
**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE FISCAL YEAR ENDED OCTOBER 31, 2024
PREPARED AS OF FEBRUARY 25, 2025.**

NOTICE TO READER

The Management's Discussion and Analysis ("MD&A") report for Micromem Technologies Inc. for the fiscal year October 31, 2024, as attached, is dated as of February 25, 2025, consistent with the date of the Independent Registered Public Accounting Firm report and with the original 52-109 CEO and CFO certification filings related thereto.

/s/ Dan Amadori
Dan Amadori, CFO
February 25, 2025

/s/ Joseph Fuda
Joseph Fuda, CEO
February 25, 2025

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INTRODUCTION

The following sets out the Management's Discussion and Analysis ("MD&A") of the financial position and result of operations for the fiscal year ending October 31, 2024, of Micromem Technologies Inc. (the "Company", "Micromem" or "we"). The MD&A should be read in conjunction with the Company's audited consolidated financial statements and accompanying notes for the fiscal years ending October 31, 2024, and 2023 which are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board. Additional information regarding the Company is available on the SEDAR website at www.sedar.com.

The Company's shares are traded on the OTCQB under the symbol MMTIF and on the Canadian Securities Exchange ("CSE") under the symbol MRM. In November 2007, the Company incorporated Micromem Applied Sensor Technologies Inc. ("MAST") for the purpose of moving forward with the planned commercialization of its technology.

Certain information provided by the Company in this MD&A and in other documents publicly filed throughout the year that are not recitation of historical facts may constitute forward-looking statements. The words "may", "would", "could", "will", "likely", "estimate", "believe", "expect", "forecast" and similar expressions are intended to identify forward-looking statements.

Readers are cautioned that such statements are only predictions, and the actual events or results may differ materially. In evaluating such forward-looking statements, readers should specifically consider the various factors that could cause actual events or results to differ materially from those indicated by such forward-looking statements.

FORWARD LOOKING STATEMENTS

This MD&A contains forward-looking statements and forward-looking information within the meaning of applicable Canadian securities legislation ("forward looking statements"). Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, potentials, future events or performance (often, but not always, using words or phrases such as "believes", "expects" or "does not expect", "is expected", "anticipates" or "does not anticipate", or "intends" or stating that certain actions, events or results "may", "could", "would", "might" or "will" be taken or achieved) are not statements of historical fact, but are "forward-looking statements". Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company, or developments in the Company's business or in its industry, to differ materially from the anticipated results, performance, achievements, or developments expressed or implied by such forward-looking statements. Forward-looking statements include disclosure regarding possible events, conditions or results of operations that are based on assumptions about future conditions, courses of action and

consequences. Forward-looking statements may also include, without limitation, any statement relating to future events, conditions, or circumstances. The Company cautions you not to place undue reliance upon any such forward-looking statements, which speak only as of the date they are made. Forward-looking statements relate to, among other things, the successful commercialization of our technology, comments about potential future revenues, joint development agreements and expectations of signed contracts with customers, etc. A number of inherent risks, uncertainties and factors affect the operations, performance and results of the Company and its business, and could cause actual results to differ materially from current expectations of estimated or anticipated events or results. Some of these risks and uncertainties include the risk of not securing required capital in future, the risks of not successfully concluding agreements with potential partners on a timely basis and the risks associated with commercializing and bringing to market our technology. These risks are affected by certain factors that are beyond the Company's control: the existence of present and possible future government regulation, competition that exists in the Company's business, uncertainty of revenues, markets and profitability, as well as those other factors discussed in this MD&A report. This list is not exhaustive of the factors that may affect any of the Company's forward-looking statements and reference should also be made to the Company's Annual Information Form (prepared and filed in the form of a Form 20-F Annual Report pursuant to The Securities Exchange Act of 1934) for a description of risk factors.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. The Company does not undertake to update any forward-looking statements that are incorporated by reference herein, except in accordance with applicable securities law.

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MICROMEM TECHNOLOGIES INC.
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1. OVERVIEW

Micromem is actively pursuing business opportunities in Romania. It has been engaged in discussions with Romgaz, the state-controlled gas company in Romania for the past 21 months. Under the Romgaz umbrella, the Company has also been pursuing discussions to complete multiple projects with Petrom, the state-controlled oil company and with Transelectrica, the major public utility and interconnection company in Romania.

Our ongoing discussions are with the University of Ploiesti who conducts all of the research and development efforts for oil and gas technology applications on behalf of the national energy companies in Romania.

The Company has previously completed a successful interwell tracer program with Chevron, utilizing a technology application for interwell tracing in operating oil wells. The technology was developed in conjunction with a Silicon Valley-based design and engineering group who developed the technology which is, hereinafter, referred to as ARTRA. The testing of a prototype analyzer was completed in Lost Hills, California with Chevron in 2019-2020. The Company and Chevron committed approximately \$5 million to this initiative. We met most recently with Chevron personnel in September 2024 in their Houston offices. We are maintaining an active dialogue with Chevron with respect to future business opportunities. who has requested a “white paper” report on tracer technologies.

Micromem engaged the research team at the University of Toronto (or “U of T”) in December 2024 to prepare this white paper report. The U of T has since submitted their report to Micromem in January 2025; in turn, Micromem has submitted this report to Chevron.

Additionally, on February 10, 2025 Micromem announced a new collaboration with the University of Toronto Defense Research and Development Canada (“DRDC”) and the Natural Sciences and Engineering Research Council of Canada (“NSERC”). The primary objectives and goals of this collaboration (“the Project”) are to develop cutting-edge technology for military and industrial applications, specifically in the field of state-of-the-art biochemical sensors (“the Technology”). This program was initiated in 2023 at the University of Toronto and has, to date, made significant strides in advancing the Technology. NSERC is providing a portion of the funding for the Project.

Micromem will have an exclusive worldwide license to the intellectual property and any patents created through the Project, which is expected to have application for both military and commercial use. Notable progress to date includes the development of artificial intelligence and machine learning capabilities.

The Company continues to raise capital for its ongoing operations; working capital continues to be constrained. The Company’s financial statements are prepared in accordance with International Financial Reporting Standards (“IFRS”). Under IFRS we report our complex financial instruments (convertible debentures) with quarterly remeasurement of the debentures and the related derivative liabilities. The result in such quarterly remeasurements is that the Company reports significant non-

cash expenses in each quarter which have a material impact on our financial statement presentation. This matter is more fully addressed in the body and in Appendix 1 of this MD&A report.

Our litigation with Steve Van Fleet, a former officer of the Company, was resolved in our favour in 2021. The Company has been receiving monthly payments from Mr. Van Fleet as part of the settlement agreement that was struck; these monthly payments are scheduled to continue through September, 2027.

The Company has now returned to more normalized operations in the post COVID-19 era. We relocated our offices to smaller, less expensive premises in 2022. We have four personnel who manage the Company's operations including Joseph Fuda, our President & CEO and Dan Amadori, our Chief Financial Officer, both of whom are our named executives.

The Company held its Annual General Meeting of Shareholders on Monday, April 22, 2024 for the fiscal years through October 31, 2023. At the meeting, the incumbent of directors – Joseph Fuda, Alex Dey and Oliver Nepomuceno were reelected to our Board of Directors.

2. BUSINESS DEVELOPMENTS IN 2024:

Romgaz: The Company notes the following developments in 2024:

As previously reported a senior team of technical advisors has been enlisted by Romgaz to assist in the execution of our go forward workplan. This development team includes representation from the University of Oil and Gas of Ploiesti in Romania (“the University”). This team will be directed by Professor Dan Ioan Gheorghui, PhD. who serves as the President of the Romanian chapter of the World Energy Council. The team also includes Professor Alin Dinita, PhD. who serves as the Head of Development Strategies and the Faculty of Mechanical and Electrical Engineering at the University of Ploiesti and Professor Alin Dinita, PhD. who serves as Pro-Dean of the Faculty of Electrical Engineering.

During 2024, Micromem maintained a dialogue with these technical advisors enlisted by Romgaz in anticipation of moving forward with our go forward work plan.

The work plan developed more slowly than originally anticipated during 2024. We did receive a purchase order for the first two of the ARTRA units. The first of these units has been built by our engineering subcontractor, Entanglement Technologies and delivered to Toronto after October 31st where it is currently held for shipment to Romania in early 2025. Micromem has received an initial payment of 50% of the total purchase price from Romgaz for the first unit and expects the balance of payment before March 31st, 2025.

Micromem is now evaluating hardware enhancements for the initial unit received so as to make this unit fully functional for oil and gas well in field measurements. The Company continues to pursue the automated sampler system application with Chevron and with other industry participants including the lead engineer involved in the original sampler design and patent application. The automated sampler will be integrated with the ARTRA unit for field installation on a natural gas well, advancing the development of the second configuration of the Unit as a well-mounted and fully automated unit, tailored specifically for gas wells.

Once the initial unit is sent to the University, it will be assessed and tested and we expect it to then be certified. Pending such certification, Micromem anticipates that it will receive additional orders for up to 20 more units for infield testing by Romgaz.

Micromem’s goal is to complete this phase of development and product sales to Romgaz in the 2025 fiscal year. If we are successful in doing so, we would thereafter partner with Romgaz in the full commercial rollout of this technology on a broader scale in Romania where the national energy companies operate an estimated 3,800 gas wells and 1,200 oil wells.

We have previously referenced the opportunities to work with the national energy companies in Romania to:

- i. develop enhanced software analytics for gas and oil well operators, and,
- ii. develop powerline monitoring solutions for the transmission and interconnection hardware in use in Romania’s electrical grid.

These initiatives were not advanced during 2024 while the initial ARTRA program was underway. These opportunities remain available; it is expected that we will develop initial plans for such undertakings during 2025.

Our relationship with the Toronto based engineering/product development group, as previously announced, remains intact and positive. We have held several technical meetings with this group in 2024; this group has taken delivery in Toronto of the first ARTRA unit that has been built by our engineering subcontractor, Entanglement Technologies.

Chevron:

We met most recently with Chevron in their Houston offices in September 2024. Chevron continues to support our initiatives as we advance our project development efforts.

In our September 2024 meeting, Chevron requested that Micromem prepare a “white paper” report on the current state of tracer technology for measurement of multiple attributes in operating oil and gas wells. To that end, Micromem engaged in discussions with a Houston-based oil recovery company and with the research team at the University of Toronto.

The Company submitted the white paper report to Chevron titled “Sensors for Water Contamination Monitoring in Oil Wells and Flood Zones”. The report was authored by Professor Harry E. Ruda of the University of Toronto, a distinguished academic in nanotechnology and materials science. The White Paper provides an overview of the existing technologies for measuring contamination in water and the surrounding atmosphere, particularly in flood zones. It explores solutions to address wastewater contamination, ultimately aiming to promote environmental remediation as well as discussing a range of sensor technologies that enable real-time monitoring of pollutants in both water and air, highlighting their potential value for commercial and municipal water management.

3. FINANCING

In 2024 the Company received gross proceeds of \$439,155 from private placements and issued 24,478,227 common shares (2023: \$535,525 and issued 9,864,500 common shares).

The Company issued 36,805,300 common shares relating to the conversion by debenture holders of their debentures totaling \$716,674 during the year (2023: issued 30,346,660 common shares relating to conversion of debentures totaling \$1,742,226). The Company issued 1,333,333 common shares with respect to the settlement of accounts payable of \$79,167 in 2024 (2023: nil).

The Company’s convertible debt structure is complex with 3 broad categories of such debt: (i) \$CDN denominated debt with fixed conversion prices; (ii) \$US denominated debt with fixed conversion prices, and (iii) \$US denominated debt with variable conversion prices. The term of the debt in each instance is typically between 4 months and 12 months. In 2024 the Company repaid \$287,460 of convertible loans at maturity when due as requested by the debenture holders (2023: \$270,000) or converted the debenture into common shares at the request of the debenture holders or extended the term of the debenture through negotiations with the debenture holders – in this latter case, certain terms of the loan – interest rate and/or conversion price – have, in some instances, been adjusted as part of the extension.

Under IFRS reporting, such loans require quarterly remeasurements. The application of the remeasurement methodology is very specific. This is more fully discussed in Section 4; in summary, there are several non-cash related income and expense charges that arise from such remeasurements. We recorded the following non-cash charges in the fiscal years ending October 31, 2024 and 2023 none of which impact the Company's cash flows:

	2024	2023	Change
Accretion expense	\$ 272,501	\$ 279,834	\$ (7,333)
Loss on revaluation of warrant liabilities	826,393	-	826,393
Loss on debt settlement	118,784	-	118,784
Loss on conversion of convertible debentures	45,535	21,120	24,415
Loss (gain) on revaluation of derivative liabilities	78,915	(658,503)	737,418
Loss (gain) on extinguishment/repayment of convertible debentures	514,501	1,428,066	(913,565)
Net expense	\$ 1,856,629	\$ 1,070,517	\$ 786,112

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4. DISCUSSION OF OPERATING RESULTS:

(a) Financial Position as at October 31, 2024:

	October 31, 2024	October 31, 2023
	(US \$000)	(US \$000)
Assets:		
Cash	126	31
Prepaid expenses and other receivables	142	104
	268	135
Property and equipment	15	33
Total Assets	283	168
Liabilities:		
Accounts payable and other liabilities	437	310
Current lease liability	12	17
Convertible debentures	3,853	3,548
Warrant liability	1,088	
Derivative liability	1,571	1,079
	6,961	4,954
Long-term lease liability	-	12
Long-term loan	45	43
Total Liabilities	7,006	5,009
Shareholders' Deficit:		
Share capital	91,678	90,472
Contributed surplus	27,288	24,869
Equity component of convertible debentures	697	3,220
Accumulated deficit	(126,386)	(123,402)
	(6,723)	(4,841)
Total Shareholders' Deficit	283	168

Commentary:

1. The Company's working capital deficiency is \$6,693,448 on October 31, 2024 (2023: deficiency of \$4,818,699).
2. In 2019 the Company evaluated its patent portfolio and its go forward strategy for its intellectual property portfolio. It decided that it would suspend its provisional patent filings in jurisdictions outside the United States where it has been issued several patents.

For financial reporting purposes the Company recorded an impairment reserve of \$223,143 in 2019 and it reflects an amortized value of \$nil as its patent assets at October 31, 2024 (2023: \$nil). The Company believes that its patents remain as an asset to be exploited in future through the pursuit of licensing agreements with potential strategic partners.

3. The Company continued to secure additional financing in 2024 through convertible debentures. Given the terms of the convertible debentures, the Company has measured, as appropriate, the prescribed accounting treatment for these convertible debentures and the related derivatives. These loans were typically of a short-term nature and, in many cases, renewed on multiple occasions; the related financial reporting has become progressively more complex. Refer to Section 4 of this report for additional commentary.

The balance reported as convertible debentures at October 31, 2024, is \$3,853,273 (2023: \$3,548,059) and the related derivative liability balance is \$1,570,675 (2023: \$1,079,393). The Company reports accretion expense on these debentures of \$272,501 (2023: \$279,834), a loss on the conversion of convertible debentures to share capital of \$45,535 (2023: \$21,120), a gain on the revaluation of the underlying derivative liabilities of \$78,915 (2023: (\$658,503)) and a loss on extinguishment/repayment of convertible debentures of \$514,501 (2023: loss of \$1,428,066). Management generally employs a Black Scholes valuation model although, for certain of the loan transactions contracted for, it uses a binomial or a Monte Carlo measurement model.

Management acknowledges that the cost of financing to the Company is significant; interest on the convertible debentures is substantial. In 2024 we reported \$604,664 of interest expense on convertible debt obligations (2023: \$540,929).

During the 2024 and 2023 fiscal years, the Company secured funding from various sources, the significant components include:

	2024		2023	
Private placements of shares for cash consideration	\$	439,155	\$	535,525
Bridge loan financing	\$	417,950	\$	645,151
Settlements for share consideration	\$	716,674	\$	1,742,226
	\$	1,573,779	\$	2,922,902

Operating Results:

The following table summarizes the Company's operating results for the years ended October 31, 2024, and 2023:

	Year Ended October 31	
	2024 (\$000)	2023 (\$000)
Administration	147	149
Professional fees and salaries	391	610
Stock-based compensation	7	218
Travel and entertainment	38	63
Depreciation of property and equipment	16	16
Amortization of patents	-	-
Foreign exchange gain	(21)	(63)
Accretion expense	273	280
Interest expense convertible debt	604	541
Other financing costs	24	86
Loss on revaluation of warrant liabilities	826	-
Loss on debt settlement	119	-
Loss (Gain) on revaluation of derivatives liabilities	79	(658)
Loss on conversion of convertible debentures	46	21
Loss on extinguishment/repayment of convertible debentures	514	1,429
Net expenses	3,063	2,692
Net comprehensive loss	3,063	2,692
Loss per share	0.01	-

Fiscal 2024 Compared to Fiscal 2023

- a) Administration costs were \$146,636 in 2024 versus \$148,616 in 2023. These costs include rent and occupancy costs of \$18,514 (2023: \$17,663), the Company reported sublet income for a portion of its office space in 2024; office insurance costs of \$1,986 (2023: \$1,930; the Company did not renew its D&O insurance coverage after 2020), investor relations, listings and filing fees of \$77,535 (2023: \$52,756), other general and administrative expenses of \$48,601 (2023: \$70,584).
- b) Professional and other fees and salaries costs were \$391,406 in 2024 versus \$610,052 in 2023. The components of these total costs include legal and audit related expenses of \$98,412 in 2024 (2023: \$144,244), 3rd party consulting fees were \$40,977 in 2024 (2023: \$67,664), staff salaries and benefits were \$252,017 in 2024 (2023: \$398,144).

The CFO received \$40,904 of management fees in 2024 (2023: \$86,520). The CEO of the Company received \$36,919 of compensation in 2024 (2023: \$190,317).

- c) Travel and entertainment expenses were \$37,631 in 2024 (2023: \$63,360).
- d) In 2024, the Company did not award additional stock options to directors, officers, and consultants. (2023: 3,000,000 stock options issued to directors, officers, and consultants); the related expense in 2024 was \$6,517 (2023: \$217,965), calculated using the Black Scholes option-pricing model.
- e) Interest expense was \$604,664 in 2024 versus \$540,929 in 2023. This represents the actual interest expense obligations incurred by the Company based on the stated interest rates on the convertible debenture notes.
- f) Depreciation expense was \$16,492 in 2024 relating to Capital Assets (2023: \$16,492).
- g) Financing costs were \$24,227 in 2024 versus \$86,352 in 2023. These expenses relate to costs associated with the convertible debenture financings which the Company completed in 2024 and 2023.
- h) The gain on foreign exchange reported in 2024 was \$21,404 versus \$62,613 in 2023. This includes the exchange relating to the translation of \$CDN denominated transactions during the year and to Canadian denominated assets and liabilities at fiscal quarter and year ends. It also includes the foreign exchange relating to the initiation, renewal, conversion, and repayment of convertible debentures transactions during the fiscal years. The Canadian dollar, relative to the US dollar was \$0.7327 at October 31, 2022, \$0.7209 at October 31, 2023 and \$0.7186 at October 31, 2024.

- i) The other expenses reported relate to the convertible debentures. These expenses are all non-cash expenses and compare as follows:

	2024	2023	Change
Accretion expense	\$ 272,501	\$ 279,834	\$ (7,333)
Loss on revaluation of warrant liabilities	826,393	-	826,393
Loss on debt settlement	118,784	-	118,784
Loss on conversion of convertible debentures	45,535	21,120	24,415
Loss (gain) on revaluation of derivative liabilities	78,915	(658,503)	737,418
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Net expense	\$ 1,856,629	\$ 1,070,517	\$ 786,112

C. Unaudited Quarterly Financial Information – Summary

Three months ended (unaudited)	Revenues	Expenses	Income (loss) in	Loss per
	\$	\$	\$	\$
October 31, 2024	-	2,517,964	(2,517,964)	-
July 31, 2024	-	570,496	(570,496)	-
April 30, 2024	-	(1,446,174)	1,446,174	0.01
January 31, 2024	-	1,420,512	(1,420,512)	-
October 31, 2023	-	(1,271,082)	1,271,082	-
July 31, 2023	-	(149,612)	149,612	-
April 30, 2023	-	3,896,034	(3,896,034)	0.01
January 31, 2023	-	216,330	(216,330)	-

Three months ended (unaudited)	Working capital (deficiency)	Capital assets at NBV	Other Assets	Total Assets	Shareholders' equity (deficit)
October 31, 2024	(6,693,448)	15,272	-	282,713	(6,722,982)
July 31, 2024	(4,532,200)	19,720	-	186,845	(4,540,961)
April 30, 2024	(4,426,287)	24,359	-	133,392	(4,432,080)
January 31, 2024	(6,100,773)	28,393	-	144,827	(6,001,984)
October 31, 2023	(4,818,699)	32,767	-	168,350	(4,841,204)
July 31, 2023	(6,148,332)	36,331	-	240,608	(6,174,904)
April 30, 2023	(6,847,503)	39,466	-	309,695	(6,873,535)
January 31, 2023	(4,786,678)	43,779	-	105,556	(4,813,784)

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5. RISKS AND UNCERTAINTIES

There are a number of risks which may individually or in aggregate affect the long-term commercial success of the Company, both known and unknown. An investment in the Company should be considered speculative due to the nature of the Company's activities and its current stage of development.

Stage of Development of Technology:

The Company has made strides in advancing its technology and in developing a product portfolio and in engaging customers in joint development projects. There remains the risk that the Company must successfully complete development work on these products to have available commercially viable products which can be licensed or sold.

Customers' Willingness to Purchase:

We have previously entered into joint development agreements whereby our prototype products are being subjected to rigorous testing by our partners. We expect to be successful in commercializing our product portfolio. If we are successful in doing so, our partners will then have to decide the extent to which they will adopt our technology for future use for their applications. The future revenue streams for the Company are dependent upon the rate of adoption by our customers and their willingness to do so.

Patent Portfolio:

The Company has previously committed time and effort and incurred significant costs with respect to the maintenance and development of our intellectual property portfolio. In 2019 it decided to abandon certain provisional patent filings in international jurisdictions which it believes does not impact on the core patent technology that the Company maintains. Given the nature of IP development, the Company is subject to continuing risks that our patents could be successfully challenged and that our patent pending files may not ultimately be granted full patent status. The Company does not have extensive in-house resources so as to manage its IP portfolio in this environment and has traditionally relied heavily on its patent attorneys for these services.

Financing:

The Company has successfully raised funding each year over to continue to support its development initiatives and fund the Company's corporate structure and overheads. The Company must continue to source financing in order to continue to support its business initiatives.

Competitors:

The Company is subject to competition from other entities that may have greater financial resources and more in-house technical expertise.

Management Structure:

The Company is highly dependent on the services of a small number of senior management team members. If one of these individuals were unavailable, the Company could encounter a difficult transition process.

Foreign Currency Exposure:

The Company expects to sell its products and license technologies in the United States, in Canada and abroad. It has raised financing in both \$CDN and \$USD. The Company has not hedged its foreign currency exposure. Foreign currency fluctuations present an ongoing risk to the business.

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6. GOING CONCERN

The consolidated financial statements have been prepared on the “going concern” basis, which presumes 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 for a reasonable period of time in future. During the year ended October 31, 2024, the Company reported a net loss and comprehensive loss of \$3,062,798 (2023 - 2,691,670; 2022 2,287,095 and negative cash flow from operations of \$625,924 (2023 - 1,083,220; 2022 \$997,031). The Company’s working capital deficiency as at October 31, 2024, is \$6,693,448 (2023 - \$4,818,699).

The Company’s future 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 2024 and beyond; however, the ability of the Company to continue as a going concern is dependent on its ability to secure additional financing and/or to profitably commercialize its technology. The 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 was 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 balance sheet classifications used; in such cases, these adjustments would be material.

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7. OTHER MATTERS

(a) Critical Accounting Policies

The accounting policies the Company believes are critical to the financial reporting process include foreign currency translation, financial instruments, convertible debentures and derivative liabilities, convertible debentures, fair value, property and equipment, impairment of long-lived assets, patents, deferred development costs, lease, stock-based compensation, and income taxes. These critical accounting policies are set forth in Note 4 to our consolidated financial statements as of October 31, 2024.

(b) Legal matters: lawsuit vs Steven Van Fleet

We have previously reported on the litigation matter relating to Mr Van Fleet, the former President of MAST, which commenced in 2018.

In 2021, the court ultimately dismissed all of Mr. Van Fleet's claims, found that he was liable to Micromem and MAST on their counterclaims and ordered an inquest to determine damages. The inquest was held between June 3 - 7, 2021.

On June 16th, 2021, the court ordered that Micromem and MAST had established damages of \$765,580, the full amount that had been requested. Additionally, the court awarded costs and statutory prejudgement interest from May 9, 2017. On June 29th, 2021, the court entered a judgement ("Judgement") in favor of Micromem and MAST and against Mr Van Fleet in the amount of \$1,051,740.

With respect to the Company's efforts to collect on that Judgement, a settlement ("Settlement") was reached during October 2021. Pursuant to the Settlement, the Company received an initial one-time payment and is entitled to additional monthly payments over a period of up to six years. The Company will record those payments as and when they are received. The total amount to be received by the Company if Mr. Van Fleet makes all the required payments under the terms of the Settlement will be less than the amount of the Judgement obtained by the Company, but if Mr. Van Fleet does not comply with the terms of the Settlement, it also provides the Company a means of enforcing a larger judgement against Mr. Van Fleet that is substantially in line with the Judgement.

(c) Legal Matter

On November 1, 2023, a former employee filed a statement of claim against the Company relating to employment termination without reasonable notice. The Company filed a statement of defence and counterclaim on November 29, 2023, denying all liability to the former employee.

Discoveries with legal counsel were completed in August 2024. Arbitration proceedings were completed in October 2024. The arbitration process did not result in a resolution of this matter. We

anticipate that a resolution of this matter may develop in 2025; otherwise, the matter may proceed to a trial hearing at some point in future.

No provision has been recorded in these consolidated financial statements as the Company continues to consider the claims of the former employee to be without merit.

(d) Contingencies and Commitments

The Company may be subject to litigation, claims and governmental and regulatory proceedings arising in the ordinary course of business. In such cases, the Company accrues a loss contingency for these matters when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. There are no such accruals reflected in the Company’s accounts at October 31, 2024.

The Company’s lease that was extended in February 2017 for five years through July 2022 expired. In August 2022 the Company moved to a smaller unit in the same commercial building pursuant to a lease from August 1, 2022, to July 31, 2025. The lease stipulates base monthly and additional rental expense of \$3,943 CDN. Lease commitments are as follows – commitments less than one year of \$12,873 USD.

(e) Off-Balance Sheet Arrangements

At October 31, 2024, the Company has no off-balance sheet financial commitments and does not anticipate entering into any contracts of such nature other than the addition of new operating leases for equipment and premises as may be required in the normal course of business.

(f) Share Capital

At October 31, 2024, the Company reports 572,985,698 common shares outstanding (2023: 510,368,838). Additionally, the Company has 8,750,000 stock options outstanding with a weighted average exercise price of \$0.06 per share (2023: 9,775,000 options outstanding with a weighted average exercise price of \$0.06 per share).

(f) Management and Board of Directors

At our most recent Annual Meeting of Shareholders held on April 22, 2024, Joseph Fuda, Oliver Nepomuceno, and Alex Dey were re-elected to serve on our Board of Directors. Joseph Fuda and Dan Amadori continue to serve as officers of the Company.

Our management team and directors, along with their 2024 remuneration, is presented as below:

Individual	Position	2024 remuneration		Total
		Cash	Options	
Joseph Fuda	President, Director	36,919	-	36,919
Oliver Nepomuceno	Director	-	-	-
Alex Dey	Director	-	-	-
Dan Amadori	CFO	40,904	-	40,904
Total		77,823	-	77,823

(g) Transactions with Related Parties

The Company reports the following related party transactions:

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) is summarized as:

	2024	2023	2022
Salaries	\$ 77,823	\$ 214,914	\$ 133,517
Stock based compensation	-	82,946	-
	<u>\$ 77,823</u>	<u>\$ 297,860</u>	<u>\$ 133,517</u>

No stock options were awarded in 2024 (2023 1,340,000 options granted at an exercise price of \$0.07; 2022 Nil options were awarded.

At October 31, 2024 , a total of \$2,436 is outstanding as an amount owing to a director .

Trade payables and other liabilities:

\$28,161 is reported in trade payables and other liabilities at October 31, 2024 to a corporation controlled by an officer of the Company (2023: nil). In addition, at October 31, 2024, \$2,436 is payable to a director (2023 - \$2,173).

(h) Liquidity and Capital Resources

Liquidity:

We currently report negative cash flow from operations. This result will only change once we are generating sufficient revenue from either license fees, royalties or the sale of products utilizing our technology. In 2024 and subsequent to the end of the fiscal year, the Company continued to raise additional financing.

We currently have no lines of credit in place. We must continue to obtain financing from investors or from clients in support of our development projects.

We have granted to our directors, officers, and employee’s options to purchase shares at prices that are at or above market price on the date of grant. At October 31, 2024 there are 8,750,000 options outstanding at a weighted average exercise price of \$0.06 per share.

Capital Resources: We have no commitments for capital expenditures as of October 31, 2024.

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9. SUBSEQUENT EVENTS

Micromem reports that it has secured additional financing since October 31, 2024 as below:

- (a) The Company secured six (6) private placements with investors consisting of common shares and warrants pursuant to prospectus and registrations set forth in applicable securities law. It realized net proceeds of \$405,000 CDN (\$285,125 USD) and issued a total of 8,100,000 common shares.
- (b) The Company secured \$57,500 USD in convertible debentures with a 12 month term and conversion features which become effective six months after initiation date.
- (c) The Company converted \$44,106 USD of convertible debentures and accrued interest through the issuance of 1,600,588 common shares.
- (d) The Company issued 1,679,800 common shares upon an exercise of warrants realizing net proceeds of \$83,990 CDN (\$58,344 USD).
- (e) The Company made partial payments of \$16,000 USD and of \$5,000 USD towards convertible debentures.
- (f) The Company extended convertible debentures that were within 3 months of maturity date October 31, 2024 for an additional three (3) to six (6) months.

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APPENDIX 1

COMMENTARY ON CONVERTIBLE DEBENTURES:

This section of the report is intended to provide readers with additional information as to the nature of the reporting requirements, procedures, and impact of the convertible debt financings that the Company has completed. The objective is to facilitate the reader's understanding of this complex aspect of the Company's financial statements.

(1) Overview: convertible debenture reporting

- (a) We are required under IFRS reporting standards to measure the components of our convertible debt including the debt, the derivative liability, and the equity component of the face value of the debt, as appropriate, upon execution of the loan agreement with the lender.
- (b) The measurement methodology that we employ is in accordance with prescribed guidelines under IFRS and International Accounting Guidelines. This methodology is either a Black Scholes pricing model or a binomial distribution measurement model, depending on which model is more suitable in each case. That determination is based on a subjective assessment by the Company.
- (c) When we secure a convertible debenture from an investor, the terms which are finalized through negotiation with the investor will vary on a case-by-case basis in terms of the following aspects:
 - (i) Term (typically 2 months to 12 months).
 - (ii) Interest rate (typically 1 to 2% per month but, in some cases, between 5% - 10% per annum).
 - (iii) Conversion price (which may be fixed at initiation date or fixed at conversion date based on a formulaic calculation, denominated in Canadian dollars or U.S. Dollars, the latter being the functional currency of the Company and its subsidiaries).
 - (iv) The option for the Company to prepay the loan during the entire term of the loan or within an initial period of the term of the loan (typically up to 6 months).
- (d) At maturity date of the debenture, the debenture holder may agree to extend the term of the loan for an additional period of time, either on the same basic terms as already exist or on renegotiated terms.

(2) Accounting measurements and periodic reporting of convertible debentures:

- (a) To the extent that there is a derivative liability that arises in the initial measurement (1(a) above), we are required to revalue the derivative liability at each quarter end using prescribed Black Scholes or binomial methodology. Then, at each reporting period, we are required to report this gain or loss on the revaluation in our consolidated statements of income.
- (b) To the extent that the face value of the loan – which is due at the maturity date – is greater than the amount that is assigned to the loan component of the total amount at inception of the loan (1(a) above), then this difference must be accreted over the term of the loan. Typically, the loan term is from 2 months to 12 months. Thus, over the term of the loan, we are required to report this accretion amount as an expense in our quarterly consolidated statements of income.
- (c) To the extent that a loan is converted into common shares by the debenture holder, we will close out the loan at that point, record remaining accretion expense up to the date of conversion, remeasure the derivative liability and calculate a net gain or loss on conversion of the loan. The net gain or loss is reported in our consolidated statements of income.

(3) Impact on financial reporting:

The realities and complexities of this prescribed accounting treatment gives rise to complicated disclosures in our financial statements and footnotes:

- (a) We report substantial accretion expense in our audited financial statements.
- (b) Over time, barring significant volatility in the share price, we generally report a gain on the settlement of the derivative liabilities. However, the quarterly revaluations of the derivative liabilities result in significant interim fluctuations.
- (c) The calculated *effective interest rate* on debt can be substantial. To illustrate, (for example) if the reported fair value of the debt is a small fraction of the face value at inception and it must be accreted to face value over the term (for example 2 months), then the effective rate of interest can be very high in these reported financials, as representing the rate that would be required to step up the reported value to the face value in the short period of the term of the loan.

It is essential, when reviewing our audited consolidated statements, to bear in mind the following:

- a) Accretion expense is a *non-cash item*.
- b) Gain or loss on revaluation of derivatives in a *non-cash item*.
- c) Gain or loss on extinguishment of debentures is a *non-cash item*.
- d) Gain or loss on conversion of debentures to common shares is a *non-cash item*.

- e) Loss on revaluation of warrant liabilities is a *non-cash item*.
- f) Loss on debt settlement is a *non-cash item*.

The net non-cash expense (income) relating to items (a) - (f) above reported in the fiscal year ended October 31, 2024, was \$1,731,113 (2023: \$1,043,274).

(4) Additional Comments:

The Company notes the following:

- a) We have had to rely on convertible debenture financings as a primary means of securing financing over the past several years in order to continue our operations.
- b) The *actual interest expense* on our convertible debentures which is interest paid to the debenture holders, is at a coupon rate typically ranging between *1% and 2%* per month. The effective rate referenced above is an accounting measurement metric, not a payable obligation.
- c) The use of convertible debentures has served to increase our outstanding number of shares over the past few years.

In 2024 the Company issued 36,805,300 common shares in settlement of \$716,674 of debentures which were converted to common shares by the debenture holders (2023: 30,346,660 common shares in settlement of 1,742,226 of converted debentures; 2022: 26,443,820 common shares in settlement of \$764,432 of converted debentures).

The Company plans to deemphasize or eliminate this complex and expensive source of financing in future as it develops and grows its business and is better able to secure more conventional, lower cost financing.
