

MICROMEM TECHNOLOGIES INC
Form F-3/A
March 29, 2007

As filed with the Securities and Exchange Commission on March 29, 2007

Registration No. 333-134309

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**PRE-EFFECTIVE AMENDMENT NO. 3
TO
FORM F-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

MICROMEM TECHNOLOGIES INC.
(Exact name of Registrant as specified in its Charter)

Ontario, Canada
(State or other jurisdiction
of incorporation or organization)

Not Applicable
(I.R.S. Employer
Identification No.)

**777 Bay Street, Suite 1910
Toronto, Ontario
M5G 2E4, Canada
(416) 364-6513**
(Address and telephone number of Principal Executive Offices)

Scott A. Ziegler, Esq.
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including area code, of agent for service)

Please send copies of all communications to:
Scott A. Ziegler, Esq.
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570 Lexington Avenue, 44th Floor
New York, New York 10022

Approximate date of commencement of proposed sale to the public: from time to time after the effective date of this Registration Statement.

If only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

Subject to Completion dated March 28, 2007.

[MICROMEM LOGO]

6,706,071 Common Shares

MICROMEM TECHNOLOGIES INC.

From time to time, the selling shareholders named in this prospectus may offer an aggregate of 6,706,071 common shares, no par value each, of Micromem Technologies Inc. Of the common shares offered hereby, 3,563,717 common shares are issued and outstanding, and 3,142,354 common shares are issuable upon exercise of warrants that were issued to the selling shareholders listed herein. The selling shareholders are identified in the table commencing on page 23. In the case of certain selling shareholders, we are registering their common shares pursuant to a contractual commitment to such selling shareholders. The registration of the common shares does not necessarily mean that the selling shareholders or their transferees will offer or sell their common shares. We will not receive any of the proceeds from the sale of common shares by the selling shareholders and will bear all expenses in connection with the preparation of this prospectus provided, however, that the selling shareholders shall bear their own underwriting discounts and commissions, selling or placement agent or broker fees and commissions and transfer taxes, if any, in connection with the sale of the common shares. If the warrants are exercised in full, we would receive proceeds of \$1,731,167. We will use the proceeds from any exercise of warrants for general working capital purposes consistent with our business strategy. The warrants themselves are not being offered by this prospectus.

Our common shares are traded on the Over-the-Counter Bulletin Board, the principal trading market for our securities, under the symbol "MMTIF.OB". On March 28, 2007, the closing sale price for our common shares on the Over-the-Counter Bulletin Board was US\$0.40 per share.

The shares beneficially owned by the selling shareholders may be offered for sale from time to time by the selling shareholders directly or in brokerage transactions at fixed prices, at prevailing market prices, at varying prices determined at the time of sale or at negotiated prices. No representation is made that any shares will or will not be offered for sale. We will not receive any proceeds from the sale by the selling shareholders of their shares.

We have agreed to indemnify the selling shareholders against certain liabilities, including liabilities under the Securities Act of 1933, as amended.

SEE "RISK FACTORS" BEGINNING ON PAGE 3 TO READ ABOUT FACTORS YOU SHOULD CONSIDER BEFORE BUYING THE SHARES.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The information in this prospectus is not complete and may be changed. The selling shareholders may not sell the shares offered hereby until the registration statement filed with the Securities and Exchange Commission has been declared effective. This prospectus is not an offer to sell these securities nor is it a solicitation of an offer to buy these securities in any state where the offer and sale is not permitted.

**Micromem Technologies Inc.
777 Bay Street, Suite 1910
Toronto, Ontario**

M5G 2E4, Canada
(416) 364-6513

The date of this prospectus is [], 2007

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form F-3 that we filed with the Securities and Exchange Commission (or the SEC) using a “shelf” registration process. Under this process, the selling shareholders listed in the table commencing on page 23 may, from time to time, sell the offered securities described in this prospectus in one or more offerings, up to a total of 6,706,071 common shares.

This prospectus does not contain all of the information included in the registration statement and the exhibits thereto. This prospectus includes statements that summarize the contents of contracts and other documents that are filed as exhibits to the registration statement. These statements do not necessarily describe the full contents of such documents, and each such statement made in this prospectus or any prospectus supplement concerning any such documents filed as exhibits to the registration statement is qualified in its entirety by reference to that exhibit. You should refer to those documents for a complete description of these matters. It is important for you to read and consider all of the information contained in this prospectus and any applicable prospectus supplement before making a decision whether to invest in our common shares. You should also read and consider the information contained in the documents that we have incorporated by reference as described below under the headings “Incorporation By Reference” and “Where You Can Find More Information” in this prospectus.

You should rely only on the information provided in this prospectus and any applicable prospectus supplement, including the information incorporated by reference. We have not authorized anyone to provide you with additional or different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. We are not offering to sell or soliciting offers to buy, and will not sell, any securities in any jurisdiction where it is unlawful. You should assume that the information contained in this prospectus or in any prospectus supplement, as well as information contained in a document that we have previously filed or in the future will file with the SEC and incorporate by reference in this prospectus or any prospectus supplement, is accurate only as of the date of this prospectus, the applicable prospectus supplement or the document containing that information, as the case may be. Our financial condition, results of operations, cash flows or business may have changed since that date.

In this prospectus, “Micromem,” “Company,” “we,” “us” and “our” refer to Micromem Technologies Inc. and its consolidated subsidiaries. References to “U.S. dollars,” “US\$” or “\$” are to the lawful currency of the United States and references to “Canadian dollars” or “CDN\$” are to the lawful currency of Canada. Unless otherwise stated, all other financial data appearing in this prospectus are expressed in United States dollars.

PROSPECTUS SUMMARY

This prospectus summary highlights selected information contained elsewhere in this prospectus and the documents incorporated by reference. You should read the following summary together with the more detailed information regarding our Company and the shares being sold in this offering, which information appears elsewhere in this prospectus and in selected portions of our Annual Report on Form 20-F for the year ended October 31, 2006, and other documents filed with the SEC that we have incorporated by reference into this prospectus.

Our Business

Our Business

Micromem is in the business of research and development of magnetic based random access memory. We have conducted ongoing internal research efforts for over five years, and we are continuing with beginning stage development of our memory system. We intend to sell or license our technology for use in a variety of markets. We initially plan to enter the market for applications in radio frequency identification (RFID). RFID involves the use of a radio transmitter to read data stored in a transponder (known as a “tag”) containing a computer chip.

RFID is an estimated \$23 billion global market. It is estimated that 60% of that market consists of performance applications such as inventory control for pharmaceutical products, automotive diagnostics and medical devices. We believe our technology is suitable for performance applications being used at this time, as it has superior material characteristics and the system design indicates, at a preliminary level, that it would function with higher efficiency than memory currently used in RFID. In general performance applications will withstand a cost premium in exchange for relatively superior system performance. Although cost is not preliminarily indicated as an inhibitive factor moving forward in that market, we do not estimate having a cost driven memory system in place for the first round of market penetration. Cost driven applications in the RFID industry would include cost sensitive applications such as retail tagging, which need high volumes of low cost tags as a priority over superior performance.

We envision pursuing our strategy for the RFID industry in the following way:

- 1) We will continue our internal research and development, seeking to form partnerships with industrial entities at the appropriate stages, to be determined by us based on progress in research and development and intellectual property protection.
- 2) We will seek to co-develop our memory technology for an application in a specific field of use. An example of this would be a partnership between us and an RFID tag manufacture in which we would, upon completing a developed memory array, co-develop a proprietary memory-RFID unit. This new unit could be sold for use in a specific area of the RFID market, such as automotive diagnostics.
- 3) We would seek multiple opportunities to commercialize our technology through partnering with a variety of industrial entities and attacking various market applications within the RFID industry.
- 4) Concurrent with our partnering strategy, we plan to continue ongoing research and development efforts with initiatives addressing topics such as cost and higher density memory systems.

Micromem's primary research and development facility and staff at the present time are at the University of Toronto, through a collaborative research arrangement with the laboratory of Professor Harry Ruda.

Technology

The various characteristics of our technology can be better understood by describing the three basic types of memory used in present day computers, Random Access Memory (RAM), Read Only Memory (ROM), and secondary storage devices such as floppy and hard disks. The three types of memory are described below:

Random Access Memory (RAM) is memory that can be both read and written randomly, which means that its storage locations can be accessed in any order. Thus a computer using RAM can find and go directly to the selected location rather than performing a sequential search. Semiconductor RAM is usually the primary memory associated with the computer's *central processing unit (CPU)*, the computational unit of the computer responsible for interpreting and executing instructions. However, RAM is *volatile* which means that all stored information vanishes once the power supply is removed and must be restored from a secondary storage device each time the power is resumed.

Two typical examples of RAM are Dynamic Random Access Memory and Static Random Access Memory. *Dynamic Random Access Memory (DRAM)* uses integrated circuits containing capacitors to achieve significant storage capacity and speed. DRAM can be written and read in the speed range of less than 100 nanoseconds. DRAM has a major drawback in that its capacitors lose their charge over time and therefore information contained in DRAM must be continually refreshed. Basically, this means that on average DRAM must stop operations every 16-30 milliseconds and restore all of the data it contains or the data will disappear. During this refresh time, the processor has no access to the information being refreshed. *Static Random Access Memory (SRAM)* differs from DRAM in that it stores information in a logic circuit referred to as a flip-flop, rather than in a capacitor. SRAM memory does not need to be refreshed while the power is on, but also loses its information once the power is turned off.

Read Only Memory (ROM), like RAM, can be read randomly, but cannot be written randomly. Unlike RAM, however, it is non-volatile and therefore does not lose its information when a computer's power is cut off. ROM is

typically employed to store vital program information required during the first moments after a computer is powered on. It may be used for such purposes as forcing system test routines, directing the processor to input/output devices or for controlling access to certain computer subsystems such as hard drives. *EPROMs* (*erasable programmable read-only memory*) and *EEPROMs* (*electrically erasable read-only memory*) are read only memories that can be erased and rewritten, but must be written “en masse,” rather than at the individual word level. “Flash” memory is a form of EEPROM that is widely used today in such devices as cell phones, modems and personal digital assistants. The drawbacks to Flash memory are that write times are slower, the number of read/write cycles are limited and the requirement for significantly higher power than DRAM to store data.

Secondary Storage Devices include *Floppy Disks and Hard disks*. Floppy disks are light and portable and are written and read by a motor driven mechanical drive. They normally have a storage capacity in the low megabyte range. *Hard disks* far exceed floppy disks in storage capacity and have become the standard for mass storage of data to be written and read by the processor. Both floppy disks and hard disks are non-volatile and can be both written and read. However, since they are serial (as opposed to parallel) devices, they are considerably slower than RAM.

Micromem develops magnetic based memory systems for RAM (MRAM). MRAM is a new form of memory system that we believe will ultimately replace all other memory types discussed above; SRAM, DRAM, EEPROM and flash memory because it combines non-volatility and random access capability. Thus MRAM is often referred to as a universal memory. Micromem's MRAM is aimed at low density applications such as RFID. In contrast high density applications would include hard disk storage and even secondary storage devices as discussed above. Our strategy is to focus our efforts in this area in order to establish a favorable competitive position.

Micromem's technology combines the use of ferromagnetic semi-conducting materials with a sensor. When the magnetization of the magnetic material changes direction, the sensor senses the change in direction and records a "0" or "1". In this fashion, a bit is created that is non-volatile and based on magnetic properties.

Patent Rights

We believe that protection of our intellectual property is important to our ability to generate revenues from our technologies in the future. We have both issued patents and pending patent applications.

To further protect our intellectual property and trade secrets we also enter into confidentiality and other agreements with third parties and our employees. We intend to continue to actively pursue the protection of our intellectual property. Management will determine from time to time the jurisdictions where protection will be sought, which determination will be based on a number of factors including: the state of development of our technology, the importance of a particular market for our technology, the costs of pursuing patent protection in a jurisdiction; and our financial position.

Our patent portfolio comprises thirteen issued patents and three patent applications in the U.S. covering the magnetic memory designs that constitute our core technology. These designs form the basis for the current development work being performed in collaboration with the University of Toronto. Our rights to these patents and patent applications are shared with Estancia Limited, an entity controlled by one of the inventors of the technology covered by such patent rights. Pursuant to an Asset Purchase Agreement dated as of December 10, 2000, we purchased the rights of Estancia to these patents and patent applications. However, under the terms of the Asset Purchase Agreement we have been required to convey back to Estancia a 40% undivided interest in the patent rights, and we have retained a 60% interest therein. We also conveyed to Estancia a right to participate in gross profits and royalties from the license or sale of such patents and patent applications. This participation right requires us to pay to Estancia 32% of (i) the gross profit, less expenses to be agreed by the parties, for each license of the patents or patent applications sold or otherwise transferred by us and (ii) all royalties received by us as a result of the license or sale of the patents or patent applications, less reasonable expenses directly related to the obtaining of such royalties.

In addition to our core patents, we have filed two U.S. provisional patent applications covering new technologies developed pursuant to research collaborations with the University of Toronto, which were partially funded by certain Ontario based government granting agencies. The University and its personnel have ownership of these technologies and, accordingly, the provisional applications have been filed on their behalf. We have the right to obtain an exclusive, world-wide and perpetual sub-license to use these technologies and any patent rights therein. We have also filed a provisional U.S. patent application for both new and updated developments of our magnetic random access memory technology for use in aerospace, defense, sensors and RFID applications which use radiation hardened materials.

RISK FACTORS

You should carefully consider the risks and the information about our business described below, together with all of the other information included in this prospectus, before buying common shares in this offering. You should not interpret the order in which these considerations are presented as an indication of their relative importance to you.

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The financial statements of our company have been prepared on a going concern basis.

We have prepared our financial statements on a “going concern” basis which presumes that we will be able to realize our assets and discharge our liabilities in the normal course of business for the foreseeable future.

We are still in the development stage and have incurred substantial losses to date. We must raise additional funds for the continued development, testing and commercial exploitation of our technologies. The sources of these funds have not yet been identified and there can be no certainty that sources will be available in the future.

At October 31, 2006 we had approximately \$407,000 cash on hand and our current monthly cash expenses were approximately \$100,000. Subsequent to October 31, 2006 we have raised an additional \$300,000 through the exercise of stock options.

Our ability to continue as a going concern is dependent upon completing the development of our technology for a particular application, achieving profitable operations, obtaining additional financing and successfully bringing our technologies to the market. The outcome of these matters cannot be predicted at this time. Our consolidated financial statements have been prepared on a going concern basis and do not include any adjustments to the amounts and classifications of the assets and liabilities that might be necessary should we be unable to continue in business.

If the going concern assumption was not appropriate for our financial statements then adjustments would be necessary in the carrying value of assets and liabilities, the reported expenses and the balance sheet classifications used.

We currently have no operating revenue.

We have no revenues and there is no certainty that we will generate revenues in the near future. If we fail to enter into license agreements we will have no revenues. If we enter into such agreements the amount of the revenues we receive will depend on the terms we are able to get from each licensee and the ability of each licensee to compete in their particular market.

Our technology is under development.

Our Magnetic Random Access Memory, also referred to herein as MRAM, which is a non-volatile memory technology that uses magnetic, thin film elements on a silicon substrate to store information, is currently under development and is therefore not yet proven to be commercially viable. As such, we are unsure if our development efforts will succeed and, accordingly, significant development work remains to be completed.

In the event our technology is developed, we will face competition when we are ready to sell or license our products. We will be required to introduce our technology into a well-developed market and compete with major corporations who manufacture, sell and license existing memory products such as DRAM, SRAM, EPROM, EEPROM and Flash memory. The market for memory technologies is dominated by major corporations who have established market segments for their memory technologies and products. These corporations have significantly greater financial resources which are required to design, develop, manufacture, market, sell and license their products and technologies. Many of these major corporations have worldwide wafer manufacturing and integrated circuit production facilities.

Our success will be determined by the following factors which have not yet been tested or measured:

- the ability of manufacturers to incorporate the technology into existing manufacturing capabilities without significant retooling and material costs;
- price competitiveness; and

· the availability and cost of raw materials.

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After completion of the development of our technology, our ability to compete successfully will depend on elements outside of our control, including the rate at which customers incorporate our technology into their products, the success of such customers in selling those products, our protection of our intellectual property, the number, nature and success of our competitors and their product introductions and general market and economic conditions. In addition, our success will depend on our ability to develop, introduce, and license or sell in a timely manner our technology or products incorporating our technology and to compete effectively on the basis of factors such as speed, density, die size and packaging.

Products using our technology have not yet been manufactured.

Our success depends on whether our technology can be manufactured in large quantities at competitive prices. Our failure to manufacture large quantities at competitive prices will seriously hurt our ability to generate revenues.

Our competitors are seeking to develop other magnetic based memory technologies.

MRAM as a market segment is both crowded and competitive. We understand that other companies have research and development efforts under way in connection with non-volatile random access memory, also referred to herein as RAM. Much work is being done in the MRAM research and development at companies such as NVE, Cypress, Freescale, Phillips, Motorola and others. Other research and development efforts at IBM, Hewlett Packard and Nantero are focused on non-magnetic based non-volatile RAM. While these companies may be considered our competitors, their focus is on high density RAM applications. As we anticipate introducing our product in the less competitive, low density applications market, we believe our more direct competitors are Honeywell, Naval Research Laboratories, Ramtron and NVE. All of these companies have substantial resources at their disposal.

We may be materially affected by aggressive competition as the memory and data storage industry is highly competitive and customers make their decisions based on a number of competitive factors, including functionality, technology, performance, reliability, system scalability, price, quality, product availability, customer service and brand recognition. We must address each of these factors effectively in order to successfully compete.

Failure to secure continued financing will cause our business to suffer.

Since there is no assurance that revenues will be realized in the near future, we will need additional financing to continue our research and development and to successfully market our technology to potential licensees. While we have had sufficient funds thus far to meet our requirements, there is no assurance we will be able to continue to do so and failure to raise sufficient funds in the future will affect our ability to develop and market our technology.

Because much of our success and value depends on our ownership and use of intellectual property, our failure to protect our property could adversely affect our future growth and success.

Our success will depend on our ability to protect our intellectual property. We rely primarily on patent, copyright, trademark and trade secret laws, as well as nondisclosure agreements and other methods to protect our proprietary technology and processes. Despite our efforts to do so, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology, develop similar technology independently or design around our patents. Policing unauthorized use of our products is expensive and difficult, and we cannot be certain that the steps we have taken will prevent misappropriation or infringement of our intellectual property.

Intellectual property claims against us, no matter how groundless, could cause our business to suffer.

Our future success and competitive position depend in part on our ability to retain exclusive rights to our technology, including any improvements that may be made on that technology from time to time by us or on our behalf. While our technology is patented or is subject to pending patent applications in the United States and we know of no challenge that has been made either against our technology or our rights to it, and we have no reason to believe that any such challenge might be made or that the grounds for any such challenge exist, if any intellectual property litigation were to be commenced against us, no matter how groundless, the result could be a significant expense to us, adversely affecting further development, licensing and sales, diverting the efforts of our technical and management personnel and, in the event of an adverse outcome, damages and possible restrictions on the further development, licensing and use of our technology.

There is no assurance that any of our pending patent applications will be issued as patents or that any issued patent will not be determined to be invalid at a later date.

We have a history of losses, and we may continue to generate losses in the foreseeable future.

To date, we have been solely a development company. We have not been profitable in any of the last three fiscal years. Unless and until we are able to successfully complete the development of our technology and develop markets for the commercialization of such technology, we may not be able to generate revenues in future periods and we may not be able to attain profitability.

The development of non-volatile random access memory products is a capital intensive business. Therefore, we expect to incur expenses without corresponding revenues at least until we are able to license our technology to third parties. This may result in net operating losses, which will increase continuously until we can generate an acceptable level of revenues, which we may never attain. Further, even if we do achieve operating revenues, there can be no assurance that such revenues will be sufficient to fund continuing operations. Therefore, we cannot predict whether we will ever be able to achieve profitability.

The likelihood of success of our business plan must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with developing and expanding early stage businesses and the competitive environment in which we operate.

We lack manufacturing capacity and will be dependent on third party manufacturers.

Our success will depend upon our ability to manufacture our technology in large quantities and at competitive prices. We have no in-house manufacturing capacity and do not anticipate developing such capacity. To the extent we are successful in completing the development of our technology we will likely be required to rely upon contract manufacturers to produce our products. We may not be able to enter into manufacturing arrangements on terms that are favorable to us. Moreover, there is no assurance that any future manufacturers will have the capability to manufacture our products in sufficient quantities to achieve profitability and within the quality, price, and technical standards required by our customers. In addition, because our technologies use semi-conducting materials other than silicon, there may be a limited number of contract manufacturers capable of producing our products since most are focusing on silicon-based manufacturing. If any future manufacturers should cease doing business with us or experience delays, shortages of supply or excessive demands on their capacity, we may not be able to obtain adequate quantities of product in a timely manner, or at all. Manufacturing new products involves integrating complex designs and processes, coordinating with suppliers for parts and components, and managing manufacturing capacities to accommodate forecasted demand. Failure to obtain sufficient quantities of parts and components, as well as other manufacturing delays or constraints, could adversely affect the timing of new product introductions. Any manufacturing problem or the loss of a contract manufacturer could be disruptive to our operations and result in lost

sales.

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We will be dependent upon the success of a limited range of products.

The range of products we intend to commercialize is currently limited to applications of non-volatile random access memory technologies. Reliance on a limited range of products could restrict our ability to respond to adverse business conditions. If we are not successful in developing this specific technology, or if there is not adequate demand for such technology or the market for such technology develops less rapidly than we anticipate, we may not have the capability to shift our resources to the development of alternative products. In such case our business would likely be at a significant disadvantage to other competitors in the field. As a result, the limited range of products we intend to develop could limit our revenues and profitability.

We may not realize income from the licensing of our technologies if our licensees fail to commercialize the products that incorporate these technologies.

In order to generate revenues from our MRAM technology, we will likely need to enter into licensing arrangements with third parties who can integrate our technology into products that will gain acceptance in the market. We have not yet entered into any licensing agreements, and there is no assurance that we will be able to do so on acceptable terms or at all. To the extent we are successful in licensing our technology, in general we will seek upfront payments plus ongoing royalties based on anticipated commercial sales of the products into which our technology is incorporated. Our ability to realize royalties will thus depend upon the successful manufacture and commercialization of such products, which will be primarily within the control of the licensee. There is no assurance that any eventual licensees' products will be technologically viable, nor that such licensees will be successful in marketing and selling such products. In addition, licensees could decide to delay or discontinue the commercialization of products for financial or other business reasons. Even if our licensees succeed in developing products that incorporate our technology, in all likelihood a significant amount of research, development and testing will be required before such products can be introduced to market. Therefore we may not receive royalty income for a substantial period following the commencement of any licensing arrangements. If our licensees are unable to commercialize products on a timely basis, they may lose market share to competing or alternative technologies. Any failure by the companies to which we license our technologies to successfully develop marketable products would have an adverse affect on our future royalty payments and financial condition.

Our supply of future products could be dependent upon relationships with key suppliers.

We will be reliant on third parties to supply the raw materials needed to manufacture our future products. Any reliance on suppliers may involve several risks, including a potential inability to obtain critical materials and reduced control over production costs, delivery schedules, reliability and quality. Any unanticipated disruption to future contract manufacture caused by problems at suppliers could delay shipment of products, increase our cost of goods sold and result in lost sales.

In order to commercialize our future products, we will need to establish a sales and marketing capability.

At present, we do not have any sales or marketing capability since our technology is currently in the development stage. However if we are successful in completing our development efforts, we will need to add marketing and sales personnel who have expertise in the computer technology business. We must also develop the necessary supporting distribution channels. Although we believe we can build the required infrastructure, we may not be successful in doing so if we cannot attract personnel or generate sufficient capital to fund these efforts. Failure to establish a sales force and distribution network would have a material adverse effect on our ability to grow our business.

The rights to certain of our patented technologies are shared with a third party.

Our core technology includes a memory design with the magnetic bit aligned vertically to the substrate, also referred to herein as our VEMRAM technology, and a memory design with the magnetic bit aligned horizontally to the substrate, also referred to herein as our HEMRAM technology. We acquired ownership of certain patents and patent applications covering the VEMRAM and HEMRAM technologies, as well as certain related rights, pursuant to an Asset Purchase Agreement dated as of December 10, 2000 with Estancia Limited, also referred to herein as Estancia. However, under the terms of the Asset Purchase Agreement we have been required to convey back to Estancia a 40% undivided interest in the VEMRAM and HEMRAM patents, as well as the right to participate in gross profits and royalties from the license or sale of such patents. This participation right requires us to pay to Estancia 32% of (i) the gross profit, less expenses to be agreed by the parties, for each license of the patents sold or otherwise transferred by us and (ii) all royalties received by us as a result of the license or sale of the patents less reasonable expenses directly related to the obtaining of such royalties.

We will be reliant upon contractual rights to use certain technologies that are material to our business.

Certain technologies material to our business are being developed through collaborative arrangements with the University of Toronto. We have entered into a number of successive Research Collaboration Agreements with the University of Toronto under which research and development programs have been led by a University research team. We have provided funding, equipment and background technology to these projects. Certain Canadian governmental entities are also parties to these agreements and have provided additional funding. The University of Toronto has ownership rights to all intellectual property developed under these programs. We have no ownership rights but have the right to obtain exclusive, world-wide and perpetual sub-licenses from the governmental participants to use such intellectual property; the governmental participants in turn have the right to obtain an exclusive, world-wide license to such technology directly from the University of Toronto.

Our auditors have identified significant deficiencies in our internal accounting controls.

We operate as a development stage company and have historically had only limited accounting personnel and resources with which to address our internal control procedures.

In anticipation of the implementation of Rules 13a-15(c) of the Securities Exchange Act of 1934 as amended (the "Exchange Act"), also referred to as Section 404 of the Sarbanes-Oxley Act of 2002, we engaged, in 2005, an independent firm of external accountants - a different firm from our independent registered public accounting firm - to complete an in-depth review of our internal accounting procedures and controls. The firm's evaluation was only interim, and did not meet the requirements of Rule 13a-15(c). The independent firm of external accountants made several recommendations which we reviewed and evaluated at that time.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, referred to herein as the Exchange Act) as of October 31, 2005. Based on management's evaluation in 2005, our Chief Executive Officer and Chief Financial Officer concluded that, as of October 31, 2005, our disclosure controls and procedures were (1) not effective, in that they were not designed to ensure that material information relating to us is made known to our Chief Executive Officer and Chief Financial Officer by others within our organization, as appropriate to allow timely decisions regarding required disclosures, and (2) not effective, in that they did not ensure that information required to be disclosed by us in our reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

When our independent registered public accountants audited our financial statements as of and for the year ended October 31, 2005, they identified significant deficiencies in our disclosure controls and procedures. Significant deficiencies noted were that:

- we lacked certain formalized accounting policies and procedures including written procedures for the monthly, quarterly and annual closing of our financial books and records;
- our staff was not always subject to timely review and supervision; and
- security practices over our information technology were not sufficiently robust.

We have been committed to improving and enhancing our disclosure controls and procedures. In connection with the deficiencies described above, we implemented additional controls and procedures commencing in fourth quarter of 2005 and continuing in 2006. The additional controls and enhanced procedures included:

- development of a system of controls including the upgrading of accounting software and the development of formalized software;
- monthly analytical reviews by both the Chief Executive Officer and Chief Financial Officer;
- prompt review of all financial statements and immediate reconciliation of our financial results;
- our Audit Committee met on a quarterly basis to assess our financial performance and to review the progress management has made in upgrading its accounting procedures and controls; and
- interaction of our Audit Committee with our independent registered public accounting firm in 2006 on reporting and control related matters.
- We replaced our previous controller in 2006 with a more experienced individual. Additionally, we engaged an additional experienced person in 2006 to supervise and review the work of our controller and to interact directly with our Chief Financial Officer.

In 2006 our Board of Directors adopted formal disclosure controls, policies and appointed a Chief Information Officer to implement these policies. We believe that the risks cited in 2005 have been appropriately reduced as a result.

The foregoing remedial measures did not materially increase our expenses. With the implementation of the above controls and procedures, we believe that we have significantly improved our disclosure controls and procedures.

Although our management is implementing measures required to remedy the significant deficiencies in our disclosure controls and procedures we have not managed to make these changes effective in their entirety. These control deficiencies are not expected to have any future material impact on our financial statements as we expect that the cost of the measures which we implemented will be offset by reduced legal and accounting fees because we will have more of our own internal staff be responsible for these additional measures at lower rates as opposed to outside accountants. If, however, we fail to continue to maintain adequate controls and procedures, we may not meet the demands that are placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act of 2002 and our business would accordingly face repercussions.

Our stock is subject to the penny stock regulations, which may discourage brokers from effecting transactions in the stock and adversely affect the stock's market price and liquidity.

Our common shares constitute "penny stock" under applicable regulations of the Securities and Exchange Commission. Penny stock is defined as shares of stock that (a) are issued by a company that has less than \$5,000,000 in net tangible assets and has been in business less than three years, by a company that has less than \$2,000,000 in net tangible assets and has been in business for more than three years, or by a company that has average revenues of less than \$6,000,000 for the last three years; (b) have a market price of less than \$5 per share; and (c) are not quoted on the NASDAQ National Stock Market or listed on a U.S. stock exchange. The penny stock regulations impose significant restrictions on brokers who sell penny stock to persons other than established customers and institutional accredited investors. Broker-dealers participating in sales of our stock will be subject to the so called "penny stock" regulations covered by Rule 15c-2 under the Exchange Act. Under the rule, broker-dealers must furnish to all investors in penny stocks a risk disclosure document required by the rule, make a special suitability determination of the purchaser and have received the purchaser's written agreement to the transaction prior to the sale. In order to approve a person's account for a transaction in penny stock, the broker or dealer must (i) obtain information concerning the person's financial situation, investment experience and investment objectives; (ii) reasonably determine, based on the information required by paragraph (i) that the transactions in penny stocks are suitable for the person and that the person has sufficient knowledge and experience in financial matters that the person reasonably may be expected to be capable of evaluating the risks of transactions in penny stock; and (iii) deliver to the person a written statement setting forth the basis on which the broker or dealer made the determination required by paragraph (ii) in this section, stating in a highlighted format that it is unlawful for the broker or dealer to effect a transaction in a penny stock unless the broker or dealer has received, prior to the transaction, a written agreement to the transaction from the person; and stating in a highlighted format immediately preceding the customer signature line that the broker or dealer is required to provide the person with the written statement and the person should not sign and return the written statement to the broker or dealer if it does not accurately reflect the person's financial situation, investment experience and investment objectives, and obtain from the person a manually signed and dated copy of the written statement. Our common shares are subject to the penny stock regulations, which may discourage brokers from effecting transactions in the common shares. This would decrease market liquidity, adversely affect market price and make it difficult for you to use the common shares as collateral.

The rights of our shareholders may differ from the rights typically afforded to shareholders of a U.S. corporation.

We are incorporated under the Business Corporations Act (Ontario), also referred to herein as the OBCA. The rights of holders of our common shares are governed by the laws of the Province of Ontario, including the OBCA, by the applicable laws of Canada, and by our Articles of Incorporation and all amendments thereto, also referred to herein as the Articles, and our By-laws. These rights differ in certain respects from the rights of shareholders in typical U.S. corporations. The principal differences include without limitation the following:

Under the OBCA, we have a lien on any common share registered in the name of a shareholder or the shareholder's legal representative for any debt owed by the shareholder to us. Under U.S. state law, corporations generally are not entitled to any such statutory liens in respect of debts owed by shareholders.

With regard to certain matters, we must obtain approval of our shareholders by way of at least 66~~2~~3% of the votes cast at a meeting of shareholders duly called for such purpose being cast in favor of the proposed matter. Such matters include without limitation: (a) the sale, lease or exchange of all or substantially all of our assets out of the ordinary course of our business; and (b) any amendments to our Articles including, but not limited to, amendments affecting our capital structure such as the creation of new classes of shares, changing any rights, privileges, restrictions or conditions in respect of our shares, or changing the number of issued or authorized shares, as well as amendments changing the minimum or maximum number of directors set forth in the Articles. Under U.S. state law, the sale, lease, exchange or other disposition of all or substantially all of the assets of a corporation generally requires approval by a

majority of the outstanding shares, although in some cases approval by a higher percentage of the outstanding shares may be required. In addition, under U.S. state law the vote of a majority of the shares is generally sufficient to amend a company's certificate of incorporation, including amendments affecting capital structure or the number of directors. Under certain circumstances the board of directors may also have the ability to change the number of directors under U.S. state law.

Pursuant to our By-laws, two persons present in person or represented by proxy and each entitled to vote thereat shall constitute a quorum for the transaction of business at any meeting of shareholders. Under U.S. state law, a quorum generally requires the presence in person or by proxy of a specified percentage of the shares entitled to vote at a meeting, and such percentage is generally not less than one-third of the number of shares entitled to vote.

Under rules of the Ontario Securities Commission, a meeting of shareholders must be called for consideration and approval of certain transactions between a corporation and any “related party” (as defined in such rules). A “related party” is defined to include, among other parties, directors and senior officers of a corporation, holders of more than 10% of the voting securities of a corporation, persons owning a block of securities that is otherwise sufficient to affect materially the control of the corporation, and other persons that manage or direct, to a substantial degree, the affairs or operations of the corporation. At such shareholders’ meeting, votes cast by any related party who holds common shares and has an interest in the transaction may not be counted for the purposes of determining whether the minimum number of required votes have been cast in favor of the transaction. Under U.S. state law, a transaction between a corporation and one or more of its officers or directors can generally be approved either by the shareholders or a majority of the directors who do not have an interest in the transaction. Corporations that are listed on a U.S. securities exchange or are quoted on Nasdaq may also be required to have transactions with officers and directors and other related party transactions reviewed by an audit committee comprised of independent directors.

There is no limitation imposed by our Articles or other charter documents on the right of a non-resident to hold or vote our common shares. However, the Investment Canada Act, also referred to herein as the Investment Act, as amended by the World Trade Organization Agreement Implementation Act, also referred to herein as the WTOA Act, generally prohibits implementation of a reviewable investment by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a “Canadian,” as defined in the Investment Act, unless, after review, the minister responsible for the Investment Act is satisfied that the investment is likely to be a net benefit to Canada. An investment in our common shares by a non-Canadian would be reviewable under the Investment Act if it were an investment to acquire direct control of Micromem, and the value of our assets were CDN \$5.0 million or more. However, an investment in our shares by a national of a country (other than Canada) that is a member of the World Trade Organization or has a right of permanent residence in such a country (or by a corporation or other entity that is a “WTO Investor-controlled entity” pursuant to detailed rules set out in the Investment Act) would be reviewable at a higher threshold of CDN \$223 million in assets, except for certain economic sectors with respect to which the lower threshold would apply. A non-Canadian, whether a national of a WTO member or otherwise, would acquire control of Micromem for purposes of the Investment Act if he or she acquired a majority of our common shares. The acquisition of less than a majority, but at least one-third of our common shares, would also be presumed to be an acquisition of control of Micromem, unless it could be established that Micromem was not controlled in fact by the acquirer through the ownership of voting shares. The United States is a WTO Member for purposes of the Investment Act. Certain transactions involving our common shares would be exempt from the Investment Act, including:

- an acquisition of our common shares if the acquisition were made in connection with the person’s business as a trader or dealer in securities;
- an acquisition of control of Micromem in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and
- an acquisition of control of Micromem by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control of Micromem, through the ownership of voting interests, remains unchanged. Under U.S. law, except in limited circumstances, restrictions generally are not imposed on the ability of non-residents to hold a controlling interest in a U.S. corporation.

U.S. shareholders may not be able to enforce civil liabilities against us.

Micromem is incorporated under the laws of the Province of Ontario. Additionally, a number of our directors and executive officers are non-residents of the U.S., and all or a substantial portion of the assets of such persons are located outside the U.S. As a result, should any investor commence an action in the U.S. against Micromem or its directors or executive officers, Micromem or its directors or officers, as the case may be, may be able to insist that any action against them take place in the jurisdiction of the Province of Ontario. In addition, if an investor were to obtain a

U.S. judgment against Micromem or its directors or executive officers, there is doubt as to the enforceability of such U.S. judgment in Canada.

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We do not anticipate paying dividends.

We have never paid a dividend on our securities and we do not anticipate paying dividends in the foreseeable future.

We may need to issue additional securities which may cause our shareholders to experience dilution.

Our Board of Directors has the authority to issue additional common shares, without par value, also referred to herein as the common shares, or other of our securities without the prior consent or vote of our shareholders. The issuance of additional common shares would dilute the proportionate equity interest and voting power of our shareholders.

The sale of common shares issuable upon exercise of currently outstanding warrants and options could adversely affect our share price.

As of March 9, 2007 we had 4,848,818 common stock purchase warrants outstanding, including 3,142,354 warrants exercisable for common shares being registered hereby, and an aggregate of 10,550,000 outstanding options to purchase common shares, all of which are fully vested. Any future sales of the shares issuable upon exercise of our outstanding warrants and options would have a depressive effect on the market for our common shares, even if our business is doing well.

We depend on key personnel.

Our senior managers and employees are Salvatore Fuda, who serves as the Chairman of the Board of Directors, Joseph Fuda, who serves as our Chief Executive Officer, and Dr. Cynthia Kuper who serves as our Chief Technology Officer. Dr. Harry Ruda, and a number of researchers forming the team that he oversees, are key technical personnel engaged pursuant to research collaboration agreements between us and the University of Toronto. Our success depends on our ability to retain certain of our senior management and key technical personnel and our ability to attract and retain additional highly skilled personnel in the future.

We may be materially affected by global economic and political conditions.

Our ability to generate revenue may be adversely affected by uncertainty in the global economy and could also be affected by unstable global political conditions. Terrorist attacks or acts of war could significantly disrupt our operations and the operations of our future customers, suppliers, distributors, or resellers. We cannot predict the potential impact on our financial condition or our results of operations should such events occur.

We may be materially affected by rapid technological change and evolving industry standards.

Short product life cycles are inherent in high-technology companies due to rapid technological change and evolving industry standards. Our future financial condition and results of operations depend on our ability to respond effectively to these changes. We cannot provide any assurance that we will be able to successfully develop, manufacture, and market innovative new products or adapt our current products to new technologies or new industry standards. In addition, our customers may be reluctant to adopt new technologies and standards or they may prefer competing technologies and standards. Because the technology market changes so rapidly, it is difficult for us to predict the rate adoption of our MRAM technology.

We may be materially affected by risks associated with new product development.

Our new product research and development is complex and requires us to investigate and evaluate multiple alternatives, as well as plan the design and manufacture of those alternatives selected for further development. Our research and development efforts could be adversely affected by hardware and software design flaws, product

development delays, changes in data storage technology, changes in operating systems and changes in industry standards.

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The manufacturing of new products involves integrating complex designs and processes, coordinating with suppliers for parts and components and managing manufacturing capacities to accommodate forecasted demand. Our failure to obtain sufficient quantities of parts and components or other manufacturing delays and constraints could adversely affect our ability to timely introduce new products.

Our operations may be materially affected by the risks associated with developing and protecting intellectual property.

We cannot provide any assurance that we will be able to continue to develop new intellectual property or that we will continue to have it developed for us.

We rely on a combination of U.S. patent, copyright, trademark, and trade secret laws to protect our intellectual property rights. Due to financial constraints, we have decided to not file patent and trademark registration applications with foreign governments and this may expose our technologies to infringement in foreign jurisdictions.

We enter into confidentiality agreements relating to our intellectual property with our employees and consultants.

Despite all of our efforts to protect our intellectual property rights, unauthorized parties may attempt to copy or otherwise obtain or use our intellectual property. Monitoring the unauthorized use of our intellectual property is difficult and we cannot provide assurance that we will be able to adequately protect our intellectual property in the future.

We may be materially affected if we are unable to attract, retain and motivate key employees.

Our future success depends, in large part, on our ability to attract, retain and motivate key employees. We face significant competition for individuals who possess the skills required to design, develop, manufacture, and market our technologies. An inability to successfully attract, retain, and motivate these employees in the future could have an adverse effect on our future operating and financial performance.

The price of our common shares and volume of our common shares may be volatile.

Our shareholders may be unable to sell a significant number of our common shares on the NASD OTC-BB without a significant reduction in the market price of the shares.

Furthermore, there can be no assurance that we will be able to meet the listing requirements of, or achieve listing on, any other stock exchange. The market price of the common shares may be affected significantly by factors such as fluctuations in our operating results, announcements of technological innovations or new products by us or our competitors, action by governmental agencies against us or the industry in general, developments with respect to patents or proprietary rights, public concern as to the safety of products developed by us or others, the interest of investors, traders and others in public companies such as ours and general market conditions. In recent years, the securities markets in the United States and Canada have experienced a high level of price and volume volatility, and the market price of securities of many companies, particularly small capitalization companies, have experienced fluctuations which have not necessarily been related to the operating performance, underlying asset values or business prospects of such companies.

There are foreign exchange risks associated with our company.

Because we have historically raised funding in U.S. dollars, and a significant portion of our costs are denominated in Canadian dollars, our funding is subject to foreign exchange risks. A decrease in the value of the U.S. dollar relative to the Canadian dollar could affect our costs and potential future profitability. We do not currently hold forward

exchange contracts or other hedging instruments to exchange foreign currencies for U.S. dollars to offset potential currency rate fluctuations.

We are attempting on a best efforts basis to make effective a registration statement in connection with unit private placement financings completed in fiscal 2005.

We were successful in securing financing totaling \$1,472,500 through Unit Private Placements in fiscal 2005 at prices ranging from \$0.60 to \$0.75 per Unit. These Units were structured as a common share with a Class A warrant which entitled the investor to acquire an additional common share at the same price. The Class A warrant would expire 12 months after issuance if unexercised. If the Class A warrant was exercised a Class B warrant with identical entitlements would be issued.

We filed a Registration Statement with respect to Unit Private Placements during fiscal 2005. However, we decided to withdraw the Registration Statement prior to October 31, 2005. Our Board of Directors has since approved of the restructuring of the Unit Private Placements as follows:

- In December 2005 the Unit was revised to consist of a common share and a Class A and Class B warrant. The Class A warrant expiry date was extended to June 30, 2006 and the Class B warrant expiry date remained at December 31, 2006. All of the terms and conditions of the Unit Private Placement remained unchanged.
- In June 2006, the expiry date on the Class A warrants was extended to September 30, 2006 on the provisions that one-third of the outstanding Class A warrants were exercised by June 30, 2006. A total of 771,850 Class A warrants were exercised on this basis and the Company realized proceeds of \$485,548. A total of 1,563,484 Class A warrants remained outstanding.
 - In September 2006 the expiry date on the Class A warrants were extended to December 31, 2006.
- In December 2006 all of the outstanding Class A and Class B warrants were re-priced to \$0.50 per warrant and the expiry date was extended to both cases to March 31, 2007.
- In February 2007 the expiry date for all of the outstanding Class A and Class B warrants was extended to June 30, 2007.

All of the other terms and conditions of the Unit Private Placements remain unchanged.

The Company filed an amended Registration Statement in June 2006 and continues to have discussions with the Securities Exchange Commission in an attempt to finalize the Registration Statement. There can be no guarantee that the Registration Statement will be declared effective by the Securities and Exchange Commission. If the filing is not successful, the related Class A and Class B warrants will have trading restrictions imposed for a period of at least 12 months from issue date.

We may have potential unasserted claims for rescission rights in connection with the extension of the Series A Warrants.

In June 2006, the holders of our Series A warrants were given the opportunity to extend such warrants beyond their original expiration date of June 30, 2006. In order to receive an extension of the expiration date of the Series A warrants to September 30, 2006, each warrant holder had to exercise at least 33% of the dollar value of the Series A warrants owned by such holder on or prior to June 30, 2006. The holders of Series A warrants exercised an aggregate of 771,883 Series A warrants resulting in the issuance of 771,883 common shares.

Prior to the dates on which such extension right was granted to, and exercised by, the holders of our Series A warrants, we had filed with the SEC an initial Registration Statement relating to an offering by selling shareholders as described in this prospectus. At that time we were seeking to register the common shares underlying the Series A warrants, although such underlying common shares have since been withdrawn from the Registration Statement. In the course of the SEC's review of the Registration Statement, we received comments indicating the SEC's concern that the extension of the expiration date of the Series A warrants resulted in an offering of new warrants having the September 30, 2006 expiration date. To the extent we commenced a new offering of warrants, the availability of the Registration Statement on the public EDGAR web site may have constituted "general solicitation" in violation of the requirements of Regulation D promulgated under the Securities Act. As a result, such offer and sale may not have been exempt from the registration requirements under the Securities Act, and we may have violated Section 5 of the Securities Act. Due to such potential violations, investors may have a rescission remedy entitling them to reimbursement of the aggregate amount paid upon their partial exercises of the Series A warrants in June 2006, plus statutory interest and fines. The aggregate amount of such potential unasserted claims is approximately \$485,548 plus any applicable statutory interest and fines.

FORWARD LOOKING STATEMENTS

This prospectus includes forward-looking statements. These forward-looking statements are based on current expectations, estimates and projections about our business and the industry in which we operate, management's beliefs, and assumptions made by management. In addition, we may make forward-looking statements in future filings with the SEC and in written material, press releases and oral statements issued by or on behalf of us. Words such as "may," "will," "should," "expects," "anticipates," "intends," "plans," "believes," "seeks" and "estimates," variations on such words and expressions and the negatives thereof are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions which are difficult to predict. Actual results could differ materially from those expressed or forecasted in these forward-looking statements as a result of various factors, including those described in the "Risk Factors" section beginning on page 3. This list of factors is not exclusive and other risks and uncertainties may cause actual results to differ materially from those in forward-looking statements.

All forward-looking statements in this prospectus are based on information available to us on the date hereof. We may not be required to publicly update or revise any forward-looking statements that may be made by us or on our behalf, in this prospectus or otherwise, whether as a result of new information, future events or other reasons. Because of these risks and uncertainties, the forward-looking events and circumstances discussed in this prospectus might not transpire.

PRESENTATION OF FINANCIAL INFORMATION

Our financial statements are all expressed in United States dollars. Assets and liabilities denominated in Canadian dollars or other foreign currencies have been converted into United States dollars at the Noon Buying Rate in New York City for cable transfers in pounds sterling as certified for customs purposes by the Federal Reserve Bank of New York on the date of the applicable financial statement. Transactions that were conducted in Canadian dollars or other foreign currencies have been converted into United States dollars using the average monthly rate of exchange

which rates approximates the rate of exchange prevailing at the date of such transactions. On March 28, 2007, the Noon Buying Rate was U.S.\$1.00 to CDN 1.1579.

Our fiscal year ends on October 31 of each year. Where this prospectus refers to a particular year, this means the fiscal year unless otherwise indicated.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference documents we file with the SEC, which means that we can disclose information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and certain later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the following documents:

- (i) our Annual Report on Form 20-F for the fiscal year ended October 31, 2006, filed with the SEC on February 28, 2007; and
- (ii) our Report on Form 6-K dated March 1, 2007 (filed with the SEC on March 1, 2007).

All annual reports we file with the SEC pursuant to the Exchange Act on Form 20-F after the date of this prospectus and prior to the termination of the offering shall be deemed to be incorporated by reference into this prospectus and to be part hereof from the date of filing of such documents. We may incorporate by reference any Form 6-K subsequently submitted to the SEC by identifying in such Form that it is being incorporated by reference into this prospectus. Any statement made in this prospectus, a prospectus supplement or a document incorporated by reference in this prospectus or a prospectus supplement will be deemed to be modified or superseded for purposes of this prospectus and any applicable prospectus supplement to the extent that a statement contained in an amendment to the registration statement, any subsequent prospectus supplement or in any other subsequently filed document incorporated by reference herein or therein adds, updates or changes that statement. Any statement so affected will not be deemed, except as so affected, to constitute a part of this prospectus or any applicable prospectus supplement.

We shall undertake to provide without charge to each person to whom a copy of this prospectus has been delivered, upon the written or oral request of any such person to us, a copy of any or all of the documents referred to above that have been or may be incorporated into this prospectus by reference, including exhibits to such documents, unless such exhibits are specifically incorporated by reference to such documents. Requests for such copies should be directed to Micromem Technologies Inc., 777 Bay Street, Suite 1910, Toronto, Ontario M5G 2E4, Canada, Attention: Nina Issar, telephone (416) 364-6513.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone else to provide you with different information. This prospectus is an offer to sell or to buy only the securities referred to in this prospectus, and only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or any prospectus supplement is current only as of the date on the front page of those documents. Also, you should not assume that there has been no change in our affairs since the date of this prospectus or any applicable prospectus supplement.

WHERE YOU CAN FIND MORE INFORMATION

We file and submit reports, including annual reports on Form 20-F, and other information with the Securities and Exchange Commission pursuant to the rules and regulations of the SEC that apply to foreign private issuers. You may read and copy any materials filed with the SEC at its Public Reference Room at 100 F Street N.E., Washington, D.C. 20459. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The registration statement of which this prospectus is a part, and other public filings with the SEC, are also available on the website maintained by the SEC at <http://www.sec.gov>.

ENFORCEABILITY OF CIVIL LIABILITIES

Micromem is incorporated under the laws of the Province of Ontario. Additionally, a number of our directors and executive officers are non-residents of the U.S., and all or a substantial portion of the assets of such persons are located outside the U.S. As a result, should any investor commence an action in the U.S. against Micromem or its directors or executive officers, Micromem or its directors or officers, as the case may be, may be able to insist that any action against them take place in the jurisdiction of the Province of Ontario. In addition, if an investor were to obtain a U.S. judgment against Micromem or its directors or executive officers, there is doubt as to the enforceability of such U.S. judgment in Canada.

USE OF PROCEEDS

All of the common shares offered by this prospectus are being offered by the selling shareholders listed in the table commencing on page 19. Although we will receive proceeds from any exercise of outstanding warrants, we will not receive any proceeds from sales of common shares by the selling shareholders. We will pay all of the expenses of the offering, including the expenses of the selling shareholders, other than any underwriters' discounts and commissions and any fees and disbursements of counsel to the selling shareholders. We expect that the selling shareholders will sell their common shares as described under "Plan of Distribution".

DETERMINATION OF OFFERING PRICE

The selling shareholders may offer and sell our common shares on the Over-the-Counter Bulletin Board at prevailing market prices. The selling shareholders may also offer and sell the common shares in privately negotiated transactions at prices other than the market price.

CAPITALIZATION AND INDEBTEDNESS

The following table sets forth, on a Canadian GAAP basis, our capitalization and indebtedness, as of January 31, 2007. This table should be read in conjunction with our consolidated financial statements for the three years ended October 31, 2006, 2005 and 2004 set forth in our Annual Report on Form 20-F for the year ended October 31, 2006.

SHARE CAPITAL	Number of shares	US\$
Authorized		
Preference Shares	2,000,000 special preference shares, redeemable, voting	
Common Shares	Unlimited number of common shares without par value	
Issued and Outstanding		
Preference Shares	Nil	
Common shares	70,191,299	
SHAREHOLDERS' EQUITY		
Common Shares		36,230,615
Contributed surplus		22,740,672
Deficit		(59,422,976)
Total Capitalization		(451,689)

The above table does not reflect \$750,000 of accounts payable and accrued liabilities.

PRICE HISTORY

The following table sets forth the range of high and low closing sale prices for our common shares for the periods indicated, as reported by the Over-the-Counter Bulletin Board. These prices do not include retail mark-ups, markdowns, or commissions. The table below sets forth the high and low sales prices for Common Shares in U.S. Dollars as reported for the periods specified. Our common shares are traded in the United States and are quoted on the Over-the-Counter Bulletin Board under the symbol MMTIF.OB. The common shares are not quoted or listed in Canada.

Fiscal Year Ended	US\$ High	US\$ Low
October 31, 2001	5.28	1.28
October 31, 2002	1.77	0.05
October 31, 2003	0.31	0.05

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October 31, 2004	1.17	0.15
October 31, 2005	0.90	0.65
October 31, 2006	1.33	0.44
Fiscal Year Ended October 31, 2005		
First Quarter	1.129	0.60
Second Quarter	1.01	0.66
Third Quarter	0.85	0.55
Fourth Quarter	0.80	0.55
Fiscal Year Ended October 31, 2006		
First Quarter	0.72	0.47
Second Quarter	1.20	0.44
Third Quarter	1.33	0.68
Fourth Quarter	0.90	0.56
Fiscal Year Ended October 31, 2007		
First Quarter	0.68	0.40
Second Quarter (through March 28, 2007)	0.47	0.36
September 2006	0.82	0.65
October 2006	0.69	0.56
November 2006	0.68	0.57
December 2006	0.57	0.46
January 2007	0.50	0.40
February 2007	0.47	0.39

On March 28, 2007, the closing price of a common share as reported on the Over-the-Counter Bulletin Board was \$0.40 per share.

SHARE CAPITAL

The authorized capital of Micromem consists of an unlimited number of common shares, no par value each, of which 69,191,299 common shares were issued and outstanding as of October 31, 2006, and 2,000,000 special, redeemable, voting preference shares (special shares), none of which were outstanding as of October 31, 2006. The number of special shares that may be issued and outstanding at any time is limited to 500,000.

On January 31, 2007, 70,191,299 common shares were issued and outstanding and no special shares were issued and outstanding. All of our issued common shares were fully paid on those dates.

All of our outstanding common shares and preference shares pursuant to the due authorization of our Board of Directors. Neither the Company nor any of its subsidiaries holds common shares or special shares.

Convertible Securities

Micromem has adopted a stock option plan pursuant to which options are offered to directors, executive officers and employees to purchase common shares at an exercise price equal to or above the market price for the common shares at the date that the options are granted. Since October 31, 2005, the following options were exercised: in January 2006 a director exercised 150,000 options at a price of \$0.30 per share and the Company realized \$45,000 of subscription proceeds; in February and March of 2006 four of our directors each exercised 400,000 options for an aggregate of 1,600,000 options at a price of \$0.30 per share and the Company realized \$480,000 of subscription proceeds from the exercise of such options; in June and July of 2006 several of our directors, officers and employees exercised a total of 1,100,000 options at a price of \$0.30 per share and the Company realized \$329,980 of net cash proceeds; in August 2006, several officers exercised a total of 700,000 options at a price of \$0.30 per share and the Company realized \$210,000 of cash proceeds; and in January 2007, a director exercised 1,000,000 options at a price of \$0.30 per share and the Company realized \$300,000 of cash proceeds.

Since October 31, 2005 we have made the following stock option grants: in November 2005 we granted 50,000 options to purchase common shares to an employee at an exercise price of \$0.72 per share, which options expire in December 2010; in November 2005 we granted 300,000 options to purchase common shares to a new director at an exercise price of \$0.60 per share, which options expire in November 2009; in January 2006 we granted 100,000 options to our Chief Technology Officer at an exercise price of \$0.68 per share, which options expire in January 2011; and in August 2006 we granted an aggregate of 4,600,000 options to officers, directors, employees and consultants of the Company at an exercise price of \$0.80 per share, all of which options expire in July 2011. As of January 31, 2007 an aggregate of 10,550,000 options to purchase common shares issued under the stock option plan were outstanding, of which 800,000 are exercisable at \$0.30 per share and expire in 2009, 2,500,000 are exercisable at \$0.72 per share and expire in 2010, 1,800,000 are exercisable at \$0.65 per share and expire in 2009, 100,000 are exercisable at \$0.91 per share and expire in 2009, 300,000 are exercisable at \$0.80 per share and expire in 2007, 300,000 are exercisable at \$0.60 per share and expire in 2009, 100,000 are exercisable at \$0.68 per share and expire in January 2011, and 4,600,000 are exercisable at \$0.80 per share and expire in 2011.

As of January 31, 2007 there were 4,998,818 common shares issuable upon the exercise of outstanding warrants. These warrants are exercisable as follows: (i) an aggregate of 4,048,818 currently have an exercise price of \$0.50 per share, or such lower amount as the Board of Directors may elect, and expire June 30, 2007 or such later date as the Board of Directors may elect, (ii) an aggregate of 800,000 have an exercise price of \$0.70 per share, or such lower amount as the Board of Directors may elect, and expire June 30, 2007 or such later date as the Board of Directors may elect, and (iii) an aggregate of 150,000 have an exercise price of \$0.50 per share and expire May 31, 2007.

Changes in Share Capital - Fiscal Year Ended October 31, 2005 and subsequent periods

In December 2005 we revised the terms of certain private placements completed in fiscal 2005 in which we received proceeds totaling \$1,472,500 through the sale of units at prices ranging from \$0.60 to \$0.75 per unit. These units consisted of one common share, one Series A warrant which entitled the holder to acquire one common share and one Series B warrant at an exercise price equal to the price of the unit, and one Series B warrant which entitled the holder to purchase one additional common share at an exercise price equal to the price of the unit. The Series A warrants and Series B warrants expired 12 months after issuance if unexercised. Pursuant to agreements entered into in December 2005, the investors in these private placements agreed to a restructuring of the units, and our Board of Directors approved such restructuring on February 15, 2006. Each unit was revised to consist of one common share, one Series A Warrant which entitled the holder to purchase one common share and terminated on June 30, 2006 (unless extended by the Company), and one Series B Warrant which entitled the holder to purchase one common share and terminated on December 31, 2006 (unless extended by the Company). As a result of this restructuring the Series B Warrants are currently outstanding and exercisable without any requirement that the holders must first exercise the Series A Warrants. The Board of Directors may also decrease the exercise price and extend the term of the Warrants as it so elects. The remaining terms of the warrants were unchanged.

In June 2006 the Board of Directors authorized the extension of the expiration date of the Series A Warrants to September 30, 2006, provided that in order to receive such extension each warrant holder had to exercise at least 33% of the dollar value of the Series A Warrants owned by such holder on or prior to the original expiry date of June 30, 2006. Holders of Series A warrants exercised an aggregate of 771,850 Series A warrants resulting in the issuance of 771,850 common shares. We received proceeds of \$485,548 from such warrant exercises.

On September 29, 2006, pursuant to the terms of the Series A warrants the Board of Directors authorized a further extension of the expiration date of such warrants to December 31, 2006.

In December 2006, the Board of Directors authorized changes to the terms of the 1,570,484 outstanding Series A warrants and the 2,342,334 outstanding Series B warrants. Pursuant to the terms of such warrants, the Board of Directors extended the expiration dates of the warrants to March 31, 2007 and reduced the exercise price of the warrants to \$0.50 per share.

In February 2007 the expiration dates of the Series A warrants and Series B warrants were further extended to June 30, 2007, and the expiration date of the 800,000 warrants issued to Corinthian and its designees (which warrants are further described below) was also extended to June 30, 2007; however no change was made to the exercise price of such Corinthian warrants.

In August 2006 we issued an aggregate of 4,600,000 options to certain officers, directors, employees and consultants at an exercise price of \$0.80 per share. These options are fully vested and expire in July 2011 if unexercised.

In January 2006, a director exercised 150,000 options at a price of \$0.30 per share and accordingly the Company realized proceeds of \$45,000. In February and March 2006, several directors exercised a total of 1,600,000 options at a price of \$0.30 per share and accordingly the Company realized proceeds of \$480,000. In June and July of 2006 several of our directors, officers and employees exercised a total of 1,100,000 options at a price of \$0.30 per share and the Company realized \$329,980 of net cash proceeds. In August 2006, several officers exercised a total of 700,000 options at a price of \$0.30 per share and the Company realized \$210,000 of cash proceeds. In January 2007 a director exercised 1,000,000 options at a price of \$0.30 per share and the Company realized \$300,000 of cash proceeds..

In May 2006 we completed a private placement of units to two private investors at a purchase price of \$0.50 per unit. We received an aggregate of \$75,000 in gross proceeds from the sale of 150,000 units to such investors. Each unit consisted of one common share and one warrant which entitles the holder to purchase one common share at an exercise price of \$0.50 until expiry in May 2007.

Changes in Share Capital—Fiscal Year Ended October 31, 2005

In December 2004 we completed a private placement of units to several U.S. investors at a purchase price of US\$0.60 per unit. We received \$617,000 in gross proceeds from the sale of 1,028,334 units. Each unit consisted of one common share and one Series A Warrant. Each Series A Warrant entitled the holder to purchase one common share and one Series B Warrant at an exercise price of \$0.60. Each Series B Warrant entitled the holder to purchase one additional common share at an exercise price of \$0.60 per share. We subsequently revised the terms of this private placement as described below.

During the first quarter of calendar year 2005, we completed a private placement of units to one Canadian investor at a purchase price of US\$0.75 per unit. We received \$10,500 in gross proceeds for the sale of 14,000 units. Each unit consisted of one common share and one Series A Warrant. Each Series A Warrant entitled the investor to purchase one common share and one Series B Warrant at an exercise price of \$0.75. Each Series B Warrant entitled the holder to purchase one additional common share at an exercise price of \$0.75. We subsequently revised the terms of this private placement as described above.

During the first quarter of calendar year 2005, we arranged a private placement of units to several investors at a purchase price of US\$0.65 per unit. We received \$845,000 in gross proceeds for the sale of 1,300,000 units. Each unit consisted of one common share and one Series A Warrant. Each Series A Warrant entitled the holder to purchase one common share and one Series B Warrant at an exercise price of \$0.65. Each Series B Warrant entitled the holder to purchase one additional common share at an exercise price of \$0.65. We subsequently revised the terms of this private placement as described below. In connection with this placement, we issued a financial advisory firm in Switzerland that assisted in this placement, a warrant to purchase 1,000,000 of our common shares. This warrant has expired.

In June 2005 we issued 800,000 warrants to certain parties in consideration of ongoing services. Each such Warrant entitles the holder to purchase one common share at an exercise price of \$0.70 and terminates on December 31, 2006 or such later date as the Board of Directors may elect. Such Warrants were issued in payment of advisory services provided by Corinthian Holdings LLC in connection with the Company's filing of the Registration Statement of which this prospectus is a part. Pursuant to the terms of its agreement with the Company, Corinthian Holdings has directed that a portion of the warrants issuable under the agreement be issued to certain individuals designated by Corinthian.

In February 2005 two Canadian private investors exercised 1,406,250 Series B Warrants resulting in the issuance of 1,406,250 common shares. We received proceeds of \$112,500 from such warrant exercises. In August 2005 these investors exercised an additional 625,000 Series B Warrants resulting in the issuance of 625,000 common shares. We

received proceeds of \$50,000 from such warrant exercises. Such warrants were part of a private placement of 2,031,250 units to these investors which was completed in August 2003. Each unit consisted of one common share and one Series A Warrant which entitled the holder to purchase one common share and one Series B Warrant. The investors had previously exercised all of their 2,031,250 Series A Warrants in August 2004.

In November 2004 and February 2005 two Canadian private investors exercised 100,000 Series A and 300,000 Series B Warrants, resulting in the issuance of 400,000 common shares. We received proceeds of \$44,000 from such warrant exercises. Such warrants were part of a private placement of 300,000 units to these investors which was completed in December 2003. Each unit consisted of one common share and one Series A Warrant which entitled the holder to purchase one common share and one Series B Warrant. The investors had previously exercised 200,000 of their Series A Warrants in October 2004.

During the fiscal year ended October 31, 2005, 1,820,000 common shares were issued in respect of the exercise of outstanding options. We realized proceeds of \$553,600 on the exercise of these options.

Changes in Share Capital—Fiscal Year Ended October 31, 2004

In August 2004 two Canadian private investors exercised 2,031,250 Series A Warrants resulting in the issuance of 2,031,250 common shares and 2,031,250 Series B Warrants. We received proceeds of \$162,500 from such warrant exercises. Such warrants were part of a private placement of 2,031,250 units to these investors which was completed in August 2003. Each unit consisted of one common share and one Series A Warrant which entitled the holder to purchase one common share and one Series B Warrant. Subsequent to the exercise of the Series A Warrants, these investors exercised 1,406,250 of their Series B Warrants in February 2005 and the remaining 625,000 Series B Warrants in August 2005.

In October 2004 two Canadian private investors exercised 200,000 Series A Warrants resulting in the issuance of 200,000 common shares and 200,000 Series B Warrants. We realized proceeds of \$22,000 from such warrant exercises. Such warrants were part of a private placement of 300,000 units to these investors which was completed in December 2003. Each unit consisted of one common share and one Series A Warrant which entitled the holder to purchase one common share and one Series B Warrant. Subsequent to the exercise of the 200,000 Series A Warrants, the investors exercised the balance of their Series A and Series B Warrants in November 2004 and February 2005.

In June 2004 one Canadian private investor exercised 500,000 Series A Warrants, resulting in the issuance of 500,000 common shares and 500,000 Series B Warrants. We realized proceeds of \$40,000 from such warrant exercise. In September 2004 the investor exercised all his Series B Warrants, resulting in the issuance of 500,000 common shares. We received proceeds of \$40,000 from such warrant exercise. Such warrants were part of a private placement of 500,000 units to this investor which was completed in December 2003. Each unit consisted of one common share and one Series A Warrant which entitled the holder to purchase one common share and one Series B Warrant.

During the fiscal year ended October 31, 2004, 5,300,000 common shares were issued in respect of the exercise of outstanding options. We realized proceeds of \$530,000 on the exercise of these options.

Changes in Share Capital—Fiscal Year Ended October 31, 2003

In August 2003 we completed private placements of units to two Canadian private investors at a purchase price of US\$0.08 per unit. We received an aggregate of \$162,500 in gross proceeds from the sale of 2,031,250 units to such investors. Each unit consisted of one common share and one Series A Warrant. Each Series A Warrant entitled the holder to purchase one common share and one Series B Warrant at an exercise price of \$0.08. Each Series B Warrant entitled the holder to purchase one additional common share at an exercise price of \$0.08. The investors exercised all of their 2,031,250 Series A Warrants in August 2004, resulting in the issuance of 2,031,250 common shares and 2,031,250 Series B Warrants, and subsequently exercised 1,406,250 of their Series B Warrants in February 2005 and

the remaining 625,000 Series B Warrants in August 2005.

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In December 2003 we completed private placements of units to two Canadian private investors at a purchase price of US\$0.11 per unit. We received an aggregate of \$33,000 in gross proceeds from the sale of 300,000 units to such investors. Each unit consisted of one common share and one Series A Warrant. Each Series A Warrant entitled the holder to purchase one common share and one Series B Warrant at an exercise price of \$0.11. Each Series B Warrant entitled the holder to purchase one additional common share at an exercise price of \$0.11. The investors exercised 200,000 of their Series A Warrants in October 2004, resulting in the issuance of 200,000 common shares and 200,000 Series B Warrants, and subsequently exercised the balance of their Series A and Series B Warrants in November 2004 and February 2005.

We completed a private placement of units to one Canadian private investor in December 2003 at a purchase price of US\$.08 per unit. We received \$40,000 in gross proceeds from the sale of 500,000 units. Each unit consisted of one common share and one Series A Warrant. Each Series A Warrant entitled the holder to purchase one common share and one Series B Warrant at an exercise price of \$0.08. Each Series B Warrant entitled the holder to purchase one additional common share at an exercise price of \$0.08. The investor exercised all of his 500,000 Series A Warrants in June 2004, resulting in the issuance of 500,000 common shares and 500,000 Series B Warrants, and subsequently exercised the Series B Warrants in September 2004.

For more information on our share capital, options and warrants please see our consolidated financial statements for the three years ended October 31, 2006 beginning on page F-1 of our Annual Report on Form 20-F for the year ended October 31, 2006.

SELLING SHAREHOLDERS

The selling shareholders are offering up to 6,706,071 common shares in connection with this Offering. In June 2005 we filed a preliminary Registration Statement on Form F-3 with respect to 7,827,002 common shares including certain of the shares being offered hereunder. However, we decided to withdraw such Registration Statement in January 2006.

The following table sets forth certain information provided to us by the selling shareholders regarding the common shares beneficially owned by such selling shareholders. To our knowledge, each of the selling shareholders has sole investment power and sole voting power, except where joint ownership is indicated.

COMMON SHARES

Selling Shareholder	Beneficially Owned Before Offering		Beneficially Owned After Offering	
	Number(1)	Number to be Sold(2)	Number	Percent*
Eliza Ayzenberg (3) 10 Torresdale Avenue Toronto ON M2R 3V8 Canada	14,000	14,000	0	0
Dennis Bleifuss (4) 75 Emmett Toronto, ON M6M 5A7 Canada	21,000	16,333	4,667	**
Pamela Calabrese (5) c/o Corinthian Holdings LLC 10 East 53rd Street, 22nd Floor New York, New York 100022	100,000	71,600	28,400	**
Richard Calabrese (6) c/o Corinthian Holdings LLC 10 East 53rd Street, 22nd Floor New York, New York 100022	350,000	166,600	183,400	**
Lawrence Cushman (7) 2901 Fifth Avenue San Diego, CA 92103	380,000	233,000	147,000	**

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Paul M. Egeland (8) 8633 Harrison Circle Bloomington, MN 55437	180,000	116,600	63,400	**
Steven B. Kase MD (9) 75 South Broadway, Ste 350 White Plains, New York 10601	150,000	116,500	33,500	**
OCRA Holding Corporation (10) P.O. Box 5794 Corso Elvezia 4 6901 Lugano, Switzerland	3,000,000	2,330,000	670,000	1.0%

Oliver Nepomuceno (11)	1,700,000	700,000	1,000,000	1.4%
Via Quadrela 10-a 6944 Cureglia Switzerland				
Robert and Nana Sullivan	900,000	233,000	667,000	1.0%
Family Trust dtd 12/30/97 (12) 5920 Chambery Circle Reno, Nevada 89511				
Michael L. Thorrez (13)	515,001	388,334	126,667	**
5000 W. Michigan Ave. Jackson, MI 49201				
VBS, Partnership (14)	200,000	116,500	83,500	**
Attn: Peter Ver Halen 445 Tigertail Road Los Angeles, CA 90049				
Scott A. Ziegler (15)	2,278,050	1,265,000	1,013,050	1.4%
c/o Ziegler, Ziegler & Assoc. LLP 570 Lexington Avenue New York, New York 10022				
Ziegler & Ziegler Profit	275,001	213,584	61,417	**
Sharing Plan (16) c/o Ziegler, Ziegler & Assoc. LLP 570 Lexington Avenue New York, New York 10022				
Corinthian Holdings LLC (17)	150,000	150,000	0	0
10 East 53rd Street, 22nd Floor				

New York, New York
100022

Mitchell Manoff (18)	75,000	75,000	0	0
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c/o Corinthian
Holdings LLC

10 East 53rd Street,
22nd Floor

New York, New York
100022

George Boychuk (19)	50,020	50,020	0	0
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c/o Ziegler, Ziegler &
Assoc. LLP

570 Lexington
Avenue

New York, New York
10022

Andrew Brandt (20)	100,000	100,000	0	0
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777 Bay Street, Suite
1910

Toronto, Ontario
M5G 2E4

Charles Harnick (21)	100,800	100,000	800	**
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777 Bay Street, Suite
1910

Toronto, Ontario
M5G 2E4

David Sharpless (22)	100,000	100,000	0	0
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777 Bay Street, Suite
1910

Toronto, Ontario
M5G 2E4

George A. Kennedy (23)	300,000	150,000	150,000	**
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777 Bay Street, Suite
1910

Toronto, Ontario
M5G 2E4

Total Shares to be Sold	6,706,071			
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* Percentages are based on 70,191,299 common shares that were issued and outstanding as of January 31, 2007 and do not take into account common shares issuable upon exercise of outstanding options or warrants. However in computing the number of shares beneficially owned by each selling shareholder, such selling shareholder has been deemed to beneficially own all securities which such person has the right to acquire within 60 days of the date of this prospectus.

** Less than one percent.

(1) This number assumes that all of the warrants issued to the selling shareholders have been or will be exercised. The number of common shares being offered consists of 3,563,717 common shares and 3,142,354 common shares issuable upon exercise of warrants that are immediately exercisable.

(2) We do not know when or in what amounts the selling shareholders may offer for sale the common shares pursuant to this offering. The selling shareholders may choose not to sell any of the shares offered by this prospectus. Because the selling shareholders may offer all or some of the common shares pursuant to this offering, and because there are currently no agreements, arrangements or undertakings with respect to the sale of any of the common shares, we cannot estimate the number of common shares that the selling shareholders will hold after completion of the offering. For purposes of this table, we have assumed that the selling shareholders will have sold all of the common shares covered by this prospectus upon the completion of the offering but none of any of their other holdings in our company.

(3) The number of common shares being offered consists of (i) 7,000 common shares and (ii) 7,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share.

(4) The number of common shares being offered consists of (i) 9,333 common shares and (ii) 7,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share.

(5) The number of common shares being offered consists of (i) 26,600 common shares, (ii) 20,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per share and (iii) 25,000 common shares issuable upon exercise of warrants that are immediately exercisable at U.S.\$0.70 per share. The securities that are being registered for resale were acquired to be resold in the ordinary course of business. Ms. Calabrese has advised that she does not have any agreements, understandings or arrangements with any other persons, either directly or indirectly, to dispose of the securities.

(6) The number of common shares being offered consists of (i) 66,600 common shares, (ii) 50,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per share and (iii) 50,000 common shares issuable upon exercise of warrants that are immediately exercisable at U.S.\$0.70 per share. The securities that are being registered for resale were acquired to be resold in the ordinary course of business. Mr. Calabrese has advised that he does not have any agreements, understandings or arrangements with any other persons, either directly or indirectly, to dispose of the securities.

(7) The number of common shares being offered consists of (i) 133,000 common shares and (ii) 100,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share.

(8) The number of common shares being offered consists of (i) 66,600 common shares and (ii) 50,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share.

(9) The number of common shares being offered consists of (i) 66,500 common shares and (ii) 50,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share.

(10) The number of common shares being offered consists of (i) 1,330,000 common shares and (ii) 1,000,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per share. Voting and depositive power with respect to such securities is held by Luigi Mameli.

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(11) The number of common shares being offered consists of (i) 400,000 common shares and (ii) 300,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share.

(12) The number of common shares being offered consists of (i) 133,000 common shares and (ii) 100,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share.

(13) The number of common shares being offered consists of (i) 221,667 common shares and (ii) 166,667 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share.

(14) The number of common shares being offered consists of (i) 66,500 common shares and (ii) 50,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share. VBS Partnership is owned and controlled by Peter Ver Halen.

(15) The number of common shares being offered consists of (i) 465,000 common shares, (ii) 350,000 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per share and (iii) 450,000 common shares issuable upon exercise of warrants that are immediately exercisable at U.S.\$0.70 per share. Does not include the number of common shares offered hereby by Ziegler & Ziegler Profit Sharing Plan, for which Mr. Ziegler is the beneficiary. Mr. Ziegler is the principal of Ziegler, Ziegler & Associates LLP, our counsel in connection with this offering.

(16) The number of common shares being offered consists of (i) 121,917 common shares and (ii) 91,667 common shares issuable upon exercise of Series B warrants that are immediately exercisable at U.S.\$0.50 per common share. Scott A. Ziegler is the beneficiary of the Ziegler & Ziegler Profit Sharing Plan and exercises voting and dispositive power with respect to the securities being offered. Does not include the number of common shares offered by Scott A. Ziegler.

(17) The number of common shares being offered consists of 150,000 common shares issuable upon exercise of warrants that are immediately exercisable at U.S.\$0.70 per share. The securities that are being registered for resale were acquired to be resold in the ordinary course of business. Corinthian Holdings has advised that it does not have any agreements, understandings or arrangements with any other persons, either directly or indirectly, to dispose of the securities. Voting and dispositive power with respect to such securities is held by Mitchell Manoff.

(18) The number of common shares being offered consists of 75,000 common shares issuable upon exercise of warrants that are immediately exercisable at U.S.\$0.70 per share. The securities that are being registered for resale were acquired to be resold in the ordinary course of business. Mr. Manoff has advised that he does not have any agreements, understandings or arrangements with any other persons, either directly or indirectly, to dispose of the securities.

(19) The number of common shares being offered consists of 50,020 common shares issuable upon exercise of warrants that are immediately exercisable at U.S.\$0.70 per share. Mr. Boychuk is employed by Ziegler, Ziegler & Associates LLP, our counsel in connection with this offering.

(20) Mr. Brandt is a Director of the Company. The number of common shares being offered consists of 100,000 common shares issued to Mr. Brandt upon exercise of stock options granted to him pursuant to the Micromem Technologies Inc. Directors, Senior Officers and Key Employees Stock Option Plan (the "Plan").

(21) Mr. Harnick is a former Director of the Company. The number of common shares being offered consists of 100,000 common shares issued to Mr. Harnick upon exercise of stock options granted to him pursuant to the Plan.

(22) Mr. Sharpless is a Director of the Company. The number of common shares being offered consists of 100,000 common shares issued to Mr. Sharpless upon exercise of stock options granted to him pursuant to the Plan.

(23) Mr. Kennedy is a former Director of the Company. The number of common shares being offered consists of 150,000 common shares issued to Mr. Kennedy upon exercise of stock options granted to him pursuant to the Plan.

The Board of Directors of the Company reserves the right to extend the term of each of the warrants described above and to reduce the exercise price of such warrants in such manner as they deem reasonable. Except as specifically disclosed in notes (20) through (23) above, none of the selling shareholders holds or has held within the past three years any position or office with us. To our knowledge, none of the selling shareholders has or has had within the past three years any material relationships with us.

PLAN OF DISTRIBUTION

We are registering the common shares on behalf of the selling shareholders. We will bear all costs, expenses and fees in connection with the registration of the common shares offered by this prospectus. The selling shareholders will bear brokerage commissions and similar selling expenses, if any, attributable to the sale of common shares, as well as any fees and disbursements of counsel to the selling shareholders.

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and

- any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify certain of the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

Pursuant to registration rights agreements with certain of the selling shareholders, we have agreed to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by such registration rights agreements have been disposed of pursuant to and in accordance with the registration statement or (2) the date on which such shares may be sold pursuant to Rule 144(k) of the Securities Act.

RECENT DEVELOPMENTS

The following summarizes recent material events relating to our business, including material changes in our affairs that have occurred since October 31, 2006, the end of the most recent fiscal year for which audited financial statements are included in the registration statement of which this prospectus is a part. This discussion should be read in conjunction with the other information included in this prospectus, including "Risk Factors" beginning on page 3. You should also refer to the information contained in the documents incorporated herein by reference, including our Annual Report on Form 20-F for the year ended October 31, 2006 and the audited financial statements contained therein.

In November 2005, Mr. Larry Blue joined our Board of Directors. Mr. Blue was previously employed as Vice President and General Manager of Symbol Technologies Inc. and currently serves as Chief Executive Officer of Hi-G-Tek, Ltd., an RFID company based in Israel that provides products and services that enable real time sensing and monitoring of its clients' assets. Hi-G-Tek, Ltd. is relocating its corporate headquarters from Israel to Rockville, Maryland, where Mr. Blue is based. Mr. Blue holds a Master's degree in Electrical Engineering.

In March 2006, we filed a provisional patent application in the United States for both new and updated developments of our magnetic random access memory technology for applications in aerospace, defense, sensors and RFID applications which use radiation hardened materials.

We realized cash proceeds of \$1,064,980 from the exercise of stock options by certain officers, directors and employees in the 2006 fiscal year. We completed a Unit private placement financing in May 2006 and raised \$75,000 of cash proceeds. In June 2006, we realized \$485,548 of cash proceeds from the exercise of common share purchase warrants by certain investors. In January 2007 we realized \$300,000 cash proceeds from the exercise of stock options.

At our annual meeting of June 27, 2006 the following individuals were elected as directors for the ensuing year: Salvatore Fuda (Chairman), Joseph Fuda (President), David Sharpless (Chair, Audit Committee), Oliver Nepomuceno, Andrew Brandt, Steven Van Fleet and Larry Blue. Messrs. Charles Harnick, George Kennedy, Stephen Fleming and Manoj Pundit stepped down as directors of the Company.

In fiscal 2006 we began to actively pursue strategic development partners for our technology.

Pursuant to our goals relating to our technology, the activity in 2006 reflected a significant shift away from research-oriented tasks and onto commercial development. We have extracted data at the University of Toronto, in the laboratory of professor Harry Ruda, on our single bit prototypes and used that data for marketing purposes in the commercial sector. We have entered into discussions with foundries and fabrications houses, as well as large electronics companies that may be potential customers of the technology.

Through the course of discussions with potential joint development partners, manufacturers and customers we have concluded that we would benefit greatly from the development of a silicon-based technology in addition to our technology on gallium arsenide for niche markets. This transition has required a redesign of our technology without abandoning our core competency and intellectual property base. This has been accomplished and will be the subject of several new patent filings.

We entertained discussions with ONAMI (Oregon Nanoscience and Microelectronics Institute) located in Corvallis, Oregon in the last quarter of 2006. We see great opportunity in the Pacific-Northwest region of the United States for commercial growth as a developing semiconductor company. We see benefit to resources available in other areas of the US as well.

In 2006 we announced that one of the potential customers that we were in discussion with was Omron Corporation of Japan. We also advised that we had initiated discussions with a North American-based company in pursuit of a potential joint development agreement. We have incurred costs in meeting with such parties and in the development of proposals for consideration by such potential partners.

By October 31, 2006, we had expanded our discussions to include other potential joint development partners. In total, nine non-disclosure agreements have been signed with potential development partners.

The above discussions continue. At this stage we plan to further pursue the opportunity to work with the industry fabricators to develop a commercial manufacturing prototype on both gallium arsenide and silicon substrates. This will position us to have more substantive and definitive discussions with our potential joint development partners.

There are no assurances at this stage that any of these discussions will result in the execution of a strategic partnership or other agreement with such parties.

In pursuit of these discussions we engaged an engineering consulting firm based in California to provide assistance in updating and expanding our development and commercialization timetable, including plans to add a silicon-based platform for MRAM applications.

Initial meetings were held with industry fabricators to pursue discussions and plans to expand our development efforts from the University of Toronto to the industrial and commercial marketplace. We are finalizing those discussions with an outlay of funding timelines and milestones. We are doing so in silicon, gallium arsenide and will start up efforts for hardened silicon in the near future.

In June 2006 we expanded our patent portfolio with two new filings.

We also continue to work with the University of Toronto and are now planning the next 12 months of those research and development initiatives.

OFFERING EXPENSES

We will bear all costs, expenses and fees in connection with the registration of the common shares offered by this prospectus. The selling shareholders will bear brokerage commissions and similar selling expenses, if any, attributable to the sale of common shares, as well as any fees and disbursements of counsel to the selling shareholders.

The following table sets forth the estimated expenses payable by us in connection with the offering described in this registration statement. All amounts are subject to future contingencies other than the SEC registration fee.

	\$
Securities and Exchange Commission Registration Fee	994
Printing and Engraving Expenses	5,000
Legal Fees and Expenses	12,500
Accounting Fees and Expenses	5,000
Blue Sky Qualification Fees and Expenses	5,000
Miscellaneous	5,000
Total	33,494

FINANCIAL STATEMENTS

Audited financial statements for the fiscal year ended October 31, 2006 are contained in our Annual Report on Form 20-F for the fiscal year ended October 31, 2006, which is incorporated by reference herein.

EXPERTS

The consolidated financial statements for the year ended October 31, 2006, which are incorporated by reference herein from our Annual Report on Form 20-F for the year ended October 31, 2006, have been incorporated in reliance on the report of Schwartz Levitsky Feldman LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting. The consolidated financial statements for the year ended October 31, 2004, which are included for comparative purposes in our financial statements for the year ended October 31, 2006, are incorporated by reference herein in reliance on the report of Grant Thornton LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

LEGAL MATTERS

Certain legal matters in connection with the common shares offered hereby are being passed upon for us by Chitiz Pathak LLP, our Canadian legal advisors. We are being represented as to matters of U.S. law by Ziegler, Ziegler & Associates LLP, New York, New York, U.S. counsel to the Company. Scott A. Ziegler, a partner of Ziegler, Ziegler & Associates LLP, is one of the selling shareholders named herein and may offer up to 1,265,000 common shares for sale pursuant to this prospectus. George Boychuk, also with Ziegler, Ziegler & Associates LLP, is one of the selling shareholders named herein and may offer up to 50,020 common shares for sale pursuant to this prospectus.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

As described in the registration statement of which this prospectus forms a part, our articles of association and certain provisions of Canadian law contain provisions relating to the ability of our officers and directors to be indemnified by us for costs, charges, expenses, losses and other liabilities which are sustained or incurred in the performance of the officer's or director's duties for us. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the charter provision, by-law, contract, arrangements, statute or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 8. Indemnification of Directors and Officers

Except as hereinafter set forth, there is no provision of the Company's Articles of Incorporation or By-laws, or any contract, arrangement or statute under which any director or officer of the Company is insured or indemnified in any manner against liability which he may incur in his capacity as such.

Our by-laws provide that the Company shall indemnify its directors and officers, its former directors or officers, or a person who acts or acted at the Company's request as a director or officer of a corporate entity of which the Company is or was a shareholder or creditor, and each such person's heirs and legal representatives, against all costs, charges and expense, including any amount paid to settle an action or satisfy a judgment, reasonably incurred by such person in respect of any civil, criminal or administrative action or proceeding to which he is made a party by reason of being or having been a director or officer of the Company or other corporate entity. The Company may also indemnify such persons, with the approval of the court in respect of an action by or on behalf of the Company or other corporate entity to procure a judgment in its favor to which any such person is made a party by reason of being or having been a director or officer of the Company or such corporate entity, against all costs, charges and expenses reasonably incurred by him in connection with such action, if, he acted honestly and in good faith with a view to the best interests of the Company; and in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, any such person may be indemnified if he had reasonable grounds for believing that his conduct was lawful.

Additionally, the Business Corporations Act (Ontario) (the statute under which we were incorporated and we are subsisting), provides that:

(1) A corporation may indemnify a director or officer of the corporation, a former director or officer of the corporation or a person who acts or acted at the corporation's request as a director or officer of a body corporate of which the corporation is or was a shareholder or creditor, and his or her heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by him or her in respect of any civil, criminal or administrative action or proceeding to which he or she is made a party by reason of being or having been a director or officer of such corporation or body corporate, if, (a) he or she acted honestly and in good faith with a view to the best interests of the corporation; and (b) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, he or she had reasonable grounds for believing that his or her conduct was lawful.

(2) A corporation may, with the approval of the court, indemnify a person referred to in clause (1) in respect of an action by or on behalf of the corporation or body corporate to procure a judgment in its favour, to which the person is made a party by reason of being or having been a director or an officer of the corporation or body corporate, against all costs, charges and expenses reasonably incurred by the person in connection with such action if he or she fulfils the conditions set out in clauses (1) (a) and (b).

(3) A person referred to in clause (1) is entitled to indemnity from the corporation in respect of all costs, charges and expenses reasonably incurred by the person in connection with the defense of any civil, criminal or administrative action or proceeding to which he or she is made a party by reason of being or having been a director or officer of the corporation or body corporate, if the person seeking indemnity, (a) was substantially successful on the merits in his or her defense of the action or proceeding; and (b) fulfils the conditions set out in clauses (1) (a) and (b).

(4) A corporation may purchase and maintain insurance for the benefit of any person referred to in clause (1) against any liability incurred by the person, (a) in his or her capacity as a director or officer of the corporation, except where

the liability relates to the person's failure to act honestly and in good faith with a view to the best interests of the corporation; or (b) in his or her capacity as a director or officer of another body corporate where the person acts or acted in that capacity at the corporation's request, except where the liability relates to the person's failure to act honestly and in good faith with a view to the best interests of the body corporate.

(5) A corporation or a person referred to in clause (1) may apply to the court for an order approving an indemnity under this section and the court may so order and make any further order it thinks fit.

(6) Upon an application under clause (5), the court may order notice to be given to any interested person and such person is entitled to appear and be heard in person or by counsel.

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The Company may purchase and maintain insurance for the benefit of the directors or officers of the Company, former directors or officers of the Company or persons who act or acted at the Company's request as a director or officer of a corporate entity of which the Company is or was a shareholder or creditor, and each such person's heirs and legal representatives, against any liability incurred by him, in his capacity as a director or officer of the Company, except where the liability relates to his failure to act honestly and in good faith with a view to the best interests of the Company; or in his capacity as a director or officer of another corporate entity where he acts or acted in that capacity at the Company's request, except where the liability relates to his failure to act honestly and in good faith with a view to the best interests of the body corporate. The Company currently maintains Directors and Officers Liability insurance coverage consistent with applicable law.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Company pursuant to the charter provision, by-law, contract, arrangements, statute or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act will be governed by the final adjudication of such issue.

Item 9. Exhibits

- 4.1 Articles of Incorporation of the Company and amendments thereto in effect as of January 11, 2000 (1)
- 4.2 Articles of Amendment, dated as of October 17, 2001, to the Company's Articles of Incorporation (2)
- 4.3 Articles of Amendment, dated as of June 24, 2002, to the Company's Articles of Incorporation (2)
- 4.4 By-Laws of the Company in effect as of January 11, 2002 (1)
- 4.5 Amendment to the By-Laws of the Company (2)
- 4.6 Form of Subscription Agreement by and among the Company and the Purchasers named therein** (the Company entered into 14 separate Subscription Agreements all substantially similar in form and content to this form of Subscription Agreement)
- 4.7 Registration Rights Agreement between the Company and the Purchasers named therein**
- 4.8 Form of Series A and Series B Warrant Agreement** (the Company entered into 34 separate Series A and Series B Warrant Agreements, all substantially similar in form and content to this form of Warrant Agreement)
- 4.9 Form of Agreement between the Company and the investors named therein restructuring the terms of the Units purchased by such investors** (the Company entered into separate such Agreements with each of the investors, all substantially similar in form and content to this form of Agreement)
- 5.1 Opinion of Chitiz Pathak LLP, counsel to the Company, as to the validity of the common shares**
- 23.1 Consent of Schwartz Levitsky Feldman LLP*
- 23.2 Consent of Grant Thornton LLP**
- 23.3 Consent of Chitiz Pathak LLP (included in Exhibit 5.1)**

* Included herewith

** Previously filed

- (1) Incorporated herein by reference to certain exhibits to the Company's Registration Statement on Form 20-F/A, filed with the Securities and Exchange Commission on January 11, 2000.
- (2) Incorporated herein by reference to certain exhibits to the Company's Annual Report on Form 20-F for the year ended October 31, 2002.

Item 10. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

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(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a) (1)(i), (a) (1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof;

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) If the registrant is a foreign private issuer, to file a post-effective amendment to the registration statement to include any financial statements required by Item 8A of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Exchange Act need not be furnished, provided that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to registration statements on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Exchange Act or Item 3-19 of Regulation S-X if such financial statements and information are contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Form F-3.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby further undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's Annual Report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby further undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Toronto, Canada, on March 28, 2007.

MICROMEM TECHNOLOGIES INC.

By: /s/ Joseph Fuda

Name: Joseph Fuda

Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Joseph Fuda _____ Joseph Fuda	President, Chief Executive Officer and Director	March 28, 2007
/s/ Dan Amadori _____ Dan Amadori	Chief Financial Officer (Principal Financial and Accounting Officer)	March 28, 2007
* _____ Salvatore Fuda	Chairman of the Board of Directors	March 28, 2007
* _____ Andrew Brandt	Director	March 28, 2007
* _____ Larry Blue	Director	March 28, 2007
* _____ Scott A. Ziegler	Authorized Representative in the United States	March 28, 2007

*By: /s/ Joseph Fuda

Joseph Fuda
Attorney - in - fact
(pursuant to the
power of attorney
previously filed
with the SEC)

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