

Assay results confirm high-grade graphite mineralisation at Mahenge

# Highlight

28 July 2015

- Latest assay results confirm high grade graphite zones over expanded Cascade prospect area
  - Best Cascade creek outcrop interval of 98m @ 10.3% TGC
  - $\circ~$  Best outcrop samples of 20.4%, 18.7% and 17.7%
- First drilling at Epanko northeast returned <u>24m@9.0%</u>, <u>16m@12.8%</u> and <u>66m@9.4%</u> TGC from holes RC13-15
- Epanko north drilling returned 96m@6.51% TGC (RC17)

**Black Rock Mining Limited (ASX:BKT)** is pleased to provide an update of exploration activities at its Mahenge project, Tanzania. The current program includes an infill drilling program at the Epanko north prospect and ongoing exploration at the highly prospective Cascade and Kituti prospects. The latest assay results received by the Company confirm the presence of significant zones of graphitic mineralisation at the Cascade and Epanko prospects.



Photo 1. Trench 3 at North Cascade being sampled at one of two broad zones of graphite mineralisation

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#### Cascade prospect update

The Cascade zone is located 4km north of Epanko North. Mapping and sampling during June and July substantially enlarged the surface mineralised zone to 800m in width by over 1,300m of strike length. Within this mineralised footprint, three zones of north-south trending mineralisation have been interpreted, validated by trenching and basement rock sampling. Trenches 2 & 3 are new, as are the extensions to T1.

Creek outcrop samples from Trench 2 returned a wide graphite mineralised zone averaging **96m** @10.34% TGC on the western side. Trench 2 is located in the centre of the prospect.

Trench 1 at the south of the prospect was recently widened from 186m (2014) to 420m across strike, revealing additional graphitic zones to the west and east. The original trench contains a zone to the east which returned **84m @ 8.34% TGC**. Trench 3 to the north is 440m wide, showing two zones of graphitic mineralisation. Sampling is being completed for trenches 2 & 3.

Outcrop and bedrock pit sampling is returning high-grade results with best samples of 20.4%, 18.7% and 17.7% from the current programme. The 47 bedrock samples recently received averaged 48.4%TGC. Although considerable work remains, work to date demonstrates that Cascade is shaping up to host significant graphitic mineralisation.



Image 1. Plan of main Cascade area showing trenches, surface sample results as TGC% and pale green coloured interpreted graphite mineralised zones.

#### Epanko North



Infill drilling is nearing completion – ten holes remain to be drilled for the programme. Results for the first RC hole of the current programme (RC17) returned 96m @ 6.51% TGC, in line with the previously drilled 48m@ 8.4% TGC drilled at RC01, 50m to the west. Mineralisation extends further west, which will be drilled during August.

#### Epanko northeast

The Epanko northeast lode is 600m to the east of, and parallel to Epanko North. The structure is narrower and higher-grade than Epanko north – trenching and outcrop sampling last year typically returned >10% TGC. Three RC holes and one diamond hole were drilled during June. All three RC holes commenced drilling in graphite mineralisation, indicating that step-out drilling should result in increased lode width.

Assay results for the three RC holes are:

RC13: 24m@ 9.0% TGC RC14: 16m@ 12.8% TGC RC15: 66m@ 9.4% TGC



Photo 2. RC drill at hole RC27, Epanko north.

#### Summary



"Exploration activities are progressing as planned at Mahenge, with highly encouraging assay results from drilling areas and Cascade. Drilling at Epanko north should be completed by the end of August and Cascade is demonstrating potential to be a new graphite deposit. Other crews are exploring Kituti with the objective of defining additional drill targets." said Steven Tambanis, Managing Director.

The current exploration programme continues to both confirm and enhance the prospectivity of BKT's Mahenge tenure, as validated by recent assay results. Epanko north has potential to deliver a JORC compliant graphite resource this year.

#### For further information please contact:

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#### About Black Rock Mining

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

The company is building a skill and knowledge base to become an explorer, developer and diversified holder of graphite resources.

Shareholder value will be added by:

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

*Our focus is on establishing a JORC resource at Epanko North, Mahenge, whilst further exploring and drilling the Kituti, Cascade and Ndololo prospects*.

#### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Steven Tambanis, who is a member of the AusIMM. He is a full time employee of Black Rock Mining Limited. Steven Tambanis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 and 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Steven Tambanis consents to the inclusion in the report of the matters based on their information in the form and context in which it appears. Prior drilling results refer to BKT's Jan–Mar2015 drilling programme, for which all results have previously been reported.

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#### Black Rock Mining exploration Programme, Mahenge

Work is focused on infill drilling the western lode of **Epanko North** to determine its bulk tonnage graphite potential. The first infill hole of this programme (RC16) drilled a highly encouraging 120m graphitic schist interval from 10m down-hole. This indicates that the broad zone of graphite underneath RC01has good potential to add substantial tonnes.

Maiden drilling at the **Epanko Northeast** lode returned zones of exceptionally coarse graphite from the first few drill holes, as shown in photos 1 and 4. The graphite flakes are up to 8mm x 8mm, despite being pulverised by the RC hammer when drilled. High grades are expected from this section. Epanko Northeast (600m east of, and parallel to Epanko North) is a narrower, higher-grade graphite structure with >10% TGC trench grades. This lode is being drilled with the objective of defining a higher-grade source of graphite mineralisation in a separate pit. Similar to Epanko North, the eastern lode is located on top of a ridge, offering potentially low ore to waste ratios.

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

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



Map 1. Location of Black Rock projects within Mahenge tenure.





### Assay results

### Test pit samples, Cascade Project.

sample		sample	sample		sample
#	TGC%	type	#	TGC%	type
GRKR075	11.70	Bedrock	GRKR108	3.86	soil
GRKR076	10.20	Bedrock	GRKR109	3.56	soil
GRKR077	7.58	Bedrock	GRKR110	0.02	Bedrock
GRKR078	6.55	Bedrock	GRKR111	4.08	soil
GRKR079	6.72	Bedrock	GRKR112	0.19	soil
GRKR080	10.85	Bedrock	GRKR113	8.32	Float rock
GRKR081	6.58	Bedrock	GRKR114	23.90	Float rock
GRKR082	9.68	Bedrock	GRKR115	0.58	Bedrock
GRKR083	12.70	Bedrock	GRKR116	17.65	Bedrock
GRKR084	4.35	Bedrock	GRKR117	4.52	Bedrock
GRKR085	9.37	Bedrock	GRKR118	13.35	Bedrock
GRKR086	2.08	Bedrock	GRKR119	9.87	Bedrock
GRKR087	20.40	Bedrock	GRKR120	3.18	Bedrock
GRKR088	12.85	Bedrock	GRKR121	0.97	soil
GRKR089	1.42	Bedrock	GRKR122	5.98	soil
GRKR090	11.65	Bedrock	GRKR123	1.24	Bedrock
GRKR091	15.50	Bedrock	GRKR124	5.99	soil
GRKR092	1.26	soil	GRKR125	1.31	Bedrock
GRKR093	2.20	soil	GRKR126	11.50	Bedrock
GRKR094	1.78	soil	GRKR127	8.03	Bedrock
GRKR095	12.05	Bedrock	GRKR128	11.45	Bedrock
GRKR096	12.40	Bedrock	GRKR129	1.69	Bedrock
GRKR097	8.59	Bedrock	GRKR130	5.67	Bedrock
GRKR098	6.10	Bedrock	GRKR131	2.01	Bedrock
GRKR099	2.32	soil	GRKR136	12.90	Bedrock
GRKR100	11.70	Bedrock	GRKR139	7.19	Bedrock
GRKR101	0.38	soil	GRKR141	0.14	Bedrock
GRKR102	7.48	Bedrock	GRKR144	8.71	Float rock
GRKR103	8.23	Bedrock	GRKR148	2.15	soil
GRKR104	0.43	soil	GRKR150	13.50	Bedrock
GRKR105	2.99	soil	GRKR152	18.70	Bedrock
GRKR106	0.58	soil	GRKR154	14.35	Bedrock
GRKR107	4.21	Bedrock	GRKR156	5.03	Bedrock



### Assay Results (cont'd)

### Cascade Creek trench. Outcrop sampling

Sample #	TGC%	Av Grade	Sample #	TGC%	Av Grade
GRKT214001	0.06		GRKT214049	0.02	
GRKT214002	<0.02		GRKT214050	0.46	
GRKT214003	<0.02		GRKT214051	0.13	
GRKT214004	7.44		GRKT214052	4.84	
GRKT214005	9.48		GRKT214053	10.95	
GRKT214006	9.92		GRKT214054	0.04	6.17
GRKT214007	7.01		GRKT214055	7.53	
GRKT214008	6.35		GRKT214056	2.56	
GRKT214009	8.35		GRKT214057	4.05	
GRKT214010	6.79		GRKT214058	2.75	
GRKT214011	10.85		GRKT214059	0.54	
GRKT214012	11.30		GRKT214060	0.08	
GRKT214013	12.05		GRKT214061	0.05	
GRKT214014	10.35		GRKT214062	1.15	
GRKT214015	7.85		GRKT214063	2.13	
GRKT214016	8.28	10.34	GRKT214064	0.08	
GRKT214017	6.72		GRKT214065	0.18	
GRKT214018	8.53		GRKT214066	3.56	
GRKT214019	5.45		GRKT214067	7.05	6.29
GRKT214020	7.65		GRKT214068	5.53	
GRKT214021	9.37		GRKT214069	0.05	
GRKT214022	8.22		GRKT214070	0.02	
GRKT214023	8.22		GRKT214071	<0.02	
GRKT214024	12.10		GRKT214072	<0.02	
GRKT214025	9.26		GRKT214073	<0.02	
GRKT214026	9.85		GRKT214074	0.20	
GRKT214027	15.95		GRKT214075	2.25	
GRKT214028	10.55		GRKT214076	2.10	
GRKT214029	16.80		GRKT214077	3.42	
GRKT214030	13.60		GRKT214078	5.20	
GRKT214031	14.50		GRKT214079	3.28	
GRKT214032	14.75		GRKT214080	2.10	
GRKT214033	14.65		GRKT214081	0.65	
GRKT214034	12.65		GRKT214082	1.60	
GRKT214035	9.68		GRK1214083	9.18	
GRKT214036	15.45		GRKT214084	6.27	
GRKT214037	9.00		GRK1214085	5.42	
GRKT214038	12.80		GRK1214086	3.89	
GRKT214039	0.17		GRK1214087	0.27	5.40
GRKT214040	0.06		GRK1214088	0.18	5.13
GRKT214041	3.60		GRK1214089	8.47	
GRK1214042	0.20		GRK1214090	7.03	
GRK1214043	5.65		GRK1214091	3.25	
GRK1214044	3.31	~ ~ ~	GRK1214092	1.54	
GKK1214045	9.83	6.2	GRK1214093	2.67	
GRK1214046	5.50		GRK1214094	3.29	
GRK1214047	6.70		GRK1214095	4.16	
GRK1214048	1.40		GRK1214096	16.15	



### Assay Results (cont'd) RC drill Assays

	Fro			interval						interval
Hole ID	m	То	TGC%	average		Hole ID	From	То	TGC%	average
			started in						started in	
			mineralisation						mineralisation	
RC13	2	4	9.23			RC15	0	2	8.24	
RC13	4	6	8.68			RC15	2	4	6.24	
RC13	6	8	6.65			RC15	4	6	15.45	
RC13	8	10	7.34	24		RC15	6	8	8.22	
RC13	10	12	12.55	24m@9.04%		RC15	8	10	7.09	
RC13	12	14	12.25			RC15	10	12	9.56	
RC13	14	16	12.65			RC15	12	14	7.04	
RC13	16	18	0.98			RC15	14	16	8.34	
RC13	18	20	9.25			RC15	16	18	7.57	
RC13	20	22	11.60			RC15	18	20	7.51	
RC13	22	24	6.94			RC15	20	22	5.02	
RC13	24	26	10.40			RC15	22	24	5.77	
RC13	26	28	2.53			RC15	24	26	13.85	
RC13	28	30	0.22			RC15	26	28	13.30	
DC12	20	22	0.21			DC1E	20	20	0.50	66m @
RC13	30	32	0.21			RC15	28	30	9.58	9.38
RC13	32	34	0.22			RC15	30	32	12.85	
RC13	34	36	0.03			RC15	32	34	15.05	
RC13	36	37	0.16			RC15	34	36	15.80	
						RC15	36	38	9.15	
			atout a dia			RC15	38	40	7.06	
			mineralisation			RC15	40	42	7.05	
PC14	0	2	14.25			DC1E	12		0.07	
PC14	2	Z	14.55			PC15	42	44	9.07	
PC14	2	4	14.50	16m@12 79		PC15	44	40	0. <i>33</i>	
PC14	4	0	14.50	1011@12.75			40	40 E0	د <del>ر</del> م د <del>ر</del> م	
RC14	0	0	16.05				40 E0	50	0.75	
RC14	10	10	10.03				50	52	10.90	
RC14	10	12	10.80			RC15	52	54	10.80	
RC14	12	14	9.35			RC15	54	50	11.80	
RC14	14	10	5.53			RC15	50	58	10.40	
RC14	10	18	0.64			RC15	58	60	9.75	
RC14	18	20	0.24			RC15	60	62	10.20	
RC14	20	22	0.19			RC15	62	64	11.80	
						RC15	64	66	6.98	
						RC15	66	68	4.22	
						RC15	68	70	0.33	
	ended in minoralisation									
									meransation	

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### Assay Results (cont'd) RC drill Assays (cont'd)

Hole ID	From	То	TGC%	int. average	int. average
RC17	1	3			
RC17			0.29		
RC17	3	5	0.30		
RC17	5	7	0.30		
RC17	7	9	1.06		
RC17	9	11	1.73		
RC17	11	13	1.27		
RC17	13	15	1.69		
RC17	15	17	3.46		
RC17	17	19	4.61		
RC17	19	21	6.83		
RC17	21	23	5.78		
RC17	23	25	2.03		
RC17	25	27	2.40		
RC17	27	29	2.79		
RC17	29	31	5.01		
RC17	31	33	5.11		
RC17	33	35	3.88		
RC17	35	37	7.77		
RC17	37	39	9.77		
RC17	39	41	7.08		
RC17	41	43	8.20		
RC17	43	45	8.31		
RC17	45	47	9.20		
RC17	47	49	8.32		
RC17	49	51	6.11		
RC17	51	53	5.10		
RC17	53	55	4.59		
RC17	55	57	4.61		
RC17	57	59	4.76		
RC17	59	61	4.55		
RC17	61	63	4.87		
RC17	63	65	5.21		
RC17	65	67	4.90		
RC17	67	69	5.50		
RC17	69	71	5.09	110m @ 6.19	
RC17	71	73	5.20		
RC17	73	75	6.53		
RC17	75	77	8.45		96m @ 6.51
RC17	77	79	6.75		
RC17	79	81	6.25		
RC17	81	83	5.39		

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					BL		CK
RC17	83	85	5.04			]	
RC17	85	87	13.70				
RC17	87	89	7.91				
RC17	89	91	8.61				
RC17	91	93	8.27				
RC17	93	95	7.06				
RC17	95	97	8.36				
RC17	97	99	3.98				
RC17	99	101	3.89				
RC17	101	103	5.33				
RC17	103	105	5.66				
RC17	105	107	6.89				
RC17	107	109	6.46				
RC17	109	111	5.61				
RC17	111	113	6.01				
RC17	113	115	5.52				
RC17	115	117	5.24				
RC17	117	119	5.36				
RC17	119	121	7.01				
RC17	121	123	4.83				
RC17	123	125	6.64				
RC17	125	127	10.30				
RC17	127	129	5.26				
RC17	129	131	7.08				
RC17	131	133	4.85				
RC17	133	135	3.48				

135

137

139

141

143

RC17

RC17

RC17

RC17

RC17

137

139

141

143

145

1.52

1.99

1.54

## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Rock chip samples taken from outcrop of from surface float thought to be derived from shallow buried cover within 15m radius</li> <li>Pit samples are excavated to in-situ basement rock where possible. If the pit did not reach basement and sampled cover/float/scree, then this is noted in the sample log.</li> <li>Trench samples were taken in 1-3m intervals along the floor of the trench</li> <li>Trenches range in depth from 1.0m to 2.5 with an average depth of 1.8m. Trenches have an average width of 1m</li> <li>Surface rockchip and trench samples range between 0.5kg and 2.5kg in weight</li> <li>The Company has taken all care to ensure no material containing additional carbon has contaminated the samples</li> <li>All samples are individually labeled and logged</li> <li>Drill sampling consisted of quarter core sampling of diamond core on a 2m sample interval. RC samples were riffle split on an individual 1m interval then composited as two x 1m samples per sample submitted to the laboratory.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Both diamond core (HQ double tube) and reverse circulation (5" face sampling) drilling methods have been used</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Drill sample recoveries have been measured for all holes and found to be good
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> <li>Drill logging of diamond core and RC</li> </ul>	<ul> <li>Surface rockchip samples were described in basic terms – lithology, degree of weathering, flake size and an estimate of grade</li> <li>Trench rockchip samples were described in basic terms – lithology, degree of weathering, flake size and an estimate of grade in 1m intervals</li> <li>All drill holes have been comprehensively logged for lithology, mineralisation, recoveries, orientation, structure and RQD (core). All drill holes have been</li> </ul>

Criteria	JORC Code explanation	Commentary
		photographed. Sawn diamond core has been retained for a record in core trays. RC chips stored in both chip trays and 1-3kg individual metre samples as a record.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The surface rockchip samples have not undergone any field splitting or composition</li> <li>Trench samples were taken in 1m intervals with sampling techniques used to ensure representivity of the target rocktype.</li> <li>No splitting or compositing of the trench samples was undertaken</li> <li>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.</li> <li>RC samples were collected for every down-hole metre in a separate RC bag. Each metre sample was split through a three-tier riffle splitter and a 1.5kg sample taken of each meter. Two one-metre samples, totaling 3kg in weight were composited for assay submission.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The samples were sent to Mwanza in Tanzania for preparation and pulps were then sent to Brisbane for TGC analysis for Total Graphitic Carbon (TGC) C-IR18 LECO Total Carbon.</li> <li>Graphitic C is determined by digesting sample in 50% HCI to evolve carbonate as CO2. Residue is filtered, washed, dried and then roasted at 425C. The roasted residue is analysed for carbon by high temperature Leco furnace with infra red detection. Method Precision: ± 15% Reporting Limit: 0.02 - 100ppm</li> <li>Some of the surface rockchip samples were analysed for Multi-elements using ME-ICP81 sodium peroxide fusion and dissolution with elements determined by ICP.</li> <li>Some of the surface rockchip samples were analysed for Multi-elements using ME-MS61 for 48 elements using a HF-HNO3-HCIO4 acid digestion, HCI leach followed by ICP-AES and ICP-MS analysis.</li> <li>Some of the surface rockchip samples were analysed for Multi-elements using ME-MS81 using lithium borate fusion and ICP-MS determination for 38 elements.</li> <li>All analysis has been carried out by certified laboratory – ALSchemex. TGC is the most appropriate method to analyse for graphitic carbon and it is total analysis. ALSChemex inserted its own standards and blanks and completed its own QAQC for each batch of samples</li> <li>BKT inserted certified standard material at a rate of 5%. BKT inserted a field duplicate at a rate of 5%</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	The data has been manually updated into a master spreadsheet which is considered to be appropriate for this early stage in the exploration program

Criteria	JORC Code explanation	Commentary
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>A handheld GPS was used to identify the positions of the pits in the field</li> <li>The handheld GPS has an accuracy of +/- 5m</li> <li>The datum is used is ARC 1960 UTM zone 37</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The trenches were excavated from the general lode of graphite mineralization outlined by first pass mapping at Cascade</li> <li>No sample compositing has been applied.</li> <li>The project is considered too early stage for Resource Estimation</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Trenches were designed to sample across a section of the known strike of the mineralization where the cover was not too deep</li> <li>Trench samples was undertaken in general in a direction across the strike of the graphite schist apart from TREPM01 which was sub-parallel to the strike of the schist</li> <li>The representivity of the surface rock chip samples cannot be assessed given the lack of continuous outcrop in these areas. These samples are only indicative results of the local geology and no claim to the volume or extent of this sample material is made</li> <li>Additional sampling and mapping is required to fully understand the mineralization and its grades in relation to controlling structures</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>The rockchip and trench samples were taken under the supervision of an experienced geologist employed as a consultant to BKT</li> <li>The samples were transferred under BKT supervision from site to the local town of Mahenge</li> <li>The samples were then transported from Mahenge to Dar es Salaam and then transported to Mwanza where they were inspected and then delivered directly to ALSChemex process facility.</li> <li>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</li> <li>Transport of the pulps from Tanzania to Australia was under the supervision of ALSChemex</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• Trenching and drilling information collected by BKT has been evaluated for sampling techniques, appropriateness of methods and data accuracy by an external geological consultant.

#### Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The rock chip and trench sampling was undertaken on granted license PL 7802/2012</li> <li>It has an area of 293km2</li> <li>The license is 100% owned by BKT</li> <li>Subsistent landowners of the affected villages were supportive of the recently completed sampling and exploration program.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	• Some previous explorers completed some limited RC drilling and rockchip sampling but the original data has not been located apart from what has been announced via ASX release by Kibaran Resources during 2011 and 2013
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	• All drill hole information has been retained and compiled into a drilling database. At this early stage of exploration only the assay data has been released together with hole length, a plan locality map of drill holes and down hole intervals.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No data aggregation methods have been carried out on the data.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Due to the potentially large strike length of the mineralization the trench sampling program has been selective and trench sampling has only assessed the local grade distribution of the graphitic zones from surface to shallow depths &lt;2.5m).</li> <li>The trenches were located between 500 and 1000m along strike depending on the thickness of the surface cover</li> <li>Further additional widespread surface sampling, mapping and drilling is required to understand the geometry of the graphite mineralisation</li> </ul>

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