Plaid Provides Update on Graphene Dispersion Technology for Cement Applications and Reports on Industry Research Supporting Graphene-Enhanced Materials

Vancouver, British Columbia — January 12, 2026 — Plaid Technologies Inc. (CSE: STIF) (OTC: STIFF) (FRA: 5QX0) ("Plaid" or the "Company") is providing an update on its ongoing development work related to graphene-oxide dispersion methods for cement applications, including wellbore cement. The Company notes that a growing body of published research continues to explore the potential of graphene-enhanced materials in construction and industrial applications.

The Company is also working with its contracted development partner Petro Flow LLC. ("Petro Flow") to incorporate an "ultrasonic injection process" designed to improve the dispersion of its graphene-oxide in cementitious mixtures. Preliminary internal laboratory-scale observations suggest that improved dispersion may influence hydration and cured material properties. Plaid continues to test and assess performance characteristics, scalability, and cost implications as part of its ongoing development program.

Published peer-reviewed research has reported that small additions of graphene or its derivatives can influence the mechanical performance and durability of certain cementitious composites under laboratory conditions. The Company's development program is designed to evaluate whether similar effects can be achieved consistently and economically using its dispersion approach in a broad range of targeted cement applications[1].

In the broader materials landscape, research on graphene-enhanced polymer composites (GRPCs) has shown how graphene can improve load-bearing capacity, flexibility, and thermal properties in advanced polymer matrices — findings that are driving interest in sectors such as aerospace, automotive, and high-performance manufacturing[2].

Broad industrial interest is being driven by several key performance advantages documented in the literature:

- *Improved mechanical properties*: Published studies have reported that graphene inclusion may enhance compressive, tensile, and flexural strength in cementitious materials under laboratory conditions[3].
- *Enhanced durability and reduced permeability*: Research suggests graphene's surface area and interaction with matrix phases may improve microstructure and limit pathways for cracking and water ingress[4].
- *Advanced composite performance*: Graphene has been studied as a filler in polymer composites for potential improvements in mechanical integrity and resistance to degradation relative to traditional fillers[4].

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[1] Wei, X.-X., Pei, C., & Zhu, J.-H. (2024). Towards the large-scale application of graphene-modified cement-based composites: A comprehensive review.

[2] Maity, S. K., Tyagi, U., Kumar, R., Kumar, K., Sheoran, N., Singh, S., & Kumar, G. (2025). Graphene-enhanced polymer composites: A state-of-the-art perspective on applications.

[3] Singh, N., Sharma, V., & Kapoor, K. (2024). Graphene in construction: enhancing concrete and mortar properties for a sustainable future.

[4] Mashhadzadeh, A. H., Mashhadzadeh, A. H., Golman, B., Spitas, C., Faroughi, S. A., & Kostas, K. V. (2025). Recent advancements in mechanical properties of graphene-enhanced polymer nanocomposites: Progress, challenges, and pathways forward.

By leveraging its proprietary formulation and dispersion techniques, Plaid is actively working towards converting well-documented graphene performance benefits into commercially viable, regulated, and mission-critical use applications, beginning with wellbore cement and expanding into additional high-value commercial construction applications.

Near-term, Plaid is focused upon commercial applications in wellbore cement and construction materials, where dispersion quality is a key technical factor affecting repeatable performance. The Company believes that improved dispersion methods, once further-validated, will support performance optimization and potential cost efficiencies.

With nearly 4.5 million orphaned and abandoned wells in the US alone, and given the detrimental effect many of these methane-leaking wells have on the environment, Plaid acknowledges the urgency in developing more expedient, durable and cost-effective methods to plugging[5]. Through the Bipartisan Infrastructure Law ("BIL") the US Federal Government alone has committed $4.7B for an initial phase to begin addressing the problem. At this stage, Plaid has not received any contracts under the BIL plan.

"Published research continues to highlight graphene's potential to enhance conventional industrial materials," said Guy Bourgeois, CEO of Plaid Technologies Inc. "Our focus is on advancing dispersion methods that could enable practical, scalable use of graphene in cement applications, including wellbore cement. We believe this work positions Plaid to address real-world performance and deployment challenges, and we look forward to reporting further progress as our development program advances."

On Behalf of the Board of Directors

"Guy Bourgeois"

Guy Bourgeois
Director & Chief Executive Officer
Telephone: 1-800-585-7517
Email: info@plaidtechnologiesinc.com
Website: https://www.plaidtechnologiesinc.com

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Forward-Looking Statements

This news release contains forward-looking statements and forward-looking information within the meaning of applicable Canadian securities laws. Forward-looking statements include, but are not limited to, statements regarding the Company's development program, expected performance characteristics, potential commercial applications, scalability, and future testing and validation. Forward-looking statements are based on management's current expectations and assumptions and are subject to known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially, including risks relating to technical development, testing outcomes, third-party collaboration, regulatory requirements, market acceptance, and the availability of financing. Readers are cautioned not to place undue reliance on forward-looking statements. The Company undertakes no obligation to update forward-looking statements except as required by law.

[5] Lei, T., Chen, X., Ma, S., Jing, L., & Guan, D. (2025). A global inventory of methane emissions from abandoned oil and gas wells and possible mitigation pathways