



Pele Mountain Begins Drilling Ni-Cu-PGE Targets at Pigeon River

Symbol: **GEM**

Listing: TSX Venture Exchange

Common Shares Outstanding: 101,843,608

FOR IMMEDIATE RELEASE

May 17, 2010 - Toronto - Pele Mountain Resources Inc. (TSX Venture: GEM) ("**Pele**" or the "**Company**") announced today that drilling is underway at its 270 square-kilometre Pigeon River project, 60 kilometres southwest of Thunder Bay in Northern Ontario. The 5-hole drill program is testing VTEM anomalies covered by overburden or by numerous thin, flat-lying, olivine-rich, diabase sills. The Pigeon River property includes large unexplored magnetic targets, near the basal contact of the Duluth Complex, which have the potential to host nickel ("Ni"), copper ("Cu"), and platinum group element ("PGE") mineralization.

The project lies in the Proterozoic Superior Mid Continent Rift, a geological setting with proven potential to host mafic/ultramafic igneous systems associated with the rifting of the Archean cratons. Recent discoveries in this setting include Kennecott's Ni/Cu/PGE deposits at Eagle (Michigan) and Tamarac (Minnesota) and Magma Metals' PGE deposit northeast of Thunder Bay. Pele's exploration target at Pigeon River is a massive sulphide deposit similar to the Eagle, Tamarac, and Magma deposits which are hosted in an ultramafic body or conduit and disseminated sulfides similar to the high tonnage, low grade Ni/Cu deposits of the nearby Duluth complex.

This news release has been reviewed and approved by Peter Dimmell, P.Geo. (NL, Temp ON), a Pele Director and a Qualified Person under National Instrument 43-101.

About Pele

Pele Mountain Resources has generated and advanced high-quality mineral projects since 1996, discovering and developing the mineral wealth of Northern Ontario. At its Eco Ridge Mine uranium project, Pele is focused on the sustainable development of a safe, secure, and reliable operation near Elliot Lake. At its high-grade Highland gold properties, Pele's goal is to identify mineable, near-surface gold resources. At its 270 square kilometre Pigeon River project, Pele is drilling VTEM / magnetic targets in search of Ni/Cu/PGE deposits. The Company also holds the Ardeen Gold and Sudbury Nickel projects, which are actively explored under option/JV agreements with Coventry Resources Ltd. and Wallbridge Mining Company, respectively. Pele's shares are listed on the TSX Venture Exchange under the symbol "**GEM**".

For further information please contact Al Shefsky, President, at (800) 315-7353, or visit the Pele website at www.pelemountain.com.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release. Some of the statements contained in this release are forward-looking statements, such as estimates and statements that describe Pele's future plans, objectives or goals, including words to the effect that Pele or management expects a stated condition or result to occur. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. The economic viability of the 43-101 mineral resource at Pele's Elliot Lake Project has not yet been demonstrated by a preliminary feasibility study.