

Form 51-102F3
Material Change Report

Item 1 Name and Address of Company

ZEN Graphene Solutions Ltd. (the “Company”)
210 – 1205 Amber Drive
Thunder Bay, ON P7B 6M4

Item 2 Date of Material Change

November 14, 2019

Item 3 News Release

The news release was disseminated on November 14, 2019.

Item 4 Summary of Material Change

Item 5 Full Description of Material Change

Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Neither subsection 7.1(2) nor (3) of National Instrument 51-102 is being relied upon.

Item 7 Omitted Information

No information has been omitted on the basis that it is confidential information.

Item 8 Executive Officer

Francis Dubé
Chief Executive Officer
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DATED: November 14, 2019

SCHEDULE "A"

ZEN Graphene Solutions Reports on Multiple Intellectual Property Licensing Agreements

Thunder Bay, ON – November 14, 2019, ZEN Graphene Solutions Ltd. ("ZEN" or the "Company") (TSXV:ZEN) has signed the definitive graphene manufacturing process License Agreement referred to in a [news release on May 30, 2019](#). This agreement licenses to ZEN the intellectual property created by scientists and laboratories within a renowned Canadian University. This agreement has no expiry date and provides that a royalty is payable by ZEN based on the annual amount of material processed under the intellectual property.

The company also reports that it has signed an 18-month exclusive initial option agreement with the University of Guelph (Guelph) for intellectual property regarding an electrochemical exfoliation (ECE) process to produce Graphene Oxide. In addition, the University of British Columbia (UBC) and ZEN have begun negotiating a Collaborative Research Agreement (CRA) template that will form the basis of each agreement with various UBC researchers. Neither Guelph nor UBC is party to the definitive agreement mentioned above.

Francis Dubé, CEO commented: "These three Canadian universities are contributing significantly to unlocking the value of the Albany Graphite deposit and creating a strong intellectual property foundation for the company. We are happy to bring investment dollars, both directly and indirectly, via various grants to these academic partners and will continue to support research opportunities in the exciting field of nanoscience."

The definitive License Agreement took effect November 1, 2019 and subsequently ZEN has begun investing in certain equipment required under this process. ZEN anticipates that the equipment will be installed during Q1 2020 at its Guelph location thereby allowing the Company to start production of this graphene product for market development and subsequent sale.

The exclusive agreement with Guelph results from research and development by Prof. Aicheng Chen and his group. Early results from this process are very encouraging with Albany Graphite significantly outperforming both flake/sedimentary graphite and synthetic graphite, demonstrating again the uniqueness of ZEN's graphite and its superior performance to exfoliate into graphene products.

Several researchers at UBC Okanagan continue to work with ZEN's material in multiple areas including the synthesis of Graphene Quantum Dots and Graphene Oxide, along with multiple applications including battery anodes, polymers, aluminum, concrete, coatings, and others. Given that collaboration amongst UBC researchers is expected, this intellectual property template should accelerate the science by eliminating repetitive negotiation with each research team at UBC. ZEN will report on material final agreements with UBC as they are executed.

About ZEN Graphene Solutions Ltd.

ZEN is an emerging graphene technology solutions company with a focus on the development of graphene-based nanomaterial products and applications. The unique Albany Graphite Project provides the company with a competitive advantage in the potential graphene market as independent labs in Japan, UK, Israel, USA and Canada have independently demonstrated that ZEN's Albany Graphite/Naturally Pure™ is an ideal precursor material which easily converts (exfoliates) to graphene, using a variety of mechanical, chemical and electrochemical methods.

For further information:

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To find out more on ZEN Graphene Solutions Ltd., please visit our website at www.ZENGraphene.com. A copy of this news release and all material documents in respect of the Company may be obtained on ZEN's SEDAR profile at www.sedar.ca.

Forward Looking Statements

This news release contains forward-looking statements. More particularly, this news release contains statements concerning the acceptance of the engagement of Storyboard by the TSX Venture Exchange and the anticipated monthly fees payable to Storyboard. Although the Company believes that the expectations reflected in these forward-looking statements are reasonable, undue reliance should not be placed on them because the Company can give no assurance that they will prove to be correct. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Although ZEN believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information, which only applies as of the date of this news release, and no assurance can be given that such events will occur in the disclosed time frames or at all. ZEN disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law. Neither the 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.