

MacDonald Mines Drills 11.10 g/t Gold over 6.14 Metres at its SPJ Property

TORONTO, Oct. 15, 2019 -- MacDonald Mines Exploration Ltd. (TSX-V: BMK) ("MacDonald Mines", "MacDonald" or the "Company") announces results from the third and fourth hole of its on-going exploration program at the Company's SPJ Property, 40 kilometres east of Sudbury, Ontario. Hole SM-19-003 intersected **two (2) distinct gold zones: 11.10 g/t gold over 6.14 metres** and **3.29 g/t gold over 1.8 metres**. Hole SM-19-04 intersected **three (3) zones: 1) a shallow zone containing 5.15 g/t gold over 3 metres, 2) 9.02g/t gold over 1.98 metres** and **3) 3.03 g/t gold over 1.37 metres**. Results to date have now confirmed high-grade gold mineralization, in the North Zone of the Scadding Deposit, over a strike length of 100 metres. Three additional drill holes from this program have been completed, and one hole is on-going. Assay results will be announced as they are received.

Table 1. Highlights from holes SM-19-003 and SM-19-004:

Hole	From (m)	To (m)	Length (m)*	Gold (g/t)	X	Y	Z	Az	Dip
SM-19-003	27.88	34.02	6.14	11.10	529131	5166652	313	245	-48
	Including								
	27.88	30.55	2.67	11.39					
	31.42	33	1.58	23.32					
	127.07	128.87	1.8	3.29					
SM-19-004	11.2	14.2	3.0	5.15	529223	5166681	309	252	-52
	Including								
	11.2	13.2	2.0	7.4					
	73.75	75.12	1.37	3.03					
	82.77	84.75	1.98	9.02					
	83.91	84.75	0.84	20.38					

* Assays results presented over core length and are estimated to represent between 75 and 85% true width. Additional drilling is necessary to define the geometry of the intersected zones of gold mineralization.

Quentin Yarie, MacDonald's President and CEO commented: *"These latest drill results support our model that the gold-rich zones of the Scadding Deposit are much wider than initially anticipated. We now also believe that the mineralized system likely extends to depth, with the intersection in SM-19-006, 300-metres down-hole, of a chlorite breccia zone comparable to the one associated with gold mineralization in holes SM-19-001 to -004."*

The two holes reported were collared 40 metres east and 60 metres west respectively from the previously reported SM-19-001 (see Sept. 26, 2019 News Release) in the North Zone of the Scadding Deposit.

All 4 drill holes reported to date have now traced high-grade gold mineralization over a width of 100 metres (Figure 2). This exceeds the previously known footprint of mineralization in the North Zone of the Scadding Deposit.

Highlights from other completed drill holes include:

- **Flecks of visible gold** were observed in **SM-19-005** at 49 metres, 50 metres, 73 metres, and 106 metres depth.
- **SM-19-006** intersected a hydrothermal breccia zone, 286 to 300 metres down-hole, that has been associated with gold mineralization in holes SM-19-001 through SM-19-004.

Figure 1. is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/a6a3feb3-236d-4c48-8897-b7da6e56b05a>

Figure 2. is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/713605b9-3884-4925-8994-c96288362f5b>

SM-19-003 and SM-19-004 both intersected gold zones composed of iron-rich chlorite with variable disseminated sulfides and specks of visible gold in hole SM-19-003. These holes were drilled as close to perpendicular as possible based on the predicted dip direction of the main chlorite zone forming the North Zone.

Fall 2019 Exploration Program

The objective of the current 2,000-metres drill program is to confirm and expand the high-grade gold zones of the Scadding Deposit. Six (6) holes were planned and drilled in the North Zone of the deposit. Drilling in the North Zone covered a strike length of 100 metres and a down-dip extension of 150 metres. The Zone remains open in all directions.

Following the completion of drilling in the North Zone, MacDonald is now testing the drilling gaps between the North and the Central zones of the Scadding Deposit. The Company will then explore the extension of the high-grade gold zones of the Central Zone.

MacDonald's exploration program on the SPJ Property has also been expanded to include prospecting and trenching in addition to the on-going drill program. The Company started a mechanized stripping program in areas where recent prospecting and surface mapping uncovered zones of chlorite and magnetite alteration that were never drilled before. These zones, located outside the known footprint of the Scadding Deposit, have the potential to expand the mineralized zone.

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
- 17,720 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 recently acquired the high-grade past-producing Scadding Gold Mine and 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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