



FOR IMMEDIATE RELEASE

April 21, 2014

**Micromem Technologies Inc. Announces Manufacturing
of Nanoparticle Detection Platform**

Toronto, New York, April 21, 2014: Micromem Technologies Inc. (the “Company”) (CSE: MRM, OTCBB: MMTIF) through its wholly owned subsidiary Micromem Applied Sensor Technologies Inc. (MAST), announces manufacturing has begun for client orders of our nanoparticle detection platform (the “Detector”).

This patented Detector (as shown below) developed by MAST, includes a magnetic nano-sieve mechanism designed to capture, from a flowing stream of oil, gas or other fluids, 20 nanometer magnetic nanoparticles on a target that is illuminated by a laser. Using patented resonance wave technology the concentration of the particles is measured to a repeatable accuracy of better than 1 part per billion. MAST has functionalized chemically the surfaces of the magnetic nanoparticles so as to respond to specific wavelengths of the laser and our technology is unaffected by the opaque nature of oil and gas streams.



The Detector was originally contracted by and designed for the International Oil Company for use in water flood oil well production. It has also gained traction in interwell tracer studies and most recently in environmental applications of tracking carcinogenic chemicals in groundwater. The Company maintains Intellectual Property (IP) control of the Detector.

The present system is designed for two modes in a lab environment. One, a cuvette mode where a small sample from a core flood analyzer effluent stream and the like can be rapidly evaluated for presence of nanoparticles, and; the other, a powerful method of operation that allows for a flow through mechanism from larger field samples. This product was designed for clients that are investigating the growing use of nanoparticles to help solve critical process and environmental problems. Also, MAST is expanding the functionality of this product by converting it for hazardous environments including direct measurement in real time on producing oil well sample lines.

About Micromem and MASTInc

MASTInc is a wholly owned U.S.-based subsidiary of Micromem Technologies Inc., a publicly traded (OTC BB: MMTIF, CSE: MRM) company. MASTInc 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 CSE 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**
CSE - Symbol: MRM

Shares issued: 172,357,549

SEC File No: 0-26005

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