

Cascade doubles mineralisation footprint and returns grades of up to 20.4% TGC

Highlights

- Cascade surface samples returned up to 20.4% TGC and averaged 10% TGC for outcrop and basement samples
- Epanko north drilling 1,500m drilled in first month
- Cascade area being systematically pit sampled and trenched, confirming zones of high grade graphite mineralisation within a 1300m x 800m area
- Aerial survey completed over Epanko north and Cascade

Black Rock Mining Limited (ASX:BKT) is pleased to provide an update of exploration activities at its Mahenge project, Tanzania. The Company has two drilling rigs conducting an infill drill programme at Epanko north and field teams at both Cascade and Kituti prospects.

Early stage drilling is confirming extensive graphite mineralisation at Epanko north and Epanko northeast. Mapping and sampling at the Cascade prospect has significantly increased the strike length and width of the graphitic mineralised zone, prompting a comprehensive sampling programme. The 22km long Kituti structure is being mapped/sampled in detail to determine drill targets and metallurgical samples have been prepared from Epanko north for test work.



Photo 1. Coarse graphite flakes within outcrop at north Cascade. Graphite flakes are up to 7mm long.



Cascade prospect update - first assay results return high grades

Cascade project has a number of field teams progressing the evaluation of a 1300m by 800m footprint. Results have started to return from the laboratory with good grades confirming the potential of the prospect, with best assays of 20.4%, 15.5%, 12.85% and 12.7% TCG. Average grade for outcropping and basement pit samples is around 10% TGC.

- The area has been systematically mapped. Outcrops have been sampled and test pits dug to sample basement rock on a grid pattern. Assays are awaited
- The initial 186m trench (C1) has been widened to 400m, with most of the new trench extensions showing graphite mineralisation. This has been sampled and assays are awaited
- Outcropping graphitic schists in the creek (central Cascade) have been sampled over 300m across strike. Assays are awaited
- Aim is to drill the prospect upon validating surface mineralisation
- An aerial survey has been flown over the Company's main prospects, providing high resolution contour maps and photographs

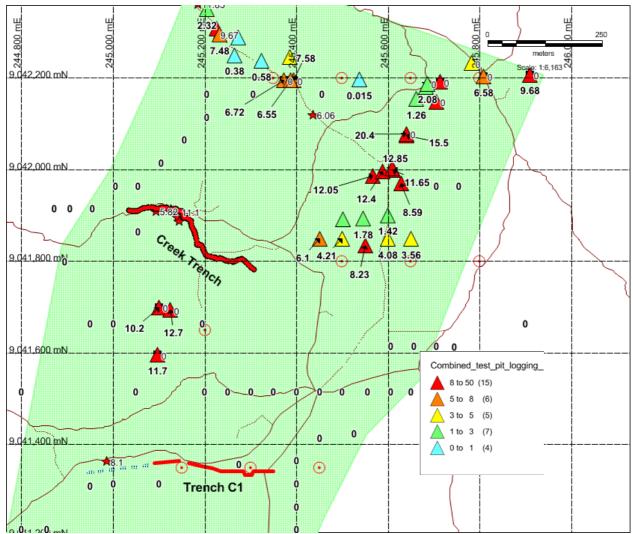


Figure 1. Cascade area showing test pits and results to date as %TGC.



The Cascade zone (4km north of Epanko north) returned a highly encouraging set of results from trenching completed in 2014. Within the **186m @ 5.95% TGC** total trench interval at trench C1, two higher grade zones were encountered: **24m @ 7.89% TGC** from 51m and **86m @ 8.34% TGC** from 115m. In addition, an east/west trending creek in the centre of the zone contains at least 200m of exposed graphitic basement, for which 5 chip samples taken in 2014 averaged 10.06% TGC. The Cascade prospect area was interpreted to have widths of 200–400m and strike of 600m, open to the north and south.

Mapping and sampling the cascade lode during June has substantially enlarged the surface mineralised zone to 800m in width by 1,300m of strike length. This is an incredible width of mineralised ground for this district.

We keenly await the results of approximately 300 outcrop/basement samples to complete the first part of the programme. This data should provide justification to commence drilling Cascade during this field season, shortly after the current Epanko north drill programme is completed.



Photo 2. Outcropping graphitic schist in Cascade creek showing abundant coarse flake graphite. This creek contains approximately 200m of graphite across strike.





Photo 3. test pit at ridge top showing less than a metre of cover before exposing graphitic basement. Sample #088 returned 12.85% TGC

Photo 4. Graphite mineralisation mapped and sampled along creek exposure. Five outcrop samples taken along this creek in 2014 averaged 10.06% TGC. The current sample programme will provide much more detail about the geology, width and grade of this graphite mineralised zone





Photo 5. Entire rock sequence in this photo is graphite mineralised.



Mahenge Exploration Programme Status

Work is focused on infill drilling the western lode of **Epanko North** to determine its bulk tonnage graphite potential. Over 1,500m of RC and diamond has been drilled in the first month of drilling. The first infill hole of this programme at Epanko north (RC16) drilled a highly encouraging 120m graphitic schist interval from 10m down-hole, indicating that this section hosts substantial widths of graphite mineralisation.

Maiden drilling at the **Epanko Northeast** lode returned zones of exceptionally coarse graphite from the first few drill holes with graphite flakes up to 8mm x 8mm, despite being pulverised by the RC hammer when drilled. High grades are expected from this section. Epanko Northeast (600m east of, and parallel to Epanko North) is a narrower, higher-grade graphite structure with >10% TGC trench grades. This lode is being drilled with the objective of defining a higher-grade source of graphite mineralisation in a separate pit.

The **Cascade** lode is the most exciting prospect at Mahenge. Originally a 400m x 600m zone of graphite mineralisation when found last year, recent work has doubled these dimensions. An intensive mapping, sampling and trenching programme is underway with multiple crews to define the surface extent and grade of this unusually wide zone. Cascade has potential to be larger in size than Epanko north – the current sampling programme will provide a guide to surface graphite grades, strike length and widths.

The 22km long **Kituti** structure is being traversed, mapped and trenched in more detail to determine wider mineralised zones for drill testing. To date, this structure has not been comprehensively mapped. The two drill holes completed at the Kituti prospect indicate that graphite mineralisation is near vertical in two parallel lodes with potential for significant tonnage along the 22km strike of the structure.

Managing Director, Steven Tambanis commented: "We have an excellent exploration team on the ground at Mahenge managing two drill rigs at Epanko North and two separate programmes at Cascade and Kituti. Assay results have started to return from the laboratory with good results. This team is working to deliver a maiden resource from Epanko North and new drill targets from other areas."



Figure 2. Location of Black Rock's projects within its Mahenge



Summary

"We are delighted with the highly encouraging initial results from Epanko north and Cascade. Two rigs are infill drilling Epanko north and Epanko northeast to develop a resource. Other crews are assessing Cascade and Kituti with the objective of developing additional stand-alone drill targets. The large field team is ensuring considerable progress and news flow over the next three months," said Steven Tambanis, Managing Director.

The current exploration programme continues to both confirm and enhance the prospectivity of BKT's Mahenge tenure. Epanko north and Epanko northeast are expected to deliver graphite resources this year, whilst the Cascade prospect is shaping up to be a stand-alone graphite zone, recently returning solid results with most assays expected over the next month. Following the successful capital raising in March this year, the Company is well funded to conduct this work.

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About Black Rock Mining

Black Rock Minerals Limited is an Australian based company listed on the Australian Securities Exchange. The Company has graphite tenements in the Mahenge region, Tanzania and is drilling it Epanko North prospect to determine a JORC compliant resource.

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 ground 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 at Epanko North, Mahenge, whilst further exploring and drilling the Kituti, Cascade and Ndololo prospects.

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 a full time 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.

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	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 Rock chip samples taken from outcrop of from surface float thought to be derived from shallow buried cover within 15m radius Pit samples are excavated to in-situ basement rock where possible. If the pit did not reach basement and sampled cover/float/scree, then this is noted in the sample log. Trench samples were taken in 1-3m intervals along the floor of the trench Trenches range in depth from 1.0m to 2.5 with an average depth of 1.8m. Trenches have an average width of 1m Surface rockchip and trench samples range between 0.5kg and 2.5kg 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 Drill sampling consisted of quarter core sampling of diamond core on a 2m sample interval. RC samples were riffle split on an individual 1m interval then composited as two x 1m samples per sample submitted to the laboratory.
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	 Both diamond core (HQ double tube) and reverse circulation (5" face sampling) drilling methods have been used
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	Drill sample recoveries have been measured for all holes and found to be good
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. Drill logging of diamond core and RC 	 Surface rockchip samples were described in basic terms – lithology, degree of weathering, flake size and an estimate of grade Trench rockchip samples were described in basic terms – lithology, degree of weathering, flake size and an estimate of grade in 1m intervals All drill holes have been comprehensively logged for lithology, mineralisation, recoveries, orientation, structure and RQD (core). All drill holes have been

Criteria	JORC Code explanation	Commentary
		photographed. Sawn diamond core has been retained for a record in core trays. RC chips stored in both chip trays and 1-3kg individual metre samples as a record.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. 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. 	 The surface rockchip samples have not undergone any field splitting or composition Trench samples were taken in 1m intervals with sampling techniques used to ensure representivity of the target rocktype. No splitting or compositing of the trench samples was undertaken Diamond core samples were halved with one half then quartered. A quarter core sample was taken for laboratory analysis. The remaining quarter core sample is retained for a record and a half core sample retained for metallurgical testwork. RC samples were collected for every down-hole metre in a separate RC bag. Each metre sample was split through a three-tier riffle splitter and a 1.5kg sample taken of each meter. Two one-metre samples, totaling 3kg in weight were composited for assay submission.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 The samples were 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 Some of the surface rockchip samples were analysed for Multi-elements using ME-ICP81 sodium peroxide fusion and dissolution with elements determined by ICP. Some of the surface rockchip samples were analysed for Multi-elements using ME-MS61 for 48 elements using a HF-HNO3-HCIO4 acid digestion, HCl leach followed by ICP-AES and ICP-MS analysis. Some of the surface rockchip samples were analysed for Multi-elements using ME-MS81 using lithium borate fusion and ICP-MS determination for 38 elements. 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 inserted certified standard material at a rate of 5%. BKT inserted a field duplicate at a rate of 5% BKT is satisfied the TGC results are accurate and precise
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. 	The data has been manually updated into a master spreadsheet which is considered to be appropriate for this early stage in the exploration program

Criteria	JORC Code explanation	Commentary
Location of data points	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 A handheld GPS was used to identify the positions of the pits in the field The handheld GPS has an accuracy of +/- 5m The datum is used is ARC 1960 UTM zone 37
Data spacing and distribution	 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. 	 The trenches were excavated from the general lode of graphite mineralization outlined by first pass mapping at Cascade No sample compositing has been applied. The project is considered too early stage for Resource Estimation
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 Trenches were designed to sample across a section of the known strike of the mineralization where the cover was not too deep Trench samples was undertaken in general in a direction across the strike of the graphite schist apart from TREPM01 which was sub-parallel to the strike of the schist 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 mineralization and its grades in relation to controlling structures
Sample security	The measures taken to ensure sample security.	 The rockchip and trench samples were taken under the supervision of an experienced geologist employed as a consultant to BKT The samples were transferred under BKT supervision from site to the local town of Mahenge The samples were then transported from Mahenge to Dar es Salaam and then transported to Mwanza where they were inspected and then delivered directly to ALSChemex process facility. Chain of custody protocols were 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	The results of any audits or reviews of sampling techniques and data.	 Trenching and drilling information collected by BKT has been evaluated for sampling techniques, appropriateness of methods and data accuracy 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
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The rock chip and trench sampling was undertaken on granted license PL 7802/2012 It has an area of 293km2 The license is 100% owned by BKT Subsistent landowners of the affected villages were supportive of the recently completed sampling and exploration program.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Some previous explorers completed some limited RC drilling and rockchip sampling but the original data has not been located apart from what has been announced via ASX release by Kibaran Resources during 2011 and 2013
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	 All drill hole information has been retained and compiled into a drilling database. At this early stage of exploration only the assay data has been released together with hole length, a plan locality map of drill holes and down hole intervals.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	No data aggregation methods have been carried out on the data.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 Due to the potentially large strike length of the mineralization the trench sampling program has been selective and trench sampling has only assessed the local grade distribution of the graphitic zones from surface to shallow depths <2.5m). The trenches were located between 500 and 1000m along strike depending on the thickness of the surface cover Further additional widespread surface sampling, mapping and drilling is required to understand the geometry of the graphite mineralisation

Criteria	JORC Code explanation	Commentary
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Figures show plan location of trenches and drill holes, appropriately scaled and referenced.
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 All surface and trench rock chip samples have been reported. All drilling results have been reported for graphite
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	 1 in 10 samples from the March quarter drill programme were assayed for deleterious elements using a 40 element ICP method. No deleterious elements were observed, with background levels of uranium and thorium.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Further surface sampling techniques that may include pitting & trenching with mapping and drilling (diamond core and RC). An infill and extensional drill programme is planned at Epanko north. Initial metallurgical testwork – flotation and particle sizing Data compilation and analysis, target generation and ranking prior to drilling.