

December 2023 Quarterly Activities Report

Highlights:

- Ionic rare earth mineralisation now defined at Ema over 7km x 6km, remains open in all directions.
- Widespread grades >1,000 ppm TREO
- Majority of mineralised holes end in high-grade TREO containing exceptional NdPr contents
- Recoveries of up to 61% via simple sulphate leach
- Only 43% or 82 km² out of 189km² drilled to date
- Discovery of high levels of REEs in the sediments of the Apui ENE project associated with 7% potassium oxide
- Assembly and commissioning of PGM/Au bioleach analytical and pilot plant equipment complete

Brazilian Critical Minerals Limited (ASX: BCM) (“BCM” or the “Company”) is pleased to provide details of its activities during the quarter ended 31 December 2023.

Summary

Field and lab activities continued with excellent safety results in the quarter and no lost-time accidents.

The discovery of rare earths in Ema announced in May 2023 led to increased exploration activities in the Apui region with the definition of three major REE projects (figure 1) with different characteristics, all with the potential for hosting large deposits of ionic rare earths:

1. EMA PROJECT (Ema+Ema East) with 189 sq km of felsic volcanics (rhyolite) with regolith-hosted ionic adsorbed clay REEs confirmed by ammonium sulphate leach tests, similar to the Chinese deposits.
2. APUI REE PROJECT with 358 sq km to be explored for REEs hosted in regolith developed over sediments with a specific radiometric signature, similar to the Makuutu deposit, Uganda.
3. APUI ENE REE PROJECT with 173 sq km of flat lying sediments older than those of the APUI REE PROJECT, with one unit rich in Potash.

Safety

40,273 man-hours were worked in exploration and laboratory activities without a lost time accident (table 4). Total man hours worked without a lost time accident fiscal year to date - 81,925.

Table 4 – Total man hours worked at Apui and Catalão

Field workers/operators	Supervisory staff	Total hours worked
35	5	40,273

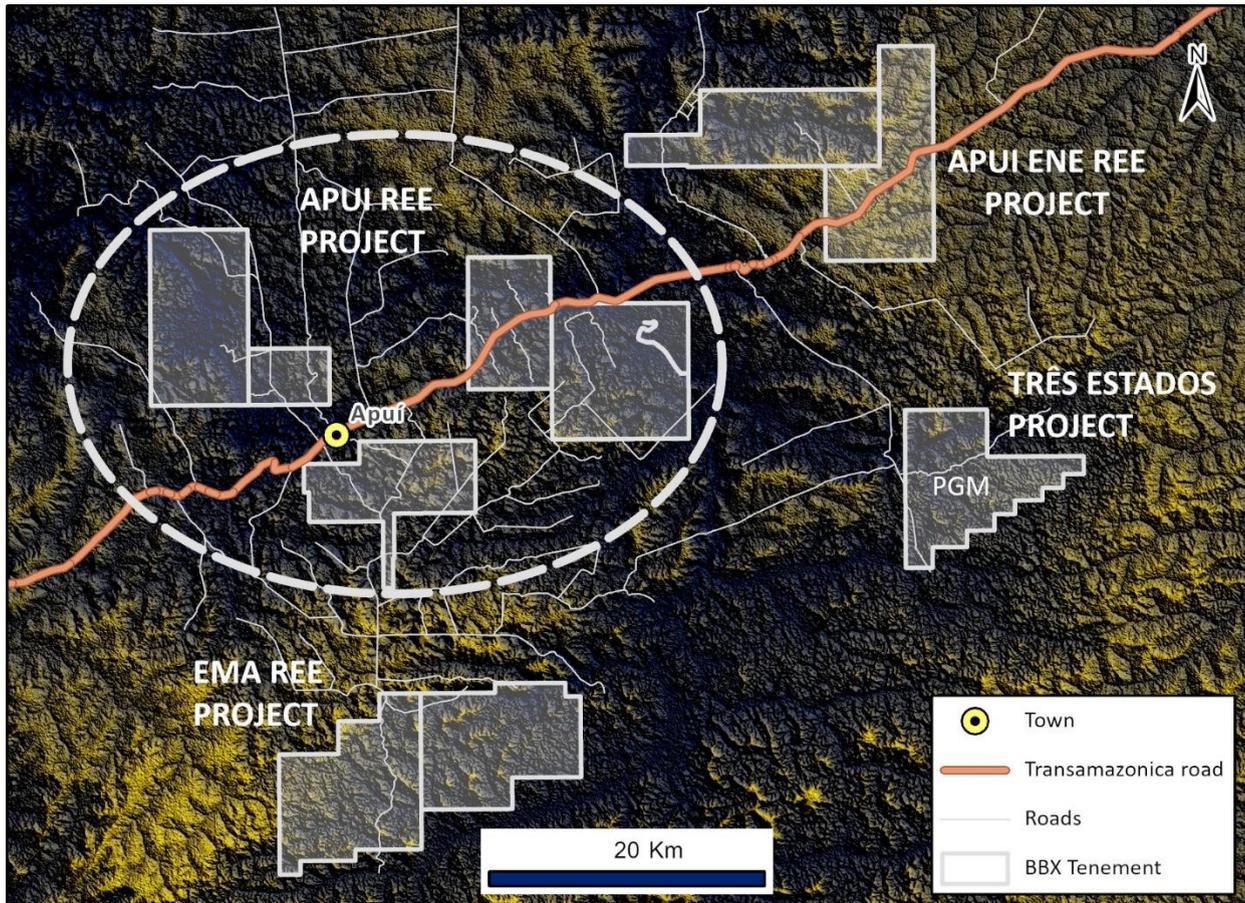


Figure 1 - BCM's REE projects

EMA ionic REE project – Chinese style

An aggressive exploration programme for ionic rare earths following up the discovery of REEs in the felsic volcanics and pyroclastics regolith at Ema was conducted on the the Ema and Ema East leases.

The EMA iREE project (Ema and Ema East leases) is unique amongst Brazilian REE projects in that it shares almost identical characteristics with the iREE deposits developed over felsic volcanic rocks in southwest China, the world's largest known ionic clay region.

These leases comprise 189 km² of felsic volcanic over which 142 auger holes totalling 2,048 metres have been completed to date. A further 53 auger holes totalling 701 metres have been completed at Ema East, testing a total of 82 km² or 43% of the regolith developed over the felsic volcanics (figure 2).

The initial results for 39 auger holes from the regional reconnaissance programme showed the presence of exceptional iREE grades of >3m in excess of 1,200ppm TREO (eg. TR-059 (table 1)), with accompanying elevated values of NdPr oxides, demonstrating the presence of high-grade zones within this major and widespread ionic rare earth deposit, which remains open in all directions (Figure 3).

TREO grades >1,000 ppm are widespread, containing >100 ppm NdPr and 10ppm TbDy oxides. All holes which intersected the enriched iREE horizon end in high TREO values, indicating significant upside potential for high grade material at depth.

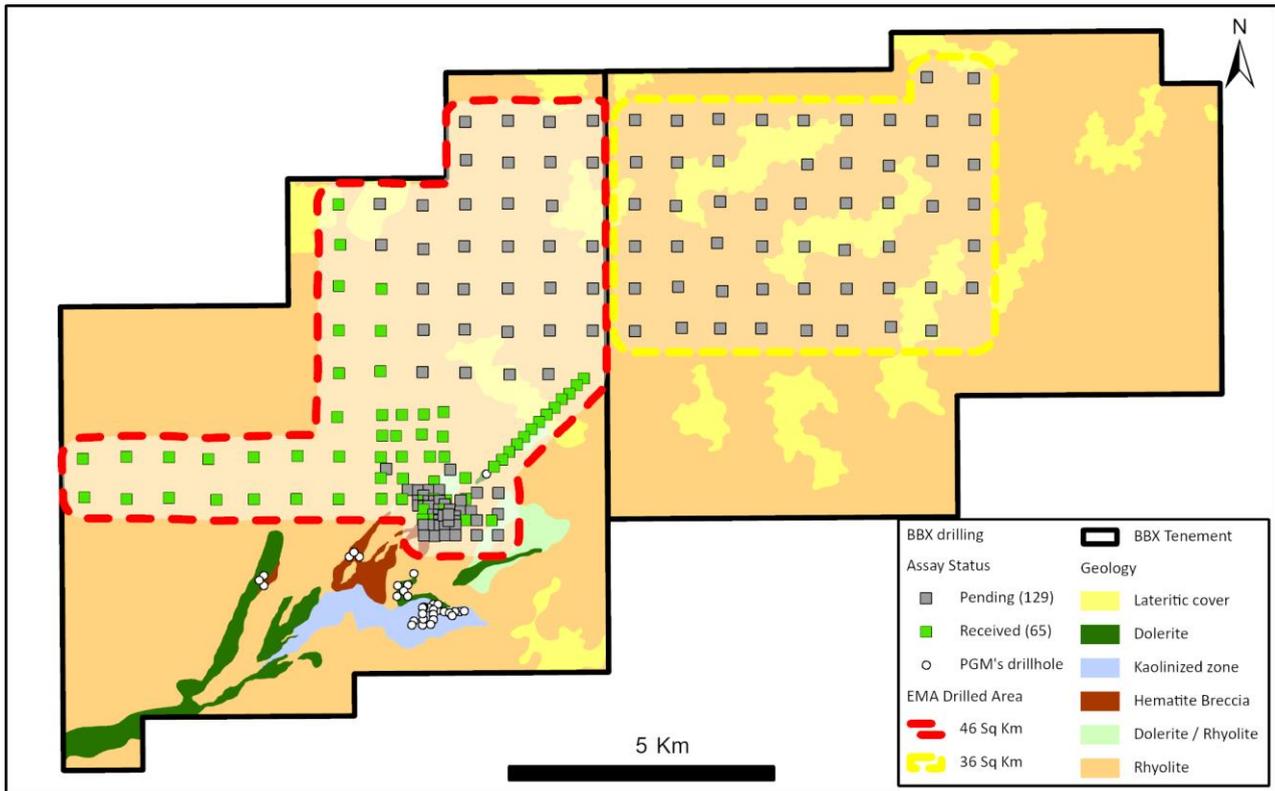


Figure 2 - Ema-Ema East REE project – auger holes on 800m centres and infill drilling status over 82 sq km

Significant results:

- 6 metres @ **1003ppm TREO** from 6m (TR-043), including 3m @ **1191ppm TREO** ending in **1135ppm TREO**
- 7 metres @ **1015ppm TREO** from 6m (TR-050), including 3m @ **1266ppm TREO** ending in **988ppm TREO**
- 6 metres @ **812ppm TREO** from 6m (TR-051), including 2m @ **1122ppm TREO** ending in **1182ppm TREO**
- 16 metres @ **771ppm TREO** from 1m, including 3m @ **1282 ppm** (TR-059) ending in **888ppm TREO**
- 16 metres @ **739ppm TREO** from 9m (TR-66) including 4m @ **1120ppm TREO** ending in **1352ppm TREO**
- 16 metres @ **849ppm TREO** from 2m (TR-71) including 2m @ **1104ppm TREO** ending in **1083ppm TREO**

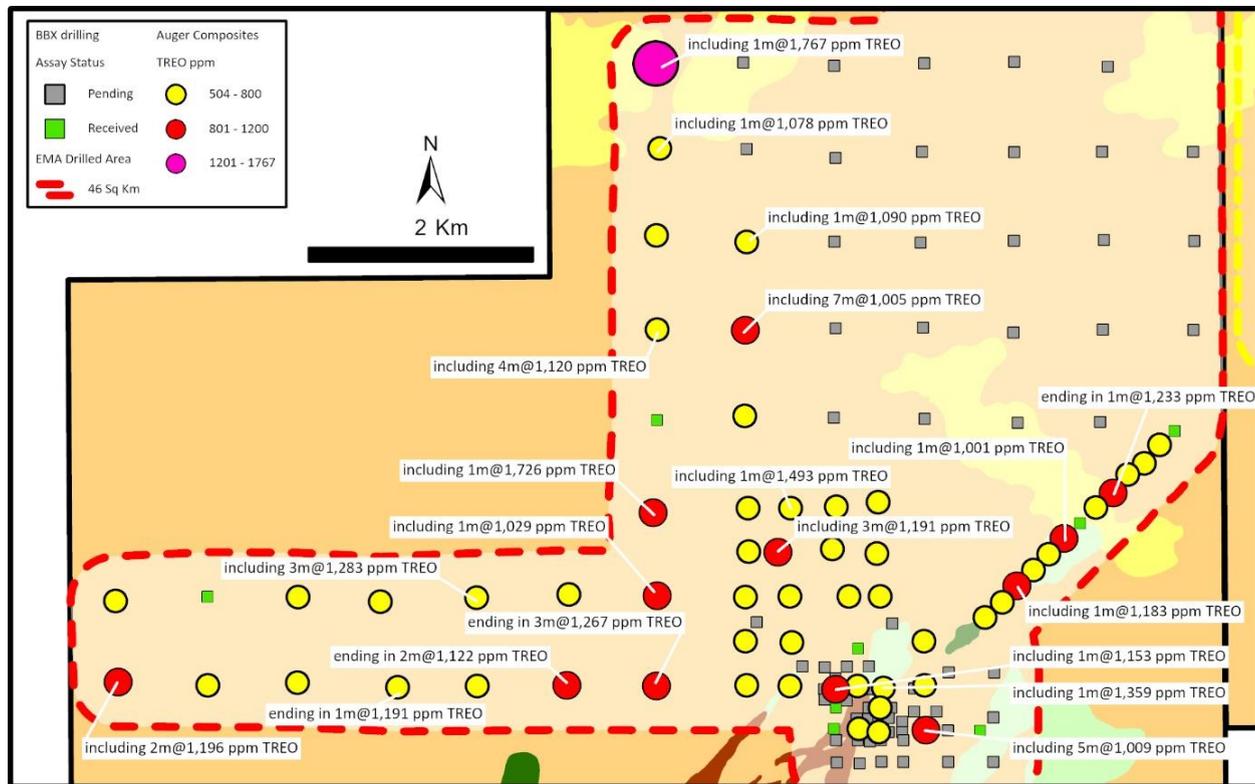


Figure 3 - EMA TREO composite grade distribution

All significant intersections (>500ppm TREO) are also consistent with higher (>100ppm of NdPr) oxides. Recoveries as high as 61% via a standard, unoptimised 2% ammonia sulphate leach were achieved at the SGS laboratory (table 2). The marked concentration of high-grade zones at the base of the regolith profile highlights the potential to increase the overall average mineralised grade with deeper drilling. In hole EMA-TR-059 a 6m zone recorded exceptional NdPr+DyTb contents averaging 34% (table 1) within an overall TREO intercept averaging 1,074ppm.

Table 1 - Auger hole TR-059 assay results (10-17m)

HOLE ID	FROM	TO	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm
EMA-TR-059	10	11	686	16	25	160	12
EMA-TR-059	11	12	829	18	34	263	16
EMA-TR-059	12	13	877	17	30	250	16
EMA-TR-059	13	14	1212	20	35	399	27
EMA-TR-059	14	15	1421	24	36	472	38
EMA-TR-059	15	16	1215	22	37	427	27
EMA-TR-059	16	17	888	21	33	276	20

Table 2 - Auger hole TR-016 REO recoveries down hole

Interval (m)	Head grade TREO ppm	Recovered TREO ¹ ppm	REC %	Recovered NdPr ppm	REC %	Recovered DyTb ppm	REC %
11-12	632	231	37	92	56	3	30
12-13	640	217	34	91	56	2	22
13-14	760	327	43	141	61	5	38
14-15	1233	580	47	247	61	10	43

BCM has received and announced the full assay results for 65 holes of the total of 195 holes drilled to date at Ema and Ema East, totalling 2,749 metres.

APUI ENE REE project

A regional reconnaissance auger drilling conducted within two leases recently granted (Figure 4) east of Apuí located a new style of REE mineralisation associated with a sedimentary unit rich in potash.

The highest-grade portion of hole APTR 013 is coincident with a potash-rich zone, grading approximately 7% K₂O (Table 3), interpreted as being related to a potassium-rich sedimentary horizon, potentially of significant areal extent. The hole was terminated at 12m in strongly-mineralised saprolite, grading 1804ppm TREO.

The multi-element distribution along the auger hole APTR013 (Table 3) indicates that the highest TREO grades from 7 metres down hole are directly correlated with a potash-rich sediment (7% K₂O) anomalous in rubidium, with silica and iron contents typical of a mature glauconitic sandstone which occurs in extensive marine sediments. Glauconite decomposes into halloysite, kaolin and smectite where REEs may be ionic or colloidal hosted.

Uranium and thorium are low, compatible with ionic rare earth mineralisation.

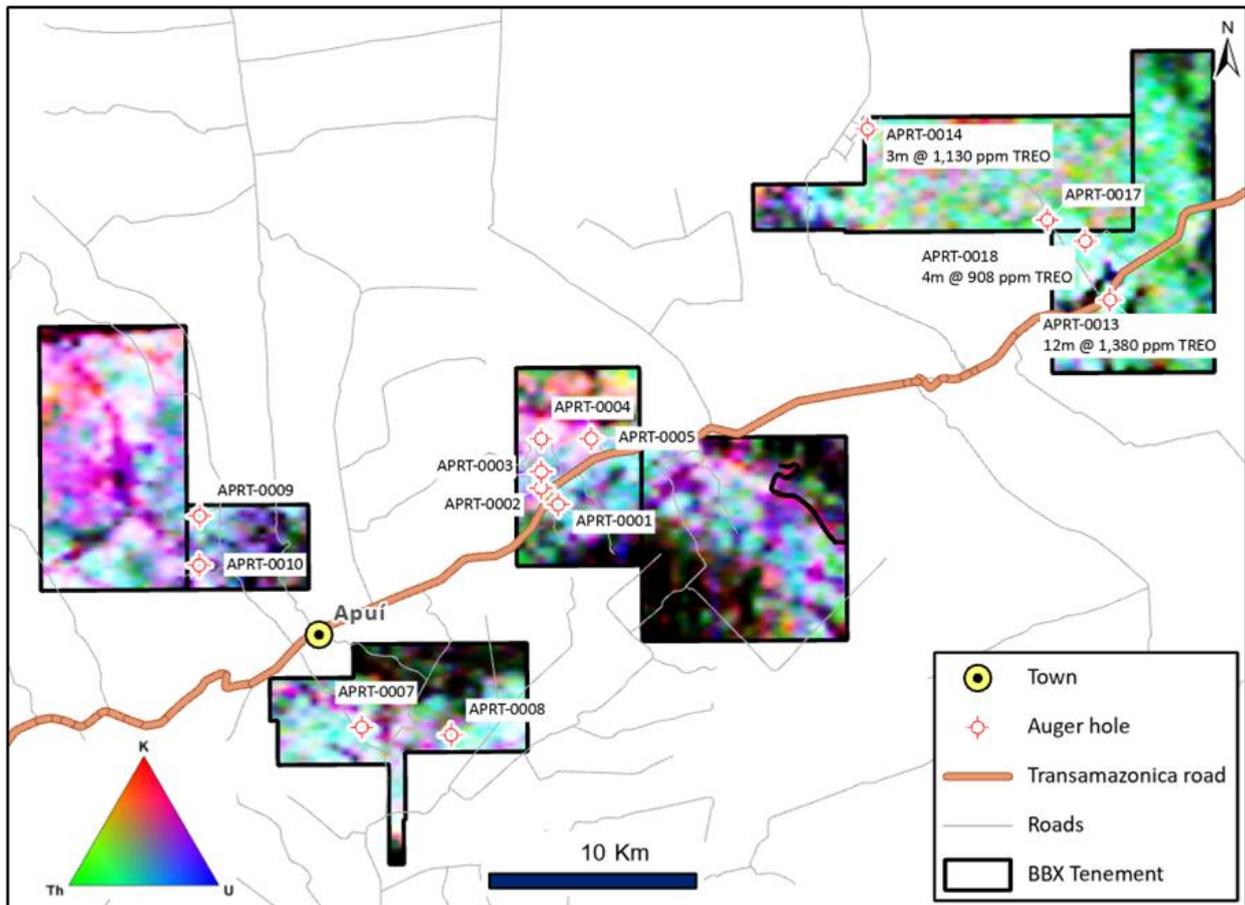
Table 3: Hole APTR-013 multi-element distribution

Depth m	TREO ppm	MREO ppm	K ₂ O %	SiO ₂ %	Fe ₂ O ₃ %	TiO ₂ %	Rb ppm	U ppm	Th ppm
0-1	894	169	0.1	36.2	5.1	2.51	3.5	9.09	66.5
1-2	637	123	0.1	29.9	23.7	1.85	2.0	6.53	50.4
2-3	863	171	0.2	26.4	15.0	2.13	4.8	7.77	60.3
3-4	1,397	380	0.3	24.8	12.5	1.97	8.0	8.39	59.8
4-5	1,084	237	0.8	24.4	19.5	1.79	20.6	7.58	55.6
5-6	1,070	227	2.7	32.2	15.8	1.71	65.9	7.25	50.3
6-7	874	181	4.9	38.5	11.9	1.38	119.3	6.6	43.9
7-8	1,797	399	5.7	41.0	8.4	1.25	131.4	6.59	43.6
8-9	2,757	613	7.0	43.9	9.5	1.24	162.5	7.24	44.7
9-10	2,181	493	6.8	46.6	8.0	1.14	129.6	6.51	39.5
10-11	1,200	265	7.3	49.0	7.2	1.08	145.0	5.98	35.8
11-12	1,804	399	7.0	46.2	7.5	1.12	144.5	6.16	38.6

¹ TREO (Total Rare Earth Oxide) = La₂O₃ + CeO₂ + Pr₆O₁₁ + Nd₂O₃ + Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Y₂O₃ + Lu₂O₃

Significant results:

- 12 metres @ **1,380 ppm TREO** from surface, including 5m @ **1,942 ppm TREO** from 7 metres (APTR 013)
- 3 metres @ **1,130 ppm TREO** from surface (APTR 014)
- 4 metres @ **908 ppm TREO** from surface (APTR 018)


Três Estados Precious metals project

All the necessary laboratory equipment and infrastructure for conducting bioleach assaying and pilot plant testing has been acquired, assembled and commissioned in the Catalão laboratory. The equipment includes nine 35 litre reactors for conducting the bioleach assays (see figure 5), and a larger pilot plant reactor. The finalisation of the importation of the required materials from EcoBiome in Texas is currently in progress with commencement of routine assaying of Três Estados drill holes scheduled for early Q1 2024



Figure 5 – Bioleach assay reactors installed in the Catalão laboratory

Refer to the relevant ASX releases below.

Date	Title
02 Oct 2023	Ammonium sulphate leach assays confirm REE recoveries
18 Oct 2023	Drilling at Ema continues to deliver positive REE results
26 Nov 2023	New Discovery at Apuí ENE REE Project
06 Dec 2023	BBX extends rare earth mineralisation at Ema to 7km x 6km

Additional Information required under Listing Rule 5.3.3

Tenements held at the end of the quarter	Area (Ha)	Percentage ownership
DNPM Permit Number 880.107/08 Location Brazil (Ema)	9,839.91	100% Exploration Licence
DNPM Permit 880.184/16 Location Brazil (Ema East)	9,034.00	100% Exploration Licence
DNPM Permit Number 880.090.08 Location Brazil (Três Estados)	8,172.25	100% Exploration Licence
DNPM Permit Number 880.025/2023 Location Brazil (Apuí iREE)	2,417.00	100% Exploration Licence

DNPM Permit Number 880.026/2023 Location Brazil (Apuí iREE)	6,591.90	100% Exploration Licence
DNPM Permit Number 880.027/2023 Location Brazil (Apuí iREE)	5,856.00	100% Exploration Licence
DNPM Permit Number 880.259/2020 Location Brazil (Apuí iREE)	9,092.01	100% Exploration Licence
DNPM Permit Number 880.149/2017 Location Brazil (Apuí iREE)	9,815.15	100% Exploration License
Application number 880.076/2023 Location Brazil (Apuí ENE iREE)	8,475.30	100% Exploration application
Application number 880.077/2023 Location Brazil (Apuí ENE iREE)	8,856.84	100% Exploration application

For the purpose of Section 6 of the Appendix 5B, all payments made to related parties have been paid in relation to director fees.

The Activity Report for the December quarter 2023 has been authorised for release by the Board of Directors.

For more information:

Ken Kluksdahl
Chairman

Competent Person Statement

The information in this report that relates to exploration results released by the Company to the ASX on 2 October, 18 October, 26 November and 6 December 2023 is based on information compiled by Mr. Antonio de Castro, BSc (Hons), MAusIMM, 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. The Company confirms that is not aware of any new information or data that materially affects the information included in the above-mentioned releases.

About Brazilian Critical Minerals Ltd

Brazilian Critical Minerals Limited is a unique mineral exploration and mineral processing technology company listed on the Australian Securities Exchange.

Its major exploration focus is Brazil, mainly in the southern Amazon, a region BCM believes is vastly underexplored with high potential for the discovery of world class gold-PGM, base metals and Ionic Adsorbed Clay (IAC) Rare Earth Elements deposits. BCM's key assets are the Três Estados and Ema Gold Projects and the REE projects at Ema, Ema East and Apui. The company has 781 km² of exploration

tenements within the Colider Group and adjacent sediments, a prospective geological environment for gold, PGM, base metal and rare earth deposits.

BCM is also developing an environment compatible and sustainable beneficiation process that extracts precious metals using a unique bio leach process. This leading-edge process, that extracts precious metals naturally, is being developed initially for the primary purpose of economically extracting Platinum Group metals from the Tres Estados mineral deposit. It is expected that such technology will be transferable and relevant to many other PGM projects. BCM believes that this processing technology is critical in the environmentally timely PGM space and supports a societal need to move toward a carbon neutral economy.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Brazilian Critical Minerals Limited

ABN

82 089 221 634

Quarter ended ("current quarter")

31 December 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(738)	(1,119)
(b) development	-	-
(c) production	-	-
(d) staff costs	(106)	(291)
(e) administration and corporate costs	(260)	(542)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	3	7
1.5 Interest and other costs of finance paid	(1)	(2)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other	-	-
1.9 Net cash from / (used in) operating activities	(1,102)	(1,947)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	(4)	(4)
(c) property, plant and equipment	(10)	(10)
(d) exploration & evaluation	-	-
(e) investments	-	-
(f) other non-current assets (deposits)	-	-

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (lease payments)	-	-
2.6	Net cash from / (used in) investing activities	(14)	(14)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)*	3,277	6,000
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(416)	(420)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(2,625)	(2,625)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other	-	-
3.10	Net cash from / (used in) financing activities	236	2,955

*Shares were issued post 30 September 2023.

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,524	1,665
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,102)	(1,947)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(14)	(14)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	236	2,955

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(575)	(590)
4.6	Cash and cash equivalents at end of period	2,069	2,069

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,069	3,524
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,069	3,524

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	74
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

Item 6.1 Directors fees & salaries.

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	40	-
7.2 Credit standby arrangements	6,600	2,250
7.3 Other (please specify)	-	-
7.4 Total financing facilities	6,640	2,250
7.5 Unused financing facilities available at quarter end		4,390
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
<p><u>Drake Facility</u> Converting loan Facility of up to \$6.6m with Drake Special Solutions LLC at 8%. The facility is repayable by cash or via issue of fully paid ordinary shares subject to shareholder approval. The facility was extended to 17 December 2024.</p>		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(1,102)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(1,102)
8.4 Cash and cash equivalents at quarter end (item 4.6)	2,069
8.5 Unused finance facilities available at quarter end (item 7.5)	4,390
8.6 Total available funding (item 8.4 + item 8.5)	6,459
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	5.9
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: n/a	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: n/a	

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: n/a

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date:29 JANUARY 2024.....

Authorised by:BY THE BOARD.....
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.