

# Developing the world's largest potential source of energy transition metals

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Corporate Update – NAATBatt 2023  
23 February, 2023

# Forward looking statements.

Certain statements made in this presentation are not historical facts but are forward-looking statements for purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. Forward-looking statements generally are accompanied by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “would,” “plan,” “predict,” “potential,” “seem,” “seek,” “future,” “outlook” and similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements include, without limitation, TMC’s expectations with respect to future performance, development of its estimated resources of battery metals, potential regulatory approvals, and anticipated financial impacts and other effects of the recently completed business combination, and the size and potential growth of current or future markets for TMC’s supply of battery metals.

These forward-looking statements involve significant risks and uncertainties that could cause the actual results to differ materially from those discussed in the forward-looking statements. Most of these factors are outside TMC’s control and are difficult to predict. Factors that may cause such differences include, but are not limited to: the inability to maintain the listing of TMC’s shares on Nasdaq; the ability to recognize the anticipated benefits of the recently completed business combination, which may be affected by, among other things, the commercial and technical feasibility of seafloor polymetallic nodule mining and processing; the supply and demand for battery metals; the future prices of battery metals; the timing and content of ISA’s exploitation regulations that will create the legal and technical framework for exploitation of polymetallic nodules in the Clarion Clipperton Zone; government regulation of deep seabed mining operations and changes in mining laws and regulations; environmental risks; the timing and amount of estimated future production, costs of production, capital expenditures and requirements for additional capital; cash flow provided by operating activities; TMC’s ability to raise financing in the future; unanticipated reclamation expenses; claims and limitations on insurance coverage; the uncertainty in mineral resource estimates; the uncertainty in geological, hydrological, metallurgical and geotechnical studies and opinions; infrastructure risks; TMC’s ability to enforce the obligations of non-performing investors under subscription agreements in connection with the business combination, potential litigation risks, and dependence on key management personnel and executive officers; and other risks and uncertainties indicated from time to time in the proxy statement/prospectus relating to the recently completed business combination, including those under “Risk Factors” therein, and in other filings with the SEC.

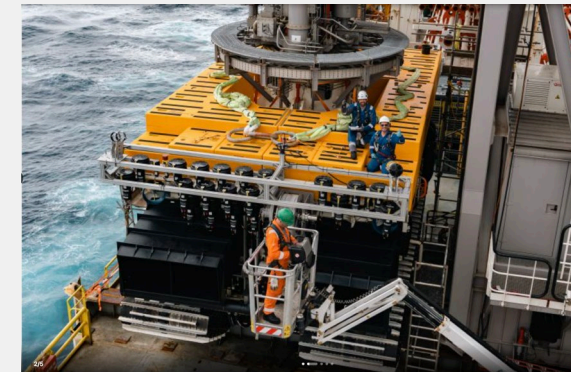
TMC cautions that the foregoing list of factors is not exclusive. TMC cautions readers not to place undue reliance upon any forward-looking statements, which speak only as of the date made. TMC does not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in its expectations or any change in events, conditions, or circumstances on which any such statement is based.

## NORI-D PROJECT UPDATE

# Integrated pilot collection campaign complete.

Objective #1:

**Demonstrate integrated pilot system capable of collecting and lifting nodules**



✓ First successful integrated pilot system test in CCZ since 1970s

Objective #2:

**Collect ~3,600 wet tonnes of polymetallic nodules**



✓ 4,500 wet tonnes collected  
✓ 3,021 wet tonnes lifted

Objective #3:

**Test pilot system performance to inform future system optimizations and upgrade**



✓ 86.4 t/h production rate  
Performance data acquired to be used to upgrade and optimize pilot system into Project Zero system with a targeted average production rate over 200t/h

Objective #4:

**Monitor and survey pre-, during- and post-test environment**



✓ Pre- and during surveys complete  
✓ Post-test surveys complete

Watch the full video here: <https://vimeo.com/778303976/28d019f234>

NORI-D PROJECT UPDATE

Data from a decade of research and pilot collection campaign will culminate in NORI’s commercial application this year.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) – NORI-D

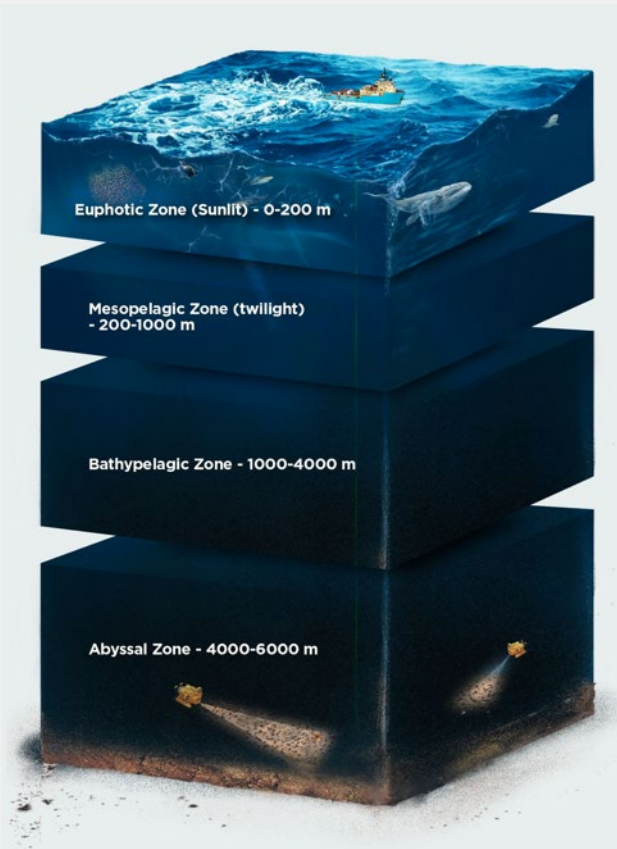
World’s leading deep-sea research institutions contributing to the NORI-D EIA. These organizations are independent and expect to openly publish their research in peer-reviewed journals.



9 offshore campaigns

283 operational days at sea

100+ studies



Surface biology

Surface fauna logbook (PelagOS)  
Remote Sensing, Hydrophone Acousitics

Pelagic biology

Microbial Community Characterization  
Phytoplankton Community Characterization  
Zooplankton Community Characterization  
Gelatinous Zooplankton Characterization  
Micronekton Characterization  
Trophic Analysis (Stable Isotopes)  
Temporal Variability of Pelagic Communities  
Trace Element Profiles In Water Column  
Particulate Profiles in Water Column  
Discharge Plume Characterization (Physical)  
Discharge Plume Characterization (Biological)  
Midwater Discharge (food webs particle composition)

Benthic biology

Megafauna Characterization (Photo transects)  
Megafauna Characterization (Time Lapse)  
Macro Fauna Characterization  
Meio Fauna Characterization

Sediment analysis

Baited camera and traps  
Benthic respiration and nutrient cycling  
Seafloor metabolic activities  
Bioturbation, sediment characteristics  
Porewater sampling  
Ecotoxicology studies  
Metals determination by ICP analysis  
Induction of gene transcripts (metals)

Collector impact studies

Metocean studies  
Bathymetry (seabed mapping)  
Habitat mapping  
Database development  
Digital twin development  
Collector test monitoring studies  
Plume modeling  
Existing Resource Utilization Study  
Noise Study  
Meteorology & Air Quality Study  
Hazard & Risk Assessment  
Emergency Response Planning  
Cultural & Historical Resources  
Waste Management  
Cumulative Impacts

Environmental Management and Monitoring Plan

Will leverage NORI’s baseline data to help develop appropriate indicators and tolerance limits to create safe parameters for collecting seafloor nodules. The work will form the scientific foundation of NORI’s Adaptive Management System (AMS)

BIOLOGICAL SAMPLES AND SPECIMENS\* – STATUS

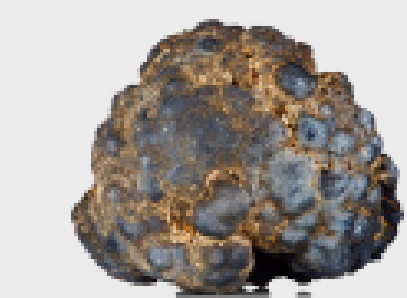
Data below have been reported in NORI-D Collector Test EIS, 2022. This data reflects ~30% of the total collected samples. The other 70% expected is currently being analyzed and will be reported by the EIA researchers in February 2023. Additional data expected from the NORI-D Collector Test Monitoring Campaigns will be delivered in July 2023.

*\*Observations where specimens are taxa or morphotypes determined from images.*

			13,876	231,036
			Samples	Specimens*
Surface	Observations	Birds, mammals, surface fish	169	169
Pelagic	Hydrographic CTD	Microbial abundance & biomass	140	In progress
		16S prokaryote diversity	165	In progress
		Phytoplankton biomass	78	In progress
		Phytoplankton diversity	37	In progress
		18S eukaryote eDNA	100	In progress
	MOC01	Zooplankton (tows)	120	In progress
	Lander	BBL zooplankton	12	12,103
	ROV images	Gelatinous zooplankton and opportunistic micronekton	76	In progress
	ROV samples	Gelatinous zooplankton	19	19
	MOC10	Micronekton (tows)	76	16,894
	Ecotoxicology	131	131	
Benthic	AUV/ROV images	Megafauna	8,348	59,374
	Boxcore	Macrofauna	234	8,082
	Sediment multicore	Meiofauna	1,212	108,000
		Foraminifera	580	25,965
		18S eukaryote eDNA	1,119	In progress
		16S prokaryote eDNA	1,119	In progress
	Baited traps	Ecotoxicology	131	131
	Baited trap images	Scavengers	10	168

## NORI-D PROJECT UPDATE

**Zero toxic tailing, near-zero-waste metallurgical process that uses entire nodule mass.**



**POLYMETALLIC NODULE**

Contains high grades of four key battery metals



**CALCINE**

Nodules are heated in a rotary kiln to dry, dehydrate, and begin the reduction process



**ALLOY**

Calcine is smelted to produce an alloy comprised of critical metals



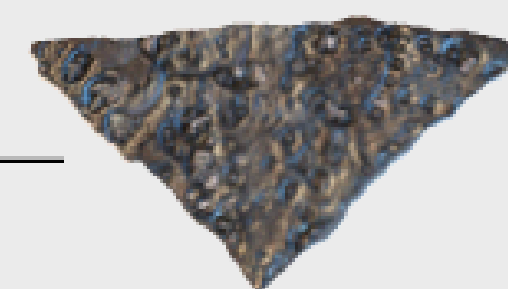
**MATTE**

The alloy is sulfidized and the iron content is reduced by blowing air into the melt



**MANGANESE SILICATE**

Alongside battery metals, we generate a manganese silicate that can be further processed to silicomanganese, a critical input to steelmaking



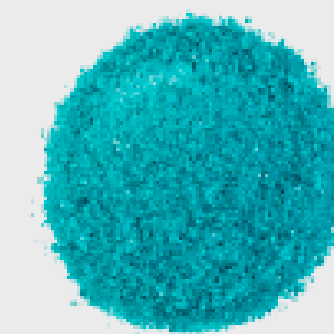
**CONVERTER SLAG**

Iron from the alloy forms an iron silicate that can be used in construction



**COPPER CATHODE**

The primary material for EV battery connectors and wiring harnesses.  
1 ton yields 9.8 kgs



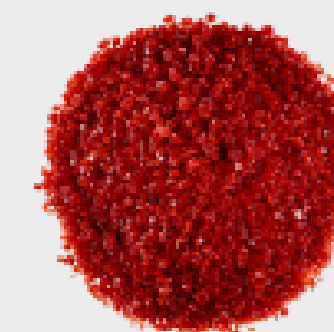
**NICKEL SULFATE**

Nickel is the most important element in a typical EV battery.  
1 ton yields 13.1 kgs



**AMMONIUM SULFATE**

We select refining reagents that produce ammonium sulfate instead of waste. Ammonium sulfate is a valuable fertilizer used in agriculture



**COBALT SULFATE**

Keeps energy-dense EV batteries stable and safe during use.  
1 ton yields 1.1 kg

## NORI-D PROJECT UPDATE

# Conversion to battery grade products proven at commercial facilities in North America.

**FLSMIDTH**

### Rotary Kiln (RK) Calcining

Pilot Kiln & Ancillary Systems  
Whitehall, PA, USA



**XPS** | EXPERT  
PROCESS  
SOLUTIONS

### Electric Furnace (EF) Smelting Sulfidation & converting

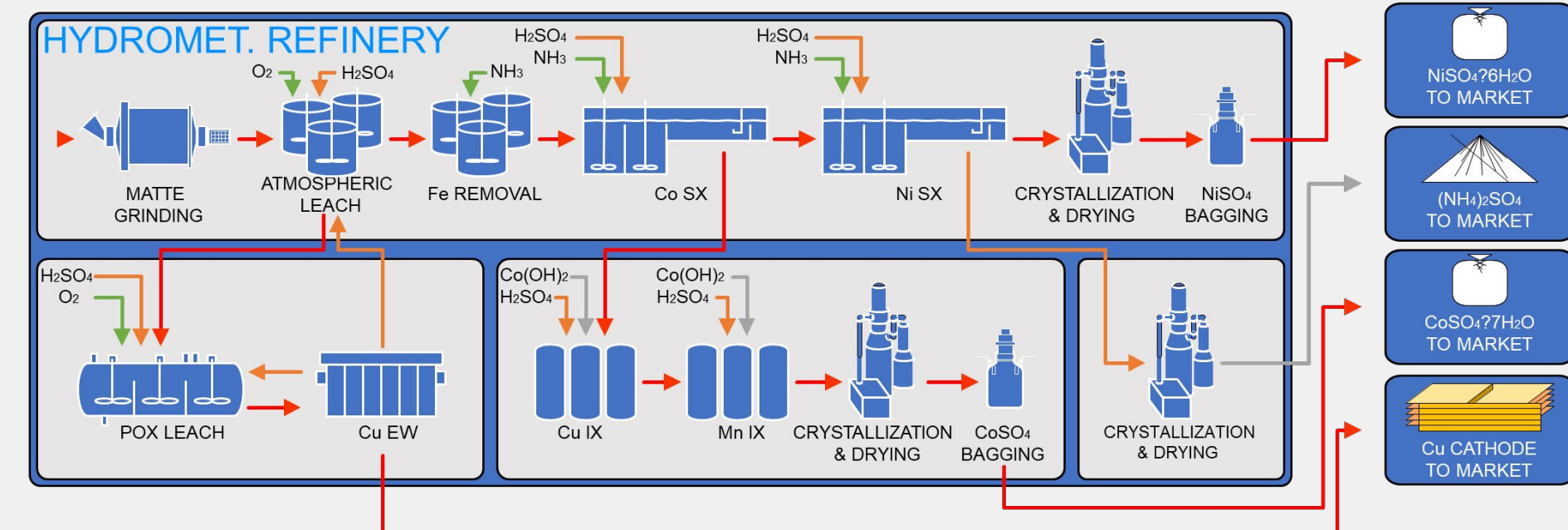
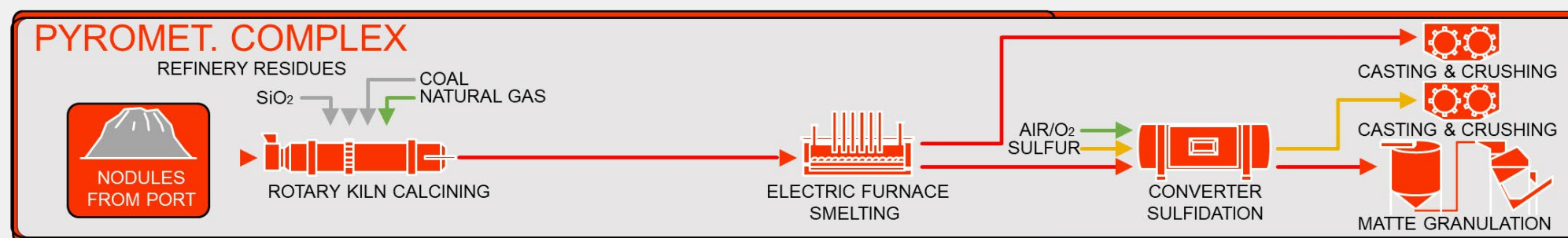
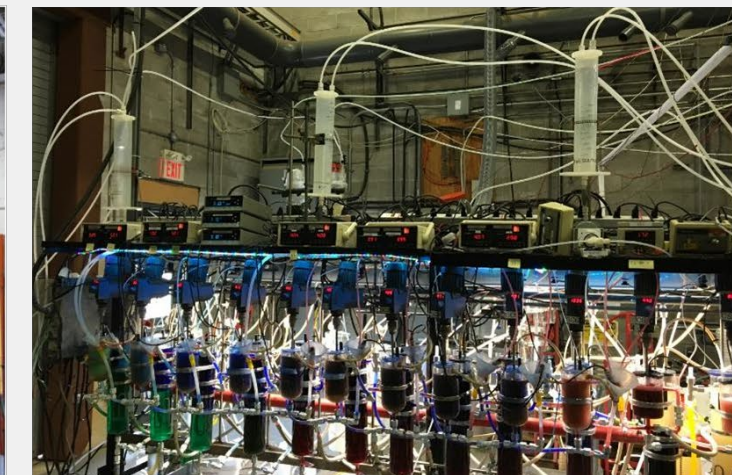
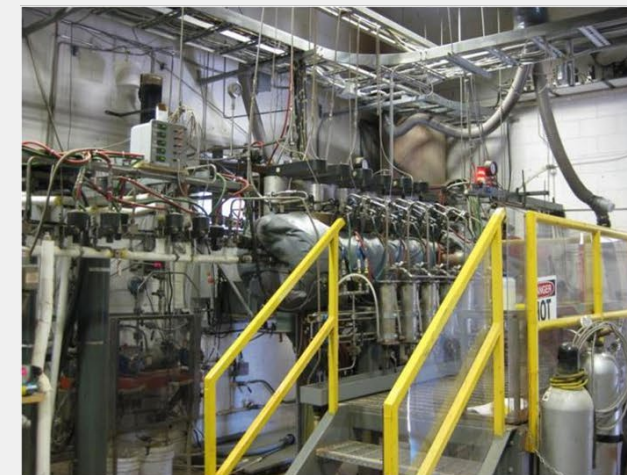
300kW DC Furnace & Ancillary Systems  
Sudbury, ON, Canada



**SGS**

### Refinery pilot

Ontario, Canada

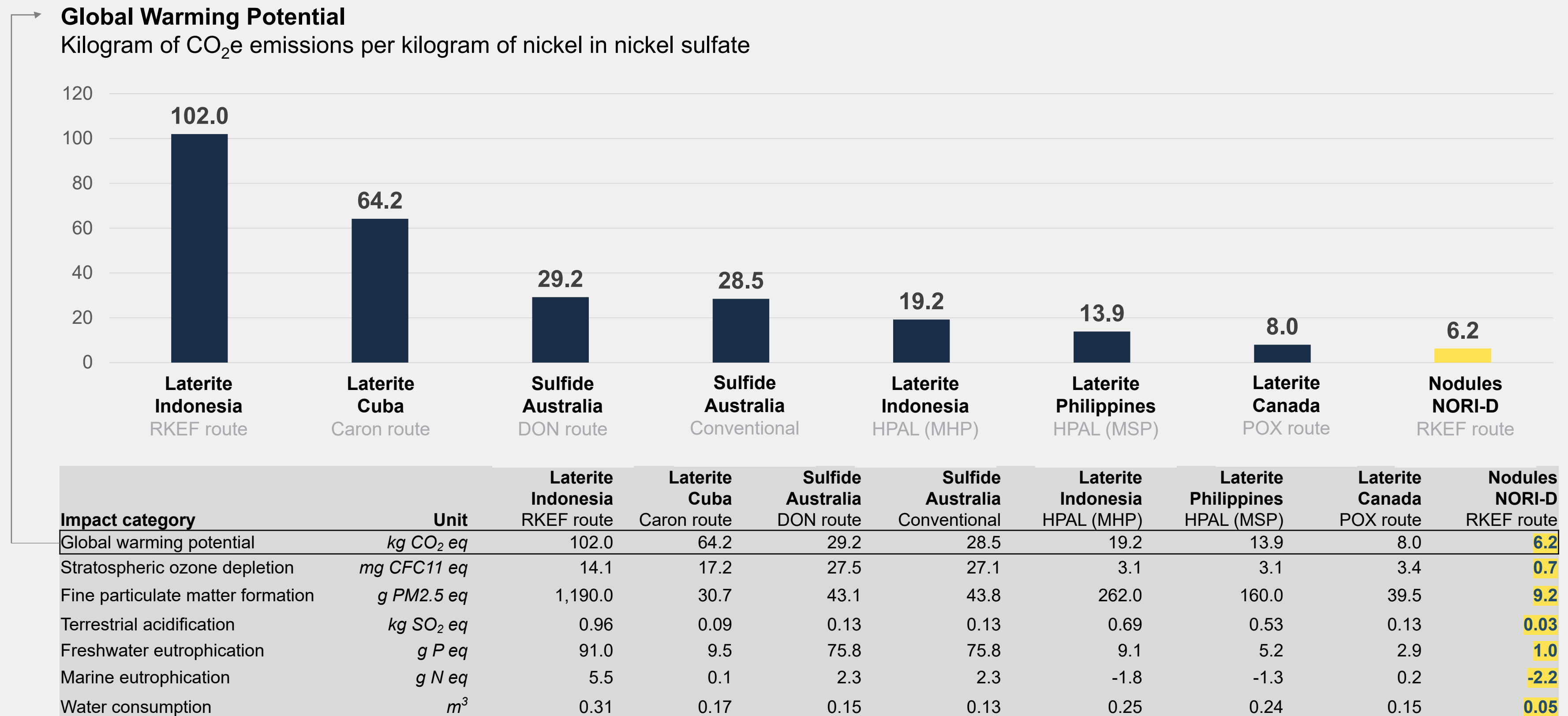


Watch the full video here: <https://vimeo.com/613632525>

## ENVIRONMENTAL IMPACT UPDATE

# Nickel from NORI-D shows lowest impact of benchmarks assessed.

Lowest impact value



Source: Independent lifecycle assessment (LCA) completed by Benchmark Mineral Intelligence in Nov 2022. Lifecycle from mine to end-product format (battery-grade nickel sulfate, cobalt sulfate, copper cathode and manganese silicate)  
Nodules from NORI-D (RKEF route) also found to be the lowest impact option for copper. Cobalt from the DRC is lowest impact in GWP and water consumption; cobalt from NORI-D are lowest in all other assessed impact categories.

STANDARD UPDATE

Development of a DSM ESG standard is underway.

**Goal:** Develop a ESG disclosure guidance for the marine minerals industry via collaboration across the value chain. To be completed by 4Q 2023

Once completed the handbook aims to:

- Provide guidance to align with national and international legislations and a company’s own ESG targets
- Provide an overview of the context and a structured approach to identifying material topics
- Be a useful tool to guide ESG disclosures for internal and external stakeholders
- Facilitate transparency, consistency and coherent reporting approach to drive performance improvement across the DSM sector

Leading organizations:



Collaborating Institutions (as of Oct 2022)

- Advisory Committee on Protection of the Sea (ACOPS)
- Aker BP
- AU Commission and the African Minerals Development Centre (AMDC)
- DNV
- Equinor ASA
- Fearnley Securities AS
- Forum Oceano
- GCE Ocean Technology
- Green Minerals
- GSR – DEME group
- Guangzhou Geological Survey (GMGS) China Geological Survey (CGS)
- International Marine Minerals Society (IMMS)
- International Seabed Authority (ISA) (Observer status)
- Japan Oil, Gas and Metals National Corporation (JOGMEC)
- Loke Marine Minerals
- MiningImpact-JPI Oceans
- Norwegian Forum for Marine Minerals
- Natural History Museum, UK
- Organization for Economic Co-operation and Development (OECD)
- The Metals Company (TMC)
- The Pacific Community (SPC)
- UK Seabed Resources
- United Nations Global Compact (UNGC)



Continuous Stakeholder Feedback

**Thank you.**

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