



MIDLAND PROVIDES AN UPDATE IN ITS JAMES BAY GOLD PROJECT

Montréal, June 3, 2009. Midland Exploration Inc. (“**Midland**”) (TSX-V: **MD**) is pleased to announce it has received positive interpretation results from its targeted winter exploration program intended to identify geophysical anomalies associated with new gold bearing outcrops found in 2008. Midland 100%-owned James Bay Gold project is currently under the second year of an option agreement with Agnico-Eagle Mines Limited (“**Agnico-Eagle**”). This winter geophysical program has significantly added to the geological understanding of the properties and to the ability to find and trace geophysical features that are associated with gold-bearing outcrops.

A magnetic and electromagnetic survey was initiated on the Eade North and North Whip Showings while a magnetic and induced polarization (IP) program was commenced on the Golden Idol, Lost Grub and Pankot’s Palace gold showings. To date 74 kilometers of line-cutting has been completed over five grids, 73.8 kilometers of magnetometric survey, 29 kilometers of electromagnetic survey (HLEM) and 3.0 kilometers of IP survey. The IP survey totaling 27.2 kilometers is to be completed by early July.

On the Lasalle claim block, the electromagnetic and magnetometric surveys were successful in identifying new HLEM conductors with flanking magnetic anomalies in the vicinity of the North Whip Showing (4.3 g/t Au). On the Golden Idol grid, an extensive narrow magnetic trend has been outlined along which the Golden Idol (9.1 g/t Au), East Golden Idol (0.3 g/t Au) and Center 3 showings (0.6 g/t Au) occur. On the Galinée claim block, the magnetic survey has also imaged a moderate magnetometric anomaly traceable over more than 1,400 meters that seems to coincide with the Pankot’s Palace Showing (5.1 g/t Au).

Midland is also pleased to confirm the presence of several gold anomalies (up to 1.9 g/t Au) from a basal till sampling program completed last summer over the Lasalle and the Galinée claim blocks. The 317 basal till survey outlined at least four clustered gold anomalies and eleven isolated anomalies. Other chemical gold indicator elements have helped to define anomalous trends and new areas to follow up during the next exploration program.

Selected samples are still being processed to identify what rocks or minerals may carry the gold. Preliminary microscopic examinations on heavy mineral concentrates (HMC) reveal visible gold grains in minerals and rock fragments. Macroscopic examination on other re-concentrated HMC shows free gold grains suggesting a proximal source. Midland are very please by these observations that will greatly contribute to orientate the next field season.

2009 Field Program

The up coming 2009 field program is currently being planned and shall begin in early July. The program will include the completion of the IP survey (24 km) initiated last March, the stripping and channel sampling of the best gold occurrences found last year and the geological mapping of the newly cut grids. Additional prospecting will also be conducted on the newly identified geophysical anomalies in conjunction with the prospecting follow-up of the best basal till anomalies. Midland is

very optimistic in identifying new worth following prospects advancing the project closer to drilling stage.

The Midland properties were originally acquired on first order, isolated or combined strong unexplained gold, arsenic and antimony lake-bottom sediment anomalies. Midland's properties are located near the contact between volcanic-plutonic units of the La Grande Subprovince and the metasedimentary units of the Opinaca Subprovince. This contact is recognized as a favourable setting for gold mineralization in the northeast Superior Province. The Goldcorp Eleonore gold deposit (2.3 million ounces of measured and indicated gold resources at an average grade of 10.05 grams per tonne, and 3.0 million ounces of inferred gold resources at an average grade of 12.75 grams per tonne) is also located along this favourable contact.

Terms of the Exploration Agreement

Agnico Eagle may earn 50% of Midland's interest in the property, by spending a total of \$4,500,000 in exploration work and making payments totalling \$300,000 over four years. Midland will be the initial operator until Agnico-Eagle acquires 50% interest in the project. Upon acquiring 50% interest, the company will have the option to increase its undivided interest in the project from 50% to 65% over a period of three years, by solely financing a bankable feasibility study on the James Bay Gold project or by solely assuming all mining operations on the project, earning 1% additional interest for every \$1,000,000 spent on the property (up to 15% by spending \$15 million).

About Midland Exploration

Midland targets the excellent mineral potential and the favourable investment climate of Quebec to make the discovery of new world-class deposits of gold, base metals and uranium. Midland is proud to count on reputable partners such as Agnico-Eagle, Soquem Inc. and Quest Uranium Corporation. Midland prefers to work in partnership and intends to quickly conclude additional agreements in regard to newly acquired properties. Midland is currently evaluating new opportunities and other projects in order to increase the portfolio of the Company.

This press release was prepared by Gino Roger, engineer and Qualified Person as defined by NI 43-101. For further information, please consult Midland's website or contact:

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