

Rockcliff Achieves an Upgrade Ratio of at least 1.4 using Ore Sorting on its Tower & Rail Properties

Sudbury, ON – May 01, 2020 – Rockcliff Metals Corporation (“Rockcliff” or the “Company”) (CSE: RCLF) (FRANKFURT: ROO, WKN: A2H60G) is pleased to announce the results from ore sorting test work indicating high potential for the use of ore sorting to preconcentrate mineralized material from the 100% owned Tower and Rail deposits located in the Flin Flon-Snow Lake region of Manitoba. Ore sorting is a technology that can select rock with mineralization and separate them from rocks without mineralization, thus upgrading the mineral content of the ore delivered to the mill.

Alistair Ross, President and CEO commented, “The ore sorting characterization test work on our Tower and Rail deposits provides exciting upside for our projects on a number of fronts. With an upgrade ratio of at least 1.4 on both Tower and Rail, ore sorting has demonstrated an ability to reject low sulphide waste. The advantages we see include the following:

- Both ores responded similarly to ore sorting and flotation test work, supporting the hub and spoke strategy for utilizing the same mill and sharing capital between successive mines;
- Mining dilution, a serious issue for narrow vein mines, is now a manageable cost by using low cost ore sorting and a low cost-in-mine haulage system, such as Rail-Veyor, that Rockcliff is actively investigating;
- Transport costs from the mine sites to the mill will be substantially decreased by keeping the waste rock at site for backfill purposes;
- Milling costs will be substantially reduced by eliminating the waste rock from the mill stream; and
- Tailings impoundment volumes will be substantially reduced by placing the waste in the mine.

I look forward to seeing these multiple benefits of ore sorting reflected in our combined Tower and Rail PEA which is currently underway.”

Ore Sorting Update for Tower and Rail Deposits

Coarse crushed samples from Rockcliff’s Tower and Rail deposits were selected by hand from five near surface diamond drill holes at Base Met Labs in Kamloops, BC and sent for sorting amenability testing at the Steinert facility in Kentucky. About 400 individual samples were selected to represent both local host rock (waste/dilution) and the mineralized target areas across the two deposits. The calculated grade of the combined fragments by deposit is reasonable for this test work when compared to the current indicated resource grade as seen in Table 1 below:

Table 1: Sorting Feed Grades Compared to Resource Estimates

	Assays (% , g/t)		
	Cu%	Zn%	Aug/t
Tower Indicated Resource	4.69	1.32	0.85
Tower Sorting Sample	5.83	1.09	0.79
Rail Indicated Resource	2.73	0.86	0.80
Rail Sorting Sample	1.53	0.60	0.71

The individual fragments ranged in size from 10 mm to 40 mm and each piece was initially scanned prior to a scoping level bulk sorting demonstration using X-ray transmission (“**XT**”) technology. The advantage of using XT for the ore sort is that this sorting technique requires very little material preparation and is insensitive to moisture or dust coatings on the particles.

A preliminary bulk sorting demonstration was also completed for each deposit. The sorting test was conducted in two stages: first at a high sensitivity to generate a high-grade, low mass concentrate and second at a lower sensitivity to capture the residual sulphide material in the sample. For Tower, over 99% of the metals were recovered to 67% of the mass, and for Rail over 98% of the metals were recovered to 68% of the mass. The results, showing the grades of the concentrate and the rejects, are summarized in the Table 2 below. Metal grades at both deposits were increased by almost 50% from expected mining diluted grades. The mass balances suggest that sulphide material was pulled into the concentrate from the host/dilution rock and that non-sulphide material was rejected to the waste stream from within the mineralized envelope. Sorting technology has strong potential for industrial application to upgrade mined Tower and Rail material prior to transport to the mill. This will benefit both projects through rejection of low value waste or mine dilution and lower overall transportation costs with better mill feed grades all contributing to improved project economics.

Table 2: Ore Sorting Upgrade Results

Tower									
	Mass	Assays (% g/t)				Distribution (%)			
	(%)	Cu	Zn	Au	S	Cu	Zn	Au	S
Combined Accepts	67	8.6	1.62	1.2	17.8	99.3	99.4	99.2	96.9
Rejects	33	0.13	0.02	0.02	1.15	0.7	0.6	0.8	3.1
Total	100	5.83	1.09	0.8	12.3	100	100	100	100
Upgrade Ratio		1.48	1.49	1.46	1.45				

Rail									
	Mass	Assays (% g/t)				Distribution (%)			
	(%)	Cu	Zn	Au	S	Cu	Zn	Au	S
Combined Accepts	68.3	2.2	0.86	1.0	12.2	98.7	98.4	98.6	98.3
Rejects	31.7	0.06	0.03	0.03	0.46	1.3	1.6	1.4	1.7
Total	100	1.52	0.59	0.7	8.5	100	100	100	100
Upgrade Ratio		1.45	1.46	1.46	1.44				

Summarized indicative impacts from the ore sorting test results above on the Tower and Rails deposit are as follows:

Tower Deposit

In-situ Indicated resource grade¹

Diluted mine grade (to ore sorter)

Grade shipped to mill

Feed grade to mill upgrade from diluted mine grade

	Cu	Zn	Au	Ag
tonnes	%	%	g/t	g/t
1,500	4.69	1.32	0.85	23.70
2,000	3.52	0.99	0.64	17.78
1,345	5.19	1.46	0.94	26.20
	1.48x	1.48x	1.47x	1.47x

¹ Grades based on the N.I. 43-101 Tower Resource Resource estimate published March 2, 2020

Rail Deposit

In-situ Indicated resource grade²

Diluted mine grade (to ore sorter)

Grade shipped to mill

Feed grade to mill upgrade from diluted mine grade

	Cu	Zn	Au	Ag
tonnes	%	%	g/t	g/t
1,500	2.73	0.86	0.80	8.90
2,000	2.05	0.65	0.60	6.68
1,363	2.97	0.93	0.87	9.66
	1.45x	1.44x	1.45x	1.45x

² Grades based on the N.I. 43-101 Rail Resource Resource estimate published March 31, 2020

Milling Permits and Metallurgical Studies

Rockcliff has a six year lease on the Bucko Mill and tailings facility located within trucking distance from its portfolio of Snow Lake deposits.

Metallurgical test work has been designed in two phases. The first phase has demonstrated the ability of the ore to respond to concentration by flotation. The second phase will focus on the optimization of the concentration process through the Bucko Mill. This will enable Rockcliff to evaluate the potential of mill upgrades and the economic trade-off of capital required for this optimization. The phase II work schedule has begun and is to be completed as part of the PEA studies for the Rail and Tower properties anticipated to be completed in Q3 2020 in anticipation for a construction decision on one of the two deposits.

QP

Mike Romaniuk P.Eng., VP Projects of Rockcliff, a Qualified Person in accordance with Canadian regulatory requirements as set out in NI 43-101, has read and approved the scientific and technical information that forms the basis for the disclosure contained in this press release.



Visit Rockcliff's YouTube channel with a message from the President and CEO, Alistair Ross. To access the video, please visit: <https://youtu.be/11cJFoZLduE>.

About Rockcliff Metals Corporation

Rockcliff is a well-funded Canadian resource development and exploration company, with a fully functional +1,000 tpd leased processing and tailings facility as well as several advance-staged, high-grade copper and zinc dominant VMS deposits in the Snow Lake area of central Manitoba. The Company is a major landholder in the Flin Flon-Snow Lake greenstone belt which is home to the largest Paleoproterozoic Volcanogenic Massive Sulphide ("VMS") district in the world, hosting mines and deposits containing copper, zinc, gold and silver. The Company's extensive portfolio of properties totals over 4,500 square kilometres and includes eight of the highest-grade, undeveloped VMS deposits in the belt.

For more information, please visit <http://rockcliffmetals.com>

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