

No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise. This short form prospectus constitutes a public offering of these securities only in those jurisdictions where they may be lawfully offered for sale and therein only by persons permitted to sell such securities. See “Plan of Distribution”.

The securities offered by this short form prospectus have not been, and will not be, registered under the United States Securities Act of 1933, as amended, (the “U.S. Securities Act”) or any state securities laws and may not be offered or sold within the United States (as such term is defined under Regulation S promulgated under the U.S. Securities Act) except in compliance with the registration requirements of the U.S. Securities Act and applicable state securities requirements or pursuant to exemptions therefrom. This short form prospectus does not constitute an offer to sell or a solicitation of an offer to buy any of the securities offered hereby within the United States. See “Plan of Distribution”.

Information has been incorporated by reference in this short form prospectus from documents filed with securities commissions or similar authorities in Canada. Copies of the documents incorporated herein by reference may be obtained on request without charge from the Chief Executive Officer of Zentek Ltd. at 210-1205 Amber Drive, Thunder Bay, Ontario P7B 6M4, telephone (705) 618-0900, and are also available electronically at www.sedar.com.

SHORT FORM PROSPECTUS

New Issue

December 23, 2021

zentek

ZENTEK LTD.

\$20,004,400

3,847,000 Common Shares

\$5.20 per Common Share

This short form prospectus (the “**Prospectus**”) is being filed in each of the provinces of Canada except Quebec (the “**Qualifying Jurisdictions**”) by Zentek Ltd. (the “**Company**”) to qualify the distribution of 3,847,000 common shares in the capital of the Company (each a “**Common Share**”) at a price of \$5.20 per Common Share (the “**Offering Price**”) for gross proceeds of \$20,004,400 (the “**Offering**”). The Common Shares will be issued and sold pursuant to an amended and restated underwriting agreement (the “**Underwriting Agreement**”) dated December 23, 2021 between the Company, Eight Capital (“**Eight**”) as lead underwriter and sole book runner, Leede Jones Gable Inc. and Research Capital Corporation (together with Eight, the “**Underwriters**” and, individually, an “**Underwriter**”). The Offering Price and certain other terms of the offering of the Common Shares were determined by arm’s length negotiation between the Company and Eight, with reference to the prevailing market price of the Common Shares on the TSX Venture Exchange (“**TSXV**”). See “*Plan of Distribution*”.

The Common Shares are traded on the TSXV under the symbol “ZEN”, and on the Frankfurt Stock Exchange under the symbol “A3C6TM” and are quoted on the OTCQB Venture Market in the United States under the symbol “ZENYF”. The Company has also made application to list the Common Shares on the Nasdaq Capital Market (“**Nasdaq**”). On November 15, 2021, the last trading day prior to the announcement of the Offering, the closing prices of the Common Shares on the TSXV, the OTCQB Venture Market and the Frankfurt Stock Exchange were \$7.14, US\$5.70 and €4.74, respectively, and on December 22, 2021, the last trading day prior to the date of this Prospectus, the closing prices of the Common Shares on the TSXV, the OTCQB Venture Market and the Frankfurt Stock Exchange were \$5.99, US\$4.71 and €4.08, respectively. The Company has received conditional approval to list the Common Shares and the Option Shares (as defined herein) issuable pursuant to the Offering on the TSXV. Listing of the Common Shares and the Option Shares is subject to the Company fulfilling all of the listing requirements of the TSXV.

	Price to the Public ⁽¹⁾	Underwriters’ Fee ⁽²⁾	Net Proceeds to the Company ⁽³⁾
Per Common Share	\$5.20	\$0.312	\$4.888
Total ⁽⁴⁾	\$20,004,400	\$1,200,264	\$18,804,136

Notes:

- (1) The Offering Price for the Common Shares was determined by arm’s length negotiation between the Company and the Underwriters, with reference to the prevailing market price of the Common Shares.

- (2) In consideration for the services rendered by the Underwriters in connection with the Offering, the Underwriters will be paid a cash fee (the “**Underwriters’ Fee**”) equal to 6% of the gross proceeds of the Common Shares under the Offering (including pursuant to any exercise of the Over-Allotment Option, (as defined herein)). See “*Plan of Distribution*”.
- (3) The “Net Proceeds to the Company” excludes the Company’s expenses of the Offering, including in connection with the preparation and filing of this Prospectus and the Concurrent Private Placement (as defined below) (estimated to be approximately \$300,000), which, together with the Underwriters’ Fee, will be paid from the gross proceeds of the Offering.
- (4) The Company has granted the Underwriters an option (the “**Over-Allotment Option**”), exercisable in whole or in part in the sole discretion of the Underwriters at any time and from time to time up to 30 days from and including the Closing Date (as defined herein), to purchase up to an additional 577,050 Common Shares (the “**Option Shares**”) (representing up to 15% of the number of Common Shares sold pursuant to the Offering), at the Offering Price, to cover over-allocations, if any, made by the Underwriters and for market stabilization purposes. A person who acquires securities forming part of the Underwriters’ over-allocation position acquires those securities under this Prospectus regardless of whether the Underwriters’ over-allocation position is ultimately filled through the exercise of the Over-Allotment Option or secondary market purchases. If the Over-Allotment Option is exercised in full, the total Price to the Public, Underwriters’ Fee and Net Proceeds to the Company will be \$23,005,060, \$1,380,303.60 and \$21,624,756.40, respectively, before deducting the expenses of the Offering. This Prospectus also qualifies the distribution of the Over-Allotment Option and the issuance of the Option Shares pursuant to the exercise of the Over-Allotment Option. References in this Prospectus to the “Common Shares” includes the Option Shares, and references in this Prospectus to the “Offering” includes the Over-Allotment Option, if and to the extent exercised. See “*Plan of Distribution*” and the table below.

The following table sets out the number of options and other compensation securities that have been issued or may be issued by the Company to the Underwriters and which are exercisable to acquire Common Shares:

Underwriters’ Position	Maximum Number of Securities Available	Exercise Period	Exercise Price
Over-Allotment Option ⁽¹⁾	577,050 Option Shares	30 days after and including the Closing Date	\$5.20 per Option Share
Total	577,050 Common Shares		

Notes:

- (1) This Prospectus qualifies the grant of the Over-Allotment Option and the issuance of the Option Shares issuable upon exercise of the Over-Allotment Option. See “*Plan of Distribution*”.

The Company intends to complete a non-brokered private placement (expected to close concurrently with or prior to the Offering) of up to 1,924,812 Common Shares at a price of \$5.20 for gross proceeds of up to \$10,009,022 (the “**Concurrent Private Placement**”). The Company has received conditional approval to list the Common Shares issuable pursuant to the Concurrent Private Placement on the TSXV. Listing of such Common Shares is subject to the Company fulfilling all of the listing requirements of the TSXV. No commission or other fee will be paid to the Underwriters in connection with the sale of Common Shares pursuant to the Concurrent Private Placement.

The Underwriters conditionally offer the Common Shares, subject to prior sale, if, as and when issued by the Company and accepted by the Underwriters in accordance with the conditions contained in the Underwriting Agreement referred to under “*Plan of Distribution*” and subject to the approval of certain legal matters by Irwin Lowy LLP, on behalf of the Company, and by DLA Piper (Canada) LLP, on behalf of the Underwriters.

The Offering Price for the Common Shares offered under this Prospectus and certain other terms of the Offering were determined by arm’s length negotiation between the Company and Eight. The Underwriters may offer the Common Shares at a price lower than the Offering Price. See “*Plan of Distribution*”. Notwithstanding any such reduction by the Underwriters in the Offering Price, the Company will still receive net proceeds of \$4.888 per Common Share purchased by the Underwriters under the Offering.

Subscriptions for the Offering will be received subject to rejection or allotment in whole or in part, and the right is reserved to close the subscription books at any time without notice. Closing of the Offering is expected to occur on or about December 31, 2021 or such other date as Eight and the Company may agree upon (the “**Closing Date**”); however, the Common Shares offered pursuant to this Prospectus are to be taken up by the Underwriters, if at all, on or before a date that is not later than 42 days after the date of the receipt for this Prospectus. The Common Shares will be issued as non-certificated securities registered in the name of CDS Clearing and Depository Services Inc. (“**CDS**”), which shall include Common Shares issued to purchasers in the United States that are “qualified institutional buyers” (“**Qualified Institutional Buyers**”) within the meaning of Rule 144A (“**Rule 144A**”) under the United States Securities Act of 1933, as amended (the “**U.S. Securities Act**”), and no certificates representing Common Shares will be issued under the Offering, except in certain limited circumstances. A purchaser of Common Shares in the United States that is an “accredited investor” (“**U.S. Accredited Investor**”) within the meaning of Rule 501(a) of regulation D under the U.S. Securities Act will receive definitive physical certificates representing the Common Shares. See “*Plan of Distribution*” and “*Depository Services*”.

Subject to applicable laws, the Underwriters may, in connection with the Offering, over-allot or effect transactions which stabilize or maintain the market price of the Common Shares at levels other than those which might otherwise prevail on the open market. Such transactions, if commenced, may be discontinued at any time. See “*Plan of Distribution*”.

This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any Common Shares offered by this Prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

The Company has not authorized anyone to provide purchasers with information different from that contained or incorporated by reference in this Prospectus. An investment in the Common Shares is speculative and involves a high degree of risk and must be considered speculative due to the nature of the Company’s business and the current stage of operations. Prospective investors should carefully review and consider the risk factors described in and incorporated by reference in this Prospectus. See “*Forward-Looking Information*” and “*Risk Factors*” in this Prospectus and in the AIF (as defined herein), “*Forward Looking Statements*” and “*Risks and Uncertainties*” in the Annual MD&A (as defined herein) and “*Forward Looking Statements*” and “*Risks and Uncertainties*” in the Interim MD&A (as defined herein).

You should rely only on the information contained in this Prospectus (including the documents incorporated herein by reference). Neither the Company nor the Underwriters have authorized anyone to provide you with information different from that contained in this Prospectus. Readers should not assume that the information contained or incorporated by reference in this Prospectus is accurate as of any date other than the date on the front of this Prospectus or the respective dates of the documents incorporated by reference herein. The Company does not undertake to update the information contained or incorporated by reference herein, except as required by applicable securities laws.

The Company’s head and registered office is located at 210-1205 Amber Drive, Thunder Bay, Ontario, P7B 6M4.

All references herein to “\$” are to Canadian dollars unless otherwise specified.

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FORWARD-LOOKING INFORMATION

This Prospectus and the documents incorporated into this Prospectus contain such forward-looking statements and “forward-looking information” within the meaning of applicable Canadian securities laws (such forward-looking statements and forward-looking information being collectively hereinafter referred to as “forward-looking statements”). Forward-looking statements are based on expectations, estimates and projections as at the date of this Prospectus or the dates of the documents incorporated by reference herein, as applicable. Any statements that involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often but not always using phrases such as “expects”, “is expected”, “anticipates”, “plans”, “budget”, “scheduled”, “forecasts”, “estimates”, “believes” or “intends”, or variations of such words and phrases (including negative and grammatical variations), or stating that certain actions, events or results “may” or “could”, “would”, “should”, “might” or “will” be taken, occur or be achieved) are not statements of historical fact and may be forward-looking statements and are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements and information concerning: statements relating to the completion and expected timing of the Offering and the Concurrent Private Placement; the receipt of required regulatory (including stock exchange) approvals in respect of the Offering and the Concurrent Private Placement; statements relating to the net proceeds from the Offering and the Concurrent Private Placement, the Company’s use of the net proceeds from the Offering and the Concurrent Private Placement, and the results of activities conducted using such net proceeds; the intentions, plans and future actions of the Company; statements relating to the business and future activities of the Company, including with respect to ongoing research and development activities, studies being conducted in respect of the Company’s products and the engineering for a plant to produce GO (as defined herein) and GO-silver; market position; ability to compete and future financial or operating performance of the Company; anticipated developments in the operations of the Company; the timing and amount of funding required to execute the Company’s business plans; capital expenditures; the effect on the Company of any changes to existing or new legislation or policy or government regulation; the length of time required to obtain permits, certifications and approvals; the availability of labour; the potential expansion into the United States and other international jurisdictions selected by the Company; estimated budgets; currency fluctuations; requirements for additional capital; limitations on insurance coverage; the timing and possible outcome of litigation in future periods; the timing and possible outcome of regulatory and permitting matters; goals; strategies; future growth; the adequacy of financial resources; statements relating to the duration and effects of COVID-19 and any other pandemics on the Company’s workforce, business, operations and financial condition; and other events or conditions that may occur in the future.

Forward-looking statements are based on the beliefs of the Company’s management, as well as on assumptions, which management of the Company believes to be reasonable based on information available at the time such statements were made. However, by their nature, forward-looking statements are based on assumptions and involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements are subject to a variety of risks, uncertainties and other factors which could cause results, performance or achievements to differ from those expressed or implied by the forward-looking statements, including, without limitation, related to the following: no operating revenues and history of losses, no guarantee of success, intellectual property, lack of revenue from graphene sales, product development and technological change, market development and growth, unpredictable sales cycles, government regulation and import/export controls, industry competition, lack of trading market for graphene, shortages, need for additional funding, no history of operations on mineral property, preliminary economic assessments, single primary asset, estimates of mineral resource risks, infrastructure, property titles, first nations, going concern, commodity markets, market fluctuation and commercial viability, operating hazards and risks, health, safety and community relations, environmental protection, pre-existing environmental liabilities, mining risks and insurance, reliance on key personnel, liquidity risk, share price fluctuations, public health crises such as the COVID-19 pandemic, climate change, conflicts of interest, uninsurable risks, cybersecurity threats, dilution and no dividends, negative operating cash flow, uncertainties relating to the Company’s business plans, economic dependence on Trebor Supply Agreement, listing application in the United States, unallocated proceeds of the Offering, and dilution; which are outlined under the heading “*Risk Factors*” in this Prospectus and in the AIF, which is incorporated herein by reference.

The lists of risk factors set out herein and/or in the documents incorporated by reference into this Prospectus are not exhaustive of the factors that may affect any forward-looking statements of the Company. Forward-looking statements are statements about the future and are inherently uncertain. Actual results, performance or achievements could differ materially from those projected in the forward-looking statements as a result of the matters set out or incorporated by

reference in this Prospectus generally and certain economic and business factors, some of which may be beyond the control of the Company. In addition, global financial and credit markets have experienced significant debt and equity market and commodity price volatility, which could have a particularly significant, detrimental and unpredictable effect on forward-looking statements. The Company does not intend, and does not assume any obligation, to update any forward-looking statements, other than as required by applicable law. For all of these reasons, prospective investors should not place undue reliance on forward-looking statements.

FINANCIAL INFORMATION

The financial statements of the Company incorporated by reference in this Prospectus have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and are reported in Canadian dollars.

TRADE NAMES

This Prospectus and the documents incorporated herein by reference contain names, product names, trade names, trademarks and service marks of the Company. The Company owns or has rights to trademarks, service marks or trade names that it uses in connection with the operation of its business. In addition, the Company's name and logo are its service marks or trademarks. The other trademarks, trade names and service marks appearing in this Prospectus are the property of their respective owners. Solely for convenience, the trademarks, service marks, trade names and copyrights referred to in this Prospectus are typically listed without the ©, ® and ™ symbols, but the Company will assert, to the fullest extent under applicable law, its rights or the rights of the applicable licensors to these trademarks, service marks and trade names.

ELIGIBILITY FOR INVESTMENT

In the opinion of Irwin Lowy LLP, counsel to the Company, and DLA Piper (Canada) LLP, counsel to the Underwriters, based on the provisions of the *Income Tax Act* (Canada) (the "**Tax Act**") and the regulations thereunder in force on the date hereof, the Common Shares issuable pursuant to this Prospectus, if issued on the date hereof, would be qualified investments under the Tax Act for a trust governed by a registered retirement savings plan, registered retirement income fund, registered education savings plan, registered disability savings plan, tax-free savings account ("**Registered Plans**") or a deferred profit sharing plan, provided that the common shares of the Company are listed on a "designated stock exchange" as defined in the Tax Act (which currently includes the TSXV).

Notwithstanding the foregoing, if the Common Shares are a "**prohibited investment**" (as defined in the Tax Act) for a particular Registered Plan, the annuitant, holder, or subscriber of the particular Registered Plan, as the case may be, will be subject to a penalty tax as set out in the Tax Act. The Common Shares will not be a "prohibited investment" for a Registered Plan provided the annuitant, the holder, or the subscriber, as the case may be, deals at arm's length with the Company for purposes of the Tax Act and does not have a "significant interest", within the meaning of subsection 207.01(4) of the Tax Act, in the Company. In addition, the Common Shares will not be a prohibited investment if such securities are "excluded property", for purposes of the prohibited investment rules, for a Registered Plan. Prospective investors should consult their own tax advisors as to whether the Common Shares will be a prohibited investment for such Registered Plan in their particular circumstances.

DOCUMENTS INCORPORATED BY REFERENCE

Information has been incorporated by reference in this Prospectus from documents filed with provincial securities commissions or similar authorities in Canada. Copies of the documents incorporated herein by reference may be obtained on request without charge from the Chief Executive Officer of the Company at 210-1205 Amber Drive, Thunder Bay, Ontario, P7B 6M4, telephone (705) 618-0900, and are also available electronically at www.sedar.com. The filings of the Company through the System for Electronic Document Analysis and Retrieval ("**SEDAR**") are not incorporated by reference in this Prospectus except as specifically set out herein.

The following documents, filed by the Company with the various provincial securities commissions or similar authorities in Canada, are specifically incorporated by reference into, and form an integral part of, this Prospectus:

- a) the annual information form of the Company, dated July 27, 2021, for the year ended March 31, 2021 (the "**AIF**");

- b) the audited consolidated financial statements of the Company for the year ended March 31, 2021 and the related notes thereto and auditor’s report thereon;
- c) the Company’s management’s discussion and analysis for the year ended March 31, 2021;
- d) the amended and restated unaudited condensed interim consolidated financial statements of the Company for the three and six months ended September 30, 2021 and the related notes thereto (the “**Interim Financial Statements**”);
- e) the Company’s amended and restated management’s discussion and analysis for the three and six months ended September 30, 2021 (the “**Interim MD&A**”);
- f) the material change report dated April 19, 2021 relating to the completion of a private placement of 1,735,199 units of securities of the Company for gross proceeds of \$4,337,998;
- g) the material change report dated November 2, 2021 relating to the development of new carbon-based nanotechnology-enhanced icephobic coating;
- h) the material change report dated November 4, 2021 relating to the change of the Company’s name to Zentek Ltd.;
- i) the material change report dated December 23, 2021 relating to the filing of the Interim Financial Statements and Interim MD&A; and
- j) the management information circular of the Company dated August 19, 2021 in respect of the Company’s annual and special meeting of shareholder held on September 27, 2021.

Any other documents of the type referred to in National Instrument 44-101 — *Short Form Prospectus Distributions* (“**NI 44-101**”) required to be incorporated by reference in a short form prospectus, including any annual information forms, material change reports (except confidential material change reports), financial statements and related management’s discussion and analysis, business acquisition reports and information circulars, if filed by the Company with the provincial securities commissions or similar authorities in Canada subsequent to the date of this Prospectus and prior to the completion of the distribution of the Common Shares, are deemed to be incorporated by reference in this Prospectus.

Any statement contained in this Prospectus or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is, or is deemed to be, incorporated by reference herein, modifies or supersedes such statement. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document or statement that it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purposes that the modified or superseded statement when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made. Any statement so modified or superseded shall not be deemed to constitute a part of this Prospectus, except as so modified or superseded.

MARKETING MATERIALS

Any “template version” of any “marketing materials” (as such terms are defined under applicable Canadian securities laws) that is used by the Underwriters in connection with the Offering does not form a part of this Prospectus to the extent that the contents of the template version of the marketing materials have been modified or superseded by a statement contained in this Prospectus. Any template version of any marketing materials that has been, or will be, filed under the Company’s profile on SEDAR at www.sedar.com before the termination of the distribution under the Offering (including any amendments to, or an amended version of, any template version of any marketing materials) is deemed to be incorporated by reference into this Prospectus.

THE COMPANY

The Company was incorporated as “1774119 Ontario Limited” under the *Business Corporations Act* (Ontario) on July 29, 2008. On November 24, 2009, the Company filed Articles of Amendment changing the name from “1774119 Ontario Limited” to “Zenyatta Ventures Ltd.” On January 16, 2019, the Company filed Articles of Amendment changing the name from “Zenyatta Ventures Ltd.” to “ZEN Graphene Solutions Ltd.” On October 27, 2021 (effective October 28, 2021), the Company filed Articles of Amendment changing the name from “ZEN Graphene Solutions Ltd.” to “Zentek Ltd.”

The Company is a reporting issuer in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland.

BUSINESS OF THE COMPANY

The Company commenced operations as a junior mineral exploration company focused primarily on mineral deposits in Northern Ontario, Canada. The Company was actively engaged in exploring mining projects and held an interest in exploration licences on properties in the “Arc of Fire” area in Northern Ontario, Canada. The properties, located north of Lake Superior and west of James Bay in north-western Ontario, Canada, were unpatented, non-contiguous, and consisted of nine claim blocks, including 234 claims comprised of 3,549 claim units over a total of 56,784 ha. Within such claim blocks, the Company still holds a 100% undivided interest in Claim Block 4F, which hosts the igneous-hosted, fluid-derived graphite deposit (the “**Albany Graphite Project**”). The Company did extensive work to determine potential uses for the graphite materials extracted from the Albany Graphite Project, including engaging in testing and studies on graphene materials.

In November 2019, the Company entered into an 18-month exclusive initial option agreement with the University of Guelph for intellectual property regarding an electrochemical exfoliation (“**ECE**”) process to produce graphene oxide (“**GO**”).

In February of 2020, the Company opened a research facility in Guelph, Ontario, to support its university and industrial partners’ ongoing research and to scale-up production of graphene product. Subsequently, the COVID-19 pandemic halted research at the Company’s collaborators’ laboratories. The Company pivoted to focus its resources to develop graphene-based solutions for the fight against COVID-19.

On June 8, 2020, the Company reported that it would be providing GO produced at its facility in Guelph, Ontario using material from the Albany Graphite Project for development of a rapid, ultrasensitive and low-cost biosensor to detect the presence of the SARS-CoV-2 antigen and/or antibodies in COVID-19 suspected patients. This research was funded by an initial grant of approximately \$400,000 from the National Sciences and Engineering Council.

On September 22, 2020 the Company announced, based on the results from a report to the Company dated September 18, 2020 from the ImPaKT Centre at the University of Western Ontario entitled “*Zen Graphene – Lab Test Report No. Z03-092020*”, the development and successful testing of a patent-pending graphene oxide/silver compound that showed to be 99.9% effective against COVID-19 virus a minimum of 35 days after application of the coating to N95 mask material. On December 22, 2020, the Company announced the successful testing at the Department of Microbiology at Mount Sinai Hospital/University Health Network of the graphene oxide/silver compound that showed to be 99.9% effective against both gram-positive and gram-negative aerobic bacteria as well as against fungus/yeast, based on a report to the Company dated December 18, 2020 entitled “*Evaluation of Graphene Oxide with Silver Cations (GO-Ag+) as an Antibacterial Agent against Respiratory Pathogens*”, which stated that if the compound could be shown to be safe and effective, it could provide a breakthrough alternative therapy for the practices of family medicine, Otolaryngology, Ophthalmology and intensive care units. The Company has filed three patent applications relating to its antimicrobial coating, and on April 13, 2021 announced the brand name ZENGuard™ for such coating.

The Company has entered into a License and Supply Agreement dated September 24, 2021 (the “**Trebor Supply Agreement**”) with Trebor Rx Corp. (“**Trebor**”), a Canadian manufacturer of personal protective equipment (“**PPE**”) and masks with a production facility located in Collingwood, Ontario, pursuant to which the Company granted a non-exclusive non-transferable license to Trebor to use the Zenguard™ coating in certain specified Trebor products displaying the Company’s branding, including surgical masks, mask filters, nitrile gloves, surgical gowns and scrubs and other healthcare and similar such products, and an exclusive license to sell and distribute ZENGuard™ coated Elastomeric Respirator Mask filters, whether fixed or replaceable, such exclusive license remaining in force only so

long as Trebor sells a minimum of 60,000,000 filters per year with annual growth of at least 10%. Trebor agreed to use the ZENGuard™ coating on all of its products sold unless the purchaser specifically refuses to the ZENGuard™ coated products, and agreed to purchase the ZENGuard™ coating from the Company by way of cash payments for a supply based on demand for Trebor products. There is no minimum amount of ZENGuard™ coating required to be purchased by Trebor pursuant to the Trebor Supply Agreement. As at the date of this Prospectus, Trebor has purchased quantities of ZENGuard™ coating sufficient for 10,000,000 masks.

Based on discussions with Trebor and management's reasonable business judgment in estimating demand for ZENGuard™ coated masks during a global pandemic, to meet anticipated demand for its ZENGuard™ proprietary antimicrobial compound, the Company began sourcing graphene oxide ("GO") from third parties for the production of the ZENGuard™ coating. On November 11, 2021, the Company announced that it had reached an agreement to secure the necessary supply of GO to produce enough ZENGuard™ to meet anticipated demand, which has been estimated by the Company based on discussions with Trebor, with shipments beginning in December 2021 and to continue through the first six months of 2022.

The Company is currently in the process of optimizing the concentration and loading of its antimicrobial GO-silver-based nanomaterial and on PPE equipment (surgical masks, gloves and filters). The Company is also exploring the best coating process to apply its antimicrobial product to the various media/materials to ensure that the coating adheres sufficiently to the fibers and surfaces, achieving a consistent particle dispersion and distribution. The Company conducts its own research and development, including product development and optimization, at its laboratory in Guelph, Ontario, and additionally subcontracts product characterization, efficacy testing (viral, bacterial and fungal), coating performance and imaging, etc. The Company is collaborating closely with a number of meltblown polypropylene nonwoven fabric manufacturers and intends to work towards incorporating coating equipment (spray, pad-dry-cure etc.) into their production lines. The Company has engaged the services of an engineering firm to carry out detailed engineering for a plant to produce GO and GO-silver. This will include process design, mechanical and piping layout, electrical layout, civil/structural/architectural design, control systems and engineering. The engineering firm will also assist on budget pricing and bid evaluation. The intention is for the plant to be designed to be modular (sea can-sized modules) that can be transported to the Company's manufacturing facility in Guelph, Ontario, installed and connected. See "*Risk Factors*".

Currently the principal markets targeted by the Company are PPE manufacturers (for the use of antimicrobial coatings on surgical masks, filters, cartridges for reusable masks, nitrile gloves, gowns, shoe covers, etc.) and HVAC system manufacturers and suppliers (for the use of antimicrobial coated filters, pre and post-filters, high-efficiency particulate air (HEPA), etc.). The Company is continuing to identify new markets and uses for its graphene-based antimicrobial coating.

The Company works directly with PPE equipment and HVAC filter manufacturers and aims to ultimately supply the antimicrobial coating product directly to the manufacturers for use in their respective production lines, or as pre-coated material/product that will be supplied to manufacturers (e.g., coated polypropylene or polyethylene terathalate meltblown nonwoven media to be used in the construction of a surgical mask, coated nitrile gloves or pre-coated HVAC filtration media). The Company is also actively exploring arrangements with other parties interested in representing the Company and/or distributing its products in other global markets (Europe, India, Australasia, etc.).

Additionally, on June 17, 2021, the Company announced that it had signed an exclusive license agreement with McMaster University to be the global commercializing partner for a newly developed aptamer-based, SARS-CoV-2 rapid detection technology. This patent-pending technology is validated with clinical samples from patients recruited under the supervision of two clinicians who also work at McMaster University. The project was funded by the Canadian Institutes of Health Research. Based on a report entitled "*High Affinity Dimeric of Wild-Type and B.1.1.7 SARS-CoV-2 in Unprocessed Saliva*" (*Angew. Chem. Int. Ed.* 10. 1002/anie.202110819) this technology has demonstrated to be accurate (similar to current PCR tests), saliva-based, affordable, scalable and can provide results in under ten minutes. Pursuant to the terms of the license agreement, McMaster University granted to the Company an exclusive royalty bearing license to use and practice globally, the associated patents with the exclusive license to make, use, or sell products /methods which incorporates the patents, and a nonexclusive license to use McMaster University's background intellectual property required to use the patents. A license fee of \$100,000, comprised of \$50,000 cash and \$50,000 in Common Shares of the Company was paid to McMaster University as consideration. McMaster University also holds a 3.5% royalty on net sales, with a minimum annual royalty of \$20,000 per year beginning in June 2027.

The Company is now an intellectual property development and commercialization company focused on healthcare solutions in the areas of prevention, detection and treatment. The Company is currently focused on commercializing ZENGuard™, as well as on its rapid detection technology. The Company has no current plans to continue any significant work on the Albany Graphite Project and does not require materials extracted from the Albany Graphite Project for its current business plans. On October 18, 2021 the TSXV changed the Company's classification from a "mining issuer" to an "industrial, technology, or life sciences issuer." The change of classification was approved by the shareholders of the Company on September 27, 2021, in accordance with the rules and policies of the TSXV.

Current Business

The Company is currently manufacturing the ZENGuard™ antimicrobial coating for application to non-woven, spunbond polypropylene material to be used in surgical mask manufacturing and potentially on other materials and products. In the GAPLAB reports dated May 3, 2021, the addition of ZENGuard™ to surgical masks was shown to increase the bacterial and viral filtration efficiency of masks and acts as an antimicrobial agent providing increased protection when compared to similar uncoated masks. Pursuant to the Trebor Supply Agreement, the Company is currently supplying Trebor with ZENGuard™ coating that is applied to masks produced and sold by Trebor. The sale by Trebor of ZENGuard™ coated PPE masks received Health Canada authorization on September 22, 2021 under Interim Order No.2 - #329587 - *Respecting the Importation and Sale of Medical Devices for Use in Relation to COVID-19*, which expires eighteen months from the date of issuance.

Additionally, the Company has been issued a Medical Device Establishment License ("MDEL") from Health Canada (license number 18823) for the manufacture and distribution of any Class I medical devices, including any such devices with or without the ZENGuard™ coating. The Company believes the MDEL will allow the Company to begin working with other manufacturers and distributors in addition to Trebor to bring surgical masks and, potentially, other PPE (whether or not coated with ZENGuard™ antimicrobial compound) to the Canadian market. The MDEL also allows the Company to begin producing and selling its own PPE products (whether or not coated with ZENGuard™ antimicrobial compound). Rather than developing its own PPE manufacturing capability, the Company currently intends initially to engage third party manufacturers to manufacture PPE, made with ZENGuard™ coated material, for the Company to sell. The MDEL gives the Company the potential to work with medical device manufacturing partners within and outside Canada.

The Company currently purchases graphene oxide from third parties, and then uses the graphene oxide to produce the ZENGuard™ coating formulation at its pilot scale production facility in Guelph, Ontario. The Company then ships the ZENGuard™ coating formulation to a third party for application onto spunbond material to be used for surgical masks. The Company intends to install industrial manufacturing equipment in its Guelph, Ontario facility to produce ZENGuard™ coating formulation at a higher scale and capacity (see "*Business Objectives and Milestones*"). Once this industrial process is in operation, the Company expects production capacity of ZENGuard™ to increase significantly. The Company is also seeking to purchase equipment necessary to apply the ZENGuard™ coating formulation to materials at this same facility as well, rather than sending the coating formulation to a third party to apply it to material (see "*Business Objectives and Milestones*").

To meet the Company's anticipated near-term demand for its patent pending ZENGuard™ antimicrobial compound, the Company began sourcing graphene oxide from third parties. On November 11, 2021, the Company announced that it had reached an agreement to secure the necessary supply of graphene oxide to produce a sufficient amount of ZENGuard™ antimicrobial compound to meet anticipated demand, which has been estimated by the Company based on discussions with Trebor, with shipments beginning in December 2021 and to continue through the first six months of 2022. The Company also intends to move towards the construction of a facility to produce its own graphene oxide (see "*Business Objectives and Milestones*"). The Company had previously disclosed estimates on potential production capacities and the expected timing thereof. Such targets were not achieved primarily based on delays caused by a temporary directive issued by Health Canada, which restricted any graphene coated mask from entering the market for a period of time earlier in 2021.

To date, other than the Trebor Supply Agreement, the Company has not entered into any supply or other agreements for the sale of its products.

Business in Development

Aptamer-Based Rapid Detection Technology

On June 17, 2021, the Company announced that it had signed an exclusive agreement with McMaster University to be the global commercializing partner for a newly developed aptamer-based rapid detection technology to detect SARS-CoV-2 in patients through saliva samples. This patent-pending technology was validated with clinical samples from patients recruited under the supervision of clinicians at McMaster University. In a report from McMaster University titled “High affinity dimeric aptamers enable rapid electro-chemical detection of wild-type and B.1.1.7-SARS-COV-2 in unprocessed saliva” on August 31, 2021, the technology was shown to be accurate, saliva-based, affordable and scalable, and able to provide results in under 10 minutes. Although this technology is currently being developed specifically for COVID-19, this technology platform is designed to be able to detect other diseases by changing the aptamer to match new diseases. This technology is also being used to help detect COVID-19 in wastewater and the Company has received \$148,000 from Innovative Solutions Canada (“ISC”) to design and build a prototype for this application. The Company has engaged a third party to reproduce the laboratory results from McMaster University, and to, among other things, develop a mathematical model to better understand the technology and results, develop a standard operating procedure for the system, perform pre-trial evaluation using saliva samples, and optimize buffers for sample preparation. Additionally, the Company has undertaken supply chain activities including receiving samples and pricing from suppliers of hardware for the rapid COVID test including: potentiostat suppliers, screen printed electrode manufacturers and vetting the quality of chips, aptamer producers, and sample collection vials, pipettes etc. The Company currently intends to continue to develop this technology, including the development of software and hardware, using outsourced third party developers (see “*Business Objectives and Milestones*”).

Diesel Fuel Additive

The Company is developing a stable graphene-based diesel fuel additive in an effort to improve combustion, increase burn rate and improve fuel economy of diesel fuels. Initial testing of the additive has been shown to increase the performance of diesel fuel. The Company expects that these early results can be improved further through additional optimization work. The Company has filed a provisional patent for its graphene-based fuel additive technology. The fuel additive was tested by Conestoga College in a Gunt 159 single cylinder test engine, who reported improvement in fuel economy of over 10% under certain rpm. The Company’s research and development team improved the synthesis of the functionalized graphene oxide additive to reduce the size of the particles and increase the functional groups, which could lead to improved combustion. An NSERC alliance proposal has been submitted for \$110,500 cash contribution and a total budget of \$311,500 over two years to continue doped fuel research. The project will focus on measuring the combustion of doped fuel in both droplet and spray combustion. The Company intends to conduct further testing in 2022 and 2023, including: testing fuel economy, brake efficiency and emissions in a diesel engine for two different graphene oxide fuel additive concentrations; conducting spray combustion tests, which will provide an initial assessment of the graphene oxide additive for the aviation industry; and testing and optimizing the graphene oxide fuel additive for diesel generator engines and marine engines (see “*Business Objectives and Milestones*”).

Icephobic Coating

The Company is developing a new, patent-pending, carbon-based, nanotechnology-enhanced coating designed to prevent or reduce ice accretion for aviation (including drone) and wind energy applications. Preliminary testing demonstrated that this coating showed an adhesion strength consistently around 20 kPa. The project has involved the use of dispersion technology to homogeneously mix graphene materials in elastomer. The Company has filed a provisional patent on the technology. The Company has conducted testing at National Research Council’s Altitude Icing Wind Tunnel (AIWT) in Ottawa, and prepared graphene-enhanced elastomer material and coated test coupons for testing. Future testing that the Company expects to conduct includes testing accelerated weathering, durability (sand erosion), flight testing on a specially equipped research aircraft under real world ice-forming weather conditions, elastomer/graphene loading optimization, adhesion optimization, and coating application optimization. While there are no partnership agreements in place as at the date of this Prospectus, the Company has engaged in initial discussions with multiple parties regarding potential collaboration. Third-party lab testing on aircraft has not yet commenced. Although dependent on weather conditions, the Company expects that testing could begin in the first calendar quarter 2022 on specifically equipped aircraft. This expectation is based on the status of discussions with potential collaborators.

Other Use-Cases for ZENGuard™

The Company intends to continue exploring other applications and uses for its ZENGuard™ compound, including, but not limited to, use in HVAC filters. On November 30, 2021, the Company announced that it has been awarded a research and development test contract through the ISC Testing Stream Call for Proposals to test ZENGuard™-coated HVAC filters with interest from three different units within the National Research Council of Canada (“NRC”). The goal of the testing will be to demonstrate: (i) a net reduction in the airborne viral load with ZENGuard™ coating applied to standard filters; (ii) no modifications required to existing HVAC systems to achieve (i) above; (iii) no reduction in air flow rates, which means air exchange rates in the space will be unchanged; and (iv) no reduction in the air quality as the ZENGuard™ coating will be tested to ensure it does not contribute particles into the air stream. Testing will be performed at CREM Co Labs, Mississauga, Ontario and will be led by Dr. Paul Lebbin, Research Council Officer at NRC’s Centre for Air Travel Research.

In addition, the active ingredient in ZENGuard™ has minimum inhibitory concentrations under 1µg/ml against several bacteria as tested by Dr. Tony Mazzulli from Mount Sinai Hospital in Toronto. The Company is exploring the potential to use this compound in therapeutic or pharmaceutical applications based on these results.

Other

The Company is also working with a number of research institutions developing processes to synthesize graphene, graphene oxide and graphene quantum dots, along with other possible applications for graphene. Potential markets for graphene include composites (e.g. concrete, rubber, plastic polymers and ceramics), sensors, water purification and filtration, coatings and solid-state lubricants, silicon-graphene and graphene aerogel anode material for next generation batteries along with aerospace applications. The Company has other research projects commenced or contemplated including for applications in aluminum alloys, corrosion protection, battery technology, conductive polymers and others.

Intellectual Property

The Company holds intangible property in various forms such as trademarks, pending patent applications, trade secrets and know-how, mining claims, laboratory reports, licensing agreements, scientific agreements, and customer lists. Specifically, the Company holds interests in the following patents applications:

Application Serial Number	Filing Date	Title	Current Owner	Inventors
63/128,993	December 22, 2020	GRAPHENE-SILVER NANOCOMPOSITE COMPOSITIONS AND USES THEREOF FOR THE TREATMENT OF RESPIRATORY TRACT INFECTIONS	The Company	Seyyedarash HADDADI Colin VAN DER KUUR Joseph KORKIS
63/161,873	March 16, 2021	ANTIMICROBIAL GRAPHENE-SILVER NANOCOMPOSITES FOR MICROBIAL PATHOGENS AND ANTIMICROBIAL RESISTANT PATHOGENS	The Company	Colin VAN DER KUUR Joseph KORKIS
63/188,052	May 13, 2021	FUNCTIONALIZED CARBON NANOMATERIAL ADDITIVE FOR NATURAL AND SYNTHETIC DIESEL FUELS	The Company	Seyyedarash HADDADI Colin VAN DER KUUR

63/230,964	August 9, 2021	CARBON-BASED NANOMATERIAL-ENHANCED ELASTOMER COATING FOR PASSIVE ICE ACCRETION PREVENTION	The Company	Monique Manaigre James Jordan Peter Wood
63/192,966	May 25, 2021	GRAPHENE COMPOSITE BATTERY ELECTRODE PARTICLES WITH VOID SPACE AND METHODS OF MAKING SAME	The Company	Michael POPE Zimin SHE
63/081,301	September 21, 2020	GRAPHENE-SILVER NANOCOMPOSITES AND USES FOR SAME AS AN ANTIVIRAL COATING AGENT	The Company	Seyedarash HADDADI Colin VAN DER KUUR
PCT/CA2021/051308	September 20, 2020	GRAPHENE-SILVER NANOCOMPOSITES AND USES FOR SAME AS AN ANTIMICROBIAL COMPOSITION	ZEN Graphene Solutions Ltd.	Seyedarash HADDADI Colin VAN DER KUUR Joseph KORKIS Deepak SRIDHAR
63/080,239	September 18, 2020	PROCESSES FOR THE PREPARATION OF EXPANDED GRAPHITE AND EXFOLIATED GRAPHENE OXIDE	University of Guelph The Company	Aicheng CHEN Michael SALVERDA Antony Raj THIRUPPATHI Boopathi SIDHUREDDY Farnood RAHMATI
Licensed Technology				
63/211,410	June 16, 2021	MULTIMERIC APTAMERS FOR CORONAVIRUS 2 DETECTION, METHODS OF MAKING AND USES THEREOF	McMaster University	Yingfu LI John D. BRENNAN Jiuxing LI Zijie ZHANG Jimmy GU Bruno SALENA Matthew MILLER Deborah YAMAMURA Dawn WHITE
63/211,399	June 16, 2021	APTAMERS GENERATED FROM PRESTRUCTURED	McMaster University	Yingfu LI John D. BRENNAN Jiuxing LI Zijie ZHANG

		NUCLEIC ACIDS AND USES THEREOF		Jimmy GU Bruno SALENA Matthew MILLER Deborah YAMAMURA
63/211,477	June 16, 2021	BIOSENSORS FOR PATHOGEN DETECTION AND USES THEREOF	McMaster University	Yingfu LI John D. BRENNAN Leyla SOLEYMANI Jiuxing LI Zijie ZHANG Richa PANDEY Bruno SALENA Matthew MILLER Deborah YAMAMURA Cynthia Marie BALION Dawn WHITE Jimmy GU Alfredo CAPRETTA Carlos FILIPE Karen MOSSMAN Hannah STACEY Jaan ANG Catherine-Jean STEINBERG

The Company has also licensed certain rapid detection technology (McMaster Tech ID 22-006: Rapid Electrochemical Sensor for Wild-Type and B.1.1.7 SARS-CoV-2 in Unprocessed Saliva Using High Affinity Dimeric Aptamers) from the University of McMaster as noted above, pursuant to a Standard License Agreement between McMaster University and the Company dated June 11, 2021.

Recent Developments

On September 22, 2021, the Company announced Health Canada authorization of the ZENGuard™ coated disposable face mask manufactured by Trebor.

On September 23, 2021, the Company announced that it had delivered its first shipment of ZENGuard™ antimicrobial coating to Trebor, and commenced generating revenue. The Company also reported that the engineering work on its industrial plant had been completed and had entered the procurement stage.

On September 27, 2021, the Company announced test results from GAPLAB Environmental Microbiology demonstrating significantly enhanced bacterial filtration efficiency and viral filtration efficiency of the ZENGuard™ coating enhanced surgical masks. The ZENGuard™ coated masks were found to have removed 98.9% more bacteria and 97.8% more virus particles compared to a typical ASTM level 3, 3-ply uncoated mask.

On September 27, 2021, the Company announced that it had signed a definitive commercial agreement with Trebor for the manufacturing of ZENGuard™ enhanced PPE.

On October 4, 2021, the Company announced that shareholders had approved all resolutions put forward at the Company's annual and special shareholder meeting, including (i) the appointment of McGovern Hurley LLP, Chartered Accountants as the auditors of the Company for the ensuing year and to authorize the directors to fix their remuneration; (ii) the election of the directors of the Company for the ensuing year; (iii) the approval of an omnibus long-term incentive plan to potentially be adopted by the Company in the future; (iv) the approval to amend the articles of the Company to change the name of the Company; (v) the approval of a change of business pursuant to the policies of the TSXV such that the Company would cease to be classified as a "Mining Issuer" and would instead be classified as an "Industrial, Technology, or Life Sciences Issuer"; (vi) the authorization of the Company to make an application to voluntarily delist the Common Shares from the TSXV and to apply to list the Company's Common Shares on one

or more alternative stock exchanges in Canada or the United States; and (vii) the approval of the Company's existing incentive stock option plan that was first adopted on August 1, 2010.

On October 4, 2021, the Company gave notice of accelerated expiry to the holders of 760,848 common share purchase warrants of the Company, which were issued pursuant to a private placement completed on April 8, 2021 and 1,419,753 warrants of the Company which were issued pursuant to a private placement completed on July 6, 2020, in accordance with the terms thereof, to November 3, 2021. All unexercised warrants following the accelerated expiry time became void and of no further effect. The accelerated expiry for all outstanding warrants of the Company was completed on November 3, 2021, and the Company received approximately \$3,800,000 in proceeds through the exercise of approximately 2,000,000 warrants.

On October 6, 2021, the Company announced that it had filed a full international patent application for its ZENGuard™ compound under the Patent Cooperation Treaty (“PCT”) based on the global opportunities for the technology. The University of Guelph also filed a full international patent application under the PCT for the electrochemical exfoliation process to produce GO, which includes automation. Pursuant to a License Agreement dated September 22, 2020 between the Company and the University of Guelph, the Company holds the exclusive global rights to this technology. See “*Risk Factors*”.

On October 13, 2021, the Company announced that it had submitted an application to list the Common Shares on Nasdaq. The listing of the Common Shares on Nasdaq remains subject to the approval by Nasdaq and the satisfaction of all applicable listing and regulatory requirements. See “*Risk Factors*”.

On October 14, 2021, the Company announced that it had received final approval from the TSXV to change its classification from a “mining issuer” to an “industrial, technology, or life sciences issuer.” The change of classification was approved by the shareholders of the Company on September 27, 2021, in accordance with the rules and policies of the TSXV. The change of industry classification was effective on the TSXV as of market open on October 18, 2021.

On October 27, 2021, the Company announced that it had filed articles of amendment to change its name to “Zentek Ltd.” The name change was approved by shareholders of the Company at its annual and special meeting held on September 27, 2021.

On November 2, 2021, the Company announced the development of a new, patent-pending, carbon-based, nanotechnology-enhanced coating designed to prevent ice accretion. During the testing process with a 3rd party lab, various coatings were tested for adhesion strength as measured by pressure in kilopascals (kPa) required to dislodge ice from the surface. The Company's coating demonstrated an adhesion strength consistently around 20 kPa, a significant improvement over the current commercial products. For comparison, the ice adhesion strength of a bare aluminum alloy is ~500 kPa while to be classified as icephobic, adhesive strength must be less than 100 kPa. The Company's preliminary results have demonstrated a 96% improvement over aluminum and 80% improvement over the 100 kPa threshold. The Company's coating is planned to be included in flight testing on a specially equipped research aircraft under real world ice-forming weather conditions. The Company also intends to test the feasibility of this coating as an effective passive means to de-ice drone propellers in flight to permit all-weather operations. On August 9, 2021, the Company filed a provisional patent on this technology with the United States Patent and Trademark Office. See “*Risk Factors*”.

On November 4, 2021, the Company announced that it had been selected as one of three technologies for phase 1 of the ISC challenge to develop a portable detection device for SARS-CoV-2 in wastewater. The Company received a \$148,000 award from ISC to develop its first prototype. The Company, in partnership with Dr. Yingfu Li, Dr. John Brennan, and Dr. Leyla Soleymani at McMaster University and Forsee Instruments Ltd., have been chosen to develop a prototype based on the Company's patent pending aptamer-based saliva sensor to detect SARS-CoV-2 in wastewater samples within the next 4 months. The goal of the ISC challenge, sponsored by the Public Health Agency of Canada and the National Research Council of Canada, is to produce a portable end-to-end SARS-CoV-2 wastewater detection device used for wastewater monitoring and designed to remove delays in the test-to-result pipeline. An additional goal is to provide important outbreak surveillance data to public health units. The challenge is a process whereby one solution that reaches the objectives of the program will receive \$350,000 to further develop the prototype into a final, commercial-ready solution.

On November 9, 2021, the Company provided an update on rapid detection technology. The Company contracted with NeoVentures Biotechnology Inc., which has validated the results from the McMaster University team that was described in the Company's press release dated June 17, 2021 against spike proteins and is currently optimizing and simplifying the technology in preparation for regulatory submission and commercial production. The Company contracted with axiVEND to optimize the automated process of producing sensors upon which customized aptamers will be deposited. Through consultation with potential partners and in tandem with McMaster University, the Company developed an improved aptamer with a higher binding affinity for the COVID-19 Delta variant, reduced the three-buffer methodology developed by the McMaster University team to a two-buffer approach to simplify the user experience and optimized the production time of the aptamer-based sensor from 18 hours to 30 minutes with more consistent results.

On November 11, 2021, the Company announced that it had reached an agreement to secure the necessary supply of GO to produce enough ZENGuard™ to meet anticipated demand, which has been estimated by the Company based on discussions with Trebor, with shipments beginning in December 2021 and continue through the first six months of 2022.

On November 29, 2021, the Company announced that it has been issued a MDEL from Health Canada (license number 18823) for the manufacture and distribution of Class I medical devices. The Company expects the MDEL will allow the Company to begin working with other manufacturers and distributors in addition to Trebor to bring surgical masks, and potentially other ZENGuard™ coated PPE, to the Canadian market.

On November 30, 2021, the Company announced that it has been awarded a research and development test contract through the ISC Testing Stream Call for Proposals to test ZENGuard™-coated HVAC filters with interest from three different units within the NRC. The goal of the testing will be to demonstrate: (i) a net reduction in the airborne viral load with ZENGuard™ coating applied to standard filters; (ii) no modifications required to existing HVAC systems to achieve (i) above; (iii) no reduction in air flow rates, which means air exchange rates in the space will be unchanged; and (iv) no reduction in the air quality as the ZENGuard™ coating will be tested to ensure it does not contribute particles into the air stream. Testing will be performed at CREM Co Labs, Mississauga, Ontario and will be led by Dr. Paul Lebbin, Research Council Officer at NRC's Centre for Air Travel Research.

On December 23, 2021, the Company announced the filing of amended and restated Interim Financial Statements and Interim MD&A and provided general business updates. Based on an impairment analysis, the Company's Audit Committee, in consultation with management of the Company, determined that the Company's previously filed interim financial statements and MD&A for its period ended September 30, 2021, as filed on November 29, 2021, needed to be restated in order to improve the Company's disclosure and to clarify and provide additional disclosure regarding:

- the recoverable amount and carrying value of the Company's exploration and evaluation assets, which was determined to be negligible, now that the Company has completed its change of business (see "*Business of the Company*"); and
- an immaterial dollar figure capitalized to the Company's exploration and evaluation assets in the current fiscal year, which should have been recorded as a research and development expense in support of the Company's intellectual property efforts.

Regulatory Matters

Health Canada's Therapeutic Products Directorate ("**TPD**") is the Canadian authority that regulates medical devices. The only requirement for the manufacturing and sale of Class I devices is to have a MDEL, which the Company has obtained. In general, prior to being given market authorization to sell a Class II, III or IV medical device in Canada, a manufacturer must present and/or attest to substantive scientific evidence of a product's safety, efficacy and quality as required by the Food and Drugs Act and the Medical Devices Regulations ("**Canada MDR**").

The Medical Devices Bureau ("**MDB**") of the TPD applies the Canada MDR through a combination of premarket review, post-approval surveillance and quality systems in the manufacturing process. Medical devices are classified into one of four classes, where Class I represents the lowest risk and Class IV represents the highest risk. In order to perform investigational testing in Canada for a Class II, III or IV medical device, authorization for the testing must be granted by the MDB. A Medical Device License is a pre-market requirement for a Class II, III and IV medical device, including for Class II, III or IV medical devices previously authorized for sale for investigational testing now to be

offered for general and/or commercial sale. A MDEL is issued to the device manufacturer, provided that the requirements of the Canada MDR have been met.

The Canada MDR requires that medical devices be manufactured under a certified quality management system (“QMS”) that meets the criteria of the international standard, ISO 13485 Medical devices QMS requirements for regulatory purposes. The MDB currently recognizes the Medical Device Single Audit Program, a program designed to include compliance with the QMS requirements of the Canada MDR.

After a medical device has been approved for commercial use in Canada, there are a number of Health Canada requirements that must be adhered to including, but not limited to, the following:

- Annual License Renewals – This process involves filling out the Health Canada Medical Device Establishment License Application Form, the short-form for which is “FRM-0292.
- Labeling Requirements – As per Section 21 of the Canada MDR, these requirements prevent “misbranded” devices from entering the market, as well as prohibiting the promotion of products for unapproved or “off-label” use and impose other restrictions on labeling with respect to truthfulness and accuracy.
- Significant Changes Assessment - This process involves making amendments to the license based on the type of change. The process to be followed can be found in the Health Canada Guidance Notice dated January 20, 2011 (the “**Health Canada Significant Change Guidance Notice**”), which contains a series of flow-charts about how to proceed.
- Post-Market Surveillance – As it concerns medical device reporting, this requires reporting to Health Canada if a device may have caused or contributed to a death or serious injury, or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur. Specifically, this can be found in the Incident Reporting for Medical Devices: Guidance Document, which is effective as of June 23, 2021.

The Company expects that it currently has two regulatory pathways to get products to market, which are:

1. COVID-19 Emergency Use Authorization:

The Company may in the future apply to receive authorization to sell certain products under an interim order from Health Canada that, if obtained, would allow the Company to sell product for use in relation to COVID-19. The Company believes this short-term emergency approach could allow the Company to receive authorization for products to get into the market faster, however any interim order would expire after eighteen months.

2. MDEL:

The Company received a MDEL from Health Canada on November 26 2021 for the manufacture and distribution of any Class I medical devices, including any such devices with or without the ZENGuard™ coating. The Company expects that the MDEL will allow the Company to begin working with other manufacturers and distributors in addition to Trebor to bring surgical masks and, potentially, other PPE (whether or not coated with ZENGuard™ antimicrobial compound). The Company is currently in discussions and consultations about obtaining a timeline to obtain a “Quality Management System” certified by ISO 13485, which lays out the international auditing standard organizations involved in the design, production, installation and servicing of medical devices and related services MDSAP + EU MDR. In the event that the Company obtains the Quality Management System certification, the Company would be able to apply for product registrations in the United States, the European Union, Japan, Australia and Brazil. The Company currently aims to be certified to manage Class IV medical devices, which are the highest risk, at some point in the future (see “*Forward-Looking Information*” and “*Risk Factors*”).

CONSOLIDATED CAPITALIZATION

The following table sets forth the consolidated share capitalization of the Company as at September 30, 2021, being the date of the Interim Financial Statements, (i) on an actual basis, (ii) on an adjusted basis to give effect to the Offering (prior to any exercise of the Over-Allotment Option) and the issuance and sale of 1,924,812 Common Shares pursuant to the Concurrent Private Placement, and (iii) on an adjusted basis to give effect to the Offering, assuming the full exercise of the Over-Allotment Option and the issuance and sale of 1,924,812 Common Shares pursuant to the Concurrent Private Placement. This table should be read in conjunction with the Interim Financial Statements and the Interim MD&A that are incorporated by reference in this Prospectus.

	As at September 30, 2021 before giving effect to the Offering	As at September 30, 2021 after giving effect to the Offering (prior to any exercise of the Over-Allotment Option) and the Concurrent Private Placement	As at September 30, 2021 after giving effect to the Offering (assuming full exercise of the Over-Allotment Option) and the Concurrent Private Placement
Common Shares	\$49,601,559 (90,462,435 Common Shares ⁽¹⁾)	\$78,414,717 ⁽²⁾ (96,234,247 Common Shares)	\$81,235,338 ⁽³⁾ (96,811,297 Common Shares)
Warrants	2,177,101 ⁽⁴⁾	2,177,101	2,177,101
Broker Warrants	6,000 ⁽⁵⁾	6,000	6,000
Stock Options	7,083,334 ⁽⁶⁾	7,083,334	7,083,334

Notes:

- (1) Since September 30, 2021, the number of Common Shares outstanding increased from 90,462,435 to 92,719,196 as of the date of this Prospectus due to the exercise of 2,032,607 warrants and 60,000 options. As at the date of this Prospectus, there are 92,719,196 Common Shares, Nil Warrants, 6,000 Broker Warrants and 7,173,334 Stock Options.
- (2) Calculation based on net proceeds to the Company of \$28,813,158 from the Offering (assuming the Over-Allotment Option is not exercised) and the issuance and sale of 1,924,812 Common Shares pursuant to the Concurrent Private Placement, and after deducting payment of the Underwriters' Fee of \$1,200,264, but before deducting expenses of the Offering and the Concurrent Private Placement, estimated to be approximately \$300,000.
- (3) Calculation based on net proceeds to the Company of \$31,633,779 from the Offering (assuming the Over-Allotment Option is exercised in full) and the Concurrent Private Placement, and after deducting payment of the Underwriters' Fee of \$1,380,303.60, but before deducting expenses of the Offering and the Concurrent Private Placement, estimated to be approximately \$300,000.
- (4) 1,419,753 of such warrants were exercisable for 1,419,753 Common Shares at a price of \$0.80 per Common Share. 757,348 of such warrants were exercisable for 757,348 Common Shares at a price of \$3.00 per Common Share. All such warrants were exercised or terminated by or on November 3, 2021.
- (5) Such warrants were exercised in December 2021 for 6,000 Common Shares at a price of \$0.50 per Common Share.
- (6) Granted pursuant to the Company's stock option plan. Details regarding number of options, exercise price and expiry date are shown in the chart below:

Expiry Date	Exercise Price \$	Number of Options Granted
April 13, 2023	1.76	50,000
July 3, 2023	0.50	1,350,000
August 13, 2023	0.53	800,000
November 14, 2023	0.40	100,000
December 9, 2023	1.64	250,000
December 30, 2023	3.32	425,000
June 30, 2024	3.50	150,000
July 17, 2024	0.40	1,225,000
July 23, 2024	3.10	25,000
September 3, 2024	3.69	100,000
September 21, 2024	4.08	120,000
December 10, 2024	0.40	80,000
May 8, 2025	0.40	600,000
May 16, 2025	0.40	100,000
July 6, 2025	0.68	33,334
July 24, 2025	0.63	150,000
October 6, 2025	0.75	400,000
November 24, 2025	1.77	75,000
December 30, 2025	3.32	1,000,000
April 13, 2026	1.76	50,000

Other than as disclosed herein, there have been no material changes in the consolidated share and loan capital of the Company since September 30, 2021.

USE OF PROCEEDS

Net Proceeds

The net proceeds to the Company from the Offering (excluding any exercise of the Over-Allotment Option) and the Concurrent Private Placement (assuming the issuance and sale of 1,924,812 Common Shares pursuant to the Concurrent Private Placement) are expected to be \$28,813,158 after deducting the payment of the Underwriters' Fee of \$1,200,264 payable to the Underwriters, but before deducting the expenses of the Offering and the Concurrent Private Placement (estimated to be approximately \$300,000).

The use of the net proceeds of the Offering and the Concurrent Private Placement by the Company is consistent with the Company's stated business objectives (see "*Business Objectives and Milestones*" below) and which the Company plans to allocate approximately as follows during the twenty-four month period following the Closing Date (see "*Forward-Looking Information*"):

Expenditure	Amount
General and Administrative ⁽¹⁾	\$4,000,000
Acquisition of Graphene Oxide Supply ⁽¹⁾	\$1,300,000
Construction of GO-Silver Nanocomposite Production Plant ⁽¹⁾	\$1,500,000
Purchase of Coating Equipment ⁽¹⁾	\$1,900,000
Construction of GO Production Plant ⁽¹⁾	\$7,500,000
Potential Strategic Acquisitions ⁽¹⁾	\$1,500,000
Development of Rapid Detection Technology ⁽¹⁾	\$2,500,000
Building Inventory of Rapid Detection Tests ⁽¹⁾	\$3,000,000
Research and Development ⁽¹⁾	\$2,000,000
Purchase of Research and Development Facility ⁽¹⁾	\$2,000,000
Estimated Offering Costs ⁽²⁾	\$300,000
Unallocated Funds Added to Working Capital	\$1,313,158
Total Expenditures	\$28,813,158

Notes:

- (1) See "Business Objectives and Milestones" below.
- (2) Estimate includes out of pocket expenses of the Underwriters, legal fees of each of the Company and the Underwriters, auditor fees of the Company, filing and regulatory fees.

The net proceeds received by the Company pursuant to any exercise of the Over-Allotment Option will be allocated to working capital.

The expected use of net proceeds from the Offering and the Concurrent Private Placement represents the Company's current intentions based upon its present plans and business conditions, which could change in the future as its plans and business conditions evolve. The amounts and timing of the actual use of the net proceeds will depend on multiple factors and there may be circumstances where, for sound business reasons, a reallocation of funds may be necessary in order for the Company to achieve its stated business objectives. The Company may also require additional funds in order to fulfill its expenditure requirements to meet existing and any new business objectives, and the Company may determine to issue additional securities or incur debt to do so. The amount and timing of these expenditures will vary depending on a number of factors, including competitive and technological developments and the rate of growth of the Company's business. As a result, management will retain broad discretion in the application of the net proceeds, and investors will be relying on management's judgment regarding the application of the net proceeds from the Offering and the Concurrent Private Placement. See "*Risk Factors*".

Pending the use of the net proceeds from the Offering and the Concurrent Private Placement, the Company may plan to invest the net proceeds in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or government securities, or hold them as cash.

During the last financial year the Company had negative operating cash flow because its revenues did not exceed its operating expenses. In addition, as a result of the Company's business plans for the development of its products, the

Company expects cash flow from operations to be negative until revenues improve to offset its operating expenditures. The Company's cash flow from operations may be affected in the future by expenditures incurred by the Company to continue to develop its products. The amounts set out above for use as working capital may be used to offset this anticipated negative operating cash flow. See "Risk Factors".

Business Objectives and Milestones

Using the net proceeds of the Offering and the Concurrent Private Placement as set out under "Use of Proceeds" above, the Company intends, over the next twenty-four months, to focus on the development and growth of its GO-silver nanocomposite coating for PPE and potentially other surfaces, as well as continue to develop new intellectual property and products. Specifically, the Company intends to work towards achieving the objectives and milestones set out below (see "Forward-Looking Information" and "Risk Factors").

General and Administrative Expenses

The following sets out the Company's current estimates regarding the use of the net proceeds of the Offering and the Concurrent Private Placement that the Company has allocated to General and Administrative expenses:

General and Administrative Expense	Projected Cost (for twenty-four months)
Insurance: Relates to amounts expected to be incurred for general liability, property and director and officer insurance.	\$130,000
Communications: Relates to amounts expected to be incurred for advertising, website maintenance and preparation and filing of press releases.	\$220,000
Out-of-Pocket Expenses: Relates to amounts expected to be incurred for such costs as business meetings, events, meals, etc.	\$130,000
Occupancy and Office Costs Relates to amounts expected to be incurred for rent, maintenance, subscriptions, office supplies and filing fees.	\$950,000
Salaries and Benefits: Relates to amounts expected to be incurred for payroll expenses.	\$2,350,000
Travel: Relates to amounts expected to be incurred for business related travel, including airfare, mileage and accommodation costs.	\$220,000
Total	\$4,000,000

Acquisition of GO Supply

On November 11, 2021, the Company announced that it had secured a supply of GO sufficient to produce enough ZENGuard™ to meet anticipated demand, which has been estimated by the Company based on discussions with Trebor, with shipments beginning in December 2021 and scheduled to continue through the first six months of 2022. Shipments began arriving on December 20, 2021 with the remainder of a total shipment of 88,000 liters (880 kg) of 1% graphene oxide by weight due to be delivered to the Company prior to the end of December 2021. The Company has made payments of USD\$586,467 to the vendor for this order to date, but has additional payment obligations under the purchase order of USD\$1,089,153 (approximately \$1,300,000) over the next six months. The total order, which comes from 5,880 kg of graphene oxide, equates to approximately 2,873,000,000 ZENGuard™ coated masks. The costs of ZENGuard™ production using such GO, which includes labour, consumables, electricity and so forth, are contained within the \$4,000,000 the Company has allocated to General and Administrative expenses.

The Company believes this supply of GO significantly reduces supply risk and will allow the Company to produce sufficient quantities of ZENGuard™ coating to meet anticipated demand. In the event demand from Trebor for ZENGuard™ coated masks is not as high as currently anticipated by the Company, the Company would look to engage with other manufacturers and distributors in an effort to sell ZENGuard™ coated products. As the Company has

obtained a MDEL from Health Canada (see “*Business of the Company – Current Business*”), which allows the Company to manufacture and distribute Class I medical devices in Canada, including ZENGuard™ coated masks, the Company believes it would be in a position to diversify its production of ZENGuard™. Additionally, the Company intends to investigate the use of its ZENGuard™ compound on other medical devices, including booties, gowns, gloves, bedsheets etc. The Company is also planning to apply its coating to HVAC filters (see, “*Business of the Company – Business in Development - Other Use-Cases for ZENGuard™*”), which the Company believes may also be a significant market for the Company’s products. The Company believes there is a growing demand for graphene oxide generally, and the potential exists to sell graphene oxide quantities to third parties.

Construction of GO-Silver Nanocomposite Production Plant and Purchase of Coating Equipment

The Company plans to construct industrial scale production equipment in its leased 25,680 square foot Guelph, Ontario facility to produce ZENGuard™ coating formulation at a higher scale and capacity than the Company’s current pilot scale facility’s capabilities, as such location is permitted for industrial use. The Company also plans to purchase coating equipment so the process of applying the ZENGuard™ coating formulation to spunbond polypropylene or other materials for use in surgical masks, other PPE equipment, and HVAC filtration media for use in HVAC systems, can be done on-site, rather than sending the coating formulation to a third party for application. The engineering of such equipment has been completed and is currently in the procurement phase. Once this industrial process is in operation, the Company expects the production capacity of ZENGuard™ at the Guelph, Ontario facility to increase significantly. The Company is currently assessing how it will increase market opportunities for the increased manufacturing capacity.

Bantrel Co. commenced a preliminary engineering study for graphite purification, graphene oxide production and ZENGuard™ production equipment in January 2021. The Company’s engineering efforts shifted exclusively to the development of a ZENGuard™ production facility due to availability of sufficient low-cost graphene oxide from an external supplier, and the long lead time for construction of the plant. Detailed engineering of the proposed facility began in July 2021. The Company estimates that engineering of the production facility is approximately 80% complete, and expects that such engineering will be 100% complete in or around January 2022. Procurement was initiated in September 2021, and all equipment package purchase orders are expected to be awarded by the end of December 2021 or early in 2022, with all equipment expected on site on or about February 2022. Installation packages will be awarded by the Company in January 2022 and the Company anticipates assembly and installation of the industrial scale production equipment to be completed by March 31, 2022, at which point production is expected to commence while commissioning, optimization and production ramp-up occurs over the following two to three months. At this point the Company expects to continue to use third parties to coat the ZENGuard™ graphene compound onto materials until its coating equipment is operational.

James Jordan, P.Eng., the Company’s Vice-President – Operations, is primarily overseeing the construction of the proposed ZENGuard™ production and coating plant. To date, approximately \$800,000 has been spent by the Company on this objective, and the Company currently estimates that approximately \$1,500,000 in additional expenditures will be required to complete construction, which would include completion of detailed engineering expected in or around January 2022 and delivery of all equipment (other than coating equipment discussed below) on site by February 2022. Installation packages are expected to be awarded in December 2021 or early in 2022, with anticipated construction to take place between January and March of 2022.

The Company has spent approximately \$200,000 on pilot coating line equipment to date. The Company anticipates testing and commissioning of such equipment to be complete in December 2021 or early in 2022, with additional expenditures of approximately \$100,000 expected. Industrial-scale spray coating line equipment was researched, selected and ordered in October 2021, with a deposit of \$270,000 paid by the Company. The Company expects delivery of such equipment will occur in or around May 2022, with installation and commissioning of such equipment to be required thereafter, which the Company expects to be completed within approximately 90 to 180 days following delivery of the equipment. The Company expects additional expenditures of approximately \$1,900,000 for such equipment purchase, installation and commissioning.

The Company notes that there are potentially many variables involved with the final completion of the planned industrial scale production/coating plant, including the timing of the delivery of equipment from the United States, availability of installation service providers from the United States, potential restrictions on travel due to the COVID-19 pandemic, among others, and the Company is therefore currently unable to provide timing estimates with certainty.

Construction of GO Production Plant

In addition to the construction of the industrial scale ZENGuard™ production and coating plant discussed above, the Company intends to construct a plant to produce GO over the next fifteen to eighteen months. The Company believes that the ability to produce GO itself will be economically favourable to the Company over the long term, and will reduce supply and shipping risk for the Company. The Company also believes that GO produced by the Company could be used for other applications and/or possible sales to third-parties. The Company believes that there are three primary reasons it would benefit from an ability to produce GO internally: (i) it should eliminate or significantly reduce supply chain risk. Currently, there are only three other suppliers globally that can provide GO in the quantities that the Company anticipates requiring, located in China, Sri Lanka and Singapore; (ii) GO is not a homogeneous substance and the Company would like to produce its own to ensure product consistency; and (iii) the Company believes that the demand for GO is increasing and that a domestic production facility could have the potential to generate product for third-party users of the material.

In connection with the proposed construction of a plant to allow the Company to produce GO, the Company has conducted research and development to produce high-quality, few-layer GO via an electrochemical process designed to be scalable, low cost, low energy and environmentally friendly. In collaboration with Prof. Aicheng Chen at the University of Guelph, the prototype electrochemical exfoliation process was designed, developed and optimized. A PCT patent has been filed for the processes to produce expanded graphite and electrochemically exfoliated GO (see “*Intellectual Property*”).

In January 2021, the Company engaged Bantrel Co. to assist with the engineering of the proposed GO production facility. Potential sites for a proposed GO production plant have been investigated, however a site has not been secured and no permits have been obtained. The Company expects that the permitting profile will be an integral part of the site location determination. James Jordan, P.Eng., the Company’s Vice-President – Operations, is primarily overseeing the proposed construction of such facility. To date, the Company has spent approximately \$35,000 in preliminary investigations relating to this project, and expects that approximately \$7,500,000 would be required to complete construction of a GO production facility.

The fifteen to eighteen months estimated to complete the construction of a GO production plant, is a management estimate only based on the expectation of securing an agreement for the purchase of technology from an existing graphene oxide producer. The inherent risks include, but are not limited to, the inability to reach an acceptable agreement for the purchase of the technology, the inability to adapt existing technology to the Canadian regulatory requirements, the fact that scaling-up from known existing production capacities could become a requirement, and delays as a result of ongoing material and equipment supply shortages. See “*Forward-looking Information*” and “*Risk Factors*”.

Strategic Acquisitions

While the Company continues to focus on its existing business, intellectual property and products, the Company intends over the next twenty-four months to explore strategic acquisitions to acquire technology assets or engineering know-how that could aid the Company in its growth, the development of its business, and expedite bringing the Company’s products and future products to market. The Company has not entered into definitive agreements in respect of these acquisitions and there can be no assurance that any negotiations will commence, result in definitive agreements or, if they do, what the terms or timing of any acquisition would be or whether these acquisitions will be completed. See “*Risk Factors*”.

Development of Rapid Detection Test Technology

The Company has an exclusive agreement to be the global commercializing partner for a newly developed, highly scalable, aptamer-based rapid pathogen detection technology.

On June 17, 2021, the Company announced that it had signed an exclusive agreement with McMaster University to be the global commercializing partner for a newly developed aptamer-based, SARS-CoV-2 rapid detection technology. Through consultation with potential partners and in tandem with McMaster University, the Company has developed an improved aptamer with a higher binding affinity for the COVID-19 Delta variant, simplified the user experience, and optimized the production time of the aptamer-based sensor with more consistent results. The Company

intends to continue to develop this technology, including the development of software and hardware, using outsourced third party developers.

The Company has engaged a third party to reproduce the laboratory results from McMaster University, and to, among other things, develop a mathematical model to better understand the technology and results, develop a standard operating procedure for the system, perform pre-trial evaluation using saliva samples, and optimize buffers for sample preparation. The Company has incurred approximately \$200,000 in expenditures related to the forgoing.

Additionally, Dr. van der Kuur, the Company's Vice-President – Science and Research, has undertaken supply chain activities including receiving samples and pricing from suppliers of hardware for the rapid COVID test including: potentiostat suppliers, screen printed electrode manufacturers and vetting the quality of chips, aptamer producers, and sample collection vials, pipettes etc.

The Company has also engaged a third party to conduct a product strategy alignment, usability analysis, device and architecture development; proof of concept and prototyping, and to develop a program plan towards commercialization, including regulatory engagement.

The Company currently intends to continue to develop this technology, including the development of software and hardware, using outsourced third party developers. The Company intends to spend funds to bring the product to market as soon as possible, which will require having a working prototype prepared, having conducted baseline studies, and having made application to Health Canada. The Company currently expects the cost to reach commercialization to be approximately \$500,000, but that enhancements and further development of the technology could cost approximately \$2,500,000.

In order to bring the product to market, the Company will be required to obtain authorization from Health Canada pursuant to an interim order, or to obtain a Class IV Medical Device Active License (“MDAL”). The Company currently intends to seek authorization pursuant to an interim order as this presents the fastest path to market in the Company's estimations. However, since authorization under an interim order expires within eighteen months, the Company intends to seek and MDAL as well. The process for obtaining a MDAL involves completing the testing requirements (described below) and demonstrating that the product is (i) safe, (ii) effective and (iii) fit for purpose. Assuming that process is completed, the Company would then start putting together a product technical file, obtaining a ISO 13485 Certificate and then completing a Health Canada Class IV application. See “*Forward-Looking Information*” and “*Risk Factors*”.

The testing that will need to be completed in order to obtain a MDAL, is basic engineer testing including, but not limited to: risk management, usability, mechanical, biocompatibility, and stability. These are basic tests that are required to provide evidence of safety and efficacy.

As the Company reported in its news release dated November 9, 2021, it continues to develop its rapid detection platform. The Company recently engaged Starfish Medical Product Engineering Inc. to continue the development work necessary to bring this technology to market. The Company expects to begin testing a prototype in the second quarter of 2022 including the testing required for regulatory approval. The Company estimates that it could complete the required clinical trials by the end of the third quarter in 2022 and, if testing is successful, apply for a medical device license under the current interim order with Health Canada. Given foreseeable and unforeseeable variables with respect to potentially bringing the product to market, there is currently no timeline that the Company can give for the rapid detection technology to be brought to the market. See “*Forward-Looking Information*” and “*Risk Factors*”.

Building Inventory of Rapid Detection Tests

Contingent on the development of the rapid detection tests and the feedback from Health Canada, the Company intends to allocate funds to the initial inventory orders of rapid detection tests during the 2022 calendar year, once the Company has determined that it is reasonably certain that the product can be brought to market, in order to ensure that sufficient inventory is on hand once it becomes reasonably foreseeable that the product will in fact be brought to market. The Company expects the manufacturing to be outsourced to a third party manufacturer.

Research and Development

In addition to the Company's focus on its existing ZENGuard™ GO-silver nanocomposite coating and its development of the rapid detection technology discussed above, the Company also intends to spend funds over the next twenty-four months to conduct research and development to explore other potential products and uses, including, but not limited to, using the GO-silver compound in therapeutic applications, fuel additive technology, and ice-phobic technology.

Diesel Fuel Additive

The Company is developing a stable graphene-based diesel fuel additive in an effort to improve combustion, increase burn rate and improve fuel economy of diesel fuels. Initial testing of the additive has been shown to increase the performance of diesel fuel. The Company expects that these early results can be improved further through additional optimization work. The Company has filed a provisional patent for its graphene-based fuel additive technology.

Primarily overseen by Dr. van der Kuur, the Company's Vice-President – Science and Research, the Company is developing a process to functionalize graphene oxide in an effort to produce a stable dispersion in diesel fuel. The fuel additive was tested by Conestoga College in a Gunt 159 single cylinder test engine, who reported improvement in fuel economy of over 10% under certain rpm. The Company's research and development team improved the synthesis of the functionalized graphene oxide additive to reduce the size of the particles and increase the functional groups, which the Company believes could lead to improved combustion. An NSERC alliance proposal has been submitted for \$110,500 cash contribution and the Company has a total budget of \$311,500 over two years to continue doped fuel research. The project will focus on measuring the combustion of doped fuel in both droplet and spray combustion. The Company has spent approximately \$50,000 on this research and development project.

The Company intends to conduct further testing in 2022 and 2023, including: testing fuel economy, brake efficiency and emissions in a diesel engine for two different graphene oxide fuel additive concentrations; conducting spray combustion tests, which will provide an initial assessment of the graphene oxide additive for the aviation industry; and testing and optimizing the graphene oxide fuel additive for diesel generator engines and marine engines. The Company currently estimates that the cost for such future testing is approximately \$325,000. See "*Forward-looking Information*" and "*Risk Factors*".

Icephobic Coating

The Company is developing a new, patent-pending, carbon-based, nanotechnology-enhanced coating designed to prevent or reduce ice accretion for aviation (including drone) and wind energy applications. Preliminary testing demonstrated that this coating showed an adhesion strength consistently around 20 kPa.

James Jordan, P.Eng., the Company's Vice-President – Operations, and Dr. van der Kuur, the Company's Vice-President – Science and Research, are the primary overseers of the project, which has involved the use of dispersion technology to homogeneously mix graphene materials in elastomer. The Company has filed a provisional patent on the technology. The Company has conducted testing at National Research Council's Altitude Icing Wind Tunnel (AIWT) in Ottawa. The Company prepared graphene-enhanced elastomer material and coated test coupons for testing. Future testing that the Company expects to conduct includes testing accelerated weathering, durability (sand erosion), flight testing on a specially equipped research aircraft under real world ice-forming weather conditions, elastomer/graphene loading optimization, adhesion optimization, and coating application optimization. The Company has not spent significant funds on this project and anticipates additional testing and development to cost approximately \$150,000. See "*Forward-looking Information*" and "*Risk Factors*".

Other Use-Cases for ZENGuard™

The Company intends to continue exploring other applications and uses for its ZENGuard™ compound, including, but not limited to, use in HVAC filters. On November 30, 2021, the Company announced that it has been awarded a research and development test contract through the ISC Testing Stream Call for Proposals to test ZENGuard™-coated HVAC filters with interest from three different units within the NRC. The goal of the testing will be to demonstrate: (i) a net reduction in the airborne viral load with ZENGuard™ coating applied to standard filters; (ii) no modifications required to existing HVAC systems to achieve (i) above; (iii) no reduction in air flow rates, which means air exchange rates in the space will be unchanged; and (iv) no reduction in the air quality as the ZENGuard™ coating will be tested to ensure it does not contribute particles into the air stream. Testing will be performed at CREM Co Labs, Mississauga,

Ontario and will be led by Dr. Paul Lebbin, Research Council Officer at NRC’s Centre for Air Travel Research. Based on the results of the above testing, the best filter will be tested by NRC in a simulated classroom environment with an HVAC system. The Company has approximately \$400,000 budgeted for future testing (including a \$200,000 grant). See “*Forward-looking Information*” and “*Risk Factors*”.

In addition, the active ingredient in ZENGuard™ has minimum inhibitory concentrations under 1 µg/ml against several bacteria as tested by Dr. Tony Mazzulli from Mount Sinai Hospital in Toronto. The Company is exploring the potential to use this compound in therapeutic or pharmaceutical applications based on these results.

The following table sets out some of the specific research and development projects that the Company is contemplating undertaking using the funds allocated above:

Initiative	R&D Timing and Stage⁽¹⁾	Major Components to be Funded	Research Site	Estimated Cost
ZENGuard™ Coated Masks	Advanced stage of development (currently in the market).	Coating of ZENGuard™ antimicrobial compound on PPE masks (polypropylene fabric) for reduced microbial transmission through aerosols. Continue work of optimizing material and characterization of compound to develop antimicrobial masks.	Internal	Continued research and development at an estimated cost of \$200,000.
ZENGuard™ Coated Gloves	Intermediate stage of development.	Coating of ZENGuard™ antimicrobial compound on PPE gloves (Latex, nitrile, etc.) for reduced microbial transmission through touch to develop antimicrobial gloves.	Internal	Continued research and development at an estimated cost of \$150,000.
ZENGuard™ HVAC	Intermediate stage of development.	Coating of ZENGuard™ antimicrobial compound on HVAC filter systems in buildings, transportation, etc., for deactivation of aerosolized viral particles in enclosed spaces to develop pathogen de-activating HVAC filters.	Internal	Continued research and development at an estimated cost of \$200,000.
Aptamer-based rapid test	Intermediate stage of development.	Validation of efficacy of antimicrobial compound for topical use via measurement of the minimum inhibitory concentration with various disease vectors to develop highly-sensitive COVID rapid antigen testing.	McMaster University	Continued research and development at an estimated cost of \$100,000.
MIC Testing	Advanced stage of development (currently in the market).	Validation of efficacy of antimicrobial compound for topical use via measurement of the minimum inhibitory concentration with various disease vectors to develop topical ointment and/or spray.	Mount Sinai Hospital	Continued research and development at an estimated cost of \$25,000.

GO based fuel additive	Early stage of development.	Development of graphitic additives to liquid fuels for improved performance metrics, including burn time, burn temperature, droplet size and fuel economy to create a high-efficiency fuel additive.	UBC Okanagan	Continued research and development at an estimated cost of \$325,000.
Quantum Dots	Early stage of development.	Development of GO additive nanoscale crystals.	UBC Okanagan	Continued research and development at an estimated cost of \$20,000.
GO-enhanced Aluminum	Early stage of development.	Addition of GO to aluminum melts for improved material metrics, including tensile & ductile strength and grain size to develop graphitic aluminum enhancing additive.	UBC Okanagan	Continued research and development at an estimated cost of \$38,000.
3D Printing/Shielding	Early stage of development.	Adding GO and nanomaterials into polymers to improve conductivity and to develop complex shapes for E&M shielding for space and other applications to develop conductive 3D printable filaments.	UBC Okanagan	Continued research and development at an estimated cost of \$60,000.
Icephobic Coatings	Early stage of development.	GO and/or polymer composite icephobic coating for application in the aerospace and drone industries to develop icephobic coating for prop-blades and fuselages.	Internally and externally	Continued research and development at an estimated cost of \$150,000.
Therapeutic Research Development	Early stage of development.	In vivo and in vitro testing of the ZENGuard™ compound to develop a novel microbial compound for dermatological conditions.	Undetermined	Continued research and development at an estimated cost of \$300,000.

Notes:

- (1) Timing is based on management's reasonable business judgement and subject to certain assumptions and risk factors that may or may not be foreseeable to the Company. See "*Forward-Looking Information*" and "*Risk Factors*". Management currently believes that products that are in the intermediate stage of development are approximately 1-2 years from being marketable, and products that are in the early stage of development are approximately 3-5 years from being marketable.

Purchase of Research and Development Facility

The Company's research and development facility, located at 24 Corporate Court in Guelph, Ontario, is currently being leased by the Company. The Company intends to purchase the facility to keep it as a dedicated location to conduct ongoing research and development activities, which the Company believes will allow the Company to control and adjust the environment within the facility according to the required parameters of the work being conducted. The Company is currently in negotiations with the current owner of the property, but reasonably expects that an agreement of purchase and sale for approximately \$2,000,000 will be executed, with a target to close before the end of the current calendar year or early in 2022. See "*Forward-looking Information*" and "*Risk Factors*".

PLAN OF DISTRIBUTION

This Prospectus is being filed in the Qualifying Jurisdictions to qualify the distribution of 3,847,000 Common Shares (not including any Option Shares, the distribution of which shall also be qualified by this Prospectus) pursuant to the Offering.

Subject to the terms and conditions of the Underwriting Agreement, the Company has agreed to sell to the Underwriters, and the Underwriters have severally, and not jointly (or jointly and severally) agreed to purchase from the Company, as principal, a total of 3,847,000 Common Shares at the Offering Price for total consideration of \$20,004,400 payable in cash to the Company against delivery of the Common Shares. In addition, the Company has granted to the Underwriters the Over-Allotment Option, exercisable in whole or in part, at any time and from time to time for a period of 30 days after and including the Closing Date, to purchase up to an additional 577,050 Option Shares at the Offering Price, representing up to 15% of the Common Shares to be issued pursuant to the Offering, to cover over-allocations, if any, and for market stabilization purposes. This Prospectus also qualifies the distribution of Option Shares issuable pursuant to the exercise of the Over-Allotment Option, and the grant of the Over-Allotment Option. A purchaser who acquires Option Shares forming part of the Underwriters' over-allocation position acquires such Option Shares under this Prospectus, regardless of whether the over-allocation position is ultimately filled through the exercise of the Over-Allotment Option or secondary market purchases. The Underwriters have reserved the right to offer selling group participation, in the normal course of the brokerage business, to selling groups of other licensed broker-dealers, brokers or investment dealers.

In connection with the Offering, the Company has agreed to pay the Underwriters' Fee of \$0.312 per Common Share for an aggregate fee of \$1,200,264 (\$1,380,303.60 if the Over-Allotment Option is exercised in full). The Offering Price and certain other terms of the Offering were determined by arm's length negotiation between the Company and Eight, on behalf of the Underwriters. Among the factors considered in determining the Offering Price were the market price of the Common Shares, prevailing market conditions, the historical performance and capital structure of the Company, Eight's estimate of the business potential and earnings prospects of the Company, the availability of comparable investments, an overall assessment of management of the Company and the consideration of the foregoing factors in relation to market valuation of companies in related businesses.

The Common Shares will be offered in each of the Provinces of Canada, other than Québec, through the Underwriters or their affiliates who are registered to offer the Common Shares for sale in such provinces and such other registered dealers as may be designated by the Underwriters. Subject to applicable law, the Underwriters may offer the Common Shares in the United States or to, or for the account or benefit of, U.S. Persons, and in such other jurisdictions outside of Canada and the United States as agreed between the Company and the Underwriters, in each case in accordance with applicable laws provided that no prospectus, registration statement or similar document is required to be filed in any such jurisdiction.

Subscriptions for Common Shares will be received subject to rejection or allotment in whole or in part and the right is reserved to close the subscription book at any time without notice. The closing of the Offering is expected to occur on or about December 31, 2021, or such other date as the Company and the Underwriters may agree; however, the Common Shares offered pursuant to this Prospectus are to be taken up by the Underwriters, if at all, on or before a date that is not later than 42 days after the date of the receipt for this short form prospectus.

Under the terms of the Underwriting Agreement, the obligations of the Underwriters are several (and not joint nor joint and several) and may be terminated at their discretion upon the occurrence of certain stated events. Such events include, but are not limited to: (i) if there is a material change or a change in a material fact or a new material fact shall arise or there should be discovered any previously undisclosed material fact required to be disclosed in this short form prospectus or any amendment thereto, in each case, that has or would be expected to have, in the sole opinion of Eight, a significant adverse change or effect on the business or affairs of the Company or on the market price or the value of the securities of the Company; (ii) if (A) there should develop, occur or come into effect or existence any event, action, state, condition (including without limitation, terrorism or accident) or major financial occurrence of national or international consequence (including by way of the COVID-19 pandemic but only to the extent that there are material adverse impacts related thereto after the date hereof) or a new or change in any law or regulation which in the sole opinion of Eight, seriously adversely affects or involves or may seriously adversely affect or involve the financial markets or the business, operations or affairs of the Company and its subsidiary, taken as a whole, or the market price or value of the securities of the Company; (B) any inquiry, action, suit, proceeding or investigation (whether formal or informal) is commenced, announced or threatened in relation to the Company or any one of the officers or directors of the Company or any of its principal shareholders where wrong-doing is alleged or any order is made by any federal, provincial, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality including without limitation the TSXV or securities commissions which involves a finding of wrong-doing; or (C) any order, action or proceeding which cease trades or otherwise operates to prevent or restrict the trading of the Common Shares or any other securities of the Company is made or threatened by a securities regulatory authority; or (iii) the Company is in breach of a material term, condition or covenant of the Underwriting

Agreement or any representation or warranty given by the Company in the Underwriting Agreement becomes or is false in any material respect.

The Company has agreed to indemnify the Underwriters and their respective affiliates and each of their respective directors, officers, employees, shareholders, partners, advisors and agents against certain liabilities and expenses, including in respect of the Concurrent Private Placement.

Pursuant to the Underwriting Agreement, the Company agreed that, for a period ending 90 days after the Closing Date, it will not, without the prior written consent of Eight, directly or indirectly, issue any Common Shares or other equity securities or other financial instruments convertible, exchangeable or exercisable into Common Shares or other equity securities, or announce any intention to do so, other than issuances: (i) pursuant to the Underwriting Agreement; (ii) the issuance of securities of the Company upon the conversion, exercise or exchange of convertible, exercisable or exchangeable securities existing on the date hereof; or (iii) the issuance of securities of the Company in connection with an arm's length acquisition of assets or securities of a company or business.

Pursuant to the Underwriting Agreement, the directors and officers of the Company and their respective associates are required to execute and deliver agreements to the Underwriters pursuant to which they will agree not to, for a period ending on the date that is 60 days following the Closing Date, directly or indirectly, without the prior written consent of Eight, offer, sell, contract to sell, lend, swap, or enter into any other agreement to transfer the economic consequences of, or otherwise dispose of or deal with, whether through the facilities of a stock exchange, by private placement or otherwise, or publicly announce any intention to do any of the foregoing, any Common Shares or other equity securities of the Company held by them, directly or indirectly, subject to customary exceptions.

Evidence of ownership of the Common Shares will be issued in non-certificated form to CDS or its nominee and will be deposited with CDS on the day of closing of the Offering. Except in certain limited circumstances, no certificates evidencing Common Shares will be issued, and registration will be made only through the depository services of CDS. A purchaser of Common Shares in the United States that is a U.S. Accredited Investor will receive definitive physical certificates representing the Common Shares.

Neither the Company nor the Underwriters will assume any liability for: (i) any aspect of the records relating to the beneficial ownership of the Common Shares held by CDS or the payments relating thereto; (ii) maintaining, supervising or reviewing any records relating to the Common Shares; or (iii) any advice or representation made by or with respect to CDS and those contained in this Prospectus and relating to the rules governing CDS or any action to be taken by CDS or at the direction of its CDS participants. The rules governing CDS provide that it acts as the agent and depository for the CDS participants. As a result, CDS participants must look solely to CDS and persons, other than CDS participants, having an interest in the Common Shares must look solely to CDS participants for payments made by or on behalf of the Company to CDS in respect of the Common Shares.

The Underwriters propose to offer the Common Shares acquired by the Underwriters initially at the Offering Price. After the Underwriters have made a reasonable effort to sell all of such Common Shares at the Offering Price, the Offering Price may be decreased, and the compensation realized by the Underwriters will be decreased by the amount that the aggregate price paid by purchasers for such Common Shares is less than the gross proceeds paid by the Underwriters to the Company. Any such reduction will not affect the net proceeds received by the Company.

The Company has received conditional approval to list the Common Shares and the Option Shares issuable pursuant to this Prospectus on the TSXV. Listing of the Common Shares and the Option Shares is subject to the Company fulfilling all of the listing requirements of the TSXV.

The Common Shares offered hereby have not been and will not be registered under the U.S. Securities Act or any state securities laws and, subject to registration under the U.S. Securities Act and applicable state securities laws or certain exemptions therefrom, may not be offered, sold, transferred, delivered or otherwise disposed of, directly or indirectly, within the United States. The Underwriters have agreed that, except as permitted under the Underwriting Agreement, they will not offer, sell, transfer, deliver or otherwise dispose of, directly or indirectly, the Common Shares at any time within the United States, except pursuant to an exemption from registration under the U.S. Securities Act.

The Underwriting Agreement permits the Underwriters, acting through their registered United States broker-dealer affiliates, to (i) re-offer and re-sell the Common Shares that they have acquired pursuant to the Underwriting Agreement in the United States to Qualified Institutional Buyers in accordance with Rule 144A under the U.S.

Securities Act, and (ii) to offer the Common Shares for sale by the Company in the United States to substituted purchasers that are U.S. Accredited Investors, in compliance with Rule 506(b) of Regulation D under the U.S. Securities Act, and in each case pursuant to similar exemptions under applicable state securities laws. Moreover, the Underwriting Agreement provides that the Underwriters will offer and sell the Common Shares outside the United States only in accordance with Rule 903 of Regulation S under the U.S. Securities Act. The Common Shares that are sold in the United States will be restricted securities within the meaning of Rule 144(a)(3) of the U.S. Securities Act and may only be offered, sold or otherwise transferred pursuant to certain exemptions from the registration requirements of the U.S. Securities Act.

This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any of the Common Shares in the United States or to, or for the account or benefit of, U.S. Persons. In addition, until 40 days after the commencement of the Offering, an offer or sale of the Common Shares within the United States or to, or for the account or benefit of, U.S. Persons by any dealer (whether or not participating in the Offering) may violate the registration requirements of the U.S. Securities Act if such offer or sale is made otherwise than in accordance with an exemption from registration under the U.S. Securities Act and similar exemptions under applicable state securities laws.

Concurrent Private Placement

The Company intends to complete the Concurrent Private Placement (expected to close concurrently with or prior to the Offering) of up to 1,924,812 Common Shares at a price of \$5.20 for gross proceeds of up to \$10,009,022. The Company has received conditional approval to list the Common Shares issuable pursuant to the Concurrent Private Placement on the TSXV. Listing of such Common Shares is subject to the Company fulfilling all of the listing requirements of the TSXV. No commission or other fee will be paid to the Underwriters in connection with the sale of Common Shares pursuant to the Concurrent Private Placement.

DESCRIPTION OF SECURITIES BEING DISTRIBUTED

This Prospectus qualifies the distribution of the Common Shares, the grant of the Over-Allotment Option, and the distribution of any Option Shares pursuant to the exercise of the Over-Allotment Option.

Authorized Share Capital

The authorized share capital of the Company consists of an unlimited number of Common Shares without par value. As at the date hereof there are 92,719,196 Common Shares issued and outstanding.

Common Shares

All of the Common Shares are of the same class as the Company's outstanding Common Shares and, once issued, will rank equally as to entitlement to dividends, voting powers (one vote per share) and participation in assets upon dissolution or winding up. No Common Shares have been issued subject to call or assessment.

The Common Shares contain no pre-emptive rights, no conversion or exchange rights, no redemption, retraction, purchase for cancellation or surrender provisions. There are no sinking or purchase fund provisions, no provisions permitting or restricting the issuance of additional securities or any other material restrictions, and there are no provisions which are capable of requiring a securityholder to contribute additional capital.

PRIOR SALES

The following table summarizes details of all issuances of Common Shares, or securities convertible or exchangeable into Common Shares, during the 12-month period prior to the date of this Prospectus.

Date of Issuance	Security	Issue/Exercise Price per Security (\$)	Number of Securities
October 8, 2020 to November 23, 2020	Common Shares (Warrant Exercises)	\$0.60	636,667
October 9, 2020	Stock Options	\$0.75	400,000
October 30 2020 to December 13, 2021	Common Shares (Warrant Exercises)	\$0.50	1,691,741
October 23, 2020 to November 18, 2021	Common Shares (Warrant Exercises)	\$0.80	2,364,185
November 24, 2020 to June 29, 2021	Common Shares (Option Exercises)	\$0.72	450,000
November 24, 2020	Stock Options	\$1.77	75,000
December 7, 2020 to July 21, 2021	Common Shares (Option Exercise)	\$0.68	66,666
December 9, 2020	Stock Options	\$1.64	250,000
December 30, 2020	Stock Options	\$3.32	1,425,000
January 6, 2021 to July 26, 2021	Common Shares (Option Exercises)	\$0.40	70,000
April 8, 2021	units ⁽¹⁾	\$2.50	1,735,199
April 8, 2021	Common Shares ⁽²⁾	\$2.50	15,592
April 13, 2021	Stock Options	\$1.76	100,000
June 17, 2021	Stock Options	\$2.61	100,000
June 30, 2021	Stock Options	\$3.50	150,000
July 23, 2021	Stock Options	\$3.10	25,000
September 3, 2021	Stock Options	\$3.69	100,000
September 20, 2021 to November 25, 2021	Common Shares (Warrant Exercises)	\$3.00	862,099
September 21, 2021	Stock Options	\$4.08	120,000
October 13, 2021	Stock Options	\$4.92	100,000
October 26, 2021	Stock Options	\$4.77	50,000
November, 16, 2021	Common Shares (Option Exercise)	\$0.53	60,000
December 9, 2021	Common Shares ⁽³⁾	\$2.61	19,157

Notes:

- (1) Each unit was comprised of one Common Share and one half of one warrant, each whole warrant exercisable to acquire one Common Share at a price of \$3.00 until April 8, 2023 subject to acceleration provisions.
- (2) Issued in lieu of cash commissions.
- (3) Issued pursuant to a license agreement with McMaster University (see “*Business of the Company*”).

TRADING PRICE AND VOLUME

Common Shares

The Common Shares are listed for trading on the TSXV under the trading symbol “ZEN”. The following table sets out the high and low closing market prices and the volume traded of the Common Shares on the TSXV since November 2020:

2020	HIGH (\$)	LOW (\$)	VOLUME
November	2.23	1.05	9,118,540
December	3.77	1.38	11,881,528
2021			
January	3.76	3.17	6,819,904
February	3.49	2.77	3,247,472
March	3.49	2.28	5,641,264
April	3.00	1.71	7,084,792
May	2.44	1.93	2,238,021

June	3.59	2.48	4,290,710
July	3.51	2.82	2,106,651
August	3.34	2.71	1,376,705
September	5.99	3.15	7,992,770
October	5.48	4.30	4,468,373
November	7.38	5.34	6,873,855
December 1 – 22	6.68	4.85	3,601,943

RISK FACTORS

An investment in the Common Shares is subject to certain risks. Risk factors relating to the Company are discussed in the AIF (on pages 15 through 28), all of which are incorporated by reference in this Prospectus. These risk factors relate to the following: no operating revenues and history of losses, no guarantee of success, intellectual property, lack of revenue from graphene sales, product development and technological change, market development and growth, unpredictable sales cycles, government regulation and import/export controls, industry competition, lack of trading market for graphene, shortages, need for additional funding, no history of operations on mineral property, preliminary economic assessments, single primary asset, estimates of mineral resource risks, infrastructure, property titles, first nations, going concern, commodity markets, market fluctuation and commercial viability, operating hazards and risks, health, safety and community relations, environmental protection, pre-existing environmental liabilities, mining risks and insurance, reliance on key personnel, liquidity risk, share price fluctuations, public health crises such as the COVID-19 pandemic, climate change, conflicts of interest, uninsurable risks, cybersecurity threats, dilution and no dividends.

These risk factors, together with all of the other information included or incorporated by reference in this Prospectus, should be carefully reviewed and considered before a decision is made to invest in the securities offered hereunder. The Company has encountered, and will continue to encounter, risks and uncertainties frequently experienced by growing companies in rapidly changing industries. Additional risks not currently known may also negatively impact the Company's business operations and results of operations. If the Company's assumptions regarding these risks and uncertainties (on which the Company relies in the planning of its business) are incorrect, change due to changes in the Company's markets, or if the Company does not address these risks and uncertainties successfully, the Company's business, prospects, financial condition and results of operations could differ materially from its expectations and/or could be materially and adversely affected. In addition to such risk factors, investors should consider the following additional risks related to the Offering:

Negative Operating Cash Flow

During the financial year ended March 31, 2021 and the interim period ended September 30, 2021, the Company had negative operating cash flow because its revenues did not exceed its operating expenses. In addition, as a result of the Company's business plans for the development of its products, the Company expects cash flow from operations to be negative until revenues improve to offset its operating expenditures. The Company's cash flow from operations may be affected in the future by expenditures incurred by the Company to continue to develop its products. To the extent the Company has negative cash flow in any future period, the Company may be required to use net proceeds from the Offering to fund such negative cash flow from operating activities. In order to stay in business, in the absence of cash flow from operations, the Company will have to raise funding through financing activities. However, there is no certainty the Company will be able to raise funds at all or on terms acceptable to the Company in the event it needs to do so. Furthermore, additional funds raised by the Company through the issuance of equity or convertible debt securities would cause the Company's current shareholders to experience dilution. Such securities also may grant rights, preferences or privileges senior to those of the Company's shareholders. The Company does not have any contractual restrictions on its ability to incur debt and, accordingly, the Company could incur significant amounts of indebtedness to finance its operations. Any such indebtedness could contain restrictive covenants, which likely would restrict the Company's operations.

Uncertainties Relating to the Company's Business Plans

There is no assurance that broad successful commercial applications may be feasible for the Company. The Company is continuing to explore, develop, and test its current products and new products, and there can be no assurance that new uses of existing products or new products will be fully developed for commercial application, that test results will

be successful, if completed at all, that any necessary permits or approvals required in order to market such products will be obtained by the Company, or that existing technology or products will become profitable. Furthermore, there is no assurance that the Company will complete any acquisitions or acquire any know-how or trade secrets to carry out certain of its future objectives. Should the Company fail to achieve any of the foregoing, this could have a material adverse impact on the business and planned business of the Company.

The Company's business is in part dependent on patents, trade secret and other intellectual property laws of Canada, and potentially foreign jurisdictions. The Company may be unable to prevent third parties from using its intellectual property without its authorization. Some of the Company's current or future technologies and trade secrets may not be covered by any patent or patent application, and the Company's issued and pending patents may not provide the Company with any competitive advantage and could be challenged by third parties. The Company's inability to secure issuance of pending patent applications may limit its ability to protect the intellectual property rights these pending patent applications were intended to cover. The Company's competitors may attempt to design around its patents to avoid liability for infringement and, if successful, could adversely affect the Company's market share. Furthermore, the expiration of the Company's patents may lead to increased competition.

Additionally, the Company plans to construct facilities for some of its operations and business activities. There can be no assurance that locations will be secured on terms favourable to the Company or at all, that engineering plans will be completed or will be satisfactory for the intended business activities of the Company, that any required permitting will be obtained, that construction of such facilities will be completed, or that such facilities will ever become operational. If such facilities are not constructed, or do not become operational, or do not operate at the capacity required or anticipated, there could be a material adverse effect of the Company's planned business and operations.

Economic Dependence on Trebor Supply Agreement

Currently, the Company has entered into one agreement for the sale of its products, the Trebor Supply Agreement. Until additional supply agreements are executed by the Company, the Company's revenues will be completely dependent on the Trebor Supply Agreement. If this agreement is terminated by Trebor, or if Trebor purchases less of the Company's product than anticipated by the Company, this could have a material adverse impact on the Company's business, operations and results.

Listing Application in the United States

The Company has applied to list its Common Shares on Nasdaq in the United States, and such listing will be subject to the Company fulfilling all of the listing requirements of Nasdaq. The Company cannot provide assurances listing on Nasdaq will be completed, or that an active trading market will develop in the United States or will be sustained if listed.

Unallocated Proceeds of the Offering

The Company intends to use the net proceeds of the Offering and the Concurrent Private Placement (collectively, the "**Offering Proceeds**") in the manner described under the heading "*Use of Proceeds*". However, the Company's management will have broad discretion concerning the use of the Offering Proceeds as well as the timing of their expenditures, and there can be no assurance as to how the funds will be allocated. The failure of the Company to apply these funds effectively could negatively impact the success of the Company's business.

Until utilized, the Offering Proceeds will be held in cash balances in the Company's bank account or invested at the discretion of the directors of the Company. As a result, a purchaser will be relying on the judgment of management of the Company for the application of the Offering Proceeds. The results and the effectiveness of the application of the Offering Proceeds are uncertain. If the Offering Proceeds are not applied effectively, the Company's business, prospects, financial condition and results of operations may suffer, which could have material and adverse effect on the trading price of the Common Shares in the market.

Dilution

While the net proceeds of the Offering and the Concurrent Private Placement are expected to enhance the Company's liquidity, to the extent that a portion of the net proceeds of the Offering or the Concurrent Private Placement remains

as cash, the Offering and the Concurrent Private Placement may dilute the interest of holders of Common Shares. In the future, the Company may raise funds through the sale of additional Common Shares or securities convertible or exchangeable into or exercisable for Common Shares. Any such issuances may dilute the interests of the then-current holders of Common Shares and may have a negative impact on the market price of the Common Shares.

AUDIT COMMITTEE

The Chief Financial Officer of the Company is a member of the Company's audit committee. In order to mitigate conflict relating to the Chief Financial Officer's role as a member of the audit committee and such committee's role in reviewing and approving the Company's financial statements, the Company has utilized the following procedures in connection with the review and approval of the Company's financial statements and MD&A. First, the day-to-day book-keeping for the Company and the preparation of the Company's financial statements and MD&A is outsourced by the Company to a third-party, MNP LLP. The financial statements and MD&A are then reviewed and considered by the Company's audit committee, as well as the Company's board of directors, who are provided with such materials in advance. The Chief Financial Officer does not abstain from voting at meetings of the audit committee or board of directors in respect of financial statements and MD&A. *In camera* sessions among the Company's independent directors are held regularly. The Company also has a formal whistle blower policy, pursuant to which any issues are directed to the Company's independent chairman of the audit committee.

TRANSFER AGENT AND REGISTRAR

Effective as of November 22, 2021, the registrar and transfer agent of the Company is TSX Trust Company, having an address of 100 Adelaide Street West, Suite 301, Toronto, Ontario M5H 1S3.

PROMOTERS

No person or company is or has been, within the two most recently completed financial years or during the current financial year, a promoter of the Company.

INTEREST OF EXPERTS

The following persons or companies whose profession or business gives authority to the report, valuation, statement or opinion made by the person or company are named in this Prospectus as having prepared or certified a report, valuation, statement or opinion in this Prospectus.

Irwin Lowy LLP, counsel for the Company, DLA Piper (Canada) LLP, counsel for the Underwriters, may opine as to certain matters related to the Offering. As of the date hereof, partners and associates of Irwin Lowy LLP and DLA Piper (Canada) LLP, each as a group, own, directly or indirectly, in the aggregate, less than 1% of the securities of the Company.

The auditor of the Company, McGovern Hurley LLP, has informed the Company that it is independent with respect to the Company within the meaning of the Code of Professional Conduct of Chartered Professional Accountants of Ontario.

MATERIAL CONTRACTS

The Trebor Supply Agreement is the first supply agreement that the Company has entered into, and therefore it represents the first, and currently the only, source of revenue for the Company. For a summary of the material terms of the Trebor Supply Agreement, see "*Business of the Company*". See also "*Risk Factors*".

STATUTORY AND CONTRACTUAL RIGHTS OF WITHDRAWAL AND RESCISSION

Securities legislation in certain of the provinces of Canada provides purchasers with the right to withdraw from an agreement to purchase securities. This right may be exercised within two business days after receipt or deemed receipt of a prospectus and any amendment. In several of the provinces of Canada, the securities legislation further provides a purchaser with remedies for rescission or, in some jurisdictions, revision of the price or damages if the prospectus and any amendment contains a misrepresentation or is not delivered to the purchaser, provided that the remedies for rescission, revision of the price or damages are exercised by the purchaser within the time limit prescribed by the

securities legislation of the purchaser's province. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province for the particulars of these rights or consult with a legal advisor.

CERTIFICATE OF THE COMPANY

Dated: December 23, 2021

This short form prospectus, together with the documents incorporated by reference, constitutes full, true and plain disclosure of all material facts relating to the securities offered by this short form prospectus as required by the securities legislation of each of the provinces of Canada except Quebec.

Signed: "*Greg Fenton*"
Chief Executive Officer

Signed: "*Brian Bosse*"
Chief Financial Officer

On behalf of the Board of Directors

Signed: "*Francis Dubé*"
Director

Signed: "*Eric Wallman*"
Director

CERTIFICATE OF THE UNDERWRITERS

Dated: December 23, 2021

To the best of our knowledge, information and belief, this short form prospectus, together with the documents incorporated by reference, constitutes full, true and plain disclosure of all material facts relating to the securities offered by this short form prospectus as required by the securities legislation of each of the provinces of Canada except Quebec.

EIGHT CAPITAL

Signed: "*Tony P. Loria*"
Principal, Vice Chairman, Calgary

LEEDE JONES GABLE INC.

Signed: "*Jim Dale*"
Chief Executive Officer

RESEARCH CAPITAL CORPORATION

Signed: "*David Keating*"
Managing Director, Head of Equity Capital Markets and
Co-head Capital Markets