
**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JULY 31, 2017
PREPARED AS OF SEPTEMBER 29, 2017**

INTRODUCTION

The following sets out the Management's Discussion and Analysis ("MD&A") of the financial position and result of operations for the three months ending July 31, 2017 of Micromem Technologies Inc. ("Micromem"). The MD&A should be read in conjunction with the Micromem's audited consolidated financial statements and accompanying notes for the fiscal years ending October 31, 2016 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.

Micromem'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, Micromem incorporated Micromem Applied Sensor Technologies Inc. ("MAST") for the purpose of moving forward with the planned commercialization of its technology. MAST and Micromem are referred to interchangeably throughout this report as "the Company".

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, 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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I. OVERVIEW

The Company develops customized, proprietary sensor-based solutions for large multinational corporations. Over the past several years, it has presented its technology platform to numerous companies who are seeking solutions to various and complex challenges in the measurement of operating performance and real time diagnostics in their operating systems and assets. At July 31, 2017 the Company has established working relationships (in some instances it has executed joint product development agreements) with these companies to produce sensor-based technology solutions for them. These working arrangements are discussed further in the body of this document.

While the applications for the Company's technology solutions are industry agnostic and cross virtually every industry, it has identified the following industry verticals as significant opportunities to pursue – the oil and gas sector, the automotive sector, the power generation and utilities sector and other specific industrial applications. Given the Company's current financial constraints, as discussed in the body of this document, the Company's focus, in the immediate term, is primarily on the oil and gas sector.

Our key market segments and the Company's performance during 2017 are further discussed in Section II below.

Additional background information of the Company is available on its website, Micromem.com and on the website of its subsidiary, www.mastinc.com.

II. COMPANY PROFILE AT JULY 31, 2017

1. Update of Product Development Activity.

Chevron:

- a) Reference should be made to the MD&A commentary included in the quarterly financial statements filed as of April 30, 2017 where a chronology of the developments between August 2016 and April 30, 2017 is provided.
- b) In the quarter ended July 31, 2017, the Company was successful in extending the product development working arrangements for an additional two years; these arrangements are renewed on an annual basis under the terms of our working arrangements with Chevron.
- c) At July 31, 2017, and as of the date of this MD&A report, the Company continues to pursue the next phase of development, which includes a pre-manufacturing field trial of the technology developed to-date.

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Castrol:

- a) Reference should be made to the MD&A commentary included in the quarterly financial statements filed as of April 30, 2017 where a chronology of the developments between November 2016 and April 30, 2017 is provided.
- b) In the quarter ended July 31, 2017, we attended a product demonstration of the existing field unit technology developed by our subcontractor. Castrol representatives also attended the demonstration. The results were positive whereby the predetermined measurement and performance requirements were met.

On the strength of this successful demonstration, Castrol has directed the Company to prepare and ship a fieldable unit to their Pangbourne corporate lab for evaluation against traditional MS ICP oil analysis. Castrol has also directed the Company to prepare and ship a fieldable unit for demonstration and evaluation in a BP wind turbine site in East Texas.

- c) At July 31, 2017 and as of the date of this report, the Company and Castrol have been engaged in negotiating a mutually acceptable path forward for continuing the Joint Product Development Agreement.
- d) During the quarter ended July 31, 2017, the Company incurred \$49,156 of direct costs (excluding any allocation of the Company's management time or overhead costs, which amount to an additional \$43,513) associated with the Castrol development work.

RT-Lube Analyzer

In June 2017, the Company announced that it was releasing for routine sale, the RT-Lube Analyzer for real time on site detection of wear elements in lubricating fluids. The Company is now pursuing potential customers for this product offering, outside of the contracted Castrol field of use for this product.

Flextronics:

Reference should be made to the MD&A commentary included in the quarterly financial statements filed as of April 30, 2017 where a chronology of the developments through April 30, 2017 is provided.

The Company is assessing the extent, if any, of its go-forward opportunity with respect to the Flextronics project.

Other Projects:

The Company continues to submit proposals to additional potential partners for joint development projects utilizing the Company's established expertise and based on the proprietary applications that it has developed to-date.

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Development Costs:

To date, the Company has recovered from its development partners a portion of the costs it has incurred as development costs coincident with meeting milestones as stipulated in the development contracts.

- a) Chevron has contributed a total of approximately \$2.4 million of project financing to date.
- b) Castrol has contributed a total of \$838,500 of project financing to date.
- c) Other parties have contributed a total of \$500,000 relating to other projects since 2012.

The Company wrote off the deferred development costs it had capitalized through July 31, 2016 given uncertainty of the timing of realization of these costs.

No financing was provided by the Company's development partners in the quarter ending July 31, 2017.

2. Intellectual Property

The Company continues to build its intellectual property portfolio as it has furthered the above-noted development projects. We have engaged a Washington, DC based law firm to assist us in these efforts. The Company incurred \$105,544 of direct patent related costs in the nine month period ended July 31, 2017.

We believe that the Company has broad and valuable interests in its intellectual property that it has developed through July 31, 2017. Specifically we note that:

- a) Six patents have been issued to date by the U.S. patent office for our multimodal condition sensor platform and system thereof. We also have provisional patents filed in various international jurisdictions for this intellectual property.
- b) One patent has been issued to-date by the U.S. patent office for our power line real time monitoring sensor suite. We also have provisional patents filed in various international jurisdictions for this intellectual property.
- c) U.S. patent filings have also been submitted and are pending for:
 - i. System for real time monitoring of partial discharges in transformers.
 - ii. MEMS sensor and methods to determine cement integrity.
 - iii. MEMS implementation of a LIBS detection of wear metals in lubricants.

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The Company must raise additional financing in order to continue to pursue the ongoing maintenance and expansion of its patent portfolio with the patent attorney firm that it has been working with to date.

3. Financing

In summary, the Company secured the following financing in 2016 and in the nine months ending July 31, 2017:

	October 31, 2016	July 31, 2017
Private placements of shares for cash consideration and share subscriptions	\$ 110,000	\$ 649,232
Common stock options exercised for cash consideration	751,273	-
Settlement of legal claim, trade accounts payable and wages for share consideration	357,812	81,967
Bridge loan financing secured	2,490,333	1,076,481
Bridge loan settlement for share consideration	107,000	78,808
Project financing provided by development partners	643,901	296,000
	\$ 4,460,319	\$ 2,182,488

Commentary:

- a) The Company has continued its bridge loan financing opportunities with multiple investors. These loans are denominated in either \$US or \$CDN currency at the preference of each investor.

During the quarter ending January 31, 2017 the short-term loans that were outstanding at October 31, 2016 were extended to maturity dates ranging from June 2017 through November 2017. In most cases the interest rate on these loans was reduced to a rate of 1% per month.

During the quarter ending January 31, 2017, the Company secured 9 additional convertible bridge loans at an interest rate of 1% per month and a non-convertible loan at an interest rate of 2% per month; in all cases the term of the loans was set to 12 months. The total financing secured was \$868,000 CDN funds (\$663,769 USD). The conversion price for the convertible loans has been set at \$0.30 CDN per share in all cases.

- b) The Company secured 4 additional bridge loans at an interest rate of 1% per month in the quarter ended April 30, 2017; in all cases the term of the loans was set to 12 months. The total financing

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secured was \$444,860 CDN (\$325,905 USD). The conversion price for these loans was set at \$0.30 CDN per share in all cases

- c) In the quarter ended July 31, 2017, the Company secured an additional bridge loan in the amount of \$83,500. This interest rate on this loan is 1% per month. The loan is currently non-convertible. The term of the loan is 12 months and the Company has the option to prepay the loan within the first six months.
- d) We completed private placements during the nine month period through July 31, 2017 for total proceeds of \$649,232 and issued 3,333,914 common shares. Additionally, we settled accounts payable and compensation payable totaling \$81,967 through the issuance of 440,024 common shares.
- e) One bridge loan, in the amount of \$78,808 which was secured in August 2016 was converted into 379,476 common shares.
- f) Chevron and Castrol each provided \$100,000 of project financing support in the quarter ending January 31, 2017. Chevron provided an additional \$96,000 of project financing in the quarter ended April 30, 2017.

The Company must continue to secure additional financing from investors and must secure additional financing support from its development partners in order to continue with the development of its product initiatives.

The opportunity to have the bridge loans converted to common shares in 2017 will be evaluated with our investors at the appropriate time if the Company's share price warrants a conversion.

4. Share Capital

At July 31, 2017 the Company reports 207,791,983 common shares outstanding (October 31, 2016: 204,388,569). Additionally, the Company has 6,595,000 stock options outstanding with a weighted average exercise price of \$0.36 per share (2016: 4,395,000 options outstanding with a weighted average exercise price of \$0.45 per share)

5. Management and Board of Directors

At our Annual Meeting of Shareholders held on Friday, July 21, 2017, Joseph Fuda, David Sharpless, Steven Van Fleet, Oliver Nepomuceno, Larry Blue, Alex Dey, and Brian Von Herzen were re-elected to serve on our Board of Directors. Joseph Fuda, Dan Amadori and Steven Van Fleet continue to serve as officers of the Company.

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6. Related Parties Transactions:

The Company reports the following related party transactions:

(a) Management and consulting fees:

Included in professional fees, other fees and salaries as reported are management fees and consulting fees paid or payable to individuals (or companies controlled by such individuals) who served as officers, directors and employees of the Company. The total compensation paid to such parties for the respective nine month periods through July 31, 2017 is summarized as:

	2017	2016
Cash compensation	\$ 567,354	\$ 532,974
Less portion capitalized to deferred development costs	-	(4,869)
	567,354	528,105
 Stock based compensation	 315,968	 -
	\$ 883,322	\$ 528,105

In the quarter ended January 31, 2017, these parties were awarded a total of 2,065,000 options (2016: nil) at an exercise price of \$0.22 per share.

(b) Bridge loan:

The CEO provided bridge loan financing of \$100,000 CDN on September 2, 2016; this loan was converted to common shares in July 2017.

(c) In the quarter ended July 31, 2017, the CEO and the CFO completed private placements to convert accrued fees payable to them at that date to common shares.

(d) The President of MAST provided a \$40,000 advance to the Company in August 2016. The Company reports a balance payable at July 31, 2017 to the President of MAST of \$134,137, including this advance and accrued fees and expenses payable at that date.

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III. DISCUSSION OF OPERATING RESULTS – QUARTER ENDING JULY 31, 2017

1. Financial Position:

	July 31, 2017	October 31, 2016
	('\$000)	('\$000)
Cash	32	288
Deposits and other receivables	58	33
	<u>90</u>	<u>321</u>
Property and equipment, net	11	11
Patents, net	415	404
	<u>516</u>	<u>736</u>
Bridge loans	4,740	3,637
Accounts payable and accrued liabilities	1,094	917
Derivative liability	39	84
	<u>5,873</u>	<u>4,638</u>
Shareholders' Equity		
Share capital:	76,665	75,855
Equity component of bridge loans	23	23
Contributed surplus	27,361	26,918
Deficit	(109,407)	(106,699)
	<u>(5,358)</u>	<u>(3,902)</u>
	<u>516</u>	<u>736</u>

Commentary:

- a) The Company continued its bridge loan financing program in the period ending July 31, 2017 as discussed in Section II(3) of this MD&A document.

The accounting measurement for \$CDN denominated convertible debt under IFRS reporting gives rise to a non-cash derivative liability at each quarter end using Black Scholes methodology.

The bridge loans secured in 2016 were extended on or around October 31, 2016 for, in most cases, a 12 month period. As a result of this extension, the Company, in accordance with IFRS, measured the derivative liability relating to the \$CDN denominated bridge loans which formed part of the total 2016 bridge loan financing secured at each quarter end in 2017.

The bridge loans secured in each of Q1, Q2 and Q3 2017 required the same revaluation at quarter end for measurement of the related derivative liability.

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The calculation of the derivative liability at each quarter end is a function of the remaining term of each loan, the interest rate attached to the loan, the volatility of the Company's shares price over up to a 12 month period, the Company's actual stock price at each quarter end and the conversion price of the convertible debenture. This is a Black Scholes calculation that results in the measurement of the quarter end derivative liability. Any change in the derivative liability between quarter ends is reported as a gain or a loss on the valuation of the derivative liability in the consolidated statement of loss and comprehensive loss.

The reporting of the derivative liability is summarized as follows:

Derivative liability at October 31, 2016	\$ 83,998
Derivative liability, Q1 bridge loans	684,306
Revaluation of derivative liability at January 31, 2017	<u>1,046,968</u>
Derivative liability at January 31, 2017	\$1,815,272
Derivative liability, Q2 bridge loans	1,170
Revaluation of derivative liability at April 30, 2017	<u>(1,289,544)</u>
Derivative liability at April 30, 2017	524,558
Revaluation of derivative liability at July 31, 2017	<u>(485,281)</u>
Derivative liability at July 31, 2017	<u>\$39,388</u>

It is significant to note that:

- i. This is a non-cash liability that is not repayable.
 - ii. The derivative liability will be revalued at each quarter end and, as the maturity date of the bridge loans approaches, the derivative liability will ultimately be reversed. Prior to any extension at the maturity date, the derivative liability in the case of each bridge loan will be eliminated at the maturity date.
- b) The Company capitalized \$105,544 of costs associated with patents in the nine month period ending July 31, 2017 (2016 - \$94,620). It has expanded its filings in 2016-2017 with multiple provisional and patent pending applications and filings in North American and international jurisdictions. These applications and filings relate to the ongoing product development work that the Company has undertaken. It has been granted six patents in 2016 – 2017 and a number of additional provisional filings are now under review with the USPTO.

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- c) The Company continued in its private placement financing initiatives in the period ended July 31, 2017 as discussed in Section II(3) of this MD&A document.

2. Results of Operations:

The following table summarizes the Company's operating results for the three months ended July 31, 2017 and 2016:

Discussion of Operating Results

	Three months ended July 31,	
	2017 (\$000)	2016 (\$000)
Revenue		-
Administration	92	146
Interest expense	173	167
Accretion expense	167	57
Professional fees and salaries	324	418
Stock-based compensation	-	-
Development costs, net	49	3,779
Travel and entertainment	28	64
Foreign exchange loss (gain)	17	(22)
Amortization of property and equipment	1	1
Amortization of patents	34	
(Gain) Loss on revaluation of derivative liability	(485)	-
Net (expense) income	(400)	(4,610)
Net comprehensive income (loss)	(400)	(4,610)
Income (loss per share)	-	(0.02)

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Commentary:

1) Administrative related expenses compare as follows (\$000):

	2017	2016
General and administrative	15	14
Rent and occupancy cost	17	19
Settlement of legal matter /penalties and interest	22	88
Office insurance	26	13
Telephone	2	3
Investor relations, listing and filing fees	10	9
	92	146

2) Professional and other fees and salaries compare as follows (\$000):

	2017	2016
Professional fees	64	74
Consulting fees	184	247
Salaries and benefits	76	96
	324	418

3) Travel expenses compare as follows (\$000):

	2017	2016
Airfare	14	22
Hotel	3	20
Other	11	23
	29	65

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4) Revaluation of derivative liability:

As outlined in Section III (i) (a) above, the derivative liability relating to \$CDN denomination bridge loans is revalued at each quarter end. Any change in the fair value measurement between quarters is reflected as a gain or a loss on revaluation at each quarter end.

The Company reported a loss on revaluation of the derivative liability of \$1,046,968 for the period ending January 31, 2017, a gain on revaluation of \$1,289,544 for the period ended April 30, 2017 and a gain on revaluation of \$485,171 for the period ended July 31, 2017.

5. Recap of consolidated statement of loss at July 31, 2017 (9 months):

Recap of consolidated statement of loss at July 31, 2017 (9 mos.):

<u>Loss as reported</u>	\$ (2,707,701)
Adjust for non-cash charges:	
a. Stock compensation calculated using Black Scholes methodology	442,206
b. Accretion expense on debentures	464,717
c. Amortization expense	97,665
d. Gain on revaluation of derivatives	(727,747)
Cash loss on operations	<u>\$ (2,430,860)</u>
<u>Other Charges:</u>	
e. Interest expense	488,667
f. Net development project costs	270,013
Net cash loss on operations	<u>\$ (1,672,180)</u>

The nine month net cash loss on operations, as above, comprises the monthly costs associated with salaries, audit and tax related fees, other professional fees, legal expenses, travel costs, MAST overheads and maintenance costs relating to the public company. These equate, on average, to approximately \$186,000 per month.

At July 31, 2017, the Company has implemented certain go-forward cost reduction strategies pertaining to administrative and travel expenses. Additionally, the Company has deferred the payment of fees payable to senior management and a portion of the salaries payable to staff members, which amounts will be paid once the Company has secured additional financing.

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3. Unaudited Quarterly Financial Information - Summary

Three months ended (unaudited)	Revenues \$	Net Expense \$	Income (loss) in period \$	Loss per share \$
October 31, 2015	-	3,600,152	(3,600,152)	(0.01)
January 31, 2016	-	611,687	(611,687)	-
April 30, 2016	-	750,938	(750,938)	-
July 31, 2016	-	4,610,433	(4,610,433)	(0.02)
October 31, 2016	-	832,477	(832,477)	-
January 31, 2017	-	2,431,952	(2,431,952)	(0.01)
April 30, 2017		(124,532)	124,532	-
July 31, 2017	-	400,281	(400,281)	-

Three months ended (unaudited)	(1) Working capital (deficiency) \$	Capital assets at NBV \$	Other Assets \$	Total Assets \$	Long term liability \$	Shareholders equity (deficit) \$
October 31, 2015	(2,049,302)	15,592	3,437,598	3,667,866	-	1,403,888
January 31, 2016	(3,009,777)	14,423	3,784,410	4,163,419	-	789,056
April 30, 2016	(3,871,447)	13,633	4,039,206	4,187,484	-	181,392
July 31, 2016	(3,776,451)	12,306	448,367	796,754	-	(3,315,778)
October 31, 2016	(4,232,732)	10,988	403,600	736,043	-	(3,902,142)
January 31, 2016	(4,583,257)	13,732	389,412	524,937	-	(5,995,384)
April 30, 2017	(5,355,571)	12,672	410,178	501,472	-	(5,457,278)
July 31, 2017	(5,743,486)	10,769	414,525	515,663	-	(5,357,580)

(1) Excludes derivative liability.

IV. COMPLIANCE AND REPORTING MATTERS

1. Continuity of Critical Accounting Policies and Reporting Procedures:

- a) **Accounting Policies:** These unaudited interim condensed consolidated financial statements follow the same accounting policies and methods of application as set in the audited consolidated financial statements for the year ended October 31, 2016 and should be read in conjunction with

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the audited consolidated financial statements. There have been no changes in accounting policies or methods of application of accounting policies in the period ending July 31, 2017.

- b) **Fair Values:** There were no changes in the methods and assumptions used in estimating the fair value of the Company's financial instruments and no changes to the classification of financial instruments in terms of the levels of financial hierarchy during the period ending July 31, 2017 from that which was reported at October 31, 2016.
- c) **Capital Management:** There have been no changes to the objectives, policies and procedures that the Company has adopted and implemented with respect to capital management during the period ending July 31, 2017 from those disclosed at October 31, 2016. At July 31, 2017, it implemented several cost reduction measures to reduce its monthly cash flow requirements. The Company continues to closely monitor its accounts payable and debt service requirements.
- d) **Financial Risks:** The Company is exposed to and evaluates a variety of financial risks relative to its activities: market risk (including foreign exchange risk and interest rate risk), liquidity risk and credit risk. The overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects financial performance. Risk management is carried out under policies approved by the Board of Directors. Management is charged with the responsibility of establishing controls and procedures to ensure that financial risks are mitigated in accordance with the approved policies. Based on management's assessment as of July 31, 2017, the financial risks have not significantly changed since October 31, 2016. The Company continues to closely monitor its working capital position as its primary liquidity risk.
- e) **New standards and interpretations issued but not yet adopted:** The disclosures reported at October 31, 2016 relating to IFRS 15, IFRS 9, IAS7 and IFRS 16 remain valid at July 31, 2017. The Company is currently assessing the impact of these standards which are effective for future reporting periods.

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2. Commitments and Contingencies:

a) Commitments:

The Company has extended its lease for premises through July 2022. The monthly lease payments are \$4,005 CDN plus operating costs and taxes, for a total of \$7,500 CDN per month.

The Company has certain outstanding commitments to third party subcontractors with respect to its ongoing product development initiatives. These commitments total \$1,341,881 over the next one to three years. These commitments will become obligations of the Company as and when this work is commissioned to start by the Company, which will be initiated once the Company secures the requisite financing.

b) Contingencies:

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

In addition to the above, 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. At July 31, 2017, there are no known outstanding legal claims to which the Company is a party.

3. Disclosure Controls/Internal Controls:

The Company was classified as an accelerated filer in 2015 and 2016 and, accordingly, was required to complete an annual external audit on its internal controls.

The audit report issued by the external auditors on the internal control over financial reporting dated March 2, 2017 concluded that the Company has maintained, in all material respects, effective internal control over financial reporting as of October 31, 2016 based on the criteria established by the regulatory authorities.

Management and the Board of Directors, primarily through the Audit Committee, have instituted review procedures on all of our periodic filings. We have established a Disclosure Committee consisting of two directors. Committee charters have been developed and has been ratified by our Board of Directors. We engage legal counsel, as required, to provide guidance and commentary on our press releases.

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Management has concluded that our disclosure controls and procedures meet required standards at July 31, 2017. These disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in its various reports is recorded, processed, summarized and reported accurately. In spite of its evaluation, management does recognize that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance and not absolute assurance of achieving the desired control objectives.

4. Off-Balance Sheet Arrangements:

At July 31, 2017, 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.

5. Risks, Uncertainties and Going Concern:

In the forward to this MD&A document we have identified a number of inherent risks, uncertainties and factors which could affect the operations, performance and financial results of the Company. The primary risk to the Company is that it must continue to raise financing to support its ongoing operations and it must bring its product development initiatives, as discussed herein, to commercialization.

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 nine months ended July 31, 2017, the Company reported a net loss and comprehensive loss of \$2,707,701 (2016 - \$5,973,058) and negative cash flow from operations of \$2,043,936 (2016 - \$2,071,138) measured as net loss as reported adjusted for non-cash expenses included in net loss. The Company's working capital deficiency as at July 31, 2017 is \$5,743,486 (as at October 31, 2016 – \$4,232,732) measured as net working capital adjusted for the non-cash derivative liability.

The Company's future success depends on the profitable commercialization of its proprietary magnetic 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 should have sufficient access to financial resources to fund the Company's planned operations in future, 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 were not appropriate for these consolidated financial statements then adjustments would be necessary to the carrying value of assets and liabilities, the reported

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expenses and the balance sheet classifications used; in such cases, these adjustments would be material.

6. 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. The Company continues 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. As noted elsewhere in this report, there can be no assurance that such additional financing will be raised. A summary of financing raised in 2016-2017 is provided in Section II -3 of this document.

We have granted to our directors, officers and employees options to purchase shares at prices that are at or above market price on the date of grant. At July 31, 2017 there are 6,595,000 options outstanding at an average exercise price of \$0.36 per share.

Capital Resources:

Our capital expenditures totaled \$3,807 for the nine months ended July 31, 2017.

VII. SUBSEQUENT EVENTS

The Company reports the following events:

- (a) It secured a bridge loan of \$155,000 at a rate of 5% per annum compounding monthly. The loan is non-convertible and has a term of 12 months. It can be prepaid at the Company's option within the first six months of the term of the loan.
- (b) It completed two private placements and secured a total of \$66,000 CDN (\$51,968 USD) of financing.
- (c) It continues its negotiations with its major partners under its product development agreements.
- (d) It has effected certain cost containment and reduction measures to reduce its monthly cash requirements.
