



31 July 2014

ASX ANNOUNCEMENT

## June 2014 Quarter Activity Report

### ARGENTINA MINING COMMENCES GOLD EXPLORATION WORK IN TANZANIA

#### HIGHLIGHTS

- Gold exploration commences on the recently granted Dorirojiki prospecting licence at the Company's 99.95% owned Singida Project in central Tanzania.
- New prospecting licence granted to the Company at Mabale Hills near Geita.
- Deed of Termination and Release signed enabling complete withdrawal from all Argentina mineral property option agreements and obligations.
- Board re-structure with Mr Eduardo Videla, Mr Doug Bright, Mr Allen Lafferty and Mr Tim Kennedy resigning and Mr John Jones and Mr Mark Wilson joining the Board

#### Tanzania:

##### Summary:

During the June 2014 quarter, gold exploration recommenced on the Company's projects in Tanzania, East Africa. Subsequent to Prospecting Licence 9895/2014 being granted on 30 June 2014 to Kudu Resources (TZ) Ltd (**Kudu**) a program of detailed soil geochemical sampling commenced and the Company completed this program in mid July 2014. Kudu is a 99.95% owned subsidiary of AVK and holds all mineral tenements in Tanzania on behalf of AVK.

During the June 2014 quarter two new Prospecting Licences were granted to Kudu:

- PL9895/2014 Dorirojiki covering 46.14km<sup>2</sup> in Hanang District, north of Singida; and
- PL9896/2014 Misungwi covering 8.18km<sup>2</sup> near Geita in the Lake Victoria Gold Field

The total area of all mineral tenements either held directly by Kudu or through assignment from Currie Rose (TZ) Ltd is now 631.85km<sup>2</sup>:

This ground is held in two main project areas: the Singida project in the eastern Archaean Nyanzian Craton; and the Mabale Hills project in the Geita region of the Nyanzian Craton (Figure 1).

Since its inception in May 2011, Kudu has carried out systematic gold geochemical exploration on a regional basis across the Singida Project (Figure 3) and has defined a series of gold targets over a ~60km strike length in terrain that further south hosts the Londoni gold deposit (858,000 oz) held by Shanta Mining PLC (see [www.shantagold.com](http://www.shantagold.com)) The Singida region has extensive laterite and black soil cover and has many basement geological features similar to the Yilgarn Craton of Western Australia.

The aim of the Company is to find and develop an economic gold deposit. The exploration strategy is to carry out standard gold geochemical sampling programs focussed on the laterite cover, together with geological mapping, and when available interpretation of detailed aeromagnetic survey data.



Figure 1. Tanzania Project Location Plan

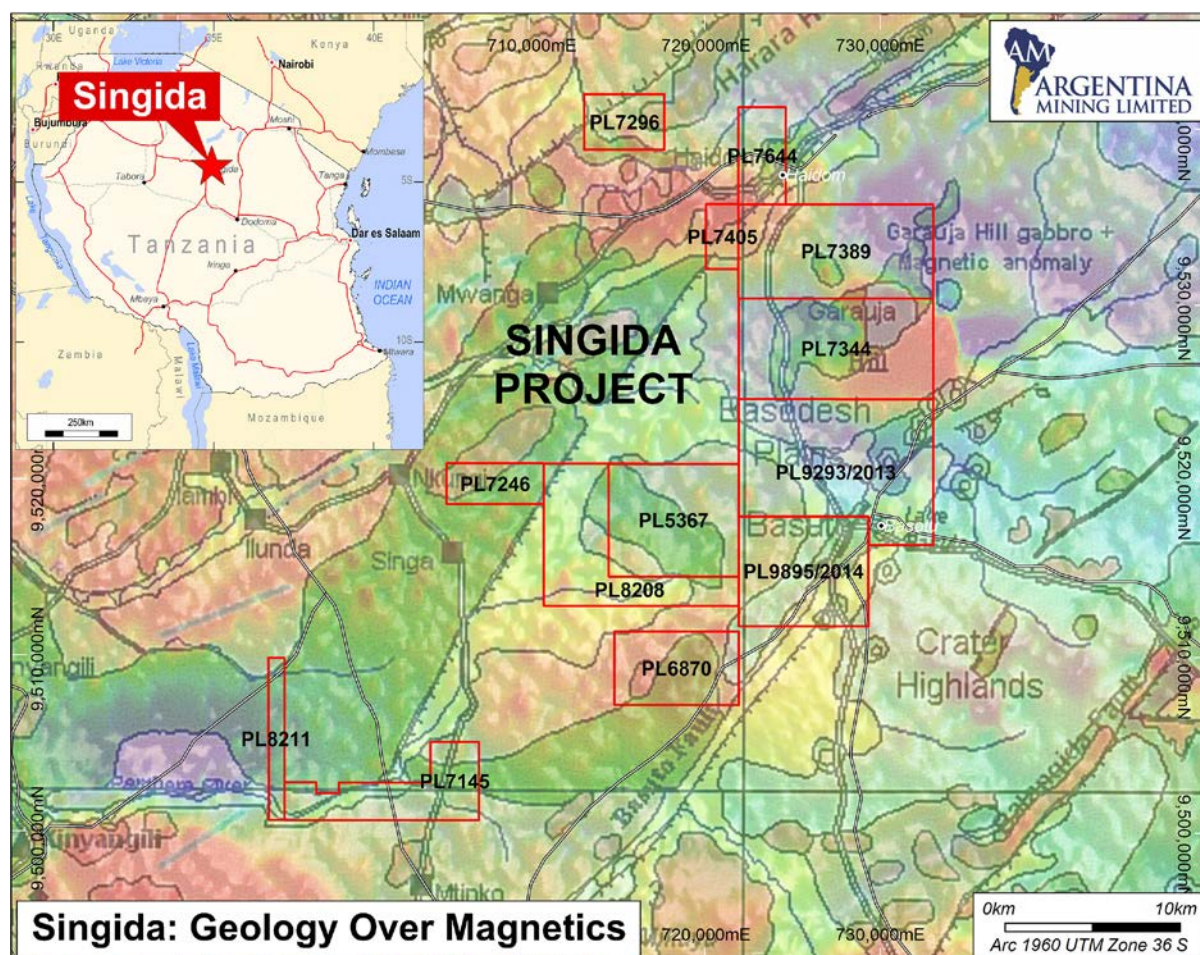
### 1. Singida Project:

On 30 June 2014 Prospecting Licence PL9895/2014 was granted to Kudu for a period of 48 months. This PL, covering 46.14km<sup>2</sup>, covers Archaean volcanic and sedimentary rock strata, intruded by granite and granodiorite plutons, and layered ultramafic complexes, along strike from PL5367/2008 (Wandela) and PL8208/2012 (Wandela Renewal) where previous work by Kudu has revealed highly anomalous gold-in-soil geochemical and gold rock chip assay results up to **2.3g/t Au** and **3.75g/t Au** respectively.

First pass exploration work has commenced on PL9895/2014 (Dorirojiki) consisting of systematic gridding and soil sampling on north-south grid lines spaced at 100m intervals and with minus 180 micron sieved soils taken at 50m intervals.



This initial work at Dorirojiki is focused on outcropping basement gold mineralisation identified during regional reconnaissance work in 2012. The work in 2012 comprised initial wide spaced sampling carried out on long strike traverses and revealed outcropping gold mineralisation in sheared Banded Iron Formation (rock chip results up to 3.75g/t Au) and strongly anomalous gold-in-soil values in excess of 500ppb Au over wide intervals of up to 200m width (NW-SE) and 450m strike length (SW-NE).



**Figure 2. Kudu Resources (TZ) Ltd tenements in the Singida project area, Tanzania.**

The area of detailed work currently in progress is shown below in Figure 4 as the Winston prospect:

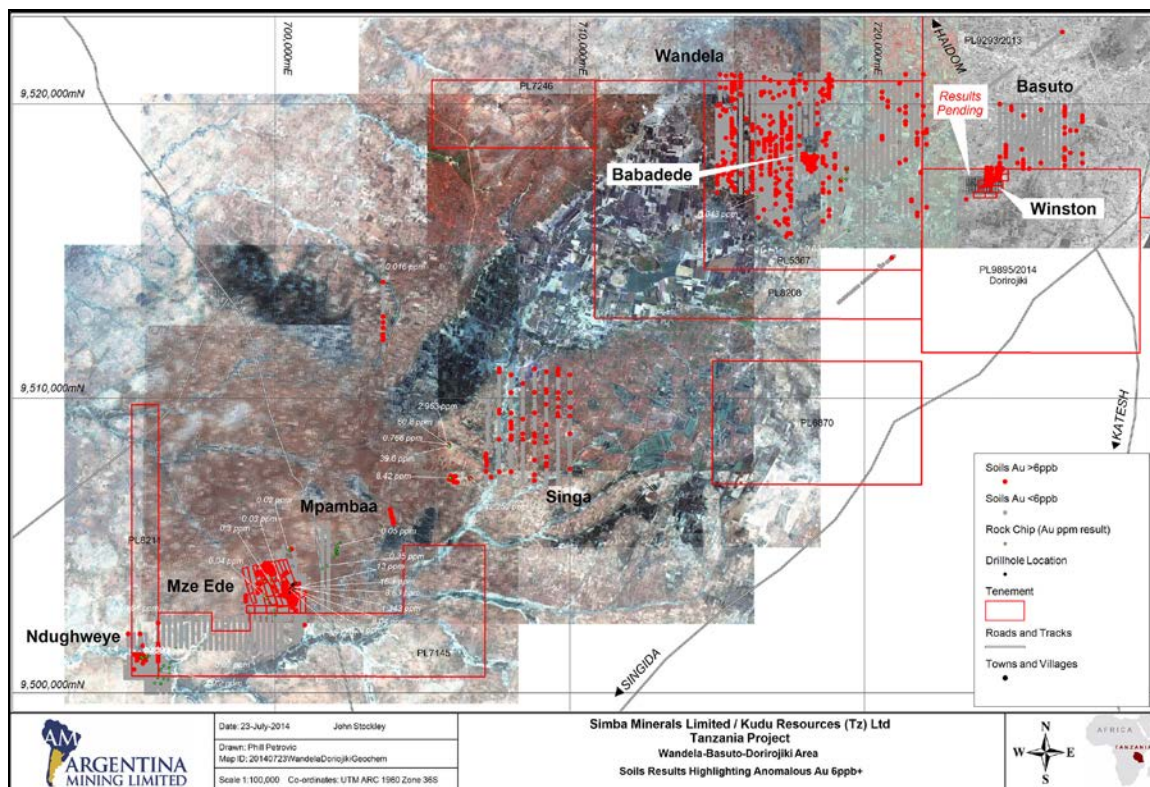
At Winston 294 soil samples have been taken and have been despatched to ALS Laboratory in Mwanza for gold analyses. Results have been received (on 29/7/14) for the first batch of 144 soil samples; a further 600 samples have been collected and are in transit to the ALS Laboratory in Mwanza.

A wide zone of +25ppb gold (peaking at up to 496ppb Au) has been defined between lines 724,100E to 724,600E (a width of 500m open to the east) and from 9517,200N to 9517,800N (a width of 600m open to the north): see Figure 4 below. Zones in excess of 100ppb Au are shown from line 724,200E to 724,400E with very high soil values of up to 2,370ppb Au.

The geology of the gold zone consists of predominantly north-east/south-west striking Archaean mafic amphibolite, sheared and contorted inter-flow, magnetite rich interflow sedimentary rocks (silicate BIF), and mylonitic quartz veins. A prominent Karoo-age dolerite sill crops out along the ridge at Winston and appears to define the southern limit of the gold geochemical anomaly.

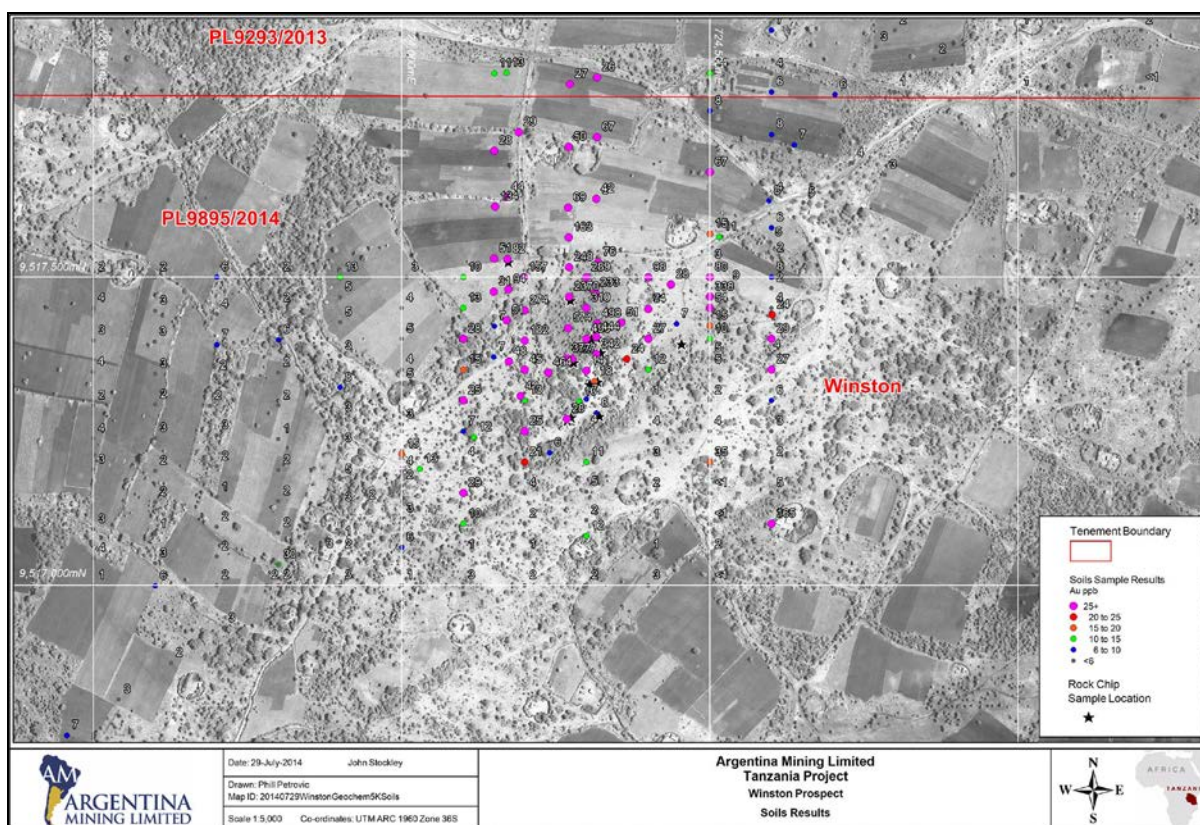
Results are awaited from step-out sampling along strike and to the north to complete the grid to 9517,800N. The outer halo at +10ppb Au is at least 600m in strike length (SW-NE direction).

The location of soil sampling at Winston is shown in the map below (Figure 4).



**Figure 3. Kudu Resources (TZ) Ltd gold in soil geochemistry in the Singida project area, Tanzania. All soils higher than 6ppb Au are shown in red.**





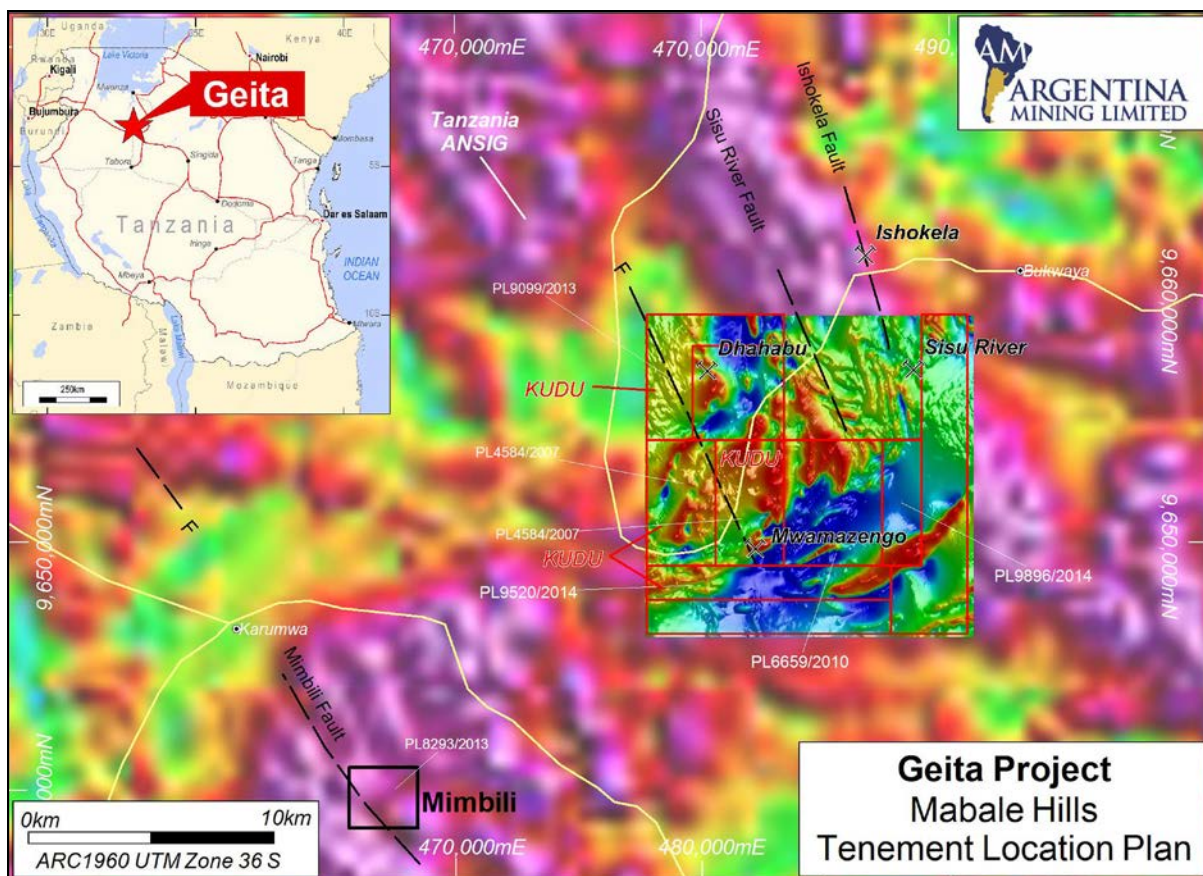
**Figure 4. Close spaced 100m by 50m soil geochemical sampling at Winston: results received on 29 July 2014.**

## 2. Mabale Hills Project:

During the June 2014 Quarter Prospecting Licence PL9896/2014 (Misungwi) covering 8.18km<sup>2</sup> was granted to Kudu. The grant of this licence was a result of the partial renewal of PL6659/2010 as part of the acquisition of the Mabale Hills Project tenements from Currie Rose in May 2013 (Figure 5).

The transfer of the Mabale Hills tenements from Currie Rose to Kudu has been delayed pending a review of possible taxation issues by the Tanzanian Revenue Authority (TRA).

Kudu will commence work on the tenements once the transfer has been completed.



**Figure 5. Mabale Hills tenement area at Geita.**

### 3. Corporate

On 20 June 2014 the Board structure of AVK changed with the resignations of directors Mr Douglas Bright, Mr Allen Lafferty and Mr Eduardo Videla. Subsequently on 2 July 2014, Mr Tim Kennedy announced his resignation which is to take effect on 1st September 2014. Independence Group (IGO) continue to remain shareholders of AVK.

On 20 June 2014, Mr John Jones and Mr Mark Wilson were appointed as non-executive directors roles, with Mr Jones being appointed as Chairman. Mr John Stockley (one of the founders of Simba Minerals Ltd, which merged with AVK in December 2013) remains on the Board as a non-executive Director. Mr Stockley is responsible for the company's exploration work in Tanzania.

After the changes in the structure of the Board on 20 June 2014, a decision was made to dissolve the Argentine subsidiary of AVK, Entropy Resources SA and to withdraw from all exploration activities in Argentina. A Deed of Termination and Release from all option arrangements and agreements was executed with Entropy Resources S.A on 9 July 2014.

The company now has no ongoing obligations or exploration activities in Argentina.

==== END ====



For further information, please contact:

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**Competent Person Statement:**

The information in this report relating to Exploration Results and Inferred Resources is based on information compiled by Mr John Stockley, a Fellow of the Australasian Institute of Mining and Metallurgy, and a Director of Argentina Mining Limited.

Mr Stockley has sufficient experience relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.'

Mr Stockley consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

**Tenement directory**

<b>Project</b>	<b>Tenement number</b>	<b>Beneficial interest</b>
<b>Tanzania</b>		
Singida	PL5367/2008	99.95%
Singida	PL6870/2010	99.95%
Singida	PL7145/2011	99.95%
Singida	PL7246/2011	99.95%
Singida	PL7296/2011	99.95%
Singida	PL7344/2011	99.95%
Singida	PL7389/2011	99.95%
Singida	PL7405/2011	99.95%
Singida	PL7644/2012	99.95%
Singida	PL8208/2012	99.95%
Singida	PL8211/2012	99.95%
Singida	PL9293/2013	99.95%
Singida	PL9895/2014	99.95%
Geita	PL8293/2013	99.95%
Geita	PL9099/2013	99.95%
Geita	HQ-P23978	Application
Geita	PL3844/2005	Transfer to Kudu Resources (TZ) Ltd pending
Geita	PL4496/2007	Transfer to Kudu Resources (TZ) Ltd pending
Geita	PL4584/2007	Transfer to Kudu Resources (TZ) Ltd pending
Geita	PL6659/2010	Transfer to Kudu Resources (TZ) Ltd pending
Geita	PL9250/2014	Granted (99.95%)
Geita	PL9896/2014	Granted (99.95%)
Geita	HQ-P22175	Application
Geita	HQ-P19753	Application
Geita	HQ-P22908	Application
Geita	HQ-P27874	Application
Kahama	PL7343/2011	99.95%

Note: Kudu Resources (TZ) Ltd is a 99.95% owned subsidiary of Argentina Mining Limited, and the Geita tenements were acquired from Currie Rose Resources Inc. in the second half of 2013.

Transfer of the tenements has been held up by delays in the decision on taxation obligations of Currie Rose Resources (TZ) Ltd to the Tanzanian Revenue Authority.



## JORC 2012 Edition, Table 1 Checklist

### Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> </ul>	<p>Sieved soils (minus 180 micron size) taken at 50m intervals on north-south grid lines spaced at 100m interval, at depths from 30 to 50cm.</p> <p>At every 15<sup>th</sup> sample a duplicate soil sample is taken, given a sequential sample number, and despatched with the original sample run. All samples are then secured in white polyweave bags and trammed to the certified assay laboratory of ALS in Mwanza, United Republic of Tanzania.</p>
<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>	No drilling has been carried out during the quarter
<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>	NA
<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>	All soil (and rock chip) samples are logged by a suitably qualified geologist who is a graduate of the University of Dar es Salaam.
<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</li> </ul>	NA

Criteria	JORC Code Explanation	Commentary
	<p>for instance results for field duplicate/second-half sampling.</p> <ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<p>All soils are subjected to pulverization (to pass through -75 micron mesh size) at ALS in Mwanza, then transported (as pulps) by aircraft to the ALS Laboratory at Kempton Park in Johannesburg, Republic of South Africa and then subject to standard low level (gold ppb) analytical techniques: total acid digestion and then AAS/ICP gold determination &lt;1ppb detection limit (Method Au-ICP22). Rock chips are fired as method AA23.</p> <p>Laboratory standards and blanks are inserted at this stage and subjected to round-robin statistics in line with standard world-wide assay procedures.</p> <p>No certified reference materials have been used at the sample taking stage.</p>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p>The soil geochemical assay data is sent to Mr John Stockley (CP Geo) in Perth Western Australia for validation and uploading into the AVK Access Database.</p> <p>No adjustments whatsoever.</p>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>Hand-held Garmin GPS tool for all surface soil (and rock chip) samples; UTM ARC 1960 Datum. Accuracy to +/-5m.</p> <p>UTM grid; ARC1960 datum Good to +/-5m</p>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>100m by 50m</p> <p>NA</p> <p>No</p>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<p>The mineralisation (orogenic gold) strikes on average at 060/240 and dips are sub-vertical. The soil sampling lines are on 000 azimuths.</p> <p>NA</p>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p>Chain of custody is managed by Kudu Resources (TZ) Ltd personnel under the supervision of Mr Willy Lazarus Mwaigwisya who is a graduate of the University of Dar es Salaam and a full time employee of Kudu Resources (TZ) Ltd.</p>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<p>An internal data base review will be undertaken once all results are too hand.</p>

## Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<p>PL9895/2014 which is owned 99.95% by AVK administered under the Mineral law of the United Republic of Tanzania</p> <p>The tenement is in good standing and no known impediments exist</p>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	No documented exploration history although it is known that the area was previously explored for mbuga (calcrete)-hosted uranium
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Archaean meta-basalt and inter-flow sedimentary rocks intruded by syn-orogenic felsic intrusive of TTG affinity; with late Archaean layered mafic to ultramafic complexes. Predominant regional structure is on 060/240 trends with Tertiary to Recent rifting (part of the trans-continental scale East African Rift System). Gold mineralisation is of epigenetic-orogenic style in ductile/brittle shear domains.
<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>	NA
<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>	NA
<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 (eg 'down hole length, true width not known').</li> </ul>	NA



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>	NA
<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>	NA
<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>	NA
<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>	<p>Infill soil sampling, geological mapping and Reverse Circulation Drilling together with detailed Ground Magnetic Surveying.</p> <p>NA</p>

### Section 3: Estimation and Reporting of Mineral Resources

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>	NA
<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>	NA
<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>	NA
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	NA
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	NA

Criteria	JORC Code Explanation	Commentary
	<p><i>extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <ul style="list-style-type: none"> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	
<b>Moisture</b>	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	NA
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	NA
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	NA
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	NA
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable</i></li> </ul>	NA

Criteria	JORC Code Explanation	Commentary
	<p><i>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.</i></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>	NA
<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>	NA
<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>	NA
<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>	NA



#### Section 4: Estimation and Reporting of Ore Reserves

Criteria	JORC Code Explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	NA
<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>	NA
<b>Study status</b>	<ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>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.</li> </ul>	NA
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	NA
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>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).</li> <li>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.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	NA
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> </ul>	NA

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	
<b>Environmental</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	NA
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	NA
<b>Costs</b>	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	NA
<b>Revenue factors</b>	<ul style="list-style-type: none"> <li>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.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	NA
<b>Market assessment</b>	<ul style="list-style-type: none"> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	NA
<b>Economic</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	NA

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	
<b>Social</b>	<ul style="list-style-type: none"> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	Ongoing discussions with local stakeholders are in progress and are critical to the ongoing security of the project area.
<b>Other</b>	<ul style="list-style-type: none"> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: <ul style="list-style-type: none"> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>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.</li> </ul> </li> </ul>	
<b>Classification</b>	<ul style="list-style-type: none"> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>	