

MICROMEM TECHNOLOGIES INC.

Form 51-102 F6V – Statement of Executive Compensation – Venture Issuers

YEAR ENDED OCTOBER 31, 2019

This discussion describes the compensation program of Micromem Technologies Inc. (the "**Corporation**") for each person who acted as Chief Executive Officer (CEO), Chief Financial Officer (CFO) and the three most highly compensated executive officers (or three most highly compensated individuals acting in a similar capacity), other than the CEO and the CFO, whose compensation was more than \$150,000 during the financial year ended October 31, 2019 (each a "**Named Executive Officer**" or "**NEO**" and collectively the "**Named Executive Officers**" or **NEOs**"). This document will address the Corporation's executive compensation philosophy and objectives and provide a review of the process our compensation committee undertakes in deciding how to compensate the Corporation's NEOs for the financial year ended October 31, 2020. "Named Executive Officer," or "NEO" means each of the following individuals:

- a) each individual who, in respect of the company, during any part of the most recently completed financial year, served as chief executive officer, including an individual performing functions similar to a **chief executive officer**;
- b) each individual who, in respect of the company, during any part of the most recently completed financial year, served as **chief financial officer**, including an individual performing functions similar to a chief financial officer;
- c) in respect of the company and its subsidiaries, **the most highly compensated executive officer other than the individuals identified in paragraphs (a) and (b) at the end of the most recently completed financial year whose total compensation was more than \$150,000**, as determined in accordance with subsection 1.3(5), for that financial year; and
- d) each individual who would be a named executive officer under paragraph (c) but for the fact that the individual was not an executive officer of the company, and was not acting in a similar capacity, at the end of that financial year.

Unless otherwise stated, all amounts with respect to executive compensation are stated in United States dollars ("**USD**").

Named Executive Officers

During the year ended October 31, 2019 the Corporation had two Named Executive Officers, namely: Joseph Fuda, Chief Executive Officer and Dan Amadori, Chief Financial Officer.

There were no other NEOs in 2019 and no other officers or individuals acting in a similar capacity earned in excess of \$150,000 during the year ended October 31, 2019.

Compensation Excluding Compensation Securities

The following table sets out all compensation paid to NEOs and directors who are not NEOs, other than stock options and other compensation securities, for each of the years ended October 31, 2019, October 31, 2018 and October 31, 2017.

Table of compensation excluding compensation securities							
Name and position ⁽¹⁾	Year	Salary, consulting fee, retainer or commission (\$)	Bonus (\$)	Committee or meeting fees (\$)	Value of perquisites (\$) ⁽²⁾	Value of all other compensation (\$) ⁽³⁾	Total compensation (\$)
Joseph Fuda, CEO and Director ⁽⁴⁾	2019	\$4,682	Nil	Nil	Nil	Nil	Nil
	2018	Nil	Nil	Nil	Nil	Nil	Nil
	2017	\$319,429	Nil	Nil	Nil	Nil	\$319,429
Dan Amadori, CFO ⁽⁵⁾	2019	Nil	Nil	Nil	Nil	Nil	Nil
	2018	\$49,238	Nil	Nil	Nil	Nil	\$49,238
	2017	\$114,601	Nil	Nil	Nil	Nil	\$114,601
Steven Van Fleet, Business Development Manager, Director and President of MAST Inc. ⁽⁶⁾	2018	\$174,816	Nil	Nil	Nil	Nil	\$174,816
	2017	\$233,694	Nil	Nil	Nil	Nil	\$233,694
David Sharpless, Director ⁽⁹⁾	2018	Nil	Nil	Nil	Nil	Nil	Nil
	2017	Nil	Nil	Nil	Nil	Nil	Nil
Larry Blue, Director ⁽⁸⁾	2017	Nil	Nil	Nil	Nil	Nil	Nil
Oliver Nepomuceno, Director	2019	Nil	Nil	Nil	Nil	Nil	Nil
	2018	Nil	Nil	Nil	Nil	Nil	Nil
	2017	Nil	Nil	Nil	Nil	Nil	Nil
Alex Dey, Director	2019	Nil	Nil	Nil	Nil	Nil	Nil
	2018	Nil	Nil	Nil	Nil	Nil	Nil
	2017	Nil	Nil	Nil	Nil	Nil	Nil
Brian Von Herzen, Director	2019	Nil	Nil	Nil	Nil	Nil	Nil
	2018	Nil	Nil	Nil	Nil	Nil	Nil
	2017	Nil	Nil	Nil	Nil	Nil	Nil

⁽¹⁾ The compensation of each NEO is disclosed first, followed by compensation of any director who is not an NEO.

⁽²⁾ Perquisites provided to an NEO or director that are not generally available to all employees and that, in aggregate, are greater than (a) \$15,000 if the NEO or director's total salary for the financial year is \$150,000 or less, (b) 10% of the NEO or director's salary for the financial year if the NEO or director's total salary for the financial year is greater than \$150,000 but less than \$500,000, or (c) \$50,000 if the NEO or director's total salary for the financial year is \$500,000 or greater. The nature of any perquisites representing more than 25% of the total value of an NEO or director's perquisites is disclosed in a footnote to this table.

⁽³⁾ Value of all other compensation includes (a) any incremental payments, payables and benefits to a NEO or director that were triggered by a change of control, severance, termination or constructive dismissal that occurred before the end of the applicable financial year, and (b) all compensation relating to defined benefit or defined contribution plans including service costs and other compensatory items such as plan changes and earnings that are different from the estimated earnings for defined benefit plans and above market earnings for defined contribution plans, but (c) excluding Canada Pension Plan, similar government plans and group life, health, hospitalization, medical reimbursements and relocation plans that do not discriminate in scope, terms or operation that are generally available to all salaried employees.

⁽⁴⁾ In 2018 and 2017 Joseph Fuda's base compensation amount of \$256,000 CDN (\$204,800 US at the then prevailing exchange rates) remained unchanged. There was \$4,682 remuneration paid in 2019. No bonus was paid in 2019, 2018 or 2017. The balance payable to Joseph Fuda at October 31, 2019 with respect to 2019 remuneration was nil.

⁽⁵⁾ In 2018 and 2017 Dan Amadori's base compensation amount of \$150,000 CDN (\$120,000 US at the then prevailing exchange rates) was unchanged. No bonus was paid in 2019, 2018 or 2017. The balance payable to Dan Amadori at October 31, 2019 with respect to 2019 remuneration with respect to 2019 remuneration was nil.

⁽⁶⁾ Steven Van Fleet resigned as a director and President of MAST, Inc. on August 17, 2018. Steve Van Fleet's base compensation amount in 2018 and 2017 was \$231,280.

⁽⁸⁾ Larry Blue resigned as a director on September 30, 2017.

⁽⁹⁾ David Sharpless resigned as a director on March 23, 2018.

External Management Companies – Dan Amadori

Dan Amadori is engaged by the Corporation through his company, Lamerac Financial Corp., to provide management services on a month-to-month contract which stipulates an annual base amount of remuneration of (CDN) \$150,000 for his services. He is also entitled to an annual performance based bonus determined at the discretion of the Compensation Committee with the approval of the Board of Directors. There are no provisions for any additional payments upon termination. His remuneration in 2019 was nil.

Exercise of Compensation Securities by Directors and NEOs

There were no exercises of compensation securities by NEOs and directors during the most recently completed financial year.

Stock Option Plan

The purpose of the Corporation's stock option plan, as amended and restated as of December 12, 2014 and approved by the shareholders on January 30, 2016 (the "**Stock Option Plan**") is to strengthen retention of key management employees, to align their interests with those of shareholders and to provide incentive compensation. The total number of shares that may be issued pursuant to options granted under the Stock Option Plan is 18,840,000. As at October 31, 2019, there were options outstanding under the Stock Option Plan to purchase 5,730,000 common shares representing 1.65% of the issued and outstanding common shares of the Corporation. The number of securities remaining available for future issuance under the Stock Option Plan is 1,732,634.

Under the Stock Option Plan, options are granted at not less than the closing price of the common shares on the day before the date of grant. Options may be issued with vesting provisions as determined at the time of grant. The expiry date for options granted under the Stock Option Plan can be any time up to ten years from the date of grant. Options cannot be transferred or assigned by a participant. Options that expire unexercised are available for subsequent option grants.

Options expire under the Stock Option Plan on the earliest of: (i) subject to any provision in the Stock Option Plan to the contrary, on the day the option holder is no longer an Eligible Person, (ii) in the case of termination that is not for cause, the day that is forty-five (45) days following the date of termination (other than for just cause or by reason of death or disability), subject to the discretion of the Board of Directors to extend the expiry period (and any vesting within such period) to no more than ninety (90) days after termination, (iii) immediately upon termination by the Corporation or a subsidiary of employment for just cause, (iv) one year following the death of a participant for options vested as of the date of such participant's death, subject to the discretion of the Board of Directors to the vesting of the option during such period, or (v) the option termination date.

The Board of Directors of the Corporation, subject to any regulatory or required shareholder approval, has the power under the Stock Option Plan to amend or terminate the Stock Option Plan at any time, provided, however, that any such amendment or termination shall not materially adversely affect the rights of a participant.

The Corporation does not provide any financial assistance to participants under the Stock Option Plan to facilitate the purchase of securities.

Outstanding Share-Based Awards and Option-Based Awards

Option-Based Awards

The Corporation provides option-based awards to executive officers and employees. Previous grants of option-based awards are taken into account when considering new grants. The Compensation Committee recommends to the Board of Directors the award level for each potential grantee and the independent board members evaluate the recommendation. The Corporation's equity incentive plan under which an option-based award is granted is reviewed by the Compensation Committee and management, and any amendments are approved by the Board of Directors prior to seeking the requisite shareholder approval.

The following table sets forth all option-based awards and share-based awards outstanding for each Named Executive Officer at the end of the year ended October 31, 2019:

Name	Option-based Awards				Share-based Awards		
	Number of securities underlying unexercised options (#)	Option exercise price (\$)	Option expiration date	Value of unexercised in-the-money options (\$)	Number of shares or units of shares that have not vested (#)	Market or payout value of share-based awards that have not vested (\$)	Market or payout value of share-based awards not paid out or distributed (\$)
Joseph Fuda, CEO and Director	22,500	0.46 US	August 20, 2020	N/A	Nil	N/A	N/A
	650,000	0.25 US	December 30, 2021	N/A	Nil	N/A	N/A
	250,000	0.10 US	June 29, 2023	N/A	Nil	N/A	N/A
Dan Amadori, CFO	650,000	0.25 US	December 30, 2021	N/A	Nil	N/A	N/A
	250,000	0.10 US	June 29, 2023	N/A	Nil	N/A	N/A

Directors' Summary Compensation Table

The following table sets forth for the year ended October 31, 2019, information concerning the compensation paid to our directors, other than directors who are also Named Executive Officers:

Name	Fees earned ⁽¹⁾ (\$)	Share-based awards ⁽¹⁾ (\$)	Option-based awards ⁽²⁾ (\$)	Non-equity incentive plan compensation ⁽¹⁾ (\$)	Pension value ⁽¹⁾ (\$)	All other compensation ⁽¹⁾ (\$)	Total (\$)
Oliver Nepomuceno	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Alex Dey	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Brian Von Herzen	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Notes:

(1) The Corporation does not typically offer its directors fees, share-based awards, non-equity incentive plan compensation, pensions, or other compensation other than option-based awards.

(2) The related cost of the stock option awards is calculated in accordance with the Black Scholes option-pricing model. Stock option awards are typically for a 5 year period and are fully vested at the date of issue. The issue price is set at the market price on the date of issue or at higher than market price.

Directors' Outstanding Option-Based Awards and Share-Based Awards

The following table sets forth for each of our directors, other than directors who are also Named Executive Officers, all option-based awards and share-based awards outstanding at the end of the year ended October 31, 2019:

Name	Option-based Awards				Share-based Awards		
	Number of securities underlying unexercised options (#)	Option exercise price (\$)	Option expiration date	Value of unexercised in-the-money options (\$)	Number of shares or units of shares that have not vested (#)	Market or payout value of share-based awards that have not vested (\$)	Market or payout value of share-based awards not paid out or distributed (\$)
Oliver Nepomuceno	150,000	\$0.25 USD	December 30, 2021	N/A	Nil	N/A	N/A
	100,000	\$0.10 USD	June 29, 2023	N/A	Nil	N/A	N/A
Alex Dey	200,000	\$0.25 USD	December 30, 2021	N/A	Nil	N/A	N/A
	100,000	\$0.10 USD	June 29, 2023	N/A	Nil	N/A	N/A
Brian Von Herzen	N/A	N/A	N/A	N/A	Nil	N/A	N/A

Employment, Consulting and Management Agreements

Joseph Fuda

Joseph Fuda was appointed as the Corporation's Chief Executive Officer on February 13, 2002. He has had a month-to-month contract since 2010, which stipulated an annual base amount of remuneration of (CDN) \$160,000 for his services. This base amount was increased to \$256,000 (CDN) in 2013. He is also entitled to an annual performance-based bonus determined at the discretion of the Compensation Committee. There are no provisions for any additional payments upon change of control, severance, termination or constructive dismissal. He received \$4,682 compensation in 2019.

Dan Amadori

Dan Amadori was appointed Chief Financial Officer of the Corporation on June 29, 2004. He is engaged by the Corporation through his company, Lamerac Financial Corp., to provide management services on a month-to-month contract which stipulates an annual base amount of remuneration of (CDN) \$150,000 for his services. He is also entitled to an annual performance-based bonus determined at the discretion of the Compensation Committee. There are no provisions for any additional payments upon change of control, severance, termination or constructive dismissal. He received no compensation in 2019.

Oversight and Description of Director and Named Executive Officer Compensation

The objective of the Corporation's executive compensation program is to attract qualified executives who can provide the leadership and management skills necessary to achieve the Corporation's business plan goals and build long-term shareholder value. The program is designed to reward its executives financially for achieving and surpassing annual operating performance targets through revenue growth and productivity improvement.

The Corporation's executive compensation program has two key elements:

1. *Base Compensation and Bonus* - The Corporation establishes a base compensation level unique to each executive that reflects the executive's business credentials, level and length of experience, past compensation history and existing levels of executive compensation. This ensures that the Corporation can attract experienced and qualified executives. The Corporation also pays bonuses to its executives that are tied to performance criteria and goals established from time to time. Specific performance criteria and goals, as well as the approximate weight assigned to each performance criterion or goal, are disclosed in this document as footnotes to the table of

“Compensation Excluding Compensation Securities”. Base compensation and bonuses are recommended by the Compensation Committee and approved by the Board of Directors.

2. *Corporate Share Ownership* - The stock option plan provides an opportunity for each executive to acquire equity in the Corporation. Ownership of common shares aligns the interests of executives with that of the shareholders and encourages them to focus on increasing shareholder value. Option grants are recommended by the Compensation Committee and approved by the Board of Directors.

The Corporation's Compensation Committee is composed of two members, Oliver Nepomuceno and Alex Dey. Mr. Dey and Mr. Nepomuceno are independent as neither of them hold any position with the Corporation other than that of director. Mr. Dey is a Chartered Accountant and was previously the sole proprietor of Alex Dey, Chartered Accountant. He is currently President of a private company that provides accounting and tax services. Mr. Nepomuceno manages a private investment banking operation in Switzerland.

The Compensation Committee is responsible for implementing and overseeing compensation, benefits and human resource policies to be approved by the Board of Directors. The Compensation Committee does not use peer groups to determine compensation. It reviews compensation from time to time and modifies each compensation element as required based on financial and operational performance, taking into consideration the Corporation's financial strength and the general economic climate.

Significant Events Affecting Compensation In the Most Recently Completed Financial Year

Compensation was virtually eliminated in 2019 as a cost cutting measure which was initiated by the CEO and CFO. Dan Amadori's compensation was nil in 2019. Joseph Fuda received \$4,682 of compensation in 2019.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets out information as at October 31, 2019 concerning securities authorized for issuance under the Corporation's Stock Option Plan:

Stock Option Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)⁽¹⁾
Equity compensation plans approved by securityholders	5,730,000	\$0.25	1,732,634
Equity compensation plans not approved by securityholders	Nil	Nil	Nil
Total	5,730,000	\$0.25	1,732,634

(1) Under the Stock Option Plan, a maximum of 18,840,000 common shares are reserved to be issued upon the exercise of options, as set forth in the Management Information Circular prepared for the annual and special meeting of the shareholders held on January 30, 2016. At October 31, 2019, the Corporation had 346,952,721 common shares issued and outstanding.

INDEBTEDNESS OF DIRECTORS, EXECUTIVE OFFICERS AND EMPLOYEES

There was no aggregate indebtedness of any Executive Officers, Directors, employees and former Executive Officers, Directors and employees of the Company or any of its subsidiaries (i) to the Company or to any of its subsidiaries, or (ii) to another entity if the indebtedness is the subject of a guarantee, support agreement, letter of credit or other similar understanding provided by the Company or any of its subsidiaries.

COMPENSATION OF DIRECTORS

The amount and form of Director compensation is reviewed periodically by the Board of Directors. The Directors do not currently receive cash compensation from the Company for their participation on the Board of Directors or as a member of a committee. The Company does, from time to time, grant options to its Directors to purchase common shares of the Company which options are granted pursuant to the Company's Stock Option Plan. Such options are offered to Directors at prices that are equal to or above the market price for the common shares at the date that the options are granted. The Company granted Nil stock options to Directors in 2019, 450,000 in 2018 and 1,850,000 in 2017.