

# MANAGEMENT DISCUSSION & ANALYSIS

For the six-month period ended June 30, 2023





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# **PREAMBLE**

This Management Discussion and Analysis ("MD&A") dated August 10, 2023, has been prepared according to Regulation 51-102 of the continuous disclosure requirements and approved by the Board of Directors of Nouveau Monde Graphite Inc. (the "Company" or "NMG").

This MD&A should be read in conjunction with the Company's condensed consolidated interim unaudited financial statements for the six-month period ended June 30, 2023, and the consolidated audited financial statements for the years ended December 31, 2022 and December 31, 2021, and related notes. The Company's consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards ("IFRS"), as published by the International Accounting Standards Board ("IASB"). All monetary amounts included in this MD&A are expressed in thousands of Canadian dollars ("CAD"), the Company's reporting and functional currency, unless otherwise noted.

#### **PERIOD COVERED**

This MD&A report is for the six-month period ended June 30, 2023, with additional information up to August 10, 2023.

#### FORWARD-LOOKING STATEMENTS

This MD&A contains "forward-looking information" and "forward-looking statements" within the meaning of applicable securities legislation (collectively, "forward-looking statements"), which relate to future events or future performance and reflect management's expectations and assumptions regarding the Company's growth, results, performance and business prospects and opportunities. Such forward-looking statements reflect management's current beliefs and are based on information currently available to it. In some cases, forward-looking statements can be identified by words such as "may", "would", "could", "will", "should", "expect", "intend", "aim", "attempt", "anticipate", "believe", "study", "target", "estimate", "forecast", "predict", "outlook", "mission", "aspire", "plan", "schedule", "potential", "progress" or the negative of these terms or other similar expressions concerning matters that are not historical facts. In particular, statements regarding the Company's future results, the intended construction and commissioning timeline of the Matawinie Mine Project, the Bécancour Battery Material Plant Project, the shaping demonstration plant and the coating demonstration plant, the intended operation and performance of the purification demonstration plant, shaping demonstration plant, coating demonstration plant and the concentrator demonstration plant, the intended development of the Matawinie Mine property, the intended development of the Uatnan Mining Project, including the formation of a joint venture, the economic performance and product development efforts, as well as the Company's expected achievement of milestones, including the ability to obtain sufficient financing for the development of the Matawinie Mine Project and the Bécancour Battery Material Plant Project, including the completion of the FID (as defined herein), the ability to achieve the Company's environmental, social and governance ("ESG") initiatives, the Company's electrification strategy and its intended results, market trends, the Company's competitive advantages, macroeconomic conditions, the impact of various laws and regulations, the results of the integrated feasibility study, preliminary economic assessment for the Uatnan Mining Project and any other feasibility study and preliminary economic assessments and any information as to future plans and outlook for the Company are or involve forward looking statements.

Forward-looking statements are based on reasonable assumptions that have been made by the Company as at the date of such statements and are subject to known and unknown risks, uncertainties, and other factors that may cause the actual results, level of activity, performance, or achievements of the Company



to be materially different from those expressed or implied by such forward-looking statements, including but not limited to, the actual results of current development, engineering and planning activities, access to capital and future prices of graphite, new mining operation inherent risks, mineral exploration and development activities inherent risks, the uncertainty of processing the Company's technology on a commercial basis and those factors discussed in the section entitled "Risk Factors" in Company's most recent annual information form. Forward-looking statements in this MD&A contain, among other things, disclosure regarding: the Company's development activities and production plans, including the operation of the shaping demonstration plant, the purification demonstration plant and the concentrator demonstration plant; the construction and commissioning, as applicable, of the Matawinie Mine Project, the Bécancour Battery Material Plant Project, the shaping demonstration plant and the coating demonstration plant; the development of the Uatnan Mining Project, the impact of infectious diseases, global pandemics or any other public health crises, including COVID-19 pandemic ("COVID-19"), and the ongoing war between Russia and Ukraine on the Company's operations; the future outlook, corporate development and strategy of the Company; the Company's projected capital and operating expenditures; the estimates of mineral resources and mineral reserves; the Company's green and sustainable lithium-ion active anode material initiatives; the government regulation of mining operations, environmental regulation and compliance; the realization of the expected economics of the construction and operation of the Matawinie Mine Project and the Bécancour Battery Material Plant Project; the ability to obtain sufficient financing and the permitting required for the development of the Matawinie Mine Project and the Bécancour Battery Material Plant Project; and business opportunities that become available to, or are pursued by the Company.

Forward-looking statements are based on assumptions management believes to be reasonable, including but not limited to: general business and economic conditions; there being no direct operational impacts resulting from infectious diseases or pandemics; the supply and demand for, deliveries of, and the level and volatility of prices for graphite products; the speculative nature of mineral exploration and development; changes in mineral production performance and increase in costs, exploitation, exploration and mine new mines' start-up successes; the risk that exploration data may be incomplete and additional work may be required to complete further evaluation, including but not limited to drilling, engineering, and socioeconomic studies and investment; the impact of the inflation of the Company's planned exploration and development activities, the timing of the receipt of necessary regulatory and governmental permits and approvals for the Matawinie Mine Project and Bécancour Battery Material Plant Project; the availability of financing for the Company's development of its properties and construction of its facilities and installations on reasonable terms; the possibility that the Company may incur additional debt; the ability to procure equipment and operating supplies in sufficient quantities and on a timely basis; increased costs, delays, suspensions and technical challenges associated with the development, construction and commissioning of the Matawinie Mine Project and the Bécancour Battery Material Plant Project; the good standing of the Company's title and claims on its properties; the ability to attract and retain skilled staff and maintain positive relationships with the staff; the risk of relying on consultants; development and production timetables; competition and market risks; pricing pressures; the accuracy of the Company's mineral resource and mineral reserve estimates (including, with respect to size, grade and recoverability) as well as the geological, operational and price assumptions on which they are based; the volatile nature of the share price of a resources company and public Company obligations, currency fluctuations, the fact that certain business improvement initiatives are still in the early stages of evaluation, and additional engineering and other analysis is required to fully assess their impact; the fact that certain of the initiatives described in this MD&A, are still in the early stages and may not materialize; business continuity and crisis management; and such other assumptions and factors as set out herein and in this MD&A.

Although the Company has attempted to identify important factors that could cause actual results to differ



materially from those contained in forward-looking statements, there may be other factors that may cause results not to be as anticipated, estimated, or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. The Company does not undertake to update or revise any forward-looking statements that are included in this MD&A, whether as a result of new information, future events, or otherwise, except in accordance with applicable securities laws.

#### TECHNICAL INFORMATION AND CAUTIONARY NOTE TO U.S. INVESTORS

Scientific and technical information in this MD&A has been reviewed and approved by Antoine Cloutier, géo, Chief Geologist for NMG, a Qualified Person as defined by National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101"). Further information about the Matawinie Mine Project and the Bécancour Battery Material Plant Project, including a description of key assumptions, parameters, methods, and risks, is available in a technical report following NI 43-101 rules and guidelines, titled "NI 43-101 Technical Feasibility Study Report for the Matawinie Mine and Bécancour Battery Material Plant Integrated Graphite Projects", effective July 6, 2022, and available on SEDAR+ and EDGAR (the "Feasibility Study"). Further information about the Uatnan Mining Project, including a description of key assumptions, parameters, methods, and risks, is available in a technical report following NI 43-101 rules and guidelines, titled "NI 43-101 Technical Report – PEA Report for the Uatnan Mining Project", effective January 10, 2023, and available on SEDAR+ and EDGAR (the "PEA").

Disclosure regarding Mineral Reserve and Mineral Resource estimates included herein were prepared in accordance with *Regulation 43-101 respecting Standards of Disclosure for Mineral Projects* ("**NI 43-101**") and applicable mining terms are as defined in accordance with the CIM Definition Standards on Mineral Resources and Reserves adopted by the Canadian Institute of Mining, Metallurgy and Petroleum Council (the "**CIM Definition Standards**"), as required by NI 43-101. Unless otherwise indicated, all reserve and resource estimates included in this MD&A have been prepared in accordance with the CIM Definition Standards, as required by NI 43-101.

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. NI 43-101 differs from the disclosure requirements of the United States Securities and Exchange Commission (the "SEC") applicable to U.S. companies. Accordingly, information contained herein may not be comparable to similar information made public by U.S. companies reporting pursuant to SEC reporting and disclosure requirements.

#### MARKET AND INDUSTRY DATA

Market and industry data presented throughout this MD&A was obtained from third-party sources and industry reports, publications, websites, and other publicly available information, as well as industry and other data prepared by the Company or on behalf of the Company based on its knowledge of the markets in which the Company operates, including information provided by suppliers, partners, customers and other industry participants.

The Company believes that the market and economic data presented throughout this MD&A is accurate as of the date of publication and, with respect to data prepared by the Company or on behalf of the Company, that estimates and assumptions are currently appropriate and reasonable, but there can be no assurance as to the accuracy or completeness thereof. The accuracy and completeness of the market and economic data presented throughout this MD&A are not guaranteed and the Company does not make any



representation as to the accuracy of such data. Actual outcomes may vary materially from those forecasted in such reports or publications, and the prospect for material variation can be expected to increase as the length of the forecast period increases. Although the Company believes it to be reliable as of the date of publication, the Company has not independently verified any of the data from third-party sources referred to in this MD&A, analyzed or verified the underlying studies or surveys relied upon or referred to by such sources, or ascertained the underlying market, economic and other assumptions relied upon by such sources. Market and economic data are subject to variations and cannot be verified due to limits on the availability and reliability of data inputs, the voluntary nature of the data-gathering process and other limitations and uncertainties inherent in any statistical survey. In addition, certain of these publications, studies and reports were published before COVID-19 and therefore do not reflect any impact of COVID-19 on any specific market or globally.

# THE COMPANY

#### **CORPORATE STRUCTURE**

The Company was established on December 31, 2012, under the *Canada Business Corporations Act*. NMG's registered office is located at 481 Brassard Street, Saint-Michel-des-Saints, Québec, Canada, JOK 3BO.

The Company's shares are listed under the symbol NMG on the New York Stock Exchange ("NYSE"), NOU on the TSX Venture Exchange ("TSXV"), and NM9A on the Frankfurt Stock Exchange.

The Company's consolidated financial statements have been prepared using accounting principles applicable to a going concern, which contemplates the realization of assets and settlement of liabilities in the normal course of business as they come due. In assessing whether the going concern assumption is appropriate, management considers all available information about the future, which is at least, but not limited to, the next twelve months.

Management believes that without additional funding, the Company does not have sufficient liquidity to pursue its planned expenditures. These circumstances indicate the existence of material uncertainties that cast substantial doubt upon the Company's ability to continue as a going concern and, accordingly, the appropriateness of the use of IFRS applicable to a going concern.

The Company's ability to continue future operations and fund its development and acquisition activities is dependent on management's ability to secure additional financing, which may be completed in a number of ways including, but not limited to, the issuance of debt or equity instruments, expenditure reductions, or a combination of strategic partnerships, joint venture arrangements, project debt finance, offtake financing, royalty financing and other capital markets alternatives. While management has been successful in securing financing in the past, there can be no assurance it will be able to do so in the future or that these sources of funding or initiatives will be available for the Company or that they will be available on terms which are acceptable to the Company.

Although management has taken steps to verify the ownership rights in mining properties in which the Company holds an interest in accordance with industry standards for the current stage of exploration of such properties, these procedures do not guarantee the title property for the Company. The title may be subject to unregistered prior agreements and may not comply with regulatory requirements.



#### **VALUE PROPOSITION**

NMG is a Québec-based company striving to become a key contributor to the sustainable energy revolution. The Company is working towards developing a fully integrated source of carbon-neutral battery anode material in Québec, Canada for the growing lithium-ion battery and fuel cell markets, and other value-added graphite products. With enviable ESG standards, the Company aspires to become a strategic supplier to the world's leading battery and auto manufacturers, providing high-performing and reliable advanced materials while promoting sustainability and supply chain traceability.

**Vision** Drive the transition to a green future through sustainable zero-carbon solutions.

Mission Provide the greenest advanced graphite materials with a carbon-neutral footprint for a

sustainable world.

**Values** Safety, responsibility, openness, integrity, and entrepreneurial spirit.

The Company's activities are focused on the planned Matawinie graphite mine (the "Matawinie Mine") and the planned commercial value-added graphite products transformation plant (the "Bécancour Battery Material Plant"), both of which are progressing concurrently towards commercial operations. Underpinning these projects are NMG's world-class Matawinie graphite deposit, its proprietary technologies, and clean hydroelectricity powering its operations. The Company is also exploring the potential of developing and operating the Uatnan mining project (the "Uatnan Mining Project") that leverages Mason Graphite Inc.'s ("Mason Graphite") Lac Guéret graphite deposit.

# HIGHLIGHTS

- » Ongoing commitment to prioritize the safety of our activities amidst a period of intense spring freshet, forest fires in northern areas and heavy rains. Year-to-date OSHA rate of 1.86 at our facilities, 0 for contractors' work, with no major environmental incident.
- » Ahead of Phase-2 development, Company-wide focus on securing the best multiyear sales agreements to provide bankability confirmation to potential lenders, final technical parameters for detailed engineering of the Bécancour Battery Material Plant, commercial visibility for NMG's business execution plan, and long-term value for shareholders.
- » Progress on defining technical and commercial parameters for a long-term agreement with Panasonic Energy Co., Ltd. ("Panasonic Energy") on the back of the Memorandum of Understanding offtake (the "Offtake MoU").
- » Advancement of parallel commercial discussions with a few selected tier-1 battery and electric vehicle ("EV") manufacturers for potential offtake agreements.
- » Continued extensive testing at NMG's Phase-1 plants in close collaboration with potential customers' technical teams to address process efficiency and challenges, help refine plans for Phase-2 facilities, and reduce risks ahead of commercial operations.
- » Definitive agreements signed with Caterpillar Inc. and an affiliate ("Caterpillar") to collaborate on technology development, testing, and procurement of all-electric fleet and infrastructure for the Phase-2 Matawinie Mine, plus opportunities for NMG to supply carbon-neutral graphite materials to Caterpillar for its sustainable battery supply chain.
- » Underwritten public financing of US \$22 million in support of the advancement of the Matawinie Mine and Bécancour Battery Material Plant towards the final investment decision ("FID") and project financing.
- » Advanced discussions with multiple governmental agencies and programs to optimize and lower the cost of the targeted capital structure for the project financing.



- » Near-term macroeconomic uncertainty contributing to downward pressure on FOB-China prices of all key battery materials with upward correction expected as EV adoption growth continues (Benchmark Mineral Intelligence, July 2023).
- » Lithium-ion battery industry now developing 8,930 GWh of global production capacity by 2030 through 399 operating or planned gigafactories (Benchmark Mineral Intelligence, July 2023).
- » Period-end cash position of \$59.8 million.

# **BUSINESS LINES**

Striving to establish a local, carbon-neutral, and traceable turnkey supply of graphite-based advanced materials for the Western World, the Company is advancing an integrated business operation, from responsible mining to advanced manufacturing. NMG is developing natural flake graphite as well as coated spherical purified graphite ("CSPG"), which is an essential component in lithium-ion batteries used in EVs, energy storage solutions, and consumer technology applications.

The Company is carrying out a phased-development plan for its Matawinie Mine and Bécancour Battery Material Plant (respectively, with the applicable demonstration plants, the "Matawinie Mine Project" and "Battery Material Plant Project") to derisk its projects and advance toward commercial operations. To support growth and meet customers' demand beyond its Phase 2, the Company is exploring the development of the Uatnan Mining Project targeted as NMG's Phase-3 expansion.

# **Battery Material Plant Project**

# Phase 1 – Battery Material Demonstration Plants

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Shaping Demonstration Plant	The Company has been operating a commercial-scale shaping

unit since 2020. A second unit has been assembled in 2022

and commissioning was completed in April 2023.

Purification Demonstration Plant The purification demonstration unit is currently in production

with a 2,000 tpa nameplate capacity.

Coating Demonstration Plant Initial batches testing the coating module produced in Q2-

2023.

Phase 2 – Bécancour Battery Material Plant Engineering of Phase-2, optimization of the Feasibility Study

based on Panasonic's specifications as per the Offtake MoU, and piloting at Phase-1 facilities support the finalization of

projected operational parameters.

# **Matawinie Mine Project**

# Phase 1 – Matawinie Mine Demonstration Plant

Concentrator Demonstration Plant Since September 2018, the Company has been operating a

flake concentration demonstration plant.

Phase 2 – Matawinie Mine Groundwork started in 2021 at the construction site while

engineering and procurement advance in parallel.

# **Uatnan Mining Project**

Phase 3 – Uatnan Mining Project A PEA was carried out to leverage the Lac Guéret deposit

resource and update operational parameters.



# **BATTERY MATERIAL PLANT PROJECT**

The Company is advancing its execution strategy through sample production at Phase-1 facilities, testing of production modules, refinement of process efficiency, technological optimization of advanced manufacturing processes, as well as engineering of its Phase-2 development plans in line with the latest Feasibility Study for an integrated operational model.

# **Battery Material Demonstration Plants**

Shaping equipment is producing spherical graphite at NMG's Phase-1 facility. The commissioning of the second module was successfully completed during the period. Through testing and engagement with potential customers, NMG is refining its process and building a robust model to efficiently produce samples of varying specifications, with short development and optimization duration.

» Production is set to ramp up in H2-2023.

The Company is using its proprietary thermochemical purification process to enhance its product range, offering graphite advanced materials with a purity level exceeding 99.95%. On October 27, 2020, NMG announced a five-year agreement with Olin Corporation ("Olin"), which covers the manufacturing space for operations, site services, and the supply of certain raw materials to support the commercialization of NMG's advanced graphite materials.

- » The Company's first two commercial-scale pilot plant purification modules (Phase 1) have been constructed within existing space at Olin's facility in Bécancour, Québec. The scalable furnaces have a nameplate capacity of 2,000 tpa of purified battery-grade graphite.
- » NMG is producing spherical purified graphite ("SPG"), demonstrating the performance of its proprietary purification ecotechnology; samples confirmed the purity of up to +99.99%, above the level required for energy applications.
- » In line with specific client specifications, NMG continues enhancing its purification process for battery-grade active graphite materials and purified jumbo flakes for niche applications.
- » Production samples continue to demonstrate positive results both at the Company's laboratory and at a leading third-party testing facility.

Determined to develop the entire value chain from mine to active anode material to provide a turnkey and traceable source to battery manufacturers, NMG is deploying a coating technology at its Phase-1 facility. The coating of spherical graphite is the last process step needed to complete the Company's graphite-based product range for the EV and renewable energy sectors.

» Initial batches testing the coating module produced in Q2-2023.

#### **Bécancour Battery Material Plant**

NMG owns a 200,000 m² land in the Bécancour industrial park in Québec, Canada, adjacent to Olin's facility, to build an integrated manufacturing plant with a projected annual production volume of roughly 46,000 tpa of advanced graphite materials (Phase 2). Approximately 150 km northeast of Montréal, close to the Saint Lawrence River, the site provides robust local infrastructure with a direct supply of required chemicals, affordable hydroelectricity, skilled workforce, and no environmental limitations for construction. Its multimodal logistical base includes a major international port, plus rail and highway for both importing raw materials and exporting final products throughout North America and Europe.

» A study of archaeological potential comprised of surveys of historical documentation and on-site work, was completed in 2022 for the land. The study was carried out by the Ndakina Office of the Conseil de la Nation Waban-Aki, the Indigenous organization overseeing territorial and



environmental protection questions for the Abenaki Councils of Odanak and Wôlinak. No archaeological discoveries were made.

Bécancour is rapidly attracting important industrial players in the battery materials and cell manufacturing space, supported by the Québec Government's battery hub strategy. Twenty industrial and commercial projects are planned or under study, including BASF, GM-Posco, Ford, Vale, Nemaska Lithium, and Electra Battery Materials. The Company's site, at the center of this development zone, represents a strategic and operational asset.

» The Québec Government is propelling the growth of a battery hub in Bécancour and neighboring municipalities with a new \$8-million direct investment in infrastructure and research projects through an Innovation Zone.

The Company mandated engineering firm BBA, with the support of various technical consultants, to carry out an integrated Feasibility Study covering the Phase-2 Matawinie Mine and Bécancour Battery Material Plant projects. Results of the Feasibility Study were published on July 6, 2022, demonstrating attractive economics. Regrouping on-site all beneficiation units, the Bécancour Battery Material Plant is designed to receive approximately 63,775 tpa of graphite concentrate from the Matawinie Mine to be transformed into 42,616 tpa of CSPG, 3,007 tpa of purified flakes and 18,384 tpa of by-product fines, a valuable graphite material.

» The Feasibility Study is available on SEDAR+, EDGAR, and the Company's website.

The Company is now advancing plans for the Phase-2 Bécancour Battery Material Plant in line with commercial discussions.

- » Piloting at NMG's Phase-1 facilities and active technical engagement with potential customers specifications to inform final process design criteria.
- » BBA was mandated to advance some engineering, perform trade-off studies on equipment and refine plant design in order to optimize the commercial plant flowsheet.
- » NMG has finalized the project's execution and contracting strategy in preparation for construction once FID is reached. Construction permit demands as well as long-lead items tendering packages are being prepared.

# **MATAWINIE MINE PROJECT**

The Matawinie graphite property includes 246 mining claims covering 13,214 hectares as of the date of this MD&A, in which the Company owns a 100% interest. The Tony Block, or Mining Property, part of the Matawinie graphite property, is composed of 159 claims totaling 8,266 hectares. The Tony Claim Block is located approximately 120 km as the crow flies north of Montréal, Québec, Canada, in Saint-Michel-des-Saints. This block is easily accessible via the dedicated access road connecting to the local highway and is close to high-quality infrastructure, including paved roads and high-voltage power lines, and the community, which counts skilled laborers and contractors. The project is located close to the Montréal metropolitan area, which also has a considerable pool of nearby labor and suppliers of goods and services.

As part of the Feasibility Study for its integrated business model, parameters of the 2018 feasibility study were updated, including Mineral Resources and Mineral Reserves, operational, and financial metrics. Project highlights for the Matawinie Mine now include:

- » Annual processing rate: 2.55 million metric tonnes
- » Average annual graphite concentrate production: 103,328 metric tonnes
- » Average recovery: 93%
- » Finished product purity: 97% Cg
- » Stripping ratio (LOM): 1.16:1.



#### **Mineral Resources and Reserves**

Since the deposit discovery, a comprehensive exploration program uncovered significant crystalline flake graphite mineralization, ultimately leading to the identification of Mineral Resources and Reserves.

As part of the Feasibility Study, Mineral Resources have been updated and estimated for the West Zone of the mining property. These Mineral Resources are based on 8,274 assay intervals collected from 27,888 m of core drilling and three surface trenches providing 207 channel samples. Proper quality control measures, including the insertion of duplicate, blank, and standard samples, were used throughout the exploration programs and returned within acceptable limits.

Current Pit-Constrained Mineral Resource Estimate for the West Zone<sup>1</sup>

Mineral Resource Category <sup>2</sup>	Current Resource (May 20, 2022) 7			
	Tonnage (Mt) <sup>5,6</sup>	<b>Grade</b> (% Cg) <sup>3</sup>	Contained Graphite (Mt)	
Measured	28.5	4.28	1.22	
Indicated	101.8	4.26	4.33	
Measured + Indicated	130.3	4.26	5.55	
Inferred <sup>4</sup>	23.0	4.28	0.98	

- The Mineral Resources provided in this table were estimated by Yann Camus, P.Eng. SGS of Canada Inc. Geological Services ("SGS Geological Services") using current Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Standards on Mineral Resources and Reserves, Definitions and Guidelines.
- 2 Mineral Resources that are not Mineral Reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert Inferred and Indicated Mineral Resources to Measured Mineral Resources. There is no certainty that any part of a Mineral Resource will ever be converted into Reserves.
- 3 All analyses used for the Resource Estimates were performed by ALS Minerals Laboratories and delivered as graphitic carbon ("% Cg"), internal analytical code C-IR18.
- 4 Inferred Mineral Resources represent material that is considered too speculative to be included in economic evaluations. Additional trenching and/or drilling will be required to convert Inferred Mineral Resources to Indicated or Measured Mineral Resources. It cannot be assumed that all or any part of the inferred resources will ever be upgraded to a higher resource category.
- 5 Current Resource effective May 20, 2022.
- 6 Mineral Resources are stated at a cut-off grade of 1.78 % Cg.
- The Standards used for this resource update are the same standards produced over the course of the 2018 Feasibility Study (effective as of July 10, 2018, and issued on December 10, 2018) and the Resource Update (results published March 19, 2020). The difference comes mainly from a newly accessible land package along the Hydro-Québec power line.

A combined Mineral Resource of the South-East and South-West zones is also present on the mining property. While these deposits are part of the mining property, they have not been studied to be integrated in the Mineral Reserves or the mine plan.

#### Matawinie Mineral Reserves for the West Zone

Category	Tonnage (Mt)	Grade (% Cg)	Contained Graphite (Mt)
Proven	17.3	4.16	0.7
Probable	44.3	4.26	1.9
Proven & Probable	61.7	4.23	2.6

The Qualified Person for the Mineral Reserve Estimate is Jeffrey Cassoff, P.Eng., of BBA Inc.

The effective date of the estimate is July 6, 2022.

Mineral Reserves were estimated using a graphite concentrate average selling price of C\$2,135/tonne, and considering a 2% royalty, and selling costs of C\$47.92/tonne. An average grade of 97% was considered for the graphite concentrate.

A metallurgical recovery of 93% was used.

A cut-off grade of 2.20% Cg was used.

The strip ratio for the open pit is 1.16 to 1.

The Mineral Reserves are inclusive of mining dilution and ore loss.

The reference point for the Mineral Reserves is the primary crusher.

Totals may not add due to rounding.



# **Matawinie Mine Demonstration Plant (Phase 1)**

Since 2018, the Company has been operating a concentrator demonstration plant in Saint-Michel-des-Saints to support its business strategy and notably to:

- » qualify the Company's graphite products and establish a sales record;
- » test and improve processes for commercial operations;
- » test new innovative technologies of tailings management and site restoration; and
- » train employees and promote future employment opportunities to local labor.

Several hundred tonnes of graphite concentrate are being produced on an annual basis with the materials extracted from the West Zone Deposit of the Matawinie graphite property with grades between 94-98% Cg (as per technical requirements). The production serves as the feedstock for the Company's Phase-1 battery material demonstration plants and as samples for potential customers interested in high-purity flake graphite.

# Matawinie Mine (Phase 2)

The ministerial decree authorizing the project supports the technical feasibility and commercial viability of the Matawinie Mine and provides NMG with the parameters to build and operate the Phase-2 facilities, subject to additional financing. Through an innovative coordination table set up by the Québec Government, NMG works collaboratively with various authorities to prepare and ease the permitting process for the various construction and operation activities.

- » The Company initiated the process to request an amendment to the government decree to clarify certain operating conditions. The main adjustment concerns the maximum authorized tonnage, which would be increased from 100,000 tpa to a maximum of 106,000 tpa in line with the Feasibility Study, as well as the resulting adjustments to operations.
- » NMG held an information and consultation activity in Saint-Michel-des-Saints to present the requested changes and collect feedback from local stakeholders. No issues arose from this activity.

The detailed engineering and procurement activities for the construction of the mine and concentrator continue to progress with the technical team.

- » Tier-1 supplier Metso Outotec supports the procurement of the process equipment chain, drawings review as well as design and integration efficiencies.
- » Engineering led by SNC-Lavalin, with a focus on mechanical, piping, electrical, and automation, and optimization of systems continue to progress. Overall engineering now exceeds 70% completion.
- » NMG has recruited SRK Consulting to design the site's water infrastructure, co-disposal stockpile, and overburden stockpile.
- » Results from the experimental co-disposal test cells are positive, validating the co-disposal technology developed by NMG.

The project contracting and execution strategy has now been finalized for the upcoming construction of the mine once FID is reached. NMG is advancing its hiring plan accordingly and engaging with contractors to select a Construction Manager that will be responsible for the construction site management and administration of all the construction contracts.

NMG started early works in 2021 to prepare the site for the mine industrial platform and the access road connecting the project to the local highway.

- » Initial tree clearing was completed before the nesting season to limit impacts on avifauna.
- » On-site construction work started in July 2021 to build the 8-km access road and was completed in December 2021.



- » Construction resumed in 2022 and continued up to January 2023 to build environmental infrastructure such as water ditches, a water collection basin, as well as organic and overburden stockpiles, and prepare the site for the next phase of civil works.
- » Proactive sorting and piling of excavated material helped optimize topsoil, overburden, and rock management.

Wood harvested as part of tree clearing for preliminary works was transformed by regional sawmills and wood product manufacturers to optimize carbon sequestration and local economic benefits. Additional proactive environmental management enabled the advancement of initiatives in support of progressive site reclamation.

- Hydroseeding of the access road borders on a total surface of 4 hectares, enables the testing of 24 native species in different mixes, soil conditions, and ground relief. In addition to helping vegetate the site, control potential dust emissions, and minimize erosion, seeding provides insight into the ideal parameters for future site restoration. Over the next three to five years, the zones seeded will be subject to regular monitoring and documentation.
- » Through a plantation of 5,000 willows on its Phase-1 mining site, NMG is establishing a circular environmental system. Willow's phytoremediation capabilities are to be leveraged to complement the Company's integrated water management system by reducing the volume of treated water. The project also allows for the capture and sequestration of carbon by the willows as well as the insitu production of biomass, organic matter input for vegetation, to support the progressive restoration of the site.
- » NMG continued its active management of on-site resources with a view to progressive reclamation with the deposition of windrows resulting from the stripping of the site to create organic matter.

As part of its electrification strategy, the Company is committed to having both its heavy equipment used for mining operations and its ore concentration and processing activities become fully electric within the first five years of production. This operating model, which would make it one of the first all-electric openpit operations in the world, represents a potential reduction of over 300,000 tonnes of CO<sub>2</sub> emissions over the mine's lifespan as well as a significant advantage over peers globally.

On the foundation of their 2021 collaboration agreement and of technical work achieved together over the past two years, NMG and Caterpillar have signed definitive agreements to supply NMG's Matawinie Mine with an integrated solution that covers a zero-exhaust emission fleet, supporting infrastructure, and service. Caterpillar is set to be NMG's supplier of heavy mining equipment, supporting the progressive transition from traditional models to Cat® zero-exhaust emission machines as they become available.

- » Technical teams will work in close collaboration to test Caterpillar's Early Learner models and pilot units and support technology development. NMG will use these machines in actual mining operations and gather data from on-site utilization in various weather, terrain, and operational conditions.
- » Depending on the commercialization of Cat® zero-exhaust emission machines, Caterpillar will reserve production slots, which should enable the Company to benefit from timely deliveries and technology enhancements throughout the duration of the contract.
- » Caterpillar's Job Site Solutions will help reduce NMG's initial capital intensity for the Matawinie Mine by providing access to equipment through an hourly fee based on usage and includes asset management support to help improve uptime, predictability, and efficiency.

NMG collaborates with the Canadian and Québec governments to inform, accelerate and promote electrification in mining. Through a collaborative endeavor bringing together research and industry leaders, the Company supports the development and testing of electric systems and rapid recharging infrastructure for heavy vehicles adapted to open-pit mining.



- » The technological development and conversion of a 40-tonne electric mining service truck are completed with the project partners.
- » Testing is ongoing. The Company plans to leverage data from vehicle testing in different *in situ* operational environments to optimize its electrification plan.

Furthermore, the Company has mandated Hydro-Québec, the state-owned corporation that produces, transports, and delivers power, to develop, install and operate a 120-kV electrical line that will supply the mine site and help meet its carbon-neutrality target. A dedicated line will connect the Matawinie Mine and concentrator to Hydro-Québec's hydropower network to enable the full electrification of its operations.

# **UATNAN MINING PROJECT**

On May 15, 2022, NMG entered into an investment agreement with Mason Graphite to explore the potential development of the Lac Guéret graphite deposit. The transaction, as approved by Mason Graphite's shareholders, entails:

- » \$5 million equity investment by NMG in Mason, in two installments;
- » Project development through a preliminary economic assessment and a feasibility study with a project capacity of a minimum of 250,000 tpa, following NI 43-101 rules and guidelines;
- » Upon completion of technical studies and a \$10-million investment in related works (which includes technical studies work), and at the time of acceptance of such technical studies work by Mason, NMG shall be deemed to have acquired 51% participation in the Uatnan property and will be appointed as operator. The joint venture would be funded by each party per its proportionate share of each of the approved work programs.

Following the successful closing of the investment agreement, NMG and Mason initiated a PEA on the Lac Guéret graphite deposit with consultants BBA and GoldMinds Geoservices Inc. On January 10, 2023, NMG released the results of the assessment and announced a name change to Uatnan Mining Project considering the significant modifications to Mason Graphite's original project.

Targeted as NMG's Phase-3, the Uatnan Mining Project aligns with the Company's growth strategy with a view to establishing a large and fully vertically integrated natural graphite production, from ore to battery materials, at the western markets' doorstep.

# **Property and Mineral Resources**

The Uatnan property presently consists of 74 map-designated claims totaling 3,999.52 hectares ("ha"), wholly owned (100%) by Mason Graphite. The Uatnan Mining Project is located in the Côte-Nord administrative region, Québec, Canada, approximately 220 km as the crow flies, north northwest of the closest community, the town of Baie-Comeau. It is accessible year-round by provincial paved road 389 and Class-1 forestry roads.

Exploration work on the Uatnan property targeted graphite mineralization and consists to date of airborne geophysics, prospecting, ground geophysics, trenching/channel sampling, and core drilling. Exploration work uncovered significant crystalline flake graphite mineralization, ultimately leading to the identification of Mineral Resources and Mineral Reserves (see Mason Graphite's press release dated November 9, 2015). Although parameters to determine reasonable prospects for eventual economic extraction (RPEE) were updated, there are no significant changes between the current Mineral Resources and the Mineral Resources last published in 2015.



#### **Uatnan Current Pit-Constrained Mineral Resource Estimate**

IN-PIT CONSTRAINED MINERAL RESOURCES	Tonnes (Mt)	Grade (% Cg)	Cg (Mt)
Measured 5.75% < Cg < 25%	15.65	15.2	2.38
Measured Cg > 25%	3.35	30.6	1.02
Total Measured	19.02	17.9	3.40
Indicated 5.75% < Cg < 25%	40.29	14.6	5.89
Indicated Cg > 25%	6.33	31.6	2.00
Total Indicated	46.62	16.9	7.89
Indicated + Measured 5.75% < Cg < 25%	55.94	14.8	8.27
Indicated + Measured Cg > 25%	9.70	31.2	3.03
Total Measured + Indicated	65.64	17.2	11.30
Inferred 5.75% < Cg < 25%	15.35	14.9	2.28
Inferred Cg > 25%	2.47	31.8	0.79
Total Inferred	17.82	17.2	3.07

#### Notes:

- 1. The Mineral Resources provided in this table were estimated by M. Rachidi P.Geo., and C. Duplessis, Eng., (QPs) of GoldMinds Geoservices Inc., using current Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions and Guidelines.
- 2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, market, or other relevant issues. The quantity and grade of reported Inferred Mineral Resources are uncertain in nature and there has not been sufficient work to define these Inferred Mineral Resources as indicated or Measured Mineral Resources. There is no certainty that any part of a Mineral Resource will ever be converted into Mineral Reserves.
- 3. The Mineral Resources presented here were estimated with a block size of 3mE x 3mN x 3mZ. The blocks were interpolated from equal-length composites (3 m) calculated from the mineralized intervals.
- 4. The Mineral Resource estimate was completed using the inverse distance to the square methodology utilizing three runs. For run 1, the number of composites was limited to ten with a maximum of two composites from the same drillhole. For runs two and three the number of composites was limited to ten with a maximum of one composite from the same drillhole.
- 5. The Measured Mineral Resources classified using a minimum of four drillholes. Indicated resources classified using a minimum of two drillholes. The Inferred Mineral Resources were classified by a minimum of one drillholes.
- 6. Tonnage estimates are based on a fixed density of 2.9 t/m³.
- 7. A pit shell to constrain the Mineral Resources was developed using the parameters presented in the PEA. The effective date of the current Mineral Resources is January 10, 2023.
- 8. Mineral Resources are stated at a cut-off grade of 5.75% C(g).

# **Uatnan Mining Project (Phase 3)**

The Uatnan Mining Project optimizes the Mineral Resources and expands the original mining project tenfold with a production of approximately 500,000 tpa of graphite concentrate, entirely destined for the anode material manufacturing market.

The Uatnan Mining Project would be operated as a conventional open pit with a concentrator near the deposit and electricity to be sourced from the Manic-5 hydroelectric power station. In line with NMG's responsible mining approach, plans include progressive site closure with backfilling of the pit with waste rock as much as possible and assessment of fleet electrification.



# **Operational Parameters of the Uatnan Mining Project**

OPERATIONAL PARAMETERS	
LOM	24 years
Nominal annual processing rate	3.4 M tonnes
Stripping ratio (LOM)	1.3:1
Average grade (LOM)	17.5% Cg
Average graphite recovery	85%
Average annual graphite concentrate production (LOM)	500,000 tonnes
Finished product purity	94% Cg

Cautionary Note: The PEA is preliminary in nature and includes Inferred Mineral Resources, considered too speculative geologically to have the 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. Mineral resources that are not Mineral Reserves have not demonstrated economic viability. Additional trenching and/or drilling will be required to convert Inferred Mineral Resources to Indicated or Measured Mineral Resources. There is no certainty that the resources development, production, and economic forecasts on which the PEA is based will be realized.

The design of the Uatnan Mining Project has been tailored to the needs of the battery and EV market, orienting production volumes for beneficiation to produce active anode material. The PEA shows strong economics for NMG's updated operational parameters and production volumes.

# **Economic Highlights of the Uatnan Mining Project**

ECONOMIC HIGHLIGHTS	Uatnan Mining Project
Pre-tax NPV (8% discount rate)	C\$ 3,613 M
After-tax NPV (8 % discount rate)	C\$ 2,173 M
Pre-tax IRR	32.6%
After-tax IRR	25.9%
Pre-tax payback	2.8 years
After-tax payback	3.2 years
Initial CAPEX	C\$ 1,417 M
Sustaining CAPEX	C\$ 147 M
LOM OPEX	C\$ 3,236 M
Annual OPEX	C\$ 135 M
OPEX per tonne of graphite concentrate	C\$ 268/tonne
Concentrate selling price	US\$ 1,100/tonne

All costs are in Canadian dollars with the exception of the graphite sale price which is provided in US dollars.

On the basis of these positive results, NMG plans to launch a feasibility study reflecting the updated operational parameters. The Company intends to leverage the expertise of its technical team, its Phase-1 facilities, and its knowledge of the graphite-based advanced materials commercial landscape to further define the economic, technical, and environmental possibilities of developing the Uatnan Mining Project.



# **COMMERCIAL STRATEGY**

#### **SALES**

The integrated material flowsheet developed by NMG is designed to leverage the distribution of graphite concentrate flake sizes to be produced at the Phase-2 Matawinie Mine by catering to the most profitable market segments. Jumbo to coarse flakes will be destined to high-purity, high-margin specialty and traditional markets while fine to intermediate flakes will be transformed into active anode material at the Phase-2 Bécancour Battery Material Plant for sales as active anode material for lithium-ion battery applications. A portion of jumbo flakes will also undergo refinement at the Bécancour Battery Material Plant to produce purified jumbo flakes for niche applications such as bipolar plates in hydrogen fuel cells. Byproducts from this facility will also be sold to optimize the Bécancour basket price.

» As part of the Feasibility Study, Benchmark Mineral Intelligence, an IOSCO-regulated price reporting agency and market intelligence publisher for the lithium-ion battery to EV supply chain, provided pricing estimates for the North American market. The Company is expected to have competitive advantages over international producers, namely its carbon-neutral footprint, multimodal logistical base, stable political jurisdiction, and exclusion from U.S. import tariffs on graphite.

Beyond commercialization of Phase-2 production, the development of the Uatnan Mining Project supports the Company's commercial discussions with OEMs and lithium-ion battery cell makers seeking to secure significant graphite volumes amidst growing market demand and a projected structural deficit of production (Benchmark Mineral Intelligence, Q2-2023).

# **Commercial Agreements**

As it enters the remaining preparation stages for carrying out its Phase-2 development, the Company is channeling its efforts and resources, both at the operational and corporate levels, on securing the best multiyear sales agreements to provide bankability confirmation to lenders, final technical parameters for detailed engineering of the Bécancour Battery Material Plant, commercial visibility for its business execution plan, and long-term value for its shareholders.

- » NMG is focused on setting up critical financial and operational conditions for success through long-term agreements and a modular pricing mechanism that reflects the Company's value-added (e.g. carbon neutrality guarantee, location, strong ESG profile, easy logistics, etc.) and potential for increased revenues as the market evolves.
- » In parallel to negotiations with Panasonic Energy, the Company is engaged in a number of commercial discussions with tier-1 battery and EV manufacturers for potential offtake agreements. NMG's sales strategy centers on the Western commercial landscape as it crystallizes around major producers.

In April 2023, NMG signed a memorandum of understanding with Caterpillar ("Caterpillar MoU") to advance commercial discussions targeting NMG's active anode material. Through this Caterpillar MoU, a full circular value chain could be established whereas NMG would supply carbon-neutral graphite materials to Caterpillar for the development of its secure, resilient, and sustainable battery supply chain that would serve to electrify heavy vehicles, including NMG's Matawinie Mine fleet.

On October 19, 2022, the Company signed the Offtake MoU with Panasonic Energy to confirm intentions for a multi-year offtake agreement for a significant portion of NMG's active anode material out of NMG's fully integrated "ore-to-anode-material" Phase-2 facilities.



- » NMG and Panasonic Energy are actively working together on product qualification and establishing a contemplated definitive offtake agreement. Regular meetings and on-site visits continue to help advance technical and commercial components.
- » Final product qualification is set to occur beyond FID on the basis that NMG continues to demonstrate its ability to meet predefined and agreed upon specifications defined in the anticipated definitive offtake agreement and FID.
- » NMG's industry-leading environmental footprint as established by an independent recent life cycle assessment and strong ESG credentials are aligned with Panasonic's vision and support its decarbonization commitment.
- » A complementary framework agreement was concluded between NMG, Panasonic Energy, and Mitsui & Co., Ltd. ("Mitsui") for the development and further commercialization of NMG's integrated anode material operations. The agreement looks to optimize the Feasibility Study and other important project-related operational milestones with a view to proceeding with project financing and the FID on the Phase-2 Matawinie Mine and Bécancour Battery Material Plant.
- » Mitsui rallied behind NMG as a strategic investor and will support NMG's marketing initiatives for specific markets.

On February 14, 2019, the Company entered into a binding offtake and joint marketing agreement with Traxys for flake graphite concentrate to be produced at the Company's Saint-Michel-des-Saints facilities.

- » Traxys market flake graphite concentrate from the Company's operating graphite demonstration plants for customer product prequalification purposes.
- » For each of the first five years of the Company's commercial production, 25,000 tonnes of flake graphite product will be sold through Traxys by NMG.
- » Traxys has the exclusive right to market, distribute and resell the flake graphite products to its customer base.

#### **Business Development**

In line with its active marketing and commercialization program, NMG continues to qualify anode material samples with leading battery and EV manufacturers, as well as purified jumbo flakes for niche applications such as hydrogen fuel cells. The Company's Phase-1 operations support technical marketing and product qualification efforts.

- » Production at the Phase-1 facilities and testing at NMG's laboratory enable the supply of graphite products in a variety of specifications to meet the individual requirements of each manufacturer.
- » As part of sales discussions, samples are produced, tested, and supplied to potential customers. NMG has advanced into the qualification process with several manufacturers, now providing A & B samples.
- » Sustained interest from top-tier potential customers across continents is supported by quality checks, site visits to the Company's Phase-1 operations, requests for information, and environmental due diligence.

To validate compliance with specifications and test NMG materials' performance, samples are submitted to quality, cycling, and electrochemical tests at the Company's battery laboratory as well as at third parties and/or potential customers' laboratories.

The systematic achievement of standards demanded by potential customers is an essential prerequisite, as well as an important competitive advantage. Hence, the Company is placing quality as a central component of its business via a culture of excellence, continuous improvement, and environmental stewardship.



NMG is actively strengthening quality assurance and quality control with the development of an ISO 9001-compliant management system to support the Company's certification objectives, the groundwork for which has commenced in Q1-2022. A laboratory information management system to streamline the flow of samples and associated data for improved lab efficiency is also being deployed. The Company progresses along its quality roadmap through process definition, documentation, quality control planning, and internal audits.

# PARTNERSHIPS, RESEARCH, AND DEVELOPMENT

NMG has submitted a patent application for its proprietary thermochemical purification technology, a greener and more sustainable alternative to that currently used in traditional anode material production, to the U.S. Patent and Trademark Office as part of its intellectual property strategy.

NMG is operating a laboratory at its Phase-1 facility, an addition to the Company's existing quality testing facilities. This expansion was triggered by NMG's commitment to catering to the market's requirements for high-performing and environmentally responsible battery materials that can be tailored to a variety of specifications.

In August 2022, NMG secured a \$5.75 million grant from Sustainable Development Technology Canada, a flagship program from the Government of Canada, for the deployment of its proprietary coating technology. The Québec Government also confirmed on January 13, 2023, financial assistance of up to \$3 million through its Technoclimat program for that project. The Company's innovative coating technology could generate up to 25% energy reduction, optimize production flow, and provide versatility for different precursors as R&D advances.

The Company also maintains a portfolio of research and development projects to refine its line of specialty products based on market demands and innovations, among which:

- » NMG is working with materials engineering expert Philippe Ouzilleau, a professor at McGill University, and his research team to develop new types of precursors and coating technologies to reduce the environmental footprint of its advanced graphite products, optimize production costs, and improve the properties for existing performance.
- » In collaboration with Professor Lionel Roué from the Énergie Matériaux Télécommunications Research Centre of the Institut national de la recherche scientifique and Professor Philippe Ouzilleau from McGill University, NMG intends to develop a series of high electrochemical performance graphite-based composites by valorizing residual materials from NMG's process as well as bio-sourced materials.
- » The Company also collaborates with Professors Gervais Soucy and Jocelyn Veilleux of the University of Sherbrooke on advanced graphite transformation technologies based on high-performance ecological thermal processes.

NMG has signed a collaboration agreement with Lithion Recycling for the recovery and value-added transformation of recycled graphite for reuse as anode material for lithium-ion batteries. The partnership aims at leveraging NMG's and Lithion's proprietary processes and expertise to promote graphite circularity and better position both companies in the evolving global market.

NMG has been admitted as an active member of the Global Battery Alliance, a World Economic Forum initiative dedicated to helping establish a sustainable battery value chain, which makes NMG one of the first battery materials producers to be admitted.

» In January 2023, the Global Battery Alliance launched the Battery Passport proof of concept, a major leap towards globalized standards for sustainable battery production. NMG contributed to



the endeavor by informing the Global Battery Alliance's traceability efforts and engaging as an active member of the association.

# **MARKET UPDATE**

Lithium-ion batteries for EVs, energy storage, and portable electronics drive unprecedented market growth for graphite. Graphite-based anode constitutes the standard across all lithium-ion battery chemistries. With China being the only producer of spherical graphite for that application, the situation has reinforced the need for local and resilient supply chains.

» NMG is set to become the largest fully integrated producer of natural graphite in North America, benefiting in this respect.

Amid a context of near-term macroeconomic uncertainty, the prices of essential battery materials such as lithium, cobalt, nickel, and graphite experienced significant downward pressure in H1-2023. With cathode and anode manufacturers reducing existing inventories or exercising caution with new orders, critical battery material prices dropped between 20% and 40% - 22% in the case of graphite – reported Benchmark Mineral Intelligence. The decline can be partly attributed to a slowdown in Chinese demand, new production capacity as well as the U.S. and Europe's efforts to establish their own critical minerals supply chains.

Despite a slower start to EV sales in 2023, the market saw a year-over-year increase of 36% and is expecting growth in H2-2023 (Rho Motion, June 2023). The adoption of EVs in North America is currently being stimulated by the introduction of multiple new models by leading market participants and structuring partnerships to accelerate the deployment of charging networks.

Hence, analysts foresee a rise in graphite demand and a correction in pricing (Benchmark Mineral Intelligence, July 2023). NMG believes there is a disconnect between supply and demand dynamics in North America versus China and that the long-term price in this market should namely reflect lower geopolitical risk, compliance with the U.S. Inflation Reduction Act requirements, a "greenium" price premium based on improved carbon footprint of North American graphite, as well as the simplified logistics and inventory costs.

Technological trends and new greenhouse gas ("GHG") policies have pushed the graphite market, mainly with regard to lithium-ion batteries and fuel-cell technologies, into an accelerated growth curve. Western governments are deploying programs, policies, and business incentives to support the development of local capacity and reduce overreliance on Chinese supply.

- » The European Union, Canada, and the U.S. have identified graphite as a strategic mineral for economic growth and national security.
- » Canada has now outlined partnerships with both the European Union and the U.S. to secure supply chains and encourage market diversification from China's raw materials.
- » In 2022, both the U.S. and Canadian governments have announced investments in the development of North American critical minerals production to ensure the domestic supply required to build a local battery economy.
- In Q3-2022, the U.S. government adopted the *Inflation Reduction Act of 2022* that namely promotes EV adoption through consumer incentives, North American sourcing and production for the lithiumion battery supply chain, and development of charging infrastructure. The Act has brought even more interest towards NMG as it is projected to be the only fully integrated source of natural graphite, from mine to anode material, in North America with significant volume.

As EVs, renewable energy solutions, and electronics continue to gain market shares, global battery production expands to meet this demand. The EV market represents 79% of total lithium-ion battery



demand, energy stationary storage 14% – the fastest growing segment – and portable electronics 7% (Benchmark Mineral Intelligence, Q2-2023).

- » EV sales are expected to reach 22.5 million units by 2025 (Rho Motion, Q1-2023).
- » To meet cleantech applications demand, the lithium-ion battery industry is now developing 8,930 GWh of global production capacity by 2030 through 399 gigafactories (Benchmark Mineral Intelligence, July 2023).
- » Accordingly, the projected demand for battery materials is set to increase up to fivefold, with graphite outpacing the other metals at 10,537,000 tpa by the end of the decade (Benchmark Mineral Intelligence, July 2023).
- » The world's top automakers are projected to spend nearly \$1.2 trillion by 2030 on sourcing batteries and raw materials, and producing EVs (Reuters, October 2022).

Indeed, manufacturers are facing a challenge as raw materials required to produce these battery-powered applications are becoming constrained. OEMs, feeling this supply chain pressure, are turning their attention upstream to secure supplies and reduce their risks. Through direct development, joint ventures, or strategic alliances, processing and mining are now gaining manufacturers' attention.

The market is shifting towards localization. Canada is among the emerging leaders of this new economy, ranking second after China according to BloombergNEF's annual global lithium-ion battery supply chain report (November 2022), due to its mineral resources, ESG factors, key infrastructure, innovation, and industry including Québec's battery valley in Bécancour. NMG's site for its Phase-2 Bécancour Battery Material Plant is located at the center of this fast-developing zone, supported by the Québec Government's battery hub strategy.

Concurrently, there is increased focus on carbon neutrality in the market to cater to consumers' green expectations and governments' more stringent environmental regulations. From the Global Battery Alliance's effort to develop a Battery Passport to the European Commission's proposed updated Battery Directive that would require labeling of batteries to disclose their carbon footprint, the market is shifting to encourage and eventually potentially require low-carbon products. The European Union, which already set GHG emissions limits for EVs and industrial batteries, adopted a deadline on combustion engine production by 2035 as it steps up the fight against climate change through faster adoption of EVs.

NMG is positioning itself to respond to these market trends. The Company is ideally located to cater to the North American and European markets with its large graphite deposit, proprietary ecotechnologies, demonstrated production capacity, carbon-neutral profile as well as preferential jurisdiction advantages including clean hydropower, flexible logistical base, and stable fiscal and political environment.

# **RESPONSIBILITIES**

From mining to advanced manufacturing, NMG strives to drive greater sustainability along its value chain. The Company embedded leading ESG principles in its business model alongside carbon-neutral operations and traceability of its value chain. Sustainability guided the development of the Matawinie Mine Project from day one through extensive stakeholder engagement and pioneering design choices to protect the environment. This philosophy was carried over in the engineering of the Battery Material Plant Project and the development of the Uatnan Mining Project.

On a foundation of accountability with a view to contributing to global environmental and sustainability goals, NMG publishes an annual ESG Report to disclose its managerial approach to addressing material topics and highlight significant sustainability milestones and indicators. The Company is committed to



engaging in this transparency exercise yearly to provide its stakeholders with a comprehensive set of data on its ESG performance; the 2022 ESG Report was issued on May 10, 2023.

The Company has already embedded the Global Reporting Initiative ("GRI"), the Value Reporting Foundation (SASB Standards), and the Task Force on Climate-related Financial Disclosures ("TCFD") frameworks into its disclosure mechanisms. These are reflected, in part or in total, in the International Sustainability Standards Board's ("ISSB") new standards IFRS S1 and IFRS S2 to be integrated into financial reporting as of the 2024 exercise. NMG's established ESG disclosure practices should facilitate this transition and help provide shareholders, investors, and stakeholders with a transparent and complete portrait of the Company's risks, opportunities, and perspectives.

In an independent assessment of the Company's sustainability performance, Moody's ESG Solutions has provided a Sustainability Rating of A2 ('Robust'), the second-highest grade on its rating scale, to NMG. The rating can be consulted on the Company's website.

#### **HUMAN CAPITAL**

# **Health & Safety**

The Company is committed to providing a safe work environment to its staff and business partners. For the six-month period ended June 30, 2023, NMG had an Occupational Safety and Health Administration ("OSHA") Recordable Incident Rate of 1.86 at its facilities.

- » Minor incidents impacted the Company's safety record. While workers adhered to work protocols and wore their personal protective equipment, there were two instances of particles in the eye.
- » The Company also tracks the contractors' health and safety performance on-site; the OSHA Recordable Incident Rate is at 0, for the period.
- » While Québec experienced intense spring freshet, forest fires in northern areas and heavy rains in Q2-2023 and beyond, the Company was able to maintain its operations and ensure safe working conditions.

# **Employment, Diversity, Equity & Inclusion**

As the Company advances its projects, recruitment of key personnel continues both at the operational and corporate levels. NMG regards diversity as an important driver of strategy, creative thinking, and business performance. The Company promotes local and Indigenous recruitment opportunities to maximize benefits within its communities and strives to ensure representation of its milieu.

NMG recognizes that attraction, hiring, and retention of human capital pose challenges in today's tight labor market. Hence, NMG is actively working to position itself as an employer of choice and a purpose-driven company in its communities, industries, and academic circles.

#### Training

To facilitate employment and bolster communities' socioeconomic fabric, NMG has launched initiatives to train and hire local workers in collaboration with industrial, institutional, and business partners.

- » Condensed College Diploma in Industrial Processes for Clean Technologies: NMG is actively working with school and industry partners in the Bécancour region to set up this program and start training workers for its Phases 1 and 2 Bécancour Battery Material Plants. The first cohort is targeted to start in Q4-2024.
- » Diploma of Vocational Studies in Production Equipment Operation: Eight cohorts of this on-the-job training program leading graduates to a position as an operator at the Matawinie Phase-1



- demonstration plants have now been launched. NMG and its partners are actively preparing the next cohort to set to be launched at the end of Q3-2023.
- » Mining and Logging Essentials: This socio-vocational integration program destined to members of the Atikamekw communities aims to reinforce the employability of Indigenous workers. Following a COVID-19-imposed pause, the program was launched in Q2-2022 and completed in early Q3-2022 with eight graduating students. One graduating student, supported by NMG, has enrolled in the seventh cohort of the Diploma of Vocational Studies in Production Equipment Operation to pursue his education and obtain a position within the Company.

NMG holds two-day, all-staff Employee Summits once or twice a year to dispense training on key themes (e.g. environment, quality, sustainability, health and safety, etc.), provide alignment between leadership and operational themes, carry workshops to improve practices, and offer continuous learning and self-development opportunities.

The Company held a summit in Q2-2023 around the theme of continuous improvement. Participants were trained on the Lean Six Sigma management approach and engaged in a series of theory, practical, and applied workshops.

#### **ENVIRONMENT**

The Company is developing its projects to extract and transform natural graphite while limiting its environmental footprint, preserving ecosystems, maintaining its carbon-neutral status, and maximizing its products' contribution to global decarbonization efforts. Dedicated to stringent sustainable development standards, NMG is committed to adopting a fully electric operating model – both at the mining and advanced manufacturing facilities – leveraging Québec's renewable hydropower.

# **Responsible Mining**

NMG has integrated innovative environmental initiatives to limit the Matawinie Mine's potential impact on the natural and human milieu. On April 15, 2019, the Company officially filed its Environmental and Social Impact Assessment ("ESIA") for the Matawinie Mine with the Government of Québec. Following its analysis by 25 provincial agencies and ministries, the Québec *Ministère de l'Environnement et de la Lutte contre les changements climatiques* gave the *Bureau d'audiences publiques sur l'environnement* ("BAPE") the mandate to launch a public consultation. Public hearings held in January and February 2020 informed the Commission's report, which was tabled in June 2020.

- » The Commission recognized the economic justification, environmental innovations, integration measures, and social benefits associated with the mining project and identified avenues for enhancement.
- » Following a rigorous environmental review complementary to the BAPE's analysis, the Québec Government issued a ministerial decree on February 10, 2021, authorizing NMG's Matawinie Mine.

To protect the environment and the well-being of the community, NMG has developed an environmental surveillance and monitoring program to oversee the construction, operation, and closure activities of the Matawinie Mine.

- » In 2022, NMG maintained its track record with no major environmental incidents as per the Global Reporting Initiative's definition. Through its work protocols, continuous monitoring, and environmental program, it responsibly conducted its operations and worked to diligently address and mitigate any minor incident at its sites.
- » An artificial intelligence system is being implemented to monitor the sound climate and ensure compliance with regulations in preparation for our commercial mining activities.



Mine tailings represent a significant environmental responsibility. NMG has put forward innovative design criteria by prioritizing the desulphurization of tailings, the gradual backfilling of the pit, and the co-disposal of waste rock and tailings. Field-scale cells were built in 2020 to demonstrate in real conditions the performance of this innovative environmental method and calibrate the parameters with respect to the performance of the tailings co-disposal objectives design including preventing sulfide oxidation and mine water contamination. The field test cells are instrumented to study their geochemical behavior under real conditions with sensors monitoring oxygen, water, and temperature. The Company's Environment team monitors the evolution of these parameters, thus supporting the optimization of tailings deposition plans for the future commercial mine. Positive results from the cells validate the co-disposal technology developed by NMG.

As detailed under the Matawinie Mine (Phase 2) subsection, progressive site reclamation planning, and site tests are underway as part of the Company's proactive environmental management and commitment to no net loss.

#### **Sustainable Production**

NMG is committed to promoting responsible production across its value chain for responsibly extracted, environmentally transformed, and ethically sourced materials. The Company mandated a specialized consultant to carry out an independent cradle-to-gate life cycle assessment for its portfolio of graphite-based materials. On July 18, 2022, the Company published the assessment results that confirmed the minimal and industry-leading environmental footprint of its planned production. NMG's full commercial-scale Phase-2 all-electric facilities are forecasted to produce CSPG – anode material for lithium-ion batteries – with a Global Warming Potential GWP of 1.23 kg  $CO_2$  equivalent per kg, an impact up to 11 times smaller than that of benchmarked production.

- » The low environmental impact of NMG's products supports customers' search for sources that reduce their Scope 3 greenhouse gas emissions and complies with increasingly stringent regulations while also providing insight to strengthen the Company's environmental efforts, continuous improvement, and climate action.
- » Panasonic Energy's decision to partner with NMG is partly attributable to the Company's demonstrated green production model as highlighted in Panasonic Energy's announcement: "Being able to utilize NMG's low environmental impact graphite is a major step toward our goal of halving our carbon footprint by FY2031" (Panasonic, October 2022).
- » Integrated into the life cycle assessment report is a benchmarking exercise conducted by Minviro, a life cycle assessment and sustainability consultant in the battery material space, comparing the footprint of CSPG from natural graphite along three production routes.

Extraction and concentration	Advanced manufacturing	<b>GWP</b> (kg CO <sub>2</sub> eq per kg)	
China	China	14.1	
Mozambique	U.S.	6.1	
Sweden	Sweden	3.1	
Streamlined Life Cycle Assessment Study of Global Anode Grade Natural Graphite Manufacturing, Minviro, March 2022.			

<b>GWP of NMG's CSPG</b> (kg CO <sub>2</sub> eq per kg)
1.23
LCA of Natural Graphite-Based Products Manufactured by NMG, CT Consultant, July 2022.

NMG continues to seek opportunities to enhance the properties of its materials, optimize technological solutions, reduce its footprint, improve its products' life cycle, and develop recycling processes to drive sustainable production across the various industries it caters to.



#### **CARBON NEUTRALITY**

Taking responsibility for its environmental footprint, the Company has taken concrete steps to avoid, reduce, and fully offset its GHG emissions, confirming its carbon-neutral status and mapping its intended transition to Net Zero by 2030. On February 24, 2022, NMG released its Climate Action Plan detailing efforts for the Company's embedded emissions around transparent reporting, reduction of its climate impact, transition to Net Zero, research and development for low-carbon materials and activities, as well as industry leadership. NMG's targets are based on, but not limited to, all Scope 1, Scope 2, and some Scope 3 emissions, including business travel, direct emissions associated with the facilities' construction and the transportation of goods between sites.

- » For 2022, the Company reported GHG emissions of 1,229.1 tonnes of CO<sub>2</sub> equivalent for carrying out its operations at its Phase-1 demonstration plants and corporate offices. NMG has purchased verified carbon credits to offset this balance.
- » Detailed performance and historical data are available via NMG's annual ESG Report; the 2022 ESG Report was published on May 10, 2023.

NMG voluntarily initiated reporting under the Climate Disclosure Project ("CDP") in 2022 to demonstrate its management of climate risks and opportunities, environmental performance, and GHG reduction efforts, as well as climate action. CDP provides a transparent and recognized disclosure system that enables investors and stakeholders to access and compare organizations' environmental stewardship.

#### **SOCIAL**

NMG strives to develop business activities that are supported by its communities and by First Nations and contribute to the overall development and advancement of the areas where the Company operates.

The Matawinie Mine is located in the municipality of Saint-Michel-des-Saints, approximately 120 km as the crow flies north of Montréal, Québec. In keeping with its environmental and ethical development goals, the Company has launched many initiatives since the Matawinie graphite deposit was discovered in 2015 to align the project with the realities, concerns, and values of the local community. Information events, consultations as part of the ESIA, a community office with a dedicated Community Relations Manager, a Monitoring Committee, public communication platforms, and a social responsibility program ensure local communities are consulted early and often throughout the development process.

» A collaboration and benefit-sharing agreement with the municipality of Saint-Michel-des-Saints was signed in 2020 to set out a concrete social, economic, and environmental development partnership through financial and participatory mechanisms.

NMG's open and proactive engagement approach also extends to its Bécancour Battery Material Plant in Bécancour, Québec. The Company's site is located in one of the largest industrial parks in Canada with access to a deep-water international port on the St. Lawrence River. The Company initiated outreach activities in early 2022 and intends to continue as it makes progress in terms of project development.

» The Québec Government, the corporation responsible for the industrial park, and the Bécancour municipality are leading simultaneous engagement and coordination efforts with local citizens, suppliers and community groups to facilitate the deployment of the "Battery Hub", including NMG's Bécancour Battery Material Plant.

Upon the publishing of the Uatnan Mining Project PEA results, NMG's Management team carried out a series of on-site meetings with stakeholders in the Baie-Comeau/Manicouagan region. Building on the first visit to the region, the Company representatives reinforced the dialogue with local organizations, groups,



citizens, authorities, and elected officials and presented the new project. NMG is committed to maintaining active engagement with the milieu as it advances the development of the Uatnan Mining Project.

# **Indigenous Relations**

Respect for the rights, culture, aspirations, and interests of Indigenous peoples guides the development of NMG's sustainable business practices.

The Company has consulted and continues to engage with the Atikamekw First Nation in the Manawan community (85 km North of the Saint-Michel-des-Saints) and with the Band Council in the development of the Matawinie Mine.

- » NMG signed a framework agreement (2018) and a pre-development agreement (2019) with the Atikamekw First Nation to provide a guideline for negotiating an Impact and Benefit Agreement for the Matawinie Mine Project.
- » NMG is actively engaged in discussions with the First Nation to finalize the Impact and Benefit Agreement with a view to maximizing opportunities. Considering recent progress, management believes such an agreement could be signed before FID.
- » In parallel, initiatives support training, employment, and business opportunities in line with the spirit of the contemplated Impact and Benefit Agreement.

NMG is engaged in an open dialogue with the Abenakis First Nation (the Wôlinak community is 5 km South of Bécancour) as part of the development of the Bécancour Battery Material Plant.

- » An archeological potential study was carried out by the Grand Conseil de la Nation Waban-Aki in 2022 for NMG's industrial land; no presence of archeological artifacts was confirmed.
- » Continued dialogue and collaboration with the Ndakina Office which is responsible for consultation and environmental protection are helping define interests, concerns, and opportunities for cooperation.

As part of the Uatnan Mining Project, the Company has initiated a relationship with the Innu First Nation of Pessamit (315 km South of the property) to understand their perspective, concerns, and priorities towards this project.

A Manager responsible of Indigenous Relations liaises with Indigenous communities, leaders, and organizations. She develops engagement strategies to facilitate the participation of the Indigenous workforce, businesses, and communities in NMG's activities, coordinates flagship partnerships that support Indigenous community priorities, and assists diversity, equity, and inclusion efforts within the Company.

NMG is committed to continuing its tradition of listening and responding to community and First Nations' concerns and needs, creating well-paying jobs for the local communities to maximize local employment, being a leader in environmental stewardship, and investing in the region and province through tax generation and the purchase of goods and services.

# **GOVERNANCE**

# **LEADERSHIP**

The Company's management team and Board of Directors recognize the value of good corporate governance and the need to adopt best practices in terms of social, economic, and environmental responsibility. The Company's Code of Conduct, Board of Directors charter, and key policies can be found on NMG's website.



The Company's directors have vast expertise in mining development and exploration; health, environment, and safety; legal and intellectual property; finance, investor relations, and financing; business administration and corporate governance; technology development and innovation; sustainability, diversity and inclusion; manufacturing and construction; Indigenous relations; as well as sales and marketing.

» At the Company's 2023 Annual General and Special Meeting of Shareholders, the mandates of Stephanie Anderson, Daniel Buron, Eric Desaulniers, Arne H Frandsen, Jürgen Köhler, Nathalie Pilon, James Scarlett, and Andrew Willis were reconfirmed as per shareholders' vote.

NMG recognizes that a diverse and inclusive environment that values the diversity of thought, background, skills, and experience facilitates a broader exchange of perspectives and improves oversight, decision-making, and governance in the best interests of the Company. The Corporate Governance and Nomination Committee, which is responsible for recommending director nominees to the Board of Directors, seeks to attract high-quality individuals. In assessing potential candidates, the Committee considers their merit based on a balance of skills, abilities, personal qualities, educational qualifications, and professional experience.

On March 23, 2023, the Board of Directors approved an overhaul of certain standing committees to better align with prevalent corporate governance rules and best practices. The following committees support the Board of Directors activities: the Audit Committee; the Human Resources, Diversity, Equity, and Inclusion, and Compensation Committee; the Corporate Governance and Nomination Committee; the ESG, Health and Safety, and Sustainability Committee; as well as the Projects and Development Committee. Upon completion and approval of the updated charters by the Board of Directors, they will be posted on the Corporation's website at www.NMG.com.

NMG's management team, leaders with distinctive skillsets, qualities, and a shared sense of enthusiasm towards the Company's vision, steers its development.

- » In April 2023, NMG nominated to its management team Stéphane Imbeault as Vice President, Bécancour Project.
- » In February 2023, NMG appointed Jean Cayouette as Vice President, Metallurgy & Process.

# **RISKS**

The Company operates in an industry that contains various risks and uncertainties. For a more comprehensive discussion of these inherent risks, see "Risk Factors" in the Company's most recent annual information form and its prospectus supplements no. 1 and no. 2 on file with the Canadian provincial securities regulatory authorities and on SEDAR+ and on EDGAR.

# **FINANCING**

NMG continues to advance financing efforts for the development of its fully vertically integrated Phase-2 operations, combining the Bécancour Battery Material Plant and Matawinie Mine. Assisted by its financial advisors, the Company is engaged with export credit agencies, governments, strategic investors, and potential customers to frame a robust capital structure that leverages international debt, government funding and equity. NMG received formal expressions of interest to cover approximately up to 70% of the estimated total funding for an integrated project, subject to standard project finance conditions.

» The Company's project financing approach strives to further derisk its development by seeking to secure medium-term debt, complemented by strategic equity participation. The optimal structure is set to take into account the level of capital expenditure (CAPEX), operating expenses (OPEX) and debt-to-equity ratio, underpinned by favorable offtake agreements.



- » NMG appointed Société Générale as the sole mandated lead arranger to oversee the due diligence process, support efforts to obtain final credit approval and assist in offtake negotiations.
- » To support the project financing with its projected lenders, NMG hosted independent consultants to its facilities to review the engineering, environmental and social components of its current and projected operations as part of Société Générale's due diligence.
- » Through a Framework Agreement signed on October 19, 2022, NMG, Mitsui, and Panasonic Energy are working to optimize the Phase 2 parameters with the intention to proceed with project financing and FID on both the Matawinie Mine and Bécancour Battery Material Plant once that optimization phase is completed, and all operational variables are well understood.

To optimize its financing structure and reduce the associated cost of capital, the Company is actively pursuing governmental levers at the provincial and federal levels.

In March 2023, the Canadian Government published its 2023 budget which includes stimulus measures for the development of a national clean energy economy. A new Investment Tax Credit for Clean Technology Manufacturing is set to provide Canadian businesses investing in eligible assets, which includes extraction and processing of critical minerals such as graphite and anode materials, a refundable tax credit of up to 30% of eligible capital expenditures.

The Québec Government also included investment incentives in its 2023 budget through a non-refundable credit of up to 25% on projects exceeding \$100 million in the province, including mining and advanced manufacturing. The Company is updating its financing structure to best capture these tax measures for the construction of its Phase-2 Matawinie Mine and Bécancour Battery Material Plant.

On October 19, 2022, NMG entered into unsecured convertible note subscription agreements with Mitsui, Pallinghurst and Investissement Québec pursuant to which NMG has agreed to issue, upon closing of the transaction, to each holder an unsecured convertible note: Mitsui subscribed for US\$25 million, while Pallinghurst, and Investissement Québec each subscribed for US\$12.5 million, for a total of US\$50 million. On November 8, 2022, the Company closed the previously announced private placement of unsecured convertible notes.

The convertible notes will mature 36 months from the date of issuance and shall bear interest at the higher of 6% per annum and the 3-month CME term SOFR (secured overnight financing rate) plus 4% per annum. At the end of each quarter starting December 31, 2022, the Company has an option to pay the interest in (i) cash; or (ii) in Common Shares subject to TSXV and NYSE approvals, by delivering share certificates to the Holders upon maturity, conversion or redemption at a US Dollar equivalent of the Company's market share price determined at the quarter end on which such interest become payable.

Subsequently and effective January 1, 2023, the Notes contracts were amended by:

- » Removing the interest capitalization provisions, such that accrued interest will be deemed paid in full in shares each quarter following the Exchanges approval; and
- $^{
  m w}$  Increasing the interest rate to the greater of (a) 7% and (b) the 3-month CME Term SOFR plus 5%.

In Q1-2023, the Company announced the closing of grants for an amount of \$3.6 million for the deployment of the coating technology at NMG's Phase-1 operations and for R&D projects targeting the development of advanced manufacturing of graphite-based materials with a low environmental impact. Included in the amount above is the TEQ coating demonstration plant grant totalling \$3M, which has an effective date for costs incurred starting January 2022.



# **ATM Offering**

The net proceeds received from the ATM Offering since January 2022, totalling \$3.9 million have been used for general working capital and corporate expense needs.

# **Public Offering**

On April 17, 2023, NMG closed a US \$22 million public offering in the United States and Canada to advance the development of the Matawinie Mine Project and the Bécancour Battery Material Plant Project towards FID and project financing. Some of the net proceeds will be used as well for the development of the Uatnan Mining Project and for general working capital and corporate expense needs. This financing provides the Company with the flexibility to put in place required elements for FID including but not limited to; securing a definitive offtake with an anchor customer, finalizing the senior debt and equity packages, securing potential governmental support, and optimizing Phase-1 processes.

From the period since the prospectus supplement no. 3 dated April 17, 2023, was filed and up to June 30, 2023, NMG spent approximately the following amounts towards the Matawinie Mine Project, the Battery Material Plant Project, and the Uatnan Mining project.

In millions of CAD \$				
	Use of proceeds	Spent as at June 30, 2023	Planned in prospectus supplement no. 3 (Note A)	Variance
Matawinie Mine	Phase 1 – Flake Demonstration Plant	0.8	2.4	(1.6)
Project	Phase 2 – Matawinie Mine	3.6	6.4	(2.8)
Battery Material	Phase 1 – Battery Material Demonstration Plants	2.3	5.5	(3.2)
Plant Project	Phase 2 – Bécancour Battery Material Plant	1.5	6.1	(4.6)
Uatnan Mining Project	Phase 3 - Uatnan Mining project	0.0	0.9	(0.9)
Total		8.2	21.4	(13.1)

Note A: The above figures were disclosed in the prospectus supplement no. 3 in United States Dollars and were converted in CAD amounts using the exchange rate of 1.3527 found in the prospectus supplement no. 3.

The Company is materially tracking the use of proceed forecast and there are currently no indications that the variances observed will cause any impact on the Company's ability to achieve its business objectives.



# **QUARTERLY RESULTS**

During the three-month period ended June 30, 2023, the Company recorded a net income of \$1,264 (net loss of \$14,042 in 2022), a basic earning per share of \$0.02 (basic loss per share of \$0.25 In 2022) and a diluted loss per share of \$0.02 (\$0.25 in 2022).

Description	Q2-2023 (note a) \$	Q1-2023 (note b) \$	Q4-2022 (note c) \$	Q3-2022 (note d) \$
Revenue	-	-	-	-
Net income (loss)	1,264	(25,146)	(4,836)	(12,765)
Basic earnings (loss) per share	0.02	(0.45)	(0.09)	(0.23)
Diluted earnings (loss) per share	(0.02)	(0.45)	(0.13)	(0.23)

Description	Q2-2022 \$	Q1-2022 \$	Q4-2021 \$	Q3-2021 \$
Revenue	-	-	-	-
Net income (loss)	(14,042)	(16,071)	(10,623)	(8,945)
Basic earnings (loss) per share	(0.25)	(0.29)	(0.25)	(0.19)
Diluted earnings (loss) per share	(0.25)	(0.29)	(0.25)	(0.19)

- a) The net loss in Q2-2023 decreased by \$15.3M compared to Q2-2022 mainly due to a gain of 16.5M\$ related to the fair value revaluation as at June 30, 2023 of the embedded derivatives on the convertible notes. As a result, the Company recorded a net income in Q2-2023 compared to a loss for the previous quarters.
- b) The net loss in Q1-2023 increased by \$9.1M compared to Q1-2022 mainly due to a loss of 10M\$ related to the fair value revaluation as at March 31, 2023 of the embedded derivatives on the 2022 convertible notes. This is partially offset by the decrease in engineering fees for the Bécancour Battery Material Plant and the decrease in share-based compensation expenses relating to the timing of stock options granted in Q1-2022 versus Q1-2023.
- c) The net loss in Q4-2022 decreased by \$5.8M compared to Q4-2021 mainly due to a gain of 11.2M\$ related to the fair value adjustment as at December 31, 2022 of the embedded derivatives on the convertible notes. This is partially offset by the vesting expenses of stock options granted to key management personnel and consultants in 2022 and higher depreciation expenses related to the purification demonstration plant and the laboratory that were placed in service in 2022.
- d) The net loss in Q3-2022 increased by \$3.8M compared to Q3-2021 mainly due to the start of depreciation for the purification demonstration plant and for the laboratory equipment in 2022. Secondly, wages and benefits also increased due to the beginning of operations at the purification demonstration plant and new hires were made to support the Company's growth phase. Lastly, share-based compensation expenses increased mostly due to vesting expenses of stock options granted to key management personnel and consultants in 2022.



# **SECOND QUARTER AND HALF YEAR RESULTS**

#### **EXPLORATION AND EVALUATION EXPENSES**

	For the three-month periods ended For the six-month periods ended			h periods ended
Description	June 30, 2023 \$	June 30, 2022 \$	June 30, 2023 \$	June 30, 2022 \$
Wages and benefits	776	902	1,591	1,835
Share-based compensation (a)	121	251	200	513
Engineering	-	75	-	135
Consulting fees (b)	1,425	96	1,600	139
Materials, consumables, and supplies (c)	178	379	344	689
Maintenance and subcontracting	72	263	276	563
Geology and drilling	8	9	8	24
Utilities	92	86	196	234
Depreciation and amortization	64	75	137	135
Other	68	48	133	89
Uatnan mining project	4	-	99	-
Grants	(24)	-	(78)	-
Tax credits	(44)	(170)	(119)	(360)
Exploration and evaluation expenses	2,740	2,014	4,387	3,996

- a) The decrease in share-based compensation expenses of \$313 for the six-month period ended June 30, 2023, is mainly due to the timing and vesting conditions of new options being granted. New options were granted to employees, directors, consultants, and officers during the month of March in 2022, compared to the month of May in 2023.
- b) The increase of \$1,329 and \$1,461 in consulting fees for the three and six-month periods ended June 30, 2023, respectively, is mainly due to the new agreement signed with Caterpillar.
- c) The decrease of \$201 and \$345 for the three and six-month periods ended June 30, 2023, respectively, is due to the reduced production activities of the concentrator demonstration plant combined with the increased efforts allocated towards the commissioning of the coating demonstration plant.



#### **BATTERY MATERIAL PLANT PROJECT EXPENSES**

	For the three-mor	nth periods ended	For the six-mor	nth periods ended
Description	June 30, 2023 \$	June 30, 2022 \$	June 30, 2023 \$	June 30, 2022 \$
Wages and benefits (a)	1,058	721	1,966	1,256
Share-based compensation	74	278	149	287
Engineering (b)	1,524	2,534	3,043	5,901
Consulting fees	343	340	546	689
Materials, consumables, and supplies (c)	512	343	1,112	718
Maintenance and subcontracting (c)	480	167	876	350
Utilities	82	65	296	278
Depreciation and amortization (d)	1,600	1,053	2,621	1,932
Other	57	32	91	73
Grants	(231)	(62)	(468)	(398)
Tax credits (e)	(334)	-	(334)	-
Battery Material Plant project expenses	5,165	5,471	9,898	11,086

- a) The increase of \$337 and \$710 in wages and benefits for the three and six-month periods ended June 30, 2023, respectively, is due to the new hires to support operations at the purification demonstration plant, commissioning activities of the coating demonstration plant, and new hires to support the Company's growth phase in its Battery material segment.
- b) The decrease of \$1,010 and \$2,858 in engineering expenses for the three and six-month periods ended June 30, 2023, respectively, is due to higher engineering fees in 2022 compared to 2023 in relation to the Feasibility Study, which was completed and published in Q3-2022.
- c) The increase of expenses related to materials, consumables, maintenance and subcontracting for the three and six-month periods ended June 30, 2023, is mainly due to the operation activities of the Phase 1 Battery Material Demonstration Plants and efforts to optimize its purification process.
- d) The increase of \$547 and \$689 for the three and six-month periods ended June 30, 2023, respectively, is due to the start of depreciation of the coating demonstration plant and the second unit of the shaping demonstration plant triggered by the completion of commissioning activities in Q2-2023.
- e) The increase of \$334 for the three and six-month period ended June 30, 2023, is due to the quarterly tax provision in relation with the critical and strategic mineral development tax credit.



#### **GENERAL AND ADMINISTRATIVE EXPENSES**

	For the three-mor	nth periods ended	For the six-mon	th periods ended
Description	June 30, 2023 \$	June 30, 2022 \$	June 30, 2023 \$	June 30, 2022 \$
Wages and benefits	1,637	1,637	3,699	3,661
Share-based compensation (a)	610	1,820	1,039	4,815
Professional fees (b)	381	320	1,413	718
Consulting fees	698	526	1,453	1,038
Travelling, representation and convention	347	216	557	303
Office and administration (c)	1,866	2,247	4,092	4,404
Stock exchange, authorities, and communication	125	130	251	241
Depreciation and amortization	62	63	125	119
Loss on asset disposal	5	-	5	-
Other financial fees	6	9	12	19
General and administrative expenses	5,737	6,968	12,646	15,318

- a) The decrease in share-based compensation expenses of \$1,210 and \$3,776 for the three and sixmonth period ended June 30, 2023, respectively, is due to the timing of new options being granted as described above, the decrease in options granted to consultants in 2023, and a change to the vesting conditions.
- b) The increase in professional fees of \$695 for the six-month period ended June 30, 2023, is mostly due to an increase in legal and professional fees in relation with the project financing activities.
- c) The decrease in office and administration fees of \$381 and \$312 for the three and six-month periods ended June 30, 2023, respectively, is mainly due to lower D&O insurance renewal fees.

# **NET FINANCIAL COSTS**

The decrease of \$3.0M in financial costs for the six-month period ended June 30, 2023, is due to the gain of \$6.5M related to the fair value revaluation of the embedded derivatives, and higher interest income on the short-term cash investment activities. This is partially offset by \$5.7M costs related to the accrued interests and accretion expenses on the convertible notes.



# LIQUIDITY AND FUNDING

As at June 30, 2023, the difference between the Company's current assets and current liabilities was \$58,698, including \$59,848 in cash and cash equivalents.

Liquidity risk is the risk that the Company encounters difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset.

The Company manages its liquidity risk by using budgets that enable it to determine the amounts required to fund its exploration, evaluation, and development expenditure programs. The Company's liquidity and operating results may be adversely affected if the Company's access to the capital markets or other alternative forms of financing is hindered, whether as a result of a downturn in stock market conditions generally or related to matters specific to the Company. The Company has historically generated cash flow primarily from its financing activities.

As at June 30, 2023, all of the Company's short-term liabilities totalling \$9,178 (\$16,105 as at December 31, 2022) have contractual maturities of less than one year and are subject to normal trade terms. The Company regularly evaluates its cash position to ensure preservation and security of capital as well as maintenance of liquidity.

					As at	June 30, 2023
	Carrying amount	Contractual cash flows	Remainder of the year	Year 2024	Year 2025	2026 and Onward
Account payables and accrued liabilities	7,239	7,239	7,239	-	-	-
Lease liabilities	2,308	2,691	275	545	529	1,342
Borrowings	1,912	2,192	213	577	577	825
Convertible Notes – Host(i)	51,076	66,199	-	-	66,199	-
Convertible Notes – Embedded Derivatives(i)	527	_	-	-	_	_

(i) Based on the spot rate as of June 30, 2023

For the six-month period ended June 30, 2023, the Company had an average monthly cash expenditure rate of approximately \$4,411 per month, including additions to property, plant and equipment, deposits to suppliers and all operating expenses. This expenditure rate can be adjusted to preserve liquidity. The Company anticipates it will continue to have negative cash flows from operating activities in future periods at least until commercial production is achieved. Significant additional financing will be needed to bring the Matawinie Mine and the Bécancour Battery Material Plant to commercial production.



Cash flows provided by (used in)	For the six-month period ended June 30, 2023 \$	For the six-month period ended June 30, 2022 \$
Operating activities before the net change in	(21,451)	(22,449)
working capital items		
Net change in working capital items	1,470	(427)
Operating activities	(19,981)	(22,876)
Investing activities	(6,487)	(10,829)
Financing activities	26,716	3,252
Effect of exchange rate changes on cash and cash equivalents	(324)	208
Decrease in cash and cash equivalents	(76)	(30,245)

#### **OPERATING ACTIVITIES**

For the six-month period ended June 30, 2023, cash outflows from operating activities totalled \$20M, while there were \$22.9M of cash outflows for the same period in 2022. The cash outflows were lower mainly due to the net change in the working capital items of \$1.9M. Further details regarding the net change in working capital are provided in note 11 of the condensed consolidated interim financial statements.

#### **INVESTING ACTIVITIES**

For the six-month period ended June 30, 2023, cash used in investing activities totalled \$6.5M whereas for the same period in 2022 investing activities were of \$10.8M. The variance is mainly due to the construction of the coating demonstration plant in 2022 and grants cashed in connection with the coating demonstration plant construction progress in 2023.

#### **FINANCING ACTIVITIES**

For the six-month period ended June 30, 2023, the Company had net cash receipts related to financing of \$26.7M whereas, for the same period in 2022, cash inflow related to financing activities were \$3.3M. The variance is mainly due to the underwritten public offering agreement of 4,850,000 common shares that occurred on April 17, 2023, for gross proceeds of \$29.6M.

On January 21, 2022, the Company filed a prospectus supplement establishing a new at-the-market equity offering ("ATM Offering"). The ATM Offering allows the Company to offer for sale and issue up to US\$75 million (or the equivalent in Canadian dollars) of common shares of the Company from time to time, at the Company's discretion. From January 21, 2022 to December 31, 2022, the Company issued 502,082 common shares at an average price of \$7.94 for gross proceeds of \$3,987, commissions of \$100, for total net proceeds of \$3,887. During the three and six-month period ended June 30, 2023, no common shares were issued in connection with the ATM Offering.



# ADDITIONAL INFORMATION

#### RELATED PARTY TRANSACTIONS

During the three and six-month periods ended June 30, 2023, share-based compensation expenses for key management personnel totalled \$258 and \$365 respectively (\$331 and \$2,093 for the three and six-month periods ended June 30, 2022, respectively) and for directors, \$60 for the three and six-month period ended June 30, 2023 (nil for the three-month period ended June 30, 2022 and \$1,247 for the six-month period ended June 30, 2022).

During the three and six-month period ended June 30, 2023, the Company also incurred interest fees to Investissement Québec and Pallinghurst. The Company has elected to pay the accrued interest in common shares which will be issued at maturity or conversion of the Notes.

#### **OFF-BALANCE SHEET TRANSACTIONS**

There are no off-balance sheet transactions.

# CRITICAL ACCOUNTING ESTIMATES, NEW ACCOUNTING POLICIES, JUDGEMENTS AND ASSUMPTIONS

Refer to note 3 in the condensed consolidated interim unaudited financial statements for the three and sixmonth period ended June 30, 2023, and notes 3, 4, and 5 in the Company's audited consolidated financial statements for the year ended December 31, 2022.

# FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

Refer to note 13 in the condensed consolidated interim unaudited financial statements for the three and six-month period ended June 30, 2023.

#### CONTRACTUAL OBLIGATIONS AND COMMITMENTS

Refer to note 14 in the condensed consolidated interim unaudited financial statements for the three and six-month period ended June 30, 2023.

# **CAPITAL STRUCTURE**

	As at August 10, 2023
Common shares	60,903,898
Options	5,134,048
Warrants	10,000,000
Convertible Notes	10,000,000
Other reserves - settlement of interests on Convertible Notes	794,499
Total common shares fully diluted	86,832,445



# **SUBSEQUENT EVENTS TO JUNE 30, 2023**

There are no subsequent events.

#### ADDITIONAL INFORMATION AND CONTINUOUS DISCLOSURE

The Company is required to comply with National Instrument 52-109, *Certification of Disclosure in Issuers' Annual and Interim Filings*. The certification of interim filings requires us to disclose in the MD&A any changes in our internal controls over financial reporting that have materially affected or are reasonably likely to materially affect our internal control over financial reporting. We confirm that no such changes were made to the internal controls over financial reporting during the three and six-month period ended June 30, 2023. The Chief Executive Officer and Chief Financial Officer have signed form 52-109F1, *Certification of Annual Filings*, which can be found on SEDAR+ at <a href="www.sedarplus.ca">www.sedarplus.ca</a> and on EDGAR at <a href="www.sedarplus.ca">www.sedarplus.ca</a> and <a h

Additional information on the Company is available through regular filings of press releases, financial statements, and the most recent annual information form on SEDAR+ (<a href="www.sedarplus.ca">www.sedarplus.ca</a>) and on EDGAR (<a href="www.sedarplus.ca">www.sedarplus.ca</a>)

August 10, 2023

(signed) Eric Desaulniers	(signed) Charles-Olivier Tarte
Eric Desaulniers, MSc, géo.	Charles-Olivier Tarte, CPA
President and Chief Executive Officer	Chief Financial Officer