



## **MIDLAND BEGINS ITS FIRST DRILLING PROGRAM WITH AGNICO-EAGLE ON ITS JAMES BAY GOLD PROJECT**

Montréal, February 18, 2010. Midland Exploration Inc. (“**Midland**”) (TSX-V: **MD**) is pleased to announce the beginning of a first drilling program on its 100%-owned James Bay Gold Property which is currently under the third year option agreement with Agnico-Eagle Mines Limited (“**Agnico-Eagle**”). This new drilling campaign that will be initiated in the following days, managed by Midland, will consist in a minimum of nine holes totalizing a minimum of 1,600 metres of drilling. The drill program will test new untested gold bearing structures recently found and named respectively the North Whip and Golden Idol showings and also test several geophysical targets situated along strike in the same geological environment. A third year payment of \$60,000 was also received from Agnico-Eagle.

Midland’s James Bay gold 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 (3.15 million ounces of measured and indicated gold resources at an average grade of 11.92 grams per tonne, and 6.25 million ounces of inferred gold resources at an average grade of 12.93 grams per tonne) is also located along this favourable contact.

During 2009, new geophysical surveys which consist of 29 kilometres of electromagnetic survey (HLEM) and 24 kilometres of Induced Polarisation (IP) were completed. These new surveys indicated the presence of several promising untested mineralized related geophysical anomalies and drill ready targets on Midland’s Lasalle and Galinée claim blocks.

During summer 2009, while prospecting on the Lasalle claim block in the North Whip Showing area (up to 4.30 g/t Au in grab sample), three grab samples more than 25 meters apart, east from the North Whip Showing, returned 1.69, 4.08 and 5.96 g/t Au respectively. Trenching was completed over this new gold bearing horizon and the best channel sampling results returned 0.73 g/t Au over 5.0 metres ending with 2.01 g/t Au over 1.0 metre and 2.90 g/t Au over 1.0 metre including 4.75 g/t Au over 0.5 metre. The North Whip mineralized zone coincides with moderate to strong HLEM conductors traceable over more than 400 meters and open in both directions. The 2010 winter drill program will test the lateral and depth extensions of the North whip showing. The style of the mineralization resembles in many points to a deformed and metamorphosed gold-rich volcanogenic massive sulphide deposit. It consists of 0.5 to 2 meters thick concordant semi-massive to massive sulfide lens underlain by a tectonically transposed stockwork feeder zone containing pyrrhotite + pyrite ± chalcopyrite ± arsenopyrite in millimetric stringers. The exhalative semi-massive and massive sulfide lens is overlain by a meter of interlayered centimetric massive magnetite beds and cherts (BIF).

Trenching and channel sampling were also conducted on the Golden Idol Showing (up to 9.20 g/t Au in grab sample) which yields encouraging anomalous gold values with 1.44 g/t Au over 2.0 meters including 2.70 g/t Au over 1.0 meter and 0.54 g/t Au over 2.5 meters including 1.75 g/t Au over 0.5 meter. The mineralization, in the form of finely disseminated arsenopyrite with minor pyrite and chalcopyrite, is hosted in a mafic metavolcanic layer marked by abundant manganese-rich garnet, chlorite and amphibole. Directly associated with the Golden Idol Showing, there is an IP chargeability

anomaly extending on both sides along strike and traceable over more than 700 meters. The winter drilling program will aim the lateral and depth extension of the Golden Idol showing.

#### **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. Agnico-Eagle recently made the third year payment of \$60,000. 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, uranium and REE. Midland is proud to count on reputable partners such as Agnico-Eagle Mines Limited, Osisko Mining Corporation, North American Palladium Limited and Soquem Inc. 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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