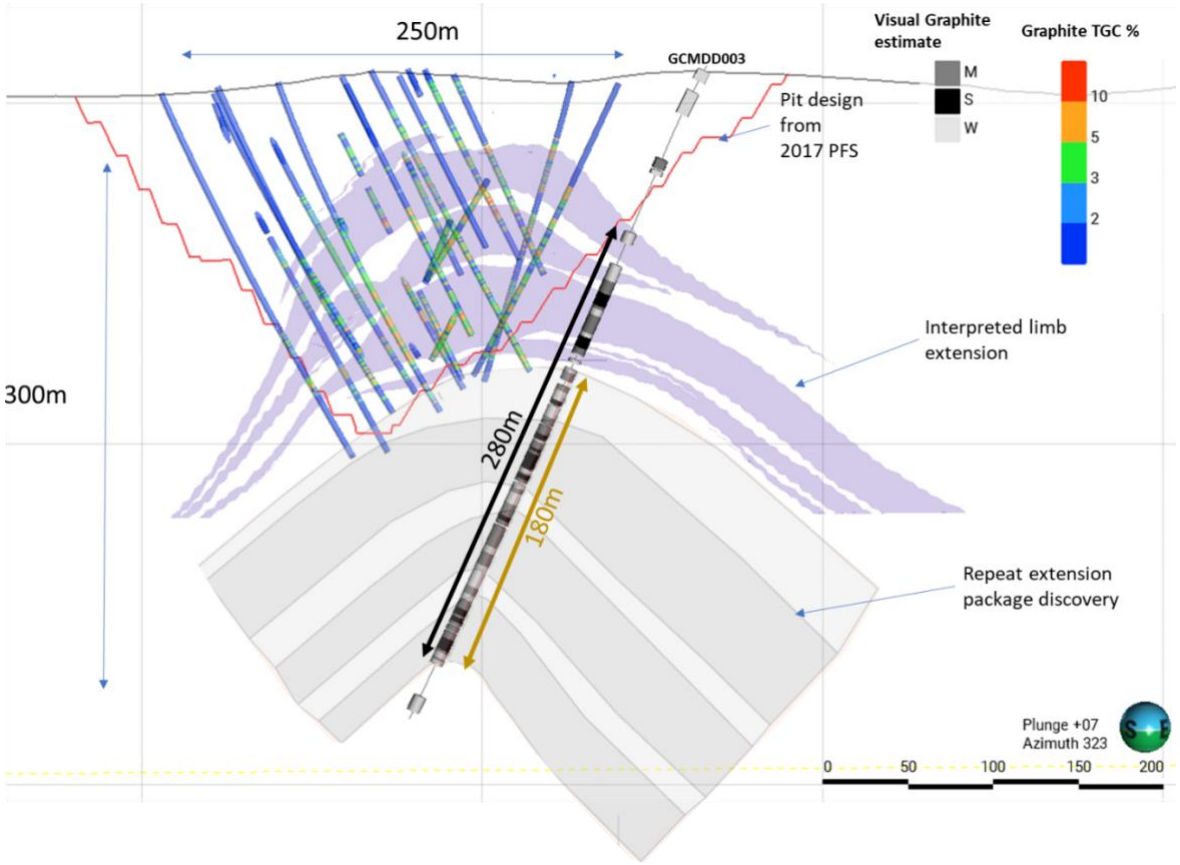
DISCOVERY HOLE INTERSECTS 280m OF GRAPHITE SCHIST AT MCINTOSH PROJECT

Highlights

- Up to 280m thick Graphitic Schist intercepted at the Emperor target.
- Discovery hole GCMDD003 has delineated a significant extension to the high purity Emperor deposit. A previously untested repeat of the known mineralised package has now been discovered.
- The discovery of a repeat mineralised package at Emperor has the potential to substantially expand the resource.
- The graphitic schist package at Emperor is now over 1km in strike, 250m in width and up to 300m thickness, which has the potential to become a significant bulk mining opportunity. The width and thickness of the emperor graphitic schist unit is unparalleled compared to other more tabular vertical dipping deposits.
- In addition to the newly discovered repeat mineralised package, further potential is also held at the interpreted extension of the Emperor fold hinge limbs open to both the east and west.
- Emperor represents a unique graphite deposit that has been hydrothermally upgraded to produce ultra-low impurity premium flake. The hydrothermal fluids have acted in a way to increase the purity and recrystallise the graphite into an almost perfect hexagonal shaped graphite which attracts a premium.

Green Critical Minerals 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 15 June 2022) is thrilled to announce a major breakthrough in our exploration efforts at the Emperor target. Our latest discovery, intercepted in hole GCMDD003, has revealed up to 280m of graphitic schist. Hole GCMDD003 has successfully delineated a significant extension at depth to the known mineralised package at Emperor, uncovering a previously untested repeat (see Figure 1 below). Drill hole GCMDD003 is the deepest hole completed at the Emperor deposit and outlines the potential to delineate this repeat mineralisation along the entire strike length of the Emperor resource.

Figure 1 Emperor Transform Cross Section of GCMDD003 (Section Line A)



Graphite mineralisation is interpreted to form bands concordant with foliation in the schist. The abundance of mineralisation in each 1m interval has been estimated based on visual observations recorded by the onsite geologist (see Table 1).

*** The Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.**

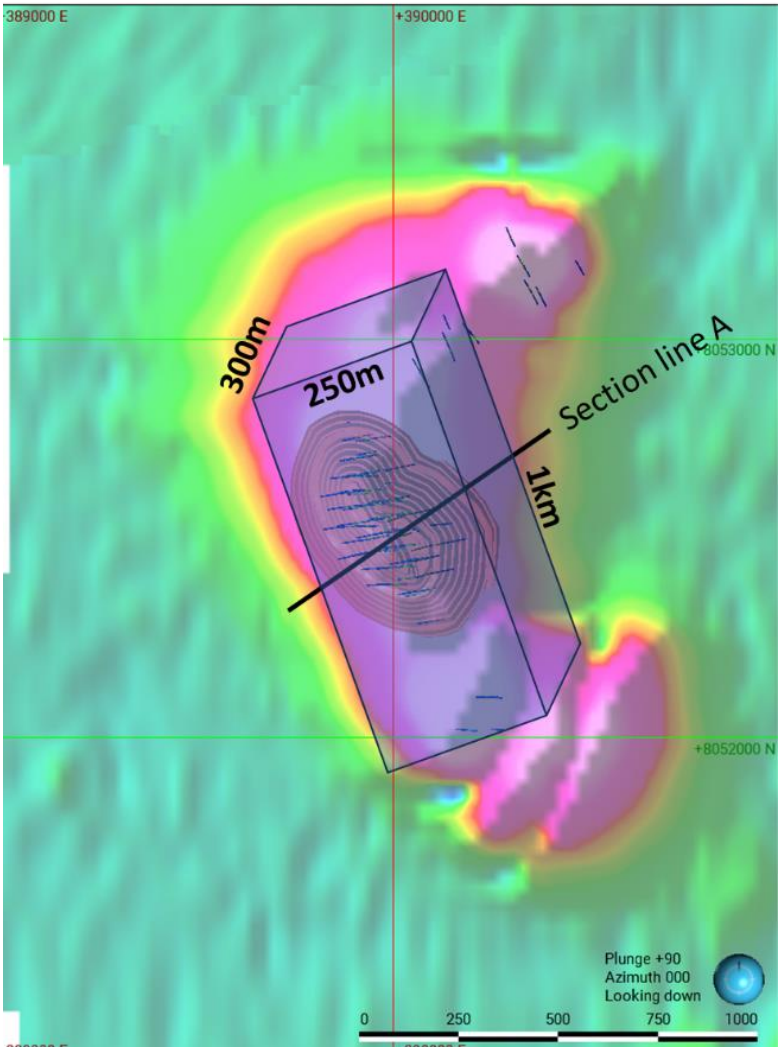


Figure 2 Emperor Plan view showing electro magnetic high with 2017 PFS pit design and cross section line A.

The mineralised package at Emperor is now over 1km in strike, 250m in width and up to 300m thickness. The unique folded nature of the emperor deposit has created an accumulated package of graphitic schist which lends itself to favorable strip ratios compared to vertical tabular deposits that are commonly found elsewhere. This represents the potential for a substantial bulk mining opportunity (see Figure 2).

What further sets Emperor apart from other graphite deposits is its exceptional quality. Through hydrothermal upgrading, the deposit has been transformed into an ultra-low impurity premium flake graphite. This process has significantly increased its purity, resulting in almost perfect hexagonal-shaped graphite—a highly sought-after attribute in the market. The intrinsic purity will potentially enable GCM to be in the lowest quartile of purification costs.

Table 1 Diamond drill hole GCMDD003 visual estimate of graphite.

Hole Id	From (m)	To (m)	Interval (m)	Visual Estimate*
GCMD003 8052605mE, 8052605mN (GDA94z52), -62° Dip, 233° Azimuth, EOH Depth 424m	61	67	6	3-5% Graphite
	68	71	3	1-3% Graphite
	108	115	7	1-3% Graphite
	129	139	10	1-3% Graphite
	139	147	8	3-5% Graphite
	147	155	8	5-8% Graphite
	155	157	2	3-5% Graphite
	157	161	4	1-3% Graphite
	161	172.5	11.5	3-5% Graphite
	172.5	175	2.5	1-3% Graphite
	175	182	7	5-8% Graphite
	182	186	4	3-5% Graphite
	186	187	1	1-3% Graphite
	190	192	2	1-3% Graphite
	196	198	2	1-3% Graphite
	198	203.5	5.5	3-5% Graphite
	207	210	3	3-5% Graphite
	210	216	6	1-3% Graphite
	216	219	3	5-8% Graphite
	220	227	7	1-3% Graphite
	227	232	5	3-5% Graphite
	233	238	5	3-5% Graphite
	238	241.5	3.5	5-8% Graphite
	241.5	243	1.5	1-3% Graphite
	243	247	4	3-5% Graphite
	247	249	2	5-8% Graphite
	249	250.5	1.5	3-5% Graphite
	250.5	260.5	10	5-8% Graphite
	260.5	263	2.5	1-3% Graphite
	263	264	1	3-5% Graphite
	264	267	3	5-8% Graphite
	267	269	2	3-5% Graphite
	270.5	273	2.5	1-3% Graphite
	273	276	3	3-5% Graphite
	276	283	7	1-3% Graphite
	283	291	8	3-5% Graphite
	291	294	3	5-8% Graphite
	294	296.5	2.5	3-5% Graphite
	298	311	13	3-5% Graphite
	311	315	4	1-3% Graphite
	315	323	8	3-5% Graphite
	323	337	14	1-3% Graphite
	337	342	5	3-5% Graphite
	342	345.5	3.5	1-3% Graphite
	345.5	351.5	6	3-5% Graphite
	351.5	355.5	4	5-8% Graphite
	355.5	357	1.5	3-5% Graphite
	357	360	3	5-8% Graphite
	360	362	2	3-5% Graphite
	363	366	3	3-5% Graphite
	367	371	4	3-5% Graphite
	371	374.5	3.5	5-8% Graphite
	375	378.5	3.5	5-8% Graphite
	378.5	380	1.5	3-5% Graphite
	380	383.5	3.5	1-3% Graphite
	383.5	385	1.5	3-5% Graphite
	385	388	3	1-3% Graphite
	409	419	10	1-3% Graphite

*** The Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.**

NEXT STEPS FOR EMPEROR TARGET

The Emperor target now represents a significant opportunity for resource expansion. The following steps are being undertaken as a matter of priority:

- Quantitative assays will be completed by ALS Laboratory, with the results for those intercepts discussed in this release expected in 6-8 weeks from the date of submission.
- An updated Exploration target will be calculated and released.
- The Company will act quickly to add this new extended interval to the ongoing metallurgical campaign at SGS Lakefield;
- Follow up drilling is planned to delineate the repeat mineralisation target; and
- Release updated JORC 2012 resource.

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 consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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.

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.

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.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralization that are Material to the Public Report.* • *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.*	• Diamond Drilling (DD) and Reverse Circulation (RC) drilling at the McIntosh Project was supervised, and samples were collected by, geologists from APEX Geoscience Australia Pty Ltd, which is an independent geological consultancy. • For RC samples were collected in four metre composites, unless visible graphite was observed, in which case one-metre intervals of approximately 2-3 kg were collected, from a rig-mounted cone splitter. • For DD samples will be collected at one metre intervals down the hole. • Samples from the drilling will be submitted to ALS laboratory in Perth, WA, for sample preparation and analysis, with graphitic carbon determined by digesting the sample in n 50% HCl to evolve carbonate as CO_2. Residue is filtered, washed, dried and then roasted at 425C. The roasted residue is analysed for carbon by oxidation, induction furnace and infrared spectroscopy (ALS code C-IR18) and total carbon and sulfur analysis by induction IR (ME-IR08).
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).*	• The RC drilling was conducted by Red Rock Drilling of South Boulder WA, using a Hydco 40 350/1050 truck mounted rig with a Merc 6X6 air truck. This drill uses a modern face sampling hammer with inner-tube and sample hose delivery to cyclone-cone splitter sample assembly. RC drilling used a 5 ½ inch face sampling hammer with a 4-inch rod string. • The DD drilling was conducted by DDH1 of Canning Vale WA, using a Sandvik DE880 truck mounted drill rig. All diamond core was HQ in size.
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.*	• Sample recovery and sample condition is recorded for all drilling. Sample recovery has been good for the holes completed thus far.

Criteria	JORC Code explanation	Commentary
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• RC drill holes were logged for various geological attributes, including colour, lithology, oxidation, alteration, visible mineralisation and veining. All holes were logged in full by geologists from APEX. • The diamond holes had a quick log performed, noting the lithology and the visual graphite abundances. The diamond holes will be send to Core explore technologies in Bassendeen WA for GeoCore X10 analysis which measures geotechnical features, lithology and density values. • Comments on estimates of visual mineralisation: Graphite mineralisation is visually estimated on a metre by metre basis and vary from weak, moderate to strongly mineralised, similar to how alteration is recorded. This estimate is used as a guide only due to the variable nature of mineralisation and actual mineralisation will be determined using laboratory analytical techniques at a certified laboratory. The graphite occurs in bands concordant with foliation in the schist. Identification of the mineralisation is completed on site by APEX geologists.
	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The drill samples were either collected as a 4m composite or a 1m sample. This was determined based on visual graphite mineralisation observed during the logging process. If visual graphite mineralisation was noted, the 1m sample that was collected through the cone splitter mounted to a vertical cyclone was submitted for analysis. The samples were collected as approximately 2 to 3 kg sub-sample splits. • The sample sizes and analysis size are considered appropriate to correctly represent the mineralisation based on the style of mineralisation, sampling methodology and assay value ranges for the commodities of interest. • Quality Control on the RC drill rig included insertion of duplicate samples (5%) to test lab repeatability, insertion of standards (5%) to verify lab assay accuracy and cleaning and inspection of sample assembly. A standard or duplicate was inserted every 20th sample. • The diamond core is yet to be cut and submitted to the laboratory. • Samples will be submitted to ALS, Perth for analysis.
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 (eg standards, blanks,*	• The RC samples to be sent to the laboratory will be crushed and pulverised prior to analysis via C-IR18 analytical method. Graphitic carbon is determined by digesting the sample in n 50% HCl to evolve carbonate as CO_2. Residue is filtered, washed, dried and then roasted at 425C. The roasted residue is analysed for carbon by oxidation, induction furnace and infrared spectroscopy (ALS code C-IR18) and total carbon and sulfur analysis by induction IR (ME-IR08). • The analytical methods and procedures are appropriate for this style

Criteria	JORC Code explanation	Commentary
	duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	of mineralisation. • ALS inserts its own quality control standards and blanks at set frequencies and monitors the precision of the analyses. ALS performs repeat analyses at random intervals to test lab accuracy. • Laboratory procedures are within industry standards and are appropriate for the commodity of interest. • Industry certified standards were inserted in the RC chip sample stream every 20 samples, and field duplicates were collected every 50 samples. Only industry certified base metal standard were used. All standards will be scrutinized to ensure they fell within acceptable tolerances. • The diamond core is yet to be cut and submitted to the laboratory.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Consultant geologists, from APEX Geoscience Australia Pty Ltd were involved in the logging of the RC drilling. APEX was involved in the whole process including drill hole supervision, chip sample collection and will be involved in importing the assay results. Drill hole logs will be inspected to verify the correlation of mineralised zones between assay results and lithology/alteration/mineralisation. The entire chain of custody is supervised by APEX. • The drill hole data was logged using MX Deposit software and will be imported into a database for long term storage and validation.
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.*	• RC and DD drill hole locations are picked up using a handheld Garmin GPS, considered to be accurate to ± 5 m. • Downhole surveys have been completed at 30 m stations (and start and end of hole) using a downhole gyroscopic survey tool (AXIS). The holes have been largely straight thus far. • All coordinates are recorded in MGA Zone 52 datum GDA94. Topographic control is provided by a the two previously completed VTEM surveys and handheld GPS elevations.
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 drilling conforms with historical drilling lines and visibly mineralised surface mineralisation. • The completed drill spacing in conjunction with the historic RC drilling is spaced close enough to confirm continuity of mineralisation and is sufficient to support the definition of a mineral resource, and the classifications applied under the 2012 JORC code.
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.*	• The RC drill holes were drilled at near perpendicular to the strike of the graphitic schist horizons. • GCM23DD003 was drilled at 231º which is just off the optimal orientation of 258º that is perpendicular to mineralisation. • The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a

Criteria	JORC Code explanation	Commentary
		sampling bias. There may be a slight increase in reported thickness's.
Sample security	• *The measures taken to ensure sample security.*	• The sample security consists of the RC chip samples being collected from the field into pre-numbered calico bags and diamond core trays, loaded for transport directly from site via Bruce Avery Transport. Bruce Avery Transport will then deliver the samples to the laboratory. The chain of custody for samples from collection to delivery at the laboratory is handled by APEX Geoscience Australia personnel. • The sample submission will be submitted by email to the lab, where the sample counts and numbers will be checked by laboratory staff.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No formal audits or reviews have been performed on the project, to date.

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 licence to operate in the area.*	• These tenements are held by McIntosh Resources Pty Ltd who is a wholly owned subsidiary of Hexagon Energy Materials Limited (HXG). • Green Critical Minerals Ltd (GCM) has the right to earn up to an 80% interest in McIntosh from Hexagon Energy Materials Limited (HXG) • HXG entered into a joint venture arrangement with Mineral Resources Ltd (MRL) who are the managers of exploration on the project. • There are no known impediments.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 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.
Geology	• *Deposit type, geological setting and style of mineralization.*	• The McIntosh Project graphite schist horizons occur in the high grade metamorphic terrain of the Halls Creek Mobile Zone of Western Australia. • The host stratigraphy is the Tickalara Metamorphics which extend for approximately 130 km along the western side of the major Halls Creek Fault.

Criteria	JORC Code explanation	Commentary
		• 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. • 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.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• Reported in the announcement.

Data aggregation methods	• *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.* • *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.*	• No analysis reported. • Hexagon RC samples were all 1m in length. Diamond core samples will vary between 1m and 2m samples. • 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).
Relationship between mineralization widths and intercept lengths	• *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 (eg 'down hole length, true width not known').*	• 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 • Hexagon RC and Diamond core drill holes were drilled at or near perpendicular to the strike of the graphitic schist horizons
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of*	• An appropriate exploration map has been included in the release

Criteria	JORC Code explanation	Commentary
	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.	showing the Green Critical Minerals rock chip samples alongside historical Hexagon drilling.
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.*	• A table containing visual estimations of graphite mineralisation and locations has been included in the release.
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 September 2014 VTEM Supermax and 2016 XCite electromagnetic survey over the McIntosh Flake Graphite Project identified numerous high priority anomalies. Five of these were 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.
Further work	• *The nature and scale of planned further work (eg 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.*	• Future work under Green Critical Minerals entails a heritage impact application for Marlin and an airborne EM Survey over the Sally Downs tenement package.