

NioBay METALS

October 2026

Forward-looking statements and disclaimer

FORWARD-LOOKING STATEMENTS

The reader is advised that the information summarized in this presentation is preliminary in nature and is intended to provide an initial, high-level review of the project's economic potential and design options. The PEA mine plan and economic model includes numerous assumptions and the use of Inferred Resources. Inferred Resources are considered to be too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

Certain statements contained in this presentation may constitute "forward-looking statements". All statements in this presentation, other than statements of historical fact, that address events or developments that the Company expects to occur are forward-looking statements. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "plans", "anticipates", "believes", "intends", "estimates", "projects", "potential", "scheduled" and similar expressions, or that events or conditions "will", "would", "may", "could" or "should" occur including, but not limited to, the statements regarding the Company's strategic plans, its anticipated benefits and the use of proceeds resulting thereof, in particular, future financial results, production targets and timetables, the evolution of mineral reserves and resources, mine operating costs, capital expenditures, work programs, development plans, exploration programs, objectives and budgets, the possible determination of additional reserves, and the Company's eventual success to execute its strategy to focus on building its portfolio of properties. Forward looking statements express, at this date, the Company's plans, estimates, forecasts, projections, expectations or beliefs as to future events and results. Forward-looking statements involve a number of risks and uncertainties, and there can be no assurance that such statements will prove to be accurate. Therefore, actual results and future events could differ materially from those anticipated in such statements. Risks and uncertainties that could cause results or future events to differ materially from current expectations expressed or implied by the forward-looking statements include, but are not limited to, factors associated with fluctuations in the market price of metals, mining industry risks, exploration risks, risks associated with foreign operations, environmental risks and hazards, uncertainty as to calculation of mineral reserves, requirement of additional financing or additional permits, authorizations or licenses, risks of delays in construction and production and other risks referred to in the Company's filings on SEDAR.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, including, without limitation, that all technical, economical and financial conditions will be met to achieve such events qualified by the foregoing cautionary note regarding forward-looking statements, such statements are not guarantees of future performance and actual results may differ materially from those in forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements include, but are not limited to: niobium prices; access to skilled workers and consultants; mining development and construction personnel; results of exploration and development activities; uninsured risks; regulatory framework and changes; defects in title; availability of personnel; materials and equipment; timeliness of government approvals; actual performance of facilities; equipment and processes relative to specifications and expectations; unanticipated environmental impacts on operations market prices; continued availability of capital and financing; general economic, market and business conditions; and the availability of alternative transactions. Many of these factors are discussed in greater detail in the Company's most recent Management Discussion & Analysis dated November 27, 2025, and Management Discussion & Analysis for the year ended December 2024 dated April 17, 2025, which are available on the Company's profile on SEDAR+ at www.sedar.com. The Company cautions that the foregoing list of important factors is not exhaustive. Investors and others who base themselves on forward-looking statements should carefully consider the above factors as well as the uncertainties they represent and the risk they entail. The Company believes that the expectations reflected in those forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking statements included in this presentation should not be unduly relied upon. These statements speak only as of the date of this presentation.

DISCLAIMER

NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Unless otherwise indicated, all reserve and resource estimates referred to or contained in this Slide Deck have been prepared in accordance with NI 43-101. These NI 43-101 standards differ significantly from the requirements of the SEC, and such resource information may not be comparable to similar information disclosed by U.S. companies. For example, while the terms "mineral resource", "measured resource", "indicated resource" and "inferred resource" are recognized and required by Canadian regulations, they are not recognized by the SEC. It cannot be assumed that any part of the mineral deposits in these categories will ever be upgraded to a higher category. These terms have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. In particular, it cannot be assumed that any part of an inferred resource exists. In accordance with Canadian rules, estimates of "inferred resources" cannot form the basis of feasibility or other economic studies. In addition, under the requirements of the SEC, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Certain of the technical reports referenced in this Slide Deck use the terms "mineral resource," "measured mineral resource," "indicated mineral resource" and "inferred mineral resource". We advise investors that these terms are defined in and required to be disclosed in accordance with Canadian NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") – CIM Definition Standards on Mineral Resources and Mineral Reserves, adopted by the CIM Council, as amended. "Inferred mineral resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred mineral resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. Investors are cautioned not to assume that all or any part of an inferred mineral resource exists or is economically or legally mineable. As a reporting issuer in Canada, we are required to prepare reports on our mineral properties in accordance with NI 43-101. We reference those technical reports in this Slide Deck for informational purposes only, and such reports are not incorporated herein by reference.

Under the United States Securities and Exchange Commission's (the "SEC") Industry Guide 7 as currently in effect ("Guide 7"), the terms "indicated mineral resource" and "inferred mineral resource" are normally not permitted to be used in reports and registration statements filed with the SEC. Under current Guide 7 standards, a "final" or "bankable" feasibility study is required to report reserves, the three-year historical average price is used in any reserve or cash flow analysis to designate reserves, and the primary environmental analysis or report must be filed with the appropriate governmental authority. Disclosure of "contained ounces" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by Guide 7 standards as in place tonnage and grade without reference to unit measures.

Accordingly, information contained in this Slide Deck contain descriptions of the Company's mineral deposits that may not be comparable to similar information made public by United States companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder, included Industry Guide 7.



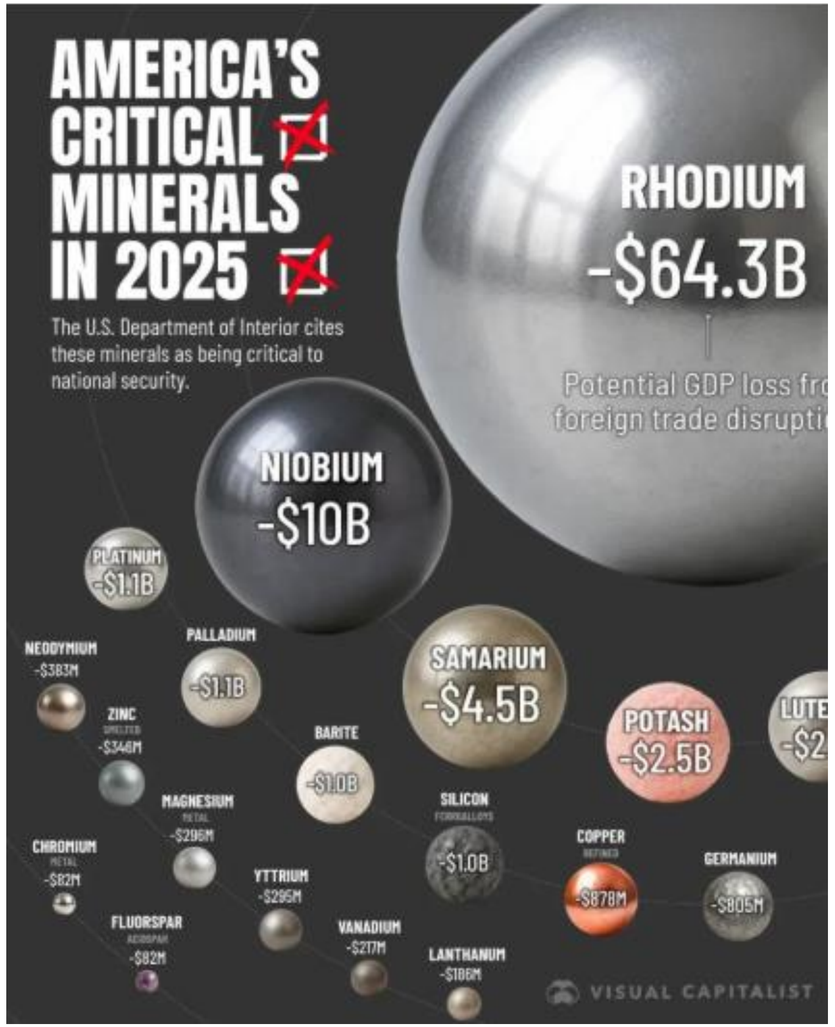
NioBay METALS

Who We Are

Who We Are

NIOBAY IS:

- A critical minerals exploration and development company founded in **1954**
- Advancing niobium-focused assets in Québec and Ontario
- Positioned to become the only producer of high-purity (HP) Nb_2O_5 outside China and Brazil
- Two NI 43-101 compliant mineral resources supported by positive Preliminary Economic Assessments (PEAs)
- Exposure to steel, defence, electric vehicle (EV), and advanced technology markets
- Collaborating with universities to advance niobium research and end-product development
- Support from the Québec government and counts on Osisko Development as a major shareholder



Crevier and James Bay (Nb) are in the Critical Minerals Corridor

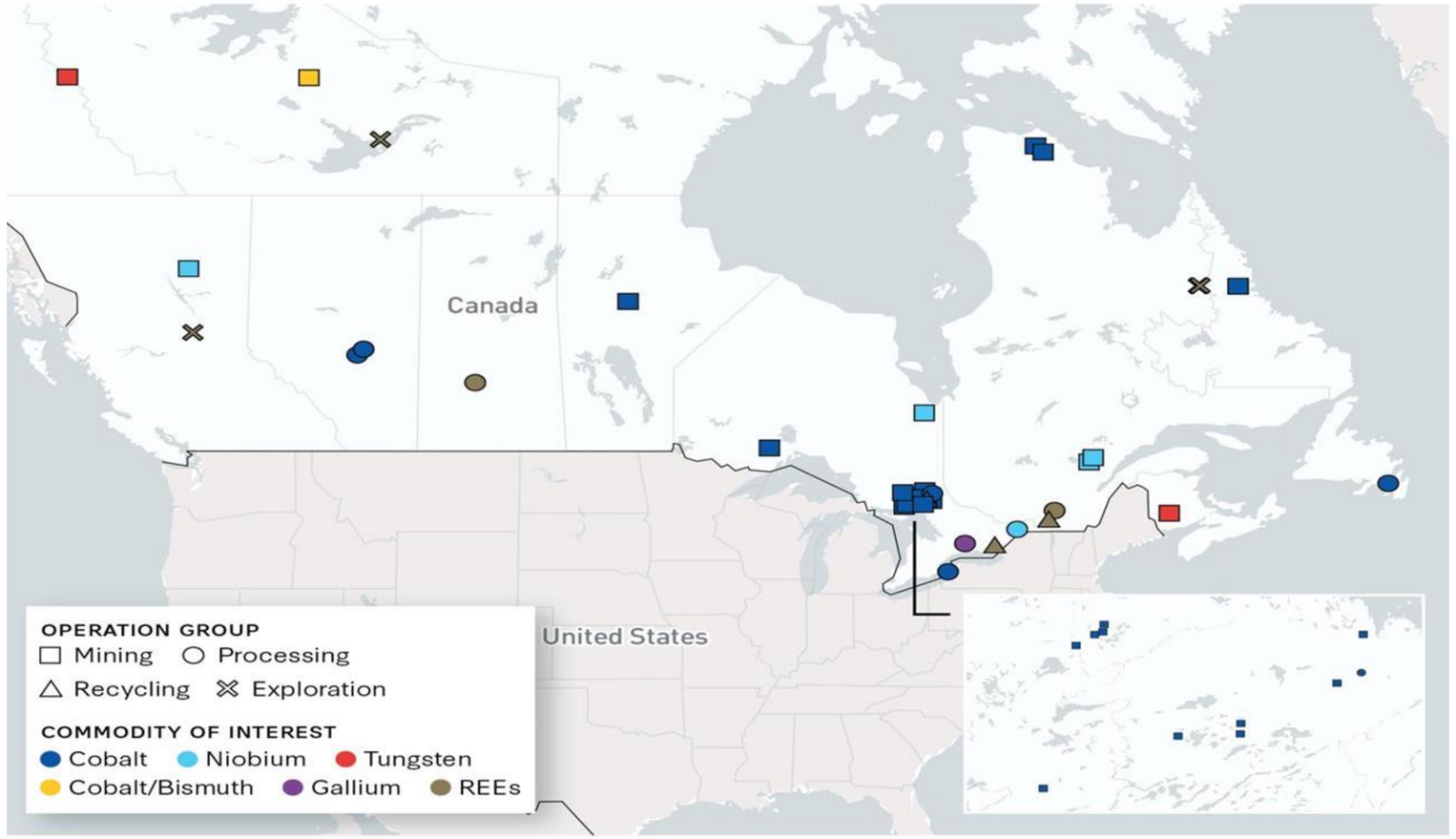
CSIS Center for Strategic & International Studies

Critical Minerals Security Program | Defense and Security

- Niobium identified as a strategic mineral
- Québec cluster of critical mineral activity
- Positioned within North American supply chain corridor

FIGURE 3

Locations of Selected Critical Mineral Projects



Source: "Canada's Minerals and Mining Map," Natural Resources Canada, https://atlas.gc.ca/mins/en/index.html. Elaborated with data from authors' research based on multiple sources cited throughout this report.

CSIS | AMERICAS PROGRAM

Board of Directors



Jean-Sebastien David, P. Geo
President, CEO, and Director
Arianne Phosphate, Osisko, Iamgold, Cambior



Serge Savard
Chairman of the Board
NHL veteran, Business Executive, Real Estate Developer



Josianne Beaudry
Director
Partner at Lavery, de Billy LLP
TSXV Quebec Advisory Committee Member



Laurence Farmer
Director
Osisko Development, Electric Elements, RBC



Bruno Di Battista
Director
Vice President, Wealth Management at Desjardins



Raymond Legault
Director
Retired Financial Advisor



Guillaume Bacconier
Director
Rio Tinto, Évolys Québec Inc.

Technical Advisory Committee



Jonathan Launière, Eng
Advisor for Aboriginal Affairs,
Québec and Mashteuiatsh
Coordinator of Pekuakamiulnuatsh
Takuhikan Relations



Caroline Olsen, Metallurgist
Advisor for metallurgy and strategy
Metallurgist and R&D director at SGS
Canada inc.



Dawn Madahbee Leach
Aboriginal Affairs Advisor, Ontario and
Canada
Director General, Waubetek Business
Development/First Nations



Jean-David Moore, Eng.
Strategic Advisor, Québec junior mining
Mining investor, strategic advisor,
exploration specialist



L. Paul Bédard, Eng., Ph.D.
Strategic Advisor, Geology
Professor at UQAC & Director of the Centre for Studies
on Mineral Resources (CERM)



NioBay METALS

Niobium: Defense Applications

TSXV : NBY | OTCQB:NBYCF

Niobium's Role in Advanced Warfare

Niobium is a refractory metal essential for the next generation of high-speed warfare. Its unique ability to maintain structural integrity at temperatures exceeding 2,400°C makes it a critical piece in the global defence landscape, particularly in the race for hypersonic supremacy.

Hypersonic Defence & Thermal Resilience



Extreme Thermal Threshold

Withstands temperatures over 2,400°C, essential for vehicles traveling at Mach 5.

The 'First-Strike' Enabler

Critical for the manoeuvrability and speed required to bypass traditional missile detection.

Next-Gen Niobium-Silicon Alloys

Advanced space-tested alloys now enable propulsion systems to operate at blistering heat.

Armour & Integrated Systems



Composite Armour Solutions

Advanced Niobium-reinforced composite armour provides enhanced ballistic protection with reduced weight.

Structural System Components

High-strength alloys for aircraft airframes and vehicle chassis, enabling greater range and platform durability.

Precision Optics & Targeting

Critical for advanced night vision, laser guidance systems, and sensor arrays.

niobaymetals.com

Summary: Defense Applications

1. **Military Aerospace and Propulsion (Niobium and Tantalum)**
   - Fighter jet turbines (F-35, Rafale, Eurofighter)
   - Helicopter turbines (NH90, Apache)
   - MALE/HALE drone engines

2. **Military Electronics and Guidance Systems (Tantalum)**
   - AESA radar systems
   - Encrypted communication systems
   - Military satellites

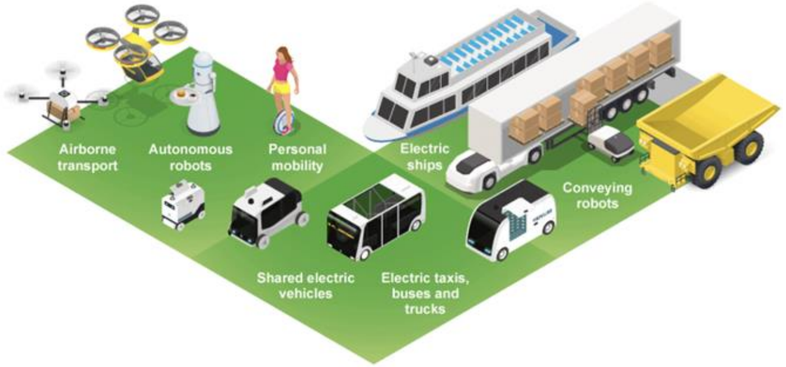
3. **Armour, Protection, and Structural Materials (Zirconium and Niobium)**
   - Ceramic armour for vehicles
   - Thermal shields

4. **Nuclear Applications (Zirconium)**
   - Submarines / icebreakers
   - Research facilities
   - Compact reactors (currently under construction in Ontario)

Niobium transforms materials, enabling greener structures, cleaner energy, and sustainable mobility



Adding niobium to the steel used in automobile manufacturing **reduces the total weight** of the finished vehicle and **improves its fuel efficiency.**



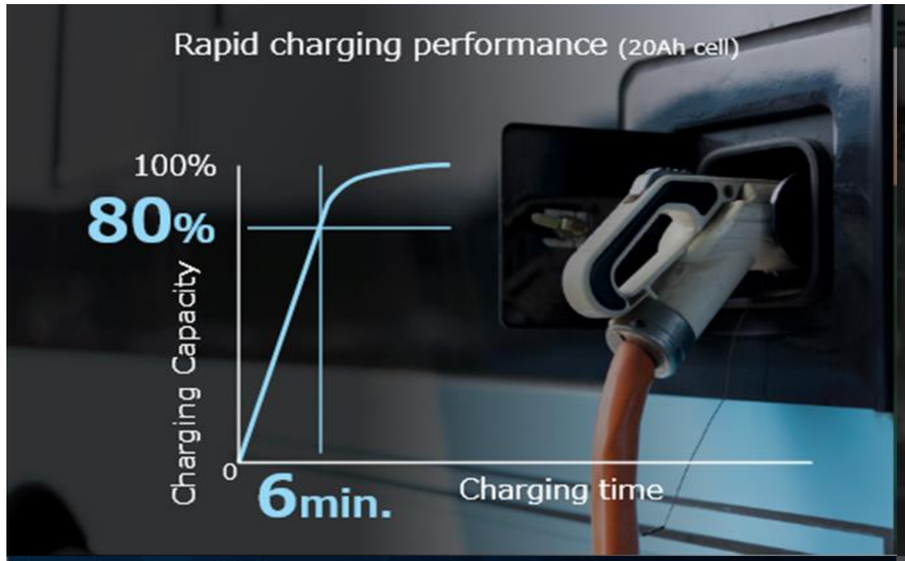
Niobium was incorporated into the steel used in the **Øresund Bridge**, reducing its weight and **resulting in significant cost savings.**

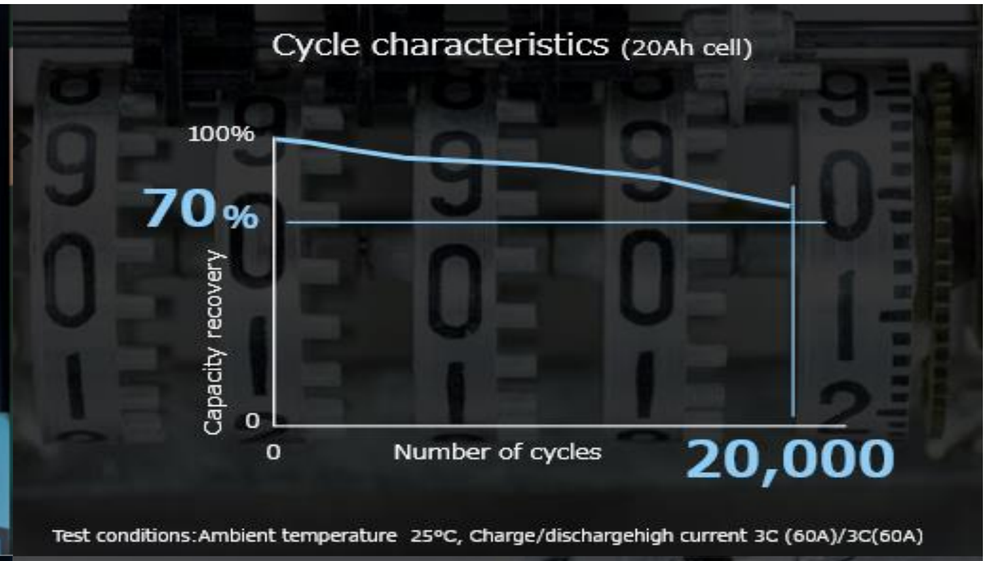
A small amount of niobium makes the entire system stronger, lighter, faster, and greener

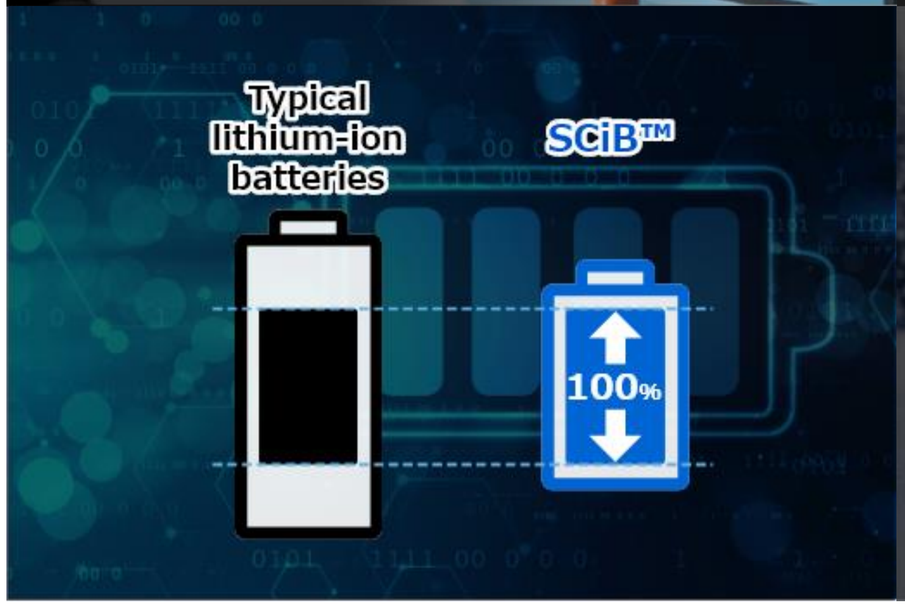


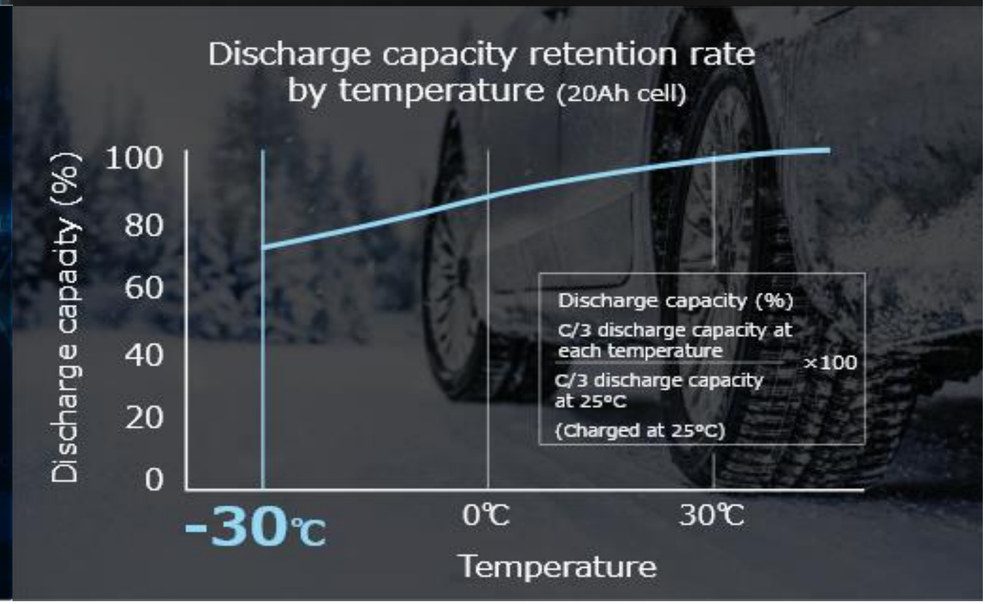
Next-generation SCiB™, featuring a niobium–titanium oxide anode, supports smart mobility in the era of MaaS.

Advantages of a niobium anode





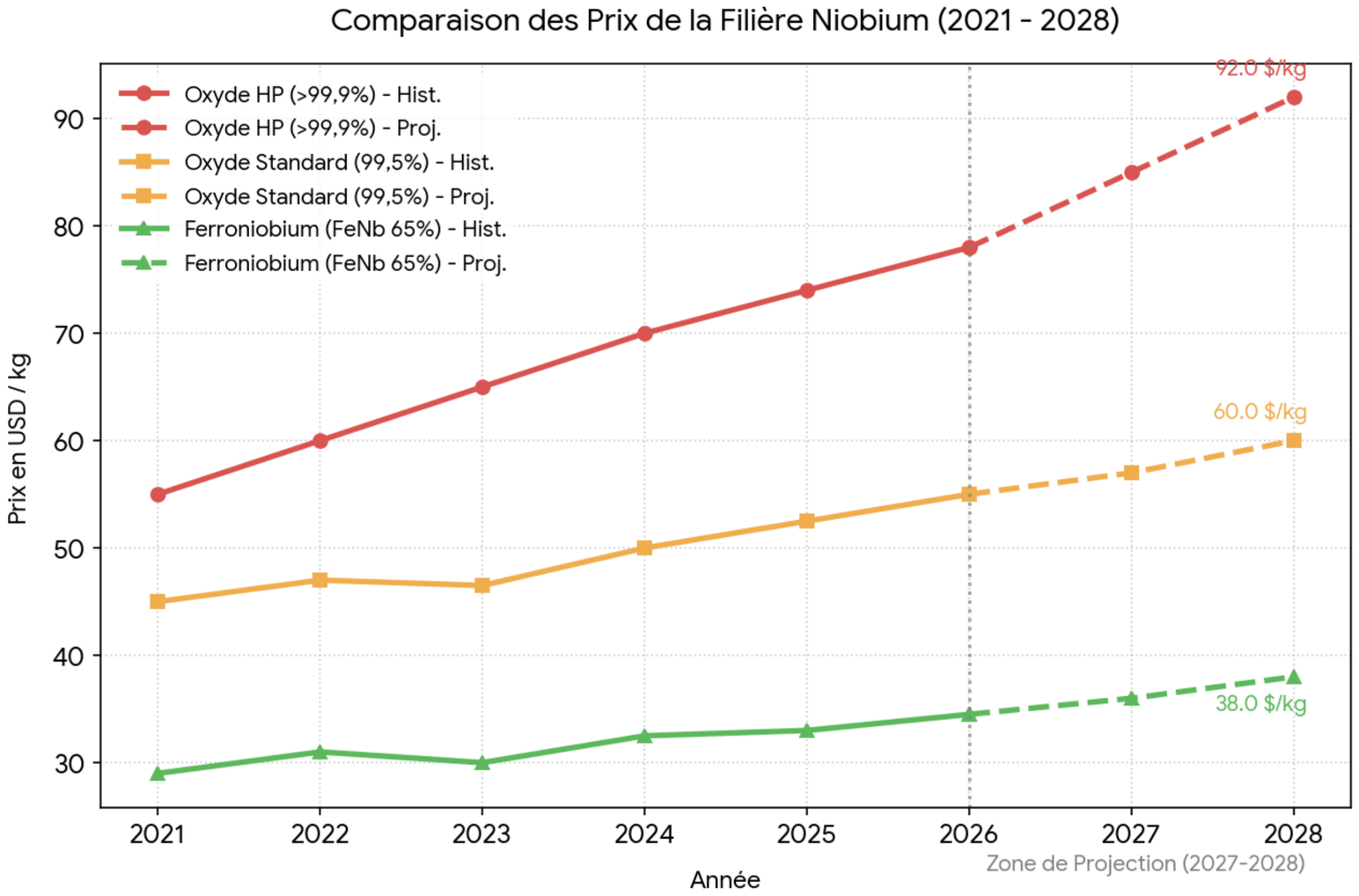




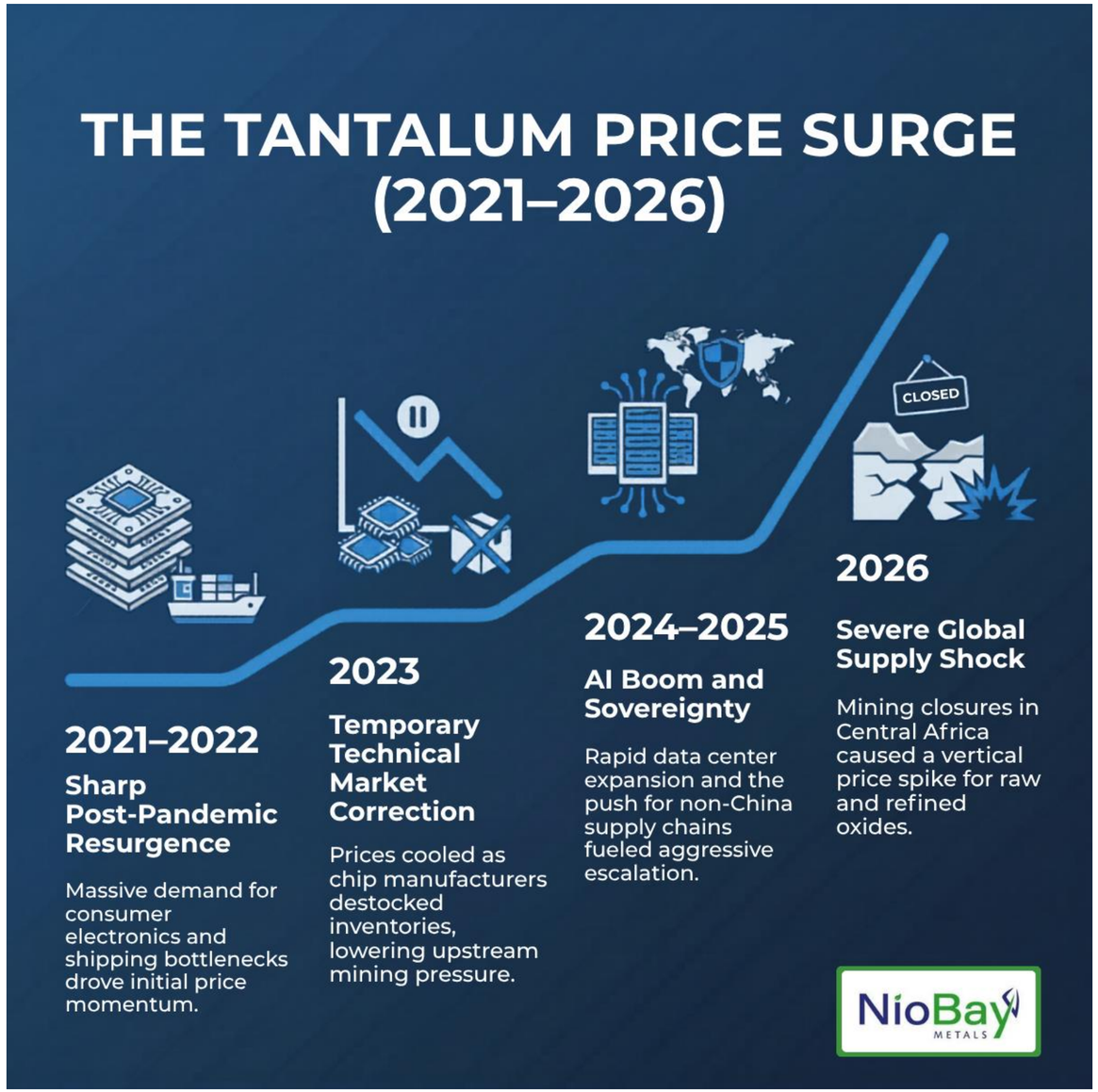
NioBay METALS

Tantalum & niobium price:

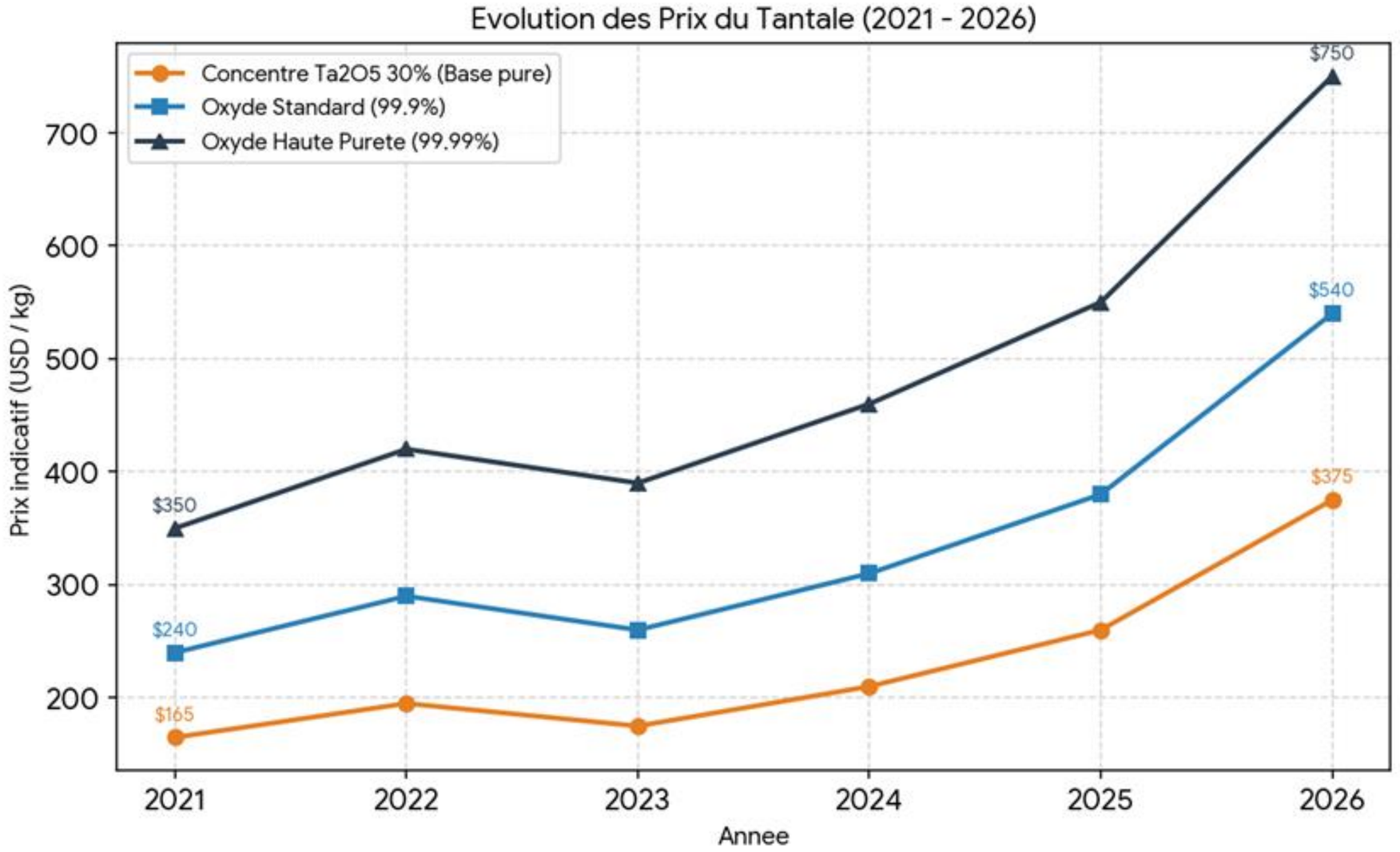
Niobium price (Reference : Global Metals & Mining)



Tantalum price From $165 to $375/kg



Price of Tantalum (Ref.: Shanghai Metals Market (SMM))





Crevier Project

Overview of Crevier Project



- The project is located within Nitassinan, the traditional territory of the Pekuakamiulnuatsh First Nation
- Located 55 km north of Girardville
- A leading mining jurisdiction
- Access to high-quality infrastructure

2025 Highlights

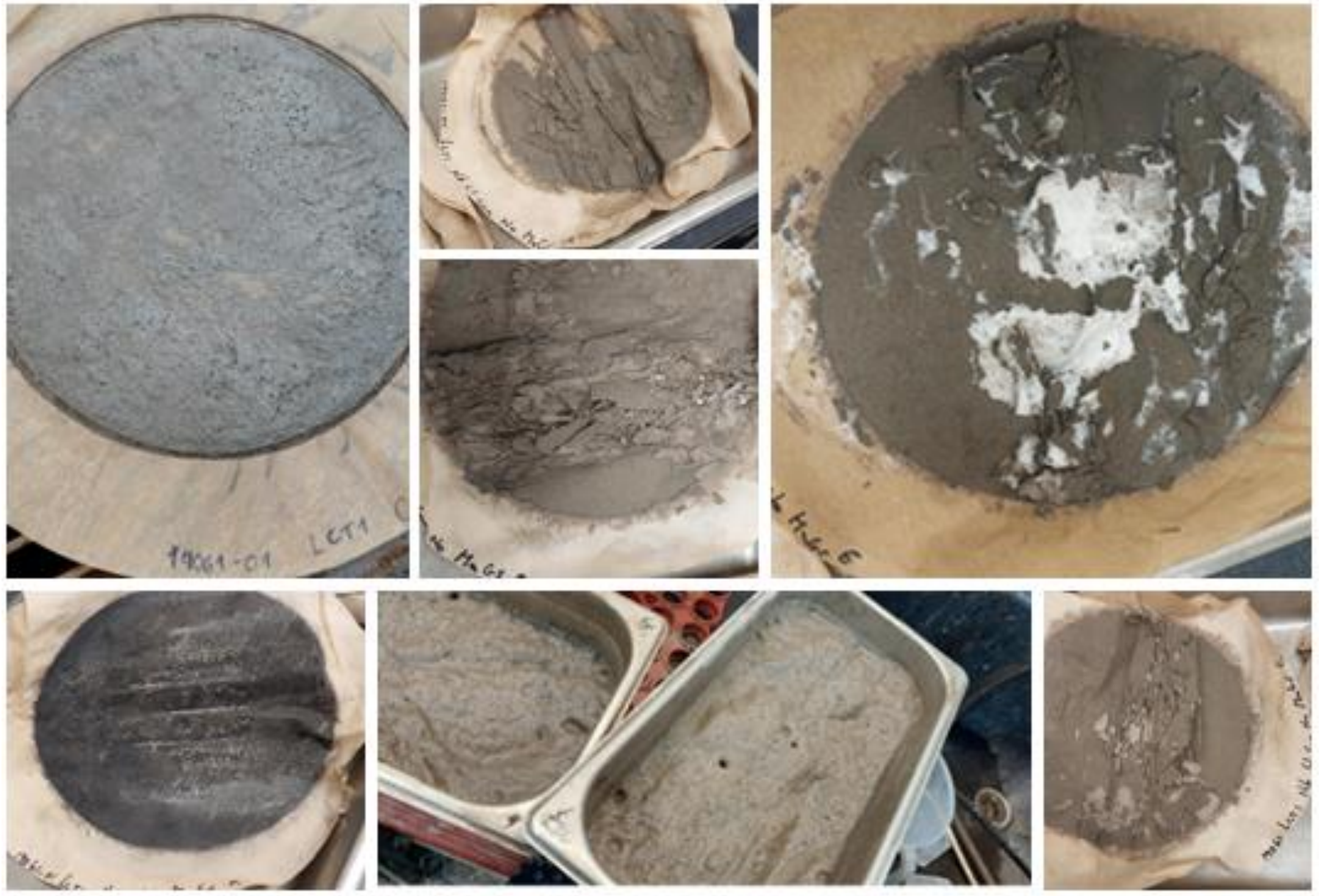
- **Received a $400 000 grant**
  - Critical and strategic mineral exploration support program of the Ministry of Natural Resources and Forests (MRNF)
- **Completed its first sample shipments to potential clients and partners**
- **Confirmed the extension of the mineralized zone at its Crevier Project and interception of Rare Earth Elements (REE) in its northernmost drill holes**
- **Improved the grade of its concentrate by 56% compared with historical metallurgical results**
- **Announced a new resource estimate for its Crevier Project**
- **Exploration resumed in 2026 with federal and Ontario support, backed by a three-year exploration permit valid through 2028 for our James Bay niobium project.**
- **Non-Fluoride extraction of Niobium and Tantalum from pyrochlore-microlite concentrates through alkali fusion and water leaching (R&D work at Laval University & CNETE)**
  - Achieved high extraction yields, namely 86.4% for niobium (Nb) and 91.4% for tantalum

2026 Highlights

- **NioBay completed, with the help of local Cree businesses, to put in place all shelters required for the 3 years exploration program.**
- **Geophysical surveys have commenced on James Bay (first phase June, second phase in July)**
- **A new presentation and Q&A form were provided to MCFN members**
- **Crevier summer work started in June (exploration and definition drilling). This year program was planned based on the previous resource report.**
- **Completed applications to several programs to support the next phase of our metallurgical test work**
- **Partnership discussions, primarily with the defense sector**
- **Preparation to receive delegations at the Crevier site (confirmed: Canada defense, First Nation, Norway and to be confirmed: France and South Korea)**

Metallurgy at Crevier

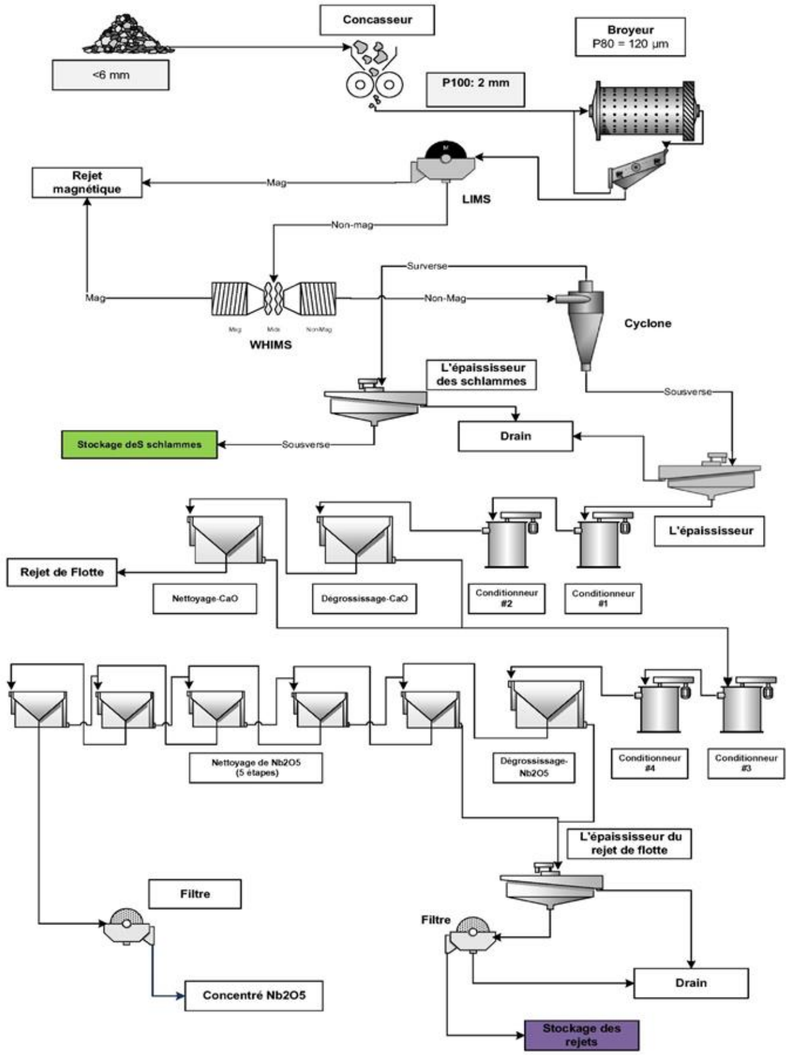
Photos of LCT concentrate flotation tests



Metallurgical testing and production of samples



Currently, niobium oxalate is sourced from China or CBMM (Brazil).







Metallurgy at Crevier

- Final metallurgical report demonstrates a **70% recovery of Nb_2O_5** and the achievement of target grades ranging from 17% Nb_2O_5 to 36% Nb_2O_5 across the different concentration stages
- Hydrometallurgical report demonstrates high extraction efficiency and strong selectivity. Overall recovery (conventional process) reached average extraction rates of **92.3% for niobium and 95.8% for tantalum**
- Purity of the final product (obtained through direct precipitation and calcination) is niobium pentoxide (Nb_2O_5), grading **75.8%**
- In terms of by-product valorization, the leach residue contains between **19% and 32% zirconium**
- Preliminary fluoride-free extraction work for niobium and tantalum via alkali fusion and water leaching achieved high extraction yields of **86.4% for niobium and 91.4% for tantalum** by using a low-grade concentrate containing **13% Nb_2O_5** (U Laval and CNETE)
- Metallurgy (gravity separation, magnetic separation and flotation tests) was conducted at SGS Canada Inc. (“SGS”) facilities in Quebec
- Hydrometallurgy (leaching, precipitation testing and calcination) was carried out at SGS facilities in Ontario

ALKALI Process

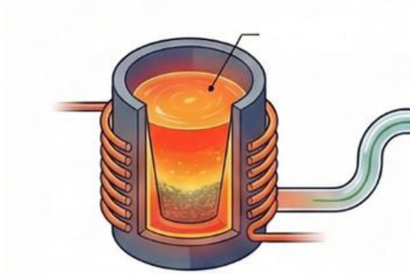
Development of an eco-responsible process for the extraction of niobium and tantalum from primary resources for the Crevier Project

NioBay METALS

UNIVERSITÉ LAVAL

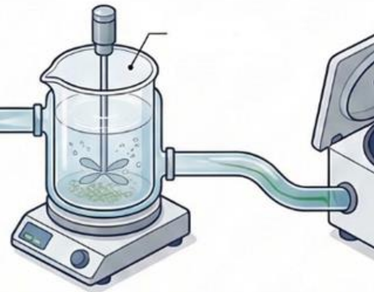
THE TWO-STEP EXTRACTION PROCESS

High-Temperature Alkali Fusion



Potassium hydroxide (KOH) converts refractory minerals into water-soluble potassium hexantallate and hexaniobate phases.

Optimized Water Leaching



Stirred at 600 rpm with a 100 g/L solid-to-liquid ratio for rapid extraction.

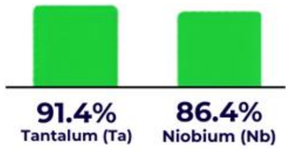
Solid-Liquid Separation



A 5-minute separation process isolates the metal-rich liquid from the insoluble residues.

PERFORMANCE AND SELECTIVITY

Exceptional Recovery Yields



91.4% Tantalum (Ta)

86.4% Niobium (Nb)

The alkaline route matches or exceeds efficiency and it is a more responsible process compared to our competitors.

Superior Impurity Rejection



6.3% Iron (Fe)

1.2% Calcium (Ca)

Minimal Co-extraction of Fe and Ca simplifies downstream purification.

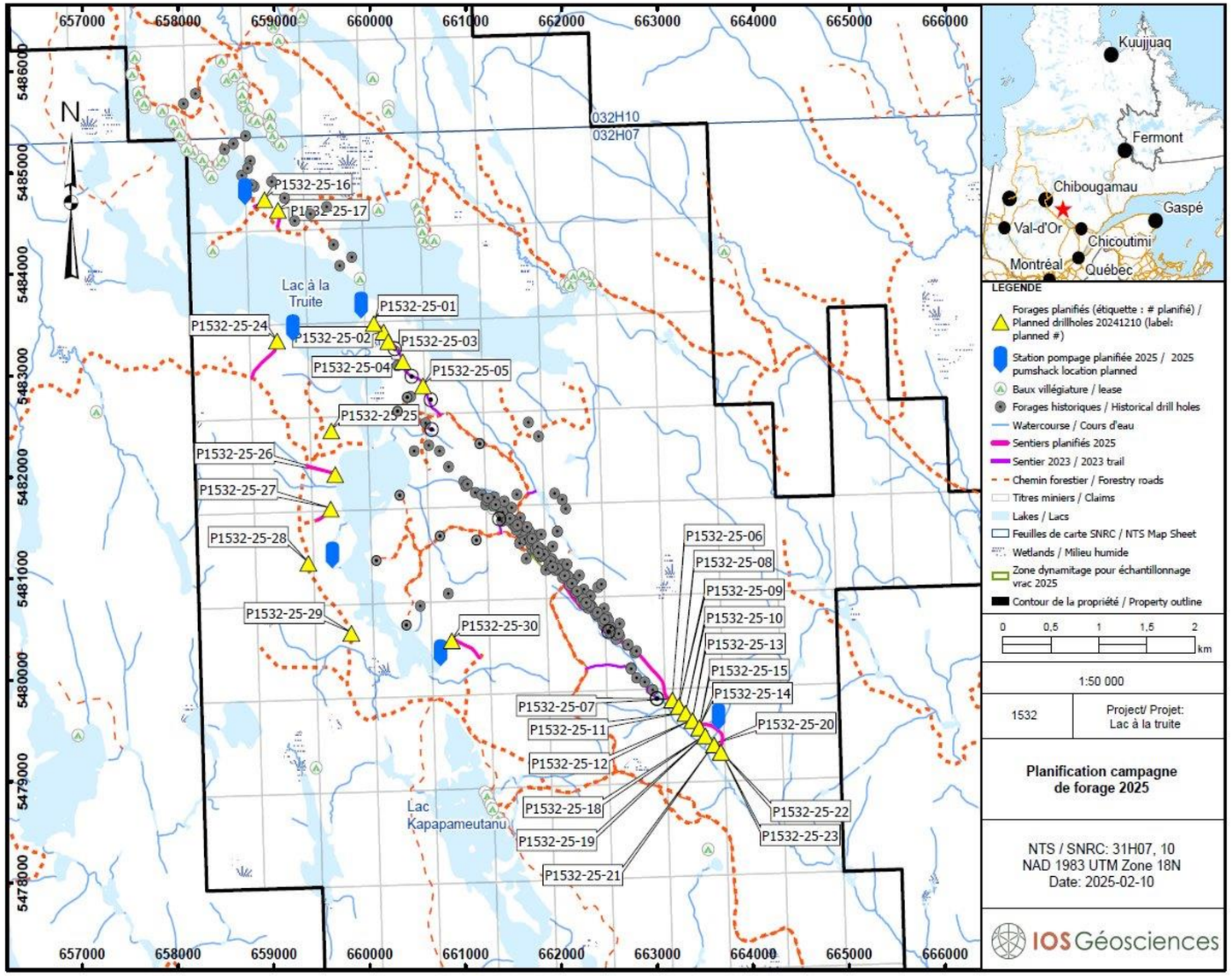


Low-grade concentrate potential

The tests were performed with low-grade concentrate (13% Nb_2O_5) showing the potential of this technology.



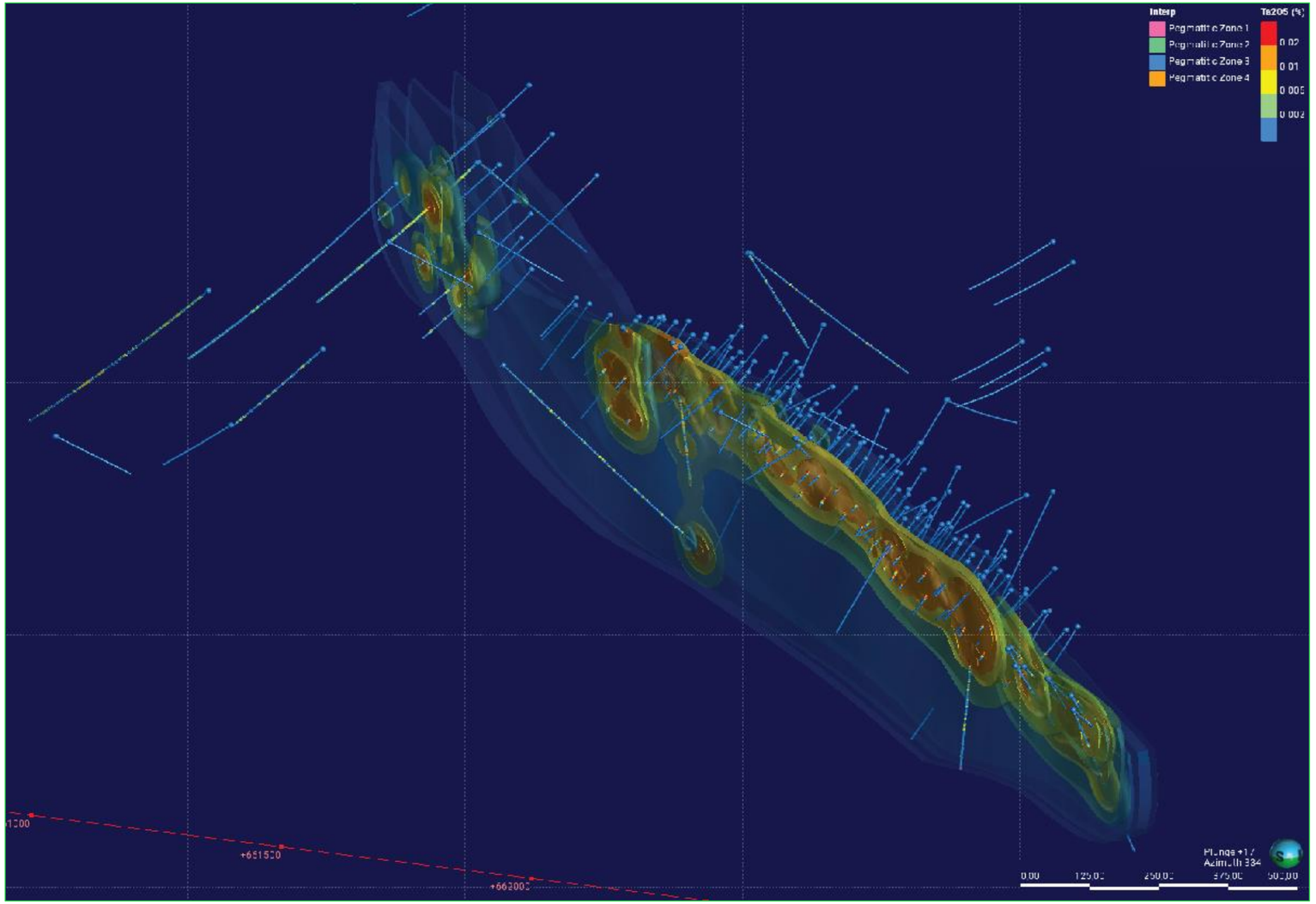
2025 Drilling Program



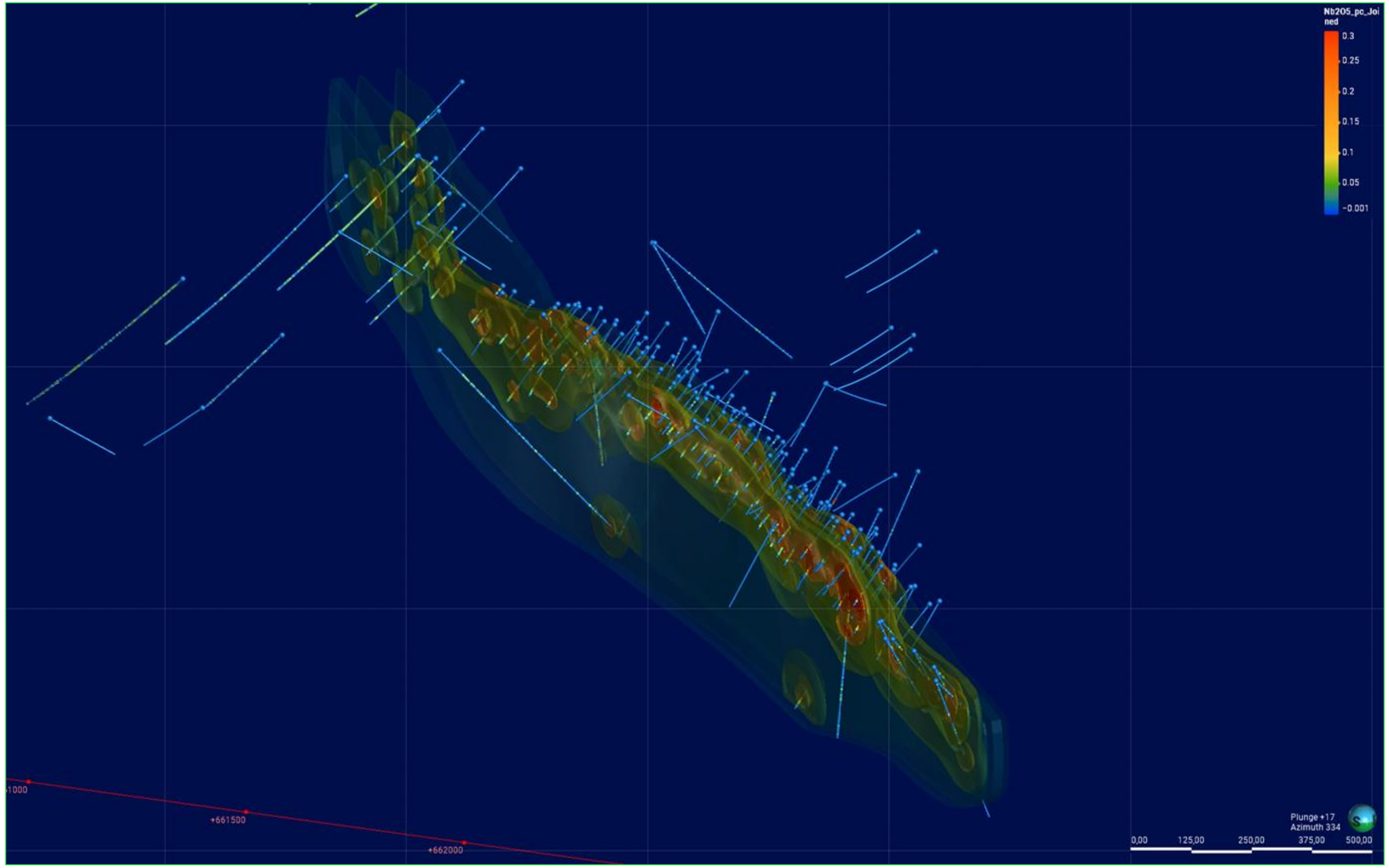
2025 Drill and Sampling Program

- 15 drill holes totaling 3,324 m
- Mineralization confirmed with a length exceeding 6 km
- 200-tonne bulk sample- 140 tonnes will be used for pilot-scale metallurgical testing

Crevier (Ta) Deposit : 1957-2023



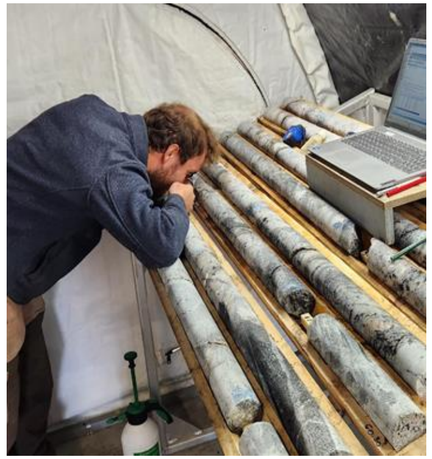
Crevier (Nb) Deposit : 1957-2023



Resources



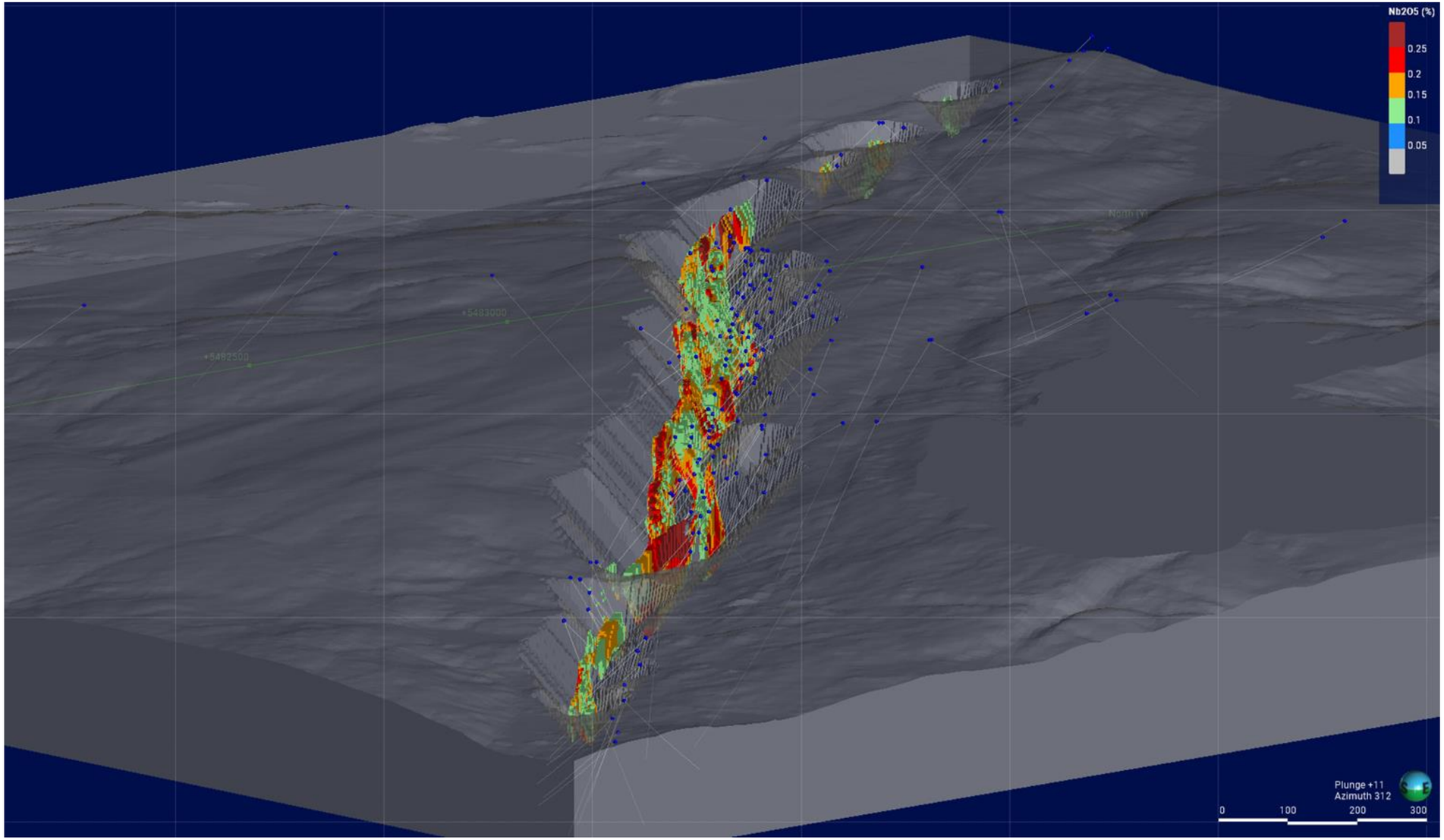
Collaboration agreement signed with Pekuakamiulnuatsh Takuhikan (Mashteuiatsh).





Category	Tonnage (t)	Nb_2O_5 (%)	Ta_2O_5 (ppm)
Measured	16,257,098	0.17	201
Indicated	4,475,931	0.17	208
M&I	**20,733,030**	**0.17**	**202**
Inferred	12,766,595	0.12	131

Crevier Resources 2025



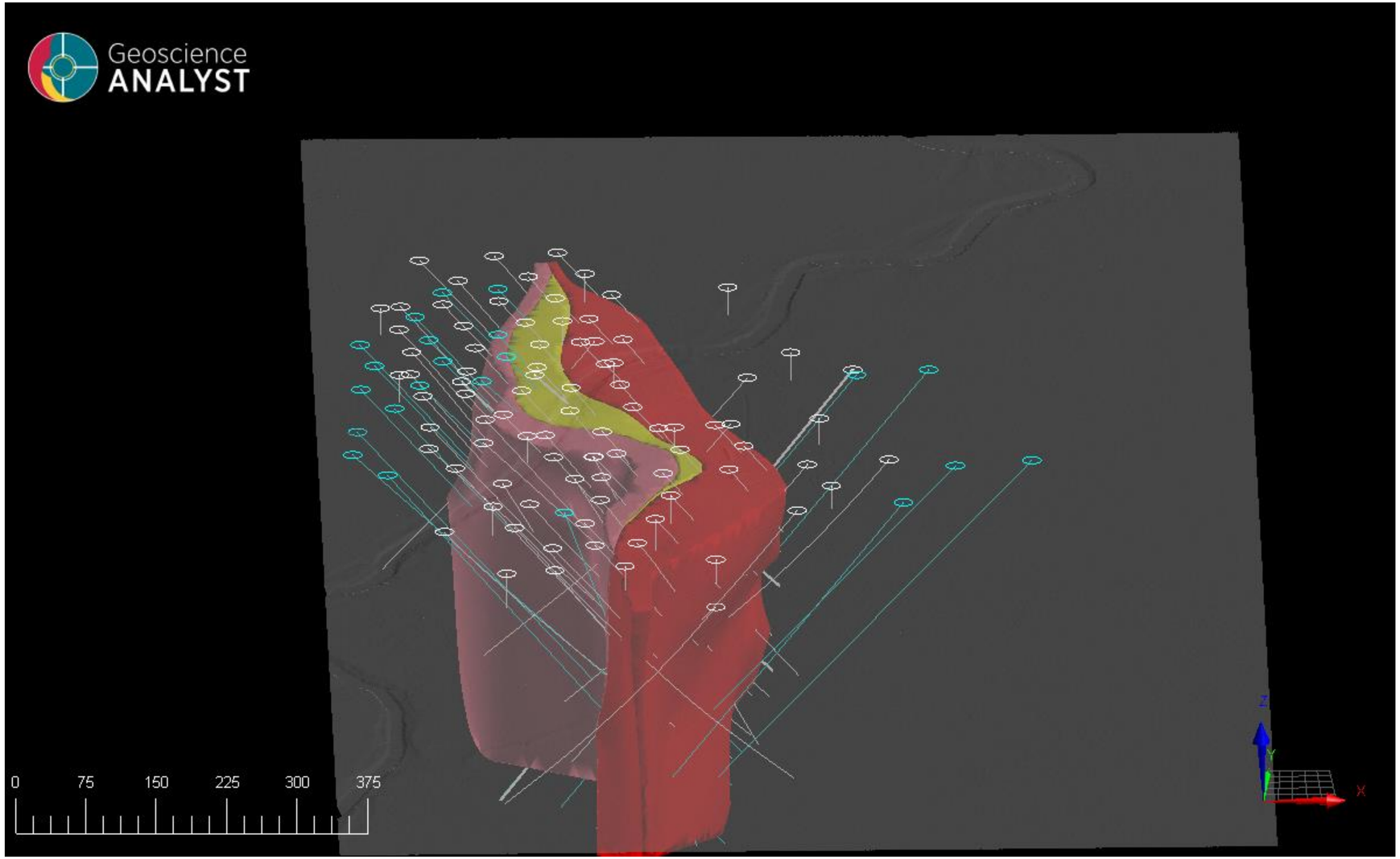
James Bay PEA (2020)

	Underground
Pre-tax internal rate of return	26.0%
Pre-tax net present value (NPV) 8%	$1,104M
Pre-tax payback (years)	3.8 years
After-tax internal rate of return	**21.6%**
After-tax NPV 8%	**$733M**
After-tax payback (years)	**4.3 years**
Pre-production CAPEX (Incl. 25% contingency)	**$579M**
Average annual LOM Nb production	**6,283 t**
Mine life	**23 years**
Total mineral resources mined	53.6 Mt
Average grade mined (Nb_2O_5)	0.51%
Gross revenue after royalties (LOM)	$8,454 M
After-tax operating cash flow (LOM)	**US$19.11/kg Nb**
C1 costs over LOM*	$66.94
All-in costs (Sustaining CAPEX+closure+OPEX)	US$21.43/kg Nb $78.08/t

Project economics

- $500 million Construction
- $3.8 billion in OPEX
- $300-$400 million sustaining
- Provincial Tax: $479 million
- Mining Tax: $226 million
- MCFN receive: $100 million of Mining Tax
- Federal Tax: $718 million
- $7 billion GDP impact
- 400 highly paid jobs
- 23-30 years mine life
- Strong potential to expand the resource base

James Bay Deposit



Legend

White: The historical holes

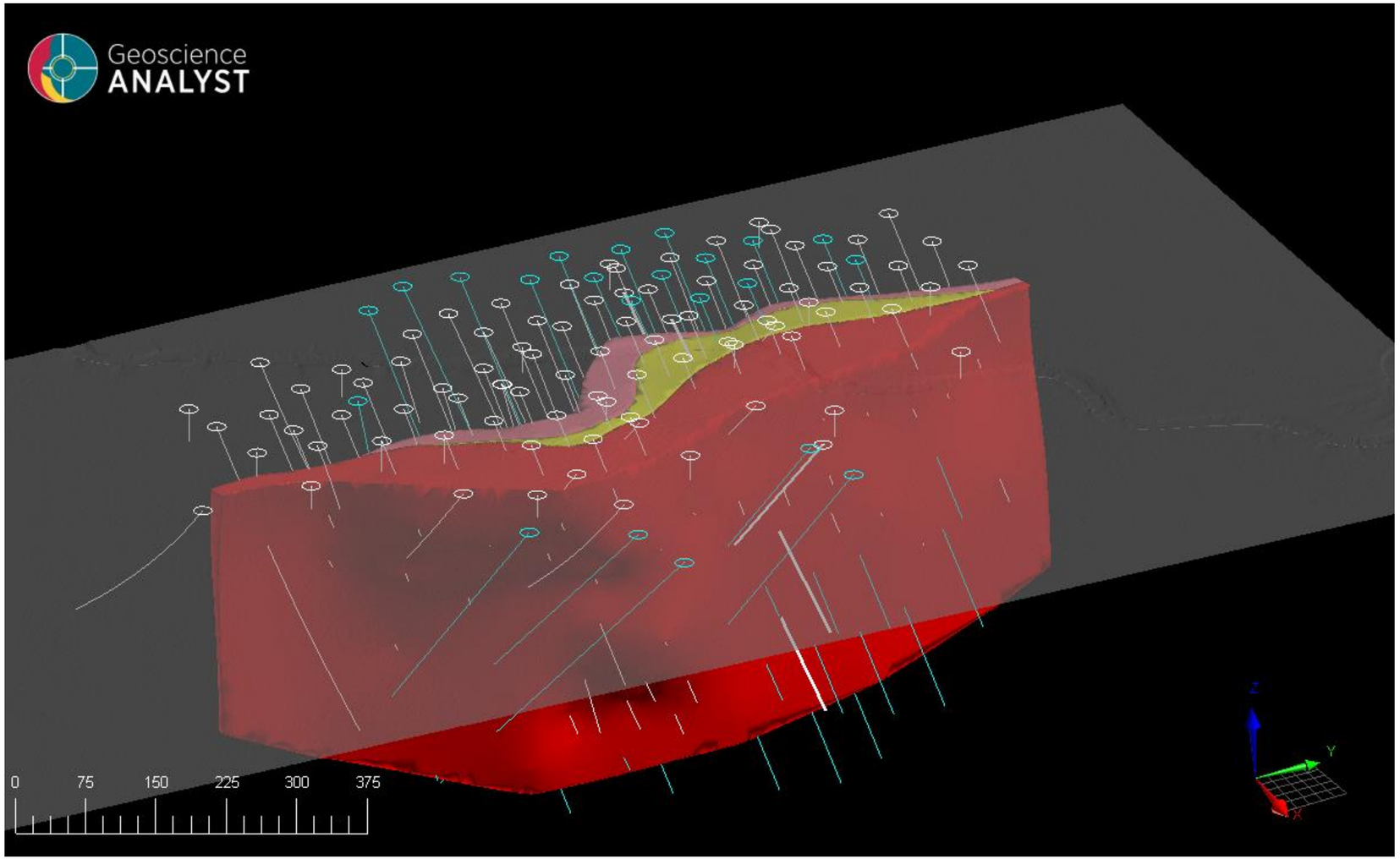
Blue: planned holes

Red: Main pyrochlore zone

Pink: East pyrochlore zone

Yellow: internal waste

James Bay Deposit



Legend

White: The historical holes

Blue: planned holes

Red: Main pyrochlore zone

Pink: East pyrochlore zone

Yellow: internal waste

2026 Priorities

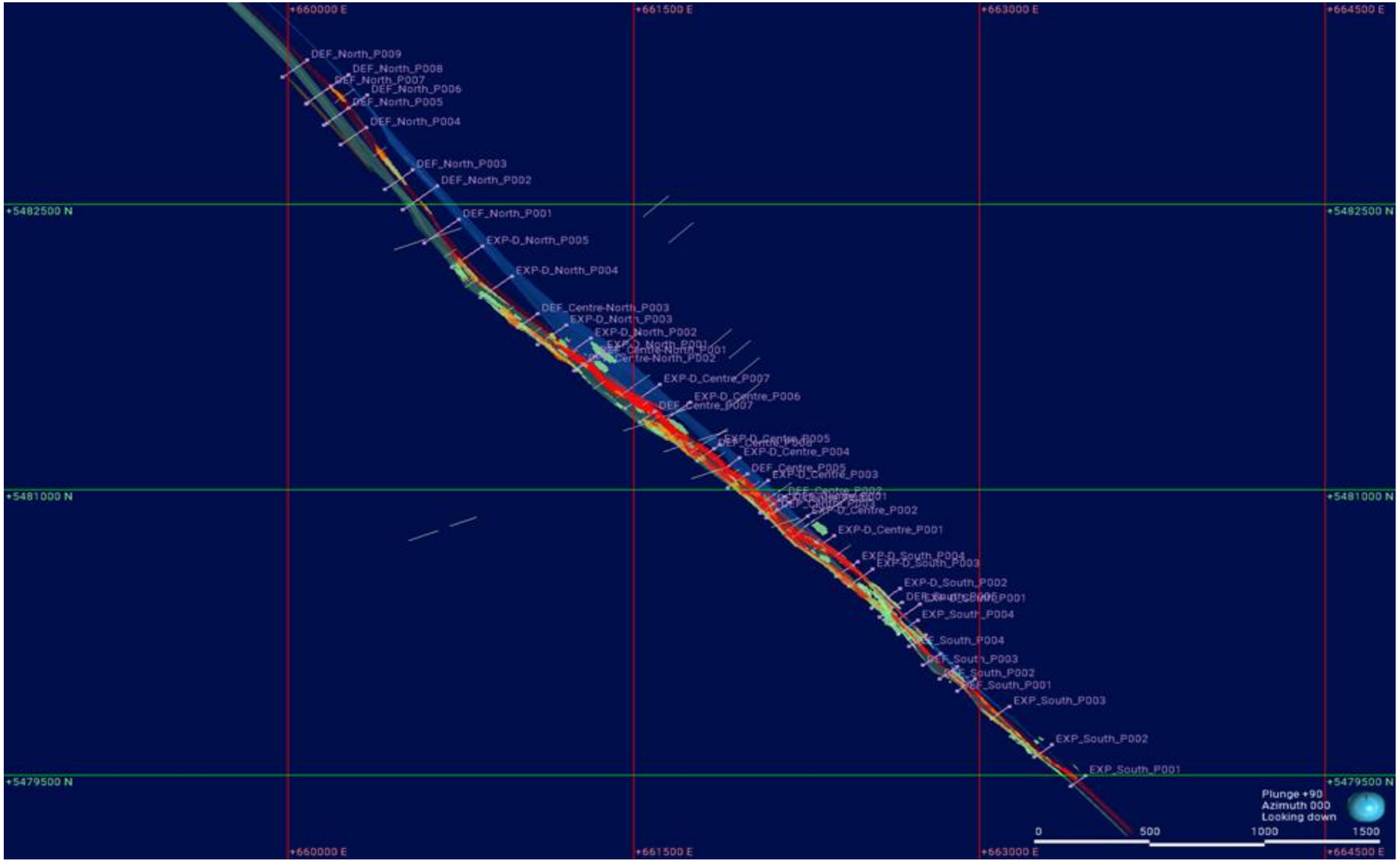
1. **Advanced metallurgical optimization**
   - Larger-scale pilot program (140 tonnes)
   - Refinement and validation of the ALKALI process
   - Evaluation of by-product recovery potential: zirconium
2. **Strengthening of strategic partnerships**
   - Evaluation of downstream collaboration opportunities
   - Advancement of offtake agreement discussions
3. **Continue exploration activities on our JBN project**
4. **Fieldwork progress**
   - Continuation of drilling and sampling
   - Resource update / resource review
5. **Preparation for the next phase of development**
   - Enhancing project profitability
   - Advancement toward pre-feasibility study (PFS+) stage

Financial Structure (May 31, 2026)	
Share Price	C$0.10
Shares outstanding	187.6M
Fully Diluted	284.1M
Market Cap	C$18.8M
Cash in Bank (excluding grants)	C$8.0M
Significant Shareholders Osisko Group & Management	+20%
TSXV: NBY | OTCQB: NBYCF	

Warrants

Description	Maturity date	Exercise price	Outstanding	Proceeds
UNIT Financing 2024 (T2)	25-May-26	$ 0.120	2,175,143	$ 261,017
UNIT Financing 2024 (T3)	27-Jul-26	$ 0.120	6,454,197	$ 774,504
Broker 2024 (T3)	27-Jul-26	$ 0.070	929,049	$ 65,033
Nov 2024 Unit financing (T1)	21-Nov-26	$ 0.130	1,470,588	$ 191,176
Nov 2024 Unit financing (T2)	27-Nov-26	$ 0.130	294,115	$ 38,235
July 2025 Unit Financing	29-Jul-27	$ 0.100	23,608,846	$ 2,360,885
July 2025 Unit Financing	29-Jul-27	$ 0.100	675,446	$ 67,545
December 2025 Unit financing	18-Dec-28	$ 0.200	12,277,430	$ 2,455,486
December 2025 FT financing	18-Dec-28	$ 0.200	28,306,250	$ 5,661,250
December 2025 Charity financing	18-Dec-28	$ 0.200	10,715,000	$ 2,143,000
December 2025 Concurrent	18-Dec-28	$ 0.200	2,296,250	$ 459,250
Dec. 2025 Broker Warrants	18-Dec-28	$ 0.200	2,597,063	$ 519,413
			91,799,377	**$ 14,996,793**

Crevier 2026, Field Program (10,000 m)



Sign up at www.niobaymetals.com to receive updates and announcements

Follow **NioBay** on socials

Questions?

Jean-Sébastien David. P. Geo., MGP
President, CEO & Director
NioBay Metals Inc
jsdavid@niobaymetals.com

1100 avenue des Canadiens-de-Montréal Suite 300,
Montreal, QC H3B 2S2

NioBay METALS
Our Future is Green