

MacDonald Mines Extends the Scadding Gold System: Drills 22.4m of 1.5 g/t Gold, Including 6.9 g/t Gold over 1.5m and 5.2 g/t Gold over 1.46m with Significant Copper, Cobalt and REOs

TORONTO, July 08, 2020 -- MacDonald Mines Exploration Ltd. (TSX-V: BMK) ("MacDonald Mines", "MacDonald" or the "Company") reports the results from the last 4 holes of its Spring 2020 drilling program at the Company's SPJ Property, 20 kilometres east of Sudbury, Ontario. Drilling confirmed that a near-surface and broad zone of gold mineralization is present south of the Scadding Deposit, in an area that was never drilled before. Hole SM-20-046, located 200m east of the East-West Pit, intersected 1.5 g/t gold over 22.4m including 6.9 g/t gold over 1.5m and 5.2 g/t gold over 1.46m in a large geophysical anomaly that extends at depth (Figure 1).

The results from hole SM-20-046 indicate that there is an association between the metal factor IP response and gold mineralization at Scadding and that the Company's modelling can be used as a valuable tool to target more gold mineralization in the system. The large anomaly, drilled in hole 46, extends both to the east and south, and appears to become larger at depth. MacDonald believes that the historic pits of the Scadding Mine, with the high-grade gold mineralization the Company intersected previously in each, could represent the apex of that large geophysical anomaly (Figure 2).

Quentin Yarie, MacDonald's President and CEO commented: "*The compilation of IP and other data has given us a targeting tool that is proving to be extremely valuable as we continue to advance exploration at the SPJ Project. Hole SM-20-046, collared 200m east of the East-West Pit, targeted an area that shows a strong geophysical response that was never identified, nor drilled, before. The new and broad gold-bearing zone we intersected, along with the presence of cobalt, copper and REOs further supports our IOCG-type deposit model for Scadding. This first confirmation of the geophysical anomaly indicates that the historic deposit is much larger than its currently defined footprint. Field work to test other prospects on the property is currently underway and a systematic follow-up drill program of this discovery and other priority targets will be undertaken later in the season. This discovery of a new high-grade gold zone in the first new area we've tested this year supports the discovery potential of the SPJ Project beyond the historic Scadding area.*"

Figure 1. Cross-section showing hole SM-20-046 gold intercepts within IP anomaly

<https://www.globenewswire.com/NewsRoom/AttachmentNg/e9409c33-05f4-4d93-93b3-2c6c60e1e17c>

Figure 2. Plan map of reported drill holes

<https://www.globenewswire.com/NewsRoom/AttachmentNg/c3202a84-ceed-423d-ab47-f1bac3253b82>

Table 1. Assay highlights of reported holes

Hole	From (m)	To (m)	Length (m)*	Gold (g/t)	Cobalt (%)	Copper (%)	Nickel (%)	CeO2 (%)	La2O3 (%)
SM-20-042	21.85	23.17	1.32		0.02	0.1	0.08		
	27.07	28.27	1.20					>0.06	0.06
SM-20-046	68.92	70.15	1.23			0.08	0.14		
	79.65	80.63	0.98		0.02	0.12	0.04		
	83.09	88.17	5.08					>0.06	0.07
	110.60	133.00	22.40	1.5	TBD	TBD	TBD	TBD	TBD
	Includes								
	121.10	122.60	1.50	4.8	TBD	TBD	TBD	TBD	TBD
	128.54	130.00	1.46	5.2	TBD	TBD	TBD	TBD	TBD
	131.50	133.00	1.50	6.8	TBD	TBD	TBD	TBD	TBD
SM-20-044	No significant results								
SM-20-045	No significant results								

* Assays results presented over core length.

The zone of gold mineralization discovered in SM-20-046, identified by the integration of the Company's geophysical survey with the geology, was never explored before and is associated with a strong and broad geophysical response (Figure 1). The large geophysical signature suggests that the new gold zone could be much larger in size, both laterally and in depth, and that the mineralized system at Scadding could extend east and south of its currently defined footprint. The spatial overlap of the

metals in the same area suggests a closer proximity to the source of the anomalies.

The gold discovery in SM-20-046 is hosted in the Espanola limestone that was previously considered an unfavourable host for gold mineralization, and below a breccia zone rich in pyrite mineralization with a polymetallic signature. Chlorite alteration in that zone of gold mineralization is visually different from chlorite alteration encountered in the siliciclastic rocks of the Scadding formation elsewhere in the Scadding Deposit.

The integration of the results of an IP survey completed this winter with surface mapping and drilling data was instrumental in targeting hole SM-20-046. Most of the largest and strongest geophysical targets detected so far are located on the edges of the current IP survey and the Company intends to extend the survey, in the coming weeks, in order to identify additional targets to the south and east of the Scadding Deposit. Field work is currently underway to test some of the polymetallic targets identified, at surface, on the extensive land package and drilling will resume once all of this data has been compiled.

Table 2. Attributes of the reported drill holes

Hole No	x	y	z	Az	Dip
SD-20-042	529595	5166410	295.7	246	-45
SD-20-044	529529	5166496	304.2	235	-60
SD-20-045	529492	5166549	309.2	240	-45
SD-20-046	529739	5166442	287.6	222	-44.7

Hole SM-20-042 was testing a chargeability high and resistivity low in the hinge area of a fold identified 60m south of the New Zone-Villeneuve trend. In the contact area between a siliciclastic unit and the Espanola limestone, hole SM-20-042 intersected a wide zone of silicification associated with weak to moderate chlorite alteration with pervasive dissemination of pyrite locally intermingled with minor chalcopyrite. Zones of magnetite alteration were observed in the Espanola limestone just below the contact with the siliciclastic units. This intersection in SM-20-042 forms the apical zone of the deeper intersection in hole SM-20-046 that was collared 150m east of SM-20-042.

Hole SM-20-044 was testing the lateral extension of the zone of high-grade mineralization discovered in the New Zone-Villeneuve trend in SM-19-022, in the eastern extension of the E-W Pit. Hole SM-20-044 intersected a broad zone of weak-moderate to moderate magnetite replacement associated with localized moderate to strong chlorite and chlorite-biotite alteration in the down-dip projection of the mineralization zone intersected in SM-19-022. SM-20-044 indicates that the gold-mineralized iron alteration zone extends down-dip and down-plunge of the intersection in SM-19-022 and remains open for further extension.

Hole SM-20-045 was targeting the lateral extension of one of the axial planes that control the distribution of chlorite alteration and gold mineralization in the New Zone-Villeneuve trend, 100m laterally from the intersection in SM-20-041, where there was an overlapping of high chargeability and low resistivity. It successfully intersected the possible axial plane of the fold in an area that is strongly albited and shows weak to weak-moderate development of chlorite alteration. This suggests the lateral continuity of the axial plane and of the chlorite alteration hosted in the plane.

Hole SM-20-046 was testing a chargeability high and resistivity low in the hinge area of the fold tested in SM-20-042, 150m west. Hole SM-20-046 successfully intersected the hinge area of the fold at the location indicated by the geophysical survey. Gold mineralization in SM-20-046 occurs as a zone of chlorite-biotite alteration hosted in the Espanola limestone that is visually different from the other zones of gold-bearing chlorite alteration. The Espanola limestone, previously considered an unfavourable host for gold mineralization, is now becoming a key target for the potential extension of the Scadding system. In addition, near the hinge area and above the zone of gold mineralization, the hole intersected strong magnetite alteration and a stockwork of pyrite-carbonate-quartz veins with variably developed chlorite alteration haloes containing moderate to strong cobalt, copper, nickel and rare earth element anomalies.

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

Drill core samples were transported in security-sealed bags for analyses to SGS in Sudbury, 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 in case 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
- 18,340 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).

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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