

**FORM 51-102F3
NATIONAL INSTRUMENT 51-102
MATERIAL CHANGE REPORT UNDER SECTION 7.1 OF NI 51-102**

FILED VIA SEDAR

Item 1. Name and Address of Company

Micromem Technologies Inc.
Suite 1910, 777 Bay Street
Toronto, Ontario
M5G 2C8

Item 2. Date of Material Change

A material change took place on January 23, 2012.

Item 3. News Release

On January 23, 2012, a news release in respect of the material change was released by Canada News Wire (CNW).

Item 4. Summary of Material Change

The material change is fully described in the Company's press release which is attached as Schedule "A" and is incorporated herein.

Item 5. Full Description of Material Change

Salvatore Fuda (indirectly by Exclusive Asset Management Inc.) subscribed for 625,000 Units at a subscription price of CDN \$0.10 per Unit. Each Unit is comprised of one common share ("Common Share") and one common share purchase warrant ("Warrant"). Each Warrant may be exercised for one Common Share at an exercise price of CDN \$0.12 for a period of one year.

The approximate percentage of securities, on a fully-diluted basis, that Mr. Fuda held before the private placement is 4.58% and the approximate percentage of securities Mr. Fuda is holding, on a fully-diluted basis, after the private placement is 5.31%.

The sale of securities to Mr. Fuda was reviewed & approved unanimously by the board.

Minority shareholder approval and a valuation is not required as the transaction comprises less than 25% of the issuer's market capitalization.

Item 6. Reliance on Section 7.1(2) or (3) of National Instrument 51-102

The report is not being filed in reliance on section 7.1(2) or (3) of National Instrument 51-102.

Item 7. Omitted Information

No information has been omitted.

Item 8. Executive Officer

Joseph Fuda

Item 9. Date of Report

January 24, 2012

SCHEDULE "A"

Micromem Technologies Inc. Completes Private Placements

Toronto, New York, January 23, 2012: Micromem Technologies Inc. (the "Company") (CNSX: MRM, OTCBB: MMTIF) announces the completion of a non-brokered, arm's length private placement of 145,000 Units and a non-brokered, non-arm's length private placement of 625,000 Units at a subscription price of CDN \$0.10 per Unit for the gross proceeds of CDN \$77,000. Each Unit ("Unit") is comprised of one common share ("Common Share") and one common share purchase warrant ("Warrant"). Each Warrant may be exercised for one Common Share at an exercise price of CDN \$0.12 for a period of one year.

The 625,000 Units was subscribed for by Exclusive Asset Management Inc., which is an insider of the Company. The approximate percentage of securities, on a fully-diluted basis, that Mr. Fuda held before the private placement is 4.58% and the approximate percentage of securities Mr. Fuda is holding, on a fully-diluted basis, after the private placement is 5.31%.

The Company considers the period of notice reasonable in the circumstances as the number and percentage of securities owned by Exclusive Asset Management Inc. will not materially increase as a result of this transaction.

The proceeds from the offering will be used for general working capital purposes and the shares will be subject to resale restrictions

About Micromem and MASTInc

MASTInc is a wholly owned U.S.-based subsidiary of Micromem Technologies Inc., a publicly traded (OTC BB: MMTIF, CNSX: MRM) company. MASTInc responsibly analyzes the specific industry sectors to create intelligent game-changing applications that address unmet market needs. By leveraging its expertise and experience with sophisticated magnetic sensor applications, MASTInc successfully powers the development and implementation of innovative solutions for healthcare/biomedical, natural resource exploration, government, information technology, manufacturing, and other industries. Visit www.micromeminc.com www.mastinc.com.

Safe Harbor Statement

This press release contains forward-looking statements. Such forward-looking statements are subject to a number of risks, assumptions and uncertainties that could cause the Company's actual results to differ materially from those projected in such forward-looking statements. In particular, factors that could cause actual results to differ materially from those in forward looking statements include: our inability to obtain additional financing on acceptable terms; risk that our products and services will not gain widespread market acceptance; continued consumer adoption of digital technology; inability to compete with others who provide comparable products; the failure of our technology; the infringement of our technology with proprietary rights of third parties; inability to respond to consumer and technological demands; inability to replace significant customers; seasonal nature of our business; and other risks detailed in our filings with the Securities and Exchange Commission. Forward-looking statements speak only as of the date made and are not guarantees of future performance. We undertake no obligation to publicly update or revise any forward-looking statements. When used in this document, the words "believe," "expect," "anticipate," "estimate," "project," "plan," "should," "intend," "may," "will," "would," "potential," and similar expressions may be used to identify forward-looking statements.

The CNSX or any other securities regulatory authority has not reviewed and does not accept responsibility for the adequacy or accuracy of this press release that has been prepared by management.

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Listing: NASD OTC-Bulletin Board - Symbol: MMTIF

CNSX - Symbol: MRM

Shares issued: 117,384,740

SEC File No: 0-26005

Investor Contact: Jason Baun, Chief Information Officer; Tel. 416-364-2023