



**Micromem Technologies Inc.**  
**Consolidated Financial Statements**  
**For the years ended October 31, 2018, 2017 and 2016**  
(Expressed in United States Dollars)

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders of Micromem Technologies Inc.:

### Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Micromem Technologies Inc., which comprise the consolidated statement of financial position as at October 31, 2018 and 2017, and the consolidated statements of loss and comprehensive loss, changes in shareholders' equity (deficit) and cash flows for the two years then ended, including the related notes, comprising a summary of significant accounting policies and other explanatory information (collectively referred to as the "consolidated financial statements").

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Micromem Technologies Inc. as at October 31, 2018 and 2017, and its financial performance and its cash flows for the two years then ended in accordance 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.

### Basis for Opinion

#### *Management's Responsibility for the Consolidated Financial Statements*

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

#### *Auditors' Responsibility*

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement, whether due to error or fraud. Those standards also require that we comply with ethical requirements, including independence. We are required to be independent with respect to the Company in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada, the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We are a public accounting firm registered with the PCAOB.

An audit includes performing procedures to assess the risks of material misstatements of the consolidated financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures include obtaining and examining, on a test basis, audit evidence regarding the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to error or fraud. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Accordingly, we express no such opinion.

An audit also includes evaluating the appropriateness of accounting policies and principles used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a reasonable basis for our audit opinion.

**Other Matter**

The consolidated financial statements as at October 31, 2016 and for the year then ended were audited by Collins Barrow Toronto of Toronto, Canada. Collins Barrow Toronto expressed an unmodified opinion on those consolidated financial statements on March 2, 2017.

*MNP LLP*

Licensed Public Accountants  
Chartered Professional Accountants

We have served as the Company's auditor since 2017.

Toronto, Ontario  
February 28, 2019

**Micromem Technologies Inc.**  
**Consolidated Statements of Financial Position**  
**As at October 31, 2018 and 2017**  
(Expressed in United States dollars)

	<u>Notes</u>	<u>2018</u>	<u>2017</u>
<b>Assets</b>			
Current			
Cash		\$ 206,832	\$ 9,189
Development costs receivable	8	81,841	415,857
Prepaid expenses and other assets		16,731	50,313
Total current assets		305,404	475,359
Property and equipment	7	9,228	9,822
Patents	9	396,105	431,462
<b>Total assets</b>		<b>\$ 710,737</b>	<b>\$ 916,643</b>
<b>Liabilities</b>			
Current			
Trade payables and other liabilities	20(c)	\$ 1,007,220	\$ 1,361,998
Convertible debentures	10	2,476,571	2,489,017
Derivative liabilities	10	650,116	489,734
<b>Total liabilities</b>		<b>4,133,907</b>	<b>4,340,749</b>
<b>Shareholders' Deficiency</b>			
Share capital	11	82,282,903	80,198,194
Contributed surplus		27,630,909	27,360,676
Equity component of convertible debentures	10	70,283	62,050
Accumulated deficit		(113,407,265)	(111,045,026)
<b>Total shareholders' deficiency</b>		<b>(3,423,170)</b>	<b>(3,424,106)</b>
<b>Total liabilities and shareholders' deficiency</b>		<b>\$ 710,737</b>	<b>\$ 916,643</b>
Going concern	2		
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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, 2018, 2017 and 2016**  
(Expressed in United States dollars)

	<u>Notes</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
<b>Operating expenses</b>				
Administration	15(a)	\$ 305,338	\$ 305,421	\$ 395,340
Professional, other fees and salaries	15(b)	747,280	1,433,113	1,739,401
Stock-based compensation	12	140,612	442,206	-
Development costs (recovery)	8	(130,069)	147,008	3,635,613
Travel and entertainment		101,496	118,261	180,767
Amortization of property and equipment	7	3,922	3,992	5,270
Amortization of patents	9	156,960	133,785	26,527
Amortization and write-down of intangible assets		-	-	43,543
Foreign exchange loss (gain)	20(a)	(117,779)	343,210	(1,478)
<b>Total operating expenses</b>		<u>1,207,760</u>	<u>2,926,996</u>	<u>6,024,983</u>
<b>Other expenses</b>				
Interest expense	10	504,778	666,245	561,608
Accretion expense	10	2,039,344	1,358,101	514,560
Financing costs	10	40,414	-	-
Loss on conversion of convertible debentures	10	63,852	1,009,680	-
Gain on revaluation of derivative liabilities	10	(1,094,718)	(1,614,822)	(295,616)
Gain on extinguishment of convertible debentures	10	(399,191)	-	-
<b>Total other expenses</b>		<u>1,154,479</u>	<u>1,419,204</u>	<u>780,552</u>
Loss before income tax provision		(2,362,239)	(4,346,200)	(6,805,535)
Income tax provision	14	-	-	-
<b>Net loss and comprehensive loss</b>		<u>\$ (2,362,239)</u>	<u>\$ (4,346,200)</u>	<u>\$ (6,805,535)</u>
<b>Weighted average number of outstanding shares, basic and diluted</b>				
	13	237,242,674	207,131,781	199,572,966
<b>Basic and diluted loss per share</b>	13	\$ (0.01)	\$ (0.02)	\$ (0.03)

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**Micromem Technologies Inc.**  
**Consolidated Statements of Changes in Equity**  
**For the years ended October 31, 2018, 2017 and 2016**  
(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>
<b>Balance at November 1, 2015</b>		197,176,368	\$ 74,083,975	\$ 27,213,204	\$ -	\$ (99,893,291)	\$ 1,403,888
Private placements of shares for cash	11	366,668	110,000	-	-	-	110,000
Options exercised	12	3,756,366	751,273	-	-	-	751,273
Fair value of options exercised	12	-	443,252	(443,252)	-	-	-
Shares issued on settlement of accounts payable	11	1,517,143	295,312	-	-	-	295,312
Shares issued on settlement of legal claim	11	312,500	62,500	-	-	-	62,500
Equity component of convertible debentures	10	-	-	-	173,420	-	173,420
Shares issued on conversion of convertible debenture	10	509,524	108,827	-	(1,827)	-	107,000
Expiry of convertible debenture conversion option	10	-	-	148,518	(148,518)	-	-
Treasury shares to be cancelled	11	750,000	-	-	-	-	-
Net loss and comprehensive loss		-	-	-	-	(6,805,535)	(6,805,535)
<b>Balance at October 31, 2016</b>		204,388,569	\$ 75,855,139	\$ 26,918,470	\$ 23,075	\$ (106,698,826)	\$ (3,902,142)
Private placements of shares for cash	11	3,873,223	719,403	-	-	-	719,403
Shares issued on settlement of accounts payable	11	547,643	107,708	-	-	-	107,708
Stock-based compensation	12	-	-	442,206	-	-	442,206
Shares issued as settlement of wages	11	132,381	21,909	-	-	-	21,909
Convertible debentures converted into common shares	10	20,370,895	2,536,963	-	-	-	2,536,963
Reallocation from derivative liability for conversion	10	-	20,970	-	-	-	20,970
Treasury shares cancelled	11	(750,000)	-	-	-	-	-
Loss on conversion of convertible debentures	10	-	936,102	-	38,975	-	975,077
Net loss and comprehensive loss		-	-	-	-	(4,346,200)	(4,346,200)
<b>Balance at October 31, 2017</b>		228,562,711	\$ 80,198,194	\$ 27,360,676	\$ 62,050	\$ (111,045,026)	\$ (3,424,106)
Private placements of shares for cash	11	14,739,272	866,200	-	-	-	866,200
Shares issued on settlement of accounts payable	11	79,765	13,379	-	-	-	13,379
Stock-based compensation	12	-	-	140,612	-	-	140,612
Convertible debentures converted into common shares	10	16,220,951	1,205,130	-	-	-	1,205,130
Expiry of convertible debenture conversion option	10	-	-	129,621	(129,621)	-	-
Convertible debenture renewal	10	-	-	-	137,854	-	137,854
Net loss and comprehensive loss		-	-	-	-	(2,362,239)	(2,362,239)
<b>Balance at October 31, 2018</b>		259,602,699	\$ 82,282,903	\$ 27,630,909	\$ 70,283	\$ (113,407,265)	\$ (3,423,170)

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, 2018, 2017 and 2016**  
(Expressed in United States dollars)

	<u>Notes</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
<b>Operating activities</b>				
Net loss		\$ (2,362,239)	\$ (4,346,200)	\$ (6,805,535)
Items not affecting cash:				
Amortization of patents	9	156,960	133,785	26,527
Amortization of property and equipment	7	3,922	3,992	5,270
Amortization and write-down of intangible assets		-	-	43,543
Bad debt expense		10,000	-	-
Write-down of capitalized development costs	8	-	-	3,638,118
Accretion expense	10	2,039,344	1,358,101	514,560
Convertible debenture interest converted		47,435	-	-
Loss on conversion of convertible debentures	10	63,852	1,009,680	-
Gain on revaluation of derivative liabilities	10	(1,094,718)	(1,614,822)	(295,616)
Gain on extinguishment of convertible debentures	10	(399,191)	-	-
Stock-based compensation	12	140,612	442,206	-
Shares issued for legal settlement		-	-	62,500
Gain on settlement of accounts payable		-	-	(60,623)
Loss on disposal of property and equipment	7	220	983	608
Foreign exchange gain	16,20(a)	(87,033)	-	-
		<u>(1,480,836)</u>	<u>(3,012,275)</u>	<u>(2,870,648)</u>
Net changes in non-cash working capital:				
Decrease (increase) in development costs receivable		324,016	(415,857)	-
Decrease (increase) in prepaid expenses and other assets		33,582	(16,986)	5,899
Increase (decrease) in trade payables and other liabilities		(341,399)	723,631	(24,276)
Cash flows used in operating activities		<u>(1,464,637)</u>	<u>(2,721,487)</u>	<u>(2,889,025)</u>
<b>Investing activities</b>				
Purchase of property and equipment	7	(3,548)	(3,809)	(1,274)
Patents	9	(121,603)	(161,647)	(192,873)
Capitalized development costs	8	-	-	(1,125,218)
Recovery of capitalized development costs	8	-	-	643,901
Cash flows used in investing activities		<u>(125,151)</u>	<u>(165,456)</u>	<u>(675,464)</u>
<b>Financing activities</b>				
Private placements of shares for cash	11	866,200	719,403	861,273
Convertible debentures advances	16	1,457,983	1,788,974	2,490,333
Convertible debenture repayments	16	(662,080)	(581,618)	(260,428)
Short-term loan advances		-	-	180,000
Short-term loan repayment		-	-	(180,000)
Convertible debenture interest accrued	16	125,328	666,245	585,989
Repayments from related parties		-	15,000	16,882
Cash flows provided by financing activities		<u>1,787,431</u>	<u>2,608,004</u>	<u>3,694,049</u>
Net change in cash		197,643	(278,939)	129,560
Cash - beginning of year		9,189	288,128	158,568
<b>Cash - end of year</b>		<u>\$ 206,832</u>	<u>\$ 9,189</u>	<u>\$ 288,128</u>
<b>Supplemental cash flow information</b>				
Interest paid (classified in operating activities)		\$ 322,930	\$ 321,700	\$ 129,987
Income taxes paid		-	-	-
Shares issued on settlement of accounts payable		13,379	107,708	295,312
Shares issued on settlement of wages		-	21,909	-
Shares issued on settlement of legal claim		-	-	62,500
Convertible debentures converted into common shares		1,205,130	2,536,963	108,827

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, 2018, 2017 and 2016**  
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**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 Canada 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, 2018 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, 2018, the Company reported a net loss and comprehensive loss of \$2,362,239 (2017 - \$4,346,200; 2016 - \$6,805,535) and negative cash flow from operations of \$1,464,637 (2017 - \$2,721,487; 2016 - \$2,889,025). The Company's working capital deficiency as at October 31, 2018 is \$3,828,503 (2017 - \$3,865,390).

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 2019; 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.

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 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 27, 2019.

(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 wholly-owned subsidiaries include:

- (i) Micromem Applied Sensors Technology, Inc. ("MAST") was incorporated in November 2007 and is domiciled in Delaware, United States. MAST has the primary responsibility for the exploitation of the Company's technologies in conjunction with various strategic partners and customers.
- (ii) 7070179 Canada Inc., 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.

**Micromem Technologies Inc.**  
**Notes to Consolidated Financial Statements**  
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**3. Basis of presentation (continued)**

(a) Basis of consolidation (continued)

(iii) Memtech International Inc., Bahamas; Memtech International (USA) Inc., Delaware, United States; Pageant Technologies (USA) Inc., United States; Pageant Technologies Inc., Barbados; and Micromem Holdings (Barbados) Inc., Barbados. All of these entities are inactive.

(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 stated 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 year they become known. Items for which actual results may differ materially from these estimates are described in the following section.

(i) Fair value of 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.

(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.

In addition, when the Company incurs losses for income tax purposes, it assesses the probability of taxable income being available in the future based on its budgeted forecasts. These forecasts are adjusted to take into account 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.

**Micromem Technologies Inc.**  
**Notes to Consolidated Financial Statements**  
**For the years ended October 31, 2018, 2017 and 2016**  
(Expressed in United States dollars)

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**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 United States dollars, 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. Non-monetary 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 United States dollars 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, development costs receivable have been classified as loans and receivables. Trade payables and other liabilities and convertible debentures have been classified as other financial liabilities.

(iii) Fair value hierarchy

Assets and liabilities recorded at fair value on 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. In these consolidated financial statements, cash is included in this category.

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.

(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.

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**4. Summary of significant accounting policies (continued)**

(c) Convertible debentures and derivative liabilities (continued)

(i) Initial recognition

Upon initial recognition, the Company determines whether the convertible debenture 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 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 are allocated to the debenture and derivative liability components in proportion to their initial carrying amounts.

(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. A modification of the original financial liability is accounted for as an adjustment to the 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%

(e) Impairment of long-lived 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. Payments received from development partners on projects are recorded to deferred development costs as a recovery of costs incurred.

(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 in the statement of operations. 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, credited to share capital.

(i) 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.

(j) 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.

(k) 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.

(l) 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.

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**5. Adoption of new accounting pronouncements**

(a) Amendments to IAS 7 Statement of Cash Flows

International Accounting Standard ("IAS") 7 amendments include additional disclosures to enable users of the consolidated financial statements to evaluate changes in liabilities arising from financing activities, including changes arising from cash flows and non-cash changes. These amendments became effective for annual periods beginning on or after January 1, 2017. The Company has adopted these amendments as of the effective date and has included the required disclosures in note 16 for the year ended October 31, 2018.

(b) Amendments to IAS 12 Income Taxes

IAS 12 amendments include: (a) unrealized losses on debt instruments measured at fair value and measured at cost for tax purposes give rise to a deductible temporary difference regardless of whether the debt instrument's holder expects to recover the carrying amount of the debt instrument by sale or by use; (b) the carrying amount of an asset does not limit the estimation of probable future taxable profits; (c) estimates for future taxable profits exclude tax deductions resulting from the reversal of deductible temporary differences; and (d) an entity assesses a deferred tax asset for recoverability in combination with other deferred tax assets. Where tax law restricts the utilization of tax losses, an entity would assess a deferred tax asset for recoverability in combination with other deferred tax assets of the same type. These amendments became effective for annual periods beginning on or after January 1, 2017. The Company has adopted these amendments as of the effective date and has assessed no significant changes as a result of the adoption of these amendments on the current period.

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

(a) Amendments to IFRS 2 Share-Based Payments

IFRS 2 clarifies how to account for certain types of share-based payment transactions. The amendments provide requirements on the accounting for the effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments, share-based payment transactions with a net settlement feature for withholding tax obligations, and a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. The effective date of these amendments is for annual periods beginning January 1, 2018. The Company will adopt the amendments as of its effective date. The Company has performed a preliminary assessment and does not expect there to be any significant impacts on the consolidated financial statements as a result of the adoption of these amendments.

(b) IFRS 9 Financial Instruments

IFRS 9 addresses classification and measurement of financial assets and replaces the multiple category and measurement models in IAS 39 for debt instruments with a new mixed measurement model having only two categories: amortized cost and fair value through profit or loss. IFRS 9 also replaces the models for measuring equity instruments and such instruments are either recognized at fair value through profit or loss or at fair value through other comprehensive income. The effective date of this standard is for annual periods beginning January 1, 2018. The Company will adopt this new standard as of its effective date. The Company has performed a preliminary assessment and does not expect there to be any significant impacts on the consolidated financial statements as a result of the adoption of this new standard.

(c) IFRS 16 Leases

IFRS 16 was issued in January 2016 and 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 if the Company is also applying IFRS 15, Revenue from Contracts with Customers. The Company will adopt this new standard as of its effective date. The Company is currently evaluating the impact of the adoption of this new standard on its consolidated financial statements.

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**7. Property and equipment**

<b>Cost</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Computers	\$ 55,723	\$ 53,701	\$ 53,263
Furniture and equipment	25,989	25,989	25,989
Total cost	<u>\$ 81,712</u>	<u>\$ 79,690</u>	<u>\$ 79,252</u>
<b>Accumulated depreciation</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Computers	\$ 46,495	\$ 43,879	\$ 42,275
Furniture and equipment	25,989	25,989	25,989
Total accumulated amortization	<u>\$ 72,484</u>	<u>\$ 69,868</u>	<u>\$ 68,264</u>
<b>Net book value</b>	<u>\$ 9,228</u>	<u>\$ 9,822</u>	<u>\$ 10,988</u>

**8. Development costs (recovery)**

The Company incurs development costs, and recovers from its development partners, a portion of the costs it has incurred in accordance with meeting milestones as stipulated in development contracts. The remaining balances outstanding from its development partners is recorded as development costs receivable on the statement of financial position.

	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>Statements of financial position</b>			
Opening balance of capitalized development costs	\$ -	\$ -	\$ 3,070,299
Development costs incurred and capitalized	-	-	1,211,720
Development costs recovered and capitalized	-	-	(643,901)
Write-down of capitalized development costs	-	-	(3,638,118)
Closing balance of capitalized development costs	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
<b>Statements of operations and comprehensive loss</b>			
Development costs incurred and expensed	\$ 608,914	\$ 518,008	\$ -
Development costs recovered and netted from expense	(738,983)	(371,000)	(2,505)
Write-down of capitalized development costs	-	-	3,638,118
Development costs (recovery)	<u>\$ (130,069)</u>	<u>\$ 147,008</u>	<u>\$ 3,635,613</u>

The Company wrote-off the capitalized cost of \$3,638,118 in the third quarter of the year ended October 31, 2016. The Company anticipates that it may realize commercial economic benefits from the exploitation of these development projects in the future. However, given the uncertainty of realization of these costs, the Company wrote-off the capitalized costs.

**9. Patents**

	November 1, 2016	Additions	October 31, 2017	Additions	October 31, 2018
Cost	\$ 621,181	\$ 161,647	\$ 782,828	\$ 121,603	\$ 904,431
Accumulated amortization	<u>217,581</u>	133,785	<u>351,366</u>	156,960	<u>508,326</u>
<b>Net book value</b>	<u>\$ 403,600</u>		<u>\$ 431,462</u>		<u>\$ 396,105</u>

Of the total amortization expense, \$nil was capitalized to development costs in the year ended October 31, 2018 (2017 - \$nil); (2016 - \$71,988).

**10. 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 receivable upon conversion caused by foreign exchange, and USD denominated convertible debentures with an embedded derivative caused by variable conversion prices.

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**10. Convertible debentures (continued)**

	Convertible debentures		Derivative liabilities		Equity component of convertible debentures	
	2018	2017	2018	2017	2018	2017
(a)	\$ 2,419,877	\$ 2,353,088	\$ 151,918	\$ 281,879	\$ 70,283	\$ 62,050
(b)	56,694	135,929	498,198	207,855	-	-
	<u>\$ 2,476,571</u>	<u>\$ 2,489,017</u>	<u>\$ 650,116</u>	<u>\$ 489,734</u>	<u>\$ 70,283</u>	<u>\$ 62,050</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, 2018 and 2017:

	USD (equity component)		CDN (embedded derivative)	
	2018	2017	2018	2017
<b>Loan Principal</b>				
Opening balance	\$ 730,000	\$ 836,000	\$ 2,392,860	\$ 3,242,514
Issuance during the year	231,000	2,398,395	1,035,800	2,398,395
Repayment or conversion	(30,000)	(2,504,395)	(1,194,366)	(3,248,049)
Outstanding at year-end	<u>\$ 931,000</u>	<u>\$ 730,000</u>	<u>\$ 2,234,294</u>	<u>\$ 2,392,860</u>
<b>Terms of Loan</b>				
Annual interest rate	12% - 24%	12% - 24%	12% - 24%	12% - 24%
Effective annual interest rate	36% - 37%	36%	23% - 398%	27% - 117%
Conversion price to common shares	\$0.04 - \$0.21	\$0.09 - \$0.15	\$0.05 - \$0.15	\$0.13 - \$0.30
Remaining life (in months)	0 - 7	1 - 3	0 - 7	0 - 6
<b>Consolidated Statements of Financial Position</b>				
Carrying value of loan principal	\$ 894,838	\$ 719,368	\$ 1,428,616	\$ 1,587,891
Interest payable	15,100	-	81,323	45,829
Convertible debentures	<u>\$ 909,938</u>	<u>\$ 719,368</u>	<u>\$ 1,509,939</u>	<u>\$ 1,633,720</u>
Derivative liability	\$ -	\$ -	\$ 151,918	\$ 281,879
Equity component	\$ 70,283	\$ 62,050	\$ -	\$ -
<b>Consolidated Statements of Operations and Comprehensive Loss</b>				
Accretion expense	\$ 110,469	\$ 85,531	\$ 1,652,007	\$ 1,248,206
Interest expense	\$ 168,052	\$ 159,307	\$ 284,908	\$ 501,184
Gain on revaluation of derivative liability	\$ -	\$ -	\$ (1,322,507)	\$ (1,521,322)
Loss on conversion	\$ -	\$ 47,630	\$ 6,261	\$ 938,621
Loss (gain) on extinguishment	\$ 2,792	\$ -	\$ (401,983)	\$ -
<b>Consolidated Statements of Changes in Equity</b>				
Amount of principal converted to common shares	\$ -	\$ 106,000	\$ 19,023	\$ 1,900,899
Amount of interest converted to common shares	\$ -	\$ 12,025	\$ 60,634	\$ 539,009
Number of common shares issued on conversion of convertible debentures	-	813,057	770,962	19,557,838
<b>Consolidated Statements of Cash Flows</b>				
Amount of principal repaid in cash	\$ 30,000	\$ -	\$ 632,080	\$ 149,365
Amount of interest repaid in cash	\$ 161,424	\$ 159,307	\$ 161,506	\$ 455,355



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**10. Convertible debentures (continued)**

(b) USD denominated debentures with embedded derivatives

During the year ended October 31, 2018, the Company has incurred \$40,414 (2017 - \$nil) financing costs which primarily consist of early payment penalties and admin fees relating to the convertible debentures.

Convertible debentures outstanding as at October 31, 2018:

	<b>2018</b>	
	<b>(i)</b>	<b>(ii)</b>
<b>Loan Principal</b>		
Opening balance	\$ -	\$ -
Issuance during the year	278,600	142,750
Conversion	(65,000)	(41,500)
Outstanding at year-end	<u>\$ 213,600</u>	<u>\$ 101,250</u>
<b>Terms of Loan</b>		
Annual interest rate	12%	10%
Effective annual interest rate	4380% - 4932%	3873% - 5658%
Conversion price to common shares	(i)	(ii)
Remaining life (in months)	4 - 12	6-8
<b>Consolidated Statements of Financial Position</b>		
Carrying value of loan principal	\$ 772	\$ 262
Interest payable	12,973	4,238
Convertible debentures	<u>\$ 13,745</u>	<u>\$ 4,500</u>
Derivative liability	\$ 190,274	\$ 89,328
<b>Consolidated Statements of Operations and Comprehensive Loss</b>		
Accretion expense	\$ 2,496	\$ 264
Interest expense	\$ 11,769	\$ 4,670
Loss on revaluation of derivative liability	\$ 8,690	\$ 16,332
Loss on conversion	\$ 3,652	\$ 10,513
<b>Consolidated Statements of Changes in Equity</b>		
Amount of principal converted to common shares	\$ 65,000	\$ 41,500
Amount of interest converted to common shares	\$ -	\$ 6,400
Number of common shares issued on conversion of convertible debentures	2,456,707	982,921

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

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

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**10. Convertible debentures (continued)**

(b) USD denominated debentures with embedded derivatives (continued)

Convertible debentures outstanding as at October 31, 2018 and 2017:

	(iii)		(iv)	
	2018	2017	2018	2017
<b>Loan Principal</b>				
Opening balance	\$ 100,200	\$ 100,200	\$ 343,000	\$ 418,000
Issuance during the year	175,800	-	308,000	-
Conversion	(276,000)	-	(343,000)	(75,000)
Outstanding at year-end	\$ -	\$ 100,200	\$ 308,000	\$ 343,000
<b>Terms of Loan</b>				
Annual interest rate	12%	12%	5%	5%
Effective annual interest rate	264% - 6002%	118%	160% - 5242%	95% - 98%
Conversion price to common shares	(iii)	(iii)	(iv)	(iv)
Remaining life (in months)	N/A	5	1 - 5	10 - 12
<b>Consolidated Statements of Financial Position</b>				
Carrying value of loan principal	\$ -	\$ 39,630	\$ 26,755	\$ 92,265
Interest payable	-	3,377	11,694	657
Convertible debentures	\$ -	\$ 43,007	\$ 38,449	\$ 92,922
Derivative liability	\$ -	\$ 10,871	\$ 218,596	\$ 196,984
<b>Consolidated Statements of Operations and Comprehensive Loss</b>				
Accretion expense	\$ 61,453	\$ 11,095	\$ 212,655	\$ 13,269
Interest expense	\$ 14,816	\$ 3,377	\$ 20,563	\$ 2,377
Loss (gain) on revaluation of derivative liability	\$ 19,375	\$ (38,396)	\$ 183,392	\$ (55,104)
Loss on conversion	\$ 43,426	\$ -	\$ -	\$ 23,429
<b>Consolidated Statements of Changes in Equity</b>				
Amount of principal converted to common shares	\$ 276,000	\$ -	\$ 343,000	\$ -
Amount of interest converted to common shares	\$ 10,145	\$ -	\$ 12,554	\$ -
Number of common shares issued on conversion of convertible debentures	6,076,094	-	5,934,267	-
<b>Consolidated Statements of Cash Flows</b>				
Amount of principal repaid in cash	\$ -	\$ -	\$ -	\$ 80,000
Amount of interest repaid in cash	\$ -	\$ -	\$ -	\$ 1,720

(iii) Conversion price defined as 80% multiplied by lowest 3 closing stock prices for the 10 trading days prior to conversion date.

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

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**10. Convertible debentures (continued)**

(c) Fair value of derivative liabilities outstanding

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

	<u>2018</u>	<u>2017</u>
Share price	\$0.03	\$0.12
Exercise price	\$0.02 - \$0.11	\$0.09 - \$0.23
Volatility factor (based on historical volatility)	168% - 297%	51% - 348%
Risk free interest rate	1.74% - 2.22%	0.89% - 1.31%
Expected life of options (in months)	0 - 12	0 - 12
Expected dividend yield	0%	0%
Foreign exchange rate (as applicable)	1.3142	1.2893
Call value	\$0.00 - \$0.02	\$0.00 - \$0.13

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

**11. Share capital**

(a) Authorized and outstanding

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.

(b) Issuances of share capital

- (i) During the year ended October 31, 2016, common shares were issued to arms' length service providers as settlement of trade accounts payable. The common shares issued were valued based on the trade accounts payable owing. During the years ended October 31, 2017 and October 31, 2018, common shares were issued to arms' length service providers as settlement of trade accounts payable. The common shares issued were determined based on the market value of the common shares at the date of settlement for the carrying amount of the account payable.
- (ii) During the year ended October 31, 2016, common shares were issued as part of the settlement of a legal claim. The common shares were valued based on the common shares price of \$0.20 on the date of the settlement agreement.
- (iii) In July 2016, the Company issued 1,000,000 common shares to settle up to an additional \$200,000 of services to be rendered by an arm's length service provider. These 1,000,000 shares were held in trust by the Company to be released in tranches as services were rendered. Between July and September 2016, \$56,861 of services were provided under this arrangement and the Company released 250,000 common shares as settlement of the services rendered (included in (i) above). In October 2016, this settlement arrangement was cancelled by mutual consent. The 750,000 common shares remained outstanding as issued but not released as at October 31, 2016. In 2017, the 750,000 shares were cancelled.

(c) Private placements

- (i) 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.

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**11. Share capital (continued)**

(c) Private placements (continued)

- (ii) In 2017, the Company completed twenty-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 \$719,403 and issued a total of 3,873,223 common shares.
- (iii) In 2016, the Company completed two private placements with an investor 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 \$110,000 and issued a total of 366,668 common shares.

**12. Stock options**

(a) Stock option plan

The Company has a fixed stock option plan. Under the Company's stock option plan (the "Plan"), the Company may grant options for 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.

(b) Summary of changes

	<u>Number of options</u>	<u>Weighted average exercise price</u>
Outstanding at November 1, 2016	4,395,000	\$ 0.45
Granted	2,890,000	0.25
Expired	<u>(690,000)</u>	<u>(0.35)</u>
Outstanding at October 31, 2017	6,595,000	\$ 0.37
Granted	2,200,000	0.10
Expired	<u>(2,545,000)</u>	<u>0.34</u>
<b>Outstanding at October 31, 2018</b>	<b><u>6,250,000</u></b>	<b><u>\$ 0.29</u></b>

The weighted average exercise price on the dates of issuance was \$0.29 (2017 - \$0.37).

All options vest immediately upon issuance. Of the options issued during the year ended October 31, 2018, 700,000 stock options were issued to directors and officers (2017 - 2,500,000) (2016 - nil) and 1,500,000 stock options were issued to employees (2017 - 390,000); (2016 - nil).

(c) Stock options outstanding at October 31, 2018

<u>Date of issue</u>	<u>Expiry Date</u>	<u>Number of options</u>	<u>Weighted average Exercise price</u>	<u>Remaining contractual life (years)</u>
February 10, 2014	February 10, 2019	350,000	\$ 0.85	0.3
April 25, 2014	April 25, 2019	170,000	0.64	0.5
June 4, 2015	June 4, 2020	300,000	0.49	1.6
August 20, 2015	August 20, 2020	940,000	0.46	1.8
September 30, 2015	September 30, 2020	250,000	0.40	1.9
December 30, 2016	December 30, 2021	2,040,000	0.25	3.2
June 29, 2018	June 29, 2023	<u>2,200,000</u>	<u>0.10</u>	<u>4.7</u>
<b>Outstanding and exercisable at October 31, 2018</b>		<b><u>6,250,000</u></b>	<b><u>\$ 0.29</u></b>	<b><u>3.1</u></b>

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**12. Stock options (continued)**

(d) Fair value of options issued during the year

The fair value of the stock options is determined in accordance with the Black Scholes option-pricing model. The underlying assumptions are as follows:

	<u>2018</u>	<u>2017</u>
Share price at grant date (per share)	\$ 0.09	\$ 0.21
Exercise price	\$ 0.10	\$ 0.25
Volatility factor (based on historical volatility)	95%	100%
Risk free interest rate	2.07%	0.72%
Expected life of options (in years)	5	5
Expected dividend yield	0%	0%
Forfeiture rate	0%	0%
Weighted average Black Scholes value at grant date	\$ 0.06	\$ 0.15

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

**13. Loss per share**

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

<b>Numerator</b>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Loss attributable to common shareholders	\$ (2,362,239)	\$ (4,346,200)	\$ (6,805,535)
Loss used in computation of basic and diluted loss per	\$ (2,362,239)	\$ (4,346,200)	\$ (6,805,535)
	<u>2018</u>	<u>2017</u>	<u>2016</u>
<b>Denominator</b>			
Weighted average number of common shares for computation of basic and diluted loss per share	<u>237,242,674</u>	<u>207,131,781</u>	<u>199,572,966</u>

As at October 31, 2018 and 2017, all stock options and conversion options were anti-dilutive and, therefore, are excluded from the calculation of diluted loss per share.

**14. Income taxes**

(a) The Company has non-capital losses of approximately \$29 million available to reduce future taxable income, the benefit of which has not been recognized in these consolidated financial statements. At October 31, 2018, the tax losses expire as follows:

	<u>Canada</u>	<u>Other foreign</u>	<u>Total</u>
2026	\$ 1,826,168	\$ -	\$ 1,826,168
2027	1,535,663	-	1,535,663
2028	-	-	-
2029	1,573,852	452,762	2,026,614
2030	2,123,536	1,880,897	4,004,433
2031	1,279,365	18,526	1,297,891
2032	1,417,868	325,793	1,743,661
2033	1,718,596	157,463	1,876,059
2034	2,486,226	679,089	3,165,315
2035	2,809,651	570,901	3,380,552
2036	3,297,284	441,019	3,738,303
2037	2,639,572	232,719	2,872,291
2038	1,625,600	-	1,625,600
	<u>\$ 24,333,381</u>	<u>\$ 4,759,169</u>	<u>\$ 29,092,550</u>

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**14. Income taxes (continued)**

- (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. These 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 the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Non-capital losses and other	\$ 7,698,859	\$ 7,277,434	\$ 7,139,329
Capital losses	175,090	350,180	165,164
Property, equipment, patents and deferred costs	1,567,228	1,598,394	1,769,064
Share issuance costs	-	-	1,881
	<u>\$ 9,441,177</u>	<u>\$ 9,226,008</u>	<u>\$ 9,075,438</u>
Deferred tax asset not recognized	<u>(9,441,177)</u>	<u>(9,226,008)</u>	<u>(9,075,438)</u>
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

At October 31, 2018, the Company has 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.

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

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Loss before income taxes	\$ (2,362,239)	\$ (4,346,200)	\$ (6,805,535)
Statutory tax rate	26.50%	26.50%	26.50%
Expected income tax recovery	\$ (625,993)	\$ (1,151,743)	\$ (1,803,467)
Non-deductible expenses and other items	182,056	413,499	130,211
Effect of exchange rate on deferred tax assets carried forward	225,846	424,023	142,518
Effect of higher tax rates in foreign jurisdiction	-	163,651	(446,821)
Change in deferred income tax rates and other	-	-	1,641,838
Change in deferred tax assets not recognized	218,091	150,570	335,721
	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

**15. Operating expenses**

- (a) Administration

The components of general and administration expenses are as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
General and administrative	\$ 63,936	\$ 98,187	\$ 189,912
Rent and occupancy	70,674	72,725	72,317
Office insurance	117,615	54,023	60,195
Investor relations, listing and filing fees	53,113	80,486	72,916
	<u>\$ 305,338</u>	<u>\$ 305,421</u>	<u>\$ 395,340</u>

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**15. Operating expenses (continued)**

(b) Professional, other fees and salaries

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

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Professional fees	\$ 165,685	\$ 224,139	\$ 328,851
Consulting fees	316,815	813,735	1,028,600
Salaries and benefits	264,780	395,239	381,950
	<u>\$ 747,280</u>	<u>\$ 1,433,113</u>	<u>\$ 1,739,401</u>

**16. Supplemental cash flow information**

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

<b>Balance at November 1, 2017</b>	\$ 2,978,751
Cash flows from financing activities:	
Convertible debenture advances	1,457,983
Convertible debenture repayments	(662,080)
Non-cash changes:	
Convertible debenture interest accrued	125,328
Convertible debentures converted into common shares	(1,093,842)
Accretion expense	2,039,344
Gain on extinguishment of debt	(399,191)
Gain on revaluation of derivative liabilities	(1,094,718)
Convertible debenture renewal	(137,854)
Foreign exchange gain	(87,034)
<b>Balance at October 31, 2018</b>	<u>\$ 3,126,687</u>

**17. Key management compensation and related party transactions**

The Company reports the following related party transactions:

(a) Former Chairman (until April 26, 2016)

The former Chairman's term expired on April 26, 2016; his compensation for services rendered was extended until October 31, 2016 and was then terminated. He received cash compensation on a month to month basis totaling \$113,266 (\$CDN 150,000), which was fully paid in 2016. Additionally, the Chairman exercised 700,000 stock options and the Company realized proceeds of \$140,000 in 2016.

(b) 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:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Professional, other fees, and salaries	\$ 235,297	\$ 667,724	\$ 840,641
Stock-based compensation	44,740	382,531	-
	<u>\$ 280,037</u>	<u>\$ 1,050,255</u>	<u>\$ 840,641</u>

In 2018, these parties were awarded a total of 700,000 options at an exercise price of \$0.10 (2017 - 1,950,000 options at an exercise price of \$0.25; 2016 nil options).

In 2016, officers, directors and a senior employee exercised 3,056,366 options resulting in realized proceeds of \$611,273.

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**17. Key management compensation and related party transactions (continued)**

(c) Advances

In 2016, an officer was provided a short term non-interest bearing advances totaling \$42,144 between November 2015 and January 2016. These advances were settled in January 2016 through the allocation of compensation due to the officer.

(d) Trade payables and other liabilities

At October 31, 2018 the Company reports in trade payables and other liabilities, a balance owing to the former President of MAST of \$193,174 which amount represents alleged outstanding wages payable, see Note 19(b).

As at October 31, 2018 and 2017 the Company includes \$167,000 in trade payables and other liabilities owing to a company whose major shareholder is a director of the Company and who has also served as its Chief Technology Officer. This individual was elected as a director on February 19, 2014. The balance reported relates to services provided in 2015; there have been no invoices submitted by this related party after October 31, 2015.

(e) Convertible debentures

An officer of the Company provided a convertible debenture of \$100,000 CDN (\$76,092 USD) in September 2016, which was converted to common shares in July 2017. In January 2018, the officer provided an additional convertible debenture of \$150,000 CDN (\$114,138 USD). At October 31, 2018, \$100,862 CDN (\$76,748 USD) in loan principal remains outstanding at October 31, 2018.

**18. Commitments**

The Company has extended its lease for premises through July 2022. The lease term is for 5 years and stipulates base monthly rental expenses of \$4,005 CDN. Lease commitments are as follows:

	<u>CDN</u>
Less than one year	\$ 48,060
Two to five years	<u>132,165</u>
	<u>\$ 180,225</u>

**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. (the Company's 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 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 has come to light. On February 8, 2019 Mr. Van Fleet, through his counsel, replied to and denied the material allegations in Micromem's counterclaims. The Company reports an accrual of \$205,788 at October 31, 2018 with respect to alleged remuneration and expense reimbursements claimed by Mr. Van Fleet but, nonetheless, has denied the allegations in Mr. Van Fleet's claims. This matter remains as a contingency at February 28, 2019.



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**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. The Company manages currency risk by monitoring the Canadian position of these monetary financial instruments on a periodic basis throughout the course of the year.

The consolidated financial statements include balances that are denominated in Canadian dollars as follows:

	<u>Amount</u>
Cash	\$ 99,139
Convertible debentures	\$ 1,877,487
Trade payables and other liabilities	\$ 318,172
Derivative liabilities	\$ 199,650

A 10% strengthening of the US dollar against the Canadian dollar would serve to decrease the loss by \$158,836 at October 31, 2018 (2017 – decrease loss by \$421,748; 2016 – decrease the loss by \$327,170). A 10% weakening of the US dollar against the Canadian dollar 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.

All financial liabilities are due within 1 year as at October 31, 2018.

(i) Trade payables

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

	<u>2018</u>	<u>2017</u>
Less than 30 days past billing date	\$ 87,356	\$ 191,937
31 to 90 days past billing date	12,837	367,988
Over 90 days past billing date	740,131	656,753
	<u>\$ 840,324</u>	<u>\$ 1,216,678</u>

(ii) Convertible debentures and derivative liabilities

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

	<u>2018</u>		<u>2017</u>	
	<u>Convertible debentures</u>	<u>Derivative liability</u>	<u>Convertible debentures</u>	<u>Derivative liability</u>
Less than three months	\$ 862,686	\$ 90,142	\$ 1,027,214	\$ 2,737
Three to six months	1,346,315	382,309	1,374,575	277,096
Six to twelve months	267,570	177,665	87,228	209,900
	<u>\$ 2,476,571</u>	<u>\$ 650,116</u>	<u>\$ 2,489,017</u>	<u>\$ 489,733</u>

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**20. Financial risk management (continued)**

(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 development costs receivable. The maximum exposure to credit risk is the carrying value of these financial assets. The Company reduces its credit risk by assessing the credit quality of counterparties, taking into account their financial position, past experience and other factors.

The following represents an analysis of the maturity of the age of the development costs receivable:

	<u>2018</u>	<u>2017</u>
Less than 30 days past billing date	\$ 81,841	\$ 340,857
31 to 90 days past billing date	-	75,000
	<u>\$ 81,841</u>	<u>\$ 415,857</u>

**21. 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 and warrants 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, 2018.

**22. Subsequent events**

Subsequent to October 31, 2018:

- (a) The Company secured, in aggregate, \$383,600 in convertible debentures with one year terms. These loans have conversion features which become effective six months after initiation date.
- (b) The Company repaid \$106,500 CDN and \$75,600 USD in convertible debentures and \$219,747 in convertible debentures were converted into 12,382,097 common shares.
- (c) The Company extended convertible debentures that were within 3 months of maturity from October 31, 2018. Extensions terms ranged from 2 to 6 months.
- (d) The Company completed two private placements with arms' length investors realizing total proceeds of \$71,000 and issued a total of 1,665,789 shares.
- (e) 350,000 stock options which were issued on February 10, 2014 expired.