



**MacDonald Mines
Exploration Ltd.**

MacDonald Mines Drills 5.73 g/t Gold over 3.67m, including 17.30 g/t over 1m at Scadding - Continues Drilling Beyond Scadding at the Jovan Property

Toronto, Ontario - February 11, 2021 - MacDonald Mines Exploration Ltd. (TSX-V: BMK) ("MacDonald Mines", "MacDonald" or the "Company") reports assay results from 11 holes of its fall 2020 drilling program on the Scadding Deposit ("Scadding") at its SPJ Project, located 40 km east of Sudbury, Ontario. The Company also reports that it has resumed drilling at the Jovan Property ("Jovan") approximately 9 km east of Scadding. Three holes have been completed to date with assays pending while drilling continues.

Drilling highlights from Scadding:

- Hole SM-20-070 intersected, near-surface, **2.04 g/t gold** over 12.03 metres, including **6.05 g/t gold** over 2.87 metres.
- Hole SM-20-072 intersected **5.73 g/t gold** over 3.67 metres, including **17.30 g/t gold** over 1.00 metre.
- Hole SM-20-077 intersected **7.41 g/t gold** over 1.87 metres, including **17.26 g/t gold** over 0.75 metres, indicating that higher-grade mineralization persists at Scadding very close to surface.

Figure 1. Plan map of reported holes at Scadding

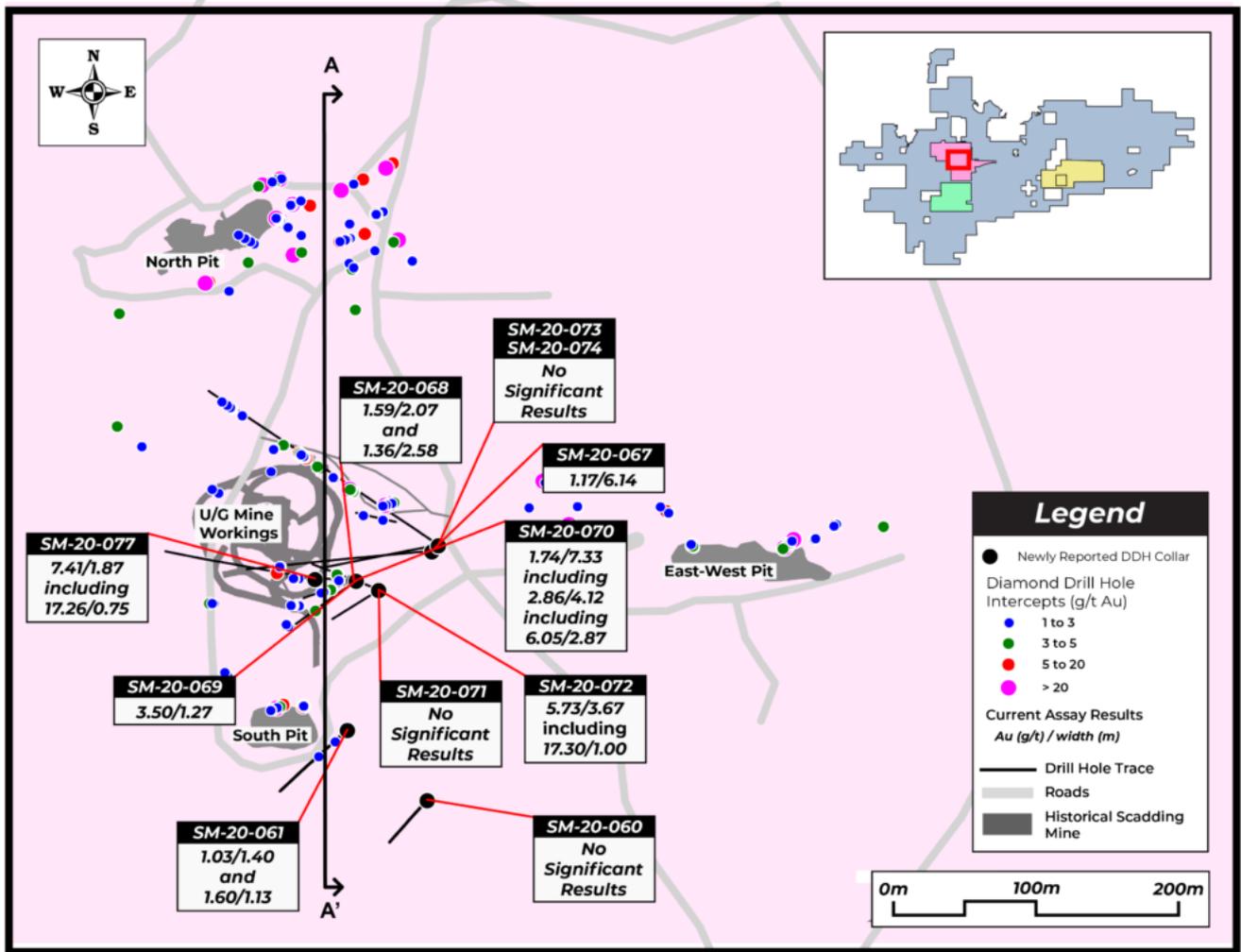
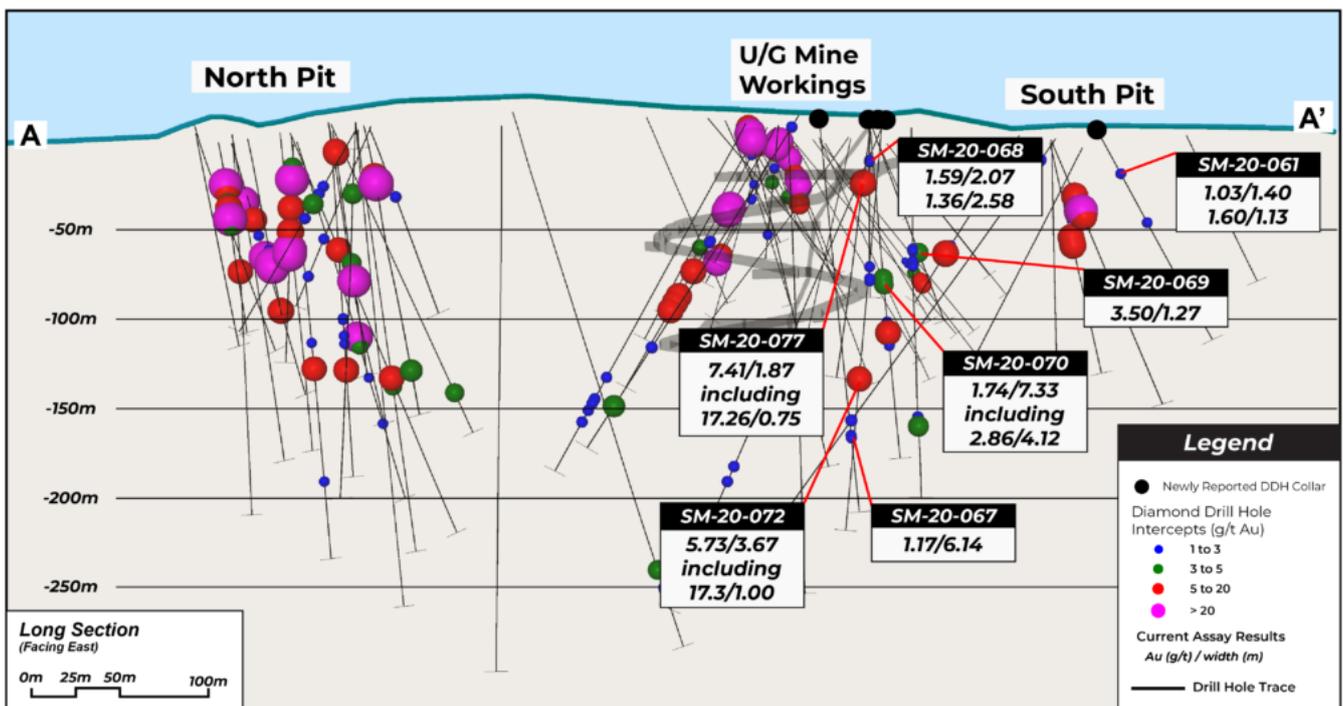


Figure 2. Cross-section of mineralization at Scadding



Quentin Yarie, President and CEO, comments, "Our latest results continue to expand the gold zone discovered between the historical Scadding underground mine workings and the South Pit. Results are also adding to the near-surface, high-grade gold discovery we made late last year. We are also excited by preliminary results from our current drilling program at Jovan, about 9 km east of the Scadding area. At Jovan, we are testing several gold and gold/polymetallic targets identified in 2018 and corroborated by our latest IP data."

Assay results from another six holes drilled in 2020 at Scadding are forthcoming and will be released when they are received.

Table 1. Highlights from reported assays

Hole	From (m)	To (m)	Length* (m)	Gold (g/t)	Visible Gold Observed	Co (wt. %)
SM-20-060	<i>No significant results</i>					
SM-20-061	19.20	20.60	1.40	1.03		
SM-20-067	46.00	47.13	1.13	1.60		
	171.76	177.90	6.14	1.17		
	18.57	20.64	2.07	1.59		
SM-20-068	32.84	35.12	2.28	0.60		
	78.83	81.41	2.58	1.36		
SM-20-069	67.9	69.17	1.27	3.50		
	70.18	77.51	7.33	1.74		0.017
	<i>including</i>					
SM-20-070	73.39	77.51	4.12	2.86		
	93.53	105.56	12.03	2.04		
	<i>including</i>					
	97.71	100.58	2.87	6.05	yes	
SM-20-071	<i>No significant results</i>					
	119.46	123.13	3.67	5.73		
SM-20-072	<i>including</i>					
	119.46	120.46	1.00	17.30		
SM-20-073	<i>No significant results</i>					
SM-20-074	<i>No significant results</i>					
	36.32	38.19	1.87	7.41	yes	
SM-20-077	<i>including</i>					
	37.44	38.19	0.75	17.26	yes	

* Assay results are presented over core length. They are estimated to represent 55-85% of true width.

Table 2. Coordinates of reported drill holes

Hole ID	Easting	Northing	Elevation	Azimuth	Dip	Depth (m)
SM-20-060	529267	5166283	309.1	220	-60	79
SM-20-061	529216	5166332	310.0	225	-55	109

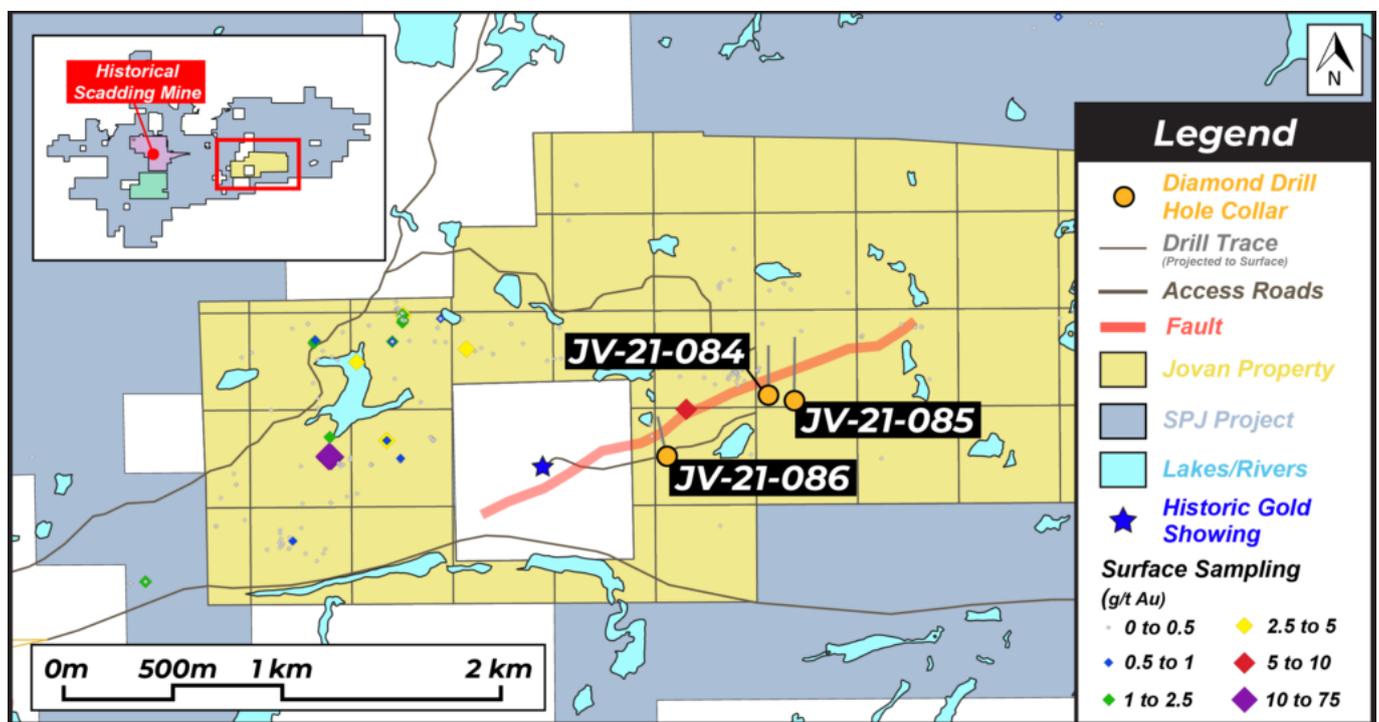
SM-20-067	529271	5166455	310.4	264	-52	211
SM-20-068	529217	5166435	313.8	271	-59	90
SM-20-069	529217	5166435	313.8	233	-60	103
SM-20-070	529217	5166435	313.8	250	-76	157
SM-20-071	529235	5166428	311.2	241	-76	155
SM-20-072	529235	5166428	311.2	291	-75	190
SM-20-073	529276	5166461	310.6	258	-69	229
SM-20-074	529276	5166461	310.6	303	-47	280
SM-20-077	529217	5166435	313.8	277	-46	148

On-Going Winter 2021 Exploration Program

Drilling on the SPJ Project resumed on January 11, 2021, with three of eight holes completed to date on the Jovan property (Figure 3). MacDonald is testing promising exploration targets that include gold, gold-copper, gold-cobalt-copper, and cobalt-copper-nickel prospects, showings, and occurrences.

Quentin Yarie recently recorded a video available on MacDonald's YouTube channel ([click here](#)) that provides an overview of results from the Company's recent IP survey and outlines how this information guides the selection of drilling targets at Jovan. The geophysical data is mapping broad high-sulphide zones similar to the zones that carry high-grade gold at Scadding. These prospective high-metal factor zones are the focus of the current and on-going drilling program.

Figure 3. Location of current drilling at Jovan



Detailed Description of reported holes

Hole SM-20-060 tested a gold and tungsten showing identified, at surface, by the Company's surface mapping program in 2019. Drilling intersected a zone of magnetite alteration at depth but

without significant mineralization.

Hole SM-20-061 tested the southeastern extension of the gold zones intersected in SM-20-062 and SM-20-063 in the South Pit area. Hole SM-20-061 successfully intersected gold mineralization 40 metres south-east of Hole 63 (*see November 10, 2020 News Release*). Additional drilling is required to test for zones of higher-grade gold mineralization in that extension.

Hole SM-20-067 tested the southern extension of the Scadding Deposit. The hole successfully intersected a zone of chlorite alteration in the projected extension of the deposit that did not contain significant gold. Gold mineralization was intersected further down the hole in what could be the deeper extension of the gold zone discovered in SM-20-059 (*see November 19, 2020 News Release*). The deeper zone of mineralization in SM-20-067 is truncated by a diabase dyke.

Hole SM-20-068 tested the lateral and southern extension of the mineralized structure that hosts the historical Scadding underground mine. Hole SM-20-068 successfully intersected two zones of significant chlorite alteration containing low-grade gold mineralization. This hole allowed MacDonald to determine the direction of intense chlorite alteration in the structure and led to discovering zones of higher-grade mineralization in SM-20-070, -072, and -077.

Hole SM-20-069 tested the historical Scadding underground mine structure further south of the intersections in SM-20-068. The hole confirmed the continuity of the structure and showed greater proximity to potentially higher-grade gold mineralization.

Hole SM-20-070 tested the southern and deeper extensions of the structures controlling chlorite alteration and gold mineralization identified in holes SM-20-068 and SM-20-069. It successfully intersected two large zones of chlorite alteration with significant gold mineralization. It showed that high-grade gold mineralization zones likely exist between the historical underground mine and the South Pit of the Scadding Deposit.

Hole SM-20-071 continued to test the deeper and southern extension of the structures controlling chlorite alteration and gold mineralization identified in holes SM-20-069 and SM-20-070. It did not intersect significant zones of chlorite alteration and mineralization. It is possible that these were truncated by a diabase dyke.

Hole SM-20-072 tested the deeper extension of the structures controlling chlorite alteration and gold mineralization identified in holes SM-20-069 and SM-20-070. Hole SM-20-072 successfully intersected the deeper extension of the chlorite alteration zone hosting high-grade gold mineralization discovered in SM-20-070.

Hole SM-20-073 tested the deeper extension of the structures controlling chlorite alteration and gold mineralization identified in hole SM-20-072. Hole SM-20-073 successfully intersected a weak chlorite alteration zone but did not contain significant gold mineralization. Additional drilling laterally from the intersection in SM-20-073 will test if higher-grade gold mineralization is extending at depth.

Hole SM-20-074 tested the northern extension of the structures that control gold mineralization in the historical Scadding underground mine and the down-dip extension of the gold intersections in hole SM-19-012 (*see January 23, 2020 News Release*). It failed to intersect the deeper and northern extension of the targeted structures and did not contain significant mineralization.

Hole SM-20-077 tested the shallower extension of the structures controlling gold mineralization in the southern extension of the historical Scadding underground mine identified in hole SM-20-068.

Hole SM-20-077 intersected a zone of intense chlorite alteration in the projected extension of the structures controlling mineralization that contains high-grade gold.

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

Drill core samples were transported in security sealed bags for analyses to Actlabs in Ancaster, Ontario. Individual samples are labelled, placed in plastic sample bags, and sealed. Groups of samples are then placed into durable rice bags and then shipped. The samples transported to Actlabs were dropped in rice bags with security seals by Manitoulin Transport. 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. A 1 kg metallic screen analyses all samples over 10 g/t gold or the samples with abundant visible gold. Check assays are routinely performed on samples with visible gold to ascertain the mineralization zone’s gold content.

SPJ Project 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 29,000 oz of gold from 127,000 tonnes of mineralized material grading 7.2 g/t (*Gates, 1991*). MacDonald’s reinterpretation of the Scadding Deposit and larger SPJ Project’s geological model indicates that it could host a gold-rich Iron-Oxide-Copper-Gold deposit. Previous operators’ exploration campaigns (2009-2011) likely missed significant gold-bearing structures.

Qualified Person

Quentin Yarie, P Geo., CEO and President of MacDonald Mines and the Qualified Person defined by National Instrument 43-101, has reviewed and approved the technical information in this news release.

COVID-19 Precautions

MacDonald Mines has developed and implemented precautions and procedures that are compliant with Ontario’s health guidelines. Strict protocols are in place to ensure all staff’s safety, thereby reducing the potential for community contact and spreading of the virus.

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 currently 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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Gates, B. I., 1991, Sudbury Mineral Occurrence Study; Ontario Geological Survey, Open File Report 5771, 235 p.

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