

26 July 2024

# **QUARTERLY ACTIVITIES REPORT**

For the 3 months ending 30 June 2024

- Completed initial phase of metallurgical optimisation test work program, confirming the ability to upgrade McIntosh ore to GCMs target 95% TGC concentrate grade with a conventional process flow sheet, with recoveries >90% and flake sizes aligning with the preferred starting flake size for battery anode materials.
- Identified further areas for process flow sheet optimisation, with corresponding metallurgical test work program defined and ready for commencement in Q3 2024.
- Substantially progressed an updated Mineral Resource Estimate (MRE) for the McIntosh Graphite project, with the updated MRE announced in early July.
- Identified highly prospective Cu-Au targets at the Boulia project in north-west Queensland following completion of data analysis from earlier exploration activities and completed drill planning in preparation for maiden drilling activities in Q3 2024.

Green Critical Minerals Limited ("GCM" or the "Company") (ASX: GCM) is pleased to provide this Quarterly Activities Report for the June 2024 quarter.

#### **McIntosh Graphite Project**

Green Critical Minerals Ltd holds earn-in rights for up to 80% of the McIntosh Graphite Project ('McIntosh') and this quarter progressed an updated mineral resource estimate, progressed metallurgical optimisation test work and defined a product suite.

#### Flow Sheet Optimisation Test Work completed on the Emperor Concentrate

ALS Metallurgy Pty Ltd completed the first stage of flow sheet optimisation test work, as a follow-on program from that reported on 21 November 2023. This program used a blended composite from the earlier test work as feed material. The test work program used a combination of 1kg and 2kg charges and considered various regrind and frother reagent options.



The key findings from this test work (refer ASX announcement dated 17 June 2024) are:

- McIntosh ore recovery is amenable to various grinding options under the flotation circuit and conditions that were developed for the Q4 2023 Test work.
- 3 stage attrition achieves the target concentrate grade of 95% TGC at high recoveries (>90%).
- Further confirmation of the fine flake size characteristics of the McIntosh project (>95% of the flake size is <150µm), aligning with preferred starting flake size for battery anode material.
- Frother reagent MIBC achieves the best results in terms of recovery and grade.

#### Metallurgical test work review and Market Positioning

Complimentary to its most recent metallurgical test work optimisation program, GCM completed a comprehensive review of metallurgical test work conducted for McIntosh, comprising the period 2015 to 2024 where sample source, grade, recovery and flake size distribution results are available. This review included confirming historical metallurgical test work results with the performing laboratory. This detailed review consolidates results from historical test work programs conducted by GCM's earn-in partner, Hexagon Energy Materials Limited (ASX:HXG), as well as GCM's own metallurgical test work (conducted in 2023 and 2024).

As part of its metallurgical test work program, GCM has tested various comminution circuits, including options to preserve flake size. Key findings from this review confirm that marketable and qualifiable concentrate graphite products from McIntosh ore are fine flake i.e. <150µm.

Confirmation of the flake size distribution has allowed GCM to, in conjunction with its marketing and metallurgical experts, conduct a desktop analysis and define a marketing pathway via the traditional graphite powder market for McIntosh. GCM has identified a three-product suite development pathway:

- 1. Fine flake graphite concentrate products;
- 2. Micronised graphite products; and
- 3. Battery anode material products.

GCM believes this development pathway provides the ideal opportunity to bring McIntosh into production in the shortest possible timeframe, aligning the attributes of McIntosh, GCM and the graphite market. Successful execution of this development pathway will see GCM establish itself as a supplier of choice within the traditional graphite market, building a strong customer base and positioning itself to take advantage of the forecast supply deficit of battery anode material.

GCM believes its McIntosh concentrate and micronised products will be highly attractive for a range of traditional industrial graphite markets including lubricants, friction components, agriculture and coatings. GCM will initially target these segments with industry standard / accepted graphite powder products, with target criteria including 95-97% LOI and flake particle side distribution (PSD) / ASTM Mesh Grade sizes ranging between  $5\mu m$  and  $150\mu m$ .

#### **Product and Flow Sheet Optimisation**

During the quarter GCM commenced further studies targeting this fine flake concentrate and micronised product suite, including metallurgical test work. Areas targeted in this metallurgical test work program include:



- Pre-feasibility level optimisation of the process flowsheet.
- Variability testing across the various McIntosh deposits.
- Bulk sample processing to generate sufficient material for:
  - -Downstream micronisation, purification, and SPG anode test work
  - -Marketing/qualification samples for potential customers

#### **North Barkly Project**

No physical on-ground work was undertaken at the North Barkly Project during the June 2024 quarter.

#### **Glencoe Project**

No physical on-ground work was undertaken at the Glencoe Project during the June 2024 quarter.

The Company acquired EPM 28612 and EPM 28666 at the Glencoe Project during the quarter.

#### **Boulia Project**

In late June 2024, (refer ASX announcement dated 24 June 2024) GCM announced the completion of drill planning at the Boulia Project in north Queensland. This followed analysis of the previously reported results which show compelling copper porphyry targets (refer ASX announcement dated 8 November 2023).

The Boulia Project is located 200km south of Mount Isa in northwest Queensland, comprises two granted exploration permits and three submitted applications (see Figure 1)and covers an area of 1,597km2.

The Boulia region has recently become an area of exploration interest for copper, gold and base metals, with large projects being undertaken by Anglo American, Sandfire, Rio Tinto, and a Plutonic – Lion Selection Group joint venture.

The Anglo American block of tenements lies immediately to the east of the Boulia Project. The Sandfire, Rio, and Plutonic Lion Selection Group projects straddle the Queensland and Northern Territory border 120 km to the west.



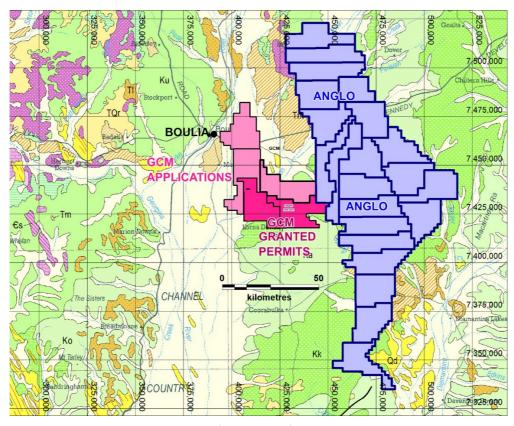


Figure 1 - Boulia Project Exploration Permits

GCM's initial drilling plan comprises four angled reverse circulation (RC) percussion holes, strategically designed to evaluate shallow magnetic, gravity, and geochemical anomalies identified through previous exploration work. GCM has identified two priority areas for the initial drilling on its granted tenement EPM 28253 - Paton Downs in the north and Lorna Downs to the south.

The Boulia region, extending northwards towards the renowned Mount Isa-Cloncurry mineral belt, hosts widespread copper, lead, and zinc mineralisation associated with vein and breccia systems controlled by fault structures. These structures have also contributed to the formation of epithermal veining and brecciation in the overlying Eromanga Basin sediments.

GCM's interpretation suggests that the widespread mineralisation and veining observed in the area may be driven by porphyry intrusions, manifested as unexplained shallow magnetic bodies within the Project area. This interpretation has gained significant support from the Geoscience Australia Heavy Mineral Survey, which identified the regional maximum values of high-grade copper sulphide minerals chalcocite and bornite, as well as the aluminum sulphate mineral alunite, in a sample collected from the Hamilton River running through the Project area.

The chalcocite-alunite association is a strong indicator of the upper portions of porphyry copper deposits, further reinforcing GCM's exploration model. Additionally, a nearby sample site revealed enrichment in skarn minerals such as diopside, garnet, and wollastonite, lending credence to the potential presence of skarns under the alluvial cover.



#### **Torrington Project**

No physical on-ground work was undertaken at the Torrington Project during the June 2024 quarter. The Company continues to undertake desktop work on the previously reported JORC Code Resource model and seeking strategic partners.

The Company received an Instrument of Renewal notice for two years on EL 8355 at the Torrington Project during the quarter.

#### **Red Fox Resources Pty Ltd Investment**

Red Fox Resources Pty Ltd in which GCM holds a 30.4% interest, reported in June 2024, that it had acquired five additional Exploration Permits in the Selwyn district, complementing its pre-existing EPM's in the Selwyn area.

It was further announced that there has been advances in the understanding of the Project area geology. Please refer to ASX announcement dated 25 June 2024 for further details.

Evolution Ming Ltd ('EVN') has an 80% earn-in right to the Cloncurry North tenements held by Red Fox (refer GCM announcement 17 January 2024). EVN acquired high-resolution gravity data during the quarter and announced plans for drilling in the September quarter (refer EVN announcement 18 July 2024).

#### Corporate

The Company appointed Mr. Clinton Booth as Managing Director following his appointment as Chief Executive Officer (CEO) of the Company earlier this year (Refer ASX announcement 11 January 2024). Mr Booth has over 20 years of experience in the mining and energy sectors, including experience across exploration, development and operations within Australia and Internationally.

Dr Leon Pretorius advised the Board of Directors that he was stepping down as Executive Chairman to pursue other personal interests. The Board is pleased to advise that Dr Pretorius remained as a full-time consultant to the Company until 30 June 2024, and after this will remain available to the Company as a consultant as required. The Board warmly recognises his long term and significant contribution to GCM and wishes Dr Pretorius all the best in his new endeavours.

The Board agreed to appoint Mr Charles Thomas, who was previously the Company's Non-Executive Director, as the Company's new Non-Executive Chairman.

#### Legal

The Company commenced legal proceedings in the Supreme Court of Western Australia against Hexagon Energy Materials Limited ('HXG') in relation to a material breach of warranties under the earn-in agreement for the McIntosh Graphite Project. (refer to ASX announcement dated 12 June 2024).

GCM alleges that HXG has materially breached certain warranties provided under the earn-in agreement, including in relation to the reporting of results of previous metallurgical studies undertaken by HXG. Despite



the Company's best efforts to resolve this dispute through negotiation, HXG has ceased meaningful engagement, leaving GCM no option but to pursue legal redress.

#### **Subsequent Events**

On 8 July 2024, the Company announced a private placement to raise \$1,150,000 (before costs) via the issue of 287.5 million shares at \$0.004 per share. Placement participants will receive a 1 for 2 unlisted options exercise price \$0.01, expiry 15 July 2027. The placement will be done in 2 tranches, with tranche 1 utilising the Company's Rule 7.1 and 7.1A capacity (50 million shares). Tranche 2 shares and attaching options are subject to shareholder approval. Whairo Capital acted as Lead Manager of the Placement and received a 6% fee on funds raised plus 20 million broker options (subject to shareholder approval).

On the 01 and 08 July, the Company announced a 26% increase in the Mineral Resource Estimate for the McIntosh Graphite Project to 30.2Mt grading 4.40% TGC. Refer to the ASX announcement dated 08 July 2024 for further details.

#### **Capital Structure and Financial Position**

The Company's summarised capital structure as at 30 June 2024 is as follows:

Issued fully paid ordinary shares: 1,136,585,023

Cash at Bank: \$ 373,442

Shareholders and potential investors should also review the Company's audited 2023 Annual Report (ASX Announcement 29 September 2023) to fully appreciate the Company's financial position.

Cash balances are placed on short-term deposit and are monitored on a month-to-month basis in order to ensure funds are available for activities for the coming quarter as set out above.

During June 2024 the Company received an R&D refund from the Australian Taxation Office that amounted to \$283,981.

#### Related Parties - Item 6 Appendix 5B

The total amount paid to related parties was \$113,590 (as per Item 6.1 and 6.2 of the appendix 5B). This represents \$113,590 in Directors fees.

<sup>\*</sup> Post quarter end the Company completed a Placement to raise \$1,150,000 (before costs).



## **Listing Rule 5.3.1**

#### **Summary of Exploration activity expenditure**

Project	Jun 24 quarter expenditure	
Mcintosh Graphite Project	\$134,478	
North Barkly Project	\$22,729	
Glencoe Project	\$2,375	
Boulia Project	\$18,839	
Torrington	\$46,603	
Total	\$225,024	

## **Summary of exploration expenditure - Listing Rule 5.3.1**

Project	Jun 24 quarter expenditure
Mcintosh Graphite Project	\$
Metallurgy	19,423
Geological services	7,860
Assays & Storage	10,439
Exploration administration	96,756
Total Mcintosh graphite project	\$134,478
North Barkly Project	
Geological Services	9,128
Exploration administration	6,435
Metallurgy	-
Assays	-
Government rent	7,166
Total North Barkly Project	\$22,729
Glencoe Project	
Geological Services	2,075
Exploration administration	300
Total Glencoe Project	\$2,375



Boulia Project	
Geological Services	17,218
Government Rent	-
Exploration administration	1,621
Total Boulia Project	\$18,839
Torrington Project	
Geological services	38,812
Exploration administration	6,421
Govt Rent	1,370
Total Torrington Project	\$46,603
Grand Total	\$225,024

#### **Authorisation**

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

The Company confirms that it is not aware of any new information or data that materially affects any previously announced exploration results included in this.

**For enquiries please contact:** Clinton Booth at <u>clintonbooth@gcminerals.com.au</u> or Charles Thomas at <u>charles@gttventures.com.au</u>



#### ANNEXURE A: MINERAL TENEMENT LIST - ALL IN AUSTRALIA

The table below sets out the Company's interest in Exploration Tenements as at 30 June 2024. As per Listing Rule 5.3.3 the Company confirms that it acquired EL 33467 in the NT and EPM 28612 and EPM 2866 in Queensland during the quarter. The Company also received an Instrument of Renewal notification for 2 years for EL 8355 in New South Wales during the quarter. The Company has not disposed of any mining tenements or entered into any Farm-in or farm-out agreements.

Project	Tenement. No.	% Interest	Expires	Location
Torrington 1	EL 8258	100%	16/04/2025	NSW
Torrington 2	EL 8355	100%	18/03/2026	NSW
Mallapunyah	EL 33128	100%	22/08/2028	NT
Wallhallow	EL 33129	100%	22/08/2028	NT
Backblocks	EL 33130	100%	23/08/2028	NT
Backblocks North	EL 33467	100%	27/11/2029	NT
Glencoe	EPM 24834	100%	07/09/2025	QLD
Canary	EPM 28251	100%	19/02/2026	QLD
Prickly Bush	EPM 28253	100%	12/02/2026	QLD
Kildare	EPM 28612	100%	28/05/2027	QLD
Lone Pine	EPM 28666	100%	30/05/2027	QLD

# Appendix 5B

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

Name of entity	
GREEN CRITICAL MINERALS LIMITED	
ABN	Quarter ended ("current quarter")
12 118 788 846	30 June 2024

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation (if expensed)	2	(16)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(34)	(275)
	(e) administration and corporate costs	(232)	(781)
1.3	Dividends received (see note 3)		
1.4	Interest received	2	24
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	284	284
1.8	Other (provide details if material) - GST refunds	-	-
1.9	Net cash from / (used in) operating activities	22	(764)

2.	Ca	sh flows from investing activities		
2.1	Pay	yments to acquire:		
	(a)	entities	-	-
	(b)	tenements	-	-
	(c)	property, plant and equipment	-	-
	(d)	exploration & evaluation (if capitalised)	(225)	(2,637)
	(e)	investments	-	-
	(f)	other non-current assets	-	-

ASX Listing Rules Appendix 5B (01/12/19)

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(1)	(1)
	(d) investments	79	208
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	6	4
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	1	(13)
2.6	Net cash from / (used in) investing activities	(140)	(2,439)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	1,501
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	-	(132)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other lease repayment	(23)	(91)
3.10	Net cash from / (used in) financing activities	(23)	1,278

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	514	2,298
4.2	Net cash from / (used in) operating activities (item 1.9 above)	22	(764)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(140)	(2,439)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(23)	1,278

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	373	373
	<ul> <li>GCM Completed a Placement post quarter end for \$1,150,000. Refer ASX release 08 July 2024.</li> </ul>		

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	373	514
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)	373	514

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	52
6.2	Aggregate amount of payments to related parties and their associates included in item 2	62

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

Director fees, advisory fees and salaries paid to related parties during the quarter totalled \$113,590.

7.	Financing facilities  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.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000	
7.1	Loan facilities	-	-	
7.2	Credit standby arrangements	-	-	
7.3	Other	-	-	
7.4	Total financing facilities	-	-	
7.5	7.5 Unused financing facilities available at quarter end -			
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.				
The R&D refund relating to the 2022/2023 financial year was received by the Company from the ATO on the 18th April 2024.				

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (Item 1.9)	22
8.2	Capitalised exploration & evaluation (Item 2.1(d))	(225)
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	203
8.4	Cash and cash equivalents at quarter end (Item 4.6)	373
8.5	Unused finance facilities available at quarter end (Item 7.5)	-
8.6	Total available funding (Item 8.4 + Item 8.5)	373
8.7	Estimated quarters of funding available (Item 8.6 divided by Item 8.3)	1.84

- 8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:
  - 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: No. The major part of exploration program has now been completed.

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: The Company successfully completed a capital raising in July 2024, raising \$1 million before costs. Tranche 2 will raise a further \$150,000 upon shareholder approval.

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: Yes. Fully funded for all currently planned operations.	

#### Compliance statement

- 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: 26 July 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.