



Magnis Resources

L I M I T E D

FOR RELEASE
29 April 2016

QUARTERLY REPORT TO 31 MARCH 2016

HIGHLIGHTS

- **Nachu Graphite Project BFS finalised with outstanding projected returns**
- **Updated Mineral Resource and Ore Reserve estimates for Nachu**
- **99.99%TGC coated spherical graphite achieved without chemical purification**
- **Exceptional cell test results for lithium-ion battery use**

Magnis Resources Limited ("**Magnis**" or the "**Company**") (ASX: MNS) is pleased to present its activities report for the quarter ended 31 March 2016. Magnis is focused on the development of its 100% owned Nachu Graphite Project ("NGP") in southern Tanzania.

Nachu Bankable Feasibility Study Finalised

On 31 March 2016, Magnis released the results of the Bankable Feasibility Study (BFS) for the NGP.

The BFS highlights the exceptional economic returns and low technical risk of the NGP. These characteristics are driven strongly by the high quality size, purity and crystal structure of the contained graphite flake in the Nachu deposit.

Sedgman assumed the lead role in the feasibility study which was prepared with input from a wide range of independent local and overseas technical experts including Orelogy, Digby Wells, Logiman, AMC, Knight Piesold, MTL consultants, AMML Laboratories and Pells Sullivan Meynink. The feasibility study was completed to "Bankable" standards with an accuracy of +/- 10%. Environmental studies were done to "IFC" Standards.

The BFS highlights the outstanding projected financial returns from NGP and demonstrates its low level of technical risk. The BFS delivers a post-tax NPV_{10%} of US\$1.69b and an internal rate of return (IRR) of 98%. Capital payback is projected within 14 months of first production.

A maiden Proved and Probable graphite Ore Reserve was declared on the Block F and FS orebodies totalling 76 million tonnes at 4.79% Cg for 3.6 million tonnes of contained graphite. This Ore Reserve provides sufficient material to support an initial 15 year operating life. The BFS is based on a 5.0Mtpa processing plant with a nameplate output capacity of 240,000tpa of graphite concentrate.



Figure 1: Location of the Nachu Graphite Project

The unique crystal structure and low impurities in the Nachu graphite mineralisation allow production of a premium product suite with an average concentrate purity of over 98% TGC. Approximately 41% of this product will be high value Super Jumbo (+500 microns) and Jumbo (+300 microns) flake concentrate products at a purity of 97-98% TGC. The remaining 59% will be a sub-300 micron concentrate product at an exceptional purity of 99.2% TGC. This is firmly targeted at the rapidly growing lithium-ion battery sector.

The basket price estimate of US\$2,350/t was constructed using pricing from Industrial Minerals, Benchmark Minerals and end-users, with good consistency across all sources. As demonstrated through metallurgical and end-user testing, the graphite concentrate produced from Nachu is unique due to its high purity, abundance of large flake and superior performance in high growth applications. The ability to achieve high purity without chemical treatment leads to a premium price product with a significantly reduced environmental footprint. These properties along with its crystalline nature make it a viable alternative to synthetic graphite in numerous applications including lithium-ion batteries.

Pre-production capital for the NGP is estimated at US\$269 million (including an 11% contingency). Operating costs over the first five years of production are forecast to be US\$502 per product tonne free on board (FOB) from the port of Mtwara (ex royalties), and the life-of-mine forecast is US\$559/t.

All necessary infrastructure has been identified, and any required construction incorporated in the BFS planning, including roads, water and grid power sourcing.

Nachu Updated Mineral Resources and Ore Reserve Estimates

On 1 February 2016, Magnis declared an updated Mineral Resource Estimate for the NGP. The global Mineral Resource Estimate comprises 174 Million Tonnes (Mt) at an estimated grade of 5.4% Graphitic Carbon (Cg) and is reported in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012). The Nachu Project represents one of the largest Mineral Resources of large flake graphite in the world. The Block F Mineral Resource (59.5 Mt in the Measured and 39.3 Mt in the Indicated Resource category) is the primary orebody assessed in the BFS for initial production.

The Mineral Resource is split into 5 deposits (Block B, D, F, FS & J) with the mineralisation hosted predominantly in graphitic schist. All deposits have mineralisation at or near surface. The orientation of the Mineral Resource modelling follows the generally shallowly dipping limbs of the open-folding within the deposit.

Block		B		D		F		FS		J		Total	
		Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
		Mt	%Cg	Mt	%Cg	Mt	%Cg	Mt	%Cg	Mt	%Cg	Mt	%Cg
Measured	Oxide					1.7	4.9	0.2	5.2			1.9	4.9
	Primary					57.8	4.6	3.8	5.6			61.6	4.7
Indicated	Oxide	0.2	6.5			1.3	5.4	0.2	5.4	0.7	8.3	2.4	6.3
	Primary	6.6	6.3			38	5.1	5.0	5.1	9	8.1	58.6	5.7
Inferred	Oxide	0.1	5	0.7	5.9	1.7	5	0.01	3.2	0.04	10.1	2.6	5.3
	Primary	0.8	5	19.5	5.9	22.5	5.2	1.0	3.5	3.2	10.2	47	5.8
Sub Total		7.6	6.1	20.2	5.9	123.1	4.9	10.2	5.1	12.9	8.6	174	5.4

Notes: 1. Cut-off of 3% graphitic carbon
2. Rounding may result in differences in total and average grades.

Table 1: Nachu Graphite Project Mineral Resource Estimate

The Ore Reserve estimated by Oreology is inclusive of the F and FS Blocks solely. The total Proved and Probable Ore Reserve comprises 76 Mt at 4.8% Cg for 3.6 million tonnes of contained graphite (Table 2).

This Ore Reserve provides sufficient material for an initial operating life of approximately 15 years. This comprises approximately 11.7 years at 240,000 tpa nameplate concentrate output after which lower grade ore stockpiles are processed for another 3.5 years at an average concentrate output rate of 160,000 tpa.

There is strong potential for extension of operating life at or near nameplate capacity (240,000 tpa) with further conversion of high grade Mineral Resources into future mine planning scenarios.

Material				F - All Stages		FS		Total	
				Quantity MT	Grade %Cg	Quantity MT	Grade %Cg	Quantity MT	Grade %Cg
Ore	Proved	HG	fresh	21.9	5.4	3.3	5.6	25.2	5.4
		MG	fresh	11.7	4.3	0.2	3.6	11.9	4.3
		LG	fresh	13.4	3.5	0	0	13.4	3.5
	Total			47	4.6	3.5	5.5	50.5	4.6
	Probable	HG	fresh	13.4	5.9	3.5	5.2	16.9	5.7
		MG	fresh	3.7	4.3	0.8	3.7	4.5	4.2
		LG	fresh	4.4	3.5	0	0	4.4	3.5
	Total			21.5	5.1	4.3	4.9	25.7	5.1
	Total Proved + Probable			68.5	4.8	7.8	5.2	76.3	4.8
Waste	MW		fresh	18.1	2.5	0.6	2.6	18.7	2.5
	Other		oxide	15.9	-	3.1	-	19	-
			fresh	66.9	-	10.8	-	77.8	-
	Total			101	-	14.5	-	115.5	-
Total Ore & Waste			oxide	15.9	-	3.1	-	19	-
			fresh	153.5	-	19.3	-	172.7	-
Stripping Ratio				1.5		1.9		1.5	

Table 2: Nachu Graphite Project Ore Reserve Estimate by Block

Exceptional processing and cell test results for lithium-ion battery use

Lithium-ion battery anode product development

Magnis has jointly undertaken qualification of its graphite product offering with a number of prospective end users and supply chain partners.

The stated objectives of Magnis' qualification work were to demonstrate the ability to commercially produce a high performance anode graphite which meets or exceeds end user specifications. Important aspects of the qualification included:

1. Eliminating the use of toxic acids in the purification process (chemical purification);
2. Reducing the carbon footprint of the entire supply chain; and
3. Utilising existing commercially available technology to ensure the results are replicable and that large scale production can be achieved quickly.

Nachu anode product

Magnis has produced a >99.95% purity coated spherical graphite anode product from Nachu graphite using existing commercial scale technology and facilities in North America. The production of this anode product did not require any chemical purification phase with acid

treatment (HCl/HF). The anode product also delivered outstanding battery cell test results, with favourable performance across key criteria relative to leading Chinese natural and synthetic graphite anodes.

The ability to achieve this outcome is driven by the particular crystalline structure and low in-situ impurities within the Nachu mineralisation.

By alleviating the need for intensive chemical or thermal purification to be undertaken in China (where the overwhelming majority of such graphite processing occurs), Magnis has presented the viability of an alternative supply chain to that which currently exists. It also delivers the clear potential for Magnis to be amongst the lowest cost anode producers with one of the smallest environmental footprints globally.

The use of existing technology and commercial facilities is also highly significant in that it delivers replicable results that could be scaled up quickly at low cost in North America and other geographic regions in close proximity to a range of different end users.

Latest battery test results

The most recent lithium-ion battery tests on Nachu anode product (>99.95% coated spherical graphite) delivered the following results:

- Tap density = 1.21 g/cc
- Compressed density = 1.75 g/cc
- BET = 1.908 m²/g
- Total Ash < 0.05 %
- First cycle efficiency = 95%
- First charge capacity = 354 mAh/g

These results see the Nachu anode product compare favourably with the leading Chinese natural and synthetic graphite anode products.

The results demonstrate the ability of Magnis to produce battery grade anode material from Nachu graphite feedstock, without the use of chemicals and toxic acids and utilising solely existing commercial scale technology. This important milestone illustrates the viability of a greener and lower cost supply chain for graphite anodes in lithium-ion batteries.

End user product qualification with potential offtake partners continues to progress.

Demerger of Uranium Assets

During the quarter, Magnis announced plans to divest the Company's non-core uranium assets. This action provides an opportunity to unlock additional value for Magnis shareholders whilst also enable maintenance of a primary focus on the development of the world class NGP.

The Board proposed that a resolution be put forward to shareholders at an Extraordinary General Meeting (EGM) on 5 April 2016 to approve the demerger of the uranium assets into another vehicle, with all shares received by Magnis as consideration being distributed to shareholders via an in specie distribution.

The EGM was held post quarter end and the resolution was passed. Subsequently the uranium assets have demerged into Uranium Africa Limited, which is a public but non ASX listed company.

Capital Raising and Funding

On 12 February 2016, the Company announced a placement of 8,571,429 shares at \$0.35 per share to raise \$3.0M. This funding was directed at completion of BFS work and further progressing the development of the NGP. The offer was subscribed by sophisticated and institutional investors based locally and overseas.

Further funds were raised throughout the quarter via listed options being exercised. Subsequent to the quarter end, in excess of \$3.0M has been raised through the exercise of listed and unlisted options as reported to the ASX in the relevant Appendix 3B statements.

S&P Dow Jones/ASX Indices Inclusion

On 11 March 2016, S&P Dow Jones Indices announced the March 2016 quarterly rebalance of the S&P/ASX Indices. At this rebalance the entire S&P/ASX index hierarchy was reviewed, including the All Ordinaries Index. For the first time, Magnis was included in the All Ordinaries Index as at 18 March 2016 post market close.

Dr Frank Houllis, Chief Executive Officer
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Competent Person's Statement

Information in this report that relates to Exploration activities and Exploration results is based on information compiled by Mr Brent Laws, a Competent Person who is a registered Member of the Australasian Institute of Mining & Metallurgy. Mr Laws is a full time employee of Magnis Resources Limited and 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 by the 2012 Edition of the Australasian Code for reporting of Exploration Results. Mr Laws consents to the inclusion of the data in the form and context in which it appears.

The information in this report that relates to the Mineral Resources is based on information compiled by Mr A Proudman, a Competent Person who is a Fellow and Chartered Professional Geology of the Australian Institute of Mining and Metallurgy. Mr Proudman is employed by AMC Consultants Pty Ltd. Mr Proudman has no financial interests in Magnis Resources Limited and is independent of the company. Mr Proudman has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr A Proudman consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

The information in this report that relates to Ore Reserves is based on information reviewed or work undertaken by Mr Carel Moormann, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Moormann is a Principal Engineer employed by Orelogy Pty Ltd. Mr Moormann has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the preparation of mining studies to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Moormann consents to the inclusion of this information in the form and context in which it appears in this report.

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. 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 mineralization 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 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 mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Sampling is by Reverse Circulation (RC) and HQ3 Diamond (DD) drillholes. Some DD have twinned existing RC holes for lithology and grade verification, and structural data. RC samples collected at 1m intervals and either run through an on-board cone splitter for 2015 (recent) drilling or riffle split for pre 2015 (earlier) drill programs to obtain an A sample for analysis and a B sample for QAQC verification. Samples are submitted for LECO analyses as well as for ICP Multi-element analyses. The recovered DD core was cut lengthwise with a rock saw to produce 1 m samples. Where lithological boundaries did not fit the 1m geometry, the sample length was to be a minimum of 0.5m or a maximum of 1.5m. Core was halved for normal analyses. In the case of duplicate analyses (5% of samples submitted), the core was quartered. The remaining core is retained in stratigraphic sequence in the core trays.
Drilling techniques	<ul style="list-style-type: none"> 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.). 	<ul style="list-style-type: none"> The RC drilling was completed at 5 1/2 inch diameter using a Schramm 450 drill rig. The core drilling was completed with a Christensen CS -1400 drilling rig. The drilling equipment was HQ3 (triple tube) sized. All core holes if not vertical are orientated to facilitate structural measurements. Drilling is planned to optimally intersect the target horizon as close as possible to perpendicular.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> RC samples are weighed as recovered and after splitting to assess the reliability of the splitting process. RC chip specimens are collected in chip trays. Core recovery measurements are recorded for every borehole. To date no discernible loss has been noted with sample recovery processes.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All holes drilled are logged in full and sampled by the site geologists. All the logged information which includes depth, lithology, mineral assemblage, Cg mineralization (laboratory data), collar survey and geology are recorded in the field logging sheets and in digital format. The entire core is recorded in sequence as digital photographs.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> RC samples are routinely being taken in 1m intervals via a dry and regularly cleaned cyclone and 1/8th split using a cone splitter for recent drilling in order to obtain an A sample for analysis and a duplicate B sample. The core is split by saw and half core is submitted for analyses generally as 1 m samples. When a duplicate sample is submitted, the core is quartered. Samples are submitted for LECO analyses as well as for ICP Multi-element analyses. Within the total samples dispatched a random sequence of 5 % each of standards, blanks and duplicates were included. Sample preparation is done by ALS in Mwanza (Tanzania), before the prepared samples are shipped to ALS in Brisbane for content determination. Sampling procedure include drying, crushing, splitting and pulverizing ensures that 85% of the sample is 75 micron or less in size. A split of the sample was analysed using a LECO analyser to determine carbon in graphite content.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> All samples are labelled with a unique sequential number with a sample ledger recording all samples. Samples are analysed under the ALS code C-IR18 (Graphitic Carbon by LECO, Brisbane). For the RC cuttings the multi-element analysis is coded ME-ICP41 (35 Element Aqua Regia ICP AES, Brisbane). QA/QC samples are included in a random sequence at a frequency of 5 % each for standards, blanks and duplicates. Results indicate acceptable levels of accuracy and precision are achieved. The laboratory uses internal standards in addition to the standards, blanks and duplicates inserted by Magnis Resources Limited and parties related to Magnis Resources Limited. The standards are supplied by an external and independent third party. The blanks are made from non-graphitic rock outcrop in the vicinity of the project area. The duplicates are a B sample selected from within the drilling sequence. The detection limits are deemed sufficient for the purpose of future Mineral Resource estimation.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> External overview of Magnis Resources Limited and parties related to Magnis Resources Limited field geologists is by an external consultant who regularly assess on site standards and practices to maintain consistent practice. The twinning of some RC boreholes by DD was completed and was used to verify sampling validity. The primary data is collected using a logging and sampling data collection system allowing full security of collected data stored in company offices in Dar Es Salaam, Adelaide, and Sydney. Assay data has not been adjusted.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> A hand-held GPS was used to site the drill holes (Easting, Northing and RL with a horizontal accuracy of +/- 5 metres) and reported using ARC 1960 grid and UTM datum zone 37 south grid for Blocks B,D and J, and using WGS84 grid and UTM datum zone 37 south grid for Blocks F and FSL. Blocks B, D and J will be moved to WGS84 grid with their next estimations. All drill holes have had the location verified and surveyed using an independent surveyor with a differential GPS (Trimble R8 GNSS instrument). Topographic control is excellent due to the high resolution DTM survey completed in 2014 by Southern Mapping with a high level of accuracy required for project construction planning. The dip and azimuth of the all holes were measured using a Reflex ACTII down-hole survey tool.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> The spacing of RC drilled holes is a nominal grid of 100m x 100m or up to 200m x 200m for tabular zones of mineralization Drilling programs have included further infill drilling to a nominal 100m x 100m spaced grid in order to confirm an increased confidence in geological continuity, structure and mineralization. Compositing to 1 m was applied to exploration data for Mineral Resource estimation.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> From recent geotechnical evaluation and surface mapping regional foliation is varied but an overall dip at low angles of between 5 and 15 degrees to the west and 15 to 30 degrees in the east. 3D modelling of the 2014 EM highlighted structural domains allowing greater accuracy in drilling orientation which has been followed up by downhole acoustic televiewer logging for greater definition and accuracy of foliation and structure angles and directions. EM survey modelling had Block D interpreted as shallow angled rolling horizons. Vertical drillholes are appropriate to target mineralization in Block D EM survey data modelling for Blocks B, F & J have interpreted antiform structures with shallow dipping horizons away from the hinge zone. All holes were orientated with a dip and azimuth to intersect the mineralization perpendicular to strike and across the dip of the mineralization or to investigate and confirm the geological model.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> The samples are split and packed at the drill site and sealed prior to daily transport to the field office in Ruangwa, which has 24 hour security, prior to transport by locked commercial truck carrier to ALS Mwanza. ALS ships the sealed samples after preparation to Brisbane. The remaining B samples and core are kept at the manned site sample storage facility and the Ruangwa office.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of 	<ul style="list-style-type: none"> The 2014 Mineral Resource estimation was undertaken by

Criteria	JORC Code explanation	Commentary
	<i>sampling techniques and data.</i>	independent consultants AMC Consultants Pty Ltd (AMC) who completed a site visit at the time. The sampling protocol was observed to conform to industry standards. AMC completed the 2016 Mineral Resource Estimate.

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 style="list-style-type: none"> 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 license to operate in the area. 	<ul style="list-style-type: none"> The prospecting license PL 9076/2013 was granted (renewal) on 12 April 2013 and is current to April 2017 upon which the standard renewal process will be required. The area covered by the prospecting license is 198.57 km². On 9 September 2015 Special Mining Licence SML 550/2015 was granted for a period of 16 years over 29.77 km² of PL 9076/2013, covering a suitable area required for mine development including the resource areas of Blocks F, FSL, J and B. The SML and PL are situated in the Ruangwa District of south-east Tanzania. The PL is held by Uranex Tanzania Ltd. and is not subject to joint venture agreements, third parties, royalties or partnerships. The surface area is administered by the Government as native title. The area is rural, with wilderness areas and subsistence farming occurring on the PL. The tenements are in good standing with no known impositions.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> No exploration for graphite has been done by other parties in this area. Some gemstone diggings for tourmaline are present in the PL.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralization. 	<ul style="list-style-type: none"> The Nachu project is situated in graphitic schist with associated dolomites and gneisses. The majority of EM modelling and geological intercepts indicate open folded anticlines with various dips to fold limbs in each resource Block. The graphite mineralization is mostly associated with the schist, and is metamorphic (meta-sedimentary) in origin.
Drill hole Information	<ul style="list-style-type: none"> 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 style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No material information has been deliberately excluded. <ul style="list-style-type: none"> A table of recent drillholes and drill holes transferred to WGS 84 zone 37 south grid including coordinates, dip and azimuth was included as an appendix in ASX release on 1st February 2016 titled Nachu Graphite Project Updated Mineral Resource. Earlier drilling for Blocks B, D, and J were previously reported in 2015.
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Significant intercepts when reported based on a 5% cut-off with a minimum length of 5 m which has an allowable maximum 2m of internal low grade material. All significant intercepts are generated using Micromine software's automated advanced grade compositing function. Higher grade significant intercepts are reported based on a 10% GC cut-off with a minimum length of 2m with no internal low grade material. All significant intercepts are generated using Micromine software's automated advanced grade compositing function.
Relationship between mineralization widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralization 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'). 	<ul style="list-style-type: none"> The majority of EM modelling and geological intercepts indicate folded anticlines of various limb dips in each key resource Block. Holes were vertical or orientated towards an azimuth so as to intersect the mineralization in a perpendicular manner.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should 	<ul style="list-style-type: none"> Block plans included in this report show the distribution of the RC and DD boreholes.

Criteria	JORC Code explanation	Commentary
	<i>include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Any and all reported intervals are downhole intervals from drilling aimed at being as perpendicular to mineralization as practical.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The electro-magnetic survey has been processed with data used to target mineralization in the most efficient and representative manner. The regional mapping was combined with the lithological and quality information from the drill holes, to provide a structural framework around which mineral envelopes were modelled. Metallurgical testing is continually ongoing with test work currently focused on the Block F area using representative downhole composites of similar lithological composition, grade and mineralization characteristics.
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Further infill and extension drilling is possible with an aim to further increase resource confidence over a larger area or to expand on known extents of mineralization. More than 800 Ha of potential target area has been identified. Umpire samples have been routinely dispatched to a third party laboratory. The samples for metallurgy are routinely sent to the laboratories and interested parties.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database Integrity	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drillhole coordinates were plotted on plan maps to identify errors. Drill sections were produced to match collar dips and azimuths. Checks undertaken include but are not limited to: <ul style="list-style-type: none"> All collar co-ordinates within the permit area. No duplicate drillholes. No overlapping FROM and TO intervals in the geology and assay tables. Downhole survey dip and bearing angles appear reasonable. No duplicate records. No anomalous assay values.
Site Visits	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A site visit was undertaken by the competent person in August 2014 and therefore not considered necessary for the 2016 update. In 2014 one diamond drill rig and two RC drill rigs were seen in operation. Graphitic materials were observed in outcrop and in drill samples. Drill core, core handling facilities and sample storage facilities were inspected. Photographic imagery of the diamond drillcore was sighted.
Geological Interpretation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Geological interpretations are based on drillhole data, interpretations of geotechnical evaluations, EM geophysical measurements and graphitic outcrop data. The orientation of the interpreted geological trends, and the continuity in grade observed were used to generate the interpretation of mineralization. The strata containing mineralization has formed in continuous layers during deposition separated by and inter-tonguing layers of sub-economic grade and interpretation of corresponding mineralized strata in adjacent holes may align differently from that interpreted. Particularly where potential grade trends differ from other supporting data. However, given the nature and extent of continuity of mineralization, this is unlikely to have significant effect on the Mineral Resource estimation. Collection of more drilling data including orientated data should continue to validate the interpretation. New drill data will be collected and collated using current procedures aligned with industry standards.
Dimensions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Nachu deposit comprises five mineralized areas, being Blocks B, D, F, F South Limb, and J. These deposit cover a combined strike length of 5.5 km and an average plan width of up to 300 m for B,D,J, F South and 800 m for F (often comprising multiple mineralized horizons separated by barren or low grade horizons), to depths between 150 m and 250 m below surface.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The mineralization occurs at or near surface.
Estimation and Modelling Techniques	<ul style="list-style-type: none"> 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 & parameters. 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. sulfur for AMD 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 drillhole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> The Mineral Resource Estimates for Block B, D and J are unchanged since 2014. Block FSL has no new data and has been estimated with the dataset translated to the WGS84 grid system. There is no material change. Block F has been re-estimated including data from drilling completed in 2015 and the dataset translated to WGS84 grid system For F Block statistical review and variography has been undertaken using Visor and GeoAccess software. The estimation method was a block model using Ordinary Kriging (OK) of graphitic carbon (GC), with parent cell estimation, using octants and a discretization of 4x4x2. This method is considered appropriate for the relatively consistent nature and grade of mineralization. The grade estimation has been undertaken using Datamine Studio 3 software. The cell model block size was 10 x 40 x 2 m in easting, northing and vertical directions with sub-celling. This is considered suitable for the relatively flat, open folded and relatively narrow mineralized lodes. Dynamic anisotropy has been used to adjust the search orientation during the grade estimation and honour bedding orientation in folded zones. The estimation has used hard boundaries. A top-cap of 15% GC was applied in the western fold limb of Area F in the mineralized domains. No top-caps were required to be applied to any other Blocks estimated. Cell model estimates were compared statistically and visually to the drillhole assay data.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Tonnage estimated is based on dry tonnes. Bulk density samples were oven dried.
Cut-off Parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> Geological interpretation and mineralization has good grade continuity on a nominal 1.8% GC cut-off. Mineral Resource estimates used 3% GC cut-off for reporting.
Mining Factors or Assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> It has been assumed that the mineralization will be amenable to open-pit mining due to: <ul style="list-style-type: none"> the shallow nature of the lodes near surface, the generally flat or shallow dipping orientation of the lodes, the thickness of the lodes, the consistent grades, and Tanzanian mining costs are typically \$2.50 to \$3.50 per tonne.
Metallurgical Factors or Assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A significant amount of metallurgical test work has been completed to date showing favourable treatment processes and product marketability. Test results from initial qualification work of Nachu graphite as feedstock for lithium-ion battery anode production showed micronised coated graphite, upgraded to 99.8%TGC without any chemical or thermal purification, achieved first cycle efficiency rate of 97.1% equating to a loss of only 2.9% and is an improvement of 42% over synthetic graphite. 87% of flake graphite is in Large (+180-300 microns), Jumbo (+300-500 microns) or Super Jumbo (+500 microns) categories with repeatable results in Blocks F and FSL. No deleterious elements present.
Environmental Factors or Assumptions	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> The Nachu Graphite Project has been issued with an Environmental Certificate from the National Environment Management Council of Tanzania based on the Environmental Impact Study completed to International Finance Corporation standards. Subsequently Special Mining Licence SML 550/2015 has been granted for the Nachu Graphite Project. Ongoing environmental and social

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	impact programs will continue as per licensing agreements.
Bulk Density	<ul style="list-style-type: none"> 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 (vughs, 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. 	<ul style="list-style-type: none"> Density measurements generally use dry weight and the measured dimensions of the core sample collected. Recent drilling at F Block has also used the immersion method The methods of density measurement are suitable to the rock type and style of mineralization. 941 bulk density measurements were recorded within mineralized rock types. Bulk densities used were based on the average bulk densities for oxide and primary rock in each area.
Classification	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Mineral Resource classification criteria and cut-off grades used are based on: <ul style="list-style-type: none"> Drill spacing. Proximity of mineralization to surface. Potential mining methods. Assumed processing and recovery values based on preliminary test work. The Nachu Mineral Resource is classified as a combination of Measured, Indicated and Inferred Mineral Resources. The Competent Person is satisfied that the classification appropriately reflects what is currently known about the continuity of geology and mineralization, considering the available local results and regional setting and style of mineralization.
Audits or Reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource Estimates. 	<ul style="list-style-type: none"> There have been no internal or external audits completed to date.
Discussion of Relative Accuracy/ Confidence	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drilling has been carried out using drilling methods considered reliable for sample collection. Assaying has been to industry standard. There is sufficient data to undertake geostatistical assessment and incorporate variography into the estimation techniques. Given the continuity of the deposit geology and mineralization and relatively consistent grades an indicator kriged method of GC estimation was considered appropriate. The accuracy of the model has been reviewed against the drilling data using statistical comparison, visual review and sectional comparisons - swath plots. Statistical review shows smoothing within the model and accurate replication of the global average grade. Visual assessment shows the distribution of block grades in the model reasonably reflect the distribution and trends of grades in the mineralized envelopes. Sectional comparison of drillhole and block model grades in 100 m wide E-W and N-S windows and 20 m high layers show strong correlation between the two sets of data. The volume in each window reflects the relative drillhole data density when compared with other windows. The global estimate of tonnes and grade for each block and the confidence level for each zone within the block is considered accurate.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i>	The Mineral Resource Estimate used as a basis for the conversion to the Ore Reserve was published by Magnis Resources on 1st February 2016 with Mr Andrew Proudman of AMC Consultants Pty Ltd as the Competent Person. It reported 174Mt at 5.4% graphitic carbon (Cg) including Measured, Indicated and Inferred materials for all Blocks (B, D, F, FS & J) at a 3.0% Cg cut-off.

Criteria	JORC Code explanation	Commentary
		Only F and FS blocks have been included in the Ore Reserve estimate. The Measured, Indicated and Inferred resource materials of these blocks, at a 3% Cg cut-off, were reported as 133.3Mt with a grade of 4.9% Cg.
	<i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i>	The Mineral Resources are reported inclusive of the Ore Reserves.
Site visits	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	<p>The Competent Person (Mr Carel Moormann) has visited the Nachu project site in December 2014. The following observations were made:</p> <ul style="list-style-type: none"> • Mtwara is the nearest sizable regional centre. It has port and airport infrastructure. The port facilities are suitable for concentrate export. • From Mtwara the Nachu site is accessible via sealed and unsealed roads. The unsealed roads will require upgrading to allow uninterrupted concentrate transport. • Apart from road access there is no other infrastructure such as power or water supply. • Several villages / communities are located in the project area but overall the area is not heavily populated. The main villages will not be materially impacted by the project; however relocation of a small number of dwellings that will be affected by the operation is expected. • The project area is covered with vegetation and some parts are utilized for growing food crops. Differences in elevation are moderate with no steep slopes or inaccessible ridges hence site establishment and accessing mining areas are not expected to be difficult. • Weathering depth varies. Highly weathered materials have high clay contents. This is likely to affect the haulage efficiency of the mining fleet and needs to be included in mine planning consideration. • Diamond drill core showed that fresh rock is competent without signs of adverse conditions that could affect slope stability or drilling and blasting requirements. • Some sulphides were observed in some parts of the diamond drill core.
Study status	<i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i>	A Bankable Feasibility Study for the F and FS Blocks of the project was the basis for the conversion of Resources to Reserves. The study was compiled by Logiman and Sedgman in March 2016.
	<i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i>	<p>The Bankable Feasibility Study was underpinned by a mine plan that was based on the Measured and Indicated resource materials of the F and FS Blocks. Mine planning included pit optimisations, pit designs, mining and processing scheduling, cost estimations and the analyses to ensure the project is technical achievable and economically viable.</p> <p>Slope design criteria, mining dilution, ore loss and processing recoveries were applied in the pit optimisation process together with mining, processing and concentrate transport cost estimates, concentrate pricing and royalty estimates to generate optimised pit shells which form the basis for pit designs and the mine plan.</p>
Cut-off parameters	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	<p>Only Measured and Indicated resource materials, modified for dilution and ore loss, were considered as potential ore in the pit optimisation process. The optimisation was restricted to the F and FS Blocks with graphitic carbon cut-off grades that aim for a 98% Cg concentrate grade at a production level of 240ktpa from a 5Mtpa concentrator.</p> <p>No ore or concentrate quality parameters were applied.</p>
Mining factors or assumptions	<i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i>	A Whittle 4X pit optimisation, including sensitivity analysis, was completed. Slope design criteria, mining dilution, ore loss and processing recoveries were applied in the pit optimisation process together with mining, processing and sales cost estimates and revenue projections to form the basis for pit designs and subsequent mining and processing schedules.
	<i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i>	<p>A conventional open pit mine method was chosen as the basis of the BFS due to the low strip ratio and the outcropping of ore at surface.</p> <p>Mine design criteria include: minimum mining width, ramp width and gradient, pit exit location and slope design parameters.</p> <p>A small scale mining fleet, utilising a fleet consisting of a single 90t excavator matched with 40t articulated dump trucks was selected to accommodate initial access, efficient mining of the</p>

Criteria	JORC Code explanation	Commentary
		high clay weathered materials and subsequent development of mining areas. Ramp widths and minimum mining widths allow for larger equipment after the initial pit development activities.
	<i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.</i>	Geotechnical design parameters were provided by PSM Engineering Consultants and applied to pit optimisations and pit designs. Grade control drilling patterns (10m x 10m) and sampling densities (2m lengths) were provided by Magnis, based in their in-house geological knowledge. A cost estimate was generated based on these assumptions and were applied in the pit optimisation and also to the mining schedule. Scheduling has identified that a pre stripping period of 5 months is required to achieve sustainable feed for the concentrator to operate at its scheduled capacity.
	<i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i>	Only Measured and Indicated resource materials, modified for dilution and ore loss, were considered as potential ore in the pit optimisation process. The optimisation was restricted to the F and FS Blocks with graphitic carbon cut-off grades that aim for a 98% Cg concentrate grade at a production level of 240ktpa from a 5Mtpa concentrator. Slope design criteria and processing recoveries were applied in the pit optimisation process together with mining, processing and sales cost estimates and revenue projections based on a concentrate production level of 240 ktpa, a grade of 98%, and a flake size distribution and product price assumptions as outlined in the Bankable Feasibility Study results (see below).
	<i>The mining dilution factors used.</i>	To allow for the effects of material mixing during blasting and the effects of ore-waste delineation inaccuracies in the pit, the resource models were re-blocked with smoothing to model mixing of materials. In addition an allowance for dilution and ore loss to edge blocks was applied. This method reduces the F Block Measured and Indicated resource materials from 98.8Mt @ 4.80%Cg to 94.7Mt @ 4.58%Cg and the FS Measured and Indicated resource materials from 9.2Mt @ 5.31%Cg to 8.7Mt @ 5.09%Cg (at 3%Cg cut-off). These reductions are a combination of dilution and ore loss.
	<i>The mining recovery factors used.</i>	See above.
	<i>Any minimum mining widths used.</i>	Designs and cutbacks have been designed to suit 100t excavators and 91t payload rigid dump trucks. <ul style="list-style-type: none"> • A minimum mining width of 20m. • Two way ramp width of 24m. • One way ramp width of 14m • Ramp gradient of 10%.
	<i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i>	No inferred Mineral Resources have been included in the Ore Reserve. Inferred Mineral Resource is treated as waste in the production schedule. An optimisation sensitivity including Inferred materials was undertaken primarily to identify future resource drilling opportunities and/or potential sterilisation requirements.
	<i>The infrastructure requirements of the selected mining methods.</i>	Contract mining is assumed and rates were sourced from a number of suitably qualified and experienced contracting groups. It was stipulated that all supporting infrastructure will be supplied and mobilised by the selected contractor with the costs reflected in their rates. The rates from the selected contractor were used in the pit optimisation and subsequently are applied to the schedule physicals for the mining cost estimate. The infrastructure includes fuel & oil storage facilities and fuel bay, workshops, wash bay, magazines and AN storage facility, offices, lunch and ablution facilities, a first aid room.
Metallurgical factors or assumptions	<i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i>	The concentrator plant utilises crushing, grinding and flotation technology to produce 240 ktpa of concentrate at a grade of 98%Cg, at a maximum plant feed rate of 5Mtpa The concentrate will be transported via public roads to the port of Mtwara. The concentrator process and process plant design was conducted by Logiman and Sedgman
	<i>Whether the metallurgical process is well-tested technology or novel in nature.</i>	The concentrator process utilised is common for the treatment of graphitic carbon ores and metallurgical laboratory test work undertaken by AMML has been used as a basis for the plant design. This underpins the confidence that the plant will meet expectations for throughput, recovery, concentrate grade and concentrate flake size.
	<i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the</i>	Metallurgical test work has been undertaken for the F and FS Blocks and also for other parts of the deposit. These test results, in terms of recovery and flake size, were relatively

Criteria	JORC Code explanation	Commentary
	<i>metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i>	consistent without any indication of the presence of variable metallurgical domains. This finding is also consistent with the observed uniformity of graphite mineralisation in diamond drill core and the resulting absence of any interpreted geological domaining in the resource model.
	<i>Any assumptions or allowances made for deleterious elements.</i>	No deleterious elements have been observed or modelled.
	<i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole</i>	Metallurgical testing has been restricted to laboratory test work. Samples were obtained from F and FS Block diamond drill holes. No bulk sample or pilot scale test work was undertaken. Metallurgical test work covering several different Blocks within the deposit showed consistent results in terms of recovery and concentrate product quality (grade and flake size). Together with the uniformity of the mineralisation, and hence the absence of geological domains, it provides the confidence that the results are representative and underpin the assumptions for the reserve estimate.
	<i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet specifications?</i>	The reserve estimate was based on the graphitic carbon content rather than the total carbon content all the way through the value chain from drilling, assaying, resource estimation to metallurgical assessment. In addition the flake sizes in the concentrate have an important effect on the projected concentrate price. The anticipated concentrate flake size distribution for the project is based on, and in line with, the metallurgical test work results.
Environmental	<i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i>	Mining and processing at the Nachu project site will result in voids (mined out pits), waste dumps and a tailings storage facility which are subject to normal rehabilitation and mine closure planning. The footprint for mining and processing of F and FS blocks are at some distance from the nearest villages. However relocation (and compensation) of a small number of individual dwellings will be required and compensation for loss of agricultural land will also have to be negotiated. Waste rock and tailings characterisation analysis has been undertaken as part of the Environmental Impact Assessment (EIA). Some sulphides were observed in the diamond drill core and the minimal risks of acid drainage have been assessed in the waste rock characterisation analysis.
Infrastructure	<i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i>	The only current infrastructure in the area of the project is road access. A proportion of the access roads are not sealed and will require upgrading to facilitate the transport of the 240 kt of concentrate produced. Grid power supply is planned for the project. The project water supply will primarily be from surface harvesting of water on the project site during the wet season. A dynamic water balance was completed by Knight Piesold Pty Ltd. Unskilled labour is available from villages in the region. Permanent accommodation facilities are planned for skilled labour including a small number of expatriates.
Costs	<i>The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs.</i>	All costs have been estimated to cover the mining, processing and concentrate transport activities of the F and FS Block reserves. These costs were estimated in US dollars, as at February 2016. As the Base Case assumes contract mining, there are no mining capital costs aside from a pre-production mining expenditure that has been capitalised. The preproduction mining expenditure is an engineering estimate based on scheduled quantities and contract rates. The initial capital cost estimates are limited to, and based, on: <ul style="list-style-type: none"> road upgrade cost estimate by UWP Pty Ltd processing plant design by Logiman and Sedgman costs based on: <ul style="list-style-type: none"> quotes for labour, steel & concrete engineering estimates for remainder to construct the plant. tailings dam design by KnightPiesold, earthworks costs by quotation. power plant design, CAPEX and OPEX by Logiman water supply design by Knight Piesold, cost estimates & quotes by Logiman. accommodation arrangement cost estimates & quotes by Logiman. The mining operating costs are based on price estimates provided by Orelogy and based on prices submitted by a range of mining contractors. Processing operating costs have been generated by Logiman based on estimates for reagents, manpower and electricity

Criteria	JORC Code explanation	Commentary																									
		usage and their prices while maintenance expenditure was factored. Concentrate transport costs (to port of Mtwara) have been quoted by Tanzania based transport companies and shipping costs were from a shipping study by MMG Maritime and DSM Corridor Group (Tanzania).																									
	<i>Allowances made for the content of deleterious elements.</i>	As no deleterious elements have been identified, no allowance was made for this.																									
	<i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</i>	<p>The basket price of \$2,400/t of concentrate product is based on the following flake size distribution, concentrate grade and concentrate price estimates sourced from graphite industry experts (Industry Minerals) and Nachu concentrate off-take parties.</p> <table><tr><th>Product</th><th>Quantity (tpa)</th><th>Size (µ)</th><th>Price (\$/t)</th><th>Revenue (\$M)</th></tr><tr><td>Super Jumbo</td><td>21,600</td><td>>500</td><td>\$4,000</td><td>\$86</td></tr><tr><td>Jumbo</td><td>76,800</td><td>300-500</td><td>\$2,500</td><td>\$192</td></tr><tr><td>Rest</td><td>141,600</td><td>38-300</td><td>\$2,125</td><td>\$300</td></tr><tr><td>Total</td><td>240,000t</td><td>38 - >500</td><td>\$2,400</td><td>\$580</td></tr></table>	Product	Quantity (tpa)	Size (µ)	Price (\$/t)	Revenue (\$M)	Super Jumbo	21,600	>500	\$4,000	\$86	Jumbo	76,800	300-500	\$2,500	\$192	Rest	141,600	38-300	\$2,125	\$300	Total	240,000t	38 - >500	\$2,400	\$580
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Total	240,000t	38 - >500	\$2,400	\$580																							
	<i>Derivation of transportation charges.</i>	Concentrate transport costs (to port of Mtwara) have been quoted by Tanzania based transport companies and shipping costs were from a shipping study by MMG Maritime and DSM Corridor Group (Tanzania).																									
	<i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i>	A concentrate treatment charge was applied to allow for screening into the required size fraction. This charge was estimated by Logiman. The price of the concentrate varies with its flake size distribution and no deleterious elements have been identified that could result in penalties.																									
	<i>The allowances made for royalties payable, both Government and private.</i>	A 3% government royalty allowance and a district service levy of 0.3% was applied to the price.																									
Revenue factors	<i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i>	<p>The factors that affect the revenue are:</p> <ul style="list-style-type: none">the resource graphitic carbon grade adjusted for dilution.the processing recovery.the concentrate grade.the flake size distribution in the concentrate.the concentrate prices for varying flake sizes.government royalties. <p>Prices and costs are all in US dollars without exchange rate factoring.</p>																									
	<i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i>	The basket price of \$2,400 of concentrate product is based on the flake size distribution and concentrate price estimates sourced from graphite industry experts (Industry Minerals) and Nachu concentrate off-take parties.																									
Market assessment	<i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i>	Binding off-take agreements have been signed with Sinosteel Liaoning and SINOMA. The Sinosteel agreement is for 100,000tpa and 10 years with a 5 year extension option while the SINOMA arrangement is for 80,000tpa over a 5 year term. Securing these two off-take arrangements is the basis for the assumption of a stable concentrate market over the duration of the project and its associated viability. These two off-takes account for 75% of the concentrate production over the first 5 years of operation and ~60% of the first 10 year. The securing of these off-take arrangements was made possible because of the high quality (flake size / grade) of the concentrate product. No specific demand, supply and stock analysis have been used to justify the project. However broker analyses are available (refer to the Magnis web site).																									
Economic	<i>A customer and competitor analysis along with the identification of likely market windows for the product.</i>	The market for graphitic carbon is constrained and relatively opaque and therefore obtaining off-take is a crucial mitigation against this uncertainty. Feasibility studies for several other projects are being undertaken by other companies at present. However the Nachu Project is relatively advanced in comparative terms and therefore well positioned to beat their competitors to market.																									
	<i>Price and volume forecasts and the basis for these forecasts.</i>	The price of the concentrate product is \$2,400 per tonne of concentrate at a production rate of 240,000 tonnes per annum over the duration of the project, underpinned by two off-take agreements.																									
	<i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i>	<p>The inputs to the economic analysis are:</p> <ul style="list-style-type: none">The mining, processing and concentrate production schedule.																									

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • The capital and operating expenses necessary to meet the schedule. • The price for the concentrate produced. • Shipping costs. • Royalties. • Tax. <p>These provide for annual cashflow estimates which then can be discounted. The discount factor has been set at 10%. However there is no allowance for the cost of finance. This cost was not available at the time of the analysis. All revenues and costs are in January 2016 US dollars without consideration for inflation.</p>
	<i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i>	<p>Financial analysis indicates that a:</p> <ul style="list-style-type: none"> • 30% increase in capital expenditure results in a 1.5% reduction in NPV. • 30% increase in operational costs results in a 5% reduction in NPV. • 30% concentrate price decrease results in a 50% reduction in NPV. <p>Although these sensitivities are calculated in a different manner to the pit optimisation sensitivities, the optimisation provided similar results.</p> <p>The optimisation sensitivities also indicate that the optimum shell size is relatively robust, being relatively insensitive to cost variations and only somewhat sensitive to concentrate price variations. Therefore the associated pit designs can also be considered similarly robust.</p>
Social	<i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i>	<p>Digby Wells Environmental was appointed to assist Magnis to manage the Environmental Impact Assessment. The EIA is the key process that leads to a social licence to operate and was completed in June 2015 with environmental certificate approval in September 2015.</p> <p>A Resettlement Action Plan has been completed and the final valuation of project affected land has commenced. The valuation was conducted by Government Valuers and Company contracted Valuers. Once approved by the Chief Valuer this will form the basis of all compensation payments</p> <p>Corporate Social Responsibility agreements are being discussed with the various government bodies and it is expected a comprehensive agreement will be signed soon.</p>
Other	<i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves.</i>	
Classification	<i>Any identified material naturally occurring risks.</i>	<p>The risk of large scale pit wall failure occurring is low if the pit slopes are excavated as per design and the pre-split drilling and blasting activities allowed for in the mine plan are adhered to. The consequences of such an unlikely event will result in some extra mining costs but unlikely to prevent extraction of the scheduled ore to any significant degree.</p> <p>The risks of large scale pit flooding impacting on the performance of the project is low given the lack of structural aquifers in the project area and the proposed management of surface run-off. Also the presence of a Run of Mine (RoM) ore stockpile will mitigate any potential mining delays. Acceptable risk levels can be achieved by adopting appropriate pit dewatering capacity and surface drainage designs.</p> <p>Rainfall variability has been considered in the dynamic water balance.</p>
	<i>The status of material legal agreements and marketing arrangements.</i>	<p>The environmental certificate, Special Mining Licence and Mineral Development Agreements have been granted by the government</p> <p>Concentrate product off-take agreements are in place.</p> <p>The following arrangements are still to be finalised:</p> <ul style="list-style-type: none"> • Service contracts for mining • concentrate transport, ship loading • security and operating of accommodation facilities <p>These will be tendered once the Magnis board approves the commencement of the development.</p>
	<i>The status of government agreements and approvals critical to the viability of the project, such as mineral tenement status and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent</i>	<p>Digby Wells Environmental was appointed to assist Magnis to manage the Environmental Impact Assessment with the work completed in June 2015.</p> <p>The Pre-Feasibility Study, completed in December 2014, was the other key input to gaining government mining approvals.</p>

Criteria	JORC Code explanation	Commentary
	<i>on a third part on which extraction of the reserve is contingent.</i>	
	<i>The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i>	Proven ore reserves were determined from Measured resources and Probable reserves from Indicated resource materials. This is in line with the geological knowledge available and appropriate application of economic and mining parameters. Approximately $\frac{2}{3}$ of the reserves are Proven and $\frac{1}{3}$ are Probable.