



**CANADA NICKEL**  
COMPANY

## **Canada Nickel Announces Additional Positive Metallurgy Results at Crawford Nickel-Cobalt Sulphide Project**

### **Highlights:**

- New metallurgical testing confirms excellent nickel recovery of 52%
- Nickel equally split between high grade concentrate of 37% nickel and standard grade concentrate of 13% nickel

TORONTO, January 25, 2021 - Canada Nickel Company Inc. ("**Canada Nickel**" or the "**Company**") (TSX-V:CNC) (OTCQB: CNIKF) is pleased to announce excellent results from its latest metallurgical testing on its 100% owned Crawford Nickel-Cobalt Sulphide project.

*"The 52% recovery from a higher-grade core sample marks another excellent step forward for the Crawford project. Half of the recovered nickel is in a high grade concentrate at 37%; this result and other testwork demonstrates our ability to deliver 40-50% of the recovered nickel into a 35% nickel concentrate, which would be the highest grade nickel sulphide concentrate in the world, according to Wood Mackenzie. The standard grade concentrate delivered concentrate grade of 13%, in line with typical grades for most nickel sulphide projects. Given the wide range of mineralogy in these types of deposits, the next phases of work will focus on continued flowsheet optimization and developing a broad base of test samples."* said Mark Selby, Chair & CEO.

The locked cycle test ("LCT") conducted at XPS Expert Process Solutions, a Glencore Company ("XPS") was the third successful LCT. The results of the first two LCTs were previously announced in Canada Nickel press release dated December 23, 2020. This first phase of metallurgical testing was designed to confirm initial flowsheet design, which uses a typical nickel sulphide ultramafic flowsheet of two stages of grind-deslime-float with magnetic separation to support recovery of magnetic minerals. Subsequent testing during 2021 will continue to optimize various flowsheet parameters towards a final flowsheet for the feasibility study expected by year-end 2021.

The Crawford Nickel-Cobalt Sulphide Project is located in the heart of the prolific Timmins-Cochrane mining camp in Ontario, Canada, and is adjacent to well-established, major infrastructure associated with over 100 years of regional mining activity. Canada Nickel has launched wholly-owned NetZero Metals Inc. with the aim to develop zero-carbon production of nickel, cobalt, and iron at the Crawford Project.

The Crawford Nickel-Cobalt Sulphide Project is expected to produce among the highest-grade nickel sulphide concentrates in the world, providing maximum flexibility for potential partners and offtake parties, including the battery and stainless steel markets.

**Table 1 – Metallurgy Test Results on Higher-Grade Core (HGC) sample for the Crawford Nickel-Cobalt Sulphide Project, Ontario**

Locked Cycle Test	% Nickel Recovery	Concentrate Grades % Ni		Split of Recovered Nickel	
		High Grade	Standard Grade	High Grade	Standard Grade
HGC-3	52%	37%	13%	46%	54%

Cobalt recovery was approximately 35% for this locked cycle test from sample consisting of heazlewoodite and pentlandite. PGM assays are pending.

Fe and MgO content of the High Grade concentrate was 18% and 7% respectively; Fe and MgO content of the Standard Grade concentrate was 27% and 19%.

Magnetite recovery was not optimized in this test but still yielded 44% Fe recovery to a 45% Fe concentrate.

**Figure 1a, 1b – 2020 Concentrate Grade (% Ni and % Co) for Global Nickel Sulphide Operations/Projects Compared to Crawford Nickel-Cobalt Project (Source: Wood Mackenzie)**



\*Denotes development projects.

† Includes 10 other operations including Raglan South, Leinster, Kevitsa, Jinchuan, Norilsk

‡ Includes 10 other operations including Raglan, Norilsk, Raglan South, Eagle, Vale - Manitoba

## **Phase I Metallurgy Testing**

Metallurgical recovery testing has been ongoing at COREM in Quebec City and XPS in Sudbury. Test work to date has been completed on multiple samples from the Crawford deposit totalling over 700 kg of mineralized material from several large diameter holes drilled during 2020 and selected exploration drill core samples.

The current flowsheet is primarily comprised of two stages of grind-deslime-float. This locked cycle test utilized a coarser primary grind of 150 microns versus 135 microns utilized in the first tests. Other testwork indicates additional ability for further optimization to continue to improve recovery and concentrated grades.

The sample (nickel 0.36%, sulphur 0.21%) selected for this current metallurgical work had nickel and sulphur grades approximately 10% higher than the nickel and sulphur grades in the Main Zone higher-grade core, which is expected to provide the bulk of the feed during the early mine life of the project.

The first phase of testing focused on confirming the overall flowsheet design and leveraged work completed on several other projects. The project is designed to deliver concentrates which are expected to be used in local processing facilities which would take advantage of the NetZero production potential of the project. While the nickel concentrates could be utilized across a wide range of applications, the High Grade concentrate with low Fe and MgO content would be targeted at battery metal consumers, while the lower nickel/higher iron concentrate could be utilized to produce a 25-30% ferronickel product satisfying stainless steel consumers. The high MgO content is not a factor in use for feeds in the stainless steel value chain in which all of the concentrate could be utilized (only nickel value of concentrate realized in this scenario – no cobalt or PGM credits). The MgO content in the High Grade concentrate is at a level which would not incur penalties if processed in traditional sulphide concentrate facilities.

## **Phase II Metallurgy Testing**

Metallurgy testing during 2021 will have two key areas of focus. The first area of focus will be continued optimization of both the recovery and concentrate grades and the amount of grinding and reagents utilized to produce these concentrates. The second area of focus will be continuing ongoing lab work which has highlighted the improved recovery potential from using coarser grind sizes and more aggressive desliming, to recover much of the nickel into a very high grade (nickel > 35%) concentrate as well as the potential to improve nickel recovery from the slimes portion of the material produced which these latest testwork results clearly demonstrate. A broad base of test samples will be developed, which are essential given the wide range of mineralogy in these types of deposits which typically results in nickel recoveries for a specific block ranging from 10-15% to as much as 60%.

## **Qualified Person and Data Verification**

Stephen J. Balch P.Geo. (ON), VP Exploration of Canada Nickel and a "qualified person" as such term is defined by National Instrument 43-101, has verified the data disclosed in this news release, and has otherwise reviewed and approved the technical information in this news release on behalf of Canada Nickel Company Inc.

## **About Canada Nickel Company**

Canada Nickel Company Inc. is advancing the next generation of nickel-cobalt sulphide projects to deliver nickel and cobalt required to feed the high growth electric vehicle and stainless steel markets. Canada Nickel Company has applied in multiple jurisdictions to trademark the terms NetZero Nickel™, NetZero Cobalt™, NetZero Iron™ and is pursuing the development of processes to allow the production of net zero carbon nickel, cobalt, and iron products. Canada Nickel provides investors with leverage to nickel and cobalt in low political risk jurisdictions. Canada Nickel is currently anchored by its 100% owned flagship Crawford Nickel-Cobalt Sulphide Project in the heart of the prolific Timmins-Cochrane mining camp. For more information, please visit [www.canadanickel.com](http://www.canadanickel.com).

## **Cautionary Statement Concerning Forward-Looking Statements**

This press release contains certain information that may constitute "forward-looking information" under applicable Canadian securities legislation. Forward looking information includes, but is not limited to, drill results relating to the Crawford Nickel-Cobalt Sulphide Project, the potential of the Crawford Nickel-Cobalt Sulphide Project, timing of economic studies and resource estimates, strategic plans, including future exploration and development results, and corporate and technical objectives. Forward-looking information is necessarily based upon a number of assumptions that, while considered reasonable, are subject to known and unknown risks, uncertainties, and other factors which may cause the actual results and future events to differ materially from those expressed or implied by such forward-looking information. Factors that could affect the outcome include, among others: future prices and the supply of metals, the future demand for metals, the results of drilling, inability to raise the money necessary to incur the expenditures required to retain and advance the property, environmental liabilities (known and unknown), general business, economic, competitive, political and social uncertainties, results of exploration programs, risks of the mining industry, delays in obtaining governmental approvals, failure to obtain regulatory or shareholder approvals, and the impact of COVID-19 related disruptions in relation to the Company's business operations including upon its employees, suppliers, facilities and other stakeholders. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. All forward-looking information contained in this press release is given as of the date hereof and is based upon the opinions and estimates of management and information available to management as at the date hereof. Canada Nickel disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.

## **For further information, please contact:**

Mark Selby, Chair and CEO

Phone: 647-256-1954

Email: [info@canadanickel.com](mailto:info@canadanickel.com)