EMA PROJECT UPDATE

Brazilian Critical Minerals Limited (**ASX: BCM**) ("**BCM**" or the "**Company**") is pleased to provide an update on progress of current activities of its flagship rare earth Ema project in Brazil as it works to complete its bankable feasibility study.

Highlights

- **Exceptional wellfield results:** Recent testing returned a mean hydraulic conductivity (K) of 0.27 m/day—nearly double the figure used in the Scoping Study—with peak values as high as 0.65 m/day. This result significantly enhances confidence in scalability and production efficiency
- **Robust PLS extraction:** Over 2,000 litres of pregnant liquor solution (PLS) have been successfully extracted, confirming strong in-situ recovery (ISR) performance validating the process
- **Pilot field trial entering final stage:** The field trial is now in its final phase with the water washing cycle underway, bringing BCM one step closer to demonstrating commercial production
- **Permitting advancing rapidly:** Trial mining permit applications have been submitted and are progressing through evaluation
- **Environmental approvals on track:** Studies are complete, with submission expected in the coming quarter—keeping the project development timeline intact
- **Full community and government support:** BCM has secured 100% support from the local community, backed by endorsements from senior officials in Apui, an important de-risking milestone
- **Land access near finalisation:** Negotiations with landowners are well advanced and nearing completion
- **BFS firmly underway:** All key work streams, technical, environmental, and economic are progressing as planned
- **Strategic offtake interest building:** BCM is in advanced discussions with multiple potential offtake partners, reflecting growing market interest to secure, ESG-friendly and rapidly developing rare earth supply
- **Project financing initiated:** Early-stage discussions with strategic and institutional investors have begun, with strong initial interest underscoring confidence in the asset's value proposition

Andrew Reid, Managing Director, commented:

"BCM is now advancing on multiple work fronts, all aimed at designing, permitting and financing the Ema Rare Earth Project.

The pilot field trial has been a resounding success: we have successfully injected, leached, extracted and precipitated rare earths directly from the ground using in-situ recovery (ISR) methods. Notably, these results have been achieved using magnesium sulfate, positioning Ema as the highest ESG-compliant mining project in the sector. The bankable feasibility study has commenced in partnership with Altris Engineering and will cover a comprehensive range of technical and design activities over the next six to nine months.

Engagement with regulators on the mine permit application is ongoing and positive. Data from the field pilot trial will be incorporated into the final environmental permit submission, which is expected shortly.

In parallel, BCM is experiencing strong interest from numerous potential offtake partners keen to understand the Project's progress and upcoming deliverables over the next 12 months. The Company believes that with the lowest CAPEX of just ***US$55 million****, exceptionally* ***low OPEX****, and a compelling mix of highly sought-after rare earth elements, the Ema Project is well positioned to secure offtake agreements and become an attractive addition to future supply chains."*

Pilot Field Trial

The 2025 ISR field test program was designed to validate various deposit-specific characteristics of the Ema project, and to collect a database of hydrogeological and metallurgical data to further evaluate the ISR mining conditions present on site.

Key Highlights

- Recent wellfield data reported a mean hydraulic conductivity (K) almost double that used for the scoping study (0.27 m/day compared to 0.15 m/day), with maximum K value of 0.65 m/day from slug test analysis
- Successfully injected a low strength (0.5M) $MgSO_4$ solution[4];
- Achieved very rapid decrease of the pH within the clay zone to the target value required to leach rare earths over short distances (Figure 1)[4];
- Achieved fast reactivity of the $MgSO_4$ reagent leading to the leaching of rare earths into solution;
- Achieved high PLS grade from leaching the test area[6];
- Maintained a constant flow of solution through the clays, indicating strong permeability;
- Seen a steady and elevated rise in solution levels indicative of a solid impermeable basement[4]; and
- Extracted and precipitated rare earths from solution[6].

The results from the hydrogeological testing at Ema produced initial hydraulic conductivity values that are substantially better than those assumed in the Scoping Study (0.27 m/day vs to 0.15 m/day), with maximum K value of 0.65 m/day[7].

The K value is a property of the material that describes the ease with which a fluid can move through the pore space of the clay network. K values depend on the degree of saturation and on

the density and viscosity of the fluid injected. Sufficient permeability within the mineralised zone is the key criterion for the successful deployment of the ISR mining method.

Maintaining pH control is also fundamental to the success of ISR rare earths projects. The lixiviant must consistently remain at or below the target pH—typically around pH 4—to effectively mobilise rare earth elements from clay-hosted mineralisation without triggering excessive neutralisation or undesirable side reactions. Sustained pH stability under field conditions not only ensures efficient leaching and higher recoveries but also demonstrates the robustness and scalability of the process, which are critical factors in de-risking ISR operations and advancing project development.

Through the field pilot trial, the Company successfully maintained the pH of the lixiviant within the clays at or below the target pH level of 4 for a substantial period of time[6] (Figure 1.) ideal for ISR leaching and metal extractability.

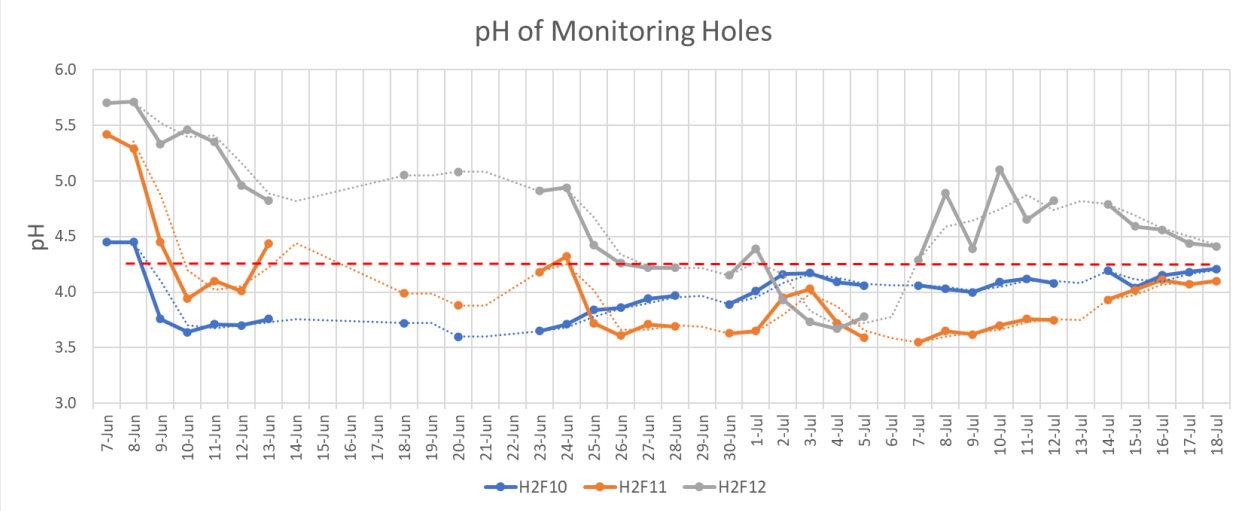

Figure 1. pH values of the monitoring holes within the field trial area 2 undergoing $MgSO_4$ injection

Water Washing

Subsequent to the completion of $MgSO_4$ injection, the Company has now commenced the final phase of the field pilot trial, being the injection of local river water through the mineralised clay horizon. The primary objective is to re-establish both the background pH and sulfate levels (SO_4) whilst collecting and submitting information to the regulators for assessment which could comply with regulatory commitments upon commercialisation of the project (Figure 2).

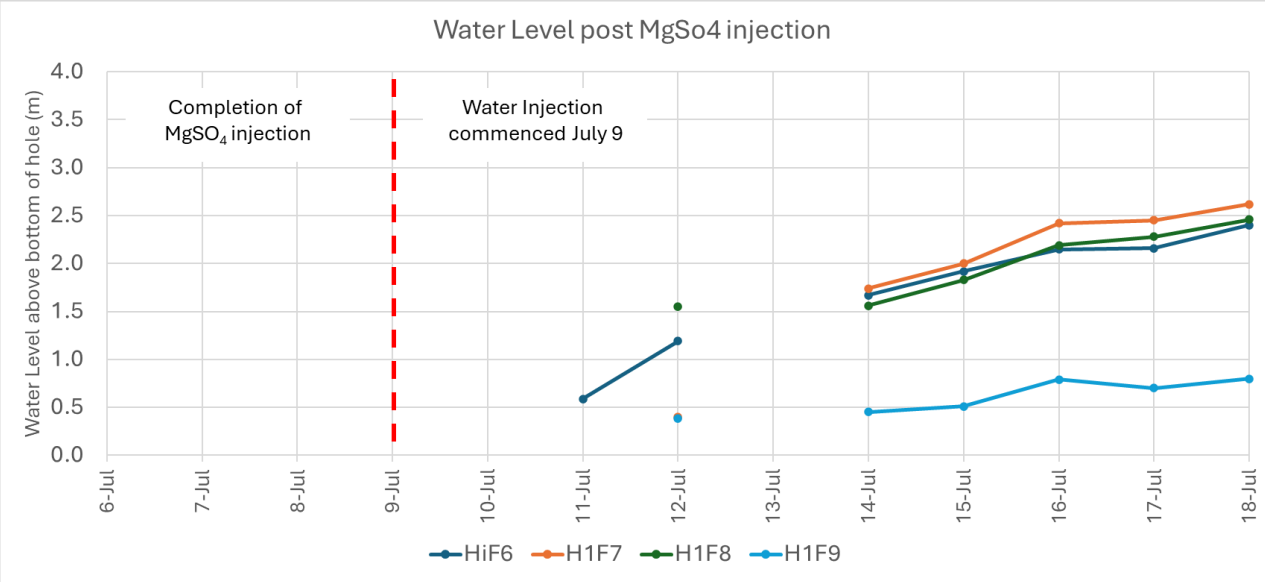

Figure 2. Rising water levels in monitoring holes in field trial area 1 responding well to water injection and retuning pH values to background levels.

Project Permitting

The Company has adopted a 2-prong permitting strategy. In April, the Company, submitted to the Mines Department (ANM) two applications for trial mining licences (each with a capacity of 3,000tpa TREO), one for each of BCM's 100% owned tenements. Complimentary to the application to the ANM, the Company is finalising the environmental study for the trial mining licences, to be submitted to the state environmental authority (IPAAM) in the coming weeks.

A trial mining licence in Brazil is valid for recurring 3-year increments and allows projects to be fast tracked into production whilst collating information specific towards finalising a full mining permit application.

These two trial mining applications are currently being evaluated by a task force specifically established for the purpose.

Furthermore,

- A separate task force has been set up to evaluate the previously submitted final exploration reports, the first step in obtaining a full mining license.
- Approval of both exploration reports is anticipated in the coming quarter
- All Environmental baseline data has now been collected with Environmental consultants CERN currently finalising the environmental impact studies for both the trial mining and full mining licences
- BCM has established close lines of communication with both ANM and the Environment State Regulator (IPAAM) in Manaus and routinely monitors progress of the approval processes

- BCM regularly engage the Ema project with state authorities and has established close ties with the local Mayor, who actively supports the Company's activities.

In 2019, BCM successfully received a both a trial mining licence[7] and an Environmental permit[8] for the Três Estados precious metals project also located within the same region as the Ema rare earth project.

The full mining permit comprises an application to the ANM and a submission to IPAAM, comprising a full environmental impact study, which will incorporate a detailed analysis of data from the current field pilot trial. On approval of the study the Company will be granted a Preliminary Licence (LP), the initial step in obtaining a full mining permit.

The Company is also in the process of finalising landowner agreements with the small number of semi-subsistence farmers who occupy the Ema mineralised area. All the landowners, who are entitled to a royalty by law, are fully supportive of the project. A key factor is the low level of land disturbance and transient nature of the ISR operation, minimising the impact of the operation on farming activities (Figure 3.) and the rapid re-opening of the land post mining.

Figure 3. Before and after photos of the field pilot trial after 2 months of operation. Grass area was cut prior to leaching and vegetation and flora areas remain largely unaffected by the ISR process, other than by heavy foot traffic.

Offtake Discussions

Over the past several months, the Company has made meaningful progress across multiple initiatives, with counterparties actively engaged in discussions around proposals for future rare earths offtake agreements. These discussions now range from intermediate to more advanced stages, though they remain non-committal at this time. Nonetheless, the growing interest in the Ema Project from potential customers and major industry participants highlights an increasing recognition of the asset's quality, its

strong project development outlook, and its de-risked position following a successful field pilot trial. Additionally, the project's favourable location and low financial barrier to production—underscored by the Scoping Study's estimated CAPEX of just **US$55 million**—provides the Company with a solid foundation to evaluate multiple alternative development pathways.

Financing Strategy/Opportunities

For the Ema project, where capital requirements are extremely low (US$55 million CAPEX identified in the Scoping Study[9]), non-government lenders are viewing the project as a lower-risk opportunity, especially once technical viability and scalability have been demonstrated through completion of the field pilot trial washing phase and feasibility work.

Non-government debt funding represents an increasingly attractive pathway for financing Ema, with comparatively low capital intensity and strong project fundamentals. This approach may involve securing funding from specialist resource funds, private credit providers, or structured finance institutions.

Beyond traditional term loans, non-government debt being reviewed includes mezzanine finance, royalty-backed debt, or project-specific bonds. These structures can be tailored to align repayment profiles with project cash flows, preserving shareholder equity and minimising dilution.

The ability to attract private debt funding is linked to key de-risking milestones—such as proven extraction performance, clear permitting pathways, and offtake interest from reputable industry players. To date the Company holds no information it believes will prevent the achieving of the above milestones.

Bankable Feasibility Study

BCM recently awarded a contract for the services of Altris Engineering to be the lead manager with respect to completing a bankable feasibility study (BFS) of Ema. The study has commenced and is expected to take 6-9 months to complete.

Major BFS responsibilities include;

Altris

- CAPEX cost estimate (Class 3 ± 15% Engineering assessment)
- OPEX cost estimate
- Overall project delivery and technical sign-off

BCM

- Conversion of inferred to indicated resources
- Topographic surveys (Lidar) over first 5 years of production
- Geophysical surveys to assess bedrock ground conditions
- Logistics costing for import/export of consumables
- Financial modelling

ANSTO

- Optimisation of the process strategy through the processing steps of impurity removal and precipitation of MREC
- 1,000litres of PLS from the field trial is currently being mobilized to Australia

WSP

- Field trial data collation and assessment
- Hydrogeological modelling of solution flows through initial phases of mining
- Design of ISR leaching circuit

The information in this announcement that relates to exploration results is based on information compiled by Mr. Antonio de Castro, BSc (Hons), Member of AusIMM, CREA, who acts as BCM´s Senior Consulting Geologist through the consultancy firm, ADC Geologia Ltda. Mr. de Castro has sufficient experience which is relevant to the type of deposit under consideration and to the reporting of exploration results and analytical and metallurgical test work to qualify as a competent person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Castro consents to the report being issued in the form and context in which it appears.

References

[1]Brazilian Critical Minerals (ASX:BCM) – ISR testwork from ANSTO achieves high recoveries 12th March 2025

[2]Brazilian Critical Minerals (ASX:BCM) – Ema Field Trial receives magnesium Sulphate Approval 28th March 2025

[3]Brazilian Critical Minerals (ASX:BCM) – Ema Field Trial Commences 14th May 2025

[4]Brazilian Critical Minerals (ASX:BCM) – Ema ISR field trial achieves first major permeability hurdle 27th May 2025

[5]Brazilian Critical Minerals (ASX:BCM) – Placement raises $4.0 Million to advance Ema project 5th June 2025

[6]Brazilian Critical Minerals (ASX:BCM) – Magnesium Sulphate recorded in multiple field trial areas 13th June 2025

[7]Brazilian Critical Minerals (ASX:BCM) – EMA Trial Mining Licence Granted 11th June 2019

[8]Brazilian Critical Minerals (ASX:BCM) – IPHAN and IPAAM permitting Approvals 29th March 2019

[9]Brazilian Critical Minerals (ASX:BCM) – Ema Rare Earths Scoping Study confirms low CAPEX and OPEX 26th February 2025

The information in this announcement relates to previously reported exploration results and mineral resource estimates for the Ema Project released by the Company to ASX. The Company confirms that is not aware of any new information or data that materially affects the information included in the above-mentioned releases.

Enquiries

For more information please contact:

Andrew Reid
Managing Director
Brazilian Critical Minerals Limited
Andrew.reid@braziliancriticalminerals.com

Brazilian Critical Minerals Limited (BCM) is a mineral exploration company listed on the Australian Securities Exchange.

Its major exploration focus is Brazil, in the Apuí region, where BCM has discovered a world class Ionic Adsorbed Clay (IAC) Rare Earth Elements deposit. The Ema IAC project is contained within the 781 km² of exploration tenements within the Colider Group and adjacent sediments.

BCM has defined an indicated and inferred MRE of 943Mt of REE's with metallurgical recoveries averaging 68% MREO, representing some of the highest for these types of deposits anywhere in the world.

The Company has converted the MRE central portion from Inferred into the Indicated category with an extensive drill program during 2024 which will inform the scoping study and economic analysis due for completion Q1 2025.

Ema REE Global Mineral Resource Estimate @COG 500ppm TREO

JORC Category	cut-off ppm TREO	Tonnes Mt	TREO ppm	NdPr ppm	DyTb ppm	MREO ppm	MREO: TREO %
Indicated	500	248	759	176	16	192	25
Inferred	500	695	701	165	16	181	26
Total	**500**	**943**	**716**	**168**	**16**	**184**	**26**

Appendix 1: Table 1 Ema project – JORC Code (2012 Edition) metallurgical sampling techniques and data.

Item	JORC code explanation	Comments
Sampling Techniques	• Nature and quality of sampling. • Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report.	• Exploration results are based on solution samples extracted during ISR field trials conducted by WSP with support of BCM´s exploration team. • The data presented is based on solution collected from the monitoring holes after percolation through soils and saprolite, mined by in-situ techniques. • Sampling and measurements were supervised by the Chief Metallurgist and WSP´s hydrogeologist. • Sample was extracted from deep wells drilled down to bedrock basement whereby solution was pumped to the surface for collection and further analysis • Solution samples were tested for pH with a probe called Incoterm brand pen-type digital pH meter, after calibration. • These results are specific for the tracer test area.
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).	• All auger holes in the test area were drilled with 6” bit. • The deep injection holes in H1 area were the only ones cased with 2” sliced PVC pipes, all others were cased with sliced 4” PVC pipes. • Coarse gravel sand was inserted between the pipes and the edges of the holes to create the filter zone. • Cement around the collars were built to prevent running waters from rain to contaminate the underground water. • Holes drilled are not included in any Mineral Resource Estimation.
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.	• n/a.
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.	• n/a
Sub-Sampling Techniques	• If core. whether cut or sawn and whether quarter. half or all core taken.	• n/a

Item	JORC code explanation	Comments
and Sampling Procedures	• 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 representativity 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	• n/a.
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.	• n/a
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.	• The UTM WGS84 zone 21S grid datum is used for current reporting. The drill holes collar coordinates for the holes reported are currently controlled by hand-held GPS.
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.	• n/a

Item	JORC code explanation	Comments
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.	• n/a
Sample security	• The measures taken to ensure sample security.	• The solution samples sealed in plastic bags were sent directly to Catalão by airfreight and courier to the laboratory. The Company has no reason to believe that sample security poses a material risk to the integrity of the assay data.
Audit or Reviews	• The results of any audits or reviews of sampling techniques and data.	• The sampling techniques and data have been reviewed by the Competent Person and are found to be of industry standard.

JORC (2012) Table 1 - Section 2: Reporting of Exploration Results

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 EMA and EMA EAST leases are 100% owned by BCM with no issues in respect to native title interests. historical sites. wilderness or national park and environmental settings. • The company is not aware of any impediment to obtain a licence to operate in the area.
Exploration done by Other Parties	• Acknowledgment and appraisal of exploration by other parties.	• No exploration by other parties has been conducted in the region.
Geology	• Deposit type. geological setting and style of mineralisation.	• The REE mineralisation at EMA is contained within the tropical lateritic weathering profile developed on top of felsic rocks. rhyolites as per the Chinese deposits. • The REE mineralisation is concentrated in the weathered profile where it has dissolved from the primary mineral. such as monazite and xenotime. then adsorbed on to the neo-forming fine particles of aluminosilicate clays (e.g. kaolinite. illite. smectite). • This adsorbed iREE is the target for extraction and production of REO.

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.
		• Auger locations and diagrams are presented in this announcement.
		• Details are tabulated in the announcement.

Criteria	JORC code explanation	Commentary
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 values of rare earths are report. • No metal equivalent values are reported.
Relationship between mineralization widths and intercepted 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 values of REE were reported for the auger samples. • Mineralisation orientation is not known at this stage although assumed to be flat.
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.	• Maps and tables of the auger holes location and target location are inserted.
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.	• No REE grades are reported.
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.	• No other significant exploration data has been acquired by the Company.
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	• Additional metallurgical test work with magnesium sulphate leach. • Extraction of PLS for stream line precipitation and impurity removals at ANSTO.

Criteria	JORC code explanation	Commentary
	geological interpretations and future drilling areas. provided this information is not commercially sensitive.	• Detail topography survey with LIDAR for mine planning • Geophysics survey, Electro resistivity to define the saprolite/fresh rock boundary and faults in the rock.