

TSX.V: GIGA | OTCQX: HNCKF | FSE: BRR2



***Battery Metals for a Clean Energy Future***

DECEMBER 8, 2021

[www.gigametals.com](http://www.gigametals.com)

# Disclaimer

*This presentation ("Presentation") is being issued by Giga Metals Corporation (the "Company" or "Giga Metals") for information purposes only. Reliance on this Presentation for the purpose of engaging in any investment activity may expose an individual to a significant risk of losing all of the property or other assets invested. Technical information in this presentation has been approved by Lyle Trytten, P.Eng., a Qualified Person as defined by NI 43-101. Financial modelling used herein is based on the results of the [Preliminary Economic Assessment \(PEA\)](#) as amended Feb 3, 2021 authored by Hatch Ltd, a global engineering firm. The PEA includes the use of inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. The study is preliminary in nature and there is no assurance the mining, metal production or cash flow scenarios outlined in this report would ever be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability.*

## **Forward looking statements**

*Certain statements in this Presentation 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, steps to be taken towards commercialization of the resource, the timing and amount of estimated future production and capital, operating and exploration expenditures, and the expectation that the risk level is lower than some other mining projects; that our project is similar in many ways and in some ways favourably comparable to other nickel projects; that battery companies will use much more nickel in future; that a price premium could accrue to a nickel mine that was genuinely carbon neutral; and that we can produce nickel with low net carbon emissions. 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 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 batteries may not in future depend on nickel (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, (7) risk may be higher than expected for a number of reasons, some foreseeable and others unforeseeable such as indigenous land claims, natural disaster, and many other possibilities; (8) despite our expectations that we are comparable to other nickel projects, on closer examination and upon project start-up we may find that our expected comparisons were not valid; and (9) even if the Project goes into production, there is no assurance that operations will be profitable or that we can reduce carbon emissions compared to other producers. These forward-looking statements are made as of the date of this Presentation 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 forward-looking 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.*

# About Giga Metals

📈 Giga Metals is a TSX.V & OTCQX listed junior mining company

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🚗 World is in critical need of nickel to meet global battery demand

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⚒️ Objective: build a **37,000 t/y year nickel** operation

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🍁 Owns **100% of the Turnagain nickel and cobalt deposit**

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🤝 Seeking strategic partners to advance the project

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📄 Updated Preliminary Economic Assessment (PEA) models

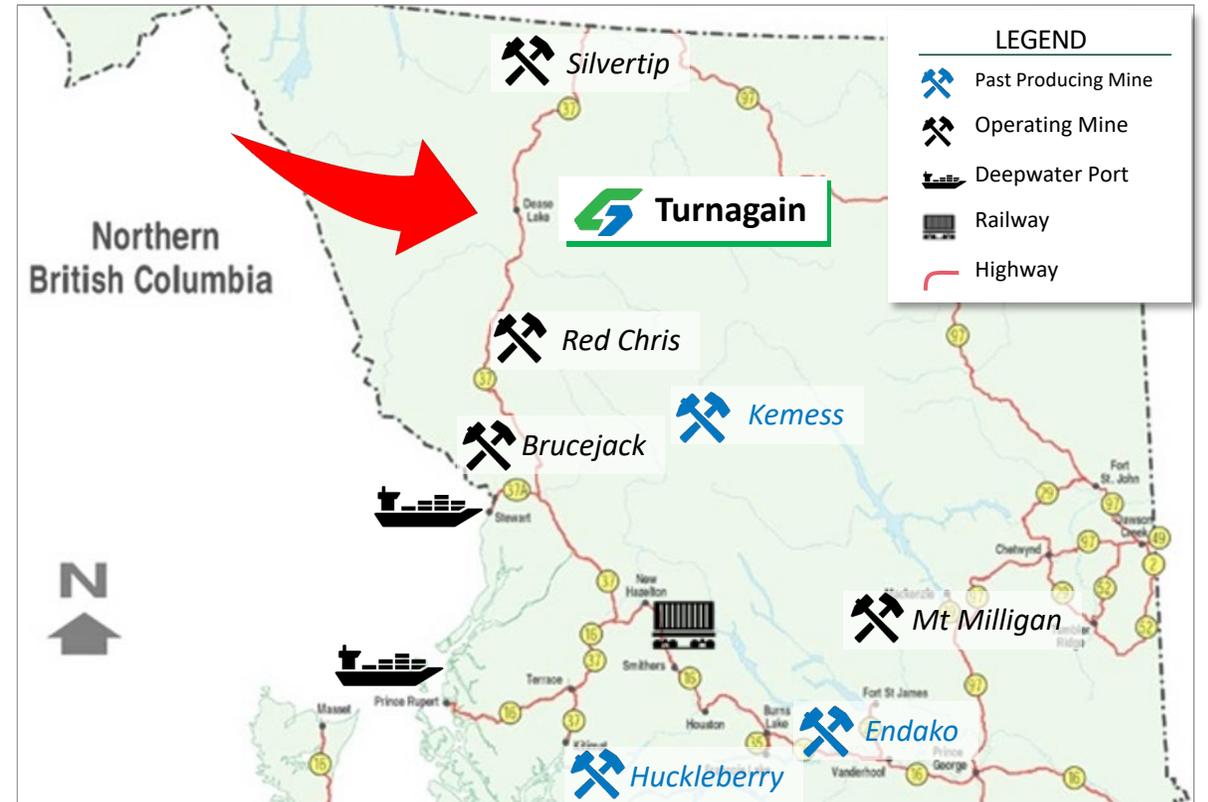
**37 year mine life**



# Located in an Attractive Mining Jurisdiction

## LOCATION ADVANTAGES

- Strong ESG practices
- Access to a deep-water Pacific port and North American rail



Base map from BC Ministry of Transport and Infrastructure

# Project Highlights

## **HIGH-GRADE CONCENTRATE**

Traditional processing or direct leaching

## **SIMPLE FLOWSHEET**

Crush – grind – froth flotation

## **LOW CARBON**

Carbon sequestration research shows pathway to carbon-neutrality



## **VERY LARGE RESOURCE**

### **MEASURED & INDICATED**

2.36 Mt Ni (5B lb), 141 kt Co

GRADE: 0.22% Ni, 0.013% Co

### **INFERRED**

2.48 Mt Ni (5B lb), 148 kt Co

GRADE: 0.22% Ni, 0.013% Co

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# PEA Summary

## PRODUCTION HIGHLIGHTS

**37,000 t/y Ni**

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Full-rate operation

**18% Ni, 1% Co**

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High-grade nickel sulphide concentrate

**< 2.5 t CO<sub>2</sub>e/t Ni**

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in concentrate, low carbon footprint

## ECONOMIC HIGHLIGHTS

**US \$1.4B**

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Phase 1 Capital Cost

**US \$0.5B**

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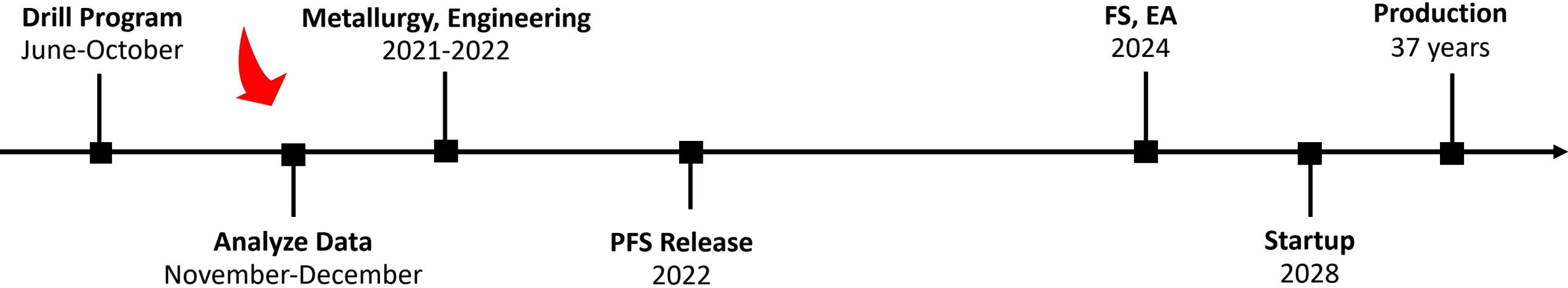
Phase 2 Capital Cost

**US\$2.81/lb. Ni**

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Net operating cost average, in concentrate at site gate

# Project Timeline



# 18% Ni Concentrate Product

- Multiple testwork campaigns: 15 to 21% Ni.<sup>1</sup>
- Low impurities such as arsenic, mercury, cadmium
- Suitable for PEA Base Case – smelting
- Suitable for direct pressure oxidation to produce refined nickel end products such as battery chemicals
  - Sherritt, BHP, Vale have built direct refining operations
- Project has **flexible options** for concentrate sale/treatment

Average of 5 Locked-Cycle Tests <sup>1</sup>	
Ni	19.7%
Co	1.2%
Cu	0.46%
Fe	32%
S	26%
Mg	4.4%
SiO <sub>2</sub>	6.4%
Pt+Pd	3 g/t

# Mixed Hydroxide Precipitate (MHP)

- Testwork on concentrates from 4 to 10% Ni, inferior to current concentrate
- Testwork proved amenability from oxidation to MHP recovery
- MHP quality produced in laboratory is superior to typical materials

## Typical MHP Composition<sup>1</sup>

Component	Unit	Value
Nickel	wt% (dry)	30 - 39
Cobalt	wt% (dry)	2 - 5
Zinc	wt% (dry)	1 - 4
Copper	wt% (dry)	1 - 4
Manganese	wt% (dry)	4 - 9
Magnesium	wt% (dry)	3 - 5
Iron	wt% (dry)	< 0.5
Aluminium	wt% (dry)	< 0.5
Sulphur	wt% (dry)	3 - 5
Moisture	wt%	35 - 45

## Turnagain Lab Test MHP Grades<sup>2</sup>

Ni+Co %	Mg %	Mn %	Cu+Fe %
49	1.4	0.2	<0.1

# Modern Tailings Management



**Efficient** valley location minimizes dam construction

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Dam construction by **centerline method**, constructed from inert quarried rock or mined waste hard rock

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Tailings to be sub-aerial (**dry beach**), allowing mineral carbonation

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**Low seismic risk**

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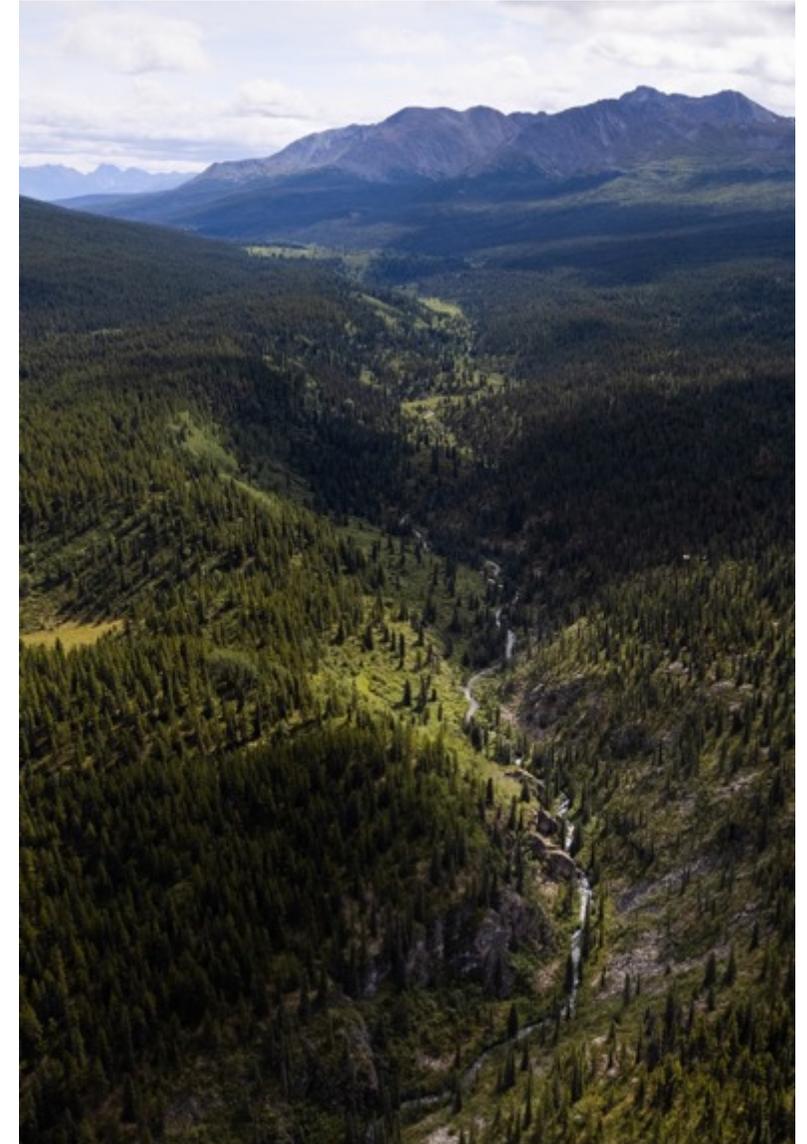
Relatively low precipitation (~0.6 m/y), **excellent water balance**

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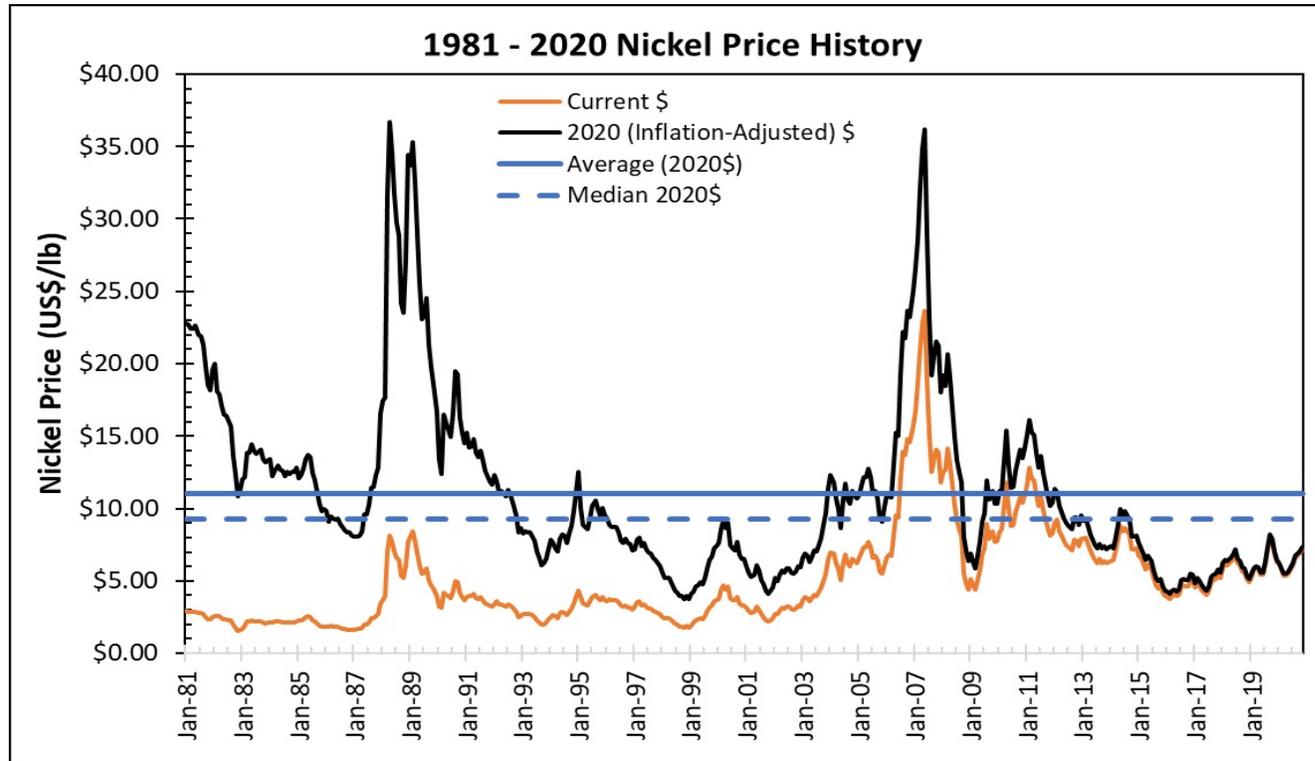


**CO<sub>2</sub> sequestration** in tailings through mineral carbonation

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# Nickel Prices are Historically Volatile



Price history is not an indicator of future prices.

Inflated prices may not reflect underlying market fundamentals.

Current dollars inflated to 2020 using compounded inflation.

# Li-ion Batteries - the Fastest Growing Source of Demand for Nickel

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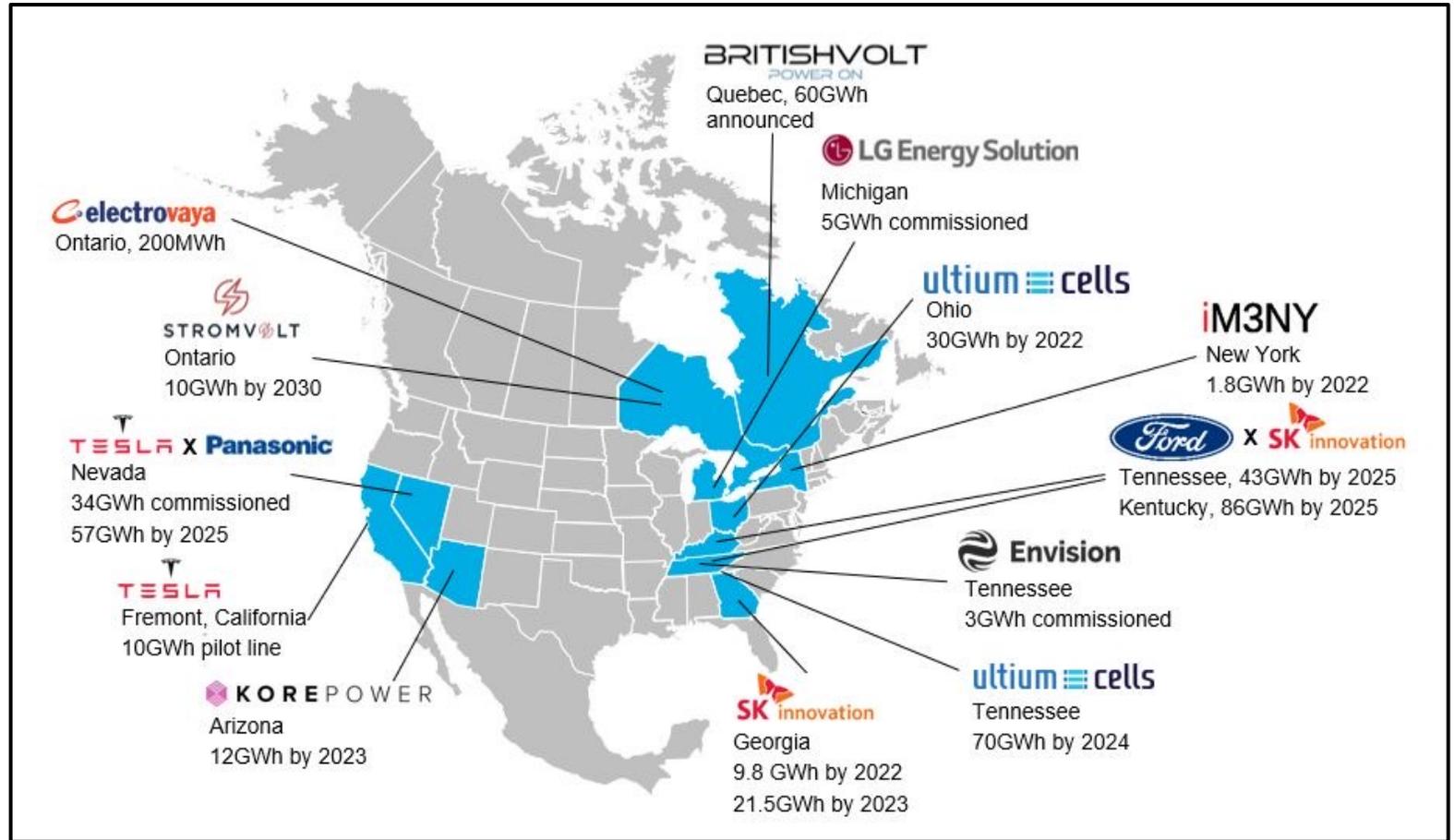
Lithium-ion batteries alone could require **1.5 to 2.5 Mt/y<sup>1</sup>** of new battery-grade nickel by 2040.

That's equivalent to **40-70 new large mines** by 2040.



# Battery Projects in North America

- The supply chain for the new giga factories is not yet resolved
- 150,000 to 250,000 t/y incremental nickel is needed to supply the new projects
- Actual demand depends on chemistry evolution and further project announcements



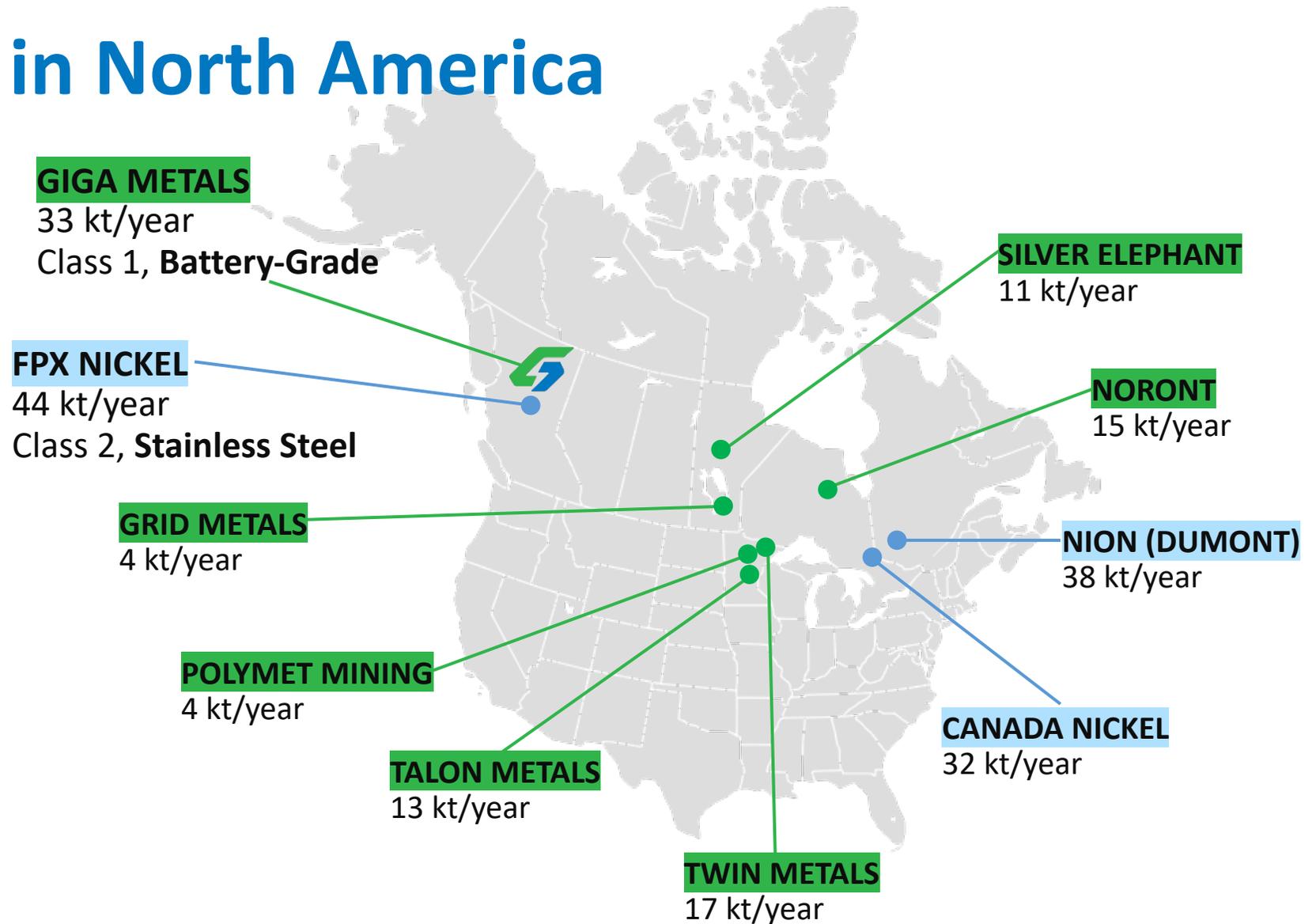
# Nickel Operations in North America

- Canada has nickel mines, smelters, and refineries.
- Most current global production is unsuitable for batteries.
- New mines and processing are needed to make the right materials for batteries.



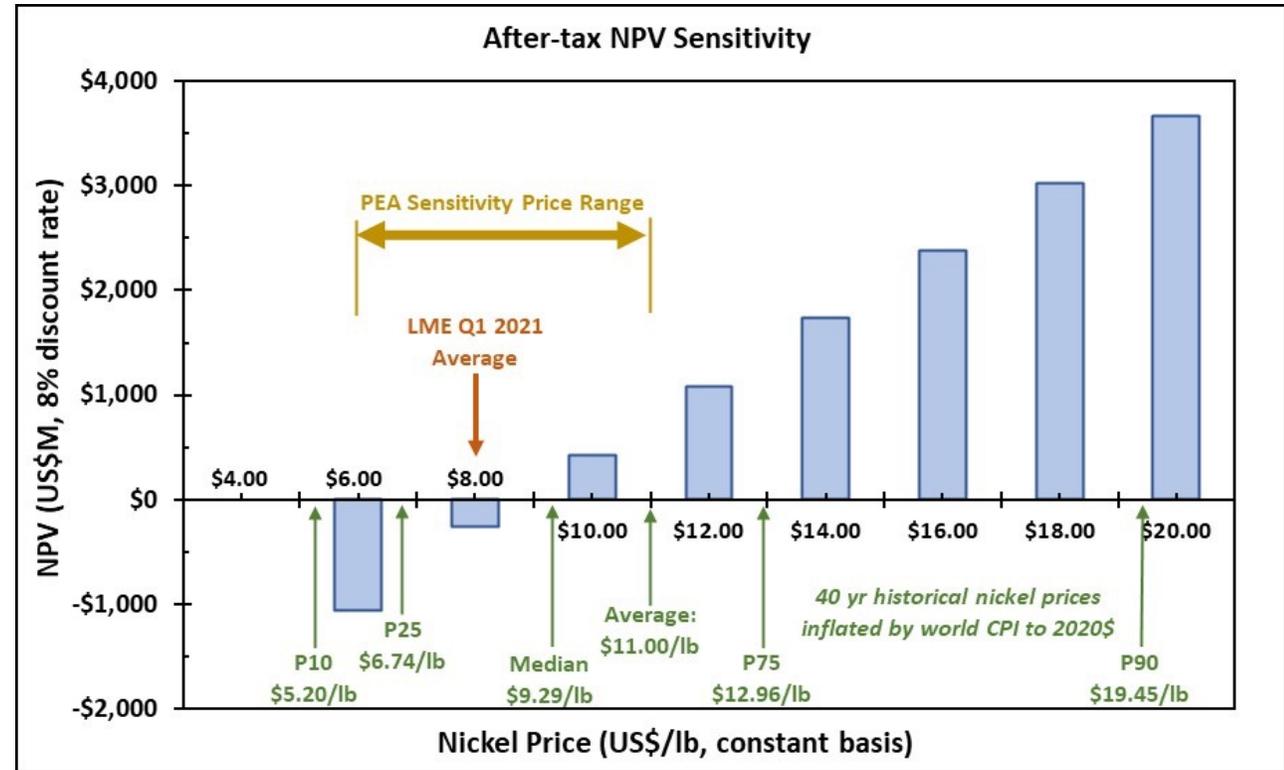
# Nickel Projects in North America

- Turnagain is the largest potential project in North America targeting battery-grade nickel supply.
- Other large projects are based on supply to the stainless steel markets.



# Nickel Price Sensitivity Analysis

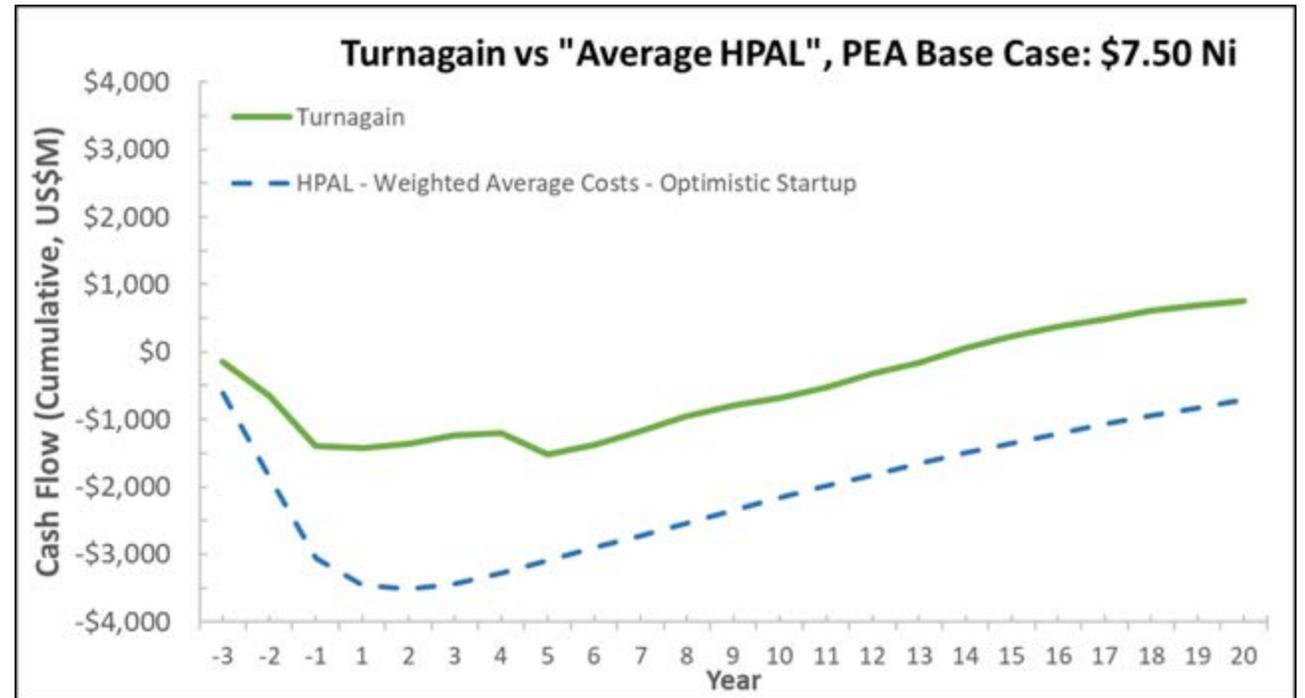
- PEA Base Case nickel price of \$7.50/pound
- Post-tax NPV of -\$443M
- Skewed nickel price distributions result in larger upside benefit than downside risk
- 10th, 25th, 50th, 75th, 90th percentile pricing reflected



# Cumulative Cash Flow Comparison with HPAL

**PEA Base Case nickel price of \$7.50/pound:**

Turnagain project has a pre-tax IRR of 6.3% and an after-tax IRR of 4.9%.



The cash-flow is presented on a pre-tax basis. Turnagain data is derived from the [Turnagain PEA \(effective date Oct 28, 2020\)](#) which includes inferred mineral resources that are too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves; there is no certainty that the preliminary economic assessment will be realized. HPAL economics calculated by Giga Metals based on capital and operating cost for a basket of 5 projects from Wood Mackenzie (Australia and Philippines). Data reviewed by Giga Metals QP.

# Comparison with Laterite Projects

## TURNAGAIN

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- Open pit mine in hard rock
- Deep deposit minimizes mine deforestation
- Low erosion potential, pit water used/treated
- Northern location reduces biodiversity impacts



*Gibraltar Copper Mine, BC (Canadian Mining Journal)*

## PROSPECTIVE LATERITE

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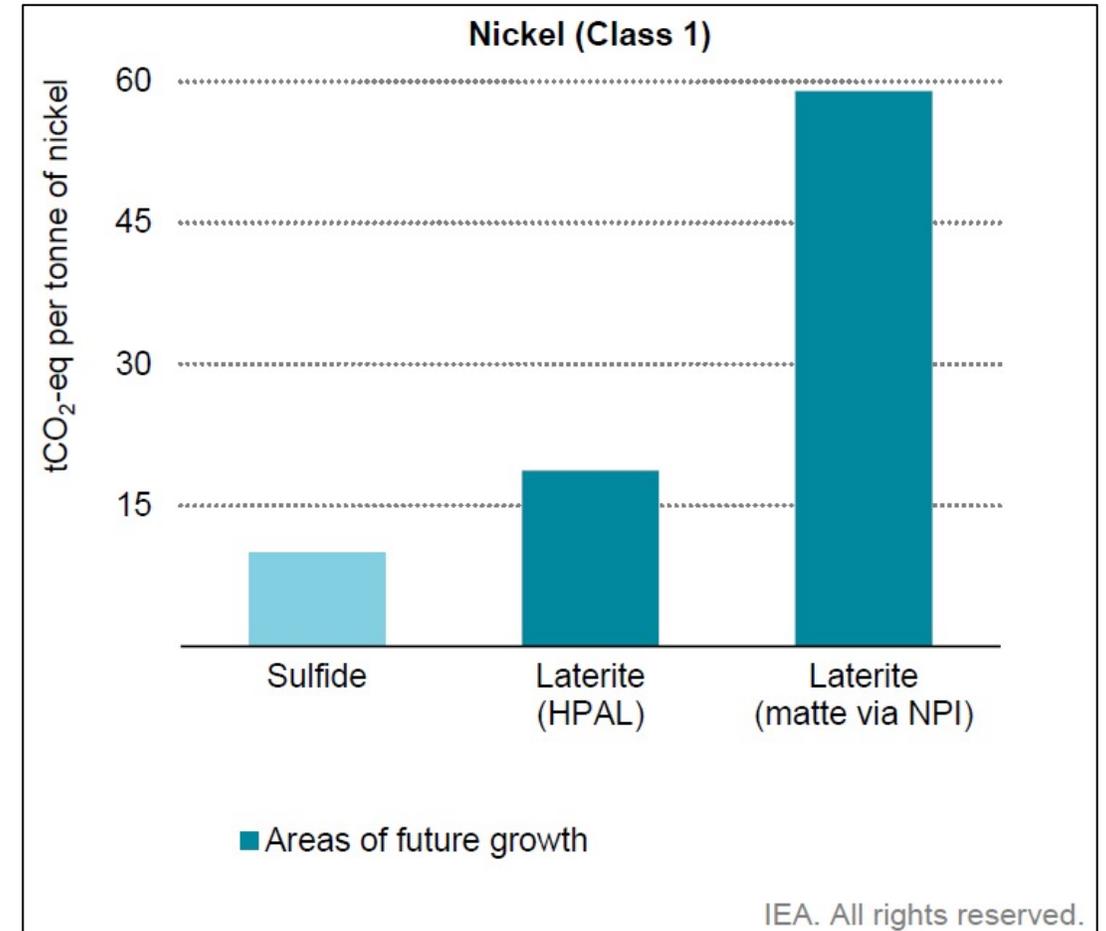
- Strip mining soft deposits
- Thin deposits increase mine deforestation
- High erosion potential, river/ocean contamination
- Tropical location increases biodiversity impacts



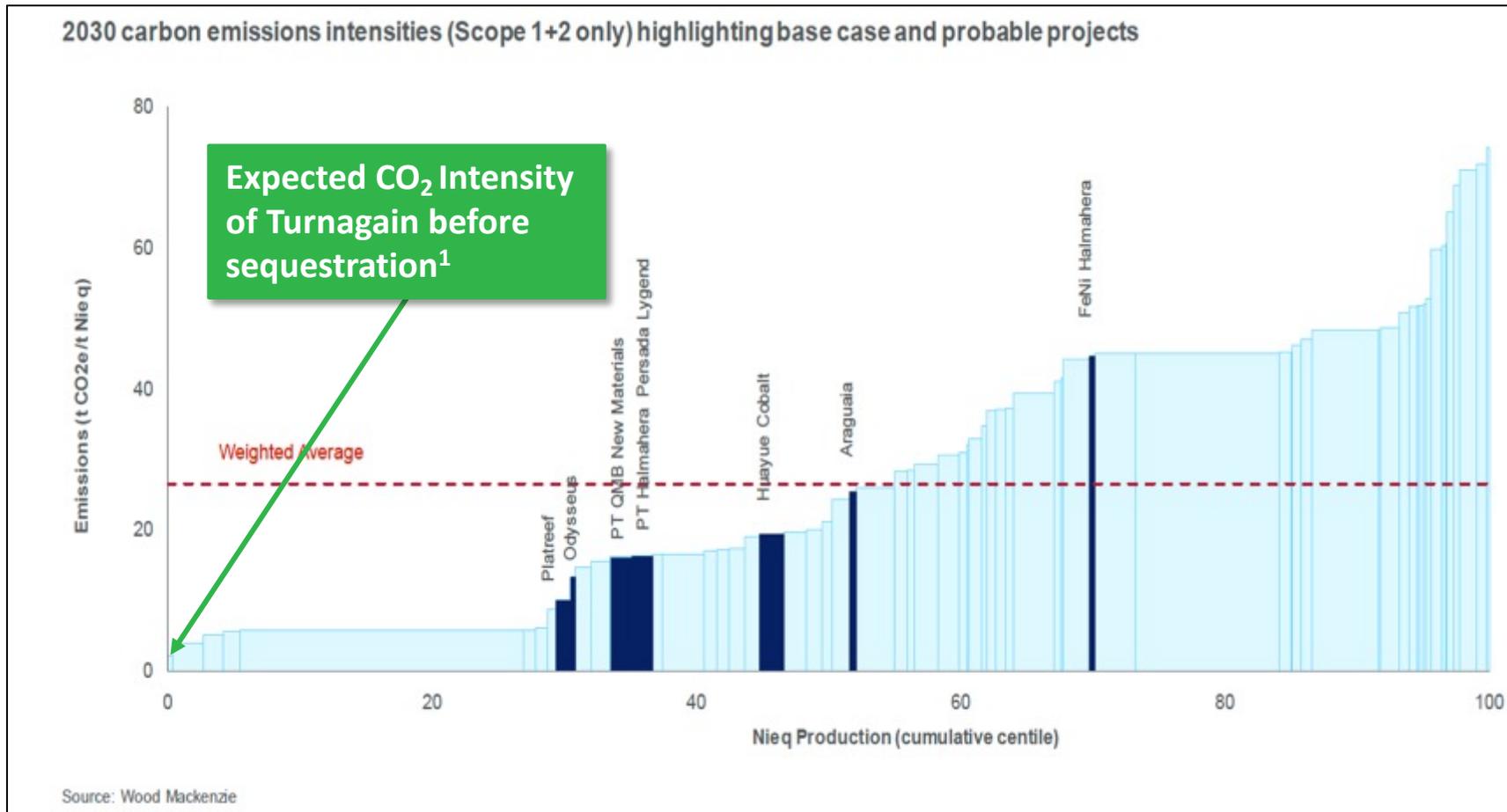
*Nickel Mine in Sulawesi (Chinadialogue.net, Ian Morse)*

# Carbon Intensity of Nickel Processing

- Sulphide projects have lower carbon intensities
  - Upgrading of ores to concentrates
  - Sulphur is a fuel for smelting
- Laterite processes treat entire orebody with chemical leaching or smelting
  - higher carbon intensity

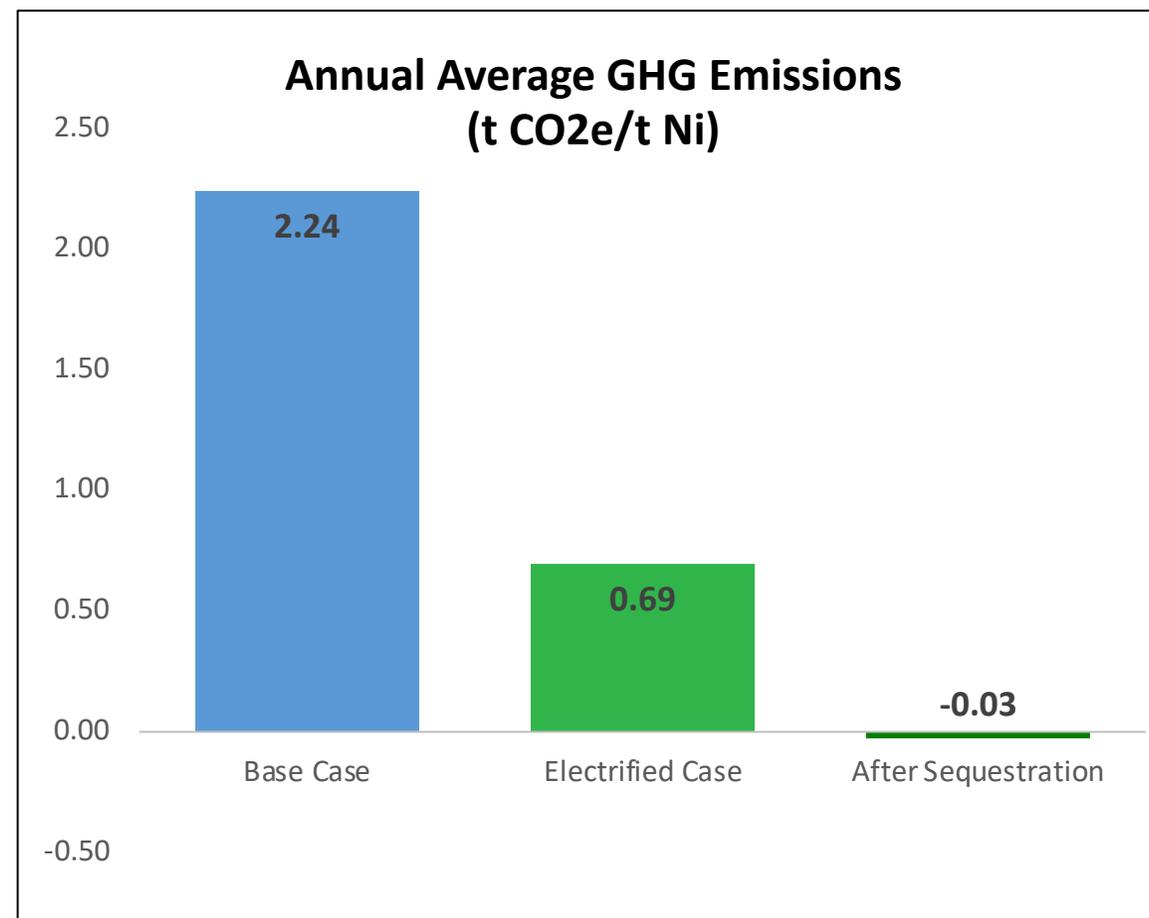


# Emission Intensity of Probable Nickel Projects



# Carbon Neutrality at Turnagain

- Turnagain tailings will sequester CO<sub>2</sub>
- Reaction with silicates creates carbonates, locking away CO<sub>2</sub> for millennia
- Testing by Dr. Greg Dipple (University of British Columbia) demonstrated stable reaction rates of 27 to 34 t/ha/y
- 900 kt of CO<sub>2</sub> could be sequestered over the mine life (0.72 tonnes CO<sub>2</sub> per tonne nickel produced) at the lower rates



# Board of Directors



**Mark Jarvis, CEO, Chairman of the Board**

Mr. Jarvis has more than 30 years of experience in exploration and development of mineral resources, both in oil & gas and metals. After a career financing exploration projects as a stockbroker, he moved to the corporate side of the business in 1996. He joined the board of Ultra Petroleum as Director and was responsible for Corporate Finance and at the time when Ultra had a large unconventional gas prospect that ultimately became 3 TCF of proved reserves.



**Martin Vydra, P.Eng., President & Director**

Mr. Vydra is a former executive with Sherritt International. Martin is widely recognized as an expert in nickel and cobalt extraction, processing and refining including the development and application of advanced technologies to maximize the recovery of valuable metals such as nickel and cobalt from a variety of feeds. While at Sherritt, his technical accomplishments spanned four continents and over 20 operations.



**Robert Morris, Director**

Mr. Morris is a former senior executive with Vale S.A., the largest nickel producer in the world, and most recently as Executive Vice President with global accountability for sales and marketing of Vale's base metals portfolio, including Nickel, Copper, Cobalt and Precious Metals. He was an officer of the company and member of the senior management committee. His knowledge of the rapidly evolving market for nickel and cobalt products is extensive and includes marketing battery materials to battery manufacturers.



**Lyle Davis, P.Eng. MBA, Director**

Mr. Davis is a director and CEO of Condor Resources Inc., a copper and gold exploration company active in Latin America. He previously worked in the corporate finance practices of Ernst & Young, and in a similar capacity at C.M. Oliver, a brokerage firm. Before that, Mr. Davis was with the Vancouver Stock Exchange. He is a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.



**Anthony Milewski, Director**

Mr. Milewski is the Chairman of Nickel 28. He spent his career in various aspects of the mining industry, including as a company director, advisor, founder and investor. In particular, he has been active in battery metals including investing in cobalt and actively trading physical cobalt. Anthony was a member of the London Metals Exchange Cobalt Committee and has previously worked at Pala Investments, Firebird Management, and Renaissance Capital.

# Share Structure

## Stock Exchanges

TSX Venture	GIGA
OTCQX Market	HNCKF
Frankfurt	BRR2

## Share Capital (November 2021)

Shares Outstanding	85,528,428
Warrants	15,571,982
Options	7,890,000
Fully-diluted	108,990,410

## Market Capitalization (December 6, 2021)

Share Price	C\$0.42
Market Capitalization	C\$36 M

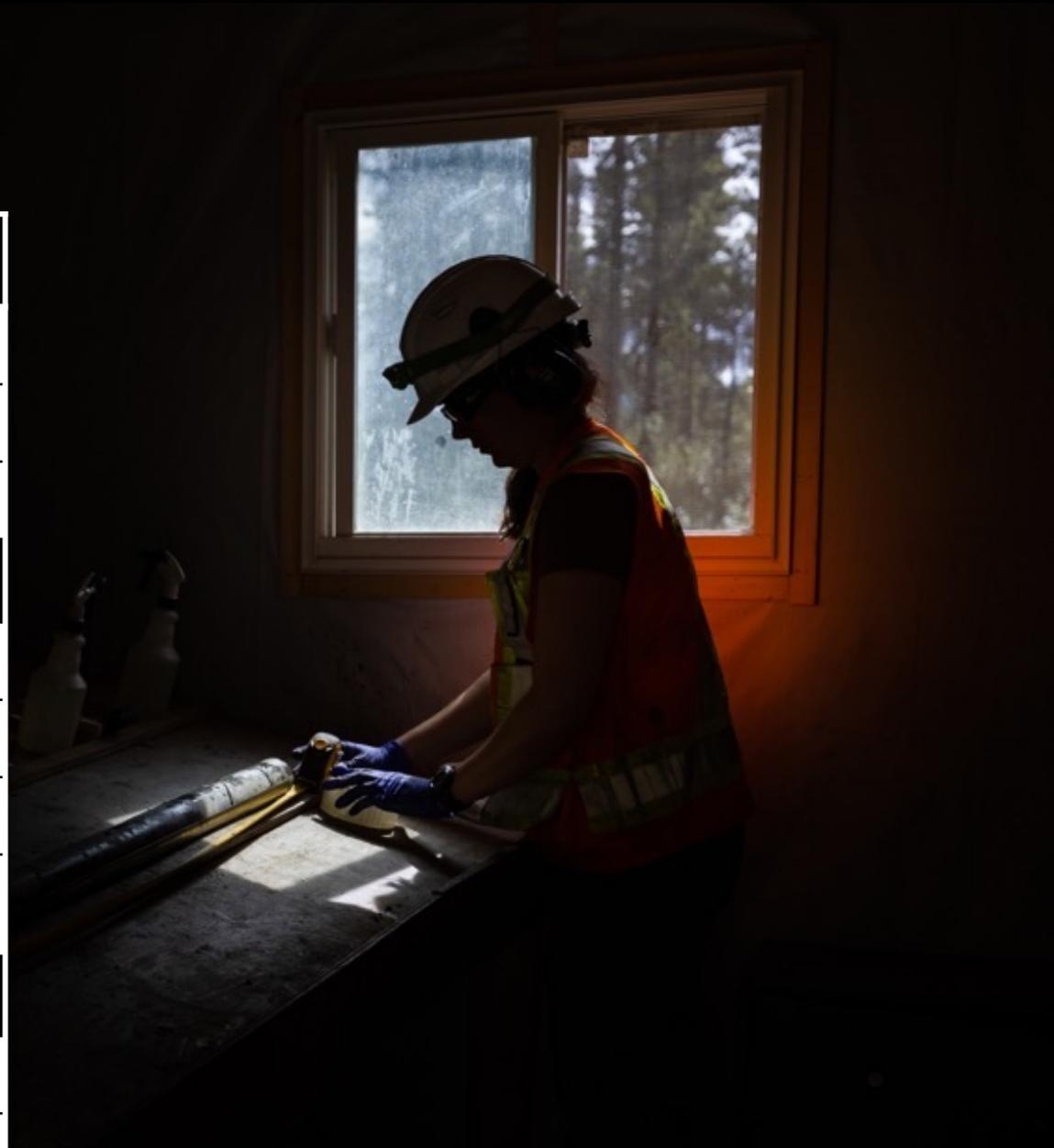


Photo: Engineer examining core samples at Turnagain Camp.

# Why Invest in Giga Metals?



**Large deposit:** average of 33,000 t/y Ni for 37 years



**High-grade concentrate** for standard processing or pressure oxidation



**40-70 new Turnagain-scale projects needed** in next 20 years

**Ethical nickel for batteries will be in short supply.  
Where will nickel supply for North American &  
European EVs come from?**

# Let's Talk.

To book a meeting: [click here](#)

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