

MacDonald Mines Extends High-Grade Gold Zones to the North and Down Dip, Intersects 3.6 g/t Gold over 6m and 4 g/t Gold over 9.4m Commences Winter Drilling Program

TORONTO, Jan. 20, 2020 -- MacDonald Mines Exploration Ltd. (TSX-V: BMK) ("MacDonald Mines", "MacDonald" or the "Company") announces further results from the diamond drill program completed last fall at its SJP property, 40 kilometres east of Sudbury, Ontario. Hole SM-19-008 intersected 3.6 g/t gold over 6 metres, including 21.5 g/t over 0.8 metres, testing the down-dip continuity of the gold zones of the North Pit area. Hole SM-19-012 intersected 4.0 g/t over 9 metres, including 9.1 g/t gold and 0.02% cobalt over 0.9 metres, testing the northern extension of the Scadding Mine. The results from the upper chlorite zone in hole SM-19-012 in which visible gold was observed, are still pending.

Highlights:

- Hole SM-19-008 successfully extended at depth gold mineralization in the Bristol and Monaco structures in the North Pit area:
 - 3.6 g/t gold over 6 metres, including 21.5 g/t gold over 0.8 metres in the Monaco Structure
- Hole SM-19-012 successfully extended mineralization north of the Scadding Mine:
 - 4.0 g/t gold over 9.4 metres, including 9.1 g/t gold and 0.02% cobalt over 0.9 metres
 - Results for a chlorite zone intersected between 48.6 and 55.3 metres, in which visible gold was observed, remain pending;
 - Hole SM-19-012 was stopped near the upper contact of the Bristol breccia as the significance and geological characteristics of that breccia zone were not known when the hole was drilled.

Quentin Yarie, MacDonald's President and CEO commented: *"The 2019 drilling results continue to significantly expand the extensions and footprint of the high-grade gold mineralization found at the Scadding Deposit. We have confirmed that mineralization extends at depth in the Monaco and Bristol structures in the North Pit area, and we have indications in hole SM-19-008 that gold-cobalt mineralization is also possible in those structures – leading to the possibility of a much larger geological system at work than historically thought. Hole SM-19-012 shows that the mineralized structures mined at the Scadding Mine remain open to the north and that additional step-outs into those structures are able to discover further zones and extensions of high-grade gold mineralization."*

Table 1. Assay highlights from holes SM-19-009 and SM-19-010:

Hole	From (m)	To (m)	Length (m)*	Gold (g/t)	Cobalt (%)	Visible Gold	Structure
SM-19-008	129.1	135.1	6.0	3.6		VG	Monaco
			Including				
	129.2	130.0	0.8	21.5			
	154.1	155.4	1.3	1.3		VG	
	179.1	186.1	7.0	0.4	0.01	VG	Bristol
SM-19-012	105.9	115.3	9.4	4.0			Talladega
			Including				
	109.9	110.8	0.9	9.1	0.02		

* Assays results presented over core length and are estimated to represent >70% true width.

Drilling in the North Pit area

Hole SM-19-008 was testing the Bristol and Monaco structures respectively 70 metres and 75 metres down-dip of SM-19-005 and SM-19-004. SM-19-008 successfully intersected incipient gold-cobalt in the Bristol Structure and high-grade gold mineralization in the Monaco Structure, proving the down-dip continuity of the structures and of mineralization. MacDonald's 2019 drilling has now confirmed that high-grade gold mineralization in the Bristol and Monaco structures in the North Pit area is present over a lateral extension of 125 metres, down-dip over 150 metres and remains open in every direction.

Drilling near the Scadding Mine

Hole SM-19-012 was testing the northern extension of the mineralized structures mined in the Scadding underground mine. Although the results from the upper chlorite zone are still pending, hole SM-19-012 successfully indicated that high-grade gold mineralization extends north of the Scadding Mine, that stacked mineralized structures exist near the Scadding Mine and that additional drilling is likely to continue to expand the footprint of mineralization north of the Scadding underground mine. Hole SM-19-012 was terminated near the upper contact of the Bristol breccia and intersected low grade gold mineralization in the contact zone (0.25 g/t gold over 3 metres, 0.25 g/t gold over 1.09 metres), indicating that gold mineralization persists in the Bristol breccia 80 metres north of SM-19-009.

First phase of the 2020 Drilling Program

Following the very positive results obtained in the North Pit area, the first phase of MacDonald's drilling in 2020 will target

drilling gaps and the lateral and down-dip extensions of the Monaco and Bristol structures in the North pit area to quantify the size and grade of the zones of high-grade gold mineralization.

Although there are many historic holes in the North Pit area, MacDonald's 2019 drilling has shown that the historic drilling results are unreliable – the historic drilling intersections cannot be precisely located and many historic holes were drilled in orientations that significantly minimized the probabilities of intersecting mineralization. Drilling using systematic azimuth and spacing is necessary to adequately define the geometry, continuity and size of the zones of high-grade gold mineralization in the Bristol and Monaco structures in the North Pit area.

On-site Quality Assurance/Quality Control (“QA/QC”) Measures

Drill core samples were transported in security-sealed bags for analyses to Bureau Veritas in Timmins, Ontario. Individual samples are labeled, placed in plastic sample bags and sealed. Groups of samples are then placed into durable rice bags and then shipped. The remaining coarse reject portions of the samples remain in storage if further work or verification is needed.

MacDonald has implemented a quality-control program to comply with best practices in the sampling and analysis of drill core. As part of its QA/QC program, MacDonald inserts external gold standards (low to high grade) and blanks every 20 samples in addition to random standards, blanks, and duplicates. All samples over 10 g/t gold or the samples with abundant visible gold are analysed by 1 kilogram metallic screen.

SPJ Property highlights

- 100% ownership
- 18,860 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).

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

For more information, please contact:

Quentin Yarie, President & CEO, (416) 364-4986, gyarie@macdonaldmines.com

Or Mia Boiridy, Investor Relations and Corporate Development, (416) 364-4986, mboiridy@macdonaldmines.com

Neither 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.

This News Release contains forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “may”, “should”, “expects”, “plans”, “anticipates”, “believes”, “estimates”, “predicts”, “potential” or “continue” or the negative of these terms or other comparable terminology. These statements are only predictions and involve known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.

Although the Company believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information, which only applies as of the date of this news release. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law.

Two photos accompanying this announcement are available at

<https://www.globenewswire.com/NewsRoom/AttachmentNg/48154eb6-d047-4434-9180-6f07ca3ae5a6>

<https://www.globenewswire.com/NewsRoom/AttachmentNg/2f24893a-3337-42b2-84f2-13db457ca204>