METRO MINING LIMITED

ASX ANNOUNCEMENT

18 January 2017

Bauxite Hills Mine Reserve Doubles to 96Mt

Metro Mining Ltd (ASX:MMI) is pleased to announce the first stage of the combination of its Bauxite Hills Project with Gulf Alumina Ltd's (Gulf) Skardon River Project has led to a significant increase in the resources and reserves of the project.

The combined projects have been renamed the *Bauxite Hills Mine*.

The Direct Shipping Ore (DSO) Reserve for The Bauxite Hills Mine is 96.5 million tonnes (Mt)

Reserves	Dry DSO Tonnes (Mt)	Al_2O_3%	SiO_2%	Available Al_2O_3 % (THA)	Reactive SiO_2 %
Metro Reserves[1.]	48.2	50.5	11.2	38.4	6.4
Gulf Reserves[2.]	48.4	49.4	14.7	40.3	6.1
Total	**96.5**	**49.9**	**12.9**	**39.4**	**6.3**

1. *Includes 41.8Mt Proved and 6.4Mt Probable Reserves from BH1 and BH6 deposits announced to the ASX on 2/6/2015.*
2. *Gulf's Proved and Probable Reserves are described on page 2 below.*

Resources	Dry DSO Tonnes (Mt)	Al_2O_3%	SiO_2%	Available Al_2O_3 % (THA)	Reactive SiO_2 %
Metro Resources[1.]	65.3	50.3	12.4	38.4	6.4
Gulf Resources[2.]	63.5	49.6	14.3	40.4	6.1
Total	**128.8**	**49.9**	**13.3**	**39.4**	**6.3**

1. *Includes the combined 41.8Mt Measured, 20Mt Indicated and 3.4Mt Inferred Resources from BH1, BH2 and BH6 deposits announced to the ASX on 2/6/2015 and 9/12/2015. The Resources are inclusive of Reserves.*
2. *Gulf's Measured, Indicated and Inferred Resources are described on page 2 below. The Resources are inclusive of Reserves.*

The addition of the Gulf material, with its indicated higher THA and lower reactive silica levels, potentially allows the company to offer a diverse product to its customers suited to both high and low temperature refineries.

Based on the increased Resource and Reserve, work is underway on a bankable feasibility study (BFS) for the Bauxite Hills Mine which is set to become a globally significant bauxite mining operation within the internationally acclaimed Weipa bauxite producing region.

Mine construction is planned to commence in the second half of 2017.

Metro currently owns 99.9% of Gulf. As per its announcement on 20 December 2016, Metro has commenced compulsory acquisition of the remaining Shares in Gulf not owned by Metro.

BACKGROUND INFORMATION

Gulf Alumina's Previous Stand-Alone Skardon River Project

As Gulf Alumina Ltd is an unlisted public company it was not previously required to publicly release the Resource & Reserve estimates for its stand-alone Skardon River Project. Metro is now pleased to announce the Skardon River Project Measured, Indicated and Inferred Resources & Proved and Probable Reserves.

The Resource estimate was generated for Gulf Alumina Limited by consultancy company Geos Mining in 2015 in accordance with the requirements of the JORC Code (2012).

The Ore Reserves estimate was prepared by Australian Mine Design and Development Pty Ltd (AMDAD) for Gulf Alumina in 2016 in accordance with requirements of the JORC Code (2012).

The Skardon River Project Resource and Reserve Estimates are:

Resource Type	Dry Tonnes (Mt)	SiO_2%	Al_2O_3%	Reactive SiO_2% (at 148^{0}C)	Available Al_2O_3% (at 148^{0}C)
Measured	16.6	13.9	50.2	5.9	41.7
Indicated	32.3	14.5	49.4	6.2	40.0
Inferred	14.6	14.3	49.4	6.1	39.8
Total Resources	63.5	14.3	49.6	6.1	40.4

Note 1: Based on minimum thickness of 0.5m; ≤20% SiO_2; ≥40% Al_2O_3; ≤8% Reactive SiO_2

Reserve Type	Dry Tonnes (Mt)	SiO_2%	Al_2O_3%	Reactive SiO_2 % (at 148^{0}C)	Available Al_2O_3 % (at 148^{0}C)
Proved	16.6	14.3	49.8	6.1	41.4
Probable	31.8	15.0	49.2	6.4	39.8
Total Reserves	48.3	14.7	49.4	6.3	40.3

Note 1: Based on minimum thickness of 0.5m; ≤20% SiO_2; ≥40% Al_2O_3; ≤8% Reactive SiO_2
Note 2: The Proved and Probable Reserves are included in the Mineral Resource

Resource and Reserve Details

The Mineral Resources being reported are the Measured, Indicated and Inferred Resources of Direct Shipping Ore (DSO) at the Skardon River Bauxite Project of Gulf Alumina Limited. The Resource estimate was generated for Gulf Alumina Limited by consultancy company Geos Mining in 2015 in accordance with the requirements of the JORC Code (2012). As Gulf Alumina was an unlisted public company at the time it was not required to publicly release the Resource estimate.

The Ore Reserves being reported are derived from the Mineral Resource estimated by Geo Mining using only the Measured and Indicated blocks. The Ore Reserves estimate was prepared by Australian Mine Design and Development Pty Ltd (AMDAD) for Gulf Alumina in 2016 in accordance with requirements of the JORC Code (2012). As Gulf Alumina was an unlisted public company at the time it was not required to publicly release the Ore Reserves estimate.

The area of the Mineral Resource estimate and its classifications is shown in Figure 1 which also shows the outline of the Ore Reserve estimate derived from the Mineral Resource estimate.

Geology and Geological Interpretation

The deposit type is lateritic bauxite derived from the weathering of aluminous sediments in a tropical to sub-tropical environment. The mineralisation within the Skardon River Bauxite Project forms part of the Weipa Plateau, a widespread area of aluminous laterite on the west coast of Cape York Peninsula that includes Rio Tinto Alcan's Weipa, Andoom and Amrun bauxite deposits as well as Metro Mining's adjacent Bauxite Hills BH1, BH2 and BH6 deposits.

The bauxite deposits generally consist of a single flat-lying pisolitic bauxite layer, generally 0.5m - 3m thick that is underlain by a kaolin horizon. Within the resource area the average bauxite thickness is 1.6m. The bauxite deposits are overlain by lateritic overburden and topsoil. Under the bauxite deposits there is often a ferruginous cemented layer and a kaolin clay layer. Kaolin, sandy clays and minor quartz sand deposits occur beneath the bauxite layer and extend beyond the bauxite areas, beneath the Namaleta Creek flood plain.

The geological model is grade-based using a cut-off of ≤20% total SiO_2 and ≤8% reactive SiO_2 (at 150^{0}C)

Drilling Techniques

Both sonic and aircore drilling methods were used in several drilling programs between 2005 and 2015.

Both methods used a HQ diameter bit to produce a ~90mm hole. The sonic method utilises high frequency vibration of the drill stem to effect penetration and no pressurised air is used ensuring samples are recovered in situ. The aircore method utilises low pressure air flow to force the sample up the inside of the drill rods and permits the penetration of the rods into the earth. All drill holes are vertical and intersect the mineralisation at 90^0.

The sonic drilling method also produced samples that were utilised for bulk density measurements.

Hole collars have been surveyed using a differential GPS which has horizontal accuracy of +- 40cms. Vertical accuracy is much greater at ~80cms. Data is collected with reference to the GDA94 datum and recorded as Zone 54 metric coordinates.

In early 2015, LiDAR data was obtained and elevation data was inserted into the database as a more accurate measure of RL.

The distribution of the drill holes that were used in the Mineral Resource estimate are shown in Figure 2.

Sampling and Sub-sampling Techniques

In the sampling technique used in the aircore method the entire sample was collected at 0.25m intervals in clear plastic bags, tightly fitted to the cyclone outlet. Samples were logged and the airtight bags were sealed with cable ties to retain moisture.

With the Sonic drilling method sampling was carried out in 0.25m intervals. Samples were collected within a custom designed 'sausage' bag that is inserted into the barrel. The sample is retrieved after completing the drilling run which varies from 0.5m to 1.5m. The 'sausage' is laid out on a table then the length measured and compared to the actual down hole depth. The sample is then divided into equal lengths of 0.25m, immediately logged then placed into airtight clear plastic bags and sealed with cable ties to retain moisture.

Geological logging is carried out on every 0.25m sample, noting major/minor lithology, colour, percentage cemented material and bauxite. Data is recorded on a field portable laptop.

Sample Analysis

Samples were assayed for a suite of elemental oxides and Loss on Ignition by ALS. Analyses are carried out by XRF Fusion (code ME-XRF13n). ALS includes laboratory standards and blanks in their standard operating procedures.

Assaying of low temperature available alumina and reactive silica was carried out using ALS pulps but analysed by SGS Laboratories in Perth. The method used is a laboratory modified 'Bayer Process'.

Estimation Methodology

A gridded seam model was created using Micromine software whereby each bauxite unit in each hole is assigned a mid-point coordinate and a thickness. A single layer bauxite gridded seam model is created after using the Ordinary Kriging method of interpolation. This 'blank' model was then populated with Al2O3, SiO2, dry bulk density, available alumina and reactive silica values using Ordinary Kriging of the filtered (bauxite) analyses. A considerable proportion of assays from beneficiated samples have been used to obtain correlated raw sample assays; the correlation coefficient is considered moderate at best.

Once the Kriging results have been loaded into the block model, the blocks are cut, according to the appropriate selection criteria eg an upper cut-off of 20% SiO2 and 8% reactive silica. The remaining blocks are classified (using the average search distance and the determination of whether assays are measured or correlated) into one of the following three classifications: Measured, Indicated, Inferred. Previous estimates have used the kriging standard error and points per block to determine these categories. In 2013 it was observed that the kriging error has reduced by a factor of 4 implying higher confidence in the resource model.

Key Assumptions are:

- The bauxite is essentially a flat layer with only minor and localised perturbations in the footwall. There is no evidence of faulting. Recent exploration has indicated that in detail the base of the bauxite may be quite irregular
- There is good horizontal continuity of mineralisation and grade within the deposit although it is recognised from drilling that there are a number of very low grade bauxite zones

- Cemented bauxite is erratically distributed vertically throughout the weathered profile and laterally along the haul road and south of Namaleta Creek
- There are both internal and basal zones of ferruginous laterite development; within the bauxite these tend to be irregular thin (0.25-0.5m thick) layers while the basal mottled/ ferruginous zone is often more continuous.

Key Parameters are:

- Block dimensions of 50 metres by 50 metres have been used.
- Model is limited by tenement boundaries, areas of wetlands or Category B Environmentally Sensitive Areas (ESAs) and where drilling indicated that bauxite was not developed.
- Search radius of 800m was used for each block with minimum points set at 2 and maximum at 20. A sub cell factor of 4 was used.
- Definition of bauxite is guided by geological logging but modified according to total/ reactive silica content.

Mining and Metallurgy

Ore Reserves are derived from the Mineral Resource by application of a mine plan using a strip and block layout for mining by loaders and trucks. The mine design is based on bauxite quality and economic analyses after application of mining loss and dilution adjustments.

The bauxite will be mined by large front end loaders loading 200 to 350 tonne road trains. Topsoil will be mined by scrapers and the subsoil immediately overlying the bauxite will be mined by front end loaders loading rigid body trucks. No blasting is required.

Pit depths vary from 0.5 to 6.7 metres with 95% less than 3.5 metres. Pit widths are 1 to 5 km. The floor is near level. No geotechnical analysis was required for the very shallow walls and the reserves assume they are vertical.

The Direct Shipping Ore (DSO) bauxite is defined by alumina and silica content which are laterally consistent over more than 100 metres through the pits. Vertically the DSO resource is defined by less than or equal to 20% SiO_2 in the drill holes which are sampled on 25cm intervals. There is very little internal dilution vertically within the DSO horizon. Mining loss and dilution will occur on the roof and floor of the DSO horizon which averages 1.6 metres thickness. Mining loss and dilution are modelled as a 10cm loss and 10cm dilution skin on both the roof and floor. Roof dilution grades for silica and alumina were modelled from the first 25cm drill hole sample above the DSO horizon and floor dilution grades from the first 25cm sample below the DSO horizon. Loss grades were modelled from the 25cm drill hole samples in the top and base of the DSO horizon.

Grade control drilling on a 20 x 20 metre grid is planned ahead of mining to define the DSO roof and floor which will be cut by GPS guided machines to meet the ±10cm tolerance in the mining loss and dilution model.

The Ore Reserve model uses the single layer 50 x 50 metre blocks from the Mineral Resource model. A margin ranking model was prepared to assess the value of each block by deducting the mining, port, barging, site and royalty costs from the free on board (FOB) value of run of mine (ROM) bauxite in the block. Mining costs are from a detailed estimate for clearing, topsoil, subsoil and bauxite including variable ore haulage costs to the port. All other costs were supplied by GAL. Bauxite pricing is based on current Australian sales to China and includes alumina and silica penalties and sea freight. The margin rank model shows the defined pits to be positive value at 85% of the bauxite price used in GAL's financial model.

The Life of Mine schedule in the Pre-feasibility Study includes Inferred Resources. However these are almost entirely in the last 5 years of a 14 year mine life and the location of Proved and Probable Reserves would still allow them to be mined even if none of the Inferred were ever mined. Checks were done to ensure that the project is technically and commercially viable even if none of the Inferred is included.

Mining costs assume contract mining. The mining cost estimate was validated against three budget quotations received in late 2014 based on a scoping study for a similar mine plan.

The bauxite will be sold as a Direct Shipping Ore without processing other than sizing to -150mm and removal of tramp wood and metal.

Reference qualities used for pricing on a dry basis (namely CIBX) are 45% available alumina and 5% reactive silica. The average grades of the Ore Reserves are 40.3% total alumina and 6.3% reactive silica. These qualities are saleable and return positive block values when expected quality penalties are applied.

Most of the DSO Reserve is expected to be free flowing pisolitic and fines bauxite. Up to 30% may be weakly cemented. The planned port facility includes sizing to ensure the minus150mm specification is maintained.

Product quality will be regulated by mining from two locations at any time and by limited blending capability from the port stockpile.

Bulk Density Data

The sonic drilling programme enabled the measurement of 144 bulk density values from bauxitic material and this data was used in the resource estimate. An average default value of 1.8 was initially used (compared to previous conservative estimates of 1.6). The inclusion of an additional 204 measurements from field data has increased the default bulk density to 1.93 and this has been used in the current resource estimate where blocks are located outside the search distance of the modelling algorithm.

Classification

The data points, in the form of shallow drill holes, are variably spaced. Data from drill holes spaced at 200m was used to classify Resources as Measured; data from holes spaced up to 400m used to classify as Indicated; data from holes >400m used to classify as Inferred.

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Competent Person Statement: The information in this ASX Release that relates to Gulf Alumina's Mineral Resources is based on information compiled by Jeff Randall of Geos Mining, a consultancy group contracted by Metro Mining Limited. Mr Randell is a Member of the Australian Institute of Geoscientists (MAIG), a Registered Professional Geoscientist (RPGeo) and has sufficient experience that is relevant to the style of mineralisation and type of deposit 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 Randell consents to the inclusion in this ASX Release of the matters based on information in the form and context in which it appears.

Competent Person Statement:
The information in this ASX Release that relates to Metro Mining Mineral Resources is based on information compiled by Neil McLean who is a consultant of Metro Mining Limited. Mr McLean is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) and has sufficient experience that is relevant to the style of mineralisation and type of deposit 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 McLean consents to the inclusion in this ASX Release of the matters based on information in the form and context in which it appears

Competent Person Statement: The information in this ASX Release that relates to Gulf Alumina's Ore Reserves is based on information compiled by John Wyche of Australian Mine Design & Development (AMDAD), a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. John Wyche is a full-time employee of AMDAD. John Wyche has sufficient experience that is relevant to the style of mineralization, type of deposit 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'. John Wyche consents to the inclusion in this ASX Release of the matters based on his information in the form and context in which it appears.

Competent Person Statement: The information in this report that relates to Metro Reserves is based on information compiled by MEC Mining and reviewed by Edward Bolton, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Edward Bolton is a full-time employee of MEC Mining Pty Ltd. Edward Bolton has sufficient experience that is relevant to the style of mineralization, type of deposit 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'. Edward Bolton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears..

Forward Looking Statement: Statements and material contained in this ASX Release, particularly those regarding possible or assumed future performance, production levels or rates, commodity prices, resources or potential growth of Metro Mining Limited, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Graphs used in the presentation (including data used in the graphs) are sourced from third parties and Metro Mining has not independently verified the information. Metro Mining is at an early development stage and while it does not currently have an operating bauxite mine it is taking early and preliminary steps (such as but not limited to Prefeasibility studies etc.) that are intended to ultimately result in the building and construction of an operating mine at its project areas. Although reasonable care has been taken to ensure that the facts stated in this Presentation are accurate and or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. Nothing in this Presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

Figure 1: Distribution of the Mineral Resource estimate and the Ore Reserve estimate at the Skardon River Bauxite Project.

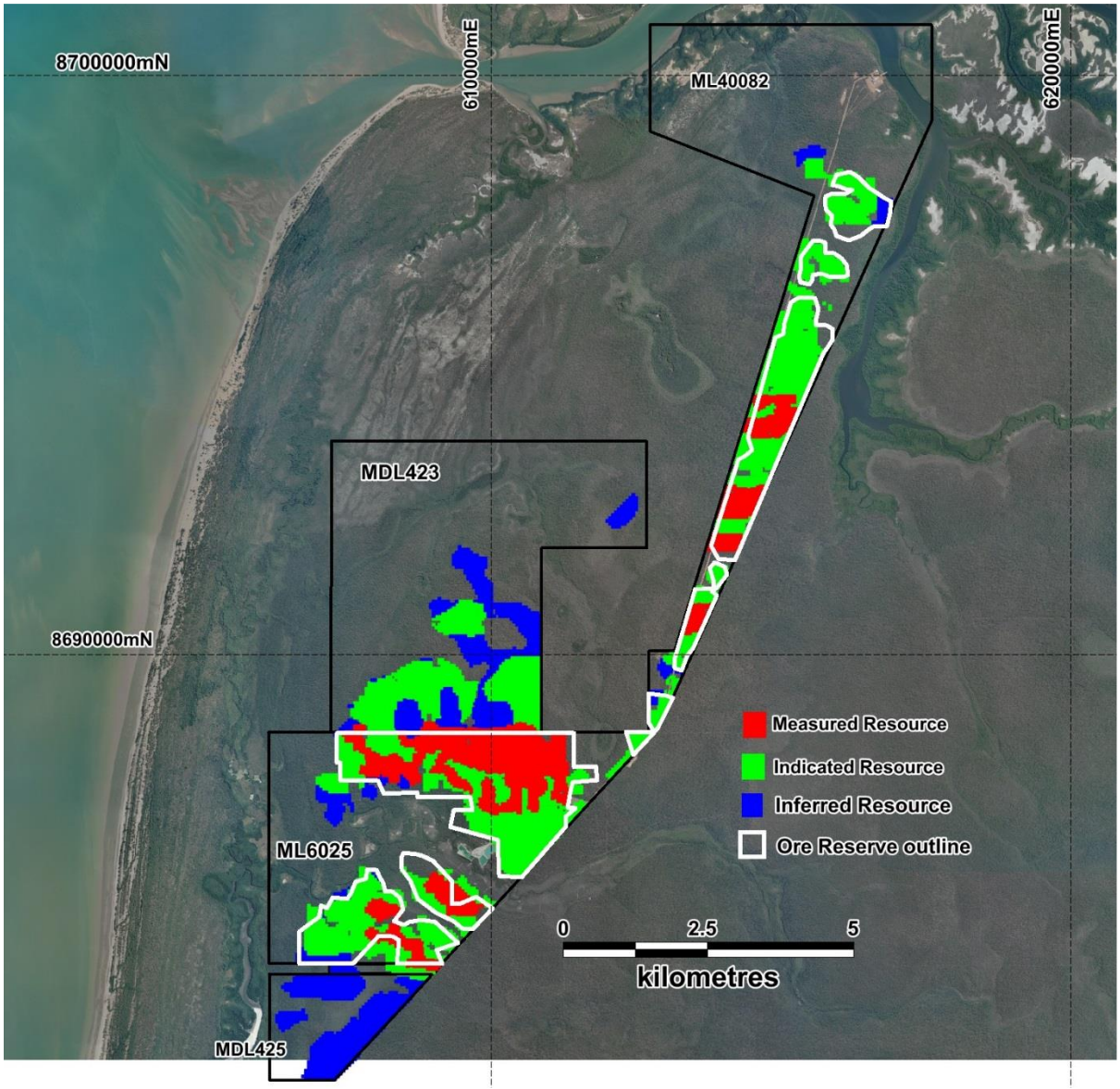
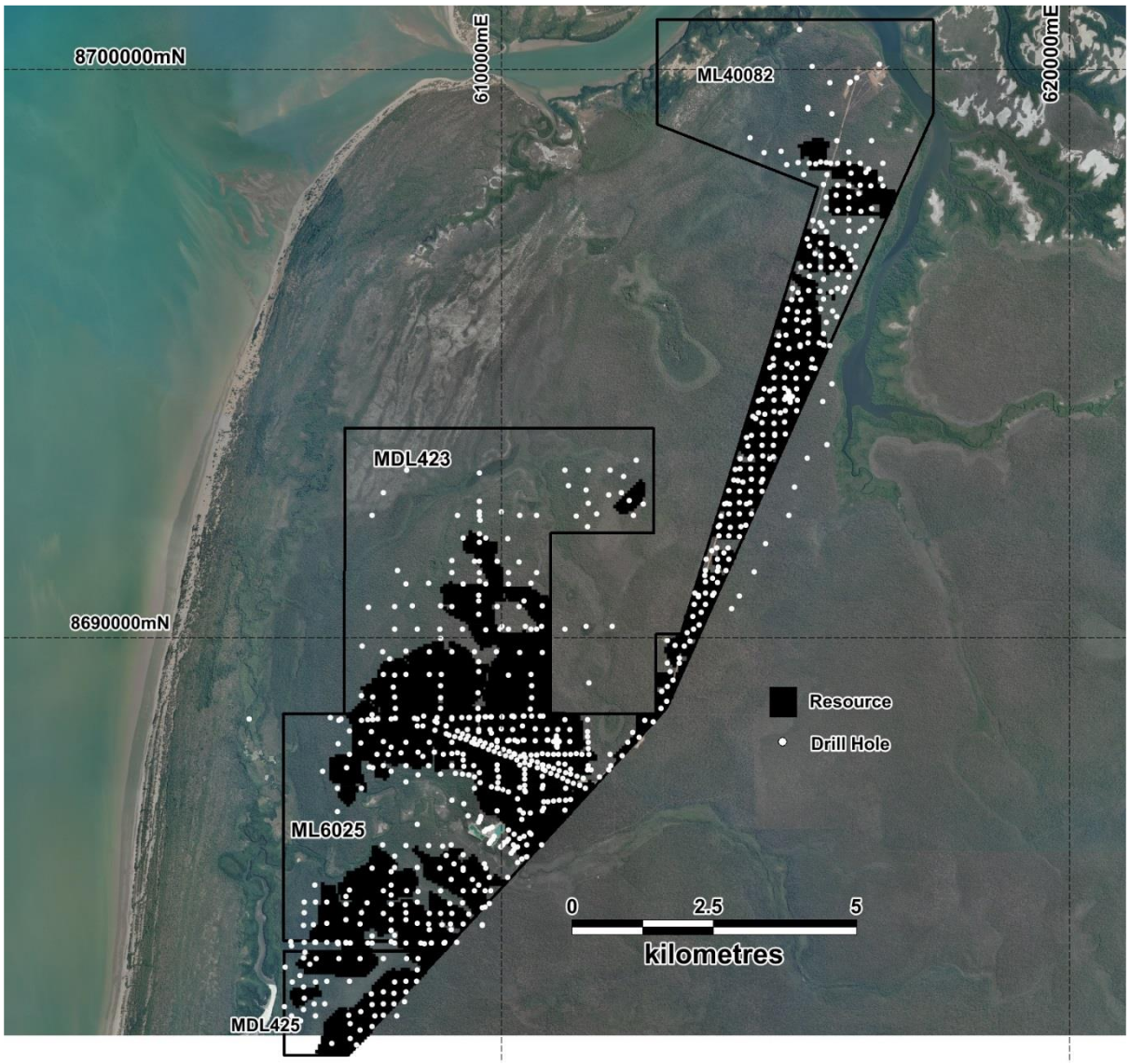


Figure 2: Locations of drill holes used in the Mineral Resource estimate.



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Appendix 1: JORC Code, 2012 Edition – Table 1 report template

Skardon River Bauxite Project – Gulf Alumina Limited. Resources and Reserves Estimates

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
Sampling Techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 30 g 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.*	Both sonic and aircore drilling methods were used in several drilling programs between 2005 and 2014. In the sampling technique used in the aircore method the entire sample was collected at 0.25m intervals via the hollow rods, connecting hose and then into a cyclone. Clear plastic bags, tightly fitted to the cyclone outlet, ensured collection of the entire sample. Samples were immediately logged then the airtight bags were sealed with cable ties to retain moisture. Sample depth accuracy is estimated to be +- 5cms. With the Sonic drilling method sampling was carried out in 0.25m intervals. Samples were collected within a custom designed plastic 'sausage' bag that is inserted into the barrel. The sample is retrieved after completing the drilling run which varies from 0.5m to 1.5m. The 'sausage' is laid out on a table then the length measured and compared to the actual down hole depth. The sample is then divided into equal lengths of 0.25m, immediately logged then placed into airtight clear plastic bags and sealed with cable ties to retain moisture. Sample depth accuracy is estimated to be +- 5cms. Drill rods are 1.5m in length and used as a reference for the sampling. Bulk density determinations were carried out where there was no observable damage to the 'sausage' bags. The diameter of the 'sausage' was measured with a vernier scale and once the sample was placed into airtight plastic bags it was weighed with allowance for the weight of the bag. Field measurements of wet bulk density were made but most samples were also weighed wet and dry in the laboratory to obtain more accurate dry bulk density values. Some samples were dried

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
		prior to wet weighing and in these cases, field measurements have been used.
Drilling Techniques	• *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).*	Both sonic and aircore drilling methods used a HQ diameter bit to produce a ~90mm hole. The sonic method utilises high frequency vibration of the drill stem to effect penetration and no pressurised air is used ensuring samples are recovered in situ. The aircore method utilises low pressure air flow to force the sample up the inside of the drill rods and permits the penetration of the rotating rods into the earth.
Drill Sample Recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	Sonic samples are collected at the rig through an inner plastic 'sausage' bag. The length of the recovered sample depends on the hardness of the material; very hard cemented material heats up the rod and bag, causing melting of the bag. In this case the sample is recovered almost intact but there is some expansion and internal contamination. All material is knocked out of the rod and the bit cleaned with a wire brush. Aircore samples are retrieved through the cyclone and the whole sample is collected into plastic bags. The hole and cyclone is 'blown' out after every rod change, where necessary. Sample recovery is variable depending upon the competency of the weathered profile lithology. Where free flowing pisolitic bauxite is recovered, sample weights tend to be more than expected except where cavities are intersected. In this case, some sample may be lost due to blow out into the cavities.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	Logging is carried out on every 0.25m sample, noting major/minor lithology, colour, percentage cemented material and texture/form. Data is recorded on a field portable laptop.
Sub-Sampling Techniques and Sample Preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	All samples are collected in full directly into the 'sausage' bag (sonic drilling) or clear plastic bag (aircore drilling). Sample weights vary from 0.9kg to 2.5kg. Duplicate samples are collected every 20 samples by splitting the relevant 0.25m sample using the cone and quarter method in

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
	• *Quality control procedures adopted for all sub-sampling stages to 3maximize representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	the field at the time of drilling. No compositing of samples was carried out. Samples were weighed wet, split, dried, re-weighed, crushed and pulverised at ALS Laboratories, Brisbane.
Quality of Assay Data & Laboratory Tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	Samples were assayed for a suite of elemental oxides and Loss on Ignition. Analyses are carried out by XRF Fusion (code ME-XRF13n). ALS includes laboratory standards and blanks in their standard operating procedures. Assaying of low temperature available alumina and reactive silica was carried out using ALS pulps but analysed by SGS Laboratories in Perth. The method used is a laboratory modified 'Bayer Process'. Splits of these samples have been retained for further analysis if required.
Verification of Sampling and Assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	Assayed data has been viewed by S. Border of Geos Mining and W. Zhang of Gulf Alumina. The 2014 drilling programme included some close spaced drilling to determine local variations in bauxite thickness and cementation. Data has been entered into one single database from which all estimation work is carried out. Assay data is directly imported into the database to avoid any transcription errors.
Location of Data Points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Hole collars have been surveyed using a differential GPS which has horizontal accuracy of +- 40cms. Vertical accuracy is much greater at ~80cms. Data is collected with reference to the GDA94 datum and recorded as Zone 54 metric coordinates. In early 2015, LiDAR data was obtained and elevation data was inserted into the database as a more accurate measure of RL.
Data Spacing & Distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the*	Drill hole spacing is variable but was designed so that samples could be analysed from ~400m spaced holes. The classification of resources is

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
	degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	based on: Measured: 200m hole spacing with actual raw assays; Indicated: up to 400m hole spacing with both actual assays and correlated assays from screened samples; Inferred: >400m hole spacing with either actual or correlated assays. Variography indicates good lateral continuity of alumina and silica over distances of >1000m. There is relatively consistent broad spaced drilling coverage over the entire tenements although detailed and close spaced drilling is much more localised. Infill drilling is required.
Orientation of Data in Relation to Geological Structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	The deposit is flat lying and drilling vertical. There is no observed preferred lateral direction of mineralisation although interpretation is limited by the linear tenement shape.
Sample Security	• *The measures taken to ensure sample security.*	Samples are held in bags in a locked shed until transport to the laboratory. Pulps and rejects are held in storage at the laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Xstract Mining Consultants Pty Ltd has reported that it has "examined the methodology of this estimate and is satisfied that it has been prepared in accordance to the JORC Code (2012)". Gulf has carried out in house auditing of QC. It has shown no irregularities although it is noted that: • There is a moderate variability in bauxite thickness (relating to silica abundance) • There is a marked variation in recoveries of samples from which assays are measured There is a bias in the measurement of samples for bulk density where cemented material causes rupturing of the sample 'sausage'.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
Mineral Tenement and Land Tenure Status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The Skardon River Project consists of three granted Mining Leases (ML 40069, 40082, 6025), three granted Exploration Permits (EPM 4068, 18242, 26198) and two granted Mineral Development Licences (MDLs 423, 425). MSM Corporation International Limited (MSM) holds a 20% interest in EPM 4068 and a 5% interest in MDLs 423, 425 and EPM 18242. The project is located on DOGIT (Deed of Grant in Trust) land administered by the Mapoon Trustees. An access and compensation agreement has been negotiated with the Native Title claimants.
Exploration Done by Other Parties	• *Acknowledgment and appraisal of exploration by other parties.*	Early exploration of the area was undertaken by Comalco for bauxite. Other companies explored to the north of Skardon River (Pacminex for bauxite in the early 1970s) or to the south of Mapoon (Shell and Comalco explored the Pennefather area for kaolin in the 1980s and early 1990s). Probably due to the remoteness of the region, it appears there was no other exploration over the area of this Exploration Permit. The only recorded work carried out by Australian Kaolin Limited (AKL) and its predecessor Venture Kaolin outside the area of the Mining Leases was five percussion holes drilled in 1986. AKL went into receivership and the project was acquired by Queensland Kaolin Limited which subsequently changed its name to Australian China Clays Limited (ACC). ACC have carried out intermittent kaolin mining and processing operations since 2002. Infrastructure for the kaolin operation included two kaolin processing plants (now sold), an airstrip, a haul-road and pipeline linking the kaolin mine and wet processing plant with the dry plant and a barge wharf at the Skardon River landing. Additional infrastructure includes bulk water and fuel storage, diesel power generators and a staff camp, designed to accommodate 50 people. Gulf Alumina has been exploring the project area for bauxite since 2007.

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
Geology	• *Deposit type, geological setting and style of mineralization.*	The project area forms part of the Weipa Plateau and is underlain by rocks of the Carpentaria Basin. The oldest rocks intersected by drilling in the area are grey-black marine shales, which have been assigned to the Cretaceous Rolling Downs Group. This is up to 250m thick and is underlain by sandstones of the Helby Beds. These rocks are a source of artesian water. The bauxite deposits generally consist of a single bauxite layer, generally 0.5m - 3m thick that is underlain by a kaolin horizon. Within the resource area, the average bauxite thickness is 1.6m. The bauxite deposits are overlain by lateritic overburden and topsoil. Under the bauxite deposits there is often a ferruginous cemented layer and a kaolin clay layer. Kaolin, sandy clays and minor quartz sand deposits occur beneath the bauxite layer and extend beyond the bauxite areas, beneath the Namaleta Creek flood plain. Bauxite occurs over the majority of the plateau areas. It is pisolitic in form and is generally covered only by a thin layer of soil, but in the western parts of the project area bauxite is sometimes found beneath sand dunes at depths of up to 6m. The bauxite passes down into an iron rich horizon and then into mottled, bleached Bulimba Formation sandy clays. Bauxite pisoliths generally form 55-80% of high quality bauxite, with the remainder being sand, silt and clay. The pisoliths are well rounded, and generally 5 to 20mm in size, although larger pisoliths of up to 30mm do occur in the bauxite horizon. Larger, irregular shaped pisoliths and concretions are typical of the underlying ironstone horizon and form a visual marker of the base of the bauxite. Most of the bauxite is loose and free flowing although a proportion is cemented. The aircore drilling method used for exploration is efficient at drilling through thin layers of cemented bauxite, so from the exploration drilling alone it is impossible to make any accurate assessment of the proportion of cemented bauxite in this deposit. Sonic drilling and costeaning has shown that cementation is irregular in distribution locally. Similarly, free flowing bauxite may be confined to localised troughs although typically comprises an upper laterally

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
		continuous layer. The base of the bauxite is locally very irregular.
Drill Hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	All data is contained within a comprehensive database that has been validated and is the basis from which the resource model has been built. All holes are vertical.
Data Aggregation Methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Bauxite has been defined initially by visual logging then by selection of various total and reactive SiO_2 cut-off grades. Samples are assayed based on this criteria whilst bauxite is defined in a gridded seam model for modelling purposes using these chemical criteria.
Relationship between Mineralization Widths and Intercept Lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	The bauxite layer is essentially flat lying and all drill holes have been drilled vertically. Down hole lengths are therefore true widths.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	See diagrams in the report.
Balanced Reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of*	All resource estimation work is based on the entire database, except where areas such as environmentally sensitive areas and areas of no

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
	Exploration Results.	bauxite have been excluded. Information considered material to the resource estimate has been reviewed and incorporated where applicable.
Other Substantive Exploration Data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Aircore and sonic drilling has been the main exploration method used in previous drilling programmes, apart from very limited backhoe and hand sampling.
Further Work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Ongoing exploration will mainly comprise further infill drilling using both aircore and sonic drilling methods together with additional assaying of remaining un-assayed raw samples. Further bulk density measurements are recommended where sonic drilling is carried out and costeaning is considered vital to determine the base of the bauxite and relate this information to completed drilling results.

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	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
Database Integrity	• *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.* *Data **validation** procedures used.*	Collar data has been directly downloaded from the GPS instrument to the Access database. Elevation data has been compiled from recently flown LiDAR data. Sampling and logging data has similarly been copied directly from the field geologist's digital logs. Assay data has been also downloaded directly from laboratory csv files. Validation of all data has been undertaken through inbuilt functions of the modelling software (Micromine), together with visual checks by the resource geologist.
Site Visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	The Competent Person (CP) has visited site on four occasions, three of which involved the supervision of drilling programmes. The CP has viewed surveying methods, geological and sample collection procedures on all

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
		these occasions.
Geological Interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	The regional geological setting has been well known since discovery of the Weipa deposits, 80kms to the south. The considerable drilling already completed has given confidence in the local geological setting although it is noted that the definition of bauxite is essentially a chemical one, initially guided by lithological logging. Gulf has completed detailed studies of the bauxite mineralisation but further work is required to determine the nature of local variability of the bauxite as observed by chemical variations between adjacent holes. This will be aided by further infill drilling and costeaning.
Dimensions	• *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.*	The western edge of Cape York Peninsula is covered by a lateritic hardcap, some of which is pisolitic and bauxitic. The project area is largely covered by this lateritic hardcap although there are low lying swamp areas that are not lateritic or bauxitic. As the defined term 'bauxite' is a chemically derived term, all areas of pisolitic laterite can in a sense be termed 'bauxite' (albeit low grade).
Estimation & Modelling Techniques	• *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.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control*	A gridded seam model was created using Micromine software whereby each bauxite unit in each hole is assigned a mid-point coordinate and a thickness. A single layer bauxite gridded seam model is created after using the Ordinary Kriging method of interpolation. This 'blank' model was then populated with Al_2O_3, SiO_2, dry bulk density, available alumina and reactive silica values using Ordinary Kriging of the filtered (bauxite) analyses. A considerable proportion of assays from beneficiated samples have been used to obtain correlated raw sample assays; the correlation coefficient is considered moderate at best. Once the Kriging results have been loaded into the block model, the blocks are cut, according to the appropriate selection criteria eg an upper cut-off of 20% SiO_2 and 8% reactive silica. The remaining blocks are classified (using the average search distance and the determination of whether assays are measured or correlated) into one of the following three classifications: Measured, Indicated, Inferred. Previous estimates

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
	the resource estimates. • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	have used the kriging standard error and points per block to determine these categories. In 2013 it was observed that the kriging error has reduced by a factor of 4 implying higher confidence in the resource model. Key assumptions are: • The bauxite is essentially a flat layer with only minor and localised perturbations in the footwall. There is no evidence of faulting. Recent exploration has indicated that in detail the base of the bauxite may be quite irregular • There is good horizontal continuity of mineralisation and grade within the deposit although it is recognised from drilling that there are a number of very low grade bauxite zones • Cemented bauxite is erratically distributed vertically throughout the weathered profile and laterally along the haul road and south of Namaleta Creek • There are both internal and basal zones of ferruginous laterite development; within the bauxite these tend to be irregular thin (0.25-0.5m thick) layers while the basal mottled/ ferruginous zone is often more continuous Key parameters are: • Block dimensions of 50 metres by 50 metres have been used. • Model is limited by tenement boundaries, areas of wetlands or Category B Environmentally Sensitive Areas (ESAs) and where drilling indicated that bauxite was not developed. • Search radius of 800m was used for each block with minimum points set at 2 and maximum at 20. A sub cell factor of 4 was used. • Definition of bauxite is guided by geological logging but modified according to total/ reactive silica content
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages have been estimated on a dry basis.
Cut-off	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	Silica cut-off grades have been assigned on the basis of the maximum reactive silica acceptable to refineries. This is generally considered as 8%

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
Parameters		which approximately equates to a total silica value of ~16-20%. However, where reactive silica assays are available these have been used to determine whether material is classified as bauxite or waste.
Mining factors or Assumptions	• *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.*	The mining method is influenced by the flat terrain, the tabular nature of the bauxite deposit and its material characteristics. A conventional truck and excavator equipment will be utilised as is the case at Weipa. No blasting is required and scrapers will be used to remove topsoil and overburden which will be placed in mined out areas. Conventional open cut mining will be used with low stripping ratios (less than 1:1). Mining will be conducted by contract miners. Market studies have been completed and these indicate that Gulf can supply the market with a product profitably.
Metallurgical Factors or Assumptions	• *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.*	A direct shipping product will be supplied without the need for any beneficiation (i.e. wet screening to remove fines).
Environmental Factors or Assumptions	• *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.*	At present there are no communities on the mining leases and the leases have previously been used for mining of kaolin. Good relations have been established with the Aboriginal Traditional Owners and relevant Queensland Government authorities. An Environmental Impact Study has been approved.
Bulk Density	• *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.* • *The bulk density for bulk material must have been measured by*	The 2014 Sonic drilling programme enabled the measurement of 144 bulk density values from bauxitic material and this data was used in the resource estimate. An average default value of 1.8 was initially used (compared to previous conservative estimates of 1.6). The inclusion of an

Criteria	JORC Code explanation - DSO ("Direct Shipping Ore")	Commentary
	methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	additional 204 measurements from field data has increased the default bulk density to 1.93 and this has been used in the current resource estimate where blocks are located outside the search distance of the modelling algorithm.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The resource estimate used the average search distance as the most appropriate parameter to use for categorising resources combined with the determination of whether the grade of each block was determined from actual measured assays or correlated assays. The current estimate used these parameters with special attention paid to actual available alumina and reactive silica grades.
Audits or Reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	Geos Mining has carried out resource estimations since 2008. In 2012 a mineral resource consultant was commissioned by an international aluminium producer to review the resource. No adverse comments were received. In 2016, Xstract Mining Consultants Pty Ltd has reported that it has "examined the methodology of this estimate and is satisfied that it has been prepared in accordance to the JORC Code (2012)".
Discussion of Relative Accuracy/ Confidence	• *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.* • *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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Confidence in the global resource is considered high given the extensive drilling completed and assay data available. Limitations on the categorised resource relate to the lack of raw unscreened sample assays in certain areas of the deposit. Nevertheless, based on results obtained in 2014 and 2015 there is a high probability that mineral resources can be upgraded in category with additional information.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Ore Reserve is derived from the Mineral Resource estimated by Geos Mining and described in Section 3. • The Mineral Resource is inclusive of the Ore Reserve. • The Resource model includes Measured, Indicated and Inferred categories. Only Measured and Indicated blocks are included in the Ore Reserve.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person for the Ore Reserve is John Wyche, General Manager of Australian Mine Design and Development Pty Ltd (AMDAD). Mr Wyche was unable to attend the planned site visit so Mr Peter Allen, an employee of AMDAD, attended on Mr Wyche's behalf. Mr Allen has over 25 years of experience with similar mining methods and was fully briefed by Mr Wyche. The site visit was conducted on 8th and 9th April 2015. The following were inspected and photographic records taken: o The vegetation cover, o The soil, sub-soil and bauxite horizons where exposed in borrow pits with emphasis on the sub-soil / bauxite interface, o Examples of free flowing and cemented bauxite, o The existing site access road which will form the main haul road, o The airstrip and site facilities remaining from the former kaolin mine, o The stockpile and port area on the bank of Skardon River, o General drainage and topography including haul road crossing points for Namaleta Creek, and o Discussions with engineers designing the stockpile and barge load out facilities. • No issues were observed which are likely to materially affect the Ore Reserve estimate.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• This Ore Reserve is supported by a set of Definitive Feasibility Study reports by Gulf Alumina Limited (GAL) and their consultants completed in December 2015. • The Definitive Feasibility Study reports cover resource estimation, mining, materials handling, marketing, environment, community and financial modelling. • The Definitive Feasibility Study reports indicate a high degree of confidence that the project is technically and economically viable.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The resource model is a single layer seam defined on a 50 x 50 metre grid with variable thickness based on total silica grades in each drill hole being less than or equal to 20% and reactive silica grades being less than or equal to 8%. • Mining models developed on this resource show that readily marketable alumina and silica grades can be extracted. • Higher silica cut offs were also modelled by Geos Mining. These demonstrate that significantly higher tonnes may be extracted by mining a thicker portion of the bauxite horizon but at the cost of increased price quality penalties. This Ore Reserve is based on the 20% total silica limit but the opportunity exists to further improve value in the operation if future assessment of the trade-off between tonnes and product quality can be varied. • A margin ranking calculation was applied at the centroid of each block subtracting the clearing, topsoil, sub-soil and bauxite mining costs and the stockpile, trans-shipment and site fixed costs from the FOB bauxite value including alumina and silica price penalty adjustments. The margin ranking demonstrates a positive vale for all scheduled areas of the deposit.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• Ore Reserves are derived from the Mineral Resource by application of a mine plan using a strip and block layout for mining by loaders and trucks. The mine design is based on bauxite quality and economic analyses after application of mining loss and dilution adjustments. • The bauxite will be mined by large front end loaders loading 200 to 350 tonne road trains. Topsoil will be mined by scrapers and the subsoil immediately overlying the bauxite will be mined by front end loaders loading rigid body trucks. No blasting is required. • Pit depths vary from 0.5 to 6.7 metres with 95% less than 3.5 metres. Pit widths are 1 to 5 km. The floor is near level. No geotechnical analysis was required for the very shallow walls and the reserves assume they are vertical. • The Direct Shipping Ore (DSO) bauxite is defined by alumina and silica content which are laterally consistent over more than 100 metres through the pits. Vertically the DSO resource is defined by less than or equal to 20% SiO_2 in the drill holes which are sampled on 25cm intervals. There is very little internal dilution vertically within the DSO horizon. Mining loss and dilution will occur on the roof and floor of the DSO horizon which averages 1.6 metres thickness. Mining loss and dilution are modelled as a 10cm loss and 10cm dilution skin on both the roof and floor. Roof dilution grades for silica and alumina were

Criteria	JORC Code explanation	Commentary
		modelled from the first 25cm drill hole sample above the DSO horizon and floor dilution grades from the first 25cm sample below the DSO horizon. Loss grades were modelled from the 25cm drill hole samples in the top and base of the DSO horizon. • Grade control drilling on a 20 x 20 metre grid is planned ahead of mining to define the DSO roof and floor which will be cut by GPS guided machines to meet the ±10cm tolerance in the mining loss and dilution model. • The Ore Reserve model uses the single layer 50 x 50 metre blocks from the Mineral Resource model. A margin ranking model was prepared to assess the value of each block by deducting the mining, port, barging, site and royalty costs from the free on board (FOB) value of run of mine (ROM) bauxite in the block. Mining costs are from a detailed estimate for clearing, topsoil, subsoil and bauxite including variable ore haulage costs to the port. All other costs were supplied by GAL. Bauxite pricing is based on current Australian sales to China and includes alumina and silica penalties and sea freight. The margin rank model shows the defined pits to be positive value at 85% of the bauxite price used in GAL's financial model. • The Life of Mine schedule in the Pre-feasibility Study includes Inferred Resources. However these are almost entirely in the last 5 years of a 14 year mine life and the location of Proved and Probable Reserves would still allow them to be mined even if none of the Inferred were ever mined. Checks were done to ensure that the project is technically and commercially viable even if none of the Inferred is included. • Mining costs assume contract mining. The mining cost estimate was validated against three budget quotations received in late 2014 based on a scoping study for a similar mine plan.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.*	• The bauxite will be sold as a Direct Shipping Ore without processing other than sizing to -150mm and removal of tramp wood and metal. • Reference qualities used for pricing on a dry basis (namely CIBX) are 45% available alumina and 5% reactive silica. The average grades of the Ore Reserves are 40.3% total alumina and 6.3% reactive silica. These qualities are saleable and return positive block values when expected quality penalties are applied. • Most of the DSO Reserve is expected to be free flowing pisolitic and fines bauxite. Up to 30% may be weakly cemented. The planned port facility includes sizing to ensure the -150mm specification is maintained.

Criteria	JORC Code explanation	Commentary
	• *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• Product quality will be regulated by mining from two locations at any time and by limited blending capability from the port stockpile.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• The Queensland Department of Environment and Heritage Protection (EHP) issued the final terms of reference (TOR) for the Environmental Impact Statement (EIS) in January 2015. The EIS is at an advanced stage of completion. • Reserves are only included from outside a 100 metre wide buffer zone around environmentally sensitive areas, in particular Namaleta Creek and Skardon River. • EIS based on existing mining leases only but LOM schedule extended into EPM4068 and EPM18242. Mining in the EPMs is not scheduled until late in Year 9 of operations. This should allow time for conversion to Mining Leases and gaining of environmental approvals. • GAL advises that no major obstacles are expected to approval of the EIS and Environmental Management Plan.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The mine area has recently been used to mine and ship kaolin. This project left significant infrastructure including an airstrip, haul roads, port facility on Skardon River and camp. Plans have been prepared to upgrade these facilities for the bauxite project. • Since the ore is direct shipping the required stockpiling, barge loadout and water, power and sewage facilities are much smaller than if beneficiation was required. Plans are in place for all necessary facilities. The design status of the infrastructure items range from preliminary to advanced. The relatively simple nature of the facilities and low capital cost make finalisation of the design low risk.

Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.*
	• *The methodology used to estimate operating costs.*
	• *Allowances made for the content of deleterious elements.*
	• *The source of exchange rates used in the study.*
	• *Derivation of transportation charges.*
	• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*
	• *The allowances made for royalties payable, both Government and private.*
		• Preliminary capital costs have been estimated for:
		  o Stockpile and Port area
		  o Services (power, water, camp and other site infrastructure)
		  o Haul road upgrade.
		• Mine establishment costs have been estimated at a preliminary level but have been validated by budget quotations from mining contractors.
		• Operating costs were estimated on the following bases:
		  o Mining – First principles cost estimate based on equipment productivities, fleet ownership and operating costs, operator and maintenance labour and management, supervision and technical services costs. Contractor margin applied to operating items. Benchmarked against contractor budget quotations.
		  o Stockpile and Port - First principles cost estimate based on

Criteria	JORC Code explanation	Commentary
		equipment productivities and hourly costs including power and fuel, operator and maintenance labour. o Administration - First principles cost estimate based on labour and local services. All labour costs include statutory oncosts and camp and fly in fly out costs. • Trans-shipment by barge to ships at sea based on detailed contractor proposal. • State Government, Native Title Holder and funding royalties included. • Ore selection and financial model include penalties for reactive silica above and available alumina below reference levels.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Bauxite pricing is based on CRU's Bauxite and Alumina Market Outlook and has been checked against published price forecasts from adjacent projects and the recent Shanghai Metal Market prices for Australian bauxite sold into China. • Pricing is based on reference grades of 45% available alumina and 5% reactive silica (namely CBIX). The ore selection process and the financial model include penalties for available alumina below and reactive silica above the reference grades. • Sea freight for a Panamax vessel is deducted from the CIF price at US$15.00 per dmt to set the FOB price at Skardon River. This is higher than the recent actual sea freight. • The FOB price is converted from US$ to A$ at an exchange rate of US$0.80 = A$1.00.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• Market assessments based on CRU's Bauxite and Alumina Market Outlook. Increasing demand in China and decreased supply from Indonesia. Market opportunity to at least 2019. • Skardon River has high available alumina and comparable reactive silica to mines outside Queensland. • DSO offers cheaper production and rapid start up to meet increasing demand. • Price competitive for China against Atlantic producers. • Good quality is expected to maintain market share beyond 5 year outlook. • Opportunity exists to significantly increase tonnes by mining thicker horizon at lower alumina and higher silica if supported by market and price conditions.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	• The Pre-feasibility Study financial analysis by GAL used a discount rate of 10% to estimate the project NPV. • GAL presented after tax and financing financial analyses that show

Criteria	JORC Code explanation	Commentary
	• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	high NPV and ROR and less than 5 year payback periods for sensitivity cases of ±15% on bauxite price, capital costs, operating costs and US/AUD exchange rate. • AMDAD prepared a margin ranking model which demonstrates that the area and bauxite tonnes covered by the Ore Reserves in this statement is almost unchanged at 15% less than the base case bauxite price.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• GAL signed agreements in December 2013 with the Ankamuthi People who are the Native Title claimants to the affected land. Following these agreements the Minister for Natural Resources and Mines representing the State of Queensland signed the Section 31 Deed pursuant the Native Title Act 1993 in respect of the Company's Skardon River mining leases on 20 January 2014. • Skardon River is a remote site. There are no dwellings or infrastructure, other than matters dealt with in the traditional owner agreements, which will be affected by the mining, stockpiling and barging operations.

Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:*
	• *Any identified material naturally occurring risks.*
	• *The status of material legal agreements and marketing arrangements.*
	• *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*
		• Significant risks and mitigation measures assessed include:
		  o Tropical rainfall impeding mining operations and saturating stockpiles. Mining and shipping is only planned for nine months per year over the dry season. Activities are planned to cease in the three wettest months from January to March each year.
		  o Market. Current forecasts project a world shortfall of bauxite until at least 2019. Beyond this time the Skardon River DSO has been planned to provide bauxite quality which will be competitive against other sources around the world.
		  o 82% of the Ore Reserves are in existing Mining Leases area approved for bauxite mining and covered by the current EIS update process. The remaining 18% are on adjoining Exploration Permits area which must be converted to Mining Leases and which will require new or expanded Environmental Impact Assessments. However, all ore scheduled for the first 8 years is within the mining leases. It is reasonable to expect that permitting can be achieved in this time and the financial analyses demonstrate that the project is viable even if restricted to the current Mining Leases.

Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view*	• Proved and Probable Ore Reserves are derived from Measured and Indicated Ore Resources respectively. The Ore Reserves do not include any Inferred resources.

Criteria	JORC Code explanation	Commentary
	of the deposit. • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• In the opinion of the Competent Person for the Ore reserves, John Wyche, no modifying factors were identified which would prevent any part of the: o Measured Resource within the designed pits from being converted to a Proved Reserve. o Indicated Resource within the designed pits from being converted to a Probable Reserve.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No audits of the Ore Reserves have been undertaken.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Because the Ore Reserve is for Direct Shipping product special care was taken to assess the variability and economic viability across the broad mining areas. Grades for roof and floor loss and dilution models were modelled from the drill hole data across the entire resource and applied on a block by block basis. The net value of each block in the model was estimated including variable costs relating to waste and bauxite thickness, bauxite haulage and quality related price penalties. Provided the resource model tonnes and grades are reliable on a local basis then the Ore Reserves can also be considered to be accurate on a local basis. • The resource model only uses drill hole samples less than or equal to 20% total silica and less than or equal to 8% reactive silica. This means that it is modelling a high quality horizon within the geological bauxite horizon. Definition of this mining horizon within the observed vertical alumina and silica grade distribution within the bauxite horizon gives a high degree of confidence that estimated Ore Reserve grades can be controlled by mining to the grade horizons that will be confirmed by the grade control program. • Alternative resource models were prepared by Geos Mining using 25% and 30% total silica cut offs with the 8% reactive silica limit. The 20% total silica limit model used for the Ore Reserves is designed to provide a consistent high quality product with simple blending from separate mining faces. The higher silica cut offs provide significantly more tonnes at saleable product qualities but reduce the ability to regulate grade with blending over the mine life. However, they demonstrate the robust nature of the deposit in that varying the height of the mining horizon allows the product qualities to be varied to suit the highest value trade-off between tonnes sold and price quality penalties incurred.