Magnis Resources
LIMITED

FOR RELEASE
26 November 2014

NACHU GRAPHITE PROJECT MAIDEN MINERAL RESOURCE

- **Maiden Mineral Resource Estimate of 156 Mt at 5.2% graphitic carbon (Cg) at 3% Cg cut-off grade**
- **Mineral Resource is inclusive of a total of 104 Mt Measured and Indicated Mineral Resource**
- **66% of Mineral Resource in Measured and Indicated Mineral Resource**
- **Mineral Resource contains over 8 Mt of contained graphite**
- **Mineral Resource from 2% of Nachu tenement land area**
- **Metallurgical results support the Nachu Graphite Project as being one of the largest deposits of Large and Jumbo flake graphite in the world**
- **Pre-Feasibility Study (PFS) on track for December 2014**

Magnis Resources Limited (ASX:MNS) is pleased to declare its maiden Mineral Resource Estimate for the Nachu Graphite Project in Tanzania.

The total Mineral Resource Estimate comprises 156 Million Tonnes (Mt) at an estimated grade of 5.2% Graphitic Carbon (Cg) classified as either Measured, Indicated or Inferred Resources 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).

CEO Dr Frank Houllis commented: "The maiden Mineral Resource at Nachu is a significant milestone for Magnis and adds further weight to its commercial potential. With over 8 million tonnes of contained graphite from only 2% of the tenement that includes 66% of the Mineral Resource Estimate in Indicated and Measured categories cements Nachu as a world leader with the combination of a large deposit with highly desirable Large and Jumbo Flake graphite."

"The exploration team's delivery of this outstanding Mineral Resource, the metallurgical testing results and with the PFS nearing completion, the transformation of Nachu into a graphite producer is rapidly approaching. We also have environment assessments for future mining approval and continuing progress towards binding offtake agreements. I am proud of the 2014 achievements of the Nachu project team at Magnis."

Table 1: Nachu Graphite Project Global Mineral Resource Estimate as at 26 November 2014

Deposit	Category	Oxidation	Mt	%Cg
All Blocks >3% Cg	Measured	Oxide	0.2	5.2
		Primary	3.7	5.6
	Indicated	Oxide	4	5.5
		Primary	96	5.1
	Inferred	Oxide	2	5.6
		Primary	51	5.7
Sub Total	All Categories	Oxide	6	5.4
		Primary	150	5.2
All	**All Categories**	**All**	**156**	**5.2**

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

Table 2: Nachu Graphite Project Mineral Resource Estimate by Block

Block			B		D		F		FSL		J	
		COG	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade	Tonnage	Grade
		%Cg	Mt	%Cg	Mt	%Cg	Mt	%Cg	Mt	%Cg	Mt	%Cg
Measured	Oxide	3.0							0.2	5.2		
	Primary	3.0							3.7	5.6		
Indicated	Oxide	3.0	0.2	6.5			3	4.8	0.2	5.4	0.7	8.3
	Primary	3.0	6.6	6.3			75	4.7	4.9	5.1	9	8.1
Inferred	Oxide	3.0	0.1	5	0.7	5.9	1	5.1	0.01	3.2	0.04	10.1
	Primary	3.0	0.8	5	19.5	5.9	27	5	0.9	4.2	3.2	10.2
Sub Total			**7.6**	**6.1**	**20.2**	**5.9**	**106**	**4.8**	**9.8**	**5.2**	**12.9**	**8.6**

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

Mineral Resource Estimate

The Mineral Resource Estimate was carried out by independent mining consultancy AMC Consultants Pty Ltd (AMC).

The maiden Mineral Resource Estimate with 3.9 Mt in the Measured and 100 Mt in the Indicated Resource category represents one of the largest Mineral Resources of Large flake graphite in the world. In particular, the Block F deposit is significant in size and complements the outstanding metallurgical results that have been previously released, including up to 88% of product in Jumbo and Large flake graphite categories. Block F is also the origin of the ore used to generate the marketing samples of graphite concentrate for offtake parties. These marketing samples were generated using basic flotation in 60 litre cells and consistently measured above 94% Cg with recoveries exceeding 96%.

The combination of the Mineral Resource, favourable metallurgical results and signed MOUs demonstrate the significance of the high quality Nachu Graphite Project.

The Nachu tenement covers an area of approximately 199 km^2 in southern Tanzania, Figure 1. The Mineral Resource is split into 5 deposits (Block B, D, F, FSL & J) with mineralisation hosted in graphitic schist within a sequence of meta-sedimentary schists with minor un-mineralised dolomitic marble and gneisses within the greater Mozambique Metamorphic Belt. All deposits have mineralisation at or near surface. The modelled Mineral Resource depths vary between deposits with over 85% of the total Mineral Resource less than 150m from surface and no greater than 250m maximum depth. The distribution of the deposits within the Nachu tenement is shown in Figure 2 overlying the broader project electro-magnetic (EM) response pattern. The orientation of Mineral Resource modelling follows the generally shallowly dipping graphitic limbs of deposit scale open folding, various cross-sections and views of the modelled deposits are depicted in Figures 3 to 10 which are representative of each deposit. A highlight is the continuity of mineralisation along strike in all deposits in particular the 1.2km strike length of the broad central zone of Block F.

The Mineral Resource has been estimated within mineralised envelopes interpreted using geological data and a nominal 2% Cg grade outline. The Ordinary Kriging (OK) estimation method has been used to estimate the Cg grade for each cell within the mineralised envelopes. Dynamic anisotropy has been used for the grade estimation to honour bedding orientation in folded zones. This method is considered appropriate for the relatively consistent nature and grade of mineralisation.

The bulk densities in each area have been assigned the average of density measurements in the oxide or primary zones.

The Mineral Resource classification criteria are based on drill spacing and outcrop, and continuity of geological and mineralisation grade interpretations. The cut-off grade is based on the proximity of mineralisation to surface, the potential mining methods and costs, and assumed processing and recovery values based on preliminary test work. The Mineral Resource Estimate is classified as a combination of Measured, Indicated and Inferred classifications and has been reported in accordance with the JORC Code, 2012.

Figure 1: Location of the Nachu Graphite Project within Tanzania
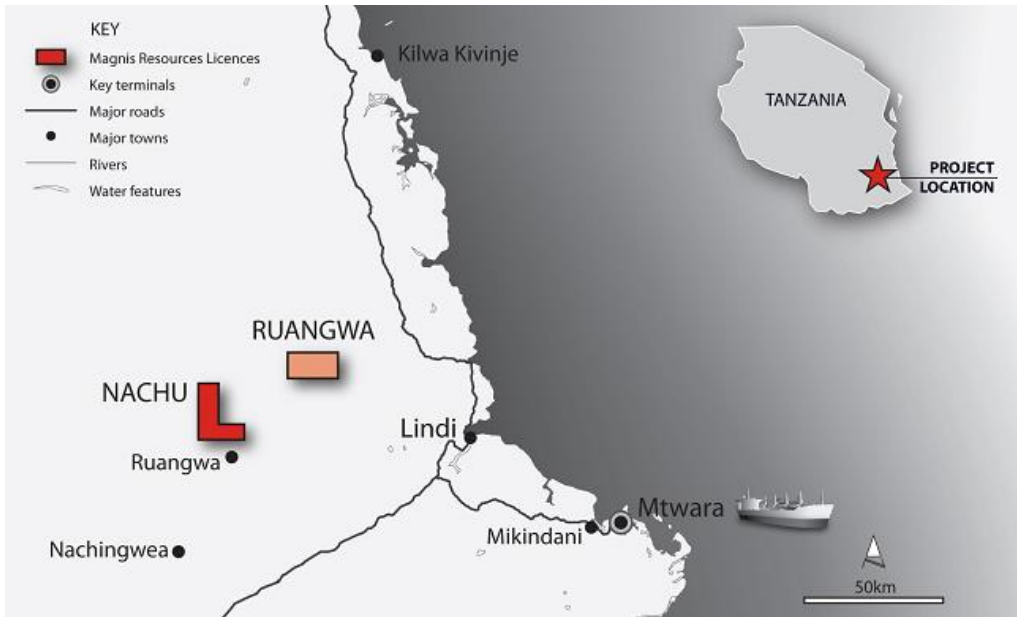
Figure 2: Location of the deposits Block B, D, F, FSL & J within the Nachu Graphite Project overlying the 2014 ground EM response pattern (hot-pink to cold-blue, high EM response to low EM response).
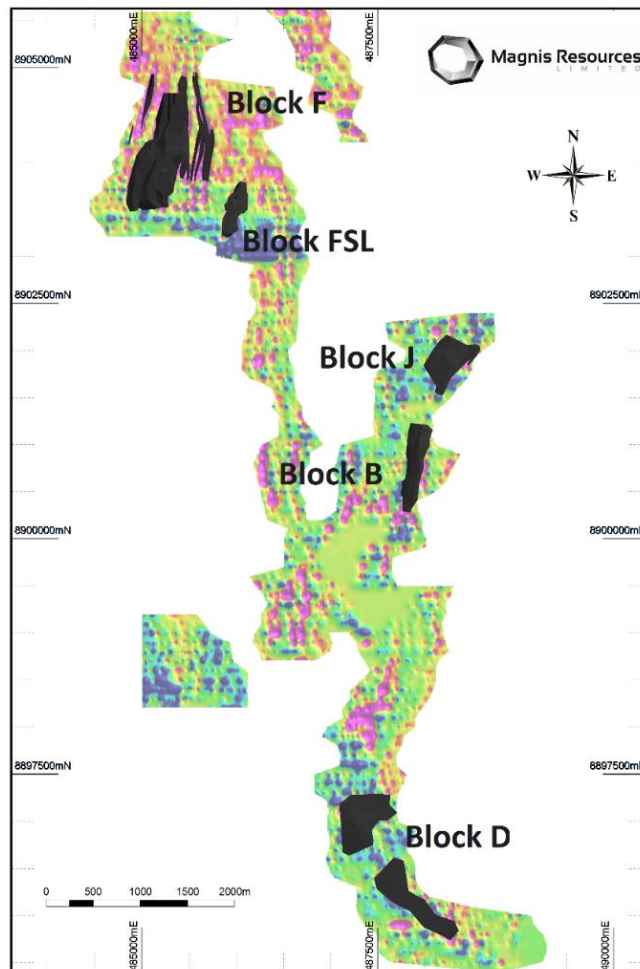
Figure 3: Block F deposits F and FSL (F South) with corresponding section lines.
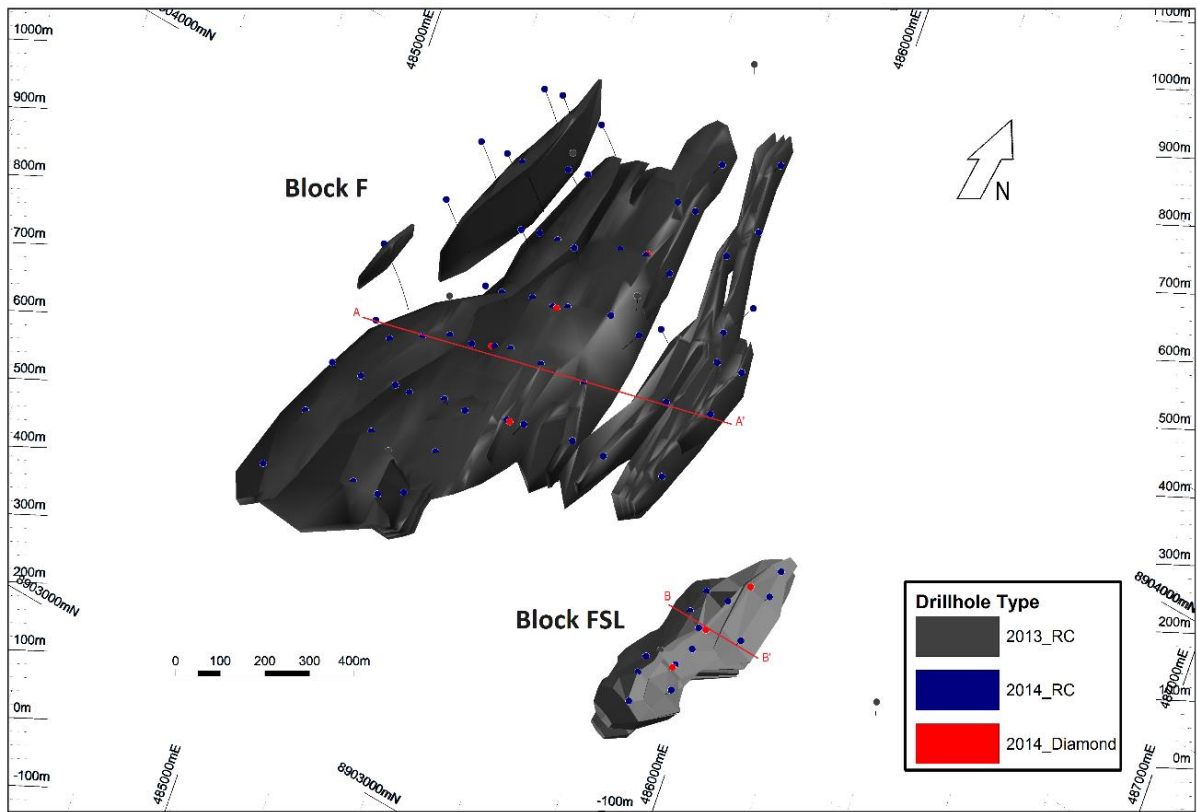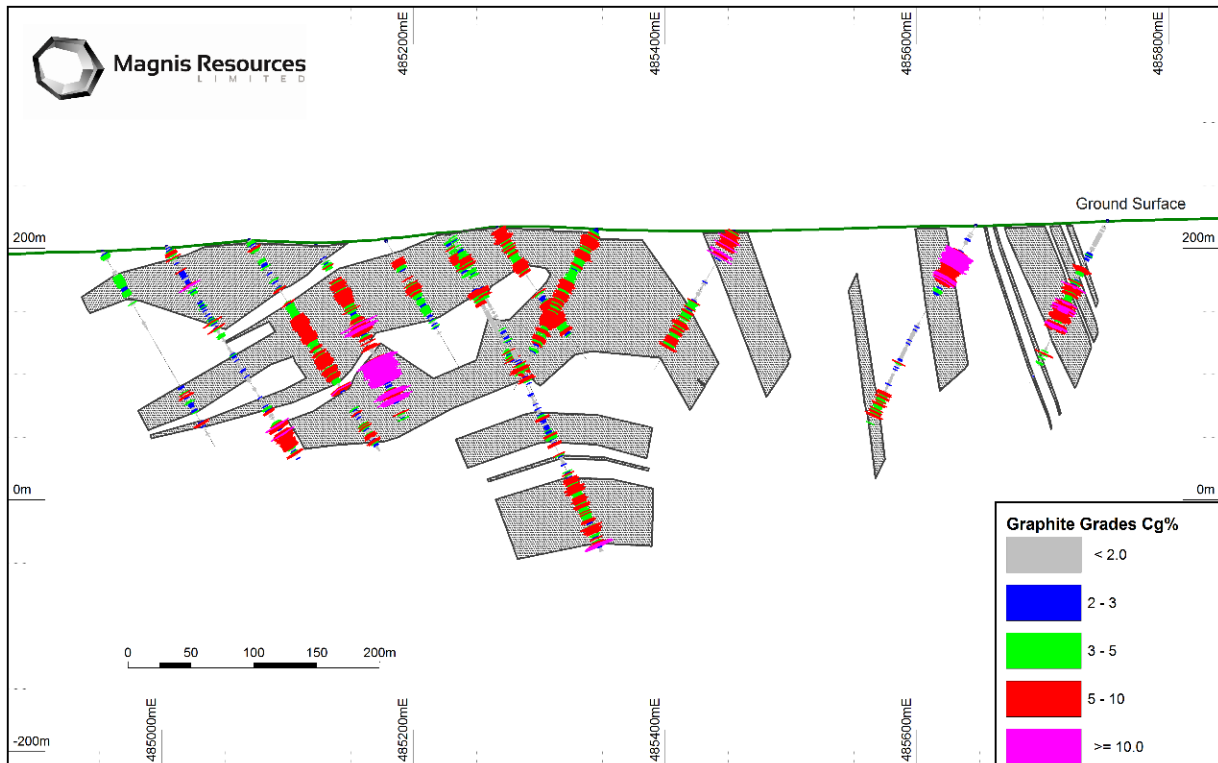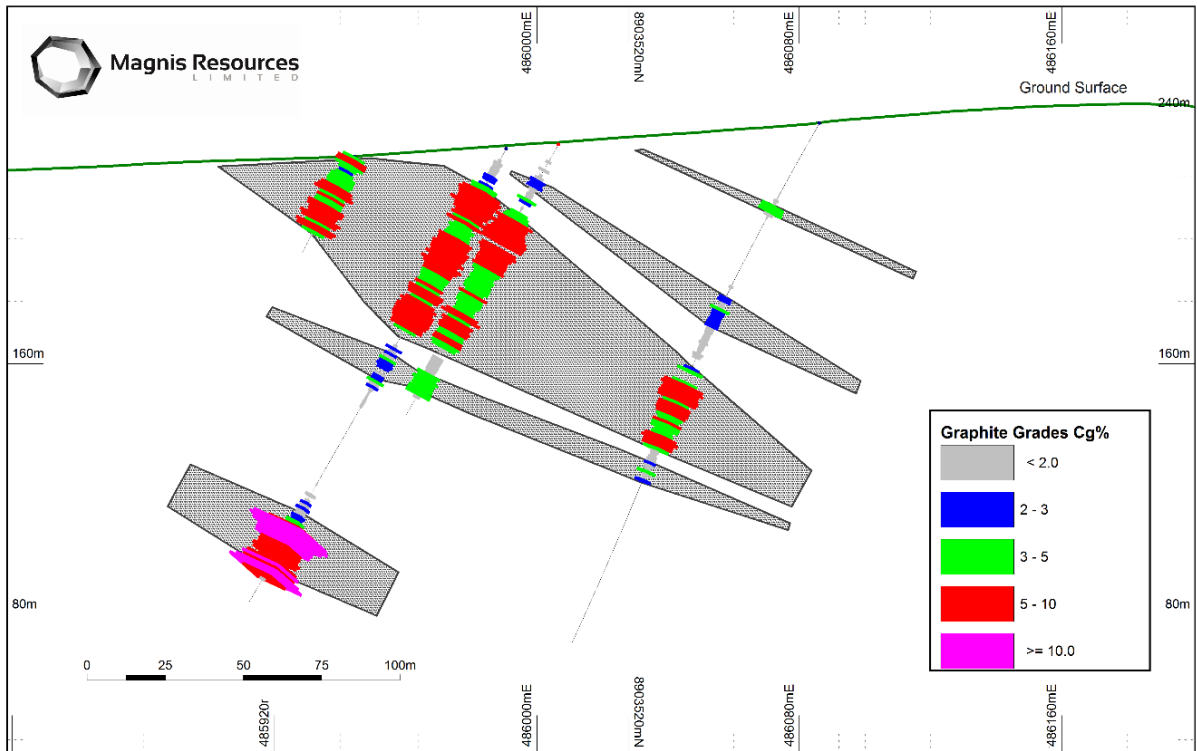

Figure 4: Cross section A-A' looking North within Block F, showing modelled mineralisation with downhole grades highlighted.

Note: near-section drillholes holes projected to plane and may affect the appearance of model alignment.

Figure 5: Cross section B-B' looking North within Block FSL, showing modelled mineralisation with downhole grades highlighted.

Note: near-section drillholes holes projected to plane and may affect the appearance of model alignment.
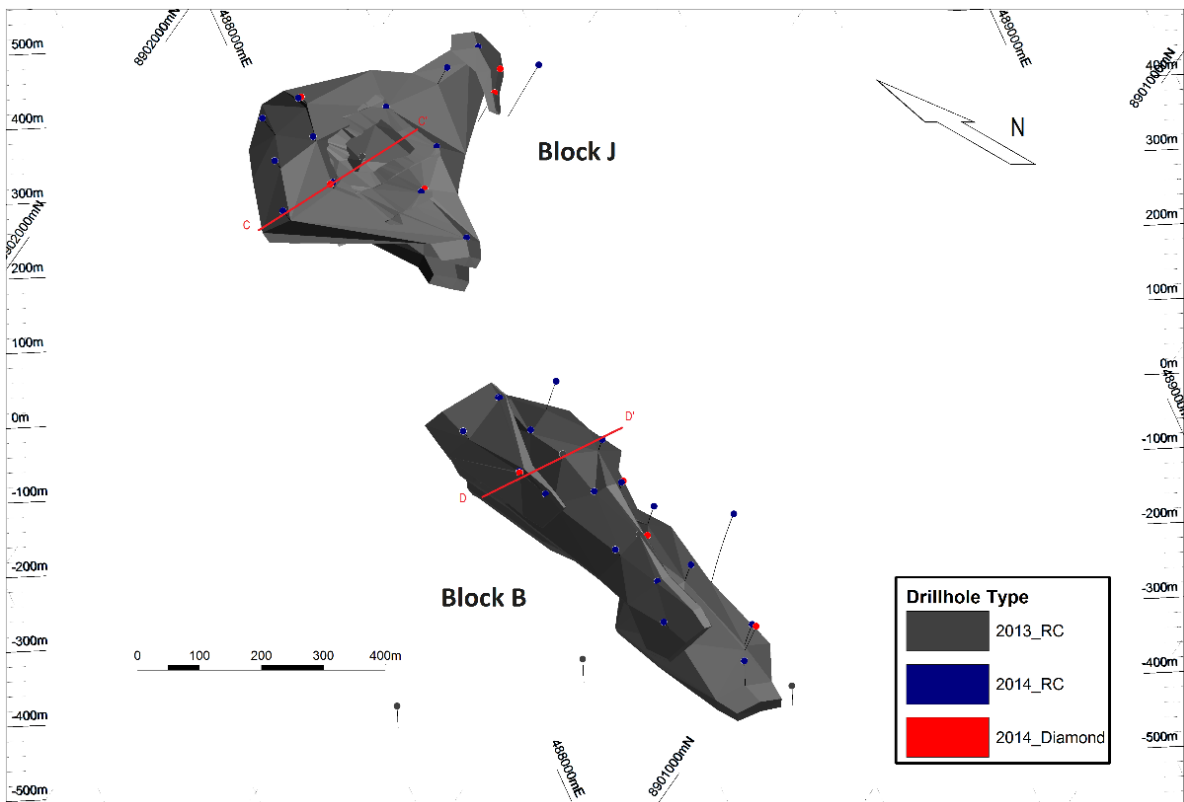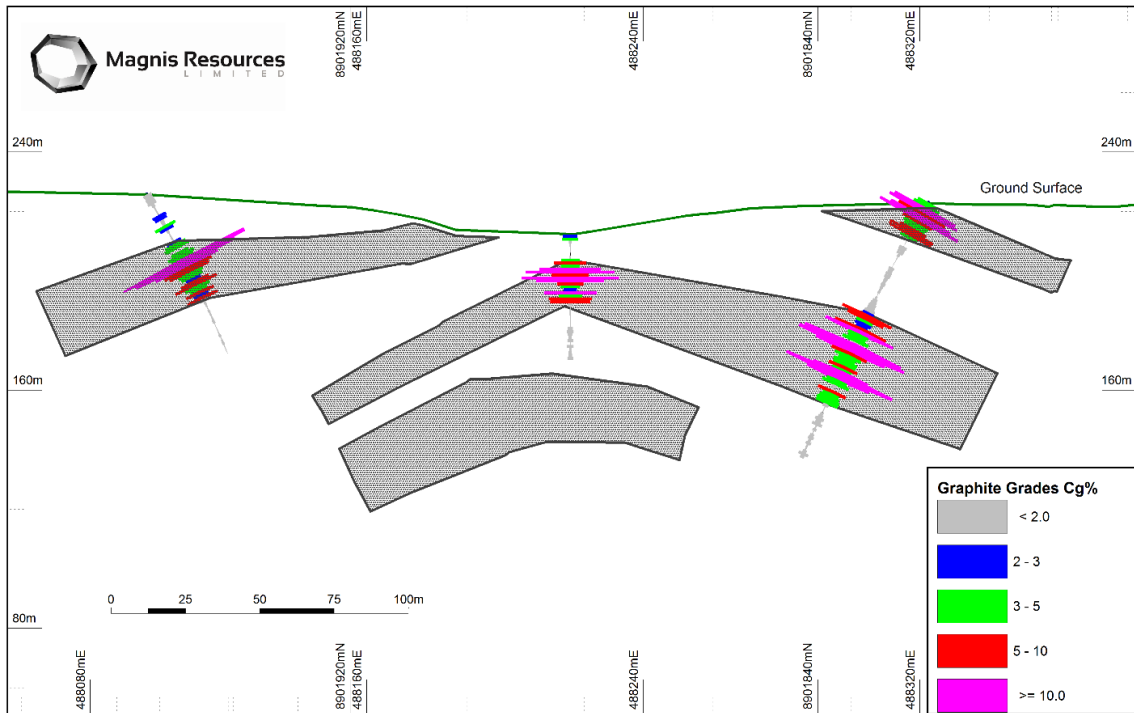
Figure 6: Block B and Block J deposits with corresponding section lines.

Figure 7: Cross section C-C' looking North within Block J, showing modelled mineralisation with downhole grades highlighted.

Note: near-section drillholes holes projected to plane and may affect the appearance of model alignment.

Figure 8: Cross section D-D' looking North within Block B, showing modelled mineralisation with downhole grades highlighted.

Note: near-section drillholes holes projected to plane and may affect the appearance of model alignment.

Figure 9: Block D deposit with corresponding section line.

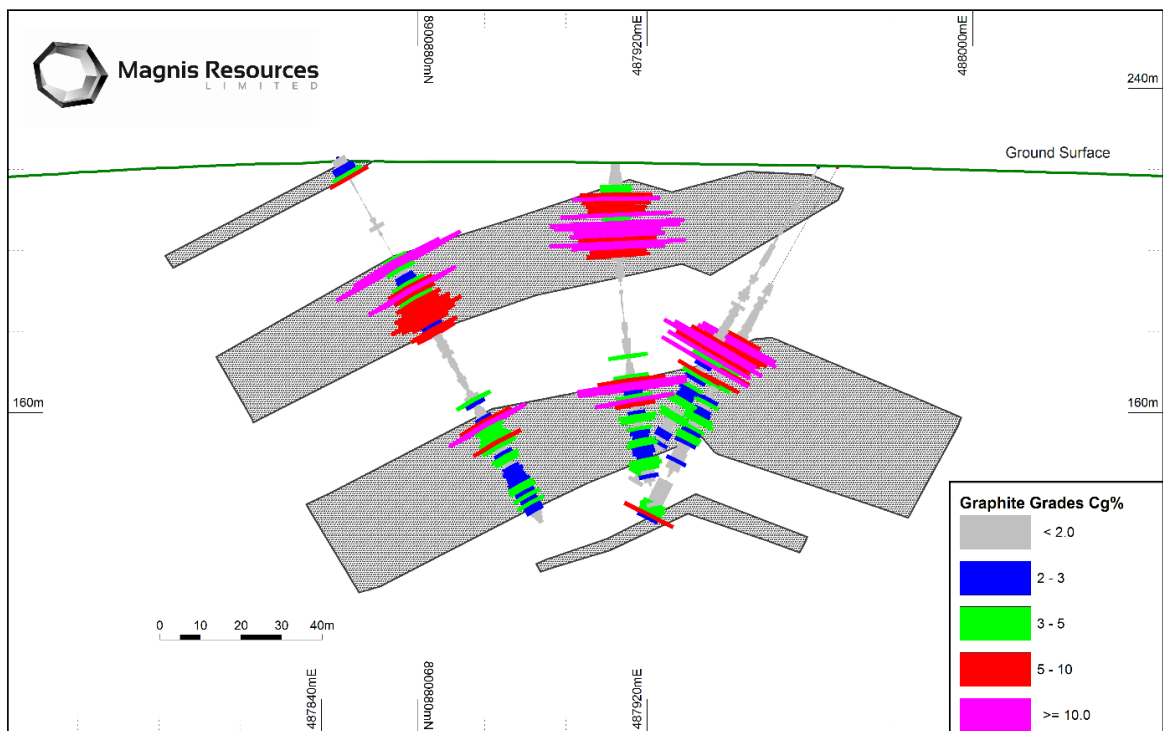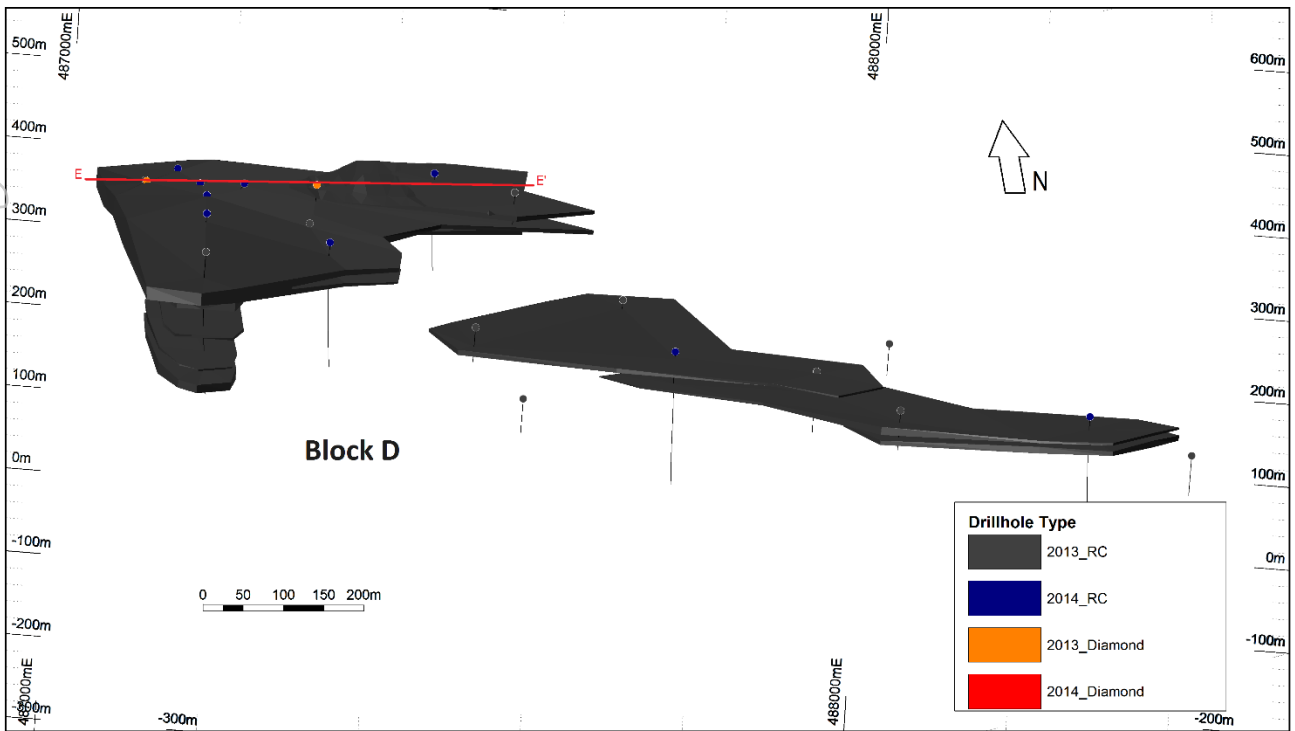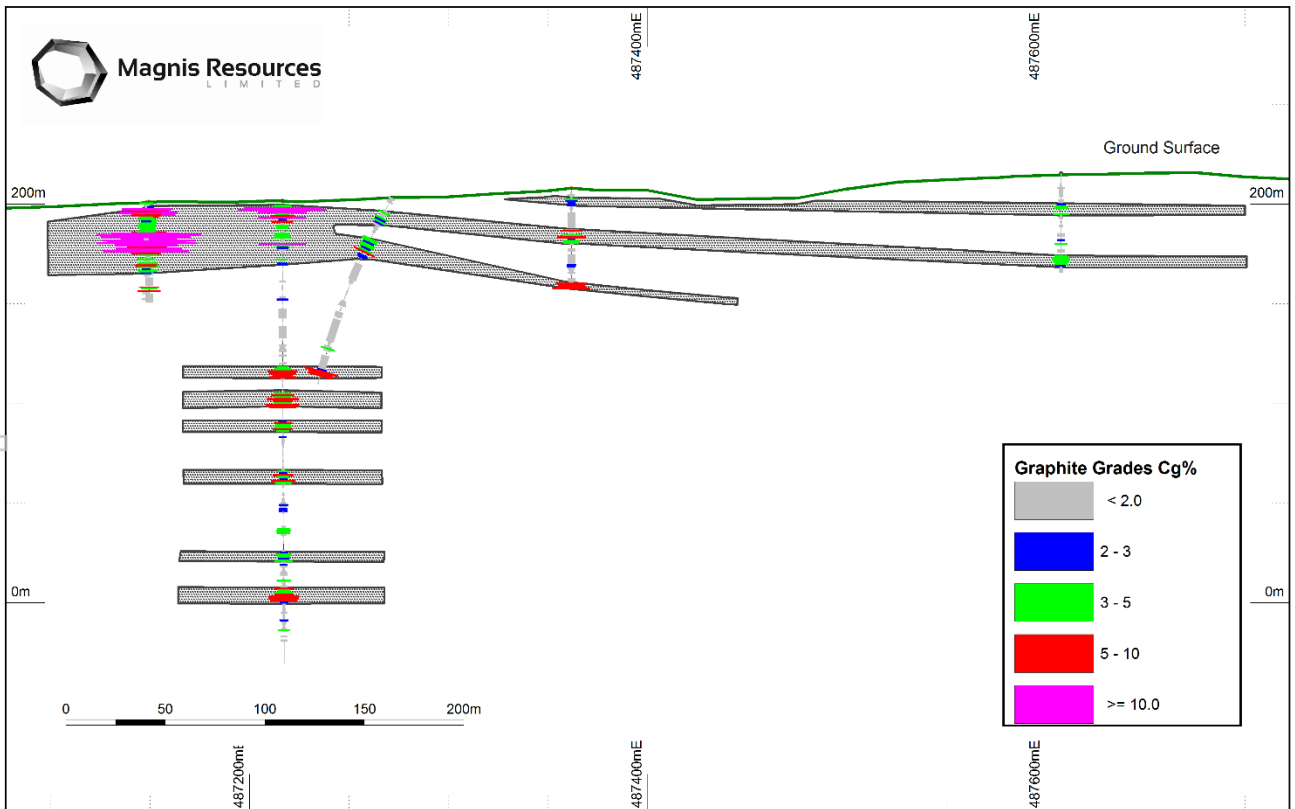**Figure 10: Cross section E-E' looking North within Block D, showing modelled mineralisation with downhole grades highlighted.**

Note: near-section drillholes holes projected to plane and may affect the appearance of model alignment.

Pre-Feasibility Study (PFS)

The Pre-Feasibility Study commenced in the September quarter and is making good progress. The study is being undertaken by BatteryLimits Pty Ltd and Logiman Pty Ltd. The study is on track for completion in December 2014.

Dr Frank Houllis
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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

Appendix 1

JORC Table 1

Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (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 mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Sampling is by Reverse Circulation (RC) and HQ3 Diamond (DD) drillholes. Some DD have twinned existing RC holes. • RC samples collected at 1m intervals and riffle split 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	• *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.).*	• The RC drilling was completed at 5 ½ inch diameter using two Schramm 450 drill rigs. • 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	• *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.*	• 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 discernable loss has been noted with sample recovery processes.
Logging	• *Whether core and chip samples have*	• All drill holes drilled are logged in full and sampled by

Criteria	JORC Code explanation	Commentary
	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.*	the site geologists. • All the logged information which includes depth, lithology, mineral assemblage, Cg mineralisation (laboratory data), collar survey and geologist are recorded in a strip-log which is generated from the field logging sheets. • The entire core is recorded in sequence in digital photograph format.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• RC samples are routinely being taken in 1m intervals via a dry and regularly cleaned cyclone and 1/8th split using a riffle splitter 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 such 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.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• All samples are labelled with a unique sequential number with a sample ledger kept with all samples recorded. • 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 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 Mineral Resource Estimation.
Verification of sampling	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.*	• External oversight of Magnis Resources Limited and parties related to Magnis Resources Limited field geologists is by external consultant who regularly assess on-site standards and practices comply with

Criteria	JORC Code explanation	Commentary
and assaying	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	written procedures. • Exploration drilling is on blocks identified using EM targets to expand on known mineralisation and expand into previously unexplored areas. • The twinning of some RC boreholes by DD was completed and will continue 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. • Previous assay data has not been adjusted, and is released to the market as it is received from the laboratory
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• A hand-held GPS was used to site the drill holes (xy horizontal error of 5 metres) and reported using ARC 1960 grid and UTM datum zone 37 south. • 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 good due to the DTM survey that was completed by Terratec, as part of the EM survey. • The dip and azimuth of the DD holes were measured using a Reflex ACTII down-hole survey tool.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The spacing of RC drilled holes is a nominal grid of 100m x 100m or up to 200m x 200m for tabular zones of mineralisation • Future drilling programs will require some closer spacing in order to confirm and increase confidence in geological continuity, structure and mineralisation. • Compositing to 1 m was applied to exploration data.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• From surface mapping regional foliation dipped at low angles of between 5 and 15 degrees to the west. The 2013 drilling was therefore vertical. • 3D modelling of the 2014 EM highlighted greater structural domains allowing greater accuracy in drilling orientation. • EM survey modelling had Block D interpreted as shallow angled rolling horizons. Vertical drillholes are appropriate to target mineralisation in Block D • EM survey data modelling for Blocks B, F & J have interpreted antiform structures with steeper dipping horizons away from the hinge zone. 2014 holes were orientated with a dip and azimuth to intersect the mineralisation perpendicular to strike and across the dip of the mineralisation.
Sample security	• *The measures taken to ensure sample security.*	• 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

Criteria	JORC Code explanation	Commentary
		manned site sample storage facility and the Ruangwa office.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• AMC Consultants Pty Ltd (AMC) has completed a site visit. The sampling protocol was observed to conform to written procedure, in line with industry standards.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The prospecting license (PL) 9076 was granted (renewal) on the 12th of April 2013 for a period of two years. The area covered by the prospecting license is 198.57 km^2. The PL is 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	• *Acknowledgment and appraisal of exploration by other parties.*	• No exploration for graphite has been done by other parties in this area. Some gemstone diggings for tourmaline are present in the PL.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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 steepness to fold limbs in each Block. • The graphite mineralisation is mostly associated with the schist, and is metamorphic (meta-sedimentary) in origin.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  o *easting and northing of the drill hole collar*
	  o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  o *dip and azimuth of the hole*
	  o *down hole length and interception depth*
	  o *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.*
		• No information has been deliberately excluded.
		• Table of drillholes used in the Mineral Resource estimation is available in Appendix 2 including coordinates, dip and azimuth.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Significant intercepts are reported based on a 5% Cg cut-off with a minimum length of 5 m which has an allowable maximum 2m of internal low grade material. • Higher grade significant intercepts are reported based on a 10% Cg cut-off with a minimum length of 2m with no internal low grade material
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• The majority of EM modelling and geological intercepts indicate folded anticlines of various limb steepness in each key Block. • Holes were vertical or orientated towards an azimuth so as to intersect the mineralisation in a perpendicular manner.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Plan, isometric and cross section views are included as Figures 1 to 5 above.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Any and all reported intervals are downhole intervals from drilling aimed at being as perpendicular to mineralisation as practical.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• The 2013 & 2014 electro-magnetic survey has been processed with data used to target mineralisation 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 ongoing with test work assessing a spread of locations across all Mineral Resource Blocks using representative downhole composites of similar lithological composition, grade and mineralisation characteristics.
Further work	• *The nature and scale of planned*	• Further drilling will aim to extend known extents of

Criteria	JORC Code explanation	Commentary
	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.*	mineralisation. More than 800 Ha of potential target area has been identified. • Umpire samples have been identified and are in the process of being dispatched to a third party laboratory. • The samples for metallurgy have been sent to the laboratories and interested parties.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database Integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• 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: • 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	• *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.*	• A site visit was undertaken by the competent person in August 2014. One diamond drill rig and two RC drill rigs were seen in operation. • Graphitic materials were observed in outcrop and in drill samples. • Core handling facilities and sample storage facilities were inspected. • Photographic imagery of the diamond drillcore was sighted.
Geological Interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Geological interpretations are based on drillhole data, interpretations of EM geophysical measurements and graphitic outcrop data. • The interpretation is supported by diamond drillcore. However, there is no orientated drillcore available for definitive structural interpretation. • The orientation of the interpreted geological trends, and the continuity in grade observed were used to generate the interpretation of mineralisation. • The interpretation of corresponding 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 mineralisation, this is unlikely to have significant effect on the Mineral Resource estimation. • Collection of more drilling data including orientated data is required to validate the interpretation. • New drill data will be collected and collated using current procedures aligned with industry standards •

Criteria	JORC Code explanation	Commentary
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Nachu deposit comprises five mineralised areas, being areas 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 mineralised horizons separated by barren or low grade horizons), to depths between 150 m and 250 m below surface. • The mineralisation occurs at or near surface.
Estimation and Modelling Techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software & 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.*	• The statistical review and variography has been undertaken using Visor and GeoAccess software. • The estimation method is Ordinary Kriging (OK) of graphitic carbon, with parent cell estimation, using octants and a discretisation of 4x4x2. • This method is considered appropriate for the relatively consistent nature and grade of mineralisation. • The grade estimation has been undertaken using Datamine Studio 3. • The cell model block size is 10 x 40 x 2 m in X x Y x Z, with subcelling which is considered suitable for relatively flat, open folded and relatively narrow mineralised lodes. • Dynamic anisotropy has been used to control the grade estimation and honour bedding orientation in folded zones. • The estimation has used hard boundaries. • A top-cap of 20% GC was applied in the western fold limb of Area F in the mineralised domains. No top-caps were required to be applied to any other areas of mineralisation. • Cell model estimates were compared statistically and visually to the drillhole assay data.

Criteria	JORC Code explanation	Commentary
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnage estimated is based on dry tonnes. Bulk density samples were oven dried.
Cut-off Parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Geological interpretation and mineralisation has good grade continuity on a nominal 2% GC cut-off. Mineral Resource Estimations used 3% GC cut-off.
Mining Factors or Assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• It has been assumed that the mineralisation will be amenable to open-pit mining due to: • 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. • Tanzanian mining costs are typically $2.50 to $3.50 per tonne. •
Metallurgical Factors or Assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• A small amount of metallurgical test work was completed however more is required and is planned. • 56% of a bulk sample from F South is in jumbo flake graphite category +300 microns • 30% is in medium and large flake graphite categories +150 microns to 300 • The composition of the graphite concentrate, when classified according to categories used by Industrial Minerals, is expected to be: • 35% w/w jumbo (+50 Mesh) @ 94-97 % TGC; • 35% w/w large (+80 Mesh) @ 94-97 % TGC; • 10% w/w medium (+100 Mesh) @ 90-94% TGC; • 10 % w/w small (+140 Mesh) @ 90-94% TGC; • 10% w/w small (-140 Mesh) @ 80-90% TGC; •
Environmental Factors or Assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early*	• At this time no known issues have been identified. Further work and consideration is required.

Criteria	JORC Code explanation	Commentary
	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.	
Bulk Density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (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.*	• Density measurements use dry weight and the measured dimensions of the core sample collected. • The method of density measurement is suitable to the rock type and style of mineralisation. • 414 bulk density measurements were recorded within mineralised rock types. • Bulk densities used were based on the average bulk densities for oxide and primary rock in each area.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource classification criteria and cut-off grades used are based on: • 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 Resource. • The Competent Person is satisfied that the classification appropriately reflects what is currently known about the continuity of geology and mineralisation, considering the available local results and regional setting and style of mineralisation.
Audits or Reviews	• *The results of any audits or reviews of Mineral Resource Estimates.*	• There have been no internal or external audits completed to date.
Discussion of Relative Accuracy/ Confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource Estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed*	• Further drilling should be focused in the areas where there is a requirement to increase confidence. • Oriented diamond drillholes are required to increase the amount of data and to undertake a structural study to increase the understanding of the characterisation within the mineralised lodes. • All future data should be collected using industry best practice methods.

Criteria	JORC Code explanation	Commentary
	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.*	

Appendix 2

Drill holes used for the Nachu Mineral Resource estimation.

Block	Hole ID	X	Y	Z	Max Depth	Azimuth	Dip	Hole Type
B	NADD017	487891	8900402	201	80	270	-60	DD
B	NADD018	487965	8900853	220	99	270	-60	DD
B	NADD020	487850	8900978	223	59	90	-60	DD
B	NADD025	487904	8900708	216	73	0	-90	DD
B	NARC028	487935	8900974	225	43	0	-90	RC
B	NARC029	487895	8900717	217	52	0	-90	RC
B	NARC071	487889	8900410	201	100	270	-60	RC
B	NARC072	487840	8900598	210	70	270	-60	RC
B	NARC073	487910	8900601	210	70	270	-60	RC
B	NARC074	487957	8901170	224	92	270	-60	RC
B	NARC075	487961	8900852	221	90	270	-60	RC
B	NARC076	488049	8900669	214	153	270	-60	RC
B	NARC077	487853	8900982	223	64	90	-60	RC
B	NARC078	488012	8900970	221	102	270	-60	RC
B	NARC079	487777	8900499	209	110	90	-60	RC
B	NARC082	487816	8900335	200	106	220	-90	RC
B	NARC109	487854	8901133	223	127	90	-60	RC
B	NARC110	487956	8901173	224	51	90	-60	RC
B	NARC111	487938	8901064	225	36	0	-90	RC
B	NARC121	487911	8900859	221	85	0	-90	RC
B	NARC122	487845	8900902	223	103	90	-60	RC
B	NARC123	487839	8900708	217	37	90	-60	RC
B	NARC124	488061	8901158	217	80	270	-60	RC
B	NARC125	487961	8900765	218	73	270	-60	RC
D	NADD002	487149	8897094	201	51	0	-90	DD
D	NADD003	487362	8897100	208	51	0	-90	DD
D	NARC008	487608	8897092	215	50	0	-90	RC
D	NARC009	487148	8897099	201	49	0	-90	RC
D	NARC010	487199	8896702	208	58	0	-90	RC
D	NARC011	487510	8896300	227	44	0	-90	RC
D	NARC013	488014	8895896	250	51	0	-90	RC

Block	Hole ID	X	Y	Z	Max Depth	Azimuth	Dip	Hole Type
D	NARC051	487340	8896894	207	51	0	-90	RC
D	NARC052	487706	8896508	225	52	0	-90	RC
D	NARC053	487923	8896103	244	79	0	-90	RC
D	NARC055	487272	8897103	203	101	270	-60	RC
D	NARC056	487216	8897097	202	232	270	-90	RC
D	NARC057	487213	8896904	209	232	270	-90	RC
D	NARC058	487194	8897178	199	152	270	-90	RC
D	NARC059	487358	8896772	213	160	270	-90	RC
D	NARC060	487219	8897011	207	158	270	-90	RC
D	NARC061	487514	8897193	210	125	270	-90	RC
D	NARC062	487752	8896191	238	170	270	-90	RC
D	NARC070	488247	8895861	265	142	270	-90	RC
F	NADD021	485307	8904265	202	126	90	-60	DD
F	NADD028	485432	8904490	213	141	270	-60	DD
F	NADD029	485223	8904095	211	282	90	-60	DD
F	NADD030	485349	8903906	210	123	270	-60	DD
F	NARC036	485133	8903719	200	44	0	-90	RC
F	NARC037	485458	8904373	206	50	0	-90	RC
F	NARC038	485072	8904206	193	54	0	-90	RC
F	NARC039	485158	8904702	206	58	0	-90	RC
F	NARC064	485580	8903901	210	113	270	-60	RC
F	NARC065	485499	8903912	210	147	270	-60	RC
F	NARC066	485723	8903900	209	146	270	-60	RC
F	NARC067	485380	8903914	208	155	270	-60	RC
F	NARC068	485245	8903892	212	89	90	-60	RC
F	NARC069	485109	8903894	206	104	90	-60	RC
F	NARC091	485298	8904267	201	181	90	-60	RC
F	NARC092	485703	8904257	217	199	270	-60	RC
F	NARC093	485547	8904302	208	55	90	-60	RC
F	NARC094	485266	8904102	216	127	90	-60	RC
F	NARC095	485004	8904026	201	199	90	-60	RC
F	NARC096	485430	8904486	213	141	270	-60	RC
F	NARC100	484914	8903912	197	137	90	-60	RC
F	NARC101	485271	8904449	199	95	90	-60	RC
F	NARC102	485426	8904298	201	59	270	-60	RC
F	NARC103	485122	8904093	202	155	90	-60	RC
F	NARC104	485133	8904267	194	101	90	-60	RC
F	NARC105	485141	8904450	198	107	90	-60	RC
F	NARC130	485341	8903908	210	137	270	-60	RC
F	NARC131	485345	8904088	215	145	270	-60	RC
F	NARC132	485230	8904097	211	149	90	-60	RC
F	NARC133	485327	8904282	199	113	90	-60	RC
F	NARC134	485245	8904274	200	185	90	-60	RC
F	NARC135	485178	8904086	206	130	90	-60	RC
F	NARC136	485369	8904482	208	157	270	-60	RC
F	NARC137	485499	8904461	210	175	270	-60	RC
F	NARC138	485229	8904453	202	125	90	-60	RC
F	NARC139	485184	8904457	201	127	90	-60	RC
F	NARC140	485175	8904263	196	160	90	-60	RC
F	NARC141	485190	8903905	210	181	90	-60	RC
F	NARC142	485071	8903903	204	125	90	-60	RC
F	NARC143	484989	8903899	200	156	90	-60	RC
F	NARC144	485211	8903627	193	77	90	-60	RC
F	NARC145	485095	8903613	189	121	90	-60	RC
F	NARC146	485069	8904060	206	199	90	-60	RC
F	NARC147	484953	8904067	197	180	90	-60	RC
F	NARC148	485455	8904078	213	127	270	-60	RC

Block	Hole ID	X	Y	Z	Max Depth	Azimuth	Dip	Hole Type
F	NARC149	485232	8903759	203	91	90	-60	RC
F	NARC150	485075	8903758	199	151	90	-60	RC
F	NARC151	484913	8903761	189	123	90	-60	RC
F	NARC152	485157	8903606	183	71	90	-60	RC
F	NARC153	484889	8903580	185	121	90	-60	RC
F	NARC156	485169	8904652	207	80	90	-60	RC
F	NARC157	485509	8904265	208	180	270	-60	RC
F	NARC158	485711	8904440	216	125	270	-60	RC
F	NARC159	485634	8904647	221	118	270	-60	RC
F	NARC160	485647	8904099	218	185	270	-60	RC
F	NARC161	485752	8904106	222	151	270	-60	RC
F	NARC162	485216	8904653	212	199	90	-60	RC
F	NARC163	485020	8904652	190	178	100	-60	RC
F	NARC164	485766	8904250	220	150	270	-60	RC
F	NARC165	485679	8904349	212	119	270	-60	RC
F	NARC166	485596	8904557	216	89	270	-60	RC
F	NARC167	485480	8904647	219	169	270	-60	RC
F	NARC168	485482	8904794	225	149	270	-60	RC
F	NARC169	485184	8904804	208	113	90	-60	RC
F	NARC170	485435	8904653	221	163	270	-60	RC
F	NARC171	484950	8904471	187	149	100	-60	RC
F	NARC172	484954	8904660	190	195	100	-60	RC
F	NARC173	485062	8904640	193	139	100	-60	RC
F	NARC174	485068	8904853	202	161	100	-60	RC
F	NARC175	485023	8904854	200	167	100	-60	RC
F	NARC176	484876	8904291	188	192	100	-60	RC
F	NARC177	485602	8904846	226	143	270	-60	RC
FSL	NADD015	486000	8903506	230	100	281	-60	DD
FSL	NADD026	485977	8903373	230	75	280	-60	DD
FSL	NADD027	486042	8903661	235	78	280	-60	DD
FSL	NARC035	485930	8903412	225	46	0	-90	RC
FSL	NARC063	485983	8903506	229	167	270	-60	RC
FSL	NARC099	486012	8903603	232	90	280	-60	RC
FSL	NARC112	486086	8903730	237	109	280	-60	RC
FSL	NARC113	486087	8903503	237	184	280	-60	RC
FSL	NARC114	486093	8903648	239	106	280	-60	RC
FSL	NARC115	485979	8903383	230	90	280	-60	RC
FSL	NARC116	485926	8903242	226	145	280	-60	RC
FSL	NARC126	485910	8903330	226	45	280	-60	RC
FSL	NARC127	485944	8903546	226	35	280	-60	RC
FSL	NARC128	486002	8903307	232	112	280	-60	RC
FSL	NARC129	485995	8903440	230	107	290	-60	RC
FSL	NARC154	485908	8903382	225	65	280	-60	RC
FSL	NARC155	485957	8903611	231	53	280	-60	RC
J	NADD016	488122	8901841	226	99	120	-60	DD
J	NADD019	488230	8901730	226	84	0	-90	DD
J	NADD022	488487	8901883	222	60	295	-60	DD
J	NADD023	488536	8901932	223	87	300	-60	DD
J	NADD024	488251	8902087	214	117	120	-60	DD
J	NARC044	488222	8901887	212	42	0	-90	RC
J	NARC080	488221	8901728	226	73	0	-90	RC
J	NARC081	488130	8901843	225	82	120	-60	RC
J	NARC083	488244	8902087	214	130	120	-60	RC
J	NARC090	488547	8902005	223	91	300	-60	RC
J	NARC097	488321	8901819	223	96	300	-60	RC
J	NARC098	488589	8901898	224	110	300	-60	RC
J	NARC106	488189	8901975	221	65	120	-60	RC

Block	Hole ID	X	Y	Z	Max Depth	Azimuth	Dip	Hole Type
J	NARC107	488341	8901980	209	103	300	-60	RC
J	NARC108	488476	8901994	220	85	300	-60	RC
J	NARC117	488159	8902070	221	73	120	-60	RC
J	NARC118	488095	8901953	226	60	120	-60	RC
J	NARC119	488013	8901823	230	65	120	-60	RC
J	NARC120	488191	8901567	231	87	300	-60	RC