

# REPLACEMENT - ORE SORTING TESTWORK UNDERWAY FOR MCINTOSH GRAPHITE

On 20 March 2023, **Green Critical Minerals Pty Ltd** ("**GCM**" or "the Company") released an announcement in relation to pre-concentration technology that has been identified as a means to reduce the emissions associated with the processing of graphite (**Announcement**).

GCM now releases a replacement version of that announcement (**Replacement Announcement**) incorporating edits necessary to ensure compliance with the ASX Listing Rules.

Changes made relate to the inclusion of an abundance of graphite in accordance with AIG guidance for Figure 2, and also the inclusion of a streamlined statement under Listing Rule 5.23.2.

#### **Authorisation**

The provision of this announcement to the ASX has been authorised by the board of directors of Green Critical Minerals Limited.

Green Critical Minerals confirms that it is not aware of any new information or data that materially affects the exploration results contained in this announcement.



# ORE SORTING TESTWORK UNDERWAY FOR MCINTOSH GRAPHITE

### **Highlights**

- GCM has identified pre-concentration technology as a potential key tool in reducing the overall carbon footprint of any future mining operation at Mcintosh.
- Ore sorting pre-concentration testwork has been initiated with leading ore sorting provider TOMRA. The technology can separate high-grade ore from waste before it enters the processing plant.
- By processing only high-grade ore, energy consumption can be reduced, leading to lower operating costs and reduction of the carbon footprint.
- Tailings facilities can further be significantly reduced in size leading to further ESG benefits.
- Previous scoping test results from TOMRA suggested that the waste interbedding within the graphitic material can be detected and removed easily at the Emperor deposit leading to significant head grade uplift.
- GCM believes ore sorting technology can potentially have a significant impact on the sustainability and profitability of any future mining operation at Mcintosh.
- GCM is committed to becoming one of the most sustainable graphite producers globally and is confident in delivering on its goal.

Green Critical Minerals Pty Ltd ("GCM" or "the Company") which holds earn-in rights for up to 80% of the advanced Ultra High Purity McIntosh Graphite Project (see CML's announcement on 18 November 2022) is pleased to announce that it has identified pre-concentration technology as a means to reduce the emissions associated with the processing of graphite. The company has initiated ore sorting pre-concentration testwork with TOMRA, a leading ore sorting provider. See Figure 1 below which shows the basic operating principle of ore sorting technology.



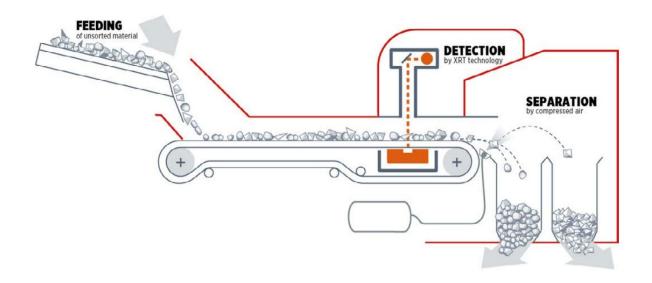


Figure 1: Tomra Ore sorting process

Preliminary testwork on the utilisation of ore sorting technology was undertaken on core samples from the Mcintosh graphite deposit back in April 2017.(Refer to ASX:HXG announcement June 2017 quarterly activities and cashflow report - 17/10/17). Initial results were positive and suggested that the waste interbedding within the graphitic host unit could effectively be identified and removed via ore sorting technology. GCM is now building on this initial testwork by sending representative core from the Emperor deposit for further processing and analysis with TOMRA's latest sorting technology.

A typical core tray (Figure 2) from Emperor deposit is shown below. Highlighted in red are waste interbedding layers within the graphitic schist unit. By removing these waste bands via ore sorting technology the head grade of the material fed to the mill can increase. Further to this, as only high-grade material would be sent to milling circuit, there is potential to reduce the size and therefore CAPEX for milling equipment and tailings facilities.





Figure 2 - Typical Core Tray from Emperor deposit displaying waste leucogranite interbedding (highlighted in red) within the graphitic host (T6DD167, 130.6 to 134.2m 4.0% Total Graphitic Carbon)

#### GCM's CEO, Mark Lynch-Staunton, commented:

"The results of the ore sorting pre-concentration testwork will provide GCM with valuable information on the potential benefits of this technology and how it could be integrated into its operations. GCM believes that pre-concentration technology can potentially have a significant impact on the sustainability and profitability of any future mining operation at Mcintosh.

GCM remains committed to delivering value for its shareholders from the McIntosh Project while operating in a responsible and sustainable manner. The Company will continue to explore new technologies and best practices to reduce its environmental footprint and ensure the long-term sustainability of any future operation".

#### Next steps/ Future news flow

- Petrographic analysis from exploration targets to establish flake size
- Preliminary Ore sorting results
- Heritage survey over proposed exploration areas
- Maiden Drill program commencement
- Metallurgical testwork results
- Battery Anode qualification testwork commencement
- Process plant design completion
- Downstream Scoping study delivery
- Delivery of updated Mcintosh Pre-Feasibility study



#### Authorisation

The provision of this announcement to the ASX has been authorised by the Executive Chairman of Green Critical Minerals Limited.

Green Critical Minerals confirms that it is not aware of any new information or data that materially affects the exploration results contained in this announcement.

#### **Forward Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Green Critical Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

#### **Competent Person Statement**

The information in this report that relates to the exploration activities are based on information compiled by Mr. S Nicholls, who is a Member of the Australian Institute of Geoscientists and full time employee of APEX Geoscience Australia Pty Ltd. Mr Nicholls has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Nicholls calculated the Exploration Target presented in this report and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Registered Office - Suite 4, Level 1, 40 Edward Street Brisbane QLD 4000

### Historic Drilling & GCM Rock Chip Assays – 2023 McIntosh Project

Appendix 1: JORC Code, 2012 Edition - Table 1

JORC Code, 2012 Edition - Table 1 report template

Section 1 Sampling Techniques and Data

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

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Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralization that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralization types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The Green Critical Minerals Ltd (GCM) rock samples were collected from visibly mineralized outcroppings on the McIntosh Project, WA. Samples were collected by a geologist from Apex Geoscience Australia Pty Ltd (independent geological consultancy). Samples were submitted to ALS in Perth, WA for sample preparation and analysis.</li> <li>Hexagon Resources Ltd (Hexagon) sampling methods- Reverse Circulation (RC) drilling used high pressure air and a sophisticated cyclone with a cone splitter. Sampling was taken as continuous one metre intervals. Duplicate samples were taken during Hexagon RC drilling. Hexagon RC drilling samples of 3 to 5 kg weight were shipped to the laboratory in plastic bags; samples were pulverized and milled for assay. Duplicate and standards were included and sent for analysis with samples. Sampling was guided by Hexagon's protocols and QA/QC procedures</li> <li>Hexagon diamond drill (DD) core was generally sampled at one metre intervals. Where geology indicated an obvious change, sampling was undertaken so that the one metre samples could be composited. Hexagon diamond core was marked up and cut into half and quarter core using a large diamond bladed saw. Diamond core drilling is recommended to twin selected Hexagon RC holes so as to verify TGC, flake size and purity or liberation characteristics.</li> <li>For Hexagon drilling, Industry standard RC and DD methods were used. It is noted that although RC drilling may yield samples sufficient to estimate graphite content (total graphitic carbon, or</li> </ul>

"TGC"), RC samples are generally considered insufficient to estimate graphite flake size and purity. Drill core was geologically logged

Criteria	JORC Code explanation	Commentary
		and marked up for cutting on site. Core was quarter cut in Perth at ALS laboratories under MRL supervision.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diametre, 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> <li>For Hexagon drilling, RC drilling (5 ½" hammer) accounts for majority of the drilling database at Mackerel, Cobia, Barracuda and Emperor Minor diamond core drilling (NQ) at Mackerel and Cobia.</li> <li>The RC drilling completed with a face sampling hammer and collected through a cone splitter. Sample recovery was estimated at a percentage of the expected sample, sample state recorded (dry, moist or wet), samples tested with 10:1 HCl acid for carbonates and graphite surface float. RC drilling was completed by Mount Magnet drilling using an Hydco 1300 drill rig.</li> <li>The diamond drilling was completed by Mount Magnet Drilling using an Hydco 650 drill rig and collected HQ3 core using a 1.5-3m core barrel (depending on ground conditions).</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>RC split samples from Hexagon drilling were recovered from a cyclone and rig-mounted cone splitter. The sample recovery and physical state were recorded. Sample recovery of the diamond core is recorded on core blocks after each run and recorded in the logging.</li> <li>For Hexagon drilling, a face sampling hammer is used to reduce contamination at the face. Diamond drilling samples are half and quarter cored, with core sawn using a diamond blade core-saw. The sample recovery and physical state of the sample was recorded for every sample. For RC every interval drilled is represented in an industry standard chip tray that provides a check for sample continuity down hole. For diamond core recoveries were measured for each run between core blocks and measurements recorded. Core was photographed and logged for RQD and geology.</li> <li>The Hexagon RC samples in one pair of twin holes are noted to report lower graphite content than DD core at Longtom, therefore it is suggested that RC samples are biased due to loss of fine material.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The GCM rock samples and sample locations were qualitatively logged and registered by geologists from Apex Geoscience.</li> <li>The vast majority of intersections in Hexagon drilling have been geologically logged by qualified geologists. All RC and diamond drilling was logged for geology in the field by qualified geologists. Lithological and mineralogical data was recorded for all drill holes using a coding system developed specifically for the Project. Primary and secondary</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>lithologies are recorded in addition to texture, structure, colour, grain size, alteration type and intensity, estimates of mineral quantities, graphite intensity and sample recovery. The oxidation zone is also recorded. Geological logging is qualitative in nature.</li> <li>Diamond core was geotechnically logged. Diamond core was orientated using the Reflex orientation tool where possible. Core was photographed both dry and wet.</li> <li>In the Hexagon drilling, primary and secondary lithologies are recorded in addition to texture, structure, colour, grain size, alteration type and intensity, estimates of mineral quantities, graphite intensity and sample recovery. The oxidation zone is also recorded and a general lithological description is made of the interval. Logging is qualitative in nature.</li> <li>Geological logging is qualitative in nature.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The GCM rock samples were collected between 0.5-1 kg and were of sufficient size to represent the outcrop area of interest. The sample sizes and analysis size are considered appropriate to correctly represent the mineralization based on: the style of mineralization, the sampling methodology and assay value ranges for the commodities of interest. Samples were submitted to ALS where they were run through a jaw crusher and then pulverized down to 80% passing 75 microns.</li> <li>Hexagon diamond drilling samples are half (metallurgical testing) and quarter core (assaying), with core sawn using a diamond blade coresaw.</li> <li>1m samples from the Hexagon RC drilling were submitted to either Actlabs or ALS Laboratories in Perth. The samples were riffle split on a 50:50 basis, with one split pulverised and analysed for Total Graphitic Carbon (TGC), Total Carbon (TC) and Total Sulphur (TS) using a Leco Furnace, and the other split held as in storage.</li> <li>Sample preparation techniques in Hexagon drilling represent industry good practice</li> <li>Sampling procedures in Hexagon drilling represent industry good practice.</li> <li>Duplicate assay results from Hexagon drilling exhibit good correlation with the original assays and no consistent bias is evident.</li> <li>Limited twin hole drilling has indicated negative bias in the RC graphite results compared to core samples. Diamond core drilling has been engaged.</li> <li>The sample sizes in the Hexagon drilling are considered to be</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>appropriate to the grain size of the material being sampled</li> <li>All samples were marked with a unique sequential sample number. RC drilling samples were bagged at the drill site in calico bags with a second outer plastic bag to prevent loss of fines. The sample sizes are considered to be appropriate to the grain size of the material being sampled. For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected.</li> <li>RC sample preparation comprised coarse crush using a jaw crushed to better than 70% passing 6mm. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size. Small aliquot (~10g) taken for assay.</li> <li>Diamond drill core was cut into half core and one half sawn into quarter core using diamond blade core-saw. Quarter core was used for samples. Samples were sent to ALS in Perth for processing and to ALS in Brisbane for analysis.</li> <li>Diamond sample preparation comprised coarse crush using a jaw crushed to better than 70% passing 6mm. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size. Small aliquot (~10g) taken for assay. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size. Small aliquot (~10g) taken for assay</li> <li>Sampling procedures and sample preparation represent industry good practice.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The GCM sampled were crushed before undergoing analysis for Graphitic Carbon (C-IR18), Total Carbon (C-IR07) and Total Sulphur (S-IR08). The assay method and laboratory procedures were appropriate for this style of mineralization. ALS inserts its own standards and blanks at set frequencies and monitors the precision of the analyses. As well, the lab performs repeat analyses at random intervals, which return acceptably similar values to the original samples. Laboratory procedures are within industry standards and are appropriate for the commodities of interest.</li> <li>The assaying and laboratory procedures used for Hexagon samples are appropriate for the material tested.</li> </ul>

VTEM geophysical work was carried out by Geotech Limited with the data validated and processed by reputable consultants.

are appropriate for the material tested.

Criteria	JORC Code explanation	Commentary
		<ul> <li>The RC and DD samples that were submitted by Hexagon to the laboratory include a duplicate, washed sand blank and certified standard at approximately every 20th sample submitted. The duplicate and standard samples were statistically analysed as part of the QAQC process and the data and was found to be satisfactory. Samples to be sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane for Total Graphitic Carbon (TGC) analysis. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay.</li> <li>For Hexagon's Diamond field duplicates were taken from the coarse reject from processed diamond core samples at a rate of 4 every 100 samples, standards at a rate of 4 every 100 samples and blanks at 2 every 100 samples.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>GCM samples were collected by Apex Geoscience field geologists. Assay results are pending but will be verified by alternative company personnel and the Qualified Person before release.</li> <li>Twinned Hexagon RC and DD core holes were completed on Exploration Mackerel and Cobia. An initial comparison of RC and DD twins suggests that the RC method may be under-reporting Total Graphitic Carbon and that this needs addressing in future exploration.</li> <li>The Hexagon database is hosted in a SQL backend database, ensuring that data is validated as it is captured, and exports are produced regularly. Assay results are merged into the database from the lab certificates limiting transcription or mapping errors from occurring.</li> <li>Verification for Hexagon data was based on use of duplicates, standards and blanks used. No adjustments to assay data has been made.</li> <li>The McIntosh database is hosted in a SQL backend database, ensuring that data is validated as it is captured and exports are produced regularly. Assay results are merged into the database from the lab certificates limiting transcription or mapping errors from occurring.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The GCM rock chip sample locations were determined by handheld GPS, considered to be accurate to ± 5 m. All coordinates were recorded in MGA Zone 52 datum GDA94. Topographic control is provided by a the two previously completed VTEM surveys and handheld GPS elevations</li> <li>Hexagon drill hole collars were surveyed by a registered surveyor from Kununurra using a differential GPS and ground station. Preliminary</li> </ul>

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		<ul> <li>RC collars were located by handheld Garmin 62S and Garmin 76c Global Positioning System ("GPS") units with a typical ±5 metres accuracy.</li> <li>The map projection used is the Australian Geodetic MGA 94 Zone 52</li> <li>10 metre contour DTM was used for the topographic control with the DTM surface clipped the collar surveys completed by a registered surveyor for Hexagon drilling. The quality and 10m accuracy of the topographic control is considered accurate for the purpose of calculating a mineral resource estimate.</li> <li>Downhole surveys were completed for all holes where possible using a north seeking gyro by ABIM solutions.</li> <li>The map projection used is the Australia Geodetic MGA 94 Zone 52.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The GCM reported rock sampling is of a reconnaissance nature, and thus, only visibly mineralized rocks were targeted for sampling. The reported data is insufficient to support or establish any resource definition.</li> <li>Hexagon RC drill holes at Emperor and Wahoo were spaced 40 x40m or 40 x 20m spacing, Mahi Mahi was completed on 80 x 80m spacing, Threadfin was drilled on 80 x 140m spacing, Longtom 30 x 80m and Mackerel was drilled on 40 x 80m spacing. Diamond drill holes at Targets Wahoo, Barracuda and Emperor are spaced on 80m traverses.</li> <li>No sample compositing has been applied for Hexagon drilling.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The GCM sampling was reconnaissance based and targeted areas of visible mineralization. Sampling revealed a number of graphite outcrop occurrences that had not previously been identified or sampled.</li> <li>Hexagon RC drill holes were drilled at near perpendicular to the strike of the graphitic schist horizons. Diamond drill core has been oriented using a Reflex ACE tool (Act II), with α and β angles measured and positioned using a Kenometer.</li> <li>The relationship between the Hexagon drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.</li> <li>At the Emperor, Wahoo, Longtom, Mackerel, Cobia, Baracuda and Mahi Mahi and Threadfin prospects, holes generally drilled dipping at -60° perpendicular to the target graphitic schist unit.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	<ul> <li>For the GCM samples the sample security consisted of the rock chip samples being collected from the field into pre numbered calico bags and loaded into polyweave bags for transport to the laboratory. The chain of custody for samples from collection to delivery at the laboratory was handled by Apex Geoscience Australia personnel. The sample submission list was submitted by email to the laboratory, where the sample counts and numbers were checked by laboratory staff.</li> <li>Hexagon RC samples were collected from the cone splitter, DD samples were cut using a diamond blade core saw; samples were then placed in calico bags and then placed in self-sealing plastic bags prior to being put into bulka bags. The bulka bags were then transported by road to the laboratory in Perth. The samples were processed and the pulps despatched to Actlabs in Canada or ALS in Brisbane/Adelaide. In this announcement the samples were taken in personal luggage on a commercial plane to Perth. The sample security is considered to be adequate</li> </ul>
reviews	The results of any audits or reviews of sampling techniques and data.  ting of Exploration Results	<ul> <li>For the GCM rock chip sampling, no formal audits or reviews have been performed on the project, to date.</li> <li>The GCM rock chip work was carried out by reputable companies and laboratories using industry best practice. Collection of the samples were completed by Apex Geoscience Australia Pty Ltd who are independent geological consultants.</li> <li>Sampling techniques and data for the Hexagon drilling have been handled by an independent data management consultancy in Perth, WA. CSA completed an audit of the database and found it to be reliable. CSA conducted a site visit in October 2015 to review geological, sampling and QA/QC procedures and found them to be well documented and being adhered to. Optiro in May 2017 audited Hexagon's existing resources.</li> <li>For the Hexagon's field data, it was managed by an independent data management consultancy Rock Solid Solutions.</li> </ul>

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental</li> </ul>	<ul> <li>These tenements are held by McIntosh Resources Pty Ltd who is a wholly owned subsidiary of Hexagon Energy Materials Limited (HXG).</li> <li>Green Critical Minerals Ltd (GCM) has the right to earn up to an 80% interest in McIntosh from Hexagon Energy Materials Limited (HXG)</li> </ul>

Criteria	JORC Code explanation	Commentary
and land tenure status	<ul> <li>settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>HXG entered into a joint venture arrangement with Mineral Resources     Ltd (MRL) who are the managers of exploration on the project.</li> <li>There are no known impediments.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The East Kimberley has been largely explored for base metals and diamonds with no active previous exploration for graphite. Graphite had been noted by Gemutz during regional mapping in the Mabel Downs area for the BMR in 1967, by Rugless mapping and RAB drilling in the vicinity of Melon Patch bore, to the east of the Great Northern Highway in 1993 and has been located during nickel exploration by Australian Anglo American Ltd, Panoramic Resources Ltd and Thunderlarra Resources Ltd over the last 20 years.</li> </ul>
Geology	Deposit type, geological setting and style of mineralization.	<ul> <li>The McIntosh Project graphite schist horizons occur in the high grade metamorphic terrain of the Halls Creek Mobile Zone of Western Australia.</li> <li>The host stratigraphy is the Tickalara Metamorphics which extend for approximately 130 km along the western side of the major Halls Creek Fault.</li> <li>The metamorphic rocks reach granulite metamorphic facies under conditions of high-temperature and high pressure although the metamorphic grade in the McIntosh Project area appears to be largely upper amphibolite facies with the presence of key minerals such as sillimanite and evidence of original cordierite.</li> <li>Hexagon has identified graphite schist horizons and accompanying aerial EM anomalies over a strike length in excess of 15 km within the granted tenements, with potential for another 35 km strike length of graphite schist in EL applications. The McIntosh target areas contain graphite and include seven (7) identified exploration target areas – Mackerel, Cobia, Wahoo, Barracuda, Emperor, Rockcod and Trevally.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly</li> </ul>	<ul> <li>At Emperor, a total of 24 RC holes for 2,686 m, and 41 diamond holes for 5,168 m have been completed historically from 2012 to 2018. Drillhole spacing was generally 40 x 40 m and 40 x 80 m along strike to the south of the mineralisation. Most drillholes were drilled at -60 degrees.</li> <li>At Wahoo, a total of 45 RC holes for 3,646 m and 12 diamond holes for 1,298 m have been completed historically. Drillhole spacing was 40 x 20 m and holes were drilled at -60 degrees.</li> <li>At Longtom, a total of 58 RC holes for 5,564 m and 3 diamond holes for 156 m have been completed historically. Drillhole spacing was 50 x 25 m and holes were drilled at -60 degrees.</li> </ul>

Criteria	JORC Code explanation	Commentary
	explain why this is the case.	<ul> <li>At Barracuda, a total of 38 RC holes for 3,111 m and 5 diamond holes for 396 m have been completed historically. Drillhole spacing was 50 x 20m, increasing to 100 m along strike with holes drilled at -60 degrees.</li> <li>At Cobia and Mackerel, a total of 75 RC holes, with 11 diamond tails for 9,146 m have been completed historically. Drillhole spacing was generally 100 x 40 m or 100 x 30 m with holes drilled at -60 degrees.</li> <li>At Threadfin, a total of 10 RC holes for 896 m have been completed historically. Drillhole spacing between two lines was 150 m x 80 m with holes drilled at -60 degrees.</li> <li>At Mahi Mahi, a total of 24 RC holes, with 1 diamond tail for 2,999 m have been completed historically. Drill spacing was generally 80 x 80 m with holes drilled at -60 degrees.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>For the rock chips sampling conducted by GCM no weighting or averaging of the data has been applied. No high cuts have been applied. Metal equivalent values are not being reported.</li> <li>Hexagon RC samples were all 1m in length. Diamond core samples will vary between 1m and 2m samples.</li> <li>Metal equivalents are not reported in the Hexagon reports, as this is an industrial mineral project where the mineral properties define grade (e.g. flake size and purity).</li> </ul>
Relationship between mineralizatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>There is a very close relationship between the graphitic schist unit and Total Graphitic Carbon TGC% assays. The presence of graphitic schist is clearly evident in both the Hexagon RC chips and diamond drill core so that the assay widths can be clearly related to the geological logs</li> <li>Hexagon RC and Diamond core drill holes were drilled at or near perpendicular to the strike of the graphitic schist horizons.</li> <li>Mineralised widths at Emperor are estimated to be typically between 5m and 70m. There is a very close relationship between the graphitic schist unit and Total Graphitic Carbon (TGC%) assays. The presence of graphitic schist is clearly evident in both the RC chips and diamond drill core so that the assay widths can be clearly related to the geological logs.</li> <li>Mineralised widths at Wahoo are estimated to be typically between 3m and 15m, compared with RC samples of 1m width. There is a very close relationship between the graphitic schist unit and Total Graphitic Carbon (TGC%) assays. The presence of graphitic schist is clearly evident in both the RC chips and</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>diamond drill core so that the assay widths can be clearly related to the geological logs.</li> <li>At Emperor, the graphitic schist horizon has been interpreted as an anticlinal fold. Angled drill holes (generally 60°) have targeted the mineralised unit with the priority to intersect the limbs perpendicular to the strike of the graphitic schist horizon, although in some areas this was not possible and holes were drilled down dip. However interpreted EM data and the width of intersections where holes were drilled perpendicular to the unit have allowed for a good indication of unit thickness to be made and applied in areas where the information is not available.</li> <li>Mineralised widths at Mahi Mahi are estimated to be typically between 5m and 90m, compared with samples of 1m width. Internal dilution is present in the thicker units. The presence of graphitic schist is clearly evident in both the RC chips and diamond drill core so that the assay widths can be clearly related to the geological logs. The graphitic schist horizon has been interpreted as having a dip to the west of 35 - 40° striking north, north-east. Angled drill holes (generally 60o) have targeted the mineralised unit with the priority to intersect perpendicular to the strike of the graphitic schist horizon.</li> <li>Mineralised widths at Threadfin are estimated to be typically between 3m and 10m, compared with samples of 1m width. Internal dilution is present. The presence of graphitic schist is clearly evident in the RC chips so that the assay widths can be clearly related to the geological logs. The graphitic schist horizon has been interpreted as having a dip to the west of 35 - 40° striking north, north-east. Angled drill holes (generally 60o) have targeted the mineralised unit with the priority to intersect perpendicular to the strike of the graphitic schist horizon.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>An appropriate exploration map has been included in the release showing the GCM rock chip samples alongside historical Hexagon drilling.</li> <li>Relevant diagrams have been included within the main body of text.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Exploration results have been reported using a nominal 3% TGC cutoff over a minimum interval length of 3m. Internal dilution of no more than 2m sub 3%TGc has been incorporated into some intervals.</li> </ul>
Other substantive	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and</li> </ul>	The September 2014 VTEM Supermax and 2016 XCite electromagnetic survey over the McIntosh Flake Graphite Project identified numerous high priority anomalies. Five of these were

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exploration data	method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>previously identified by induced polarisation (IP) and confirmed to be flake graphite schist by geological field mapping, petrographic analysis, rock chip sampling and exploration drilling.</li> <li>VTEM geophysical work was carried out by Geotech Limited with the data validated and processed by Southern Geoscience Consultants (SGC).</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Future work under GCM entails a heritage impact application, heritage survey and drilling to test the depth and strike extensions to observed surficial graphite mineralisation.</li> </ul>