



**ASX Announcement**

**1<sup>st</sup> September 2016**

## **Fortitude Deposit JORC 2012 Resource**

### **Highlights**

- *Matsa Resources has had a detailed audit completed on the Fortitude mineral resource estimate which has confirmed the resource and as such can now be reported under the JORC 2012 Code*
- *Accordingly the Fortitude Gold deposit within the Lake Carey Project is a JORC 2012 compliant resource of 385,300 Au*

### **CORPORATE SUMMARY**

#### **Executive Chairman**

Paul Poli

#### **Director**

Frank Sibbel

#### **Director & Company Secretary**

Andrew Chapman

#### **Shares on Issue**

144.7 million

#### **Unlisted Options**

7.8 million @ \$0.25 - \$0.40

#### **Top 20 shareholders**

Hold 52.15%

#### **Share Price on 31<sup>st</sup> August 2016**

25 cents

#### **Market Capitalisation**

\$36.18 million

Matsa is pleased to advise that it has achieved a JORC 2012 compliant resource estimate for the Fortitude Gold Deposit which forms part of the Lake Carey Gold Project.

A resource estimate for Fortitude was originally completed by Runge Limited ("RPM") in February 2010 under instruction from the previous owners, Midas Resources Limited ("Midas"). Matsa appointed CSA Global Pty Ltd ("CSA Global") to conduct an audit of that resource and bring the resource up to a JORC 2012 compliant level.

The Mineral Resource block model and data was imported into Surpac by CSA Global. A detailed audit of the mineral resource estimate was undertaken which included:

- Review of relevant input data
- Review of the geological interpretation
- Review of wireframe construction methods
- Analysis of basic statistics, composite extraction and high grade cuts
- Review of the grade estimation process, block model construction and other methodologies
- Confirmation of the reported Mineral Resource from the block model.

## **Results**

As a result, CSA Global have confirmed the Fortitude Mineral Resource and is reported below in accordance with the 2012 JORC Code.

**Fortitude Gold Deposit Mineral Resource Estimate (1g/t Au Cut-off)**

Type	Indicated			Inferred			Total		
	Tonnes t	Au g/t	Au Ounces	Tonnes t	Au g/t	Au Ounces	Tonnes t	Au g/t	Au Ounces
Oxide	572,800	2.1	38,700	221,000	1.9	13,500	<b>794,000</b>	<b>2.0</b>	<b>51,400</b>
Transitional	150,900	1.8	8,700	148,200	1.9	9,100	<b>299,000</b>	<b>1.9</b>	<b>18,000</b>
Fresh	2,034,700	1.9	124,900	3,161,200	1.9	190,900	<b>5,196,000</b>	<b>1.9</b>	<b>315,800</b>
<b>Total</b>	<b>2,758,000</b>	<b>1.9</b>	<b>172,000</b>	<b>3,530,000</b>	<b>1.9</b>	<b>213,300</b>	<b>6,289,000</b>	<b>1.9</b>	<b>385,300</b>

## **Geology and Geological Interpretation**

Gold mineralisation is associated within the Fortitude Shear Zone, a north-northwest striking D3 shear which extends the length of the Lake Carey project. Primary mineralisation is characterised by near vertical, sheeted quartz veins hosted within the Fortitude Shear (Figure 1). Vein intensity is highly indicative of mineralisation tenor, although more carbonate rich veining is much less prospective than quartz dominated veining. Veining is locally brecciated, or laminated in thicker units, but is generally massive. Sulphide minerals include pyrite +/- arsenopyrite. The occurrence of strong quartz veining with sulphide minerals, fuchsite or intense sericite alteration is indicative of better Au grades.

Secondary mineralisation is characterised by flat lying supergene lodes (Figure 2).

## **Drilling Techniques**

Drilling supporting the Mineral Resource was predominantly Reverse Circulation (RC) with a minor number of diamond and aircore (AC) drill holes. The Mineral Resource estimate is based on assay data

from 17 RC/diamond holes, 173 RC holes and 80 AC holes. AC holes represent 28% of the total drill holes used in the resource, and only 13% of the intersection metres used for the estimate.

## **Sampling Techniques**

For RC drilling the 1 metre bulk samples were collected in plastic RC bags prior to being passed through a Jones riffle splitter. Diamond core was marked up and logged prior to being cut with half the core being submitted for analysis.

## **Sample Analysis Method**

50% of the assays completed were by fire assay with a 50g charge. The remainder was completed by aqua regia analyses. ALS, Genalysis and Ultra Trace laboratories were used.

## **Estimation Methodology**

The deposit was estimated by using Ordinary Kriging (OK) grade interpolation using Surpac software. The wireframes were applied as hard boundaries in the estimate.

The block dimensions used in the model were 12.5m NS by 5m EW by 5m vertical with sub-cells of 6.25m by 1.25m by 1.25m. A high grade cut of 30g/t Au was applied to supergene composites, while a high grade cut of 25g/t Au was applied to the shear hosted mineralisation composites used in the resource.

Bulk densities assigned to the model ranged from 2.0t/m<sup>3</sup> to 2.9t/m<sup>3</sup> based on weathering state and lithology.

## **Cut-off grades**

Wireframe and geological modelling was prepared using a nominal 0.5g/t Au cut-off grade for primary, shear- hosted mineralisation and 0.3g/t Au cut-off for supergene mineralisation. The Mineral Resource has been reported at 1.0g/t Au cut-off and has been based on assumptions about economic cut-off grades for open pit mining from current mining operations in the region.

## **Mineral Resource Classification**

The classification of Indicated and Inferred was made on the basis of continuity of structure and drill spacing. The Mineral Resource estimate appropriately reflects the view of the Competent Person.

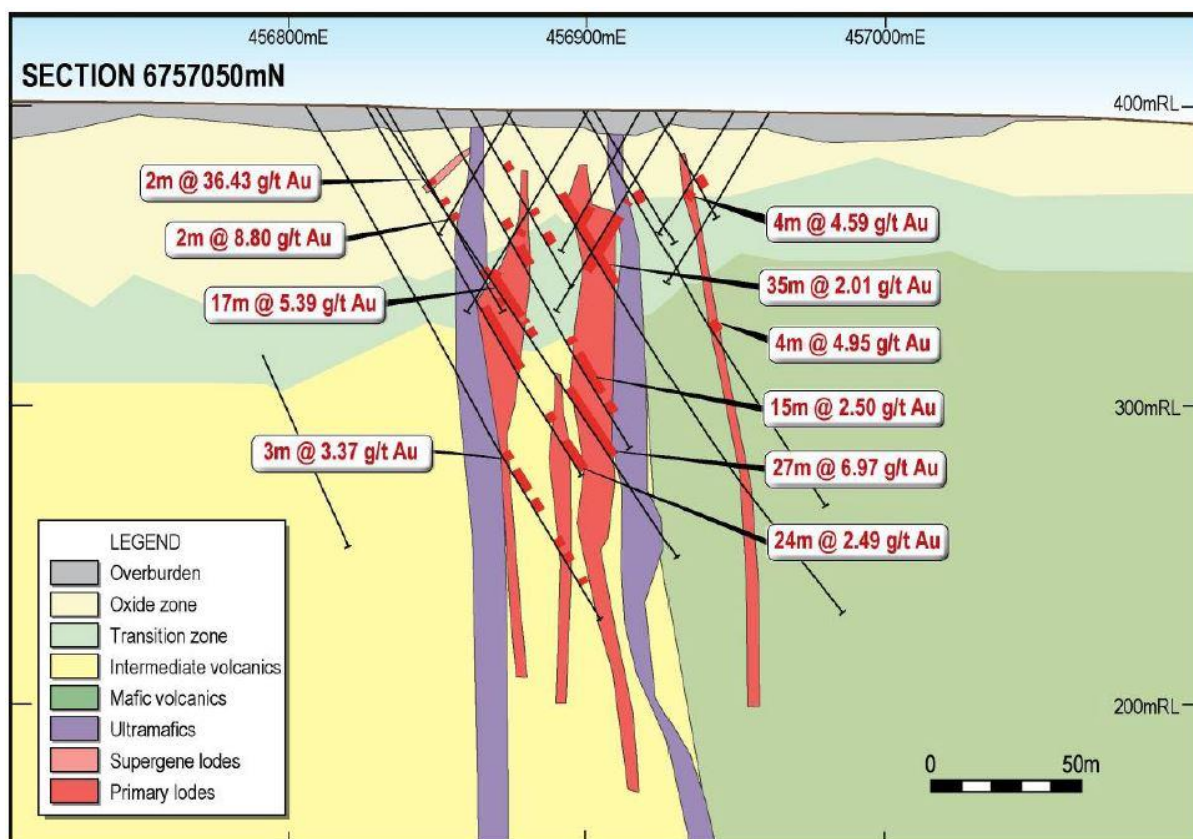


Figure 1: Fortitude Cross Section 6757050mN

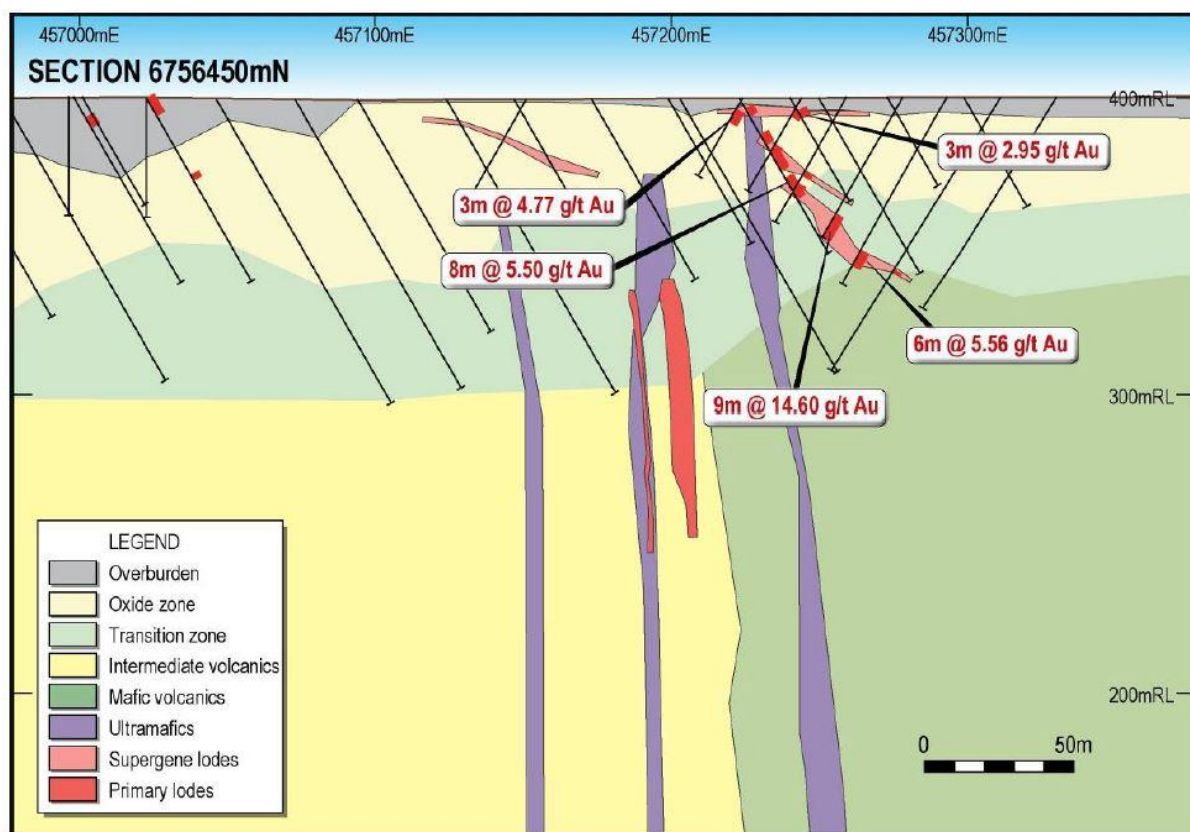


Figure 2: Fortitude Cross Section 6756450mN

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**Competent Person Statement**

*The information in this Report that relates to Mineral Resources is based on, and fairly represents, information reviewed by Mr Aaron Green, a Competent Person, who is a Member of the Australian Institute of Geoscientists (MAIG). Mr Green is a full-time employee of CSA Global Pty Ltd, an independent consulting company. Mr Green has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Green consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## Appendix 1 - Matsa Resources Limited

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drilling was conducted by Aurora Gold Limited (Aurora) between 1998 and 2002 and since October 2002 by Midas Resources Limited (Midas). Aurora drilled 560 holes (480 Air core (AC), 61 Reverse Circulation (RC), 6 Diamond core (DD) and 13 RC/DD). Midas drilled 364 holes (169 AC, 191 RC, 1 RAB, 3 DD).</li> <li>The sampling methodology is known for Midas drilling only.</li> <li>RC sampling procedures adopted by Midas varied pre- and post- 2005. Prior to 2005 (FTRC001 – FTRC153) 1m bulk samples were collected from the cyclone using plastic bags. A 5m composite was then collected in a calico bag using a metal scoop. Upon receiving assays, the plastic bags containing the bulk samples within the mineralised zones were routinely re-split using a Jones riffle splitter to obtain a 2-3kg sample (1/8<sup>th</sup> split) for submission.</li> <li>Post 2005 drilling (FTRC154 – FTRC266) the bulk sample was collected for 1m sample intervals in plastic bags, while sub-samples were collected in calico bags at the time of drilling by splitting the bulk 1m sample through a Jones riffle splitter to get a 1/8<sup>th</sup> split.</li> <li>Sampling of AC cores – Drill cuttings were collected every metre in a plastic bag. 4m composite samples were collected by using a trowel or ridged plastic spear, and the approximate 2kg sample was and sent for analysis. Upon receipt of assays the bulk sample within each plastic bag in the mineralised zone was then re-sampled using on 1m intervals by scooping the sample from the bag.</li> <li>DD holes - Once the core was correctly matched, orientation marks were drawn onto the drill core and then propagated along the entire length. The core was then marked for sampling by the geologist, to either 1m length or by geological definitions. The core was cut lengthways in a manner to preserve the orientation line. Sampling of</li> </ul>



Criteria	JORC Code explanation	Commentary
		½ core was then completed. The orientation of the cut sample line with respect to the shear fabric was not recorded.
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>RC holes were completed using a standard face sampling hammer, and drill depth was on average 110m and up to 267m.</li> <li>DD holes were completed to an average depth of 250m and up to 450m. No information on core size is presently available.</li> <li>Core was oriented and metre marked prior to logging. Orientation method is not known.</li> <li>AC holes were drilled to an average depth of 55m and to a maximum of 119m.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Actual recoveries from the RC and DD drilling were not provided.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All core, RC and AC chips were logged by either Aurora or Midas geologists. DD core has been wet and dry photographed after metre marking and orientation was completed.</li> <li>Qualitative geological logging was completed using a standard set of codes. These codes are considered suitable for use in defining and modelling of the deposit geology.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	<ul style="list-style-type: none"> <li>Information is only available for the Midas drilling</li> <li>For DD, ½ core is sampled.</li> <li>For RC drilling, mineralised sample splits from the 1m samples are obtained by Jones riffle splitter to obtain a 2 – 3kg sample for submission.</li> <li>Wetness information has not been captured in the database.</li> <li>For AC drilling mineralised sample splits are obtained by metal scoop from the 1m sample bags. The size of the sample is not recorded but is assumed to be similar to the RC sampling.</li> <li>The majority of sampling completed by Midas was submitted to either Ultra Trace or Genalysis laboratories in Perth. Both laboratories abide</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>by a generic sample preparation process where drill samples are initially dried in an oven at temperatures of approximately 105°C, before crushing using a jaw crusher to achieve a product of a maximum 3mm size. Samples exceeding 3kg were split to obtain a volume that would fit in the LM5 pulveriser bowl with single pass. The crushed sample is then pulverised for a specified time in order to achieve a nominal 80% to 95% passing 75 micron size.</p> <ul style="list-style-type: none"> <li>A 250g sub-sample was then collected and placed in a pulp envelope to be used for analysis.</li> <li>The sample preparation technique is considered to be appropriate for gold assays.</li> <li>The nominal 1/8<sup>th</sup> split providing a 2kg to 3kg sample for RC would generally be considered an appropriate sample size for this type of deposit. Some scatter is evident in the duplicate sample data that may reflect an inadequate sample size due to inherent variability of the mineralisation.</li> <li>Half-core sampling is accepted routine procedure for sampling of diamond core in this style of deposit for gold analysis. No record of duplicate analysis from diamond core has been recorded.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>ALS laboratories were the principal provider of assay services during the Aurora phase of drilling, while Genalysis laboratories also provided assay services. Analysis was conducted using either Fire Assay or Aqua Regia, with both methods using a 50g charge. Genalysis also conducted both Fire Assay and Aqua Regia analysis, using a 25g charge for the Fire Assay, and a 10g charge for Aqua Regia.</li> <li>Ultra Trace laboratories was the major provider of assay services to Midas. Assay methods were either Fire Assay or Aqua Regia, with 40g charge used in both methods.</li> <li>Fire Assay and Aqua Regia analysis methods for gold are appropriate gold analysis methods. Roughly 50% of assays were completed by Fire Assay methods. No analysis of potential bias between methods has been conducted.</li> <li>QAQC data is available for Midas drilling only.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Midas QAQC protocols involves submission of standards, blanks, and field duplicate samples. Laboratory repeat analyses have also been supplied to Runge and a large number of pulp samples were also submitted to a secondary laboratory for independent checks.</li> <li>• In general all standards returned acceptable results near the expected value, however laboratory standard ST06 displayed a bias to under-report against the expected value.</li> <li>• Whilst no bias is evident in the repeat analyses, duplicate samples or the inter- laboratory checks, the repeatability is poor, As yet, no investigation into the causes of this poor repeatability has been undertaken.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 1,206 pulp samples were submitted to a secondary laboratory for independent checks.</li> <li>• Six out of the 80AC holes in the resource area have been twinned by RC holes. Intercepts and grades from both hole types are similar, with the AC having slightly lower mean grade.</li> <li>• Data re-compilation by Midas Resources Limited upon their acquisition of the project involved sourcing all historic laboratory assay reports and generation of a project-specific relational database. Original data entry and verification protocols are unknown.</li> <li>• Runge reviewed a selection of laboratory assay files compared to the project database and no errors were found.</li> <li>• No adjustments to assay data are recorded.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All drill holes used in the resource estimate have been accurately surveyed by contract surveyors using an RTK GPS instrument. Downhole surveys have been conducted by the drilling company at regular intervals using either a single shot or a gyro tool for RC and DD holes. Downhole survey of AC holes was not done.</li> <li>• The AMG84_51 grid system has been used for all drilling.</li> <li>• A high accuracy (method unknown) topographic DTM has been used.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill spacing of approximately 25m (along strike) by 25m (on section) was considered adequate to establish both geological and grade continuity. Towards the edges of the deposit the drill spacing widens to either 50m (along strike) by 25m (on section) or 50m (along strike)</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<p>by 50m (on section). This spacing has been sufficient to allow delineation of the narrow lodes and supergene domains.</p> <ul style="list-style-type: none"> <li>Mineralised intercepts were composited to 1m length on the basis of a sample length analysis of the database.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>The orientation of bulk of the drilling is approximately perpendicular to the strike of the steeply dipping mineralisation and is unlikely to have introduced any significant sampling bias. Some holes have been drilled down dip, however these holes were excluded from the resource estimate.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sample security measures are unknown.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not available.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The project containing the Fortitude gold deposit comprises 6 granted Mining leases, 5 Exploration licenses and 1 Prospecting license.</li> <li>All tenements are granted and can be transferred without any issues.</li> <li>The project is located on Vacant Crown Land.</li> <li>All tenements except for P39/5293 predate requirement for Heritage agreements.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration drilling was conducted by Aurora Gold Limited (Aurora) between October 1998 and February 2002.</li> <li>Midas Resources Limited (Midas) acquired the project from Aurora in October 2002. Midas has drilled in excess of 380 drill holes both in and around Fortitude to test for extensions to the Fortitude system.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Lake Carey Project of which the Fortitude deposit forms a part is situated on the Fortitude Shear, which along with the Bindah Shear</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>located just west, forms a narrow corridor of ESE trending greenstones which are bounded to the east and west by granitoid terrane. As the Fortitude-Bindah system extends north the greenstone pile thickens and lies host to numerous large gold mineralisation systems. To the south the Fortitude-Bindah system appears to attenuate and eventually terminate against granitoids of the Eastern Gneiss Terrane.</p> <ul style="list-style-type: none"> <li>• The greenstone sequence located within the Fortitude tenement is comprised of highly foliated felsic to intermediate volcanic rocks with relatively undeformed mafic volcanic units to the east and west in contact with granite. The whole greenstone package varies in width from &lt;2km at the southern end of the tenement to approximately 8km at the northern end. Major north to north-northwest trending shear zones occur within the greenstones and the granite to the east, in particular along geological contacts. The main structural features are the Fortitude Shear along the eastern intermediate-mafic contact and the more north- westerly trending Bindah Shear, along the western intermediate-mafic contact</li> <li>• Gold mineralisation is typically associated with the Fortitude Shear Zone, a north-northeast striking dextral shear which extends the length of the Lake Carey tenement. To the north, it horsetails into the Wilga fault system and in the south it continues into the Kirgella Gneissic Dome. Gold mineralization is also associated with the Bindah Shear, particularly at the old Bindah Mine to the southwest.</li> <li>• The Fortitude deposit is hosted within sheared felsic to intermediate volcanic rocks and minor ultra mafics, and is covered by up to 10m of lacustrine clays and aeolian sands surrounding Lake Carey. Gold mineralisation occurs within a steeply dipping shear system, and is associated with pervasive carbonate-sericite-silica alteration along with pyrite-arsenopyrite mineralisation. Remobilisation of gold has also resulted in the formation of flat lying zones of supergene mineralisation within the regolith. Weathering extends to a depth of 60-80m.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not reporting exploration results.</li> <li>The company is reporting a Mineral Resource based on historical drilling information. A summary of the drilling information has been provided in Section 1.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Not reporting exploration results.</li> <li>No metal equivalent values have been used.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation styles tend to change from narrow vertical lodes in the north, to shallow dipping supergene-hypogene mineralisation in the south. The shear hosted lode mineralisation strikes at roughly between 330° and 350° and is vertical to very steeply dipping to the east north-east. The supergene mineralisation is somewhat more variable with strike roughly between 330° and north - south and the lenses are generally flat lying or shallow dipping to the east north-east.</li> <li>The orientation of the drilling is approximately perpendicular to the strike and dip of the shear hosted mineralisation and is unlikely to have introduced any significant sampling bias.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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 Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Matsa has acquired Exploration License Applications immediately north and east of the currently defined Fortitude gold deposit. Drilling is planned to test for extensions to the Fortitude deposit at the Fortitude North and Fortitude South targets as described in the ASX release dated 23<sup>rd</sup> August 2016.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Midas re-constructed the assay table using original laboratory data files when it became owner of the tenement.</li> <li>To check the validity of some of the assays Runge reviewed a selection of laboratory assay files and compared them against the project database. No errors were found.</li> <li>Runge performed initial data audits in Surpac. These checks included: Validation that downhole survey or assay values do not extend beyond hole depth quoted in the collar file; Hole dips within 0° and -90°; and checks for duplicate records. All data loaded correctly into the Runge project database.</li> <li>Where the downhole survey depth did not correspond with the end of hole depth, Runge copied the last measured survey record to the end of hole depth. 105 survey records were inserted in this manner.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>A site visit was undertaken by Runge's Competent Person (CP) on 19<sup>th</sup> of January 2010. The CP was satisfied that the drill hole collars coordinates in the database accurately reflect the actual holes on the ground based on results of hand held GPS collar coordinate and relative hole position checks.</li> <li>A site visit is planned for a CP as part of a future MRE update.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>DD drilling confirms the shear hosted style of mineralisation in the north of the project area, while the shallow supergene mineralisation to the south is well defined by RC and AC holes.</li> <li>An alternate mineralisation interpretation could be suggested for the zone between 6,756,750mN and 6,756,950mN where some ambiguity exists between the sub-horizontal supergene and vertical shear hosted mineralisation styles. Further drilling in this region would be required to confirm the current interpretation.</li> <li>Runge interpreted and constructed wireframes of the ultramafic and mafic lithologies. The ultramafic forms narrow steeply dipping zones within which the shearing is focussed.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Regolith wireframes were created by Runge using the interpreted weathering strings as supplied by Midas. Wireframes for the bottom of complete oxidation, top of saprock, and the top of fresh rock were generated.</li> <li>Runge's resource modelling is within the interpreted gold grade envelopes, using a nominal 0.5g/t Au cut-off grade for the shear hosted mineralisation, and a nominal cut-off for the supergene of 0.3g/t Au. These cut-offs were selected as they represent inflections in the cumulative population distribution and enabled the mineralisation to be captured in a coherent envelope, which agreed with the geological model.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Fortitude Au deposit extends for approximately 1.5km in a NNW-SSE direction. The mineralisation extends from just below surface to a depth of at least 340m below the surface, while modelling has been extended to a maximum of 400m below surface. The individual high grade shear hosted lodes are up to 20m wide.</li> </ul>

## **Estimation and 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 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.*
- Statistical analysis was performed on the supergene and shear hosted mineralisation domains respectively using Supervisor software. Based on population histograms and the coefficient of variation statistic it was determined that a high grade cut of 30g/t Au (99<sup>th</sup> percentile) was appropriate for the supergene domain, while a high grade cut of 25g/t Au (99.5<sup>th</sup> percentile) was more appropriate for the shear hosted mineralisation
- The data from the main domains for both supergene (Object 9) and shear hosted mineralisation (Object 101) were each used for variogram modelling.
- Using parameters derived from modelled variograms, Ordinary Kriging was used to estimate average block grades in 4 passes using Surpac software. The wireframes were applied as hard boundaries in the estimate.
- Runge completed an Inverse Distance (ID<sup>2</sup>) check model and found the OK estimate to be within 1% of the ID model for Au ounces.
- Previous resource estimates were reviewed for comparison by Runge but not factored into the current resource estimate.
- By-product recovery was not included.
- No significant deleterious elements were evident in the assay data.
- Parent block size of 12.5m NS by 5m EW by 5m vertical with sub-cells of 6.25m by 1.25m by 1.25m. The parent block size was selected on the basis of 50% of the average drill hole spacing
- Ordinary Kriging (OK) grade interpolation with an oriented 'ellipsoid' search neighbourhood was used to estimate Au in the block model. Search ellipsoid was oriented to the average strike, dip and plunge of the mineralised zones. A first and second pass search radius of 50m and 100m respectively was used with a minimum sample number of 10 and a maximum sample number of 40. The search radius was increased to 200m and 400m for the third and fourth passes respectively. The minimum number of samples was set to 4 for the third pass and 2 for the fourth pass. In passes 1, 2 and 3 a restriction of 5 samples per drill hole was applied, increased to 10 for pass 4. Approximately 54% of the blocks were filled in the first two passes, and 99% in the first three. Cell discretization was 3 (X) by 4 (Y) by 3 (Z).

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>The geological model was used to check the grade model and assign lithological codes, which along with the weathering surfaces were used to assign bulk density values.</li> <li>Validation was conducted on both the supergene and shear hosted domains by pod, elevation and northing. Validation plots showed good correlation between the composite grades and the block model grades.</li> <li>A Uniform Conditioning (UC) estimate was also prepared by Runge. UC is a selective technique that adopts similar principles to MIK. The UC estimate has reported lower tonnes at a higher grade.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages were estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been reported at 1.0g/t Au cut-off and has been based on assumptions about economic cut-off grades for open pit mining from current mining operations in the region.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>It was assumed that the deposit could potentially be mined using open pit methods.</li> <li>No assumptions have been made to date regarding minimum mining widths or dilution.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No assumptions have been made regarding metallurgy.</li> <li>Mining of this gold deposit type is common in the area. The metallurgy, processing and waste management of these deposits is typically simple and well-understood.</li> <li>Results of preliminary metallurgical test work conducted by Aurora in 2001 suggests that the metallurgical characteristics of the Fortitude deposit are favourable to processing by conventional CIL technology.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the</li> </ul>	<ul style="list-style-type: none"> <li>No assumptions regarding possible waste and process residue disposal options have been made. It is assumed that such disposal will not present a significant hurdle to exploitation of the deposit and that any</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p>	<p>disposal and potential environmental impacts would be correctly managed as required under the regulatory permitting conditions.</p>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The in situ bulk density assignment was based primarily on results obtained from 30 samples tested by Aurora Gold Limited in 2001. Test work was completed on drill core using the Water Immersion method.</li> <li>• Where no data was available the density of the material was assumed based on published information for these rock types.</li> <li>• Bulk densities used ranged from 2.0t/m<sup>3</sup> to 2.9t/m<sup>3</sup> based on weathering state and lithology.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>• <i>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).</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Classification of the Mineral Resource estimates was carried out taking into account the geological understanding of the deposit, quality of the samples, density data and drill hole spacing.</li> <li>• The mineralised trends show moderate continuity. A portion of the drilling is AC and, based on twin RC drilling analysis, may result in under estimation of in situ resources. The lack of QAQC data for Aurora drilling, and poor repeatability in results from Midas drilling pose some risk to the estimate.</li> <li>• The classification of Indicated and Inferred was made on the basis of continuity of structure and drill spacing.</li> <li>• The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Internal audits were completed by Runge which verified the technical inputs, methodology, parameters and results of the estimate.</li> <li>• CSA Global completed an audit of the resource estimate which verified the methodology, parameters and results of the estimate.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code.</li> <li>• The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>• The deposit has not been, and is not currently being mined.</li> </ul>