ASX Release **20 July 2017**

Black Rock Mining's Cascades prospect increases Measured and Indicated resources by 25%

Highlights:

- Black Rock Mining continues to advance Mahenge Graphite Project, increasing Cascades Mineral Resource Estimate by 14% to **60.2Mt@ 8.1% TGC** utilising an additional 19 infill drill holes completed in late 2016.
- Cascades Measured and Indicated Resources increased by **25% to 32.9Mt @ 8.3% TGC** with a high-grade portion of **14.6Mt @12.2% TGC.**
- The Resource upgrade is expected to enhance the PFS optimisation study currently being completed. The Company expects to release the optimised Pre-Feasibility Study in late July.
- In addition to the high-grade zone, Cascades is expected to deliver an increase in free dig depth and a higher proportion of coarse flake in concentrates compared to Ulanzi.
- Total Mahenge Graphite Project Mineral Resource increased to **211.9Mt @ 7.8% TGC** with a high-grade portion of **46.6Mt @ 10.6% TGC.**
- High quality Global Resource with 54% or 113.6Mt of total Resource estimate as Measured and Indicated Resources.
- Black Rock is confident a sensible and credible development agreement is achievable with the Tanzanian Government. Such an agreement supports continued economic development of Tanzania, and permits finance, construction and operation of the Mahenge Project.

Tanzanian graphite developer, Black Rock Mining Limited (ASX: BKT, "the Company"), is pleased to announce an upgrade to the Cascades Deposit Mineral Resource utilising an additional 19 infill drill holes completed in late 2016. The Cascades Deposit forms part of the Company's Mahenge Graphite Project.

The Cascades Deposit Mineral Resource Estimate of 60.2M tonnes at 8.1% TGC expands the total Mahenge Project Mineral Resource Estimate to **211.9M tonnes at 7.8%** TGC. Cascades contains a higher-grade zone from surface of **12.9Mt at 12.5%** TGC that is likely to enhance mining grade in early years and deliver significantly lower operating costs. It is currently being integrated into the Mahenge PFS. Adding this high-grade portion to the Ulanzi high grade portion, the Mahenge Project now has 46.6m tonnes at 10.6% TGC.

More significantly, Cascades contains substantially higher grade zones from surface than Ulanzi providing the potential to deliver higher grades to a mining operation. As a result, the Company is assessing the impact of Cascade's higher grade feed with an expected increase in free dig depth and higher proportion of coarse flake.

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Interim CEO John de Vries commented: "*The increase in the Cascade Mineral Resource Estimate is extremely exciting in terms of how it will benefit the Mahenge Graphite Project. Whilst the 14% increase of Cascades Mineral Resource is pleasing, we are most excited by the 25% increase of proportion of Measured and Indicated Resources. We believe this will directly assist in delivering industry leading low operating cash costs for a project that has already demonstrated its ability to deliver high purity product from conventional flotation circuit process.*

"We believe that we have the best graphite resource of any development stage project and look forward to incorporating this development into the soon to be released optimised PFS, that considers a third milling module."

In global terms, the total Mahenge Mineral Resource is the 4th largest JORC-compliant graphite Mineral Resource globally. This offers significant flexibility for potential development into a multi-generation mining operation. The Mahenge Graphite Project has the 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.

Additionally, extensive metallurgical test work indicates that high purity concentrates up to 99% TGC can be made from a straightforward flotation circuit for both oxide and primary mineralisation. Extensive spherical graphite testing, battery cell testing and expandable graphite assessment programs all indicate that Mahenge graphite can make premium products.

The Mahenge Project JORC Mineral Resource

The Mineral Resource Estimate was completed 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. Further infill drilling increased the Cascade resource by 14% from 52.8Mt to 60.2Mt, which now includes 12.1Mt (previously 7.8Mt) of Measured Resources and 20.8Mt of Indicated Resources. Cascades Measured & Indicated Resources are now 55% of total resource versus 44% in 2016, a 25% increase.

Table 1. Mahenge Global Mineral Resource summary table

Category	Tonnes (Millions)	TGC (%)	Contained TGC (Million tonnes)
Measured	25.5	8.6	2.2
Indicated	88.1	7.9	6.9
Inferred	98.3	7.6	7.4
TOTAL	**211.9**	**7.8**	**16.6**

Table 2. Mahenge Mineral Resource breakdown by prospect

Prospect	Category	Tonnes (Millions)	TGC (%)	Contained TGC (Million tonnes)
Ulanzi	Measured	13.3	8.9	1.2
	Indicated	49.7	8.2	4.1
	Inferred	50.2	8.1	4.1
	Sub-total	**113.3**	**8.2**	**9.3**
Cascades	Measured	12.1	8.3	1.0
	Indicated	20.8	8.3	1.7
	Inferred	27.3	7.9	2.2
	Sub-total	**60.2**	**8.1**	**4.9**
Epanko	Measured			
	Indicated	17.6	6.4	1.1
	Inferred	20.8	5.9	1.2
	Sub-total	**38.4**	**6.1**	**2.4**
COMBINED	**MEASURED**	**25.5**	**8.6**	**2.2**
	INDICATE	**88.1**	**7.9**	**6.9**
	INFERRED	**98.3**	**7.6**	**7.4**
	TOTAL	**211.9**	**7.8**	**16.6**

Note: Appropriate rounding applied

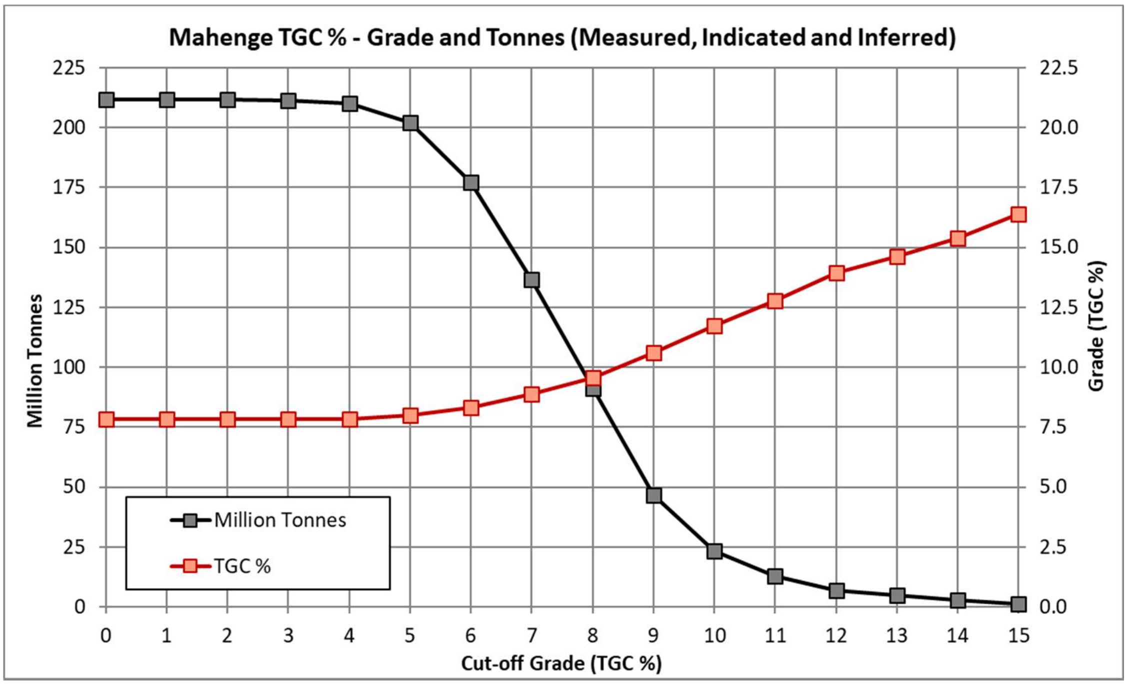
Mahenge Project global Mineral Resource Estimate breakdown by cut-off grades

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 211.9Mt @ 7.8% TGC resource. At a 9% cut-off, a high-grade portion of 46.6Mt @ 10.6% TGC is available or at a 10% cut-off, a 23.4Mt portion of the Mineral Resource Estimate exists at 11.7% TGC.

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

Cut-off TGC	Million tonnes	TGC (%)
0	211.9	7.8
1	211.9	7.8
2	211.8	7.8
3	211.5	7.8
4	210.3	7.9
5	202.1	8.0
6	177.3	8.3
7	136.8	8.9
8	91.1	9.5
9	46.6	10.6
10	23.4	11.7
11	12.8	12.8
12	6.9	13.9
13	4.7	14.6

Graph Graph 1. Global Mahenge TGC% grade-tonnage curve



Cascades Mineral Resource Estimate

The Cascades Mineral Resource outcrops from surface. At a 9% cut-off grade, the high-grade mineralised portion consists of 14.6Mt @12.2% TGC.

Graph 2. Global Mahenge TGC% grade-tonnage curve

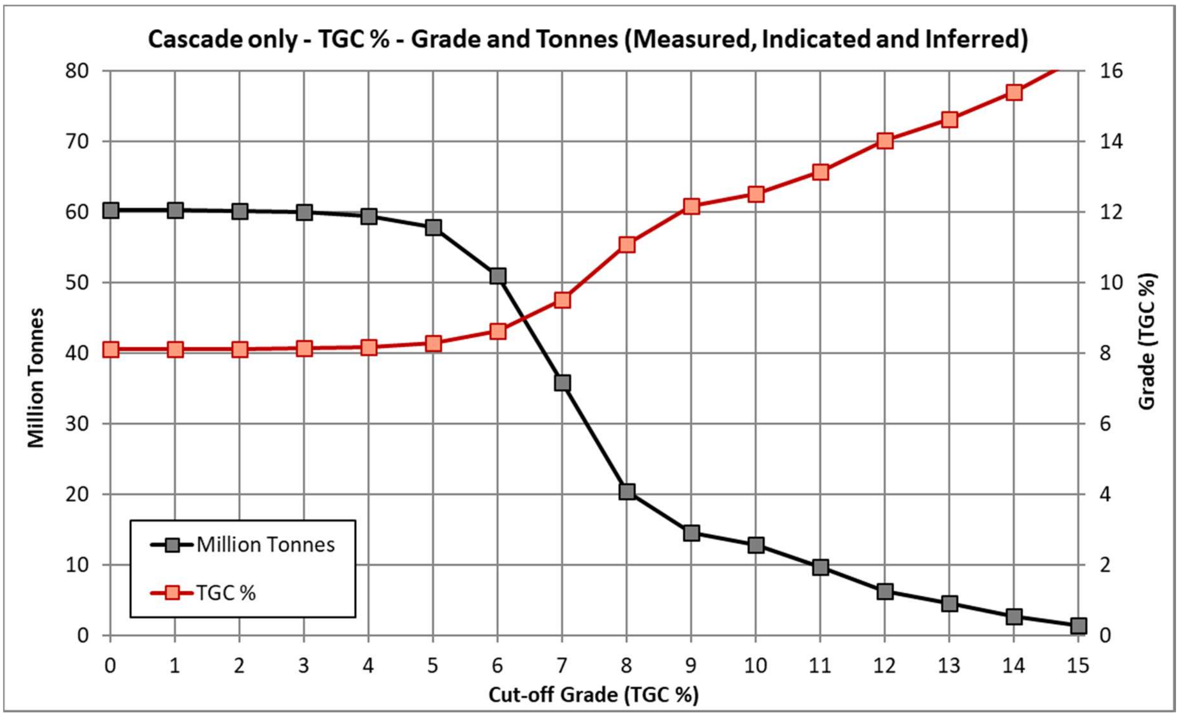


Table 4 below shows the high grade mineralisation in 20m vertical sections from surface. The 1.35Mt of high-grade surface mineralisation from surface to 20m below surface indicates that mining costs in the first three years should be low due to low strip ratios and free digging oxide ore.

Table 4. High grade Cascades mineralisation in 20m slices from surface

Depth from	Depth to	Million	TGC %
0	20	1.35	12.1
20	40	1.81	12.1
40	60	1.93	12.2
60	80	1.73	12.4

Cascades Cross-Sections and 3-D Resource Images

The following figures show the example cross-sections for Cascade 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.

Figure 1. Cascades cross section at 9041400N showing graphite mineralisation on ridge structure.

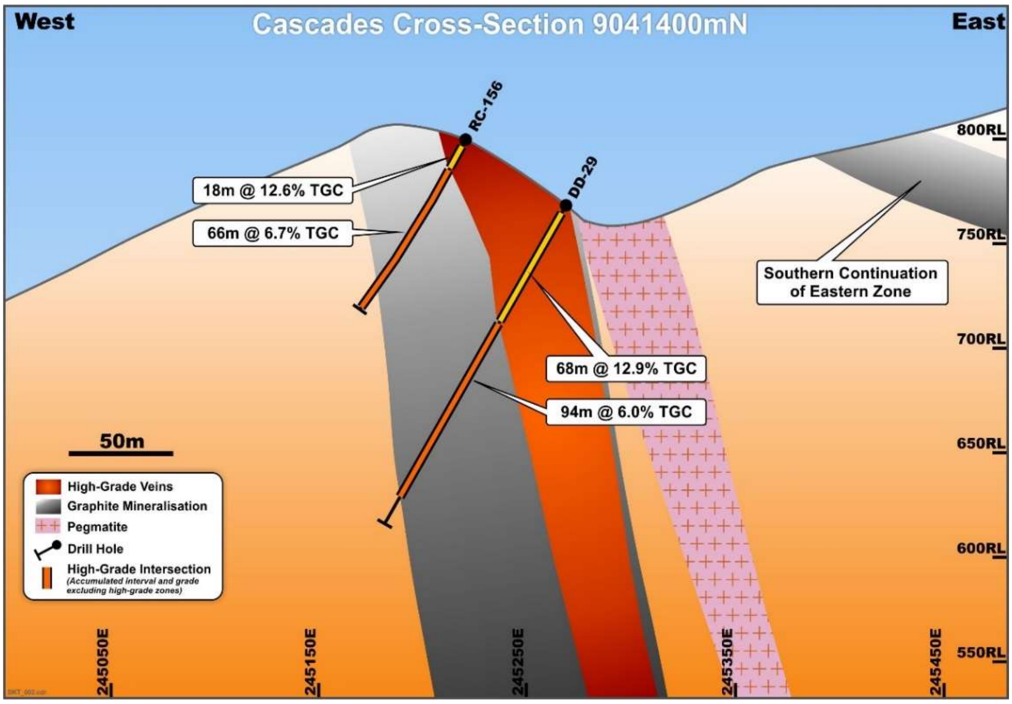


Figure 2. Cascades cross section at 9041800N showing graphite mineralisation on ridge structure.

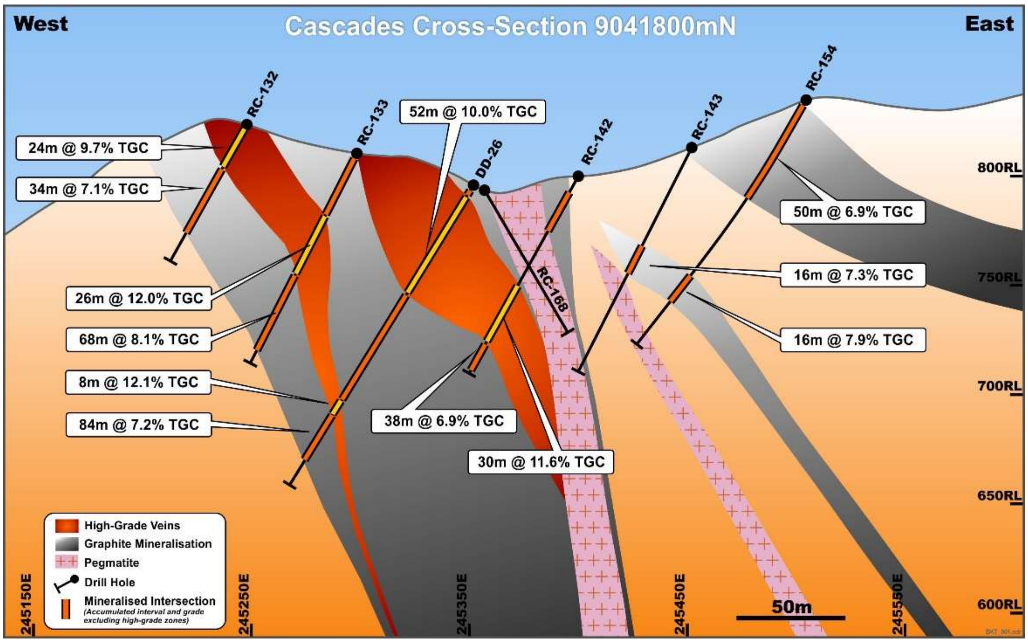


Figure 3. View of Cascade geology showing zones of graphitic mineralisation.

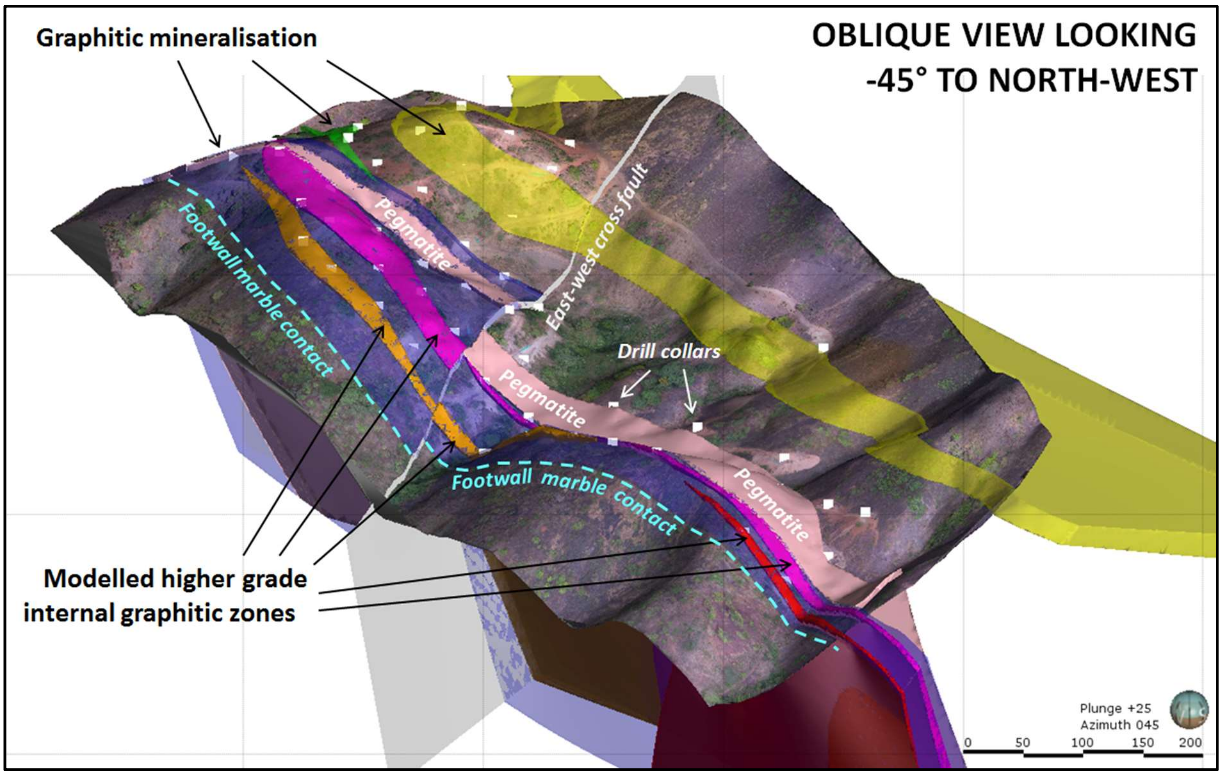


Figure 4. View of Cascade block model showing zones of Measured, Indicated and Inferred Resources.

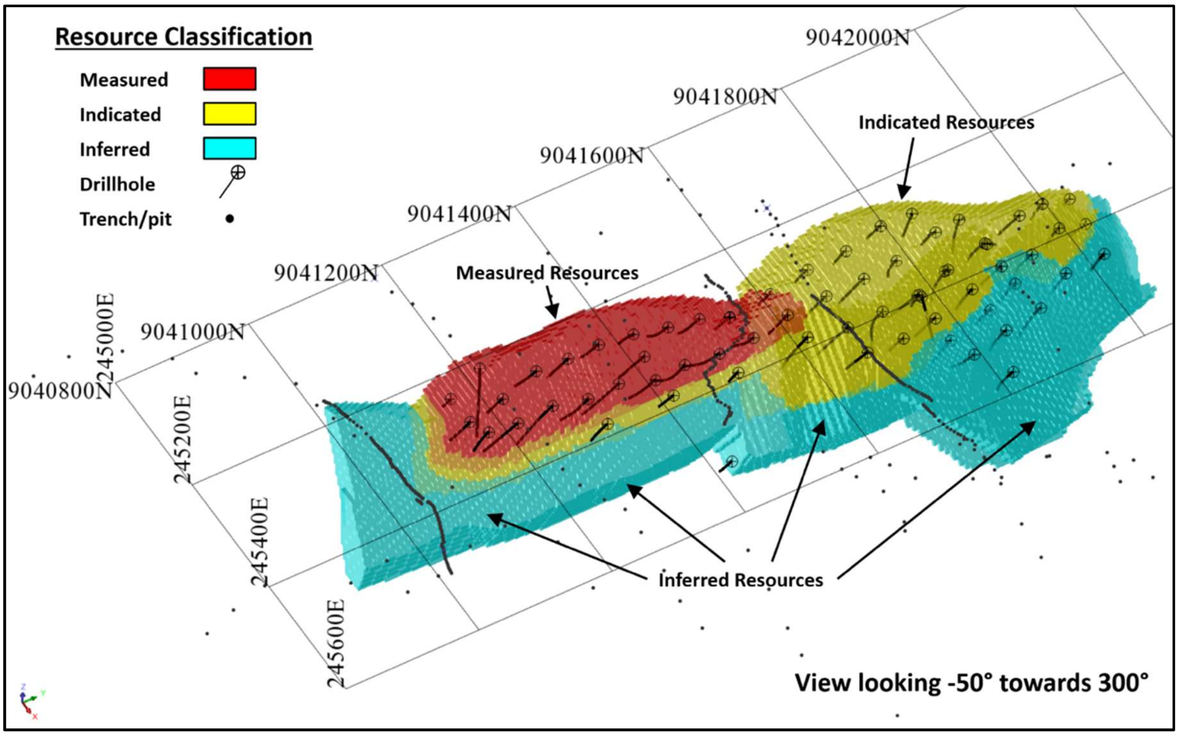


Figure 5. Mahenge Project location map

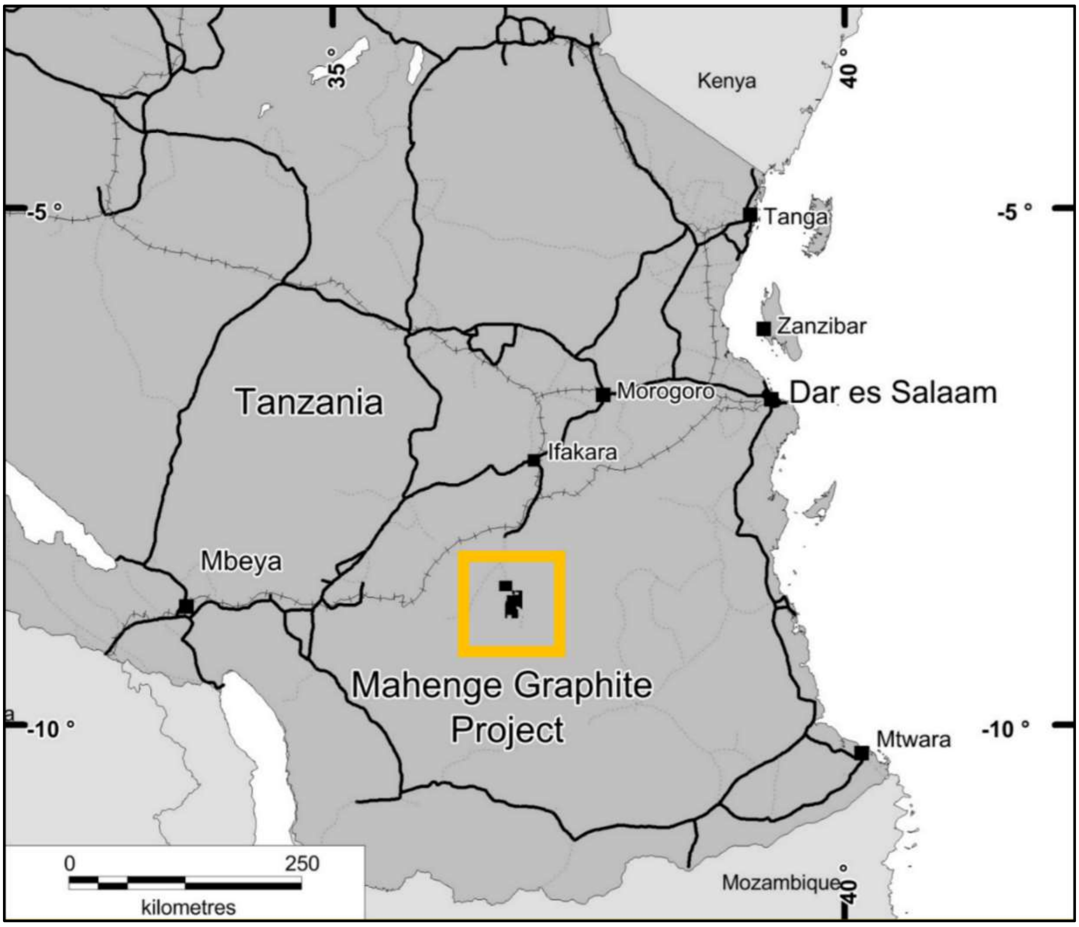
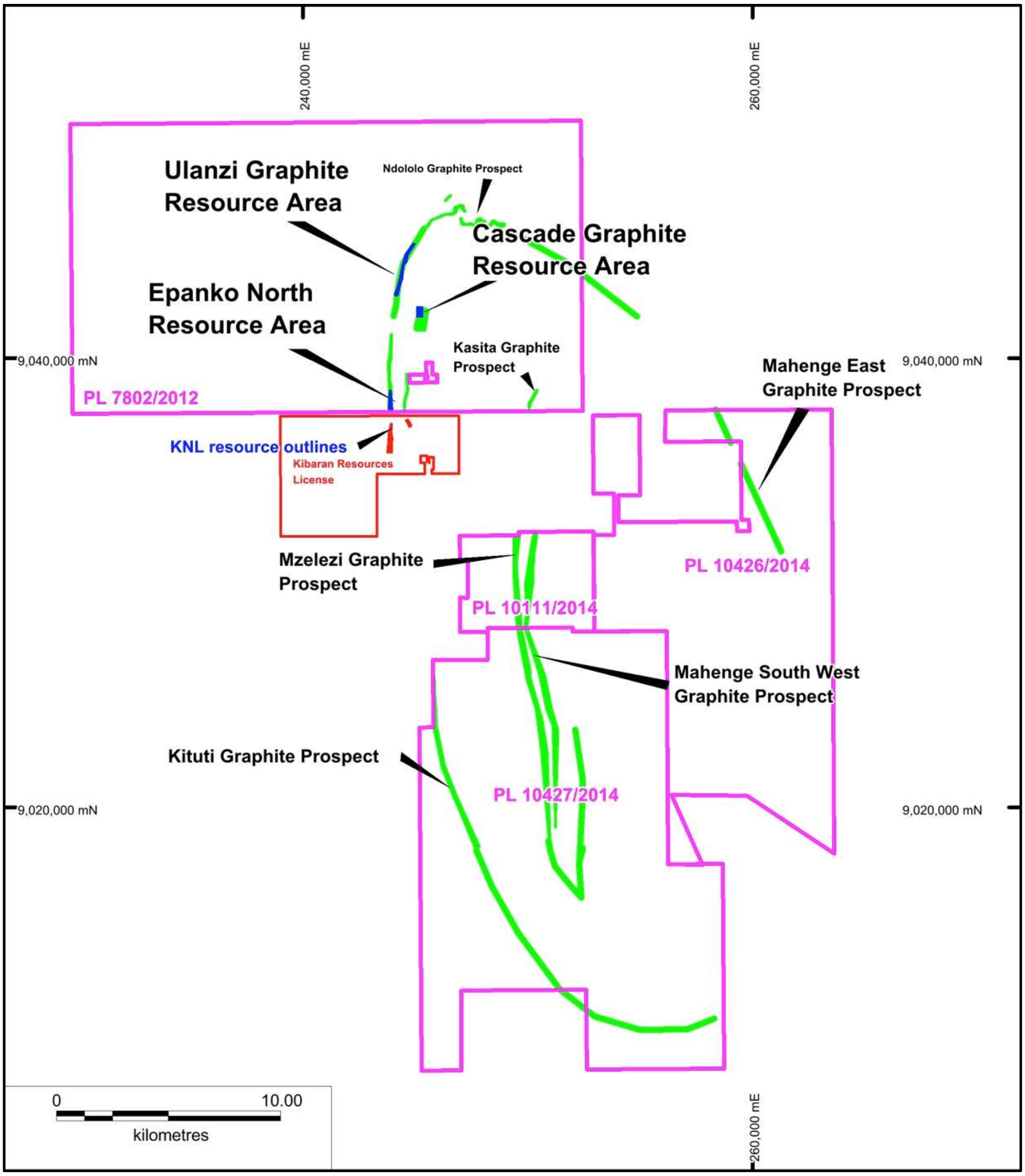


Figure 6. Tenement map.

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



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).

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 Mineral Resource estimate has been based on mapping of surface outcrop, multiple pits and trenches in conjunction with reverse circulation (RC) and diamond core (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.

Drilling techniques and hole spacing

The Mahenge estimation has been based on a combination of drilling and surface trench and pit sampling with the majority of the sample and geological data from 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 clearly 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

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 CO2. 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). Distinctly higher grade internal veins at Cascade were modelled at approximately a 9 to 10% allowing for continuity.

Estimation Methodology

Drilling, surface test pit, trench sampling and geological mapping data was utilised to control the interpretation of the mineralised zones. Three broader domains with two higher grade internal veins in a main domain were wireframed using Leapfrog™ software's vein modelling tools with contacts determined by coincident geology (graphitic gneiss) and a significant increase in TGC grade (> 4-5% TGC or > 9-10% TGC for the internal higher grade veins).

Grade estimation was by Ordinary Kriging ("OK") for Total Graphitic Carbon (TGC %) using GEOVIA Surpac™ software into the 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 50-100m (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. Cascades oxide and primary mineralisation has been tested with similar results to that of Ulanzi mineralisation.

Preliminary metallurgical test work on the oxide and primary mineralisation at Ulanzi and Epanko north has consistently returned up to 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/exceed battery grade graphite specifications with conventional processing and purification methods. Acid purification of spherical graphite has returned up to 99.98% TGC and thermal purification has returned > 99.999% assays.

Composite oxide samples from Cascades have been tested, confirming similar metallurgical results to Ulanzi. Core samples from Cascades are being tested to confirm concentrate grades from primary mineralised zones. Results to date indicate that Cascades mineralisation performs remarkably similar to that of Ulanzi and Epanko North. A 120t bulk sample of Ulanzi and Cascades oxide and primary mineralisation has been delivered to a metallurgical testing facility in Canada for bulk flotation and pilot scale processing. This programme is currently underway and will deliver an optimised processing flowsheet for equipment selection.

Initial (sighter) testing in Canada has returned up to 99.6% TGC concentrates from an amended four stage flotation test circuit, confirming that straightforward flotation can deliver exceptionally pure final products ready for end user applications.

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

Summary

- The Cascades infill drill programme has delivered an updated, stand-alone Mineral Resource Estimate of 60.2Mt at 8.1% TGC with a high grade portion of 14.6Mt at 12.2% TGC.
- Added to the higher grade is the expectation of a higher proportion of coarse flake recovery from Cascades, potentially increasing the revenue per tonne of concentrate compared to Ulanzi.
- The global Mineral Resource Estimate for the Mahenge Graphite Project is now 211.9M tonnes at 7.8% TGC. This makes it the fourth largest JORC Resource globally and it is still open along strike.
- Mineral Resources in the Measured category are now 25.5Mt and Indicated at 88.1Mt combined representing 54% of the total Mineral Resource.
- Within this Mineral Resource is a higher grade portion of 46.6Mt at 10.6% TGC, including the 14.6Mt from Cascades at 12.2% TGC.
- The Cascade Mineral Resource Estimate will be incorporated into an updated and optimised PFS and is likely to deliver industry leading cash costs for a project that has already demonstrated its ability to deliver a high purity product from conventional flotation circuit processing.
- Project de-risking achieved by:
    - Delivering the highest grade zones to date and further increasing resource category quality.
    - Metallurgical test work indicates that 99% TGC concentrates can be processed through a relatively simple flotation process. Low Risk
    - End-product validation. Independent testing indicates that battery grade spherical graphite and high quality expandable graphite can be made from Mahenge concentrates.

Cascades has delivered the best resource to date for the Company with a high-grade portion of 14.6Mt @ 12.2% TGC and 33.0Mt of overall Measured & Indicated Resources. This is highly positive for the Company. The Mahenge project now has improved 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 Company's ongoing focus is to develop this resource into a long life, low cost mining operation.

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About Black Rock Mining

Black Rock Mining Limited is an Australian based company listed on the Australian Securities Exchange. The Company owns graphite tenure in the Mahenge region of Tanzania.

The Company announced a JORC compliant Mineral Resource Estimate of 211.9m tonnes at 7.8% TGC for 16.6m tonnes of contained Graphite, making this one of the largest JORC compliant flake graphite Mineral Resource Estimates globally. Over 50% of the Mineral Resource is in the Measured and Indicated categories.

In April 2017, Black Rock announced results of a Preliminary Feasibility Study (PFS) for its Mahenge Graphite Project which confirmed its potential as a long-life, low capex, high margin operation. The PFS estimated a post-tax, unlevered, internal rate of return ("IRR") for the Project of 48.7%; and a net present value (NPV) using a discount rate of 10% (NPV10) of US$624m. Black Rock confirms that except for the proposed legislative changes relating to 16% free carry position of the Tanzanian Government and the royalty fee increasing to 4.3%, the key assumptions used in the PFS have not materially changed and that the material assumptions continue to apply per the PFS announcement released to the ASX on 24 April 2017.

Black Rock is moving towards commencing a Definitive Feasibility Study (DFS). With a successful DFS and associated financing, construction could commence in 2018 with first production in 2019.

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.

Appendix 1: Downhole Drill intercepts for Cascades Mineral Resource.

For previous intercepts at Epanko and Ulanzi, refer to announcements from 29th February 2016 and 6th October 2016.

Note: Domain 2 intersects exclude internal modelled higher grade veins (Domains 7 and 9)

Hole ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
DD25	DDH	245219.4	9041595.4	735.4	80.4	-60	270	7	0	14	14	11.4
								2	14	54	38	6.9
DD25B	DDH	245218.6	9041597.6	735.4	50.7	-60	270	7	0	14	14	10.0
								2	14	50.68	36.68	5.9
DD26	DDH	245352.9	9041801	796.1	167.8	-60	270	2	0	144	74	7.6
								9	6	58	52	10.0
								7	114	122	8	12.1
DD27	DDH	245343.6	9041959.9	852.6	107.8	-60	270	9	0	32	32	13.6
								2	32	100	28	5.5
								7	44	84	40	9.0
DD28	DDH	245324.2	9041451.9	772.13	73.3	-60	270	No zone in resource				
DD29	DDH	245269.2	9041401.4	768.8	175.8	-60	270	9	0	68	68	12.9
								2	68	162	94	6.0
DD30	DDH	245350	9041699	789.6	185.2	-60	270	2	8	174	120	6.7
								9	54	74	20	9.2
								7	154	156	2	11.4

Hole ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
DD31	DDH	245346	9041846	810.7	50	-50	315	9	0	40	40	11.2
								2	40	50	10	8.2
DD32	DDH	245351	9041907	835	51.7	-50	315	9	0	36	36	10.4
RC041	RC	245300.7	9041859.2	835.8	94	-57	270	9	0	8	8	10.6
								2	8	88	40	7.9
								7	32	72	40	11.3
RC042	RC	245258.4	9041848.1	835.4	79	-71	270	7	0	26	26	10.7
								2	26	70	44	8.7
RC043	RC	245301.7	9041894	841	112	-71	270	9	0	8	8	9.4
								2	8	100	60	8.1
								7	10	40	30	10.2
RC044	RC	245343.6	9041959.9	852.6	114	-61	270	9	0	30	30	10.7
								2	30	102	62	7.8
								7	44	54	10	10.2
RC129	RC	245554.5	9041828.8	832.6	136	-60	270	6	32	74	42	8.6
RC130	RC	245406.9	9041942.1	849.9	187	-60	270	5	2	16	14	8.3
								9	30	50	20	13.5
RC130	RC	245406.9	9041942.1	849.9	187	-60	270	2	50	187	69	6.2
								7	134	138	4	11.7
RC131	RC	245348.2	9041905	834.7	130	-60	270	9	0	38	38	11.6
								2	38	122	39	7.5
								7	58	82	24	10.0
RC132	RC	245249.1	9041805.9	826.2	73	-60	270	7	0	24	24	9.7
								2	24	58	34	7.1
RC133	RC	245299.1	9041800.9	810.9	109	-60	270	9	0	2	2	3.5

Hole ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
								2	2	96	68	8.1
								7	32	58	26	12.0
RC134	RC	245250.7	9041752.7	808.6	80	-60	270	2	0	68	40	7.3
								7	2	30	28	11.3
RC135	RC	245347.2	9041850.4	812.7	161	-60	270	9	0	56	56	11.6
								2	56	146	56	7.8
								7	108	124	16	11.4
RC136	RC	245300.5	9041751.9	804.9	136	-60	270	9	0	28	28	8.4
								2	28	120	87	8.4
								7	98	103	5	9.9
RC137	RC	245240.6	9041701.3	790.9	76	-60	270	2	0	68	56	7.5
								7	18	30	12	11.9
RC138	RC	245289.3	9041701.8	788.2	125	-60	270	2	0	116	62	6.9
								9	4	44	40	10.7
								7	90	100	10	11.0
RC139	RC	245225.8	9041653.6	755.1	69	-60	270	7	0	26	26	11.7
								2	26	60	34	7.2
RC140	RC	245274.4	9041652.2	764.1	112	-60	270	9	0	10	10	14.0
								2	10	104	84	7.7
								7	78	84	6	9.7
RC141	RC	245353.3	9041804	796.1	58	-60	270	2	0	4	4	8.6
								9	4	58	54	10.3
RC142	RC	245400.5	9041800.7	799.4	102	-60	270	2	8	102	38	6.9
								9	56	86	30	11.6
RC143	RC	245451.1	9041794.8	808.9	109	-60	270	6	0	14	14	1.4

Hole ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
								5	46	62	16	7.3
RC144	RC	245225.8	9041350.2	805	109	-60	270	2	28	92	50	6.1
								9	30	44	14	12.8
RC145	RC	245222.8	9041450.4	791.5	76	-60	270	2	0	76	76	6.7
RC146	RC	245223.8	9041548.5	765.5	100	-60	270	7	0	18	18	16.3
								2	18	88	70	7.0
RC147	RC/DT	245274.6	9041352.6	772.1	173.9	-60	270	2	24	150	88	6.9
								9	26	64	38	14.1
RC148	RC	245278.5	9041450.7	756.7	117	-60	270	2	12	117	55	6.5
								9	18	68	50	14.4
RC150	RC	245274.5	9041600.7	748.6	115	-60	270	2	0	106	84	8.0
								9	4	12	8	14.5
								7	60	74	14	10.5
RC151	RC	245419.5	9042044.1	804	94	-60	270	2	28	80	52	8.1
RC152	RC	245368.4	9042045.4	810.8	80	-60	270	2	0	62	40	4.8
								7	42	48	6	9.6
RC153	RC	245325.2	9042045.7	816.1	43	-60	270	2	0	34	24	6.1
								7	4	6	2	14.9
RC154	RC	245504.5	9041799.8	834	136	-60	270	6	2	52	50	6.9
								5	94	110	16	7.9
RC155	RC	245224.9	9041303	807.4	120	-60	270	9	32	38	6	13.5
								2	38	104	66	6.9
RC156	RC	245221.3	9041398.4	800.6	97	-60	270	9	0	18	18	12.6
								2	18	84	66	6.7
RC157	RC	245226.9	9041250.9	784	84	-60	270	9	20	84	64	14.9

Hole ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
RC158	RC/DT	245272.8	9041247.6	784.7	182.9	-60	270	2	82	182.85	76.85	2.6
RC159	RC/DT	245269.3	9041302.1	782.8	197.9	-60	270	9	66	100	34	16.9
RC160	RC/DT	245227.1	9041202.6	766.7	111.9	-60	270	2	38	108	10	9.3
								9	46	106	60	12.7
RC161	RC	245176.7	9041202.4	761.2	56	-60	270	9	0	20	20	15.2
								2	20	48	28	6.1
RC162	RC	245225.5	9041500.3	779.3	97	-60	270	2	0	86	64	6.5
								7	2	24	22	15.3
RC163	RC	245274.2	9041497.8	754.2	158	-60	270	9	16	31	15	16.2
								2	31	150	107	6.4
								7	64	76	12	10.2
RC164	RC	245474.9	9041452.7	794.1	82	-60	270	6	2	38	36	5.6
RC165	RC	245352.3	9041750.1	793.1	175	-60	270	2	0	175	89	8.4
								9	44	96	52	10.7
								7	162	168	6	11.6
RC166	RC/DT	245351.8	9041699.1	789.2	50.7	-60	270	Hole failed – re-drilled as DD30				
RC167	RC	245400.4	9041753.2	786.3	77	-60	270	2	2	77	51	9.5
RC169	RC	245390.8	9041703.9	777	101	-60	270	2	12	101	27	7.2
								9	66	86	20	11.5
RC170	RC	245323.1	9041654.1	767.7	163	-60	270	2	52	154	76	6.6
RC170	RC	245323.1	9041654.1	767.7	163	-60	270	7	136	140	4	11.1
RC171	RC	245398.9	9041900.8	842.7	109	-60	270	5	10	16	6	7.6
								2	26	109	43	6.9
								9	36	76	10	11.3
RC172	RC	245445.2	9041895.8	858.9	107	-60	270	6	0	18	18	7.5

Hole ID	Hole Type	Easting (UTMS37 WGS84)	Northing (UTMS37 WGS84)	RL	Hole Depth	Dip	Azimuth	Domain	From (m)	To (m)	Intersect (m)	TGC %
								5	60	64	4	8.4
RC173	RC	245502.6	9041848.8	852	140	-60	270	6	14	56	42	7.8
								5	100	110	10	7.4
RC174	RC	245499.6	9041902	861.8	167	-60	270	6	0	38	38	6.6
								5	112	158	46	6.5
RC175	RC	245405.2	9041854.1	830.1	90	-60	270	2	20	34	14	6.2
								9	64	90	26	9.9
RC176	RC	245451.2	9041854.5	836	76	-60	270	6	0	14	14	7.8
								5	62	68	6	6.3
RC177	RC	245331.5	9042002	838.8	79	-60	270	2	0	50	16	8.4
								7	8	42	34	10.2
RC178	RC	245375.9	9042001.4	836.6	130	-60	270	2	8	122	72	4.4
								7	90	98	8	10.5
RC179	RC	245326	9041351.4	775.5	90	-60	270	No zone in resource				
RC180	RC	245250.3	9041451.1	775.3	142	-60	270	9	0	22	22	19.8
								2	22	130	108	6.0
RC181	RC	245323	9041549.3	759.4	55	-60	270	No zone in resource				
RC182	RC	245272.6	9041204	792.2	88	-60	270	No zone in resource				
RC183	RC	245173	9041247.8	792.1	142	-90	000	9	0	78	78	14.8
								2	78	126	48	6.4
RC184	RC	245446.7	9041971	836.2	100	-63.6	273.6	5	6	12	6	3.0

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Appendix 2. JORC Code, 2012 Edition Table 1.

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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g 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 (e.g. 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 (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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 metre 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 test work. PQ diamond core was slivered with a core saw and the sliver (~20%) taken for laboratory analysis. The remaining core was retained for metallurgical test work 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.*

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Criteria	JORC Code explanation	Commentary
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. 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 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 CO_2. 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 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. ALS Global 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.*

Criteria	JORC Code explanation	Commentary
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 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.*

Criteria	JORC Code explanation	Commentary
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	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 is provided in Appendix 1.*

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• *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.*
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 (e.g. '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*

Criteria	JORC Code explanation	Commentary
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.* • *1,078 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 (e.g. 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 was conducted in the second half of 2016 to define further extensions of mineralisation at Cascades, with the intention of defining additional high grade, near surface resources* • *Ongoing metallurgical test work – flotation and particle size optimization.* • *Additional bulk density test work 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 programme.*
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.* • *Weathered zones (oxide and transition) were 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 900m (surface trace striking 020°) averaging in thickness 70m and ranging between 560m and 900m RL (AMSL).*

Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. 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.*	• *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 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. No top-cuts were required at Cascade.* • *Directional variograms were modelled by domain using traditional variograms. Nugget values for TGC are low to moderate (around 15 to 30%) 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 and Cascade. At Ulanzi 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 and Cascade, 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 plus oxide mineralisation at Cascades. Cascades primary mineralisation is being tested. These samples (taken as surface outcrop and 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 has been 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 test work on 1,078 drill core samples across the Mahenge Project using Hydrostatic Weighing (uncoated).* • *Of these 1,078 samples, 587 are from within the modelled mineralised domains, primarily from fresh material (556 samples) and transition (37 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 and 2.74 g/cm3 at Cascade (with a standard deviation of 0.05).* • *For the modelled oxide/transition zone, there were only 37 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 at Ulanzi and 2.5 g/cm3 at Cascade. It is planned to increase the number of measurements on transition material samples in the next phase of work.* • *For the modelled oxide zone, there were 2 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 (i.e. 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 reviews	• *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.*
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.*

JORC Compliance Statement

Resource

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 (previous 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 and geological model, Mr Barnes is the Competent Person for the resource. Both Mr Platel (independent of Black Rock Mining) 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. Mr Tambanis holds performance rights in the company as part of his total remuneration package.

Reserve

The information in this report that relates to the Ore Reserve Statement, has been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition).

The Ore Reserves have been compiled by Oreology Consulting Pty Ltd, under the direction of Mr John de Vries, who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr de Vries is the interim CEO and an Executive Director of Black Rock Mining and holds performance rights in the company as part of his total remuneration package. Mr de Vries has sufficient experience in Ore Reserve estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves."