Resumption of Exploration Programmes in the NT and QLD

Highlights

- GCM has resumed field work at its North Barkly (Northern Territory) and the Boulia (Queensland) Projects.
- Compilations by GCM and exploration work carried out by previous parties indicates the North Barkly Project may represent the strongest and the shallowest major base metal project in the Barkly region.

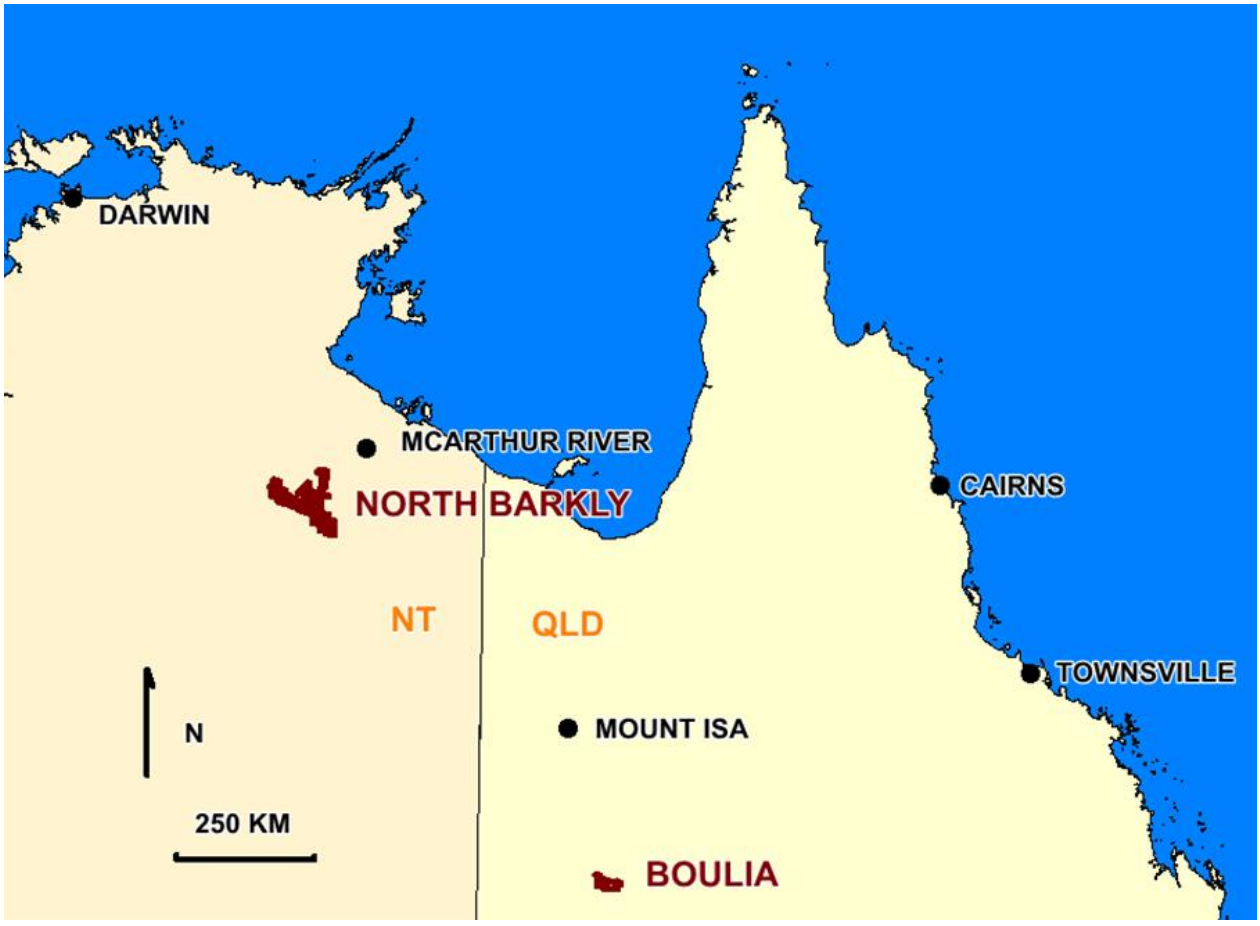

Figure 1 - Location of the GCM Boulia and North Barkly Projects

NORTH BARKLY PROJECT

208 wide spaced samples have been collected with helicopter assistance, extending geochemical coverage over all three granted Exploration Licences. The samples will be sieved to 75 microns and analysed at the laboratory, using the same methods as for the rain interrupted 2022 sampling programme (see GCM ASX Announcement 3 January 2023).

The sampling is primarily designed to better define the Geoscience Australia > 200 ppm rare earths trend which extends for some 90 kilometres through the granted ELs, and a further 100km, within the adjacent GCM applications. GCM interprets this trend as reflecting an ionic rare earths deposit of very large size.

Additionally, the samples will be analysed for gold, silver, copper, lead, and zinc as well as other indicator elements such as tellurium, tungsten molybdenum indium and arsenic, as the Geoscience Australia (GA) and GCM 2022 sampling indicated these are also anomalous in the central part of the project area, which is geologically favourable for concealed major base and precious metal deposits.

Figure 2 - Helicopter Supported Sampling in remote parts of the North Barkly Project

Compilation and Geological Interpretation

A compilation of previous work and an interpretation of the GCM modelled GA magnetics and gravity surveys has demonstrated that the project area lies along the faulted margin of the Beetaloo sub basin, in a structural setting that is shared with the major base metal sediment and breccia hosted deposits in this province, e.g. McArthur River, Walford, and Mount Isa. There has been little prior mineral exploration in the Beetaloo sub basin, because of the extensive but relatively thin cover.

The thick base and rare metal anomalism in cover and in stream sediments to the north is interpreted to be sourced in the Beetaloo basin margin fault zones, which are recognisable as linear magnetic features parallel to the basin margin. The largest one of these magnetic features was drilled by CRA as a diamond prospect. In that hole, RK2, the Beetaloo basin sediments under 4m of cover, exhibited local IOCG haematite magnetite silica sulphide alteration, intensifying to the end of the hole at 290m (see GCM ASX Announcement 14 February 2023).

The peak area of cover anomalism (REE Cu Pb Bi Sb Mo In W Te Au As) in the Geoscience Australia NAGS sampling programme was detected around the area drilled by BHP in 1994, and is referred to by GCM as the MD1A prospect. Locally, the modelled magnetics and the BHP drillhole geology indicates that the main Beetaloo basin margin fault underlies the geochemical peak, with the volcanic rocks being in contact with mineralised (MD1A logs) dolomitic sediments.

This juxtaposition of volcanics and mineralised dolomitic sediments is the location of the highest grades and the copper cobalt zones at Mount Isa and Walford Creek.

The GCM North Barkly Project has the strongest geochemistry, the shallowest cover, the most favourable geology, and the largest most numerous targets of all in the Barkly region.

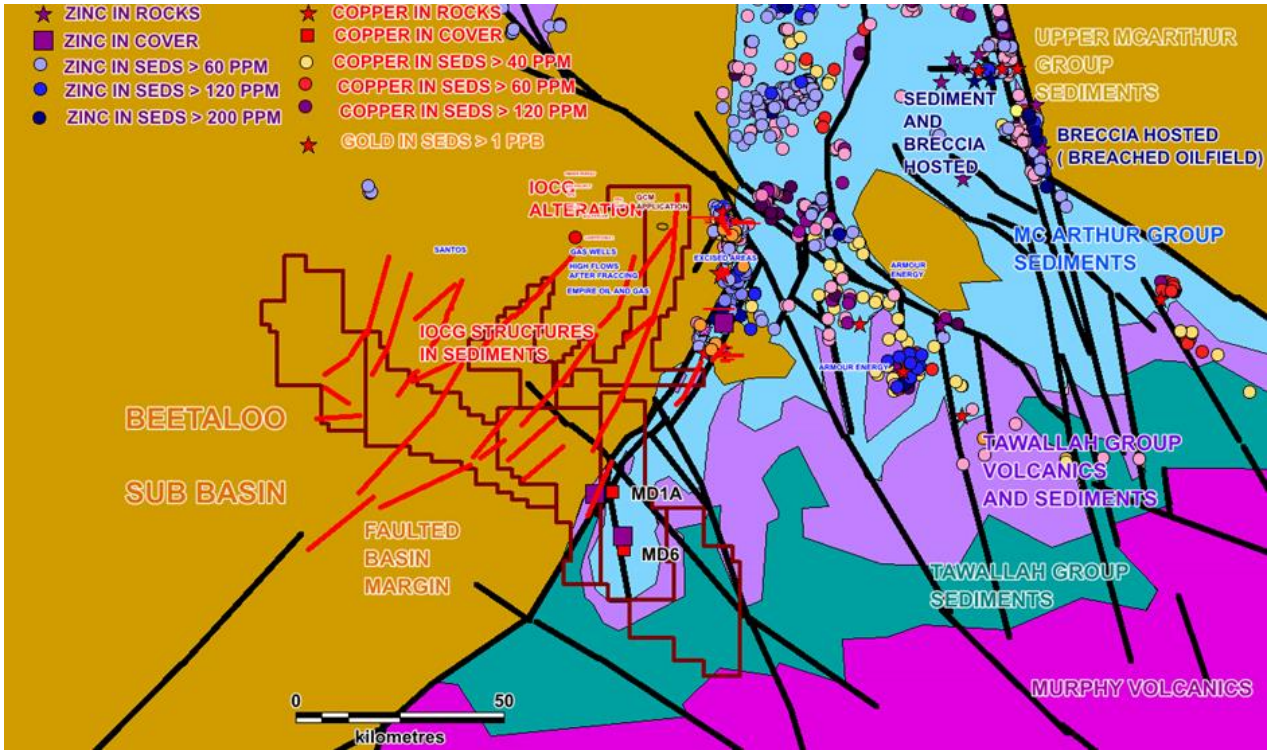

Figure 3 - GCM Interpreted Geology below Cover with Compiled Public Geochemistry

Plans for 2023 Drilling

Planning is also advanced with respect to a first pass drilling programme scheduled for later this year. A plan of work for a 1,100m Reverse Circulation drilling programme has been submitted to the Northern Territory government and has been approved by the landowner.

The drilling is designed to provide an initial test for shallow ionic clay rare earths, and to better define the thick extensive base metal anomalism in deeper cover, encountered by surface sampling to the northeast, and by previous drilling within the project area (Figure 4). The cover anomalism intersected by the deeper GCM holes may exhibit metal zoning and other features that will allow better targeting of future work.

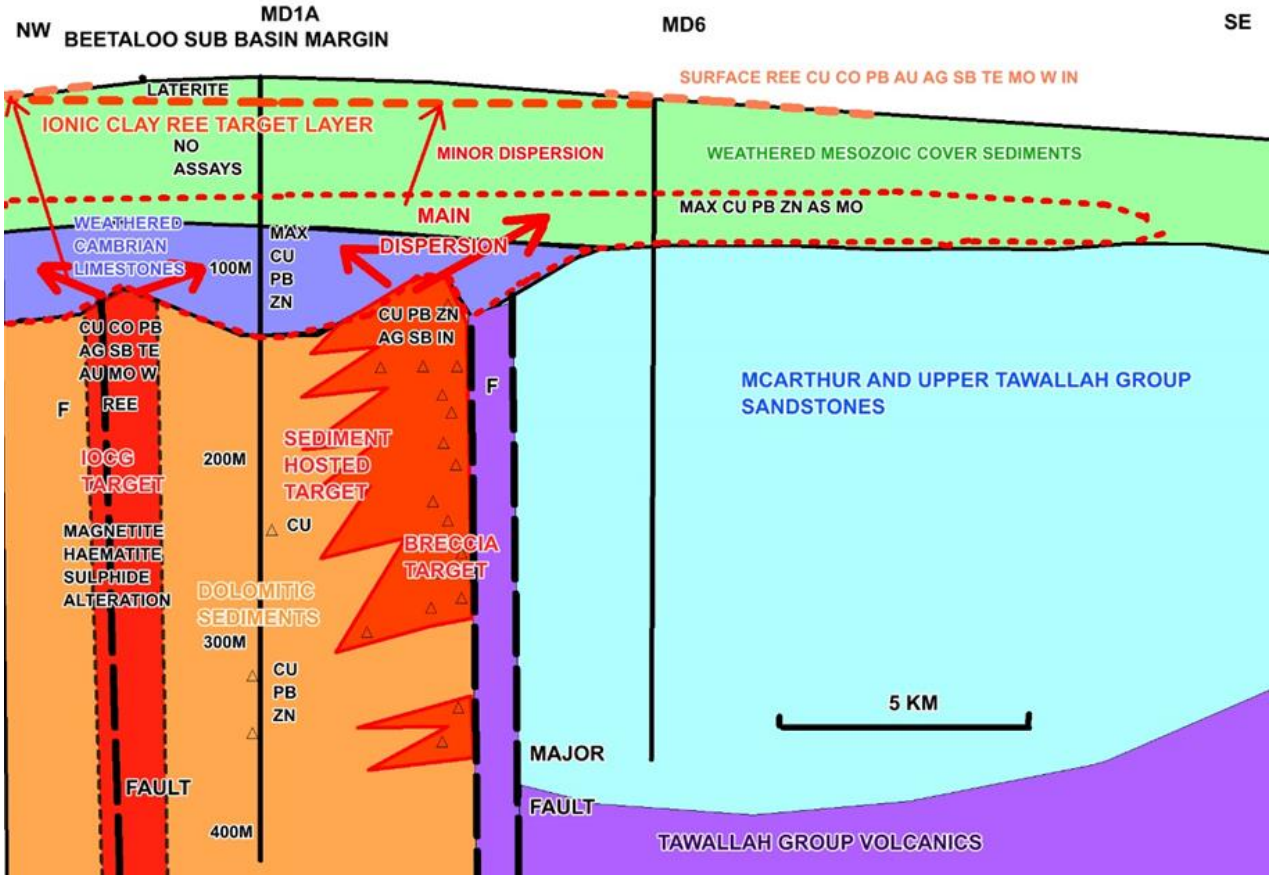

Figure 4 - North Barkly Targets and Geochemical Anomalism from Previous Drilling

BOULIA PROJECT

Sampling has also begun at the Boulia project, about 250 km south of Mount Isa in Queensland. This is to be comprised of 242 mainly widely spaced samples that are to be sieved to 75 microns and analysed by similar methods to those from the North Barkly Project.

The wide spaced lines are designed to better define the rare earths and polymetallic stream sediment anomalies detected in previous work by Hartz Rare Earths Ltd and reported in CR 90040 (EPM 25295) The unclosed anomalies appear to lie along altered veined and brecciated structures that trend NW – SE through gently dipping sediments.

GCM modelling of the publicly available magnetic data has outlined an area of unusually shallow or outcropping magnetic anomalies in the west of the Project (Figure 5). These are also being examined and sampled, as they are either possibly mineralised igneous intrusions, or undetected extensions to the Mount Isa mineral province.

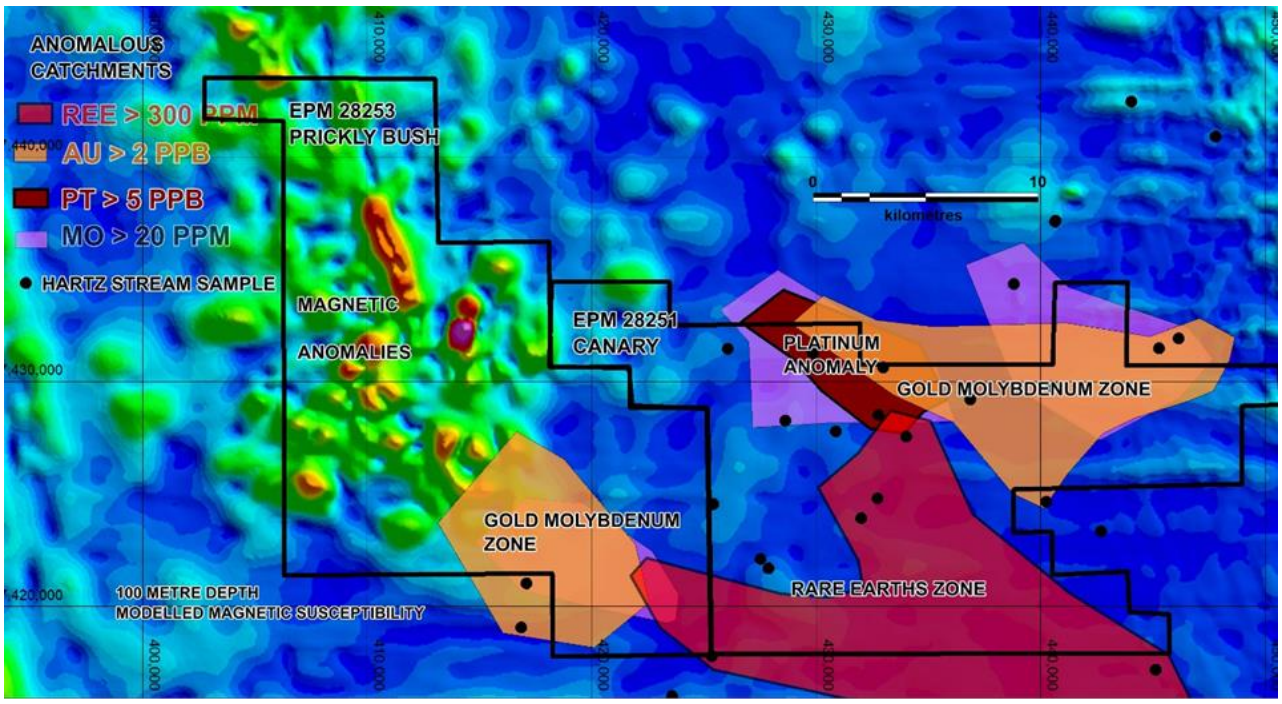

Figure 5 - Boulia Stream Sediment Anomalism Zoning and Magnetic Targets

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 North Barkly 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.

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 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.

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 (eg submarine nodules) may warrant disclosure of detailed information.*	• No new GCM sampling results in this announcement. Previous GCM announcements contain details of previous results. • Geoscience Australia publicly available North Australian Geochemical Survey (NAGS) 75 micron sampling was used in Figures 1 and 2. GCM announcement 14 February 2023. • Northern Territory Geological Survey publicly available digital geochemical database of previous exploration results. • Boulia stream sediment geochemistry by Hartz Rare Earths Ltd was reported in GCM (CML) announcement 19th January 2022. Details are included as appendices.
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).*	• No drilling
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.*	• No drilling
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.*	• No drilling
Sub-sampling	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• No drilling

Criteria	JORC Code explanation	Commentary
techniques and sample preparation	• *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.*	
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, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• No assaying
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.*	• No samples.
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.*	• No sampling
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	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	• Not applicable

Criteria	JORC Code explanation	Commentary
in relation to geological structure	• *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.*	
Sample security	• *The measures taken to ensure sample security.*	• Not Applicable
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• GCM sampling as previously reported, prior company sampling and Geoscience Australia sampling are all mutually supportive in identifying the area as anomalous in a variety of metals and rare earths.

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 announcement refers to 100% Green Critical Minerals Ltd (GCM) granted ELs 33128, 33129, and 33130, as well as EL applications 33229, 33230, 33467 and 33468. The applications mainly cover a mix of freehold leasehold and solely in the case of 33468 Aboriginal land. • There are no known security issues with the tenure at this time, however EL application 33468 may involve protracted negotiations to secure tenure.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been airborne EM by BHP (1993) and also by Geoscience Australia (2018) – Tempest wide spaced survey – EM and drilling details are available for download by the public. CRs 1993-191, 1994-139, 1995-181, 1996-210. • Geoscience Australia (GA) has conducted wide spaced geochemical sampling throughout the region, as part of the North Australian Geochemical Survey. • Stream sediment sampling with gold anomalous results draining the project is reported on the public NT geochemical database – CR1995-0365, CR1984-0247. and CR1989-0751 • CRA explored for diamonds and drilled RC collared corehole RK2 into the magnetic bodies of interest and the logs are publicly available in CR1995-0520. •

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Iron Oxide Copper Gold (IOCG) deposits containing copper gold rare earths molybdenum and other elements in association with haematite or magnetite alteration and replacements. • Mount Isa Style zoned Co Cu Pb Zn, associated with basin margin faulting. • An ionic clay hosted rare earths deposit within a Tertiary laterite weathering profile. The rare earths originate in the IOCG systems but are remobilised in the laterite profiles. • At Boulia the REE target is in sheared sediments with lateritic clay enrichments.
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.*	• No IOCG drilling • No rare earths drilling. • Drilling by BHP in 1994 and 1996 as shown.
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 drilling
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 (eg 'down hole length, true width not known').*	• No drilling and no sections reported

Criteria	JORC Code explanation	Commentary
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.*	• Not applicable
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.*	• Not applicable
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.*	Geoscience Australia and NT Geological Survey public magnetic data has been modelled by Geodiscovery Geophysical consultants to produce imagery. The depth slice imagery displays the magnetism of rocks at varying depths. The geological interpretation is by Neil Wilkins M.Sc who has had several years of mineral and petroleum experience across the McArthur Basin.
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 conduct drilling later in 2023.