(Formerly Zen Graphene Solutions Ltd.)

Management’s Discussion and Analysis

For the year ended
March 31, 2022

Dated: June 29, 2022

(Expressed in Canadian Dollars)
Introduction

This Management Discussion and Analysis (“MD&A”) is dated June 29, 2022 and is in respect of the year ended March 31, 2022. The following discussion of the financial condition and results of operations of Zentek Ltd. (formerly ZEN Graphene Solutions Ltd.) (the “Company”) constitutes management’s review of the factors that affected the Company’s financial and operating performance for the year ended March 31, 2022.

This discussion should be read in conjunction with the Company’s audited consolidated financial statements and corresponding notes to the consolidated financial statements for the year ended March 31, 2022. The Company’s audited consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”). Unless otherwise stated, all amounts discussed herein are denominated in Canadian dollars which is the Company’s functional and reporting currency.

Additional information relating to the Company can be found under the Company’s profile on SEDAR at www.sedar.com.

Forward Looking Statements

This MD&A of the Company contains certain forward-looking information and forward-looking statements, as defined in applicable securities laws (collectively referred to herein as “forward-looking statements”). These statements relate to future events or the Company’s future performance. All statements other than statements of historical fact are forward-looking statements. Often, but not always, forward-looking statements can be identified by the use of words such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “continues”, “forecasts”, “projects”, “predicts”, “intends”, “anticipates” or “believes”, or variations of, or the negatives of, such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “should”, “might” or “will” be taken, occur or be achieved. Forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause actual results to differ materially from those anticipated, expressed or implied in such forward-looking statements.

Factors that could affect these statements include, without limitation, negative operating cash flow, uncertainties relating to the Company’s business plans, economic and political conditions, related revenue from graphene related product sales and complex sales cycles, intellectual property, product development and technical change, market development and growth, unpredictable sales cycles, governmental regulation and import/export controls, industry competition, shortages, liquidity concerns and future financing, reliance on key personnel, qualified employees, cybersecurity threats, share price fluctuations, cost absorption and purchase orders, acquisitions, launch and operational costs, material commodity prices, uninsured risks, litigation, credit risk, interest rate risk, price risk, financial capability and additional financing, permits and governmental regulation, fluctuating prices, environmental regulation, economic dependence on supply agreement. The forward-looking statements in this MD&A speak only as of the date of this MD&A or as of the date specified in such statement.

Readers are cautioned not to place undue reliance on forward-looking information. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking information whether as a result of new information, future events or other such factors which affect this information, except as required by law.

These factors and other risks and uncertainties are detailed in the Company’s reports and disclosure documents filed by the Company from time to time with Canadian securities regulatory authorities.

Company Overview and Discussion of Operations

The Company was incorporated in Ontario, Canada as 1774119 Ontario Limited on July 29, 2008. Pursuant to Articles of Amendment dated November 24, 2009, the Company changed its name to Zenyatta Ventures Ltd. On January 16, 2019, the Company filed Articles of Amendment changing its 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 its name from
“ZEN Graphene Solutions Ltd.” to “Zentek Ltd.” The common shares of the Company trade on the TSX Venture Exchange (“TSXV”) under the symbol “ZEN” and in the United States on the Nasdaq Capital Market (“NASDAQ”) under the symbol “ZTEK”.

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 licenses 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 May 2018, the Company began to focus resources on the research and development of graphene and related applications, which was supported by shareholders of the Company who voted in favour of a new Board of Directors with an interdisciplinary team to augment key management personnel with expertise in business, science, marketing, and government relations.

In March 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.

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 intellectual property regarding an electrochemical exfoliation (“ECE”) process to produce graphene oxide (“GO”).

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 GO/silver compound that showed to be 99% 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 GO/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 provisional patent applications relating to its antimicrobial coating, and on April 13, 2021, announced the brand name ZenGUARD™ for such coating.

On November 29, 2021, the Company announced that it had 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 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 primarily on commercializing ZenGUARD™, as well as on the development of aptamer-based rapid detection technologies. The Company is not currently conducting any significant work on the Albany Graphite Project and does not require materials extracted from the Albany Graphite Project for its current business plans, although such materials could hold significant value to the Company in the future. On October 18, 2021, the TSXV changed the Company’s classification from a “mining issuer” to an “industrial, technology, or life sciences issuer”, which was approved by the shareholders of the Company on September 27, 2021, in accordance with the rules and policies of the TSXV.
Current Business

ZenGUARD™ Antimicrobial Compound

The Company is currently producing the ZenGUARD™ antimicrobial coating at pilot-scale for application to non-woven, spunbond polypropylene material to be used in surgical mask manufacturing and potentially on other materials and products. Based on reports from GAP EnviroMicrobial Services Ltd. (“GAP Labs”) dated May 3, 2021, the addition of ZenGUARD™ coating to surgical masks has 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.

The Company entered into a License and Supply Agreement dated September 24, 2021, with Trebor Rx Corp. (“Trebor”), pursuant to which the Company granted a non-exclusive non-transferable license to Trebor to use the ZenGUARD™ coating in certain specified Trebor personal protective equipment (“PPE”) products displaying the Company’s branding, including surgical masks, nitrile gloves, surgical gowns and scrubs and other healthcare and similar such products, and an additional exclusive license to sell and distribute ZenGUARD™ coated Elastomeric Respirator Mask filters i.e. Pro+ 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 purchase the ZenGUARD™ coated products and agreed to purchase the ZenGUARD™ coating from the Company by way of cash payments for a supply of ZenGUARD™ coating based on demand for Trebor products. The sale 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. On September 23, 2021, The Company announced that it had delivered and generated revenue from its first shipment of ZenGUARD™ antimicrobial coating to Trebor.

Additionally, the Company has been issued a 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 MDEL allows the Company to potentially work with other manufacturers and distributors inside and outside of Canada 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 produce and sell its own Class I medical device PPE products.

On April 12, 2022, the Company announced that it has also entered into a Reciprocal Supply Agreement dated March 31, 2022, with EkoMed Global Inc. (“EkoMed”), a globally integrated manufacturer and distributor of PPE, pursuant to which (i) the Company will sell quantities of ZenGUARD™ coating to EkoMed for use initially on EkoMed’s surgical masks and potentially other PPE in the future, and (ii) the Company will purchase surgical masks manufactured by EkoMed, to be treated with ZenGUARD™ coating and resold by the Company.

On May 13, 2022, the Company announced that Mark’s Work Wearhouse had placed an initial order for ZenGUARD™ coated-masks to be sold at select stores across Canada, and online.

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 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 that began in December 2021 and have continued through the first six months of 2022.

The Company continues to market its ZenGUARD™ product to be applied to various materials, and has targeted manufacturers including PPE manufacturers and heating, ventilation, and air conditioning (“HVAC”) filter material companies.
To produce the ZenGUARD™ antimicrobial coating, quantities of GO are required. The Company currently purchases GO from third parties, and then uses the GO 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 (and potentially other products). The Company has installed industrial scale manufacturing equipment in its Guelph, Ontario facility to produce ZenGUARD™ coating formulation at a higher scale and capacity (see below under the heading Construction of ZenGUARD™ Industrial Scale Production and Coating Facility). A completion of construction ceremony was held June 17, 2022, at the facility.

The Company also intends to construct a facility to produce its own GO. The Company believes that the ability to produce GO itself rather than relying on third party suppliers will be economically favourable to the Company over the long term, as well as reducing supply and shipping risk (see below under the heading Proposed Construction of Graphene Oxide Production Facility).

Construction of ZenGUARD™ Industrial Scale Production and Coating Facility

The Company has installed industrial scale production equipment to produce the ZenGUARD™ coating formulation at its York Rd., Guelph, Ontario location, as such location is permitted for industrial use. The Company has also purchased coating equipment so the process of applying the ZenGUARD™ coating formulation to spunbond polypropylene for use in surgical masks, other PPE equipment, and potentially other uses, can be completed by the Company on-site.

Preliminary engineering study by Bantrel Co. commenced in January 2021 for graphite purification, GO production, and ZenGUARD™ production equipment. Engineering efforts then shifted to the exclusive development of a ZenGUARD™ production facility due to the long lead time for construction of the proposed purification plant, and the availability of sufficient low-cost GO from an external supplier negating the immediate need to use and process internally sourced graphite from the Albany Graphite Project. The preliminary engineering study was further delayed by a fundamental change in the synthesis method in March 2021, resulting in a significantly more simplified design of the proposed ZenGUARD™ production equipment.

Detailed engineering of the proposed ZenGUARD™ compound manufacturing equipment began in July 2021. The Company announced on February 28, 2022 that the production facility was fully licensed and permitted for ZenGUARD™ production, and that substantially all equipment had been received to ramp-up industrial scale capacity. At this point the Company intends to continue to use third parties to coat the ZenGUARD™ Graphene compound onto materials until the coating capabilities are operational at the Company’s facility and in circumstances when external coating capacity is required. Once this industrial process is in operation, the Company’s production capacity of ZenGUARD™ coated material is expected to increase significantly. The Company hired a new director of Global Healthcare Sales, Moe Dieb on 24th of May 2022,, to increase market opportunities for its increased manufacturing capacity.

Industrial scale spray coating line equipment was researched, selected, and ordered in October 2021. Upon delivery of the industrial scale coating equipment, installation and commissioning of such equipment can commence, after which the Company expects to be able to coat materials with ZenGUARD™ on-site. The Company notes that there are potentially many variables involved with commissioning the industrial scale coating plant, including the timing of the delivery of equipment, potential restrictions on travel due to the COVID-19 pandemic, among others, and the Company is therefore unable to provide timing estimates about commissioning completion with a high level of certainty.

James Jordan, P.Eng., the Company’s Project Engineer is primarily overseeing the construction of the proposed ZenGUARD™ production equipment. As of March 31, 2022, approximately $2,440,000 has been spent by the Company on this objective, and the Company currently estimates that approximately $400,000 in additional expenditures will be required to complete construction. The Company held a grand opening on June 17, 2022.
Pilot scale coating line equipment has been sourced by the Company, and the Company has spent approximately $811,000 as of March 31, 2022. Upon delivery of such equipment, installation and commission will be required. The Company expects additional expenditures of approximately $500,000 for such equipment purchase, installation and commissioning.

Proposed Construction of Graphene Oxide Production Facility

In addition to the construction of the ZenGUARD™ industrial scale production and coating equipment, as discussed above, the Company intends to construct a plant to produce GO. The Company believes that the ability to produce GO itself, which is the precursor for the ZenGUARD™ compound, rather than relying on third-party suppliers of GO, will be economically favourable to the Company over the long term, as well as reducing supply and shipping risk. 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; (ii) GO is not a homogeneous substance and by producing its own GO the Company could 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 Company’s proposed production of GO, the Company has conducted research and development to produce high-quality, few-layer GO via an ECE 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 ECE process was designed, developed, and optimized. A PCT patent has been filed by Guelph University for the processes to produce expanded graphite and electrochemically exfoliated GO, the exclusive global rights to which has been licensed by the Company pursuant to a License Agreement dated September 22, 2020.

The Company engaged Bantrel Co. in January 2021, and engineering work was initiated. Potential sites for a proposed GO production plant have been investigated, however a site has not been secured and no permits have been obtained to date. James Jordan, P.Eng., the Company’s Project Engineer is primarily overseeing the proposed engineering and construction of such a facility, and possible alternatives. As of March 31, 2022, the Company has spent $35,000 in preliminary investigations relating to this project and expects that approximately $7,500,000 will be required to complete construction of a GO production facility.

The Company estimates that fifteen to eighteen months will be required to complete the construction of a GO production plant, which is a management estimate only based on the expectation of securing an agreement for the purchase of technology from an existing GO producer. Inherent risks include, but are not limited to, the inability to reach an acceptable agreement for the purchase of such technology, the inability to adapt existing technology to the Canadian regulatory requirements, scaling-up from known existing production capacities could become a requirement, and delays as a result of ongoing material and equipment supply shortages.

ZenGUARD™ Research and Development

The Company continues to seek the most effective, cost-efficient, and scalable process to produce high-quality graphene. The production of graphene requires a consistent source (or precursor) material for conversion to graphene, which is then applied to various products for enhancement. The Company believes that it has a potential competitive advantage with its interest in the large and high-quality supply of source material, from the Albany Graphite Project, if and when the Company determines it cost effective to use such material.

Advanced testing on potential new processes for commercial GO production is underway. The Company continues to work with universities on different processes that could potentially lead to a more efficient and/or lower cost process for GO production.

The Company’s research and development, and project development activities during the year ended March 31, 2022 are summarized below:
On December 22, 2020, the Company announced that testing results from the University Health Network/Mount Sinai Hospital Department of Microbiology in Toronto indicated that the ZenGUARD™ compound may also be beneficial in the treatment of numerous human contracted pathogens, including upper and lower respiratory tract infections, where COVID-19 is a major contributor, as well as drug resistant organisms. The report delivered to the Company dated December 18, 2020, entitled “Evaluation of Graphene Oxide with Silver Cations (GO-Ag+) as an Antibacterial Agent against Respiratory Pathogens”, stated that if the Graphene 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.

On December 29, 2020, the Company announced an update on cytotoxicity testing of the ZenGUARD™ compound and the effectiveness as a coating following testing completed at McMaster University’s Centre for Microbial Chemical Biology and Mount Sinai Hospital. The preliminary testing confirmed the ZenGUARD™ compound’s efficacy with fungi and bacteria in vitro at low concentrations.

On March 17, 2021, the Company announced that testing of the Company’s ZenGUARD™ compound against four gram-positive and nine gram negative bacteria with antimicrobial-resistance, including multidrug-resistant variants like methicillin-resistant staphylococcus aureus, had been completed. Testing demonstrated that the compound was 99.9% effective against bacteria, and fungi at very low concentrations. Testing was conducted by Dr. Tony Mazzulli, the Microbiologist-in-chief at Mount Sinai Hospital.

In a news release on April 13, 2021, the Company confirmed that safety testing results received from Nucro Technics indicated that the ZenGUARD™ compound did not lead to skin irritation or sensitivity as required in ISO 10993-10 for its Class I medical device i.e., surgical masks.

On October 6, 2021, the Company announced the filing of an international patent application under the Patent Cooperation Treaty (“PCT”) for ZenGUARD™, which patent application was published on March 24, 2022, and the transfer from the University of Guelph of the rights, under its PCT application, for the ECE process to produce GO. 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.

On February 28, 2022, the Company announced that it had purchased its research and development facility in Guelph, Ontario for $2.3 million. The facility continues to be a dedicated location to conduct ongoing research and development activities in pursuit of developing new intellectual property for graphene and other nanomaterials and refining the Company’s existing technologies.

The Company continues to conduct testing on its ZenGUARD™ compound, which includes the increased challenge viral filtration efficiency and bacterial filtration efficiency test results announced by the Company on September 27, 2021. The results of third-party testing at GAP Labs demonstrated that ZenGUARD™ coated masks removed 98.9% more bacteria and 97.8% more virus particles than a typical ASTM level 3, 3-ply uncoated mask and resulted in a bacterial and viral filtration efficiency of over 99.99%.

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. The technology was developed by a team of researchers under the guidance of Drs. Yingfu Li, John Brennan and Leyla Soleymani, who have expertise in biosensing technologies, and applications as point of care diagnostics. This patent-pending technology was validated with clinical samples from patients recruited under the supervision of two clinicians, Drs. Deborah Yamamura and Bruno Salena, who also work at McMaster University. The project was funded by the Canadian Institutes of Health Research (CIHR). This technology has shown to be accurate
(similar to current PCR tests), is saliva-based, affordable and scalable, and provides results in under 10 minutes. A license
fee of $100,000, comprised of $50,000 cash and $50,000 in common shares of the Company (19,157 common shares at
$2.61 per share) was paid to McMaster University as consideration. 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.

The Company also received $148,000 from Innovations Solutions Canada (“ISC”) to design and build a prototype for the
use of this technology to help detect COVID-19 in wastewater. On November 4, 2021, the Company announced that it was
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. On June 1, 2022, the Company announced that it would not proceed to Phase 2 of the ISC challenge,
however the process and results produced would be useful for prioritizing future opportunities. The Company intends to
reassess wastewater as a market opportunity.

The Company has contracted with NeoVentures Biotechnology Inc. ("NeoVentures"), a prominent entity in the aptamer
development and applications field. NeoVentures has been engaged to validate the McMaster University results against
spike proteins and develop a mathematical model to better understand the technology and results. NeoVentures has also
been tasked to develop a standard operating procedure for the system, perform a pre-trial evaluation using saliva samples,
and optimize buffers for sample preparation. The Company has incurred approximately $265,000 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 continues to work with axiVEND, McMaster University
and StarFish Product Engineering Inc., on product strategy alignment, usability analysis, device and architecture
development, proof of concept and prototyping, and program development.

The Company currently intends to continue developing 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 practicable, which will require having a working prototype prepared, having conducted baseline studies, and having
made application to Health Canada. On May 19, 2022, the Company announced that McMaster has received two Natural
Sciences and Engineering Research Council (“NSERC”) grants related to the aptamer-based rapid detection technology;
the Alliance Missions Grant for the amount of $1,000,000, and an Idea to Innovation (I2I) Grant for the amount of
$350,000, of which the Company will make a $140,000 contribution. The Company intends to continue working with Dr.
Yingfu Li and the research team at McMaster through in-kind contributions, using these grants towards commercializing
the rapid diagnostic platform. The grants will be used to further commercialization efforts by improving the performance
of aptamers, optimizing chip synthesis, and initiating additional tests that can be incorporated into its pathogen detection
platform. The Company currently expects the cost to reach commercialization to be approximately $2,500,000, and
includes enhancements and further development of the technology.

On June 1, 2022, the Company announced that it had retained Halteres Associates (“Halteres”), a consultancy focused on
global health, diagnostics, and point-of-care testing, to assist with the commercialization of the aptamer-based rapid
detection technology. Market research from the Halteres group will be used to identify the most commercially important
pathogens for detection which will guide the aptamer development program. Halteres will evaluate several
commercialization opportunities for the aptamer technology including human diagnostics, agriculture, wastewater,
veterinary, and other potential uses in healthcare.

To bring the product to market, the Company will be required to obtain authorization from Health Canada under an interim
order, or to obtain a Class IV Medical Device Active License (“MDAL”). The process for obtaining an MDAL involves
completing certain testing requirements 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 preparing a product technical file, seek to obtain an
ISO 13485 Certificate, and then seek to complete a Health Canada Class IV application.
**Diesel Fuel Additive**

The Company is also working to develop a stable graphene-based diesel fuel additive to improve combustion, increase burn rate, reduce greenhouse gas emissions and to improve fuel economy of diesel fuels, which initial testing has shown to increase the performance of diesel fuel. The Company is working to improve on that these early results 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 GO to produce a stable dispersion in diesel fuel. The fuel additive was tested by Conestoga College in a Gunt 159 single cylinder test engine, which reported an improvement in fuel economy of over 10% under certain rpm. The Company’s research and development team improved the synthesis of the functionalized GO 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 has spent approximately $75,000 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 GO fuel additive concentrations; conducting spray combustion tests, which will provide an initial assessment of the GO additive; and testing and optimizing the GO fuel additive for diesel generator engines and marine engines and aviation usage. The Company currently estimates that the cost for such future testing is approximately $300,000.

**Icephobic Coating**

The Company is also working to develop a new, patent-pending, carbon-based, nanotechnology-enhanced coating designed to prevent or reduce ice accretion for aviation (including drone) and wind energy applications.

James Jordan, P.Eng., the Company’s Project Engineer 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-based materials in an elastomer. The Company has filed a provisional patent on the technology. The Company has also 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.

The Company disclosed on February 28, 2022 that the icephobic coatings were undergoing full flight trials on a specially equipped research aircraft under real world ice-forming weather conditions. On March 14, 2022, the Company announced the results of three rounds of testing of its icephobic coating, including laboratory tests, real-world flights and applications related to drone operations in adverse weather. In real world testing the Company reported that video footage of icephobic coating on test pieces attached to a research aircraft undergoing flight trials targeting adverse weather environments has shown positive results and demonstrated that, under significant icing conditions, the coatings provide an effective deicing and anti-icing solution. Drone testing has shown that drone propellers coated with the icephobic material have demonstrated that higher thrust can be maintained when compared to a non-coated propeller due to the ability to shed ice that forms on the blades that would otherwise degrade the aerodynamic properties. Accelerated ageing testing involved the Company providing coated samples to be exposed to UV weathering for 1,000 hours, which approximates two years’ worth of sun damage in typical Canadian weather. These samples were then tested in an icing wind tunnel under dynamic conditions and demonstrated significant retention of their icephobicity. The Company now intends to test its coating for sand and rain erosion, another important measurement that will demonstrate its use as a practical application. In addition, other tests are being planned to evaluate the coating as part of a hybrid ice protection system, where the icephobic properties are combined with a heated de-icing system with the aim to improve efficiency of current ice protection methods used in general and commercial aviation.

The Company continues to consider and seek collaborators to commercialize this technology, including drone companies and companies specializing in elastomer production. The Company has completed its ASTM G-154 accelerated
weathering. The Company has not spent significant funds on this project and anticipates additional testing and development to cost approximately $150,000.

Fire-Retardant Additive

The Company announced on March 28, 2022 that it had filed a provisional patent with the United States Patent and Trademark Office for an innovative Graphene Oxide-Metal-Organic Framework (“GO-MOF”) compound for use in fire retardant products. Management of the Company considers the manufacturing of the GO-MOF compound as relatively easily scalable and efficient, due to the patent-pending facile synthesis process. The Company believes the fire-retardant GO-MOF additive could potentially be placed in a variety of coating products, such as latex, epoxies or included in polymers. When integrated into a polymer, it could potentially create a fire-resistant plastic that could be used in electrical vehicles, providing a fire-resistant non-metal casing for the batteries. Management currently expects that GO-MOF production could be achieved on the existing ZenGUARD industrial scale production facility with minimal additional capital expense.

Dr. van der Kuur, the Company’s Vice-President of Science and Research is the primary overseer of the project. The Company has spent approximately $20,000 on this research and development project, and intends to conduct further testing, and currently estimates that the cost for such future testing is approximately $100,000.

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 September 30, 2020, the Company first announced testing on graphene use for HVAC systems. On January 13, 2021, the Company announced that testing by a major Canadian certification company had confirmed that there was very little effect on air flow and pressure drop with a ZenGUARD™ treated filter compared to an untreated filter. The Company spent approximately $60,000 on testing, including preliminary testing of ZenGUARD™-coated HVAC filter media for pressure drop, and increased challenge bacterial filtration efficiency on uncoated and coated MERV 8 and MERV 13 HVAC filters, overseen primarily by James Jordan, P.Eng., the Company’s Project Engineer and Dr. van der Kuur, the Company’s Vice-President – Science and Research and Peter Wood, P.Eng., the Company’s Vice-President, Special Projects. The Company then determined to wait for government support in order to proceed with testing, which was subsequently awarded on November 30, 2021. Further to the press release dated 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, conducted by CremCo Laboratories (“CCL” with assistance by the Aerospace Research Centre (“ARC”), a department of the National Research Council of Canada (“NRC”) was 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 was tested to ensure it does not contribute particles into the air stream. Phase 1 testing commenced in December 2021 after an extensive design process, calibration and assessment of the testing rig, and involved the test rig being installed inside an aerobiology chamber to push air through HVAC filter material with test organisms to study how these live airborne organisms were reduced by the ZenGUARD™ coating. Testing used multiple samples with repeated tests so that each filter’s performance could be compared. It was determined that all Phase 1 targets were met including sufficient reduction in live airborne test organisms, no significant shedding of the ZenGUARD™ coating, and air flow rates that were not impacted by the coating. On April 11, 2022, the Company announced that, after successful completion of Phase 1 testing, it will proceed to Phase 2 testing. Phase 2 testing commenced June 2022 and is being conducted at ARC with assistance from CCL. Airborne test organisms will again be used, and testing will be conducted in a controlled environment. The objective of Phase 2 testing is to demonstrate a reduction in live airborne surrogate contamination within a modular classroom environment, simulating a real world environment. By testing ZenGUARD™-coated HVAC filters, NRC is also expected to gain the knowledge and equipment to evaluate how airborne infectious diseases spread within aircraft cabins and other indoor spaces. The Company has approximately $400,000 budgeted for future testing (including a $200,000 grant).
In addition, the active ingredient in ZenGUARD™ has low minimum inhibitory concentrations 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. On February 4, 2021, and March 2, 2021, the Company announced results of the Phase 2 cytotoxicity testing, by Nucro Technics testing laboratory, and included cytotoxicity testing that noted no adverse effects after seven days of repeated dosing. The Company has received quotes for animal studies of MRSA-related skin infections and expects to award a contract as soon as practicable. On March 10, 2022, the Company announced that it had retained Vimta Labs Limited (“Vimta”), a leading clinical research organization in India, to begin studies of ZenGUARD™ active ingredient as a potential treatment of skin disease. Vimta will be performing pre-clinical research including collecting the in vitro and in vivo data that is required for the submission of an Investigational New Drug to the United States Food and Drug Administration which is a requirement for the administration of a new drug in humans. The pre-clinical work with Vimta is scheduled to be completed by Q3 2023. The Company decided to move forward with this work following cytotoxicity studies with Nucro-Technics and positive anecdotal results of various human skin infections including acne, warts and toenail fungal infections. There were no adverse effects recorded during these anecdotal trials. These human anecdotal cases form part of the Company’s patent application filed December 21, 2021, under the Patent Cooperation Treaty entitled “Graphene-Silver Nanocomposites and Uses For Same As a Broad-Spectrum Antimicrobial” which is scheduled to be published on June 23, 2022.

Other

The Company is also working with a number of research institutions developing processes to synthesize graphene, GO 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. On February 18, 2022, the Company announced the filing of a provisional patent with the United States Patent and Trademark Office relating to a graphene-wrapped silicon anode material. The Company has other research projects commenced or contemplated including for applications in aluminum alloys, corrosion protection, battery technology, conductive polymers and others. The Company will report on these when it is appropriate to do so.

Albany Graphite Project

The Company owns 100% of the Albany Graphite Project in Northern Ontario, Canada. The unusual nature of the graphite in the Albany deposit and its potential economic significance motivated additional exploration drilling from 2012 to 2014. The graphene nanomaterials market was not considered as part of the June 2015 Preliminary Economic Assessment model. The current claims require a total of $195,600 worth of assessment work per year to keep them in good standing and the Company has a total credit of approximately $5.8M in available exploration reserves. The Company has no near-term plans to continue any significant work on the Albany Graphite Project in Northern Ontario and is not dependent on 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.

On April 18, 2022, the Company announced that it has engaged The Benchmark Company, LLC (“Benchmark”) to act as strategic financial advisor with respect to potential transactions relating to the Albany Graphite Project.

Business Objectives and Milestones

As at March 31, 2022, the Company had working capital of $29,654,265.

On April 8, 2021, the Company completed a private placement in which a total of 1,735,199 units were issued at $2.50 per unit for gross proceeds of $4,337,998. The Company disclosed in its information circular dated August 19, 2021 (the “Information Circular”) that it had a working capital of $4,050,000 as at the end of July 2021. The following table sets out
the uses that the Company planned for such funds available as disclosed in the Information Circular, and an update on the actual expenditures using such funds:

<table>
<thead>
<tr>
<th>Use of Available Funds</th>
<th>Expected Amount as at date of Information Circular ($)</th>
<th>Approximate Actual Amount spent as at the year ended March 31, 2022 ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and administrative costs(1)</td>
<td>2,550,000</td>
<td>2,060,000</td>
</tr>
<tr>
<td>Research and Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhancement of development process for ZenGUARD™</td>
<td>100,000</td>
<td>528,000</td>
</tr>
<tr>
<td>Testing of GO coated HVAC filters</td>
<td>300,000</td>
<td>410,000</td>
</tr>
<tr>
<td>Research and development of other potential products</td>
<td>100,000</td>
<td>95,000</td>
</tr>
<tr>
<td>Development of graphene-enhanced polymers</td>
<td>80,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Development of rapid detection technology</td>
<td>420,000</td>
<td>694,000</td>
</tr>
<tr>
<td>Albany Graphite Project Expenditures(2)</td>
<td>300,000</td>
<td>216,000</td>
</tr>
<tr>
<td>Unallocated working capital</td>
<td>200,000</td>
<td>Nil</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,050,000</strong></td>
<td><strong>4,053,000</strong></td>
</tr>
</tbody>
</table>

Notes:
(1) General and administrative expenses consist of salaries and consulting fees (which includes costs associated with the production of the Company anti-microbial coating for PPE), listing fees, transfer agent fees, audit fees, legal fees, office rent and other miscellaneous expenses.
(2) Expenditures include environmental studies (long-term baseline watershed studies that were commenced and that the Company intends to complete); First Nations outreach, including travel costs and expenditures pursuant to the Implementation Agreement between the Company and Constance Lake First Nation (“CLFN”); consulting fees relating to the Albany Graphite Project; storage facility and vehicle leases, and claims and other fees to maintain the Albany Graphite Project in good standing.

From August 2021 to March of 2022, the Company fully spent the $4,050,000 that was available. Increased spending on the enhancement of the development process for ZenGUARD™ was due to an increased scope of a commissioned engineering study for a new industrial scale facility for the Company to produce ZenGUARD™.
On January 4, 2022, the Company completed a bought-deal prospectus offering raising gross proceeds of $23,005,060 and a concurrent non-brokered private placement raising additional gross proceeds of $10,009,022, for total gross proceeds of $33,014,082. The Company disclosed in its final prospectus dated December 23, 2021 (the “Prospectus”) that it expected the net proceeds of the financing to be (excluding any exercise of the over-allotment option) $28,813,158 after deducting the payment of the commission to the underwriters. The following table sets out the uses that the Company planned for such proceeds over the twenty-four month period following the financing, as disclosed in the Prospectus, and an update on the actual expenditures using such funds:

<table>
<thead>
<tr>
<th>Use of Available Funds</th>
<th>Expected Amount as at date of Prospectus ($)</th>
<th>Approximate Actual Amount spent as at the year ended March 31, 2022 ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and administrative costs</td>
<td>4,000,000</td>
<td>1,044,000</td>
</tr>
<tr>
<td>Acquisition of GO supply</td>
<td>1,300,000</td>
<td>104,000</td>
</tr>
<tr>
<td>Construction of ZenGUARD™ production facility</td>
<td>1,500,000</td>
<td>629,000</td>
</tr>
<tr>
<td>Purchase of coating equipment</td>
<td>1,900,000</td>
<td>439,000</td>
</tr>
<tr>
<td>Construction of GO production plant</td>
<td>7,500,000</td>
<td>Nil</td>
</tr>
<tr>
<td>Potential strategic acquisition</td>
<td>1,500,000</td>
<td>Nil</td>
</tr>
<tr>
<td>Development of rapid detection technology</td>
<td>2,500,000</td>
<td>277,000</td>
</tr>
<tr>
<td>Building inventory of rapid detection tests</td>
<td>3,000,000</td>
<td>Nil</td>
</tr>
<tr>
<td>Research and development</td>
<td>2,000,000</td>
<td>188,000</td>
</tr>
<tr>
<td>Purchase of research and development facility</td>
<td>2,000,000</td>
<td>2,065,000</td>
</tr>
<tr>
<td>Estimated offering costs</td>
<td>300,000</td>
<td>292,000</td>
</tr>
<tr>
<td>Unallocated funds added to working capital</td>
<td>1,313,158</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28,813,158</strong></td>
<td><strong>5,038,000</strong></td>
</tr>
</tbody>
</table>

From January 4, 2022 to March 31, 2022, the Company spent approximately $5,038,000 of the $28,813,158 that was expected to be available.

**Overall Performance**

During the year ended March 31, 2022, the Company was mainly involved in scaling the production process of the ZenGUARD™ antimicrobial coating formulation at the pilot scale along with completing the engineering work for the industrial production facility. The Company also continued its graphene R&D activities which led to two provisional patent filings and one provisional patent license during this year. Overall, during the year ended March 31, 2022, the Company had cash expenditures of approximately $14,759,000 consisting mainly of property and equipment purchases, research and development costs, professional and consulting fees and general operating expenses.

**Results of Operations**

**Net loss**

The Company recorded a loss from continued operations of $5,447,346 with basic and diluted loss per share of $0.06 for the three-month period ended March 31, 2022 (2021 – loss of $1,229,067 and $0.01). The loss from continued operations for the year ended March 31, 2022, was $12,562,665 with basic and diluted loss per share of $0.13 (2021 – loss of $3,868,650 and $0.05).

The Company recorded a loss from discontinued operations of $Nil with basic and diluted loss per share of $Nil for the three-month period ended March 31, 2022 (2021 - $Nil, and $Nil). The loss from discontinued operations for the year ended March 31, 2022, was $26,671,935 with basic and diluted loss per share of $0.29 (2021 – loss of $Nil and $Nil).
Revenue

Revenue generated from operations for the year ended March 31, 2022 was $347,183 (2021 - $2,355). Revenue during the three-month period ended March 31, 2022 was $161,618.

Expenses

Stock-based compensation costs were $2,271,882 for the three-month period ended March 31, 2022 (2021 - $706,207) and $4,726,840 for the year ended March 31, 2022 (2020 - $2,018,416). Stock-based compensation was based on the fair value of the options described in Note 12(c) of the audited consolidated financial statements as calculated using the Black-Scholes option pricing model. Stock-based compensation is recognized over the vesting period of the underlying options.

Other expenses were $212,145 for the three-month period ended March 31, 2022 (2021 - $95,618) and $661,904 for the year ended March 31, 2022 (2021 - $236,406). The following table details the material components of the Company’s other expenses for the years ended March 31, 2022 and 2021.

<table>
<thead>
<tr>
<th></th>
<th>Year Ended March 31, 2022</th>
<th>Year Ended March 31, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance</td>
<td>162,640</td>
<td>38,913</td>
</tr>
<tr>
<td>Meals and entertainment</td>
<td>61,815</td>
<td>13,618</td>
</tr>
<tr>
<td>Office expenses</td>
<td>110,114</td>
<td>49,870</td>
</tr>
<tr>
<td>Other expenses</td>
<td>183,461</td>
<td>69,161</td>
</tr>
<tr>
<td>Travel</td>
<td>143,874</td>
<td>64,844</td>
</tr>
<tr>
<td>Total</td>
<td>$661,904</td>
<td>$236,406</td>
</tr>
</tbody>
</table>

Professional fees were $768,697 for the three-month period ended March 31, 2022 (2021 - $86,899) and $1,849,888 for the year ended March 31, 2022 (2021 - $548,922). These fees consist primarily of the amounts charged for services provided by the Company’s lawyers, auditors, and accountants.

Investor relations and promotion expenses were $52,385 for the three-month period ended March 31, 2022 (2021 - $39,203) and $280,740 for the year ended March 31, 2022 (2021 - $175,932). These expenses consist primarily of the costs of consultants, marketing trips and other costs such as attending industry conferences.

Listing and filing fees were $240,734 for the three-month period ended March 31, 2022 (2021 - $37,064) and $325,167 for the year ended March 31, 2022 (2021 - $52,466). These expenses consist primarily of the costs of maintaining registered status on various stock listing exchanges.

Consulting fees were $203,047 for the three-month period ended March 31, 2022 (2021 - $102,500) and $898,208 for the year ended March 31, 2022 (2021 - $392,752). The most significant component of the consulting costs incurred were for consultants working on metallurgical test work, field program planning and graphene product development activities.

Amortization expense was $342,851 for the three-month period ended March 31, 2022 (2021 - $96,823) and $614,710 for the year ended March 31, 2022 (2021 - $126,799). Amortization is taken on the capitalized cost of the Company’s computers, equipment, leasehold improvements, and right-of-use asset.

Supplies and materials expense was $248,044 for the three-month period ended March 31, 2022 (2021 - $28,833) and $376,787 for the year ended March 31, 2022 (2021 - $196,028). These expenses mainly related to supplies and materials purchased to continue graphene development.
Research and development expenses were $187,911 for the three-month period ended March 31, 2022 (2021 - $nil) and $1,541,902 for the year ended March 31, 2022 (2021 - $nil). These expenses mainly related to continued research and development activities regarding graphene use and development.

Impairment of exploration and evaluation assets was $nil for the three-month period ended March 31, 2022 (2021 - $nil) and $26,671,935 for the year ended March 31, 2022 (2021 - $nil). As a result of the Company’s change in business during the year, the Company conducted an impairment test and determined the recoverable amount of the exploration and evaluation property to be negligible. Accordingly, the Company recognized an impairment charge on the exploration and evaluation property to reduce the carrying value to $nil. The impairment expense for the year ended March 31, 2022 is a result of discontinued operations.

Cash Flows

During the three-month period ended March 31, 2022, cash increased overall by $23,598,762 (2021 – increased by $950,270). Operating activities resulted in a decrease in cash of $2,482,791 (2021 – decrease of $488,392) due to continued spending on consulting and professional fees, research and development, salaries and benefits and other expenses. Investing activities resulted in a decrease in cash of $5,381,524 (2021 – decrease of $638,670) due to property and equipment purchases and the advance of a loan receivable. Financing activities resulted in an increase in cash of $31,463,077 (2021 – increase of $2,077,332) due to net proceeds received from a bought-deal prospectus and a concurrent non-brokered private placement issuance of shares as well as proceeds received from the exercise of stock options.

During the year ended March 31, 2022, cash increased overall by $23,583,451 (2021 – increased by $2,285,602). Operating activities resulted in a decrease in cash of $7,988,872 (2021 – decrease of $1,794,683) due to continued spending on consulting and professional fees, research and development, salaries and benefits and other expenses. Investing activities resulted in a decrease in cash of $7,252,608 (2021 – decrease of $1,233,243) due to property and equipment purchases and the advance of a loan receivable. The cash used in investing activities includes $316,698 from discontinued operations (2021 - $1,111,693). Financing activities resulted in an increase in cash of $38,824,931 (2021 – increase of $5,313,528) due to net proceeds received from a bought-deal prospectus and a concurrent non-brokered private placement issuance of shares, a private placement issuance of units and proceeds received from the exercise of stock options and warrants.

Mineral Exploration and Development

Albany Graphite Project

The claims comprising the Albany Graphite Project are presently held in good standing by the Company and there are sufficient assessment credits available to keep all of the 4F (Albany Graphite Project) claims in good standing for at least 30 years. There are no environmental liability issues related to any previous exploration work on the claims. The Company has not received from any government authority, any communication or notice concerning any actual or alleged breach of any environmental laws, regulations, policies or permits. The claims are located in the traditional territory of the Constance Lake First Nation. In July 2011, the Company and CLFN signed an exploration agreement for a mutually beneficial and co-operative relationship regarding exploration and pre-feasibility activities on the Albany Graphite Project. Under this agreement, the Company committed to establishing a joint implementation committee and conveying preferential opportunities for employment and contracting as well as contributing to a social fund for the benefit of CLFN children, youth and elders. In 2018, the parties signed a new Memorandum of Understanding (“MOU”) under which a project partnership structure will be created in support of the development of the Albany Graphite Project.

Subsequent to completion of the 2015 Preliminary Economic Assessment (“PEA”), most of the Albany Graphite Project work has been focused on metallurgical process development, environmental baseline studies, market studies, and research and development to determine the most attractive market opportunities for the Albany graphite products. Increasing interest in the materials produced from the Albany Graphite Project as a feed material for producing graphene or GO, is a consideration for management in potentially reconsidering the project development model conceived for the 2015 PEA, at some point in the future.
Graphene Business Development Work

The Company’s graphene product development is being carried out under the direction of the Company’s CEO, Mr. Gregory Fenton, and the Company’s Executive Chairman, Dr. Francis Dubé. Dr. Colin van der Kuur, VP of Science and Research, continues to lead the research and development work. His work is supported by Dr. Adam MacIntosh, Director of Research and Development and the Company’s Senior Government Relations Director, Ms. Monique Manaigre, who is coordinating collaborative research initiatives within government institutions such as the National Research Council, Clean Growth Hub, Accelerated Growth Hub, Federal Economic Development Agency for Northern Ontario (FedNor), Federal Economic Development Agency for Southern Ontario (FedDev), and others.

The business development team, led by Greg Fenton, continues to focus its efforts on applications where the Company has strategic advantages due to patents, trade secrets and business relationships. The Company announced its first patent application on September 22, 2020, when it reported that after five months of optimization, it had developed a novel graphene-based antimicrobial coating with 99% effectiveness against COVID-19.

Administration and Capitalization

On April 8, 2021, the Company completed a private placement in which a total of 1,735,199 units were issued at $2.50 per unit for gross proceeds of $4,337,998. Each unit consisted of one common share and one-half of one common share purchase warrant with each whole warrant exercisable at $3.00 for a period of two years. Unit issue costs associated with this private placement totaled $102,343 of which $38,979 was settled through the issuance of 15,592 shares.

On April 13, 2021, 100,000 stock options were issued to a number of employees and consultants. The stock options have an exercise price of $1.76 per share. The options granted to the employees expire on April 13, 2026 and have a vesting period as follows: 1/3 at April 13, 2021; 1/3 at April 13, 2022; 1/3 at April 13, 2023. The options grants to the consultants expire on April 13, 2023 and have a vesting period as follows: 100% on August 13, 2021.

On June 30, 2021, the Company announced that Dr. Kenneth Reed, Medical Director at DermASAP, had joined the Company’s Advisory Board effective immediately. Dr. Reed, a Harvard Medical School trained dermatologist, has 38 years of clinical experience in the state of Massachusetts. In addition to his medical practice, he is the co-founder of Early Cell, a company focused on detection of circulating fetal cells in gestational mothers, and Lisiro, which focuses on fibrotic lung disorders. Dr. Reed has also been a Clinical Investigator for numerous pharma companies including Amgen, Astellas, Centocor (J&J) and Abbvie. He currently serves on the board of directors of Red Hill Biopharma, a NASDAQ-listed company, and sits on scientific advisory boards to a number of medical technology companies. Dr. Reed was awarded 150,000 stock options with an exercise price of $3.50 per share. The options will expire on June 30, 2024 and have a vesting period as follows: 1/3 at June 30, 2021; 1/3 at June 30, 2022; 1/3 at June 30, 2023.

On July 23, 2021, 25,000 stock options were issued to an employee of the Company. The stock options have an exercise price of $3.10 per share. The options granted to the employee expire on July 23, 2024 and have a vesting period as follows: 1/3 at July 23, 2021; 1/3 at July 23, 2022; 1/3 at July 23, 2023.

On September 3, 2021, 100,000 stock options were issued to certain employees of the Company. The stock options have an exercise price of $3.69 per share. The options granted to the employees expire on September 3, 2024 and have a vesting period as follows: 1/3 at September 3, 2021; 1/3 at March 3, 2022; 1/3 at September 3, 2022.

On September 21, 2021, 120,000 stock options were issued to a consultant. The stock options have an exercise price of $4.08 per share. The options granted to the consultant expire on September 21, 2024 and have a vesting period as follows: 1/3 at September 21, 2021; 1/3 at September 21, 2022; 1/3 at September 21, 2023.
On October 13, 2021, 100,000 stock options were issued to certain employees of the Company. The stock options have an exercise price of $4.92 per share. The options granted to the employees expire on October 13, 2024 and have a vesting period as follows: 1/3 at October 13, 2021; 1/3 at October 13, 2022; 1/3 at October 13, 2023.

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.

On October 26, 2021, 50,000 stock options were issued to a consultant. The stock options have an exercise price of $4.77 per share. The options granted to the employees expire on October 26, 2024 and have a vesting period as follows: 1/3 at October 26, 2021; 1/3 at October 26, 2022; 1/3 at October 26, 2023.

The Company changed its name effective October 27, 2021 to Zentek Ltd.

On November 1, 2021, 100,000 stock options were issued to certain consultants. The stock options have an exercise price of $5.67 per share. The options granted to the consultants expire on November 1, 2024 and have a vesting period as follows: 1/3 at November 1, 2021; 1/3 at November 1, 2022; 1/3 at November 1, 2023.

On December 9, 2021, pursuant to a licensing agreement, the Company issued 19,157 common shares to a trade creditor at an agreed upon price of $2.61 per common share in settlement of amounts owing.

On December 15, 2021, 25,000 stock options were issued to an employee of the Company. The stock options have an exercise price of $5.20 per share. The options granted to the employee expire on December 15, 2026 and have a vesting period as follows: 1/3 at December 15, 2021; 1/3 at December 15, 2022; 1/3 at December 15, 2023.

On December 29, 2021, 200,000 stock options were issued to an employee and a consultant. The stock options have an exercise price of $5.22 per share. The options granted to the employee expire on December 29, 2024 and have a vesting period as follows: 1/3 at December 29, 2021; 1/3 at June 29, 2022; 1/3 at December 29, 2022. The options granted to the consultant expire on December 29, 2024 and have a vesting period as follows: 1/3 at December 29, 2021; 1/3 at December 29, 2022; 1/3 at December 29, 2023.

On January 4, 2022 the Company completed a bought-deal prospectus offering (the “Prospectus Offering”) for gross proceeds of C$23,005,060, and a concurrent non-brokered private placement (the “Concurrent Private Placement”) for aggregate gross proceeds of C$10,009,022. Pursuant to the Prospectus Offering, the Company issued a total of 4,424,050 common shares at a price of $5.20 per common share (the “Issue Price”), and pursuant to the Concurrent Private Placement the Company issued a total of 1,924,812 common shares at the Issue Price. The Prospectus Offering was completed by a syndicate of underwriters with Eight Capital as lead underwriter and sole bookrunner, Leede Jones Gable Inc. and Research Capital (collectively, the “Underwriters”). The Underwriters were paid a cash commission of C$1,380,303, equal to 6% of the gross proceeds raised.

On January 14, 2022, 1,300,000 stock options were issued to certain directors, officers, and employees of the Company. The stock options have an exercise price of $4.25 per share. The options granted to the employees expire on January 14, 2025 and have a vesting period as follows: 1/3 at January 14, 2022; 1/3 at January 14, 2023; 1/3 at January 14, 2024. The options granted to the directors and officers expire on January 14, 2027 and have a vesting period as follows: 1/3 at January 14, 2022; 1/3 at July 14, 2022; 1/3 at January 14, 2023.

On January 17, 2022, 20,000 stock options were issued to an employee of the Company. The stock options have an exercise price of $4.25 per share. The options granted to the employee expire on January 17, 2025 and have a vesting period as follows: 1/3 at January 17, 2022; 1/3 at January 17, 2023; 1/3 at January 17, 2024.

On March 7, 2022, the Company announced that it had obtained approval from NASDAQ, and its common shares commenced trading under the symbol “ZTEK” on March 22, 2022.
On March 8, 2022, the Company announced that Ravi Kaza had joined the Company’s Advisory Board. Mr. Kaza graduated from The Wharton School of the University of Pennsylvania with a B.Sc. in Finance Summa Cum Laude at age 19 and has spent the last 25 years consistently focused on disruptive technologies. He started his career in Silicon Valley at a prominent investment banking group where he worked on numerous transactions involving very prominent technology companies. Mr. Kaza then entered the money management business as a Vice President at Pequot Capital Management, at the time one of the world’s largest alternative asset managers with a focus on technology investing. He was then hired by Stanley Druckenmiller as a Managing Director at Duquesne Capital Management to focus primarily on technology investing. In 2003, Mr. Kaza founded Seasons Capital Management, which he helped grow into a multi-billion-dollar alternative investment manager that oversaw several technology-related investment strategies. In 2010, Mr. Kaza shifted his focus to running primarily internal capital with a continued primary focus on disruptive technologies.

On March 29, 2022, 54,000 stock options were issued to an employee of the Company. The stock options have an exercise price of $3.88 per share. The options granted to the employee expire on March 29, 2025 and have a vesting period as follows: 1/3 at March 29, 2022; 1/3 at March 29, 2023; 1/3 at March 29, 2024.

Subsequent Events

On May 16, 2022, the Company announced that Wendy Ford has been appointed as the new Chief Financial Officer (“CFO”) of the Company, and that Brian Bosse was appointed as the Company’s Chief Operations Officer. Ms. Ford served as VP of Finance and CFO of Mancor Industries, a precision manufacturer of metal components and sub-assemblies. Prior to this, Ms. Ford served as CFO of AirBoss of America, a publicly traded company on the TSX, focused on the compounding, defense, and automotive industries. She has served in leadership roles including financial reporting, auditing, taxation, and compliance. Ms. Ford is a Chartered Professional Accountant and is a graduate of the University of Toronto. As part of her employment contract, Ms. Ford will receive 200,000 stock options at a exercise price of $2.59, expiring three years from the date of grant.

Subsequent to the year ended March 31, 2022, a total of 115,000 stock options were exercised at $0.40 per option resulting in proceeds of $46,000 to the Company.

Selected Annual Information

The following table sets forth selected financial information with respect to the Company as at and for the years ended March 31, 2022 and 2021. The selected financial information has been derived from the audited consolidated financial statements of the Company for the financial years indicated. The following should be read in conjunction with the said consolidated financial statements and related notes thereto.

<table>
<thead>
<tr>
<th></th>
<th>Year ended March 31, 2022</th>
<th>Year ended March 31, 2021</th>
<th>Year ended March 31, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>$347,183</td>
<td>$2,355</td>
<td>$Nil</td>
</tr>
<tr>
<td>Total Other Income</td>
<td>$604,329</td>
<td>$451,530</td>
<td>$136,998</td>
</tr>
<tr>
<td>Net Loss</td>
<td>$(38,694,048)</td>
<td>$(3,868,650)</td>
<td>$(1,540,877)</td>
</tr>
<tr>
<td># Shares Outstanding</td>
<td>99,248,058</td>
<td>86,199,849</td>
<td>80,405,791</td>
</tr>
<tr>
<td>Net Loss per Share (Basic)</td>
<td>$(0.42)</td>
<td>$(0.05)</td>
<td>$(0.02)</td>
</tr>
<tr>
<td>Net Loss per Share (Diluted)</td>
<td>$(0.42)</td>
<td>$(0.05)</td>
<td>$(0.02)</td>
</tr>
<tr>
<td>Total Assets</td>
<td>$37,984,520</td>
<td>$30,250,328</td>
<td>$26,238,658</td>
</tr>
<tr>
<td>Total non-current financial liabilities</td>
<td>$3,435,459</td>
<td>$2,788,040</td>
<td>$527,575</td>
</tr>
<tr>
<td>Total Equity</td>
<td>$34,549,061</td>
<td>$27,462,288</td>
<td>$25,711,083</td>
</tr>
</tbody>
</table>
### Summary of Quarterly Results
The following table sets out selected quarterly information for the eight most recently completed quarters, for which consolidated financial statements are prepared.

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>161,618</td>
<td>35,420</td>
<td>555,097</td>
<td>150,145</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
<td>nil</td>
</tr>
<tr>
<td>Other income</td>
<td>-</td>
<td>470,886</td>
<td>213,726</td>
<td>4,312</td>
<td>4,312</td>
<td>129,131</td>
<td>181,563</td>
<td>106,372</td>
<td>124,446</td>
<td></td>
</tr>
<tr>
<td>Loss from discontinued operations</td>
<td>-</td>
<td>-</td>
<td>$26,671,935</td>
<td>26,051,796</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Net Loss</td>
<td>4,964,841</td>
<td>2,177,696</td>
<td>1,915,179</td>
<td>29,619,623</td>
<td>28,999,484</td>
<td>1,931,888</td>
<td>1,655,188</td>
<td>576,924</td>
<td>455,994</td>
<td></td>
</tr>
<tr>
<td>Net Loss per Share (basic and diluted) from discontinued operations</td>
<td>-</td>
<td>-</td>
<td>0.29</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Net Loss per Share (basic and diluted) from continuing operations</td>
<td>0.05</td>
<td>0.02</td>
<td>0.02</td>
<td>0.03</td>
<td>0.03</td>
<td>0.02</td>
<td>0.03</td>
<td>0.01</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Net Loss per Share (basic and diluted)</td>
<td>0.05</td>
<td>0.02</td>
<td>0.02</td>
<td>0.32</td>
<td>0.32</td>
<td>0.02</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

*Restatements*
In the interim period ended March 31, 2022, management determined that the interim financial statements for the September 30, 2021 and December 31, 2021 interim periods required restatements due to the following:

- Revenue from royalties for the interim period ended December 31, 2021 was over estimated by $262,517.
- Loss from discontinued operations in the interim period ended September 30, 2021 (impairment of mineral property) was understated by $620,139 related mainly to a mineral property option payment obligation that was reversed; reversal recorded during the period.
- In the interim period ended December 31, 2021, management restated government grants received for HVAC testing programs from revenues to government grants (presented in other income) in the amount of $257,160. As a result, revenues and other income have been reduced and increased respectively for this interim period.

All discussion of interim period results in this MD&A considers the updated and restated interim period results as summarized in the above table.
Discussion of interim period results
The Company began generating revenue during the quarter ended September 30, 2021, as a result of its License and Supply Agreement dated September 24, 2021, with Trebor. The quarterly net loss figure has been trending higher since the quarter ended September 30, 2020 due to the following factors:

1. Increased salaries and benefits costs due to hiring of additional staff to further develop intellectual property and ramp up production.
2. Increased spending on research and development activities to further develop intellectual property.
3. Increased professional fees incurred as a result of increase in legal expenditures.
4. Increased stock-based compensation expense due to granting of options to several directors, officers, employees and consultants. The Company has seen an increase in its stock price on the TSX Venture Exchange over the past 12 months resulting in a higher Black-Scholes valuation for options leading to increased stock-based compensation expense.
5. As a result of the change in business during the year, the Company conducted an impairment test and determined the recoverable amount of the exploration and evaluation property to be negligible and the Company recognized an impairment charge on the exploration and evaluation property of $26,671,935 to reduce the carrying value to $nil.

Liquidity and Capital Resources
As at March 31, 2022, the Company had working capital of $29,654,265 (2021 - $879,211) and cash of $26,675,000 (2021 - $3,091,549). The Company believes that the working capital on hand as at March 31, 2022 is sufficient to fund requirements for at least the next twelve months. The Company funded operations during the year ended March 31, 2022 through the net proceeds of shares and units issued, stock options and warrants exercised as well as through sales and the use of existing cash.

The Company began generating sales revenue during the quarter ended September 30, 2021, and will use the proceeds of the sales to partially fund future operations. On January 4, 2022, the Company completed a financing for aggregate gross proceeds of $33,014,082, but may require additional financing in the future. The availability of equity capital, and the price at which additional equity could be issued, is dependent upon the success of the Company's activities, and upon the state of the capital markets generally. Additional financing may not be available on terms favourable to the Company or at all. If the Company does not receive future financing, it may not be possible for the Company to advance its business plans.

Off-Balance Sheet Arrangements
There are currently no off-balance sheet arrangements which could have an effect on current or future results or operations, or the financial condition of the Company.

Transactions with Related Parties
The remuneration of key management personnel during the years ended March 31, 2022 and 2021 were as follows:

a) Salaries and benefits - $490,000 (2021 - $652,167)
b) Share-based payments - $2,602,803 (2021 - $1,714,944)
As part of the private placement issued during the year ended March 31, 2022, as disclosed in Note 12(a) of the audited consolidated financial statements, Officers and Directors of the Company purchased 36,000 units for gross proceeds of $90,000.

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Company directly or indirectly, including any directors (executive and non-executive) of the Company.

**Current and Future Changes in Accounting Policy**

**Statement of Compliance**

The audited consolidated financial statements, including comparatives for the year ended March 31, 2022, have been prepared using accounting policies in compliance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

**Future Accounting Changes**

Certain pronouncements were issued by the IASB or the International Financial Reporting Interpretations Committee ("IFRIC") that are mandatory for accounting periods beginning on or after April 1, 2022 or later periods. Many are not applicable or do not have a significant impact to the Company and have been excluded.

**Critical Judgments and estimation uncertainties**

The areas which require management to make significant judgments, estimates and assumptions in determining carrying values include, but are not limited to:

**Accounts receivable and loan receivable carrying values and impairment charges**

In the determination of carrying values and impairment charges, management looks at the higher of recoverable amount or fair value less costs to sell in the case of assets and at objective evidence, significant or prolonged decline of fair value on financial assets indicating impairment. These determinations and their individual assumptions require that management make a decision based on the best available information at each reporting period.

**Expected credit loss allowance and provision**

The Company determines an expected credit loss allowance for trade receivables based on the estimated expected lifetime credit loss, considering the actual credit loss in prior years and forward-looking estimates of expected collections. This estimate varies depending on the nature of the trade receivables, the majority of which are associated with the health sciences business; however, also includes receivables from government agencies. The loss allowance is reviewed on a quarterly basis and any change in estimate is accounted for prospectively. The Company also assesses the expected credit loss of non-trade financial assets to determine if an allowance is required. Collectivity of customer balances classified as trade receivables may vary from the Company’s estimation.

**Impairment of exploration and evaluation assets**

While assessing whether any indications of impairment exist for exploration and evaluation assets, consideration is given to both external and internal sources of information. Information the Company considers includes changes in the market, economic and legal environment in which the Company operates that are not within its control that could affect the recoverable amount of exploration and evaluation assets. Internal sources of information include the manner in which exploration and evaluation assets are being used or are expected to be used and indications of expected economic performance of the assets. Estimates include but are not limited to estimates of the discounted future pre-tax cash flows expected to be derived from the Company’s mineral exploration properties, costs to sell...
the properties and the appropriate discount rate. Reductions in metal price forecasts, increases in estimated future costs of production, increases in estimated future capital costs, reductions in the amount of recoverable mineral reserves and mineral resources and/or adverse current economics can result in a write-down of the carrying amounts of the Company’s exploration and evaluation assets.

Income taxes and recoverability of potential deferred tax assets
In assessing the probability of realizing income tax assets recognised, management makes estimates related to expectations of future taxable income, applicable tax planning opportunities, expected timing of reversals of existing temporary differences and the likelihood that tax positions taken will be sustained upon examination by applicable tax authorities. In making its assessments, management gives additional weight to positive and negative evidence that can be objectively verified. Estimates of future taxable income are based on forecasted cash flows from operations and the application of existing tax laws in each jurisdiction.

The Company considers whether relevant tax planning opportunities are within the Company’s control, are feasible, and are within management’s ability to implement. Examination by applicable tax authorities is supported based on individual facts and circumstances of the relevant tax position examined in light of all available evidence. Where applicable tax laws and regulations are either unclear or subject to ongoing varying interpretations, it is reasonably possible that changes in these estimates can occur that materially affect the amounts of income tax assets recognised. Also, future changes in tax laws could limit the Company from realizing the tax benefits from the deferred tax assets. The Company reassesses unrecognised income tax assets at each reporting period.

Discount rate on lease liability
All the components of the lease liability are required to be discounted to reflect the present value of the payments. The discount rate to use is the rate implicit in the lease, unless this cannot readily be determined, in which case the lessee’s incremental borrowing rate is used instead. The definition of the lessee’s incremental borrowing rate states that the rate should represent what the lessee would have to pay to borrow over a similar term and with similar security, the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment. Significant judgment is required to estimate an incremental borrowing rate in the context of a right-of-use asset.

Share-based payments
Management determines costs for share-based payments using market-based valuation techniques. The fair value of the market-based and performance-based share awards are determined at the date of grant using generally accepted valuation techniques. Assumptions are made and judgment used in applying valuation techniques. These assumptions and judgments include estimating the future volatility of the stock price, expected dividend yield, future employee turnover rates and future employee stock option exercise behaviors and corporate performance. Such judgments and assumptions are inherently uncertain. Changes in these assumptions affect the fair value estimates.

Existence of decommissioning and restoration costs and the timing of expenditure
Decommissioning, restoration and similar liabilities are estimated based on the Company’s interpretation of current regulatory requirements, constructive obligations and are measured at fair value. Fair value is determined based on the net present value of estimated future cash expenditures for the settlement of decommissioning, restoration or similar liabilities that may occur upon decommissioning of the mine. Such estimates are subject to change based on changes in laws and regulations and negotiations with regulatory authorities.

Financial Instruments and Other Instruments
The Company’s financial instruments consist of cash and cash equivalents, accounts and other receivables, loan receivable, accounts payable and accrued liabilities, lease liability and long-term debt. Unless otherwise noted, the Company does not expect to be exposed to significant interest, currency or credit risks arising from these financial instruments. The Company estimates that the fair value of these financial instruments approximates carrying values.

Financial instruments as at March 31, 2022 included cash and cash equivalents, accounts and other receivables and loan receivable which are classified as loans and receivables and are measured at amortized cost. Accounts payable and accrued liabilities, lease liability and long-term debt are classified as other financial liabilities, which are measured at amortized cost. As at March 31, 2022, the carrying and fair value amounts of the Company's financial instruments are approximately the same.

As at March 31, 2022, the Company does not have any financial instruments recorded at fair value and that require classification within the fair value hierarchy.

Fair value estimates are made at the balance sheet date based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties in significant matters of judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect these estimates.

**Disclosure of Outstanding Share Data**

The Company is authorized to issue an unlimited number of shares, of which 99,248,058 (2021 – 86,199,849) shares were issued and outstanding as fully paid and non-assessable as at March 31, 2022.

Refer to Note 12(c) of the audited consolidated financial statements for details regarding stock options issued and exercisable as at March 31, 2022.

As at June 29, 2022, the Company had 99,363,058 common shares issued and outstanding as fully paid and non-assessable. The Company also had 8,577,334 stock options outstanding as at June 29, 2022.

**Risks and Uncertainties**

The operations of the Company are speculative due to the high-risk nature of its business, which includes the development of certain intellectual property and the manufacturing of graphene related products, and which may include the future acquisition, and financing. These risk factors could materially affect the Company’s future operating results and could cause actual events to differ materially from those described in forward-looking information relating to the Company. Accordingly, any investment in securities of the Company is speculative and investors should not invest in securities of the Company unless they can afford to lose their entire investment.

The Company assesses and attempts to minimize the effects of these risks through careful management and planning of its operations and hiring qualified personnel, but is subject to a number of limitations in managing risk resulting from its early stage of development. Below is a non-exhaustive summary of the principal risks and related uncertainties that may impact the Company. Such risk factors, as well as additional risks and uncertainties set out elsewhere in the Company’s publicly filed documents or that may not presently be known to the Company or that the Company currently deems immaterial, could have a material adverse effect on the Company’s business, financial condition and results of operations or the trading price of the common shares of the Company.

As at March 31, 2022, there was an increase in credit risk as a result of trade receivables now being generated through sales and the loan receivable.
Negative Operating Cash Flow

During the financial year ended March 31, 2022, 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 allocate funds 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 and Political Conditions

Worldwide financial and economic cycles or conditions are uncertain, and recovery from a business downturn or recession could be very slow and have significant impact on the Company’s business. The Company’s
business is sensitive to changes in economic and political conditions, including interest rates, currency issues, energy prices, trade issues, international or domestic conflicts or political crises, and epidemics or pandemics, such as the strain of COVID-19.

As at the date hereof, the global reactions to the spread of COVID-19 have led to, among other things, significant restrictions on travel and gatherings of individuals, quarantines, temporary business closures and a general reduction in consumer activity. While these effects are expected to be temporary, the duration of the disruptions to business internationally and the related financial impact cannot be estimated with any degree of certainty at this time. In addition, the increasing number of individuals infected with COVID-19 could result in an even greater global health crisis that could adversely affect global economies and financial markets, resulting in a protracted economic downturn that could have an adverse effect on the Company's prospects.

The responses of governmental authorities and corporate entities, including through mandated or voluntary shutdowns, may also lead to a general long-term slow-down in the economy and may lead to disruptions to the Company’s workforce and facilities, customers, sales and operations and supply chain.

Measures taken by the governments worldwide and voluntary measures undertaken by the Company with a view to the safety of the Company’s employees, may adversely impact the Company’s business.

In particular, as a result of the foregoing, COVID-19 could materially and adversely impact the Company's business, including without limitation, employee health, workforce availability and productivity, limitations on travel, supply chain disruptions, increased insurance premiums, and restrictions to the Company's ability to conduct its business. Also, the Company’s revenues and cash resources may be negatively affected, it may need to assist potential customers with obtaining financing or government incentives to help customers fund their purchases of the Company’s products and demand for the Company’s products may decrease as partners and potential customers defer their projects. Any such disruptions or closures could have a material adverse effect on the Company's business. In addition, parties with whom the Company does business or on whom the Company is reliant may also be adversely impacted by the COVID-19 pandemic which may in turn cause further disruption to the Company's business. Any long-term closures or suspensions may also result in the loss of personnel or the workforce in general as employees seek employment elsewhere.

The impact of COVID-19 and government responses thereto may also continue to have a material impact on financial results and could constrain the Company's ability to obtain equity or debt financing in the future, which may have a material adverse effect on the Company's business, financial condition and results of operations.

The Company is actively monitoring the situation and will respond as the impact of the COVID-19 pandemic evolves, which will depend on several factors set out above. The extent to which the pandemic will impact the Company's operations in the future is highly uncertain and cannot be predicted with confidence as at the date hereof, but could have a material adverse effect on the Company’s business, financial condition and results of operations. These uncertainties include, but are not limited to, the duration of the outbreak, the ability of governments in countries in which the Company conducts business to curtail the spreading of the virus, the economic recovery as well as community and social stabilities. Any of these uncertainties, and others, could have further material adverse effects on the Company's business and operations.

Revenue from Graphene related product Sales; Long and Complex Sales Cycle

To date, the Company has recorded minimal revenue from its graphene enhanced products sales. There can be no assurance that significant losses will not occur in the near future or that the Company will be profitable in the future. The Company’s operating expenses and capital expenditures may increase in subsequent years. The Company expects to continue to incur losses unless and until such time as it enters into long term and large volume supply agreements and generates sufficient revenues to fund its continuing operations.
Intellectual Property

The Company relies on the patent, trade secret and other intellectual property laws of Canada, and foreign jurisdictions. The Company may be unable to prevent third parties from using its intellectual property without its authorization. The unauthorized use of the Company’s intellectual property could reduce any competitive advantage that it has developed, reduce its market share or otherwise harm its business. In the event of unauthorized use of the Company’s intellectual property, litigation to protect and enforce the Company’s rights could be costly, and the Company may not prevail.

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.

In addition, effective patent, trade secret and other intellectual property protection may be unavailable or limited in some foreign countries. In some countries, the Company may not apply for patent or other intellectual property protection. The Company also relies on unpatented technological innovation and other trade secrets to develop and maintain its competitive position. Although the Company generally enters into confidentiality agreements with its employees and third parties to protect its intellectual property, these confidentiality agreements are limited in duration, could be breached and may not provide meaningful protection of its trade secrets. Adequate remedies may not be available if there is an unauthorized use or disclosure of the Company’s trade secrets and manufacturing expertise. In addition, others may obtain knowledge about the Company’s trade secrets through independent development or by legal means. The failure to protect the Company’s processes, technology, trade secrets and proprietary manufacturing expertise, methods and compounds could have a material adverse effect on its business by jeopardizing critical intellectual property.

Where a product formulation or process is kept as a trade secret, third parties may independently develop or invent and patent products or processes identical to such trade secret products or processes. This could have a material adverse effect on the Company’s ability to make and sell products or use such processes and could potentially result in costly litigation in which the Company might not prevail. The Company could face intellectual property infringement claims that could result in significant legal costs and damages and impede its ability to produce key products, which could have a material adverse effect on its business, financial condition, and results of operations.

Product Development and Technological Change

There is no assurance that broad successful commercial applications for the Company’s products may be feasible. Most, if not all, of the scientific and engineering data related to the Company’s products has been generated by the Company’s own laboratories or laboratory environments of the Company’s partners, such as universities. There can be no assurance that laboratory data translates to or is representative in commercial applications.

Additionally, the industries in which the Company seeks to operate are characterized by rapid technological change and frequent new product introductions. Part of the Company’s business strategy is to monitor such change and take steps to remain technologically current, but there is no assurance that such strategy will be successful. If the Company is not able to adapt to new advances in materials sciences, or if unforeseen technologies or materials emerge that are not compatible with the Company’s or that could replace its products, the Company’s revenues and business would likely be adversely affected.
Market Development and Growth

Failure to further develop the Company’s key markets and existing geographic markets or to successfully expand its business in the future into new markets could have an adverse impact on sales growth and operating results. The Company’s ability to further penetrate its key markets and the existing geographic markets in which it competes and/or aims to compete, and to successfully expand its business into other countries, is subject to numerous factors, many of which are beyond its control. There can be no assurance that efforts to increase market penetration in the Company’s key markets and existing geographic markets will be successful. Failure to achieve these goals may have a material adverse effect on the Company’s operating results.

Unpredictable Sales Cycles

The sales cycle for graphene products may range considerably from one to multiple years from the time a customer begins testing the Company’s product until the time that they could be used in a commercial product. Timing of product introduction could vary significantly based on the target market. Additionally, any demand for the Company’s products based in whole or in part on the current coronavirus (COVID-19) pandemic could materially change in the event the pandemic ends or decreases in severity. The Company has demonstrated little track record of success in completing customer development projects, which makes it difficult to evaluate the likelihood of future success. The sales and development cycles for the Company’s products are subject to customer budgetary constraints, internal acceptance procedures, competitive product assessments, scientific and development resource allocations, and other factors beyond the Company’s control. If the Company is not able to successfully accommodate these factors to achieve commercial success, the Company may be unable to achieve sufficient sales to reach profitability.

Government Regulation and Import/Export Controls

The Company's future operations, including development, and commencement and continuation of commercial production, require licenses, permits or other approvals from various federal, provincial, local and potentially foreign governmental authorities, and such operations are or will be governed by laws and regulations relating to production, exports, taxes, labor standards, occupational health and safety, waste disposal, toxic substances, prospecting, development, mining, land use, water use, environmental protection, land claims of indigenous people and other matters. Furthermore, in certain foreign jurisdictions, these regulatory requirements may be more stringent than those in Canada. Certain export control laws or economic sanctions laws may include restrictions or prohibitions on the sale or supply of certain products and services to embargoed or sanctioned countries, governments, persons and entities. In addition, various countries regulate the import of certain technology, including import and export permitting and licensing requirements, and have enacted or could enact laws that could limit the Company’s ability to distribute its products. Changes in the Company’s products, or future changes in export and import regulations may prevent any potential international customers from utilizing the Company’s products globally or, in some cases, prevent the export or import of the Company’s products to certain countries, governments, or persons altogether.

Any change in export or import regulations, economic sanctions, or related legislation, or change in the countries, governments, persons, or technologies targeted by such regulations, could result in decreased use of the Company’s products in the future by, or in the Company’s decreased ability to export or sell its products to, potential international customers. Any limitation on the Company’s ability to export or sell its products would likely adversely affect the Company’s future business, results of operations, and financial results.

Large volume production of graphene requires permits and approvals from various government authorities, and is subject to extensive federal, provincial, state, and local laws and regulations governing development, production, exports, taxes, labour standards, occupational health and safety, environment and other matters. As graphene is a new chemical substance, production and sale of graphene may be subject to specific occupational health and safety and environment regulatory approvals in different jurisdictions including, without limitations,
under the *Canadian Environmental Protection Act* (Canada), the *Food and Drug Act* (Canada), the *Toxic Substances Control Act* (USA), the *Food Drug and Cosmetic Act* (USA) and the *Registration, Evaluation, Authorization and Restriction of Chemicals* (Europe).

Health Canada also regulates certain markets into which the Company intends to supply products or license its intellectual property. There is no assurance that Health Canada or any other body will grant license for sales into markets it regulates. Each foreign jurisdiction for the Company’s products is regulated and no assurance exists that sales of graphene related products will be permitted. Any inability by the Company to obtain approval from Health Canada and/or international bodies could have a material adverse impact of the business of the Company.

The Company is also subject to consumer protection laws that may impact its sales and marketing efforts. These laws, as well as any changes in these laws, could make it more difficult for the Company to sell and market its products. These laws and regulations are subject to change over time and thus the Company must continue to monitor and dedicate resources to ensure continued compliance. Non-compliance with applicable regulations or requirements could subject the Company to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties, or injunctions. If any governmental sanctions are imposed, or if the Company does not prevail in any possible civil or criminal litigation, its business, operating results, and financial condition could be materially adversely affected.

Additionally, in order for the Company to carry out its activities, any required licences and permits must be obtained and kept current. There can be no assurance, however, that the Company will obtain on reasonable terms or at all the permits and approvals, and the renewals thereof, which it may require for the conduct of its future operations or that compliance with applicable laws, regulations, permits and approvals will not have an adverse effect on the Company’s business plans. Possible future environmental and mineral tax legislation, regulations and actions could cause additional expense, capital expenditures, restrictions and delay on the Company’s planned exploration and operations, the extent of which cannot be predicted.

Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions. Parties engaged in mining operations may be required to compensate those suffering loss or damage by reason of the mining activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations.

Industry Competition

The Company seeks to compete with other graphene and manufacturing companies, in highly competitive markets. Some of the Company’s competitors have substantially greater financial, marketing and other resources and higher market share that the Company has in certain products or geographic areas. As the markets for the Company’s products expand, additional competition may emerge, and competitors may commit more resources to products which directly compete with the Company’s products. There can be no assurance that the Company will be able to compete successfully with existing competitors or be able to develop any market for its products, or that its business will not be adversely affected by increased competition or by new competitors.

There is no assurance that the Company will continue to be able to compete successfully with its competitors in acquiring such properties or prospects and any such inability could have a material adverse effect on the Company's business and financial condition.

Lack of Trading Market for Graphene

Unlike commodity minerals such as copper, gold or silver, industrial minerals such as graphene precursor graphene materials and graphite do not have a metals exchange or an open market upon which to trade and
therefore prices are not set in an open market or publicly traded market, and there can be no assurance that certain items can be sold or purchased at any time. As prices are set with private suppliers and private customers, it is difficult to predict what market prices may be at the time of any transaction. There can be no guarantees that the Company will be able to sell its graphene products in a profitable manner, or at all.

**Shortages**

The Company will be dependent on various supplies, equipment, parts and labour, and the services of contractors to carry out its business objectives. The availability and cost of such supplies, equipment, parts or labour or the services of contractors could have a material adverse effect on the Company’s ability to successfully carry out its exploration and development activities.

**Liquidity Concerns and Future Financing**

The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due. As of March 31, 2022, the Company had a cash balance of $26,675,000 (2021 - $3,091,549) to settle current liabilities of $2,825,869 (2021 - $2,506,167). The Company is ultimately dependent on the commercial sales of its products. Any delay in the sales of such products could require additional financing. There can be no assurance that the Company will be successful in obtaining the required financing as and when needed. Volatile markets may make it difficult or impossible for the Company to obtain debt financing or equity financing on favorable terms, if at all. Failure to obtain additional financing on a timely basis may cause the Company to postpone or slow down its development plans or reduce or terminate some or all of its activities.

**Reliance on Key Personnel**

The Company’s development to date has depended, and in the future, will depend largely on the efforts of key management and other key personnel. Loss of any of these people, particularly to competitors, could have a material adverse effect on the Company’s business. Further, with respect to the future development of the Company’s projects, it may become necessary to attract both international and local personnel for such development. The marketplace for key skilled personnel is becoming more competitive, which means the cost of hiring, training, and retaining such personnel may increase. Factors outside the Company’s control, including competition for human capital and the high-level of technical expertise and experience required to execute this development will affect the Company’s ability to employ the specific personnel required. The failure to retain or attract a sufficient number of key skilled personnel could have a material adverse effect on the Company’s business, results of operations, and financial condition. The Company has not taken out and does not intend to take out “key man insurance” in respect of any directors, officer or other employees.

**Qualified Employees**

Recruiting and retaining qualified personnel is critical to the Company’s success. Especially if it relates to its graphene operations, finding skilled scientists and a sales team familiar with the subject matter is difficult. As the Company grows further, the need for skilled labour will increase. The number of persons skilled in the high-tech manufacturing business is limited and competition for this workforce is intense. This may adversely affect the business of the Company if it is unable to recruit and retain qualified personnel as and when required.

**Cybersecurity Threats**

The reliability and security of the Company’s information technology (“IT”) systems is important to the Company’s business and operations. Although the Company has established and continues to enhance security controls intended to protect the Company’s IT systems and infrastructure, there is no guarantee that such security measures will be effective in preventing unauthorized physical access or cyberattacks. A significant breach of the Company’s IT systems could, among other things, cause disruptions in the Company’s manufacturing activities.
operations (such as operational delays from production downtime, inability to manage the supply chain or produce product for customers, disruptions in inventory management), lead to the loss, destruction, corruption or inappropriate use of sensitive data, including employee information or intellectual property, result in lost revenues due to theft of funds or due to a disruption of activities, including remediation costs, or from litigation, fines and liability or higher insurance premiums, the costs of maintaining security and effective IT systems, which could negatively affect results of operations and the potential adverse impact of changing laws and regulations related to cybersecurity or result in theft of the Company’s, its customers’ or suppliers’ intellectual property or confidential information. If any of the foregoing events (or other events related to cybersecurity) occurs, the Company may be subject to a number of consequences, including reputational damage, a diminished competitive advantage and negative impacts on future opportunities which could have a material adverse effect on the Company.

Share Price Fluctuations

The market price of securities of many companies, particularly development stage companies, experience wide fluctuations in price that are not necessarily related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that fluctuations in the Company’s share price will not occur. In particular, the fluctuations may be exaggerated if the trading volume of the Company’s common shares is low.

Cost Absorption and Purchase Orders

Especially as it relates to its activities in the transportation industry, and given the current trends in that industry, the Company is under continuing pressure to absorb costs related to product design and development, engineering, program management, prototypes and validation. In particular, OEMs are requesting that suppliers pay for the above costs and recover these costs through the piece price of the applicable component. Contract volumes for customer programs not yet in production are based on the Company’s customers’ estimates of their own future production levels. However, actual production volumes may vary significantly from these estimates due to a reduction in consumer demand or new product launch delays, often without any compensation to the supplier by its OEM customer. Typical purchase orders issued by customers do not require that they purchase a minimum number of the Company’s products. For programs currently under production, the Company is generally unable to request price changes when volumes differ significantly from production estimates used during the quotation stage. If estimated production volumes are not achieved, the product development, design, engineering, prototype and validation costs incurred by the Company may not be fully recovered. Similarly, future pricing pressure or volume reductions by the Company’s customers may also reduce the amount of amortized costs otherwise recoverable in the piece price of the Company’s products. Either of these factors could have an adverse effect on the Company’s profitability. While it is generally the case that once the Company receives a purchase order for products of a particular vehicle program it would continue to supply those products until the end of such program, customers could cease to source their production requirements from the Company for a variety of reasons, including the Company’s refusal to accept demands for price reductions or other concessions.

Acquisitions

The Company could seek to acquire complementary businesses, assets, technologies, services or products, at competitive prices. The Company could pursue acquisitions in those product areas which were identified as key to the Company’s long-term business strategy. However, as a result of intense competition in these strategic areas, the Company may not be able to acquire the targets needed to achieve its strategic objectives. The completion of such transactions poses additional risks to the Company’s business. Acquisitions are subject to a range of inherent risks, including the assumption of incremental regulatory/compliance, pricing, supply chain, commodities, labor relations, litigation, environmental, pensions, warranty, recall, IT, tax or other risks. Although the Company seeks to conduct appropriate levels of due diligence on acquisition targets, these efforts
may not always prove to be sufficient in identifying all risks and liabilities related to the acquisition, including as a result of: limited access to information; time constraints for conducting due diligence; inability to access target company facilities and/or personnel; or other limitations in the due diligence process. Additionally, the Company may identify risks and liabilities that cannot be sufficiently mitigated through appropriate contractual or other protections. The realization of any such risks could have a material adverse effect on the Company’s operations or profitability. The benefit to the Company of previous and future acquisitions is highly dependent on the Company’s ability to integrate the acquired businesses and their technologies, employees and products into the Company, and the Company may incur costs associated with integrating and rationalizing the facilities (some of which may need to be closed in the future). The Company cannot be certain that it will successfully integrate acquired businesses or that acquisitions will ultimately benefit the Company. Any failure to successfully integrate businesses or failure of the businesses to benefit the Company could have a material adverse effect on its business and results of operations. Such transactions may also result in additional dilution to the Company’s shareholders or increased debt. Such transactions may involve partners, and the formula for determining contractual sale provisions may be subject to a variety of factors that may not be easily quantified or estimated until the time of sale (such as market conditions and determining fair market value).

Launch and Operational Costs

The launch of new business, in an existing or new facility, is a complex process, the success of which depends on a wide range of factors, including the production readiness of the Company and its suppliers, as well as factors related to tooling, equipment, employees, initial product quality and other factors. A failure to successfully launch material new or takeover business could have an adverse effect on profitability. The Company’s manufacturing processes are vulnerable to operational problems that can impair its ability to manufacture its products in a timely manner, or which may not be performing at expected levels of profitability. The Company's facilities and proposed facilities contain complex and sophisticated equipment that is used in its manufacturing processes. The Company could experience equipment failure in the future due to wear and tear, design error or operator error, among other things, which could have an adverse effect on profitability. From time to time, the Company may have some operating divisions which are not performing at expected levels of profitability. Significant underperformance of one or more operating divisions could have a material adverse effect on the Company’s profitability and operations.

Material and Commodity Prices

Prices for key raw materials and commodities used in the production of graphene-based products, as well as energy prices, have proven to be volatile at certain times. To the extent that the Company is unable to fully mitigate its exposure to price change of key raw materials and commodities, particularly through engineering products with reduced content, by passing price increases to customers, or otherwise, such additional costs could have a material adverse effect on profitability. Increased energy prices could also have an impact on production or transportation costs which in turn could affect competitiveness.

Uninsured Risks

The Company maintains insurance to cover normal business risks. In the course of its manufacturing businesses, certain risks and, in particular, unexpected or unusual catastrophic events including explosions and fire may occur. It is not always possible to fully insure against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the common shares of the Company.

Litigation

The Company has entered into legally binding agreements with various third parties, including supply, license, distribution, non-disclosure, consulting and partnership agreements. The interpretation of the rights and
obligations that arise from such agreements is open to interpretation and the Company may disagree with the position taken by the various other parties resulting in a dispute that could potentially initiate litigation and cause the Company to incur legal costs in the future. Given the speculative and unpredictable nature of litigation, the outcome of any such disputes could have a material adverse effect on the Company’s business.

Credit risk

As at March 31, 2022, the Company's credit risk was primarily attributable to cash, accounts and other receivables and loan receivable. The Company issued a loan receivable during the year further increasing its exposure to credit risk. Financial instruments included in accounts and other receivables consisted of trade receivables generated through sales as well as recoverable Harmonized Sale Tax. The Company’s cash is held with reputable financial institutions. Management believes that the credit risk with respect to financial instruments included in accounts and other receivables is remote.

Interest rate risk

The Company has cash balances at federally regulated Canadian banks. The Company periodically monitors the investments it makes, the security of such investments and is satisfied with the credit ratings of its banks. The Company closely monitors interest rates to determine the appropriate course of action to be taken by the Company.

Price risk

The Company is exposed to price risk with respect to commodity prices. The Company closely monitors commodity prices to determine the appropriate course of action to be taken by the Company.

Financial Capability and Additional Financing

The Company has limited financial resources and there is no assurance that sufficient additional funding will be available to enable it to fulfill its business objectives or obligations, on acceptable terms or at all. Unanticipated expenses and other developments could cause existing funds to be depleted sooner than expected. In the event that its existing cash resources are inadequate to fund operational expenses, and in order to fund the planned business objectives of the Company, the Company will be required to raise additional financing from external sources, such as debt financing, equity financing or joint ventures. The Company's ability to raise additional equity financing may be affected by numerous factors beyond the Company's control, including, but not limited to, adverse market conditions, commodity price changes and an economic downturn. Failure to obtain additional funding on a timely basis could result in delay or indefinite postponement of the development of the Company’s business and could cause the Company to reduce or terminate its operations. Additional funds raised by the Company from treasury share issuances may result in significant dilution to existing shareholders, a depressive effect on the price of the common shares and/or a change of control.

Permits and Government Regulation

Although the Company believes it has all of the necessary permits to carry out the proposed business programs, the operations of the Company may require licenses and permits from time to time from various governmental authorities to carry out exploration and development at its projects or locations. Obtaining permits can be a complex, time-consuming process. There can be no assurance that the Company will be able to obtain the necessary licenses and permits on acceptable terms, in a timely manner or at all. The costs and delays associated with obtaining permits and complying with these permits and applicable laws and regulations could stop or materially delay or restrict the Company from continuing or proceeding with existing or future operations or projects. Any failure to comply with permits and applicable laws and regulations, even if inadvertent, could result in the interruption or closure of operations or material fines, penalties or other
liabilities. In addition, the requirements applicable to sustain existing permits and licenses may change or become more stringent over time and there is no assurance that the Company will have the resources or expertise to meet its obligations under such licenses and permits.

Fluctuating Prices

The profitability of the Company’s operations will be dependent upon the market price of the ZenGUARD™ masks and other products, their global acceptance and demand along with their regulatory approvals in other jurisdictions. The level of interest rates, rate of inflation, production costs, healthcare and consumer demand, and stability of exchange rates can all cause significant fluctuations in revenue. Such external economic factors are in turn influenced by changes in international purchasing patterns, COVID-19 pandemic situation, monetary systems and political developments.

Environmental Regulation

The Company’s Albany Graphite Project is subject to environmental laws and regulations which may materially and adversely affect its future operations. These laws and regulations control the exploration and development of the Albany Graphite Project and their effects on the environment, including air and water quality, waste handling and disposal, the protection of different species of plant and animal life, and the preservation of lands. These laws and regulations will require the Company to acquire permits and other authorizations for certain activities. There can be no assurance that the Company will be able to acquire such necessary permits or authorizations on a timely basis, if at all.

Further, environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Company’s operations.

The Company is not currently insured against most environmental risks. Without such insurance, and if the Company becomes subject to environmental liabilities, the payment of such liabilities would reduce or eliminate its available funds or could exceed the funds the Company has to pay such liabilities and result in bankruptcy.

Economic Dependence on Supply Agreements

Currently, the Company has entered into a limited number of supply or sales agreements for the sale of its products. Until additional supply agreements are executed by the Company, the Company’s revenues will be completely dependent on such agreements. If such agreements are terminated, or if less of the Company’s product than anticipated is purchased pursuant to such agreements, this could have a material adverse impact on the Company’s business, operations and results.

Proposed Transactions

As is typical of rapidly growing companies, the Company is continually reviewing partnerships, potential merger, acquisition, investment and joint venture transactions and opportunities that could enhance shareholder value. At present, there are no proposed asset or business acquisition or disposition transactions being contemplated by management or the board that would affect the financial condition, financial performance and cash flows of the Company.

Employment Agreements

The Company has an employment agreement with its Chief Executive Officer. During the year ended March 31, 2022, the salary level for the individual pursuant to the employment agreement was $200,000 annually.
The Company has an employment agreement with its Executive Chairman. During the year ended March 31, 2022, the salary level for the individual pursuant to the employment agreement was $200,000 annually.

The Company has an employment agreement with its Chief Financial Officer. During the year ended March 31, 2022, the salary level for the individual pursuant to the employment agreement is $120,000 annually.

Contingent Liabilities

In September 2018, the Company received a statement of claim from a former employee. The Company is in the process of defending the claim but views the claim as unmeritorious. On March 24, 2020, the Company commenced an action claim against the former employee for relief relating to contracts and transactions between that employee and the Company, seeking to set aside those agreements and, where applicable, seeking disgorgement of unspecified amounts relating to benefits obtained under those agreements.

Significant Accounting Policies

A detailed summary of all of the Company’s significant accounting policies is included in Note 2 to the March 31, 2022 audited annual consolidated financial statements.

Internal Controls over Financial Reporting

Management is responsible for the design of internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the consolidated financial statements in accordance with accounting principles generally accepted in Canada. Based on regular reviews of its internal control procedures during and at the end of the period covered by this MD&A, management has determined that its internal controls and procedures are not effective in providing reasonable assurance that financial information is recorded, processed, summarized and reported in a timely manner due to the identification of material weaknesses in internal control.

Material weakness

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual financial statements will not be prevented or detected on a timely basis. The material weaknesses that we identified in our internal controls over financial reporting as of March 31, 2022, were as follows:

*Absence of effective activity-level controls over the purchase, ownership, shipment and recording of inventory.*

Successful remediation will require the implementation of controls over the movement of purchased, held and sold inventory and the acquisition and adoption of an appropriate inventory software solution including training of production and accounting staff.

*Lack of controls over the accurate recording of period revenue in accordance with International Financial Reporting Standards based on the underlying shipment terms and/or recognition criteria inherent in the contractual arrangements.*

We have developed and commenced implementation of a remediation plan to address this weakness by strengthening our revenue recognition and financial reporting controls by adding new and additional
resources with adequate technical knowledge and training, including the hiring of a new Chief Financial Officer in May 2022.

Changes to Internal Control over Financial Reporting

There have been no significant changes to the Company’s internal controls over financial reporting that occurred during the year ended March 31, 2022 that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

Disclosure Controls

Management is also responsible for the design and effectiveness of disclosure controls and procedures to provide reasonable assurance that material information related to the Company is made known to the Company’s certifying officers. The Company’s Chief Executive Officer and Chief Financial Officer have each evaluated the effectiveness of the Company’s disclosure controls and procedures as of March 31, 2022 and have concluded that these controls and procedures are effective in providing reasonable assurance that material information relating to the Company is made known to them by others within the Company.