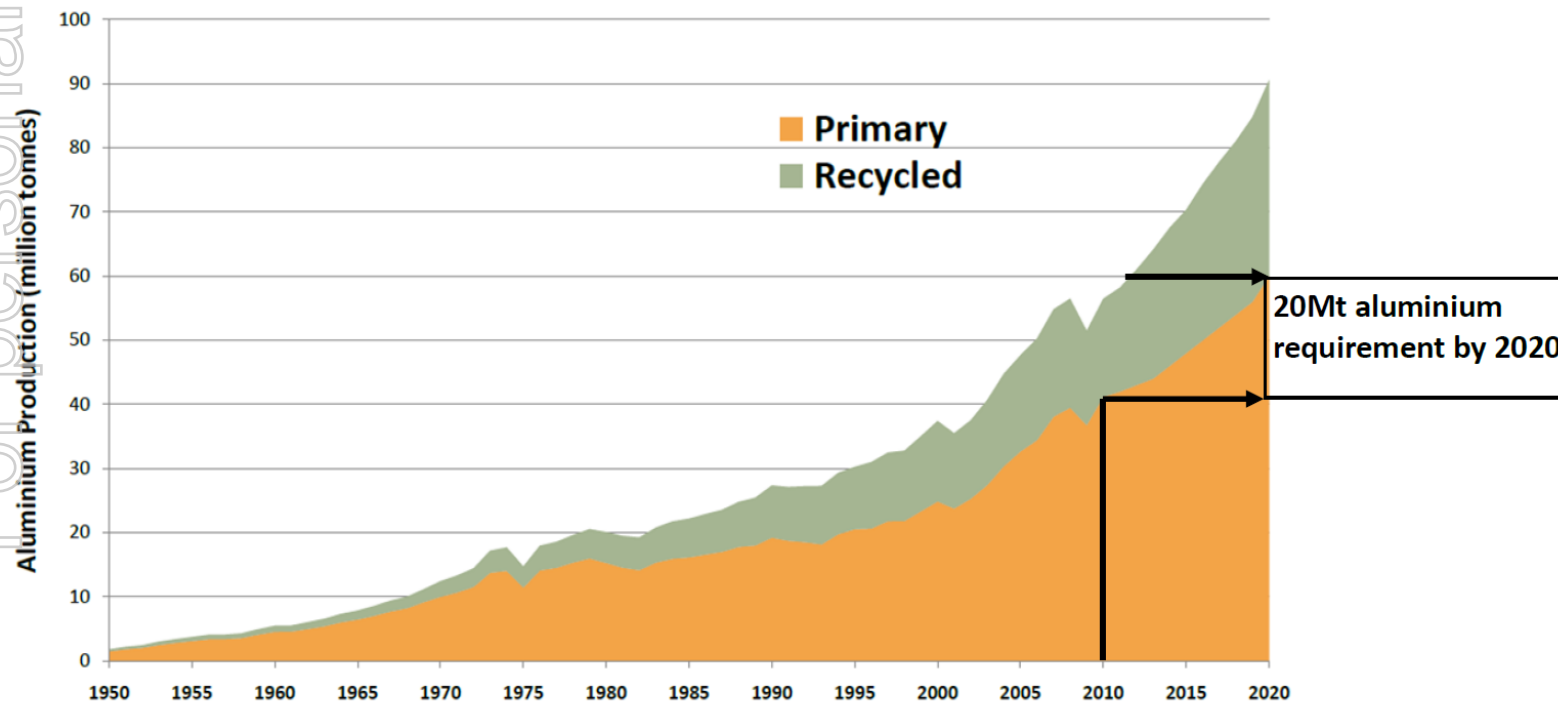
- Bauxite rights only – BRL retain 100% of other mineral rights
- Agreement covers 1,000km<sup>2</sup> in Darling Range
- Shandong fund 100% of exploration and Feasibility Costs(FS)
- Once successful completion of a FS and decision to mine Shandong to earn 60% /BRL 40% bauxite ownership
- Potential joint venture opportunities for other minerals in discussion





# Global Aluminium market

- Growing demand for aluminium
- Projected 20Mt increase in new aluminium production in 10 years
- Requiring 40Mt increase in alumina production
- Meaning ~100Mt of new bauxite production within next 10 years



Source: International Aluminium Institute



# Why Bauxite/Alumina?

- Extensive tenement base
- Premium product and superior bauxite resource potential
- Established bauxite mining & alumina refining industry in region
- Skilled local labour force
- Established export routes
- Existing Infrastructure to support new industry
- Established JVs for bauxite exploration and downstream processing
- Long term forecast growing global demand for bauxite/alumina



# 2011 progress

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	<b>December 2010</b>	<b>December 2011</b>
<b>Increase in cash</b>	\$50M	\$50.6M
<b>Increase in bauxite resource</b>	<b>18.2Mt</b> Inferred	<b>51.2Mt</b> <i>(Note 1)</i> Inferred & Indicated
<b>Increase in granted Exploration Licences (Darling Range)</b>	13	53
<b>Increase in properties with exploration access agreements</b>	213	352
<b>Increase in exploration activity</b>	1 drill rig averaging # drill holes pm	3 drill rigs averaging # drill holes pm
<b>Joint Ventures</b>	1. Shandong #1 Bureau	1. Shandong #1 Bureau 2. BAJV operational

*Note 1 : See Table page 16 for bauxite distribution rights & JORC Classifications*



# Total Bauxite Resource for north Darling Range (Nov 2011)

JORC Classification	Dry tonnes ('000,000)	Total Al <sub>2</sub> O <sub>3</sub> (%)	Available Al <sub>2</sub> O <sub>3</sub> (%)	Reactive SiO <sub>2</sub> (%)	BAU Bauxite Rights
<b>Bauxite Resources JV with Yankuang Resources Ltd</b>					
Indicated	10.5	43.2	32.4	3.1	
Inferred	27.1	40.6	29.7	4.0	
<b>Sub Total</b>	<b>37.6</b>	<b>41.3</b>	<b>30.5</b>	<b>3.7</b>	<i>Note 1</i>
<b>Bauxite Resources JV with Shandong #1 Bureau</b>					
Indicated	1.1	42.8	30.0	4.0	
Inferred	12.6	41.1	29.1	4.3	
<b>Sub Total</b>	<b>13.7</b>	<b>41.2</b>	<b>29.2</b>	<b>4.3</b>	<i>Note 2</i>
<b>Total Bauxite Resources (JORC 2004)</b>					
Indicated	11.6	43.1	32.1	3.2	
Inferred	39.7	40.4	29.4	4.1	
<b>Total*</b>	<b>51.2</b>	<b>41.1</b>	<b>30.1</b>	<b>3.9</b>	<i>As above</i>

1: BRL retain 30% of bauxite rights and 100% of all other minerals

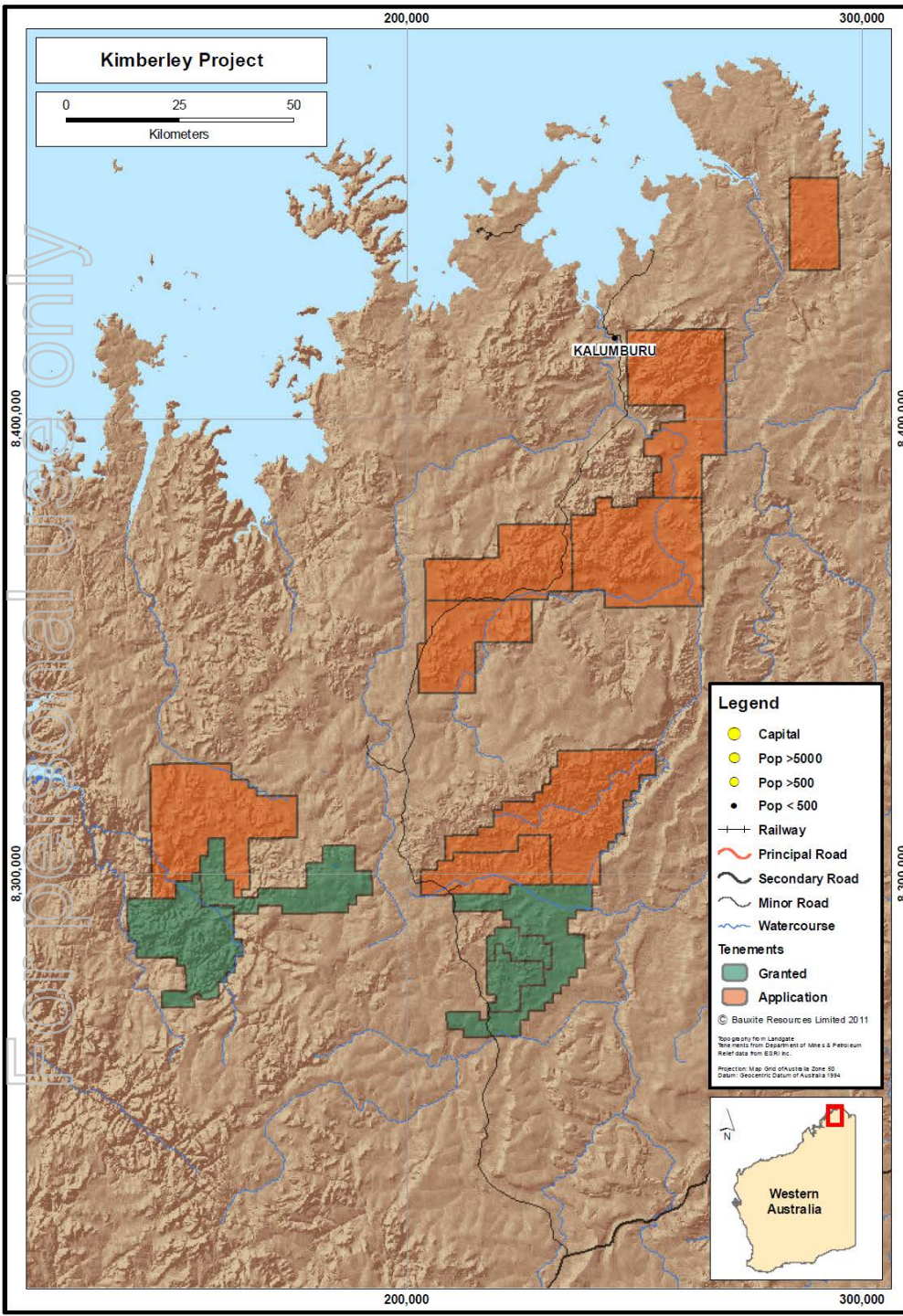
2: Shandong can earn up to 60% of bauxite rights upon completion of a BFS leading to a decision to mine. BAU retain 100% of all other minerals.

\*Differences due to rounding



# Other Business Opportunities

- Potential asset quality across a range of tenements – moving towards diversification
- Significant exploration potential throughout all tenements including Kimberley tenements
- Strong growth forecast in core bauxite/alumina JVs
- Robust balance sheet to fund future projects
- BRL actively seeking investment opportunities



## Longer term business opportunities Kimberley tenements

- ~5,200km<sup>2</sup> tenement area
- 5 Exploration Licences granted with 8 in application
- Seeking Joint Venture partners
- Aerial survey completed and desktop study progressing
- Prospectivity for gold, diamonds, base metals as well as bauxite within BRL's tenements





# Summary

- Looking to build on success of 2011
- Strong Cash Position
- Bauxite JORC Resources increasing
- 55% of tenement holdings now granted covering half of total tenement area
- 150 property owners have agreements to explore for bauxite
- Projected strong long term market expectations for bauxite & alumina
- Experienced Exploration & Management Team
- JVs for bauxite and alumina refinery well established
- Review of other minerals potential underway

*In accordance with the Australian Stock Exchange requirements, the technical information contained in this report has been reviewed by Mr. Peter Senini, Manager Resource Development Bauxite Alumina Joint Ventures. The information in the report to which this statement is attached that relates to Exploration Results and Mineral Resources is based on information reviewed by Mr. Senini, who is a Member of the Australasian Institute of Geoscientist. Mr. Senini has sufficient experience which is relevant to the style of mineralisation and type of deposit 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. Senini consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.*



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**JORC List of Assessment and Reporting Criteria  
Sampling Techniques and Data**

Sampling techniques	Vacuum samples were collected as 0.5m samples using a twin riffle splitter
Drilling techniques	All drilling is vacuum using a 45mm drill bit
Drill sample recovery	Bauxite Resources geologists monitor sample recovery from vacuum drilling by weighing and tracking the mass of recovered sample cuttings. Poor recovery can occur due to cavities, partial blockages of the samples hose and wet samples. Recovery is generally high for the data input into the resource estimates. For diamond-core drilling the core recovery is established by measurement of the recovered core. Triple-tube diamond drilling is used to maximise recovery and where recovery is poor through target zones of resource, the holes are abandoned and re-drilled nearby until acceptable recovery is achieved.
Logging	Bauxite Resources geologists log the vacuum samples in 0.5-metre down-hole increments. Regular chip-tray samples are collected as permanent physical records for audit and validation purposes. Diamond core samples are logged and photographed in core trays. Data is captured in digital core loggers. All logging data is captured in digital logging devices to ensure consistency of coding and minimise data entry errors.
Sub-sampling techniques and sample preparation	The vacuum samples for each 0.5 metres of drilling are collected at the rig using a riffle splitter to collect approximately 1.5kg samples into a calico bag with the remaining sample dropped onto the ground. The majority of diamond core is collected whole in 0.25 metre interval into a calico bag. The whole core is broken with a brick chisel or collected by hand in unconsolidated material. Selected intervals of bauxite mineralisation are collected in longer intervals and despatched for bulk density measurements.
Quality of assay data and laboratory tests	The majority of Bauxite Resources samples were analysed at Nagrom Laboratory in Perth with some earlier samples analysed at Ultra Trace Laboratory in Perth. Bauxite Resources documentation describes the analysis of samples by a number of ISO standards methodologies (6140:1991, 9516:2003, 12677:2003, 6606:1986, ISO 6607:1985, 10213:10213, 6994:1986, 6995:1985, 6606:1986; 8557:1985). These analyses provided estimates of principal bauxite components of alumina, silica, iron, titania, and loss on ignition, and a suite of trace elements. Results reported by Bauxite Resources as available alumina and reactive silica represent partial extractions.  Bauxite Resources documentation describes the in-laboratory quality control methods which include the use of four matrix match standards, and determination of precision and accuracy according to ISO standards. The company also include a high-grade and a low-grade, in-house (uncertified), standard as blind-standards in the field sample stream at a 1:200 ratio. Bauxite Resources also collect duplicate samples in the field sample stream.
Location of data points	Drillhole collar surveys are based on WA's Department of Land and Administration survey marks for control and using differential GPS equipment to locate the drill collars within a precision of ± 0.05 metres. Topographic data used for the Mineral Resource areas is a combination of GEODATA TOPO 250K Series 3 and Landgate Medium-scale Topographic Database data. Bauxite Resources did not survey the hole paths of any of the drilling because all holes are short and any deviation errors are not significant relative to the average drill hole spacing used to defined the Mineral Resources.
Data spacing and distribution	Bauxite Resources has drilled collar spacings at 80m (along strike) by 80m (on section) and this is considered adequate to establish both geological and grade continuity. All vertical sampling is on a 0.5-metre interval, either raw or composited.
Orientation of data in relation to geological structure	The orientation of the drilling (vertical) is approximately perpendicular to the sub-horizontal mineralisation and is unlikely to have introduced any significant sampling bias.

**Estimation and Reporting of Mineral Resources**

Database integrity	The Bauxite Resources drilling data is hosted by an external provider (rOREdata Pty Ltd) in the acquire database system, which is designed to capture, store and verify geological drilling data. Data collected in field loggers is transferred to the database via text files as is data from the laboratory. rOREdata provide reports to the company regarding basic integrity validation of the data such as overlapping records, missing assays and duplicate drillhole identifiers.
Geological interpretation	Geological logging of drilling has confirmed the geometry of the mineralisation with a high degree of confidence. Geochemical changes down hole have been used to determine the bauxite zone. A wireframe was constructed to represent the major zone of mineralisation within the laterite profile. The overlying gravel zone and underlying clay zone are assumed to be outside of the main mineralised envelope, which is defined by the hardcap, bauxite and transitional zones.
Dimensions	The Cardea3 resource area extends over a strike length of 3,810m (from 6,518,885mN – 6,522,695mN) and includes the 11.5m vertical interval from 344mRL to 332.5mRL and occurs as one continuous zone (pod). The Cardea3 portion within E70-3432 (BAJV) occurs as one main zone in the south and a small limb to the north which extends into E70-3160 (Shandong) and is part of the main continuous zone of mineralisation. The mineralisation is near surface, flat lying with an average overburden thickness of 0.75 metres.
Estimation and modelling techniques	The deposit mineralisation was constrained by wireframes constructed using a 16% available alumina cut-off grade in association with changes to reactive silica down hole. The wireframes were applied as hard boundaries in the estimate. The bauxite domain was constrained into one continuous zone of mineralisation and a statistical analysis was conducted on this domain. No high grade cuts were applied to the data. Using parameters derived from modelled variograms, Ordinary Kriging was used to estimate average block grades in 3 passes using Surpac. An ID <sup>2</sup> interpolation was used to check the OK model. Parent block size of 40m NS by 40m EW by 1m vertical with sub-cells of 10m by 10m by 0.5m. The parent block size was selected on the basis of being approximately 50% of the average drill hole spacing in the deposit. Validation of the model included detailed comparison of composite grades and block grades by northing and elevation. Validation plots showed good correlation between the composite grades and the block model grades.
Moisture	Resource tonnages are reported as dry metric tonnes with an assumed dry density of 1.6 tonnes per cubic metre. Available test data indicates the dry density is in the order of 1.6 tonnes per cubic metre with wet density in the order of 1.7, which implies an in situ moisture content of 0.1 tonnes per cubic metre (6 to 7 percent moisture).
Cut-off parameters	The Mineral Resource has been reported at a 25% Av Al <sub>2</sub> O <sub>3</sub> cut-off and has been based on assumptions about economic cut-off grades for open pit mining.
Mining factors and assumptions	Bauxite Resources has assumed that mining of the deposit will be via truck and shovel configuration and that there will be good visual control to establish the top and base of bauxite during mining. There has been no minimum mining thickness assumed.
Metallurgical assumptions	The available alumina grades exceed the stated Bauxite Resources target grade. Reactive silica is below the four to five dry-weight percent that is implied to have a significant negative effect on Bayer-process reagent consumption. The company is carrying out studies to assess the degree to which high-silica Mineral Resources can be positively affected by application of beneficiation techniques. Low-silica sources within the deposits could also be blended with higher silica resources to produce acceptable process products.
Bulk density	A dry bulk density of 1.6 tonnes per cubic metre has been used. The in situ bulk density assignment was based on 773 previous reported measurements on diamond core samples taken from neighbouring BRL deposits.
Classification	Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2004). The Indicated portion of the resource was defined where the drill spacing was at 80m by 80m, continuity of mineralisation was robust through the thickest bauxite zones where limited or no calculated assays were used, and supported by kriging efficiencies of greater than 90%. The Inferred portion of the resource was defined where the drill spacing was still predominantly 80m by 80m, continuity of mineralisation was good, but a portion of available alumina and reactive silica assays were calculated rather than assayed. The Bauxite Resources Competent Person has reviewed and agrees with this approach.
Audits and reviews	The mineral resource estimates have been peer reviewed by Snowden and by Bauxite Resources' Competent Person. No external fully independent audits or reviews have been completed.
Discussion of relative accuracy/confidence.	No uncertainty studies have been carried out to establish the local confidence and accuracy of the Mineral Resource estimates.