



## BRL'S TOTAL BAUXITE RESOURCES INCREASED BY 53% TO 51.2Mt

### HIGHLIGHTS

- Total Bauxite Resources increased by 53% to 51.2 Mt @ 41.1% Total Alumina, 30.1% Available Alumina 3.9% Reactive Silica with the release of the maiden Cardea 3 bauxite resources;
- Cardea 3 Indicated & Inferred Resource of 17.8 Mt @ 41.2 % Total Alumina 29.9% Available Alumina and 3.8% Reactive Silica;
- New Cardea 3 resource within 6km of existing rail infrastructure and 120km from nearest bulk handling port;
- Resource estimation for the several other prospects within the Northern Darling Range tenements is currently underway.

Perth-based bauxite explorer and developer, Bauxite Resources Ltd (ASX: BAU) ("BRL" or "the Company") is pleased to announce a maiden bauxite resource at its Cardea 3 deposit within its northern Darling Range tenement area approximately 20km north west of Toodyay, WA. This maiden resource is contained within both the Bauxite Alumina Joint Ventures ("BAJV") area with Yankuang Resources Ltd ("Yankuang") where the Company holds a 30% beneficial interest in bauxite rights and the Shandong Joint Venture area with Shandong #1 Bureau of Geology & Minerals Exploration ("Shandong") where Shandong can earn up to 60% of bauxite rights upon completion of certain milestones.

BRL currently holds an interest in indicated and inferred bauxite resources of over 51 million tonnes in its northern Darling Range tenements with substantial drilling results yet to be modelled.

Importantly, the new Cardea 3 deposit shows the same characteristics as all of the Darling Range resources. It is a shallow deposit with the dominant mineral being gibbsite. This means that if mined, mining costs would be relatively low and the bauxite produced would require a low temperature and relatively low cost refining process

The Company has now defined a robust JORC compliant geological resource within its Northern Darling Range tenements and intends to continue to build upon this base. It is anticipated that further resource updates will be announced over the next 3-4 months as the Company continues to model the results of completed drilling programs as assay results become available.

Table 1: Total Bauxite Resource for the North Darling Range Area (November 2011) – JORC 2004

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



### Cardea 3 Deposit Details

A Mineral Resource estimate for the Cardea 3 Bauxite Deposit was completed during October 2011 by Bauxite Alumina Joint Venture personnel. The deposit is located approximately 100km northeast of Perth, Western Australia in the North Darling Ranges region approximately 20km north west of Toodyay. The Cardea 3 resource is a maiden resource and as such is in addition to previous announced resource.

The North Darling Range Project is located on the western edge of the Yilgarn Craton. The project area is dominated by Achaean granite and granite gneiss (commonly laterised) with minor units of metasediment, meta-volcanics and Proterozoic dolerite dykes. The Cardea 3 mineralisation is present at shallow depths within gently undulating laterite profiles that consist of un-mineralised gravel overlying hardcap and bauxite zones. These are underlain by transitional and clay zones. The bauxite zone is characterised by gibbsite and varies from 1m to 8m in thickness.

The Cardea 3 resource extends over two granted exploration tenements E70/3160 and E70/3432. Tenement E70/3160 is subject to a joint venture between BRL and Shandong No.1 Bureau of Geology and Minerals Exploration whilst tenement E70/3432 is within a joint venture between BRL and Yankuang Resources Ltd. The resource lies on private farmland and has been defined by completion of 738 vacuum drill holes. The total resource has a lateral extent of approximately 3.8km N-S and 3.6km E-W with mineralisation extending from surface to a maximum depth of 10m. Drill hole spacing is on a regular 80m by 80m spacing.

The area covering the Cardea 3 resource was originally known as Cardea 3 and Pomona. Recent exploration drilling has confirmed that the bauxite mineralisation is contiguous as a single geological resource. The company has therefore renamed the two resource areas as Cardea 3.

The Mineral Resource estimate for the Cardea 3 deposit is summarised in Table 2.

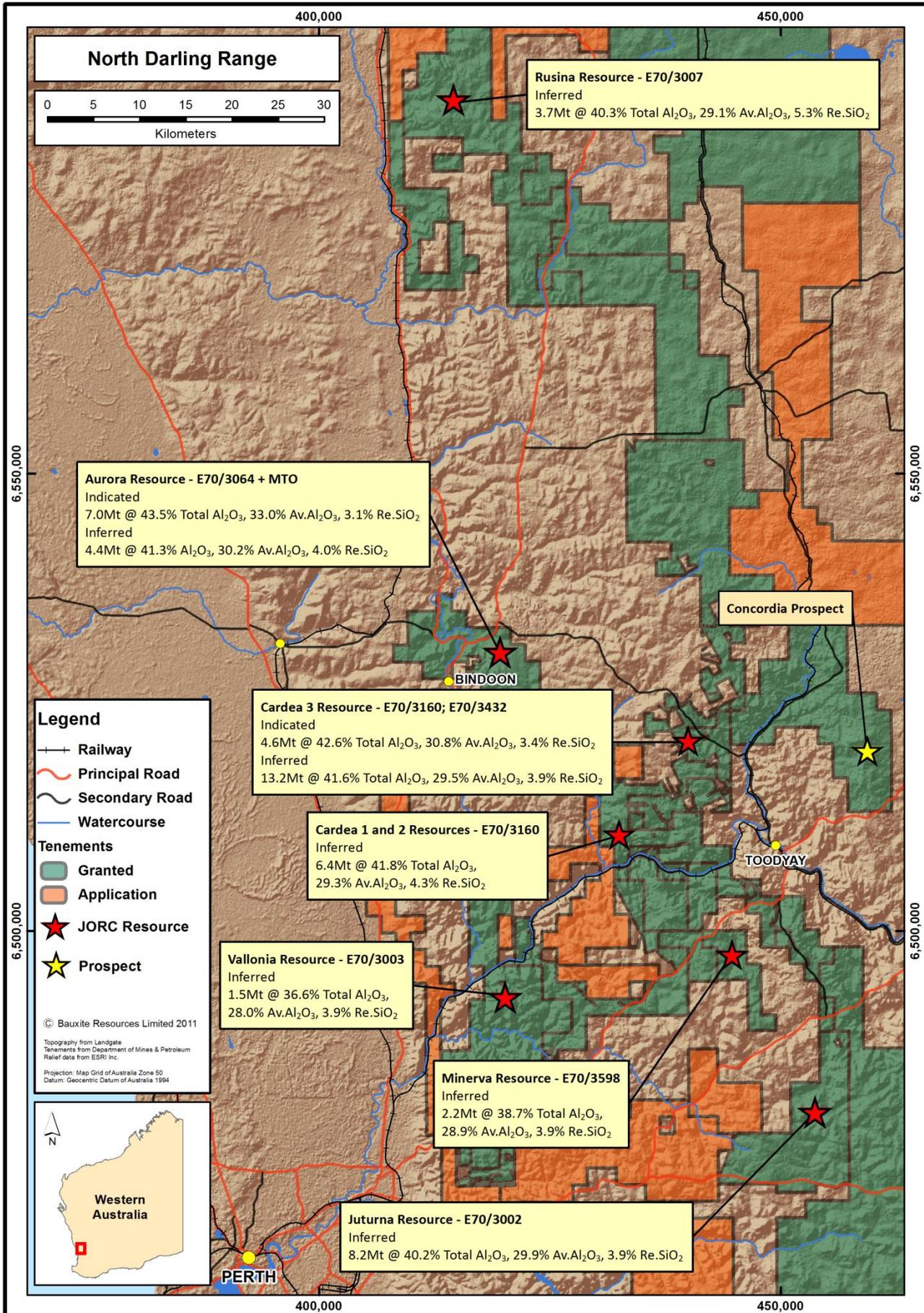
Further examination of all known bauxite resources using various cut off grades is planned as part of a larger program aimed at determining the potential economic value of each deposit as either refinery feed or direct export product.

**Table 2: Details of the Cardea3 Mineral Resource (November 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 Mineral Rights
<b>Bauxite Resources JV with Yankuang E70/3432</b>					
Indicated	3.5	42.5	31.1	3.2	
Inferred	7.0	41.0	30.1	3.5	
<b>Sub Total</b>	<b>10.5</b>	<b>41.5</b>	<b>30.5</b>	<b>3.4</b>	<i>Note 1, Table 1</i>
<b>Bauxite Resources JV with Shandong E70/3160</b>					
Indicated	1.1	42.8	30.0	4.0	
Inferred	6.2	40.3	28.9	4.4	
<b>Sub Total</b>	<b>7.3</b>	<b>40.7</b>	<b>29.1</b>	<b>4.3</b>	<i>Note 2, Table 1</i>
<b>Total Bauxite Resources – Cardea 3</b>					
Indicated	4.6	42.6	30.8	3.4	
Inferred	13.2	41.6	29.5	3.9	
<b>Total Bauxite</b>	<b>17.8</b>	<b>41.2</b>	<b>29.9</b>	<b>3.8</b>	

\*25% Cut off grade and dry density of 1.6 used

# North Darling Range Resource Location Map





## Previously Announced Bauxite Resources

**Table 3: Previously announced Bauxite Resources (JORC 2004)**

JORC Classification	Bauxite Tonnes Dry (000,000)t	Total Al <sub>2</sub> O <sub>3</sub> (%)	Available Al <sub>2</sub> O <sub>3</sub> (%)	Reactive SiO <sub>2</sub> (%)	BRL Bauxite Rights
<b>Cardea (August 2011)</b>					<i>Note 2</i>
Inferred	6.4	41.8	29.3	4.3	
<b>Minerva (August 2011)</b>					<i>Note 1</i>
Inferred	2.2	38.7	28.9	3.9	
<b>Aurora (April 2011)</b>					<i>Note 1</i>
Indicated	7.0	43.5	33.0	3.1	
Inferred	4.4	41.3	30.2	4.0	
<b>Rusina (April 2011)</b>					<i>Note 1</i>
Inferred	3.7	40.3	29.1	5.3	
<b>Juturna (June 2011)</b>					<i>Note 1</i>
Inferred	8.2	40.2	29.9	3.9	
<b>Vallonia (June 2011)</b>					<i>Note 1</i>
Inferred	1.5	36.6	28.0	3.9	

*Note 1: Within JV with Yankuang Resources JV*

*Note 2: Within JV with Shandong #1 Bureau JV*

*Note 3: All resources utilise a cut off grade of 25% available alumina except for Aurora & Rusina that use 24%*

For further information visit [www.bauxiteresources.com.au](http://www.bauxiteresources.com.au) or contact:

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### COMPETENT PERSON STATEMENT

*In accordance with the Australian Stock Exchange requirements, the technical information contained in this report has been reviewed by Mr. Peter Senini, an employee of the company. The information in the report to which this statement is attached that relates to Mineral Resources is based on information reviewed by Mr. Senini, who is a Member of the Australian Institute of Geoscientists. 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.*



## 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	<p>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.</p> <p>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.</p>
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 $\pm 0.05$ 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.