

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
or

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For The Fiscal Year Ended **October 31, 2020**

Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

or

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell report.....

Commission File No. **0-26005**

MICROMEM TECHNOLOGIES INC.

(Exact name of Registrant as specified in its charter)

Ontario, Canada

(Jurisdiction of incorporation or organization)

121 Richmond Street West, Suite 304

Toronto, Ontario M5H 2K1, Canada

Tel: (416) 364-6513

Fax: (416) 360-4034

(Address of principal executive offices)

Joseph Fuda; 416-364-6513, jfuda@micromeminc.com, 121 Richmond Street West, Suite 304 Toronto, ON M5H 2K1

(Name, Telephone, E-Mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

None

Securities registered or to be registered pursuant to Section 12(g) of the Act:

Common Shares without par value

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

402,552,453 Common Shares

Indicate by check mark if the registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act:

Yes No

If this report is an annual or transition report, indicate by check mark if the registration is not required to file a report pursuant to section 13 or 15 of the Securities Exchange Act of 1934:

Yes No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days:

Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

Indicate by check mark whether the registrant is a large, accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large, accelerated filer," "accelerator filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large Accelerated Filer

Accelerated Filer

Non-Accelerated Filer

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act (15 U.S.C. 7262(b) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued
by the International Accounting Standards Board

Other

1. If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the Registrant has elected to follow:

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act):

Yes No

TABLE OF CONTENTS

	Page
<u>Part I</u>	<u>4</u>
<u>Item 1.</u>	<u>4</u>
<u>Item 2.</u>	<u>4</u>
<u>Item 3.</u>	<u>4</u>
<u>Item 4.</u>	<u>14</u>
<u>Item 4A.</u>	<u>20</u>
<u>Item 5.</u>	<u>20</u>
<u>Item 6.</u>	<u>30</u>
<u>Item 7.</u>	<u>34</u>
<u>Item 8.</u>	<u>35</u>
<u>Item 9.</u>	<u>35</u>
<u>Item 10.</u>	<u>36</u>
<u>Item 11.</u>	<u>43</u>
<u>Item 12.</u>	<u>43</u>
<u>Part II</u>	<u>43</u>
<u>Item 13.</u>	<u>43</u>
<u>Item 14.</u>	<u>43</u>
<u>Item 15.</u>	<u>43</u>
<u>Item 16.</u>	<u>44</u>
<u>Item 16A</u>	<u>44</u>
<u>Item 16B</u>	<u>44</u>
<u>Item 16C</u>	<u>44</u>
<u>Item 16D</u>	<u>45</u>
<u>Item 16E</u>	<u>45</u>
<u>Item 16F</u>	<u>45</u>
<u>Item 16G</u>	<u>45</u>
<u>Item 16H</u>	<u>45</u>
<u>Part III</u>	<u>45</u>
<u>Item 17.</u>	<u>45</u>
<u>Item 18</u>	<u>45</u>
<u>Item 19.</u>	<u>46</u>
<u>Signatures</u>	<u>46</u>

PART I

INTRODUCTION

Abbreviations

Throughout this document, Micromem Technologies Inc. and/or its affiliates are referred to as "Micromem", the "Company", "we", "us" or "our".

Forward Looking and Cautionary Statements

This Form 20-F contains certain forward-looking statements. These forward-looking statements are based on current expectations, estimates and projections about the business of our Company and the industry in which we operate, our management's beliefs, and assumptions made by our management. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks" and "estimates," variations on such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions which are difficult to predict. Our actual results could differ materially from those expressed or forecasted in these forward-looking statements as a result of certain factors, including those set forth under Item 3-Key Information - Risk Factors and elsewhere in this Form 20-F.

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. Selected Financial Data

Fiscal Years 2020, 2019, 2018, 2017 and 2016

The following table sets forth our selected consolidated financial data in United States dollars as of and for each of the fiscal years ended October 31, 2020, October 31, 2019, October 31, 2018, October 31, 2017 and October 31, 2016. The selected consolidated financial data has been derived from our audited consolidated financial statements. All information contained in the following table should be read in conjunction with our audited consolidated financial statements and the notes thereto in "Item 18-Financial Statements" and "Item 5 - Operating and Financial Review and Prospects" included elsewhere in this Annual Report on Form 20-F.

Our consolidated financial statements for the years ended October 31, 2020, 2019, 2018, 2017 and 2016 have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board.

International Financial Reporting Standards

Selected balance sheet information (all amounts in U.S. dollars)

	2020	2019	2018	2017	2016
Working Capital (deficiency)	(4,202,571)	(4,301,324)	\$ (3,828,503)	\$ (3,865,390)	\$ (4,316,730)
Capital Assets	49,249	2,677	9,228	9,822	10,988
Total Assets	278,026	83,484	710,737	916,643	736,043
Capital Stock	85,463,642	84,153,696	82,282,903	80,198,194	75,855,139
Shareholder's (deficiency)	(4,187,342)	(4,278,647)	\$ (3,423,170)	\$ (3,424,106)	\$ (3,902,142)

Selected statement of operations and deficit information (all amounts in U.S. dollars)

	2020	2019	2018	2017	2016
Interest and other income	\$ -	\$ -	\$ -	\$ -	\$ -
Research and development expenses (recovery)	-	(41,546)	(130,069)	147,008	3,635,613
General and administrative and other expenses ⁽⁶⁾	948,420	1,599,137	1,742,463	3,004,027	2,950,978
(Gain) on revaluation of derivatives liabilities ⁽¹⁾	(771,920)	(343,436)	(1,094,772)	(1,614,822)	(295,616)
Loss on conversion of debentures ⁽²⁾	96,484	101,919	63,852	1,009,680	-
(Gain) on extinguishment of debt ⁽⁵⁾	(127,409)	(646)	(399,191)	-	-
Accretion expense ⁽³⁾	1,099,818	1,517,436	2,039,344	1,358,101	514,560
Stock compensation expense ⁽⁴⁾	-	-	140,612	442,206	-
Loss before income taxes	(1,245,393)	(2,832,864)	(2,362,239)	(4,346,200)	(6,805,535)
Net Loss	(1,245,393)	(2,832,864)	(2,362,239)	(4,346,200)	(6,805,535)

(1) (Gain) on revaluation of derivative liabilities for 2020, 2019, 2018, 2017 and 2016 above relates to the measurement of the derivative liabilities relating to the outstanding convertible bridge loans. The gain as reported is a non-cash charge which is calculated in accordance with IFRS.

(2) Loss on conversion of debt relates to the inducement of additional common shares issued to the bridge loan lenders who converted their bridge loans to common shares.

(3) Accretion expense is a non-cash expense calculated in accordance with IFRS and relates to increasing the face value of the debt to the contracted amount over the term of the loan.

(4) Stock compensation expense is a non-cash expense calculated in accordance with the Black Scholes option pricing model or the binomial pricing mode

(5) Gain on extinguishment of debt relates to the replacement of an existing debt instrument at maturity date with a new debt instrument reflecting revised renewal terms at maturity date.

(6) Includes general and administrative expenses, professional fees, other fees, salaries, travel and entertainment expenses, amortization expense, interest expense and financing costs. Also included in 2020 is the recovery of a reserve of \$205,788 for litigation costs which was recorded in 2018-19.

Currency and Exchange Rates

Our financial statements are all expressed in United States dollars. All other financial data appearing in this Form 20-F are expressed in United States dollars with the exception of certain limited cases when reference is made to instruments denominated in Canadian dollars ("CDN \$").

Transactions that were conducted in Canadian dollars or other foreign currencies have been converted into United States dollars using the 3 month average rate of exchange per quarter which rate approximates the rate of exchange prevailing at the date of such transactions. Monetary assets and liabilities denominated in Canadian dollars or other foreign currencies but expressed in this Form 20-F in United States dollars have been converted into United States dollars at the rate of exchange prevailing on the date of the applicable financial statement. Non-monetary assets and liabilities denominated in Canadian dollars but expressed in this Form 20-F in United States dollars have been converted into US dollars at the historical exchange rate at the date of the transaction.

The following table sets forth, for the periods indicated, the high, low, end of period and average for period based on the Noon Buying Rates as published by the Bank of Canada, as expressed in the amount of U.S. Dollars equal to one Canadian dollar.

	2020	2019	2018	2017	2016
High for period	0.7863	0.7699	0.7513	0.8245	0.7972
Low for period	0.6898	0.7353	0.8138	0.7276	0.6854
End of period	0.7854	0.7699	0.7609	0.7971	0.7461
Average for period	0.7461	0.7529	0.7767	0.7708	0.7538

The following table sets forth, for each period indicated, the high and low exchange rates for United States dollars expressed in Canadian dollars on the last day of each month during such period, based on the Noon Buying Rate.

	February	March	April	May	June	July
	2020	2020	2020	2020	2020	2020
High	1.3429	1.4187	1.3922	1.3787	1.3682	1.3432
Low	1.3361	1.4156	1.3910	1.3764	1.3628	1.3404
	August	September	October	November	December	January
	2020	2020	2020	2020	2020	2021
High	1.3097	1.3391	1.3349	1.2985	1.2769	1.2726
Low	1.3042	1.3339	1.3318	1.2965	1.2732	1.2716

On February 18, 2021 the noon buying rate for one Canadian dollar, as quoted by the Bank of Canada, was CDN \$1.2696 = U.S. \$1.00.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

We and our investors face a number of risks, which are described below.

Risk Factors Related to Our Business

The financial statements of our Company have been prepared on a going concern basis.

We have prepared our financial statements on a "going concern" basis which presumes that we will be able to realize our assets and discharge our liabilities in the normal course of business for the foreseeable future.

Our ability to continue as a going concern is dependent upon the successful commercialization of our sensor technology platforms that we currently have under development with our industry partners. Ultimately, we must achieve a profitable level of operation through licensing fees, royalties and the commercial sale of our products. We will require additional financing in the interim to fund our activity.

At October 31, 2020 we had \$191,479 of cash on hand. Our working capital deficiency is \$4,202,571 at October 31, 2020. Subsequent to October 31, 2020, through to the date of the filing of this Annual Report on Form 20-F, we have raised an additional \$52,000 through the issuance of convertible debentures and \$95,815 through seven private placements.

Our consolidated financial statements, which have been prepared on a going concern basis, do not include any adjustments to the amounts and classifications of the assets and liabilities that might be necessary should we be unable to continue in business. If the going concern assumption was not appropriate for our financial statements then adjustments would be necessary in the carrying value of assets and liabilities, the reported expenses and the balance sheet classifications used. Such adjustments could be material.

The COVID-19 pandemic creates additional risk for the Company if there is a prolonged industry slowdown in those sectors where the Company currently operates, including the oil and gas sectors in particular. The Company has encountered delays in the commercialization plans for its technology with its primary customers. There remains considerable uncertainty as of this date as to the duration of the pandemic. If the pandemic continues for an extended period of time in 2021, there could be repercussions to the Company's ongoing business which could be significant.

We currently have no operating revenue.

We have not yet reported commercial revenues from licensing fees, royalties or product sales. If we fail to enter into license agreements or if we do not obtain purchase orders from potential customers, we will have no revenues. If we enter into such agreements the amount of the revenues we receive will depend on the terms we are able to secure from each licensee and the ability of licensees to compete in their particular market.

There are market risks relating to the sale of our sensor technology platforms.

We continued to develop applications of our sensor technology in 2020 working with our technical advisors and our strategic development partners. We are pursuing joint development agreements with potential strategic partners with the expectation that we will jointly develop sensor applications for use by these potential strategic partners. We believe that these current initiatives will result in revenues and cash flow to the Company in the future but there can be no assurance when and if such revenues will be achieved.

We may face competition from larger corporations which also sell sensor technology and who have greater financial resources than the Company.

Our success will in part be determined by the following factors which have not yet been fully and completely tested nor measured: the ability of manufacturers to incorporate the technology into existing manufacturing capabilities without significant retooling and material costs, price competitiveness and the differential performance advantages of our technology.

Additionally, our ability to compete successfully will depend on elements outside of our control, including the rate at which customers incorporate our technology into their products, the success of such customers in selling those products, our protection of our intellectual property, the number, nature and success of our competitors and their product introductions and general market and economic conditions. Our success will depend on our ability to protect our intellectual property, to develop, introduce, and license or sell in a timely manner our technology or products incorporating our technology and to compete effectively on the basis of factors such as speed, density, die size and power consumption.

Failure to secure continued financing will cause our business to suffer.

Since there is no assurance that commercial revenues will be realized in future, we will need additional financing to continue our development and to successfully market our technology to potential licensees and strategic partners.

There can be no assurance that we will be able to continue to raise sufficient financing in the future and the failure to do so would affect our ability to further develop our technology platforms and to market our products to existing and new potential customers.

Because much of our success and value depends on our ownership and use of intellectual property, our failure to protect our property could adversely affect our future growth and success.

Our success will depend, in part, on our ability to protect our intellectual property. We rely primarily on patent, copyright, trademark and trade secret laws, as well as nondisclosure agreements and other methods to protect our proprietary technology and processes. Despite our efforts to do so, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology, develop similar technology independently or design around our patents. Policing unauthorized use of our products is expensive and difficult, and we cannot be certain that all required steps we have taken will prevent misappropriation or infringement of our intellectual property.

Intellectual property claims against us, no matter how groundless, could cause our business to suffer.

Our future success and competitive position depend in part on our ability to retain rights to our technology, including any improvements that may be made on that technology from time to time by us or on our behalf. Certain of our technology is patented or is subject to pending patent applications in the United States and abroad and we know of no challenge that has been made either against our technology or our rights to it. We have no reason to believe that any such challenge might be made or that the grounds for any such challenge exist. If any intellectual property litigation were to be commenced against us, no matter how groundless, the result could be a significant expense to us, adversely affecting further development, licensing and sales, diverting the efforts of our technical and management personnel and, in the event of an adverse outcome, damages and possible restrictions on the further development, licensing and use of our technology. There can be no assurance that any of our outstanding pending patent applications will be issued as patents or that any issued patent will not be determined to be invalid at a later date.

We have a history of losses, and we may continue to generate losses in future.

To date, we have operated as a product development company and have not been profitable. Unless and until we are able to successfully commercialize our technology applications, we may not be able to generate sufficient revenues in future periods and we may not be able to attain profitability.

The further development of our sensor technology may require significant additional capital which we may have to fund directly if we are unable to secure financing from development partners. Therefore, we may incur expenses without receiving equal and offsetting revenues at least until we are able to license our technology to third parties. This may result in net operating losses until we can generate an acceptable level of revenues. Further, even if we achieve operating revenues, there can be no assurance that such revenues will be sufficient to fund continuing operations.

The likelihood of the success of our business plan must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with developing and expanding early stage businesses and the competitive environment in which we operate.

We will be dependent upon the success of a limited range of products.

The range of products we intend to commercialize is currently limited to applications of our sensor technology. If we are not successful in commercializing our technology platforms, or if there is not adequate demand for such technology or the market for such technology develops less rapidly than we anticipate, we may not have the capability to shift our resources to the development of alternative products on a timely basis. This could limit future revenues and profitability.

We may not realize income from the licensing of our technologies if our licensees fail to commercialize the products that incorporate these technologies.

In order to generate revenues from our sensor technology platforms, we will need to enter into licensing arrangements with third parties who can integrate our technology into products that will gain acceptance in the market. We have not yet entered into any licensing agreements, and there is no assurance that we will be able to do so on acceptable terms in future. To the extent we are successful in licensing our technology; in general we will seek upfront payments plus ongoing royalties based on anticipated commercial sales of the products into which our technology is incorporated. Our ability to realize royalties will thus depend upon the successful manufacture and commercialization of such products, which will be primarily within the control of the licensee. There is no assurance that such licensees will be successful in marketing and selling such products. In addition, licensees could decide to delay or discontinue the commercialization of products for financial or other business reasons. Even if our licensees succeed in developing products that incorporate our technology, in all likelihood a significant amount of development and testing will be required before such products can be introduced to market. Therefore we may not receive royalty income for a substantial period following the commencement of any licensing arrangements. If our licensees are unable to commercialize products on a timely basis, they may lose market share to competing or alternative technologies. Any failure by the companies to which we license our technologies to successfully develop marketable products would have an adverse effect on our future royalty payments and financial condition.

In order to commercialize our future products, we will need to establish a sales and marketing capability.

At present, we have limited sales and marketing capability and our financial resources have been limited. We will need to add marketing and sales expertise and must also develop the necessary supporting distribution channels. Although we believe we can build the required infrastructure either in-house or through strategic relationships, we may not be successful in doing so. Failure to establish a sales force and distribution network would have an adverse effect on our ability to grow our business.

We depend on key personnel.

Our senior managers and employees are Joseph Fuda, who serves as our Chief Executive Officer, and Dan Amadori, who serves as our Chief Financial Officer. We have engaged the services of several engineering/technical consulting firms to assist in converting our development efforts to commercialization. Our success depends on our ability to retain certain of our senior management and key technical personnel, our ability to attract and retain additional highly skilled personnel in the future and to maintain our working relationships with our engineering and technical consulting firms to whom we have historically subcontracted our development work.

Steven Van Fleet resigned as President of our wholly-owned subsidiary, Micromem Applied Sensor Technologies, Inc. (MAST) in August 2018. Micromem has engaged other consultants since September 2018 to assist the Company after Mr. Van Fleet's departure. There can be no assurances that such efforts will be successful.

We are currently engaged in a lawsuit with a former officer and director of the Company.

On October 7, 2018, the former President of MAST, Mr. Steven Van Fleet, filed a lawsuit against Micromem and MAST in New York State Supreme Court, Dutchess County. In the action, Mr. Van Fleet is seeking payment of \$214,574 plus interest relating to alleged remuneration and expense reimbursements due to him prior to his resignation as an officer and director of Micromem and MAST on August 17, 2018. The Company answered the complaint on December 7, 2018 by denying the material allegations in Mr. Van Fleet's claims. In addition, the Company interposed 7 counterclaims against Mr. Van Fleet seeking, among other things: (i) damages of not less than \$2.75 million, (ii) specific performance to compel Mr. Van Fleet to comply with his contractual obligations which were required for the period of time that he served as an officer and director through to his resignation date; (iii) repayment of certain salary and expenses paid to Mr. Van Fleet; (iv) a direction for Mr. Van Fleet to turn over all Company property in his possession or control; and (v) an accounting to determine all money and property belonging to the Company and/or MAST. On January 24, 2019, the Company amended its original answer and counterclaims to include, among other things, a demand for additional damages. On February 8, 2019 Mr. Van Fleet, through his counsel, replied to and denied the material allegations in Micromem's counterclaims.

In January 2020, the court set a schedule for completing discovery, which later had to be revised due to the COVID-19 pandemic. In May 2020, the court revised the discovery schedule, which required the parties to complete depositions and all remaining discovery by August 26, 2021. Counsel for the parties agreed that Mr. Van Fleet's deposition would proceed on July 31, 2020. The day before the deposition, Mr. Van Fleet's counsel advised the Company's counsel that if Mr. Van Fleet were to appear at the deposition, he would invoke his Fifth Amendment right not to incriminate himself with respect to the Company's counterclaims, and that rather than doing so, Mr. Van Fleet had chosen not to appear for his deposition and would never appear for his deposition in the future. In light of this development, on September 25, 2020 the Company's counsel moved for a default judgment, asking the court to strike Mr. Van Fleet's claims and to enter a judgment in the Company's favor on its counterclaims. Mr. Van Fleet has not submitted any opposition to the motion. Although the motion has not yet been decided, given that the facts and law support a default, and the motion is unopposed, we anticipate that the court will grant the motion striking Mr. Van Fleet's claim and schedule a hearing to determine the Company's damages on its counterclaims.

Micromem has now filed for default judgement of all Mr. Van Fleet's alleged claims and is now seeking a judgement for damages against Mr. Van Fleet as contemplated in the counter-claim which it filed on January 24, 2019. Based on these developments, we believe that, at October 31, 2020, the reasonable value of Mr. Van Fleet's claims against the Company was \$nil. At October 31, 2020, the Company has eliminated the accrual of \$205,788 which it reflected in its accounts at October 31, 2019 with respect to the alleged remuneration and expense reimbursements originally claimed by Mr. Van Fleet in October 2018. While the Company is currently seeking judgement for damages, it has not reflected any amount as receivable at October 31, 2020 as there is no certainty to date that damages will be awarded to the Company.

A depressed oil and gas sector could place our development projects at risk.

Certain of our development partners are engaged primarily in the oil and gas sector. If market conditions are depressed for this sector, there is a risk that such companies could defer or cancel previously established capital expenditure programs or product development initiatives. If these situations arose with our development partners in this sector, our related development projects could be at risk of delays or cancellation.

Risks associated with the COVID-19 pandemic:

The impact on the Company of the COVID-19 pandemic during the 2020 fiscal year has been significant. Management has taken a number of remedial steps including (i) closed the office in mid-March, and it remains closed as of the date of this Annual Report. Our staff is working remotely from their homes, (ii) utilized the Canada Employment Wage Subsidy program from the Canadian Federal Government to support our payroll obligations in 2020, (iii) utilized the Canadian Federal Government small business loan program and secured a \$40,000 CDN (\$30,629 USD) term loan which is as described in our consolidated financial statements. An additional \$20,000 CDN (\$15,135 USD) of term loan financing under this program was secured in January 2021, (iv) regular phone and electronic contact with our key service providers, subcontractors, and customers, and (v) all business-related travel was suspended as of March 10, 2020.

There remains substantial uncertainty as to the duration of the pandemic. If the pandemic continues for an extended period of time in 2021, there may be repercussions to the Company's ongoing business which could be significant.

We may be materially affected by global economic, political and other conditions beyond our control.

Our ability to generate revenue may be adversely affected by uncertainty in the global economy and could also be affected by unstable global political conditions. Health epidemics, terrorist attacks or acts of war could significantly disrupt our operations and the operations of our future customers, suppliers, distributors, or resellers. We cannot predict the potential impact on our financial condition or our results of operations should such events occur.

We may be materially affected by rapid technological change and evolving industry standards.

Short product life cycles are inherent in high-technology companies due to rapid technological change and evolving industry standards. Our future financial condition and results of operations depend on our ability to respond effectively to these changes. There can be no assurance that we will be able to successfully do so or adapt our current products to new technologies or new industry standards. In addition, our customers may be reluctant to adopt new technologies and standards or they may prefer competing technologies and standards. Because the technology market changes so rapidly, it is difficult for us to predict the rate of adoption of our technology.

We may be materially affected by risks associated with new product development.

Our new product development is complex and requires us to investigate and evaluate multiple alternatives, as well as plan the design and manufacture of those alternatives selected for further development. Our development efforts could be adversely affected by hardware and software design flaws, product development delays, changes in operating systems and changes in industry standards. The manufacturing of new products involves integrating complex designs and processes, coordinating with suppliers for parts and components and managing manufacturing capacities to accommodate forecasted demand. If we are not successful in meeting these requirements, this could adversely affect our ability to introduce new products on a timely basis.

Our operations may be materially affected by the risks associated with the continued developments and protection of our intellectual property.

There can be no assurance that we will be able to continue to develop new intellectual property or that we will continue to have it developed for us. We rely on a combination of U.S. patent, copyright, trademark, and trade secret laws to protect our intellectual property rights. We previously filed patent and trademark registration applications with certain foreign governments; in 2019 we abandoned certain of these foreign applications. We may not have appropriate coverage in all jurisdictions where we may sell or license our product in future.

We enter into confidentiality and non-disclosure agreements relating to our intellectual property with our employees and consultants. Despite our efforts to protect our intellectual property rights, unauthorized parties may attempt to copy or otherwise obtain or use our intellectual property. Monitoring the unauthorized use of our intellectual property is difficult and we cannot be certain that we will be able to adequately protect our intellectual property in the future.

There are foreign exchange risks associated with our Company.

Because we have historically raised funds in both U.S. and Canadian markets and a portion of our costs are denominated in Canadian dollars, our funding is subject to foreign exchange risks. A decrease in the value of the U.S. dollar relative to the Canadian dollar could affect our costs and potential future profitability. We do not currently hold forward exchange contracts or other hedging instruments to exchange foreign currencies for U.S. dollars so as to offset potential currency rate fluctuations.

Risk Factors Related to Our Common Shares

Our stock is subject to the penny stock regulations, which may discourage brokers from effecting transactions in the stock and adversely affect the stock's market price and liquidity.

Our common shares constitute "penny stock" under applicable regulations of the Securities and Exchange Commission. The penny stock regulations impose significant restrictions on brokers who sell penny stock to persons other than established customers and institutional accredited investors. Broker-dealers participating in sales of our stock will be subject to the so called "penny stock" regulations covered by Rule 15g-9 under the Exchange Act. Under the rule, broker-dealers must furnish to all investors in penny stocks a risk disclosure document required by the rule, make a special suitability determination of the purchaser and have received the purchaser's written agreement to the transaction prior to the sale. The penny stock regulations may discourage brokers from effecting transactions in the common shares. This would decrease market liquidity, adversely affect market price and make it difficult for you to use the common shares as collateral.

The rights of our shareholders may differ from the rights typically afforded to shareholders of a U.S. corporation.

We are incorporated under the Business Corporations Act (Ontario), also referred to herein as the OBCA. The rights of holders of our common shares are governed by the laws of the Province of Ontario, including the OBCA, by the applicable laws of Canada, and by our Articles of Incorporation and all amendments thereto, also referred to herein as the Articles, and our By-laws. These rights differ in certain respects from the rights of shareholders in typical U.S. corporations. The principal differences include without limitation the following:

Under the OBCA, we have a lien on any common share registered in the name of a shareholder or the shareholder's legal representative for any debt owed by the shareholder to us. Under U.S. state law, corporations generally are not entitled to any such statutory liens in respect of debts owed by shareholders.

With regard to certain matters, we must obtain approval of our shareholders by way of at least 66 2/3% of the votes cast at a meeting of shareholders duly called for such purpose being cast in favor of the proposed matter. Such matters include without limitation: (a) the sale, lease or exchange of all or substantially all of our assets out of the ordinary course of our business; and (b) any amendments to our Articles including, but not limited to, amendments affecting our capital structure such as the creation of new classes of shares, changing any rights, privileges, restrictions or conditions in respect of our shares, or changing the number of issued or authorized shares, as well as amendments changing the minimum or maximum number of directors set forth in the Articles. Under U.S. state law, the sale, lease, exchange or other disposition of all or substantially all of the assets of a corporation generally requires approval by a majority of the outstanding shares, although in some cases approval by a higher percentage of the outstanding shares may be required. In addition, under U.S. state law, the vote of a majority of the shares is generally sufficient to amend a company's certificate of incorporation, including amendments affecting capital structure or the number of directors. Under certain circumstances the board of directors may also have the ability to change the number of directors under U.S. state law.

Pursuant to our By-laws, two persons present in person or represented by proxy and each entitled to vote thereat shall constitute a quorum for the transaction of business at any meeting of shareholders. Under U.S. state law, a quorum generally requires the presence in person or by proxy of a specified percentage of the shares entitled to vote at a meeting, and such percentage is generally not less than one-third of the number of shares entitled to vote.

Under rules of the Ontario Securities Commission, a meeting of shareholders must be called for consideration and approval of certain transactions between a corporation and any "related party" (as defined in such rules). A "related party" is defined to include, among other parties, directors and senior officers of a corporation, holders of more than 10% of the voting securities of a corporation, persons owning a block of securities that is otherwise sufficient to affect materially the control of the corporation, and other persons that manage or direct, to a substantial degree, the affairs or operations of the corporation. At such shareholders' meeting, votes cast by any related party who holds common shares and who has an interest in the transaction may not be counted for the purposes of determining whether the minimum number of required votes have been cast in favor of the transaction. Under U.S. state law, a transaction between a corporation and one or more of its officers or directors can generally be approved either by the shareholders or a by majority of the directors who do not have an interest in the transaction. Corporations that are listed on a U.S. securities exchange or are quoted on Nasdaq may also be required to have transactions with officers and directors and other related party transactions reviewed by an audit committee comprised of independent directors.

There is no limitation imposed by our Articles or other charter documents on the right of a non-resident to hold or vote our common shares. However, the Investment Canada Act, also referred to herein as the Investment Act, as amended by the World Trade Organization Agreement Implementation Act, also referred to herein as the WTOA Act, generally prohibits implementation of a reviewable investment by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a "Canadian," as defined in the Investment Act, unless, after review, the minister responsible for the Investment Act is satisfied that the investment is likely to be a net benefit to Canada. An investment in our common shares by a non-Canadian would be reviewable under the Investment Act if it were an investment to acquire direct control of Micromem, and the value of our assets were CDN \$5.0 million or more. However, an investment in our shares by a national of a country (other than Canada) that is a member of the World Trade Organization or has a right of permanent residence in such a country (or by a corporation or other entity that is a "WTO Investor-controlled entity" pursuant to detailed rules set out in the Investment Act) would be reviewable at a higher threshold of CDN \$344 million in assets, except for certain economic sectors with respect to which the lower threshold would apply. A non-Canadian, whether a national of a WTO member or otherwise, would acquire control of Micromem for purposes of the Investment Act if he or she acquired a majority of our common shares. The acquisition of less than a majority, but at least one-third of our common shares, would also be presumed to be an acquisition of control of Micromem, unless it could be established that Micromem was not controlled in fact by the acquirer through the ownership of voting shares. The United States is a WTO Member for purposes of the Investment Act. Certain transactions involving our common shares would be exempt from the Investment Act, including:

- an acquisition of our common shares if the acquisition were made in connection with the person's business as a trader or dealer in securities.
- an acquisition of control of Micromem in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and
- an acquisition of control of Micromem by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control of Micromem, through the ownership of voting interests, remains unchanged. Under U.S. law, except in limited circumstances, restrictions generally are not imposed on the ability of non-residents to hold a controlling interest in a U.S. corporation.

U.S. shareholders may not be able to enforce civil liabilities against us.

Micromem is incorporated under the laws of the Province of Ontario. Additionally, a number of our directors and executive officers are non-residents of the U.S., and all or a substantial portion of the assets of such persons are located outside the U.S. As a result, should any investor commence an action in the U.S. against Micromem or its directors or executive officers, Micromem or its directors or officers, as the case may be, may be able to insist that any action against them take place in the jurisdiction of the Province of Ontario. In addition, if an investor were to obtain a U.S. judgment against Micromem or its directors or executive officers, there is doubt as to the enforceability of such U.S. judgment in Canada.

We do not anticipate paying dividends.

We have never paid a dividend on our securities and we do not anticipate paying dividends in the foreseeable future.

We may need to issue additional securities which may cause our shareholders to experience dilution.

Our Board of Directors has the authority to issue additional common shares, without par value, or other of our securities without the prior consent or vote of our shareholders. The issuance of additional common shares would dilute the proportionate equity interest and voting power of our shareholders.

The price of our common shares and volume of our common shares may be volatile.

Our shareholders may be unable to sell a significant number of our common shares on the OTCQB without a significant reduction in the market price of the shares.

Furthermore, there can be no assurance that we will be able to meet the listing requirements of, or achieve listing on, any other stock exchange. The market price of the common shares may be affected significantly by factors such as fluctuations in our operating results, announcements of technological innovations or new products by us or our competitors, action by governmental agencies against us or the industry in general, developments with respect to patents or proprietary rights, public concern as to the safety of products developed by us or others, the interest of investors, traders and others in public companies such as ours and general market conditions. In recent years, the securities markets in the United States and Canada have experienced a high level of price and volume volatility, and the market price of securities of many companies, particularly small capitalization companies, have experienced fluctuations which have not necessarily been related to the operating performance, underlying asset values or business prospects of such companies.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of Our Company

Micromem is a corporation formed under the laws of the Province of Ontario, Canada, with principal executive offices at 121 Richmond Street West, Suite 304, Toronto, Ontario M5H 2K1 (416.364.6513). Micromem was incorporated on October 21, 1985 as Mine Lake Minerals Inc. We subsequently changed our name to Avanti Capital Corp. on June 23, 1988, to Avanti Corp International Inc. on April 30, 1992 and to Micromem Technologies Inc. on January 11, 1999 in connection with our acquisition of Pageant Technologies Incorporated, also referred to herein as Pageant International. Our website address is www.micromeminc.com. The information on our website is not part of this Annual Report on Form 20-F. We have included our website address in this document as an inactive textual reference only.

The Evolution of Micromem from Memory to Sensor Based Client Solutions

Micromem Applied Sensors Technologies, Inc., our wholly-owned subsidiary ("MAST") was incorporated in 2008 in the State of Delaware. MAST was formed in connection with a contract with BAE Systems in Nashua, New Hampshire. BAE Systems is a Department of Defense trusted facility, which can only do business with U.S. entities (ITAR regulations). BAE Systems' interest was in the potential to utilize our MRAM technology in a radiation-hardened environment for military applications. During this work it was determined that the Hall sensor, which was integral to the MRAM design, had several performance characteristics that by itself, as a product, would potentially create value for MAST.

Frost & Sullivan was contracted by MAST in 2009 to assess the market opportunities for a late entry into the Hall sensor market. The Hall sensor market in 2009 was robust at an estimated \$1.9 billion USD. The market barriers were mature market, declining margins and heavy competition. A decision was taken to not enter the Hall sensor component market for the above reasons. A decision was taken to explore the market opportunities associated with creating unique sensor based solutions that revolved around our patented Hall sensor technology.

A decision was taken to internally develop, at our own cost, proof of concepts for products that we had gleaned, through our marketing efforts, to have potential market value. These included a magnetic gold sensor for drilling plug analysis, an oil condition sensor for automotive use and an oil/gas aerial exploration platform.

In 2010, MAST was engaged to develop a sensor platform for detecting four nanometer magnetic particles in a flowing oil stream at a concentration less than 1 ppb. Another revenue generating opportunity came in 2011 from a supplier for high speed air bearing motors. MAST replaced the incumbent Hall sensor supplier and delivered a unique circuit board form factor that incorporated the smallest Hall sensor in the world.

In 2011 MAST became aware of the NineSigma Open Innovation model. Nine Sigma's core services connect innovation-seeking companies to the best solutions, capabilities, and partners around the world. MAST's relationship with NineSigma provided us access to the Global Fortune 1000 companies and resulted in a future sales proposal pipeline.

In 2011, a decision was taken to stop research and development effort in the MRAM market space. This decision was taken, in part, due to the high capital demand for staying current in the rapidly changing technology and, equally important, the MRAM market had not grown at the anticipated growth rates. Micromem had amassed multiple memory patents and in 2013 began efforts to value the patent portfolio and attempt to arrange for a sale of these assets.

Until 2014, Micromem funded virtually all of its research and development initiatives. Our main priority was to provide customers with sensor based platform solutions that address their difficult business problems. By 2015 we had advanced a number of our product development initiatives under joint product development agreements with our clients Chevron, Castrol, Flextronics, and Eversource Energy. Our pipeline of development projects expanded.

In 2016 and 2017, we attempted to advance our projects towards field trials. The Flextronics and Eversource projects were ultimately discontinued. We continued with the Chevron and Castrol development projects and began discussions with Repsol SA.

In 2018 the Castrol project was discontinued. We continued to advance our Chevron and Repsol S.A. projects.

In October 2018, Steve Van Fleet filed a lawsuit against the Company and MAST seeking payment of alleged remuneration and expense reimbursements due to him totaling \$214,574. The Company has denied the allegations and, in turn, interposed counterclaims against Mr. Van Fleet seeking, among other things, damages of not less than \$3.0 million. The Company continues to pursue this legal matter as of the date of this Annual Report. See "Item 5 - Contingencies" in this Annual Report.

2019 Developments:

Chevron : In 2019 we continued to engage with Chevron personnel and with our engineering subcontractor, Entanglement Technologies Inc. ("Entanglement"). We met with the Chevron team members in their Houston offices on seven occasions to continue our dialogue and measure our go forward path. We also met directly with Entanglement on three occasions for these purposes. The field testing of the onsite pilot program was coordinated between Chevron, Entanglement and the Company and commenced in March 2019 at a California based oil well site operated by Chevron. The initial on site testing was conducted over a period of approximately six weeks. Thereafter sample testing from the onsite well continued in both the Entanglement and Chevron laboratories. Chevron advised that the results of the testing that has been completed to date has met with their expectations and requirements and that the performance of the technology in the onsite pilot and subsequent lab sample testing has been validated. In 2019, under the terms of the preexisting development agreement with Chevron, they paid \$77,597 relating to the work that the Company invoiced for the ongoing pilot tests.

Romgaz: Romgaz is the state-controlled gas company in Romania. We initiated a dialogue with the senior management team at Romgaz in May 2019. The opportunity developed as a result of the progress that we had experienced with our Chevron initiative which, by that point, has advanced to the onsite pilot program referenced above.

We continued our initial discussions with Romgaz thereafter and, in October 2019, we announced that the Company had executed a letter of intent ("Romgaz LOI") which afforded the Company the opportunity to sell the ARTRA technology units to Romgaz and to develop a robust analytics solution for the technology. The key conditions to progressing the Romgaz LOI were twofold - that Romgaz would continue with their due diligence on the ARTRA technology, and that manufacturing of the commercial units in the future would be completed, with the Company's input, in Romania.

Discussions and negotiations with Romgaz continued after the execution of the Romgaz LOI in October 2019. These discussions involved Chevron whom the Company introduced to Romgaz as part of the Romgaz due diligence process.

As of October 31, 2019, the Company was negotiating with Romgaz with respect to initial purchase orders that Romgaz would be issuing to Micromem - (a) for the purchase of initial units of the existing ARTRA technology for training and education purposes, (b) for a proposal by Micromem to deliver a comprehensive analytics solution to Romgaz for the technology, and, (c) pending satisfactory completion of (b), a purchase order for commercial orders for the technology which is to be manufactured in Romania.

Repsol: In Q1 2019 we submitted a proposed letter of intent ("Repsol LOI") to the Repsol engineering team with whom we engaged in September 2018 after the resignation of Mr. Van Fleet. The Repsol LOI was intended to reset the go forward product development parameters, marketing efforts and cost sharing arrangements for this project. The original Repsol purchase order submitted in 2017 was suspended as part of these current discussions with Repsol.

The underlying technology for the Repsol initiative has been referenced in our 2018 Annual Report as the RT Lube Analyzer. The initial development completed on this technology between 2016-2018 was undertaken by the Company and its engineering subcontract, SBM Microsystems. In 2019 we moved the project to an engineering and manufacturing entity in Toronto Canada. In mid-2019, we began negotiations with the Repsol team towards a final development contract.

B. Business Overview

Update of Product Development Activity at October 31, 2020

The current status of our active development projects is as reported below; in general, the COVID-19 pandemic resulted in delays encountered on the continued progress of our product development initiatives after February 2020.

Chevron: We maintained a dialogue with Chevron throughout 2020. Chevron curtailed development activity in 2020 after the onset of the COVID -19 pandemic. Chevron continues to have interest in our interwell tracer technology. We anticipate that there will be continued opportunity to engage with Chevron with the potential for Micromem to generate commercial sales to Chevron.

Romgaz: Our discussions with Romgaz have been continuous on a weekly basis throughout fiscal 2020 and have continued to progress since our October 31, 2020 fiscal year end. The COVID-19 pandemic has resulted in delays in the execution of our commercial activity with Romgaz during the 2020 fiscal year.

In December 2019 Romgaz put forward a series of questions to Chevron relating to the Chevron experience with the ARTRA technology and the testing that Chevron had conducted in 2019. The dialogue that the Company coordinated between Romgaz and Chevron was positive, and the specifics of these discussions were approved by both parties and posted to the Micromem website on December 20, 2019.

The key go-forward points in these discussions, at the current date are as follows: (i) we are anticipating an initial purchase order for several interwell tracer devices, similar to the technology that Chevron deployed in their California field trials in 2019 - 2020, (ii) Micromem will be commissioned to conduct/lead a development program to enhance and expand the analytics capabilities of the existing technology with the end goal of delivering a comprehensive analytics solution to Romgaz for its specific performance requirements in its gas wells, (iii) Micromem and Romgaz are pursuing discussions whereby the technology application being developed will be manufactured on a commercial scale in Romania, and, (iv) it is expected that the technology that will be manufactured in Romania will be suitable for both oil and gas well applications. A joint venture agreement between Micromem and Romgaz is contemplated.

Repsol: We had minimal contact and interaction with this Spanish energy conglomerate in 2020. We intend to resume this dialogue in 2021.

Other developments: In anticipation of the developments with our strategic partners in 2021, the Company is planning for its business activity to include the following components: (i) continuance of its working relationship with the developer of the Artra 171 technology which Chevron has successfully tested in on site testing of operating oil wells and for which we anticipate Romgaz purchase orders in 2021 and, (ii) we will pursue our plans to develop a captive, small engineering/product development team based in Toronto. In this context, we announced a working relationship with a Toronto-based engineering/manufacturing group ("Group") in the aftermath of the departure of Steve Van Fleet in August 2018. At that time, this Group provided technical guidance and assistance to Micromem as we navigated our discussions with Chevron, Repsol and Romgaz. As our plans to establish this Toronto-based resource develop further, we expect this Group to have a significant role as a strategic partner to Micromem, and (iii) we plan to add additional senior management to the Micromem team in the project management, engineering and financial reporting areas of discipline.

Deferred development costs / development expenses

Until October 31, 2016, we capitalized as deferred development costs the expenditures that we incurred on these projects, net of the recoveries of such costs from our development partners. Since November 2016, we have expensed net costs as such costs did not meet the criteria for capitalization based on our impairment analysis.

We have previously reported on the chronology, by customer, of our investment in development costs relating to our various projects which we undertook with our strategic partners. A summary of these costs and recoveries between 2012 and 2020 is provided as below:

Net Costs absorbed by the Company:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	Total
Cost incurred	4,499,466	225,000	2,035,676	939,458	2,470,329	1,129,168	522,720	11,821,817
Recoveries from development partners	(3,442,050)	(100,000)	(838,500)	(300,000)	(200,000)	-	(46,000)	(4,926,550)
Net costs absorbed by the Company	1,057,416	125,000	1,197,176	639,458	2,270,329	1,129,168	476,720	6,895,267

1. Chevron (2013-2019)
2. Repsol (2018-2019)
3. Castrol (2014-2018)
4. Saudi Aramco (2012-2013)
5. Northeast Utilities (2013-2015)
6. GM/Flextronics (2012-2015)
7. Other (various) (2011-2014)

The Chevron development project has been self-funding after 2016. The Castrol project was suspended in 2018 given that Castrol was not prepared to commit additional funding to the project. The Saudi Aramco contract was completed in 2014. The Northeast Utilities contract was terminated in 2015 given that Northeast Utilities was not prepared to commit additional funding to the project other than in kind consideration. The GM/Flextronics work commenced in 2012; the Company was absorbing all of the costs associated with the development of the prototype product being developed in conjunction with GM/Flextronics. The prototype work was suspended due to the turnover of the GM project team by 2016-2017 and the Company's decision to stop committing additional funding to the project after 2016. The Company has been awarded several patents relating to the work completed on the GM/Flextronics project.

In 2019 the Company incurred \$36,051 of expenses with respect to the ongoing costs associated with the Chevron project and recovered \$77,597 from Chevron including payments received for certain milestones achieved in 2018.

The Company remains as a pre revenue entity at October 31, 2020. It did not incur any further development expenses on any project in 2020 and it did not submit any invoices to any of its customers in 2020.

Given the progress and momentum achieved to date with Chevron and with Romgaz, the Company believes it will have commercial orders and revenues in 2021, although there can be no assurances such orders will be made or that revenues will be achieved.

Intellectual Property

Our intellectual property consists of two components:

- a) A series of patents and provisional patents relating to the smart oil pan plug technology (the formal reference is the "multimodal conditional sensor platform and system thereof") originally developed from the work completed on the GM/Flextronics project.
- b) A series of older patents relating to the Hall sensor application for magnetic random access memory (MRAM). These patents and the market for MRAM applications have not been pursued by the Company since 2009 and all of the costs associated with these patents were written off by 2013 after unsuccessful attempts to sell or license this intellectual property to other parties.

Beginning in 2018, we began to abandon provisional patent filings in a number of international jurisdictions as a costs cutting initiative. We continued that process in 2019 and 2020.

We believe that the U.S. patents that have been granted for the multimodal sensor platform have sustaining value to be realized in future. When the Company's financial position improves, it intends to pursue the exploitation of its patents in this field of endeavors.

Our patent costs are summarized as below for the fiscal years ending October 31, 2020, 2019 and 2018 :

	2020	2019	2018
	\$	\$	\$
Patent expenditures:	-	-	121,603
Patent costs capitalized:	-	-	121,603
Amortization expense:	8,123	152,962	156,960
Impairment Reserve	-	223,143	-

Share Capital

At October 31, 2020, the Company had 402,552,453 common shares outstanding (2019: 346,952,721 common shares outstanding). Additionally, the Company has 2,200,000 stock options outstanding with a weighted average exercise price of \$0.10 per share (2019: 5,730,000 options outstanding with a weighted average exercise price of \$0.25 per share).

Changes to Our Board of Directors and Management:

The Company held its Annual General and Special Meeting of the shareholders for the fiscal years ending 2017, 2018, and 2019 on September 8, 2020. At the meeting Joseph Fuda, Alex Dey and Oliver Nepomuceno were re-elected as directors. Brian Von Herzen, who had served as a director of the Company since 2014 was not a candidate for the Board of Directors at the annual meeting held on September 8, 2020. Joseph Fuda and Dan Amadori continue in their respective roles of CEO and CFO respectively.

Equity Financing Transactions:

In the fiscal year ended October 31, 2020 the Company completed the following transactions:

- (a) Pursuant to prospectus and registration exemptions set forth in applicable securities law, the Company completed private placements consisting of common shares, received net proceeds of \$425,789 and issued a total of 10,996,994 common shares.
- (b) Issuance of 365,094 common shares to settle \$24,826 of trade accounts payable.

- (c) The Company continued its bridge loan financing activities in 2020, specifically:
 - (i) It issued 44,237,644 common shares for the conversion of bridge loans totaling \$859,331.
 - (ii) It realized proceeds of \$612,279 from the issuance of convertible debentures.
 - (iii) It repaid \$150,920 of bridge loans previously secured.
 - (iv) Certain of the bridge loans that matured in 2020 were extended at maturity date, ultimately through October 31, 2020 and thereafter.

In the fiscal year ended October 31, 2019 the Company completed the following transactions:

- (a) Pursuant to prospectus and registration exemptions set forth in applicable securities laws, the Company completed private placements consisting of common shares, received net proceeds of \$212,968 and issued a total of 4,961,059 common shares.
- (b) It issued 350,000 common shares to settle \$21,000 of trade accounts payable.
- (c) The Company continued its bridge loan financing activities in 2019, specifically:
 - (i) It issued 82,038,963 common shares for the conversion of bridge loans totaling \$1,636,825.
 - (ii) It realized proceeds of \$780,891 from the issuance of convertible debentures.
 - (iii) It repaid \$172,198 of bridge loans previously secured.
 - (iv) Certain of the bridge loans that matured in 2019 were extended at maturity date, ultimately through October 31, 2019 and thereafter.

Environmental Matters:

We are subject to various environmental protection regulations imposed by the government in the jurisdiction where we conduct our development work. We are not aware of any current or pending environmental protection laws or regulations that would have a material impact on our capital expenditure requirements or competitive position.

C. Organizational Structure

In November 2007, the Company incorporated Micromem Applied Sensors Technology, Inc. ("MAST") as a Delaware-based wholly-owned subsidiary. MAST had an office in New York City and was being managed by Steven Van Fleet, its then President and a Director of Micromem. We have utilized the services of other consultants to continue the work of MAST since the departure of Mr. Van Fleet in August 2018.

In October 2008, the Company incorporated 7070179 Canada Inc. as a wholly-owned subsidiary. On October 31, 2008, the Company assigned its rights, title, and interest in certain of its intellectual property which it previously held directly to 707179 Canada Inc. in exchange for common shares of this wholly-owned subsidiary.

We have a wholly-owned subsidiary, Pageant International, which was incorporated under the laws of the Turks & Caicos Islands and continued to Barbados on May 25, 2001. Pageant International has a wholly-owned subsidiary, Pageant Technologies (USA) Inc., a corporation incorporated in the State of Utah. Pageant Technologies USA has been inactive since 2002.

We have a wholly-owned subsidiary, Memtech International Inc., incorporated under the laws of the Bahamas, which in turn has a wholly-owned subsidiary, Memtech International (USA) Inc., a corporation incorporated in the State of Delaware. We also have a wholly-owned subsidiary Micromem Holdings (Barbados) Inc. These subsidiaries have been inactive since inception.

D. Property, Plant and Equipment

We maintain our corporate headquarters in Toronto, Ontario, Canada. We occupy 2,500 square feet of commercial office space pursuant to a lease that we extended in February 2017 for five years through 2022. In 2020, the Company sublet a portion of its rental space on a month to month basis and realized \$17,692 of sublet income (2019: \$7,309; 2018: nil)

In 2020 , The Company capitalized \$74,307 of right of use assets under IFRS 16 pertaining to its lease for office premises and recorded an equivalent liability in its accounts.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

This section of the Form 20-F has been prepared to provide a more substantive discussion of our business and to assist the reader in analyzing the audited consolidated financial statements for the years ended October 31, 2020, October 31, 2019, and October 31, 2018. This discussion and analysis of financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes in this Annual Report, which are prepared in accordance with IFRS, as issued by the IASB , and are stated in United States dollars.

Operating Results:

The following table sets forth certain selected financial information of our Company.

Selected statement of operation and deficit information

	2020	2019	2018
Administration	154,007	197,208	305,338
Professional and other fees and salaries	462,124	441,981	747,280
Travel and entertainment	23,903	52,568	101,496
Development costs (recovery)	-	(41,546)	(130,069)
Recovery of reserve for litigation costs	(205,788)	-	-
Stock compensation expense	-	-	140,612
Interest expense	441,369	496,172	504,778
Amortization expenses	35,858	156,137	160,882
Impairment reserve on patents	-	223,143	-
Accretion expense	1,099,818	1,571,436	2,039,344
Loss on conversion of bridge loans	96,484	101,919	63,852
Gain on revaluation of derivatives	(771,920)	(343,436)	(1,094,718)
Gain on extinguishment of debt	(127,409)	(646)	(399,191)
Financing costs	35,500	72,476	40,414
Foreign exchange loss (gain)	1,447	(40,548)	(117,779)
Loss for the year	1,245,393	2,832,864	2,362,239
Loss per share - basic and diluted	-	0.01	0.01

Selected balance sheet information

	2020	2019	2018
Working capital (deficiency)	(4,202,571)	(4,301,324)	(3,828,503)
Other Assets	61,126	22,677	405,333
Total Assets	278,026	83,484	710,737
Long term liabilities	(45,897)	-	-
Shareholders' equity (deficiency)	(4,187,342)	4,278,647	(3,423,170)

Fiscal 2020 Compared to Fiscal 2019

- a) Administration costs were \$154,007 in 2020 versus \$197,208 in 2019. These costs include rent and occupancy costs of \$37,153 (2019: \$64,647 the Company reported sublet income for a portion of its office space in 2020 and 2019) office insurance costs of \$2,024 (2019: \$26,812 the Company did not renew its D&O insurance coverage in 2020); investor relations, listings and filing fees of \$49,537 (2019: \$49,029), other general and administrative expenses of \$49,702 (2019: \$56,720) and a loss on settlement of accounts payable of \$15,591 (2019: nil).
- b) Professional and other fees and salaries costs were \$462,124 in 2020 versus \$441,981 in 2019. The components of these total costs included legal and audit related expenses of \$148,926 (2019: \$157,354) , third party consulting fees of \$138,123 (2019: \$53,845), staff salaries and benefits of \$175,075 (2019: \$230,782).

	2020	2019
a) Legal and Audit expenses	\$ 148,926	\$ 157,354
b) Third party, consulting fees	138,123	53,845
c) Staff salaries and benefits	175,075	230,782
	\$ 462,124	\$ 441,981

Prior to the onset of the COVID 19 pandemic in January 2020, the Company entered into an agreement with a New York- based advisory group ("Advisor") whereby the Advisor would assist the Company in securing mid to long term institutional financing from different US -based financial groups. The Company paid the Advisor a fee of \$100,000 in January 2020 representing all fees and expenses due under the agreement. The project was to extend for 6-9 months and was timed to coincide with the developments that we anticipated to occur with Romgaz by September 2020. With the advent of COVID 19 in March 2020, the Romgaz project was delayed and we were unsuccessful in securing any institutional financing through the Advisor during the period of their mandate. The Company reported the \$100,000 fee as part of the total third party consulting fees of \$138,123 incurred in 2020.

Our CFO, Dan Amadori, has received no compensation from the Company since March 2018. Our CEO, Joseph Fuda, has received \$17,517 of salary in 2020 which amount is reported in staff salaries and benefits; he received \$4,682 in 2019. These reductions in expenses were part of a broad effort to reduce the Company's operating expenses after the resignation of Mr. Van Fleet in August 2018.

In 2020, the Company recorded a reversal of the prior year's accrual of \$205,788 relating to the litigation matter that the Company has been involved with Mr. Van Fleet. See Item 5- (Contingencies) in this Annual Report.

- c) Travel and entertainment expenses were \$23,903 in 2020 (\$52,568 in 2019). There has been no corporate travel since March 2020 as a result of the COVID-19 pandemic.
- d) Development cost recoveries represent development costs incurred less costs reimbursed by our development partners which are paid at milestone dates under our joint development contract. The components of the net totals reported were:

	2020	2019
Development costs incurred	\$ -	\$ 36,051
Cost reimbursements received	-	(77,597)
Net development cost recovery	\$ -	\$ (41,546)

- e) There were no stock options awarded in 2020 or 2019.
- f) Interest expense was \$441,369 in 2020 versus \$496,172 in 2019. This represents the actual interest expense obligations incurred by the Company based on the stated interest rates on its convertible debenture notes.
- g) Amortization expense was \$35,838 in 2020 consisting of \$8,123 relating to patents and \$27,735 relating to capital assets (2019: \$156,137 consisting of \$152,962 relating to patents and \$3,175 relating to capital assets). In 2019, the Company also recorded an impairment reserve of \$223,143 on its patent portfolio based on its assessment of the net present value of its patent portfolio as of October 31, 2019.
- h) Financing costs were \$35,500 in 2020 versus \$72,476 in 2019. These expenses relate to costs associated with the convertible debenture financings which the Company completed in 2020 and 2019.
- i) The loss on foreign exchange reported in 2020 was \$1,447 versus a gain of \$40,548 in 2019. This included the exchange relating to the translation of \$CDN denominated transactions during the year and to Canadian denominated assets and liabilities at fiscal quarter and year ends. It also included the foreign exchange relating to the initiation, renewal, conversion and repayment of convertible debenture transactions. The Canadian dollar has fluctuated from \$0.7601 at October 31, 2018 to \$0.7596 at October 31, 2019 to \$0.7506 at October 31, 2020 relative to the US dollar.
- j) The other expenses reported relate to the convertible debentures. These expenses are all non-cash expenses and compare as follows:

	2020	2019	Changes
Accretion expense	\$ 1,099,818	\$ 1,517,436	\$ (417,618)
Loss on conversion of debentures	96,484	101,919	(5,435)
Gain on revaluation of derivatives	(771,920)	(343,436)	(428,484)
Gain on extinguishment of debentures	(127,409)	(646)	(126,763)
Net expense	\$ 296,973	\$ 1,275,273	\$ (978,300)

Fiscal 2019 Compared to Fiscal 2018

- a) Administration costs were \$197,208 in 2019 versus \$305,338 in 2018. These costs include: rent and occupancy costs of \$64,647 (2018: \$70,674, the Company reported sublet income for a portion of its office space in 2019); office insurance costs of \$26,812 (2018: \$117,615; the Company did not renew its D&O insurance coverage in 2019); investor relations, listings and filing fees of \$49,029 (2018: \$53,113); and other general and administrative expenses of \$56,720 (2018: \$63,936).
- b) Professional and other fees and salaries costs were \$441,981 in 2019 versus \$747,280 in 2018.

The components of these total costs included:

	2019	2018
	\$	\$
a) Legal and Audit expenses	157,354	165,685
b) Third party, consulting fees	53,845	81,518
c) Steven Van fleet compensation through August 2010	-	186,059
d) CFO compensation	-	49,238
e) Staff salaries and benefits	230,782	264,780
	441,981	747,280

- c) Mr. Amadori has received no compensation from the Company since March 2018. Mr. Fuda has received \$4,682 of salary in 2019 which amount is reported in staff salaries and benefits; he received no compensation in 2018. These reductions in expenses were part of a broad effort to reduce the Company's operating expenses after the resignation of Mr. Van Fleet in August 2018.
- d) Travel and entertainment expenses were \$52,568 in 2019 (\$101,496 in 2018; including travel expenses reported by Mr. Van Fleet between November 2017 - August 2018 prior to his resignation). We limited travel expenses in 2019 as part of a broad effort to reduce the Company's operating expenses.
- e) Development cost recoveries represent development costs incurred less costs reimbursed by our development partners which are paid at milestone dates under our joint development contract. The components of the net totals reported were:

	2019	2018
	\$	\$
Development costs incurred	36,051	608,914
Cost reimbursements received	(77,597)	(738,983)
Net development cost recovery	(41,546)	(130,069)

The Company incurred development costs on its Chevron contract in 2019 and 2018; it also incurred development costs relating to Repsol in 2018.

- f) There were no stock options grants awarded in 2019. In 2018 the Company granted 2.2 million options to directors, officers, employees, and consultants. The related expense of \$140,612 was calculated using the Black Scholes option-pricing model.
- g) Interest expense was \$496,172 in 2019 versus \$504,778 in 2018. This represents the actual interest expense obligations incurred by the Company based on the stated interest rates on its convertible debenture notes.
- h) Amortization expense was \$156,137 in 2019 consisting of \$152,962 relating to patents and \$3,175 relating to capital assets (2018: \$160,882 consisting of \$156,920 relating to patents and \$3,922 relating to capital assets). In 2019 the Company recorded an impairment reserve of \$223,143 on its patent portfolio based on its assessment of the net present value of its patent portfolio as of October 31, 2019 (2018: nil).

- i) Financing costs were \$72,476 in 2019 versus \$40,414 in 2018. These expenses relate to costs associated with the convertible debenture financings which the Company completed in 2019 and 2018.
- j) The gain on foreign exchange reported in 2019 was \$40,548 versus \$117,779 in 2018. This included the exchange relating to the translation of \$CDN denominated transactions during the year and to Canadian denominated assets and liabilities at fiscal quarter and year ends. It also included the foreign exchange relating to the initiation, renewal, conversion, and repayment of convertible debentures transactions during the fiscal years. The Canadian dollar has declined from 0.7905 at October 31, 2017 to 0.7601 at October 31, 2018 to 0.7596 at October 31, 2019 relative to the US dollar.
- k) The other expenses reported relate to the convertible debentures. These expenses are all non-cash expenses and compare as follows:

	2019		2018	Change
	\$		\$	\$
Accretion expense	1,517,436		2,039,344	(521,908)
Loss on conversion of bridge loans	101,919		63,852	38,067
Gain on extinguishment of derivatives	(343,436)		(1,094,718)	751,282
Gain on extinguishment of debt	(646)		(399,191)	398,545
Net Expense	1,275,273		609,287	665,986

Unaudited Quarterly Financial Information

Three months ended (unaudited)	Working capital (deficiency)	Capital assets at NBV	Other Assets	Total Assets	Shareholders' equity (deficit)
	\$	\$	\$	\$	\$
January 31, 2019	(4,488,643)	8,434	364,296	473,177	(4,115,813)
April 30, 2019	(4,158,247)	7,639	326,358	379,334	(3,824,250)
July 31, 2019	(4,189,540)	6,847	149,177	189,025	(4,033,516)
October 31, 2019	(4,301,324)	2,677	20,000	83,484	(4,278,647)
January 31, 2020	(5,387,954)	70,046	18,000	296,256	(5,331,481)
April 30, 2020	(4,140,569)	63,120	15,877	141,860	(4,061,572)
July 31, 2020	(3,994,076)	56,187	13,877	108,438	(3,974,641)
October 31, 2020	(4,202,571)	49,249	11,877	278,026	(4,187,342)

Three months ended (unaudited)	Revenues	Expenses	Income (loss) in period	Loss per share
	\$	\$	\$	\$
January 31, 2019	-	1,110,303	(1,110,303)	-
April 30, 2019	-	48,088	(48,088)	-
July 31, 2019	-	554,533	(554,533)	-
October 31, 2019	-	1,119,940	(1,119,940)	-
January 31, 2020	-	1,726,023	(1,726,023)	-
April 30, 2020	-	(1,071,746)	1,071,746	-
July 31, 2020	-	234,946	(234,946)	-
October 31, 2020	-	356,170	(356,170)	-

B. Liquidity and Capital Resources:

Liquidity

We have not yet realized commercial revenues from the exploitation of our technology platforms. We currently do not have positive cash flow from operations and will not realize positive cash flow until we license or directly produce and sell products utilizing our technology platforms.

We currently have no lines of credit available. We have relied on obtaining equity financing from investors through private placements, through the exercise by shareholders of common share purchase warrants, through the exercise of common stock options by officers and directors, and through bridge loans that the Company has secured in order to meet our cash flow needs until we can generate sustainable revenues. At October 31, 2020 we had a working capital deficiency of \$ 4,202,571 (2019: \$4,301,324) including cash on hand of \$191,479 (2019: \$46,056). Since October 31, 2020 we have raised an additional \$ 52,000 of bridge loan financing and \$95,574 of financing from private placements. We have granted to our directors, officers, and other employees a number of options to purchase shares at prices that are at or above market price on the date of grant. None of the optionees has any obligation to exercise their options and there can be no guarantee that we will realize any funds from these options.

In our opinion and based on the Company's current business plan, the working capital is sufficient for the Company's present and future requirements.

Capital Resources

We incurred nil capital expenditures in 2020, nil in 2019 and \$3,548 in 2018.

C. Research and Development:

Under IFRS, research costs are expensed in the period incurred. Development expenses are expensed as incurred unless they meet the criteria for deferral and amortization under IFRS, which criteria is the translation of research findings or other knowledge into a plan for the technology prior to commercial production or use.

D. Trend Information:

The market applications for "smart" sensors are expanding; there are potential applications that could be utilized in virtually every industry vertical.

Our prospects for commercial revenues are dependent upon the successful completion of milestones in the development contracts that we have initiated to date and upon the customers deciding to proceed with commercial orders once these development contracts are successfully completed.

E. Off-Balance Sheet Arrangements:

We are not party to any off-balance sheet arrangements. In addition, we have no unconsolidated special purpose financing or partnership entities.

F. Tabular Disclosure of Contractual Obligations:

A summary of our financial commitments as of October 31, 2020 is as below:

		Payments due by period (\$USD)		
	Total	Less than 1 year	1-5 years	More than 5 years
Operating lease obligations	\$ 60,075	\$ 36,045	\$ 24,030	-

		Payments due by period (\$USD)		
	Total	Less than 30 days	31-90 days past billing date	Over 90 days past billing date
Trade payables	\$ 767,949	\$ 253,413	\$ 25,683	\$ 489,853

		Payments due by period (\$USD)		
	Total	Less than 3 months	Three to six months	Six to twelve months
Convertible debentures	\$ 3,081,518	\$ 1,335,853	\$ 806,477	\$ 939,188
Derivative liability	\$ 533,562	\$ 149,827	\$ 190,055	\$ 193,680

G. Critical Accounting Policies:

Our significant accounting policies are set forth in our consolidated financial statements, which should be read in conjunction with management's discussion of our critical accounting policies and estimates set forth below.

Our consolidated financial statements for the period have been prepared in accordance with IFRS.

We have not yet realized commercial revenues from the exploitation of our technology. Under IFRS, research costs are expensed in the period incurred. Development expenses are expensed as incurred unless they meet the criteria for deferral and amortization under IFRS which is the translation of research findings or other knowledge into a plan for the technology prior to commercial production or use. As at October 31, 2020, the Company capitalized nil of development costs and capitalized nil as intangible assets under IFRS.

Management is required to make estimates and assumptions which can affect the reported balances. In determining estimates of net recoverable amounts and net realizable values, or whether there has been a permanent impairment in value, we rely on assumptions regarding applicable industry performance and prospects, as well as general business and economic conditions that prevail and are expected to prevail. Assumptions underlying asset valuations are limited by the availability of reliable comparable data and the uncertainty of predictions concerning future events.

Accounts recorded in foreign currency have been converted to United States dollars as follows: current assets and current liabilities at the prevailing exchange rates at the end of the year; other assets at historical rates; revenues and expenses are translated at the three month average monthly exchange rate per quarter which rate approximates the rate of exchange prevailing at the transaction dates; and gains and losses resulting from the fluctuation of foreign exchange rates are included in the determination of income.

Contingencies:

- (1) We have agreed to indemnify our directors and officers and certain of our employees in accordance with our Bylaws. We maintain insurance policies that may provide coverage against certain claims.
- (2) The Company may be subject to litigation, claims and governmental and regulatory proceedings arising in the ordinary course of business. In such cases, the Company would accrue a loss contingency for these matters when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated.

(3) Legal matter: Litigation with Steven Van Fleet

On October 7, 2018, the former President of MAST, Mr. Steven Van Fleet, filed a lawsuit against Micromem and MAST in New York State Supreme Court, Dutchess County. In the action, Mr. Van Fleet was seeking payment of \$214,574 plus interest relating to alleged remuneration and expense reimbursements due to him prior to his resignation as an officer and director of Micromem and MAST on August 17, 2018.

The Company answered the complaint December 7, 2018 by denying the material allegations in Mr. Van Fleet's claims. In addition, the Company interposed seven counterclaims against Mr. Van Fleet seeking, among other things: (i) damages of not less than \$2.75 million, (ii) specific performance to compel Mr. Van Fleet to comply with his contractual obligations which were required for the period of time that he served as an officer and director through to his resignation date; (iii) repayment of certain salary and expenses paid to Mr. Van Fleet; (iv) a direction for Mr. Van Fleet to turn over all Company property in his possession or control; and (v) an accounting to determine all money and property belonging to the Company and/or MAST.

On January 24, 2019, the Company amended its original answer and counterclaims to include, among other things, a demand for additional damages. On February 8, 2019 Mr. Van Fleet, through his counsel, replied to and denied the material allegations in Micromem's counterclaims.

In January 2020, the court sent a schedule for completing discovery, which later had to be revised due to the COVID-19 pandemic. In May 2020, the court revised the discovery schedule, which required the parties to complete depositions and all remaining discovery by August 26, 2020.

Counsel for the parties agreed that Mr. Van Fleet's deposition would proceed on July 31, 2020. The day before the deposition, Mr. Van Fleet's counsel advised the Company's counsel that if Mr. Van Fleet were to appear at the deposition, he would invoke his Fifth Amendment right not to incriminate himself with respect to the Company's counterclaims, and that rather than doing so, Mr. Van Fleet had chosen not to appear for his deposition and would never appear for his deposition in the future.

In light of this development, on September 25, 2020 the Company's counsel moved for a default, asking the court to strike Mr. Van Fleet's claims and to enter a judgment in the Company's favor on its counterclaims. Mr. Van Fleet has not submitted any opposition to the motion. Although the motion has not yet been decided, given that the facts and law support a default, and the motion is unopposed, we anticipate that the court will grant the motion striking Mr. Van Fleet's claim and schedule a hearing to determine the Company's damages on its counterclaims.

Micromem has now filed for default judgement of all Mr. Van Fleet's alleged claims and is now seeking a judgement for damages against Mr. Van Fleet as contemplated in the counter-claim which it filed on January 24, 2019.

Based on these developments, we believe that, at October 31, 2020, the reasonable value of Mr. Van Fleet's claims against the Company is \$nil. At October 31, 2020, the Company has eliminated the accrual of \$205,788 which it reflected in its accounts at October 31, 2019 with respect to the alleged remuneration and expense reimbursements originally claimed by Mr. Van Fleet in October 2018.

While the Company is also currently seeking judgement for damages, it has not reflected any amount as receivable at October 31, 2020 as there is no certainty to date that damages will be awarded to the Company nor collectible by the Company if such damages are awarded.

I. Translation of Foreign Currencies:

Our functional and reporting currency is the United States dollar. Accounts recorded in foreign currency have been converted to United States dollars as follows: Monetary assets and liabilities are translated at exchange rates at the consolidated balance sheet dates; non-monetary assets are translated using the historical rate of exchange in effect at the translation dates; revenues and expenses are translated using the three month average rate of exchange per quarter, which rate approximates the rate of exchange prevailing at the transaction dates; and gains and losses resulting from the translation are included in the determination of net loss for the period.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Executive Officers

The Directors and Executive Officers of Micromem as at February 24, 2021 are set forth below:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Joseph Fuda	60	President, Chief Executive Officer and Director
Dan Amadori	69	Chief Financial Officer
Oliver Nepomuceno	53	Director
Alex Dey	77	Director

Joseph Fuda has been President, Chief Executive Officer and Director since February 13, 2002. Previously he served as Manager of Strategic Alliances for Micromem since February 2001. Prior thereto, he served as a consultant to Micromem since November 2000. Prior thereto he served as a Vice-President and a Director of IPO Capital Corp since April 1999. He was a director of Leader Capital Corp. until June 2007 and also served as a director of Echo Energy Canada Inc, and of Echo Power Generational Inc until June 2004.

Dan Amadori has served as Chief Financial Officer of Micromem since June 2004. From January 2018 to December 9, 2020, he served as a member of the Board of Directors and as Chair of the Audit Committee of Nerium Biotechnology Inc. He served as a Director and Chair of the Governance Committee of Invesque Inc. from 2015 through May 2019. He served as Chair of the Board of Kingsway Arms Retirement Residences Inc from August 2011 through May 2015. Prior to 2010 he served as an officer - director of other public companies including HyDrive Technologies Inc., Luxell Technologies Inc., XGen Ventures Inc., Ontex Resources Ltd and Leader Capital Corp. He is President of Lamerac Financial Corp., a financial advisory firm, and has held that position since October 1988. Mr. Amadori is a Chartered Professional Accountant and holds an MBA from the Ivey School of Business. He received his ICD.D designation from the Rotman School of Business in 2010.

Oliver Nepomuceno has served as a director of Micromem since June 26, 2006. He is a resident of Switzerland and continues to serve as a financial advisor and is located in Switzerland. He actively assists corporations in the development of new business opportunities in new markets.

Alex Dey is a retired businessman and was elected as a director on September 24, 2010. He was the sole proprietor of Alex Dey, Chartered Accountants until July 31, 2004.

There are no arrangements or understandings between any director and any other person pursuant to which the director was selected as a director or executive officer. Each director holds office until the next annual meeting of shareholders or until his or her successor is elected or appointed, unless his or her office is earlier vacated according to the provisions of our By-laws or the *Business Corporations Act* (Ontario).

B. Compensation

Name and Principal Position	Annual Compensation			Long-Term Compensation Awards	
	Fiscal Year	Salary (US\$)	Bonus (US\$)	Other Annual Compensation (US\$)	Securities Under Options Granted (#)
Joseph Fuda Chief Executive Officer	2018	-	-	15,979	250,000 ⁽¹⁾
	2019	4,684	-	-	-
	2020	17,517	-	-	-
Steven Van Fleet Former Director and Former President of MAST, Inc.	2018	186,059	-	-	-
	2019	-	-	-	-
	2020	-	-	-	-
Dan Amadori Chief Financial Officer	2018	49,238	-	15,979	250,000 ⁽¹⁾
	2019	-	-	-	-
	2020	-	-	-	-
Oliver Nepomuceno Director	2018	-	-	-	100,000 ⁽¹⁾
	2019	-	-	-	-
	2020	-	-	-	-
Alex Dey Director	2018	-	-	-	100,000 ⁽¹⁾
	2019	-	-	-	-
	2020	-	-	-	-

Notes:

- Each option entitles the holder to purchase one common share at a price of \$0.10 per share prior to expiration in June 2023.

Options are offered to directors, executive officers, and employees to purchase our common shares at an exercise price equal to or above the market price for the common shares at the date that the options are granted. These options are approved by the Compensation Committee. None of the directors have agreements that provide for benefits upon termination of service.

In 2020 and 2019 no stock options were granted. In 2018 a total of 2,200,000 stock options were granted to officers, directors and employees. The weighted average exercise price was \$0.10 per share.

C. Board Practices:

All matters pertaining to our financing, contractual arrangements and Management and Director compensation are approved by the Board of Directors. The members of the Board of Directors are appointed to a one-year term at our Annual General Meeting or until such time as the next Annual General Meeting is held.

Our Board of Directors meets on an as required basis during the fiscal year. Our Board of Directors did not meet in person in 2020. The Board was convened informally as of each quarter end.

Our Audit Committee met regularly during fiscal 2020 for the purpose of approving and recommending to the Board the quarterly financial statements and our yearend financial statements. In addition, our Audit Committee receives regular periodic reports from management.

Our Compensation Committee met as part of our audit committee meetings in 2020; it receives regular reports from the audit committee and management. Our Compensation Committee approves management and director compensation and all stock option grants for recommendation to the Board of Directors.

Audit Committee

The Board of Directors has appointed an Audit Committee consisting of two independent directors. The members of the Audit Committee are Alex Dey (Chairman) and Oliver Nepomuceno, each of whom serves in such capacity until the Board of Directors' next annual meeting. The Audit Committee is responsible for the integrity of our internal accounting and control systems. The committee receives and reviews our financial statements and makes recommendations thereon to the Board of Directors prior to its approval by the full Board of Directors. The Audit Committee communicates directly with our external auditors in order to discuss audit and related matters whenever appropriate. In 2020 the Audit Committee met formally in January, February March, June, September, and October 2020.

Compensation Committee

The Board of Directors has appointed a Compensation Committee which meets on executive compensation matters as and when required. Our Compensation Committee includes Oliver Nepomuceno and Alex Dey as outside directors. The Compensation Committee did not meet separately in 2020 as both members also serve on the Audit Committee.

Disclosure Committee

The Board of Directors has appointed a Disclosure Committee whose primary responsibility is to ensure timely and accurate disclosure of all relevant information in accordance with the various securities regulations. Our Disclosure Committee includes Joseph Fuda, the Company's CEO, and Alex Dey, an outside director.

D. Employees

We have four employees, one of which serves in a management capacity and three of which serve in an administrative capacity. This includes Mr. Fuda, the Chief Executive Officer and President, and three support staff, all of whom work from our executive offices in Toronto, Canada. Mr. Amadori, our CFO, provides services through his management company. All research and development is outsourced to third parties. We consider our relations with our employees to be satisfactory.

E. Share Ownership

NAME	SHARES OWNED	OPTIONS HELD	OPTION EXERCISE PRICE	EXPIRATION DATE	% OF TOTAL ¹
Joseph Fuda Chief Executive Officer and Director	1,824,335	250,000	\$0.10	06/29/2023	0.52% (2,074,335)
Dan Amadori Chief Financial Officer	873,857 ²	250,000	\$0.10	06/29/2023	0.28 % (1,123,857)
Oliver Nepomuceno Director	1,078,572	100,000	\$0.10	06/29/2023	0.29% (1,178,572)
Alex Dey Director	899,795 ³	100,000	\$0.10	06/29/2023	0.25% (999,795)

1 Calculated based on shares owned plus options held as a percentage total of shares outstanding as of October 31, 2020, plus options held.

2 215,716 shares are held by a corporation controlled by Mr. Amadori.

3 254,863 shares are held by a corporation wholly owned by Mr. Dey.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders:

No shareholder holds greater than 5% of the common shares outstanding. As of the date of this Annual Report approximately 49% of the issued and outstanding common shares are held by Canadian investors; approximately 42% of the issued and outstanding shares are held by U.S. investors; and approximately 9% are held by investors outside of Canada and the U.S.

B. Related Party Transactions:

The Company reports the following related party transactions:

(a) Management and consulting fees:

Included in professional fees, other fees and salaries as reported are management fees and consulting fees paid or payable to individuals (or Companies controlled by such individuals) who served as officers, directors, and employees of the Company. The total compensation paid to such parties is summarized as follows:

	2020	2019	2018
Cash Compensation	\$ 17,517	\$ 4,684	\$ 235,297
Stock based compensation	-	-	44,740
	\$ 17,517	\$ 4,684	\$ 280,037

The cash compensation paid in 2020 and 2019 was to our CEO, Joseph Fuda. The cash compensation paid in 2018 included total payments to Steven Van Fleet of \$186,059 prior to his resignation in August 2018 and \$49,238 paid to our CFO, Dan Amadori. In 2020 and 2019 these parties were not awarded stock options. In 2020, Mr. Fuda and Mr. Amadori each elected to cancel 650,000 stock options previously awarded to them. In August 2018, Mr. Fuda and Mr. Amadori were each awarded 250,000 stock options and Mr. Fleet was awarded 200,000 stock options, all at an exercise price of \$0.10 per share. Mr. Van Fleet's options expired unexercised 45 days after his resignation.

C. Interests of Experts and Counsel.

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

Our consolidated financial statements for the years ended October 31, 2020, 2019 and 2018 have been prepared in accordance with IFRS as issued by the IASB.

We have never paid a dividend on our securities. We do not anticipate paying dividends in the foreseeable future.

See "Item 5- Contingencies" for a description of litigation with Mr. Steven Van Fleet.

B. Significant Changes

Significant Changes since October 31, 2020 are as presented in Note 23 to the Company's Consolidated Financial Statements. See "Item 18 - Financial Statements".

ITEM 9. THE OFFER AND LISTING

Our common shares are traded in the United States and are quoted on the OTCQB. The common shares are quoted under the symbol MMTIF. Our common shares are traded in Canada on the CSE under the symbol MRM.

The table below sets forth the high and low sales prices for common shares in U.S. Dollars as quoted on the OTCBB for the periods specified. Our fiscal year end October 31.

Period	High	Low
Last six months:		
February 2021	0.09	0.05
January 2021	0.09	0.05
December 2020	0.07	0.04
November 2020	0.17	0.02
October 2020	0.03	0.02
September 2020	0.03	0.02
Last eight quarters:		
Q4 2020	0.03	0.02
Q3 2020	0.03	0.02
Q2 2020	0.13	0.03
Q1 2020	0.09	0.01
Q4 2019	0.04	0.01
Q3 2019	0.04	0.02
Q2 2019	0.07	0.03
Q1 2019	0.13	0.02

Last five years:		
2020:	0.13	0.01
2019	0.13	0.01
2018	0.28	0.02
2017	0.31	0.12
2016	0.45	0.16

On February 18, 2021, the last reported sale price for our common shares on the OTCQB was \$0.063 per share.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Our authorized capital consists of an unlimited number of common shares, of which 402,552,453 shares were issued and outstanding as of October 31, 2020, and 2,000,000 special, redeemable, voting preference shares, referred to herein as special shares, none of which were outstanding, as of October 31, 2020.

Additionally, the Company has 2,200,000 stock options outstanding with a weighted average exercise price of \$0.10 per share (2019: 5,730,000 options outstanding with a weighted average exercise price of \$0.25 per share)

B. Memorandum and Articles of Incorporation

Articles of Incorporation

Incorporation Details and Objects of Micromem Technologies Inc.

Micromem Technologies Inc. was incorporated under the laws of the Province of Ontario, Canada, on October 21, 1985 as Mine Lake Minerals Inc. We subsequently changed our name to Avanti Capital Corp. by filing Articles of Incorporation of Amendment on June 23, 1988 and to AvantiCorp International Inc. on April 30, 1992 before becoming Micromem Technologies Inc. on January 14, 1999. The Articles of Incorporation of Incorporation place no restrictions on the nature of the business to be carried on by Micromem.

Summary of Directors Powers and Authorities

The rights, duties, powers and authorities of our Board of Directors are set out in the Articles of Incorporation and By-laws and the statutory provisions of the *Business Corporations Act* (Ontario). The following is a selected summary of the Articles of Incorporation, By-laws and applicable provisions of the *Business Corporations Act* (Ontario) as they relate to selected rights, duties, powers and authorities of our Board of Directors.

The Articles of Incorporation provide for a minimum of three and a maximum of 12 directors. The *Business Corporations Act* (Ontario) prescribes that an offering corporation must have a minimum of three directors, at least twenty five percent (25%), or if they are less than 4, at least one of whom are Canadian residents and at least one third of whom are not officers or employees of us or our affiliates. The Board of Directors may, between annual shareholders meetings, appoint one or more additional directors to serve until the next annual shareholders meeting provided that the number of directors so added may not exceed by one-third (1/3) the number of directors required to have been elected at the last annual meeting of shareholders.

The Chairman of the Board of Directors or any one director may call a meeting upon the provision of forty-eight hours notice to each director in the manner prescribed in our By-laws. Any such notice shall include the items of business to be considered at the meeting. A majority of the directors constitute a quorum provided that half of those directors present are Canadian residents. Business cannot be transacted without a quorum. A quorum of directors may vote on any matter of business properly brought before the meeting provided that where a director is a party to a material contract or proposed material contract or has a material interest in the matter to be considered, such director must disclose his or her interest at the earliest possible date, request the conflict be noted in the minutes of the meeting, and with a few limited exceptions enumerated in the By-laws, refrain from voting on the matter in which the director has a material interest. There is no limitation on the Board of Directors to vote on matters of their remuneration provided such remuneration is disclosed in the financial statements and annual shareholder proxy materials.

The Board of Directors has broad borrowing powers and may, without authorization from the shareholders:

- borrow money on the credit of Micromem;
- issue, re-issue, sell or pledge debt obligations of Micromem;
- subject to restrictions respecting financial assistance prescribed in the *Business Corporations Act* (Ontario), give a guarantee on behalf of Micromem to secure the performance of an obligation of any person; and

- mortgage, hypothecate, pledge or otherwise create a security interest in all or any property of Micromem, owned or subsequently acquired, to secure any obligation of Micromem.

A person is qualified to be or stand for election as a director provided such person is at least 18 years of age, is not a bankrupt and is not found to be of unsound mind by a court in Canada or elsewhere. There is no requirement for a director to hold common shares.

Securities of Micromem

Holders of our common shares will be entitled to receive notice of, attend and vote at all meetings of the shareholders of Micromem. Each common share carries one vote at such meetings. In the event of the voluntary or involuntary liquidation, dissolution or winding-up of Micromem, after payment of all outstanding debts, the remaining assets of Micromem available for distribution will be distributed to the holders of our common shares. Dividends may be declared and paid on our common shares in such amounts and at such times as the directors shall determine in their discretion in accordance with the Business Corporations Act (Ontario). There are no pre-emptive rights, conversion rights, redemption provisions or sinking fund provisions attaching to the common shares. Common shares are not liable to further calls or to assessment by Micromem; provided, however, that pursuant to the provisions of the Business Corporations Act (Ontario), Micromem has a lien on any common share registered in the name of a shareholder or the shareholder's legal representative for a debt owed by the shareholder to Micromem.

Holders of special shares are entitled to receive notice of, attend and vote at all meetings of the shareholders of Micromem. Each special share carries one vote at such meetings. In the event of the voluntary or involuntary liquidation, dissolution or winding-up of Micromem, after payment of all outstanding debts, the holders of the special shares shall be entitled to receive, before any distribution of any part of the assets of Micromem among the holders of any other shares, the amount paid up on the special shares. The special shares are redeemable at the option of Micromem for the amount paid up on the shares. Dividends may not be declared or paid on the special shares and transfer of the Special Shares is restricted without the approval of the Directors of Micromem and the prior written consent of the Ontario Securities Commission. The number of special shares that may be issued and outstanding at any time is limited to 500,000. There are no pre-emptive rights, conversion rights or sinking fund provisions attaching to the special shares. Special shares are not liable to further calls or to assessment by Micromem; provided, however, that pursuant to the provisions of the Business Corporations Act (Ontario), Micromem has a lien on any special shares registered in the name of a shareholder or the shareholder's legal representative for a debt owed by the shareholder.

Rights and Privileges of Shareholders

Only the registered holders of our common shares and special preference shares on the record date are entitled to receive notice of and vote at annual and special meetings of shareholders. Where the items of business affect the rights of shareholders other than the holders of common shares, a special majority of two-thirds of the votes cast by the affected shareholders at the meeting called for such purpose is required to approve the item of business. Beneficial holders of common shares and special shares are also entitled to receive proxy materials in respect of meetings of shareholders in accordance with Canadian Securities Administrators National Instrument 54-101, provided that such proxies are limited in scope to instructing the registered shareholder (usually a brokerage house) on how to vote on behalf of the beneficial shareholder. There are no restrictions on the number of shares that may be held by non-residents other than restrictions set out in the *Investment Canada Act* (Canada). See "Additional Information - D. Exchange Controls".

There are no provisions in the By-laws regarding public disclosure of individual shareholdings. Notwithstanding this, applicable Canadian securities legislation requires certain public disclosure of persons owning or acquiring common shares in excess of 10% of a corporation's issued and outstanding share capital.

C. Material Contracts

None

D. Exchange Controls

As of the date hereof, we are not aware of any governmental laws, decrees or regulations in Canada that restrict the export or import of capital, including, but not limited to, foreign exchange controls, or that affect the remittance of dividends or other payments to nonresident holders of our common shares.

We are not aware of any limitations under the laws of Canada or the Province of Ontario, or in the Articles of Incorporation or any other of our constituent documents on the right of nonresidents of Canada or persons who are not Canadian citizens to hold and/or vote common shares.

E. Taxation

Certain Canadian Income Tax Consequences

This discussion under this heading summarizes the principal Canadian federal income tax consequences of acquiring, holding and disposing of common shares for a shareholder who is not a resident of Canada but is a resident of the United States and who will acquire and hold a common share as capital property for the purposes of the Income Tax Act, also referred to as the Canadian Tax Act. This summary does not apply to a shareholder who carries on business in Canada through a permanent establishment situated in Canada or performs independent personal services in Canada through a fixed base in Canada if the shareholder is effectively connected with such permanent establishment or fixed base. This summary is based on the provisions of the Canadian Tax Act and the regulations there under and on an understanding of the administrative practices of Canada Customs & Revenue Agency, and takes into account all specific proposals to amend the Canadian Tax Act or regulations made by the Minister of Finance of Canada as of the date hereof. It has been assumed that there will be no other relevant amendments of any governing law although no assurance can be given in this respect. This discussion is general only and is not a substitute for independent advice from a shareholder's own Canadian and US tax advisors.

The provisions of the Canadian Tax Act are subject to income tax treaties to which Canada is a party, including the Canada-United States Income Tax Convention (1980), as amended.

Dividends on common shares and Other Income

Under the Canadian Tax Act, a non-resident of Canada is generally subject to Canadian withholding tax at the rate of 25 percent on dividends paid or deemed to have been paid to him or her by a corporation resident in Canada. We are responsible for the withholding of tax at the source. The Canada-United States Income Tax Convention (1980) limits the rate to 15 percent if the shareholder is a resident of the United States and the dividends are beneficially owned by and paid to such shareholder, and to 5 percent if the shareholder is also a corporation that beneficially owns at least 10 percent of the voting stock of the payor corporation.

The amount of a stock dividend (for tax purposes) would generally be equal to the amount of our paid up or stated capital and increased by reason of the payment of such dividend. We will furnish additional tax information to shareholders in the event of such a dividend. Interest paid or deemed to be paid on our debt securities held by non-Canadian residents may also be subject to Canadian withholding tax, depending upon the terms and provisions of such securities and any applicable tax treaty.

The Canada-United States Income Tax Convention (1980) generally exempts from Canadian income tax dividends paid to a religious, scientific, literary, educational, or charitable organization or to an organization constituted and operated exclusively to administer a pension, retirement or employee benefit fund or plan, if the organization is a resident of the United States and is exempt from income tax under the laws of the United States.

Dispositions of Common Shares

Under the Canadian Tax Act, a non-resident of Canada is subject to Canadian tax on taxable capital gains, and may deduct allowable capital losses, realized on a disposition of "taxable Canadian property". Common shares will constitute taxable Canadian property of a shareholder at a particular time if the shareholder used the shares in carrying on business in Canada, or if at any time in the five years immediately preceding the disposition 25 percent or more of the issued shares of any class or series in the capital stock of Micromem belonged to one or more persons in a group comprising the shareholder and persons with whom the shareholder did not deal at "arm's length" and in certain other circumstances.

The Canada-United States Income Tax Convention (1980) relieves United States residents from liability for Canadian tax on capital gains derived on a disposition of shares unless:

the value of the shares is derived principally from "real property" in Canada, including the right to explore for or exploit natural resources and rights to amounts computed by reference to production, the shareholder was resident in Canada for 120 months during any period of 20 consecutive years preceding, and at any time during the 10 years immediately preceding, the disposition and the shares were owned by them when they ceased to be resident in Canada, or the shares formed part of the business property of a "permanent establishment" that the holder has or had in Canada within the 12 months preceding the disposition.

Certain United States Federal Income Tax Consequences

The following is a general summary of certain United States federal income tax consequences, under current law, generally applicable to a US Holder (as defined below). This summary does not address all potentially relevant United States federal income tax matters and it does not address consequences peculiar to persons subject to special provisions of United States federal income tax law, such as those described below as excluded from the definition of a US Holder. United States alternative minimum tax considerations are not addressed in this summary. In addition, this summary does not cover any state, local or foreign tax consequences, nor any U.S. federal gift, estate or generation-skipping transfer tax consequences. (Certain, but not all, foreign tax consequences are described above under "Taxation - Certain Canadian Income Tax Consequences.")

The following summary is based upon the Internal Revenue Code of 1986, as amended (the "Code"), Treasury Regulations, published Internal Revenue Service ("IRS") rulings, published administrative positions of the IRS, and court decisions that are currently applicable, any of which could be materially and adversely changed, possibly on a retroactive basis, at any time. This summary does not consider the potential effects, both adverse and beneficial, of any recently proposed legislation which, if enacted, could be applied (possibly on a retroactive basis) at any time (including, without limitation, changes in applicable tax rates).

This summary is for general information only and it is not intended to be, nor should it be construed to be, legal or tax advice to any holder or prospective holder of common shares, and no opinion or representation with respect to the United States federal income tax consequences to any such holder or prospective holder is made. Accordingly, holders and prospective holders of common shares should consult their own tax advisors about the federal, state, local, and foreign tax consequences of purchasing, owning and disposing of common shares of the Company.

On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act, effective for 2018. The foregoing summary does not discuss the impact of the new law to U.S. investors with respect to their ownership of our shares. Each U.S. Investor should consult its own tax advisor about the consequences of this new legislation with respect to the purchase, ownership and disposition of our shares.

CIRCULAR 230 DISCLOSURE

ANY TAX STATEMENT MADE HEREIN REGARDING ANY U.S. FEDERAL TAX IS NOT INTENDED OR WRITTEN TO BE USED, AND CANNOT BE USED, BY ANY TAXPAYER FOR PURPOSES OF AVOIDING ANY PENALTIES. ANY SUCH STATEMENT HEREIN IS WRITTEN IN CONNECTION WITH THE MARKETING OR PROMOTION OF THE TRANSACTION TO WHICH THE STATEMENT RELATES. EACH TAXPAYER SHOULD SEEK ADVICE BASED ON THE TAXPAYER'S PARTICULAR CIRCUMSTANCES FROM AN INDEPENDENT TAX ADVISOR.

US Holders

As used herein, a "US Holder" means an owner of common shares who is a citizen or individual resident (as defined under United States tax laws) of the United States; a corporation or other entity taxable as a corporation created or organized in or under the laws of the United States or of any political subdivision thereof; an estate the income of which is taxable in the United States irrespective of source; or a trust if (a) a court within the United States is able to exercise primary supervision over the trust's administration and one or more United States persons have the authority to control all of the substantial decisions of the trust or (b) the trust was in existence on August 20, 1996 and has properly elected to continue to be treated as a United States person. This summary does not address the tax consequences to, and "US Holder" does not include, tax-exempt persons or organizations; qualified retirement plans, individual retirement accounts and other tax-deferred accounts; financial institutions; insurance companies; real estate investment trusts; regulated investment companies; entities subject to the U.S. corporate conversion rules; broker-dealers; U.S. tax expatriates; non-resident alien individuals or entities; persons or entities that have a "functional currency" other than the US dollar; persons who hold common shares as part of a straddle, hedging or conversion transaction; and persons who acquire their common shares as compensation for services. This summary is limited to US Holders who own common shares as capital assets and who hold the common shares directly (e.g., not through an intermediary entity such as a corporation, partnership, LLC or trust). This summary does not address the consequences to a person or entity of the ownership, exercise or disposition of any options, warrants or other rights to acquire common shares.

Distributions to US Holders Who Own Common Shares

Subject to the discussion below concerning the potential status of the Company (or any of its subsidiaries that are classified as corporations for United States federal income tax purposes ("Related Entities")) as a "passive foreign investment company" ("PFIC"), the gross amount of any distribution by the Company (including any Canadian taxes withheld therefrom) with respect to common shares generally should be included in the gross income of a US Holder as foreign source dividend income to the extent such distribution is paid out of current or accumulated earnings and profits of the Company, as determined under United States federal income tax principles. To the extent that the amount of any distribution exceeds the Company's current and accumulated earnings and profits in that taxable year, the distribution is treated as a tax-free return of capital to the extent of the US Holder's adjusted tax basis in the common shares. Thereafter, to the extent that such distribution exceeds the US Holder's adjusted tax basis in the common shares, it is taxed as a capital gain.

Dividends received by non-corporate US Holders may be subject to United States federal income tax at lower rates (generally 15%) than other types of ordinary income in taxable years beginning on or before December 31, 2013, if certain conditions are met. These conditions include neither the Company nor a Related Entity being classified as a PFIC (discussed below), the Company being a "qualified foreign corporation", the US Holder's satisfaction of a holding period requirement, and the US Holder not treating the distribution as "investment income" for purposes of the investment interest deduction rules.

In the case of US Holders that are corporations, distributions from the Company generally are not eligible for the dividends received deduction.

Dispositions of Common Shares of the Company

Subject to the discussion below regarding PFICs, gain or loss, if any, realized by a US Holder on the sale or other disposition of common shares generally is subject to United States federal income taxation as capital gain or loss in an amount equal to the difference between the US Holder's adjusted tax basis in the common shares and the amount realized on the disposition. Net capital gain (i.e., capital gain in excess of capital loss) recognized by a non-corporate US Holder upon a sale or other disposition of common shares that have been held for more than one year is generally subject to a maximum United States federal income tax rate of 20%. Deductions for capital losses are subject to limitations.

US Anti-Deferral Regimes

There are two regimes applicable to foreign corporations under United States federal income tax law that potentially may apply to the Company - the "controlled foreign corporation" ("CFC") regime and the PFIC regime.

Generally, a foreign corporation is not a CFC unless more than fifty percent (by vote or value) of its stock is owned by "U.S. Shareholders" (generally, United States persons who have ten percent or more of the votes of the foreign corporation). This classification generally results in the inclusion of certain income of the CFC in the U.S. Shareholders' income as a deemed dividend. If the Company were a CFC, the United States federal tax consequences summarized herein could be materially and adversely different.

PFIC status is not conditioned on a certain level of ownership of the foreign corporation by United States persons, however. The Company or any Related Entity would be considered a PFIC if during any taxable year, 75% or more of its gross income consists of certain types of "passive" income, or if the average value during a taxable year of its "passive assets" (generally, assets that generate passive income) is 50% or more of the average value of all assets held by it. Passive income generally includes items such as dividends, interest, rents and royalties, although there are various "look through" rules that treat dividends from related persons, for example, as non-passive under certain conditions.

If the Company is classified as a PFIC, a US Holder is subject to increased United States federal income tax liability in respect of gain recognized on the disposition of his, her or its common shares or upon the receipt of certain distributions, unless such person makes a "qualified electing fund" election to be taxed currently on his, or her or its pro rata portion of the Company's income and gain (whether or not such income or gain is distributed in the form of dividends or otherwise), and the Company provides certain annual statements which include the information necessary to determine inclusions and assure compliance with the PFIC rules. As an alternative to the foregoing rules, a US Holder may make a "mark-to-market" election to include in income each year as ordinary income an amount equal to the increase in value of his, her or its common shares for that year or to claim a deduction for any decrease in value (but only to the extent of previous mark-to-market gains).

The CFC and PFIC rules are very complex. The Company offers no opinion or representations as to its status as a CFC or PFIC for the current or any prior or future tax years. US Holders should consult their own U.S. tax advisors with respect to the CFC and PFIC issues and their applicability to such Holder's particular situation.

Foreign Tax Credit

A US Holder who pays (or has withheld from distributions) Canadian income tax with respect to the ownership or disposition of the common shares may be entitled, at the option of the US Holder, to either a deduction or a tax credit for such foreign tax paid or withheld. Generally, it will be more advantageous to claim a credit because a credit reduces United States Federal income taxes on a dollar-for-dollar basis, while a deduction merely reduces the taxpayer's income subject to tax. This election is made on a year-by-year basis and applies to all foreign taxes paid by (or withheld from) the US Holder during that year.

There are significant and complex limitations that apply to the credit, among which is the general limitation that the credit cannot exceed the proportionate share of the US Holder's United States Federal income tax liability that the US Holder's foreign source income bears to his or its worldwide taxable income. In the determination of the application of this limitation, the various items of income and deduction must be classified into foreign and domestic sources. Complex rules govern this classification process. In addition, this limitation is calculated separately with respect to specific "baskets" of income. Foreign taxes assigned to a particular basket generally cannot offset United States tax on income assigned to another basket. Unused foreign tax credits can generally be carried back one year and carried forward ten years. The availability of the foreign tax credit and the application of the limitations on the credit are fact specific and US Holders should consult their own U.S. tax advisors regarding their ability to utilize foreign tax credits in light of their individual circumstances.

Currency Fluctuations

For United States federal income tax purposes, the amount received by a US Holder as payment with respect to a distribution on, or disposition of common shares, if paid in Canadian dollars, is the US dollar value at the date of the payment, regardless of whether the payment is later converted into US dollars. In such case, the US Holder may recognize additional ordinary income or loss as a result of currency fluctuations between the date on which the payment is made and the date the payment is converted into US dollars.

Withholding

A U.S. Holder may be subject to backup withholding with respect to cash dividends and proceed from a disposition of shares. In general, back-up withholding will apply only if a U.S. Holder fails to comply with specified identification procedures. Backup withholding will not apply with respect to payments made to designated exempt recipients, such as corporations and tax-exempt organizations. Backup withholding is not an additional tax and may be claimed as a credit against the U.S. federal income tax liability of a U.S. Holder, provided that the required information is timely furnished to the IRS.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We have filed the documents referred to herein and other information with the SEC, the Ontario Securities Commission and the Alberta Securities Commission. You may inspect and copy such material at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies of such material from the SEC at prescribed rates by writing to the Public Reference Section of the SEC, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms.

The SEC maintains an Internet website at www.sec.gov that contains reports, proxy statements, information statements and other material that are filed through the SEC's Electronic Data Gathering, Analysis and Retrieval ("EDGAR") system. Documents filed with the Ontario Securities Commission and the Alberta Securities Commission can be accessed through an Internet website at www.sedar.com that contains reports, proxy statements, information statements and other material that are filed through the System for Electronic Document Analysis and Retrieval ("SEDAR").

Additional information is also available on our website at www.micromeminc.com. Such information on our website is not part of this Form 20-F.

I. Subsidiary Information

Not Applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates and foreign currency exchange rates. We do not hold or issue financial instruments for trading purposes. See Note 20 to our consolidated financial statements for our quantitative and qualitative disclosures about market risk.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not Applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

ITEM 15. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15e and 15d-15(e) under the Securities Exchange Act of 1934, as amended, referred to herein as the "Exchange Act") as of October 31, 2020. Based on management's evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of October 31, 2020, our disclosure controls and procedures were effective in that they were designed to ensure that information required to be disclosed by us in our reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in our reports that we file or submit under the Exchange Act are recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms. Exchange Act Rule 13a-15(e) also states that disclosure controls and procedures are designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Act is accumulated and communicated to the issuer's management, including its principal executive and principal financial officers, or person performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control over Financial Reporting

Micromem's Board of Directors and executive management are responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control system was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of its published consolidated financial statements.

All internal control systems no matter how well designed have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our Chief Executive Officer and Chief Financial Officer assessed the effectiveness of Micromem's internal control over financial reporting as of October 31, 2020. In making this assessment, they used the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment the Chief Executive Officer and Chief Financial Officer have concluded that, as of October 31, 2020 our internal controls over financial reporting were effective.

ITEM 16. [Reserved]

Not applicable.

ITEM 16A. Audit Committee Financial Expert

Our Board of Directors has determined that a member of the Board of Directors, Alex Dey, is an audit committee financial expert and that he is independent, as defined in the Marketplace Rules of the Nasdaq Stock Market.

ITEM 16B. Code of Ethics

We have adopted a Code of Ethics to impose certain policies relating to ethical conduct on all of our Directors and employees, including our Chief Executive Officer, Chief Financial Officer, principal accounting officer and persons performing similar functions. We undertake to provide a copy of our Code of Ethics to any holder of our securities upon request, without charge.

ITEM 16C. Principal Accountant Fees and Services

The following table presents fees for professional audit services rendered by our auditors for the audit of our consolidated financial statements for the years ended October 31, 2020 and 2019, and fees billed for other services rendered by our auditors including our offerings of securities and tax services.

	<u>Fiscal 2020</u>		<u>Fiscal 2019</u>
Audit Fees	\$ 85,000	\$	85,000
Audit Related Fees	-		-
Tax Fees	\$ 4,000	\$	4000
All Other Fees	-		-

Audit Fees

In 2020, we incurred a total of \$85,000 to MNP LLP for audit services; and in 2019, we incurred a total of \$85,000 to MNP LLP for audit services.

Audit Related Fees

None

Tax Fees

We paid \$4000 in 2020 and \$4,000 in 2019 of tax-related fees for services to Chiampou Travis LLP.

All Other Fees

None

Pre-approval policies

The Audit Committee assesses and pre-approves all audit and non-audit services.

ITEM 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

ITEM 16E. Purchases of Equity by the Issuer and Affiliated Purchasers.

None.

ITEM 16F. Change in Registrants Certifying Accountant.

Not Applicable.

ITEM 16G. Corporate Governance

Not applicable.

ITEM 16H. Mine Safety Disclosure

Not applicable.

PART III

ITEM 17. Financial Statements

Not applicable, see Item 18.

ITEM 18. Financial Statements



Micromem Technologies Inc.
Consolidated Financial Statements

For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States Dollars)

Micromem Technologies Inc.
Consolidated Financial Statements

For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States Dollars)

Contents

<u>Independent Auditors' Report</u>	<u>F-1</u>
Consolidated Financial Statements:	
<u>Consolidated Statements of Financial Position</u>	<u>F-2</u>
<u>Consolidated Statements of Operations and Comprehensive Loss</u>	<u>F-3</u>
<u>Consolidated Statements of Changes in Equity</u>	<u>F-4</u>
<u>Consolidated Statements of Cash Flows</u>	<u>F-5</u>
<u>Notes to the Consolidated Financial Statements</u>	<u>F-6 - F-24</u>



Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Micromem Technologies Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of Micromem Technologies Inc. (the Company) as of October 31, 2020 and 2019, and the related consolidated statements of operations and comprehensive loss, changes in equity, and cash flows for each of the years in the three year period ended October 31, 2020, and the related notes (collectively referred to as the consolidated financial statements).

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of October 31, 2020 and 2019, and the results of its consolidated operations and its consolidated cash flows for each of the years in the three year period ended October 31, 2020, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Material Uncertainty Related to Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has suffered recurring losses from operations and has a net capital deficiency that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Change in Accounting Principle

As discussed in Note 5(a) to the consolidated financial statements, the Company has changed its method of accounting for leases as of November 1, 2019 due to the adoption of IFRS 16.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

MNP LLP

Chartered Professional Accountants

Licensed Public Accountants

We have served as the Company's auditor since 2017

Toronto, Canada

February 12, 2021

Micromem Technologies Inc.
Consolidated Statements of Financial Position
As at October 31, 2020 and 2019
(Expressed in United States dollars)

	<u>Notes</u>	<u>2020</u>	<u>2019</u>
Assets			
Current			
Cash	20	\$ 191,479	\$ 46,056
Prepaid expenses and other receivables		25,421	14,751
Total current assets		216,900	60,807
Property and equipment	7	49,249	2,677
Patents	8	11,877	20,000
Total assets		\$ 278,026	\$ 83,484
Liabilities			
Current			
Trade payables and other liabilities	20(c)	\$ 767,949	\$ 997,632
Current lease liability	9	36,442	-
Convertible debentures	11,20	3,081,518	2,599,074
Derivative liabilities	11,20	533,562	765,425
Total current liabilities		4,419,471	4,362,131
Long-term lease liability	9	15,628	-
Long-term loan	10	30,269	-
Total liabilities		4,465,368	4,362,131
Shareholders' Deficiency			
Share capital	12	85,463,642	84,153,696
Contributed surplus		27,810,586	27,757,639
Equity component of convertible debentures	11	23,952	50,147
Accumulated deficit		(117,485,522)	(116,240,129)
Total shareholders' deficiency		(4,187,342)	(4,278,647)
Total liabilities and shareholders' deficiency		\$ 278,026	\$ 83,484
Going concern	2		
Contingencies	19		
Subsequent events	23		

The accompanying notes are an integral part of these consolidated financial statements.

Approved on behalf of the Board of Directors:

"Joseph Fuda"

Director

"Alex Dey"

Director

Micromem Technologies Inc.
Consolidated Statements of Operations and Comprehensive Loss
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars)

	<u>Notes</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>
Operating expenses				
General and administrative	16(a)	\$ 154,007	\$ 197,208	\$ 305,338
Professional, other fees and salaries	16(b)	462,124	441,981	747,280
Recovery of reserve for litigation costs	18(b)	(205,788)	-	-
Stock-based compensation	13	-	-	140,612
Development costs (recovery)		-	(41,546)	(130,069)
Travel and entertainment		23,903	52,568	101,496
Amortization of property and equipment	7	27,735	3,175	3,922
Amortization of patents	8	8,123	152,962	156,960
Impairment of patents	8	-	223,143	-
Foreign exchange gain	20(a)	1,447	(40,548)	(117,779)
Total operating expenses		<u>471,551</u>	<u>988,943</u>	<u>1,207,760</u>
Other expenses (income)				
Accretion expense	11	1,099,818	1,517,436	2,039,344
Convertible debt interest expense	11	441,369	496,172	504,778
Financing costs	11	35,500	72,476	40,414
Gain on revaluation of derivative liabilities	11	(771,920)	(343,436)	(1,094,718)
Loss on conversion of convertible debentures	11	96,484	101,919	63,852
Gain on extinguishment of convertible debentures	11	(127,409)	(646)	(399,191)
Total other (income) expenses		<u>773,842</u>	<u>1,843,921</u>	<u>1,154,479</u>
Net loss before income tax provision		(1,245,393)	(2,832,864)	(2,362,239)
Income tax provision	15	-	-	-
Total comprehensive loss		<u>\$ (1,245,393)</u>	<u>\$ (2,832,864)</u>	<u>\$ (2,362,239)</u>
Weighted average number of outstanding shares, basic and diluted	14	377,380,476	288,398,051	237,242,674
Basic and diluted loss per share	14	\$ -	\$ (0.01)	\$ (0.01)

The accompanying notes are an integral part of these consolidated financial statements.

Micromem Technologies Inc.
Consolidated Statements of Changes in Equity
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars)

	<u>Notes</u>	<u>Number of shares</u>	<u>Share capital</u>	<u>Contributed surplus</u>	<u>Equity component of convertible debentures</u>	<u>Accumulated deficit</u>	<u>Total</u>
Balance at November 1, 2017		228,562,711	\$80,198,194	\$ 27,360,676	\$ 62,050	\$ (111,045,026)	\$ (3,424,106)
Private placements of shares for cash	12	14,739,272	866,200	-	-	-	866,200
Shares issued on settlement of accounts payable		79,765	13,379	-	-	-	13,379
Stock-based compensation		-	-	140,612	-	-	140,612
Convertible debentures converted into common shares	11	16,220,951	1,205,130	-	-	-	1,205,130
Expiry of convertible debenture conversion option		-	-	129,621	(129,621)	-	-
Renewal of convertible debentures		-	-	-	137,854	-	137,854
Net loss		-	-	-	-	(2,362,239)	(2,362,239)
Balance at October 31, 2018		259,602,699	\$82,282,903	\$ 27,630,909	\$ 70,283	\$ (113,407,265)	\$ (3,423,170)
Private placements of shares for cash	12	4,961,059	212,968	-	-	-	212,968
Financing costs converted into common shares		350,000	21,000	-	-	-	21,000
Convertible debentures converted into common shares	11	82,038,963	1,636,825	-	-	-	1,636,825
Expiry of convertible debenture conversion option	11	-	-	126,730	(126,730)	-	-
Renewal of convertible debentures	11	-	-	-	106,594	-	106,594
Net loss		-	-	-	-	(2,832,864)	(2,832,864)
Balance at October 31, 2019		346,952,721	\$84,153,696	\$ 27,757,639	\$ 50,147	\$ (116,240,129)	\$ (4,278,647)
Private placements of shares for cash	12	10,996,994	425,789	-	-	-	425,789
Convertible debentures converted into common shares	11	44,237,644	859,331	-	-	-	859,331
Expiry of convertible debenture conversion option	11	-	-	52,947	(52,947)	-	-
Renewal of convertible debentures	11	-	-	-	26,752	-	26,752
Shares issued on settlement of accounts payable		365,094	24,826	-	-	-	24,826
Net loss		-	-	-	-	(1,245,393)	(1,245,393)
Balance at October 31, 2020		<u>402,552,453</u>	<u>\$85,463,642</u>	<u>\$ 27,810,586</u>	<u>\$ 23,952</u>	<u>\$ (117,485,522)</u>	<u>\$ (4,187,342)</u>

The accompanying notes are an integral part of these consolidated financial statements.

Micromem Technologies Inc.
Consolidated Statements of Cash Flows
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars)

	<u>Notes</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>
Operating activities				
Net loss		\$ (1,245,393)	\$ (2,832,864)	\$ (2,362,239)
Items not affecting cash:				
Amortization of property and equipment	7	27,735	3,175	3,922
Amortization of patents	8	8,123	152,962	156,960
Impairment of patents		-	223,143	-
Bad debt expense		-	-	10,000
Accretion expense	11,17	1,099,818	1,517,436	2,039,344
Accrued interest on convertible debentures	11,17	285,679	164,243	125,328
Convertible debenture interest converted	11,17	21,160	63,409	47,435
Loss on conversion of convertible debentures	11	96,484	101,919	63,852
Gain on revaluation of derivative liabilities	11,17	(771,920)	(343,436)	(1,094,718)
Gain on extinguishment of convertible debentures	11,17	(127,409)	(646)	(399,191)
Shares issued for financing costs	11,17	7,500	21,000	-
Stock-based compensation	13	-	-	140,612
Loss on disposal of property and equipment		-	5,000	220
Foreign exchange loss (gain)	20	78,004	(136,606)	(87,033)
		<u>(520,219)</u>	<u>(1,061,265)</u>	<u>(1,355,508)</u>
Net changes in non-cash working capital:				
Decrease in development costs receivable		-	81,841	324,016
Decrease (increase) in prepaid expenses and other receivables		(10,670)	1,980	33,582
Increase (decrease) in trade payables and other liabilities		(229,683)	(4,993)	(341,399)
Cash flows used in operating activities		<u>(760,572)</u>	<u>(982,437)</u>	<u>(1,339,309)</u>
Investing activity				
Purchase of property and equipment		-	-	(3,548)
Patents	8	-	-	(121,603)
Cash flows used in investing activity		<u>-</u>	<u>-</u>	<u>(125,151)</u>
Financing activities				
Repayment of lease liability	9	(11,423)	-	-
Proceeds from long-term debt	10	30,269	-	-
Private placements of shares for cash	12	425,789	212,968	866,200
Proceeds from issuance of convertible debentures	17	612,279	780,891	1,457,983
Repayments of convertible debentures	17	(150,920)	(172,198)	(662,080)
Cash flows provided by financing activities		<u>905,995</u>	<u>821,661</u>	<u>1,662,103</u>
Net change in cash		<u>145,423</u>	<u>(160,776)</u>	<u>197,643</u>
Cash - beginning of year		46,056	206,832	9,189
Cash - end of year		<u>\$ 191,479</u>	<u>\$ 46,056</u>	<u>\$ 206,832</u>
Supplemental cash flow information				
Interest paid (classified in operating activities)	9,11	\$ 155,690	\$ 353,214	\$ 322,930
Interest paid on non-convertible debt		\$ 8,081	\$ -	\$ -
Interest paid on lease liability	9	\$ 14,081	\$ -	\$ -
Income taxes paid	15	\$ -	\$ -	\$ -
Carrying amount of convertible debentures converted into common shares	17	\$ 762,847	\$ 1,636,825	\$ 1,205,130
Shares issued on settlement of accounts payable		\$ 24,826	\$ -	\$ 13,379

The accompanying notes are an integral part of these consolidated financial statements.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

1. Reporting entity and nature of business

Micromem Technologies Inc. ("Micromem" or the "Company") is incorporated under the laws of the Province of Ontario, Canada. Micromem is a publicly traded company with its head office located at 121 Richmond Street West, Suite 304, Toronto, Ontario, Canada. The Company's common shares are currently listed on the Canadian Securities Exchange under the trading symbol "MRM" and on the Over the Counter Venture Market under the trading symbol "MMTIF".

The Company develops, based upon proprietary technology, customized sensor applications for companies (referred to as "development partners") operating internationally in various industry segments. The Company has not generated commercial revenues through October 31, 2020 and is devoting substantially all its efforts to securing commercial revenue opportunities.

2. Going concern

These consolidated financial statements have been prepared with the assumption that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future.

There are material uncertainties related to conditions and events that cast significant doubt about the Company's ability to continue as a going concern and ultimately on the appropriateness of the use of the accounting principles applicable to a going concern. During the year ended October 31, 2020, the Company reported a net loss and comprehensive loss of \$1,245,393 (2019 - \$2,832,864, 2018 - \$2,362,239) and negative cash flow from operations of \$760,572 (2019 - \$982,437, 2018 - \$1,339,309). The Company's working capital deficiency as at October 31, 2020 was \$4,202,571 (2019 - \$4,301,324).

The Company's success depends on the profitable commercialization of its proprietary sensor technology. There is no assurance that the Company will be successful in the profitable commercialization of its technology. Based upon its current operating and financial plans, management of the Company believes that it will have sufficient access to financial resources to fund the Company's planned operations through fiscal 2021; however, the ability of the Company to continue as a going concern is dependent upon its ability to secure additional financing and/or profitably commercialize its technology. These consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from the possible inability of the Company to continue as a going concern.

The COVID-19 pandemic creates additional risk for the Company if there is a prolonged industry slowdown in those sectors where the Company currently operates including the oil and gas sectors in particular. To date, the impact of the pandemic has resulted in the layoff of Company staff as of March 27, 2020. The Company has encountered delays in the commercial status plans of its technology with its primary customers. It secured a government backed loan of \$40,000 CDN (\$30,269 USD) which matures in December 2025 (Note 9) and received government wage subsidies of \$85,455 CDN (\$63,792 USD) (Note 16(b)(i)).

If the going concern assumption were not appropriate for these consolidated financial statements then adjustments would be necessary to the carrying value of assets and liabilities, the reported expenses and the statement of financial position classifications used; in such cases, these adjustments would be material.

3. Basis of presentation

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and interpretations issued by the IFRS Interpretations Committee ("IFRIC"). The Company applied, as of November 1, 2019, International Financial Reporting Standard ("IFRS") 16 Leases and IFRS Interpretations Committee ("IFRIC") 23 Uncertainty over income tax treatments. The nature and effect of those changes are disclosed in Note 4. The Company has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

These consolidated financial statements were authorized for issuance and release by the Company's Board of Directors on February 12, 2021.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

3. Basis of presentation (continued)

(a) Basis of consolidation

These consolidated financial statements include the accounts of Micromem Technologies Inc. and its subsidiaries. All intercompany transactions and balances have been eliminated upon consolidation. The Company applies the acquisition method to account for business combinations. Acquisition-related costs are expensed as incurred.

The Company's wholly-owned subsidiaries include:

- (i) Micromem Applied Sensors Technology Inc. ("MAST") which was incorporated in November 2007 and is domiciled in Delaware, United States. MAST has previously had the primary responsibility for the exploitation of the Company's technologies in conjunction with various strategic partners and customers.
- (ii) 7070179 Canada Inc. which was incorporated in October 2008 under the Canada Business Corporations Act in Ontario, Canada. The Company has assigned to this entity its rights, title and interests in certain patents, which it previously held, directly, in exchange for common shares of this entity.
- (iii)

<u>Inactive subsidiaries</u>	<u>Domiciled in</u>
Memtech International Inc.	Bahamas
Memtech International (USA) Inc., Pageant Technologies (USA) Inc.	United States
Pageant Technologies Inc., Micromem Holdings (Barbados) Inc.	Barbados

(b) Basis of measurement

These consolidated financial statements have been prepared on the historical cost basis, except for financial instruments designated at fair value through profit and loss which are measured at their fair value.

(c) Functional and presentation currency

These consolidated financial statements are presented in United States dollars ("USD"), which is the functional currency of the Company and all of its subsidiaries.

(d) Use of estimates and judgments

The preparation of these consolidated financial statements in conformity with IFRSs requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. These estimates are reviewed periodically and adjustments are made as appropriate in the reporting period they become known. Items for which actual results may differ materially from these estimates are described in the following section.

(i) Fair value of options and conversion features

The Company makes estimates and utilizes assumptions in determining the fair value for stock options and derivative liabilities based on the application of the Black-Scholes option pricing model or the binomial option pricing model, depending on the circumstances. These pricing models require management to make various assumptions and estimates that are susceptible to uncertainty, including the volatility of the share price, expected dividend yield, expected term, expected risk-free interest rate, and exercise price in the binomial option pricing model.

(ii) Useful lives and recoverability of long-lived assets

Long-lived assets consist of property and equipment and patents. Amortization is dependent upon estimates of useful lives and impairment is dependent upon estimates of recoverable amounts. These are determined through the exercise of judgment and are dependent upon estimates that take into account factors such as economic and market conditions, frequency of use, anticipated changes in laws, and technological improvements.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

3. Basis of presentation (continued)

(d) Use of estimates and judgments (continued)

(iii) Income taxes

Income taxes and tax exposures recognized in the consolidated financial statements reflect management's best estimate of the outcome based on facts known at the reporting date. When the Company anticipates a future income tax payment based on its estimates, it recognizes a liability. The difference between the expected amount and the final tax outcome has an impact on current and deferred taxes when the Company becomes aware of this difference.

When the Company incurs losses for income tax purposes, it assesses the probability of taxable income being available in the future, based on budgeted forecasts. These forecasts are adjusted for certain non-taxable income and expenses and specific rules on the use of unused credits and tax losses. When the forecasts indicate that sufficient future taxable income will be available to deduct the temporary differences, a deferred tax asset is recognized for all deductible temporary differences.

(iv) Going concern assumption

The Company applies judgment in assessing whether material uncertainties exist that would cause doubt as to the whether the Company could continue as a going concern.

4. Summary of significant accounting policies

The principal accounting policies applied to the preparation of these consolidated financial statements are set out below:

(a) Foreign currency translation

These consolidated financial statements are presented in USD, which is the functional currency of the Company and all of its subsidiaries. At each reporting date, foreign currency denominated monetary assets and liabilities are translated at year- end exchange rates. Nonmonetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Income and expenses, and cash flows of foreign operations, are translated into USD using annual average exchange rates. Exchange differences arising from operating transactions are recorded in operating profit or loss for the period; exchange differences related to financing transactions are recognized in finance income or directly in equity.

(b) Financial instruments

The Company aggregates similar financial instruments into classes based on their nature and characteristics. All financial assets except those classified as fair value through profit or loss are reviewed at each reporting date to determine whether there is any indication of impairment. Financial assets are considered to be impaired when there is objective evidence that the estimated future cash flows of the investment have been affected as a result of one or more events that occurred after the initial recognition.

The Company's accounting policy for each class of financial instruments is as follows:

(i) Fair value through profit or loss

Financial instruments classified as fair value through profit or loss are reported at fair value at each reporting date, and any change in fair value is recognized in net income in the period during which the change occurs. In these consolidated financial statements, cash and derivative liabilities have been classified as fair value through profit or loss.

(ii) Loans and receivables and other financial liabilities

Financial instruments classified as loans and receivables and other financial liabilities are carried at amortized cost using the effective interest method. Transaction costs are included in the amount initially recognized. In these consolidated financial statements, trade payables and other liabilities and convertible debentures have been classified as other financial liabilities.

4. Summary of significant accounting policies (continued)

(c) Convertible debentures and derivative liabilities

The Company issues convertible debentures used as bridge loans, which can be converted into common shares at the option of the holder, into a fixed number of shares for a fixed amount of consideration, or into a fixed number of shares for a variable amount of consideration, or into a variable number of shares.

(i) Initial recognition

Upon initial recognition, the Company determines whether the convertible debentures consist of liability and equity components, or if both components represent liabilities.

For convertible debentures which provide conversion into a fixed number of shares, the liability component is recognized initially at the fair value of a similar, non-convertible liability. The equity component is recognized as the difference between the fair value of the instrument as a whole and the fair value of the liability component. Any directly attributable transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts.

For convertible debentures which provide conversion into a variable number of shares or into a fixed number of shares for a variable amount of consideration, the conversion option is accounted for as an embedded derivative, which is separated from the host contract. Upon initial recognition, the derivative liability is valued at fair value using a Black Scholes or a binomial pricing model. The carrying amount of the convertible debenture is recognized as the difference between the fair value of the instrument as a whole and the fair value of the derivative liability. Any directly attributable transaction costs allocated to the derivative liability are expensed in the period.

(ii) Modifications and extinguishments

To the extent there are changes to the terms of outstanding convertible debentures, these changes may be recorded as a modification or an extinguishment. A substantial change in the terms of an existing financial liability is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. The terms are substantially different if the discounted present value of the cash flows under the new terms is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. For a modification that does not result in derecognition, a gain or loss will be recognised in profit or loss for the difference between the original contractual cash flows and the modified cash flows discounted at the original effective interest rate.

(d) Property and equipment

Property and equipment are recorded at cost and are amortized over their estimated useful lives at the following annual rates and methods:

	<u>Method</u>	<u>Rate</u>
Computers	Declining balance	30%
Furniture and equipment	Declining balance	30%
Right-of-use asset	Straight-line	over remaining 21 month lease term

(e) Impairment of long-lived assets

The Company follows the guidelines prescribed in IAS 36 with respect to the measurement for impairment of assets. The carrying amounts of property and equipment and patents are reviewed for impairment when events or changes in circumstances indicate that the carrying amounts may not be recoverable. When the carrying amount exceeds the estimated recoverable amount, the assets are written down to their recoverable amount.

The recoverable amount of long-lived assets is the greater of fair value less costs to sell and value in use. Impairment losses are recognized in the consolidated statements of loss and comprehensive loss.

4. Summary of significant accounting policies (continued)

(f) Development costs

Research costs are expensed in the period incurred. Development costs are expensed as incurred unless they meet the criteria for capitalization. Expenditures during the development phase are capitalized if the Company can demonstrate each of the following criteria: (i) the technical feasibility of completing the asset so that it will be available for use or sale, (ii) its intention to complete the asset and use or sell it, (iii) its ability to use or sell the asset, (iv) how the asset will generate probable future economic benefits, (v) the availability of adequate technical, financial and other resources to complete the development and to use or sell the asset, and (vi) its ability to measure reliably the expenditure attributable to the asset during its development; otherwise, these costs are expensed as incurred. Costs to be recovered from development partners are recorded to development costs receivable. Payments received from development partners on projects are recorded to income as a recovery of costs incurred and reduce the outstanding receivable. There were no development costs incurred or recovery of such costs in 2020. Recovery of historic development costs in 2019 amounted to \$41,546.

(g) Patents

Patents are recorded at cost and are amortized on a straight line basis over their estimated useful lives of 5 years.

(h) Stock-based compensation and other stock-based payments

Where equity instruments are granted to employees, they are recorded at the fair value of the equity instrument granted at the grant date. The grant date fair value is recognized in net income over the vesting period. Where equity instruments are granted to non-employees, they are recorded at the fair value of the goods or services received. When the value of goods or services received in exchange for the stock-based payment cannot be reliably estimated, the fair value is measured by use of a valuation model. The cost recognized for all equity-settled stock-based payments are reflected in contributed surplus, until the instruments are exercised. Upon exercise, shares are issued from treasury and the amount previously reflected in contributed surplus along with any proceeds paid upon exercise, are credited to share capital.

(i) Government grants

The Company recognises government grants when there is reasonable assurance of compliance with grant conditions and that the grants will be received. Government grants are recognised in profit or loss on a systematic basis over the periods when the related expenses are incurred and are presented in the consolidated financial statements as a reduction of these expenses. A government grant that becomes receivable as compensation for expenses already incurred is recognised in profit or loss of the period in which it becomes receivable.

(j) Income taxes

The Company accounts for its income taxes using the deferred tax assets and liabilities method. Deferred income tax assets and liabilities are determined based on the difference between the carrying amount and the tax basis of the assets and liabilities. Any change in the net amount of deferred income tax assets and liabilities is included in profit or loss or equity. Deferred income tax assets and liabilities are determined based on enacted or substantively enacted tax rates and laws which are expected to apply to taxable profit for the years in which the assets and liabilities will be recovered or settled. Deferred income tax assets are recognized when it is probable they will be realized. Deferred tax assets and liabilities are not discounted.

(k) Provisions

Provision for risks and expenses are recognized for probable outflows of resources that can be estimated and that result from present obligations resulting from past events. In the case where a potential obligation resulting from past events exists, but where occurrence of the outflow of resources is not probable or the estimate is not reliable, these contingencies are disclosed. Provisions, if any, are measured based on management's best estimates of outcomes on the basis of facts known at the reporting date.

(l) Share capital

Share capital is presented at the fair value of the shares issued. Costs related to the issuance of shares are reported in equity, net of tax, as a deduction from the issuance proceeds.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

4. Summary of significant accounting policies (continued)

(m) Earnings or loss per share

The Company presents basic and diluted earnings per share data for its common shares. Basic earnings per share is calculated by dividing the profit or loss attributable to common shareholders of the Company by the weighted average number of common shares outstanding during the period. Diluted earnings per share is determined by adjusting the profit or loss attributable to common shareholders and the weighted average number of common shares outstanding, for the effects of all potentially dilutive common shares, which comprise stock options and convertible debentures.

5. Adoption of new accounting pronouncements

(a) IFRS 16 Leases

IFRS 16 replaces the previous guidance on leases. This standard provides a single recognition and measurement model to be applied by lessees to leases, with required recognition of assets and liabilities for most leases. This standard is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. The Company has adopted this new standard as of its effective date, in accordance with the transitional provisions specified in IFRS 16. The Company has applied the following practical expedients:

- (i) The Company applied the simplified transition approach and did not restate comparative information. As a result, the Company recognized the cumulative effect of initially applying IFRS 16 as an adjustment to the accumulated deficit as at November 1, 2019.
- (ii) The Company elected to apply IFRS 16 only to contracts that were previously identified as leases. Contracts that were not identified as leases under IAS 17 and IFRIC 4 - Determining whether an arrangement contains a lease, were not reassessed for whether there is a lease. The Company applied the definition of a lease under IFRS 16 to contracts entered into or changed on or after November 1, 2019.
- (iii) The present value of remaining minimum lease payments is capitalized as an asset and offsetting lease liability recognized. As the interest rate implicit in the lease cannot be readily determined, management applied the Company's incremental borrowing rate (based on recent non-convertible debentures) of 24% per annum as the discount rate.

In accordance with the practical expedients applied, the Company has recognized lease liabilities and right-of-use assets at the date of initial application for leases previously classified as operating leases in accordance with IAS 17. There were no onerous lease contracts that would have required an adjustment to the right-of-use assets at the date of initial application. The Company has no short term leases.

The change in accounting policy had the following impact on the statement of financial position:

		As at November 1, 2019		
		Previously stated	Impacts from adoption	Restated
Impact of IFRS 16 on statement of financial position				
Right-of-use asset	Note 7	-	74,307	74,307
Current lease liability	Note 9	-	36,442	36,442
Non-current lease liability	Note 9	-	37,865	37,865

5. Adoption of new accounting pronouncements (continued)

(a) IFRS 16 Leases (continued)

The following is the Company's policy for accounting for lease contracts in accordance with IFRS 16:

At the inception of a contract, the Company assesses whether a contract is, or contains a lease. A contract is, or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Company recognizes a right-of-use asset and a lease liability at the commencement date of the lease. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset, less any lease incentives received. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. In addition, the right-of-use assets are adjusted for impairment losses, if any. The estimated useful lives and recoverable amounts of right-of-use assets are determined on the same basis as those of property and equipment. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate currently set at 24%. The lease liability is subsequently measured at amortized cost using the effective interest method. The Company has elected not to recognize right-of-use assets and lease liabilities for short-term leases (lease term of 12 months or less) and leases for which the underlying asset is of low value as there are none. The Company recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

(b) IFRIC 23 Uncertainty over income tax treatments

IFRIC 23 clarifies the application of recognition and measurement requirements in IAS 12, Income Taxes, when there is uncertainty over income tax treatments. It specifically addresses whether an entity considers each tax treatment independently or collectively, the assumptions an entity makes about the examination of tax treatments by taxation authorities, how an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates, and how an entity considers changes in facts and circumstances. IFRIC 23 became effective for the annual periods beginning on or after January 1, 2019, with earlier application permitted. The Company has adopted this interpretation as of its effective date and assessed no significant impact as a result of the adoption of this interpretation.

6. New and revised standards and interpretations issued but not yet effective

Certain pronouncements were issued by the IASB or the IFRIC that are mandatory for accounting periods commencing on or after January 1, 2020. Many are not applicable or do not have a significant impact to the Company and have been excluded. The following have not yet been adopted and are being evaluated to determine their impact on the Company.

(a) IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors

IAS 1 and IAS 8 were amended in October 2018 to refine the definition of materiality and clarify its characteristics. The revised definition focuses on the idea that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. The amendments are effective for annual reporting periods beginning on or after January 1, 2020, with earlier adoption permitted. The Company will adopt this interpretation as of its effective date. The Company has performed a preliminary analysis and has not assessed any significant impacts as a result of the adoption of these amendments.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

7. Property and equipment

	<u>November 1, 2018</u>	<u>Additions / Disposals</u>	<u>Restatement Note 4(a)</u>	<u>November 1, 2019</u>	<u>Additions / Disposals</u>	<u>October 31, 2020</u>
Cost						
Computers	\$ 35,416	\$ (3,376)	\$ -	\$ 32,040	\$ -	\$ 32,040
Right-of-use assets	-	-	74,307	74,307	-	74,307
	<u>\$ 35,416</u>			<u>\$ 106,347</u>	<u>\$ -</u>	<u>\$ 106,347</u>
Accumulated amortization						
Computers	\$ 26,188	\$ 3,175	\$ -	\$ 29,363	\$ 714	\$ 30,077
Right-of-use assets	-	-	-	-	27,021	27,021
	<u>\$ 26,188</u>			<u>\$ 29,363</u>	<u>\$ 27,735</u>	<u>\$ 57,098</u>
Net book value	<u>\$ 9,228</u>			<u>\$ 76,984</u>		<u>\$ 49,249</u>

8. Patents

	<u>November 1, 2018</u>	<u>Additions</u>	<u>Impairment</u>	<u>November 1, 2019</u>	<u>Additions</u>	<u>October 31, 2020</u>
Cost	\$ 904,431	\$ -	\$ (223,143)	\$ 681,288	\$ -	\$ 681,288
Accumulated amortization	508,326	152,962	-	661,288	8,123	669,411
Net book value	<u>\$ 396,105</u>			<u>\$ 20,000</u>		<u>\$ 11,877</u>

The Company holds several patents in the United States for its Multimodal Fluid Condition Sensor Platform. In prior years, the Company had negotiated with a major automotive company and a Tier 1 manufacturer for the development and commercial exploitation of this patented technology. In 2019, the Company discontinued provisional patent applications in international jurisdictions and determined that the patents were impaired as its carrying amount was higher than its recoverable amount. The value in use, measured as the present value of the future cash flows expected to be derived from this asset class, had been estimated at a minimum of \$20,000 at October 31, 2019. Accordingly, the Company recorded an impairment reserve of \$223,143 in fiscal year 2019. The Company maintains that there remains significant potential value in its existing patents in terms of potential licensing agreements and royalty fees once it begins to exploit this asset class in the future.

9. Leases

(a) Maturity analysis of lease obligations

The following represents a maturity analysis of the Company's undiscounted principal amount of contractual lease obligations as at October 31, 2020.

	<u>CDN</u>
Less than one year	\$ 48,060
Two to five years	32,040
	<u>\$ 80,100</u>

(b) Supplemental disclosure

For the year ended October 31, 2020, the Company recognized \$14,081 of interest expense on lease obligations in the consolidated statements of operations and comprehensive loss. The Company further recognized total cash outflow of \$11,423 relating to leases.

10. Long-term loan

On April 15, 2020, the Company obtained a \$40,000 CDN (\$30,269 USD) interest-free loan from the Government of Canada under the Canada Emergency Business Account ("CEBA") program to cover its operating costs. The term loan matures on December 31, 2025. Repaying the balance of the loan on or before December 31, 2022 will result in a loan forgiveness of \$10,000 CDN (\$7,567 USD). Effective January 1, 2023, any outstanding balance on the term loan shall bear interest at a rate of 5% per annum. As the Company does not yet know whether they will be able to meet the terms of forgiveness, no amount has been recognized to income.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

11. Convertible debentures

The Company issues three types of convertible debentures: USD denominated convertible debentures with an equity component, Canadian dollar ("CDN") denominated convertible debentures with an embedded derivative due to variable consideration payable upon conversion caused by foreign exchange, and USD denominated convertible debentures with an embedded derivative caused by variable conversion prices.

	Convertible debentures		Derivative liabilities		Equity component of convertible debentures	
	2020	2019	2020	2019	2020	2019
(a)	\$ 2,881,719	\$ 2,511,514	\$ 197,270	\$ 204,366	\$ 23,952	\$ 50,147
(b)	199,799	87,560	336,292	561,059	-	-
	<u>\$ 3,081,518</u>	<u>\$ 2,599,074</u>	<u>\$ 533,562</u>	<u>\$ 765,425</u>	<u>\$ 23,952</u>	<u>\$ 50,147</u>

(a) USD denominated debentures with equity components and CDN denominated debentures with embedded derivatives

All loan principal amounts are expressed in original currency and all remaining dollar amounts expressed in USD. Convertible debentures outstanding as at October 31:

	USD (equity component)		CDN (embedded derivative)	
	2020	2019	2020	2019
Loan principal				
Opening balance	\$ 931,000	\$ 931,000	\$ 2,271,017	\$ 2,234,294
Issuance during the year	185,200	-	17,052	165,266
Repayment or conversion	(20,000)	-	(158,364)	(128,543)
Outstanding at year-end	<u>\$ 1,096,200</u>	<u>\$ 931,000</u>	<u>\$ 2,129,705</u>	<u>\$ 2,271,017</u>
Terms of loan				
Annual interest rate	12% - 24%	12% - 24%	12% - 24%	12% - 24%
Effective annual interest rate	24%	24% - 36%	12% - 1270%	13% - 645%
Conversion price to common shares	\$ 0.03 - \$0.07	\$ 0.04 - \$0.07	\$ 0.05 - \$0.14	\$ 0.05 - \$0.15
Remaining life (in months)	1 - 9	1 - 6	0 - 6	0 - 12
Consolidated Statement of Financial Position				
Carrying value of loan principal	\$ 1,083,375	\$ 906,993	\$ 1,403,787	\$ 1,464,416
Interest payable	151,387	18,661	243,170	121,444
Convertible debentures	<u>\$ 1,234,762</u>	<u>\$ 925,654</u>	<u>\$ 1,646,957</u>	<u>\$ 1,585,860</u>
Derivative liabilities	\$ -	\$ -	\$ 197,270	\$ 204,366
Equity component of convertible debentures	\$ 23,952	\$ 50,147	\$ -	\$ -
Consolidated Statement of Operations and Comprehensive Loss				
Accretion expense	\$ 37,934	\$ 118,749	\$ 723,641	\$ 914,780
Interest expense	\$ 194,091	\$ 191,001	\$ 215,923	\$ 229,673
Gain on revaluation of derivative liabilities	\$ -	\$ -	\$ (590,625)	\$ (846,401)
Loss on conversion of convertible debentures	\$ -	\$ -	\$ -	\$ -
Loss (gain) on extinguishment of convertible debentures	\$ -	\$ -	\$ (10,919)	\$ (2,865)
Consolidated Statement of Changes in Equity				
Amount of principal converted to common shares	\$ 20,000	\$ -	\$ 35,000	\$ -
Amount of interest converted to common shares	\$ 447	\$ -	\$ 1,168	\$ -
Number of common shares issued on conversion of convertible debentures	511,175	-	731,440	-
Consolidated Statement of Cash Flows				
Amount of principal repaid in cash	\$ -	\$ -	\$ 93,721	\$ 96,598
Amount of interest repaid in cash	\$ 60,918	\$ 187,440	\$ 93,005	\$ 159,801

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

11. Convertible debentures (continued)

(b) USD denominated debentures with embedded derivatives

During the year ended October 31, 2020, the Company has incurred \$35,500 (2019 - \$72,476; 2018 - \$40,414) in financing costs which primarily consist of early repayment premiums and administrative fees relating to the convertible debentures, of which \$7,500 (2019 - \$21,000; 2018 - \$nil) was converted into common shares.

Convertible debentures outstanding as at October 31, 2020:

	(i)		(ii)	
	2020	2019	2020	2019
Loan principal				
Opening balance	\$ 304,000	\$ 213,600	\$ 121,000	\$ 101,250
Issuance during the year	449,000	563,600	273,770	307,250
Conversion	(447,000)	(397,600)	(106,000)	(287,500)
Repayment	(80,000)	(75,600)	-	-
Outstanding at year-end	<u>\$ 226,000</u>	<u>\$ 304,000</u>	<u>\$ 288,770</u>	<u>\$ 121,000</u>
Terms of loan				
Annual interest rate	4%	4%	2% - 10%	10%
Effective annual interest rate	4070% - 5278%	139% - 5044%	2573% - 20559%	4338% - 5368%
Conversion price to common shares	(i)	(i)	(ii)	(ii)
Remaining life (in months)	9 - 12	6 - 11	0 - 5	3 - 12
Consolidated Statement of Financial Position				
Carrying value of loan principal	\$ 56	\$ 39,993	\$ 165,564	\$ 23,429
Interest payable	14,515	10,953	19,664	13,185
Convertible debentures	<u>\$ 14,571</u>	<u>\$ 50,946</u>	<u>\$ 185,228</u>	<u>\$ 36,614</u>
Derivative liabilities	\$ 153,804	\$ 370,759	\$ 182,489	\$ 190,300
Consolidated Statement of Operations and Comprehensive Loss				
Accretion expense	\$ 136,533	\$ 57,111	\$ 201,711	\$ 165,753
Interest expense	\$ 11,390	\$ 27,053	\$ 19,965	\$ 21,916
Gain on revaluation of derivative liabilities	\$ (73,082)	\$ 196,842	\$ (106,213)	\$ 294,673
Loss on conversion of convertible debentures	\$ 54,436	\$ 49,738	\$ 42,048	\$ 281
Loss (gain) on extinguishment of convertible debentures	\$ (116,490)	\$ 2,219	\$ -	\$ -
Consolidated Statement of Changes in Equity				
Amount of principal converted to common shares	\$ 447,000	\$ 397,600	\$ 106,000	\$ 287,500
Amount of interest converted to common shares	\$ 6,060	\$ 23,100	\$ 20,986	\$ 21,969
Number of common shares issued on conversion of convertible debentures	29,409,479	29,106,847	13,585,550	33,421,726
Consolidated Statement of Cash Flows				
Amount of principal repaid in cash	\$ 80,000	\$ 75,600	\$ -	\$ -
Amount of interest repaid in cash	\$ 1,767	\$ 5,973	\$ -	\$ -

(i) Conversion price defined as 75% multiplied by the average of the lowest 3 closing stock prices for the 10 trading days prior to conversion date.

(ii) Conversion price defined as 75% multiplied by the lowest stock price for the 20 trading days prior to conversion date.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

11. Convertible debentures (continued)

(b) USD denominated debentures with embedded derivatives

Convertible debentures outstanding as at October 31, 2020:

	(iii)	
	2020	2019
Loan principal		
Opening balance	\$ -	\$ 308,000
Conversion	-	(308,000)
Outstanding at year-end	<u>\$ -</u>	<u>\$ -</u>
Terms of loan		
Annual interest rate	n/a	5%
Effective annual interest rate	n/a	5234%
Conversion price to common shares	(iii)	(iii)
Remaining life (in months)	n/a	n/a
Consolidated Statement of Operations and Comprehensive Loss		
Accretion expense	\$ -	\$ 261,042
Interest expense	\$ -	\$ 22,443
Gain on revaluation of derivative liabilities	\$ -	\$ 11,451
Consolidated Statement of Changes in Equity		
Amount of principal converted to common shares	\$ -	\$ 308,000
Amount of interest converted to common shares	\$ -	\$ 18,339
Number of common shares issued on conversion of convertible debentures	-	19,510,390

(iii) Conversion price defined as 75% multiplied by lowest stock price for the 15 trading days prior to conversion date.

(c) Fair value of derivative liabilities outstanding

The fair value of the derivative liabilities is determined in accordance with the Black-Scholes or binomial option-pricing models, depending on the circumstances. The underlying assumptions are as follows:

	2020	2019
Share price	\$0.02	\$0.02
Exercise price	\$0.01 - \$0.11	\$0.01 - \$0.11
Volatility factor (based on historical volatility)	100% - 187%	173% - 321%
Risk free interest rate	0.10% - 0.19%	1.67% - 1.69%
Expected life of conversion features (in months)	0 - 12	0 - 12
Expected dividend yield	0%	0%
CDN to USD exchange rate (as applicable)	0.7567	0.7582
Call value	\$0.00 - \$0.02	\$0.00 - \$0.02

Volatility was estimated using the historical volatility of the Company's stock prices for common shares.

12. Share capital

(a) Authorized and outstanding shares

The Company has two classes of shares as follows:

- (i) Special redeemable voting preference shares - 2,000,000 authorized, nil issued and outstanding.
- (ii) Common shares without par value – an unlimited number authorized. The holders of the common shares are entitled to receive dividends which may be declared from time to time, and are entitled to one vote per share at shareholder meetings of the Company. All common shares are ranked equally with regards to the Company's residual assets.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

12. Share capital (continued)

(b) Private placements

- (i) In 2020, the Company completed three private placements with investors consisting of common shares with no warrants, pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$425,789 and issued a total of 10,996,994 common shares.
- (ii) In 2019, the Company completed four private placements with investors consisting of common shares with no warrants, pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$212,968 and issued a total of 4,961,059 common shares.
- (iii) In 2018, the Company completed thirty-three private placements with investors consisting of common shares with no warrants, pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$866,200 and issued a total of 14,739,272 common shares.

13. Stock options

(a) Stock option plan

Until September 8, 2020, under the Company's fixed stock option plan (the "Plan"), the Company could grant up to 18,840,000 shares of common stock to directors, officers, employees or consultants of the Company and its subsidiaries. The exercise price of each option is equal to or greater than the market price of the Company's shares on the date of grant unless otherwise permitted by applicable securities regulations. An option's maximum term under the Plan is 10 years. Stock options are fully vested upon issuance by the Company unless the Board of Directors stipulates otherwise by Directors' resolution.

The Company held its Annual General Meeting of Shareholders on September 8, 2020. The authorized limit for stock options in the Company's plan was increased from 18.84 million options to 27.5 million options at the meeting.

(b) Summary of changes

	Number of options	Weighted average exercise price
Outstanding at November 1, 2018	6,250,000	\$ 0.29
Expired	(520,000)	0.34
Outstanding at October 31, 2019	5,730,000	\$ 0.25
Cancelled	(2,040,000)	0.25
Expired	(1,490,000)	0.46
Outstanding at October 31, 2020	2,200,000	\$ 0.10

All options vest immediately upon issuance. There were no options issued to directors and officers during the year ended October 31, 2020 (2019 - nil; 2018 - 700,000) nor employees (2019 - nil; 2018 - 1,500,000).

(c) Stock options outstanding at October 31, 2020

Date of issue	Expiry date	Weighted average		
		Number of options	Exercise price	Remaining contractual life (years)
June 29, 2018	June 29, 2023	2,200,000	0.10	2.7
Outstanding and exercisable at October 31, 2020		2,200,000	\$ 0.10	2.7

Subsequent to October 31, 2020, the Company granted 6.5 million stock options to employees, senior officers, directors and one consultant (Note 23(f)).

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

14. Loss per share

Basic and diluted loss per share are calculated using the following numerators and denominators:

Numerator	2020	2019	2018
Loss attributable to common shareholders	\$ (1,245,393)	\$ (2,832,864)	\$ (2,362,239)
Loss used in computation of basic and diluted loss per share	\$ (1,245,393)	\$ (2,832,864)	\$ (2,362,239)
Denominator			
Weighted average number of common shares for computation of basic and diluted loss per share	377,380,476	288,398,051	237,242,674

For the year ended October 31, 2020, 2019 and 2018, all stock options and conversion features were anti-dilutive and, therefore, are excluded from the calculation of diluted loss per share.

15. Income taxes

- (a) The Company has non-capital losses of approximately \$31.1 million available to reduce future taxable income, the benefit of which has not been recognized in these consolidated financial statements. At October 31, 2020, the tax losses expire as follows:

	Canada	Other foreign	Total
2026	\$ 1,803,343	\$ -	\$ 1,803,343
2027	1,516,471	-	1,516,471
2028	-	-	-
2029	1,554,181	461,496	2,015,677
2030	2,096,995	1,880,897	3,977,892
2031	1,263,375	18,526	1,281,901
2032	1,400,147	325,793	1,725,940
2033	1,697,116	157,463	1,854,579
2034	2,455,152	679,089	3,134,241
2035	2,774,535	570,901	3,345,436
2036	3,256,074	441,019	3,697,093
2037	2,606,582	232,719	2,839,301
2038	1,762,145	-	1,762,145
2039	1,576,315	3,923	1,580,238
2040	531,199	-	531,199
	<u>\$ 26,293,630</u>	<u>\$ 4,771,826</u>	<u>\$ 31,065,456</u>

- (b) In addition, the Company has available capital loss carry forwards of approximately \$1.3 million to reduce future taxable capital gains, the benefit of which has not been recognized in these consolidated financial statements. Capital losses carry forward indefinitely.
- (c) Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows:

	2020	2019	2018
Non-capital losses and other	\$ 8,232,346	\$ 8,073,286	\$ 7,698,859
Capital losses	166,316	175,090	175,090
Property, equipment, patents and deferred costs	1,666,788	1,668,632	1,567,228
	<u>\$ 10,065,450</u>	<u>\$ 9,917,008</u>	<u>\$ 9,441,177</u>
Deferred tax asset not recognized	(10,065,450)	(9,917,008)	(9,441,177)
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

As at October 31, 2020 and 2019, the Company assessed that it is not probable that sufficient taxable profit will be available to use deferred income tax assets based on operating losses in prior years; therefore, there are no balances carried in the consolidated statements of financial position for such assets.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

15. Income taxes (continued)

(d) The reconciliation of income tax attributed to continuing operations computed at the statutory tax rates to income tax expense is as follows:

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Loss before income taxes	\$ (1,245,393)	\$ (2,832,864)	\$ (2,362,239)
Statutory tax rate	26.50%	26.50%	26.50%
Expected income tax recovery	\$ (330,029)	\$ (750,709)	\$ (625,993)
Non-deductible expenses and other items	143,550	270,610	182,056
Effect of exchange rate on deferred tax assets carried forward and other	38,037	4,269	225,846
Effect of higher tax rates in foreign jurisdictions	-	-	-
Change in deferred tax assets not recognized	148,442	475,830	218,091
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

16. Operating expenses

(a) General and administrative

The components of general and administrative expenses are as follows:

	<u>2020</u>	<u>2019</u>	<u>2018</u>
General and administrative	\$ 49,702	\$ 56,720	\$ 63,936
Rent and occupancy	37,153	64,647	70,674
Office insurance	2,024	26,812	117,615
Investor relations, listing and filing fees	49,537	49,029	53,113
Loss on settlement of accounts payable	15,591	-	-
	<u>\$ 154,007</u>	<u>\$ 197,208</u>	<u>\$ 305,338</u>

(b) Professional, other fees and salaries

The components of professional, other fees and salaries expenses are as follows:

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Professional fees	\$ 148,926	\$ 157,354	\$ 165,685
Consulting fees	138,123	53,845	316,815
Salaries and benefits	175,075	230,782	264,780
	<u>\$ 462,124</u>	<u>\$ 441,981</u>	<u>\$ 747,280</u>

(i) Wage subsidy

The Canada Emergency Wage Subsidy (CEWS) was announced by the Government of Canada on March 27, 2020 to enable companies negatively impacted by COVID-19 to re-hire workers. Under this program, qualifying businesses can receive up to 75% of their employees' wages, with employers being encouraged to provide the remaining 25%.

For the year ended October 31, 2020, the Company recognized \$85,455 CDN (\$63,792 USD) of wage subsidy under this program, which has been recorded as a reduction of salaries expenses in the consolidated statements of operations and comprehensive loss. This program has been extended until March 2021.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

17. Supplemental cash flow information

The following provides a reconciliation of the cash flows from convertible debentures and derivative liabilities :

	<u>2020</u>	<u>2019</u>
Balance - beginning of period	\$ 3,364,499	\$ 3,126,687
Cash flows from financing activities:		
Proceeds from issuance of convertible debentures	612,279	780,891
Repayments of convertible debentures	(150,920)	(172,198)
Non-cash changes:		
Increase in loan principal ⁽ⁱ⁾	-	60,000
Accretion expense	1,099,818	1,517,436
Accrued interest on convertible debentures	285,679	164,243
Gain on revaluation of derivative liabilities	(771,920)	(343,436)
Gain on extinguishment of debt	(127,409)	(646)
Convertible debentures converted into common shares	(762,847)	(1,636,825)
Renewal of convertible debentures	(26,752)	(106,594)
Foreign exchange loss (gain)	92,652	(25,059)
Balance - end of period	<u>\$ 3,615,080</u>	<u>\$ 3,364,499</u>

- (i) In accordance with the convertible debenture agreements, additional consideration was provided as of the conversion date, based on the stipulated conversion price.

18. Key management compensation and related party transactions

The Company reports the following related party transactions:

- (a) Key management compensation

Key management personnel are persons responsible for planning, directing and controlling activities of the Company, including officers and directors. Compensation paid or payable to these individuals (or companies controlled by such individuals) are summarized as follows:

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Professional, other fees, and salaries	\$ 17,517	\$ 4,684	\$ 235,297
Stock-based compensation	-	-	44,740
	<u>\$ 17,517</u>	<u>\$ 4,684</u>	<u>\$ 280,037</u>

In 2020, these parties were not awarded any options (2019 - nil; 2018 - 700,000 options at an exercise price of \$0.10).

Subsequent to October 31, 2020, the Company awarded 3 million stock options to key management as part of the total 6.5 million stock options issued (Note 23(f)).

- (b) Trade payables and other liabilities

At October 31, 2019, the Company reported \$205,788 in trade payable and other liabilities, representing alleged outstanding wages and expenses payable to the former President of MAST, Mr. Steven Van Fleet. The alleged payables related to claims made by Mr. Van Fleet as amounts owing to him prior to his resignation as an officer and director of the Company on August 27th, 2018.

As described in Note 19(b) below, the Company has reversed this reserve in the fiscal year ended October 31, 2020 based on the developments in this legal matter in 2020. The reasonable value of Mr. Van Fleet's claims against the Company as of October 31, 2020 is \$nil.

As at October 31, 2020 and 2019, the Company reports \$167,000 in trade payables and other liabilities owing to a company whose major shareholder was a former director of the Company and who has also previously served as its Chief Technology Officer. This individual was elected as a director on February 19, 2014 through September 8, 2020. The balance reported relates to alleged services provided in 2015; there have been no invoices submitted by this related party after October 31, 2015.

18. Key management compensation and related party transactions (continued)

(c) Convertible debentures

In May 2019, the CEO of the Company provided for a short-term loan of \$15,000 CDN (\$11,450 USD). At October 31, 2019, \$10,000 CDN (\$7,582 USD) in loan principal was outstanding. In 2020, the remaining amount of loan principal was extinguished by participation of the CEO in the private placement which the Company completed at the time. The extinguishment of the debt for the shares received in the private placement resulted in an a loss on conversion of \$14,000 CDN (\$10,600 USD).

In January 2018, the CEO of the Company provided for a convertible debenture of \$150,000 CDN (\$114,086 USD). As at October 31, 2020, \$10,001 CDN (\$7,509 USD)(October 31, 2019 - \$52,319 CDN, \$39,756 USD) in loan principal remains outstanding.

19. Contingencies

(a) The Company has agreed to indemnify its directors and officers and certain of its employees in accordance with the Company's by-laws. The Company maintains insurance policies that may provide coverage against certain claims.

(b) On October 7, 2018, the former President of MAST, Inc. (a wholly-owned subsidiary), Mr. Steven Van Fleet, filed a lawsuit against Micromem and MAST in New York State Supreme Court, Dutchess County. In the action, Mr. Van Fleet is seeking payment of \$214,574 plus interest relating to alleged remuneration and expense reimbursements due to him prior to his resignation as an officer and director of Micromem and MAST on August 17, 2018. The Company answered the complaint on December 7, 2018 by denying the material allegations in Mr. Van Fleet's claims. In addition, the Company interposed 7 counterclaims against Mr. Van Fleet seeking, among other things: (i) damages of not less than \$2.75 million,

(ii) specific performance to compel Mr. Van Fleet to comply with his contractual obligations which were required for the period of time that he served as an officer and director through to his resignation date; (iii) repayment of certain salary and expenses paid to Mr. Van Fleet; (iv) a direction for Mr. Van Fleet to turn over all Company property in his possession or control; (v) an accounting to determine all money and property belonging to the Company and/or MAST. On January 24, 2019, the Company amended its original answer and counterclaims to include, among other things, a demand for additional damages based on new information that had come to light. On February 8, 2019, Mr. Van Fleet, through his counsel, replied to and denied the material allegations in Micromem's counterclaims.

In January 2020, the court sent a schedule for completing discovery, which later had to be revised due to the COVID-19 pandemic. In May 2020, the court revised the discovery schedule, which required the parties to complete depositions and all remaining discovery by August 26, 2020.

Counsel for the parties agreed that Mr. Van Fleet's deposition would proceed on July 31, 2020. The day before the deposition, Mr. Van Fleet's counsel advised the Company's counsel that if Mr. Van Fleet were to appear at the deposition, he would invoke his Fifth Amendment right not to incriminate himself with respect to the Company's counterclaims, and that rather than doing so, Mr. Van Fleet had chosen not to appear for his deposition and would never appear for his deposition in the future.

In light of this development, on September 25, 2020 the Company's counsel moved for a default, asking the court to strike Mr. Van Fleet's claims and to enter a judgment in the Company's favor on its counterclaims. Mr. Van Fleet has not submitted any opposition to the motion. Although the motion has not yet been decided, given that the facts and law support a default, and the motion is unopposed, we anticipate that the court will grant the motion striking Mr. Van Fleet's claim and schedule a hearing to determine the Company's damages on its counterclaims.

Based on these developments, we believe that, at October 31, 2020, the reasonable value of Mr. Van Fleet's claims against the Company was \$nil. Our belief has been confirmed by events since that date. While the Company may obtain a judgment for damages, we cannot currently predict the amount of damages, if any, that will be awarded and/or if a judgment will be collectible.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

20. Financial risk management

(a) Currency risk

Currency risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in foreign exchange rates. The Company is exposed to currency risk to the extent that it incurs expenses and issues convertible debentures denominated in Canadian dollars (CDN). The Company manages currency risk by monitoring the Canadian position of these monetary financial instruments on a periodic basis throughout the course of the reporting period.

As at October 31, 2020, balances that are denominated in CDN are as follows:

	CDN	
	2020	2019
Cash (bank indebtedness)	\$ 8,759	\$ (3,188)
Prepaid expenses and other receivables	\$ 33,594	\$ -
Trade payables and other liabilities	\$ 23,530	\$ 387,766
Convertible debentures (carrying value)	\$ 2,176,454	\$ 2,010,940
Derivative liabilities	\$ 260,692	\$ 207,161
Long-term loan	\$ 40,000	\$ -

A 10% strengthening of the US dollar against the CDN would decrease accumulated deficit by \$169,114 as at October 31, 2020 (2019 - decrease accumulated deficit by \$158,836). A 10% weakening of the USD against the CDN would have had the opposite effect of the same magnitude.

(b) Interest rate risk

Interest rate risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in market interest rates. The Company is exposed to interest rate risk on its interest-bearing convertible debentures. This exposure is limited due to the short-term nature of the convertible debentures.

(c) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. The Company's policy is to review liquidity resources and ensure that sufficient funds are available to meet financial obligations as they become due. Further, the Company's management is responsible for ensuring funds exist and are readily accessible to support business opportunities as they arise. The Company's funding is provided in the form of capital raised through the issuance of shares on conversion of convertible debentures. With the exception of the long-term loan, all financial liabilities are due within 1 year as at October 31, 2020.

(i) Trade payables

The following represents an analysis of the maturity of trade payables:

	2020	2019
Less than 30 days past billing date	\$ 252,413	\$ 203,143
31 to 90 days past billing date	25,683	13,259
Over 90 days past billing date	489,853	781,230
	<u>\$ 767,949</u>	<u>\$ 997,632</u>

As at October 31, 2020, trade payables include \$367,418 (2019 - \$573,206) of invoices which the Company has disputed and/or are stale-dated. The Company does not anticipate that it will be required to discharge such amounts.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

20. Financial risk management (continued)

(c) Liquidity risk (continued)

(ii) Convertible debentures and derivative liabilities

The following represents an analysis of the maturity of the convertible debentures and derivative liabilities:

	2020		2019	
	Convertible debentures	Derivative liabilities	Convertible debentures	Derivative liabilities
Less than three months	\$ 1,335,853	\$ 149,827	\$ 754,799	\$ 75,528
Three to six months	806,477	190,055	1,168,349	71,326
Six to twelve months	939,188	193,680	675,926	618,571
	<u>\$ 3,081,518</u>	<u>\$ 533,562</u>	<u>\$ 2,599,074</u>	<u>\$ 765,425</u>

(d) 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, and arises principally from the Company's cash and other receivables. The maximum exposure to credit risk is the carrying value of these financial assets, which amounted to \$213,695 as at October 31, 2020 (2019 - \$49,236).

Cash of \$191,479 as at October 31, 2020 (2019 - \$46,056) is held with central banks and financial institution counterparties that are highly rated. The Company has assessed no significant change in credit risk and an insignificant loss allowance, which was not recognized in these consolidated financial statements.

21. Fair value hierarchy

Assets and liabilities recorded at fair value in the consolidated statements of financial position are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Level 1 - valuation based on quoted prices (unadjusted) in active markets for identical assets and liabilities. There are no assets or liabilities in this category in these consolidated financial statements.

Level 2 - valuation techniques based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. In these consolidated financial statements, derivative liabilities are included in this category.

Level 3 - valuation techniques using the inputs for the asset or liability that are not based on observable market data. There are no assets or liabilities in this category in these consolidated financial statements.

The Company's policy for determining when transfers between levels of fair value hierarchy occur is based on the date of the event or changes in circumstances that caused the transfer. During the years ended October 31, 2020 and 2019, there were no transfers between levels.

22. Capital risk management

The Company's objectives when managing capital are to (i) maintain its ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders, (ii) ensure it has sufficient cash resources to further develop and market its technologies and (iii) maintain its ongoing operations. The Company defines its capital as its net assets, total assets less total liabilities. In order to secure the additional capital necessary to pursue these objectives, the Company may attempt to raise additional funds through the issuance of equity or convertible debentures or by securing strategic partners. The Company is not subject to externally imposed capital requirements and there has been no change with respect to the overall capital risk management strategy during the year ended October 31, 2020.

Micromem Technologies Inc.
Notes to Consolidated Financial Statements
For the years ended October 31, 2020, 2019 and 2018
(Expressed in United States dollars, unless otherwise noted)

23. Subsequent events

Subsequent to October 31, 2020:

- (a) The Company secured seven (7) private placements with investors consisting of common shares with no warrants pursuant to prospectus and registrations set forth in applicable securities law. It realized net proceeds of \$46,200 CDN and \$60,000 USD and issued a total of 3,542,223 common shares.
- (b) The Company settled interest debt of \$204,233 CDN and \$30,200 USD with the issuance of 6,953,755 common shares.
- (c) The Company repaid \$25,000 CDN of convertible debentures. It also converted \$40,000 CDN and \$111,520 USD of convertible debentures through the issuance of 3,712,672 common shares.
- (d) The Company extended convertible debentures that were within 3 months of maturity date from October 31, 2020. Extension terms ranged from three (3) months to nine (9) months.
- (e) The Company secured \$52,000 in convertible debentures with a 12 month term and conversion features which become effective six months after initiation date.
- (f) On November 13, 2020, the Company issued 6.5 million common stock options to directors, officers, employees and one consultant at a strike price of \$0.05 USD (\$0.07 CDN) per share. These stock options vested in full immediately upon issuance and have a 5 year term, expiring on November 13, 2025, if unexercised by that date.
- (g) The Company received an additional \$20,000 CDN (\$15,125 USD) loan under the Canadian government's CEBA loan program under the same terms as the original loan of \$40,000 secured in April 2020 (Note 10).
- (h) With respect to the Company's litigation with Mr Van Fleet (Note 19(b)), the court ultimately extended his time to January 11, 2021 to submit opposition to the Company's motion to dismiss Mr Van Fleet's claims. The court also extended the deadline for him to submit his reply papers to January 20, 2021. Mr Van Fleet has failed to reply to the court within the prescribed timelines that the court set out and the Company's motion to strike his claims is unopposed. The Company is currently pursuing potential damage claims against Mr. Van Fleet.

ITEM 19. Exhibits

The following exhibits are filed as part of this Annual Report:

- [Exhibit No. 1.1](#) [Articles of Incorporation of Micromem Technologies Inc. and amendments thereto in effect as of January 11, 2000, \(Incorporated herein by reference to the Company's Form 20-F filed with the Commission on January 11, 2000\).](#)
- [Exhibit No. 1.2](#) [Articles of Incorporation of Amendment of Micromem Technologies Inc. dated as of October 17, 2001 amending the Articles of Incorporation of Micromem Technologies Inc. to increase the number of directors to a minimum of three and a maximum of ten \(Incorporated herein by reference to the Company's Form 20-F filed with the Commission on March 26, 2003\).](#)
- [Exhibit No. 1.3](#) [Articles of Incorporation of Amendment of Micromem Technologies Inc. dated as of June 24, 2002 amending the Articles of Incorporation of Micromem Technologies Inc. to increase the number of directors to a minimum of 3 and a maximum of 12 \(Incorporated herein by reference to the Company's Form 20-F filed with the Commission on March 26, 2003\).](#)
- [Exhibit No. 1.5](#) [By-Laws of Micromem Technologies Inc. in effect as of January 11, 2002, \(Incorporated herein by reference to the Company's Form 20-F filed with the Commission on January 11, 2000\).](#)
- [Exhibit No. 1.6](#) [Amendment to the By-Laws of Micromem Technologies Inc. approved by shareholders on June 29, 2000, deleting the requirement from the By-Laws that the President shall be appointed from amongst the directors \(Incorporated herein by reference to the Company's Form 20-F filed with the Commission on March 26, 2003\).](#)
- [Exhibit No. 1.7](#) [Amendment to the By-Laws of Micromem Technologies Inc. approved by shareholders on September 8, 2020 \(filed herewith\).](#)
- [Exhibit No. 4.1](#) [2020 Stock Option Plan, as amended and approved by shareholders on September 8, 2020 \(filed herewith\)](#)
- [Exhibit No. 8.1](#) [List of Subsidiaries \(Incorporated by reference to the Company's Annual Report on Form 20-F filed with the Commission on March 1, 2010\)](#)
- [Exhibit No. 12.1](#) [Officer's Certification pursuant to Section 302 of the Sarbanes Oxley Act, 2002 \(filed herewith\).](#)
- [Exhibit No. 12.2](#) [Officer's Certification pursuant to Section 302 of the Sarbanes Oxley Act, 2002 \(filed herewith\).](#)
- [Exhibit No. 13.1](#) [Officer's Certification pursuant to Section 906 of the Sarbanes Oxley Act, 2002 \(filed herewith\).](#)
- [Exhibit No. 13.2](#) [Officer's Certification pursuant to Section 906 of the Sarbanes Oxley Act, 2002 \(filed herewith\).](#)
- [Exhibit No. 15.1](#) [Consent of MNP LLP \(filed herewith\)](#)

SIGNATURES

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on Form 20-F on its behalf.

MICROMEM TECHNOLOGIES INC.

By: /s/ Joseph Fuda
Name: Joseph Fuda
Title: Chief Executive Officer

By: /s/ Dan Amadori
Name: Dan Amadori
Title: Chief Financial Officer

Dated: February 22, 2021

BY-LAW NO. 1D
OF
MICROMEM TECHNOLOGIES INC.
(the "Corporation")

Pursuant to the resolution passed at the Annual and Special Meetings of Shareholders on September 8, 2020, Meeting of the Shareholders of the Corporation may be held by electronic means as hybrid or virtual meetings as the board may determine from time to time. If a hybrid or virtual meeting is held by electronic means (including phone), a shareholder who, through those means, votes at the meeting or establishes a communications link to the meeting shall be deemed to be present at the meeting. A meeting of shareholders held by electronic means shall be deemed to be held at the place where the registered office of the Corporation is located.

2020 STOCK OPTION PLAN

1. PURPOSE OF THE PLAN

1.1 The purpose of the Plan is to attract, retain and motivate persons with the required training, experience and leadership as directors, officers, employees and key service providers of the Corporation and its Subsidiaries and to advance the interests of the Corporation by providing such persons with the opportunity, through share options, to acquire an increased proprietary interest in the Corporation.

2. DEFINED TERMS

Where used herein, the following terms shall have the following meanings, respectively:

2.1 "**2014 Stock Option Plan**" means the Stock Option Plan of the Corporation that was approved by shareholders on January 30, 2015;

2.2 "**Board**" shall mean the board of directors of the Corporation;

2.3 "**Corporation**" means Micromem Technologies Inc.;

2.4 "**Eligible Person**" means:

(i) any director, officer or employee of the Corporation or any Subsidiary, or any other Service Provider (an "**Eligible Individual**"); or

(ii) a corporation of which an Eligible Individual is an employee or shareholder (an "**Employee Corporation**");

2.5 "**Insider**" means any insider, as such term is defined in Subsection 1(1) of the *Securities Act* (Ontario), of the Corporation;

2.6 "**Market Price**" at any date in respect of the Shares means the closing sale price of the Shares on the Canadian Securities Exchange (or other stock exchange on which the Shares are listed and posted for trading from time to time as may be selected for such purpose by the Board) on the trading day immediately preceding such date. In the event that the Shares did not trade on such trading day, the Market Price shall be the average of the bid and ask prices in respect of the Shares at the close of trading on such trading day. In the event that the Shares are not listed and posted for trading on any stock exchange or quotation system, the Market Price shall be the fair market value of the Shares as determined by the Board in its sole discretion;

2.7 "**Option**" means an option to purchase Shares granted to an Eligible Person under the Plan;

2.8 "**Option Price**" means the price per Share at which Shares may be purchased under an Option, as the same may be adjusted from time to time in accordance with Article 8 hereof;

2.9 "**Optioned Shares**" means the Shares issuable pursuant to an exercise of Options;

2.10 "**Optionee**" means an Eligible Person to whom an Option has been granted and who continues to hold such Option;

2.11 "**Plan**" means this Stock Option Plan, as the same may be further amended or varied from time to time;

2.12 "**Service Provider**" means:

(i) an employee or Insider of the Corporation or any Subsidiary; or

(ii) any other person or company engaged to provide ongoing management or consulting services for the Corporation or for any entity controlled by the Corporation;

2.13 "Shares" means the common shares of the Corporation or, in the event of an adjustment contemplated by Article 8 hereof, such other shares or securities to which an Optionee may be entitled upon the exercise of an Option as a result of such adjustment; and

2.14 "Subsidiary" means any corporation which is a subsidiary, as such term is defined in Subsection 1(2) of the *Business Corporations Act* (Ontario), of the Corporation.

3. ADMINISTRATION OF THE PLAN

3.1 The Plan shall be administered by the Board.

3.2 The Board shall have the power, where consistent with the general purpose and intent of the Plan and subject to the specific provisions of the Plan:

- (a) to establish policies and to adopt rules and regulations for carrying out the purposes, provisions and administration of the Plan;
- (b) to interpret and construe the Plan and to determine all questions arising out of the Plan or any Option, and any such interpretation, construction or determination made by the Board shall be final, binding and conclusive for all purposes;
- (c) to determine the number of Shares covered by each Option;
- (d) to determine the Option Price of each Option;
- (e) to determine the time or times when Options will be granted and exercisable;
- (f) to determine if the Shares which are issuable on the exercise of an Option will be subject to any restrictions upon the exercise of such Option; and
- (g) to prescribe the form of the instruments relating to the grant, exercise and other terms of the Options.

3.3 The Board may, in its discretion, require as conditions to the grant or exercise of any Option that the Optionee shall have:

- (a) represented, warranted and agreed in form and substance satisfactory to the Corporation that he or she is acquiring and will acquire such Option and the Shares to be issued upon the exercise thereof or, as the case may be, is acquiring such Shares, for his or her own account, for investment and not with a view to or in connection with any distribution, that he or she has had access to such information as is necessary to enable him or her to evaluate the merits and risks of such investment and that he or she is able to bear the economic risk of holding such Shares for an indefinite period;
- (b) agreed to restrictions on transfer in form and substance satisfactory to the Corporation and to an endorsement on any option agreement or certificate representing the Shares making appropriate reference to such restrictions (including any notation required by any securities regulatory authority, stock exchange or trading facility having jurisdiction); and
- (c) agreed to indemnify the Corporation in connection with the foregoing.

3.4 Any Option granted under the Plan shall be subject to the requirement that, if at any time counsel to the Corporation shall determine that the listing, registration or qualification of the Shares subject to such Option upon any securities exchange or under any law or regulation of any jurisdiction, or the consent or approval of any securities exchange or any governmental or regulatory body, is necessary as a condition of, or in connection with, the grant or exercise of such Option or the issuance or purchase of Shares thereunder, such Option may not be accepted or exercised in whole or in part unless such listing, registration, qualification, consent or approval shall have been effected or obtained on conditions acceptable to the Board. Nothing herein shall be deemed to require the Corporation to apply for or to obtain such listing, registration, qualification, consent or approval.

3.5 This Plan shall be read and interpreted consistently with all applicable laws, rules, regulations and policies of any securities regulatory authority, stock exchange or trading facility having jurisdiction and, to the extent of any inconsistency between the terms of this Plan and the provisions of such laws, rules, regulations and policies, the provisions of such laws, rules, regulations and policies shall prevail.

4. SHARES SUBJECT TO THE PLAN

Options may be granted in respect of authorized and unissued Shares, provided that the aggregate number of Shares reserved for issuance upon the exercise of all Options granted under the Plan, subject to any adjustment of such number pursuant to the provisions of Article 8 hereof, shall not exceed 27,500,000 or such greater number of Shares as may be determined by the Board and approved, if required, by the shareholders of the Corporation and by any relevant stock exchange or other regulatory authority (including shares issuable pursuant to options previously granted and that are outstanding under the 2014 Stock Option Plan). Optioned Shares in respect of which Options are not exercised shall be available for subsequent Options. No fractional Shares may be purchased or issued under the Plan.

5. ELIGIBILITY; GRANT; TERMS OF OPTIONS

5.1 Options may be granted to any Eligible Person in accordance with this Article 5; provided, however, that:

5.1.1. the maximum number of securities, calculated on a fully-diluted basis, reserved for issuance under the Plan to any one Eligible Person shall not exceed 5% of the Corporation's outstanding securities;

5.1.2. the maximum number of securities, calculated on a fully-diluted basis, that are issued within 12 months to Eligible Persons shall not exceed 10% of the Corporation's outstanding securities; and

5.1.3. the maximum number of securities, calculated on a fully-diluted basis, that are issued within 12 months to any one Eligible Person and such Eligible Person's associates (as that term is defined in National Instrument 45-106 *Prospectus Exemptions*) shall not exceed 5% of the Corporation's outstanding securities.

5.2 Options may be granted by the Corporation to the extent that they have been approved by the Board.

5.3 Subject as herein and otherwise specifically provided in this Article 5, the number of Shares subject to each Option, the Option Price of each Option, the expiration date of each Option, the extent to which each Option is exercisable from time to time during the term of the Option and other terms and conditions relating to each such Option shall be determined by the Board or a director or officer of the Corporation designated by the Board to make such determination.

5.4 Each Option granted under this Plan shall be exercisable for a maximum period of ten (10) years from the date the Option is granted to the Optionee. Subject to this section 5.4, the Board shall, at the time of granting an Option, determine the time or times when an Option or a part of an Option shall be exercisable.

5.5 Subject to any adjustments pursuant to the provisions of Article 8 hereof, the Option Price of any Option shall in no circumstances be lower than the Market Price on the date on which the grant of the Option is approved by the Board unless otherwise permitted under applicable laws, rules and regulations and the rules of any stock exchange or trading facility through which the Shares may be traded from time to time. If, as and when any Shares have been duly purchased and paid for under the terms of an Option, such Shares shall be conclusively deemed allotted and issued as fully paid non-assessable Shares at the price paid therefor.

5.6 An Option is personal to the Optionee and non-assignable (whether by operation of law or otherwise), except as provided for herein. Upon any attempt to transfer, assign, pledge, hypothecate or otherwise dispose of an Option contrary to the provisions of the Plan, or upon the levy of any attachment or similar process upon an Option, the Option shall, at the election of the Corporation, cease and terminate and be of no further force or effect whatsoever.

6. TERMINATION OF EMPLOYMENT, DEATH

6.1 Subject to Sections 6.2 and 6.3 hereof and to any express resolution passed by the Board with respect to an Option, an Option and all rights to purchase Shares pursuant thereto shall expire and terminate immediately upon the Optionee who holds such Option ceasing to be an Eligible Person.

6.2 If, before the expiry of an Option in accordance with the terms thereof, an Optionee shall cease to be an Eligible Person (an "Event of Termination") for any reason other than the termination for "cause" of his or her employment with the Corporation or any Subsidiary then the Optionee may:

(a) exercise the Option to the extent that he or she was entitled to do so at the time of such Event of Termination, at any time up to and including, but not after, the forty-fifth (45th) day after the date of such Event of Termination, or prior to the close of business on the expiration date of the Option, whichever is earlier; and

(b) with the prior written consent of the Board, which consent may be withheld arbitrarily in the Corporation's sole discretion, exercise any part of the Option which was not exercisable at the time of the occurrence of the Event of Termination at any time up to and including, but not after, the ninetieth (90th) day after the date of such Event of Termination, or prior to the close of business on the expiration date of the Option, whichever is earlier, to purchase all or any of the Optioned Shares as the Board may designate but not exceeding the number of Optioned Shares the Optionee would have otherwise been entitled to purchase pursuant to the Option had the Optionee's status as an Eligible Person been maintained for the term of the Option.

6.3 If an Optionee dies before the expiry of an Option in accordance with the terms thereof, the Optionee's legal representative(s) may, subject to the terms of the Option and the Plan:

(a) exercise the Option to the extent that the Optionee was entitled to do so at the date of his or her death at any time up to and including, but not after, the date which is one year after the date of death of the Optionee, or prior to the close of business on the expiration date of the Option, whichever is earlier; and

(b) with the prior written consent of the Board, exercise at any time up to and including, but not after, the date which is one year after the date of death of the Optionee, or prior to the close of business on the expiration date of the Option, whichever is earlier, any part of the Option which was not exercisable at the time of the Optionee's death to purchase all or any of the Optioned Shares as the Board may designate but not exceeding the number of Optioned Shares the Optionee would have otherwise been entitled to purchase had the Optionee survived.

6.4 For greater certainty, Options shall not be affected by any change of employment of the Optionee or by the Optionee ceasing to be a director of the Corporation provided that the Optionee continues to be an Eligible Person.

6.5 For the purposes of this Article 6, a determination by the Corporation that an Optionee was discharged for "cause" shall be binding on the Optionee; provided, however, that such determination shall not be conclusive of the Optionee's potential entitlement to damages for the loss of the right to exercise an Option in the event that a court of competent jurisdiction ultimately determines that the discharge was without "cause".

6.6 If the Optionee is an Employee Corporation, the references to the Optionee in this Article 6 shall be deemed to refer to the Eligible Individual associated with the Employee Corporation.

6.7 If an Optionee has been terminated "for cause" or does not exercise his or her options in accordance with the provisions of sections 6.2 or 6.3 as the case may be, the number of options not exercised shall be added to the number of options remaining available to be granted under the Plan.

7. EXERCISE OF OPTIONS

7.1 Subject to the provisions of the Plan, an Option may be exercised from time to time by delivery to the Corporation at its registered office of a written notice of exercise addressed to the Secretary of the Corporation specifying the number of Shares with respect to which the Option is being exercised and accompanied by payment in full, by cash or certified cheque, of the Option Price of the Shares then being purchased, plus applicable taxes, if any. Certificates for such Shares shall be issued and delivered to the Optionee within a reasonable time following the receipt of such notice and payment.

7.2 Notwithstanding any of the provisions contained in the Plan or in any Option, the Corporation's obligation to issue Shares to an Optionee pursuant to the exercise of any Option shall be subject to:

- (a) completion of such registration or other qualification of such Shares or obtaining approval of such governmental or regulatory authority as the Corporation shall determine to be necessary or advisable in connection with the authorization, issuance or sale thereof;
- (b) the admission of such Shares to listing on any stock exchange on which the Shares may then be listed;
- (c) the receipt from the Optionee of such representations, warranties, agreements and undertakings, as the Corporation determines to be necessary or advisable in order to safeguard against the violation of the securities laws of any jurisdiction; and
- (d) the satisfaction of any conditions on exercise prescribed pursuant to Section 3.4 hereof.

7.3 Options shall be evidenced by a share option agreement, instrument or certificate in such form not inconsistent with this plan as the Board may from time to time determine as provided for under Subsection 3.2 (g), provided that the substance of Article 5 be included therein.

8. CERTAIN ADJUSTMENTS

8.1 In the event of any subdivision or redivision of the Shares into a greater number of Shares at any time after the grant of an Option to any Optionee and prior to the expiration of the term of such Option, the Corporation shall deliver to such Optionee at the time of any subsequent exercise of his or her Option in accordance with the terms hereof, in lieu of the number of Shares to which he or she was theretofore entitled upon such exercise, but for the same aggregate consideration payable therefor, such number of Shares as such Optionee would have held as a result of such subdivision or redivision if, on the record date thereof, the Optionee had been the registered holder of the number of Shares to which he or she was theretofore entitled upon such exercise.

8.2 In the event of any consolidation of the Shares into a lesser number of Shares at any time after the grant of an Option to any Optionee and prior to the expiration of the term of such Option, the Corporation shall deliver to such Optionee at the time of any subsequent exercise of his or her Option in accordance with the terms hereof, in lieu of the number of Shares to which he or she was theretofore entitled upon such exercise, but for the same aggregate consideration payable therefor, such number of Shares as such Optionee would have held as a result of such consolidation if, on the record date thereof, the Optionee had been the registered holder of the number of Shares to which he or she was theretofore entitled upon such exercise.

8.3 If at any time after the grant of an Option to any Optionee and prior to the expiration of the term of such Option, the Shares shall be reclassified, reorganized or otherwise changed, otherwise than as specified in Sections 8.1 and 8.2 or, subject to the provisions of Subsection 9.2(a) hereof, the Corporation shall consolidate, merge or amalgamate with or into another corporation (the corporation resulting or continuing from such consolidation, merger or amalgamation being herein called the "Successor Corporation"), or the Corporation shall pay a stock dividend (other than any dividends in the ordinary course), the Optionee shall be entitled to receive upon the subsequent exercise of his or her Option in accordance with the terms hereof and shall accept in lieu of the number of Shares to which he or she was theretofore entitled upon such exercise but for the same aggregate consideration payable therefor, the aggregate number of shares of the appropriate class and/or other securities of the Corporation or the Successor Corporation (as the case may be) and/or other consideration from the Corporation or the Successor Corporation (as the case may be) that the Optionee would have been entitled to receive as a result of such reclassification, reorganization or other change or, subject to the provisions of Subsection 9.2(a) hereof, as a result of such consolidation, merger, amalgamation, or stock dividend, if on the record date of such reclassification, reorganization, other change or stock dividend, or the effective date of such consolidation, merger or amalgamation or dividend payment, as the case may be, he or she had been the registered holder of the number of Shares to which he or she was theretofore entitled upon such exercise.

8.4 In the event the Corporation should declare and pay a special cash dividend or other distribution out of the ordinary course, a special dividend in specie on the Shares, or a stock dividend other than in the ordinary course, the Option Price of all Options outstanding on the record date of such dividend or other distribution shall be reduced by an amount equal to the cash payment or other distribution or the fair market value of the dividend in specie or stock dividend or other distribution, as determined by the Board in its sole discretion. Any such reduction in the Option Price shall be subject to regulatory approval.

9. AMENDMENT OR DISCONTINUANCE OF THE PLAN

9.1 The Board may amend or discontinue the Plan at any time, provided, however, that no such amendment may materially and adversely affect any Option previously granted to an Optionee without the consent of the Optionee, except to the extent required by law. Any such amendment shall, if required, be subject to the prior approval of, or acceptance by, any stock exchange on which the Shares are listed and posted for trading. For greater certainty, the Board may, by resolution duly passed, amend this Plan to reduce the number of shares in respect of which options have not been granted at the date of such resolution and that are subject to this Plan, to meet the requirements of any stock exchange or regulatory authority.

9.2 Notwithstanding anything contained to the contrary in this Plan or in any resolution of the Board in implementation thereof:

(a) in the event the Corporation proposes to amalgamate, merge or consolidate with any other corporation (other than a wholly-owned Subsidiary) or to liquidate, dissolve or wind-up, or in the event an offer to purchase or repurchase the Shares of the Corporation or any part thereof shall be made to all or substantially all holders of Shares of the Corporation, the Corporation shall have the right, upon written notice thereof to each Optionee holding Options under the Plan, to permit the exercise of all such Options within the 20 day period next following the date of such notice and to determine that upon the expiration of such 20 day period, all rights of the Optionees to such Options or to exercise same (to the extent not theretofore exercised) shall *ipso facto* terminate and cease to have further force or effect whatsoever;

(b) in the event of the sale by the Corporation of all or substantially all of the assets of the Corporation as an entirety or substantially as an entirety so that the Corporation shall cease to operate as an active business, any outstanding Option may be exercised as to all or any part of the Optioned Shares in respect of which the Optionee would have been entitled to exercise the Option in accordance with the provisions of the Plan at the date of completion of any such sale at any time up to and including, but not after the earlier of: (i) the close of business on that date which is thirty (30) days following the date of completion of such sale; and (ii) the close of business on the expiration date of the Option; but the Optionee shall not be entitled to exercise the Option with respect to any other Optioned Shares;

(c) subject to the rules of any relevant stock exchange or other regulatory authority, the Board may, by resolution, advance the date on which any Option may be exercised or extend the expiration date of any Option. The Board shall not, in the event of any such advancement or extension, be under any obligation to advance or extend the date on or by which Options may be exercised by any other Optionee; and

(d) the Board may, by resolution, but subject to applicable regulatory requirements, decide that any of the provisions hereof concerning the effect of termination of the Optionee's employment shall not apply to any Optionee for any reason acceptable to the Board.

Notwithstanding the provisions of this Article 9, should changes be required to the Plan by any securities commission, stock exchange or other governmental or regulatory body of any jurisdiction to which the Plan or the Corporation now is or hereafter becomes subject, such changes shall be made to the Plan as are necessary to conform with such requirements and, if such changes are approved by the Board, the Plan as amended, shall be filed with the records of the Corporation and shall remain in full force and effect in its amended form as of and from the date of its adoption by the Board.

10. MISCELLANEOUS PROVISIONS

10.1 An Optionee shall not have any rights as a shareholder of the Corporation with respect to any of the Shares covered by such Option until the date of issuance of a certificate for Shares upon the exercise of such Option, in full or in part, and then only with respect to the Shares represented by such certificate or certificates. Without in any way limiting the generality of the foregoing, no adjustment shall be made for dividends or other rights for which the record date is prior to the date such share certificate is issued.

10.2 Nothing in the Plan or any Option shall confer upon an Optionee any right to continue or be re-elected as a director of the Corporation or any right to continue in the employ of the Corporation or any Subsidiary, or affect in any way the right of the Corporation or any Subsidiary to terminate his or her employment at any time; nor shall anything in the Plan or any Option be deemed or construed to constitute an agreement, or an expression of intent, on the part of the Corporation or any Subsidiary to extend the employment of any Optionee beyond the time which he or she would normally be retired pursuant to the provisions of any present or future retirement plan of the Corporation or any Subsidiary, or beyond the time at which he or she would otherwise be retired pursuant to the provisions of any contract of employment with the Corporation or any Subsidiary.

10.3 Notwithstanding Section 5.8 hereof, Options may be transferred or assigned between an Eligible Individual and the related Employee Corporation provided the assignor delivers notice to the Corporation prior to the assignment.

10.4 The Plan and all matters to which reference is made herein shall be governed by and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

11. SHAREHOLDER AND REGULATORY APPROVAL

11.1 The Plan shall be subject to ratification by the shareholders of the Corporation to be effected by a resolution passed at a meeting of the shareholders of the Corporation, and to acceptance by any other relevant regulatory authority. Any Options granted prior to such ratification and acceptance shall be conditional upon such ratification and acceptance being given and no such Options may be exercised unless and until such ratification and acceptance are given.

DATED this 8th day of September 2020.

**SECTION 302 CERTIFICATION
CERTIFICATION OF CHIEF EXECUTIVE OFFICER**

I, Joseph Fuda, certify that:

1. I have reviewed this annual report on Form 20-F of Micromem Technologies Inc. for the Fiscal Year Ended October 31, 2020;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

- a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2021

/s/ Joseph Fuda

Joseph Fuda
Chief Executive Officer
(Principal executive officer)

**SECTION 302 CERTIFICATION
CERTIFICATION OF CHIEF FINANCIAL OFFICER**

I, Dan Amadori, certify that:

1. I have reviewed this annual report on Form 20-F of Micromem Technologies Inc. for the Fiscal Year Ended October 31, 2020;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

- a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2021

/s/ Dan Amadori

Dan Amadori
Chief Financial Officer
(Principal financial officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Micromem Technologies Inc. (the "Company") on Form 20-F for the Fiscal Year Ended October 31, 2020 (the "Report"), I, Joseph Fuda, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, based on my knowledge, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 22, 2021

/s/ Joseph Fuda

Joseph Fuda
Chief Executive Officer
(Principal executive officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Micromem Technologies Inc. (the "Company") on Form 20-F for the Fiscal Year Ended October 31, 2020 (the "Report"), I, Dan Amadori, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, based on my knowledge, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 22, 2021

/s/ Dan Amadori

Dan Amadori
Chief Financial Officer
(Principal financial officer)



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-203466) of our report dated February 12, 2021 relating to the consolidated financial statements of Micromem Technologies Inc. consisting of the consolidated statements of financial position as at October 31, 2020 and 2019 and the related consolidated statements of operations and comprehensive loss, changes in equity and cash flows for each of the years in the three year period ended October 31, 2020, which appears in this Form 20-F dated February 22, 2021.

Signed:

MNP LLP

Toronto, Ontario

February 22, 2021