



MAIDEN DRILLING PROGRAM AT BOULIA PROJECT CONFIRMS THE PRESENCE OF PORPHYRIES AND SKARNS

- Thick Intersections of skarn and intrusives in all holes drilled in this campaign.
- Granitic porphyry textures recognised in less altered intervals.
- GCM have confirmed the potential for an extensive new belt of mineralisation.
- Assaying and further interpretation to follow in the coming weeks.

Green Critical Minerals Ltd ('GCM' or 'the Company') which holds a 100% interest in its Boulia Copper Gold Molybdenum Project ('**Boulia Project**') is pleased to provide an update on its maiden drilling campaign.

PORPHYRY INTRUSIONS AND SKARNS CONFIRMED

GCM's maiden drilling program consisted of four reverse circulation percussion holes at the Boulia Project, which is located approximately 300 km south of Mount Isa in North West Queensland. GCM undertook this drilling campaign to confirm its novel geological interpretation (from the 3-dimensional re-modelling of publicly available magnetics and gravity data) that there was an extensive belt of prospective porphyry intrusions and skarns within the Georgina Basin sediments, hidden under younger cover. **This interpretation has been verified by this exciting maiden scout drilling campaign.**

This is the **first time that exploration drilling has confirmed that veined intrusions and alteration systems do occur in the Georgina basin.** This result has the potential to open up a new mining district to the south of Mount Isa.

GCM Managing Director Clinton Booth commented *"This is an exciting development for GCM and its Boulia Project, especially so given the team's novel interpretation of the existence of porphyry intrusions and skarns, which has now been proven. The possibility of defining a new mining district is enticing, and we look forward to receiving results from the lab and planning the next phases of exploration at Boulia."*

DRILL PROGRAM

Initially, four angled holes were planned targeting both magnetic and gravity anomalies. However, after the first hole was abandoned due to loose sands and excess water at the base of the cover, the subsequent holes were changed to vertical, collar locations redesigned and drilled with stabilising additives.

These 4 holes were sited using their magnetic signatures, rather than for geophysical indications of associated metal sulphides. Other geophysical exploration techniques such as Induced Polarisation (IP) and gravity are more appropriate for the delineation of high-grade sulphides in skarns and jasperoids, as well as adjacent porphyry hosted copper molybdenum and gold. GCM now plans to use these techniques to delineate future targets in the area.

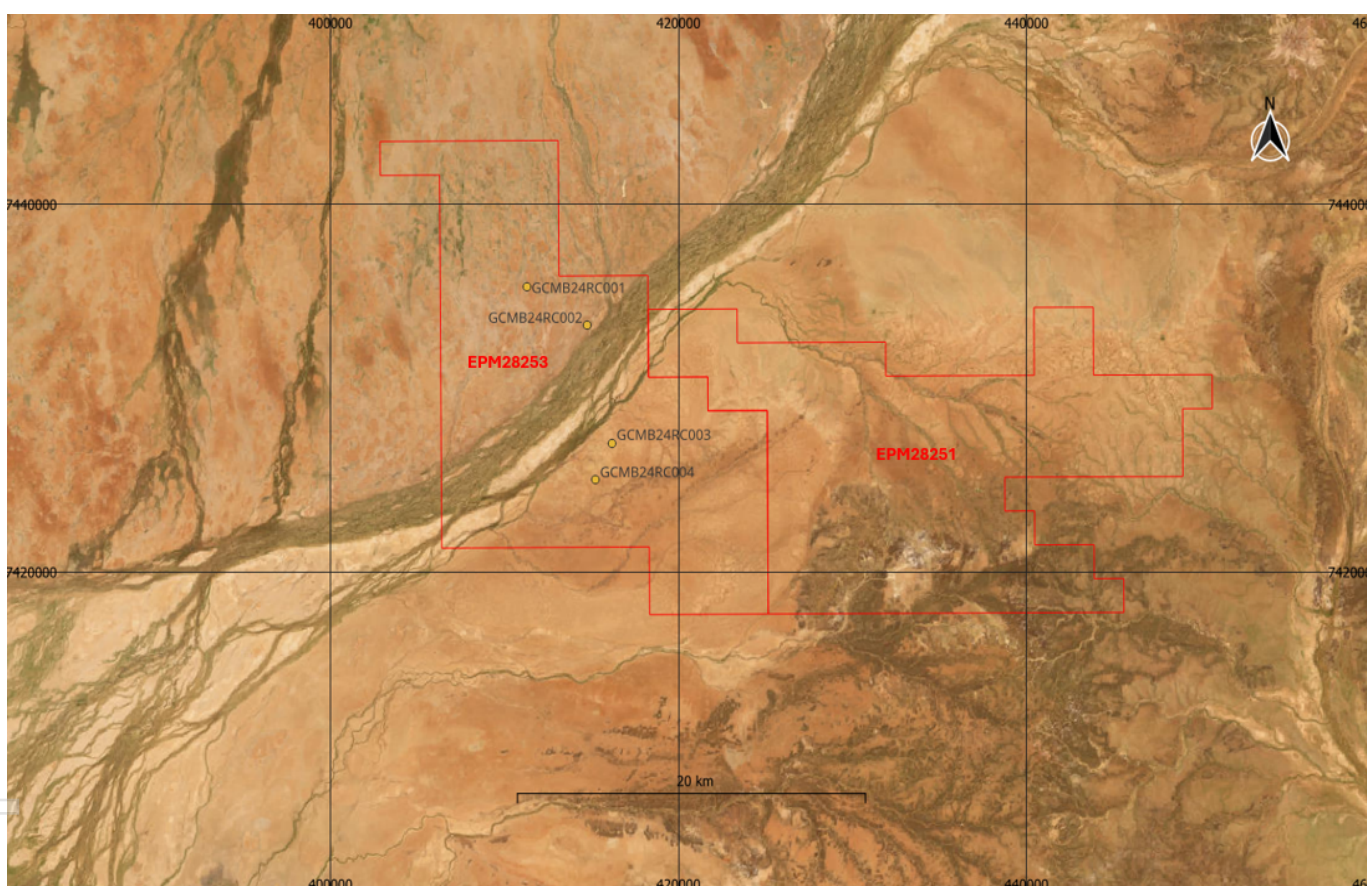


Figure 1 - GCM Boulia Project showing drill hole locations and granted exploration leases

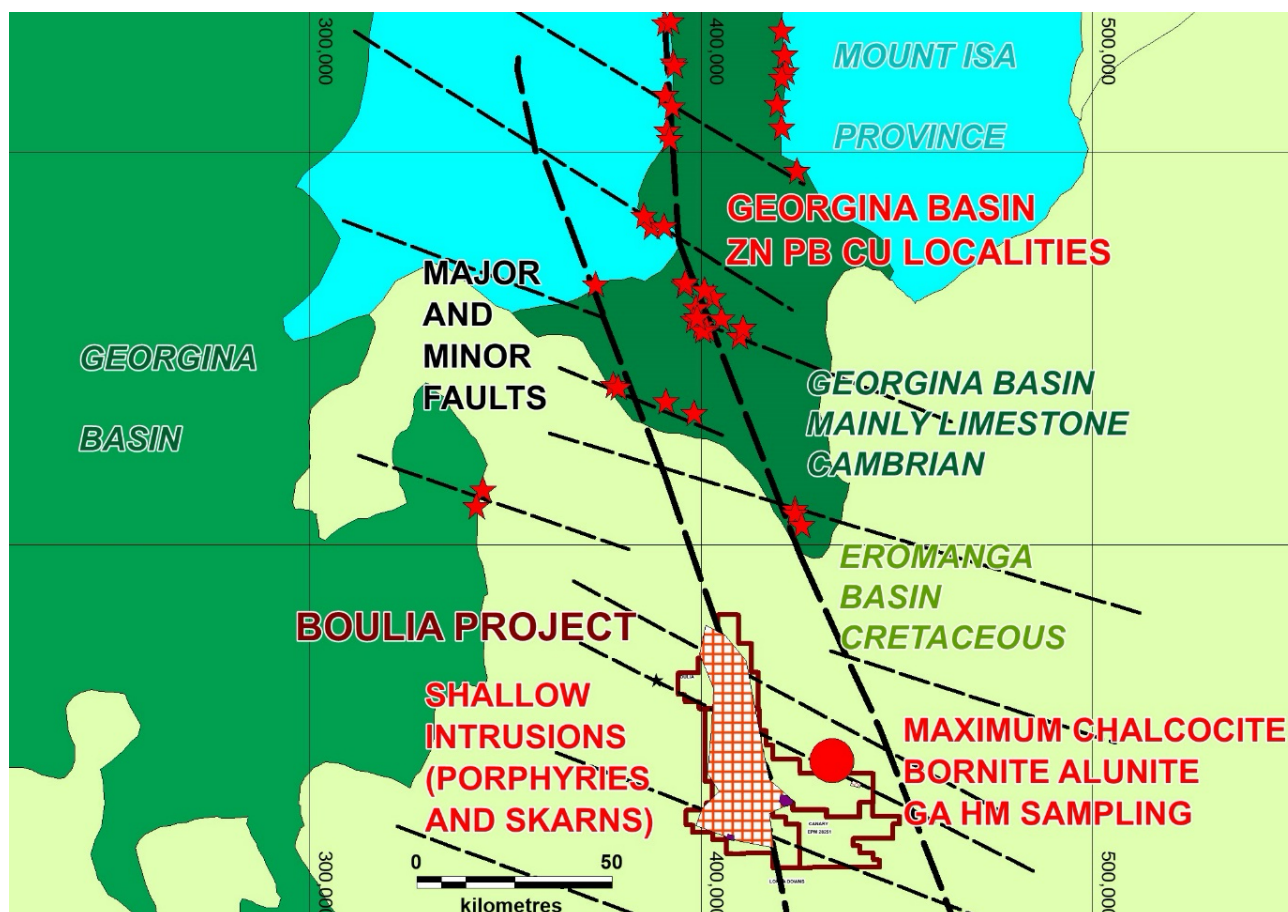


Figure 2 - GCM Boulia Project geology interpretation and outcropping mineralisation

A full suite of laboratory analytes will be completed in the coming weeks. In this district the known copper lead zinc occurrences persist for quite a distance from the interpreted intrusions, so the potential remains for high grades within the system margins which typically would include bedded skarns as well as jasperoid associated replacements.

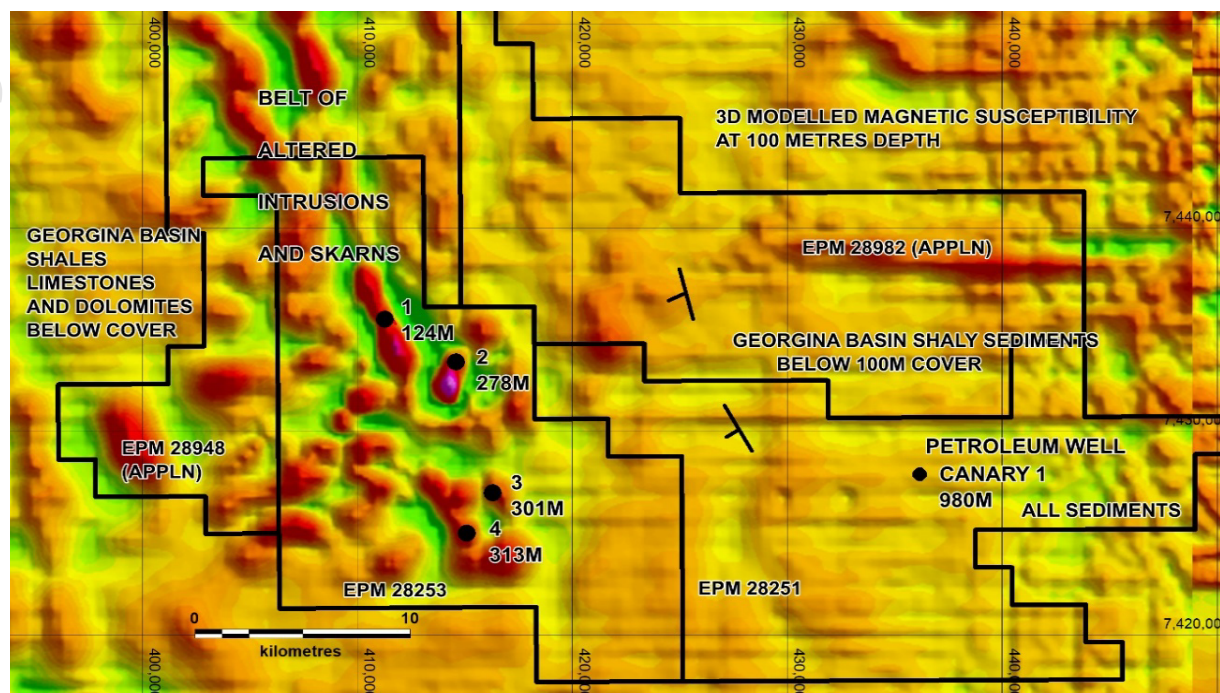


Figure 3 - GCM drillholes on magnetic targets

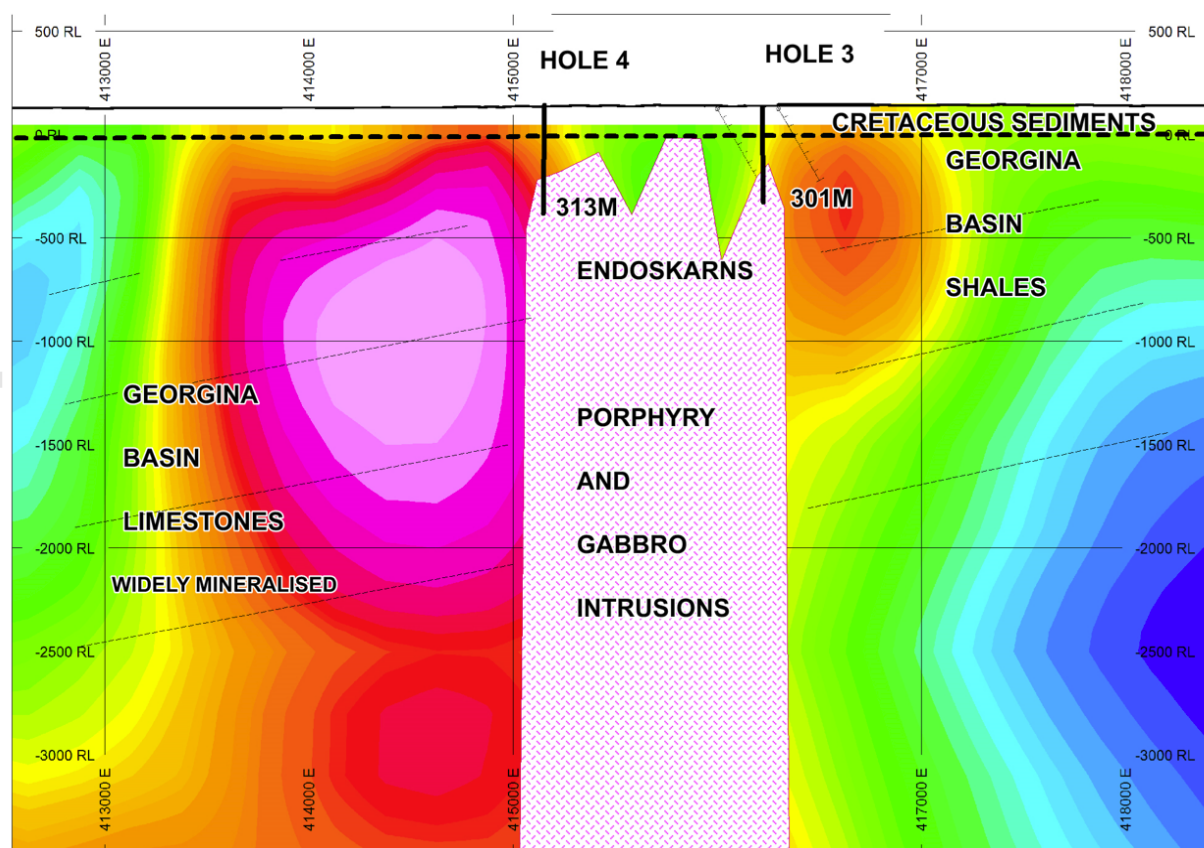


Figure 4 - Magnetic slice and drill Section – Interpretation

NEXT STEPS

The drilling samples will be assayed for a full suite of analytes in the coming weeks.

Due to the highly conductive local overburden, GCM considers Electro Magnetic geophysical surveys inappropriate, and will be focusing on other geophysical techniques to further define targets for future drilling. Subsequently, the large previously interpreted, but now proven, areas of porphyry and skarn targets seen on the 3D magnetic imagery are to be thoroughly investigated by induced polarisation geophysical surveys, and in selected areas by denser gravity surveys.

GCM has approximately 60 km of these new targets within its Boulia tenements (both granted and under application).

A trend of gravity highs that runs parallel to a major magnetic body is of particular interest. This has been interpreted as representing shallow dense rocks possibly zoned out from a magnetic skarn. This feature is to be gravity surveyed with greater density so that future drill targets can be confidently delineated and follow up drilling campaigns designed.

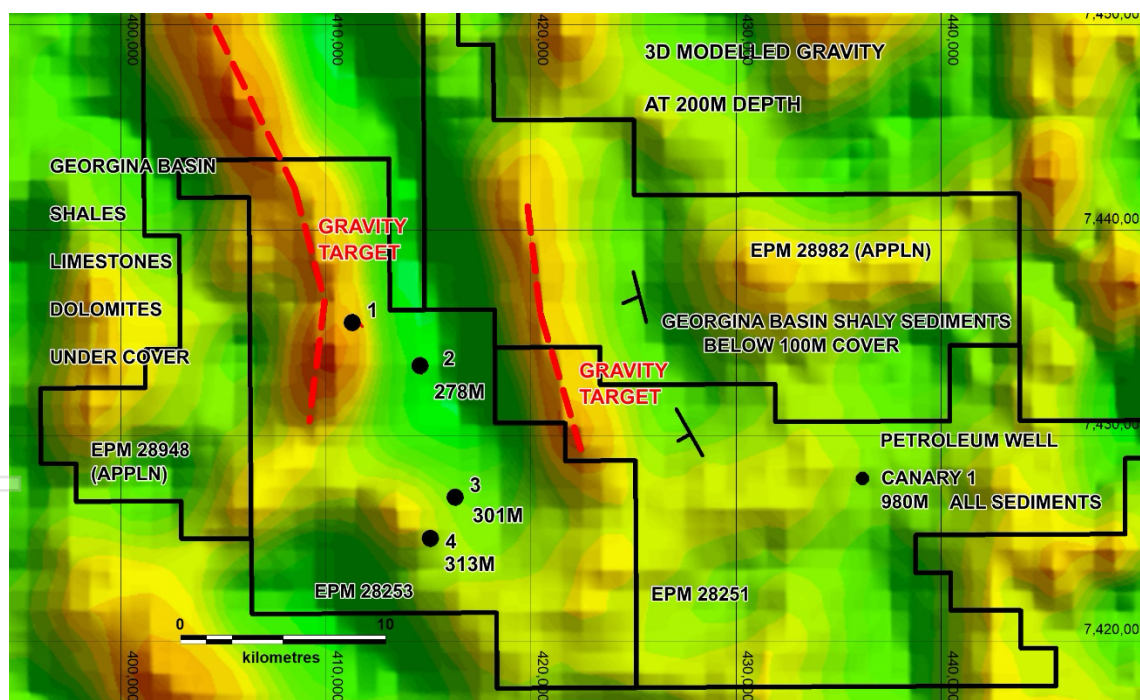


Figure 5 - GCM drilling and 200m depth gravity targets

Competent Person Statement

The information in this release that relates to exploration results is based on information compiled by Mr Neil Wilkins M.Sc. Exploration and Mining Geology, who is a Member of The Australian Institute of Geoscientists. Mr Wilkins is employed by Ascry Pty Ltd, which provides consultancy services to GCM. Mr Wilkins has previously worked in the Boulia Project area and has more than five years' experience which is



relevant to the styles of mineralisation and types of deposit mentioned in this report 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, Minerals Resources and Ore Reserves' (the JORC Code). This public report is issued with the prior written consent of the Competent Person as to the form and context in which it appears. Mr Wilkins holds shares in Green Critical Minerals Limited.

Authorisation

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

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 Minerals 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.

List of attachments

Appendix 1: Table 1. GCM collar locations and details of the drill holes

Project	Prospect	HoleID	Easting (m)	Northing (m)	Azimuth (°)	Zone	Grid	Dip (°)	Depth (m)	Drill Type	Diameter
Boulia	Paton Downs	GCMB24RC001	411286	7435500	270	54	GDA94	-60	123.00	RC	5.5"
Boulia	Paton Downs	GCMB24RC002	414726	7433400	0	54	GDA94	-90	278.00	RC	5.5"
Boulia	Lorna Downs	GCMB24RC003	416178	7426998	0	54	GDA94	-90	302.00	RC	5.5"
Boulia	Lorna Downs	GCMB24RC004	415224	7424999	0	54	GDA94	-90	313.00	RC	5.5"



Appendix 2: Table 2. GCM geological logging of the drill holes

HoleID	From (m)	To (m)	Geological logging and comments
GCMB24RC001	0	123	Cover sediments. Hole abandoned at 123m due to running sands.
GCMB24RC002	0	104	Cover sediments
GCMB24RC002	105	151	Calc silicate skarn and weathered hematite/magnetite altered coarse granitic intrusion
GCMB24RC002	152	262	Intense chlorite epidote dominated dark green alteration with pyrite and veining, some zones of finer grained porphyry igneous textures.
GCMB24RC002	263	278	Less intensely altered coarse granite.
GCMB24RC003	0	123	Cover sediments
GCMB24RC003	124	185	Georgina sediments becoming more intensely altered with depth
GCMB24RC003	186	222	Shaly sediments becoming more intensely altered with depth.
GCMB24RC003	223	296	Intensely chlorite haematite magnetite altered porphyry. Pyritic and veined.
GCMB24RC003	297	302	Strongly altered finer grained porphyry.
GCMB24RC004	0	136	Cover sediments
GCMB24RC004	136	274	Shaly sediments becoming more intensely altered with depth.
GCMB24RC004	275	304	Phyric ultramafic with carbonate veining and disseminated pyrite throughout
GCMB24RC004	305	313	Phyric ultramafic



Appendix 3: JORC 2012 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 mineralisation 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 mineralisation types	- Handheld XRF (pXRF) readings were used as an aid to geological drill chip logging. - No values are being reported in this announcement. - Laboratory analyses are to be reported in the future when they become available. - Samples were taken at 1m intervals from cone splitter off the drill rig cyclone.



Criteria	JORC Code explanation	Commentary
	<i>(eg submarine nodules) may warrant disclosure of detailed information.</i>	
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Reverse Circulation Percussion.
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.	Not applicable – geological observations only.
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.	- Chip samples were logged in 1 metre intervals and photographed in trays. - Logging was quantitative in nature. - Logging was conducted by on site geologist using field Toughbook and APEX Geoscience logging descriptive sheets. - All logs will be uploaded to secure GCM database.
Sub-sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	The GCM chip samples are yet to be submitted and assayed.



Criteria	JORC Code explanation	Commentary
and sample preparation	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>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.</i> <i>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.</i>	Not applicable.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i>	Not applicable.



Criteria	JORC Code explanation	Commentary
	- Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. - Discuss any adjustment to assay data.	
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.	- Hand held GPS. - GDA94Z54. - Axis north seeking gyro downhole 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.	Not applicable.
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.	Not applicable – drilling is first pass and very widely spaced.
Sample security	The measures taken to ensure sample security.	To be delivered directly to ALS in Mount Isa by personnel.



Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not applicable.

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.	- The results are from 100% owned Green Critical Minerals EPM 28253. The project EPMs and applications are subject to native title. - Drilling is not permitted in the river channels, as is standard in Queensland. - A gas pipeline easement passes through the eastern edge of EPM 28251.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous work by Hartz Rare Earths Pty Ltd under EPMs 25158, 25159, 25160 and 25295 was restricted to stream sediment sampling which outlined rare earths and ore element anomalism. The sources of the metals were not located.



Criteria	JORC Code explanation	Commentary
		Jacaranda Minerals Ltd conducted uranium exploration under EPMs 15234, 15235, and 15236. This culminated in a wide spaced shallow aircore drilling campaign. Radiometric logging data is used in this announcement. This did not test the current targets.
Geology	Deposit type, geological setting and style of mineralisation.	Postulated intrusion related gold deposits and copper gold molybdenum porphyry with skarns and replacements.
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.	As provided in the text. RLs have not been surveyed as it is not appropriate for first pass drillholes which are very widely spaced. The terrain is extremely flat.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<i>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.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not applicable.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i>	The vertical holes are probably intersecting features of geological interest at a variety of angles, and true widths are unknown.
Diagrams	<i>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.</i>	Provided in text and figures.
Balanced reporting	<i>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.</i>	Not applicable.



Criteria	JORC Code explanation	Commentary
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.	- Public magnetic and gravity data sourced from the Qld government has been depth modelled by the GeoDiscovery Group on behalf of Green Critical Minerals. - Public Heavy Mineral data was quoted in support. This is from publicly available Geoscience Australia Record 2022/43 - Occurrences of copper lead and zinc were derived from publicly available Geological Survey of Qld digital compilations of reported company geochemistry – Northwest Qld East.
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.	The company plans to assay the chip samples and also to conduct IP and gravity geophysical surveys.