NANO ONE MATERIALS CORP.

MANAGEMENT DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED DECEMBER 31, 2018

MANAGEMENT DISCUSSION AND ANALYSIS

This Management Discussion and Analysis ("MD&A") provides a detailed analysis of the business of Nano One Materials Corp. ("Nano One" or the "Company") and compares the Company's 2017 financial results with those of the previous years. This MD&A should be read in conjunction with the Company's audited financial statements and the related notes for the year ended December 31, 2018 which have been prepared under International Financial Reporting Standards ("IFRS").

These and additional documents are for viewing on SEDAR at www.sedar.com. All financial information in this MD&A has been prepared in accordance with IFRS. All dollar amounts included therein and in the following MD&A are in Canadian dollars, the reporting and functional currency of the Company, except where noted. The MD&A contains information up to and including April 17, 2019 (the "Report Date").

FORWARD-LOOKING STATEMENTS

Certain statements contained in this Quarterly Highlights may constitute "forward-looking statements". Such term is defined in applicable securities laws. The forward-looking information includes, without limitation, the success of research and development activities and other similar statements concerning anticipated future events, conditions or results that are not historical facts. These statements reflect management's current estimates, beliefs, intentions and expectations; they are not guarantees of future performance. The Company cautions that all forward-looking information is inherently uncertain and that actual performance may be affected by a number of material factors, many of which are beyond the Company's control. Such factors include, among others, risks relating to research and development; the Company's intellectual property applications being approved, the Company's ability to property its proprietary rights from unauthorized use or disclosure, the ability of the Company to obtain additional financing; the Company's limited operating history; the need to comply with environmental and governmental regulations; fluctuations in currency exchange rates; operating hazards and risks; competition; and other risks and uncertainties. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Accordingly, actual future events, conditions and results may differ materially from the estimates, beliefs, intentions and expectations expressed or implied in the forward-looking information. All statements are made as of the Report Date and, except as required by law, the Company is under no obligation to update or alter any forward-looking information.

OVERVIEW

The Company was incorporated on November 5, 1987. The Company is engaged in developing novel, scalable and low-cost processing technology for the production of high performance nano-structured materials. Nano One's mission is to establish its patent pending technology as a leading platform for the global production of a new generation of nano-structured composite materials. Nano One is building a portfolio of intellectual property and technology "know-how" for applications in markets that include energy storage, specialty ceramics, pharmaceutical, semiconductors, aerospace, dental, catalysts and communications. The technology simplifies the assembly of complex formulations of organic and inorganic ceramic powders and is suited to growth markets where the commercialization of advanced materials is inhibited by costly and entrenched industrial fabrication methods. Nano One's first market is lithium-ion cathode materials in the energy storage sector, where its advantageous technology can bring sustainable differentiation and value in terms of cost reduction and/or performance enhancements to early adopters.

OVERALL PERFORMANCE

The Company has no revenues, so its ability to ensure continuing operations is dependent on its ability to obtain necessary financing to complete the development of novel, scalable and low-cost processing technology for the production of high-performance nano-structured materials.

Nano One's innovative processing technology can be used to produce materials used in a wide range of markets. Nano One's first addressable market is cathode materials for lithium-ion rechargeable batteries for electric vehicles (EV) and energy storage systems (ESS). There is growing demand in the lithium-ion battery market for more cost effective and higher performance energy storage solutions. Nano One is well positioned to address these needs with its patented and patent-pending technology and anticipates growth potential for the technology in many other materials markets beyond energy storage, including dental, catalysts, specialty ceramics, pharmaceutical, semiconductors, agriculture, aerospace and communications.

Nano One has developed a new process of producing high-performance cathode materials, which uses standard equipment and simple methods that are known to scale in a wide range of industrial applications. This new process can produce higher performance composite materials while using lower cost feedstock and simpler processing. Nano One's patented and patent-pending technology is a flexible manufacturing platform that enables lithium carbonate (or hydroxide) to be used as feedstock alongside other raw materials such as nickel, manganese, cobalt, iron, phosphate and aluminum. It is a water-based process operating at mild pH and temperature that forms the energy storing cathode materials used in lithium-ion batteries. The process can be configured to produce a range of different nanostructured materials and has the flexibility to shift with emerging and future battery market trends and a diverse range of other growth opportunities.

The process consists of three stages, and the major innovations lie in the first stage where a special mode of combining reactants controls crystal nucleation and growth of particles. Nucleation is the self-assembly of molecules into an organized structure. The desired nano-scale or superfine structure is formed in the first stage of the production cycle and eliminates many steps common to the incumbent industrial processes.

The underlying structure and morphology of the materials are preserved through a wide range of thermal processing steps, eliminating the need for long and repeated firings and indicative of robust and more durable material. The process produces materials with stable phase composition and high porosity, but which is configurable to meet a variety of energy density requirements.

The presence of nano-structures early in the process and before calcination (i.e. heating to high temperature) simplifies processing and is advantageous for material performance, process throughput, and scale-up. Characterization of the materials by electron microscope and x-ray characterizes the size, the composition and the kind of structure, providing evidence of a robust structure that withstands the rigors of drying and calcination and maintains the integrity of its advantageous structure through thousands of charge cycles.

Typically, synthesis of nanomaterials at the bench scale is performed in small quantities anywhere from milligrams to grams of material. Subsequent scale-up from these small quantities often leads to detrimental changes in thermodynamics (heat, temperature, energy, work) and reaction kinetics (reaction rates and chemical change). Consequently, the Company has designed, constructed and commissioned a bench scale and pilot scale reactors that emulate the thermodynamic and reaction kinetics expected in full-scale production of cathode materials.

On December 18, 2018, the Company announced that it had entered into a Joint Development Agreement with Saint-Gobain, a multi-billion Euro French multinational corporation, founded in 1665 that produce a wide variety of construction and high-performance materials for applications in automotive, aerospace, health and energy. The goal of the collaboration is to enhance high temperature processing of Nano One's lithium ion battery materials. This agreement formalizes innovative efforts that began earlier this year and the two companies will work in collaboration, under the joint development agreement, to enhance the thermal processing and performance of their respective materials. Saint-Gobain will also be joining Nano One as a consortium member with the support of the Government of Canada through SDTC.

Pilot Plant Project

In 2016, Nano One, NORAM Engineering and Constructors Ltd. ("NORAM") and B.C. Research Inc. ("BCRI") entered into a collaboration agreement for the design, construction, and commissioning of a demonstration pilot production plant ("pilot plant"). The goal of the pilot plant is three-folded: (i) to simulate full-scale production of lithium-ion cathode materials, (ii) showcase Nano One's patented technology and (iii) demonstrate the cost, scalability, performance, and novelty of Nano One's technology to strategic industry players. The pilot plant is capable of producing hundreds (100's) of kilograms batches of various lithium mixed metal cathode materials that are strategically critical to batteries for electric vehicles, energy storage System (ESS) for the electrical grid, and consumer electronics. The procurement and construction phase of the pilot project began on June 1, 2016. The construction and commissioning of the pilot plant was completed in June 2017.

A scaled-up production of lithium-ion cathode materials that meet Nano One's processing and battery capacity targets has been demonstrated. Preliminary analysis of the pilot scale process is consistent with the chemistry and operating parameters developed in the laboratory. Evaluations of the pilot produced cathode materials shows crystallinity, elemental composition and battery capacity in line with Nano One's laboratory scale process and materials.

The pilot plant project is being supported by the Government of Canada through grants of up to $2.08M from Sustainable Development Technology Canada ("SDTC") and up to $1.9M from the Automotive Supplier Innovation Program ("ASIP"), a program of Innovation, Science and Economic Development Canada ("ISED").

SDTC funds have been paid in installments over the three (3) phases of the project, namely: "build," "optimization" and "validation" with a 10% holdback awarded upon completion of the project in early-2019. The funds are dispersed at the beginning of each phase, and are subject to Nano One meeting milestones and having matching funds in place. To date, the Company has received three instalments totaling $1,873,167 (2018 – one instalment of $760,145) for three phases of a lithium battery materials pilot plant project. A total of $760,145 was offset R&D expenses for the year ended December 31, 2018.

ASIP funds have also been applied to the three project phases described above with an additional phase 4 involving the validation of materials specific to the electric vehicle market. To date, a total of $1,564,815 has been claimed and received.

During the year ended December 31, 2018, the Company received additional government grants for training and employment totaling $36,376 (2017 - $13,543).

As at July 25, 2018, the Company entered into a contribution agreement with the National Research Council of Canada's Industrial Research Assistance Program ("NRC – IRAP"). NRC - IRAP will support Nano One's project to develop Coatings for High Durability Lithium-ion Battery Cathodes and will contribute up to $349,000 in non-dilutive and non-repayable funds between August 1, 2018 and May 31, 2020. During the year end December 31, 2018, a total of $56,481 has been claimed (received $46,454).

Technology

The electric vehicle industry is being driven partly by demands for longer range vehicles which require higher energy density lithium-ion batteries that are safe, reliable and cost-effective. These factors have increased the demand for cathode materials composed of higher nickel and lower cobalt content.

Nickel-rich cathode materials include nickel cobalt aluminate (NCA) and nickel-manganese cobaltate (NMC-532, 622 and 811). Note: "NMC-XYZ," where X, Y, and Z refers to ratios of nickel, manganese, and cobalt, respectively. These materials are expected to play an increasingly dominant role in the lithium-ion batteries used by major electric vehicle manufacturers.

Current industrial methods require higher cost lithium hydroxide as feedstock for these nickel-rich cathode materials. The flexibility of Nano One's process enables the use of lithium feedstock in the form of either

carbonate or hydroxide for the production of high-performance cathode materials which could reduce constraints on the supply of battery grade lithium by enabling new sources.

During the year ended December 31, 2018, Nano One demonstrated the synthesis of high energy cathode material for electrical vehicles with energy densities on par with industry standards. This demonstration underlines the opportunity of Nano One's technology to enable a wider range of lithium sources for the rapidly growing electric vehicle market and supplements Nano One's other opportunities in the space including improved cathode material durability, power, energy, and processing cost.

The Company successfully piloted NMC622 with 60% nickel content. These pilot tests were conducted at approximately 100 times normal lab scale, and the results provide added confidence that these nickel-rich materials can be manufactured at commercial scale.

The Company also began efforts on NMC811 with 80% nickel content, which provides relatively high energy density and has applications in longer range electric vehicles. However NMC811 has well known instabilities that can lead to costly issues with safety, longevity and handling. The Company is developing an NMC811 material with proprietary coatings and additives to address the inherent shortcomings of NMC811.

The Company has successfully synthesized LNMO (Lithium Nickel Manganese Oxide), also referred to as "High Voltage Spinel", in the pilot plant and has filed a patent application in respect to the process that coats the LMNO with a protective material which improves its stability at higher temperatures. This coating may prove to also improve the interface between LMNO and solid-state electrolytes currently in development by a number of players for the next generation of lithium-ion batteries. This material has been sent to a number of strategic interests for testing and validation.

The Company has also developed a low - cost process for high-performance Lithium Iron Phosphate (LFP). This process uses lower cost sources of lithium, iron and phosphate than incumbent processes and has been successfully piloted. The process also generates LFP that is already carbon coated thereby eliminating additional process steps. Further, the process generates material with small particle size which is desirable and with an initial energy capacity in excess of 160mAhg^{-1} which is as good or better than the highest performing LFP material available.

LFP is the safest and lowest cost cathode material for lithium ion batteries because it is highly durable and does not contain supply constrained cobalt or nickel. Cost reductions could significantly increase the demand for LFP as it becomes a cathode of choice for ESS (energy storage systems), as it replaces lead-acid batteries and as it expands its foothold in the electrification of transportation. The global demand for LFP is projected to grow from 100,000 metric tonnes in 2017 to over 200,000 tonnes in 2025.

The Company continues to develop coating and doping (chemical additives) technologies for NMC and LNMO materials with the objective of improving both the durability and stability of these materials for use in solid state batteries and other advanced lithium ion batteries. The Nano One process is suitable for component gradients within crystals and surface coatings without the need for additional process steps.

The Company has also completed preliminary engineering plans for a modular 3,300 tonnes/year NMC cathode production unit that could supply materials for roughly 24,000 60kWh electric vehicle batteries.
Nano One has a patent portfolio of 19 patent families with nine patents granted worldwide, as of December 31, 2018. In the period following September 30, 2018, the Company was issued a notice of allowance for a US patent application made in 2017. This will be the Company's tenth patent and is directed to improved methods of producing lithium ion cathode materials, but it was not yet granted as of December 31, 2018.

The Proprietary Protection

Nano One believes that monetization of its technology is best pursued by protecting its proprietary position with patents and by pursuing a licensing strategy. This is seen as a capitally efficient means to leverage the supply chain, manufacturing, distribution and legal strengths of multinational materials producers, while allowing Nano One and its collaborators to focus on core strengths in technology development.

As at the Report Date, Nano One has been issued ten patents. Nano One also has related patent applications pending throughout the world. As at the Report date, the following patents have been granted and issued to Nano One:

- U.S. Patent No. 9,136,534 entitled "*Complexometric Precursor Formulation Methodology For Industrial Production Of High Performance Fine And Ultrafine Powders And Nanopowders For Specialized Applications*". This patent is directed to an innovative method for forming powders particularly well suited for use as a lithium ion cathode material in next generation lithium ion batteries.

- U.S. Patent No. 9,159,999 entitled "*Complexometric Precursor Formulation Methodology For Industrial Production Of Fine And Ultrafine Powders And Nanopowders Of Lithium Metal Oxides For Battery Applications*". This patent is specific to the formation of lithium metal oxides using the proprietary methods described in Nano One's U.S. Patent No. 9,136,534.

- Taiwanese Patent No. 201207152 entitled "*Complexometric Precursor Formulation Methodology for Industrial Production of Fine and Ultrafine Powders and Nanopowders of Layered Lithium Mixed Metal Oxides for Battery Applications*". This patent relates to batteries utilizing the proprietary lithium mixed metal oxides discussed in U.S. Patent No. 9,159,999. This battery patent gives Nano One intellectual property protection in a commercially significant application of its proprietary technology.

- U.S. Pat. No. 9,698,419 entitled *"Complexometric Precursor Formulation Methodology for Industrial Production of Fine and Ultrafine Powders and Nanopowders of Layered Lithium Mixed Oxides for Battery Applications"*. This patent expands Nano One's propriety position to include the improvements in battery performance provided by the lithium ion cathode materials produced using Nano One's process.

- Japanese Patent No. JP6271599 entitled "Complexometric Precursor Formulation Methodology for Industrial Production of High Performance Fine and Ultrafine Powders and Nanopowders of Layered Lithium Mixed Oxides for Battery Application". This patent is directed at a lithium ion battery using cathode materials made by Nano Ones' proprietary process.

- Canadian Patent No. 2,906,009 entitled "Complexometric Precursor Formulation Methodology for Industrial Production of High Performance Fine and Ultrafine Powders and Nanopowders for Specialized Applications". This patent is directed at a method for forming a mixed metal powder, particularly for use as a cathode material in next generation lithium ion batteries

- Canadian patent no. 2,905,525 entitled "Reactor vessel for complexecelle formation". This patent describes the various embodiments of the reactor design for the patented Nano One process for making lithium ion cathode materials.

- Korean patent no 10-1854708 entitled "Complexometric precursor formulation methodology for industrial production of high performance fine and ultrafine powders and nanopowders for lithium metal oxides for battery applications". This patent is directed to the innovative method for making powders which is well suited to making lithium ion battery cathode materials for current and next generation cathodes.

- Korean patent no. 10-1839000 entitled "Complexometric precursor formulation methodology for industrial production of high performance fine and ultrafine powders and nanopowders of layered lithium mixed oxides for battery applications". This patent further describes the process for making the nanostructured precursor powder for making next generation lithium ion battery cathode powders.

- China patent no. ZL 2014800279145 entitled "Complexometric precursor formulation methodology for industrial production of high performance fine and ultrafine powders and nanopowders of layered lithium mixed oxides for battery applications". This patent further describes the process for making the nanostructured precursor powder for making next generation lithium ion battery cathode powders.

Nano One has filed a patent relating to its innovative method of synthesizing Lithium Iron Phosphate (LFP) cathode material. The new process uses fewer steps with lower cost raw materials while eliminating waste streams, costly equipment and manufacturing complexities. LFP is considered the safest of all cathode materials in the lithium ion battery space. It is made from abundant sources of iron and phosphate, is cobalt-free, and has excellent cyclability, power and charging characteristics. It has been used extensively in electric vehicle batteries in China and will apply to those battery applications where power, charging and longevity are most critical.

Nano One has filed a patent related to yield improvements in its process for the manufacture of lithium metal oxide cathode materials for use in advanced lithium ion batteries. The process improvements in this patent application have been demonstrated in the lab. Extrapolating the lab results, Nano One anticipates a 100-fold increase in the material throughput of its core technology at the reactor stage of the process. Specifically, the throughput of the existing pilot reactor could be increased from 10 kg/day, as initially conceived, to as high as 1400 kg/day. This yield is in line with current commercial production rates of cathode materials ranging from 1,000 to 10,000 kg/day. The remaining process steps are readily scalable to support the design of a full-scale plant. From industry reports, Nano One estimates that the global addressable market for cathode materials is approximately 500,000 kg/day. The pilot was designed and built to accommodate these concepts and demonstration of the elevated throughputs is expected this year. The technology was developed under the collaboration agreement between Nano One, NORAM and BCRI. Under the agreement, Nano One is assigned right, title and interest in arising intellectual property and accordingly a patent application has been filed with the U.S. Patent Office.

Nano One has filed a patent related to a developed technology that stabilizes lithium metal oxides for use in advanced lithium ion batteries. This innovation alleviates degradation mechanisms that cause energy stored in lithium ion batteries to fade with each charge cycle. The improvements are most dramatic at higher operating temperatures, such as those seen in electric vehicles and could significantly increase the durability and the number of times that a battery can be recharged over its lifetime. The technology applies to lithium mixed metal cathode materials containing manganese and is particularly advantageous with Nano One's HVS.

The intellectual property was developed and is wholly owned by Nano One. Nano One has filed other patent applications and may file additional patents at a later date to further strengthen its intellectual property and technology going forward, although no assurances can be given that it will be successful in such endeavours. Nano One seeks to limit disclosure of its intellectual property by requiring employees, consultants and partners with access to the technology to execute confidentiality agreements and non-competition agreements and by restricting access to PLC's intellectual property and technology.

Despite Nano One's efforts to protect its intellectual property and technology, unauthorized parties may attempt to copy aspects of its technology or to obtain and use information that Nano One regards as proprietary. The laws of many countries do not protect proprietary rights to the same extent as the laws of the United States or Canada. Litigation may be necessary in the future to enforce Nano One's intellectual property rights, to protect Nano One's trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement. Any such litigation could result in substantial costs and diversion or resources and could have a material adverse effect on Nano One's business, operating results and financial condition. There can be no assurance that Nano One's means of protecting its proprietary rights will be adequate or that competitors will not independently develop similar services or products. Any failure by Nano One to adequately protect its intellectual property could have a material adverse effect on its business, operating results and financial condition.

Material Updates After December 31, 2018

The Company was issued US patent number 10,189,719 and Canadian patent number 2,905,984, all directed at improved lithium ion batteries and improved methods of producing lithium ion cathode materials. These patent issuances bring Nano One's total patent count to twelve (12).

On January 21, 2019, Nano One announced that it had entered into a Joint Development Agreement Pulead Technology Industry. Pulead is a highly respected Chinese cathode producer with a track record of partnering with international providers of intellectual property. The two companies aim to improve the cost and performance

of LFP materials and to expand its use in industrial batteries, e-buses, electric vehicles. This agreement formalizes an important strategic relationship between Nano One and Pulead that began in 2018 and marks a key milestone in the execution of Nano One's business plan. This is Nano One's second Joint Development Agreement and the objective is to develop, evaluate and optimize scaled up production of Pulead's lithium iron phosphate (LFP) cathode materials using Nano One's technology, for use in lithium ion batteries. Licensing and commercialization opportunities will also be explored as part of the collaboration.

Management

Nano One has appointed John Lando as Interim Chief Financial Officer effective October 1, 2018 and Stephen Campbell as Chief Technology Officer effective October 9, 2018.

SUMMARY OF ANNUAL AND QUARTERLY RESULTS

The following table sets out selected historical financial information of Nano One. Such information is derived from the audited financial statement of Nano One. The Company's annual financial statements are prepared in accordance with IFRS and are expressed, in Canadian dollars.

	December 31, 2018 $	December 31, 2017 $	December 31, 2016 $
Loss and comprehensive loss	(4,997,715)	(2,699,344)	(2,542,558)
Net loss per share, basic and fully diluted	(0.08)	(0.04)	(0.05)
Total assets	4,287,617	6,329,907	4,147,838
Total liabilities	174,681	136,269	657,726
Shareholders' equity	4,112,936	6,193,638	3,490,112

The following table sets out selected quarterly financial information derived from the Company's unaudited condensed interim financial statements, for each of the eight recently completed quarters, which have been prepared in accordance with IFRS. This requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Period	Interest and other items	General admin	Share-based payment	Loss for the period	Net loss per share, basic and fully diluted
	$	$	$	$	$
December 31, 2018	978	(686,450)	(1,709,438)	(2,396,026)	(0.04)
September 30, 2018	16,956	(665,768)	(230,263)	(879,075)	(0.01)
June 30, 2018	-	(597,944)	(49,601)	(647,595)	(0.01)
March 31, 2018	10,087	(957,552)	(127,554)	(1,075,019)	(0.02)
December 31, 2017	11,040	(499,236)	(72,208)	(560,404)	(0.01)
September 30, 2017	3,647	(700,214)	(70,514)	(767,081)	(0.01)
June 30, 2017	2,064	(638,806)	(60,566)	(697,308)	(0.01)
March 31, 2017	2,790	(612,555)	(64,786)	(674,551)	(0.01)

RESULTS OF OPERATIONS

Year Ended December 31, 2018 Compared To Year Ended December 31, 2017

Loss and comprehensive loss for the year ended December 31, 2018 increased by $2,298,371. The change was primarily due to the following:

- General and administrative costs of $2,907,764 (2017 - $2,450,811) increased as follows:
    - Shareholders' communication and investor relations decreased by $59,687 primarily due to ceased services from Accent Marketing and Anders Nerell and services purchased from Bull Market Media GmbH, Hamutal Ben Bassat, High Performance Communication Inc, Solar Media Connect.
    - Salary and benefits increased by $163,095 due to the hiring of employees.
    - Office and general increased by $21,172 due to an overall increase in activity.
    - Professional fees increased by $58,626 mainly due to patent filing services.
    - Research and development increased by $265,198 primarily due to work performed in connection with the pilot plant.
        - Total government assistance recognized for the year ended December 31, 2018 was $1,427,946 (2017 -$1,066,321). The amount is offset against research and development expense.
        - Consulting costs decreased by $333,011 due to less services procured from Noram Engineering & Constructors Ltd.
        - Depreciation expenses increased by $281,514 due to pilot plant depreciated 12 months (2017 - 10 months).
        - Salary and benefits expenses increased by $187,246 due to the hiring of employees.
- The Company recorded a non-cash share-based payment of $2,116,856 (2017 - $268,074) relating to the fair value of stock options that vested in the current year.

Three Months Ended December 31, 2018 Compared To Three Months Ended December 31, 2017

Loss and comprehensive loss for the period ended December 31, 2018 increased by $2,396,026. The change was primarily due to the following:

- General and administrative costs of $686,450 (2017 - $499,236) increased as follows:
    - Shareholders' communication and investor relations increased by $92,588 primarily due to services purchased from Bull Market Media GmbH, Hamutal Ben Bassat, High Performance Communication Inc, Solar Media Connect, etc.
    - Salary and benefits increased by $44,389 due to the hiring of employees.
    - Professional fees increased by $109,259 mainly due to patent filing services.
    - Research and development decreased by $74,265 primarily due to work performed in connection with the pilot plant.
        - Government grants recognized for the period was $546,843 (2017 - $539,509). The amount is offset against research and development expense.
        - Consulting costs decreased by $72,555 due to less services procured from Noram Engineering & Constructors Ltd.
        - Office and lab expense increased by $24,757 mainly due to purchase and consumption of chemical supplies, consumables and durables.
        - Salary and benefits expenses increased by $24,502 due to the hiring of employees.

- The Company recorded a non-cash share-based payment of $1,709,438 (2017 - $72,208) relating to the fair value of stock options that vested in the current period.

Research and Development Expense For Year Ended December 31, 2018 Compared To Year Ended December 31, 2017:

	Year Ended December 31, 2018 $	Year Ended December 31, 2017 $
Analytical services	13,497	29,993
Consulting	40,325	373,336
Depreciation	992,861	711,348
Government grant recovery	(1,427,946)	(1,606,321)
Lab rent	56,339	63,064
Office and lab expense	286,760	302,187
Salaries and benefits related to R&D	1,095,900	908,654
Travel	17,567	27,845
	1,075,303	810,106

LIQUIDITY

The Company has not yet realized profitable operations and has relied on non-operational sources of financing to fund operations. The ability of the Company to achieve its objectives, meet its ongoing obligations and recover its investments in granted and pending patents, and other assets will depend on management's ability to successfully execute its business plan, achieve profitable operations and obtain additional financing, if or when required. There is no assurance that these initiatives will be successful.

The Company started 2018 with working capital of $4,643,789, and as at December 31, 2018, the Company had working capital of $3,370,452. The decrease in the working capital of $1,273,337 was primarily due to:

- 307,500 warrants with an exercise price of $1.25 were exercised for gross proceeds of $384,375;
- 48,825 finders' warrants with an exercise price of $1.25 were exercised for gross proceeds of $61,032.
- 400,000 stock options with an exercise price of $0.35 were exercised for gross proceeds of $140,000;
- 775,000 stock options with an exercise price of $0.25 were exercised for gross proceeds of $193,750;
- 30,000 stock options with an exercise price of $0.70 were exercised for gross proceeds of $21,000;
- total government assistance recognized of $1,427,946;
- purchase of equipment for $205,773;
- recognition of tangible assets for $11,027 and
- general and administrative costs of $2,907,764.

Recent developments in the capital markets have restricted access to debt and equity financing for many companies. As the Company has no significant income, cash balances will continue to decline as the Company utilizes these funds to conduct its operations, unless replenished by capital fundraising.

	December 31, 2018	December 31, 2017
Working capital	$ 3,370,452	$ 4,643,789
Deficit	(17,642,214)	(12,644,499)

Subsequent to December 31, 2018, the Company issued 75,000 common shares pursuant to the exercise of stock options for gross proceeds of $35,000; and 148,565 common shares pursuant to the exercise of warrants and finder warrants for gross proceeds of $185,706.

FINANCIAL INSTRUMENTS

The Company is exposed to various financial instrument risks and assesses the impact and likelihood of this exposure. These risks include liquidity, credit, currency, interest rate, and price risks. Where material, these risks are reviewed and monitored by the Board of Directors.

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its obligations associated with its financial liabilities. The Company has historically relied upon equity financings to satisfy its capital requirements and will continue to depend heavily upon equity capital and possible loans to finance its activities. The Company manages liquidity risk through its capital management as outlined above. Accounts payable and accrued liabilities are due within one year.

Credit Risk

Credit risk is the risk of potential loss to the Company if the counterparty to a financial instrument fails to meet its contractual obligations. The Company's credit risk is primarily attributable to its liquid financial assets including cash and cash equivalents, and receivables. The Company limits exposure to credit risk on liquid financial assets through maintaining its cash with high-credit quality financial institutions.

The majority of the Company's cash and cash equivalents is held with major Canadian based financial institutions. The Company considers credit risk with respect to the receivables to be minimal.

Interest Rate Risk

Interest rate risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate due to changes in market interest rates. Current cash is generally not exposed to interest rate risk because of their short-term maturity.

Price Risk

The Company is exposed to price risk with respect to equity prices. Equity price risk is defined as the potential adverse impact on the Company's earnings due to movements in individual equity prices. The Company closely monitors the individual equity movements to determine the appropriate course of action to be taken by the Company.

Based on management's knowledge and experience of the financial markets, management does not believe that the Company's current financial instruments will be affected by interest rate risk, currency risk and credit risk.

Fair Value

The Company classifies its fair value measurements in accordance with the three-level fair value hierarchy as follows:

Level 1 – Unadjusted quoted prices in active markets for identical assets or liabilities;
Level 2 – Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly; and
Level 3 – Inputs that are not based on observable market data.

The carrying values of cash and cash equivalents, receivables, accounts payable and accrued liabilities and accounts payable to related parties approximate their fair values due to the short-term nature of these instruments.

FUTURE PLANS

The Company will continue to develop, optimize and demonstrate the benefits of producing various cathode materials using its processing technology, for use in lithium-ion batteries including the development of lithium iron phosphate (LFP), lithium nickel manganese cobaltate (NMC) and high voltage cobalt free cathode materials (HVS or LMN).

The Company will continue to collaborate with NORAM and BCRI to operate, demonstrate and improve its pilot plant technology. The engineering design and specifications of equipment follow from commercial scale concepts developed by the Company and NORAM. The Company will continue to provide preliminary output and optimization of cathode materials. The Company will also continue the evaluation of other next-generation lithium-ion battery materials as dictated by commercial interests. The Company intends to ramp up the internal testing requirements with test cell assembly and electrochemical characterization.

The Company has collaborated with Simon Fraser University to advance the understanding of the physical and chemical characteristics of lithium-ion batteries as they charge and discharge. The two-year collaboration with SFU will be supervised by Associate Professor Dr. Byron Gates and Dr. Stephen Campbell, The Company's Principal Scientist, with financial support from the Mitacs Elevate Postdoctoral Fellowship Program.

The Company has entered into joint development agreements with Saint-Gobain to develop improved thermal processing and with Pulead Technology to develop a next generation commercial scale LFP production plant. The joint development work will continue with both parties.

As the lithium-ion battery market evolves, the Company believes its key opportunities lie in (i) manufacturing of value-added and differentiable cathode materials, (ii) enabling sources of lithium and other feedstocks that others cannot use, and (iii) customizing materials for solid state, fast charging and next-generation batteries. The Company adjusting financial models and development programs to pursue these opportunities.

The Company intends to leverage progress on these plans and approach other strategic interests and key market pull players to collaborate as partners in the development and commercialization of its technologies.

CAPITAL RESOURCES

The Company has not yet realized profitable operations and it has relied on non-operational sources of financing to fund operations. The ability of the Company to achieve its objectives, meet its ongoing obligations and recover its investments in granted and pending patents, and other assets will depend on management's ability to successfully execute its business plan, achieve profitable operations and obtain additional financing, if or when required. There is no assurance that these initiatives will be successful.

RELATED PARTY DISCLOSURES

Key management personnel is the persons responsible for the planning, directing and controlling the activities of the Company and includes both executive and non-executive directors, and entities controlled by such persons. The Company considers all Directors and Officers of the Company to be key management personnel.

(a) Purchases of services

	December 31, 2018 $	December 31, 2017 $
Center Cut Capital, an entity controlled by John Lando, an executive director who is an officer, for employee benefits	-	11,418
Sterling Pacific Capital, an entity controlled by John Lando, an executive director who is an officer, for miscellaneous operating expenses	4,321	4,575
Patent Filing Specialists Inc., an entity controlled by a Joseph Guy, a director, for legal fees	170,763	13,857
	175,084	29,850

(b) Key management compensation

Key management includes directors (executive and non-executive), the Chief Executive Officer, President and Chief Financial Officer. The compensation paid or payable to key management for employee services is shown below:

	December 31, 2018 $	December 31, 2017 $
Bedrock Capital Corp., an entity controlled by Paul Matysek, an executive director, for consulting fees	60,000	60,000
Salary and benefits to Tammy Gillis, former CFO	53,682	92,512
Salary and benefits to John Lando, President, Interim CFO and Director	78,795	76,953
Salary and benefits to Dan Blondal, CEO and Director	128,795	126,953
Share-based payments	1,585,686	-
	1,906,958	356,418

(c) Payable to related party

As at December 31, 2018, accounts payable to related parties consists of $16,046 (December 31, 2017 - $13,857) owing to Patent Filing Specialists Inc.

OUTSTANDING SHARE DATA

The authorized share capital of the Company consists of unlimited common shares without par value.
As at Report Date, there were 66,379,202 (December 31, 2017 – 64,594,312) common shares outstanding.
As at December 31, 2018, Nil (December 31, 2017 - 996,287) of the Company's issued common shares were held in escrow and restricted from trading.

Changes in issued share capital and equity reserves for the year ended December 31, 2018 were as follows:

1. 775,000 stock options with an exercise price of $0.25 were exercised for gross proceeds of $193,750. Accordingly, $192,273 was transferred from equity reserves to share capital.

2. 30,000 stock options with an exercise price of $0.70 were exercised for gross proceeds of $21,000. Accordingly, $13,244 was transferred from equity reserves to share capital.

3. 400,000 stock options with an exercise price of $0.35 were exercised for gross proceeds of $140,000. Accordingly, $133,758 was transferred from equity reserves to share capital.

4. 307,500 warrants with an exercise price of $1.25 were exercised for gross proceeds of $384,375.

5. 48,825 finder's warrants with an exercise price of $1.25 were exercised for gross proceeds of $61,031. Accordingly, $13,279 was transferred from equity reserve

Changes in issued share capital and equity reserves for the year ended December 31, 2017 were as follows:

1. 595,096 finder's warrants with an exercise price of $0.50 were exercised for gross proceeds of $297,548. Accordingly, $119,788 was transferred from equity reserves to share capital.

2. 295,000 warrants with an exercise price of $0.50 were exercised for gross proceeds of $147,500.

3. 1,609,364 warrants exercised into 804,682 common shares at an exercise price of $0.50 per share were exercised for gross proceeds of $402,341. Accordingly, $360,766 was transferred from equity reserves to share capital.

4. 100,000 stock options with an exercise price of $0.25 were exercised for gross proceeds of $25,000. Accordingly, $29,036 was transferred from equity reserves to share capital.

5. 100,000 stock options with an exercise price of $0.53 were exercised for gross proceeds of $53,000. Accordingly, $32,140 was transferred from equity reserves to share capital.

6. 600,000 stock options with an exercise price of $0.35 were exercised for gross proceeds of $210,000. Accordingly, $200,638 was transferred from equity reserves to share capital.

7. The Company completed a non-brokered private placement of 4,180,000 units of the Company at a price of $1.00 per unit for gross proceeds of $4,180,000. Each unit consists of one share and one-half of a share purchase warrant. Each whole warrant is exercisable until September 8, 2019 to acquire one share at an exercise price of $1.25 per share. The Company paid finders' fee of $145,880 and issued 145,880 finders' warrants with a value of $39,675. Each finders' warrant is exercisable until September 8, 2019 to acquire one share at an exercise price of $1.25 per share.

Events after December 31, 2018:

1. The Company granted 60,000 stock options to a consultant of the Company. The options are exercisable until January 24, 2021 at a price of $1.37 per share and vest over six months.

2. The Company granted 100,000 stock options to a consultant of the Company. The options are exercisable until March 21, 2024 at a price of $1.35 per share and vest over six months.

3. The Company issued 25,000 common shares pursuant to the exercise of stock options at $0.70 per share for gross proceeds of $17,500.

4. The Company issued 50,000 common shares pursuant to the exercise of stock options at $0.35 per share for gross proceeds of $17,500.

5. The Company issued 132,500 common shares pursuant to the exercise of warrants at $1.25 per share for gross proceeds of $165,625.

6. The Company issued 16,065 common shares pursuant to the exercise of finders' warrants at $1.25 per share for gross proceeds of $20,081.

7. On January 13, 2019, 11,750 stock options expired due to an employee's resignation.

As at Report Date, the following stock options were outstanding:

Number of Options	Exercise Price	Expiry Date
2,050,000	$0.25	March 5, 2020
225,000	$0.25	January 19, 2021
60,000	$1.37	January 24, 2021
100,000	$0.38	April 8, 2021
50,000	$0.50	September 13, 2021
92,500	$0.70	March 10, 2022
25,000	$0.74	May 4, 2022
45,000	$0.67	June 5, 2022
150,000	$1.15	August 11, 2022
50,000	$1.08	September 13, 2022
150,000	$1.14	January 3, 2023
100,000	$1.19	January 9, 2023
328,250	$1.57	July 12, 2023
25,000	$1.08	September 10, 2023
2,460,000	$1.28	November 12, 2023
100,000	$1.35	March 21, 2024
6,010,750		

As at Report Date, the following warrants were outstanding:

Number of Warrants	Exercise Price	Expiry Date
1,748,990	$1.25	September 8, 2019

MANAGEMENT OF CAPITAL

The Company's objective when managing capital is to safeguard its ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain optimal capital structure to reduce to the cost of capital. The Company's capital is composed of equity in the statement of financial position.

The Company is not subject to externally imposed capital requirements. In managing capital structure, the company manages its capital through regular reports to the Board of Directors, as well as management review of monthly or quarterly financial information. The Company issues new equity financing as needed and available. Additional information relating to capital management is given in the nature and continuance of operations in note 1 of the financial statements.

RISK AND UNCERTAINTIES

Risk is inherent in all business activities and cannot be entirely eliminated. Our goal is to enable the Company's business processes and opportunities by ensuring that the risks arising from our business activities, the markets and political environments in which we operate is mitigated. The risks and uncertainties described in the Annual MD&A for the year ended December 31, 2018, are considered by management to be the most important in the context of the Company's business and are substantially unchanged as of the Report Date. Those risks and uncertainties are not inclusive of all the risks and uncertainties the Company may be subject to, and other risks may apply.

Intellectual Property Protection

The Company cannot provide any assurance that any intellectual property applications will be approved. Even if they are approved, such patents, trademarks or other intellectual property registrations may be successfully challenged by others or invalidated. The success of the Company and its ability to compete are substantially dependent on its internally developed technologies and processes which the Company will need to protect through a combination of patent, copyright, trade secret and trademark law.

The trademark, copyright and trade secret positions of the Company's business are uncertain and involve complex and evolving legal and factual questions. In addition, there can be no assurance that competitors will not seek to apply for and obtain trademarks and trade names that will prevent, limit or interfere with the Company's processes. Litigation or regulatory proceedings, which could result in substantial cost and uncertainty to the Company, may also be necessary to enforce the intellectual property rights of the Company or to determine the scope and validity of other parties' proprietary rights. There can be no assurance that the Company will have the financial resources to defend its patents, trademarks and copyrights from infringement or claims of invalidity.

The patent positions of emerging companies can be highly uncertain and involve complex legal and factual questions. Thus, there can be no assurance that any patent applications made by or on behalf of the Company will result in the issuance of patents, that the Company will develop additional proprietary products that are patentable, that any patents issued or licensed to the Company will provide the Company with any competitive

advantages or will not be challenged by any third parties, that the patents of others will not impede the ability of the Company to do business or that third parties will not be able to circumvent the patents assigned or licensed to the Company. Furthermore, there can be no assurance that others will not independently develop similar products, duplicate any of the Company's products or, if patents are issued and licensed to the Company, design around the patented product developed for the benefit of the Company.

Since patent applications are maintained in secrecy for a period of time after filing, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, the Company cannot be certain that the inventors of the patents were the first creators of inventions covered by pending applications, or that it was the first to file patent applications for such inventions. There can be no assurance that the Company's patents, if issued, would be valid or enforceable by a court or that a competitor's technology or product would be found to infringe such patents.

The Company is not currently aware of any claims asserted by third parties that the Company's intellectual property infringes on their intellectual property. However, in the future, a third party may assert a claim that the Company infringes on their intellectual property. If the Company is forced to defend against these claims, which may be with or without any merit or whether they are resolved in favour or against the Company, the Company may face costly litigation and diversion of management's attention and resources. As a result of such a dispute, the Company may have to develop costly non-infringement technology or enter into license agreements which may not be available at favourable terms.

Access to Proprietary Information

The Company generally controls access to and distribution of its technologies, documentation and other proprietary information. Despite efforts by the Company to protect its proprietary rights from unauthorized use or disclosure, parties may attempt to disclose, obtain or use its solutions or technologies. There can be no assurance that the steps the Company has taken or will be taking will prevent misappropriation of its solutions or technologies, particularly in foreign countries where laws or law enforcement practices may not protect proprietary rights as fully as in Canada or the United States.

Performance and Scalability

To be successful, Nano One will have to successfully scale its internally developed technology while maintaining high product quality and reliability. If Nano One cannot maintain high product quality on a large scale, the Company will be adversely affected. Nano One may encounter difficulties in scaling up cathode materials that are typically required to prototype full size battery cells. Even if Nano One is successful in developing its technologies, Nano One does not know whether the Company will do so in time to satisfy the requirements of the electric vehicle industry. The current facility is a pilot plant and lab with limited production capacity.

Any interruption in operations at the current facility could result in the inability to successfully execute the business plan. A number of factors could cause interruptions, including, but not limited to, equipment malfunctions or failures, work stoppages or slow-downs, damage to or destruction of the facility or regional power shortages. The success of the Company and its ability to compete are substantially dependent on its internally developed technologies.

Environmental Regulation

The Company's business and operations are subject to environmental regulation in the areas in which it operates. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Company's business and operations.

Additionally, applicable regulations may change, and additional government regulations may be enacted that could impact the Company. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action. If we are not able to maintain regulatory compliance, are slow or unable to adopt new requirements or policies, or effect changes to existing requirements, the Company may be adversely affected.

Commodity Price, Raw Materials

Industrial chemicals used in the Nano One technology are subject to market price fluctuations. Market price fluctuations could have a material adverse effect on Nano One's business plan execution. There can be no assurance that the price of the raw materials will not increase in the future.

Competition

Despite efforts by the Company to protect its proprietary rights on which the Company's business is dependent, competitive products may be developed in the future. Competition could adversely affect the Company's ability to acquire market share.

Early Stage

The Company has no history of profitable operations and its present business is at an early stage. As such, the Company is subject to many risks including under-capitalization, cash shortages, and limitations with respect to personnel, financial and other resources and the lack of revenue. There is no assurance that the Company will be successful in achieving a return on shareholders' investment and the likelihood of success must be considered in light of its early stage of operations.

The Company currently has no source of revenue and expects to obtain financing in the future primarily through further equity and/or debt financing. While it has been successful in obtaining financing in the past, there is no guarantee that the Company will be successful now, or in the future. Failure to raise additional financing on a timely basis could cause the Company to suspend its operations and eventually to forfeit or sell its interest in its assets.

Management of Growth

The Company could experience growth that could put a significant strain on each of the Company's managerial, operational and financial resources. The Company must implement and constantly improve its operational and financial systems and expand, train and manage its employee base to manage growth. In addition, the Company expects that its operational and management systems will face increased strain as a result of the expansion of the Company's technologies. The Company might not be able to effectively manage the expansion of its operations and systems, and its procedures and controls might not be adequate to support its operations. In addition, management might not be able to make and execute decisions rapidly enough to exploit market opportunities for the expansion of the Company's technologies. If the Company is unable to manage its growth effectively, its business, results of operations and financial condition will suffer. Failure to effectively manage growth could also result in difficulty in launching new processing technology or enhancing existing processing technology, declines in quality or end-user satisfaction, increases in costs or other operational difficulties, and any of these difficulties could have a material adverse effect on its business, prospects, financial condition, results of operations and cash flows.

Dependence on Management and Key Personnel

The Company's success depends largely upon the continued services of its executive officers and other key employees. From time to time, there may be changes in the Company's executive management team resulting from the hiring or departure of executives, which could disrupt its business. If the Company is unable to attract and retain top talents, its ability to compete may be harmed. The Company's success is also highly dependent on its continuing ability to identify, hire, train, retain and motivate highly qualified personnel. Competition for highly skilled technical, research and development, management, sales and other employees is high in the

Company's industry, and the Company may not be successful in attracting and retaining such personnel. Failure to attract and retain qualified executive officers and other key employees could have a material adverse effect on its business, prospects, financial condition, results of operations and cash flows.

Economic Conditions

Current and future unfavourable economic conditions could negatively impact the Company's financial viability. Unfavourable economic conditions could also increase the Company's financing costs, decrease net income or increase net loss, limit access to capital markets and negatively impact any of the availability of credit facilities to the Company.

Additional Capital Requirements

The Company has incurred annual losses over a number of years and it plans on continuing to make significant expenditures to support its business growth and may require additional funds to respond to business challenges, including the need to expand sales and marketing activities, develop new processing technologies to enhance its existing technology, enhance its operating infrastructure, and acquire complementary businesses and technologies. Accordingly, the Company may need to engage in equity or debt financings to secure additional funds. If the Company raises additional funds through further issuances of equity or convertible debt securities, the Company's existing shareholders could suffer significant dilution, and any new equity securities the Company issues could have rights, preferences and privileges superior to those of holders of the Company Shares. Any debt financing secured by the Company in the future could involve restrictive covenants relating to its capital raising activities and other financial and operational matters, which might make it more difficult for it to obtain additional capital and to pursue business opportunities.

The Company can provide no assurance that sufficient debt or equity financing will be available on reasonable terms or at all to support its business growth and to respond to business challenges and failure to obtain sufficient debt or equity financing when required could have a material adverse effect on its business, prospects, financial condition, results of operations and cash flows.

The Company expects its cash reserves will be reduced due to future operating losses and working capital requirements, and it cannot provide certainty as to how long the Company's cash reserves will last or that it will be able to access additional capital when necessary.

The Company expects to incur continued losses and generate negative cash flow until it can produce sufficient revenues to cover its costs. The Company may never become profitable. Even if it does achieve profitability, the Company may be unable to sustain or increase its profitability in the future. For the reasons discussed in more detail below, there are substantial uncertainties associated with the Company achieving and sustaining profitability. the Company expects its cash reserves will be reduced due to future operating losses and working capital requirements, and it cannot provide certainty as to how long its cash reserves will last or that it will be able to access additional capital if and when necessary.

The Company may not be able to successfully execute its business plan

The execution of the Company's business plan poses many challenges and is based on a number of assumptions. the Company may not be able to successfully execute its business plan. If the Company experiences significant cost overruns on its programs, or if its business plan is more costly than it anticipates, certain research and development activities may be delayed or eliminated, resulting in changes or delays to its commercialization plans, or the Company may be compelled to secure additional funding (which may or may not be available) to execute its business plan. the Company cannot predict with certainty its future revenues or results from its operations. If the assumptions on which its revenues or expenditures forecasts are based change, the benefits of the Company's business plan may change as well. In addition, the Company may consider expanding its business beyond what is currently contemplated in its business plan. Depending on the financing requirements of a potential acquisition or new product opportunity, the Company may be required to raise additional capital through the issuance of equity or debt. If the Company is unable to raise additional capital on acceptable terms, it may be unable to pursue a potential acquisition or new product opportunity.

Information Technology Interruptions or Breaches

The Company's business operations are managed through a variety of information technology systems. These systems govern all aspects of its operations. While the Company has implemented a number of measures to keep its technology systems fully operational and to mitigate the risks associated with a failure of its systems, the Company's systems are subject to damage or interruption from power outages, computer and telecommunications failures, computer viruses, cyber-attacks, security breaches, catastrophic events such as fires, floods, earthquakes, tornadoes, hurricanes, acts of war or terrorism, and usage errors by its employees. If the Company's information technology systems are damaged or cease to function properly, the Company may have to make a significant investment to fix or replace them and the Company may suffer loss of critical data and interruptions or delays in its operations in the interim. Any material interruption in its information technology systems could have a material adverse effect on the Company's business, prospects, financial condition, results of operations and cash flows.

Conflicts of Interest

Certain of the directors, officers and other members of management of the Company serve (and may in the future serve) as directors, officers and members of management of other companies and therefore, it is possible that a conflict may arise between their duties as a director, officer or member of management of the Company and their duties as a director, officer or member of management of such other companies. The directors and officers of the Company are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosures by directors of conflicts of interest and the Company will rely upon such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of its directors or officers. All such conflicts will be disclosed by such directors or officers in accordance with the BCBCA and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.

CHANGES IN ACCOUNTING POLICIES AND CRICITAL ACCOUNTING ESTIMATES

Critical judgments and sources of estimation uncertainty

The preparation of the financial statements requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statement and reported amounts of expenses during the reporting period. Actual outcomes could differ from these estimates. The financial statements include estimates which, by their nature, are uncertain. The impact of such estimates are pervasive throughout the financial statement, and may require accounting adjustments based on future occurrences. Revisions to accounting estimates are recognized in the period in which the estimate is revised and future periods if the revision affects both current and future periods. These estimates are based on historical experience, current and future economic conditions and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Critical accounting estimates

Significant assumptions about the future and other sources of estimation uncertainty that management has made at the financial position reporting date, that could result in a material adjustment to the carrying amounts of assets and liabilities, in the event that actual results differ from assumptions made, relate to, but are not limited to, the following:

1. the inputs used in the accounting for share-based payments expense in the statements of comprehensive loss; and
2. the inputs used in the accounting for finders' warrants in share capital.

Critical accounting judgments

The following are key assumptions concerning the future and other key sources of estimation uncertainty that have significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

1. going concern of operations;
2. determining whether or not development costs meet the criteria to be capitalized; and
3. determining the provisions for income taxes and the recognition of deferred income taxes.

RECENT ACCOUNTING STANDARDS

The Company has adopted the new and revised IFRS standards described below:

IFRS 9 – Financial Instruments

IFRS 9 replaced IAS 39 - Financial Instruments: Recognition and Measurement. IFRS 9 is effective for periods beginning on or after January 1, 2018. Under IFRS 9, financial assets are classified and measured either at amortized cost, fair value through other comprehensive income ("FVOCI") or fair value through profit and loss ("FVTPL") based on the business model in which they are held and the characteristics of their contractual cash flows.

All financial assets not classified at amortized cost or FVOCI are measured at FVTPL. On initial recognition, the Company can irrevocably designate a financial asset at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated at FVTPL:

i. It is held within a business model whose objective is to hold the financial asset to collect the contractual cash flows associated with the financial asset instead of selling the financial asset for a profit or loss;
ii. Its contractual terms give rise to cash flows that are solely payments of principal and interest.

All financial instruments are initially recognized at fair value on the statement of financial position. Subsequent measurement of financial instruments is based on their classification. Financial assets and liabilities classified at FVTPL are measured at fair value with changes in those fair values recognized in the statement of loss and comprehensive loss for the period. Financial assets classified at amortized cost and financial liabilities are measured at amortized cost using the effective interest method.

The following table summarizes the classification and measurement changes under IFRS 9 for each financial instrument of the Company:

Financial Instrument	Original Classification Under IAS 39	New Classification Under IFRS 9
Cash and cash equivalents	FVTPL	Amortized cost
Receivables	Loans and receivables	Amortized cost
Accounts payable and accrued liabilities	Other financial liabilities	Amortized cost
Accounts payable to related parties	Other financial liabilities	Amortized cost

Due to the nature of its financial instruments, the adoption of IFRS 9 had no impact on the opening deficit balance at January 1, 2018.

IFRS 15 – Revenue from Contracts with Customers

IFRS 15 is a new standard which establishes a new five-step model for revenue arising from contracts with customers. Revenue is recognized as the amount that reflects the consideration to which an entity expects to be entitled to in exchange for transferring goods or services to a customer. IFRS 15 is effective for periods beginning on or after January 1, 2018. The adoption of IFRS 15 had no impact on the Company's financial statements.

The following standard has been issued but is not yet effective:

IFRS 16 is a new standard that sets out the principles for recognition, measurement, presentation, and disclosure of leases including guidance for both parties to a contract, the lessee and the lessor. The new standard eliminates the classification of leases as either operating or finance leases as is required by IAS 17 and instead introduces a single lessee accounting model. The standard is effective for annual periods beginning on or after January 1, 2019.

The Company will apply IFRS 16 on its effective date of January 1, 2019 using the modified retrospective approach. The Company expects that the adoption will result in an increase in right-of-use asset and lease liability by approximately $320,000 and no impact on opening deficit at January 1, 2019.

Subsequent to transition, depreciation expense and finance costs will also increase accordingly, which will reflect the changes to right-of-use asset and lease liability respectively.

INTERNAL CONTROLS OVER FINANCIAL REPORTING

Management has designed internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. The design of the Company's internal control over financial reporting was assessed as of the date of this Management Discussion and Analysis.

Based on this assessment, it was determined that certain weaknesses existed in internal controls over financial reporting. As indicative of many small companies, the lack of segregation of duties and effective risk assessment were identified as areas where weaknesses existed. The existence of these weaknesses is to be compensated for by senior management monitoring, which exists. Management will continue to monitor very closely all financial activities of the Company and increase the level of supervision in key areas. It is important to note that this issue would also require the Company to hire additional staff in order to provide greater segregation of duties. Since there is insufficient work at this time to warrant the additional costs, management has chosen to disclose the potential risk in its filings and proceed with increased staffing only when the budgets and work load will enable the action. The Company has attempted to mitigate these weaknesses, through a combination of extensive and detailed review by management of the financial reports, the integrity and reputation of senior accounting personnel, and candid discussion of those risks with the audit committee.

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS

Information provided in this report, including the financial statements, is the responsibility of management. In the preparation of these statements, estimates are sometimes necessary to make a determination of future value for certain assets or liabilities. Management believes such estimates have been based on careful judgments and have been properly reflected in the accompanying financial statements. Management maintains a system of internal controls to provide reasonable assurances that the Company's assets are safeguarded and to facilitate the preparation of relevant and timely information.

APPROVAL

The Board of Directors of the Company has approved the disclosure contained in this MD&A. A copy of this MD&A will be provided to anyone who requests it.