

Extensive graphite mineralisation discovered at Bagamoyo project



18 November 2015

Highlights

- Initial mapping identifies 3.5km x 700m zone of graphite mineralised footprint within the Central lode
- Additional graphite mineralisation mapped over 7km of strike, at the Wami Lode
- Regional-scale target. Mineralisation is open along strike for each target with 40-55km strike potential
- Eight rockchip samples taken over the Central zone averaged 7.11% TGC, in line with visual graphite estimates
- Metallurgical sample submitted for graphite characterisation
- First pass drilling of the Central lode is planned to commence in December

Black Rock Mining Limited (ASX:BKT) ("Black Rock Mining" or "the Company") is pleased to announce that fieldwork has commenced at the Bagamoyo Project, returning highly encouraging early stage results. Two graphitic lodes have been identified with kilometre-scale strike length and significant additional strike potential.

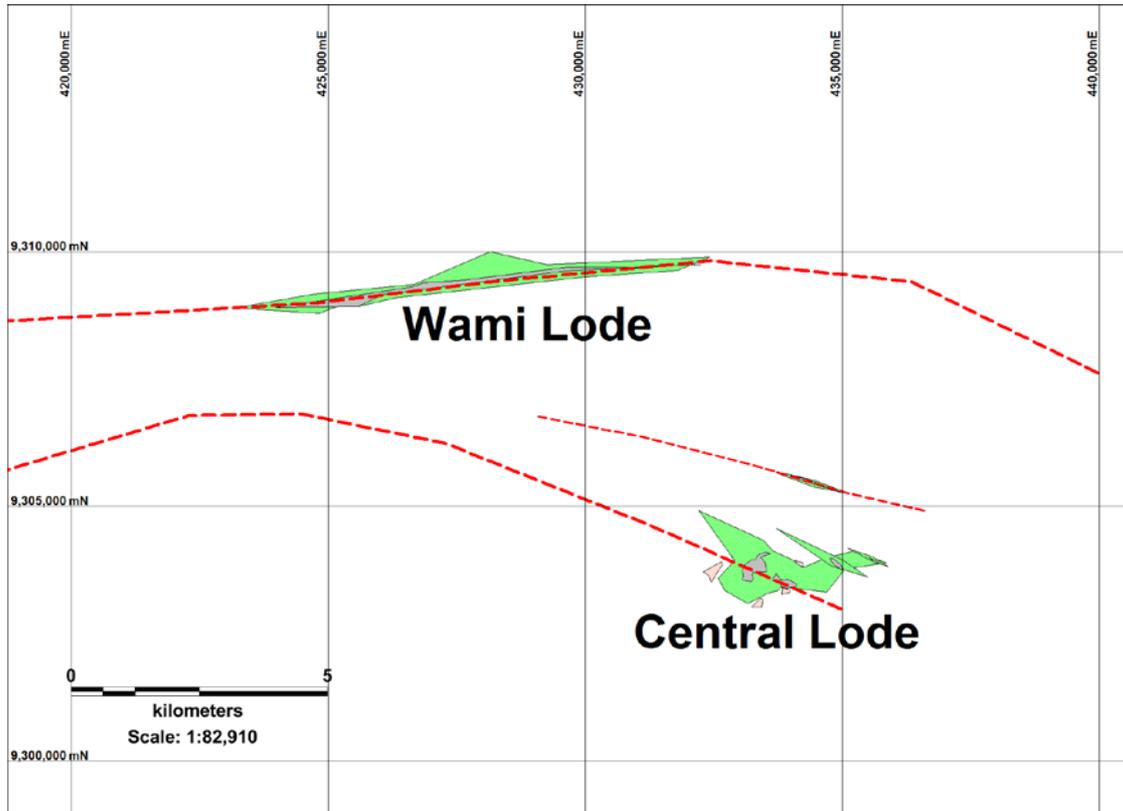
Surface mapping of the Central Lode has quickly outlined two areas of outcropping and sub-cropping graphite mineralisation within the 3.5km long graphitic footprint. Mapping and sampling will focus on this area over the next month. The Wami Lode is 1.8km northwest of the Central lode (figure 1).

The two graphitic structures found to date are located within a 40km x 30km regional fold structure that has potential for extensive strike continuity. Mineralisation is flat-lying to shallow dipping - given the extensive shallow cover lying over the flat terrain, drilling is expected to be a more effective method than trenching to test the depth and grade potential of mineralisation.

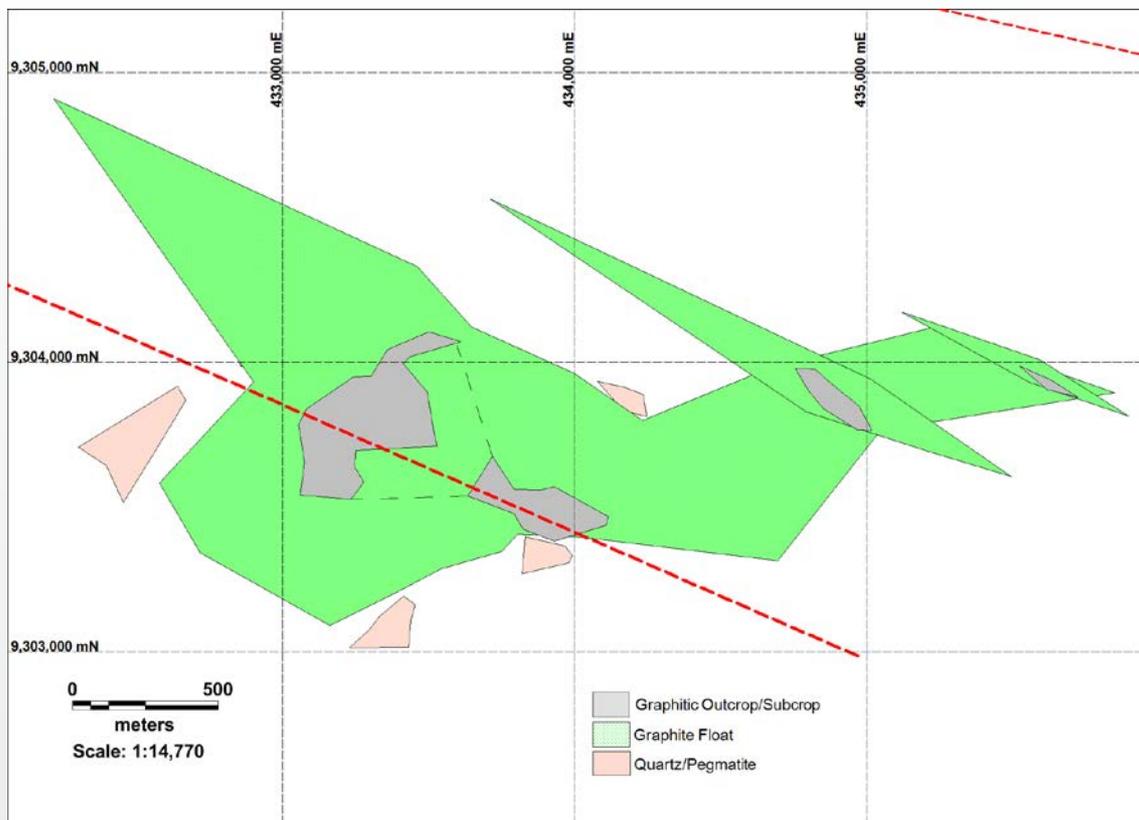
A reconnaissance drill programme of 8-12 holes is planned for early December to test the Central lode for depth continuity, whilst regional exploration takes place over the extensive interpreted graphitic structures.

Current Programme

Mapping adjacent to the discovery outcrop has outlined two major graphitic mineralised lodes and a number of smaller graphitic structures for follow-up work. The Central lode area will be the main focus of work and preliminary drilling however a regional exploration programme is planned to follow-up other interpreted graphite structures.



Figures 1,2. Central and Wami lode map (top) showing the interpreted lode strike potential in red dashed line. Central lode (bottom) shows graphitic outcrop/subcrop mapping in grey within the green graphitic footprint area.



Graphite Mineralisation and assay results

Graphite mineralisation at the Central Lode is exceptionally coarse grained compared to other observed graphite areas in Tanzania. Graphite flakes typically occur in clusters or aggregates of 2-8mm in size with cm-scale aggregates often seen. Flakes are elongate or bladed. Assay results from eight surface samples returned an average 7.11% TGC, in line with our visually estimated grades. The highest assay result of 9.94% TGC was from a composite chip sample taken across strike, over 20m of creek outcrop.



Photo 1. Close-up photo of coarse graphite crystals within surface outcrop at Central lode

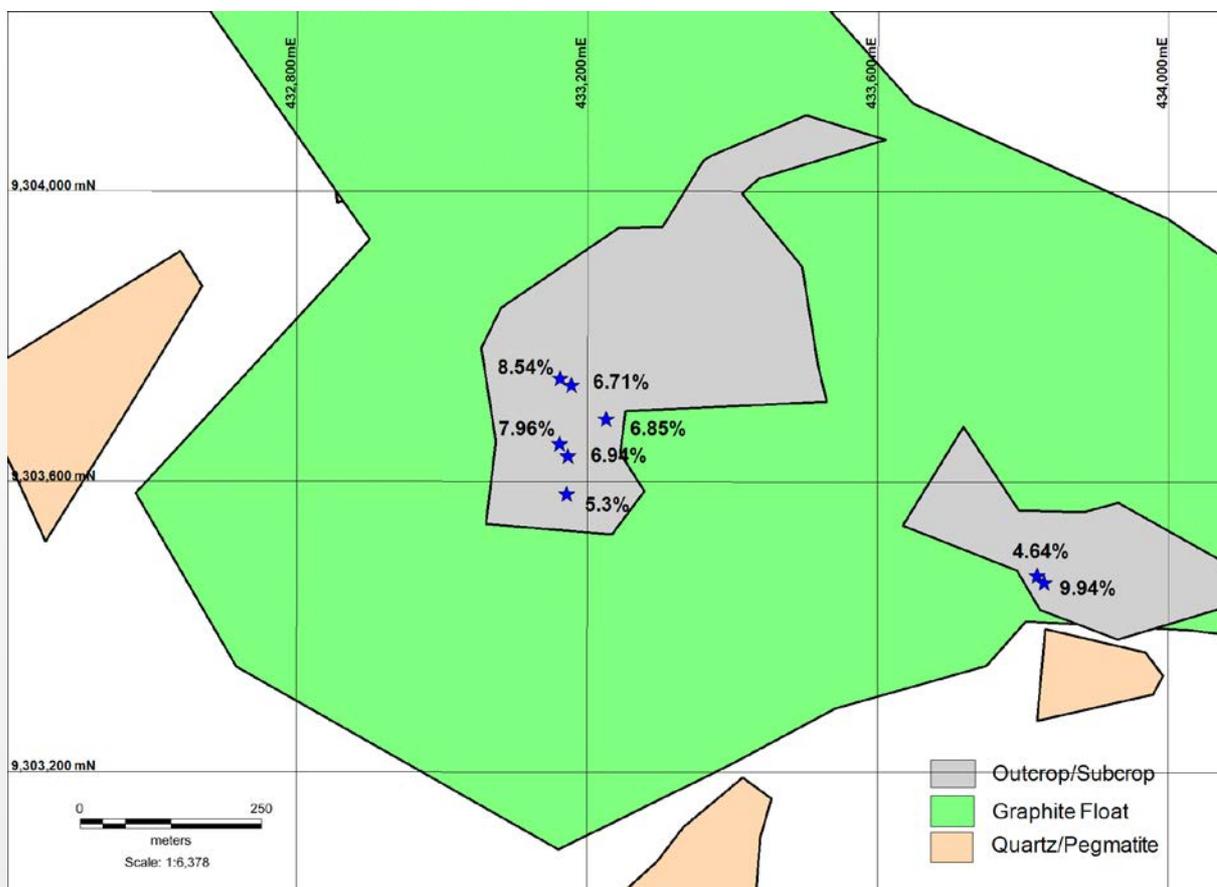


Image 3. Map of rockchip assay results in the central zone.



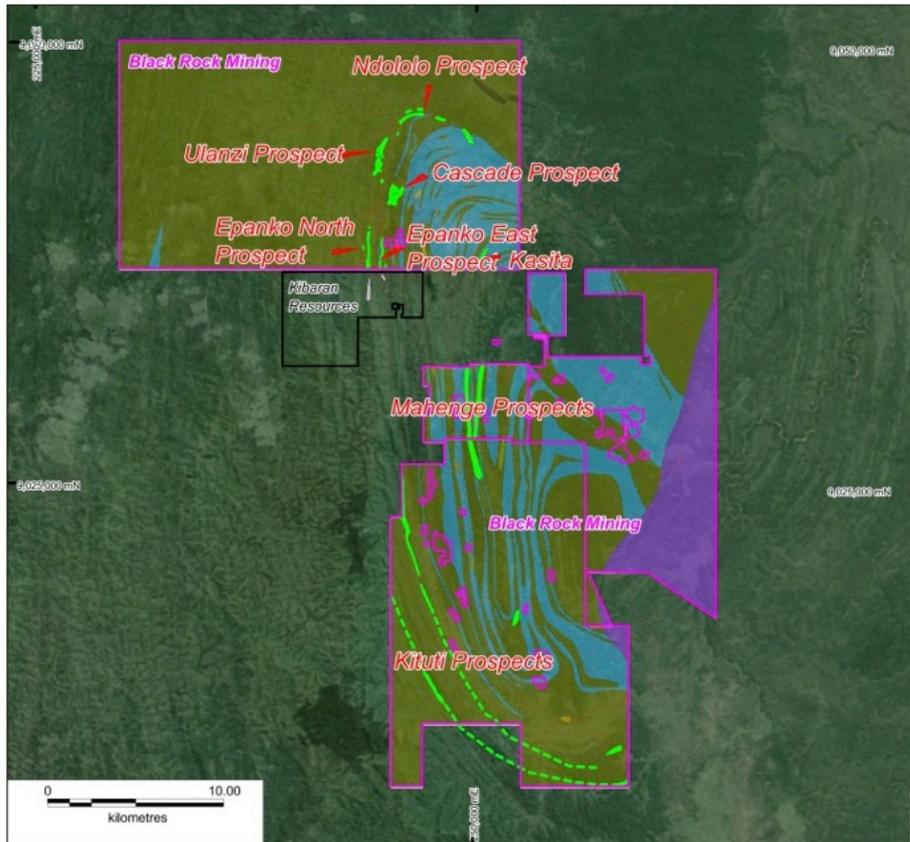
Photo 2, above. Cm-scale aggregate of graphite flakes in hand specimen. Photo 3, below showing finer flake graphite.



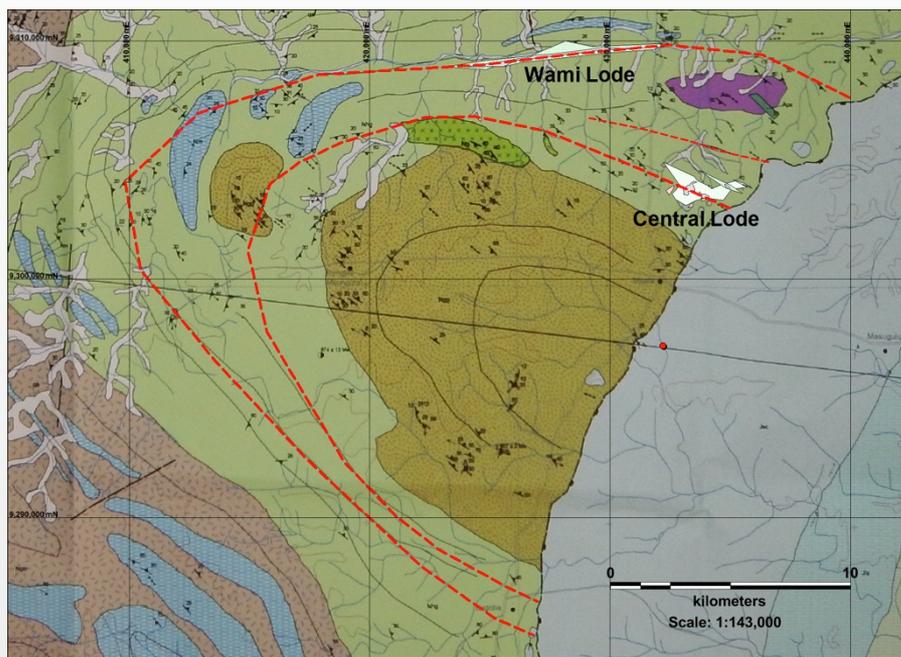
Comparison to Mahenge

The Bagamoyo geology has similarities to Mahenge in that the interpreted graphitic gneiss units are found within a series of metamorphosed sedimentary structures within a regional fold structure. The Mahenge lodes comprise of two main graphitic structures of about 50-60km in strike. The Bagamoyo structures interpreted to date (red dashed lines) comprise an inner ring of 40km and outer ring with 55km strike potential. The main difference between the two regions is that the Mahenge structures are steep dipping whilst the Bagamoyo structures are flat-lying to shallow dipping.

There is potential to apply exploration methods from Mahenge to assist the Bagamoyo exploration programme.



Figures 4,5. Comparison of Mahenge (top) and Bagamoyo (bottom) interpreted graphitic structures.



Summary

- The Central Lode is 3.5km in strike length with two zones of outcropping/subcropping graphitic gneiss
- The Bagamoyo Project has significant upside potential from interpreted regional-scale strike extensions.
- Surface rockchip sampling returned 7.11%TGC from eight samples
- First-pass drilling is planned for December

Managing Director of Black Rock Mining commented: *“The Central Lode structure is progressing as a promising drill target which we intend to drill in December. The regional geology indicates significant strike potential for the two main graphitic lodes found to date, so regional exploration may provide significant upside to the project area. Given the favourable logistics potential of the region, our exploration team is focused on finding a graphite resource.”*

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About Black Rock Mining

Black Rock Mining Limited is an Australian based company listed on the Australian Securities Exchange. The Company has graphite tenure in the Mahenge and Bagamoyo regions, Tanzania, a country which hosts world-class graphite mineralisation. Drilling of the Epanko north prospect was completed in August 2015 and infill drilling of two new graphite discoveries, the Ulanzi and Cascade prospects, is currently underway. The Company plans to announce a Mahenge JORC compliant resource by the end of 2015.

The newly discovered Bagamoyo project in Tanzania hosts very coarse flake graphite and is being mapped and sampled in preparation for a first-pass drilling programme.

The company is building a skill and knowledge base to become an explorer, developer and diversified holder of graphite resources. Shareholder value will be added by:

- *identifying and securing graphite projects with economic potential*
- *focussing on tenure that can be commercialised quickly by converting into JORC compliant resources; and*
- *taking these resources into production*

Our focus is on establishing a JORC resource from three advanced prospects at Mahenge, whilst further adding resource upside through exploration at both Mahenge (Kituti) and Bagamoyo.

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Steven Tambanis, who is a member of the AusIMM. He is an employee of Black Rock Mining Limited. Steven Tambanis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 and 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Steven Tambanis consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.



Photo 4. Typical zone of ridge outcrop and subcrop in the Central Lode.

Appendices

Rock chip sampling assay results

<u>Sample Number</u>	<u>TGC %</u>	<u>sample type</u>
B87	5.3	outcrop
B89	6.94	float
B90	7.96	subcrop
B122	6.85	outcrop
B123	6.71	outcrop
B124	8.54	outcrop
B135	9.94	outcrop
B136	4.64	outcrop
7.11% average		

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <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> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <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> 	<ul style="list-style-type: none"> • Rock chip samples taken from outcrop or from surface float thought to be derived from shallow buried cover within 15m radius • Surface rockchip samples range between 2kg and 3kg in weight • The Company has taken all care to ensure no material containing additional carbon has contaminated the samples • All samples are individually labeled and logged
Logging	<ul style="list-style-type: none"> • <i>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.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • Surface rockchip samples are described in basic terms – lithology, degree of weathering, flake size and an estimate of grade • Sample ticket books are used to capture field data

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • 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. • Quality control procedures adopted for all sub-sampling stages to maximise 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. 	<ul style="list-style-type: none"> • The surface rockchip samples have not undergone any field splitting or composition
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • The samples are sent to Mwanza in Tanzania for preparation and pulps were then sent to Brisbane for TGC analysis for Total Graphitic Carbon (TGC) C-IR18 LECO Total Carbon. • Graphitic C is determined by digesting sample in 50% HCl to evolve carbonate as CO₂. Residue is filtered, washed, dried and then roasted at 425C. The roasted residue is analysed for carbon by high temperature Leco furnace with infra red detection. Method Precision: ± 15% Reporting Limit: 0.02 - 100ppm • . • All analysis has been carried out by certified laboratory – ALSchemex. TGC is the most appropriate method to analyse for graphitic carbon and it is total analysis. • ALSchemex inserted its own standards and blanks and completed its own QAQC for each batch of samples • BKT has reviewed the internal QA/QC of ALSchemex and is satisfied the TGC results are accurate and precise
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. 	<ul style="list-style-type: none"> • The data has been manually updated into a master spreadsheet which is considered to be appropriate for this early stage in the exploration program. • Assay results are reviewed internally by geologists to verify sampling methods and results of all samples lodged.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Data is initially collected on paper for maps and notes, then stored electronically into a GIS. Backups are kept at site and Australia, regularly updated for security of data
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A handheld GPS was used to identify the positions of the rockchip samples in the field The handheld GPS has an accuracy of +/- 5m The datum is used is WGS84 Zone 37 south
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> The rock chip samples have been gathered in areas of outcrop and may not be representative of the mineralization No sample compositing has been applied. The project and data is considered too early stage for Resource Estimation
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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 mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> The representivity of the surface rock chip samples cannot be assessed given the lack of continuous outcrop in these areas. These samples are only indicative results of the local geology and no claim to the volume or extent of this sample material is made Additional sampling and mapping is required to fully understand the mineralisation and its grades in relation to controlling structures
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> The rockchip samples are taken under the supervision of an experienced geologist employed as a consultant to BKT The samples are transferred under BKT supervision from site to the local transporter to Dar es Salaam The samples are transported from Dar es Salaam and then transported to Mwanza where they were inspected and then delivered directly to ALSChemex process facility. Chain of custody protocols are observed to ensure the samples were not tampered with post sampling and until delivery to the laboratory for preparation and analysis Transport of the pulps from Tanzania to Australia was under the supervision of ALSChemex
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews have been carried out on the rock chip sampling programs that are considered to early stage to warrant such investigations., Appropriateness of methods and data accuracy have been verified by an external geological consultant.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> • <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> • <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> 	<ul style="list-style-type: none"> • Exploration mapping and sampling is undertaken on granted license PL 10760/2015 and PL 10761/2015 • The licenses are optioned to BKT by the Vendor with an option to purchase • No issues are known
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • No known previous exploration in this area
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> • No data aggregation methods have been carried out on the data.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>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').</i> 	<ul style="list-style-type: none"> • Due to the early stage of the exploration program at Bagamoyo the true widths and thicknesses are yet to be determined. To date the mineralisation appears to flat lying but further additional widespread surface sampling, mapping and drilling is required to fully understand the geometry of the graphite mineralisation

Criteria	JORC Code explanation	Commentary
<i>Diagrams</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Figures show plan location of mapped areas, appropriately scaled and referenced.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Surface sampling has begun, with limited assays received to date. • All assays received to date for Bagamoyo have been disclosed •
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • interpretation of the regional fold structure indicates potential for along-strike extensions of mineralisation found to date. • A 30kg sample of surface outcrop and subcrop rock has been submitted for graphite flake characterisation testwork
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • Further surface sampling techniques that may include pitting & trenching with mapping and drilling (diamond core and RC). • Initial metallurgical testwork – flotation and particle sizing • Data compilation and analysis, target generation and ranking prior to drilling.