

June 15, 2021

TSX.V – GIGA

# Giga Metals to Pursue MHP Production at Turnagain Nickel Project

**Vancouver, B.C.** – Martin Vydra, President of Giga Metals Corp. (**TSX.V: GIGA**) (**OTCQB: HNCKF**) (**FSE: BRR2**) announced today that the Company is investigating expansion of processing at the Turnagain Ni/Co project to include Mixed Hydroxide Precipitate (MHP) production in its next phase of studies. MHP is a chemical form of nickel and cobalt that is experiencing rapid demand increase for its role in the supply chain for lithium ion batteries.

"MHP is quickly establishing itself as the intermediate of choice by the battery industry in the manufacturing of metal salts (NiSO<sub>4</sub> and CoSO<sub>4</sub>) and is being pursued to directly produce precursors and cathode active materials." said Mr. Vydra. "We know from previous testwork and engineering that Turnagain concentrate is amenable to processing into high quality MHP."

Currently MHP is produced globally at four commercial facilities: Ramu, VNC-Goro, Ravensthorpe and Gordes. All of these operations utilize high pressure acid leaching (HPAL) of laterite ores and the current annual global supply capacity is estimated at 125,000 tonnes of Ni contained in MHP.

Additionally, six projects have been announced, five of which are in Indonesia, which are expected to bring MHP production capacity to 400,000 tonnes per year of contained Ni by 2025. This would rival the market of Class I briquettes, powder and oxides, which are currently the major source of raw material for battery grade NiSO<sub>4</sub> production, and implies a compound annual growth rate (CAGR) of 33% in MHP production compared to estimated CAGR of 4% for nickel and 8% for cobalt, according to a McKinsey study.

Historical hydrometallurgical testwork was on Turnagain concentrates of lower grades compared to the current high-grade concentrate as shown in the table below.

	Ni %	Co %	Fe %	S %	Mg %	Cu %		
Historical	4.5 - 10	0.2 - 0.5	20 - 45	10 - 25	5 - 19	0.2 - 0.3		
2020 PEA Concentrate (Table 13.8)	20	1.2	32	26	4.4	0.5		

### **Concentrate Grades for Past Testwork and PEA Results**

As summarized in the 2020 PEA, 17 historical tests indicated high extractions of nickel and cobalt (>97.5%) at both low and high-temperature pressure oxidation conditions, and in both sulphate and chloride systems. Testwork further demonstrated the ability to process

the resulting leach solutions to recover copper and produce high-quality MHP. Due to the superior quality of the solutions from a sulphide pressure oxidation compared to HPAL laterite leach liquors, the MHP produced was a higher-grade product with lower manganese (Mn) content than currently commercially available. Manganese is considered a deleterious element in MHP.

	Ni+Co %	Mg %	Mn %	Cu+Fe %
HPAL Commercial Product (3 Projects)	40-43	1.8 - 2.8	2.8 - 6.1	0.1 - 0.2
HPAL Commercial Product (Average 3 Projects)	41	2.3	4.6	0.14
New Indonesia Project <sup>1</sup> (expected)	44	0.4	7.3	0.27
Turnagain MHP (historical sample)	49	1.4	0.2	<0.1

Mixed Hydroxide (MHP) Grades for Commercial Product and Turnagain Results

"There are more than 30 facilities that are, or are capable of processing MHP to produce NiSO<sub>4</sub> and CoSO<sub>4</sub> in Asia alone and that number is growing," said Mr. Vydra. "We also understand that processing of MHP to produce precursors and cathode active materials (PCAM/CAM) directly, bypassing NiSO<sub>4</sub> and CoSO<sub>4</sub> production, is becoming a focus in an effort to reduce manufacturing steps in the lithium ion battery supply chain and decrease costs. According to Benchmark Mineral Intelligence, MHP payables have been averaging over 87% for nickel and well above 75% for cobalt in 2021. We think that MHP is evolving into a liquid and transparent market that will continue to offer higher payables than smelters. As the only large scale North American greenfields nickel project solely focused on the battery materials market, we feel it is important to demonstrate to investors and potential partners the ability to deliver a product that is increasingly becoming recognized as the standard for raw material supply to this industry."

On behalf of the Board of Directors,

"Martin Vydra"

## PRESIDENT, GIGA METALS CORPORATION Tel – 604-681-2300

# **Qualified Persons**

The technical content of this news release has been prepared and reviewed by Lyle Trytten, P.Eng., a Qualified Person under NI 43-101 standards.

### About Giga Metals Corporation

Giga Metals Corporation is focused on metals critical to modern batteries, especially those used in Electric Vehicles and Energy Storage. The Company's core asset is the Turnagain Project, located in northern British Columbia, which contains one of the few significant undeveloped sulphide nickel and cobalt resources in the world. Turnagain is the only undeveloped Canadian nickel project of this scale that is focussed on the battery market rather than the steel market.

<sup>&</sup>lt;sup>1</sup> High pressure acid leaching: a newly introduced technology in Indonesia; Gultom T and Sianipar A – Harita Nickel; IOP Conf Ser: Earth Environ Sci; **413** 012015 (2019)

#### **Forward-looking Statements**

Certain statements in this news release are forward-looking statements, which reflect the expectations of management regarding the Turnagain Project. Forward-looking statements consist of statements that are not purely historical, including any statements regarding beliefs, plans, expectations or intentions regarding the future. Such statements include, but are not limited to, statements with respect to the future financial or operating performance of the Company and its mineral projects, the estimation of mineral resources and mineral prices, the payabilities of Mixed Hydroxide Precipitates, steps to be taken towards commercialization of the resource, the timing and amount of estimated future production and capital, operating and exploration expenditures. Such statements are subject to risks and uncertainties that may cause actual results, performance or developments to differ materially from those contained in the statements. No assurance can be given that any of the events anticipated by the forward-looking statements will occur or, if they do occur, what benefits the Company will obtain from them. These forward-looking statements reflect management's current views and are based on certain expectations, estimates and assumptions which may prove to be incorrect, including the list of additional work prior to requisitioning a Prefeasibility study, and statements relating to future exploration and development of the Project and mineral resource and mineral reserve estimations relating to the Project. A number of risks and uncertainties could cause our actual results to differ materially from those expressed or implied by the forward-looking statements, including: (1) the mineral resource estimates relating to the Project could prove to be inaccurate for any reason whatsoever, (2) Giga is unable to finance the Project, (3) prices for nickel and cobalt or project costs could differ substantially and make any commercialization uneconomic, (4) inferred and indicated resources may not materialize, (5) permits, environmental opposition, government regulation, cost overruns or any of many other factors may prevent the Company from commercializing the Turnagain Project, (6) additional but currently unforeseen work may be required to advance to the pre-feasibility stage, and (7) even if the Project goes into production, there is no assurance that operations will be profitable. These forward-looking statements are made as of the date of this news release and, except as required by applicable securities laws, the Company assumes no obligation to update these forward-looking statements, or to update the reasons why actual results differed from those projected in the forwardlooking statements. Additional information about these and other assumptions, risks and uncertainties are set out in the "Risks and Uncertainties" section in the Company's most recent MD&A filed with Canadian security regulators.

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