

Micromem Technologies Inc. Unaudited Condensed Interim Consolidated Financial Statements For the three months ended January 31, 2022 and 2021 (Expressed in United States Dollars)

Micromem Technologies Inc. Unaudited Condensed Interim Consolidated Financial Statements For the three months ended January 31, 2022 and 2021

(Expressed in United States Dollars)

Contents

Notice to Shareholders	1
Unaudited Condensed Interim Consolidated Financial Statements:	
Unaudited Condensed Interim Consolidated Statements of Financial Position	2
Unaudited Condensed Interim Consolidated Statements of Operations and Comprehensive Loss	3
Unaudited Condensed Interim Consolidated Statements of Changes in Equity	4
Unaudited Condensed Interim Consolidated Statements of Cash Flows	5
Notes to the Unaudited Condensed Interim Consolidated Financial Statements	6

Micromem Technologies Inc. Unaudited Condensed Interim Consolidated Financial Statements Notice of no auditor review of the condensed interim consolidated financial statements

Under National Instrument 51-102, Part 4, subsection 4.3(3)(a), if an auditor has not performed a review of the condensed interim consolidated financial statements, they must be accompanied by a notice indicating that the condensed interim consolidated financial statements have not been reviewed by an auditor.

The accompanying unaudited condensed interim consolidated financial statements of Micromem Technologies Inc. (the "Company") have been prepared by and are the responsibility of the Company's management and approved by the Board of Directors.

The Company's independent auditor has not performed a review of these condensed interim consolidated financial statements in accordance with the standards established by the Chartered Professional Accountants of Canada, for a review of condensed interim consolidated financial statements by an entity's auditor.

March 16, 2022

Micromem Technologies Inc.

Unaudited Condensed Interim Consolidated Statements of Financial Position

As at January 31, 2022 and October 31, 2021

(Expressed in United States dollars)

	Notes	As at January 31, 2022		00	As at etober 31, 2021
Assets					
Current					
Cash	18	\$	106,449	\$	171,397
Prepaid expenses and other receivables			21,647		24,007
Total current assets			128,096		195,404
Property and equipment	5		18,816		26,012
Patents	6		1,877		3,877
Total assets		\$	148,789	\$	225,293
Liabilities					
Current					
Trade payables and other liabilities	16(b), 18(c)	\$	275,872	\$	384,057
Current lease liability	7		11,473		24,788
Convertible debentures Derivative liabilities	9,18 9,18		2,803,866 1,378,593		2,452,402 787,081
	9,10				
Total current liabilities	0		4,469,804		3,648,328
Long-term loan	8		47,559		48,243
Total liabilities			4,517,363		3,696,571
Shareholders' Deficiency	`				
Share capital	10		87,299,228		86,815,836
Contributed surplus			28,209,537		28,197,382
Equity component of convertible debentures	9		14,004		14,004
Accumulated deficit			(119,891,343)		(118,498,500)
Total shareholders' deficiency			(4,368,574)		(3,471,278)
Total liabilities and shareholders' deficiency		\$	148,789	\$	225,293
Going concern	2				
Contingencies	17				
Subsequent events	21				

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

Approved on behalf of the Board of Directors:

"Joseph Fuda" Director "Alex Dey"

Director

Micromem Technologies Inc.

Unaudited Condensed Interim Consolidated Statements of Operations and Comprehensive Loss For the three months ended January 31, 2022 and 2021

(Expressed in United States dollars)

	Notes	 Three months en 2022	nded January 31, 2021			
Operating expenses						
General and administrative	14(a)	\$ 43,001	\$	17,365		
Professional, other fees and salaries	14(b)	185,026		69,397		
Stock-based compensation	11	952		297,726		
Travel and entertainment		6,967		3,473		
Amortization of property and equipment	5	7,186		6,885		
Amortization of patents	6	2,000		2,000		
Amortization and write-down of intangible assets						
Foreign exchange (gain) loss	18(a)	- (57,844)		- 135,451		
	10(a)	 ` <u>`</u>				
Total operating expenses		 187,288		532,297		
Other expenses						
Accretion expense	9	823,764		265,057		
Interest expense on convertible debt	9	115,936		118,586		
Other financing costs	7,9	3,975		5,427		
Loss on revaluation of derivative liabilities	9	31,315		282,308		
Loss on conversion of convertible debentures	9	203,721		17,373		
Loss (gain) on extinguishment of convertible						
debentures	9	 26,844		(747)		
Total other expenses		1,205,555		688,004		
Loss before income tax provision		(1,392,843)		(1,220,301)		
Income tax provision	13	 				
Net loss and comprehensive loss		\$ (1,392,843)	\$	(1,220,301)		
Weighted average number of outstanding shares,						
basic and diluted	12	442,042,179		410,451,128		
Basic and diluted loss per share	12	\$ -	\$	-		

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

Micromem Technologies Inc.

Unaudited Condensed Interim Consolidated Statements of Changes in Equity For the three months ended January 31, 2022 and 2021

(Expressed in United States dollars)

	Notes	Number of shares	Share capital	Contributed surplus	Equity component of convertible debentures	Accumulated deficit	Total
Balance at November 1, 2021		435,737,734	\$ 86,815,836	\$ 28,197,382	\$ 14,004	\$ (118,498,500)	\$ (3,471,278)
Private placements of shares for cash	10	2,713,674	123,885	-	-	-	123,885
Convertible debentures converted into common shares	9	4,593,480	359,507	-	-	-	359,507
Expiry of convertible debenture conversion option	9	-	-	11,203	(11,203)	-	-
Renewal of convertible debentures	9	-	-	-	11,203	-	11,203
Issuance of stock options	11	-	-	952	-	-	952
Net loss						(1,392,843)	(1,392,843)
Balance at January 31, 2022		443,044,888	\$ 87,299,228	\$ 28,209,537	\$ 14,004	\$ (119,891,343)	\$ (4,368,574)
Balance at November 1, 2020		402,552,453	\$ 85,463,642	\$ 27,810,586	\$ 23,952	\$ (117,485,522)	\$ (4,187,342)
Private placements of shares for cash	10	3,542,223	97,384	-	-	-	97,384
Convertible debentures converted into common shares	9	9,518,602	313,610	-	-	-	313,610
Issuance of stock options	11	-	-	297,726	-	-	297,726
Net loss		-	-	-		(1,220,301)	(1,220,301)
Balance at January 31, 2021		415,613,278	\$ 85,874,636	\$ 28,108,312	\$ 23,952	\$ (118,705,823)	\$ (4,698,923)

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

Micromem Technologies Inc. Unaudited Condensed Interim Consolidated Statements of Cash Flows For the three months ended January 31, 2022 and 2021

(Expressed in United States dollars)

		Three months end 2022			•
	Notes		2022		2021
Operating activities		¢	(1.202.042)	¢	(1 220 201)
Net loss		\$	(1,392,843)	\$	(1,220,301)
Items not affecting cash:	Ę		7 107		6.005
Amortization of property and equipment	5		7,186		6,885
Amortization of patents	6		2,000		2,000
Accretion expense	9,15		823,764		265,057
Accrued interest on convertible debentures	15		(10,502)		103,654
Stock-based compensation	11		952		297,726
Loss on conversion of convertible debentures	9		203,721		17,373
Loss on revaluation of derivative liabilities	9,15		31,315		282,308
Loss (gain) on extinguishment of convertible debentures	9,15		26,844		(747)
Proceeds from long-term loan	8		(684)		16,886
Foreign exchange loss (gain)	18		45,349		117,063
			(262,898)		(112,096)
Net changes in non-cash working capital:					
Decrease in prepaid expenses and other receivables			2,360		6,675
Decrease in trade payables and other liabilities			(108,185)		(3,680)
Cash flows used in operating activities			(368,723)		(109,101)
Financing activities					
Repayment of lease liability	7		(9,110)		-
Private placements of shares for cash	10		123,885		97,384
Proceeds from issuance of convertible debentures	15		189,000		43,000
Repayments of convertible debentures	15		-		(169,431)
Cash flows provided by financing activities			303,775		(29,047)
Net change in cash			(64,948)		(138,148)
Cash - beginning of period			171,397		191,479
Cash - end of period		\$	106,449	\$	53,331
Supplemental cash flow information					
Interest paid (classified in operating activities) Carrying amount of convertible debentures converted into	9	\$	126,438	\$	14,932
common shares	15	\$	359,507	\$	313,610

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

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 January 31, 2022 and is devoting substantially all its efforts to securing commercial revenue opportunities.

2. Going concern

These unaudited condensed interim 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 three months ended January 31, 2022, the Company reported a net loss and comprehensive loss of \$1,392,843 (2021 - \$1,220,301) and negative cash flow from operations of \$368,723 (2021 - \$109,101). The Company's working capital deficiency as at January 31, 2022 was \$4,341,708 (October 31, 2021 - \$3,452,924).

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 2022; however, the ability of the Company to continue as a going concern is dependent upon its ability to secure additional financing and/or to profitably commercialize its technology. These unaudited condensed interim 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 plans for its technology with its primary target customers. It secured a government backed loan of \$60,000 CDN (\$47,559 USD) (October 31, 2021 – \$60,000 CDN, \$48,243 USD) which matures in December 2025 (Note 8) and received government wage subsidies of \$nil CDN (\$nil USD) (October 31, 2021 - \$167,388 CDN, \$133,699 USD) (Note 14(b)(i)). The Company has also received rent subsidies of \$nil CDN (\$nil USD) (October 31, 2021 - \$38,440 CDN, \$30,613 USD).

If the going concern assumption was not appropriate for these unaudited condensed interim 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 unaudited condensed interim consolidated financial statements for the three months ended January 31, 2022 and 2021 have been prepared in accordance with International Accounting Standard ("IAS") 34 Interim Financial Reporting. The accounting policies and methods of computation adopted in the preparation of the unaudited condensed interim consolidated financial statements are consistent with those followed in the preparation of the Company's audited annual consolidated financial statements for the year ended October 31, 2021. The Company has not early adopted any standard, interpretation or amendment that has been issued but is not yet effective.

These unaudited condensed interim consolidated financial statements were authorized for issuance and release by the Company's Board of Directors on March 16, 2022.

3. Basis of presentation (continued)

(a) Basis of consolidation

These unaudited condensed interim 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; MAST has been inactive since October 31, 2018.
- (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)	Inactive subsidiaries	Domiciled in
	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 unaudited condensed interim 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 unaudited condensed interim 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 unaudited condensed interim consolidated financial statements in conformity with IFRS 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 unaudited condensed interim 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 as below;

(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.

3. Basis of presentation (continued)

(d) Use of estimates and judgments (continued)

(iii) Income taxes

Income taxes and tax exposures recognized in the unaudited condensed interim 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. 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, 2021. These pronouncements are not applicable or do not have a significant impact to the Company and have been excluded.

5. Property and equipment

Cost	Nov	As at 7ember 1, 2021	Ad	ditions	As at January 31, 2022		
Computers	\$	18,570	\$	(10)	\$	18,560	
Right-of-use assets		74,307		-		74,307	
C		92,877				92,867	
Accumulated amortization							
Computers		12,824		430		13,254	
Right-of-use assets		54,041		6,756		60,797	
-		66,865				74,051	
Net book value	\$	26,012			\$	18,816	

5. Property and equipment (continued)

	As at November 1, 2020	Additions	As at January 31, 2021			
Cost						
Computers	\$ 32,040	-	\$	32,040		
Right-of-use assets	74,307	-		74,307		
	106,347			106,347		
Accumulated amortization						
Computers	30,077	131		30,208		
Right-of-use assets	27,021	6,754		33,775		
-	57,098			63,983		
Net book value	\$ 49,249		\$	42,364		

6. Patents

	No	As at vember 1, 2021	Ad	ditions	As at January 31, 2022		
Cost Accumulated amortization	\$	681,288 677,411	\$	2,000	\$	681,288 679,411	
Net book value	\$	3,877			\$	1,877	
	As at November 1, 2020		Ad	ditions	As at January 31, 2021		
Cost Accumulated amortization	\$	681,288 669,411	\$	2,000	\$	681,288 671,411	
Net book value	\$	11,877			\$	9,877	

7. Leases

(a) Maturity analysis of lease obligations

The following represents a maturity analysis of the Company's undiscounted contractual lease obligations as at January 31, 2022.

	CDN
Less than one year	\$ 20,025

(b) Supplemental disclosure

For the three months ended January 31, 2022, the Company recognized \$1,334 of interest expense on lease obligations in the unaudited condensed interim consolidated statements of operations and comprehensive loss. The Company further recognized total cash outflow of \$9,110 relating to leases.

8. Long-term loan

As at January 31, 2022, the Company has obtained a \$60,000 CDN (\$47,559 USD) (October 31, 2021 – \$60,000 CDN, \$48,243 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 \$20,000 CDN (\$15,853 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.

9. 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.

During the three months ended January 31, 2022, the Company incurred \$nil (2021 - \$nil) financing costs, all of which were converted into common shares. All loan principal amounts and conversion prices are expressed in original currency and all remaining dollar amounts are expressed in USD.

(a) Current period information presented in the unaudited condensed interim consolidated financial statements

Convertible debentures outstanding as at January 31, 2022:

		USD (equity omponent)	CDN (embedded derivative)		USD (embedded derivative)		 Total
Loan principal outstanding	\$	1,091,644	\$	2,024,888	\$	522,000	
Terms of loan							
Annual stated interest rate	1	2% - 24%	1	2% - 24%	2	.% - 10%	
Effective annual interest rate		24%	12%	6 - 2400009%	24% - 5600%		
Conversion price to common shares	\$0.03 - \$0.07		\$0.05 - \$0.08		(i) - (ii)		
Remaining life (in months)		0 - 6 0 - 6			0 - 10		
Unaudited condensed interim consolidated statement of fir	ancia	l position					
Carrying value of loan principal	\$	1,085,649	\$	922,998	\$	171,221	\$ 2,179,868
Interest payable		321,289		269,298		33,411	623,998
Convertible debentures	\$	1,406,938	\$	1,192,296	\$	204,632	\$ 2,803,866
Derivative liabilities	\$	-	\$	997,724	\$	380,869	\$ 1,378,593
Equity component of convertible debentures	\$	14,004	\$	-	\$	-	\$ 14,004

9. Convertible debentures (continued)

(a) Current period information presented in the unaudited condensed interim consolidated financial statements (continued)

For the three months ended January 31, 2022:						
		USD		CDN	USD	
	```	equity		mbedded	embedded	
	con	nponent)	de	erivative)	 lerivative)	 Total
Unaudited condensed interim consolidated statement of op-	eration	s and comp	ehens	ive loss		
Accretion expense	\$	6,866	\$	815,381	\$ 1,517	\$ 823,764
Interest expense	\$	55,618	\$	55,229	\$ 5,089	\$ 115,936
(Gain) loss on revaluation of derivative liabilities	\$	-	\$	(84,119)	\$ 115,434	\$ 31,315
Loss on conversion of convertible debentures	\$	-	\$	-	\$ 203,721	\$ 203,721
Gain on extinguishment of convertible debentures	\$	-	\$	26,844	\$ -	\$ 26,844
Unaudited condensed interim consolidated statement of cha	anges ii	n equity				
Amount of principal converted to common shares	\$	-	\$	-	\$ 173,600	
Amount of interest converted to common shares	\$	-	\$	-	\$ -	
Number of common shares issued on conversion of						
convertible debentures		-		-	4,593,480	4,593,480
Unaudited condensed interim consolidated statement of case	sh flows	8				
Amount of principal repaid in cash	\$	-	\$	-	\$ -	\$ -
Amount of interest repaid in cash	\$	66,934	\$	55,699	\$ 3,805	\$ 126,438

(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.

(b) Comparative information presented in the unaudited condensed interim consolidated financial statements

#### Convertible debentures outstanding as at October 31, 2021:

	<u> </u>	USD (equity omponent)	CDN (embedded derivative)	USD embedded erivative)	 Total
Loan principal outstanding	\$	1,037,782	\$ 1,989,187	\$ 468,600	
<b>Terms of loan</b> Annual stated interest rate Effective annual interest rate	1	12% - 24% 24.00%	12% - 24% 5 - 28735624%	2% - 10% % - 5525%	
Conversion price to common shares	\$0	0.03 - \$0.07	\$ 0.05 - \$0.08	(i) - (ii)	
Remaining life (in months)		0 - 6	0 - 6	0 - 10	
Unaudited condensed interim consolidated statement of fin	ancia	l position			
Carrying value of loan principal Interest payable	\$	1,036,124 332,605	\$ 609,924 269,455	\$ 172,166 32,128	\$ 1,818,214 634,188
Convertible debentures	\$	1,368,729	\$ 879,379	\$ 204,294	\$ 2,452,402
Derivative liabilities	\$	-	\$ 557,323	\$ 229,759	\$ 787,082
Equity component of convertible debentures	\$	14,004	\$ -	\$ -	\$ 14,004

(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.

# 9. Convertible debentures (continued)

(b) Comparative information presented in the unaudited condensed interim consolidated financial statements (continued)

# For the three months ended January 31, 2021:

		USD (equity mponent)		CDN embedded lerivative)		USD embedded lerivative)		Total
Unaudited condensed interim consolidated statement of operations and comprehensive loss								
Accretion expense	\$	6,897	\$	169,511	\$	88,649	\$	265,057
Interest expense	\$	50,349	\$	57,601	\$	10,636	\$	118,586
Loss on revaluation of derivative liabilities	\$	-	\$	299,824	\$	(17,516)	\$	282,308
Loss on conversion of convertible debentures	\$	-	\$	5,330	\$	12,043	\$	17,373
Gain on extinguishment of convertible debentures	\$	-	\$	(747)	\$	-	\$	(747)
Unaudited condensed interim consolidated statement of ch	anges	in equity						
Amount of principal converted to common shares	\$	-	\$	40,000	\$	64,000		
Amount of interest converted to common shares	\$	30,200	\$	156,317	\$	1,060		
Number of common shares issued on conversion of convertible debentures		1,118,519		6,978,094		1,421,989		9,518,602
Unaudited condensed interim consolidated statement of ca	sh flov	vs						
Amount of principal repaid in cash	\$	150,000	\$	19,431	\$	-	\$	169,431
Amount of interest repaid in cash	\$	5,034	\$	9,898	\$	-	\$	14,932

(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:

	As at January 31, 2022	As at October 31, 2021
Share price	\$0.06	\$0.05
Exercise price	\$0.03 - \$0.07	\$0.03 - \$0.07
Volatility factor (based on historical volatility)	100% - 149%	32% - 133%
Risk free interest rate	0.22% - 0.83%	0.17% - 0.55%
Expected life of conversion features (in months)	0 - 10	0 - 10
Expected dividend yield	0%	0%
CDN to USD exchange rate (as applicable)	0.7926	0.8041
Call value	\$0.00 - \$0.04	\$0.01 - \$0.04

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

#### 10. 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.
- (b) Private placements

During the three months ended January 31, 2022, the Company completed 3 private placements (2021 - 7 private placements) with investors consisting of common shares, pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$123,885 (2021 - \$97,384) and issued a total of 2,713,674 (2021 - 3,542,223) common shares.

#### 11. 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, 2021 Granted	11,700,000 25,000		, , ,		0.06 0.09
Outstanding at January 31, 2022	11,725,000	\$	0.06		
Outstanding at November 1, 2020 Granted	2,200,000 6,500,000	\$	0.10 0.05		
Outstanding at January 31, 2021	8,700,000	\$	0.06		

#### 11. Stock options (continued)

#### (c) Stock options outstanding at January 31, 2022

			Weighted average		
Defe of izzue	Factor data	Number of	Francisco anti-	Remaining contractual life	
Date of issue	Expiry date	options	Exercise price	(years)	
June 29, 2018	June 29, 2023	2,200,000	0.10	1.4	
November 13, 2020	November 13, 2025	6,500,000	0.05	3.8	
October 8, 2021	October 8, 2026	1,000,000	0.07	4.7	
October 8, 2021	October 8, 2022	1,000,000	0.07	0.7	
October 8, 2021	April 8, 2022	1,000,000	0.07	0.2	
December 15, 2021	December 15, 2023	25,000	0.09	1.9	
Outstanding and exercisable at	January 31, 2022	11,725,000	\$ 0.06	2.8	

# (d) Fair value of options issued

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

Share price at grant date	\$0.05
Exercise price	\$0.05
Volatility factor	173%
Risk free interest rate	0.09% - 1.12
Expected life of options in years	2
Expected divided yield	0.97%
Forfeiture rate	0%
Weighted average Black Scholes value at grant date	\$0.04

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

The Company recorded an expense of \$952 with respect to the issuance of these stock options in the quarter ended January 31, 2022.

#### 12. Loss per share

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

	Three months ended January 31,				
Numerator		2022		2021	
Net loss attributable to common shareholders	\$	(1,392,843)	\$	(1,220,301)	
Net loss used in computation of basic and diluted loss per share	\$	(1,392,843)	\$	(1,220,301)	
Denominator					
Weighted average number of common shares for computation of basic and diluted loss per share		442,042,179	4	410,451,128	
computation of basic and diffied loss per share		442,042,179	•	410,431,128	

For the three months ended January 31, 2022 and 2021, all stock options and conversion features were anti-dilutive and, therefore, are excluded from the calculation of diluted loss per share.

# 13. Income taxes

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.

As at October 31, 2021, the Company has non-capital losses of approximately \$33.6 million, \$29.2 million in Canada and \$4.4 million in other foreign jurisdictions, available to reduce future taxable income. Non-capital losses expire commencing in 2026. In addition, the Company has available capital loss carry forwards of approximately \$1.3 million to reduce future taxable capital gains. Capital losses carry forward indefinitely.

As at January 31, 2022 and October 31, 2021, the Company assessed that it is not probable that sufficient taxable income will be available to use deferred income tax assets based on operating losses in prior years; therefore, there are no balances recognized in the unaudited condensed interim consolidated statements of financial position for such assets.

#### 14. Operating expenses

## (a) General and administration

The components of general and administration expenses are as follows:

	Three months ended January 31,				
		2022		2021	
General and administration	\$	11,067	\$	3,879	
Rent and occupancy		15,578		2,036	
Office insurance		369		-	
Investor relations, listing and filing fees		14,061		10,254	
Telephone		1,926		1,196	
	\$	43,001	\$	17,365	

#### (b) Professional, other fees and salaries

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

	Three months ended January 31,			
		2022		2021
Professional fees	\$	26,864	\$	36,044
Consulting fees		42,500		18,520
Salaries and benefits		115,662		14,833
	\$	185,026	\$	69,397

#### (i) Wage subsidy

The Canada Emergency Wage Subsidy (CEWS) was announced by the Government of Canada on March 27, 2020. Amounts received are recorded as a reduction of salaries expenses in the unaudited condensed interim consolidated statements of operations and comprehensive loss. There was no wage subsidy recognized in the three months ended January 31, 2022 or January 31, 2021.

## 15. Supplemental cash flow information

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

	Thr	ee months end 2022	ed January 31, 2021		
Balance - beginning of period	\$	3,239,483	\$	3,615,080	
Cash flows from financing activities:					
Proceeds from issuance of convertible debentures		189,000		43,000	
Repayments of convertible debentures		-		(169,431)	
Non-cash changes:					
Accretion expense		823,764		265,057	
Accrued interest on convertible debentures		(10,502)		103,654	
Loss on revaluation of derivative liabilities		31,315		282,308	
Loss (gain) on extinguishment of debt		26,844		(747)	
Convertible debentures converted into common shares		(155,786)		(296,237)	
Renewal of convertible debentures		(11,203)		-	
Foreign exchange loss		49,544		123,195	
Balance - end of period	\$	4,182,459	\$	3,965,879	

#### 16. 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:

	Three months en 2022			nded January 31, 2021		
Professional, other fees, and salaries Stock-based compensation	\$	30,888	\$	11,292 137,400		
	\$	30,888	\$	148,692		

During the three months ended January 31, 2022, key management were not awarded any options. During the three months ended January 31, 2021, the Company awarded 3 million stock options to key management.

# (b) Trade payables and other liabilities

As described in Note 17(b) below, the Company reversed certain amounts totalling \$422,982 due to the payables being statute barred. These balances carried forward from prior years and the Company eliminated these balances in 2021.

## 16. Key management compensation and related party transactions (continued)

#### (c) Convertible debentures

In January 2018, the CEO of the Company provided for a convertible debenture of \$150,000 CDN (\$114,086 USD). As at January 31, 2022, \$9,483 CDN (\$7,456 USD)(October 31, 2021 - \$9,483 CDN, \$7,657 USD) in loan principal remains outstanding.

#### 17. Contingencies

- (a) The Company has agreed to indemnify its directors and officers and certain of its employees in accordance with the Company's bylaws. The Company maintains insurance policies that may provide coverage against certain claims.
- (b) The Company has previously reported on the lawsuit filed by Mr. Steven Van Fleet against Micromem, the Company's response to the lawsuit and its counterclaims against Mr. Van Fleet.

On April 29, 2021 the matter was resolved in Micromem's favor when the Court dismissed Mr. Van Fleet's claims and ruled that he was liable to the Company and to MAST on their counterclaims. An inquest hearing to determine damages was held in June 2021.

On June 16th, the Court ruled that Micromem and MAST had established damages totaling \$765,579 representing the full amount that had been requested; furthermore, the Court awarded costs and statutory prejudgment interest from May 9, 2017. On June 29, 2021 the Court entered a judgement in favor of Micromem and MAST for a total amount of \$1,051,739.

The Company is now pursuing collection of the judgement award. It will report the recovery of this contingent asset as funds are received. As at October 31, 2021, the Company has recorded recovery of \$40,000 received in the period as a reduction of legal expenses. In the 3 month period ended January 31, 2022 the Company has recorded a recovery of \$2,400 received in the period as a reduction of legal expense (3 months ended January 31, 2020 - \$nil).

#### 18. 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 January 31, 2022, balances that are denominated in CDN are as follows:

	 CDN
Cash	\$ 3,108
Prepaid expenses and other receivables	\$ 27,309
Trade payables and other liabilities	\$ 275,872
Convertible debentures	\$ 1,504,201
Derivative liabilities	\$ 1,258,729

#### 18. Financial risk management

#### (a) Currency risk (continued)

A 10% strengthening of the US dollar against the CDN would decrease accumulated deficit by \$216,780 as at January 31, 2022 (October 31, 2021 - decrease accumulated deficit by \$129,992). A 10% weakening of the USD against the CDN would have 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. With the exception of the long-term loan, all financial liabilities are due within 1 year as at January 31, 2022.

# (i) Trade payables

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

	Ja	As at January 31, 2022		As at October 31, 2021	
Less than 30 days past billing date 31 to 90 days past billing date Over 90 days past billing date	\$	275,872	\$	384,057	
o for you ayo past onning date	\$	275,872	\$	384,057	

# (ii) Convertible debentures and derivative liabilities

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

		As at January 31, 2022		As at October 31, 2021		
	Convertible	Derivative	Convertible	Derivative		
	debentures	liabilities	debentures	liabilities		
Less than three months	\$ 1,808,477	\$ 621,077	\$ 1,609,762	\$ 238,802		
Three to six months	995,168	497,681	842,451	414,602		
Six to twelve months	221	259,835	189	133,677		
	\$ 2,803,866	\$ 1,378,593	\$ 2,452,402	\$ 787,081		

#### 18. 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 cash, development costs receivable, and other receivables. The maximum exposure to credit risk is the carrying value of these financial assets, which amounted to \$114,833 as at January 31, 2022 (October 31, 2021 - \$192,199). The Company reduces its credit risk by assessing the credit quality of counterparties, taking into account their financial position, past experience and other factors.

(i) Cash

The Company held cash of \$106,449 at January 31, 2022 (October 31, 2021 - \$171,397). The cash is held with central banks and financial institution counterparties that are highly rated. The Company has assessed no significant change in credit risk, which was not recognized in these unaudited condensed interim consolidated financial statements.

## **19.** Fair value hierarchy

Assets and liabilities recorded at fair value in the unaudited condensed interim 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 unaudited condensed interim 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 unaudited condensed interim 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 unaudited condensed interim 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 three months ended January 31, 2022 and 2021, there were no transfers between levels.

## 20. 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, i.e. 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 three months ended January 31, 2022.

#### 21. Subsequent events

Subsequent to January 31, 2022:

- (a) The Company extended convertible debentures that were within 3 months of maturity date from January 31, 2022 for an additional six (6) months.
- (b) The Company secured \$124,000 USD in convertible debentures with a 12 month term and conversion features which become effective six months after initiation date.
- (c) The Company converted \$80,000 USD of convertible debentures through the issuance of 2,041,667 common shares.