EXACTEARTH LTD. (the "Company")
MANAGEMENT'S DISCUSSION AND ANALYSIS

*The following management discussion and analysis ("**MD&A**") is prepared as of January 28, 2019 and provides information that management believes is relevant to an assessment and understanding of the Company's operations and financial condition for the year ended October 31, 2019. This MD&A should be read in conjunction with the Company's Consolidated Financial Statements, including the notes thereto, (the **"Consolidated Financial Statements"**), and our audited consolidated financial statements, including the notes thereto, for the year ended October 31, 2018 (the "**Consolidated Financial Statements"**). The Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards ("**IFRS**"). All dollar amounts herein, except per share data, are stated in thousands of Canadian dollars ("**CAD**") unless otherwise indicated. Unless otherwise noted, the information contained herein is dated as of October 31, 2019.*

Additional Information and Risk Factors

Additional information relating to the Company, including risk factors that may adversely affect or prevent the Company from carrying out all or portions of its business strategy are discussed in the Company's Annual Information Form ("**AIF"**) dated January 28, 2020 and other filings available on SEDAR at www.sedar.com.

Caution Regarding Forward-Looking Statements

This MD&A contains forward-looking statements that relate to the Company's current expectations and views of future events. In some cases, these forward-looking statements can be identified by words or phrases such as "may", "will", "expect", "anticipate", "aim", "forecast", "estimate", "intend", "plan", "seek", "believe", "potential", "continue", "is/are likely to" or the negative of these terms, or other similar expressions intended to identify forward-looking statements. The Company has based these forward-looking statements on its current expectations and projections about future events and financial trends that the Company believes may affect its financial condition, results of operations, business strategy and financial needs. These forward-looking statements include, among other things, statements relating to: expectations regarding the Company's revenue, expenses, operations and cash flow; anticipated impact of changes to accounting policies; anticipated industry trends; anticipated new Order Bookings (as defined below); research and development spending levels; selling, general and administrative spending; revenue growth guidance; gross margin trending; anticipated and continued benefits of the Second-Generation Constellation on-board Iridium NEXT; potential impact of the amendments to the Original L3Harris Agreement; expected useful lives of satellite assets and ground stations; the Company's intention to respond to certain procurement proposal requests and the outcome thereof.

Forward-looking statements are based on certain assumptions and analysis made by the Company in light of its experience and perception of historical trends, current conditions and expected future developments and other factors the Company believes are appropriate and are subject to risks and uncertainties. Although the Company believes that the assumptions underlying these statements are reasonable, they may prove to be incorrect. Whether actual results, performance or achievements will conform to the Company's expectations and predictions is subject to a number of known and unknown risks, uncertainties, assumptions and other factors, which are discussed in greater detail in the Company's AIF.

Non-IFRS Measures

In this MD&A, the Company provides information about Order Bookings; Adjusted Earnings Before Interest, Taxes, Depreciation and Amortization ("**Adjusted EBITDA**"); and Subscription Revenue (as defined below). Order Bookings, Adjusted EBITDA, and Subscription Revenue are not defined by IFRS and the Company's measurement of them may vary from that used by others. These non-IFRS measures are not recognized measures under IFRS and do not have a standardized meaning prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other companies. Rather, these measures are provided as additional information to complement the IFRS measures by providing further understanding of the Company's results of operations from management's perspective. Accordingly, they should not be considered in isolation or as a substitute for analysis of the Company's financial information reported under IFRS.

The Company defines "Order Bookings" as the dollar sum of contracts for the supply of products and services to its customers. Order Bookings are indicative of firm future revenue streams; however, they do not provide a guarantee of future net income and provide no information about the timing of future revenue.

The Company measures Adjusted EBITDA as net income plus interest, taxes, depreciation and amortization, unrealized foreign exchange losses, share-based compensation costs, and impairment losses, less unrealized foreign exchange gains, other income and restructuring expense recovery. The Company believes that Adjusted EBITDA provides useful supplemental information as an indication of the income generated by its main business activities before taking into consideration how they are financed or taxed and excluding the impact of items that are considered by management to be outside of the Company's ongoing operating results. Adjusted EBITDA should not be construed as an alternative to net loss determined in accordance with IFRS as an indicator of the Company's performance or to cash flows from operating, investing and financing activities as a measure of liquidity and cash flows.

The Company defines "Subscription Revenue" as the dollar sum of fully executed contracts for its products and/or services to its customers that are subscription-based, typically sold with a one-year period of service and recognized in the Company's "Subscription Services" segmented revenue.

Overview

The Company is a leading provider of global maritime vessel data for ship tracking and maritime situational awareness solutions. Since its establishment in 2009, the Company has pioneered Satellite Automatic Identification System ("**S-AIS**") maritime surveillance and has delivered to its clients a view of maritime behaviours across all regions of the world's oceans that is unrestricted by terrestrial limitations. The Company has deployed an operational data processing supply chain with its First-Generation Constellation, receiving ground stations, patented decoding algorithms, and advanced Big Data processing and distribution facilities. This ground-breaking system provides a comprehensive picture of the location of Automatic Identification System ("**AIS**") equipped maritime vessels throughout the world and allows the Company to deliver data and information services characterized by high performance, reliability, security, and simplicity to large international markets.

The Consolidated Financial Statements include the accounts of the Company's Subsidiary, exactEarth Europe Ltd. ("**Subsidiary**") with inter-company transactions and balances eliminated. The Company has two locations, one in Cambridge, Ontario, Canada and the other in Harwell, United Kingdom.

Key Components and Functions of the Company's Product Offering

AIS

Since 2004, all major ships in the world have been required by the International Maritime Organization to carry an AIS transponder which constantly transmits VHF radio signals containing information about the ship (name, destination, cargo) as well as its movement (position, course, heading speed, etc.). Today the Company is capturing AIS data on more than 500,000 vessels. This capability is further enhanced by the Company's patented capability to track small vessels in the open ocean utilizing a new class of specially modified Class B AIS transponders. The Company anticipates that with this added capability, the number of potentially trackable vessels will increase to more than one million.

AIS was originally designed as a collision avoidance system; however, it has been widely recognised for some time that such open broadcast information can be collected and used to track and monitor shipping activity close to shore from terrestrial AIS stations. Terrestrial systems are physically limited by the curvature of the earth and are only effective for approximately 50 nautical miles, or approximately 90 kilometres. The Company led the way in overcoming this limitation by pioneering the reception of such AIS signals from low earth orbit ("**LEO**") satellites, thus eliminating the distance restriction imposed by the terrestrial AIS stations, and for the first time in maritime history, provided a real-time unrestricted global view of all shipping regardless of location, or proximity to a coastline.

Satellites

The Company receives AIS data from its constellation of LEO satellites and from payloads on the iridum NEXT constellation. The first satellite, EV-0 was launched in 2008 by exactEarth's previous parent company, COM DEV International Ltd., for the purpose of validating the concept of collecting maritime AIS signals from space. EV-0 is now non-operational. Between 2011 and 2013, the Company launched and commissioned four more advanced AIS satellites, designated as EV-1, EV-2, EV-5 and EV-6. These satellites incorporated advanced AIS payloads designed to further improve AIS message detection from space. The Company's satellite constellation grew once again in December 2014 with the successful integration of three advanced in-orbit AIS satellites into the exactView constellation through a contract under which the Company purchased one satellite, EV-11, and licensed data from two more. The Company's equatorial satellite, EV-9, was launched and commissioned in 2015. The data from these additional AIS satellites significantly increased the capacity of the Company's global vessel monitoring service and further enhanced its world-leading AIS message detection performance from space. As part of the Company's restructuring effort that commenced in October 2016, the Company cancelled its commitment on the two leased satellites in the first quarter of 2017.

In February 2017, the Company lost contact with EV-5. When subsequent recovery efforts were not successful, the Company filed an insurance claim which was paid in full in April 2017.

EV-8 was launched on the PAZ satellite in February 2018, and commissioning was completed in December 2018. EV-8 is operated by Hisdesat Servicios Estratégicos, S.A. ("**Hisdesat**"), a Spanish-based provider of satellite communications services to government agencies and one of the Company's significant shareholders. EV-7 was launched in June 2016 and commissioning was completed in May 2019.

All 58 of the payloads in the Company's Second-Generation Constellation of satellites using exactView™ RT ("**exactView RT**") Powered by L3Harris Technologies, Inc. ("**L3Harris**") have been launched into orbit on the Iridium NEXT constellation. This brings the total number of satellites in service as of January 28, 2020 to 65 (seven First-Generation plus 58 Second-Generation).

The Company's collaboration with L3Harris is further described in the "Strategic Alliances" section below.

Ground infrastructure and data processing

The Company has deployed a network of international ground stations for its First-Generation satellite AIS constellation. These ground stations provide reliable reception of satellite data downlinks, local data storage and transmission to the Company's primary data processing centre ("**DPC**"). Ground stations are often equipped with redundant capabilities to ensure the reliability.

For the Second-Generation exactView RT constellation, the Company receives the satellite AIS data from the Iridium NEXT network via a dedicated data feed from L3Harris Satellite Operations Control ("**L3HSOC**"). The exactView RT feed from L3HSOC is received at the Company's primary DPC.

Satellite AIS data from the ground infrastructure is forwarded through secure Virtual Private Networks on high capacity links to the primary DPC, with a secondary DPC used for back-up and peak offloading. Both DPCs which are located in Ontario, Canada, process, store and transmit AIS data products to the Company's customers.

Products and services

Through a variety of products and services, the Company provides what it believes to be the most advanced location-based information on maritime traffic commercially available today. The Company provides the flexibility needed to customize its products and services to suit the needs of customers on a timely basis.

Subscription Services encompasses the sale of Data-as-a-Service ("**DaaS**"), Software-as-a-Service ("**SaaS**") and Information-as-a-Service ("**IaaS**"). DaaS includes the provision of continuous data feeds in various formats and delivery systems through secure data connections over the Internet. The Company provides a SaaS solution that allows users to access ship information derived from the Company's AIS data sources within an easy-to-use mapping environment. The Company's value-add Information Services product offerings encompass its IaaS solutions.

Data products include one-time sales of data and customized reports. Revenue from the sale of these products is generally recognized when they are delivered to the customer and is not generally recurring in nature.

Other products and services include special projects with governments and space agencies to research methods and applications related to the satellite AIS business, Class B transponders (described in the "AIS" section above), as well as specific analysis and reporting contracts. These projects are sporadically announced by governments and there are no guarantees that they will be awarded to the Company. Revenue from these projects may span several months with no certainty that there will be similar projects in the future from which the Company will be able to earn revenue.

<u>Customers</u>

The Company's S-AIS data service customers include both government departments (defense; intelligence and security; search and rescue; border patrol and maritime safety; government and space agencies; as well as other ministries and organizations) and commercial and other customers (commercial fishing; business intelligence and risk management; port management; commercial offshore (oil and gas); commercial shipping; hydrographic and charting; as well as other academic and research institutions). The Company's S-AIS data service provides enhanced maritime domain awareness for improved vessel management, scheduling, environmental protection, search and rescue operations, and defence and border securing applications.

<u>Strategic alliances and relationships</u>

L3Harris

In June 2015 the Company announced an agreement with L3Harris (the "**Original L3Harris Agreement**") which allows the Company to apply its expertise and technology in AIS signal detection from space on-board Iridium NEXT, Iridium's second-generation satellite constellation. The payloads utilize L3Harris' powerful AppStar applications platform and employ an in-orbit version of the Company's patented AIS detection algorithms, creating an AIS detection capability for global maritime tracking. The Company's Second-Generation Constellation, called exactView RT, collects information across the entire maritime frequency band and provides real-time access to and from the ground enabling real-time delivery of the collected maritime information on a global scale.

exactView RT provides real-time global coverage with enhanced detection performance as compared to other S-AIS systems. The robustness of the constellation, programmability of the payloads and support for multiple in-orbit applications make this the global maritime information collection system designed to meet and exceed the needs and expectations of the world's maritime community for the foreseeable future.

As part of the Original L3Harris Agreement, the two companies share their respective AIS product revenue with each other. In February 2019, L3Harris asserted that the initial operating capacity ("**IOC**") has been achieved as a result of the deployment of 58 satellites. At the point that IOC is achieved, the L3Harris Agreement stipulates that the Company will share 40% of annual data revenue recognized after IOC on the first USD$40,000 of annual revenue, and 33% of additional revenues with L3Harris, and that L3Harris will share 18% of Class A and 50% of non-Class A revenue with the Company. The Original L3Harris Agreement also stipulates that the Company will pay L3Harris USD$50 per year for each satellite put in service as part of the Second-Generation Constellation (up-to USD$750 per quarter). Through management discussions, the Company had given notice to L3Harris that there are several capabilities and service level improvements that need to be rectified.

In January 2020 the Company, announced that it has reached agreement on updated terms to the Original L3Harris Agreement, the amended and restated L3Harris Agreement ("**A&R L3Harris Agreement**"). This amended agreement provides the Company with a reduced and simplified cost structure for exactView RT S-AIS data services going forward. The amended agreement also opens up additional growth opportunities for both parties.

Key Terms of A&R L3Harris Agreement

Key Term Element	Original L3Harris Agreement (June 2015)	A&R L3Harris Agreement (January 2020)
Fixed Payment to L3Harris ("**Infrastructure Fee**")*	USD $750 per quarter.	USD $1,075 per quarter.
S-AIS Revenue Share to L3Harris*	40% revenue share on 1st USD $40,000 of annual S-AIS revenue. 33% revenue share on annual S-AIS revenue portion above USD $40,000.	No revenue share on 1st USD $16,000 of annual S-AIS revenue. 30% revenue share on annual S-AIS revenue portion above USD $16,000.

Key Term Element	Original L3Harris Agreement (June 2015)	A&R L3Harris Agreement (January 2020)
S-AIS Revenue Share from L3Harris*	18% of L3Harris S-AIS data revenues.	No revenue share from L3Harris.
Revenue Minimums	Defined minimums to be achieved by February 2024.	Requirement deleted.
Exclusive Market Territory	L3Harris: US Government for S-AIS data and analytics. exactEarth: Rest of world Government and all Commercial markets for S-AIS data and analytics.	No change in exclusive market territories for S-AIS data. No territory restrictions for AIS analytics for either Party.
Use of Excess Satellite Payload Capacity for New Non-AIS Services	Parties to negotiate terms and revenue share for new services proposed by either Party.	No change in terms for exactEarth-initiated new services. L3Harris free to initiate services without revenue share to the Company.

**Infrastructure Fee and Revenue Share amendments are effective August 1, 2019.*

Fixed Fees and Revenue Shares

The parties agree that full deployment of the system has been achieved and that initial operational capacity ("IOC") has occurred.

The fixed fee of USD $750 per quarter under the Original L3Harris Agreement is replaced by a fixed fee of USD $358 per month (USD $1,075 per quarter) under the A&R L3Harris Agreement.

Under the revised agreement, the Company will no longer be required to pay any revenue share on the first USD $16,000 of annual S-AIS data revenue. This compares with our prior agreement under which we paid a 40% revenue share on annual S-AIS revenue. Moreover, our revenue share percentage is reduced to 30% for annual S-AIS revenue above USD $16,000. Also, under the revised agreement the annual, fixed operational fee paid to L3Harris has been increased from USD $3,000 to USD $4,300 and the revenue share from L3Harris has been eliminated. For reference purposes, in the year ended October 31, 2019, the amount of the Company's S-AIS data revenue eligible for the purpose of calculating revenue share owed to L3Harris was USD $8,518.

Under the Original L3Harris Agreement, L3Harris paid the Company an 18% share of all L3Harris S-AIS data revenue and under the A&R L3Harris Agreement, the Company will receive no share of L3Harris S-AIS data revenues. Under the A&R L3Harris Agreement no revenue share is owed by either party to the other with respect to AIS Analytics sales. For reference purposes, included in the FY19 revenue is $340 of revenue from L3Harris.

Fixed fee and revenue share amendments in the A&R L3Harris Agreement are effective as at August 1, 2019. Adjustments to those amounts recorded in the October 31, 2019 Consolidated Financial Statements in relation to the Original L3Harris Agreement that were affected by the A&R L3Harris Agreement will be made in the January 31, 2020 Interim Condensed Consolidated Financial Statements.

Under the Original L3Harris Agreement both parties were subject to achieving defined minimum revenue levels for S-AIS product revenues. Under the A&R L3Harris Agreement this requirement has been removed.

Exclusive Market Territory

Under the Original L3Harris Agreement, exclusive market territories were defined with respect to AIS data services and for AIS Analytics. Under the A&R L3Harris Agreement the exclusive market territories for AIS data services remain the same but the territory restrictions are removed for AIS Analytics so that neither Party is restricted by territorial limitations in the sale of AIS Analytics products.

Use of Excess Satellite Payload Capacity

This refers to the use of Satellite Payload capacity, which is not utilized to provide the S-AIS capability, in order to implement other services. The Original L3Harris Agreement called for the parties to negotiate terms with respect to any such new service which would utilize Excess Satellite Payload Capacity and L3Harris had reserved 10% of Excess Satellite Payload Capacity for its use. Under the A&R L3Harris Agreement, L3Harris has the right to utilize all Excess Satellite Payload Capacity for its own uses without any payments to the Company providing that such use does not impact the S-AIS service level performance. The Company also has the right to bring forward new service concepts and negotiate terms with L3Harris providing that there is Excess Satellite Payload Capacity available at that time.

Please refer to the Company's AIF for details pertaining to the Original and A&R L3Harris Agreements. For additional information, refer to note 12 (Commitments and contingencies) and note 19 (Subsequent events) in the Notes to the Consolidated Financial Statements.

*Myriota Pty Ltd. ("**Myriota**")*

In November 2015, the Company announced a $2,000 Australian dollar ("**AUD**") (CAD$1,894) minority ownership investment in technology company, Myriota Pty Ltd. of Adelaide, Australia. As part of the Myriota investment, the Company has obtained an exclusive licence to utilise their technology for vessel tracking in the maritime market. The Company allocated the investment of AUD$2,000 to the technology licence, classified as an intangible asset. The Myriota technology uses advanced signal processing Intellectual Property ("**IP**") developed at the University of South Australia (UniSA) in order to develop advanced terminals, infrastructure, and applications for the fast-growing Satellite Internet of Things (SIoT) global market. This core IP has been developed to create a disruptively low-cost solution for the SIoT market which will have the capability of supporting many millions of global users. Myriota is particularly focused on the location tracking and sensor data applications markets. The Company will pay a 3.5% royalty on revenue derived from the technology under licence. It is expected that this intangible will be in use in late calendar 2021 and royalties will begin at that time. Myriota completed an AUD$20,000 equity raise in April 2018. The equity raise, completed at a significantly higher valuation for Myriota, resulted in the dilution of the Company's ownership interest to 18% from 32%. For additional information, refer to note 5 (Investment) and note 7 (Intangible assets) in the Notes to the Consolidated Financial Statements.

In June 2018, the Company entered into an alliance agreement with IHSMarkit. IHSMarkit is a large global information and data services corporation with more than 50,000 data customers worldwide and a significant presence in the global maritime information and financial services markets. Under the terms of the alliance agreement the Parties have created an AIS Platinum global real-time vessel tracking and vessel information product that combines the Company's real time global S-AIS data feed and IHSMarkit's terrestrial AIS data feed and vessel information. AIS Platinum is a premium offering, which can be marketed and sold by both parties. IHSMarkit has a significant market presence and the Company anticipates that the relationship with IHSMarkit will generate orders growth in future quarters.

*Exmile Solutions Ltd. ("**MarineTraffic**")*

In April 2019, the Company entered into a three-year channel partner agreement with MarineTraffic, which owns the world's preeminent ship-tracking website. The MarineTraffic website attracts approximately six million unique visitors per month. MarineTraffic also operates 2,000 AIS stations in more than 165 countries around-the-world, delivering the most comprehensive AIS coastal tracking facility available today. Under terms of the channel partner agreement, MarineTraffic will deploy the Company's exactView RT data into its online maritime services products to help bring real-time, business-critical and actionable vessel information to maritime industry participants.

Funding sources

On December 13, 2018, the Company completed an offering of 13,000 convertible debentures at a price of $1 per convertible debenture for gross proceeds of $13,000. The net proceeds of $11,854 from the convertible debenture financing will be used to fund the Company's ongoing working capital needs in support of business operations and for general corporate purposes. The convertible debenture financing represented the culmination of an extensive review of strategic alternatives by a Special Committee of the Board, which will provide the Company with a solid financial footing going forward. Each convertible debenture is convertible into 2,000 common shares of the

Company, being an effective conversion price of 50 cents per share at the option of the holder (subject to customary adjustments from time to time), at any time prior to the fifth anniversary of the closing date. For additional information, refer to note 9 (Loans payable, financial instruments and foreign exchange) in the Notes to the Consolidated Financial Statements.

In October 2018 the Company signed a loan agreement with the Strategic Innovation Fund ("**SIF**"). Under this agreement, the Company is eligible to receive funding for certain expenditures incurred from February 13, 2018 to February 12, 2021 to a maximum of $7,206. The loan is repayable in 15 annual payments beginning February 28, 2024. The repayment values are dependent upon a calculated Performance Factor, which is used to calculate a Repayment Rate. The Repayment Rate is applied to annual Gross Business Revenue for the payment in February of the subsequent year. The Company received payment for the first claim of $1,425 in the fourth quarter of 2018 and a further $1,222 was received in the year ended October 31, 2019. The Company has a receivable of $881 for claimed and unclaimed funding related to expenses incurred and paid prior to October 31, 2019 in the Consolidated Statements of Financial Position (October 31, 2018 – $128). The SIF loan is measured at fair value using an interest rate of 14% based on the market interest rate for a comparable instrument with a similar term, resulting in a loan balance of $878 at October 31, 2019 (October 31, 2018 – $336). The difference between the fair value at inception and the loan proceeds received is recorded as a government grant, which is recognized as an operating grant or a capital grant based on the relative proportion of eligible expenditures incurred. The Company recognized an operating grant of $1,363 and a capital grant of $136 during the year ended October 31, 2019 (October 31, 2018 – operating grant of $1,154 and capital grant of $63). For additional information, refer to note 4 (Government assistance) and note 9 (Loans payable, financial instruments and foreign exchange) in the Notes to the Consolidated Financial Statements.

In May 2016, Innovation, Science and Economic Development Canada announced a $54,000 Technology Demonstration Program contribution to MDA Systems Ltd., which changed its name to Maxar Technologies in 2017 ("**Maxar**"), and its partners. The funding is designed to support large scale technology demonstration projects related to the Canadian aerospace, defence, space, and security industries. On May 9, 2016, the Company entered into a Technology Demonstration Program Collaboration Agreement ("**TDP Agreement**") with Maxar as a Partner Recipient under the Technology Demonstration Program related to Space Technology and Advanced Research ("**STAR**"). The TDP Agreement provides funding at 50% of eligible costs in respect of STAR projects to a maximum total funding value of $1,250. This funding is available to partially offset eligible STAR project costs during the period commencing August 12, 2014 and ending March 31, 2022. The Company submitted its final claim in the third quarter of 2018 and has recognized a cumulative total recovery to date of $1,250. The funding recognized as an offset to cost of revenue in the year ended October 31, 2019 was nil (October 31, 2018 – $202).

Staffing

The Company relies on the knowledge and talent of its employees and makes use of their expertise in satellite operations, Big Data architecture, web services, software and product development, and consulting services.

The number of full-time employees at October 31, 2019 was 36 (October 31, 2018 – 40).

Overall Performance

Revenue was $15,197 for the year ended October 31, 2019, compared to $12,955 for the year ended October 31, 2018. The Company's major application market segments are government and commercial. Government customers contributed $3,706 to the revenue for the year ended October 31, 2019, compared to $4,361 for the year ended October 31, 2018. Commercial revenue for the year ended October 31, 2019 was $11,491 compared to $8,594 for the year ended October 31, 2018.

Revenue related to Subscription Service orders will typically be realized over a twelve-month period, while revenue related to product orders is realized upon delivery. The backlog of Order Bookings won but not yet recognized in revenue at October 31, 2019 is $22,354, compared to $31,482 of Order Bookings backlog reported at October 31, 2018. Existing Order Bookings adjustments in the year ended October 31, 2019 were primarily related to the renegotiation of long-term contracts. Revenue of $10,055 from the current Order Bookings backlog is forecasted to be earned in earned in 2020. The balance of $12,299 is expected to be earned between 2021 and 2027. Subsequent to the end of the fiscal year, the Company received orders from a number of customers including, India, EMSA, Denmark and others that will drive revenue during fiscal 2020. As of January 28, 2020, firm order bookings in Q1 2020 totalled approximately $6,600.

The Company's foreign currency denominated Order Bookings backlog is affected by fluctuation in foreign exchange rates. The Company's closing Order Bookings backlog for any given quarter gets revalued as the CAD strengthens or weakens in relation to the Great Britain Pound ("**GBP**"), Euro ("**EUR**") or US dollar ("**USD**"), as applicable. The foreign exchange rates at October 31, 2019 were: GBP $1.7043, EUR $1.4706, USD $1.3169, while the foreign exchange rates at October 31, 2018 were: GBP $1.6775, EUR $1.4876, USD $1.3142. The fluctuation in exchange rates in the year ended October 31, 2019 resulted in an increase of $609 in backlog (October 31, 2018 – increase of $1,536).

The following chart summarizes Order Bookings:

	Years ended October 31	
	2019	2018
Opening Order Bookings backlog	$ 31,482	$ 25,996
New Order Bookings	13,495	16,905
Existing Order Bookings adjustments	(8,035)	-
Foreign exchange adjustment on opening Order Bookings backlog	609	1,536
Revenue	(15,197)	(12,955)
Closing Order Bookings backlog	$ 22,354	$ 31,482

Volatility in exchange rates between Canadian and foreign currencies such as GBP, EUR and USD impact the business as a portion of the Company's revenues are billed in non-Canadian currencies (predominately in USD) and recognized in the Company's Consolidated Statements of Financial Position in the form of cash, receivables, and payables. The average GBP/CAD exchange rate during the year ended October 31, 2019 was $1.6978, compared to an average of $1.7298 in 2018. The average EUR/CAD exchange rate during the year ended October 31, 2019 was $1.4963, compared to an average of $1.5290 in 2018. The average USD/CAD exchange rate during the year ended October 31, 2019 was $1.3303, compared to an average of $1.2870 in 2018. Foreign exchange loss for the year ended October 31, 2019 was $49 compared to a loss of $55 for the year ended October 31, 2018.

Adjusted EBITDA for the year ended October 31, 2019 was a loss of $6,060 compared to a loss of $3,210 for the year ended October 31, 2018. Please refer to the Adjusted EBITDA reconciliation included later in this MD&A.

For an analysis of the risks the Company faces, please refer to the "Risk Factors" section in the Company's AIF.

Selected Annual Information

(in thousands of dollars except per share amounts)	2019	2018	2017
Revenue	$ 15,197	$ 12,955	$ 12,833
Gross profit	2,178	4,385	4,215
Gross margin	14.3%	33.8%	32.8%
Impairment loss	-	10,885	26,886
Restructuring expense (recovery)	-	(2)	(99)
Adjusted EBITDA[(1)]	(6,060)	(3,210)	(4,387)
Adjusted EBITDA Margin[(1)]	(39.9%)	(24.8%)	(23.2%)
Loss from operations	(7,130)	(15,935)	(35,158)
Net loss	(8,483)	(16,223)	(33,834)
Basic and diluted loss per share	(0.39)	(0.75)	(1.57)
Total assets	22,418	15,624	31,148
Deferred revenue	3,499	2,412	2,252
Other current liabilities	5,042	5,250	4,843
Long-term loans and borrowings	10,089	498	662
Other non-current liabilities	1,669	257	388

(1) As defined in non-IFRS measures.

Results of Operations

Revenue

The Company sells products in three broad categories: Subscription Services, Data Products, and Other Products and Services. Generally, Subscription Services are sold with a twelve-month period of service with revenue recognized equally over the contract term. Data Products and Other Products and Services are generally sold on an as-demanded basis and the revenue is recognized when the product is delivered to the customer, or for long-term projects, on a percentage of completion basis. Revenue for the Data Products and for the Other Products and Services tends to be less predictable and is subject to fluctuations from one period to the next.

Revenues for the year ended October 31, 2019:

	Subscription Services	Data Products	Other Products & Services	Total Revenue
Government departments	$ 2,997	$ 27	$ 682	$ 3,706
Commercial and other	10,225	1,099	167	11,491
Total revenue	$ 13,222	$ 1,126	$ 849	$ 15,197

Revenues for the year ended October 31, 2018:

	Subscription Services	Data Products	Other Products & Services	Total Revenue
Government departments	$ 3,442	$ 326	$ 593	$ 4,361
Commercial and other	7,856	676	62	8,594
Total revenue	$ 11,298	$ 1,002	$ 655	$ 12,955

The Company's total revenue for the year ended October 31, 2019 was $15,197 compared to $12,955 for the year ended October 31, 2018. The Company anticipates that now that the commissioning of all exactView RT satellites on-board Iridium NEXT is complete, new analytics applications for the S-AIS and maritime information services markets and sales traction within the small vessel tracking market will drive the next phase of revenue growth.

The Company's Subscription Services revenue is generally earned on a monthly recurring basis under annual or multi-year contracts and therefore provides a solid foundation for revenue growth. Subscription Services revenue for the year ended October 31, 2019, was $13,222 compared to $11,298 for the year ended October 31, 2018. Subscription

Services revenue represented 87% of the Company's total revenue for the year ended October 31, 2019 compared to 87% for the year ended October 31, 2018. The $1,924 increase in Subscription Services revenue was primarily due to the addition of new subscription customers.

Revenue from Data Products was $1,126 for the year ended October 31, 2019, compared to $1,002 for the year ended October 31, 2018. This type of revenue is generated from on-demand customer requests and is therefore variable in its timing.

Revenue from Other Products & Services was $849 for the year ended October 31, 2019 compared to $655 for the year ended October 31, 2018. The type of revenue is generated from delivery of services related to ongoing percentage of completion projects and the sale of products related to small vessel opportunities and is therefore variable in its timing.

Revenue by quarter

	Subscription Services	Data Products	Other Products & Services	Total Revenue
Q1 2018	$ 2,461	$ 93	$ 282	$ 2,836
Q2 2018	$ 2,563	$ 585	$ 31	$ 3,179
Q3 2018	$ 3,001	$ 56	$ 114	$ 3,171
Q4 2018	$ 3,273	$ 268	$ 228	$ 3,769
Q1 2019	$ 3,118	$ 99	$ 305	$ 3,522
Q2 2019	$ 3,181	$ 339	$ 386	$ 3,906
Q3 2019	$ 3,466	$ 449	$ 96	$ 4,011
Q4 2019	$ 3,457	$ 239	$ 62	$ 3,758

The quarter-over-quarter variance in revenue is caused by the mix in the type of revenue earned in each quarter. Subscription Services revenue tends to be steady due to the generally recurring nature of those client agreements. Data Products revenue is on-demand and therefore less predictable. Other Products & Services revenue is predominantly project-based revenue and the timing of revenue recognition varies depending on the progress of the projects. For some of the Company's projects, revenue recognition is based on percentage completion calculated using costs to date as a percentage of estimated total cost. Small vessel contract revenue recognition is based on progress with the installation of Class B transponders. Therefore, revenue will vary quarter to quarter based on the progress made on the various projects.

The operating results for interim periods should not be relied upon as an indication of results to be expected or achieved in any future period or any fiscal year as a whole. The Company has experienced lower than planned revenue combined with operating losses resulting in a reduction of ongoing operating cash flows. However, in recent quarters, the trend for Subscription Services revenue has been positive as sales momentum has been generated with exactView RT, the Company's real-time S-AIS service. Factors affecting the Company's revenue and results are described in greater detail under the heading "Risks Relating to Our Business and Industry" in the Company's AIF.

Gross margin

	Years ended October 31	
	2019	2018
Gross profit	$ 2,178	$ 4,385
Gross margin	14.3%	33.8%

Gross margin for the year ended October 31, 2019 was 14.3% compared to 33.8% for the year ended October 31, 2018. Gross margin decreased in the year ended October 31, 2019 due to increased cost of revenue, partially offset by increased revenue. Cost of revenue increased due to higher satellite operating costs related to the Second-Generation Constellation and increased terrestrial data costs, partially offset by decreased data processing and project related costs and $1,363 of SIF operating grant recognized against cost of revenue in the year ended October 31, 2019 (October 31, 2018 – $1,154). Costs increase relative to the number of satellites and ground stations, volume of data processing, and increased revenue share, rather than relative to the number of customers. With the Second-Generation constellation now completed and with L3Harris having declared IOC, the Company's cost of revenue has experienced a significant increase in recent quarters. However, with an expected quarterly reduction in cost of revenue as a result of the A&R L3Harris Agreement of approximately $800, and as the Company works to leverage its service advantage with exactView RT and as its customer base subsequently grows, the Company expects a higher gross margin over the long term.

SG&A expenses

SG&A expenses for the year ended October 31, 2019 were $7,709 compared to $6,345 for the year ended October 31, 2018. The $1,364 increase in the year ended October 31, 2019 was primarily due to an increase in bad debt expense of $525. In addition, there were increases in legal fees, management incentive compensation and long-term incentive plan expense, partially offset by reductions in consulting fees and travel expense.

During the year ended October 31, 2019, the bad debt expense was $215 and is based on uncollectible balances written off during the year and expected credit loss on outstanding accounts receivable. This compared to a bad debt recovery of $310 in the year ended October 31, 2018 due to reversals of allowances for bad debts.

Product development and R&D expenses

Product development and R&D expenses for the year ended October 31, 2019 were $840 compared to $1,391 for the year ended October 31, 2018. The Company continues to focus on developing more web-based functionality as well as new analytics-based product offerings.

Impairment losses

At the end of each reporting period, the Company assesses whether there are events or circumstances indicating that an asset may be impaired. Such events or circumstances notably include material adverse changes which in the long-term impact the economic environment or the Company's assumptions or objectives. The Company considers the relationship between its market capitalization and the book value of its equity, among other factors, when reviewing for indicators of impairment because the Company as a whole has been assessed as a single cash generating unit ("**CGU**"). The recoverable amount is the greater of value in use ("**VIU**") and fair value less costs of disposal.

The recoverable amount used in the impairment test at October 31, 2019 was based on fair value less cost to sell using a market approach to determine the Company's market capitalization. The market capitalization at October 31, 2019 of $5,647 exceeded the carrying value of the Company's shareholders' equity of $2,119; therefore, no impairment was recognized at October 31, 2019 (October 31, 2018 – Property, plant & equipment $7,617 and intangible assets $3,268). For additional information, refer to note 8 (Impairment of long-lived assets).

Other and income tax expenses

	Years ended October 31		
	2019	2018	Change
Other expense	$ -	$ 49	$ (49)
Restructuring recovery	-	(2)	2
Foreign exchange loss	49	55	(6)
Interest income	(224)	(38)	(186)
Interest expense	1,407	72	1,335
Income tax expense	121	152	(31)
Total other and income tax expenses	$ 1,353	$ 288	$ 1,065

Restructuring recovery

In November 2016, the Company announced a restructuring aimed at re-organizing and streamlining its organization in order to enhance data delivery, strengthen sales capabilities, and lower the cost base. The restructuring resulted in the termination of 14 employees effective October 13, 2016. The $2 recovery in the year ended October 31, 2018 relates to the revaluation of RSUs and adjustments to benefits payable.

Foreign exchange loss

Foreign exchange amounts in the Consolidated Statements of Comprehensive Loss include realized and unrealized gains and losses that result from translation of foreign denominated balances in the Company's Consolidated Statements of Financial Position. The impact of translation of outstanding foreign denominated balances in the Consolidated Statements of Financial Position and of settling foreign denominated balances into cash during the year ended October 31, 2019 was a loss of $49 compared to a loss of $55 during the year ended October 31, 2018.

Interest income

The Company's interest income for the year ended October 31, 2019 was $224 compared to $38 for the year ended October 31, 2018. Interest income increased due to higher cash balances.

Interest expense

The Company's interest expense for the year ended October 31, 2019 was $1,407 compared to $72 for the year ended October 31, 2018. Interest expense is increased due to the addition of the SIF funding and the convertible debenture financing, the majority of which is long term. For additional information, refer to note 4 (Government assistance) and note 9 (Loans payable, financial instruments and foreign exchange) in the Notes to the Consolidated Financial Statements.

Income tax expense

The Company's income tax expense for the year ended October 31, 2019 was $121 compared to $152 for the year ended October 31, 2018. Income tax expense relates to withholding tax that is not expected to be recoverable.

Adjusted EBITDA

	Years ended October 31	
	2019	2018
Net loss	$ (8,483)	$ (16,223)
Interest income	(224)	(38)
Interest expense	1,407	72
Income tax expense	121	152
Depreciation and amortization	759	1,699
Unrealized foreign exchange gain	(59)	(53)
Share-based compensation	419	298
Impairment losses	-	10,885
Restructuring recovery	-	(2)
Adjusted EBITDA	$ (6,060)	$ (3,210)

Adjusted EBITDA for the year ended October 31, 2019, was a loss of $6,060 compared to a loss of $3,210 for the year ended October 31, 2018. The decrease in Adjusted EBITDA for the year ended October 31, 2019 was driven primarily by higher cost of revenue and SG&A expenses, partially offset by higher revenue and lower product development and R&D expense. Management believes that Adjusted EBITDA provides a relevant measure of the results of the Company's main business activities before taking into consideration how they are financed or taxed and excluding the impact of certain non-cash expenses and items that are considered to be outside of the Company's ongoing operating results.

Net loss

Net loss was $8,483 or $0.39 per basic and diluted share, for the year ended October 31, 2019, compared to net loss of $16,223 or $0.75 per basic and diluted share, for the year ended October 31, 2018. The net loss decreased primarily due to higher revenue and decreases in product development and R&D expense, depreciation and amortization and impairment losses, partially offset by increases in cost of revenue, SG&A and interest expense.

Net loss by quarter

	Net loss	Loss per share
Q1 2018	$ (1,599)	$ (0.07)
Q2 2018	$ (2,049)	$ (0.09)
Q3 2018	$ (2,253)	$ (0.10)
Q4 2018	$ (10,322)	$ (0.48)
Q1 2019	$ (1,235)	$ (0.06)
Q2 2019	$ (2,155)	$ (0.10)
Q3 2019	$ (2,877)	$ (0.13)
Q4 2019	$ (2,216)	$ (0.10)

Fourth Quarter Review

Revenues for the three months ended October 31, 2019:

	Subscription Services	Data Products	Other Products & Services	Total Revenue
Government departments	$ 775	$ -	$ 1	$ 776
Commercial and other	2,682	239	61	2,982
Total revenue	$ 3,457	$ 239	$ 62	$ 3,758

Revenues for the three months ended October 31, 2018:

	Subscription Services	Data Products	Other Products & Services	Total Revenue
Government departments	$ 818	$ 4	$ 221	$ 1,043
Commercial and other	2,455	264	7	2,726
Total revenue	$ 3,273	$ 268	$ 228	$ 3,769

Revenue for Q4 2019 was $3,758 with a cost of revenue of $3,767 resulting in a negative gross profit of $9. The corresponding results for Q4 2018 were revenue of $3,769, cost of revenue of $1,470 and a gross profit of $2,299. Gross margin for the Q4 2019 was negative 0.2% compared to 61.0% for the Q4 2018. Gross margin decreased for Q4 2019 compared to the Q4 2018 due to an increase in cost of revenue, partially offset by an increase in revenue. Cost of revenue increased primarily due to higher satellite operating costs related to the Second-Generation Constellation, increased terrestrial data costs and $1,154 of SIF funding recognized against cost of revenue in Q4 2018 compared to $227 of SIF funding recognized in Q4 2019.

Adjusted EBITDA

	Three months ended October 31	
	2019	2018
Net loss	$ (2,216)	$ (10,322)
Interest income	(70)	(5)
Interest expense	417	14
Income tax expense	5	30
Depreciation and amortization	194	451
Unrealized foreign exchange (gain) loss	(202)	72
Share-based compensation	20	(168)
Impairment Loss	-	10,885
Adjusted EBITDA	$ (1,852)	$ 957

Adjusted EBITDA for the three months ended October 31, 2019, was a loss of $1,852 compared to a gain of $957 for the three months ended October 31, 2018. The decrease year over year was driven by increased cost of revenue and SG&A, partially offset by increased revenue and decreased product development and R&D. Management believes that Adjusted EBITDA provides a relevant measure of the results of the Company's main business activities before taking into consideration how they are financed or taxed and excluding the impact of certain non-cash expenses and items that are considered to be outside of the Company's ongoing operating results.

Operating expenses for Q4 2019 decreased compared to Q4 2018. Impairment losses of nil in Q4 2019 compared to $10,885 recognized in Q4 2018 was the primary driver of the decrease in operating loss from $10,210 in Q4 2018 to $2,035 in Q4 2019.

The net loss for Q4 2019 was $2,216 while Q4 2018 reported a net loss of $10,322. The net loss in the quarter was reduced primarily due to higher revenue and lower, operating expenses, including impairment, and a foreign exchange gain versus a loss in Q4 2018, partially offset by higher cost of revenue and SG&A.

Financial position

The following chart outlines the changes in the Consolidated Statements of Financial Position between October 31, 2018 and October 31, 2019:

	Increase / (Decrease)	Explanation
Cash	$ 5,414	The increase in cash is due to collections and net proceeds from the SIF funding and convertible debenture financing, partially offset by ongoing operational expenses.
Accounts receivable	$ (418)	The accounts receivable balance fluctuates with changes in billings and collections.
Unbilled revenue	$ 1,238	The unbilled revenue reflects the amount of revenue recognized in advance of billings.
Prepaid expenses	$ 141	The increase primarily relates to the insurance renewal in the second quarter of 2019, partially offset by expenses recognized.
Other assets (current and non-current)	$ 212	The increase relates to capitalized sales commission under IFRS 15, partially offset by commission expensed in the period and the decrease in capitalized transponder costs upon installation.

	Increase / (Decrease)	Explanation
Property, plant and equipment	$ 389	The increase in property, plant and equipment is due to additions of $1,183, offset by SIF funding of $136, reimbursement from LuxSpace for services related to EV-10 of $91 and depreciation of $567.
Intangible assets	$ (182)	The decrease in intangible assets is due to amortization of $192, offset by additions of $10.
Accounts payable and accrued liabilities (current and non-current)	$ 1,429	The balance fluctuates based on timing of goods and services received and payments, and includes the accrual of certain payables to Harris under the Harris Agreement, convertible debenture interest payable and contract liabilities.
Deferred revenue	$ 1,087	Deferred revenue reflects billings that occur in advance of revenue recognition.
Loans payable (current and non-current)	$ 9,334	The increase is due to the convertible debenture financing and the SIF loan, partially offset by principal payments made on the FED DEV loan.
Long-term incentive plan liability (current and non-current)	$ 32	The increase is due to the continuing accrual of deferred share units payable and revaluation of previously accrued units due to an increase in stock price, partially offset by the settlement of deferred share units.
Share capital	$ 29	The increase is due to the issuance of shares related to the employee share purchase plan and settlement of RSUs.
Contributed surplus	$ 3,196	The increase is related to the convertible debenture financing, net of fair value of the liability, and expense recognized on RSUs and stock options during the year ended October 31, 2019. Stock options and RSUs will be equity settled.
Accumulated other comprehensive loss	$ (102)	The decrease is due to the foreign exchange translation of the Company's subsidiary.
Deficit	$ (8,211)	The decrease represents net loss of $8,483, offset by the impact of a change in accounting policy upon adoption of IFRS 15 of $272.

Liquidity and capital resources

The key liquidity and capital resource items are as follows:

	October 31, 2019	October 31, 2018	% Change
Cash	$ 10,188	$ 4,774	113%
Short-term investments	$ 49	$ 49	-
Accounts receivable	$ 3,073	$ 3,491	(12%)
Prepaid expenses	$ 448	$ 307	46%
Other assets – current	$ 209	347	(40%)
Accounts payable and accrued liabilities	$ 4,840	$ 4,782	1%
Loans payable – current	$ 202	$ 459	(56%)

Working capital

Working capital increased $5,358 during the year ended October 31, 2019 to $7,575. The increase since October 31, 2018 is driven by the following:

	Increase / (Decrease) to working capital
Increase in cash	$ 5,414
Decrease in accounts receivable	(418)
Increase in unbilled revenue	1,238
Increase in prepaid expenses	141
Decrease in other assets	(138)
Increase in accounts payable and accrued liabilities	(58)
Increase in deferred revenue	(1,087)
All other	266
Total	$ 5,358

Current assets are available at varying times within twelve months following the balance sheet date. Cash is readily available to settle obligations related to current and future expenditures.

Significant cash flows:

	Years ended October 31	
	2019	2018
Cash used in operating activities	$ (6,305)	$ (3,038)
Cash used in investing activities	(853)	(1,168)
Cash from financing activities	12,624	698
Effect of exchange rate changes on cash	(52)	165
Net increase (decrease) in cash	$ 5,414	$ (3,343)
Cash, beginning of the year	4,774	8,117
Cash, end of the year	$ 10,188	$ 4,774

The Company manages its liquidity and capital resources to provide sufficient cash to meet short and long-term operating and development plans, debt obligations, and other contractual obligations when due. On October 18, 2018, the company signed a loan agreement with SIF to receive funding for certain expenditures incurred from February 13, 2018 to February 12, 2021 to a maximum of $7,206. On December 13, 2018 the Company completed an offering of Convertible Debentures at a price of $1 per Convertible Debenture for gross proceeds of $13,000, and net proceeds after financing costs of $11,854 to fund short-term operating costs. As a result of this funding management believes capital resources as of the date of this MD&A are sufficient to fund current operations, forecasted capital expenditures, and contractual obligations in 2020. For additional information, refer to note 4 (Government assistance) and note 9 (Loans payable, financial instruments and foreign exchange) in the Notes to the Consolidated Financial Statements.

With respect to longer-term funding requirements, the Company believes future cash flows generated from operations and other sources of liquidity will be available. Under present conditions, the Company believes it has sufficient access to capital and debt markets. There is a risk that the cost of obtaining capital resources from capital and debt markets may increase in the future as lenders and institutional investors may increase interest rates, impose tighter lending standards, or refuse to provide any new funding. Despite present market conditions, changes in the Company's business, unforeseen opportunities or events, and other external factors may also adversely affect liquidity and the availability of additional capital resources. Due to these factors, the Company cannot be certain that funding, if needed, will be available to the extent required, or on acceptable terms. If the Company is unable to access funding when needed on acceptable terms, the Company may not be able to fully implement current business plans, take advantage of business opportunities, or respond to competitive pressures, any of which could have a material adverse effect on the Company's operational and financial results. No assurance can be given that the Company will be successful in meeting sales targets, reducing costs or obtaining additional financing either through debt or equity. The Company has experienced losses and negative cash flows from operations. However, the Company may elect to reduce its planned expenditures concurrent with prevailing conditions. The Company believes that this financial flexibility to adjust its spending levels will provide it with sufficient liquidity to meet its future operational goals and financial obligations. For additional information, refer to note 2 b) (Significant Accounting Policies, Basis of presentation) in the Notes to the Consolidated Financial Statements.

Operating activities

Cash flows used in operations for the year ended October 31, 2019 were $6,305, compared to cash flows used in operations of $3,038 for the year ended October 31, 2018. The change in cash flows used in operations was primarily due to working capital changes and payment of outstanding invoices related to the L3Harris agreement.

Investing activities

Cash flows used in investing activities for the year ended October 31, 2019 were $853 compared to cash flows used in investing activities of $1,168 for the year ended October 31, 2018. Investing activity cash flows in 2019 include the acquisition of long-lived assets, offset by reimbursement from LuxSpace related to EV-10.

Financing activities

Cash flows from financing activities in the year ended October 31, 2019 were $12,624, compared to $698 from financing in the year ended October 31, 2018. Financing activity cash flows in 2019 were related to the convertible debenture and SIF loan advances, offset by issue costs and repayment of the government loan.

Contractual obligations

The following table outlines the contractual cash obligations (excluding accounts payable and accrued liabilities) as at October 31, 2019:

	Total	Less than one year	2-3 years	4-5 years	>5 years
Loans and interest payable	$ 21,998	$ 595	$ 455	$ 696	$ 20,252
Lease obligations	250	110	140	-	-
Capital commitments	3,337	369	1,669	1,299	-
L3Harris commitment	46,581	3,951	7,901	7,901	26,828
Hisdesat commitment	2,180	240	480	480	980
Total contractual obligations	$ 74,346	$ 5,265	$ 10,645	$ 10,376	$ 48,060

As at October 31, 2019, the Company had various contractual cash obligations, including loans payable, capital commitments and commitments and obligations under the L3Harris Agreement. For additional information, refer to note 4 (Government assistance) and note 12 (Commitments and contingencies) in the Notes to the Consolidated Financial Statements. In January 2020, the A&R L3Harris Agreement was announced. For additional information, refer to note 19 (Subsequent events) in the Notes to the Consolidated Financial Statements.

Credit facilities

The company holds two Guaranteed Investment Certificates totalling $49 from CIBC as collateral for a line of credit for $29 and other credit facilities of $20.

Off-balance sheet arrangements

As at October 31, 2019, the Company does not have any off-balance sheet arrangements, other than operating leases as disclosed in note 12 (Commitments and contingencies) in the Notes to the Consolidated Financial Statements.

Proposed transactions

The Company did not have any proposed transactions as at October 31, 2019.

FINANCIAL INSTRUMENTS

We are exposed, through our operations, to foreign currency risk, credit risk, liquidity risk, interest rate risk and fair value risk. The overall objective of the Board is to set policies that seek to reduce risk as far as possible without unduly affecting the Company's competitiveness and flexibility.

Foreign Currency Risk

Foreign currency risk is the risk that a variation in exchange rates between the CAD and USD or other foreign currencies will affect our operations and financial results.

The majority of our revenue is transacted in USD, and portions of the revenue are denominated in GBP and EUR. Purchases, consisting primarily of the majority of salaries, certain operating costs, and manufacturing overhead, are incurred primarily in CAD. Our foreign operations are conducted through our Subsidiary. The assets and liabilities of the foreign operations are translated into CAD using the exchange rates in effect at the dates of the consolidated statements of financial position. Foreign currency risks arising from translation of assets and liabilities of foreign operations into our functional currency are generally not hedged. Fluctuations in foreign exchange rates could result in unanticipated fluctuations in our operating results. We have transactions that are denominated in GBP, EUR and USD but do not have exposure to any highly inflationary foreign currencies.

Based on our net exposure on our outstanding foreign currency denominated monetary assets and liabilities at October 31, 2019, a 10% weakening in the CAD in relation to the GBP would have decreased the Company's net loss in the year ended October 31, 2019 by approximately $103. Based on our net exposure at October 31, 2019, a 10% weakening in the CAD in relation to the EUR would have decreased the Company's net loss for the year ended October 31, 2019 by approximately $151. A 10% weakening in the CAD in relation to the USD would have decreased the Company's net loss for the year ended October 31, 2019 by approximately $309. A 10% strengthening in the CAD in relation to these currencies would have had the opposite effect.

Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations. Financial instruments that are potentially subject to credit risk consist primarily of cash and trade and other receivables.

We attempt to mitigate our credit risk by dealing only with large financial institutions with good credit ratings. All of the financial institutions that we transact with meet these qualifications; however, there can be no guarantee as to the solvency or reliability of such counterparties. Cash is maintained with financial institutions of reputable credit and may be redeemed upon demand.

Credit risk also arises from the inability of customers to discharge their obligation to us. If one or more customers were to delay, reduce or cancel Order Bookings, our overall Order Bookings may fluctuate and could adversely affect our operations and financial conditions. In the normal course of business, we monitor the financial condition of our customers and review the credit history of each new customer.

The Company has policies to limit the amount of risk with each individual customer, and exposure to bad debts is managed as part of the Company's normal activities. Each customer's credit rating is assessed considering its financial position, past experience and other factors. Credit limits are regularly monitored, and the Company has formal procedures for detecting objective evidence of impairment of trade receivables. Based on a review of trade accounts receivable, an allowance for doubtful accounts of $64 was recorded at October 31, 2019 (October 31, 2018 – $5). The maximum exposure relating to trade and other receivables at October 31, 2019 was $3,073 (October 31, 2018 – $3,491).

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. We monitor our risk to a shortage of funds using a rolling twelve-month cash flow forecast. This forecast considers the maturity of our financial assets (e.g., accounts receivable, other financial assets), liabilities (e.g., payables, loans), and projected cash flows from operations. Our policy is to ensure adequate funding is available from operations, established lending facilities and other sources as required. An inability to properly manage our liquidity risk could have a material adverse effect on our results of operations, business prospects and financial condition.

To date, the Company has a history of operating losses (year ended October 31, 2019 – $8,483, year ended October 31, 2018 – $16,223, year ended October 31, 2017 – $33,834) and generating insufficient cash flows from operations to fund its activities (year ended October 31, 2019 – outflows of $6,305, year ended October 31, 2018 – outflows of $3,038, year ended October 31, 2017 – outflows of $7,707).

Interest Rate Risk

Our risk exposure to market interest rates relates primarily to new financing that we may undertake. Our policy will be to review our borrowing requirements on a continual basis and to enter into fixed or variable interest rate borrowing arrangements as required.

Fair Value Risk

Fair values have been determined for measurement and/or disclosure purposes. When applicable, further information about the assumptions made in determining fair values is disclosed in the Financial Statement notes specific to that asset or liability.

Summary of Significant Accounting Policies

Critical accounting estimates

The preparation of the Company's Consolidated Financial Statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. These estimates are based upon management's historical experience and various other assumptions that are believed by management to be reasonable under the circumstances. Such assumptions and estimates are evaluated on an ongoing basis and form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources as well as the periodic recognition of revenue and cost of revenue. Actual results could differ from these estimates.

The Company believes the following critical accounting policies affect the more significant estimates and assumptions used in the preparation of its Consolidated Financial Statements.

Revenue recognition

Revenue is recognized through the application of the following steps: (i) identification of the contract, or contracts, with a customer; (ii) identification of the performance obligations in the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations in the contract; and (v) recognition of revenue when, or as the Company satisfies a performance obligation. The Company assesses its revenue contracts against specific criteria in order to determine if it is acting as principal or agent.

A contract exists with a customer when both parties have approved the contract, commitments to performance and rights of each party (including payment terms) are identified, the contract has commercial substance and collection of substantially all consideration is probable for goods and services that are transferred.

Performance obligations promised in a contract are identified based on the goods and services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the good or service either on its own or together with other available resources, and are distinct in the context of the contract, whereby the transfer of the good or service is separately identifiable from other promises in the contract. If these criteria are not met, the promised goods and services are accounted for as a combined performance obligation.

The transaction price is determined based on the consideration the Company expects to be entitled to in exchange for transferring promised goods and services to the customer, excluding amounts collected on behalf of third parties such as sales taxes. Determining the allocation of transaction price requires significant judgment. Consideration in contracts with multiple performance obligations is allocated to the separate performance obligations based on the estimated stand-alone selling prices ("**SSP**"). To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration and includes the estimated revenue to the extent it is highly probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Estimates of variable consideration are based on historical experience, anticipated performance, and management's best judgment based on the information available at the time.

Control of goods and services can be transferred at a point in time or over time. Control is the ability to direct the use of, and obtain the benefits from, an asset. The method and timing of transfer of control determines whether to recognize revenue at a point in time for each performance obligation or whether to use a measure of progress toward completion to recognize revenue over time.

Sale of data

The majority of revenue is derived from the sale of subscription services such as data subscriptions and software as a service. Customers simultaneously receive and consume subscription services; therefore, performance obligations are satisfied over time. Revenue is recognized upon delivery for data products such as archive data and custom reports, which are performance obligations satisfied at a point in time upon transfer of control. Other products and services include percentage of completion projects and sales of Class B transponders, which are recognized either as satisfied over time or at a point in time, depending on the nature of the transfer of control.

The Company may enter into contracts involving multiple performance obligations, such as products or services including data subscriptions and sales of historic archive data, Class B transponders and other data products. Consideration is allocated to the separate performance obligations based on estimates of SSP. The primary method used to estimate the SSP is consideration of sales of the products or services on a stand-alone basis, and the Company's pricing policies.

Timing of revenue recognition may differ from the timing of invoicing to customers. Contract assets are generated when contractual billing schedules differ from revenue recognition timing. Unbilled revenue is recorded in instances when revenue is recognized prior to invoicing, and amounts collected in advance of services being provided are recorded as deferred revenue.

Deferred contract costs

Deferred contract costs are amortized over the period of expected benefit. Estimating the costs to be deferred and the period of expected benefit is subjective and requires the use of management's best judgments based on information available at that time. Changes in estimates are reflected in the period in which the circumstances that gave rise to the change occur. Contract costs are deferred if the costs are expected to be recoverable and if either of the following criteria are met:

- The costs of obtaining the contract are incremental or explicitly chargeable to the customer; or
- The fulfillment costs relate directly to the contact or an anticipated contract and generate or enhance the Company's resources that will be used in satisfying the performance obligations in the future.

Deferred contract costs for the Company consist of sales commissions related directly to a contract.

Long-term fixed-price contracts

The Company occasionally provides goods and services to its customers under long-term, fixed-price contracts. The Company accounts for its revenue from fixed-fee contracts using the percentage of completion method, which requires estimates to be made for contract costs and revenue. Contract costs include direct labour and direct costs for subconsultants, and other expenditures that are recoverable directly from clients. Progress on jobs is regularly reviewed by management and estimated costs to complete are revised based on the information available at the end of each reporting period. Contract cost estimates are based on various assumptions that can result in a change to contract profitability from one financial reporting period to another. Estimating total costs is subjective and requires management's best judgments based on the information available at that time. On an ongoing basis, estimated revenue is updated to reflect the amount of consideration the Company expects to be entitled to in exchange for providing goods and services. Losses on such contracts are accrued when the estimate of total costs indicates that a loss will be realized. Accruals are drawn down as loss contracts progress. Contract billings received in excess of recognized revenue are included in current liabilities as deferred revenue. Contract progress in excess of billings made is recognized in current assets as unbilled revenue.

Significant accounting judgments, estimates, and assumptions

Revenue is adjusted for the effects of a significant financing component when the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. Judgement is required to determine whether a contract contains a significant financing component and the discount rate to be applied when adjusting the promised consideration for the significant financing component.

Consideration in contracts with multiple performance obligations is allocated to the separate performance obligations based on estimated SSP. Judgment is required to determine the SSP for each distinct performance obligation. The Company's products and services often have observable SSP when the Company sells a promised product or service separately to similar customers. A contractually stated price or list price for a good or service may be the SSP of that good or service. However, in instances where SSP is not directly observable, the Company determines the SSP by maximizing observable inputs and using an approach using information that may include market conditions and other inputs from the Company's pricing team, including historical SSP.

Changes in estimates are reflected in the period in which the circumstances that give rise to the change become known and affect the Company's revenue, unbilled receivables, contract assets, and deferred revenue.

Revenue on fixed price contracts with performance obligations satisfied over time is recognized on a percentage of completion basis. In applying the accounting policy to fixed price contracts, judgment is required in determining the estimated costs to complete a contract. These cost estimates are reviewed as at each reporting period and by their nature may give rise to income volatility. To estimate income (loss) on completion, the Company takes into account factors inherent to the contract by using historical and/or forecast data. When total contract costs are likely to exceed total contract revenue, the expected loss is recognized immediately and recorded in accounts payable and accrued liabilities in the Consolidated Statements of Financial Position. The accrual is drawn down over the completion of the contract using the percentage of completion method.

Allowance for doubtful accounts

The Company establishes an allowance for doubtful accounts using the simplified ECL model. The Company ECL model uses a provision matrix to apply historical loss rates to outstanding receivable balances. Judgement is required in determining the grouping of receivables based on shared credit risk characteristics as well as determining historical loss rates which are reflective of future economic conditions.

Useful life of intangible and long-term assets

The Company has established policies for determining the useful life of its intangible and long-term assets and amortizes the costs of these assets over those useful lives. The useful life for each category of asset is determined based on the expectation of its ability to continue to generate revenues, and thus, cash flows. This ability is tested periodically to ensure the conditions still exist to allow the asset to be reflected at its net-recorded value in the Company's accounts, and any impairment to the valuation is reflected in such accounts at the time the impairment is determined.

Recoverable amount for long-lived assets

An asset's recoverable amount is the higher of an asset's or CGU's fair value less costs to sell and its value in use and is determined for an individual asset or at the CGU level if individual assets do not have largely independent cash inflows. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. In determining fair value less costs to sell, recent market transactions are taken into account, if available. If no such transactions can be identified, an appropriate valuation model is used. Given the Company is a single CGU, the market capitalization of the Company is a relevant measure of FVLCS.

Financial instruments

Financial assets and liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument. Financial assets are derecognized when the rights to receive the cash flows from the assets have expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership. Financial assets and liabilities are offset, and the net amount is reported in the Consolidated Statements of Financial Position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously.

Trade receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. These are classified in current assets, except for the portion expected to be realized or paid beyond twelve months of the Consolidated Statements of Financial Position date, if any, which are classified as non-current. Trade receivables are recognized initially at the amount of consideration that is unconditional, unless they contain significant financing components, when they are recognized at fair value. The Company holds trade receivables with the objective of collecting contractual cash flows and therefore measures them subsequently at amortized cost using the effective interest method.

Due to the short-term nature of current receivables, their carrying amount is considered to be the same as their fair value.

Accounts payable and other liabilities

Accounts payable are unsecured and are usually paid within 30 to 60 days of recognition. The carrying amounts of accounts payable are considered to be the same as their fair values, due to their short-term nature. Accounts payable and accrued liabilities also includes, provisions, and other payables. Accounts payable and accrued liabilities are recognized at the amount required to be paid, less, when material, a discount to reduce accounts payable to fair value. Subsequently, accounts payable and accrued liabilities are measured at amortized cost using the effective interest rate method. Financial liabilities are classified as current liabilities if payment is due within twelve months. Otherwise, they are presented as non-current liabilities.

The Company is not party to any derivative financial instruments.

Impairment of financial assets

At each reporting date, the Company assesses whether there is objective evidence that a financial asset is impaired. Objective evidence that financial assets are impaired can include default or delinquency by a debtor, restructuring or an amount due to the Company on terms that the Company would not otherwise consider, or indications that a debtor or issuer will enter bankruptcy.

The Company applies the IFRS 9 simplified approach to measuring expected credit losses, which uses a lifetime expected loss allowance for all trade receivables and contract assets. To measure the expected credit losses, trade receivables, unbilled receivables, and other assets, have been grouped based on shared credit risk characteristics and the days past due.

The expected loss rates are based on payment profiles of sales over prior periods and the corresponding historical credit losses experienced during this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle receivables.

Impairment losses on financial assets are measured at amortized cost and are calculated as the difference between the carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognized in profit or loss and recorded as expected credit loss against receivables. When a subsequent event causes the impairment loss to decrease, the decrease is reversed through profit or loss.

Convertible debentures

IAS 32, *Financial instruments: presentation*, requires the issuer of a non-derivative financial instrument to evaluate the terms of the financial instrument to determine whether it contains both a liability and an equity component. This evaluation is based on the contractual terms of the financial instrument, the substance of the arrangement and the definition of a financial liability, financial asset and an equity instrument. If such components are identified, they must be accounted for separately as financial liabilities, financial assets or equity.

The liability component of the Company's convertible debentures is measured at the fair value of a similar liability that does not have an associated equity conversion feature. The equity component is allocated the residual difference between the difference between the fair value of the compound instrument (total issue proceeds) and the liability component. The equity component is credited directly to equity and is not subsequently remeasured nor reclassified to profit or loss.

Transaction costs that relate to the issue of a compound financial instrument are allocated to the liability and equity components of the instrument in proportion to the allocation of proceeds. Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or liability and includes fees and commissions paid to agents (including employees acting as selling agents), advisers, brokers, and dealers.

The initial carrying amount of the Company's convertible debenture is adjusted for transaction costs. Transaction costs related to the liability component are included in the calculation of the amortized cost using the effective interest method and included in interest expense recognized over the life of the instrument. Transaction costs allocated to the equity component are offset against the amount recognized in equity.

Changes in Accounting Policies Including Initial Adoption

The Company has adopted the new and amended IFRS as listed below as at November 1, 2018, in accordance with the transitional provisions outlined in the respective standards. There were no other changes to accounting policies during the year ended October 31, 2019 compared to the accounting policies applied in the audited Consolidated Financial Statements for the year ended October 31, 2018.

Changes to accounting policies

IFRS 2, Share-based Payments

In June 2016, the IASB issued final amendments to IFRS 2, which clarifies how to account for certain types of share-based payment transactions. The amendments provide requirements on the accounting for: (i) the effect of vesting and non-vesting conditions on the measurement of cash-settled share-based payments; (ii) share-based payment transactions with a net settlement feature for withholding tax obligations; and (iii) a modification to the terms and conditions of a share-based payment that changes the classifications of the transaction from cash-settled to equity-settled. The amendments are effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. There were no adjustments related to the amendments to IFRS 2 in the 2019 Consolidated Financial Statements.

IFRS 9, *Financial instruments*

Effective November 1, 2018, the Company has adopted IFRS 9 *Financial Instruments* ("**IFRS 9**") in its Consolidated Financial Statements. IFRS 9 introduces new requirements for the classification, and measurement of financial assets and financial liabilities, including derecognition. The new standard also includes a single ECL impairment model. IFRS 9 replaces IAS 39, *Financial instruments: recognition and measurement* ("**IAS 39**") and significantly amends other standards dealing with financial instruments such as IFRS 7, *Financial Instruments: Disclosures*.

Classification and measurement

Financial assets are initially recognized at fair value plus directly applicable transaction costs, except for financial assets at fair value through profit and loss ("**FVPL**"), for which transaction costs are expensed.

Subsequent measurement of financial assets under IFRS 9 is at FVPL, amortized cost, or fair value through other comprehensive income ("**FVOCI**"). The classification is based on two criteria: the Company's business approach for managing the financial assets; and whether the instruments' contractual cash flows represent "solely payments of principal and interest" on the principal amount outstanding (the "**SPPI**" criterion). The business approach considers whether a Company's objective is to receive cash flows from holding assets, from selling assets in a portfolio, or a combination of both.

- Amortized cost: Assets held for collection of contractual cash flows, when they meet the SPPI criterion, are measured at amortized cost. Items in this category include cash and cash equivalents, short-term investments, accounts receivables, and other assets.
- FVOCI: Assets held within a business approach both to collect cash flows and sell the assets, when they meet the SPPI criterion, are measured at FVOCI. Interest income from these financial assets is included in finance income using the effective interest rate method. Impairment and foreign exchange gains and losses are reported in income.
- FVPL: Assets that do not meet the criteria for amortized cost or FVOCI are measured at FVPL with realized and unrealized gains and losses reported in income.

The Company reclassifies financial assets only when its business approach for managing those assets changes

Impairment under IFRS 9

The adoption of IFRS 9 changed the Company's accounting for impairment losses for financial assets by replacing IAS 39's incurred loss approach with the forward-looking expected credit loss ("ECL"). Accounts receivable and unbilled revenue, and other assets are subject to the new ECL model.

IFRS 9 requires the Company to record an allowance for ECL either based on a 12-month ECL or on a lifetime ECL. Assets within the scope of IFRS 9 that are considered to have low credit risk have an impairment provision recognized during the period limited to 12-month ECLs. However, when there has been a significant increase in credit risk since origination, the allowance will be based on the lifetime ECL. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive.

For accounts receivable the Company applies the simplified provision matrix approach permitted by IFRS 9, which requires lifetime ECLs to be recognized from initial recognition.

Changes in accounting policies resulting from the adoption of IFRS 9 have been applied retrospectively. However, in accordance with the IFRS 9 transitional provisions, the Company has elected not to restate the comparative periods. Financial instruments derecognized prior to the effective date were accounted for in accordance with IAS 39, as permitted under the transitional provisions of IFRS 9. The IFRS 9 adoption did not impact the measurement or carrying amounts of financial instruments and therefore did not impact deficit.

IFRS 15, *Revenue from contracts with customers*

Effective November 1, 2018, the Company adopted IFRS 15 *Revenue from Contracts with Customers* ("**IFRS 15**") using the modified retrospective approach. As a result, the after-tax cumulative effect of initially applying IFRS 15 was recognized as an adjustment to opening deficit as at November 1, 2018. Comparative information has not been restated and continues to be reported under IAS 18, *Revenue* and IAS 11, *Construction Contracts*.

The Company used a practical expedient, as permitted in the transition requirements, to apply IFRS 15 only to contracts not completed at November 1, 2018.

On adoption of IFRS 15, the after-tax impact on opening retained earning reduced the deficit as follows:

Retained deficit		November 1, 2018
Capitalization of costs to acquire contracts	$	221
Contract modification		13
Contract duration and variable consideration		38
Total impact of change in accounting policy	$	272

Capitalization of costs to acquire contracts

Under IFRS 15, the Company capitalizes and amortizes commission costs that relate to contracts on a systematic basis, consistent with the pattern of transfer of the goods or services to which the commission costs relate.

Capitalized commission costs are included in other assets and other long-term assets in the Consolidated Statements of Financial Position and amortized over the period of expected benefit using the estimated customer retention period, which typically aligns to the term of the related revenue contract. Amortization of capitalized commission costs is included in selling, general and administrative costs in the Consolidated Statements of Loss and Comprehensive Loss.

Contract modification

Contract modifications are assessed under IFRS 15 based on whether the new promised goods or services are distinct, and whether the price reflects the SSP. A modification that results in a new distinct performance obligation, where the price of the modification represents SSP, is accounted for as a separate contract. A modification that results in a new distinct performance obligation, but that does not represent the SSP, requires the termination of the original contract and the allocation of remaining consideration to the remaining performance obligations from the original contract and the modification. If the modification does not result in a new distinct performance obligation, the transaction price is updated as well as the measure of progress and results in a cumulative true-up to revenue.

Contract duration and variable consideration

The Company generates revenue from data subscription contracts in which data is typically provided over time. The contract duration under IFRS 15 is the period both parties have enforceable rights and obligations. Given the nature of the Company's contractual terms for data subscriptions, the duration of the contract for revenue recognition may differ from the stated contractual term, which could affect the amount of revenue recognized where the Company's contractual prices vary over the stated contract term. Revenue is measured based on the consideration the Company expects to be entitled to in exchange for providing data, excluding taxes collected from clients, which are reimbursable to government authorities.

Variable consideration is estimated by determining the most likely amount the Company expects to be entitled to unless the contract includes a range of possible outcomes for performance-based amounts. In that case, the expected value is determined using a probability weighting of the range of possible outcomes. Variable consideration is included in estimated revenue to the extent it is highly probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Estimates of variable consideration are based on historical experience, anticipated performance, and management's best judgment based on the information available at the time.

International Financial Reporting Interpretations Committee ("IFRIC") 22, Foreign Currency Transactions and Advance Consideration ("IFRIC 22")

IFRIC 22 clarifies the appropriate exchange rate to use on initial recognition of an asset, expense or income when advance consideration is paid or received in a foreign currency. The new interpretation was effective for annual periods beginning on or after January 1, 2018. There were no adjustments related to the adoption of IFRIC 22 in the 2019 Consolidated Financial Statements.

For additional information, refer to note 3 (Changes to accounting policies and future accounting changes) in the Notes to the Consolidated Financial Statements.

Future changes to accounting policies

A number of new standards, amendments to standards and interpretations are not effective for the Company and have not been applied in preparing the Consolidated Financial Statements. The following standards and interpretations have been issued by the International Accounting Standards Board ("**IASB**") and the International Financial Reporting Interpretations Committees with effective dates relating to the annual accounting periods starting on or after the effective dates as follows:

IFRS 16, Leases ("**IFRS 16**")

IFRS 16, Leases is a new standard effective for fiscal years beginning on or after January1, 2019, and may be early adopted for companies that also apply IFRS 15. The standard replaces current guidance under IAS 17, Leases ("**IAS 17**") and no longer distinguishes between a finance lease and an operating lease for lessees. Instead, for virtually all lease contracts, the lessee recognizes a lease liability reflecting future lease payments and a right-of-use asset. Lessor accounting remains somewhat similar as under IAS 17.

The Company intends to adopt IFRS 16 in its Consolidated Financial Statements for the annual period beginning on November 1, 2019 using the modified retrospective approach and as a result the comparative information will not be restated and will continue to be reported under IAS 17 and IFRIC 4.

The extent of the impact on the Consolidated Financial Statements of adoption of the standard has not yet been determined. However, based on the review completed to date, the Company believes that on adoption of IFRS 16 there will be no impact on revenue but there will be an increase to assets and liabilities on the Consolidated Statements of Financial Position to reflect the right-of-use asset and corresponding lease liability and an increase to depreciation expense and finance costs, offset by lower operating lease expenses. Additionally, an increase in cash flow from operating activities is also expected as lease payments will be recorded as financing outflows in the Consolidated Statement of Cash Flows.

The lease liability will be measured at the present value of the future lease payments at the date of adoption. A valuation approach to discount the population of leases has been developed and the Company is in the final stages of assessing the methodology, the deemed commencement date for calculation of the right-of-use assets and the incremental borrowing rate to be applied.

In general, the right-of-use asset will be depreciated using the straight-line method from the date of adoption to the end of the lease term. Interest on the lease liability will be calculated using the effective interest method with rent payments reducing the liability.

The quantitative impact of adopting IFRS 16 will be provided in the Company's Q1 2020 Interim Condensed Consolidated Financial Statements. The Company is currently in the process of upgrading its existing systems, processes and internal controls to account for IFRS 16.

IFRIC 23, Uncertainty over Income Tax Treatments

Uncertainty over Income Tax Treatments provides guidance when there is uncertainty over income tax treatments including (but not limited to) whether uncertain tax treatments should be considered separately; assumptions made about the examination of tax treatments by tax authorities; the determination of taxable profit, tax bases, unused tax losses, unused tax credits, and tax rates; and the impact of changes in facts and circumstances. The new interpretation is effective for annual periods beginning on or after January 1, 2019. The Company is currently assessing the impact of the new interpretation in its Consolidated Financial Statements.

CONTROLS AND PROCEDURES

Disclosure controls and procedures

The Company's disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by the Company in reports filed under Canadian securities laws is recorded, processed, summarized and reported within the time periods specified under those laws, and include controls and procedures that are designed to ensure that information is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Management's report on internal control over financial reporting

Internal control over financial reporting is designed to provide reasonable, but not absolute, assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS. Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis. The Company used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) 2013 framework to evaluate the effectiveness of internal control over financial reporting.

Changes in internal controls over financial reporting

The Company made no changes to internal controls over financial reporting during the quarter ended October 31, 2019, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

OUTSTANDING SHARE DATA

The number of issued and outstanding common shares was 21,703,415 as of the date of this MD&A.