

FOR IMMEDIATE RELEASE

## Volt Carbon Technologies Launches Battery Testing with Exclusive Dry-Separated Graphite Sourced from GEM's Property and Releases Preliminary Test Data

Dec 11, 2023, Calgary, Alberta, Canada – Volt Carbon Technologies Inc. (“Volt Carbon” or the “Company”) (TSX-V: VCT) (OTCQB: TORVF) is pleased to announce the commencement of battery anode development using graphite refined from Green Battery Minerals (TSX-V: GEM, FSE: BK2P, WKN: A2QENP OTC: GBMIF) Berkwood property, accompanied by the release of initial test results affirming the high-grade graphite's suitability for lithium-ion batteries.

### Highlights

Utilizing the super jumbo flake graphite concentrate derived from rock samples provided by GEM to Volt in July 2023, Volt's Scarborough facility successfully executed a dry separation process, yielding a record-high total carbon content of 98.4%, as announced on August 15, 2023. Under the guidance of Dr. Aiping Yu, Volt's newest Board Member and University of Waterloo Professor, the graphite underwent a straightforward mechanical reduction process to achieve battery-grade anode sizes without the need for additional purification treatment.

Dr. Yu's team extensively characterized the graphite using techniques such as x-ray diffraction (XRD), Inductively Coupled Plasma Mass Spectrometry (ICP-MS), and scanning electron microscopes (SEM), confirming its suitability for further battery anode development. This involved coin cell fabrication through a straightforward micronization process applied to the flake graphite concentrate.

Subsequently, coin cells were manufactured alongside benchmarked samples of commercially available graphite anodes and are currently undergoing cycle testing at both Solid Ultrabattery's and the University of Waterloo's labs. Initial coin cell testing revealed a capacity of 344mAh/g, achieved without any chemical processes and under entirely dry handling conditions and without spheroidization and carbon coating. This highlights the efficacy of the mechanical reduction process and underscores the promising potential of sustainable dry-separated graphite for battery applications. With further process adjustments, the company aims to achieve results exceeding 360 mAh/g in the upcoming quarter.

The XRD and Raman shift plots below show the similarities of GEM's natural graphite structure against commercial battery grade anodes. The integrity of the graphite structure is evaluated by the ID/IG ratio of the samples. All of GEM's samples showed approximately the same ratio as the commercial anode.

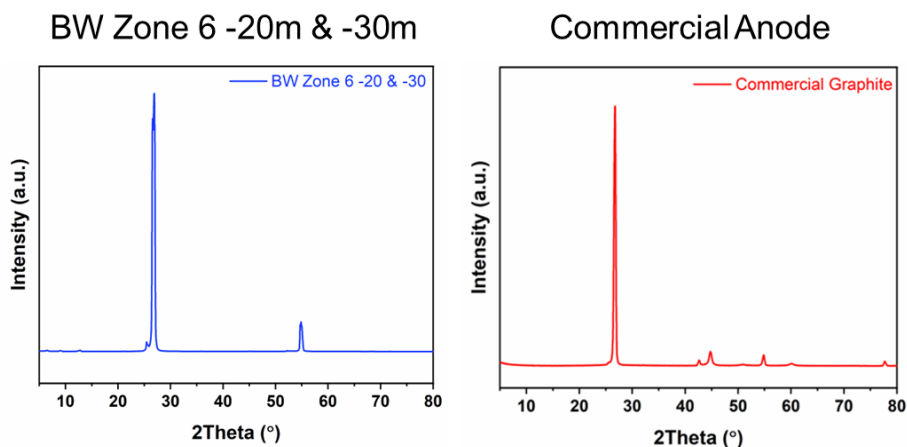
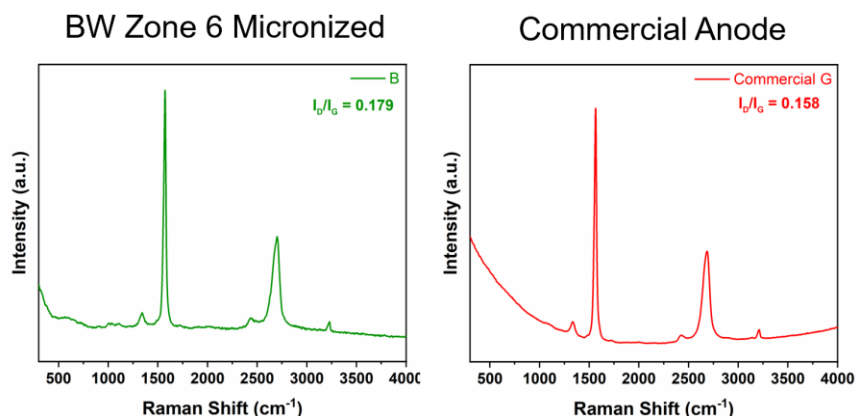


Figure 1: displays X-ray Diffraction (XRD) results, provided by the University of Waterloo, demonstrating the similarities between GEM's graphite benchmarked against commercially available battery anode.



**Figure 2: Raman Shift results post-micronization, courtesy of the University of Waterloo, revealing the similarities between GEM's graphite benchmarked against commercially available battery anode.**

These outcomes mark the initial stride in optimizing GEM's graphite for lithium-ion batteries, reinforcing Volt Carbon's commitment to advancing battery technologies, as explicitly stated in our July 24, 2023, press release. Volt Carbon remains dedicated to refining dry processes for converting GEM's materials into battery-grade anodes, maximizing value with our mineral processing agreement with GEM while driving significant technical progress in the North American battery materials supply chain.

"The constraints on graphite trade in North America have spurred our determination to innovate and develop resources sustainably and cost-effectively within the region. We have determined through testing that high-grade graphite mineral deposits provides significant advantages, making the processing to graphite concentrate and anodes much simpler compared to low-grade deposits. We're on the brink of a great opportunity, and I'm eagerly looking forward to the upcoming results from our highly qualified technical teams" - V-Bond Lee, CEO of Volt Carbon Technologies.

### **About Volt Carbon Technologies**

Volt Carbon is a publicly traded carbon science company, with specific interests in energy storage and green energy creation, with holdings in mining claims in the provinces of Ontario, Quebec and British Columbia in Canada. For the latest information on Volt Carbon's properties and news please refer to the website [www.voltcarbontech.com](http://www.voltcarbontech.com).

On behalf of the Board of Directors

### **Volt Carbon Technologies Inc.**

V-Bond Lee, P. Eng.  
CEO, President, Chairman of the Board and Director

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