

Quantum Identifies Mica as Key Carrier of Critical Elements at NMX East, Quebec

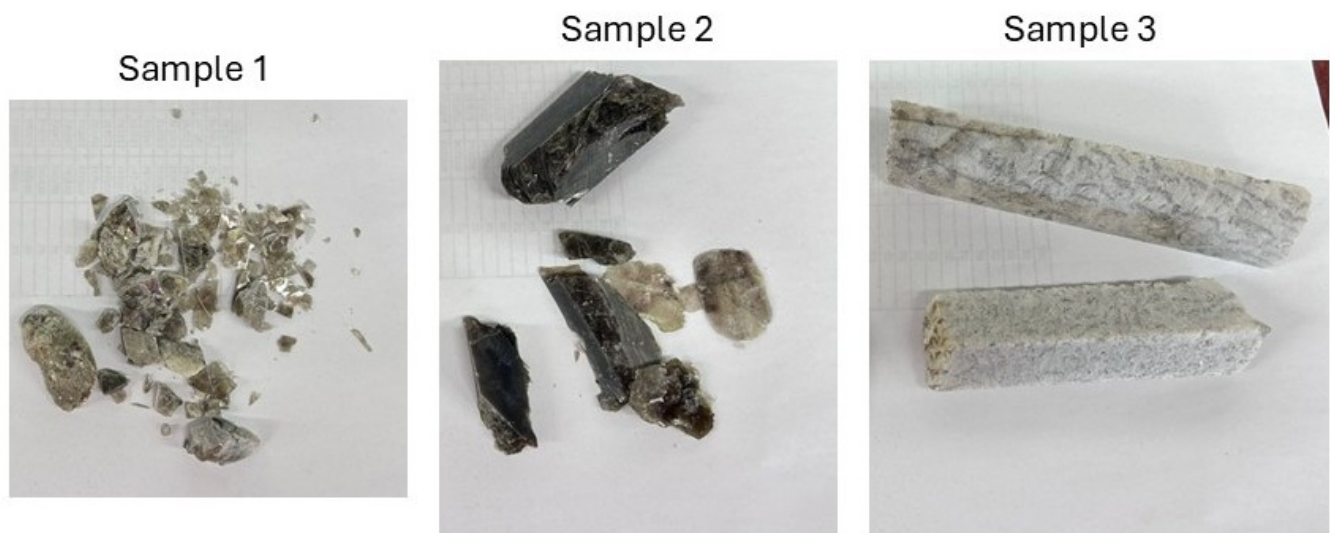
written by Raj Shah | September 4, 2025

Preliminary assays from pegmatite core reveal strong correlation between mica content and enrichment of Ga, Rb, Cs, Li, Nb, Sn, and Ta.

September 4, 2025 ([Source](#)) – Quantum Critical Metals Corp. (TSX.V: LEAP | OTCQB: ATOXF | FSE: 86A1) (“Quantum” or the “Company”) has received assays back on hand selected mica samples from pegmatite core from the NMX East project, located in the Eeyou Istchee James Bay region of Québec.

A sample of pegmatite core was collected and sent to SGS Lakefield for mineralogy, metallurgical and hydrometallurgical studies to better understand the association of gallium (Ga), rubidium (Rb), and cesium (Cs) mineral association, and to perform hydrometallurgy to remove the metals from the drill core ([News releases of July 25, 2025](#)).

As a precursor to the detailed mineralogical studies that are currently underway at SGS Lakefield, the Quantum geologists hand selected three samples to test if Ga, Rb, Cs were associated with the mineral mica. Samples 1 and 2 were thought to be comprised mostly of the mineral mica whereas sample 3 was thought to contain other minerals such as feldspars and quartz. The three samples are shown in Figure 1.



Click Image To View Full Size

Figure 1. Grab samples from pegmatite core.

The samples were sent to AGAT Laboratories in Calgary for assay and X-ray diffraction analysis. X-ray diffraction is a technique which uses x-rays to identify minerals based on their internal unique crystal structure. Table 1 shows the relative percentage of mica contained in each of the three samples and the associated element content in grams per tonne.

	Mica content	Gallium (Ga)	Lithium (Li)	Niobium (Nb)	Rubidium (Rb)	Tin (Sn)	Tantalum (Ta)
Sample 1	21.2 wt %	93.7	391	180	1390	158	22.6
Sample 2	72.7 wt %	186	959	320	3220	347	71.5
Sample 3	0.7 wt %	21.3	23	10	1180	4	1.4

Table 1. Mica content (%) and corresponding assay values (grams per tonne) for selected mica-rich pegmatite samples

Samples with the highest mica content returned the highest values of multiple elements, suggesting that mica is the main

host of mineralization. For example, one mica-rich sample containing 72.7 wt % mica (Sample 2) recorded values of 186 ppm Ga, 959 ppm Li, 320 ppm Nb, 3,220 ppm Rb, 347 ppm Sn, and 71.5 ppm Ta. By contrast, a sample with only 0.7 wt % mica (Sample 3) contained much lower values: 21.3 ppm Ga, 23 ppm Li, 10 ppm Nb, 1,180 ppm Rb, 4 ppm Sn, and 1.4 ppm Ta.

This new analysis of these mica samples from the pegmatite drill core from the NMX property highlights a strong link between mica content and enrichment of several critical metals, including gallium (Ga), lithium (Li), niobium (Nb), rubidium (Rb), tin (Sn), and tantalum (Ta). These results reinforce the theory of mica acting as a host for mineralization in the NMX pegmatite systems.

Additional detailed mineralogy is currently being done at SGS Lakefield which will lead into the hydrometallurgy studies where the metals are extracted from the minerals.

Assay QA/QC

The samples were hand selected from $\frac{1}{4}$ cut drill core. The geologist identified the minerals macroscopically and pulled a sample of a few hundred grams. Because of this methodology, the results do not represent the entire interval of 107 metres sampled for metallurgical testing, nor do they represent the ore body itself. The samples were sent to AGAT Laboratories in Calgary. AGAT is certified and licensed for a number of tests and is ISO 9001:2015 and also Standards Council of Canada accredited for mineral analysis, chemical/physical testing. The samples underwent sodium peroxide fusion with ICP-OES and ICP-MS finish.

Why is this important?

If the detailed mineralogical studies being conducted at SGS align with the preliminary assay results, it is likely to confirm that the critical elements (Ga, Rb, Cs, Nb, Sn, Ta) are hosted within the mica. This is good news for Quantum because this makes it easier to remove these elements from the rock. Basically, the elements can be concentrated once that one mineral is isolated from the rock which makes the hydrometallurgy (removal of the minerals) easier.

NMX East Property

The NMX East project is 100% owned by Quantum Critical Metals Corp. The site has historically been explored for the lithium potential in the pegmatites at site. Quantum has recently been studying the gallium association within the pegmatite with the objective of determining the feasibility of extracting the metal from the pegmatite. The site is also strategically located near Power Metallic Mines Inc. (TSXV-PNPN) which announced a recently expanded land position near its Nisk-Lion-Tiger polymetallic discoveries. On June 9th, 2025, a land acquisition of 167 km² from Li-FT Power Ltd. (TSXV-LIFT) highlighted the regional development and underscores the broader area's potential for polymetallic exploration. [Power Metallic Acquires 167KM² from Li-FT Power, Expanding Nisk – Lion Polymetallic Project Area by over 300%](#)

Quantum key developments on NMX East to date:

- *Significant Critical Metals Discoveries*

A detailed reassessment of drill core assays from both Québec projects has confirmed elevated and consistent intervals of **gallium, rubidium, cesium, niobium, and tantalum**. These results support the identification of two distinct gallium-rubidium-cesium mineralized systems within the Company's portfolio.

▪ *Early Metallurgical Focus to Accelerate Recovery Assessment*

Quantum is prioritizing mineralogical and metallurgical studies ahead of a formal resource estimate to evaluate the **economic viability of metal recovery**. This proactive approach aims to fast-track development and position the Company at the forefront of critical metal supply efforts in North America.

▪ *Innovative Gallium Recovery from Mica*

Initial findings suggest gallium may be hosted in **mica**, a non-traditional source. While gallium is typically extracted as a byproduct of bauxite or zinc processing, historical studies show it can be **recovered** from mica using processing methods like **floatation**, followed by hydrometallurgy **acid leaching** techniques. The Company is engaging multiple laboratories to optimize this process.

▪ *Strengthening Domestic Supply Chains*

In light of **China's December 2024 ban on gallium exports**, Quantum's discoveries represent a timely and strategic opportunity to support **North American critical mineral independence**. These metals are essential for high-tech applications, including semiconductors, telecommunications,

defense, and renewable energy.

Qualified Person

George M. Yordanov, P.Geo., a consultant to the Company, is the Qualified Person who has reviewed and approved the scientific and technical disclosure in this news release.

About Quantum Critical Metals Corp.

Quantum Critical Metals Corp. (TSX.V: LEAP) (OTCQB: ATOXF) (FSE: 86A1) is a Canadian mineral exploration company focused on advancing critical metals projects that power next-generation technologies. With a growing portfolio of promising assets—including the NMX East Gallium-Rubidium-Cesium Project in Québec, the Discovery Gallium-Rubidium-Cesium and polymetallic project in Québec, the Victory Antimony Project in British Columbia, and the newly acquired Prophecy Germanium-Gallium-Zinc Project in British Columbia, among others, the Company is strategically positioned to support the West's transition to a secure and sustainable critical metals supply.

To stay updated on Quantum's latest developments, sign up for our mailing list and visit www.quantumcriticalmetals.com and www.sedarplus.com.

Marcy Kiesman, CEO

Telephone: 604.428.2900 or 604.339.2243

Email: info@quantumcriticalmetals.com

Website: www.quantumcriticalmetals.com

Forward-Looking Statements

This news release contains “forward-looking information or statements” within the meaning of applicable securities laws,

which may include, without limitation, statements that address the upcoming work programs, and other statements relating to the business, financial and technical prospects of the Company. All statements in this news release, other than statements of historical facts that address events or developments that the Company expects to occur, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in the forward-looking statements.

Such forward-looking information reflects the Company's views with respect to future events and is subject to risks, uncertainties and assumptions, including those filed under the Company's profile on SEDAR at www.sedarplus.com. Factors that could cause actual results to differ materially from those in forward-looking statements include, but are not limited to, continued availability of capital and financing and general economic, market or business conditions. The Company does not undertake to update forward-looking statements or forward-looking information, except as required by law.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.