



Suite 117 – Arcuri Business Centre  
70 Country Hills Landing NW  
Calgary, AB T3K 2L2  
Email: [info@voltcarbontech.com](mailto:info@voltcarbontech.com)  
Web: [www.voltcarbontech.com](http://www.voltcarbontech.com)

FOR IMMEDIATE RELEASE

## **Volt Carbon Reports Graphene Associated Thermal and EMI Shielding Performance from Dry Separated Natural Graphite Foil**

May 12, 2026, Calgary, Alberta, Canada – Volt Carbon Technologies Inc. (“Volt” or the “Company”) (TSX-V: VCT) (OTCQB: TORVF) is pleased to announce independent third party testing results from the University of Waterloo relating to the Company’s first expanded graphite foil trials derived from graphite processed using Volt’s dry separation technology.

The testing program evaluated thermal conductivity and electromagnetic interference (“EMI”) shielding performance characteristics of expanded graphite foils produced from Volt processed graphite materials as part of the Company’s ongoing advanced materials development initiatives.

Thermal conductivity testing provided by the University of Waterloo demonstrated average in plane thermal conductivity values of approximately 219 W/m·K for Volt derived graphite foil at a thickness of approximately 0.189 mm. *For general reference purposes, published engineering reference sources such as Engineering Toolbox, including “Thermal Conductivity of Metals and Alloys” and “Aluminum Thermophysical Properties,”* report thermal conductivity values for stainless steel in the range of approximately 15 W/m·K, while aluminum is commonly reported near approximately 205 W/m·K depending on alloy composition and test conditions.

The expanded graphite foil evaluated in these trials exhibited a density of approximately 1.5 g/cm<sup>3</sup>. For general reference purposes, aluminum is commonly reported to exhibit density values near approximately 2.7 g/cm<sup>3</sup>, while stainless steel is commonly reported in the range of approximately 7.7 to 8.0 g/cm<sup>3</sup> depending on alloy composition and processing conditions. Although these density values may provide general context regarding potential thermal management and shielding design considerations, material property comparisons between differing material systems may not be directly comparable due to variations in structure, composition, operating environment and application specific performance requirements when considered in engineering design applications.

EMI shielding evaluations conducted in the X band frequency range demonstrated total shielding effectiveness of approximately 42.7 dB for Volt derived graphite foil at a thickness of 0.189 mm. EMI shielding effectiveness measured in decibels (“dB”) represents attenuation of electromagnetic energy. Volt’s results correspond to signal attenuation greater than approximately 99.99%.

Approximate signal attenuation equivalents corresponding to EMI shielding effectiveness are summarized below for general reference.

### **Shielding Effectiveness (dB) Approximate Signal Attenuation**

20 dB	99%
30 dB	99.9%
40 dB	99.99%
50 dB	99.999%

Expanded graphite foil is fundamentally composed of highly aligned graphitic and graphene like carbon layers. Expanded graphite has a reduced number of graphitic layers compared to bulk graphite. *Published literature, including Y. Liu et al., "Graphene Enhanced Flexible Expanded Graphite Film with High Electric, Thermal Conductivities and EMI Shielding at Low Graphene Content," Carbon, 2018,* has reported expanded graphite and graphene enhanced expanded graphite films exhibiting thermal conductivity, electrical conductivity and EMI shielding characteristics relevant to conductive carbon material applications.

The Company believes the thermal conductivity and EMI shielding performance observed in these first trials demonstrate the potential for Volt's dry separated natural graphite to serve as a potential scalable feedstock pathway toward graphene associated advanced material applications. *Published scientific literature, including A. Kausar, "Graphene Nanocomposites for Electromagnetic Interference Shielding", Journal of Composites Science, 2023, and X. Li et al., "Revealing Synergistic Relationship of Thermal Conduction and Electromagnetic Interference Shielding in Graphene Film", Materials Chemistry and Physics, 2025,* has reported graphene and conductive carbon materials exhibiting strong thermal conductivity and EMI shielding performance characteristics.

The Company continues to observe from ongoing testing results that preservation of graphite crystallinity through its dry separation process contributes to downstream conductive, thermal and material performance enhancements observed in expandable graphite, graphite foil and graphene related development programs.

These results represent early stage expanded graphite foil development trials. Additional optimization, densification, scale up and application specific validation work remains ongoing as the Company continues evaluating potential commercial applications for these materials, including ongoing discussions and evaluation activities with industry participants under confidentiality agreements.

Volt plans to continue advancing the scale up and evaluation of dry separated graphite for potential customer applications including expanded graphite products, thermal management materials, graphene related products, conductive composites and energy storage technologies. The Company has previously disclosed the addition of equipment supporting batch scale production and evaluation of expandable graphite and graphene related materials as part of its downstream development initiatives.

Dr. Aiping Yu, University Research Chair Professor at the University of Waterloo, Fellow of the Canadian Academy of Engineering and Board Member, has reviewed and approved the contents of this press release. Dr. Yu is internationally recognized for her work in graphene and advanced nanomaterials, has authored more than 260 refereed scientific publications and holds multiple patents in the field.

Dr. Aiping Yu commented, "These first expanded graphite foil trials are encouraging because they demonstrate functional thermal management and EMI shielding characteristics within ranges reported for certain graphene and conductive carbon material systems. The ability to potentially achieve these characteristics using scalable natural graphite derived materials represents an interesting area for continued development and optimization."

### **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

### **Information Contact :**

Email: [info@voltcarbontech.com](mailto:info@voltcarbontech.com)

Tel: (519) 763-1197

**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.**

*FORWARD LOOKING STATEMENTS: This press release contains forward-looking statements, within the meaning of applicable securities legislation, concerning Volt Carbon's business and affairs. In certain cases, forward-looking statements can be identified by the use of words such as "plans", "expects" or "does not expect", "intends", "budget",*

*“scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved”. Such forward-looking statements include those with respect to: (i) advancement and commercialization of the Company’s dry separation technology; (ii) development and scale up of demonstration and processing facilities; (iii) continued evaluation, development and commercialization of graphite, graphene related and advanced carbon material products; (iv) the performance characteristics and potential applications of expandable graphite, graphite foil and related conductive carbon materials; and (v) participation in thermal management, conductive shielding, energy storage and advanced materials markets.*

*Forward-looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors, including those discussed above, could cause actual results to differ materially from the results discussed in the forward-looking statements. Any such forward-looking statements are expressly qualified in their entirety by this cautionary statement.*

*All of the forward-looking statements made in this press release are qualified by these cautionary statements. Readers are cautioned not to place undue reliance on such forward-looking statements. Forward-looking information is provided as of the date of this press release, and Volt Carbon assumes no obligation to update or revise them to reflect new events or circumstances, except as may be required under applicable securities legislation.*