

ASX ANNOUNCEMENT

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11 June 2024**Volt Starts Production Trials of Patent Pending High Purity and High Value precursor Anode Active Material*****Highlights***

- **New chemical purification process developed to produce a high purity active anode precursor material (pAAM) for use in lithium-ion batteries**
- **Leverages existing in-house purification process technology**
- **High value product using an environmentally friendly process**

Established graphite producer and natural graphite anode developer Volt Resources Limited (**ASX:VRC**) ("**Volt**" or "the **Company**" including its subsidiaries) is pleased to advise of the development by the Company of new purification technology for the production of ultra-high purity graphite for use as a pre-cursor material for active anode material.

Volt's Managing Director, Prashant Chintawar, commented: "This is an exciting opportunity for Volt and its shareholders as we progress the development of this new high purity processing technology."

"Leveraging our in-house knowledge and experience of producing purified graphite, we are already producing on-specification high value precursor active anode material for use in lithium-ion batteries."

"This relatively low capital development cost process could lead to early stage revenue generation".

Market Opportunity

Graphite based Anode Active Material (AAM) is the largest component by weight of lithium ion batteries and relies on ultra-high purity (99.95%) graphite anode

precursor material (pAAM). Furthermore, battery applications require low levels (less than 50 parts per million, ppm) of impurities such as Fe, Cr, Ni, Si, Ca, SO₄, etc. to ensure battery performance (life) and safety. To obtain such high purity, flake graphite is subjected to treatment with harsh chemicals (e.g., hydrofluoric acid, HF) or very high temperature exceeding 2,500 °C via thermal purification furnaces. Although effective, HF treatment has environmental, safety, cost, and permitting challenges while thermal purification is generally considered expensive. Due to this reason, as shown in Figure 1, China dominates (99% market share) the production of ultra-high purity graphite pAAM and even Korean and Japanese AAM producers rely on China for pAAM supply.

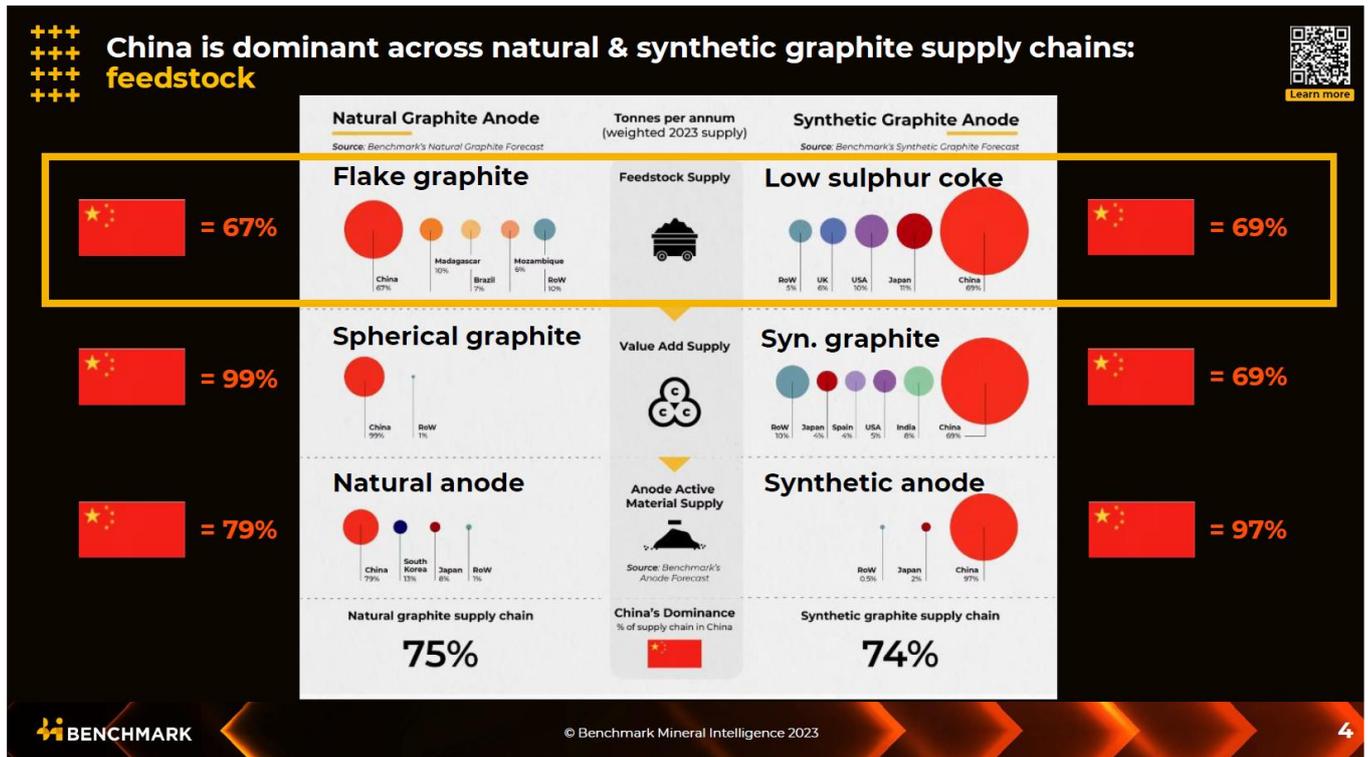


Figure 1 – China’s Dominance in Graphite Refining

With the rapid growth of ex-China battery markets, implementation of Critical Raw Material Act in Europe, and Inflation Reduction Act in US, it is paramount to have a low cost, proven, and environmentally superior refining process for flake graphite. Projected battery production in Europe and North America by 2030 will need about

1.1 million tons of purified graphite (natural and synthetic) each. Recognizing this market opportunity, the Company started bench scale production campaigns of pAAM. These pAAM production campaigns are based on a two-step process.

1. Step 1 – starting with flake graphite, 99.5% pure graphite (based on Company’s proven process with years of experience – see Figure 2 below) is produced. The production data (in tonnes) for 99.5% graphite products for the period 2017-2023 are shown in Figure 3.
2. Step 2 - starting with 99.5% pure graphite, produced in Step 1, ultra-high purity (99.95%) graphite anode pAAM is produced via new chemical purification process.



Figure 2 – High Purity (99.5%) Graphite Production Line

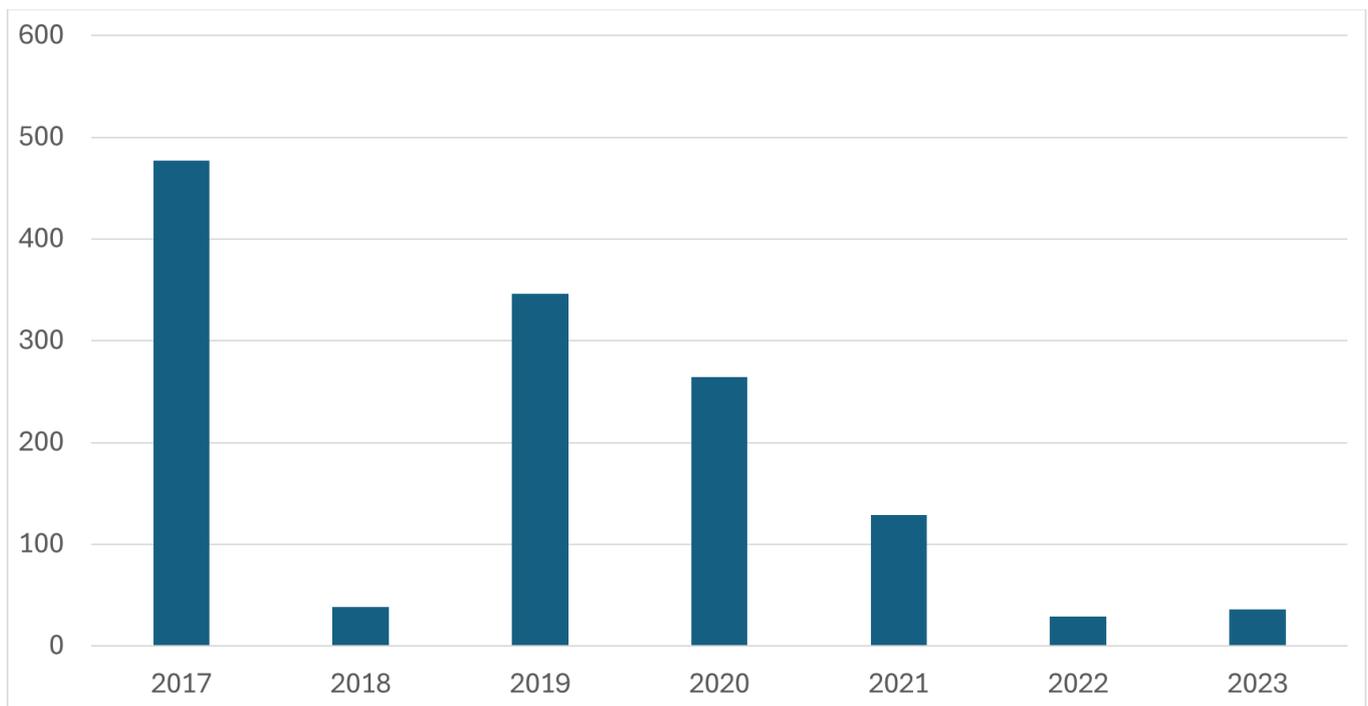


Figure 3: 2017-2023 Production of High Purity (99.5%) Graphite (in tonnes) at the Company

Results of Bench Scale Production Campaign

The Company has succeeded in bench-scale production of about 1.5 kg of pAAM product with ultra-high purity (TGC, Total Graphitic Carbon $\geq 99.95\%$) and low ash content ($\leq 0.04\%$). Furthermore, about 8 kg was produced with purity exceeding 99.9%. The work will be ongoing to produce larger batches, confirm impurities such as Fe, Cr, Ni, Si, Ca, SO₄, etc. are below 50 ppm, evaluate the process for refining graphite from non-Volt sources, and optimize the process parameters.

We believe that Company’s non-HF and non-thermal graphite refining process, Figure 4, to produce ultra-high purity (99.95%) graphite anode precursor material (pAAM) could be a breakthrough and the Company has applied for a US Provisional Patent titled “Low Cost HF Free Purification to Produce Battery Grade Graphite”. The provisional patent is assigned to Volt Resources Limited, Australia.

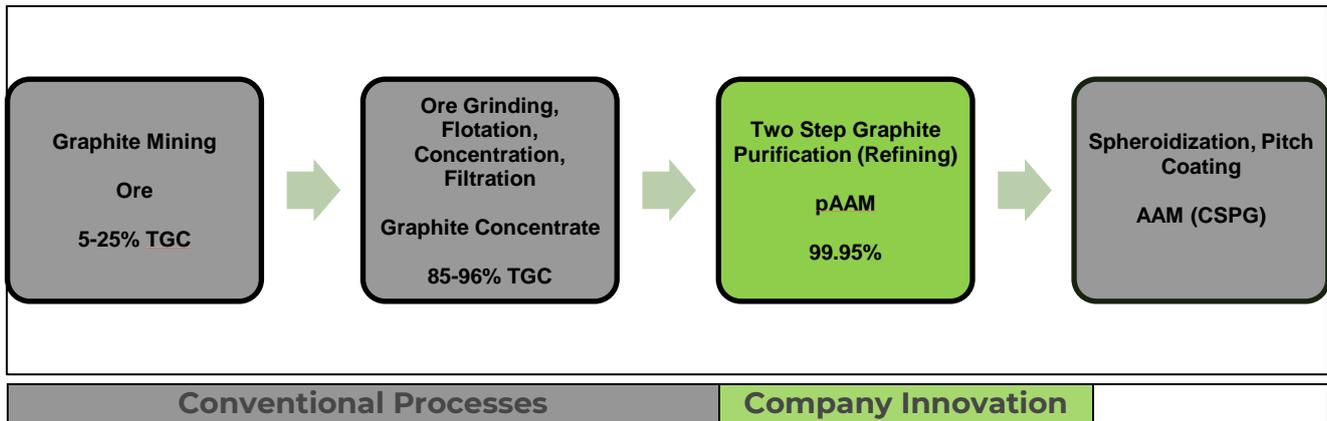


Figure 4 – Graphite Processing Steps

Next Steps

This successful bench-scale production campaign has positive implications for the Company as it could lead to revenue generation at low capital cost. For example, a 10 ktpa graphite anode (Coated Spherodized Purified Graphite, CSPG) production plant’s estimated capital cost is over US\$ 200 million while a 10 ktpa pAAM production plant’s estimated capital cost is well below US\$ 50 million. Furthermore, prices for high purity and ultra-high purity graphite are generally over US\$2,500 per tonne compared to a typical flake graphite concentrate grade (94-96%) current market price of less than US\$700 per tonne.

Volt plans to monetize the pAAM product line which includes sampling to potential customers and, contingent upon funding, the design, construction, and commissioning of a pilot plant followed by a commercial scale plant.

-ENDS-

This announcement was authorised for release by the Board of Volt Resources Ltd.

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Volt Resources Limited (“Volt”) is critical minerals and battery material company listed on the Australian Stock Exchange under the ASX code VRC. We are an established graphite producer and an emerging natural graphite anode (a key component of lithium-ion batteries) producer. Volt has a 70% interest in the Zavalievsky Graphite (ZG) business in Ukraine. The ZG mine and processing facilities have been in operation since 1934 and are near key markets with significant developments in lithium-ion battery production. ZG benefits from an existing customer base and graphite product supply chains based on excellent transport infrastructure covering road, rail, river, and sea freight combined with reliable grid power, ample potable ground water supply and good communications^[1].

Volt acquired three licence applications that are prospective for lithium-borate mineralisation. The licence applications are in respect to a total area of 291km², located in Serbia and are west and south-west of the Serbian capital, Belgrade^[2].

Volt is progressing the development of its large wholly owned Bunyu Graphite Project in Tanzania. The Bunyu Graphite Project is ideally located near to critical infrastructure with sealed roads running through the project area and ready access to the deep-water port of Mtwara 140km from the Project. In August 2023, Volt reported the completion of the revised Feasibility Study (“FS”) for Stage 1 development of the Bunyu Graphite Project. The Stage 1 development is based on a mining and processing plant annual throughput rate of 400,000 tonnes of ore to produce on average 24,780 tpa of graphite products^[3]. Key objectives of Stage 1 development are to establish Bunyu Graphite Project as a world-class supplier of graphite products, grow Volt’s existing natural flake graphite business, provide cashflow, and establish infrastructure in support of the development of the significantly larger Stage 2 expansion project.

^[1] Refer to Volt’s ASX announcements titled “Volt to Acquire European Graphite Business following Completion of Due Diligence” dated 14 May 2021 and “Completion of the ZG Group Transaction Following Execution of New Convertible Securities Facility” dated 26 July 2021.

^[2] Refer to Volt’s ASX announcement titled “Strategic European Lithium Acquisition – Jadar North” dated 18 November 2021.

^[3] Refer to Volt’s ASX announcement titled “Feasibility Study Update for Bunyu Graphite Project Stage 1, Tanzania, delivers significantly improved economics” dated 14 August 2023. The Company confirms that it is not aware of any new information or data that materially affects the information included in this document and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.