Atlas Critical Minerals Corp. Confirms Nuclear-Grade Quality at Its Graphite Project

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Independent U.S. Laboratory Testing Achieves Exceptional 99.9995% Carbon Purity

Opens Path to Ultra-Premium Nuclear Graphite Market

Atlas Critical Minerals Corp. (OTCQB: JUPGF) ("Atlas Critical Minerals" or the "Company"), an exploration company focused on critical minerals for defense applications and electrification, is pleased to announce that comprehensive characterization and thermal purification testwork performed on graphite concentrate from its Malacacheta Graphite Project in Minas Gerais, Brazil has achieved nuclear-grade purity specifications of 99.9995 wt.% carbon (99.9995% C).

The testwork was conducted by American Energy Technologies Company ("AETC"), a highly specialized U.S.-based graphite testing and processing expert, and documented in AETC's technical report dated October 15, 2025. The results position Atlas Critical Minerals to potentially access the ultra-premium nuclear graphite market, where material meeting nuclear-grade specifications commands prices of $25,000 to $35,000 per tonne, representing a 10-15x premium over standard battery-grade graphite.

Details on the studies performed and their results are available in the Technical Report Summary ("TRS") prepared in accordance with Item 1300 of Regulation S-K ("Regulation S-K 1300") and is annexed as an exhibit to the Form 6-K filed by the Company today with the Securities and Exchange Commission. The TRS was prepared by SGS Canada Inc. ("SGS"), a premier mineral evaluation company, with Marc-Antoine Laporte from SGS serving as the Qualified Person for Graphite.

Key Highlights

Nuclear-Grade Purity Achieved: Thermal purification at 2,800°C in an inert nitrogen atmosphere yielded loss on ignition (LOI) purity of 99.9995 wt.% carbon with ash content of only 0.0005 wt.%, meeting stringent nuclear-grade specifications. This exceptional purity level was achieved without the use of halogen gases, demonstrating an environmentally superior purification process.

Diversified Premium Market Opportunities Beyond Nuclear: The successfully purified Malacacheta graphite qualifies for multiple ultra-high-value applications beyond nuclear energy, including lithium-ion battery anodes, among others. A key geological advantage - mineral impurities located on flake surfaces rather than intercalated within the structure - enabled the efficient achievement of 99.9995 wt.% purity without halogen gas usage, which has the potential to qualify the Company's material for superior purification economics and environmental benefits.

Competitive with Global Leaders: Post-purification BET (Brunauer-Emmett-Teller) test results showing a surface area of 0.89 m²/g places the Company's Malacacheta graphite on par with leading materials from established deposits, including premium Chinese flake graphite from Qingdao province.

Robust Crystalline Flake Structure: Scanning electron microscopy (SEM) analysis confirms the presence of naturally occurring thick, robust flake particles, including specimens measuring approximately 5 µm in thickness - comparable to classic natural flake graphite found in China's premier deposits (Figure 1).

Figure 1: Scanning Electron Microscopy images at 100x and 800x magnification showing clean, pure crystalline flake structure

To view an enhanced version of this graphic, please visit:

https://images.newsfilecorp.com/files/6728/274075_dbe42fc9843f4839_002full.jpg

Nuclear-Grade Graphite Market Opportunity

Nuclear-grade graphite serves as a critical material in nuclear reactors, valued for its exceptional thermal properties, neutron moderation capabilities, and structural stability at extreme temperatures. The nuclear energy sector is experiencing a renaissance, with over 70 gigawatts of new nuclear capacity currently under construction globally and more than 420 operational reactors worldwide, demand for high-purity nuclear graphite is accelerating rapidly. The International Energy Agency projects that annual investment in nuclear projects will need to double to $120 billion by 2030, with more than 40 countries expanding nuclear power capabilities to meet energy security and decarbonization goals. The expected proliferation of Small Modular Reactor (SMR) technology in the near term is expected to further accelerate demand for high-purity nuclear graphite.

Nuclear graphite must meet exceptionally stringent purity requirements, typically 99.999% carbon or higher, with minimal impurities that could affect reactor performance or neutron efficiency. The successful achievement of 99.9995% carbon purity by the Company's Malacacheta graphite demonstrates the material's suitability for this demanding application, potentially opening access to a market segment commanding premium pricing 10-15 times higher than conventional battery-grade graphite.

The global graphite market is experiencing robust growth driven primarily by the electric vehicle battery sector, with natural graphite production in 2024 estimated at 1.3 million tonnes. However, the nuclear graphite segment represents a particularly attractive opportunity due to its ultra-premium pricing structure. With high-quality flake graphite commanding $2,000-2,400 per tonne and spherical graphite reaching $4,000-4,700 per tonne, nuclear-grade graphite at $25,000-$35,000 per tonne offers significantly enhanced economics.

AETC's report concludes with the following statements: "Atlas graphite material is comprised of a naturally occurring mixture of robustly thick and very friable thin flakes... The distribution generated for 'as received' sample shows presence of +40 and +50 mesh flakes, whose presence will open a number of alternative hi-tech markets… For reference, many natural flake graphite mines don't possess commercially viable quantities of these particle sizes, putting Atlas in a favorable position over their competition."

About Atlas Critical Minerals Corporation
Atlas Critical Minerals Corporation (OTCQB: JUPGF) controls a large portfolio of critical mineral rights in Brazil, encompassing over 218,000 hectares, and including projects in rare earths, titanium, graphite, and uranium - minerals essential for defense applications and electrification. The Company's Iron Quadrangle Project is expected to generate initial revenues in the fourth quarter of 2025. More information is available on the Company's website at www.atlascriticalminerals.com and in its filings with the U.S. Securities and Exchange Commission.

Safe Harbor Statement
This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are based upon the current plans, estimates and projections of Atlas Critical Minerals and its subsidiaries and are subject to inherent risks and uncertainties which could cause actual results to differ from the forward-looking statements. Therefore, you should not place undue reliance on these forward-looking statements.

Risks related to the Company and its subsidiaries are discussed in the section entitled "Risk Factors" in the Company's Form 20-F filed with the Securities and Exchange Commission (the "SEC") on February 28, 2025. Please also refer to the Company's other filings with the SEC, all of which are available at www.sec.gov. In addition, any forward-looking statements represent the Company's views only as of today and should not be relied upon as representing its views as of any subsequent date. The Company explicitly disclaims any obligation to update or revise any forward-looking statements to reflect any change in its expectations or any change in events, conditions, or circumstances on which any such statement is based.

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