Infill drilling delivers 39% increase to Ulanzi Mineral Resource tonnes

BLACK ROCK MINING LIMITED

06 October 2016

Highlights

- Total Mineral Resource increased by **24%** to **162.5Mt @ 7.8%** TGC with a high grade portion of **38.7Mt @ 9.9%** TGC
- Ulanzi Mineral Resource increased by **39%** to **111.8Mt @ 8.2%** TGC
- **12.7Mt** of contained graphite with 8% of resource tonnes in the Measured and 40% in the Indicated categories. **13.3Mt** of Measured Resources @ 8.9%
- Now the third largest graphite Mineral Resource Globally (JORC compliant)
- Cascades infill drilling resource upgrade expected in late 2016 will further increase global resource with higher grade zones expected
- 99% purity concentrates with demonstrated ability to make premium downstream spherical and expandable products
- The Pre-Feasibility Study (PFS) planned for release in November 2016 and the Definitive Feasibility Study (DFS) is expected in March 2017

Black Rock Mining Limited (ASX.BKT) ("Black Rock Mining" or "the Company") is pleased to announce the Ulanzi infill drilling Mineral Resource upgrade from its Mahenge Project in Tanzania.

The global Mineral Resource of 162.5 Mt@ 7.8% TGC hosts 12.7Mt of contained graphite, confirming the Mahenge Project as being the largest and highest grade flake graphite resource in Tanzania. In Global terms, Mahenge is the third largest JORC compliant graphite Mineral Resource in the World. This offers significant flexibility for potential development into a long life (+30 year) mining operation. It has potential to be mined from multiple zones at low strip ratios, high-graded to accelerate capital payback in early years and can be scaled up in future due to the large resource size.

Extensive metallurgical test work indicates that high purity concentrates in the 99% TGC range can be made from a straightforward flotation circuit for both oxide and fresh mineralisation. An extensive spherical and expandable graphite assessment programme indicates that Mahenge graphite can make premium products. The Pre Feasibility Study (PFS) will be released in November and the Definitive Feasibility Study (DFS) is expected in March 2017.

Our objective is to commercialise the Mahenge Project by taking it into production.

Chairman Stephen Copulos commented: "The upgraded Mahenge resource is an excellent development for Shareholders. This provides a higher level of resource confidence and development flexibility - with additional upside expected from Cascades. The large resource with significant higher-grade portions and straightforward metallurgy are the key building blocks for the current PFS, planned for release in November this year. The September $5m capital raising puts the Company in a sound position to continue its development programmes with independent expandable and spherical graphite test results continuing to generate highly positive results and offtake interest."

The Mahenge Project JORC Mineral Resource

The Mineral Resource estimation was conducted by Trepanier Pty Ltd, an independent geological consultancy.

The summary tables below display the Measured, Indicated and Inferred Mineral Resources for the combined Mahenge Project and individually by each prospect. Drilling increased the Ulanzi resource by 39% from 80 to 111.8Mt, introduced 13.3Mt of Measured Resources and significantly increased Indicated Resources to 48Mt.

Table 1. Mahenge Global resource summary reporting table

Category	Tonnes (Millions)	TGC (%)	Contained TGC (Millions tonnes)
Measured	13.3	8.9	1.2
Indicated	65.5	7.7	5.1
Inferred	83.6	7.7	6.4
TOTAL	**162.5**	**7.8**	**12.7**

Note: appropriate rounding applied

Table 2. Resource breakdown by prospect

Prospect	Category	Tonnes (Millions)	TGC (%)	Contained TGC (Millions tonnes)
Ulanzi	Measured	13.3	8.9	1.2
	Indicated	48.0	8.2	3.9
	Inferred	50.5	8.0	4.0
	Sub-total	**111.8**	**8.2**	**9.2**
Epanko	Measured			
	Indicated	17.6	6.4	1.1
	Inferred	20.8	5.9	1.2
	Sub-total	**38.4**	**6.1**	**2.3**
Cascade	Measured			
	Indicated	-	-	-
	Inferred	12.3	9.5	1.2
	Sub-total	**12.3**	**9.5**	**1.2**
COMBINED	**MEASURED**	**13.3**	**8.9**	**1.2**
	INDICATED	**65.5**	**7.7**	**5.1**
	INFERRED	**83.6**	**7.7**	**6.4**
	TOTAL	**162.5**	**7.8**	**12.7**

Note: appropriate rounding applied

Mahenge Project global Mineral Resource breakdown by cut-off grades

Table 3 and Figure 1 below show the Mahenge global resource at varying cut-off grades and the corresponding grade-tonnage curve respectively. Of note is that a significant high-grade resource is contained within the global 162.5Mt @ 7.8% TGC resource. At a 9% cut-off, a high-grade portion of 38.7Mt @ 9.9% TGC is available or at a 10% cut-off, a 13.5Mt portion of the resource exists at 10.7% TGC.

Table 3. Mahenge global Mineral Resource by grade cut-off

Cut-off TGC	Million tonnes	TGC (%)
0	162.5	7.8
1	162.5	7.8
2	162.4	7.8
3	162.4	7.8
4	161.6	7.8
5	155.1	7.9
6	136.7	8.3
7	110.2	8.7
8	78.8	9.2
9	38.7	9.9
10	13.5	10.7
11	3.4	11.6
12	0.6	12.6
13	0.1	13.4

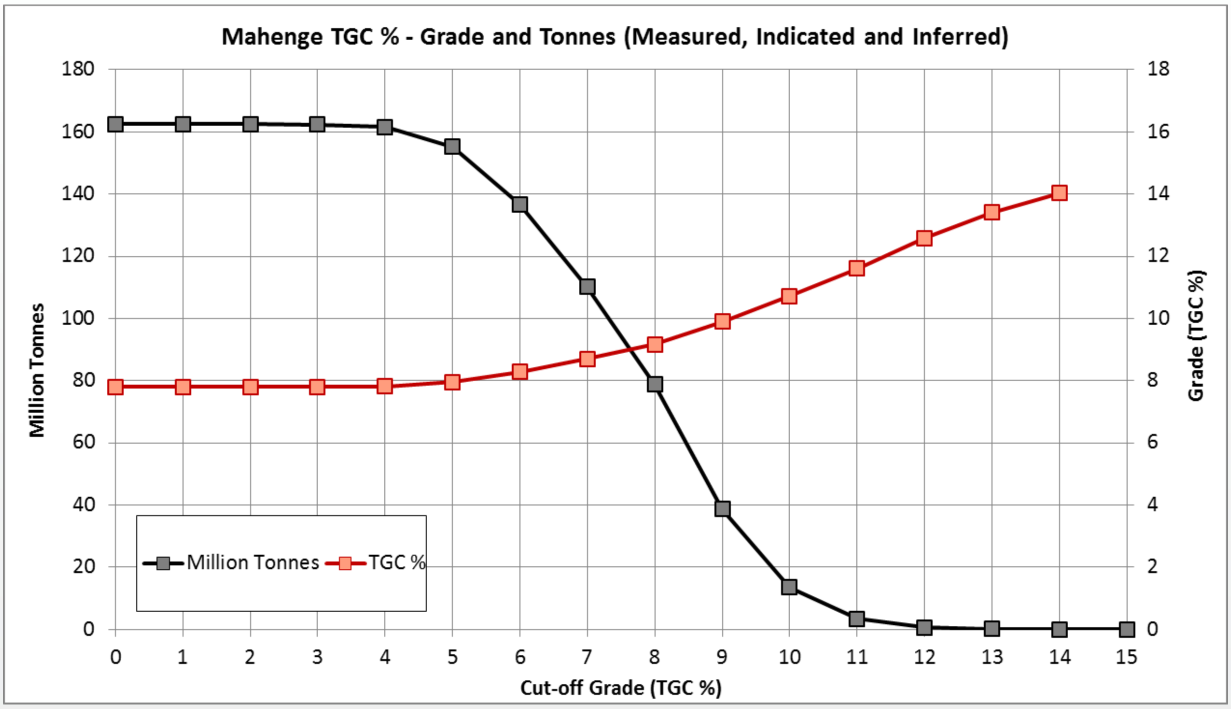

Figure 1.Global Mahenge TGC% grade-tonnage curve

Cross-Sections and 3-D Resource Images

The following figures show the example cross-sections for Ulanzi plus a 3-D representation of the resource coded by the classification. The bodies of mineralisation show excellent geological continuity along strike and down dip. Very low strip ratios are anticipated with a large portion of the mineral resource favourably positioned along the steep ridges forming topographic highs. The higher grade Cascade zone of mineralisation shows significant potential to the south and is currently being drilled. For diagrams of Cascade and Epanko, please refer to announcement dated 29th February 2016 (Black Rock delivers the largest and highest-grade graphite resource in Tanzania).

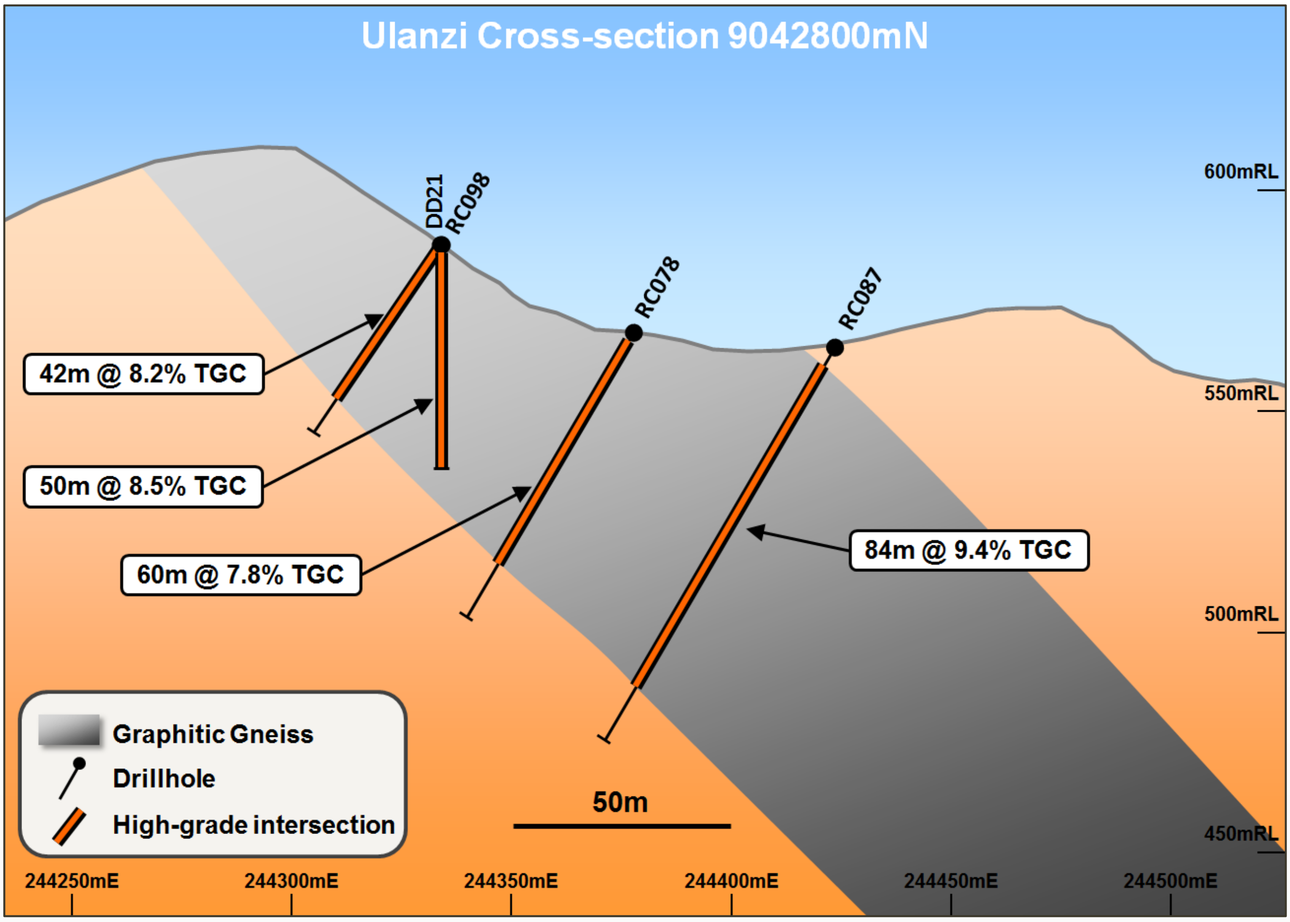

Figure 2. Ulanzi cross section at 9042800N showing graphite mineralisation on ridge structure.

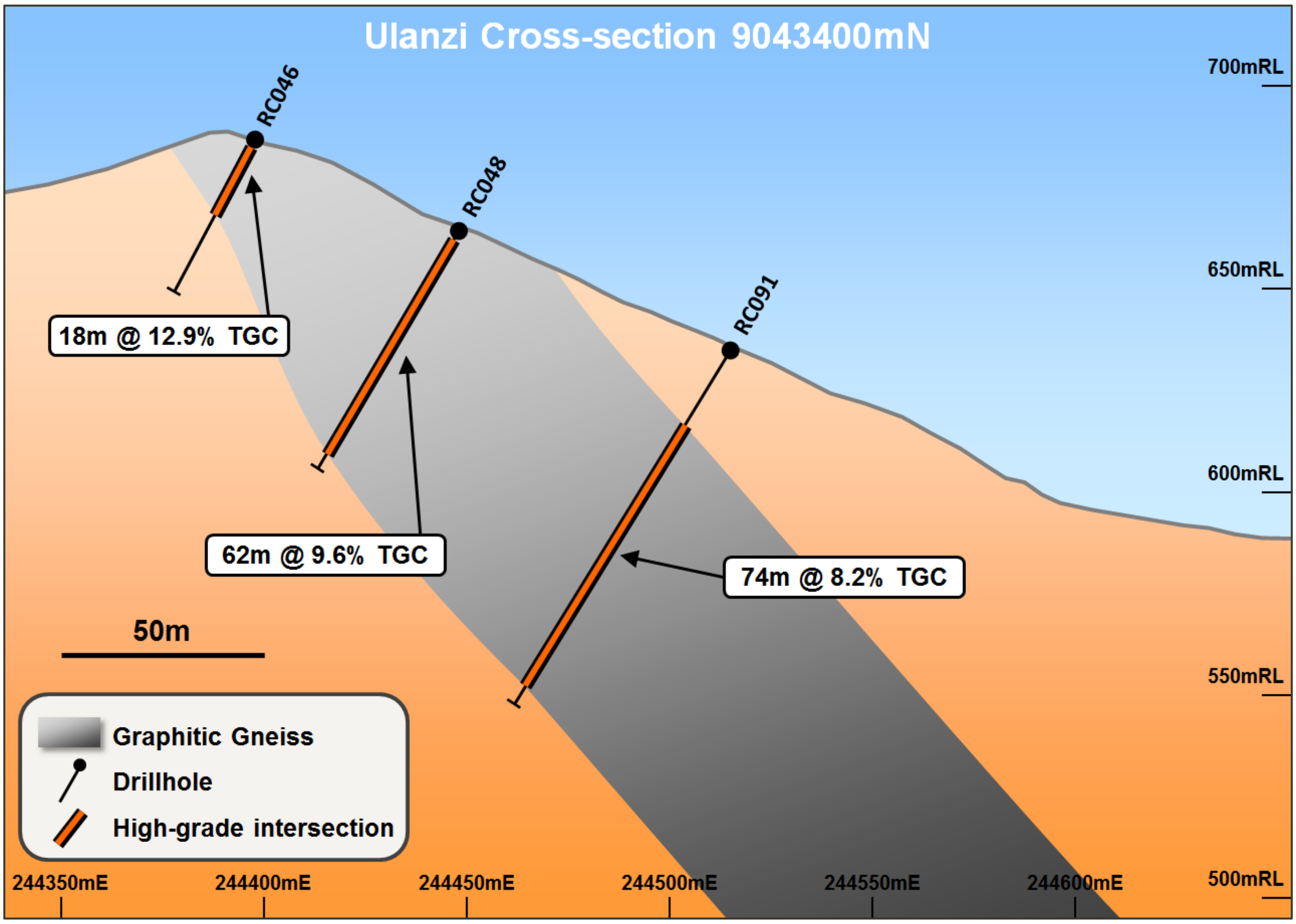

Figure 3. Ulanzi cross section at 9043400N showing graphite mineralisation on ridge structure.

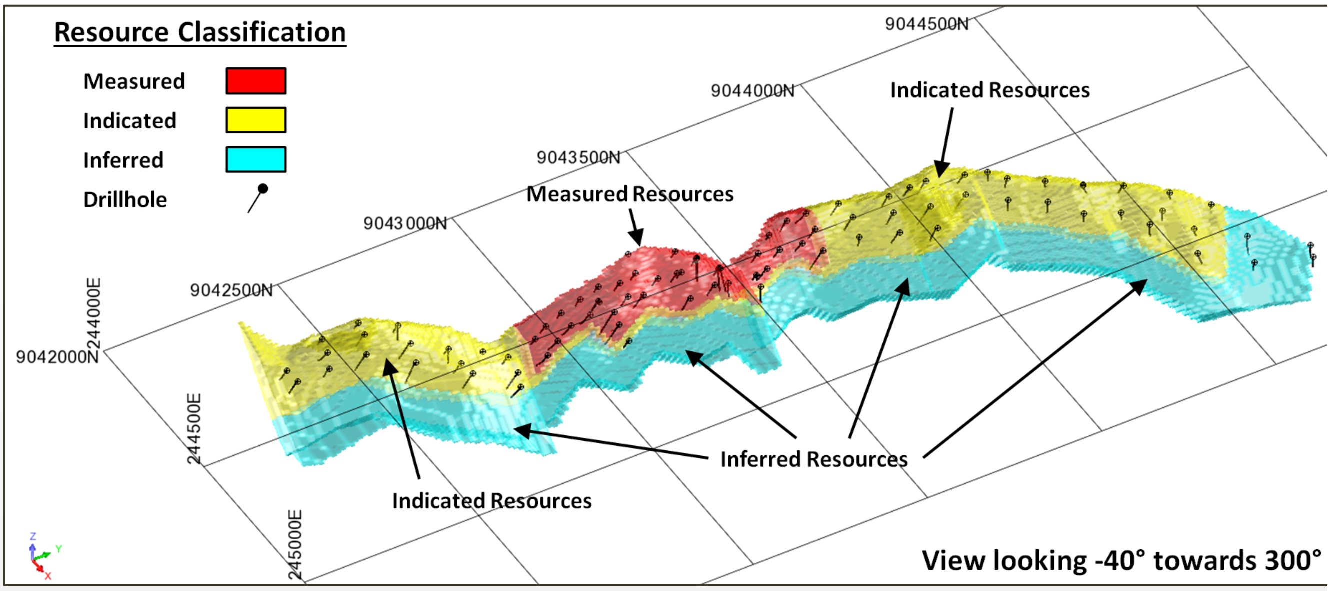

Figure 4. View of Ulanzi block model showing zones of Measured, Indicated and Inferred Resources.

SUMMARY OF RESOURCE ESTIMATE AND REPORTING CRITERIA

As per ASX Listing Rule 5.8 and the 2012 JORC reporting guidelines, a summary of the material information used to estimate the Mineral Resource is detailed below (for more detail please refer to Table 1, Sections 1 to 3 included below in Appendix 2).

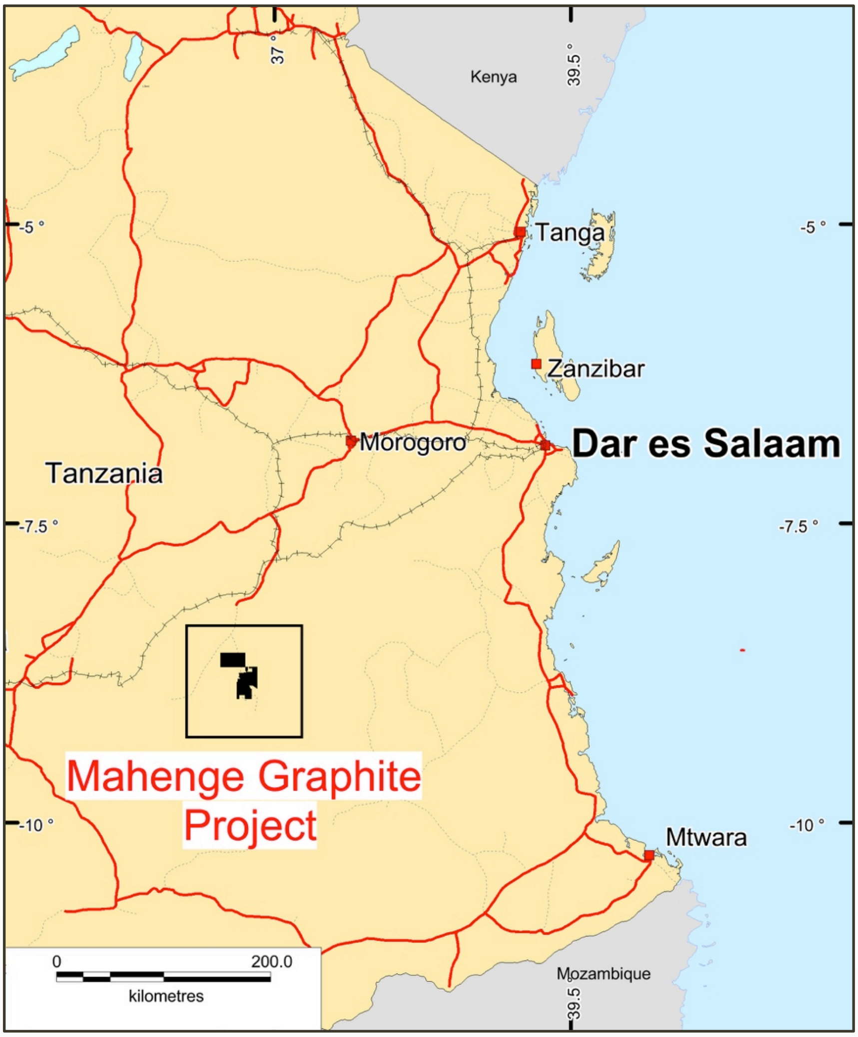

Figure 5. Mahenge Project location map

Geology and geological interpretation

The Mahenge Mineral Resource is hosted within the rocks of the Proterozoic Mozambique Orogenic Belt that extends along the eastern border of Africa from Ethiopia, Kenya and Tanzania. It consists of high-grade mid-crustal rocks with a Neoproterozoic metamorphic overprint. The Mozambique Belt is divided into the Western Granulite and Eastern Granulite where Mahenge is situated. The Granulites are separated by flat-lying thrust zones and younger sedimentary basins of the Karoo.

The belt has undergone granulite phase metamorphism that has been subsequently retrograded to upper amphibolite facies. Structurally the Mahenge region has undergone intense deformation forming a tight poly-phase sequence of marble, mafic and felsic gneiss and graphitic schists as part of the kilometre scale Mahenge synform. The Mineral Resources are located on the western flank of the synform where the bedding and foliation dips towards the east between 60 and 80˚. The units typically strike to the north and rotate to the northeast as they wrap around the fold nose.

The geological interpretation used in this Resource estimate has been based on mapping of surface outcrop, multiple pits and trenches in conjunction with two phases of RC and DD drilling. The 3D geological wireframes were created using well defined footwall and hanging wall boundaries based primarily on changes from graphite dominated gneiss to mica or garnet gneissic units, which as expected also reflected a decrease in graphite grade. The geological wireframes were extended along strike and between areas of drilling approximately half the distance between drill sections.

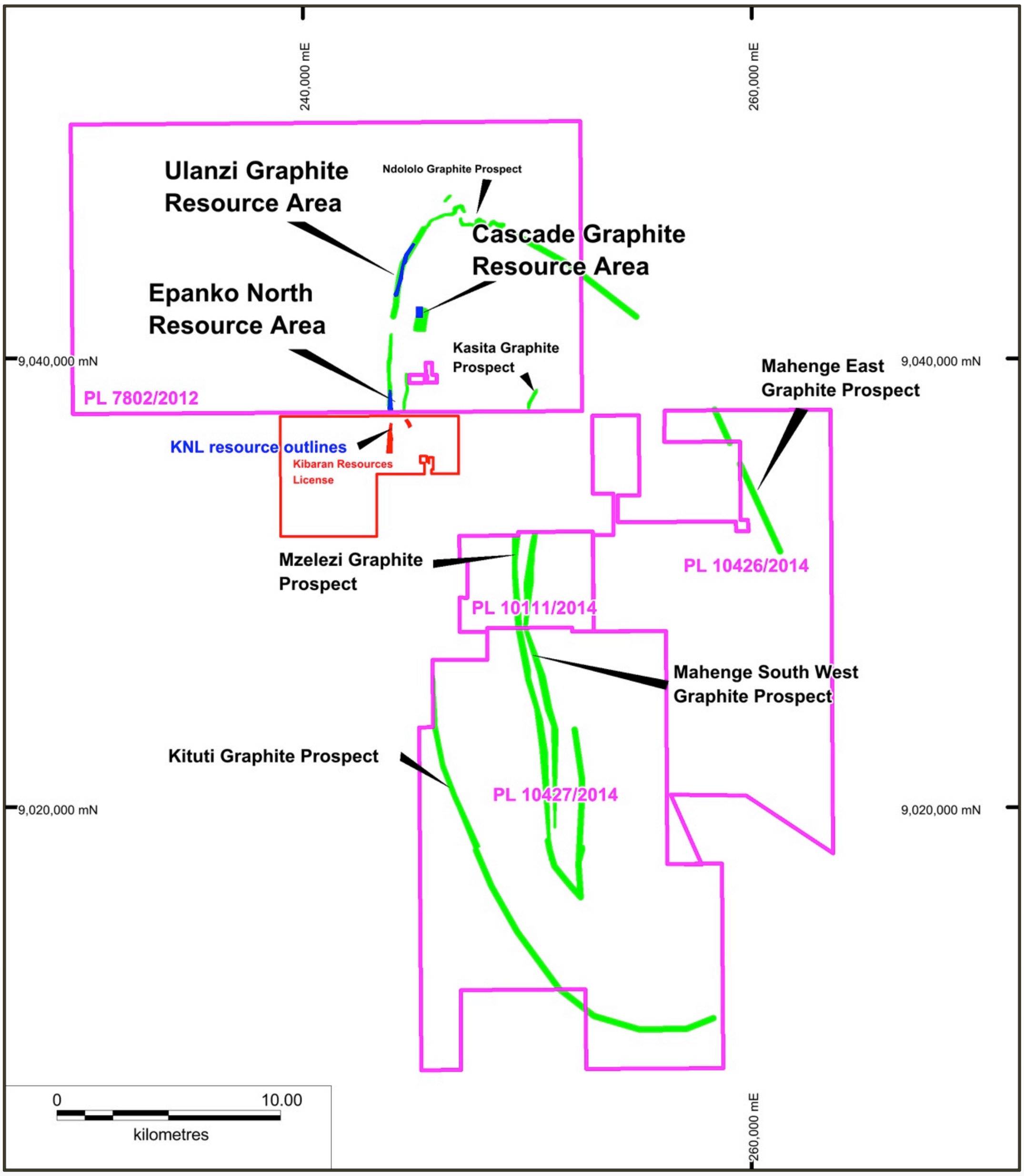

Figure 6. Tenement map. The resource is contained entirely within PL7802/2012. Green outlines are graphitic gneiss mapped in the tenements; blue solid outlines show the locations of the Ulanzi, Epanko North and Cascade Resource locations

Drilling techniques and hole spacing

The Mahenge estimation has been based on a combination of reverse circulation (RC) and diamond core (DD) drilling with the majority of the sample and geological data from two campaigns of RC (6inch) and DD drilling (PQ and HQ). The Company has used 100m x 100m, 100m x 50m and 50m x 50m grid drill spacing, which has been sufficient to show geological and grade continuity. The drilling has been oriented perpendicular to the mineralisation or as close to perpendicular as possible subject to drill access. The drill collars have been surveyed using a high accuracy differential global position (DGPS) measurements for the X, Y and Z co-ordinates and the Z component has been checked by draping the collar position over a high quality digital terrain model and photographic imagery flown for the Company. There is a high degree of confidence in the locations of the collars and trenches based on DGPS pick-ups and the high definition topographic and photographic survey.

Sampling and sub-sampling techniques

The trenches were sampled using 2m composites with samples taken from in-situ oxide, transition or fresh rock as a continuous chip channel sample across the trench wall. Pit samples were taken as individual point samples at the base of the pit. The surface samples weighed between 2.5 and 3.5kg. A high degree of care was taken to ensure no transported material was sampled from the trenches or pits. There was no sub-sampling from the pits or trenches.

At the drill rig the RC samples were split using a 3-tier riffle splitter to 1m intervals then composited as two x 1m samples with a combined weight of approximately 3.0kg. Samples in excess of 3kg were riffle split to reduce the weight to approximately 3kg. The calico samples bags were uniquely numbered and recorded prior to bagging in polyweave bags.

After geological and geotechnical logging the HQ diamond core was half cored and then quarter cored; the PQ diamond core was slivered. The quarter core or sliver was composited to 2m intervals which were placed into uniquely numbered calico bags and then bagged into polyweaves. All of the polyweave bags were secured with a numbered plastic security tag prior to submission to the laboratory. There were no sub-sampling techniques past the sample dispatch from Mahenge.

Sample analysis method

The trench, RC and diamond core samples were sent to Mwanza in Tanzania for preparation and the pulps were then sent to Brisbane for carbon analysis using Total Graphitic Carbon (TGC) C-IR18 LECO Total Carbon. Graphitic C is determined by digesting sample in 50% HCl to evolve carbonate as CO_2. Residue is filtered, washed, dried and then roasted at 425C. The roasted residue is analysed for carbon by high temperature Leco furnace with infrared detection. Method precision is ± 15% with a reporting limit of 0.02 to 100%

All TGC analysis has been carried out by a certified laboratory – ALS Global. TGC is the most appropriate method to analyse for graphitic carbon and it is a total analysis. ALSC Global inserted its own standards and blanks and completed its own QAQC for each batch of samples. No failures were reported. Black Rock Mining has employed its own QA/QC strategy that involved field duplicates, blanks, insertion of certified reference material and check analysis using a secondary laboratory. The Company is satisfied that TGC results are accurate and precise and no systematic bias has been introduced.

Deleterious element analysis was also conducted using a multi-element ICP method.

Cut-off grades

Grade envelopes have been wireframed to an approximate 4 to 5% TGC cut-off allowing for continuity of the mineralised zones. Based on visual and statistical analysis of the drilling results and geological logging of the graphite rich zones, this cut-off tends to be a natural geological change and coincides with the contact between the graphite rich gneiss and the other adjacent country rocks (i.e. garnet gneisses and occasional marbles).

Estimation Methodology

Drilling, surface test pit, trench sampling and geological mapping data was utilised to control the interpretation of the mineralised zones. Six domains were wireframed to with contacts determined by coincident geology (graphitic gneiss) and a significant increase in TGC grade (> 4-5% TGC).

Grade estimation was by Ordinary Kriging ("OK") for Total Graphitic Carbon (TGC %) using GEOVIA Surpac™ software into the 6 domains. The estimate was resolved into 10m (E) x 25m (N) x 10m (RL) parent cells that had been sub-celled at the domain boundaries for accurate domain volume representation. Estimation parameters were based on the variogram models, data geometry and kriging estimation statistics. Potential top-cuts were evaluated by completing an outlier analysis using a combination of methods including grade histograms, log probability plots and other statistical tools. Based on this statistical analysis of the data population, no top-cuts were required.

Classification criteria

The Mineral Resource has been classified on the basis of confidence in the geological model, continuity of mineralised zones, drilling density, available mapping, pit sampling and trenching data, confidence in the underlying database and the available bulk density information. The Mahenge Mineral Resource in part has been classified as Measured and Indicated with the remainder as Inferred according to JORC 2012.

Minimum drill spacing for Measured Resources is 50m (northing) by 50m (easting), for Indicated Resources is 100m (northing) by 50-75m (easting) with larger drill spacing zones categorized as Inferred Resources.

Mining and metallurgical methods and parameters

Initial indications are that the Mineral Resources at Mahenge will be amendable to conventional open pit mining with low strip ratios and conventional crush, grind and flotation processing to produce a potential saleable graphite concentrate.

Metallurgical sample composites were prepared at Bureau Veritas Minerals laboratory in Perth from half cut diamond drill core from the DD drilling programmes. The representative composite samples comprise: Epanko North fresh, Epanko oxide, Ulanzi fresh and Ulanzi oxide materials. The ore composites were generated to assess the ore's amenability to beneficiation by froth flotation and also to identify the nature, flake size and occurrence of the graphite in a selection of drill core samples and flotation products.

Preliminary metallurgical test work on the oxide and primary mineralisation at Ulanzi and Epanko north has consistently returned >99% TGC concentrates.

- High purity and coarse flake concentrate made from a straightforward four-stage flotation process
- Independent expandable graphite testing indicates that Mahenge concentrates are highly suitable for this application with superior expansion ratios to current Chinese expandable graphite on the market
- Independent spherical graphite test work indicates that Mahenge concentrates can meet battery grade graphite specifications with conventional processing and purification methods

The Company believes that the combination of large tonnage, high TGC grades, potential low cost mining and conventional processing the Mahenge Project could produce a saleable graphite concentrate and shows good potential for economic extraction.

Additional Drilling in 2016

The Cascades infill drilling programme has completed 51 holes since mid July and will continue into October to deliver a JORC resource planned for release in November 2016. Surface and core samples for metallurgical test work have been taken at regular spacing across the mineralised zone. Cascades has higher mineralised widths than Ulanzi (up to 200m across strike) and there is potential for higher grade zones.

Drilling is mostly close spaced (at 50m centres) to convert a proportion of the current Inferred Resources into the Measured and Indicated categories by increasing drill hole density.

The Company anticipates an increase in the resource size however the primary aim is to increase the confidence in the resource and report a higher proportion to Measured and Indicated Mineral Resources with an emphasis on delineating near surface high grade zones. This is expected to improve potential project economics.

Whilst there is excellent potential to further increase the size of the Mahenge resource by drilling along strike of existing resource areas, the Company believes it has a sufficient resource size as it stands and will focus on maximizing the near-surface, high-grade potential.

Summary

- The Ulanzi infill drill programme substantially increased the Ulanzi Mineral Resource by 39% and the Global Mahenge Mineral Resource by 24%, introduced 13.3Mt of Measured Resources and increased the proportion of Indicated Resources
- The Mahenge project is the largest and highest grade flake graphite deposit in Tanzania with a Global Mineral Resource of 162.5Mt @ 7.8% TGC, 8% of resource tonnes in the Measured category and 40% in the Indicated category. It is the third largest JORC graphite Mineral Resource in the World
- Within this Mineral Resource is a higher grade portion of 38.7Mt @ 9.9% TGC, or 13.5Mt@ 10.7% TGC, providing potential to selectively mine higher grade portions
- The Cascades infill drill programme is expected to deliver a JORC Mineral Resource by late 2016 and is expected to deliver wider zones of higher grades mineralisation than Ulanzi
- Project de-risking achieved by increasing resource quality. Metallurgical test work indicates that 99% TGC concentrates can be processed through a relatively simple flotation process and concentrate testing indicates that battery grade spherical graphite and high quality expandable graphite can be made
- PFS studies are well advanced with results expected in November. Marketing work is underway

Overall, the resource upgrade to Measured Resources and increased Indicated Resources increases confidence in resource quality and is a significant outcome for the Company. The Mahenge project has potential to deliver attractive economics due to its large size, high grades and extensive surface outcrop that offers low strip ratios. Metallurgical studies confirm a straightforward processing flowsheet. The PFS is progressing as planned and is expected November 2016.

The Company's ongoing focus is to develop this resource into a long life, low cost mining operation.

For further information please contact:

Mr. Steven Tambanis
Managing Director
Office: +61 8 9320 7550
Email: st@blackrockmining.com.au

Mr. Gabriel Chiappini
Director
+61 8 9320 7550
Email: gabriel@blackrockmining.com.au

About Black Rock Mining

Black Rock Mining Limited is an Australian based company listed on the Australian Securities Exchange. The Company owns graphite tenure in the Mahenge region, Tanzania, a Country that hosts world-class graphite mineralisation. The Company announced a JORC compliant resource of 162.5mt @ 7.8% TGC for 12.7m tonnes of contained Graphite in September 2016, making this one of the largest JORC flake graphite resources Globally. A positive scoping study in March 2016 led into the current Pre Feasibility Study, which is expected in November 2016. The Company intends to complete a Definitive Feasibility Study in March 2017.

An infill drill programme for Ulanzi was completed in July 2016 to convert the majority of this resource into Measured and Indicated Classification. The updated JORC resource for Ulanzi was announced in October 2016 and a JORC resource for Cascades is expected late 2016. The Cascades infill drilling programme has been expanded to incorporate significantly wider mineralised zones, as reported to ASX on 11 August 2016.

For further information on the company's development pathway, please refer to the company's website at the following link: **http://www.blackrockmining.com.au** and the corporate video presentation at **http://www.blackrockmining.com.au/#video**

Competent Person's Statement

The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr Steven Tambanis (Managing Director of Black Rock Mining Limited). Mr Tambanis is a member of the Australian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Tambanis consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The information in this report that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd), Mr Aidan Platel (Consultant with Platel Consulting Pty Ltd) and Mr Steven Tambanis (Managing Director of Black Rock Mining Limited). Mr Barnes, Mr Platel and Mr Tambanis are members of the Australian Institute of Mining and Metallurgy and have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Tambanis is the Competent Person for the database, geological model. Mr Barnes is the Competent Person for the resource estimation. Both Mr Platel and Mr Tambanis completed the site inspections. Mr Barnes, Mr Platel and Mr Tambanis consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

Appendix 1. February 2016 Mahenge Mineral Resource. Tables showing overall and individual resources by tonnes, grade (TGC%) and JORC classification category.

February 2016

Category	Tonnes (Millions)	TGC (%)	Contained TGC (Millions tonnes)
Indicated	52.5	7.7	4.0
Inferred	78.6	8.1	6.4
TOTAL	131.1	7.9	10.4

February 2016

Prospect	Category	Tonnes (Millions)	TGC (%)	Contained TGC (Millions tonnes)
Ulanzi	Indicated	35.0	8.3	2.9
	Inferred	45.5	8.7	4.0
	Sub-total	80.5	8.5	6.9
Epanko Nth	Indicated	17.6	6.4	1.1
	Inferred	20.8	5.9	1.2
	Sub-total	38.4	6.1	2.3
Cascade	Indicated	-	-	-
	Inferred	12.3	9.5	1.2
	Sub-total	12.3	9.5	1.2
COMBINED	INDICATED	52.5	7.7	4.0
	INFERRED	78.6	8.1	6.4
	TOTAL	131.1	7.9	10.4

Appendix 2. Downhole Drill intercepts

Hole_ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
DD01	DDH	243995.7	9037591.2	984.7	239.1	-60	270	1	14	106	92	6.0
DD02	DDH	243976.4	9037697.3	985.4	232.6	-50	270	1	0	68	68	6.7
DD03	DDH	243983.0	9038097.0	909.1	237.0	-50	270	1	4	86	82	6.3
DD04A	DDH	243980.2	9038650.1	829.7	32.4	-60	270	Not within resource zone				
DD04B	DDH	243980.2	9038650.1	829.7	64.9	-60	270	Not within resource zone				
DD07A	DDH	244653.5	9037572.0	1009.7	50.2	-55	270	Not within resource zone				
DD07B	DDH	244653.5	9037572.0	1009.7	119.2	-50	270	Not within resource zone				
DD08	DDH	244633.5	9037389.4	949.4	26.3	-55	270	Not within resource zone				
DD09	DDH	244066.5	9037496.9	956.6	71.8	-55	270	Not within resource zone				
DD10	DDH	244018.8	9037445.0	934.2	206.2	-60	270	1	36	174	138	6.0
DD11	DDH	244051.0	9037513.0	960.3	48.2	-60	270	Not within resource zone				
DD12	DDH	244061.0	9037593.0	973.2	85.2	-70	270	Not within resource zone				
DD13	DDH	244545.0	9043198.0	640.8	56.2	-60	270	Not within resource zone				
DD14	DDH	244461.6	9043198.7	629.3	155.2	-60	270	3	2	92	90	8.1
DD15	DDH	244493.9	9043194.8	613.4	149.5	-60	270	3	54	118	64	7.6
DD16	DDH	244576.2	9044141.8	689.5	98.8	-60	270	4	0	16	16	9.0
								5	22	68	46	9.5
DD17	DDH	244545.9	9043750.2	655.4	152.2	-60	270	4	46	128	82	7.6
DD18	DDH	244357.7	9042689.7	607.1	139.2	-60	270	2	24	124	100	7.3
DD19	DDH	244544.5	9043853.6	653.4	84.6	-60	300	4	12	70	58	8.0
DD20	DDH	244260.5	9042694.7	653.4	50.1	-90	360	2	0	50	50	7.7
DD21	DDH	244334.0	9042796.9	587.4	50.0	-90	360	2	0	50	50	8.5
DD22	DDH	244448.4	9043400.2	663.8	47.6	-60	270	3	6	47.6	41.6	9.7
DD23	DDH	244411.2	9043183.9	631.8	50.7	-60	270	3	0	48	48	8.5
DD24	DDH	244712.6	9044399.0	711.5	50.2	-60	300	5	0	50	50	8.8
RC001	RC	243956.9	9037542.0	982.4	115.0	-60	270	1	3	65	62	7.6

Hole_ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
RC002	RC	244008.3	9038185.0	889.9	124.0	-60	270	1	34	116	82	5.6
RC003	RC	243983.4	9038600.4	802.5	45.0	-57	290	Not within resource zone				
RC004	RC	243972.7	9038516.0	819.8	31.0	-57	270	Not within resource zone				
RC005	RC	243969.1	9038280.4	875.3	113.0	-60	270	1	0	61	61	5.7
RC006	RC	243966.0	9038043.1	906.7	90.2	-60	270	1	4	70	66	5.9
RC007	RC	243948.2	9037944.2	935.0	88.0	-60	270	1	5	43	38	4.5
RC008	RC	244013.6	9037497.2	956.9	133.0	-60	270	1	2	133	131	6.6
RC009	RC	243985.4	9037647.7	988.1	85.0	-60	270	1	6	78	72	6.8
RC010	RC	243961.8	9037794.2	972.2	22.0	-60	270	1	0	22	22	6.3
RC010R	RC	243961.8	9037794.2	972.2	133.0	-60	270	1	0	68	68	5.8
RC011	RC	243933.4	9037882.1	953.9	133.0	-60	270	1	0	24	24	5.2
RC012	RC	243919.7	9037696.7	1015.1	91.0	-60	270	1	3	27	24	8.9
RC013	RC	244615.0	9037577.5	1014.4	37.0	-58	270	Not within resource zone				
RC014	RC	244608.9	9037524.4	1004.0	22.0	-57	270	Not within resource zone				
RC015	RC	244610.1	9037524.7	1003.7	71.0	-90	0	Not within resource zone				
RC016	RC	244636.0	9037396.0	951.0	28.0	-60	270	Not within resource zone				
RC017	RC	244017.0	9037548.1	972.3	145.0	-60	270	1	35	133	98	6.5
RC018	RC	244059.0	9037589.0	973.4	58.0	-60	270	Not within resource zone				
RC019	RC	244001.0	9037792.0	955.0	82.0	-50	270	1	0	82	82	6.9
RC020	RC	243966.0	9037901.0	938.1	94.0	-56	270	1	0	66	66	6.2
RC021	RC	244020.0	9038275.0	867.9	68.0	-56	270	1	66	68	2	5.0
RC022	RC	244028.0	9038105.0	902.4	88.0	-60	270	1	68	88	20	5.8
RC023	RC	244011.0	9038061.0	901.6	148.0	-50	270	1	38	128	90	5.8
RC024	RC	244017.0	9037705.0	955.0	150.0	-56	270			1		
RC025	RC	244014.0	9037752.0	955.0	140.0	-56	270	1	32	126	94	6.3
RC026	RC	243978.0	9037750.0	980.0	97.0	-54	270	1	0	76	76	6.8
RC027	RC	243970.0	9037450.0	944.2	109.0	-54	270	1	0	84	84	7.9
RC028	RC	243968.0	9037487.0	959.2	88.0	-58	270	1	0	78	78	8.8
RC029	RC	243995.7	9037595.9	984.0	50.0	-58	270	Not within resource zone				
RC030	RC	243885.0	9037508.0	994.5	43.0	-58	270	1	0	32	32	5.5
RC031	RC	243898.0	9037554.0	1002.0	40.0	-58	270	1	0	34	34	8.1
RC032	RC	243900.0	9037597.0	1011.1	46.0	-58	270	1	0	36	36	9.3
RC033	RC	243915.0	9037652.0	1016.1	46.0	-58	270	1	0	36	36	8.3
RC034	RC	243919.0	9037747.0	1014.8	43.0	-58	270	1	0	22	22	8.3
RC035	RC	243939.0	9037586.0	1000.0	64.0	-58	270	1	0	52	52	6.3
RC036	RC	243948.0	9037946.0	934.8	102.0	-90	360	1	0	92	92	4.7
RC037	RC	243954.0	9037989.0	921.3	76.0	-58	270	1	0	44	44	4.4
RC038	RC	243954.0	9037993.0	920.2	109.0	-90	360	1	0	98	98	4.3

Hole_ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
RC039	RC	243953.0	9037847.0	959.8	64.0	-58	270	1	0	60	60	4.3
RC040	RC	243984.0	9037853.0	941.7	118.0	-58	270	1	0	90	90	6.2
RC041	RC	245300.0	9041857.0	878.4	94.0	-57	270	6	0	84	84	9.7
RC042	RC	245259.0	9041849.0	875.0	79.0	-71	270	6	0	54	54	10.0
RC043	RC	245302.0	9041893.0	881.7	112.0	-75	270	6	0	100	100	8.8
RC044	RC	245345.0	9041960.0	892.7	114.0	-61	270	6	0	86	86	9.6
RC045	RC	244457.1	9043285.3	645.2	100.0	-61	270	3	0	80	80	9.1
RC046	RC	244398.1	9043411.0	687.1	43.0	-61	270	3	0	18	18	12.9
RC047	RC	244353.0	9043308.0	737.2	13.0	-60	270	Not within resource zone				
RC048	RC	244446.6	9043388.5	662.5	65.0	-60	270	3	0	62	62	9.6
RC049	RC	244433.6	9043451.4	675.8	55.0	-61	270	3	0	34	34	10.6
RC050	RC	244435.6	9043451.9	675.8	67.0	-90	360	3	0	52	52	10.4
RC051	RC	244431.8	9043341.5	656.0	59.0	-61	270	3	0	54	54	10.1
RC052	RC	244436.1	9043448.9	675.8	79.0	-90	360	3	0	58	58	9.9
RC053	RC	244537.3	9044160.3	716.3	66.0	-59	270	5	0	54	54	9.8
RC054	RC	244460.2	9043844.2	701.2	73.0	-61	270	4	0	52	52	9.0
RC055	RC	244448.9	9043755.2	700.4	88.0	-61	270	4	0	70	70	9.5
RC056	RC	244502.8	9043858.6	682.5	86.0	-61	270	4	0	72	72	9.4
RC057	RC	244491.8	9043758.3	682.0	73.0	-62	270	4	0	73	73	10.2
RC058	RC	244516.6	9044061.2	725.1	91.0	-61	270	4	0	42	42	9.4
								5	46	74	28	8.6
RC059	RC	244503.6	9043961.9	708.3	68.0	-61	270	4	0	54	54	8.9
RC060	RC	244543.1	9043954.2	687.5	80.0	-61	270	4	0	64	64	8.9
RC061	RC	244602.7	9044244.8	717.6	70.0	-60	295	5	0	58	58	6.9
RC062	RC	244649.1	9044326.1	707.8	58.0	-60	303	5	0	52	52	8.1
RC063	RC	244711.9	9044398.7	711.7	79.0	-60	308	5	0	72	72	8.0
RC064	RC	244574.9	9044041.2	694.5	134.0	-60	270	4	0	52	52	8.7
								5	64	118	54	8.2
RC065	RC	244649.2	9044221.4	692.8	91.0	-60	300	5	18	72	54	6.9
RC066	RC	244696.3	9044307.5	685.9	94.0	-60	300	5	6	86	80	6.9
RC067	RC	244767.0	9044370.8	672.1	80.0	-60	300	5	0	78	78	7.2
RC068	RC	244796.7	9044459.3	658.1	67.0	-60	303	5	0	54	54	8.2
RC069	RC	244848.7	9044548.2	664.2	82.0	-60	300	5	0	66	66	6.7
RC070	RC	244878.3	9044671.3	652.5	34.0	-60	300	5	0	16	16	9.9
RC071	RC	244915.6	9044601.0	634.4	82.0	-60	304	5	0	74	74	6.8
RC072	RC	244818.9	9044586.5	684.2	61.0	-60	302	5	0	50	50	5.9
RC073	RC	244749.7	9044494.9	697.2	58.0	-60	270	5	0	38	38	7.2
RC074	RC	244514.0	9044017.4	719.6	64.0	-60	270	4	0	44	44	7.7

Hole_ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
RC075	RC	244562.1	9044212.5	722.3	70.0	-60	302	5	0	54	54	8.7
RC076	RC	244588.8	9043943.7	662.7	78.0	-60	270	4	28	78	50	7.1
RC077	RC	244625.4	9044031.4	665.3	94.0	-60	270	4	16	82	66	4.5
								5	88	94	6	13.3
RC078	RC	244377.4	9042808.9	568.7	76.0	-60	270	2	0	60	60	7.8
RC079	RC	244289.9	9042587.6	628.8	116.0	-60	270	2	4	92	88	7.6
RC080	RC	244198.0	9042512.6	641.1	46.0	-60	270	2	0	4	4	4.4
								2	32	40	8	10.8
RC081	RC	244213.0	9042609.1	663.3	43.0	-60	270	2	0	22	22	9.9
RC082	RC	244260.5	9042694.7	653.4	49.0	-60	270	2	0	40	40	8.2
RC083	RC	244246.1	9042607.7	652.6	90.0	-60	270	2	0	10	10	8.4
								2	38	60	22	9.7
RC084	RC	244311.3	9042700.5	631.8	112.0	-60	270	2	0	76	76	7.6
RC085	RC	244400.5	9042929.3	553.2	56.0	-60	270	2	0	52	52	7.7
RC086	RC	244467.3	9042920.3	556.0	119.0	-60	270	2	34	112	78	8.6
RC087	RC	244424.8	9042815.8	566.6	106.0	-60	270	2	8	92	84	9.4
RC088	RC	244494.9	9043653.8	659.8	80.0	-60	275	4	34	80	46	8.0
RC089	RC	244446.0	9043652.5	670.4	30.0	-60	270	4	0	26	26	9.4
RC090	RC	244511.2	9043458.4	643.2	79.0	-60	270	3	12	79	67	9.9
RC091	RC	244514.2	9043385.9	633.8	98.0	-60	270	3	24	98	74	8.2
RC092	RC	244276.8	9042397.8	613.6	113.0	-60	270	2	60	112	52	9.2
RC093	RC	244222.0	9042398.9	606.6	97.0	-60	275	2	12	80	68	9.4
RC094	RC	244273.0	9042490.7	611.4	114.0	-60	270	2	18	102	84	7.9
RC095	RC	244238.3	9042504.5	630.3	79.0	-60	270	2	4	66	62	8.4
RC096	RC	244521.3	9042896.6	559.6	100.0	-60	272	Not within resource zone				
RC097	RC	244365.5	9042876.2	567.3	22.0	-60	270	2	0	22	22	6.9
RC098	RC	244333.2	9042798.2	587.5	53.0	-60	274	2	0	42	42	8.2
RC099	RC	244455.6	9043011.9	563.1	115.0	-60	270	3	41	114	73	9.7
RC100	RC	244399.1	9043009.2	575.4	64.0	-60	275	3	0	59	59	8.9
RC101	RC	244376.1	9043095.5	606.7	46.0	-60	274	3	0	28	28	5.3
RC102	RC	244420.0	9043100.8	596.3	80.0	-60	265	3	0	70	70	8.6
RC103	RC	244408.0	9043183.8	631.9	80.0	-60	270	3	0	42	42	8.4
RC104	RC	244403.2	9043293.8	671.3	50.0	-60	270	3	0	28	28	10.3
RC105	RC	244380.6	9043199.9	650.6	40.0	-60	270	3	0	16	16	13.0
RC106	RC	244972.1	9044578.2	605.3	100.0	-60	310	5	2	94	92	7.5
RC107	RC	244964.4	9044725.0	592.6	70.0	-90	360	5	0	54	54	8.1
RC108	RC	244864.6	9044503.9	651.2	100.0	-60	300	5	0	84	84	8.6
RC109	RC	245027.6	9044870.6	544.9	80.0	-60	300	5	0	2	2	7.2

Hole_ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
RC110	RC	245067.8	9044854.1	543.4	80.0	-60	300	5	34	36	2	5.9
RC111	RC	245026.4	9044709.9	558.9	70.0	-60	295	5	40	62	22	4.1
RC112	RC	244519.2	9043603.2	640.1	94.0	-60	274	4	56	92	36	6.8
RC113	RC	244470.8	9043606.0	650.3	60.0	-60	267	4	6	46	40	7.7
RC114	RC	244505.3	9043712.9	664.7	61.0	-60	265	4	6	61	55	8.3
RC115	RC	244443.6	9043705.4	695.2	85.0	-60	270	4	0	70	70	9.5
RC116	RC	244433.8	9043052.1	576.5	95.0	-60	272	3	2	86	84	9.6
RC117	RC	244382.4	9043047.7	589.1	58.0	-60	273	3	0	42	42	8.4
RC118	RC	244421.7	9043152.1	612.2	80.0	-60	268	3	0	58	58	9.2
RC119	RC	244376.4	9043149.8	628.1	50.0	-60	272	3	0	20	20	10.2
RC120	RC	244446.2	9043248.1	648.0	85.0	-60	270	3	2	74	72	8.6
RC121	RC	244405.7	9043247.7	660.2	50.0	-60	265	3	0	36	36	9.5
RC122	RC	244467.6	9043497.5	649.0	55.0	-60	270	3	0	36	36	10.8
RC123	RC	244468.1	9043495.0	649.0	80.0	-90	360	3	0	58	58	9.7
RC124	RC	244470.6	9043498.0	648.8	64.0	-60	90	3	0	56	56	9.4
RC125	RC	244512.0	9043497.0	631.1	48.0	-90	360	3	0	41	41	9.0
RC126	RC	244519.0	9043573.0	630.1	37.0	-60	270	Not within resource zone				
RC127	RC	244522.0	9043573.1	629.9	19.0	-90	000	Not within resource zone				
RC128	RC	244549.1	9043568.3	618.0	55.0	-90	000	Not within resource zone				

Appendix 3. JORC Code, 2012 Edition Table 1.

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.*	• *The Company has taken all care to ensure no material containing additional carbon has contaminated the samples.* • *The trenches were sampled using 2m composites with samples taken from in situ oxide, transition or fresh rock as a continuous chip channel across the trench walls or along a clean exposed trench floor* • *The pit samples were taken as individual point samples at the base of the pit.* • *All samples are individually labelled and logged.* • *Diamond drill sampling consisted of quarter core sampling of HQ diamond core or a sliver (~1/5th) of PQ diamond core, on a 2m sample interval.* • *RC samples were riffle split on an individual 1m interval then composited as two x 1m samples which were submitted to the laboratory.*

Criteria	JORC Code explanation	Commentary
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 and PQ single tube) and reverse circulation (6" face sampling) drilling methods have been used. All core is oriented using a spear or ACT back-end orientation device.*
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.*	• *Diamond drill sample recoveries have been measured for all holes and found to be acceptable. Method was linear metre core recovery for every meter drilled.* • *RC recoveries were estimated by measuring the weight of every 1m interval. Grade /recovery correlation was found to be acceptable.* • *Twin hole comparison of RC vs Diamond indicates that no sample bias has occurred for graphite.*
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.*	• *Pits and trenches were logged for geology and structures, and photographs were also recorded for the trench samples.* • *All drill holes have been comprehensively logged for lithology, mineralisation, recoveries, orientation, structure and RQD (core). All drill holes have been 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 pit and trench samples were not sub sampled.* • *HQ 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. PQ diamond core was slivered with a core saw and the sliver (~20%) taken for laboratory analysis. The remaining core was retained for metallurgical testwork and for a record.* • *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 metre. Two one-metre samples, totalling 3kg in weight were composited for assay submission. Field duplicates were taken to test precision up to the compositing and splitting stage.* • *Sample sizes for all medium (i.e. trenches, pits, DD and RC drilling) were appropriate for this style of graphite mineralisation.*
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,*	• *The samples were sent to Mwanza in Tanzania for preparation and pulps were then sent to Brisbane for carbon analysis: 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 425°C. The roasted residue is analysed for carbon by high temperature Leco furnace with infra red detection. Method Precision: ± 15%. Reporting*

Criteria	JORC Code explanation	Commentary
	duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	*Limit:0.02 – 100 %.* • *Some of the samples were analysed for Multi-elements using ME-ICP81 sodium peroxide fusion and dissolution with elements determined by ICP.* • *Some of the samples were analysed for Multi-elements using ME-MS61 for 48 elements using a HF-HNO3-HClO4 acid digestion, HCl leach followed by ICP-AES and ICP-MS analysis.* • *Some of the 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 – ALS Global. TGC is the most appropriate method to analyse for graphitic carbon and it is a total analysis. ALSChemex inserted its own standards and blanks and completed its own QAQC for each batch of samples. No failures were noted.* • *BKT inserted certified standard material, a blank or a duplicate at a rate of one in twenty samples.* • *Approximately 1/40 sample pulps from the 2015 drilling were re-submitted from the primary Laboratory (ALS Global) to a secondary Laboratory (SGS) in Johannesburg, South Africa. No bias or issues with accuracy or precision were observed between the two data sets.* • *Based on the QA/QC strategy employed by BKT for the duration of the exploration programs at Mahenge BKT is satisfied the TGC results are accurate and precise and no systematic bias has been introduced*
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• *The data has been manually updated into a master spreadsheet and a GIS database, considered to be appropriate for this exploration program.* • *Drill intersections have been checked by a consultant geologist as part of the data validation process and errors corrected prior to resource estimation.* • *Twin holes were used to compare diamond Vs RC drilling. Correlation of results was excellent.* • *There has been no adjustment of assay data.*
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• *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 used is: WGS84, zone 37 south.* • *Drill collars have been surveyed with a DGPS for sub-metre accuracy for the X, Y and Z components and the Ulanzi, Cascade and Epanko North prospects have been surveyed with a high resolution aerial drone to generate an accurate contour map and high resolution photo image. The Z component has also been checked by draping the collar position over a high quality digital terrain model and comparing to the DGPS Z reading.* • *The locations and RLs of the trenches have been checked using the detailed aerial/topo survey and modified accordingly for both x/y and z components.* • *BKT is satisfied the location of trenches, pits and drill holes have been*

Criteria	JORC Code explanation	Commentary
		located with a high degree of accuracy.
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.*	• *Data spacing and distribution is considered to be appropriate for the estimation of a Mineral Resource.* • *The company has used 100 x 100m or 100 x 50m or 50 x 50m grid spacing which has been sufficient to show geological and grade continuity.* • *The drill spacing is appropriate for Resource Estimation.* • *No further sample compositing has been applied post the sub-sampling stage.*
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.*	• *Drilling is oriented perpendicular to mineralisation or as close to perpendicular to mineralisation as possible.* • *The orientation of the drill direction has not introduced a sample bias.*
Sample security	• *The measures taken to ensure sample security.*	• *The 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 where 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 the ALS Global 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.* • *Tamper proof plastic security tags were fastened to the samples bags. No evidence of sample tampering was reported by the receiving laboratory.* • *Transport of the pulps from Tanzania to Australia was under the supervision of ALS Global.*
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

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 sampling was undertaken on granted license PL 7802/2012.* • *It has an area of 293km^2.* • *The license is 100% owned by BKT.* • *Landowners of nearby villages are supportive of the recently completed sampling and exploration program.*
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• *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 releases by Kibaran Resources during 2011 and 2013.*
Geology	• *Deposit type, geological setting and style of mineralisation.*	• *The deposit type is described as schist hosted flaky graphite.* • *The mineralisation is hosted within upper amphibolite facies gneiss of the Mozambique Mobile Belt.* • *Over 95% of the exposures within the tenement comprise 3 main rock types that include alternating sequences of:* • *Graphitic schist – feldspar and quartz rich varieties.* • *Marble and,* • *Biotite and hornblende granulites.* • *Less common rock types include quartzite.*
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.*	• *A summary of all material drill intervals are provided in Appendix 1.*
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.*	• *Exploration results have been reported as weighted averages allowing up to 2m of internal waste and minimum grades at 5% TGC.* • *No maximum or top- cutting was applied during the calculation of drill holes intersects.* • *Drill intervals are provided in Appendix 1.*

Criteria	JORC Code explanation	Commentary
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
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').*	• *Drill hole results are reported as down-hole metres.* • *Sufficient drilling, mapping and trenching has been completed at the main prospects to understand the orientation of mineralised lodes. A range of drill holes angles were used during the exploration program with the majority drilled at -60˚ (refer to Appendix 1).*
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 drill holes, appropriately scaled and referenced.* • *Refer to images in the main body of the text*
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 drill holes have been reported in their entirety.* • *All drilling results have been reported in past Exploration announcements.*
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 first drill programme were assayed for deleterious elements using a 40 element ICP method. No deleterious elements were observed, with background (low) levels of uranium and thorium.* • *757 bulk density measurements using the water displacement method from the oxide (limited) transitional and fresh zones.* • *The samples for the bulk density measurements were taken from diamond drill core.* • *Every diamond hole drilled used in this Resource Estimate has had intervals tested for bulk density generating a high quality dataset.*
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.*	• *Additional drilling is planned for the remainder of 2016 to define further extensions of mineralisation at Cascade, with the intention of defining additional high grade, near surface resources* • *Ongoing metallurgical testwork – flotation and particle size optimization.* • *Additional bulk density testwork is planned, particularly focused on the oxide and transition material.*

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

Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• The drillhole database was compiled by BKT as Excel spreadsheets. • Maps, lithology, drill holes, trenches and test pit samples were also supplied for use in GIS format (Mapinfo/Discover) and Excel spreadsheets. • The data have then been imported into a relational SQL Server database using DataShed™ (industry standard drillhole database management software). • The data are constantly audited and any discrepancies checked by BKT personnel before being updated in the database. • Normal data validation checks were completed on import to the SQL database and when viewing in Surpac and Leapfrog.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• Steven Tambanis, Competent Person, has regularly worked on site from July 2014 to present, covering all aspects of work from early exploration through to the current drilling. • Aidan Platel, Competent Person, completed a site visit in August 2016 covering all aspects of site work for the current drilling program.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• The confidence in the geological interpretation is considered robust for the purposes of reporting Measured, Indicated and Inferred Resources. Graphite is hosted within graphitic gneisses of the Mahenge Scarp. These graphite rich zones generally strike N-S and dip to the east at 60-80° and are interpreted to originate from graphitic sedimentary units of the Mahenge Scarp. • The geological interpretation is supported by geological mapping and drill hole logging and mineralogical studies completed on drill programmes. • A weathered zone (oxide and transition) of reasonably uniform depth (averaging 25m) was interpreted based on the geological logs and coded into the block model. • No alternative interpretations have been considered at this stage. • The graphitic gneiss units are known to be continuous in strike length for up to 22km.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The modelled mineralized zone for Ulanzi has dimensions of 2,500m (surface trace striking 020°) with four zones averaging in thickness of between 50-60m and ranging between 400m and 760m RL (AMSL). • The modelled mineralized zone for Epanko has dimensions of 1,025m (surface trace striking 000°) averaging in thickness of between 55-80m and ranging between 640m and 1,025m RL (AMSL). • The modelled mineralized zone for Cascade has dimensions of 525m (surface trace striking 020°) averaging in thickness 70m and ranging between 700m and 900m RL (AMSL).
Estimation and modelling	• 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	• Grade estimation using Ordinary Kriging (OK) was completed using Geovia Surpac™ software for TGC (%). • Drill spacing typically ranges from 50m to 100m. • Drillhole samples were flagged with wireframed domain codes. Sample data

techniques	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.	was composited for TGC to 2m using a best fit method with a minimum of 50% of the required interval to make a composite. These were combined with 2m spaced trench samples plus individual 50m by 50m spaced base of test pit assays. • Potential influences of extreme sample distribution outliers were investigated to determine whether they needed to be reduced by top-cutting on a domain basis. The investigation used a combination of methods including grade histograms, log probability plots and statistical tools. Based on this, it was determined that some top cuts were required. The four Ulanzi domains were top-cut between 16.0% and 17.6% TGC. • Directional variograms were modelled by domain using traditional variograms. Nugget values for TGC are low (around 15%) and structure ranges up to 270m. • Block model was constructed with parent blocks of 10m (E) by 25m (N) by 10m (RL) and sub-blocked to 5m (E) by 12.5m (N) by 5m (RL). All estimation was completed to the parent cell size. Discretisation was set to 5 by 5 by 2 for all domains. • Three estimation passes were used with differing distances at Epanko vs. Ulanzi and Cascade. This was done due to a tighter drill spacing at Epanko. At Ulanzi and Cascade, the first pass had a limit of 150m, the second pass 300m and the third pass searching a large distance to fill the blocks within the wireframed zones. At Epanko, the first pass had a limit of 75m, the second pass 150m and the third pass searching a large distance to fill the blocks within the wireframed zones. Each pass used a maximum of 24 samples, a minimum of 8 samples and maximum per hole of 5 samples. • Search ellipse sizes were based primarily on a combination of the variography and the trends of the wireframed mineralized zones. Hard boundaries were applied between all estimation domains. • Validation of the block model included a volumetric comparison of the resource wireframes to the block model volumes. Validation of the grade estimate included comparison of block model grades to the declustered input composite grades plus swath plot comparison by easting, northing and elevation. Visual comparisons of input composite grades vs. block model grades were also completed.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnes are estimated on a dry basis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• Grade envelopes have been wireframed to an approximate 4 to 5% TGC cut-off allowing for continuity of the mineralised zones. Based on visual and statistical analysis of the drilling results and geological logging of the graphite rich zones, this cut-off tends to be a natural geological change and coincides with the contact between the graphite rich gneiss and the other adjacent country rocks (i.e. garnet gneisses and occasional marbles).

Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• *As graphite mineralisation is consistent along strike, has consistent widths and outcrops on steep ridges or ridge slopes (indicating low strip ratios), open pit mining methods are assumed.*
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• *BatteryLimits Pty Ltd has managed a comprehensive metallurgical test work programme in Perth, using BV laboratories to conduct the test work. Rock types sampled consist of oxide and primary mineralisation at Epanko North and Ulanzi. These samples (taken as diamond core) are considered to be representative of the mineralised zones.* • *All rock types tested from both lodes have returned high quality concentrates with coarse flake sizing and high purities.* • *Refer to earlier ASX announcements.*

Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• *Environmental monitoring is underway and detailed environmental factors will be assessed as part of the Pre Feasibility study.*
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• *The Company has completed specific gravity testwork on 757 drill core samples across the Epanko and Ulanzi deposits using Hydrostatic Weighing (uncoated).* • *Of these 757 samples, 373 are from within the modelled mineralised domains, primarily from fresh material (354 samples) and transition (19 samples).* • *Statistical analysis of the samples and comparison against depth and TGC grade identified a subjective relationship between bulk density (BD) and TGC grade. As such, the BD used for fresh material was the average for the deposits (90% confidence interval) at 2.73 g/cm3 (with a standard deviation of 0.05).* • *For the modelled oxide/transition zone (19% of the reported tonnage), there were only 19 samples available. Whilst the analysis of these samples produced the same BD as the fresh material, it was decided to use a slightly reduced BD of 2.6 g/cm3. It is planned to increase the number of measurements on transition material samples in the next phase of work.* • *For the modelled oxide zone (4% of the reported tonnage), there were no BD measurements completed to date. It is planned to complete a representative number of measurements on oxide material samples in the next phase of work using appropriate measuring techniques for the material type. For this resource, an oxide BD of 1.9 g/cm3 has been assumed.*
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• *The Mineral Resource has been classified on the basis of confidence in the geological model, continuity of mineralised zones, drilling density, confidence in the underlying database and the available bulk density information. Maximum drill spacing for Measured Resource classification is 50m (northing) by 50m (easting). Indicated Resource classification is 100m (northing) by 50-75m (easting). Wider drill spacing is categorised into the Inferred Resources.* • *All factors considered; the resource estimate has in part been assigned to Measured and Indicated with the remainder as Inferred Resources.* • *The result reflects the Competent Person's view of the deposit.*
Audits or	• *The results of any audits or reviews of Mineral Resource estimates.*	• *Whilst Mr. Barnes (Competent Person) is considered Independent of the Company, no third party review has been conducted.*

reviews		
Discussion of relative accuracy/ confidence	• • • *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• • • *The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resources as per the guidelines of the 2012 JORC Code.* • *The statement relates to global estimates of tonnes and grade.*