

MacDonald Mines Resumes Drilling at its SPJ Project

TORONTO, May 13, 2020 -- MacDonald Mines Exploration Ltd. (TSX-V: BMK) ("MacDonald Mines", "MacDonald" or the "Company") announces that, with strict health protocols in place, it has resumed its 2020 drilling program after temporarily suspending operations due to COVID-19 at its SPJ Project, located 40 km east of Sudbury, Ontario. The Company remains well funded as the Spring 2020 exploration program continues. Results from 2 holes from the winter 2020 drilling program are still pending and will be released when they are received.

The ongoing resource definition drilling program is focused on quantifying the size and grade of the high-grade gold mineralization in the North Pit area of the Scadding Deposit. Results from the 12 holes drilled this winter, prior to the COVID shutdown, indicate that gold mineralization in the North Pit area remains open in all directions and that the thickness of the mineralized zones is consistent at depth. To date, mineralization in the North Pit area has been traced over more than 200 metres down-dip and up to 150 metres laterally along strike ([see May 11, 2020 News Release](#)).

2020 Spring Drilling Program

The first stage of the 2020 drilling program is planned to further expand the footprint of mineralization in the North Pit area that remains open in every direction. Further stages will also test the extension of the zone of high-grade mineralization discovered north of the eastern end of the E-W pit in SM-19-022 ([see Dec. 9, 2019 News Release](#)). Using the results from the recent IP survey (see below), the Company has recently recognized that folds in the sedimentary rocks are an important control on the location and geometry of some the high-grade gold zones formed at the Scadding Deposit. In the E-W pit area, the presence of folds may have contributed to the thickening and stacking of mineralized zones as indicated by the consecutive intersections of 11.0 g/t gold over 4.98 m and 11.5 g/t gold over 13.2 m in hole SM-19-022. This zone of mineralization appears to be associated with a strong near-surface IP response and, as such, measured IP responses will be used to establish further gold mineralization targets for the spring drill program.

IP Survey Results

MacDonald Mines recently completed a high-resolution 3D IP survey over the Scadding Deposit to identify structures that control the emplacement of the gold-bearing iron/chlorite-rich zones. The survey successfully identified the geometry of the mineralized zones to depth (Figure 1). Survey results were also validated by incorporating structural measurements that were taken at surface, using oriented drill core, during the fall/winter drilling program. Integrating the IP survey with the Company's geological knowledge has improved MacDonald's understanding of the structural controls on mineralization at Scadding and will be crucial for optimizing the upcoming drilling program.

Figure 1 is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/19852cab-0403-423e-a62d-21375f47c621>

The structural picture provided by the 3D IP will also be incorporated in our property-wide exploration program to increase the chance of new discoveries outside of the Scadding Deposit. In conjunction with radiometric, magnetic, and gravity surveys completed previously across the SPJ Property, MacDonald was able to identify targets where geophysical anomalies coincide with favourable structural trends, similar to Scadding, that are known to host polymetallic mineralization in the region. The targets will be followed up by mechanical stripping and property-wide prospecting throughout the spring and summer 2020 (Figure 2).

Figure 2 is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/f07e9f8d-5bc2-461b-9c33-ad91d4b2ff6e>

COVID-19 Update

To date, MacDonald has had no suspected nor confirmed cases of COVID-19 and it has implemented specific protocols to protect its employees, contractors and the community where it operates. The Company initiated a work-from-home policy for corporate and non-essential exploration staff. Following the public guidance from the Ontario Government and the Ontario Health Authority, in addition to adhering to a strict hygiene protocols, MacDonald will be operating its drill program with a reduced work force, a rotational work schedule and designated work areas to limit interaction between staff and reduce the chance of virus transmission.

SPJ Property highlights

- 100% ownership
- 18,340 hectares in excellent mining jurisdiction and close to infrastructure
- Hosts the high-grade past producing Scadding Gold Mine
- Evidence of polymetallic mineralization at the Scadding Deposit indicative of IOCG potential
- Significant gold, cobalt, copper, silver, nickel and rare earth showings outside of the Scadding Deposit footprint

Historically, the Scadding Mine produced 914 kilograms of gold from 127,000 tonnes of mineralized material grading 7.2 g/t (OFR 5771). MacDonald's reinterpretation of the geological model at the Scadding Deposit and larger SPJ property indicates that it could host a gold-rich Iron-Oxide-Copper-Gold deposit and that significant gold structures may have been missed by previous operators' drilling campaigns (2009-2011).

Figure 3 is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/1f08fd3f-c450-46ec-b6f2-d9746a8d9208>

Qualified Person

Quentin Yarie, P Geo. is the qualified person responsible for preparing, supervising and approving the scientific and technical content of this news release.

About MacDonald Mines Exploration Ltd.

MacDonald Mines Exploration Ltd. is a mineral exploration company headquartered in Toronto, Ontario focused on gold exploration in Canada. The Company is focused on developing its large SPJ Project in Northern Ontario.

The Company's common shares trade on the TSX Venture Exchange under the symbol "BMK".

To learn more about MacDonald Mines, please visit www.macdonaldmines.com

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