METALS AUSTRALIA LTD

# ASX Announcement

28 APRIL 2026

ASX: **MLS**

# QUEBEC BATTERY ANODE PROJECT DELIVERS IMPRESSIVE ECONOMIC RESULTS IN NEW REFINERY STUDY

## *Lac Carheil Study Shows Strong Downstream Transformation Value – Supporting Canada's Critical Minerals Supply Independence Strategy*

**Metals Australia Ltd (ASX: MLS) and its wholly owned Canadian Subsidiary, Northern Resources Inc. are pleased to announce results from its Preliminary Economic Assessment (PEA) to develop a Battery Anode Material Refinery in Quebec, Canada. A separate Mine & Flake Graphite Concentrate Plant project prefeasibility study is also planned to be published by mid-year.** Highlights for the PEA include:

- **Production of over 51,000 tonnes of High-Purity Battery Anode Material (BAM) products annually** over a **25-year project life.** The project **is expected to** deliver a pre-tax **Net Present Value (NPV) of <u>$2.05 billion USD</u>** (8% discount basis – '**NPV-8**') **[$2.93 billion AUD]**. After tax **NPV-8 is significant at <u>$1.39 billion USD</u> [$1.98 billion AUD]. Project economics result in an** Internal Rate of Return (IRR) **of <u>25.6%.</u>**
- **The project includes three production modules** with a combined processing capacity to transform 75,000 tonnes per annum of high purity flake graphite concentrate (>95% TGC) into BAM products. **Total CAPEX from a phased development is projected at $883.8 million USD** (including contingency of 178.9 million USD). **Payback is 4.5 years.**
- **Operating expense is estimated at $2,362 USD per Coated Spherical Purified Graphite (CSPG) product tonne, while sales price** for the two Battery Anode Material Products is projected to **average $8,926 USD per tonne.** The price forecast is conservative comparted to other recent studies and alternate price forecasts available, typically averaging greater than 10,000 USD/t.

> **<u>Cautionary Statement:</u>** The results presented in this announcement are based on a Preliminary Economic Assessment (PEA), which is a preliminary technical and economic study of the potential development of a downstream Battery Anode Material (BAM) refinery. The PEA is based on assumptions regarding capital costs, operating costs, and other key parameters that are subject to uncertainty and may not be realised.
>
> While the Company considers these assumptions to be reasonable, there is no certainty that the outcomes of the PEA will be achieved or that the project will proceed to development. Further evaluation work, including Feasibility Studies, is required to establish technical and economic viability.

- **The project is phased: Module 1 (25,000 tonnes) is planned to produce from 2030,** with a 4-year start-up profile to achieve full capacity. Modules 2 & 3 (additional 50,000 tonnes) commence in 2031 and follow a similar phased profile to full capacity. The **modular design approach allows for future phased expansion**.
- **Baie-Comeau, a regional city in Quebec, has firmed as the preferred location for the BAM Refinery.** The location is selected due to its significant freight advantage, a pro-development business community, available industrial land and existing industrial infrastructure – including a world class rail-ferry system and significant port facilities.
- At full capacity, the **BAM Refinery will employ 227 personnel** and will become an important contributor to the **Baie-Comeau** economy with **nearly $21.5M USD paid in direct wages each year.** Maintenance, laboratory, transport logistics and general support requirements will add further local opportunities.

- **The Project will benefit from Clean Technology Manufacturing Investment Tax Credits (CTM ITC)[1] of up to 30% returned as cash rebates following capital investment. The Credits are forecast at $263 M USD. The credits demonstrate Canada's strong support for prioritised Critical Mineral projects.**
- **The project will now be advanced directly to Final Feasibility Study stage**, which is anticipated to occur through calendar 2026 and 2027**. In parallel, ongoing community and indigenous engagement activities will continue, together with planning for required environmental assessments.**
- The company's separate **project** (Open Cut Mine & 100,000 tonne per annum flake graphite concentrate plant)[2,3] **is progressing through a prefeasibility study, which is expected to be published by mid-year.**

**Metals Australia CEO Paul Ferguson commented:**

*"At a time when the world increasingly needs stable, secure, long terms supplies of critical minerals and the energy solutions that can be created from them, we have unveiled a world class project that is aligned with that strategic need.*

*Our Battery Anode Material Refinery in Quebec is clearly one of compelling economic and strategic advantage for Canada, the province of Quebec and our stakeholders.*

*With a resource endowment that has enormous upside potential to grow and expand, we have mapped out an initial project over 25 years, capable of processing 75,000 tonnes of concentrate and producing more than 51,000 tonnes of high value Battery Anode Material (BAM) products annually.*

*With conservative assumptions, the project* ***delivers over $2.9 billion AUD on a pre-tax net present value basis at a discount of 8%.*** *The Capex required for the project – at around $884 million USD - includes a significant contingency of ~$179M USD. CAPEX requirements are partially refunded by the Canadian Clean Manufacturing Technology Investment Tax Credit of 30% or an estimated $263M USD - which demonstrates Canada's commitment to fast-track clean energy projects.*

*Our study recommends a Battery Anode Material Refinery location in Baie-Comeau, a city of around 20,000 citizens situated on the north shore of the St Lawrence River in Quebec. Trucking freight, available industrial land, excellent port and rail – and a pro development business community were key factors in determining the recommended location.*

*Our next step is to advance this project through final feasibility study, in parallel with the upstream Mine and Flake graphite concentrate plant project, located near the northern mining-friendly town of Fermont. The metallurgical pre-work for feasibility has already commenced with SGS in Quebec City and is being partially funded by the Quebec Ministry of Natural Resources and Forests PARIDM grant awarded in 2025.*

*Accelerating this project through feasibility is directly aligned with Canada's stated aim of having 5 graphite mines and 5 coated spherical, purified graphite plants (refineries) in place by 2040. To support this aim, the government is introducing a streamlined approval - one project, one approval - process.*

*We look forward to completing and publishing the prefeasibility study for the mine and Flake Graphite project, prior to the end of this financial year. This will add substantial value to what has been outlined for the downstream project."*

## CAUTIONARY STATEMENTS CONTIUNED

*The Preliminary Economic Assessment (PEA) outlined in this announcement has been prepared to assess the potential development of a downstream Battery Anode Material (BAM) refinery in Quebec, Canada. The PEA is a preliminary technical and economic study and is based on lower-level assessments of project viability.*

*The study relies on assumptions detailed in the report prepared by Dorfner Anzaplan UK Ltd, including an estimated capital cost of approximately US$884 million (inclusive of US$179 million contingency). While Metals Australia Ltd considers these assumptions reasonable, there is no certainty they will be realised or that the outcomes indicated in the PEA will be achieved. Further studies, including a Feasibility Study, are required to increase confidence in capital and economic estimates.*

*Investors should note that there is no certainty the Company will secure the funding required to develop the project, and any funding obtained may be dilutive or otherwise impact shareholder value. The Company may also consider alternative value realisation strategies, including a sale, partial sale or joint venture of the project.*

*The BAM refinery is a downstream processing facility dependent on graphite concentrate feed, assumed in this study to be sourced from the Company's Lac Carheil project. The upstream mine and processing plant are currently subject to a separate Pre-Feasibility Study, with a prior PEA released in 2021, and there is no certainty these will proceed to development. While alternative third-party feed sources may be available, this has not been considered in the current assessment.* ***The Company notes that only Indicated resources are being evaluated in the ongoing PFS (the tonnages being considered in the PFS are 100% Indicated resources).***

*The company's Lac Carheil Graphite Mineral Resource Estimate (2025)[4] was prepared by a competent person in accordance with the requirements of the 'JORC Code' (2012), and by a qualified person in accordance with the Canadian reporting code 'NI43-101'.*

## Battery Anode Material Refinery – Project Economics.

The downstream project – Battery Anode Material Refinery - is supported by an upstream graphite mining project located near Fermont that is well advanced through prefeasibility study assessment and is intended to be published on or around mid-2026[2]. Updates have been provided in relation to the prefeasibility study – which build upon an earlier reported upstream project scoping study [or Preliminary Economic Assessment] that outlined strong economics to produce 100,000 tonnes of flake graphite concentrate products annually[3].

The downstream project presented in this Preliminary Economic Assessment (PEA) or *Scoping Study* is designed to transform 75,000 tonnes of the upstream flake graphite concentrate production annually, into Battery Anode Material products. The remaining production (25,000 tonnes) is coarse and medium flake graphite product and is planned to be sold into a wide range of industrial market applications – including for use in friction management applications, refractories, fire retardant building materials and fire suppression markets - to name a few.

The downstream project life of 25 years is supported by the significant upgrade in Mineral Resource reported in August of 2025[4]. The Mineral Resource upgrade followed an extensive diamond drilling program in early 2025. The drilling program resulted in overall project **Mineral Resources growing 3.3 times to 50 million tonnes (Mt) @ 10.2% TGC (Total Graphitic Carbon) for <u>5.1 million tonnes</u> of contained graphite[4]** (**Indicated 24.8 Mt @ 11.3 % TGC for 2.8 Mt** contained graphite & Inferred of 25.2 Mt @ 9.1% TGC for 2.3 Mt contained graphite) compared to the Scoping Study Mineral Resource Estimate [13.3 Mt @ 11.5% for **<u>1.53 Mt[5]</u>** of contained graphite].

The company's ongoing Pre-Feasibility Study[2] (PFS) is analysing the same production profile that was contemplated in the 2021 Scoping Study completed by the company (100,000t/annum of flake graphite concentrate production[3]). The PFS is assessing an unchanged 100,000t/annum production target based on the updated, larger and shallower mineral resource published in 2025, noted above and detailed in Appendix 1 *(the tonnages being considered in the PFS and likewise for this PEA are 100% Indicated resources).*

Project economics are calculated based on a conservative production ramp up – with the first production module online in 2030 and then a four year ramp up profile to reach full production (Year 1 at 49%, Year 2 at 88%, Year 3 at 95% and Year 4 at 100%). Modules 2 and 3 commence production in Year 2 with the same 4-year ramp up profile applied. **Name plate capacity is reached in year 5 of the project life** – with 3 modules processing 75,000 tonnes/year and producing approximately 51,000 tonnes of Battery Anode Material products.

Project Economics are calculated on a *Pre* and *Post* Tax Basis, using a Discount Factor of 8%. **Pre-tax NPV** using a Discount Factor of 8% delivers a project outcome of **<u>$2.05 billion USD</u> [$2.93 billion AUD].** On an **after-tax** basis the project '**<u>NPV-8' is 1.39 billion USD</u> [1.98 billion AUD].** CAPEX for the project includes the three, phased production modules, all required buildings and infrastructure with an estimate of just under $625 million USD in direct costs. Project Management EPCM services and land add another estimated $80 million USD, with a **contingency provision of $179M USD.**

Weighted average product pricing, supplied by Fastmarkets, is estimated at **$8,926 USD** per tonne **– well below average pricing used by similar projects in Canada**, including one that is finalising funding for commencement of construction which uses $10,106 USD per tonne for average sales[6].

The pricing used in the base case economics have been provided by UK based Fasmarkets, while in parallel a separate, more detailed product marketing appraisal has been completed by Lone Star Technical Minerals (LSTM). That report provides alternative price forecasting for the two products planned to be produced at the Battery Anode Material Facility. The weight average product pricing from the LSTM pricing assessment is **$9,627 USD per tonne** of product sold. The results from this sensitivity assessment are shown, together with the base case economics, in table 1 below.

The LSTM weighted average pricing would **add an incremental $343 Million USD on an NPV-8 after tax basis** to the project economics, **increasing the overall project NPV-8 after tax to $1.73 billion USD**. The Internal Rate of Return for the project increases to **28.7 %** based on this alternative pricing set.

**For Preliminary Economic Assessment reporting, the company has selected the more conservative pricing forecast supplied by Fast Markets**, while it is noted that either pricing set tabled below is lower than average pricing used for the only other graphite project that is advancing in Canada today[6]. That project is attracting strong financial support from government and end users. This comparison – which will be covered later in greater detail – provides optimism for the future acceptance and funding support for our project.

| **Project Economics** *(AUD/USD=0.70)* | | **USD** | **AUD** |
|---|---|---|---|
| **Base Case – Fast Markets** | | | |
| NPV pre-tax (8%) | $M | **2,050** | **2,929** |
| NPV post-tax (8%) | $M | **1,389** | **1,984** |
| IRR - 25 Year | % | **25.6** | **25.6** |
| CAPEX - Modules (3), Land and Contingency | $M | **884** | **1,263** |
| Weight Average Product Price – Fast Markets | $/t | **8,926** | **12,751** |
| Unit Cost of Production for Coated Spherical Purified Graphite | $/t | **2,362** | **3,374** |
| **Sensitivity Case - Lonestar Technical Minerals** | | | |
| NPV pre-tax (8%) | $M | **2,527** | **3,610** |
| NPV post-tax (8%) | $M | **1,732** | **2,474** |
| IRR - 25 Year | % | **28.7** | **28.7** |
| Weight Average Product Price - LSTM | $/t | **9,627** | **13,753** |

*Table 1 – Project Economics Using Fasmarkets Product Pricing & Sensitivity Assessment using LSTM price set.*

**The OPEX for the BAM Facility is estimated at USD 120.6 million per annum** for all three modules (full production), processing a total of 75,000 t/a NFG concentrate. At full production, the BAM Facility produces 51,069 t/a of CSPG (18 and 10), which corresponds to **a unit cost of USD 2,362/t of saleable CSPG**. OPEX for the BAM facility includes the cost of energy (electricity and natural gas), water, labour, reagents, maintenance, laboratory services, and other miscellaneous costs, as outlined in Table 2 below. The most significant cost component is reagents (38.9%), followed by labour (17.8%), maintenance (15.2%) and energy (electrical and natural gas) – 13.9% of total OPEX. These are detailed in the attached report, but a high-level summary is also outlined below.

Energy costs are split between electrical and natural gas consumed on site. At full production, the BAM Facility operates at a continuous electrical load of approximately **46 MW**, for an annual operating time of 7,500 hours. The electricity tariff was obtained from Hydro Quebec for 2025 and escalated by 3.6 % to reflect 2026 pricing. All tariffs (electricity and natural gas), as well as natural gas consumption rates are summarized in section 11.2.2.1 of the attached report.

Reagent costs for the BAM Facility were based on the unit costs and dosage rates, and these are summarised in section 11.2.2.4 of the attached report.

A total of 5 operational shifts is required for the BAM Facility to ensure continuous production, where plant operators and technical staff will rotate. Positions, including administration, marketing and management, will work a standard day shift only. The first 25,000 t/a module requires a total workforce of 87 employees, Subsequent modules (second and third) are expected to only require 70 employees each. The reduction in labour per additional module reflects that certain managerial positions remain unchanged despite the increase in production capacity. Labour costs estimates were sourced from specialist consultants based in Quebec with significant experience in the Côte-Nord region, where the BAM Facility is to be located.

The BAM Facility requires ongoing maintenance of all critical equipment, including replacement of consumables and wear-and-tear parts, such as pumps, and bearings. Maintenance costs are assumed to be 7 % of the total mechanical equipment supply cost for the BAM Facility.

Laboratory services, including analysis of samples collected from the BAM Facility, are assumed to be conducted by external providers and a detailed table of rates is set out in the report – covering the sample frequency and the unit test cost per sample (refer 11.2.2.7 in the report).

| **Project OPEX** | **Total** | **Unit Cost** | **Contribution** |
|---|---|---|---|
| **Cost Breakdown** | **$ USD (Year)** | **$ USD / t (Saleable CSPG)** | **%** |
| Energy | 16,802,654 | 329 | 13.9% |
| Water | 167,685 | 3 | 0.1% |
| Waste | 76,090 | 1 | 0.0% |
| Reagents | 46,945,014 | 919 | 38.9% |
| Labour | 21,448,082 | 420 | 17.8% |
| Maintenance | 18,277,108 | 358 | 15.2% |
| Laboratory | 9,676,800 | 189 | 8% |
| Miscellaneous | 7,210,295 | 141 | 6% |
| **Total OPEX** | **120,603,729** | **2,362** | **-** |

*Table 2 – Project OPEX – including Total Annual OPEX breakdown (USD basis) and Unit Cost OPEX per tonne of Product sold*

Sensitivity analyses were conducted to evaluate the relative impact of changes in commodity sales prices, OPEX, CAPEX, and discount rate to determine their significance to the project's economics. The results are detailed in section 12.10 of the attached report.

The robustness of project economics is best demonstrated by reviewing the project Net Present Value (8% discount basis) and the Internal Rate of Return charts shown for Sales Price, Total CAPEX and OPEX assessed between -15% and +15% (in 5% increments) against the base case assumptions used in the analysis.

Two charts have been provided below that demonstrate that the project NPV and IRR are most sensitive to changes in Sales Price. This was further reinforced in Table 1 above, whereby **the Sales Price forecast supplied by Lonestar Technical Minerals (LSTM) added $343M to the project NPV-8 on an after-tax basis**. It's important to point out that even the higher weighted average product sales price supplied by LSTM – at $9,627 / t is still 4.7% lower than the average CSPG price used in the NMG economic model at $10,106 / t. **The weight average sales price used in the base case economic assessment – at 8,926 / t is 11.7% lower than that used by NMG.**

In the charts below it can be seen that CAPEX and OPEX sensitivity analysis is closely aligned – and almost indistinguishable in the NPV-8 sensitivity analysis, where the two lines are almost the same.

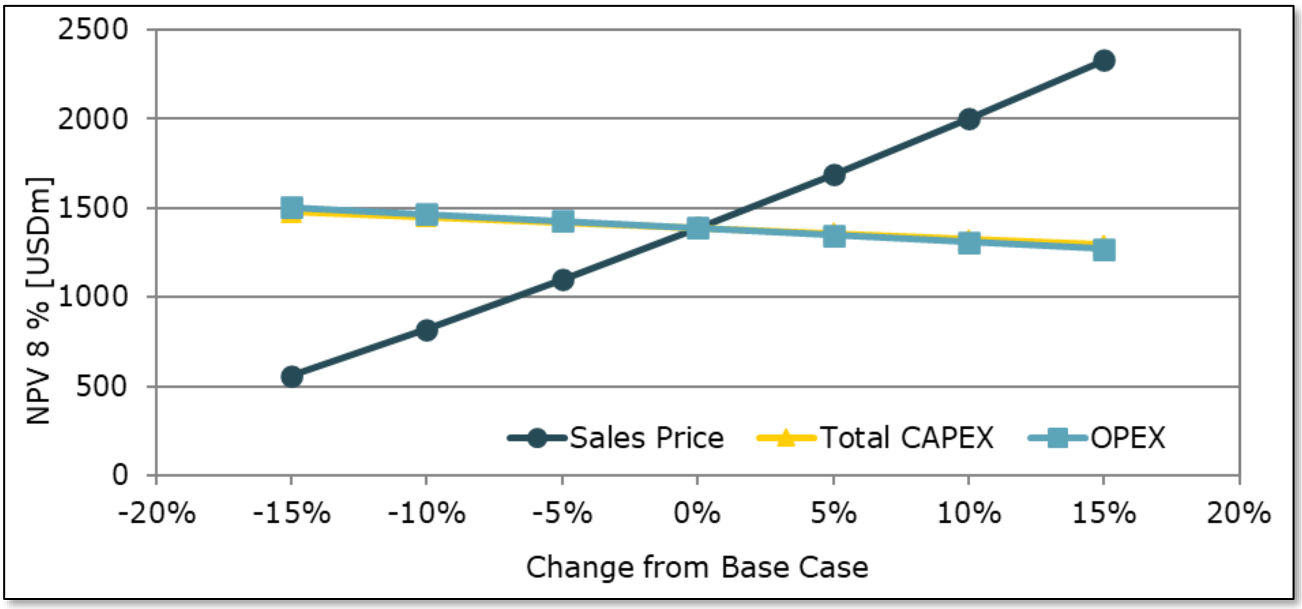



*Chart 1 – Project NPV-8 Sensitivity for Sales Price, Total CAPEX & OPEX between -15%, to +15% of Base case assumptions.*

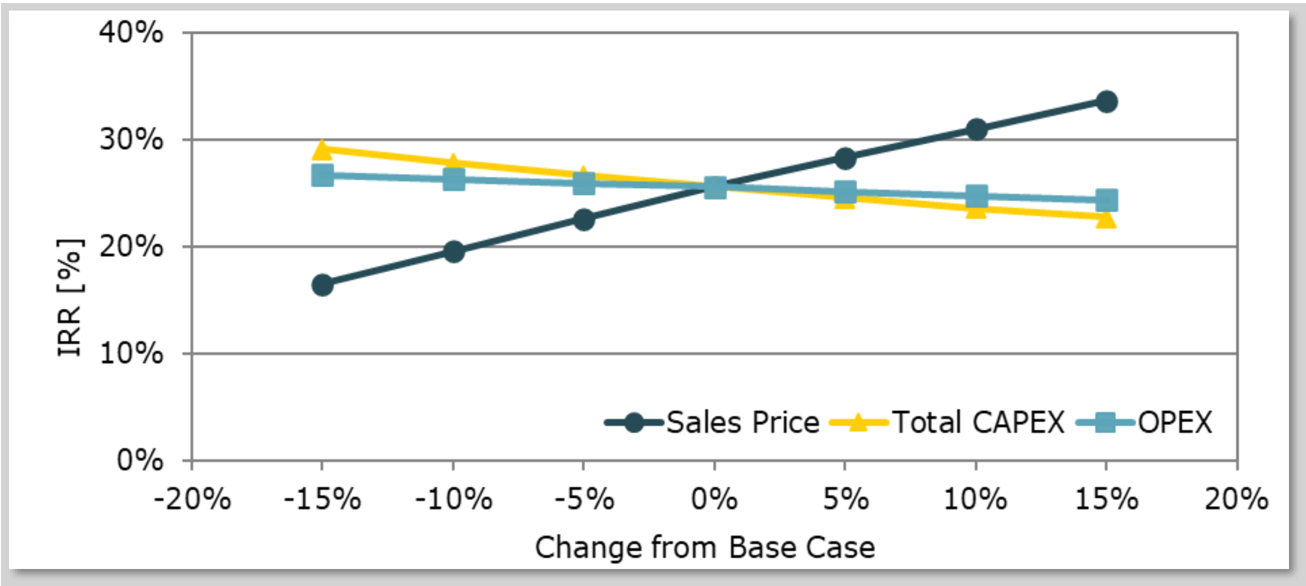



*Chart 2 – Project IRR Sensitivity for Sales Price, Total CAPEX & OPEX between -15%, to +15% of Base case assumptions*

## Battery Anode Material Refinery – Located in Baie-Comeau.

The project economic assessment has identified **a preferred location for the Battery Anode Material Refinery within the Jean-Noël-Tessier industrial park, located north of the regional city of Baie-Comeau, Quebec**. Figure 1 below shows the location of the Lac Carheil graphite project, south of Fermont and Baie-Comeau, situated on the North Shore of the St Lawrence River. The location was selected based on completion of a comprehensive transportation study for the optimum transfer of concentrate between the upstream project (mine and flake graphite concentrate plant) and the downstream BAM refinery, approximately 560km away. The study also considered port and rail access to markets for both upgraded BAM products and coarse and medium concentrate products planned for industrial application markets. The transportation study investigated options to transport the concentrate by both road and rail. Rail ultimately proved non commercially competitive and would have required both capital investments in freight rail capacity together with a less attractive unit freight cost. Trucking options strongly favoured Baie-Comeau, with haulage on the 389 Highway. The highway is presently undergoing significant upgrades, all of which will be complete by late 2028, ahead of the projects intended commencement.

Freight requirements for the 100,000 tonnes of flake graphite concentrate will result in trucking approximately 1,920 metric tonnes per week from the mine site. The concentrate will be transferred in 1 tonne bulk bags (or Super Sacks) loaded on pellets. While payloads vary with seasonal variations, the average annual payload for a 4-axle flatbed truck is estimated at 28 tonnes, requiring around 69 loads per week – or around 10 truckloads per day on average. Multiple carriers have expressed interest in the freight haulage business, and it is noted that there are also significant opportunities to improve pricing for this aspect of the project, since many trucks return empty from transporting freight into the northern communities and mines. The opportunity to utilise existing back haul capacity is made easier by the continuous operating process of the flake graphite concentrate plant. A potential benefit would mean a reduction in incremental truck movements on the highway each week – with improved utilisation from the unused truck capacity already travelling on the road.

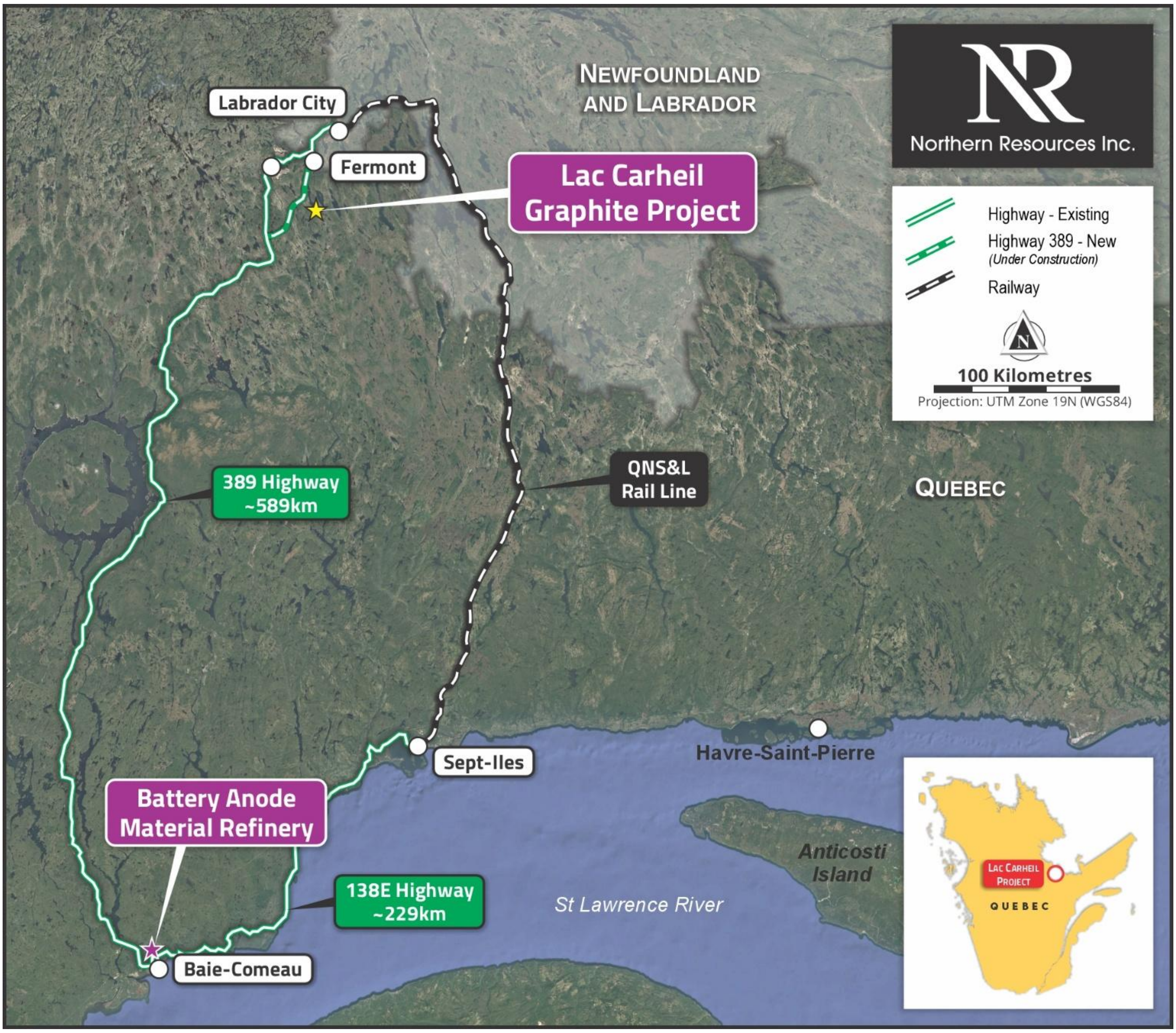


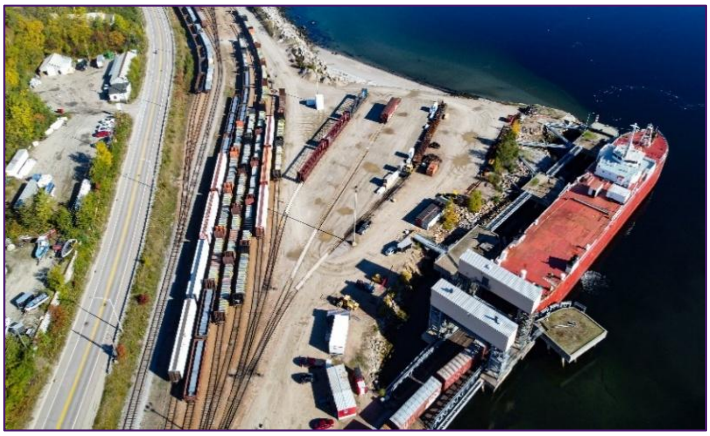

*Figure 1 – Lac Carheil Graphite Project connected by Highway 389 to the regional city of Baie-Comeau in Quebec*.

Approximately 75,000 tonnes per year of concentrate will be hauled directly to the Battery Anode Material Refinery, while the balance of annual production will be separately stored in Baie-Comeau for distribution – via road, rail or sea freight to customers. Significant opportunities for storage and warehousing already exist in Baie-Comeau – including at the BMI Group's Norderra Multi Modal Industrial Hub[7], which is being repurposed from the Baie-Comeau Paper Mill Site that was closed in the early 2020's. An initial inspection of the facilities, including warehousing, was undertaken by Metals Australia in late February, during a site visit that also included several meetings with stakeholder groups, including local authorities.

Baie-Comeau is a regional city, within the Manicouagan region of Quebec. The region's vision is to develop a graphite value addition hub – attracting companies across the graphite value chain – including Battery Anode Material Refineries. Our project directly aligns with that vision. Baie-Comeau cities current population is over 20,000, while the municipality and its educational infrastructure have the capacity to support up to 30,000 residents. The economy is driven by well-established industrial sectors, including metallurgy (aluminum) and forestry, which employ a significant portion of the workforce and provides skills well suited to the BAM Refinery. The regional city has substantial capacity to accommodate the 227 employees proposed to be employed at the Refinery - and their families. Most operational, technical, administrative and managerial roles are expected to be filled locally, while specialized positions may be sourced from major cities in Quebec – including Quebec City which is situated approximately 410 km to the west. The city is supported by primary and secondary schools, as well as the Cégep de Baie-Comeau, which offers pre-university and technical programs, including civil and electrical engineering, and administration.

*Image 1 - Baie-Comeau, Regional City in Quebec & Image 2 - Main Street Baie-Comeau*

In addition to excellent road access, the regional city benefits from excellent rail ferry and port facilities.



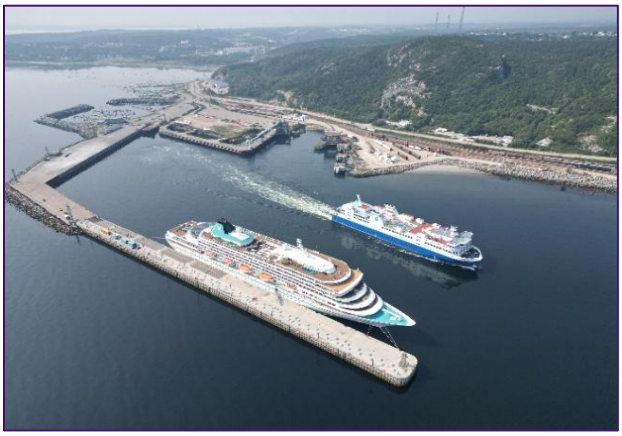


*Image 3 – SOPOR Rail ferry – connecting Baie-Comeau with the CN rail network & Image 4 – Port of Baie-Comeau*

The ferry can transfer 26 standard rail wagons at a time to the southern side of the river, directly connecting them to CN Rail network for transfers throughout Canada and into the USA. The ferry currently manages 2 to 3 passages per day, 7 days a week – all year round – with capacity to transfer significant volumes of graphite concentrate or finished BAM products as required. The Port of Baie-Comeau consists of 5 berths, capable of managing a full range of ships from Cruise Liners to river and ocean-going vessels – including container ships. The port is an ice-free deep-water port all year round and is currently undergoing major refurbishment with key advisors from the Port of Rotterdam engaged in the planning and design of upgrades.

## Battery Anode Material Plant - Process.

At the BAM Facility, the natural flake graphite ("NFG") concentrate is micronised, spheroidised, purified, and coated to produce a high-purity product suitable for lithium-ion battery ("LIB") anodes, known as coated spherical purified graphite ("CSPG").

NFG concentrate sourced from the Lac Carheil Graphite Project is processed in the BAM Facility, which consists of three identical modules. Each module handles 25,000 t/a (dry) of NFG concentrate, resulting in a total nominal design capacity of 75,000 t/a (dry) at full production.

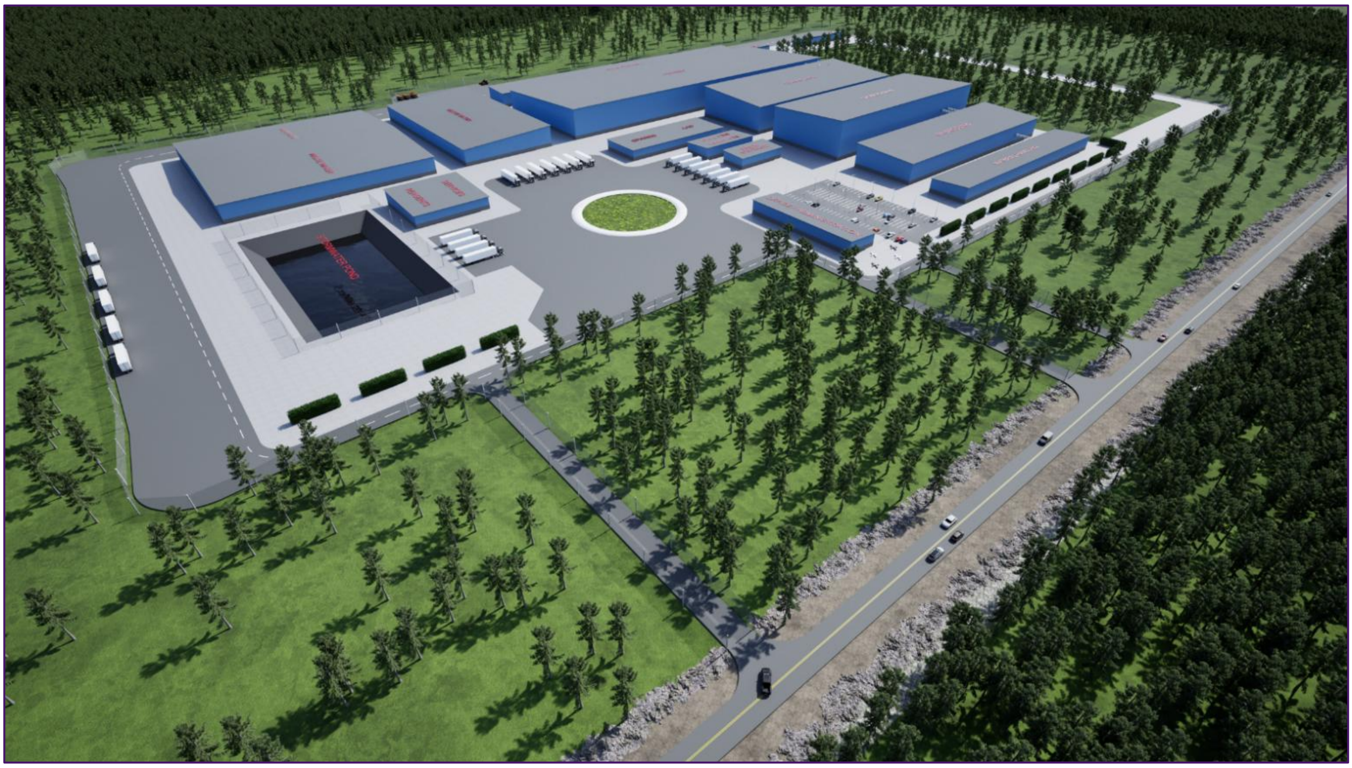


*Figure 2: Battery Anode Material Refinery. A Graphical rendering of the proposed 75,000 tonne per annum Concentrate upgrading facility positioned in the Jean-Noël-Tessier Industrial park to the north of Baie-Comeau*

Each 25,000 t/a module receives NFG concentrate (-100 mesh) with an initial FC content of ≥95 wt.-%, in which the following value-addition processes are applied sequentially:

**Micronisation**: size-reduction of NFG concentrate in an air-classifying mill.

**Spheroidisation:** micronised material is mechanically rounded in an air-classifying mill to produce medium SG with a $D_{50}$ of 18 µm (SG 18), while the fines generated are further spheroidized to produce a fine SG with a $D_{50}$ of 10 µm (SG 10). Overall, a combined yield of 72 wt.-% is achieved, where the remainder is SG fines, a by-product intended for sale.

**Purification:** SG 18 and SG 10 are processed in dedicated purification circuits, where impurities are removed to produce SPG with a Fixed Carbon (FC) content of ≥99.99 wt.-%. Each purification line comprises of caustic baking followed by two cycles of alternating caustic and acid leach stages, each followed by filtration. The final cake is dried in a dispersion dryer, while all filtrates and wash liquors are sent to wastewater treatment for neutralization of acid and caustic streams; and,

**Coating:** SPG 18 and SPG 10 are coated in dedicated coating lines, where SPG is mixed with milled petroleum pitch and thermally treated in a pusher furnace with an inert nitrogen atmosphere. This process deposits a thin layer of carbon onto the SPG particles to produce CSPG 18 and CSPG 10, respectively.

The BAM Facility, with the above value-addition processes, has an overall yield of 68 %, resulting in each module producing 17,023 t/a (dry) of CSPG, comprising 12,843 t/a (dry) of CSPG 18 and 4,180 t/a (dry) of CSPG 10.

With all three modules operating, the BAM Facility will produce a total of 51,069 t/a (dry) of CSPG (38,529 t/a CSPG 18 and 12,540 t/a CSPG 10).

## Product Market Studies & Contracts

The market assessment for the BAM Facility was generated from insights and price projections for graphite provided by Fastmarkets. In parallel a separate, more detailed marketing study was conducted by Lonestar Technical Minerals. The pricing used in this study is based on the lower price forecast provided by Fastmarkets, however, as outlined above, sensitivity analysis has also been provided using the LSTM forecast pricing. Both price forecasts are lower than average pricing being used by other projects advancing – including another project in Canada that has been supported by the Canadian Federal government and offtake partners. Prices used in this study are lower, compared to that project, by 11.7%

**Flake graphite demand**

Traditionally, the demand for natural graphite has been driven primarily by the steel industry, however in recent years, the battery sector has become the largest consumer of natural graphite. In 2025, the battery sector's total natural graphite demand was 39 % and **is set to rise to 80 % by 2035.**

Given that China holds the majority of global graphite production, many regions, including Europe, North America, South Korea and Japan are seeking to develop domestic supply chains to reduce reliance on Chinese material. In these regions, natural graphite is favored due to its lower carbon dioxide emissions compared to synthetic graphite production.

**Natural graphite supply and demand**

The overall graphite market is currently oversupplied, largely due to synthetic graphite overcapacity, while natural graphite supply is tightening following production cuts in China and Africa, who in 2024 accounted for 82 % and 13 % of the global natural graphite production, respectively. Graphite prices are expected to stabilize and rise as demand grows, natural graphite supply remains constrained, and synthetic graphite costs increase. China is projected to maintain market dominance, and by 2029, inventories should normalize, with demand eventually outpacing supply and leading to a graphite deficit beyond 2033.

**Flake graphite pricing outlook**

The BAM Facility will be supplied with NFG concentrate (-100 mesh) from the Lac Carheil Graphite Project mine and concentrate plan at a projected price of USD 884 per tonne ("t"), excluding freight. This pricing is based on Fastmarkets data for 2030, when production of the first 25,000 t/a module is scheduled to commence.

**Value-add graphite market assessment**

NFG concentrate undergoes value-addition processes, including micronisation, spheroidization, purification and coating to produce CSPG. In addition to the BAM Facility producing two distinct CSPG products (CSPG 18 and CSPG 10) for sale into the LIB market, the process generates SG fines as a by-product, which can be sold as a carbon additive into industrial graphite markets such as steel and cast-iron production, lubricants, and friction materials.

Fastmarkets generated a forecast for CSPG 18, CSPG 10 and SG fines between 2029 and 2050.

CSPG 18 prices in the United States ("US") are forecasted to rise **from USD 8,897/t in 2030** to USD 10,363/t by 2050. CSPG 10 follows a similar trend but commands a premium, with US prices ranging from **USD 9,015/t to** USD 11,063/t over the same period. SG fines are expected to be priced at USD 710/t in 2030, rising to USD 917/t by 2050.

## Project Comparison to a Canadian Project of National Importance.

At this stage in the Lac Carheil Graphite Project's [LCGP] evolution, it is worthwhile comparing how our project is shaping up in comparison to the leading Canadian graphite project which was classified by the Canadian government as one of national importance in November of 2025[8].

That Project is Nouveau Monde Graphite's (NMG) fully integrated Matawinie mine and Bécancour Battery Material Plant[6].

It's an important comparison for two key reasons - the first is due to similarity, with both projects offering a mine to Battery Anode Material, fully integrated solution in Quebec, Canada. The second is that NMG has been very successful in funding its project with an excellent mix of Federal, provincial and private company support. If our project compares favorably to a project that has been designated one of national importance – and has been able to attract funding – then that provides an optimistic outlook for our own project's prospects in the same jurisdiction, when we achieve a similar level of project maturity.

Given the Canadian Federal government's stated aim of having 5 graphite mines and 5 coated spherical graphite plants in place by 2040[9], the NMG project is not viewed as a competitor, rather as a benchmark to model our project on. The support from the federal and provincial governments also stands as a beacon to Canada and Quebec's support to help develop the critical mineral industry.

Key metrics comparing the projects – with currently available information – have been provided in Table 2, below. The information presented includes NMG results published in their NI 43 101 Updated Technical Feasibility Study Report for project, dated 31 March 2025[6]. NMG's results are all at Feasibility study standard. By comparison, the LCGP results are reported based on several document sources. Mineral Resources are published to both NI43101 and JORC standard and were reported on August 19th of 2025[4]. Updates related to the prefeasibility study have been published on the ASX, most recently on January 28th, 2026[2], and the remaining source is the Preliminary Economic Assessment for the downstream project, published here.

**Several key metrics are discussed below – with a focus on those highlighted in green in the table. Items highlighted in orange are not yet available and will be published with the prefeasibility study report by mid-year.**

The first significant observation relates to the **graphite grade of the respective projects Mineral resource**. From a Total Mineral resource perspective, NMG outline just over 6.54 Mt of contained graphite at a grade of 4.26 % LCGP has lower contained graphite – at 5.1 MT but has a T**otal Mineral Resource grade average of 10.2% - or 2.4 times higher than that of the Matawinie resource**. The overall prospects for NMG to increase Mineral Resources remain unclear at Matawinie, **while the current LCGP Mineral Resource has been estimated from drilling on just 1 of 10 mapped and sampled graphite trends – or just 2.3 km of the 36 km of graphite trends mapped or sampled**. The prospects at LCGP to drill on 9 additional mapped and sampled graphite trends – spanning more than an additional 33 km are assessed as positive, given the highly successful conversion of two drilling programs into positive Mineral Resource outcomes.

The Deposit grade advantage for LCGP is further emphasized when consideration is made of the Mineral resources classified in the "Measured or Indicated" category. This is the class of Mineral Resource that can be considered for evaluation as Mining Reserves (under NI43101). In this category, NMG's grade remains the same at 4.26%, while LCGP increases to 11.3% - **or an overall grade average advantage of 2.65 times.**

| Item | (A) | (B) | Comment |
|---|---|---|---|
| **Company** | **Nouveau Monde Graphite** | **Northern Resources Inc.**[A] | [A]-Canadian owned 100% subsidiary of Metals Australia Ltd |
| **Commodity** | Flake Graphite | Flake Graphite | |
| **Location** | Quebec, Canada | Quebec, Canada | |
| **Project** | Matawine Mine & Bécancour Battery Material Plant | Lac Carheil Graphite Project **(LCGP)** | |
| ***Mineral Resource & Reserves:*** | | | |
| Total Mineral Resource - Tonnes **(Mt)** | 153.3 | 50 | **LCGP**: 9 graphite trends over 33 km to drill |
| Total Mineral Resource - Grade **(%)** | **4.26** | **10.2** | **LCGP Resource grade > by 2.4 times** |
| Total Mineral Resource - Cont. Graphite **(Mt)** | **6.54** | **5.1** | **LCGP**: less than 7% of graphite drilled |
| Measured & Indicated Resource -Tonnes **(Mt)**[B] | 130.3 | 24.8 | [B]Class of Resource used for Reserve est. |
| Measured & Indicated Resource -Grade **(%)** | **4.26** | **11.3** | **LCGP: Indicated grade > by 2.65 times** |
| Measured & Indicated Resource - Graphite **(Mt)** | 5.55 | 2.80 | |
| Total Mineral Reserves - Tonnes **(Mt)** | 61.7 | PFS | |
| Total Mineral Reserve - Grade **(%)** | 4.23 | PFS | |
| Total Mineral Reserve - Graphite **(Mt)** | **2.61** | **PFS** | **LCGP**: Mining Reserves reported in PFS |
| Cutoff grade – **(%)** | 2.50 | 4.00 | **LCGP**: Negligible graphite below 4% |
| ***Mining & Concentrate Production:*** | | | |
| Conc. Plant Ore Annual Processing Rate **(Mt)** | **2.56** | **0.86** | **LCGP: Smaller due to grade advantage** |
| Concentrate Production - Annual | **105,882** | **100,000** | Based on Process Design Criteria (PDC) |
| Carbon Recovery **(%)** | 93 | 96.7 | Based on PDC |
| Concentrate grade **(%)** | 97.5 | 95.4 | Based on PDC |
| ***Battery Anode Material*** | | | |
| Conc. Feed to BAM Plant - Annual Tonnes | 91,162 | 75000 | **LCGP**- PEA Report |
| Conversion: Concentrate to BAM - **%** | 48% | 68% | **LCGP**- PEA Report |
| BAM - Production - Annual Tonnes | **44100** | **51069** | **LCGP - PEA Report** |
| ***Project Financials & Economics*** | | | |
| Life of project | 25 | 25 | **LCGP**- PEA Report |
| Applicable Royalties - **NSR %** | 2 | 0 | **LCGP**: No Royalty |
| Capex - Mine & Concentrate Plant - **$USD** | 415,101,166 | **PFS** | **LCGP**: PFS with Smaller Conc. plant |
| Capex - Battery Anode Material Plant - **$USD** | **911,257,249** | **883,798,005** | **LCGP**- PEA Report |
| Capex - Project Total - **$USD** | 1,326,358,415 | **PEA + PFS** | **LCGP**: PEA & PFS |
| **Pre-tax** | | | |
| NPV-8 - Mine & Concentrate Plant - **$USD** | 402,400,000 | **PFS** | **LCGP**: PFS with Smaller Conc. plant |
| NPV-8 - Battery Anode Material Plant - **$USD** | **925,500,000** | **2,050,000,000** | **LCGP**- PEA Report |
| NPV-8 - Total - **$USD** | 1,327,900,000 | **PEA + PFS** | **LCGP**: PEA & PFS |
| **After-tax** | | | |
| NPV-8 - Mine & Concentrate Plant - **$USD** | 248,100,000 | **PFS** | **LCGP**: PFS with Smaller Con. plant |
| NPV-8 - Battery Anode Material Plant - **$USD** | **800,700,000** | **1,389,000,000** | **LCGP**- PEA Report |
| NPV-8 - Total - **$USD** | 1,048,800,000 | **PEA + PFS** | **LCGP**: PEA & PFS |

*Table 3 – A comparison of Lac Carheil Graphite's early study metrics versus industry leading NMG's project. Items highlighted in yellow are NMG parameters directly compared to Lac Carheil (Green) while Items in Orange will be available when the upstream PFS (Mine and Flake Graphite concentrate plant) is published.*

LCGP Reserves will be reported as part of the PFS – and can then be directly compared to NMG's – which total 2.61 Mt of contained graphite at 4.23% Overall Material movement, including stripping ratio will also be reported in the PFS – but at a high level, **the grade advantage significantly reduces the amount of mining and processing capital and operating expenditure required for the same production output.**

Because of the higher graphite grade, the size of the concentrate processing plant that needs to be constructed is considerably smaller. This means that it will cost substantially less to produce the same tonnage of flake graphite concentrate. **The LCGP Concentrate plant is designed to process 860,000 tonnes of graphite ore per year,** resulting in the production of 100,000 tonnes of flake graphite concentrate products annually[2]. **In contrast, the NMG concentrate plant is designed to process 2,560,000 tonnes of graphite ore each year – and will produce just below 106,0000 tonnes of flake graphite concentrate products per year[8]**.

The size of the concentrate plant directly impacts CAPEX. NMG combined Mine and Concentrate plant CAPEX (FS level) is reported at just over $415 M USD[6]. LCGP CAPEX will be updated and reported in the PFS – but was previously reported at 189.8 M USD in the scoping study in 2021[3]. Given cost inflation, design changes related to process flow sheet – and dry tailings production and co-disposal, CAPEX is expected to be materially above the 2021 numbers for LCGP but will still benefit significantly from the much higher Mineral Resource grade advantage.

The next observation relates to the **annual production of Battery Anode Material products**. LCGP requires lower concentrate input into the BAM plant (75,000 tonnes per year) to produce around 7,000 tonnes per annum more BAM products than NMG's project. It should be noted that further optimizations will be investigated during our project's Feasibility Study to improve on the conversion of flake graphite concentrate into Battery Anode Material, which is currently 68%.

These results point to an exceptionally positive project when compared to the project benchmark available for a graphite project progressing in Canada today.

**The comparison strongly supports accelerating the LCGP project through study phases to Final Feasibility.**

## Project funding sources and strategy – Cautionary Statement:

*Given the positive economics demonstrated by the Preliminary Economic Analysis for the BAM refinery, the Company has a reasonable basis to believe that project financing would be available to fund development of the project at the appropriate time. To achieve the outcomes indicated in the PEA, it is estimated that $US 884M of capital is required prior to commencing production [noting that the study includes a contingency of $179 M USD]. At this point in time, no formal discussions have commenced with potential financiers. However, consistent with comparable project development financing, the Company expects that funding may be secured from a range of sources including equity capital markets, financial institutions, Government agencies, export credit agencies or in conjunction with future product sales or offtake agreements.*

*As the project is early stage and further analysis is required to define economic feasibility to a higher level of confidence, there is no certainty that MLS will be able to source funding as and when required. It is also possible that funding may only be available on terms that may be dilutive to or otherwise affect the value of the existing shares in MLS. It is also possible that MLS may pursue an alternative value realisation strategy such as a sale or joint venture of the project.*

## Project Next Steps - Downstream

The LCGP project clearly demonstrates its very high value when compared to the best graphite project progressing in Canada today. Given Canada's stated aims for 5 graphite mines and 5 CSPG plants[9], there is increasing support to develop the graphite industry in Canada and accelerate efforts to do so.

The project economics achieved in this PEA - for a downstream Battery Anode Material Refinery situated in Baie-Comeau –clearly support the company and its design team accelerating this project through to Final Feasibility Study Assessment.

To achieve this, certain key critical technical pathway items have already commenced. These include the Quebec Govt PARIDM supported metallurgical test program to advance both projects (Upstream and Downstream) through feasibility study metallurgical test work, with SGS in Quebec City. An outcome of this project will be the delivery of an approximate 1 tonne of concentrate to Anzaplan to advance metallurgical test work on the Battery

Anode Material Plant design – including to optimize milling, shaping and purification design process phases. This work is expected to progress across 2026 and 2027.

## Prefeasibility Study Update (Upstream Mine and Flake Graphite Concentrate)

The company remains on track to publish its upstream project PFS prior to mid-year. Final study workstreams including Mine planning and infrastructure design, concentrator design, mine tails co-deposition design, site water management – as well as environmental and regulatory reviews for PFS level are all in report write up stages. Lycopodium as overall integrator and study manager will compile all reports and complete economic modelling for the upstream project. When published the **PFS, together with the downstream process PEA** (albeit at different study levels) **will offer an overall view of the end-to-end integrated solution (Mine to Battery Anode Material production) that is proposed by the company.**

## End of Release

## Upcoming News flow

**The company is presently working on the following updates:**

- Quarterly Report – end of April
- Manindi VTM – Project Update – Exploration Target and Metallurgical Test work – Late May
- Lac Carheil Graphite Project – Prefeasibility Study Report – June
- Investor Presentation Update – July

## About Metals Australia Ltd

Metals Australia Ltd (ASX: MLS) has a proven track record of Critical Minerals and metals discovery and a quality portfolio of exploration and advancing pre-development projects in the highly endowed and well-established mining jurisdictions of Quebec – Canada, Western Australia and the Northern Territory, Australia.

The Company – through **its Canadian subsidiary, Northern Resources Inc.,** is advancing the development of its flagship **Lac Carheil high-grade flake-graphite project** in Quebec, a high-quality project which is well placed for the future delivery of premium, battery-grade graphite to the North American lithium-ion/EV battery market, and other flake-graphite products.

During 2025, the Company reported a significant increase to its Mineral Resource Estimate for the project[4] - The Total Mineral Resource Estimate (MRE) is **50 Mt at 10.2% TGC for 5.1 Mt of contained graphite** [including **Indicated of 24.8 Mt at 11.3% for 2.8 Mt & Inferred of 25.2 Mt @ 9.1% TGC for 2.3 Mt**]. The new resource is 3.3 times larger than the maiden mineral resource it replaces [Prior Indicated & Inferred total of 13.3 Mt @ 11.5% for 1.5 Mt][5] The original resource underpinned a Scoping Study which outlined a 14-year project life[3].

The 2025 drilling program – used to define the significantly expanded MRE – confirmed a combined, continuous strike length of graphitic units over 2.3 km in length (open to the NW and the SE)[3]. In addition to the now updated MRE, the company has previously reported widespread and exceptionally high-grade graphite sampling results from Lac Carheil, including 10 results of over 20% Cg and averaging 11% Cg **across a 36km strike-length on 10 graphitic trends identified within the project**[10]. The new MRE has been defined from drilling on just one of the ten graphite trends, extending over 2.3 km of the 36 km of graphite trends mapped and sampled.

The Company has finalised a metallurgical test-work program on Lake Carheil, building on previous work which has generated high-grade **flotation concentrate results of up to 95.4% graphitic carbon (Cg)** with an overall

**graphite recovery of 96.7%[2].** The test work has demonstrated that 28.9 wt.% of the concentrate is in the medium to coarse concentrate size, while 71.1% is -100 Mesh and suitable for feedstock into Battery Anode production[2]. **The company is now providing the results of its Preliminary Economic Assessment [PEA] or Scoping Study for the design of its proposed downstream Battery Anode Material Production Refinery**. This publication highlights the compelling economics for the project – which plans to process 75,000 tonnes of fine flake graphite concentrate annually to produce just over 51,000 tonnes of Battery Anode Material Products per year. Lycopodium is now well advanced with a pre-feasibility Study (PFS) for the flake-graphite concentrate plant[2].

The company also provided information related to broader mineralisation that has been observed within the graphite zones[11]. Multi element analysis over two full holes (LC-25-38G and LC-25-46) has demonstrated the presence of precious metals (Silver and Gold), together with base metals (Copper, Zinc, Vanadium and Nickel) and Gallium are present in elevated anomalous levels[11]. The significance of the observation is that the minerals will all be recovered and concentrated as part of the graphite mining and processing operation. Further test work is now planned to assess optimum concentration and recovery steps that can be deployed and to assess the economic opportunities for the minerals. Benefits of alternate disposition options being identified would include reduction in the quantity of tailings needed to be disposed of at the site – and savings in the costs of that disposal.

The Company also holds the Corvette River Project which contains multiple gold, silver and base metals exploration projects in the world-class James Bay region of Quebec. The Company has mapped multiple gold, silver and base metals corridors – with Gold at West and East Eade and Gold, Silver and base Metals at the Felicie prospect[12].

The Company's other key projects include its advanced **Manindi Critical Minerals Project** in the Murchison district of Western Australia. The project includes an **emerging Vanadium-Titanium-Magnetite exploration target** that has now been through drilling program[13]. The drill program results have confirmed mineralization extending over approximately 1000m along strike on a northwestern-southeastern orientated magnetic anomaly that has been identified over approximately 2km in length[13]. True width of interpreted mineralization ranges between 75 to 95m[13]. Depth of cover to mineralization has been measured at between 16.5m and 52m vertical depth, with mineralization extending to an overall depth below surface of around 250m[13]. Metallurgical test work on the project to date has confirmed that two high quality concentrate products can be produced – (P1): $V_2O_5$ bearing magnetite concentrate & (P2): $TiO_2$ bearing ilmenite concentrate[14].

The Company is also conducting further studies on its high-grade zinc Mineral Resource of **1.08Mt @ 6.52% Zn, 0.26% Cu, 3.19 g/t Ag** (incl. Measured: 37.7kt @ 10.22% Zn, 0.39% Cu, 6.24 g/t Ag; Indicated: 131.5kt @ 7.84% Zn, 0.32% Cu, 4.60 g/t Ag & Inferred: 906.7kt @ 6.17% Zn, 0.25% Cu, 2.86 g/t Ag)[15].

In late December 2025 the company provided drilling results from its Warrego East project in the Northern Territory of Australia[16]. The Company completed drilling on 5 undercover targets established following geophysical surveys (magnetics and gravity) and interpretation. Results have demonstrated deeper potential at Warrego East, where elevated Copper, Cobalt and Zinc results have been interpreted to be consistent with mineralized haloes that have been observed at other discoveries in the Tennant Creek area.

***This announcement has been approved for release by the Board of Directors.***

## References

[1]https://www.canada.ca/en/revenue- agency/services/tax/businesses/topics/corporations/ business-tax-credits/clean-economy-itc/clean-technology-manufacturing-itc/about-ctm-itc.html
[2]Metals Australia Ltd, 28 Jan 2026 - Graphite Project Links to Quebec's Critical Minerals Plan
[3]Metals Australia Ltd, 3 Feb 2021 -Scoping study results for Lac Carheil Graphite Project*
[4]Metals Australia Ltd, 19 Aug 2025 – Graphite Resource Expansion Sets Project up as World-Class.
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[6]Nouveau Monde Graphite (NYSE: NMG) – 25 March 2025 NI 43-101 Updated Technical Feasibility Study Report for the Matawinie Mine and the Bécancour Battery Material Plant Integrated Projects
[7]https://www.thebmigroup.ca/bulletin/bmi-group-launches-norderra-multimodal-industrial-hub-with-strategic
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[9]https://www.canada.ca/en/campaign/critical-minerals-in-canada/canadas-critical-minerals-strategy/canadian-critical-minerals-strategy-annual-report-2024.html
[10]Metals Australia Ltd, 16 Jan 2024 – Exceptional 64.3% Graphite and New Drilling at Lac Carheil*.
[11]Metals Australia Ltd, 30 Sep 2025 – Precious, Base & Critical Minerals in Carheil Graphite Zones.
[12]Metals Australia Ltd, 11 Oct 2024 – New Gold-Metal Results highlight Corvette Potential.
[13]Metals Australia Ltd, 18 Feb 2026 – High Grade Assays Verify the Emerging Manindi VTM Project
[14]Metals Australia Ltd, 16 May 2025 – Manindi Ti-V-Fe Discovery Delivers High-Grade Concentrates
[15]Metals Australia Ltd, 17 April 2015 - Manindi Mineral Resource Upgrade
[16]Metals Australia Ltd, 19 Dec 2025 – High Copper Anomalies Show Deeper Potential at Warrego East

*Note*: Prior references to Lac Rainy Graphite Project are updated in this list to Lac Carheil Graphite Project.*

## Appendix 1: LAC CARHEIL – 2025 Mineral Resource Estimate Summary

**Graphite Mineral Resource Estimate[4]:**

| Resource Classification | Tonnage (Mt) | Average Graphite Grade (%) | Contained Graphite (Cg Mt) |
|---|---|---|---|
| Indicated | 24.8 | 11.3 | 2.8 |
| Inferred | 25.2 | 9.1 | 2.3 |
| **Total** | **50.0** | **10.2** | **5.1** |

Notes:

- *Due to effects of rounding, the total may not represent the sum of all components.*
- *Mineral Resource is reported from blocks located within an optimised open pit shell.*
- *Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.*
- *A NI43-101 report for this new Mineral Resource will be available in SEDAR following SEDAR review processes.*

## Further Information:

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### ASX LISTING RULES COMPLIANCE

*In preparing this announcement the Company has relied on the announcements previously made by the Company listed under "References". The Company confirms that it is not aware of any new information or data that materially affects those announcements previously made and, in the case of estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed, or that would materially affect the Company from relying on those announcements for the purpose of this announcement.*

### CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

*This document contains forward-looking statements concerning Metals Australia Limited. Forward-looking statements are not statements of historical fact and actual events, and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties, and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.*

*Forward looking statements in this document are based on the company's beliefs, opinions and estimates of Metals Australia Limited as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*

### COMPETENT PERSON STATEMENTS

*The information in this document that relates to metallurgical test-work is based on, and fairly represents, information and supporting documentation reviewed by Mr. Oliver Peters M.Sc., P.Eng., who is a member of the Professional Engineers of Ontario (PEO). Mr. Peters is the Principal Metallurgist and President of Metpro Management Inc., who has been engaged by Metals Australia Ltd to provide metallurgical consulting services. Mr. Peters has approved and consented to the inclusion in this document of the matters based on his information in the form and context in which it appears.*

*The exploration results presented in this report are from drilling completed in 2025 and previously reported for graphitic mineralisation. No new exploration has taken place.*

*The information in this report that refers to exploration results and previous mineral resource estimate disclosures is based on, and fairly reflects, information compiled and reviewed by Mr. Chris Ramsay. Mr. Ramsay (BSc (Geol), M.App.Proj.Mngt, FAusIMM) is a Fellow of the Australasian Institute of Mining and Metallurgy, is the General Manager of Geology at Metals Australia Ltd. Mr. Ramsay holds shares in the company. Mr. Ramsay has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr. Ramsay consents to the disclosure of the information in this Report in the form and context in which it appears.*

# Scoping Study for the Battery Anode Material Facility

**Final report**
241613899

for


**Metals Australia Ltd**

Level 1, 8 Parliament Place

West Perth, 6005

Australia

**Dorfner Anzaplan UK Ltd**

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April 22, 2026

**Effective Date:** **April 20, 2026**

**Signature Date:** **April 22, 2026**

**Quotation No.:** **241613899**

# SCOPING STUDY FOR THE BATTERY ANODE MATERIAL FACILITY


PREPARED BY:

| | | |
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| Graphite market report | | Fastmarkets |

APPROVED BY:

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# 1 Executive summary

## 1.1 Introduction

Metals Australia Ltd ("Metals Australia") is developing a fully integrated, end-to-end graphite supply chain to deliver battery-grade graphite products to the energy storage and electric vehicle sector.

As part of their vertically integrated supply chain, ore mined from their Lac Carheil Graphite Project, located near Fermont in the province of Quebec, Canada, is processed into flake graphite concentrate, which is subsequently transported to the Battery Anode Material ("BAM") Facility for further value addition into high-performance anode products. This vertically integrated approach aligns closely with Quebec's goal of establishing itself as a hub for critical minerals.

Dorfner Anzaplan UK Limited ("ANZAPLAN UK") has been engaged by Metals Australia to perform a Scoping Study on the BAM Facility, planned to be located in Baie-Comeau, Quebec, Canada.

At the BAM Facility, the natural flake graphite ("NFG") concentrate is micronized, spheroidized, purified, and coated to produce a high-purity product suitable for lithium-ion battery ("LIB") anodes, known as coated spherical purified graphite ("CSPG").

Given the BAM facility is akin to a chemical factory, producing CSPG from NFG concentrate produced by others, it does not report Mineral Resources and Mineral Reserves. While no Mineral Resources or Mineral Reserves are reported in this document, the following Scoping Study has been prepared in a manner consistent with the guidelines of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, prepared by the Joint Ore Reserve Committee ("JORC"). Industry-standard procedures and methodologies have been applied, and cost estimates follow Class 5 guidelines from the Association for the Advancement of Cost Engineering ("AACE"), Recommended Practice ("RP") 18R-97.

## 1.2 Property description and location

The BAM Facility will be located in the Jean-Noël-Tessier Park, an economic development zone located in Baie-Comeau, Quebec, Canada. The Jean-Noël-Tessier Park, now in the development stage, is set to host industrial projects, such as metallurgical processing and green energy.

## 1.3 Accessibility, climate, local resources, and infrastructure

### 1.3.1 Accessibility

The BAM Facility, situated within the Jean-Noël-Tessier Park, benefits from access to:

- Route 389, which connects the BAM Facility to the Lac Carheil Graphite Project; the graphite deposit and concentration plant located near Fermont (~20 km);
- Route 138, which connects the BAM Facility to the Port of Baie-Comeau, located approximately 10 km away. The port provides direct access to North American and global markets via the St. Lawrence River;
- SOPOR rail facilities, which is a ferry-rail services that connects the Port of Baie-Comeau to Matane, Quebec, Canada via the St. Lawrence River; and,
- Baie-Comeau airport, located approximately 22 km away, which will service flights to regional and international airports within the province of Quebec.

### 1.3.2 Climate

Baie Comeau has sub-arctic climate, characterized by long, cold and snowy winters, and short, mild summers. Average daily temperatures range from about -13 °C in winter to 16 °C in summer, with January lows plummeting to -19 °C and July highs peaking at 21 °C. Precipitation occurs year-round, with average monthly rainfall peaking at approximately 89 mm in September and October and dropping to around 9 mm in January and February. Winter snowfall is substantial, typically occurring from October to May, with December reaching a monthly average of 435 mm of snow. Despite seasonal ice formation on the St. Lawrence River, the Port of Baie-Comeau operates year-round.

### 1.3.3 Local resources

As of the 2021 census, Baie-Comeau has a population of 20,687, with an employment rate of 62 %, comparable to other cities in Quebec and across Canada. Although the population declined by 3.9 % since 2016, the municipality and its educational infrastructure have a capacity to support up to 30,000 residents.

The economy of Baie-Comeau is driven by well-established industrial sectors, including metallurgy (aluminum) and forestry, which employ a significant portion of the workforce and provides skills well suited to the BAM Facility. Most operational, technical, administrative and managerial roles are expected to be filled locally, while specialized positions may be sourced from major cities in Quebec. The city is supported by primary and secondary schools, as well as the Cégep de Baie-Comeau, which offers pre-university and technical programs, including civil and electrical engineering, and administration.

### 1.3.4 Infrastructure

The Jean-Noël-Tessier Park offers all necessary infrastructure and services, including but not limited to bulk electricity, gas, process water, and wastewater handling.

As one of the leading suppliers of electricity in Quebec, accounting for 94 % of the province’s electricity in 2021, Hydro-Quebec is assumed to power the BAM Facility. Although final power allocation will be finalized in next project phase, this assumption is supported by Canada’s and Quebec’s domestic critical mineral strategy, which positions the BAM Facility for priority consideration in the allocation process.

## 1.4 Mineral processing and metallurgical testwork

### 1.4.1 Introduction

Metals Australia retained Dorfner Anzaplan GmbH ("ANZAPLAN GmbH") to carry out value-addition testwork on NFG concentrate sourced from their Lac Carheil Graphite Project.

The value-addition testwork included bench-scale micronization, spheroidization, purification, coating and electrochemical performance testwork. The testwork was conducted at ANZAPLAN GmbH’s facilities in Hirschau, Germany, and for certain specialist tests, at designated original equipment manufacturers (“OEMs”) within Germany.

The NFG feed concentrate contained on average fixed carbon (“FC”) content of 95.1 wt.-% containing the following impurities: sulphur (2.2 wt.-%), iron oxide ($Fe_2O_3$, 1.2 wt.-%), silicon oxide ($SiO_2$, 0.4 wt.-%) and aluminium oxide ($Al_2O_3$, 0.2 wt.-%). Besides graphite, minor quantities of sulphur and kaolinite were identified by X-ray diffraction (“XRD”) analysis.

### 1.4.2 Micronization and spheroidization

To produce spherical graphite ("SG"), bench-scale testwork was performed, where micronization (flake size reduction) and spheroidization (shaping) were conducted on the NFG concentrate. Micronization and subsequent spheroidization were performed at the facilities of NETZSCH Trockenmahltechnik GmbH ("NETZSCH") due to their broad expertise in the spheroidization of graphite with their classifier milling technology.

The objective of the testwork was to produce:

- a medium SG product with a median diameter ("$D_{50}$") between 7 to 19 µm, and
- a fine SG product with a $D_{50}$ between 8 to 10 µm.

Through direct spheroidization, a medium SG product was produced (40575 run 6) with a $D_{50}$ value of 18.4 µm and a yield of 54 wt.- %. The fines generated during direct spheroidization were further spheroidized, resulting in a fine SG product (40575 run 30) with a $D_{50}$ value of 9.6 µm and an additional yield of 18 wt.-%. The total combined yield for spheroidization was therefore 72 wt.-%.

The tap density for the medium SG product (40575 run 6) was analysed at 0.99 g/cm$^3$, indicating potential for increased yield by targeting a lower tap density, for example 0.95 g/cm$^3$.

The Brunauer-Emmett-Teller ("BET") surface area for both the medium and fine SG products was measured at 5.2 m$^2$/g and 7.8 m$^2$/g, respectively, which is favourable compared to typical products in the market.

As shown in Table 1, results for medium SG (40575 run 6) and fine SG (40575 run 30) indicate that the BAM Facility's processing of NFG concentrate from the Lac Carheil Graphite Project aligns with typical market specifications.

*Table 1: SG results from Lac Carheil NFG feed*

| Description | Unit | Medium SG | | Fine SG | |
|---|---|---|---|---|---|
| | | **Typical market values** | **Result** | **Typical market values** | **Result** |
| Test ID | [-] | | 40575 | | 40575 |
| Run | [-] | | 6 | | 30 |
| $D_{50}$ | [µm] | 17 to 19 | 18.4 | 8 to 10 | 9.6 |
| Tap density | [g/cm$^3$] | >0.95 | 0.99 | >0.8 | 0.79 |
| BET | [m$^2$/g] | <8 | 5.2 | <8.5 | 7.8 |
| $D_{90}/D_{10}$ | [-] | <3.5 | 3.1 | <4.0 | 2.6 |
| **Yield** | **[wt.-%]** | | **54** | | **18** |

### 1.4.3 Purification

To produce battery-grade spherical purified graphite ("SPG") with a FC of ≥99.5 wt.-% FC, the following purification methods were evaluated to remove impurities from the medium SG feed:

- Standard purification using hydrofluoric acid ("HF");
- Caustic bake;
- Autoclave assisted pressurized caustic leaching; and,
- Thermal purification.

All tests applying standard HF purification did not reach the required FC purity. However, it should be noted that applying a thermal pre-treatment step at 420 °C prior to acid leaching (two-stage) resulted in SPG with a FC content of 99.94 wt.-%.

High purity graphite was achieved during caustic baking (test MA-CB4-AL1), successfully yielding a FC grade of 99.99 wt.-%. This purification route included thermal pre-treatment at 420 °C, caustic baking at 300 °C, and two stages of sequential caustic and sulfuric acid leaching.

Autoclave assisted pressurized caustic leaching was conducted to assess whether the first stage of caustic leaching in the conventional caustic baking route could be enhanced in a pressurized autoclave. The results demonstrated that this approach did not achieve battery grade SPG purity, reaching only 99.72 wt.-% FC.

All thermal purification tests yielded a FC content of more than 99.98 wt.- %, thus achieving the battery-grade specification.

Although thermal purification achieves the required purity, the caustic baking route was selected for the Scoping Study, due to its comparatively lower energy requirements.

While thermal pre-treatment was included prior to caustic baking to reduce the sulphur content in the feed, the NFG concentrate used during ANZAPLAN GmbH's testwork was unoptimized with respect to sulphur. Historical testwork, specifically by SGS in 2020, demonstrated that optimization work on the Lac Carheil material could achieve sulphur levels of ≤0.5 wt.-% sulphur, compared to the 2.2 wt.-% sulphur found in the ANZAPLAN GmbH's testwork feed.

Based on the spheroidization testwork performed by NETZSCH, a concentrate at ≤0.5 wt.-% sulphur would be expected to yield a medium SG product with ≤0.3 wt.-% sulphur. At these levels, conventional caustic baking without thermal pre-treatment is anticipated to produce battery-grade SPG. Considering this, and the ongoing optimization testwork at SGS to reduce the sulphur in the NFG concentrate, the thermal pre-treatment step is excluded from the Scoping Study flowsheet.

1.4.4 Sample production of spheroidized purified graphite

An SPG sample was produced for subsequent coating tests, where a composite SG material (SG 18, 0.97 g/cm³, 40575 RZ3-4+RZ6-9) served as feed material for purification. The purification process followed the parameters established in caustic bake test MA-CB4, which included thermal pre-treatment at 420 °C, caustic baking at 300 °C, and two stages of sequential caustic and sulfuric acid leaching.

A total of 1.4 kg of SPG sample was produced with a purity of 99.94 wt.-% FC and a sulphur content of 0.04 wt.-%.

### 1.4.5 Pitch tar coating of SPG

Three coating tests were conducted using pitch tar additions of 5 wt.-%, 7.5 wt.-%, and 10 wt.-%. All tests achieved a CSPG product meeting the market specifications threshold for surface area (generally $<3\ m^2/g$).

After spheroidization, the surface area of medium SG measured 6.4 $m^2/g$, which decreased to 1.4 $m^2/g$ with the lowest pitch addition (5 wt.-%), and to 0.8 $m^2/g$ with the highest pitch addition (10 wt.-% pitch tar).

Based on these results, the addition of 7.5 wt.-% pitch tar was chosen, as the 5 wt.-% addition of pitch tar is likely to be insufficient to compensate for natural variability in SG feedstock. Although the 10 wt.-% addition delivered a lower surface area, it requires a higher consumption of pitch tar, therefore, 7.5 wt.-% was determined to be the optimum.

### 1.4.6 Electrochemical characterization

Following spheroidization, purification and coating, preliminary electrochemical testwork was undertaken using the CSPG sample (pitch addition of 7.5 wt.-%). The electrochemical tests comprised the following:

- Differential capacity analysis (dQ/dV);
- Determination of formation capacity and first charge efficiency;
- C-rate test; and,
- Determination of cycling performance.

Differential capacity analysis (dQ/dV) was conducted in a full cell setup (PAT cell). The test indicates that the kinetics of the CSPG sample is favourable as active material in LIBs.

Standard formation in a full cell setup (PAT cell) revealed that the CSPG sample achieved a first cycle efficiency ("FCE") of 95.0 %, which is similar to the performance of CSPG reference materials.

Rate capability testing demonstrated that the capacity drop at different C-rates (current rates) is lower indicating favourable rate performance and efficient lithium-ion transport within the electrode structure.

CCCV cycling (constant current, constant voltage) in full cell configuration (PAT cell) shows 99.5 % of initial capacity after 72 cycles, which is similar to the performance of CSPG reference materials.

## 1.5 Recovery methods

NFG concentrate sourced from the Lac Carheil Graphite Project is processed in the BAM Facility, which consists of three identical modules. Each module handles 25,000 t/a (dry) of NFG concentrate, resulting in a total nominal design capacity of 75,000 t/a (dry) at full production.

Each 25,000 t/a module receives NFG concentrate (-100 mesh) with an initial FC content of ≥95 wt.-%, in which the following value-addition processes are applied sequentially:

- Micronization: size-reduction of NFG concentrate in an air-classifying mill;
- Spheroidization: micronized material is mechanically rounded in an air-classifying mill to produce medium SG with a $D_{50}$ of 18 µm (SG 18), while the fines generated are further spheroidized to produce a fine SG with a $D_{50}$ of 10 µm (SG 10). Overall, a combined yield of 72 wt.-% is achieved, where the remainder is SG fines, a by-product intended for sale;
- Purification: SG 18 and SG 10 are processed in dedicated purification circuits, where impurities are removed to produce SPG with a FC content of ≥99.99 wt.-%. Each purification line comprises of caustic baking followed by two cycles of alternating caustic and acid leach stages, each followed by filtration. The final cake is dried in a dispersion dryer, while all filtrates and wash liquors are sent to wastewater treatment for neutralization of acid and caustic streams; and,
- Coating: SPG 18 and SPG 10 are coated in dedicated coating lines, where SPG is mixed with milled petroleum pitch and thermally treated in a pusher furnace with an inert nitrogen atmosphere. This process deposits a thin layer of carbon onto the SPG particles to produce CSPG 18 and CSPG 10, respectively.

The BAM Facility, with the above value-addition processes, has an overall yield of 68 %, resulting in each module producing 17,023 t/a (dry) of CSPG, comprising of 12,843 t/a (dry) of CSPG 18 and 4,180 t/a (dry) of CSPG 10.

With all three modules operating, the BAM Facility will produce a total of 51,069 t/a (dry) of CSPG (38,529 t/a CSPG 18 and 12,540 t/a CSPG 10).

## 1.6 Project infrastructure

While final site selection for the BAM Facility will be completed in the next project phase, the Jean-Noël-Tessier Park in Baie Comeau, Quebec, Canada is the preferred location and is assumed for the Scoping Study.

The BAM Facility is designed as a self-contained chemical production facility planned on flat topography within the Jean-Noël-Tessier Park, with bulk infrastructure and services provided by the park, including electrical power, water supply, natural gas, telecommunication, road access, storm water management and waste management systems. Project-specific facilities will be developed as part of the BAM Facility scope, including internal roads, vehicles and truck parking areas, step-down transformers from the bulk power supply, and integrated distribution systems for power and water, water treatment, steam generation, and compressed air.

## 1.7 Market studies and contracts

The market assessment for the BAM Facility was generated from insights and price projections for graphite provided by Fastmarkets (2026).

### 1.7.1 Flake graphite demand

Traditionally, the demand for natural graphite has been driven primarily by the steel industry, however in recent years, the battery sector has become the largest consumer of natural graphite. In 2025, the battery sector’s total natural graphite demand was 39 % and is set to rise to 80 % by 2035.

Although natural graphite demand from the battery sector is increasing, it is important to consider the role of synthetic graphite in LIB anodes. Historically the ratio of natural-to-synthetic graphite in LIBs ranged from 60:40 to 40:60, however this balance has shifted to 15:85, reflecting the growing adoption of synthetic graphite. The natural to synthetic graphite ratio in China is expected to increase to 20:80 by 2034.

Given that China holds the majority of global graphite production, many regions, including Europe, North America, South Korea and Japan are seeking to develop domestic supply chains to reduce reliance on Chinese material. In these regions, natural graphite is favored due to its lower carbon dioxide emissions compared to synthetic graphite production. As a result, the natural-to-synthetic graphite ratio is expected to rise to 50:50 by 2034 in these regions.

### 1.7.2 Natural graphite supply and demand

The overall graphite market is currently oversupplied, largely due to synthetic graphite overcapacity, while natural graphite supply is tightening following production cuts in China and Africa, who in 2024 accounted for 82 % and 13 % of the global natural graphite production, respectively. Graphite prices are expected to stabilize and rise from late 2025 as demand grows, natural graphite remains constrained, and synthetic graphite costs increase. China is projected to maintain market dominance, and by 2029, inventories should normalize, with demand eventually outpacing supply and leading to a graphite deficit beyond 2033.

### 1.7.3 Flake graphite pricing outlook

The BAM Facility will be supplied with NFG concentrate (-100 mesh) from the Lac Carheil Graphite Project mine and concentrate plan at a projected price of USD 884 per tonne ("t"), excluding freight. This pricing is based on Fastmarkets data for 2030, when production of the first 25,000 t/a module is scheduled to commence.

### 1.7.4 Value-add graphite market assessment

NFG concentrate undergoes value-addition processes, including micronization, spheroidization, purification and coating to produce CSPG. In addition to the BAM Facility producing two distinct CSPG products (CSPG 18 and CSPG 10) for sale into the LIB market, the process generates SG fines as a by-product, which can be sold as a carbon additive into industrial graphite markets such as steel and cast-iron production, lubricants, and friction materials.

Fastmarkets generated a forecast for CSPG 18, CSPG 10 and SG fines between 2029 and 2050.

CSPG 18 prices in the United States ("US") are forecasted to rise from USD 8,385/t in 2029 to USD 10,363/t by 2050. CSPG 10 follows a similar trend but commands a premium, with US prices ranging from USD 8,585/t to USD 11,063/t over the same period. SG fines are expected to be priced at USD 700/t in 2029, rising to USD 917/t by 2050.

CSPG 18, CSPG 10 and SG fines pricing, as listed in Table 2, for the BAM Facility is based on Fastmarkets data for 2030.

*Table 2: BAM Facility sales prices*

| **Description** | **Price** [USD/t] |
|---|---|
| CSPG 18 | 8,897 |
| CSPG 10 | 9,015 |
| SG fines | 710 |

### 1.7.5 Contracts

#### 1.7.5.1 Industry contract terms for anode material

Suppliers of active anode material must comply with battery manufacturers' specifications and quality controls to ensure consistent performance across production batches. Compliance is verified during a qualification period, typically lasting 6 to 18 months, during which the battery manufacturer assesses the graphite for safety and performance. Once qualified, commercial contracts between suppliers and battery manufacturers for active anode material are agreed, which typically span 3 to 5 years. In today's tight market, most agreements are extended to 5 years to ensure long-term and reliable supply.

#### 1.7.5.2 Contracts

The BAM Facility remains at a Scoping Study level; therefore, contracts for its development, production, operation, marketing and sales have not been finalized with vendors, contractors or manufacturers. These agreements will be managed in subsequent development stages.

## 1.8 Environmental studies, permitting, and social impact

An Environmental and Social Impact Assessment ("ESIA") for the BAM Facility is essential to identify and manage potential environmental and social impacts of the proposed development, while establishing an appropriate regulatory framework. As the project is currently at a Scoping Study level, a full ESIA has not been conducted. The ESIA will be undertaken in the next phase to ensure compliance with regulatory requirements and to assess potential impacts in detail.

While an ESIA will be undertaken in the next project phase, the proposed site for the BAM Facility within the Jean-Noël-Tessier industrial park has undergone prior environmental assessment. The site was originally selected in 2015 by a Toronto Stock Exchange ("TSX") Venture Exchange listed Canadian corporation for a graphite flotation concentrator plant and residue storage facility, designed to produce approximately 50,000 t/a over a 25-year project life. Baseline environmental studies were completed in 2015 and 2016, followed by an Environmental Impact Study in 2016, led by Hatch in Montreal. The assessment evaluated residual impacts across physical, biological, and socio-economic components, concluding overall positive benefits for local communities (Mason Graphite, 2016).

## 1.9 Capital and operating costs

The capital ("CAPEX") and operating expenditure ("OPEX") for the BAM Plant were performed in accordance with AACE International Class 5, RP 18R-97. All cost estimates are expressed in United States Dollar ("USD"), using exchange rates as of 18 September 2025. The CAPEX and OPEX exclude, but are not limited to, escalation, inflation, and currency fluctuations.

### 1.9.1 Capital cost

The CAPEX for the BAM Facility is estimated at USD 883.8 million for all three modules (including land costs), with a total processing capacity of 75,000 t/a NFG concentrate. Table 3 outlines the CAPEX breakdown for the BAM Facility.

*Table 3: CAPEX summary for BAM Facility*

| **Cost breakdown** | **Total** [USD] |
|---|---|
| **Direct costs** | |
| Building and infrastructure | 113,735,099 |
| Mechanical supply | 261,101,542 |
| Mechanical installation | 17,869,688 |
| Platework | 42,625,043 |
| Piping | 78,392,964 |
| Electrical | 87,141,304 |
| Instrumentation | 23,982,148 |
| **Total direct costs** | 624,847,789 |
| **Indirect costs** | |
| Project management and EPCM services | 46,000,142 |
| Professional services | 25,555,634 |
| Contingency | 178,889,441 |
| **Total indirect costs** | 250,445,218 |
| **Land** | 8,505,000 |
| **Total CAPEX** | 883,798,007 |

The CAPEX estimate for the BAM Facility is based on the engineering design developed during the Scoping Study, and includes both direct and indirect costs, with contingency of 35 %. ANZAPLAN UK, in collaboration with Professional Cost Consultants (Pty) Limited ("PCC"), a multi-disciplinary quantity surveying practice, estimated the CAPEX for the BAM Facility.

Budgetary quotations were obtained for major mechanical equipment, while other direct costs, including mechanical installation, buildings and infrastructure (earthworks, civils, and structural steel), platework, piping, and electrical and instrumentation, were estimated using industry-standard factors.

Indirect costs, including professional services and engineering, procurement, and construction management ("EPCM") services, were also derived from the direct costs using standard factorization.

1.9.2 Operating cost

The OPEX for the BAM Facility is estimated at USD 120.6 million per annum for all three modules (full production), processing a total of 75,000 t/a NFG concentrate. At full production, the BAM Facility produces 51,069 t/a of CSPG (18 and 10), which corresponds to a unit cost of USD 2,362/t of saleable CSPG.

OPEX for the BAM facility includes the cost of energy (electricity and natural gas), water, labour, reagents, maintenance, laboratory services, and other miscellaneous costs, as outlined in Table 4.

*Table 4: OPEX summary for the BAM Facility at full production*

| Cost breakdown | OPEX [USD/a] | Unit cost [USD/t saleable CSPG] |
|---|---|---|
| Energy | 16,802,654 | 329 |
| Water | 167,685 | 3 |
| Waste | 76,090 | 1 |
| Reagents | 46,945,014 | 919 |
| Labour | 21,448,082 | 420 |
| Maintenance | 18,277,108 | 358 |
| Laboratory | 9,676,800 | 189 |
| Miscellaneous | 7,210,295 | 141 |
| **Total OPEX** | **120,603,729** | **2,362** |

## 1.10 Economic analysis

A Discounted Cash Flow ("DCF") model was conducted to evaluate the economic potential of the BAM Facility. The financial analysis is based on real terms (constant USD basis) and excludes the effects of inflation. The analysis covers a 25-year project life, assessing capital and operating costs, revenue generation, and profitability metrics to determine the project's financial feasibility.

### 1.10.1 Key economic metrics

- Project Life: 25 years;
- Pre-tax Net Present Value ("NPV") (8% discount rate): USD 2.050 billion;
- Post-tax NPV (8% discount rate): USD 1.389 billion;
- Post-tax Internal Rate of Return ("IRR"): 25.6 %; and,
- Post-tax Payback Period: 4.5 years (after production commencement).

### 1.10.2 Revenue and cost structure

The BAM Facility will operate with three 25,000 t/a production modules, each generating revenue from the sale of:

- CSPG 18 µm: 12,843 t/a;
- CSPG 10 µm: 4,180 t/a; and,
- SPG fines (by-product): 7,000 t/a.

The estimated sales revenue is derived from forecasted product prices, with CSPG 18 at USD 8,897/t, CSPG 10 at USD 9,015/t, and SG fines at USD 710/t.

The total CAPEX for all three modules of the BAM Facility is estimated at USD 883.8 million, including land costs at USD 8.5 million. Module 1 includes the development of site-wide buildings, bulk earthworks, and shared infrastructure and utilities required to support all three modules. As a result, Module 1 carries the majority of the initial capital investment and is estimated at USD 335 million, while Module 2 and Module 3 are estimated at USD 270 million each.

Total annual OPEX for the BAM facility at full production across all three modules is estimated at USD 120.6 million. Module 1, which includes a full staffing complement, has an estimated annual OPEX of USD 41.5 million. When Modules 2 and 3 are brought online, their annual OPEX is estimated at USD 39.6 million each. The lower OPEX for these modules reflects the reduced labour requirements during expansion, as managerial roles remain largely unchanged despite the increase in production capacity.

### 1.10.3 Economic model assumptions

- 100 % equity funding (no debt financing or interest payments);
- 8.0 % discount rate, aligned with industry risk levels;
- Ramp-up schedule:
    - Module 1: 49 % production in Year 1, reaching full production by Year 4.
    - Modules 2 and 3: Constructed in Year -1 to 1, reaching full production by Year 5.

- No Value Added Tax ("VAT"), inflation, or exchange rate adjustments included in calculations;
- The BAM Facility is assumed to apply the Clean Technology Manufacturing ("CTM") Investment Tax Credit ("ITC"). The CTM ITC is a refundable tax credit that provides a 30 % credit on eligible property used in critical mineral manufacturing, processing, or extraction. The credit rate is reduced to 20 % in 2032, 10 % in 2033, and 5 % in 2034. As production of all modules is scheduled to begin in 2030, 30 % credit is assumed to be received in the first year of production for each module; and,
- Depreciation is applied to CAPEX (30% per annum on equipment; and 6% per annum on buildings and infrastructure), with CTM ITC deducted prior to depreciation to avoid overstating depreciation and understating taxable income.

## 1.11 Interpretations and conclusions

### 1.11.1 General

Metals Australia plans to supply battery-grade graphite to the North American LIB market through the BAM Facility, producing CSPG from NFG concentrate sourced from the Lac Carheil Graphite Project. The BAM Facility and its development support the Quebec government's objective of establishing the province as a hub for critical and strategic minerals.

### 1.11.2 Mineral processing and metallurgical testwork

The testwork results for the flake graphite concentrate sourced from the Lac Carheil Graphite Project are as follows:

- Micronization and spheroidization at NETZSCH successfully produced medium and fine SG (18 and 10) with parameters, such as particle size distribution, tap density, and specific surface area, that are in line with market requirements. A combined yield of 72 wt.-% was achieved over spheroidization;

- Among the tested purification methods, the caustic bake route, which included thermal pre-treatment at 420 °C, achieved battery-grade purity at 99.99 wt.-% FC, and was thus selected for the Scoping Study;
- Although the caustic bake route required thermal pre-treatment to achieve battery-grade purity, the NFG concentrate used in testwork was unoptimized. Historical testwork indicates that thermal pre-treatment is not required, as optimization of the NFG concentrate is expected to reduce the sulphur to acceptable levels. Thus, the Scoping Study flowsheet excludes thermal pre-treatment;
- Pitch tar coating significantly reduced BET surface area to below market thresholds. The 7.5 wt.-% pitch tar addition provided an optimal balance between performance and material efficiency. Electrochemical tests demonstrated excellent first-cycle efficiency (95 %) and stable cycling performance, comparable to reference CSPG materials; and,
- Overall, the metallurgical testwork conducted validates the technical viability of the BAM Facility process flow, confirming that CSPG is produced, which meets performance specifications for LIB applications.

### 1.11.3 Recovery methods

The BAM Facility comprises of three modules, each designed to process 25,000 t/a (dry) of NFG concentrate (-100 mesh, ≥95 wt.-% FC) sourced from the Lac Carheil Graphite Project. In each module, NFG concentrate is micronized and spheroidized to produce SG 18, SG 10 and SG fines (by-product). Both size fractions, SG 18 and SG 10, are purified in dedicated purification lines (caustic baking route) to produce SPG with a FC content of ≥99.99 wt.-%, which are coated with pitch tar in separate coating lines to produce CSPG 18 and CSPG 10, respectively.

A total of 17,023 t/a (dry) of CSPG is produced for each module, which comprises 12,843 t/a (dry) CSPG 18 and 4,180 t/a (dry) CSPG 10. The by-product, SG fines, is produced at 7,000 t/a (dry).

At full production, the BAM Facility will process a total of 75,000 t/a of NFG concentrate to produce 51,069 t/a (dry) of CSPG, which comprises 38,529 t/a (dry) CSPG 18 and 12,540 t/a (dry) CSPG 10. The by-product, SG fines, is produced at 21,000 t/a (dry).

#### 1.11.4 Capital and operating costs

The total CAPEX for the BAM Facility is estimated at USD 883.8 million for three modules processing a combined 75,000 t/a of NFG concentrate. The estimate includes both direct and indirect costs and has an contingency of 35 %.

Annual OPEX is estimated at USD 120.6 million for all three modules, where a combined throughput of 75,000 t/a of NFG concentrate is expected to produce 51,069 t/a of CSPG (18 and 10). This corresponds to a unit cost of USD 2,362/t of saleable CSPG for the BAM Facility.

#### 1.11.5 Economic analysis

The DCF model confirms strong economic viability, with a high NPV (USD 1,389 billion), strong IRR (25.6 %), and a payback period of 4.5 years. The BAM Facility’s profitability is mostly sensitive to fluctuations in sales revenue, reinforcing the need for robust market demand and long-term supply agreements.

#### 1.11.6 Concluding statement

The BAM Facility represents a strategically positioned project that is well-established to supply the expanding LIB industry, with a process flowsheet that has been validated through metallurgical test work, a competitive cost structure, and positive financial projections.

## 1.12 Recommendations

The following recommendations are proposed for the next project phase:

### 1.12.1 General

- Advance the BAM Facility Scoping Study to a Feasibility Study (AACE Class 3);
- Finalize site selection to complete layout, bulk infrastructure, and supply planning for the next project phase. This will also be required to proceed with the ESIA; and,
- Conduct geotechnical and topographical surveys of the selected site.

### 1.12.2 Minerals processing and metallurgical testing

- Optimization testwork to be conducted for the concentrator to produce concentrate with reduced sulphur. Reduction to ≤0.5 wt.-% sulphur will confirm exclusion of thermal pre-treatment;
- Optimization testwork to confirm process parameters for spheroidization, purification, and coating;
- Locked-cycle purification testwork to confirm the graphite purity, yield, and recovery, and to evaluate recycling and impurity accumulation. Based on resulting wastewater, wastewater treatment and chemical recovery testwork is recommended;
- Extended cycling and rate capability testwork in full-cell configurations to confirm the electrochemical performance of the final CSPG sample in commercial applications;
- Piloting of micronization, spheroidization, purification, and coating unit operations to generate the process parameters required to

support basic and detailed engineering design, equipment sizing, and vendor testwork; and,

- Production of CSPG to provide samples for customer evaluation and qualification.

### 1.12.3 Recovery methods

The engineering and design for the BAM Facility should be advanced to align with AACE International RP 18R-97, appropriate to the selected development phase.

### 1.12.4 Marketing studies

Market demand and CSPG pricing should be monitored regularly to identify potential risks and opportunities, support planning, and ensure the BAM Facility’s production aligns with customer requirements.

### 1.12.5 Environmental studies, permitting and social or community impact

After selecting the BAM Facility site, an ESIA should be conducted to guide engineering and design for mitigation measures, securing permits and ensuring compliance with provincial (Quebec) and Canadian federal environmental regulations.

### 1.12.6 Economic analysis

The financial model should be continuously updated to reflect changing market conditions, incorporating feedstock supply, CAPEX, OPEX, commodity prices, and risk factors. A corporate finance DCF model should be developed during the execution phase to include loan repayments, cash flow projections, and working capital analysis.

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# 2 Introduction

Dorfner Anzaplan UK Limited (“ANZAPLAN UK”) has been engaged by Metals Australia Ltd (“Metals Australia”) to perform a Scoping Study on the Battery Anode Material (“BAM”) Facility, planned to be located in Baie-Comeau, in the province of Quebec, Canada.

Metals Australia is a resource company focused on the exploration and development of critical minerals and metal projects in Australia and Canada. The BAM Facility and its development are central to Metals Australia’s end-to-end graphite supply strategy, delivering battery-grade graphite to the North American lithium-ion battery (“LIB”) market. Their strategy aligns with the Quebec government’s objective of establishing the province as a hub for critical and strategic minerals.

Metals Australia’s strategy is underpinned by their graphite deposit in Fermont, Quebec, Canada, referred to as the Lac Carheil Graphite Project, where ore is mined and processed into concentrate before being transported to the BAM Facility for value-addition. At the BAM Facility, the natural flake graphite (“NFG”) concentrate is micronized, spheroidized, purified, and coated to produce a high-purity product suitable for LIBs, known as coated spherical purified graphite (“CSPG”).

## 2.1 Compliance

This Scoping Study presents the technical and economic (“techno-economic”) results for the BAM Facility, prepared for Metals Australia.

The BAM Facility is akin to a chemical factory, producing CSPG from NFG concentrate produced by others. Therefore, the Scoping Study does not include any Mineral Resources or Mineral Reserves.

Where applicable, the technical information within the Scoping Study has been prepared in a manner consistent with the guidelines of the 2012 Edition of the Australasian Code for Reporting of Exploration

Results, Mineral Resources and Ore Reserves, prepared by the Joint Ore Reserve Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia ("JORC Code").

The Scoping Study applies procedures and methodologies consistent with industry standard practices. Capital and operating cost estimates have been developed in accordance with Association for the Advancement of Cost Estimation ("AACE") International Recommended Practice ("RP") 18R-97 and are classified as a Class 5 estimate.

## 2.2 Terms of reference and purpose

### 2.2.1 Purpose

The sections of the Scoping Study for the BAM Facility were prepared to provide sufficient technical and economic information to conclude its development.

### 2.2.2 Responsibilities

During 2025, Dorfner Anzaplan GmbH ("ANZAPLAN GmbH") was retained by Metals Australia to perform metallurgical testwork on the NFG concentrate sourced from the Lac Carheil Graphite Project. This testwork served as the initial phase for the BAM Facility Scoping Study, evaluating downstream processing steps, including micronization, spheroidization, purification, and coating.

ANZAPLAN UK, a subsidiary of ANZAPLAN GmbH, was engaged by Metals Australia as the lead consultancy for the BAM Facility, responsible for conducting the Scoping Study and integrating the results into a final techno-economic report.

Based on the results of the metallurgical testwork performed by ANZAPLAN GmbH, ANZAPLAN UK developed the process engineering design for the BAM Facility, from which the operating cost ("OPEX") was estimated. ANZAPLAN UK, in collaboration with Professional Cost Consultants (Pty) Limited ("PCC"), a multi-disciplinary quantity surveying practice, estimated the capital expenditure ("CAPEX") for the BAM Facility.

## 2.3 Competent persons

The following individuals are considered Competent Persons ("CP") as defined by the JORC code:

- Derick, R. de Wit, FAusIMM, FSAIMM, Dorfner Anzaplan UK Limited; and,
- Johannes Siegert, MIMMM, MAusIMM, Dorfner Anzaplan GmbH.

Table 5 presents the CPs and their respective chapters for which they are responsible in the Scoping Study:

*Table 5: Competent Persons and their responsible chapters*

| Competent person | Responsible chapter | Signature | Date |
|---|---|---|---|
| Derick, R. de Wit, FAusIMM, FSAIMM, Dorfner Anzaplan UK Limited | Author of 1.1 to 1.3, 1.5 to 1.12, 2 to 5, 6.4.6, 6.6.5, 7 to 15. Co-author of 1.4.3. | "Original signed" | April 22, 2026 |
| Johannes Siegert, MIMMM, MAusIMM, Dorfner Anzaplan GmbH | Author of 1.4.1, 1.4.2, 1.4.4 to 1.4.6, 6.1 to 6.3, 6.4.1 to 6.4.5, 6.4.7, 6.5, 6.6.1 to 6.6.4. Co-author of 1.4.3. | "Original signed" | April 22, 2026 |

## 2.4 Effective Date

The Effective Date of all technical and economic information presented in the Scoping Study is April 20, 2026.

## 2.5 Personal inspections

No personal inspection occurred at the Jean-Noël-Tessier Park, in the province of Quebec, Canada, where it is planned to locate the BAM Facility.

The CP responsible for the BAM Facility has sufficient understanding of the salient factors capable of influencing the outcome and does not believe visiting a "Greenfield" industrial site to verify information, understand site conditions, and assess work done, will meaningfully contribute to further enhance their understanding or provide additional information that will materially influence their findings. Since the BAM Facility is not a mineral project, no personal inspection is required.

## 2.6 Units of measurement and abbreviations

All units of measurement used in this Scoping Study are metric unless stated otherwise. Tonnages (denoted as t) refer to metric tonnes of 1,000 kilograms ("kg") and are reported on a dry basis, unless stated otherwise. All costs are presented in United States Dollars ("USD"), and all units in this Scoping Study adhere to the International System of Units, unless stated otherwise.

Table 6 and Table 7 respectively present the units of measurement, and the acronyms, and abbreviations used in the Scoping Study.

*Table 6: Units of measurement*

| Abbreviation | Definition |
|---|---|
| % | Percentage |
| °C | Degree Celsius |
| µm | Microns i.e. One millionth of a meter |
| $c/m^3$ | Cents per cubic metre |
| c/kWh | Cents per kilowatt-hour |
| $D_{10}$ | Tenth percentile diameter |
| $D_{50}$ | Median diameter |
| $D_{90}$ | Ninetieth percentile diameter |
| g | Gram |
| $g/cm^3$ | Gram per cubic centimetre |
| h | Hours |
| h/a | Hours per annum |
| kg | Kilograms |
| kg/t | Kilogram per tonne |
| kWh | Kilowatt-hour |
| kW | Kilowatt |
| t | Tonnes |
| t/a | Tonnes per annum |
| t/h | Tonnes per hour |
| t/t | Tonnes per tonnes |
| mAh/g | Milliampere-hours per gram |
| mg/kg | Milligram per kilogram |
| $m^3/h$ | Cubic metre per hour |
| $m^2/g$ | Square meters per gram |
| min | Minutes |
| $Nm^3$ | Normal cubic metres |
| $Nm^3/h$ | Normal cubic metres per hour |
| USD/a | United states dollar per annum |
| USD/t | United states dollar per tonne |
| wt.-% | Percent by weight |

*Table 7: Acronyms and abbreviations*

| Abbreviation | Definition |
|---|---|
| AACE | Association for the Advancement of Cost Estimation |
| AII | Accelerated Investment Incentive |
| ANZAPLAN UK | Dorfner Anzaplan UK Limited |
| ANZAPLAN GmbH | Dorfner Anzaplan GmbH |
| BAM | Battery Anode Material |
| BET | Brunauer-Emmett-Teller |
| CAGR | compound annual growth rate |
| CAPEX | Capital expenditure |
| CCA | capital cost allowance |
| $CO_2$ | carbon dioxide |
| CP | Competent Person |
| CSPG | coated spherical purified graphite |
| CTM | Clean Technology Manufacturing |
| DCF | discounted cash flow |
| DI | deionized |
| EPCM | Engineering, Procurement and Construction Management |
| ESG | Environmental Social Governance |
| ESIA | Environmental and Social Impact Assessment |
| ESS | energy storage system |
| EU | European Union |
| EUR | Euro |
| EV | electric vehicle |
| FC | fixed carbon |
| FCE | first cycle efficiency |
| G&A | general and administrative |
| GBP | Pound sterling |
| HCl | hydrochloric acid |
| HF | hydrofluoric acid |
| $HNO_3$ | nitric acid |
| $H_2SO_4$ | sulphuric acid |
| IDC | initial discharge capacity |
| IMVAL | International Mineral Valuation |
| IP | industrial port |
| IRR | internal rate of return |
| ITC | Investment Tax Credit |
| JORC | Joint Ore Reserve Committee |
| LIB | lithium-ion battery |
| LOI | loss of ignition |
| Metals Australia | Metals Australia Ltd |
| NaOH | Sodium hydroxide |
| NETZSCH | NETZSCH Trockenmahltechnik GmbH |
| NFG | natural flake graphite |
| NPV | net present value |
| OEM | original equipment manufacturers |

*Table 7: Acronyms and abbreviations (continued)*

| | |
|---|---|
| OPEX | operating expenditure |
| PCC | Professional Cost Consultants (Pty) Limited |
| PDC | process design criteria |
| PFS | Pre-Feasibility Study |
| PSD | particle size distribution |
| RP | Recommended Practice |
| Scoping Study | The Scoping Study conducted for the Battery Anode Material Facility, prepared for Metals Australia |
| QNS&L | Quebec North Shore and Labrador Railway |
| SEI | solid electrolyte interphase |
| SEM | scanning electron microscope |
| SG | spherical graphite |
| SPG | spherical purified graphite |
| techno-economic | Technical and economic |
| tonne | Metric tonnes |
| TSF | tailing's storage facility |
| TSX | Toronto Stock Exchange |
| US | United States |
| USD | United States Dollar |
| VAT | Value-added tax |
| Xinde | Xinde New Material |
| XRD | X-ray diffraction |

# 3 Reliance on other experts

In preparing the Scoping Study, the CPs have fully relied upon certain information, opinions and statements from other experts. The CPs have reviewed the information relied upon and consider it to be reasonable and appropriate for inclusion in this Scoping Study.

The CPs accept responsibility for all other scientific and technical information contained in this Scoping Study, and confirm that, to the best of their knowledge, it is accurate and complete in all material aspects. Any limitations of responsibility are outlined in the relevant sections below.

## 3.1 Graphite sales prices

Graphite product(s) sales prices have been prepared from forecasts provided by Fastmarkets (2026). The CP, Derick, R de Wit, has relied on Fastmarkets' forecasted sales prices for the purposes of the Scoping Study. This information is presented in Section 9 and has been applied as a key input to the discounted cashflow model presented in Section 12.

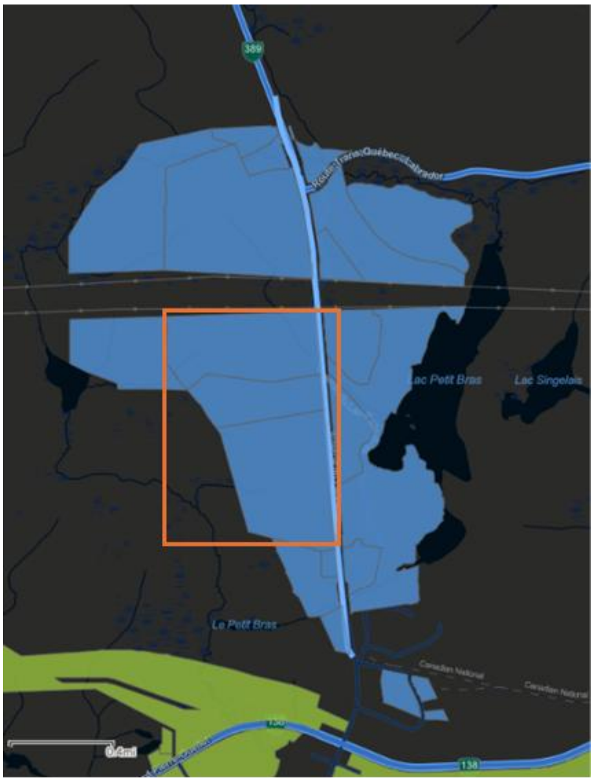
# 4 Property description and location

Metals Australia has identified the Jean-Noël-Tessier Park, located in Baie-Comeau, Quebec, Canada, as its preferred location for the BAM Facility.

The Jean-Noël-Tessier Park is an economic development zone, specifically designed to support heavy and light industrial sectors, including metallurgical processing and green energy projects. The park is situated at the junction between Route 138 and Route 389 and is within the Baie-Comeau Industrial Port ("IP") zone, which serves as a multimodal hub with an integrated network of railway, road and port facilities.

The Jean-Noël-Tessier Park covers 344 hectares of greenfield land, divided into multiple lots on both sides of Route 389, as shown in Figure 1. The park is currently in the development phase and is intended to support of range of industrial projects, including the HY2GEN's Courant project, a carbon-free hydrogen/ammonia project.

The BAM Facility will occupy approximately 80-hectares, which will span three adjacent lots, as indicated in Figure 1. Renderings of the BAM Facility are provided in Figure 2 and Figure 3.




**Key**

Jean-Noël-Tessier Park

BAM Facility proposed plots

*Figure 1: Jean-Noël-Tessier Park between Route 138 and Route 389, and proposed plots for BAM Facility*

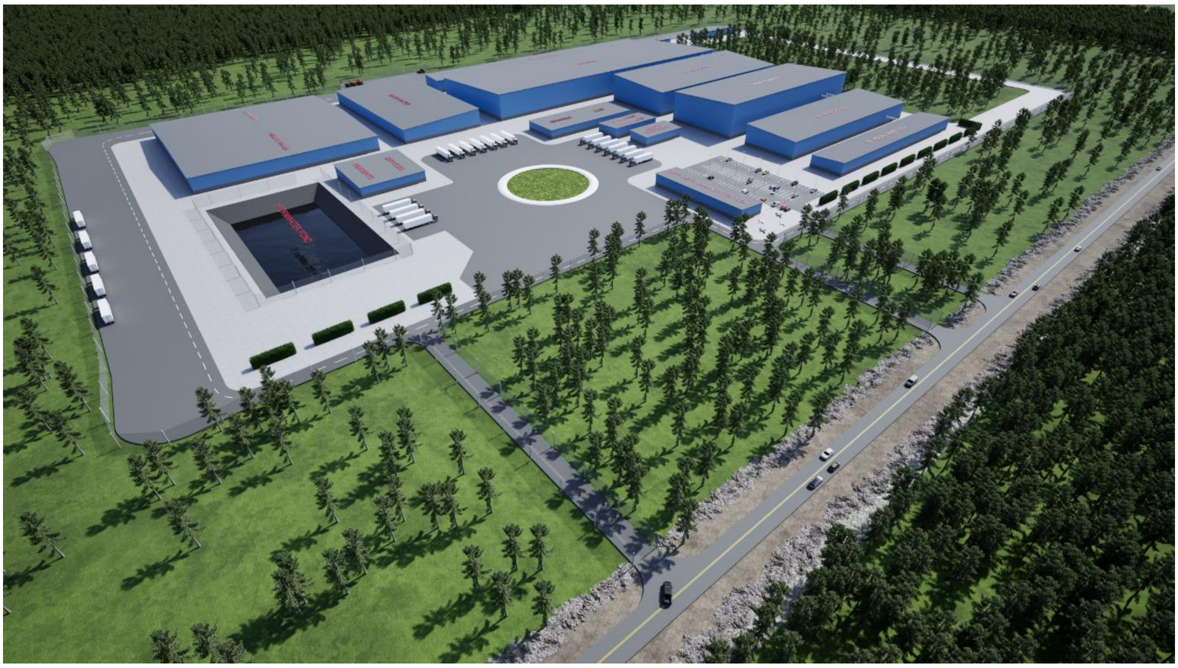


*Figure 2: Render of BAM Facility (Image 1)*


*Figure 3: Render of BAM Facility (Image 2)*

# 5 Accessibility, climate, local resources, and infrastructure

## 5.1 Accessibility

The proposed location for the BAM Facility within the Jean-Noël-Tessier Park benefits from access to key provisional highways, including Route 389 and Route 138, as well as port, rail-ferry and air services.

The selection of the Jean-Noël-Tessier Park in Baie-Comeau, was strongly influenced by its transportation links. A transportation study was conducted to determine the optimal method for transferring concentrate from the mine and flake graphite concentrate plant located in Fermont to the BAM Facility. The study evaluated Baie-Comeau and Sept-Îles as potential sites for the BAM Facility, assessing their respective road and rail haulage costs.

While Sept-Îles offers access to the Quebec North Shore and Labrador Railway ("QNS&L") for rail freight from Labrador City, rail transport was determined to be non-commercial, as it would require significant capital investment in rail infrastructure in addition to higher freight costs. Both Baie-Comeau and Sept-Îles are accessible by road (through trucking); however, trucking to Baie-Comeau is more favourable due to lower haulage costs via Route 389.

Route 389 provides direct access between the BAM Facility and the provincial border of Newfoundland and Labrador. Importantly, this route passes through Fermont, located approximately 20 km from the Lac Carheil Graphite Project, and serves as a critical route linking the mine and flake graphite concentrate plant to the BAM Facility, which is approximately 565 km apart.

Route 389 is currently undergoing phased upgrades and rerouting, which is planned to be completed by 2028. These upgrades will improve transport logistics, providing a reliable route for NFG concentrate haulage from the Lac Carheil Graphite Project.

The BAM Facility is located approximately 10 km from the Port of Baie-Comeau, connected via Route 138 and local roads. The Port of Baie-Comeau (Figure 4), a deep-water port located on the St. Lawrence River, supports the export of key industrial commodities such as aluminum, grain and oilseed, providing the BAM Facility strategic access to North American markets westward through Montreal and the Great Lakes, as well as eastbound routes to European markets via the Atlantic Ocean.

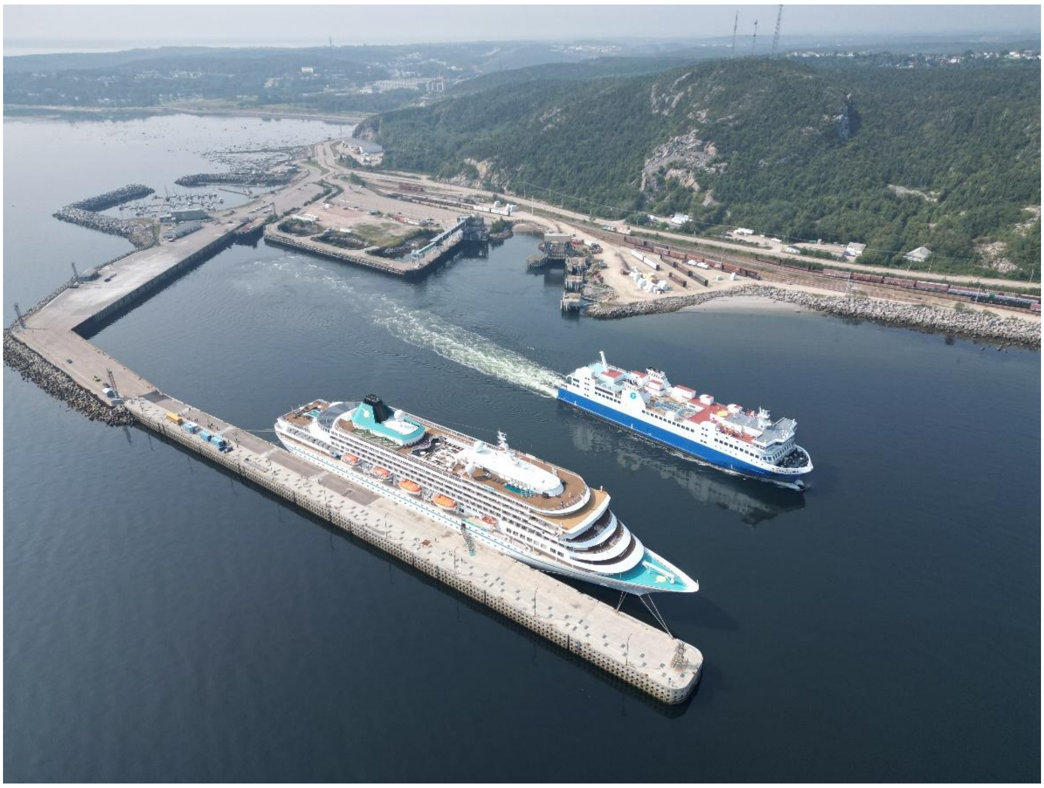


*Figure 4: Port of Baie-Comeau*

The Port of Baie-Comeau benefits from the SOPOR rail facility, a rail-ferry service (shown in Figure 5) that connects the Baie-Comeau IP zone to Matane, Quebec, Canada, across the St. Lawrence River. The ferry operates year-round, seven days per week, enabling transport of materials to destinations across Canada and the United States of America via the Canadian National Railway Network. The service has sufficient capacity to handle significant material volumes for the BAM Facility, supported by its regular crossings (two to three per day).

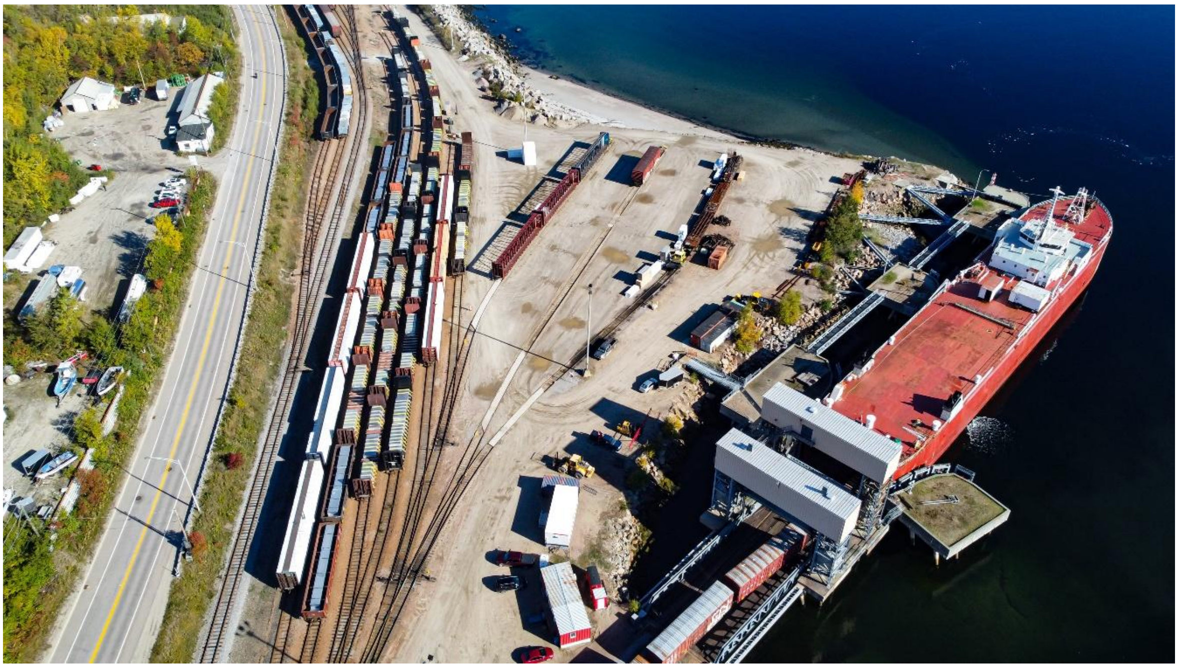


*Figure 5: SOPOR ferry-rail*

The Jean-Noël-Tessier Park is located approximately 22 km from the Baie-Comeau airport, which is located South-West from the city of Baie-Comeau. The airport provides links to both regional and international airports within the province of Quebec.

## 5.2 Climate

The climate in Baie-Comeau, Quebec, is characterized by long, cold and snowy winters, and short, mild summers.

According to the temperature and precipitation data for Baie Comeau from 1991 to 2020, provided by Environment and Climate Change Canada (2025), the daily average temperatures vary significantly between summer and winter months, ranging from -13 °C to 16 °C. The summer season spans from June to September, with maximum temperatures reaching 21 °C in July. Winter occurs from December to March, with minimum temperatures dropping as low as -19 °C (typically in January).

Baie-Comeau experiences precipitation throughout the year, as shown by Figure 6, with rainfall peaking during late summer and early autumn. Average monthly rainfall reaches approximately 89 mm in September and October, decreasing to around 9 mm in January and February (Weather Spark, n.d.).

Although rainfall declines during the winter months, it is replaced with substantial snowfall, typically from October through May, as depicted by Figure 7. Snowfall is greatest in December, with average monthly snowfall of approximately 435 mm (Weather Spark, n.d.).

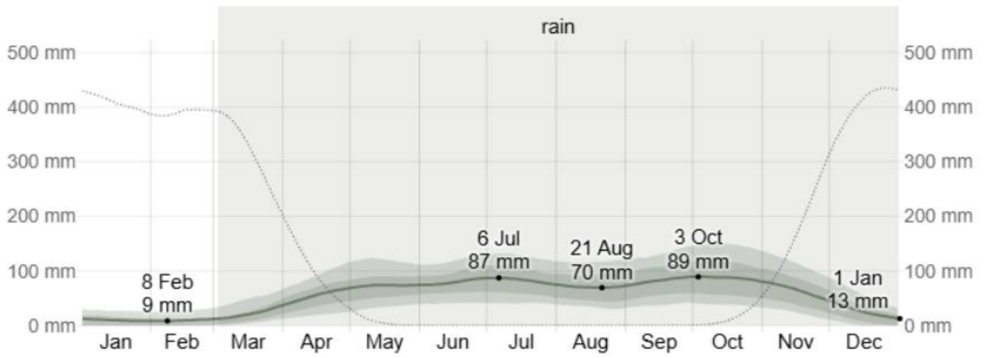



*Figure 6: Average rainfall in Baie-Comeau (Weather Spark, n.d.)*

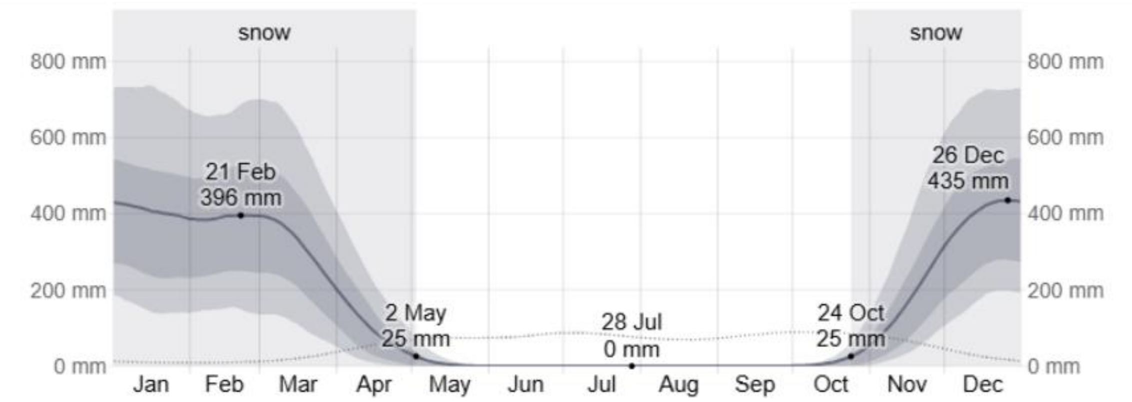



*Figure 7: Average snowfall in Baie-Comeau (Weather Spark, n.d.)*

Winter temperatures result in seasonal ice formation on the St. Lawrence River; however, the Port of Baie-Comeau is operational year-round, with vessels navigating the ice conditions as required (Weather Spark, n.d.).

The windiest months in Baie-Comeau are between October and April, with average wind speeds exceeding 12 km/h, and peaking at approximately 14.5 km/h in January. Calmer conditions are experienced in late April to mid-October, with July reaching the lowest average wind speed of 9.3 km/h (Weather Spark, n.d.).

## 5.3 Local resources

According to most recent population census of 2021, the population in Baie-Comeau is 20,687, with an employment rate of 62 %, comparable to that of other cities in Quebec and across Canada (Statistics Canada, 2023). Although the population declined by 3.9 % from 2016, the area is well positioned for growth with the municipal and educational infrastructures capable of supporting 30,000 residents (Zone IP Baie-Comeau, n.d.).

Baie-Comeau is home to well-established industrial sectors, including metallurgical and forestry operations, which together employ a substantial portion of the local workforce. The workforce is relatively skilled and experienced in industrial activities, making it well-suited to the needs of the BAM Facility. The Facility will require a mix of personnel, including engineers and operators, as well as administrative, human resources and managerial staff. Most of these positions are expected to be filled locally, with the exception of highly specialized or senior engineering roles, which may need to be sourced externally.

Baie-Comeau is supported by educational institutions, including 4 daycares, 6 primary schools, and 2 secondary schools (Zone IP Baie-Comeau, n.d.). The city also has a college called the Cégep de Baie-Comeau, which offers pre-university and technical programs, including civil and electrical engineering, as well as administration and management programs.

## 5.4 Infrastructure

Baie-Comeau is well served by Quebec's hydro-electric network, which supplied 94 % of the province's electricity in 2021. Hydro-Quebec operates 61 hydroelectric plants providing the bulk of this power, with the remainder generated by independent producers (Canada Energy Regulator, n.d.). The BAM Facility is assumed to be powered by Hydro-Quebec, with final allocation to be confirmed in the next project phase. Projects supporting Canada's and Quebec's domestic critical mineral strategy are expected to receive priority consideration.

The Jean-Noël-Tessier Park offers all necessary infrastructure and services, including but not limited to bulk electricity, gas, process water, and wastewater handling.

# 6 Mineral processing and metallurgical testing

## 6.1 Introduction

Metals Australia engaged Dorfner Anzaplan GmbH ("ANZAPLAN GmbH") in Hirschau, Germany to perform value-addition testwork on NFG concentrate generated by SGS Lakefield in a bulk flotation program from drill core originating from the Lac Carheil deposit (SGS Project 20360-01).

A total of 31.8 kg of NFG concentrate was supplied to ANZAPLAN GmbH, where the value-addition testwork was conducted over the course of 2025. The aim of the testwork was to support the development of the BAM Facility, and to confirm whether market-ready CSPG can be produced from its flowsheet. To produce a representative CSPG sample, the following value-addition testwork program was conducted:

- Micronization: size reduction of NFG concentrate;
- Spheroidization: mechanical rounding of graphite flakes to produce spherical graphite (“SG”);
- Purification: impurity removal of SG to produce spherical purified graphite (“SPG”); and,
- Coating: surface deposition of carbon on SPG to produce CSPG.

The resulting CSPG sample was electrochemically characterized to evaluate its performance as an anode material.

Certain specialist testwork, including micronization, spheroidization, coating, and electrochemical characterization, were performed at designated original equipment manufacturers (“OEMs”) in Germany, due to their vast graphite expertise.

The value-addition testwork conducted by ANZAPLAN GmbH and its trusted OEMs and the associated results are presented in the report entitled “Testwork on downstream processing of natural graphite for

Metals Australia, Lac Carheil Project", dated December 19, 2025. The following sections summarize the keys findings of this testwork:

## 6.2 Feed material characterization

Table 8 presents the moisture content, volatile matter, loss of ignition ("LOI"), Brunauer-Emmett-Teller ("BET") surface area, fixed carbon ("FC") content and chemical composition of the Metals Australia NFG concentrate.

*Table 8: Chemical composition of the Metals Australia's NFG concentrate*

| **Impurity** | | **Unit** | **Metals Australia, NFG Concentrate** |
|---|---|---|---|
| Silicon dioxide | $SiO_2$ | [ppm] | 4,160 |
| Aluminium oxide | $Al_2O_3$ | [ppm] | 1,790 |
| Iron oxide | $Fe_2O_3$ | [ppm] | 12,200 |
| Titanium dioxide | $TiO_2$ | [ppm] | 28 |
| Potassium oxide | $K_2O$ | [ppm] | 95 |
| Sodium oxide | $Na_2O$ | [ppm] | 14 |
| Calcium oxide | CaO | [ppm] | 276 |
| Magnesium oxide | MgO | [ppm] | 446 |
| Phosphorous oxide | $P_2O_5$ | [ppm] | 52 |
| Barium oxide | BaO | [ppm] | <10 |
| Lead oxide | PbO | [ppm] | 16 |
| Zirconium oxide | $ZrO_2$ | [ppm] | 75 |
| Manganese dioxide | $MnO_2$ | [ppm] | 74 |
| Nickel oxide | NiO | [ppm] | 17 |
| Sulphur | S | [wt.-%] | 2.16 |
| Volatile matter | | [wt.-%] | 3.0 |
| Loss on ignition (420 °C) | LOI | [wt.-%] | 2.64 |
| Loss on ignition (920 °C) | LOI | [wt.-%] | 98.1 |
| Fixed carbon | FC | [wt.-%] | 95.1 |
| Moisture content | | [wt.-%] | <0.1 |
| BET | | [$m^2/g$] | 3.2 |
| Bulk density | | [$g/cm^3$] | 0.33 |
| Tap density | | [$g/cm^3$] | 0.58 |

Based on chemical analysis, the primary impurities in the NFG concentrate were sulphur (S, 2.2 wt.-%), iron oxide ($Fe_2O_3$, 1.2 wt.-%), silicon oxide ($SiO_2$, 0.4 wt.-%) and aluminium oxide ($Al_2O_3$, 0.2 wt.-%), with a FC content of 95.1 wt.-%.

X-ray diffraction (“XRD”) analysis has identified minor amounts of elemental sulphur and kaolinite as side minerals.

The particle size distribution (“PSD”), as measured with a Malvern Mastersizer, is listed in Table 9. It is characterized by the median (“$D_{50}$”), the 90 percentile (“$D_{90}$”) and the 10 percentile (“$D_{10}$”) diameter and is shown to indicate a coarse feed material for spheroidization. During commercial operation, the NFG concentrate is expected to be screened at the concentrator to produce -100 mesh (-150 micron) product prior to processing in the BAM Facility.

*Table 9: Particle size distribution of Metals Australia’s NFG concentrate*

| **Parameter** | **Units** | **Metals Australia, NFG Concentrate** |
|---|---|---|
| $D_{10}$ | [µm] | 21.4 |
| $D_{50}$ | [µm] | 78.4 |
| $D_{90}$ | [µm] | 211 |

## 6.3 Micronization and spheroidization

Micronization and spheroidization testwork was performed at the facilities of NETZSCH Trockenmahltechnik GmbH (“NETZSCH”), Germany, due to their broad expertise in graphite milling technology.

Micronization took place in the CSM 165, an air classifying mill from NETZSCH, where the NFG concentrate was reduced in size. Following micronization, the graphite flakes underwent mechanical rounding in the GyRho 165, a NETZSCH combined spheroidization and classification unit, which separates the final SG product from generated fines.

Figure 8 illustrates the different processing routes for spheroidization. “Direct spheroidization” is a conventional approach for producing a medium SG product ($D_{50}$ ~ 17 to 19 µm), typically utilized as an active anode material in LIBs for electric vehicles (“EV”).

In the "post-spheroidization of fines" route, the fines generated during "direct spheroidization" are spheroidized further to produce a fine SG product ($D_{50}$ ~ 8 to 10 µm), which is commonly used in high performance LIB anode applications, such as hybrid vehicles and consumer electronics. This approach increases the overall yield across spheroidization and was selected for testwork.

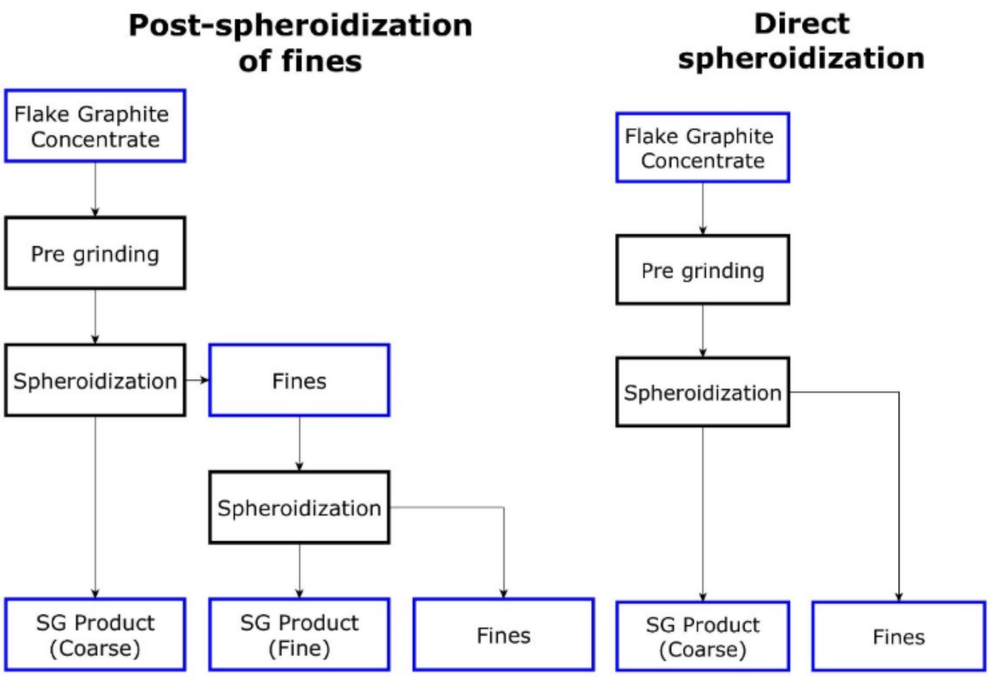



*Figure 8: Process block flow diagram of different spheroidization approaches*

Various parameters were investigated during spheroidization testwork to identify the optimum operating conditions with regards to size distribution, yield, throughput, and product capacity.

A total of 17 tests were conducted to achieve a medium-sized SG product by direct spheroidization. Test 40575 run 6 produced the most favourable results with a yield of 54 wt.-%, a $D_{50}$ of 18.4 µm, and $D_{90}/D_{10}$ ratio of 3.1. The tap density was analysed at 0.99 g/cm$^3$, indicating potential for yield increase by targeting a lower tap density, such as 0.95 g/cm$^3$.

Table 10 presents the results for test 40575 run 6, in comparison to standard-industry specifications and reference materials, demonstrating its suitability as a medium-sized SG product.

*Table 10: Results of SG products compared to typical market specifications and reference materials*

| | **Tap density** [g/cm³] | **$D_{50}$** [µm] | **Ratio $D_{90}/D_{10}$** [-] | **BET** [$m^2/g$] |
|---|---|---|---|---|
| SG product (40575 run 6) | 0.99 | 18.4 | 3.1 | 5.2 |
| SG product (40575 run 30) | 0.79 | 9.6 | 2.6 | 7.8 |
| **Typical SG values** | | | | |
| Ultra fine product | >0.80 | 8 to 10 | <4.0 | <8.5 |
| Fine product | >0.85 | 10 to 14 | <4.0 | <8.0 |
| Medium product | >0.90 | 17 to 19 | <3.5 | <6.5 |
| Coarse product | >0.95 | 19 to 25 | <3.0 | <6.0 |
| **Reference materials** | | | | |
| Ref 10 | 0.88 | 12.1 | 2.6 | 7 |
| Ref 17 | 0.92 | 15.9 | 2.2 | 5.5 |
| Ref 26 | 1.01 | 23.4 | 2.8 | 3.8 |

The parameters of test 40575 run 6 served as a basis to generate the spheroidization performance curve. In the performance curve (test 40575 run 6 to run 10) the processing time was varied, as illustrated in Figure 9. This performance curve highlights the correlation between tap density and product yield, where higher yields are obtained at lower tap densities.

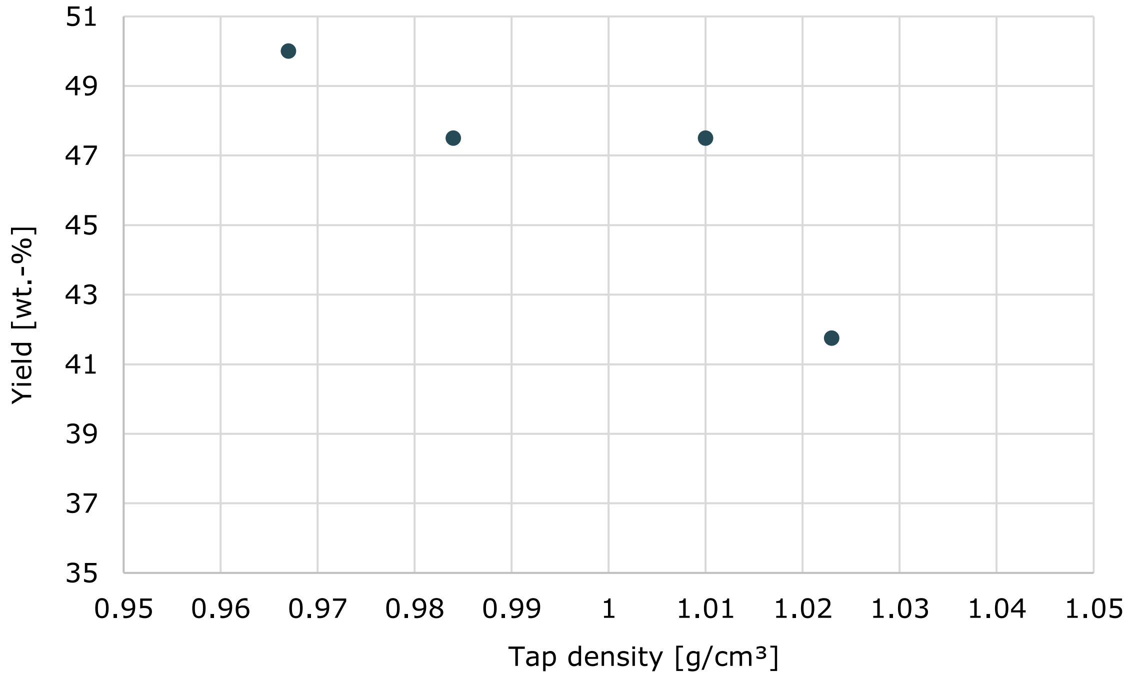



*Figure 9: Performance curve of medium sized SG during direct spheroidization on GyRho 165*

Fines generated during direct spheroidization underwent additional spheroidization (i.e. post spheroidization of fines) to recover a fine SG product. This took place over a series of 13 tests. Test 40575 run 30 produced the most favourable results with a total yield of 18 wt.-%, a $D_{50}$ of 9.6 µm, $D_{90}/D_{10}$ ratio of 2.6 and a tap density of 0.79 g/cm$^3$. Table 10 presents the results for test 40575 run 30, in comparison to standard-industry specifications and reference materials, demonstrating its suitability as a fine SG product.

It must be noted that the feed (fines) entering test 40575 run 30 was thermally treated at 420 °C for 2 hours. Thermal treatment was required to reduce the sulphur in the fines produced during direct spheroidization, where sulphur becomes concentrated, reducing the yield during post spheroidization of fines.

The combined yield for medium SG (SG 18; 40575 run 6) and fine SG (SG 10; 40575 run 30) is 72 wt.-%.

The scanning electron microscope ("SEM") images of the SG 18 and SG 10 confirms that both products exhibit rounded particles. The SEM images are illustrated in Figure 10 (1,000x) and Figure 11 (3,000x) for SG 18, and Figure 12 (1,000x) and Figure 13 (3,000x) for SG 10. These observations are consistent with reference materials typical of SG products within the market. The reference SEM images, which are also presented at 1,000x and 3,000x magnifications, include Ref 10 ($D_{50}$ of 12.1 μm) in Figure 14 and Figure 15, Ref 17 ($D_{50}$ of 15.9 μm) in Figure 16 and Figure 17, and Ref 26 ($D_{50}$ of 23.4 μm) in Figure 18 and Figure 19.

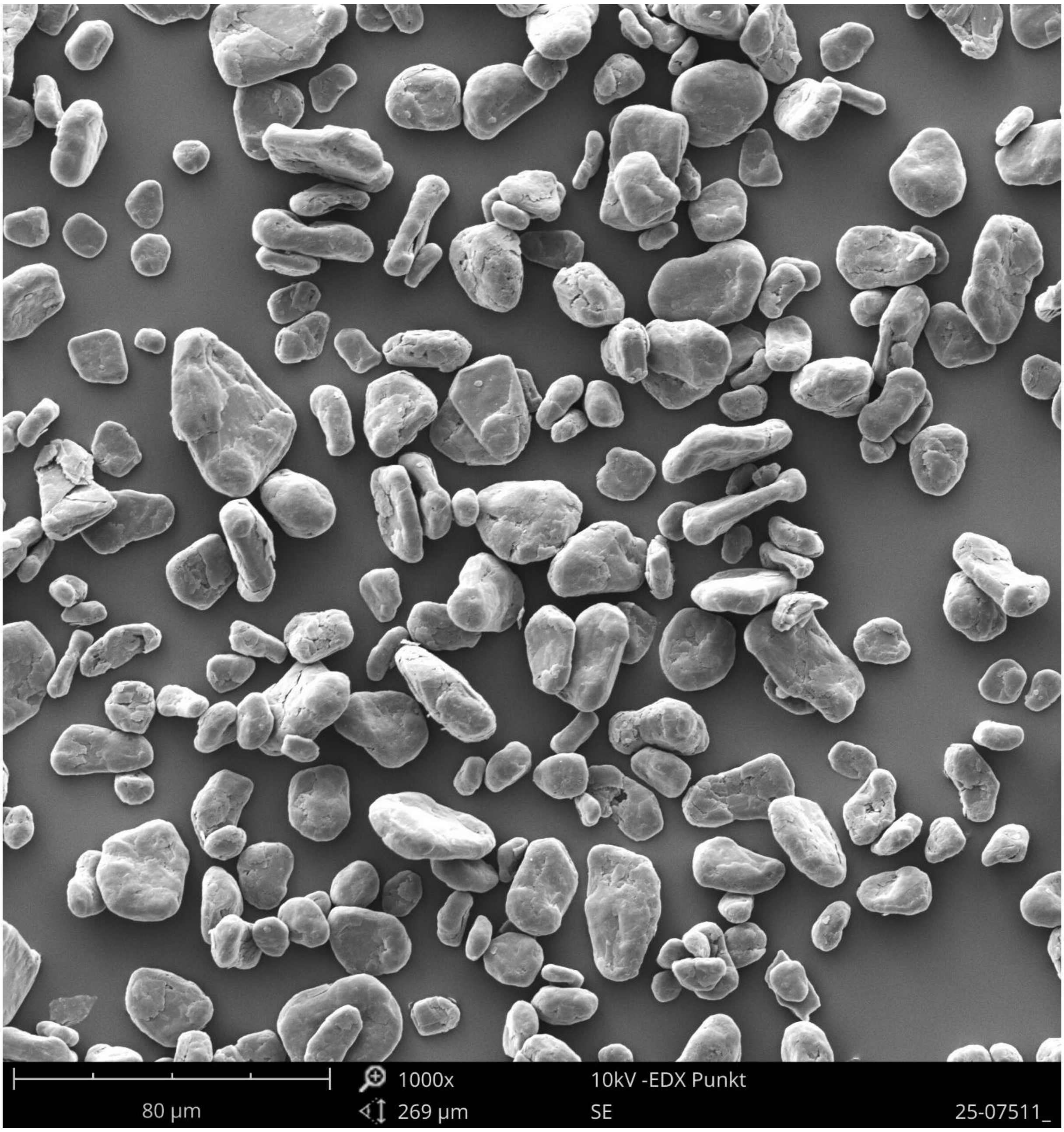



*Figure 10: SEM image of SG18 product from spheroidization test 40575 run 6; magnification 1,000x*

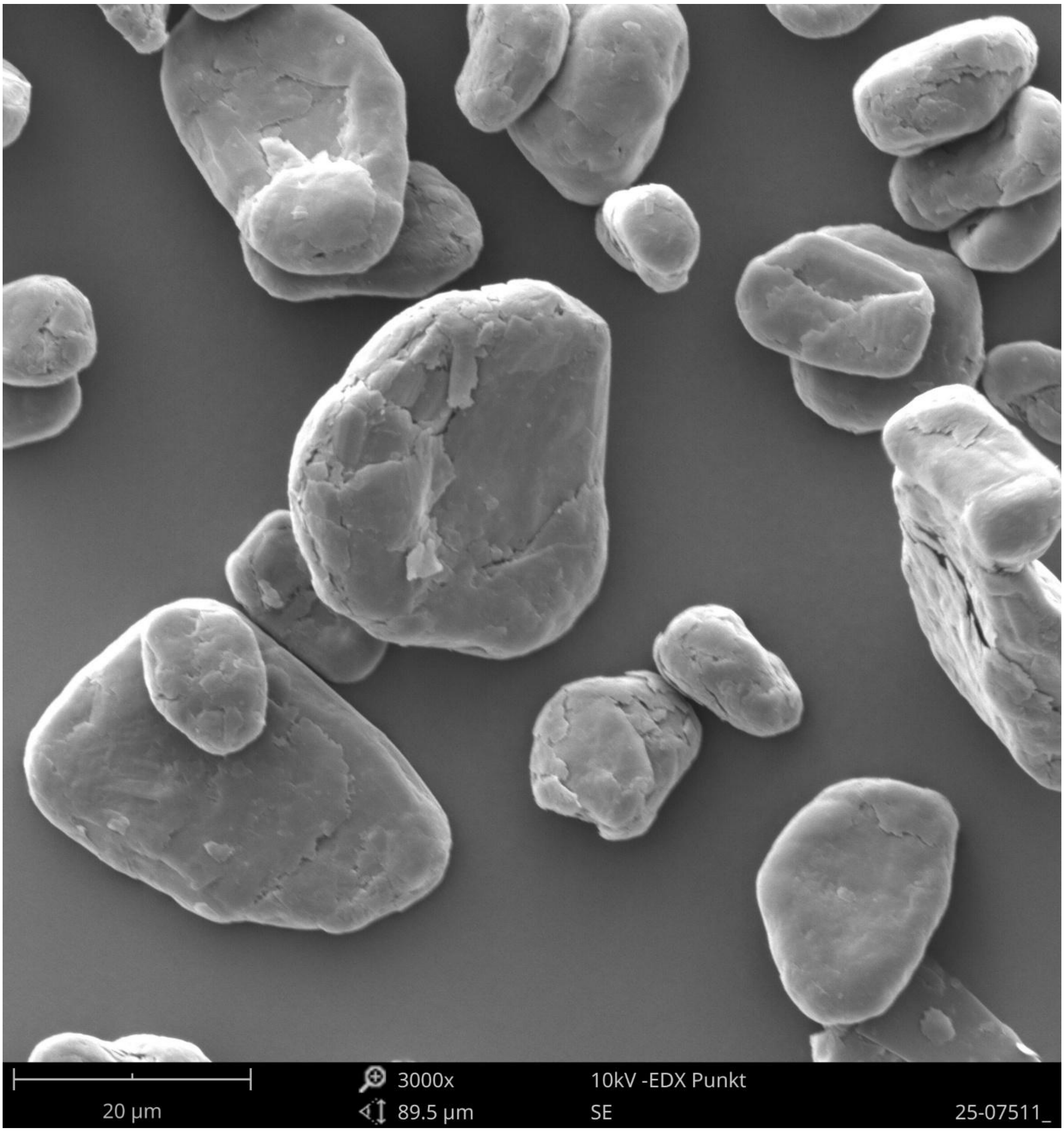



*Figure 11: SEM image of SG18 product from spheroidization test 40575 run 6; magnification 3,000x*

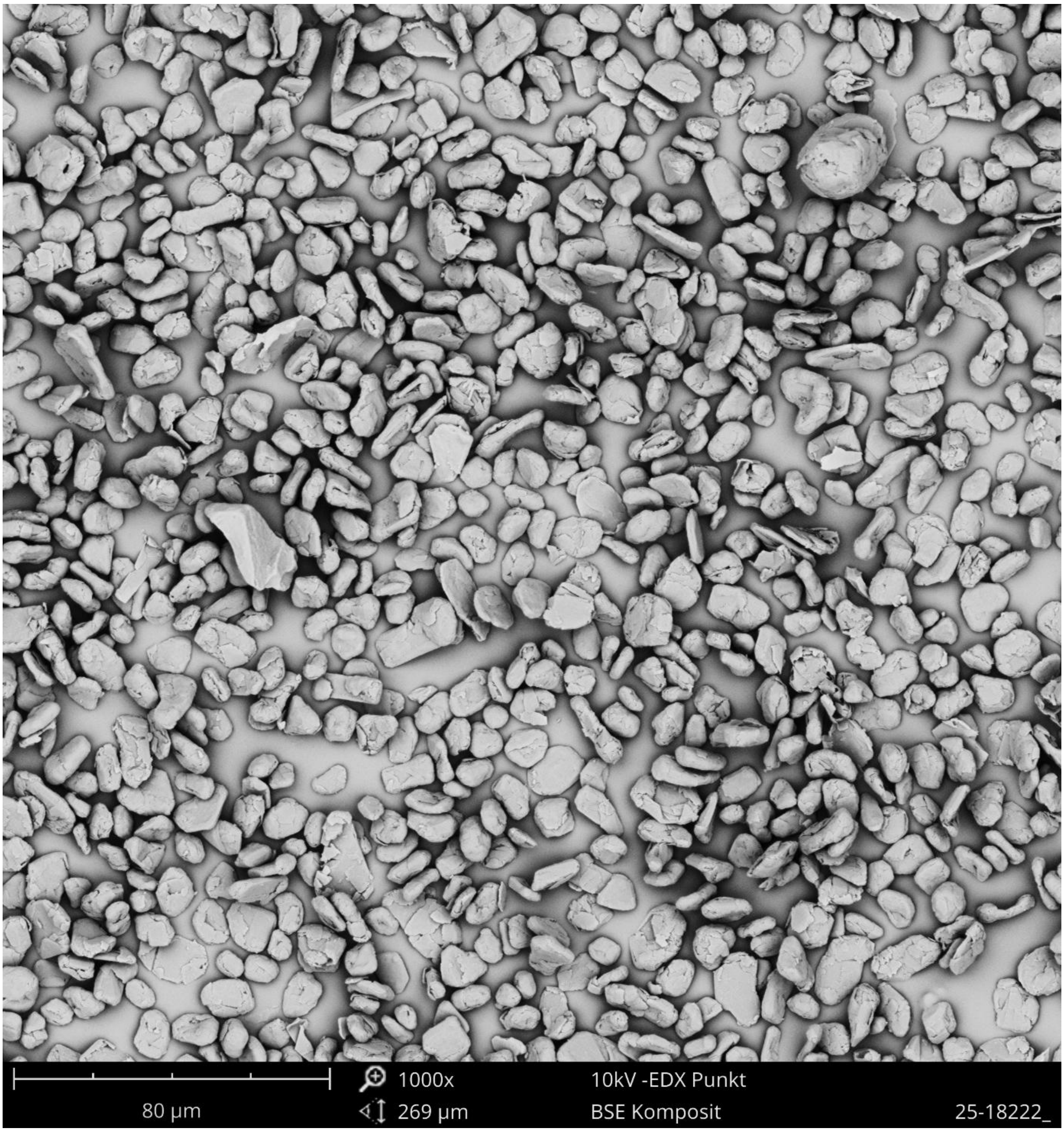



*Figure 12: SEM image of SG8 product from spheroidization test 40575 run 30; magnification 1,000x*


*Figure 13: SEM image of SG8 product from spheroidization test 40575 run 30; magnification 3,000x*

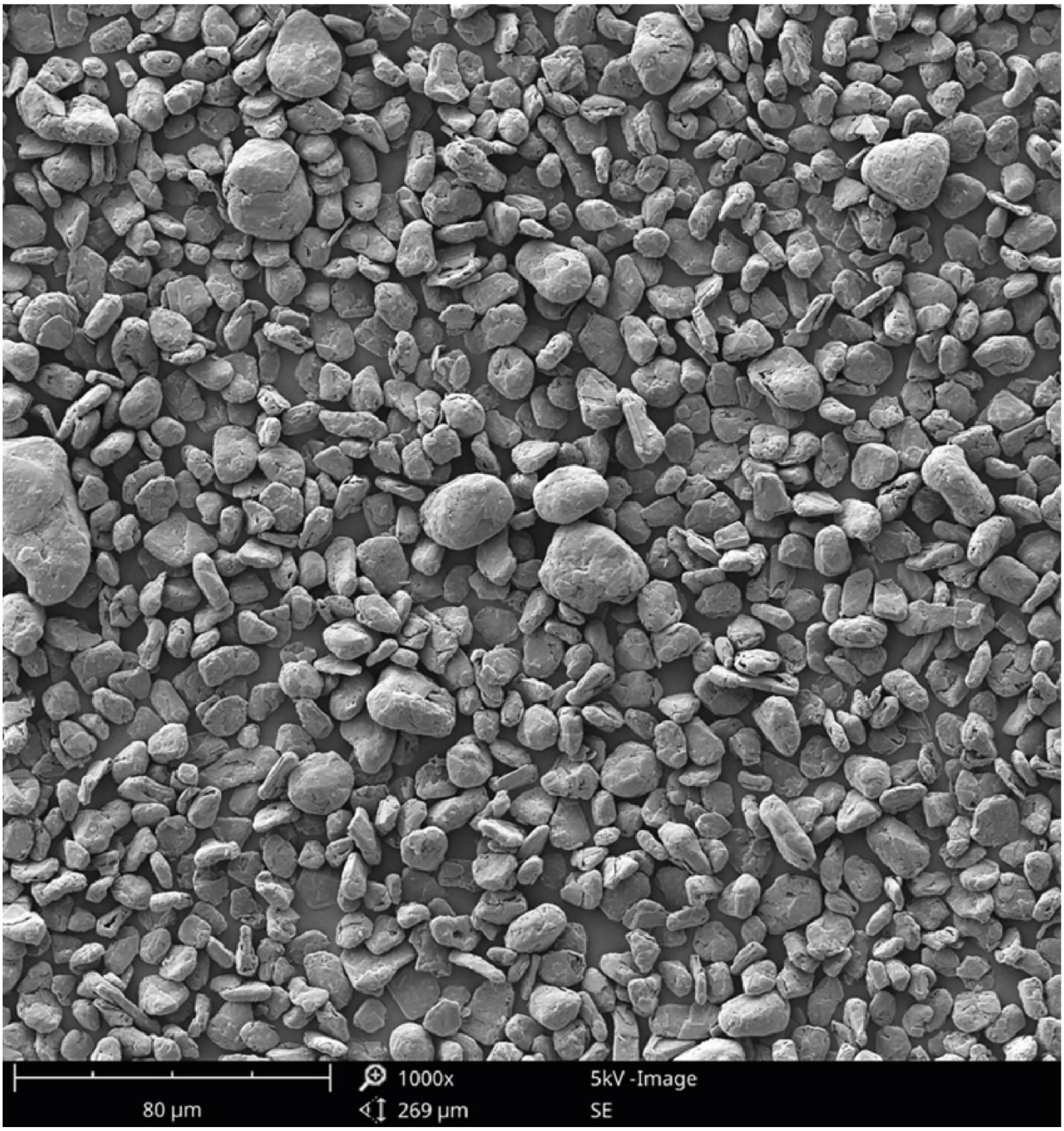



*Figure 14: SEM image of reference material Ref 10; magnification 1,000x*

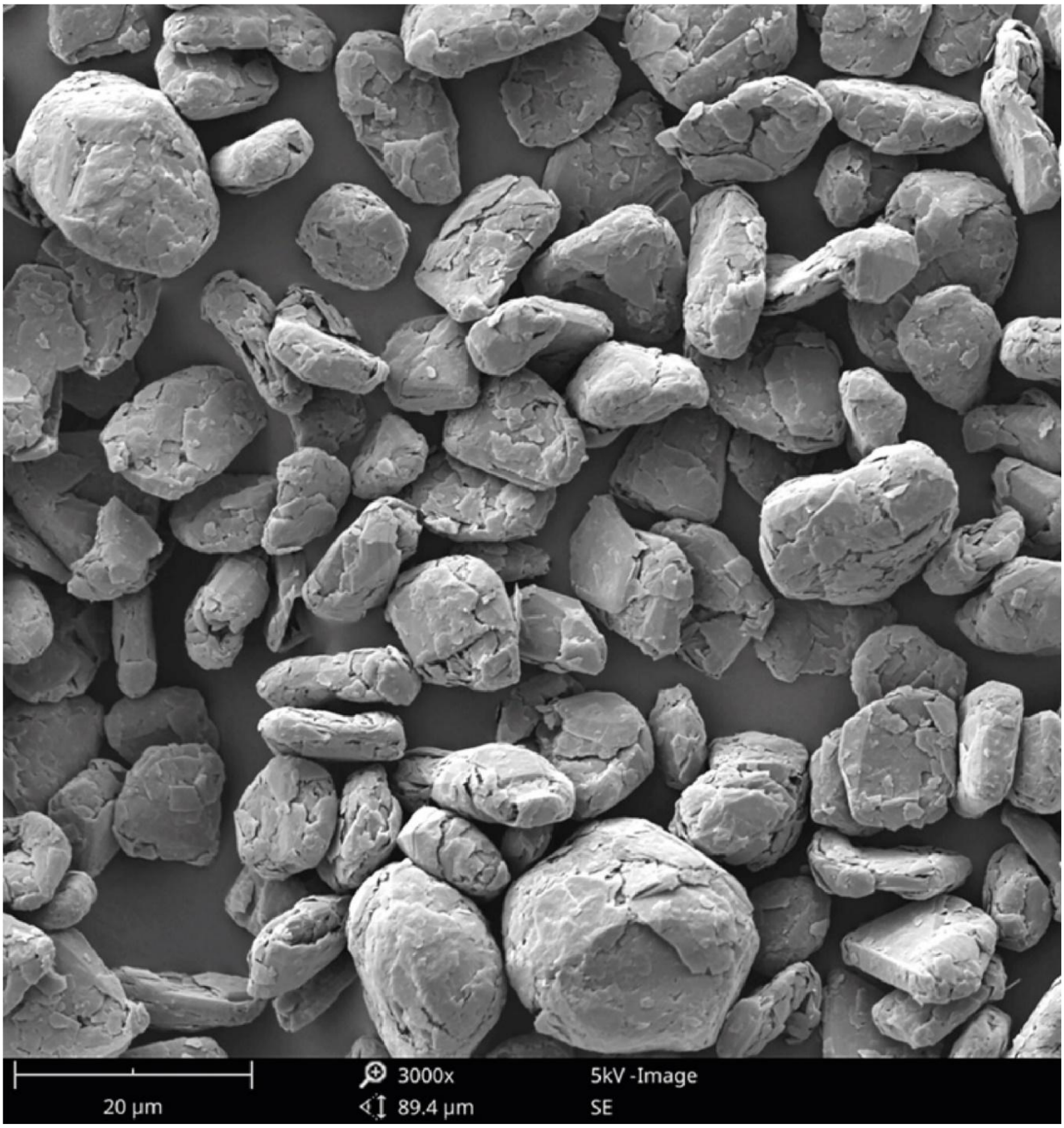



*Figure 15: SEM image of reference material Ref 10; magnification 3,000x*

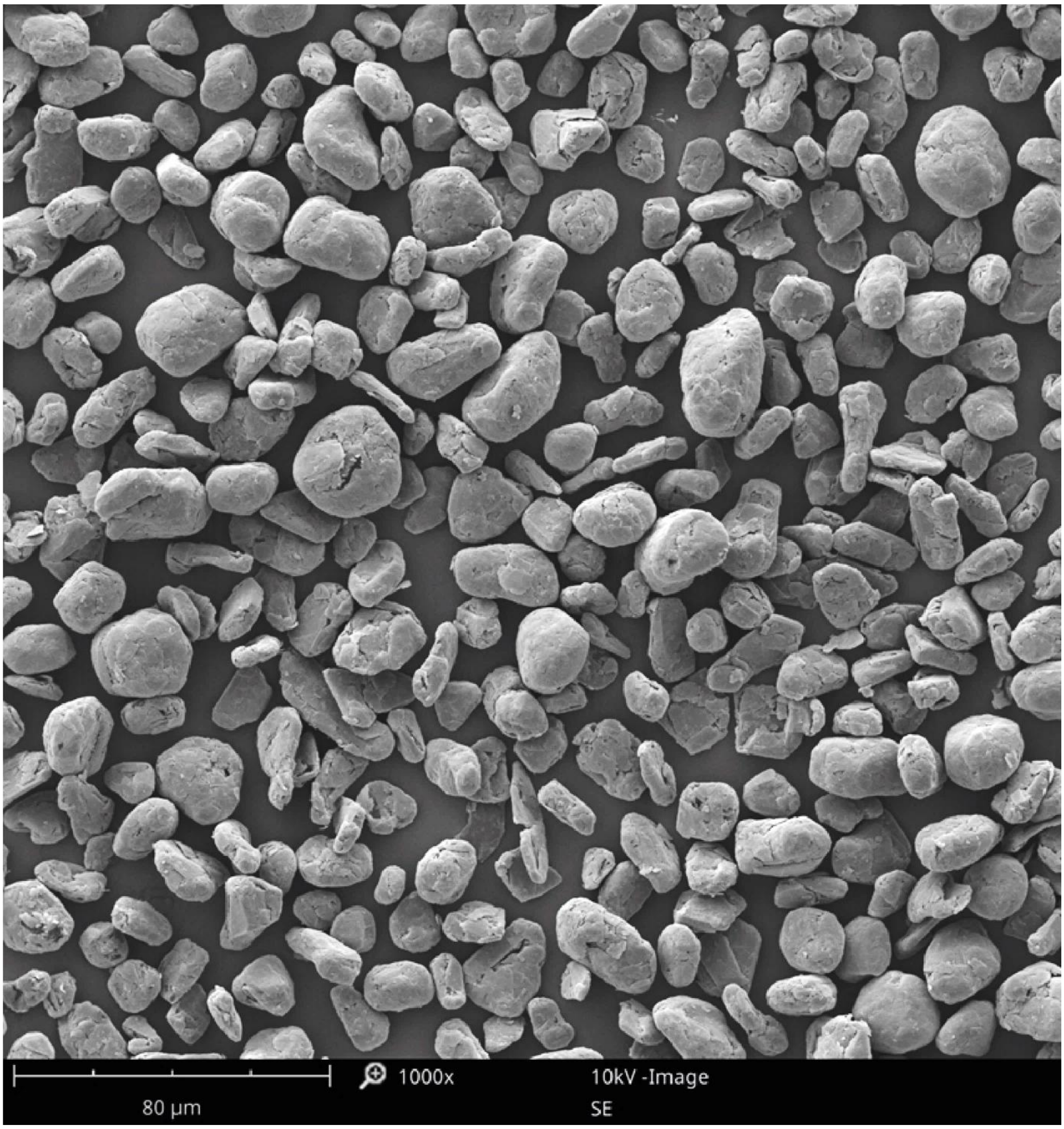



*Figure 16: SEM image of reference material Ref 17; magnification 1,000x*

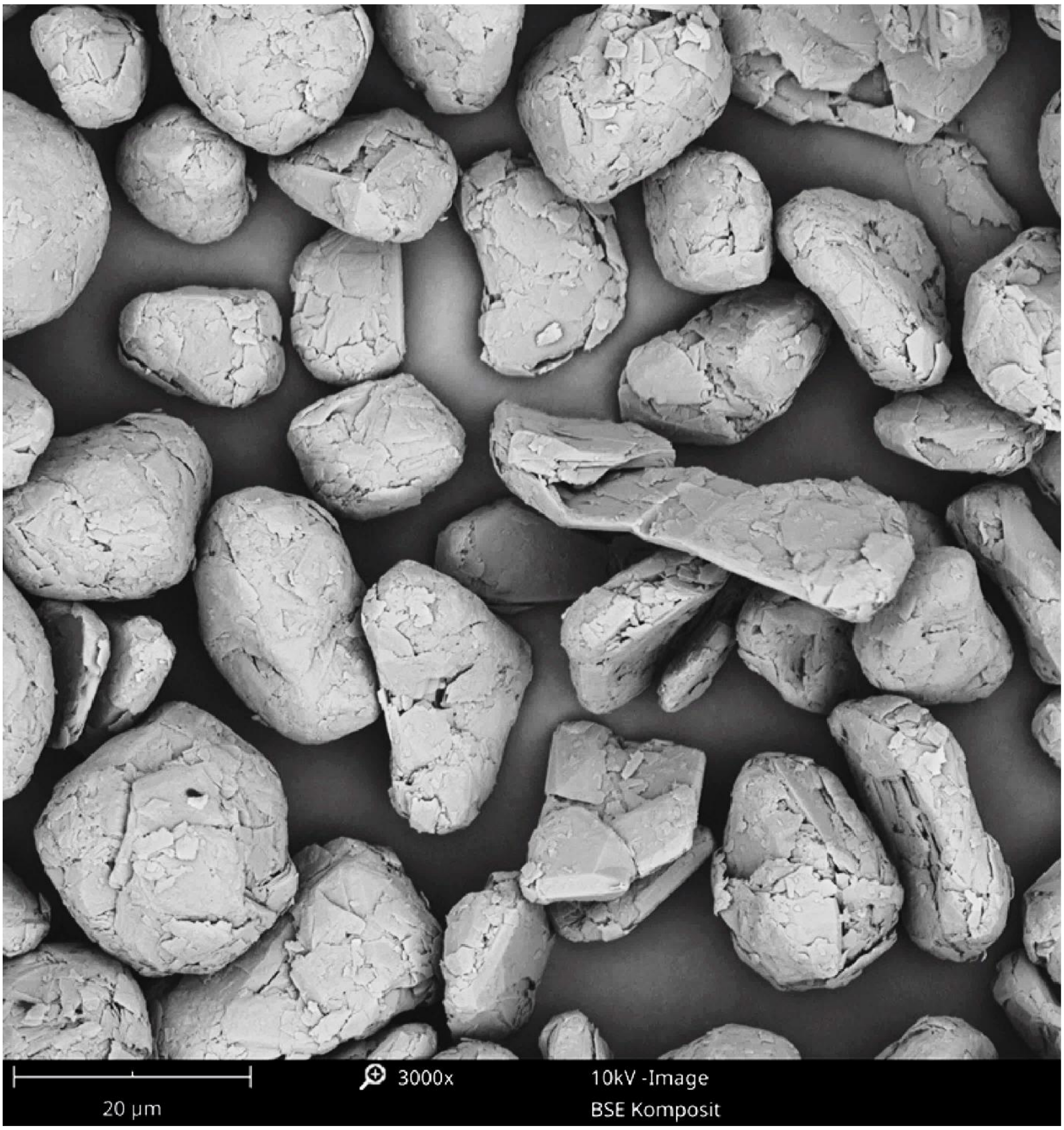



*Figure 17: SEM image of reference material Ref 17; magnification 3,000x*


*Figure 18: SEM image of reference material Ref 26; magnification 1,000x*

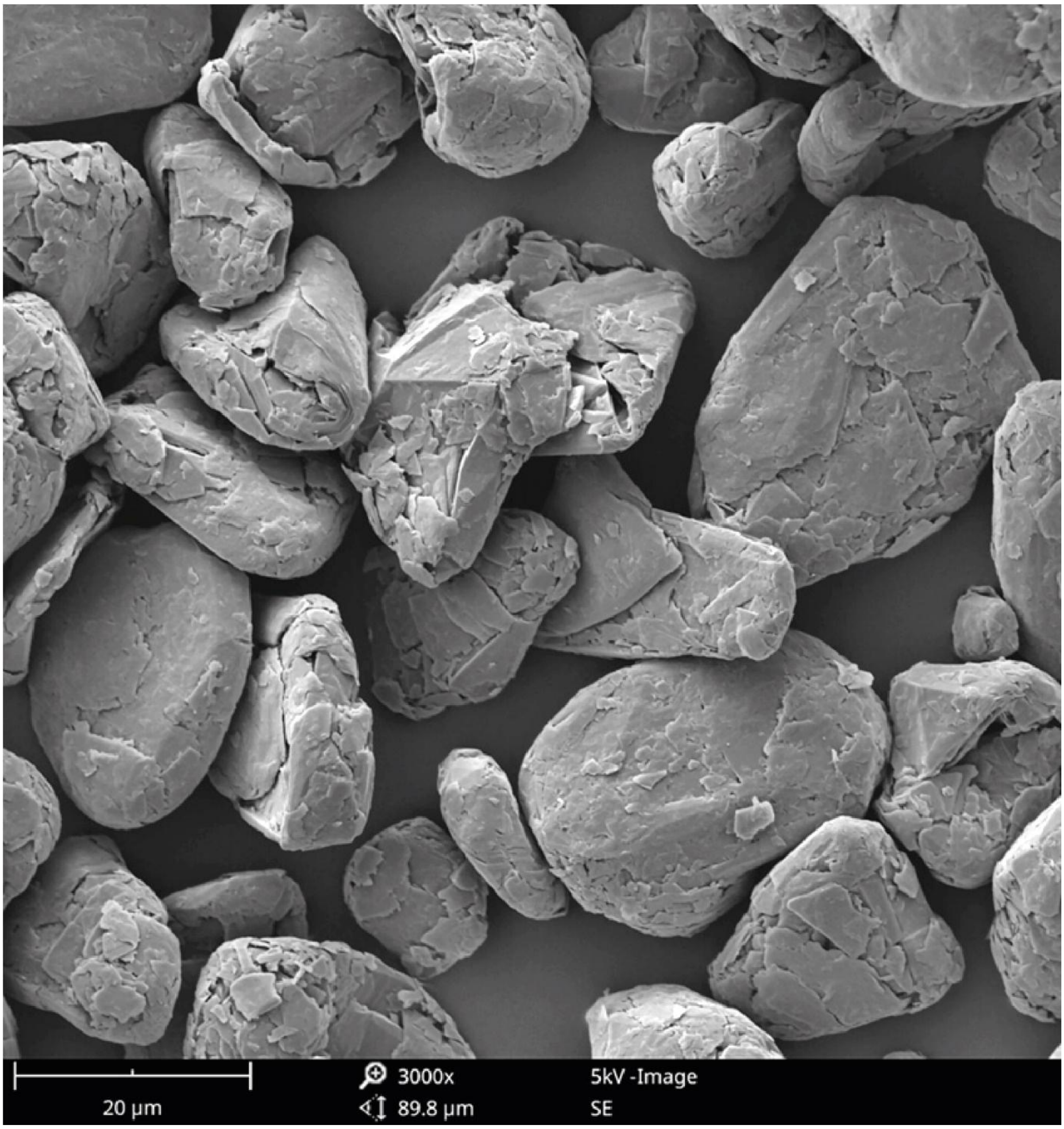



*Figure 19: SEM image of reference material Ref 26; magnification 3,000x*

### 6.3.1 Feed material for purification sighter tests

A composite sample from test 40575 run 16-17 was used for the purification testwork, resulting in a total of 1.9 kg of medium SG product. In Table 11, relevant data for the qualification of the produced SG (test 40575 run 16-17) is listed, where typical SG values and reference materials have been included for comparison.

The produced material is well within the specifications given for a typical medium SG product.

*Table 11: Parameters for qualification of the SG*

| | **Tap density** [g/cm³] | $\mathbf{D_{50}}$ [µm] | **Ratio** $\mathbf{D_{90}/D_{10}}$ [-] | **BET** [m²/g] |
|---|---|---|---|---|
| 40575 run 16-17 | 0.98 | 18.8 | 2.9 | 5.5 |
| **Typical SG values** | | | | |
| Fine product | >0.85 | 10 to 14 | <4 | <8 |
| Medium product | >0.90 | 17 to 19 | <3.5 | <6.5 |
| Coarse product | >0.95 | 19 to 25 | <3 | <6 |
| **Reference materials** | | | | |
| Ref 10 | 0.88 | 12.1 | 2.6 | 7 |
| Ref 17 | 0.92 | 15.9 | 2.2 | 5.5 |
| Ref 26 | 1.01 | 23.4 | 2.8 | 3.8 |

## 6.4 Purification

### 6.4.1 Introduction

Purification testwork was performed on medium SG product (test 40575 run 16-17 composite) with 97.4 wt.-% FC and 1.27 wt.-% sulphur, in which four purification methods were tested:

- Standard purification using hydrofluoric acid (“HF”);
- Caustic baking;
- Caustic pressure leach; and,
- Thermal purification.

The aim of these sighter tests is to determine the most suitable purification method for removing impurities within SG to produce SPG with a FC content exceeding 99.95 wt.-%.

### 6.4.2 Standard purification using HF

Four tests were performed using the standard HF purification route. This route includes a two-stage acid leach, where a combination of hydrochloric (“HCl”) and HF is utilized.

With additional modifications, including the addition of nitric acid (“$HNO_3$”) and thermal pre-treatment, none of the 4 tests achieved the FC requirement. The highest purity achieved was for test MA-AL3 at a FC content of 99.94 wt.-%, which included thermal pre-treatment (420 °C for 24 hours) and two-stage acid leaching (HF, HCl and $HNO_3$).

A supplementary thermal post-treatment (900 °C for 7 minutes) was applied to the material produced during test MA-AL3 to further reduce the sulphur content, resulting in a FC content of 99.99 wt.-%.

### 6.4.3 Caustic baking

A total of four caustic baking tests were performed. In caustic baking, SG is mixed with sodium hydroxide (“NaOH”), and thermally treated, before it undergoes two cycles of alternating caustic and acid leach stages (addition of sulfuric acid).

Various baking temperatures were applied (300 °C to 550 °C), where test MA-CB3 achieved the highest FC content at 99.84 wt.-% at 300 °C.

Given that the primary impurity is sulphur, test MA-CB4-AL1 was conducted to reduce sulphur levels by including a thermal pre-treatment at 420 °C for 48 hours. The addition of thermal pre-treatment reduced the sulphur content from 1.27 wt.-% to 0.30 wt.-%. After completing the caustic bake, caustic leach, and acid leach, the final product achieved a FC purity of 99.99 wt.-%, qualifying it as a battery-grade material.

### 6.4.4 Caustic pressure leaching

Two caustic pressure leaching tests were performed. This method follows a similar route to conventional caustic baking; however, the first caustic leach step takes place in a pressurized autoclave, while subsequent purification steps (acid-caustic-acid) are performed at atmospheric pressure.

While the chemical consumption was comparable to the caustic baking route, this route is found to only achieve a FC of 99.72 wt.-%. This is due to the higher iron oxide levels observed in the final product.

To reduce the iron oxide content further, an upstream acid leach was introduced prior to caustic pressure leaching. This resulted in a FC content of 99.77 wt.-%. It can be concluded that there are no significant benefits with the autoclave-assisted caustic leaching process when compared to conventional caustic baking.

### 6.4.5 Thermal purification

Four tests were conducted using the thermal purification route, in which SG is heated to high temperatures in an electrothermal furnace with an inert gas atmosphere.

In two tests, an already purified material (LOI of more than 99.95 wt.-%) with an elevated sulphur content was selected and processed at a temperature of 1,600 °C. This material achieved a FC content of more than 99.98 wt.-% FC.

In the other two tests, SG sample (test 40575 run 16-17 composite) with a FC of 97.4 wt.-% was tested at two temperatures, 2,800 °C and 3,000 °C. Regardless of temperature, both tests successfully achieved a purity of 99.99 wt.-% FC.

### 6.4.6 Selected purification method

Purification testwork conducted by ANZAPLAN GmbH demonstrated that both the caustic baking and thermal purification routes can produce SPG with a FC content exceeding 99.95 wt.-%, from NFG concentrate sourced from the Lac Carheil Graphite Project. Although thermal purification is deemed suitable for the impurity profile of the feed, caustic baking is recommended due to its comparatively lower energy requirements.

The NFG concentrate supplied to ANZAPLAN GmbH for value-addition testwork contained a higher-than-expected sulphur content of 2.2 wt.-%. During spheroidization, approximately 58 % of the sulphur reports to the medium SG product, with the remainder reporting to the fines. As a result, the medium SG product contained 1.27 wt.-% sulphur. Although spheroidization reduced the overall sulphur entering purification, the sulphur level remained above that considered suitable for conventional caustic baking.

To reduce the sulphur in the feed (medium SG as described in Section 6.3.1), a thermal pre-treatment step was incorporated prior to caustic baking. Conducted at 420 °C, this feed-conditioning stage reduced sulphur to 0.3 wt.-% before caustic baking, and subsequent two-stage caustic and acid leaching. With thermal pre-treatment, the caustic baking route produced SPG with a FC content of 99.99 wt.-%. In contrast, conventional caustic baking without thermal pre-treatment achieved only 99.84 wt.-% FC, below the required specification of ≥99.95 wt.-% FC.

The elevated sulphur levels in the NFG concentrate are attributed to the absence of sulphur monitoring in previous flotation flowsheet development programs; consequently, no measures were implemented to reduce the sulphur in the concentrate.

However, historical testwork completed by SGS in 2020 on Lac Carheil sample containing 12.0 wt.-% C(t) and 8.74 wt.-% sulphur produced a final concentrate with a sulphur content between 0.21 wt.-% and 0.36 wt.-% (SGS Canada Inc., 2020), demonstrating that the concentrate can be optimized to achieve lower sulphur levels prior to processing in the BAM Facility.

Optimization work on the NFG concentrate is currently being undertaken by SGS to further reduce sulphur. This work will utilize a representative sample reflecting the first 10 years of the new mine plan, and the results will be incorporated into the Pre-Feasibility Study ("PFS"), which is currently underway for the flake graphite concentrate plant.

A large-scale metallurgical testwork program with SGS will be undertaken during 2026 and early 2027, which will optimize concentrate at both laboratory- and pilot-scale. The aim of the testwork program is to produce approximately 1 tonne of optimized concentrate to conduct metallurgical testwork for a Feasibility Study on the BAM Facility.

For the purposes of the Scoping Study, it is therefore reasonable to assume that thermal pre-treatment will not be required, provided the NFG concentrate contains ≤0.5 wt.-% sulphur. At this feed level, and assuming 58 % sulphur reports to the medium SG fraction, the resulting medium SG product would contain ≤0.3 wt.-% sulphur, thereby eliminating the need for thermal pre-treatment prior to caustic baking.

### 6.4.7 Sample production

SPG sample production was conducted to produce sufficient material for coating and electrochemical testwork. A total of 1.4 kg of SPG was produced, employing the optimized micronization, spheroidization, and purification conditions.

NFG concentrate as supplied by Metals Australia was micronized in the CSM 165 and spheroidized in the GyRho 165, both of which are air classifying mills from NETZSCH. The resulting SG composite sample (SG 18, 0.97 g/cm³, 40575 RZ3-4+RZ6-9) was analysed and found to have a $D_{50}$ value between 17.6 to 19.0 µm, a BET value in the range of 5.0 $m^2/g$ and $D_{90}/D_{10}$ ratio of 3.1.

Purification was carried out at laboratory scale on the SG composite sample (SG 18, 0.97 g/cm³, 40575 RZ3-4+RZ6-9) following the parameters established in caustic bake test MA-CB4, which included a thermal pre-treatment step. Although this step is excluded from the Scoping Study flowsheet, it was required to achieve the target SPG purity of ≥99.95 wt.-% FC from the unoptimized NFG feed (see Section 6.4.6 for further details), ensuring material suitable for subsequent coating trials.

Purification comprised the following steps (as depicted in Figure 20):

- Thermal pre-treatment at 420 °C for 48 hours;
- Mixing of graphite with NaOH and caustic baking;
- 1st stage caustic leaching;
- 1st stage acid leaching with sulfuric acid;
- 2nd stage caustic leaching;
- 2nd stage acid leaching with sulfuric acid; and,
- Drying of SPG.

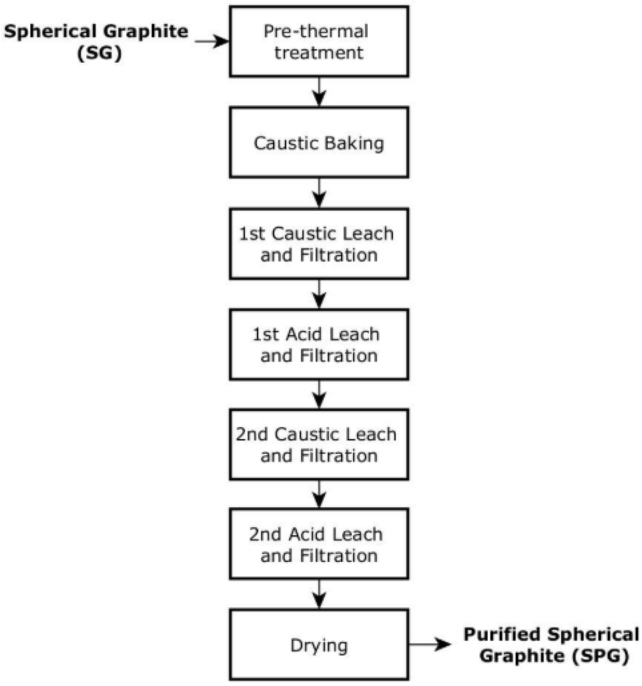



*Figure 20: Block flow diagram of purification of SPG*

The processing parameters for SPG sample production are listed in Table 12 and the corresponding analytical results are listed in Table 13.

The SPG sample was produced with a purity of 99.94 wt.-% FC and sulphur content of 0.04 wt.-%. Besides the chemical purity, BET and tap density after purification were analysed, and are provided in Table 6. After the purification process, the tap density of the SG was reduced to 0.89 g/cm$^3$ and the BET increased slightly to 6.4 m$^2$/g.

The resulting SPG sample generated was used for subsequent coating tests.

*Table 12: Processing parameters during purification of SPG*

| **Sample-ID** | **Units** | **SPG sample production** | | |
|---|---|---|---|---|
| | | Step 0 | Step 1 | Step 2 |
| Feed sample amount | [g] | 200 | | |
| **Thermal pre-treatment** | | | | |
| Temperature | [°C] | 420 | | |
| Retention time | [h] | 48 | | |
| **Step 1** | | | | |
| Caustic bake | | | | |
| NaOH (100%) | [kg/t] | | 405 | |
| Temperature | [°C] | | 300 | |
| Retention time | [min] | | 75 | |
| Furnace type | [-] | | Muffle | |
| Caustic leach | | | | |
| Temperature | [°C] | | 40 | |
| Retention time | [min] | | 60 | |
| Acid leach | | | | |
| $H_2SO_4$ (96%) | [kg/t] | | 203 | |
| Temperature | [°C] | | 80 | |
| Retention time | [min] | | 120 | |
| **Step 2** | | | | |
| Caustic leach | | | | |
| NaOH (100%) | [kg/t] | | | 50 |
| Temperature | [°C] | | | 40 |
| Retention time | [min] | | | 60 |
| Acid leach | | | | |
| $H_2SO_4$ (96%) | [kg/t] | | | 50 |
| Temperature | [°C] | | | 80 |
| Retention time | [min] | | | 120 |

*Table 13: Chemical and physical analysis of SG18 feed and SPG18 product after caustic baking and subsequent leaching*

| **Test-ID** | **Units** | **SG 18** (Composite Sample 40575 RZ3-4+RZ6-9) | **SPG 18** (Feed for coating) |
|---|---|---|---|
| FC | [wt.-%] | 97.3 | 99.94 |
| LOI | [wt.-%] | 98.7 | 99.98 |
| S | [wt.-%] | 1.58 | 0.04 |
| $SiO_2$ | [mg/kg] | 2,600 | 63 |
| $Al_2O_3$ | [mg/kg] | 1,060 | <10 |
| $Fe_2O_3$ | [mg/kg] | 8,020 | 44 |
| Tap density | [g/cm³] | 0.97 | 0.89 |
| BET | [m²/g] | 5.0 | 6.4 |

## 6.5 Coating

The process of coating SPG is essential for improving electrochemical performance, which enables use as an anode material in LIBs. The coating process includes depositing a thin passivating carbon layer onto the surface of the SPG to enhance conductivity and hardness, and to seal the surface.

Industry standard coating processes rely on pitch tar as the carbon source, analogous to methods used in synthetic graphite production. Pitch tar, a by-product of the oil-refining industry, is milled prior to being thoroughly mixed (dry) with SPG. The mixture is subjected to thermal treatment at approximately 1,000 °C under atmospheric pressure in an inert gas atmosphere. The final product undergoes deagglomeration on a 50 µm screen to obtain a free-flowing CSPG product.

Coating was conducted in three trials, in which SPG produced as described in Section 6.4.7, was coated using the following pitch tar additions were evaluated to determine the preferred coating layer thickness:

- Coating Layer 1: 5 wt.-%;
- Coating Layer 2: 7.5 wt.-%; and,
- Coating Layer 3: 10 wt.-%.

The resulting CSPG samples were physically characterized in terms of tap density and BET. The analytical results are listed in Table 14 and are compared to the feed materials (SG and SPG).

All three pitch tar coating tests achieved a CSPG product with a BET that meets the threshold of market specifications (generally $<3\ m^2/g$). The BET was reduced from 6.4 $m^2/g$ (after spheroidization) to 1.4 $m^2/g$ in the test with the lowest addition of 5 wt.- % pitch tar (Coating Layer 3). In the test with the highest addition of pitch tar (Coating Layer 3, 10 wt.-% pitch tar), an even lower BET value of 0.8 $m^2/g$ was achieved. The final tap density of the CSPG material ranged from 1.00 $g/cm^3$ (Coating Layer 1, 5 wt.-% pitch tar) to 1.04 $g/cm^3$ (Coating Layer 3, 10 wt.-% pitch tar).

Based on these results, the addition of 7.5 wt.-% pitch tar (Coating Layer 2) was chosen, as it was expected to have robust behavior during electrochemical characterization. The 5 wt.-% addition of pitch tar can be insufficient to compensate for natural variability in SG feedstock properties to reach the specified BET value. While the 10 wt.-% addition delivered even better values, it required a higher consumption of pitch tar. Therefore, 7.5 wt.-% was determined to be the optimum.

*Table 14: Comparison of tap density and BET of sample SG 18 (40575 RZ3-4+RZ6-9) after spheroidization, purification and coating*

| **Sample ID** | **Coating** [-] | **Tap density** [g/cm³] | **BET** [m²/g] | **FC** [wt.-%] | **LOI** [wt.-%] | **S** [wt.-%] |
|---|---|---|---|---|---|---|
| SG | No | 0.97 | 5.0 | 97.3 | 98.7 | 1.58 |
| SPG | No | 0.89 | 6.4 | 99.94 | 99.98 | 0.04 |
| Coating Layer 1 | 5% | 1.00 | 1.4 | 99.91 | 99.99 | 0.04 |
| Coating Layer 2 | 7.5% | 1.01 | 1.1 | 99.94 | 99.99 | 0.04 |
| Coating Layer 3 | 10% | 1.04 | 0.8 | 99.95 | 99.99 | 0.04 |

## 6.6 Electrochemical characterization

### 6.6.1 Differential capacity analysis (dQ/dV)

Differential capacity analysis (dQ/dV vs. voltage) was performed on the CSPG (produced with the addition of 7.5 wt.-% pitch tar) and reference sample to evaluate electrochemical behaviour during charge/discharge cycles. The resulting profiles reveal distinct lithium intercalation stages in graphite (e.g., $LiC_6$, $LiC_{12}$, $LiC_{18}$), with characteristic peaks corresponding to stepwise phase transitions during lithiation and delithiation. In the initial cycles, a broad peak at low potential indicates the formation of the solid electrolyte interphase (“SEI”), which is critical for early cell stabilization and anode activation.

The peak structure indicates typical graphite staging behaviour and suggests comparable reaction pathways for the CSPG sample as an active material in LIBs (see Figure 21).

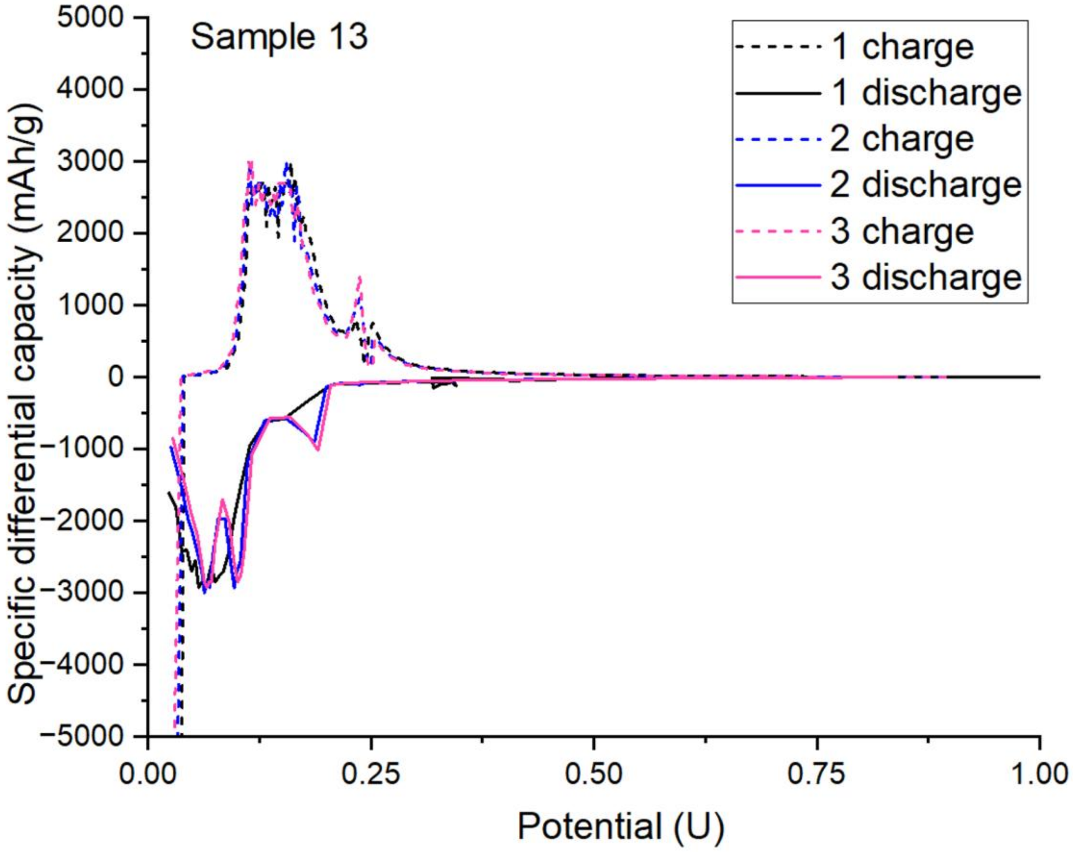



*Figure 21: DQ/DB curve of sample Coating Layer 2 (7.5 wt.-% pitch tar addition) as sample graph*

### 6.6.2 Determination of formation capacity and first cycle efficiency

Standard formation results of the CSPG sample produced with the addition of 7.5 wt.-% pitch tar (Coating Layer 2) are listed in Table 15. The Metals Australia CSPG sample achieved a first cycle efficiency ("FCE") of 95.0 %. The initial discharge capacities ("IDC") was measured with 362 mAh/g. Both values are above typical benchmarks for coated reference materials, indicating excellent electrochemical performance during the initial formation cycle.

*Table 15: IDC and coulombic FCE for cell formation of coated graphite samples*

| **Sample ID** | **Coating** [-] | **IDC** [mAh/g] | **FCE** [%] |
|---|---|---|---|
| Coating Layer 2 | 7.5 wt.-% | 362 | 95.0 |

### 6.6.3 Rate capability

Rate capability testing (Figure 22) demonstrates that electrodes of the CSPG sample produced with the addition of 7.5 wt.-% pitch tar (Coating Layer 2) deliver consistently higher discharge capacities compared to the reference material at all tested current rates. The C-rate is a measure of a battery's charge or discharge speed relative to its maximum capacity, which indicates how quickly the battery delivers and/or stores energy. The sample exhibits small capacity drops at different C-rates, indicating favorable rate performance and efficient lithium-ion transport within the electrode structure.

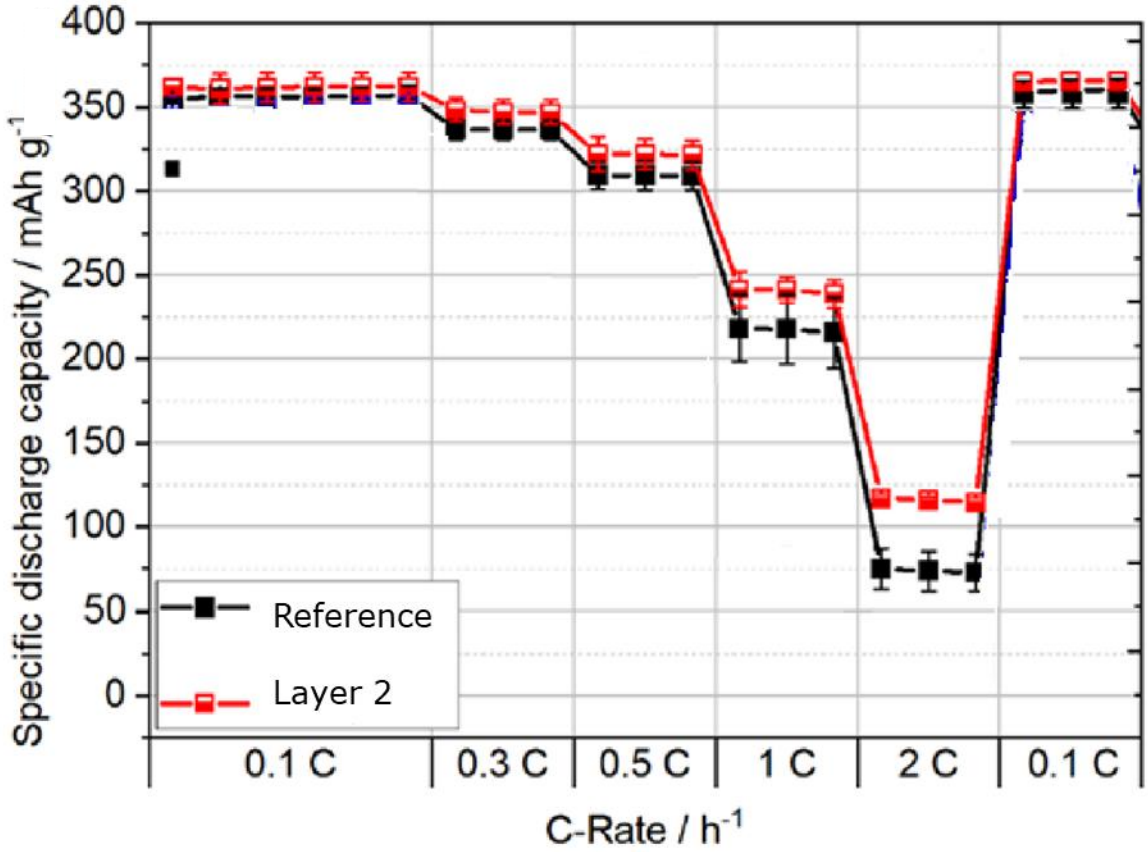



*Figure 22: Rate capability of all half cells (normalized discharge capacity vs C-rate)*

6.6.4 Cycling performance

CCCV (Constant current, constant voltage) cycling in full cell configuration shows favourable behaviour in cyclability for the CSPG sample. After 100 cycles, half cells contained 99.5 % of initial capacity, which exceeds expectation for this kind of testing and material (displayed in Figure 23).

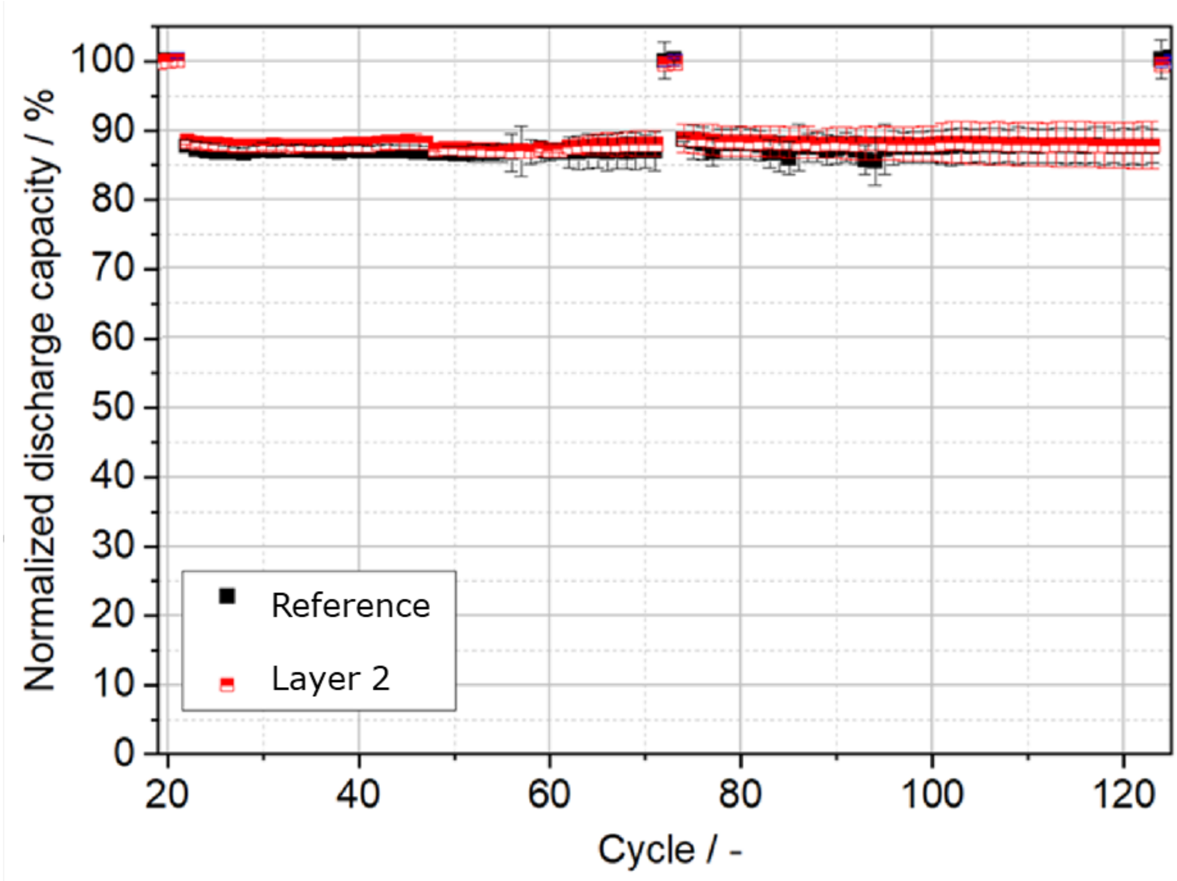



*Figure 23: Cycling performance (relative capacity; normalized discharge capacity vs cycle number)*

6.6.5 Confirmatory testwork

Confirmatory coating and electrochemical tests were conducted by Xinde New Material ("Xinde"), a company based in China who specializes in the supply of pitch tar for the graphite industry.

Through coating of the same Metals Australia SPG (as described in Section 6.4.7), Xinde produced a CSPG sample with an electrochemical performance comparable to the coated sample generated by ANZAPLAN GmbH.

Xinde compared their generated sample with the Chinese National Standard (GB/T 38887-2020) for CSPG, and it was determined that it meets the criteria with respect to the product's chemical, physical and electrochemical characterization. Given the similarities between the CSPG samples generated by both Xinde and ANZAPLAN GmbH, the CSPG product generated at 7.5 wt.-% pitch tar addition (Coating Layer 2) by ANZAPLAN GmbH is expected to also conform with the Chinese National Standard (GB/T 38887-2020).

The CSPG sample generated by ANZAPLAN GmbH demonstrates market suitability through electrochemical performance meeting or exceeding the reference CSPG materials and does comply with the Chinese National Standard.

# 7 Recovery methods

NFG concentrate sourced from the Lac Carheil Graphite Project is processed in the BAM Facility, which is designed to produce CSPG suitable for the LIB anode market.

The BAM Facility is modular in design and comprises three identical modules, each with a processing capacity of 25,000 t/a (dry) of NFG concentrate. At full production, the facility will have a nominal design capacity of 75,000 t/a (dry) of NFG concentrate.

A modular design for the BAM Facility provides several key advantages:

- Process redundancy allows individual modules to be taken offline for quality control or scheduled maintenance without disrupting overall production;
- Flexibility to bring modules online or offline in response to market demands; and,
- Staged construction enables one module to be built and qualified first, before building subsequent modules. This will also allow Metals Australia to place the product in the market in a phased manner rather than potentially "flooding" the market with the full capacity of 75,000 t/a NFG converted into CSPG.

Each module receives NFG concentrate (-100 mesh) with an initial FC content of ≥95 wt.-%, in which micronization, spheroidization, purification and coating are applied to produce CSPG with a FC content of ≥99.99 wt.-%. Figure 24 illustrates the processing areas for a single module, with the modules arranged in parallel.

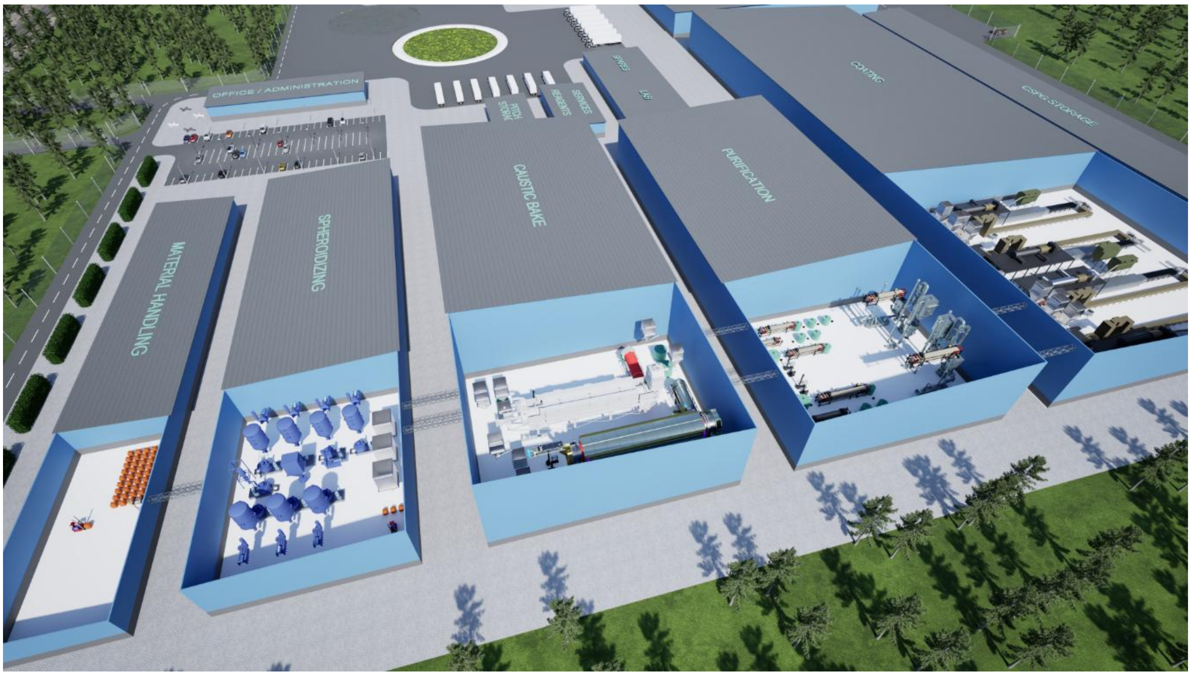



*Figure 24: Processing areas for one module of the BAM Facility, arranged in a parallel configuration*

Based on an overall yield of 68 %, each module processing 25,000 t/a of NFG concentrate is expected to produce a total of 17,023 t/a (dry) of CSPG. Of this total, 12,843 t/a (dry) corresponds to CSPG 18, while 4,180 t/a (dry) corresponds to CSPG 10. Along with producing CSPG, each module produces 7,000 t/a (dry) SG fines as a by-product.

With all three modules operating, the BAM Facility will produce a total of 51,069 t/a (dry) of CSPG (comprising 38,529 t/a (dry) of CSPG 18, and 12,540 t/a (dry) of CSPG 10), and 21,000 t/a (dry) of SG fines.

CSPG 18, CSPG 10 and SG fines constitute the saleable final products for the BAM Facility.

Figure 25 depicts the overall process flow for one module of the BAM Facility.

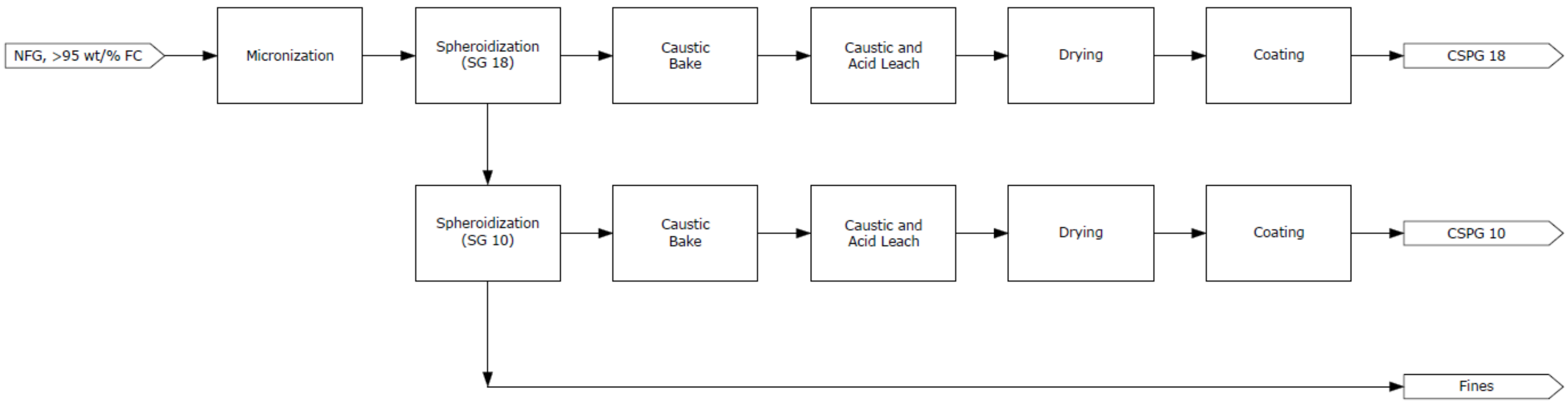



*Figure 25: BAM Facility (one module) process flow*

## 7.1 Process description

### 7.1.1 Micronization and spheroidization

Processing of NFG concentrate to generate SG entails micronization and spheroidization.

Micronization is a size-reduction process carried out in a specialized air-classifying mill, which reduce NFG to a top size ($D_{97}$), typically between 60 and 70 μm. Particles outside the desired size range are rejected by the classifier and are recirculated as feed.

The micronized NFG is directed to spheroidization, where mechanical rounding of graphite flakes occurs to produce SG. Rounding the graphite is particularly important in the production of battery anode material, as the process enhances its tap density and electrochemical performance, both of which are crucial for battery applications.

Spheroidization takes places in two stages, where micronized NFG enters the first stage of spheroidization to produce a medium SG product, with a median particle size ($D_{50}$) between 15 and 25 μm. The fines generated from the first stage are spheroidized further in a second stage to produce a fine SG product, typically between 8 and 10 μm ($D_{50}$). This is possible as each spheroidization stage comprises a series of air-classifying mills, which separate the SG product (medium or fine) from fines.

The testwork results provided in Section 6.3 suggest that a medium SG product is generated with a $D_{50}$ of 18 μm, and a fine SG product with a $D_{50}$ of 10 μm, at a combined yield of 72 wt.-%. Both SG products, 18 and 10 μm, are directed to purification for further processing.

The fines generated in the second stage of spheroidization are collected and conveyed to a packaging plant where the material is sealed into bulk bags for storage and sale.

Figure 26 illustrates the process flow for micronization and spheroidization.

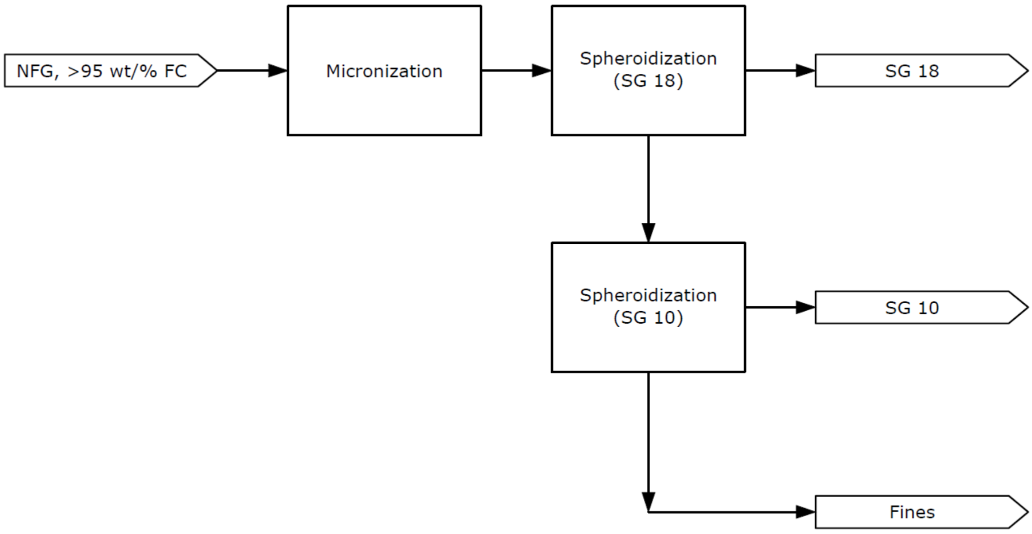



*Figure 26: Micronization and spheroidization process flow*

7.1.2 Purification

The caustic bake route was selected during metallurgical testwork (see Section 6.4) as the preferred option for purification. Both SG 18 and SG 10, each containing a minimum of 95 wt.-% FC, are treated in separate purification lines where impurities are removed, producing SPG products (SPG 18 and SPG 10) with a FC content of ≥99.99 wt.-%.

Each purification line (for SG 18 and SG 10), as depicted in Figure 27, comprises the following unit operations:

- Caustic mixing and baking;
- Caustic leaching and filtration (first stage);
- Acid leaching and filtration (first stage);
- Caustic leaching and filtration (second stage);
- Acid leaching and filtration (second stage); and,
- Drying.

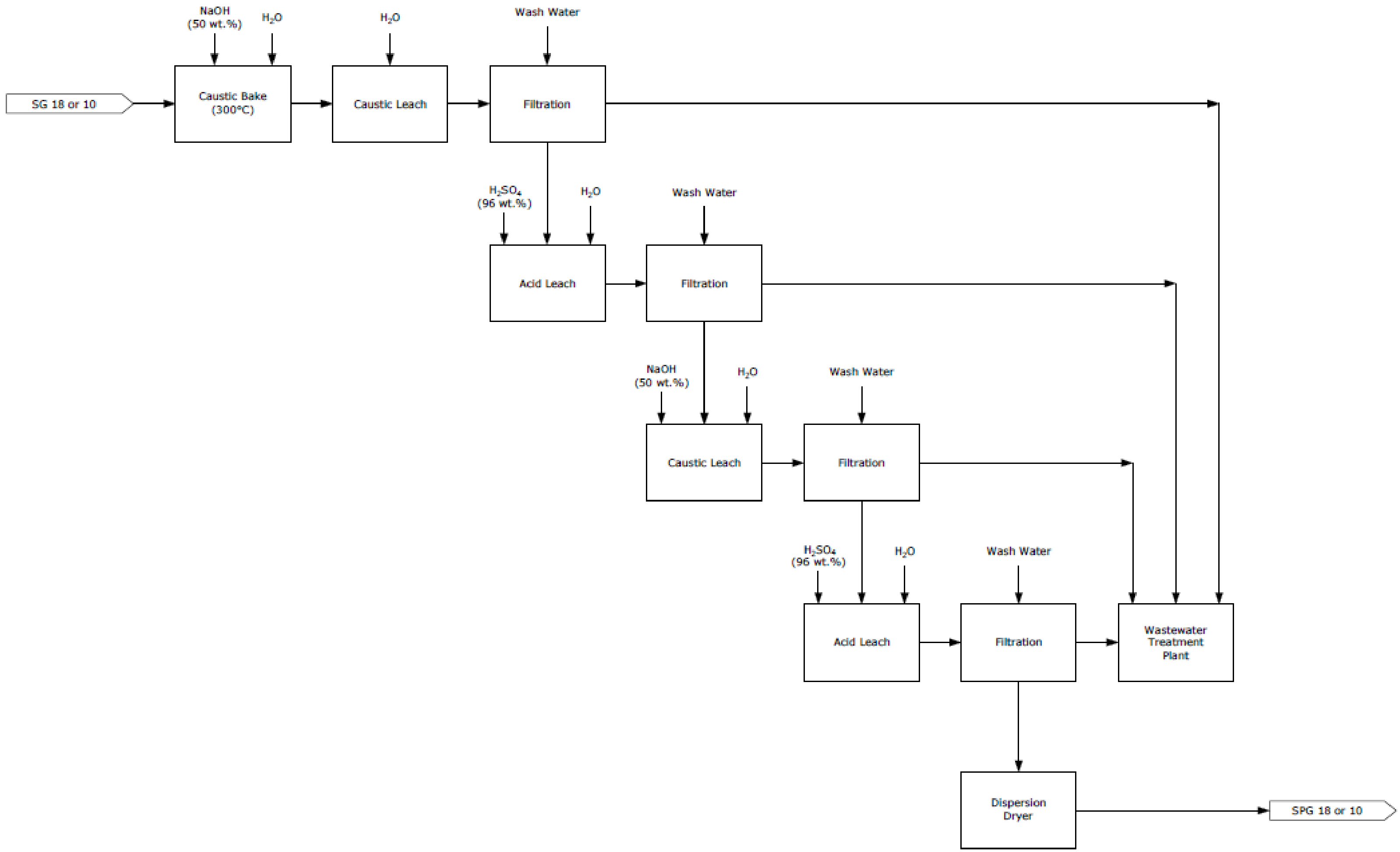



*Figure 27: Purification (caustic baking) process flow*

7.1.2.1 Caustic mixing and baking

SG (18 or 10 μm) is mixed with NaOH in a mixer, before it is conveyed to a rotary kiln for baking at 300 °C. The addition of NaOH, combined with thermal treatment, is required to crack the silicate structures, converting them into water-soluble compounds.

The rotary kiln discharge is transferred to a rotary cooler and then passed through a lump breaker to reduce agglomeration, before the material is conveyed to the first stage of caustic leaching.

7.1.2.2 Caustic leaching and filtration (first stage)

The baked graphite is transferred into a storage bin and then charged into a leach tank via a screw feeder. Deionized ("DI") water is added to the leach tank to achieve the desired solids content and to dissolve the water-soluble silicate and alkali-derived compounds generated during caustic baking. The resulting slurry is transferred to a buffering tank before being continuously pumped to a dedicated belt filter.

At the belt filter, the graphite solids are separated from the caustic leach liquor. The filter cake (graphite solids) is washed with DI water along the belt filter to remove any remaining soluble impurities. The leach liquor (mother filtrate) and wash liquor are collected separately and transported to wastewater treatment, while the filter cake proceeds to the first stage of acid leaching.

7.1.2.3 Acid leaching and filtration (first stage)

After caustic leaching and filtration, the washed filter cake undergoes acid leaching with sulfuric acid ("$H_2SO_4$") to remove residual metallic impurities, including iron, aluminium, etc.

The washed filter cake is first transferred to a mixing tank, where DI water and $H_2SO_4$ are added to form a slurry. The resulting slurry is continuously pumped to subsequent acid leach tanks. All tanks are heated with steam to maintain a target temperature of 80 °C during the acid leach process.

The graphite slurry is fed to a dedicated belt filter to separate the graphite solids from the acid leach liquor. The resulting cake is washed with DI water along the belt filter to remove any remaining soluble impurities. The leach liquor (mother filtrate) and wash liquor are collected separately and transported to wastewater treatment, while the filter cake proceeds to the second stage of caustic leaching.

#### 7.1.2.4 Caustic leaching and filtration (second stage)

The washed filter cake from the first acid leach stage is fed to a mixing tank, where NaOH and DI water are added to form a slurry. The resulting slurry is pumped to subsequent caustic leach tanks. All tanks are heated with steam to maintain a target temperature of 60 °C during the caustic leach process.

The graphite slurry is fed to a dedicated belt filter to separate the graphite solids from the caustic leach liquor. The resulting cake is washed with DI water along the belt filter to remove any remaining soluble impurities. The leach liquor (mother filtrate) and wash liquor are collected separately and transported to wastewater treatment, while the filter cake proceeds to the second stage of acid leaching.

#### 7.1.2.5 Acid leaching and filtration (second stage)

The washed filter cake from the second caustic leach stage is transferred to a mixing tank, where DI water and $H_2SO_4$ are added to form a slurry. The resulting slurry is continuously pumped to subsequent acid leach tanks. All tanks are heated with steam to maintain a target temperature of 80 °C during the acid leach process.

The graphite slurry is fed to a dedicated belt filter to separate the graphite solids from the acid leach liquor. The resulting cake is washed with DI water along the belt filter to remove any remaining soluble impurities. The leach liquor (mother filtrate) and wash liquor are collected separately and transported to wastewater treatment, while the filter cake proceeds to drying.

#### 7.1.2.6 Drying

The resulting washed cake from the second acid leach stage is collected and charged with a screw conveyor into a dispersion dryer. Hot air enters from the bottom of the dryer, carrying the SPG (18 or 10) particles upwards through the dryer, which facilitates drying. The dried SPG is conveyed to the coating section.

### 7.1.3 Coating

SPG 18 and SPG 10 are coated in separate, dedicated coating lines. In each line, coating takes place in a pusher furnace(s), where a mixture of SPG and milled pitch tar is thermally treated in an inert nitrogen atmosphere. During this process, a layer of carbon is deposited onto the SPG particles to produce CSPG 18 and CSPG 10, respectively.

Prior to coating, pitch tar is fed to a jet mill to atomize the pitch, after which it is combined with SPG in a mixing unit. The resulting mixture is conveyed into a bin, which deposits the material into saggars via a rotary valve. The saggars are automatically stacked onto a conveying system for the pusher furnace.

The material is thermally treated along the length of the pusher furnace, which has dedicated heating and cooling zones. The temperature along the furnace is gradually raised to 1,200 °C, enabling carbonization of pitch tar. During this process, the pitch decomposes to form carbon, which deposits onto the surface of the SPG particles, creating a uniform coating layer. The last zone of the pusher furnace is a cooling zone, where the saggars are cooled before the material is loosened and emptied into a bin. The coated material (CSPG 18 and CSPG 10) then undergoes deagglomeration via screening and magnetics removal, before being conveyed to dedicated packaging plants, where the products are sealed into bulk bags for storage and sale.

7.1.4 Wastewater treatment

Caustic and acidic wastewater generated during chemical purification (for each module) are treated in separate circuits, as described below.

7.1.4.1 Caustic wastewater

Mother liquor from the first and second stage of caustic leach is collected from the respective belt filters and charged into a mixing tank, where a sodium aluminate ("$NaAlO_2$") solution is added to promote the precipitation of dissolved silicon species. Following mixing, the overflow is transferred to a second tank to provide additional residence time for precipitation.

The overflow of the second tank is treated with carbon dioxide to lower the pH, triggering further precipitation of aluminium hydroxide and other silicates. The resulting slurry is discharged via the overflow to a buffering tank before being pumped to a belt filter, where the precipitated solids are separated from the mother liquor. The filter cake is washed with DI water along the belt filter to remove any residual soluble impurities. The combined mother liquor and wash liquor are collected and transferred to a separate tank for further treatment, while the filter cake is directed to acid wastewater treatment.

The recovered liquor from the previous step is treated with lime ("$Ca(OH)_2$") to precipitation of calcium carbonate, after which the slurry is filtered using a filter press. The filtrate is pumped to a sodium hydroxide evaporator, while the filter cake is collected and transported to acid wastewater treatment.

In the evaporator, the filtrate is heated with stream to evaporate water to produce a concentrated sodium hydroxide solution. The evaporated water is condensed to produce reusable condensate (for steam generation, etc.). The concentrated sodium hydroxide is passed through a settling tank to remove any precipitates formed during evaporation. The clarified sodium hydroxide brine is transferred to the reagent make-up area prior to reuse in caustic bake and caustic leach.

#### 7.1.4.2 Acid wastewater

Mother liquor from the first and second stage of acid leach is collected from the respective belt filters and charged into a mixing tank. Precipitated solids from caustic wastewater treatment including aluminium hydroxide and other silicates, along with calcium carbonate, are added to this tank to promote the precipitation of gypsum from the sulphate-rich acid leach liquor.

The resulting slurry is filtered using a filter press to separate the precipitated solids from the mother liquor. The filtrate is then combined with wash liquor from both the caustic and acid leach stages of chemical purification. The combined stream is neutralized with the addition of carbon dioxide ("$CO_2$"), after which the mixture is pumped to a lamella thickener. The underflow from the thickener is recycled to the filter press to improve solids recovery, while the overflow is pressure filtered to remove any residual solids before discharge.

The final cake, which consists primarily of gypsum, aluminium hydroxide and other silicates, is collected and disposed.

### 7.1.5 Offgas treatment

Given the acid leach process in chemical purification is carried out at elevated temperatures, generated fumes are collected and charged to a scrubber, where the fumes are neutralized before venting to the atmosphere.

## 7.2 Process design criteria and mass balance

### 7.2.1 Micronization and spheroidization

The micronization and spheroidization units of the BAM Facility are designed to process 25,000 t/a of NFG concentrate per module. Based on the process design criteria ("PDC") presented in Table 16, a high-level mass balance for these units is produced and summarized in Table 17.

*Table 16: Process design criteria - micronization and spheroidization*

| Parameter | Unit | Value |
|---|---|---|
| **General** | | |
| Annual NFG concentrate feed (per module) | [t/a] | 25,000 |
| Number of modules | [-] | 3 |
| Annual NFG concentrate feed (full production) | [t/a] | 75,000 |
| Plant availability | [%] | 85.6 |
| Annual production hours | [h/a] | 7,500 |
| **Feed** | | |
| FC content | [wt.-%] | 95.1 |
| Moisture content | [wt.-%] | 0.3 |
| BET | [$m^2/g$] | 3.2 |
| Bulk density | [$g/cm^3$] | 0.33 |
| Tap density | [$g/cm^3$] | 0.58 |
| $D_{100}$ | [μm] | 150 (100 mesh) |
| **Micronization** | | |
| Target $D_{97}$ | [μm] | 60 to 70 |
| Yield | [wt.-%] | 100.0 |
| **Spheroidization - SG 18** | | |
| Minimum to maximum range for $D_{50}$ | [μm] | 17 to 19 |
| Tap density | [$g/cm^3$] | 0.99 |
| BET | [$m^2/g$] | 5.20 |
| Product yield | [wt.-%] | 54.0 |
| **Spheroidization - SG 10** | | |
| Minimum to maximum range for $D_{50}$ | [μm] | 8 to 10 |
| Tap density | [$g/cm^3$] | 0.79 |
| BET | [$m^2/g$] | 7.80 |
| Product yield | [wt.-%] | 18.0 |
| Combined SG 18 and SG 10 yield | [wt.-%] | 72.0 |

*Table 17: Mass balance summary - micronization and spheroidization (one module)*

| **Streams** | **Solids mass** [t/a] | **Fluids mass** [t/a] | **Total mass** [t/a] | **Solids content** [wt.-%] | **FC** [wt.-%] |
|---|---|---|---|---|---|
| **Micronization** | | | | | |
| Feed | 25,000 | 75 | 25,075 | 99.7 | 95.1 |
| Micronized graphite | 25,000 | 75 | 25,075 | 99.7 | 95.1 |
| **Spheroidization - SG 18** | | | | | |
| Spheroidization feed | 25,000 | 75 | 25,075 | 99.7 | 95.1 |
| SG 18 µm | 13,500 | 41 | 13,541 | 99.7 | 97.4 |
| SG fines | 11,500 | 35 | 11,535 | 99.7 | 92.4 |
| **Spheroidization - SG 10** | | | | | |
| Feed (fines from previous step) | 11,500 | 35 | 11,535 | 99.7 | 92.4 |
| SG 10 µm | 4,500 | 6 | 4,514 | 99.7 | 95.1 |
| SG fines | 7,000 | 28 | 7,021 | 99.7 | 90.7 |

### 7.2.2 Purification

For the BAM Facility, two purification lines are required to process SG 18 and SG 10. For each module of the BAM Facility, the SG 18 purification line is designed to process 13,500 t/a (dry) of SG 18, while the SG 10 purification line is designed to process 4,500 t/a (dry) of SG 10.

Based on the PDC presented in Table 18, a high-level mass balance for the SG 18 purification line is produced and summarized in Table 19.

Although the PDC presented in Table 18 is based on the testwork results (Section 6.4) conducted on SG 18 material, it is reasonable to assume that the SG 10 will follow a similar design criteria. With the exception of throughput, the SG 10 purification circuit is expected to utilize a similar reagent scheme to achieve the specified FC purity of ≥99.99 wt.-%. The corresponding mass balance is provided in Table 20.

*Table 18: Process design criteria – chemical purification SG 18 and SG 10 (one module)*

| Parameter | Unit | Value |
|---|---|---|
| **General** | | |
| Annual feed rate (per module) – SG 18 purification | [t/a] | 13,500 |
| Annual feed rate (per module) – SG 10 purification | [t/a] | 4,500 |
| Plant availability | [%] | 85.6 |
| Annual production hours | [h/a] | 7,500 |
| **Feed** | | |
| Fixed carbon content | [wt.-%] | 97.4 |
| Moisture content | [wt.-%] | 0.3 |
| **Caustic bake** | | |
| Product target temperature | [°C] | 300 |
| Retention time at target temperature | [min] | 75 |
| Gas atmosphere | [-] | Air |
| NaOH addition (100 wt.-%) | [kg/t graphite feed] | 405 |
| NaOH concentration | [wt.-%] | 50 |
| Solids content in slurry (prior baking) | [wt.-%] | 48 |
| Solids mass loss | [%] | 0.5 |
| **Caustic leach (first stage)** | | |
| Leach temperature | [°C] | 40 |
| Retention time | [min] | 60 |
| Solids content | [wt.-%] | 33 |
| Solids mass loss in leach | [%] | 0.1 |
| **Caustic filtration (first stage)** | | |
| Solids content in filter cake | [wt.-%] | 70 |
| Wash ratio | [t/t] | 4 |
| FC loss in filtrate | [wt.-%] | 1 |
| FC loss in belt wash | [wt.-%] | 0.5 |
| **Acid leach (first stage)** | | |
| Leach temperature | [°C] | 80 |
| Retention time | [min] | 120 |
| $H_2SO_4$ addition (96 wt.-%) | [kg/t graphite feed] | 203 |
| $H_2SO_4$ concentration | [wt.-%] | 96 |
| Solids content | [wt.-%] | 33 |
| Solids mass loss | [%] | 2 |
| FC post acid leach | [wt.-%] | 99.99 |
| **Acid filtration (first stage)** | | |
| Solids content filter cake | [wt.-%] | 70 |
| Wash ratio | [t/t] | 4 |
| FC loss in filtrate | [wt.-%] | 1 |
| FC loss in belt wash | [wt.-%] | 0.5 |
| **Caustic leach (second stage)** | | |
| Leach temperature | [°C] | 40 |
| Retention time | [min] | 60 |

*Table 18: Process design criteria – chemical purification SG 18 and SG 10 (one module) (continued)*

| Parameter | Unit | Value |
|---|---|---|
| **General** | | |
| NaOH addition (100 wt.-%) | [kg/t graphite feed] | 50 |
| NaOH concentration | [wt.-%] | 50 |
| Solids content | [wt.-%] | 33 |
| Solids mass loss in leach | [%] | 0.1 |
| **Caustic filtration (second stage)** | | |
| Solids content in filter cake | [wt.-%] | 70 |
| Wash ratio | [t/t] | 4 |
| FC loss in filtrate | [wt.-%] | 1 |
| FC loss in belt wash | [wt.-%] | 0.5 |
| **Acid leach (second stage)** | | |
| Leach temperature | [°C] | 80 |
| Retention time | [min] | 120 |
| $H_2SO_4$ addition (96 wt.-%) | [kg/t graphite feed] | 50 |
| $H_2SO_4$ concentration | [wt.-%] | 96 |
| Solids content | [wt.-%] | 33 |
| Solids mass loss | [%] | 2 |
| FC post acid leach | [wt.-%] | 99.99 |
| **Acid filtration (second stage)** | | |
| Solids content filter cake | [wt.-%] | 70 |
| Wash ratio | [t/t] | 4 |
| FC loss in filtrate | [wt.-%] | 1 |
| FC loss in belt wash | [wt.-%] | 0.5 |
| **Drying** | | |
| Moisture content in product | [wt.-%] | 0.10 |

*Table 19: Mass balance summary - chemical purification of SG 18 (one module)*

| Streams | Solids mass [t/a] | Fluids mass [t/a] | Total mass [t/a] | Solids content [wt.-%] | FC [wt.-%] |
|---|---|---|---|---|---|
| **Caustic baking** | | | | | |
| Mixing | | | | | |
| Feed (SG 18) | 13,500 | 41 | 13,541 | 99.70 | 97.40 |
| NaOH (50 wt.-%) | 0 | 10,935 | 10,935 | 0.00 | 0.00 |
| Water | 0 | 3,649 | 3,649 | 0.00 | 0.00 |
| Mixed slurry | 13,500 | 14,625 | 28,125 | 48.00 | 97.40 |
| Baking | | | | | |
| Feed | 13,500 | 14,625 | 28,125 | 48.00 | 97.40 |
| Baked product | 13,433 | 0 | 13,433 | 100.00 | 97.89 |
| Losses to offgas | 68 | 14,625 | 14,693 | 0.00 | 0.00 |
| **Caustic leach (first)** | | | | | |
| Baked product | 13,433 | 0 | 13,433 | 100.00 | 97.89 |
| Fresh water addition | 0 | 27,245 | 27,245 | 0.00 | 0.00 |
| Leach slurry | 13,419 | 27,258 | 40,677 | 33.00 | 97.99 |
| **Caustic filtration (first)** | | | | | |
| Feed | 13,419 | 27,258 | 40,677 | 33.00 | 97.99 |
| Wash water | 0 | 54,000 | 54,000 | 0.00 | 0.00 |
| Filter Cake | 13,218 | 5,665 | 18,883 | 70.00 | 97.99 |
| Mother liquor | 134 | 21,593 | 21,728 | 0.62 | 97.99 |
| Wash liquor | 67 | 54,000 | 54,067 | 0.12 | 97.99 |
| **Acid leach (first)** | | | | | |
| Filter cake feed | 13,218 | 5,665 | 18,883 | 70.00 | 97.99 |
| $H_2SO_4$ (96 wt%) | 0 | 2,741 | 2,741 | 0.00 | 0.00 |
| Water addition | 0 | 17,629 | 17,629 | 0.00 | 0.00 |
| Leach slurry | 12,953 | 26,299 | 39,252 | 33.00 | 99.99 |
| **Acid filtration (first)** | | | | | |
| Feed | 12,953 | 26,299 | 39,252 | 33.00 | 99.99 |
| Wash water | 0 | 54,000 | 54,000 | 0.00 | 0.00 |
| Filter Cake | 12,759 | 5,468 | 18,227 | 70.00 | 99.99 |
| Mother liquor | 130 | 20,831 | 20,960 | 0.62 | 99.99 |
| Wash liquor | 65 | 54,000 | 54,065 | 0.12 | 99.99 |
| **Caustic leach (second)** | | | | | |
| Filter cake feed | 12,759 | 5,468 | 18,227 | 70.00 | 99.99 |
| NaOH (50 wt.-%) | 0 | 1,350 | 1,350 | 0.00 | 0.00 |
| Fresh water addition | 0 | 19,086 | 19,086 | 0.00 | 0.00 |
| Leach slurry | 12,759 | 25,904 | 38,663 | 33.00 | 99.99 |
| **Caustic filtration (second)** | | | | | |
| Feed | 12,759 | 25,904 | 38,663 | 33.00 | 99.99 |
| Wash water | 0 | 54,000 | 54,000 | 0.00 | 0.00 |
| Filter Cake | 12,567 | 5,386 | 17,953 | 70.00 | 99.99 |
| Mother liquor | 128 | 20,518 | 20,646 | 0.62 | 99.99 |

*Table 19: Mass balance summary - chemical purification of SG 18 (one module) (continued)*

| **Streams** | **Solids mass** [t/a] | **Fluids mass** [t/a] | **Total mass** [t/a] | **Solids content** [wt.-%] | **FC** [wt.-%] |
|---|---|---|---|---|---|
| Wash liquor | 64 | 54,000 | 54,064 | 0.12 | 99.99 |
| **Acid leach (second)** | | | | | |
| Filter cake feed | 12,567 | 5,386 | 17,953 | 70.00 | 99.99 |
| $H_2SO_4$ (96 wt%) | 0 | 675 | 675 | 0.00 | 0.00 |
| Water addition | 0 | 19,455 | 19,455 | 0.00 | 0.00 |
| Leach slurry | 12,567 | 25,516 | 38,083 | 33.00 | 99.99 |
| **Acid filtration (second)** | | | | | |
| Feed | 12,567 | 25,516 | 38,083 | 33.00 | 99.99 |
| Wash water | 0 | 537 | 537 | 0.00 | 0.00 |
| Filter Cake | 12,379 | 5,305 | 17,684 | 70.00 | 99.99 |
| Mother liquor | 126 | 20,210 | 20,336 | 0.62 | 99.99 |
| Wash liquor | 63 | 537 | 600 | 10.48 | 99.99 |
| **Drying** | | | | | |
| Feed | 12,379 | 5,305 | 17,684 | 70.00 | 99.99 |
| Evaporated water | 0 | 5,293 | 5,293 | 0.00 | 0.00 |
| Dried SPG 18 | 12,379 | 12 | 12,391 | 99.90 | 99.99 |

*Table 20: Mass balance summary - chemical purification of SG 10 (one module)*

| Streams | Solids mass [t/a] | Fluids mass [t/a] | Total mass [t/a] | Solids content [wt.-%] | FC [wt.-%] |
|---|---|---|---|---|---|
| **Caustic baking** | | | | | |
| Mixing | | | | | |
| Feed (SG 10) | 4,500 | 14 | 4,514 | 99.70 | 95.10 |
| NaOH (50 wt.-%) | 0 | 3,645 | 3,645 | 0.00 | 0.00 |
| Water | 0 | 1,216 | 1,216 | 0.00 | 0.00 |
| Mixed slurry | 4,500 | 4,875 | 9,375 | 48.00 | 95.10 |
| Baking | | | | | |
| Feed | 4,500 | 4,875 | 9,375 | 48.00 | 95.10 |
| Baked product | 4,478 | 0 | 4,478 | 100.00 | 95.58 |
| Losses to offgas | 23 | 4,875 | 4,898 | 0.00 | 0.00 |
| **Caustic leach (first)** | | | | | |
| Baked product | 4,478 | 0 | 4,478 | 100.00 | 95.58 |
| Fresh water addition | 0 | 9,082 | 9,082 | 0.00 | 0.00 |
| Leach slurry | 4,473 | 9,086 | 13,559 | 33.00 | 95.67 |
| **Caustic filtration (first)** | | | | | |
| Feed | 4,473 | 9,086 | 13,559 | 33.00 | 95.67 |
| Wash water | 0 | 18,000 | 18,000 | 0.00 | 0.00 |
| Filter Cake | 4,406 | 1,888 | 6,294 | 70.00 | 95.67 |
| Mother liquor | 45 | 7,198 | 7,243 | 0.62 | 95.67 |
| Wash liquor | 22 | 18,000 | 18,022 | 0.12 | 95.67 |
| **Acid leach (first)** | | | | | |
| Filter cake feed | 4,406 | 1,888 | 6,294 | 70.00 | 95.67 |
| $H_2SO_4$ (96 wt%) | 0 | 914 | 914 | 0.00 | 0.00 |
| Water addition | 0 | 5,567 | 5,567 | 0.00 | 0.00 |
| Leach slurry | 4,216 | 8,559 | 12,775 | 33.00 | 99.99 |
| **Acid filtration (first)** | | | | | |
| Feed | 4,216 | 8,559 | 12,775 | 33.00 | 99.99 |
| Wash water | 0 | 18,000 | 18,000 | 0.00 | 0.00 |
| Filter Cake | 4,152 | 1,780 | 5,932 | 70.00 | 99.99 |
| Mother liquor | 42 | 6,780 | 6,822 | 0.62 | 99.99 |
| Wash liquor | 21 | 18,000 | 18,021 | 0.12 | 99.99 |
| **Caustic leach (second)** | | | | | |
| Filter cake feed | 4,152 | 1,780 | 5,932 | 70.00 | 99.99 |
| NaOH (50 wt.-%) | 0 | 450 | 450 | 0.00 | 0.00 |
| Fresh water addition | 0 | 6,201 | 6,201 | 0.00 | 0.00 |
| Leach slurry | 4,152 | 8,431 | 12,583 | 33.00 | 99.99 |
| **Caustic filtration (second)** | | | | | |
| Feed | 4,152 | 8,431 | 12,583 | 33.00 | 99.99 |
| Wash water | 0 | 18,000 | 18,000 | 0.00 | 0.00 |
| Filter Cake | 4,090 | 1,753 | 5,843 | 70.00 | 99.99 |
| Mother liquor | 42 | 6,678 | 6,719 | 0.62 | 99.99 |

*Table 20: Mass balance summary - chemical purification of SG 10 (one module) (continued)*

| Streams | Solids mass [t/a] | Fluids mass [t/a] | Total mass [t/a] | Solids content [wt.-%] | FC [wt.-%] |
|---|---|---|---|---|---|
| Wash liquor | 21 | 18,000 | 18,021 | 0.12 | 99.99 |
| **Acid leach (second)** | | | | | |
| Filter cake feed | 4,090 | 1,753 | 5,843 | 70.00 | 99.99 |
| $H_2SO_4$ (96 wt%) | 0 | 225 | 225 | 0.00 | 0.00 |
| Water addition | 0 | 6,326 | 6,326 | 0.00 | 0.00 |
| Leach slurry | 4,090 | 8,304 | 12,395 | 33.00 | 99.99 |
| **Acid filtration (second)** | | | | | |
| Feed | 4,090 | 8,304 | 12,395 | 33.00 | 99.99 |
| Wash water | 0 | 179 | 179 | 0.00 | 0.00 |
| Filter Cake | 4,029 | 1,727 | 5,756 | 70.00 | 99.99 |
| Mother liquor | 41 | 6,578 | 6,619 | 0.62 | 99.99 |
| Wash liquor | 20 | 179 | 199 | 10.26 | 99.99 |
| **Drying** | | | | | |
| Feed | 4,029 | 1,727 | 5,756 | 70.00 | 99.99 |
| Evaporated water | 0 | 1,723 | 1,723 | 0.00 | 0.00 |
| Dried SPG 10 | 4,029 | 4 | 4,033 | 99.90 | 99.99 |

### 7.2.3 Coating

Dried SPG 18 and SPG 10 generated during chemical purification are coated in dedicated coating lines. For each module of the BAM Facility, the SPG 18 coating line is designed to process 12,379 t/a (dry) of SPG 18, while the SPG 10 coating line is designed to process 4,029 t/a (dry) of SPG 10. With a pitch addition of 7.5 wt.-%, a total of 12,843 t/a (dry) of CSPG 18 and 4,180 t/a (dry) of CSPG 10 is produced.

The PDC for both coating lines is provided in Table 21, for which a mass high-level mass balance was generated for the CSPG products. The mass balance for the SPG 18 coating line and SPG 10 coating line is provided in Table 22 and Table 23, respectively.

*Table 21: Process design criteria – coating of SPG 18 and SPG 10 (one module)*

| Parameter | Unit | Value |
|---|---|---|
| **General** | | |
| Annual feed rate (per module) – SPG 18 coating | [t/a] | 12,379 |
| Annual feed rate (per module) – SPG 10 coating | [t/a] | 4,029 |
| Plant availability | [%] | 85.6 |
| Annual production hours | [h/a] | 7,500 |
| **Coating** | | |
| Pitch tar (100 wt.-%) addition | [kg/t graphite feed] | 0.075 |
| Percentage of pitch tar lost to volatiles | [%] | 50 |
| Pitch tar concentration | [wt.-%] | 100 |
| Temperature coating | [°C] | 1000 - 1200 |

*Table 22: Mass balance summary – coating of SPG 18 (one module)*

| Streams | Solids mass [t/a] | Fluids mass [t/a] | Total mass [t/a] | Solids content [wt.-%] | FC [wt.-%] |
|---|---|---|---|---|---|
| Feed (SPG 18) | 12,379 | 12 | 12,391 | 99.90 | 99.99 |
| Pitch tar | 928 | 0 | 928 | 100.00 | 0.00 |
| CSPG 18 | 12,843 | 0 | 12,843 | 100.00 | 99.99 |
| Loss to volatiles | 464 | 12 | 477 | 97.40 | 0.00 |

*Table 23: Mass balance summary – coating of SPG 10 (one module)*

| Streams | Solids mass [t/a] | Fluids mass [t/a] | Total mass [t/a] | Solids content [wt.-%] | FC [wt.-%] |
|---|---|---|---|---|---|
| Feed (SPG 10) | 4,029 | 4 | 4,033 | 99.90 | 99.99 |
| Pitch tar | 302 | 0 | 302 | 100.00 | 0.00 |
| CSPG 10 | 4,180 | 0 | 4,180 | 100.00 | 99.99 |
| Loss to volatiles | 151 | 4 | 155 | 97.40 | 0.00 |

### 7.2.4 Wastewater treatment

Caustic and acidic wastewater generated during chemical purification are treated in dedicated wastewater treatment circuits.

The PDC for both wastewater treatment circuits is provided in Table 24, for which a mass high-level mass balance was generated. The mass balance for the caustic wastewater treatment circuit and acidic wastewater treatment circuit is provided in Table 25 and Table 26, respectively.

*Table 24: Process design criteria – wastewater treatment (one module)*

| Parameter | Unit | Value |
|---|---|---|
| **Total wastewater produced annually** | | |
| Caustic mother liquor | [t/a] | 56,335 |
| Acid mother liquor | [t/a] | 54,736 |
| Caustic wash liquor | [t/a] | 144,174 |
| Acid wash liquor | [t/a] | 72,885 |
| Plant availability | [%] | 85.6 |
| Annual production hours | [h/a] | 7,500 |
| **Caustic wastewater treatment** | | |
| Precipitation (Al-Si species) | | |
| $NaAlO_2$ addition (100 wt.-%) | [kg/t graphite feed] | 20 |
| $NaAlO_2$ concentration | [wt.-%] | 10 |
| $CO_2$ addition | [kg/t graphite feed] | 160.0 |
| Temperature | [°C] | Ambient |
| Average solid content after precipitation | [wt.-%] | 1.0 |
| Pre-concentration | | |
| Solid content after pre concentration | [wt.-%] | 3.0 |
| Belt filter | | |
| Solid content filter cake | [wt.-%] | 60 |
| Wash ratio | [t/t dry solids] | 3.5 |
| $CaCO_3$ precipitation and filtration | | |
| Stoichiometric excess of $Ca(OH)_2$ to Na | [wt.-%] | 10 |
| $Ca(OH)_2$ concentration | [wt.-%] | 20 |
| Temperature | [°C] | 90 |
| Solid content filter cake | [wt.-%] | 60 |
| Wash ratio | [t/t dry solids] | 1.5 |
| Concentration and sedimentation NaOH | | |
| Target concentration sodium hydroxide | [wt.-%] | 36.0 |
| Mass split sedimentation tank underflow | [wt.-%] | 10.0 |
| Solid content after concentration | [wt.-%] | 1.0 |
| Sodium hydroxide concentration | [wt.-%] | 50.0 |
| **Acid wastewater treatment** | | |
| Gypsum filtration | | |
| Solid content filter cake | [wt.-%] | 60 |
| Effluent pH adjustment | | |
| $CO_2$ addition | [kg/t graphite feed] | 3 |
| Solid content after neutralization | [wt.-%] | 0.1 |
| Clarifier | | |
| Solid content after clarifier | [wt.-%] | 15 |

*Table 25: Mass balance summary – caustic wastewater treatment (one module)*

| **Streams** | **Solids Mass** [t/y] | **Fluids Mass** [t/y] | **Total Mass** [t/y] | **Solids Content** [wt.-%] |
|---|---|---|---|---|
| **Precipitation (Al-Si)** | | | | |
| Feed | 348 | 55,987 | 56,335 | 0.6 |
| $NaAlO_2$ (10 wt.-%) | 0 | 3,564 | 3,564 | 0.0 |
| $CO_2$ (Gas) | - | - | 2,880 | - |
| Slurry | 824 | 59,551 | 62,779 | 1.3 |
| **Preconcentration** | | | | |
| Feed | 824 | 59,551 | 62,779 | 1.3 |
| Filtrate | 0 | 32,906 | 35,310 | 0.0 |
| Concentrated slurry | 824 | 26,645 | 27,469 | 3.0 |
| **Filtration** | | | | |
| Feed | 824 | 26,645 | 27,469 | 3.0 |
| Wash water | 0 | 2,884 | 2,884 | 0.0 |
| Filter cake | 824 | 549 | 1,373 | 60.0 |
| Mother liquor | 0 | 26,096 | 26,096 | 0.0 |
| Wash liquor | 0 | 2,884 | 2,884 | 0.0 |
| **CaCO3 precipitation** | | | | |
| Feed | 0 | 61,886 | 64,290 | 0.0 |
| $Ca(OH)_2$ (20 wt.-%) | 0 | 41,029 | 41,029 | 0.0 |
| Slurry | 10,076 | 102,915 | 105,319 | 9.6 |
| **Filtration** | | | | |
| Feed | 10,076 | 102,915 | 105,319 | 9.6 |
| Wash water | 0 | 15,114 | 15,114 | 0.0 |
| Filter cake | 10,076 | 6,717 | 16,793 | 60.0 |
| Mother liquor | 0 | 96,198 | 96,198 | 0.0 |
| Wash liquor | 0 | 15,114 | 15,114 | 0.0 |
| **NaOH concentration** | | | | |
| Evaporation | | | | |
| Feed | 0 | 111,312 | 111,312 | 0.0 |
| Condensate | 0 | 95,174 | 95,174 | 0.0 |
| Concentrate | 161 | 15,976 | 16,138 | 1.0 |
| Sedimentation | | | | |
| Feed | 161 | 15,976 | 16,138 | 1.0 |
| Underflow | 161 | 1,452 | 1,614 | 10.0 |
| Concentrated NaOH | 0 | 14,524 | 14,524 | 0.0 |

*Table 26: Mass balance summary – acid wastewater treatment (one module)*

| **Streams** | **Solids Mass** [t/y] | **Fluids Mass** [t/y] | **Total Mass** [t/y] | **Solids Content** [wt.-%] |
|---|---|---|---|---|
| **Combined feed** | | | | |
| Feed | 338 | 54,398 | 54,736 | 0.6 |
| $CaCO_3$ filter cake | 10,076 | 6,717 | 16,793 | 60.0 |
| Al-Si filter cake | 824 | 549 | 1,373 | 60.0 |
| Slurry | 11,238 | 61,665 | 72,903 | 15.4 |
| **Gypsum filtration** | | | | |
| Slurry | 11,238 | 61,665 | 72,903 | 15.4 |
| Underflow (recirculated) | 338 | 1,914 | 2,252 | 15.0 |
| Total feed | 11,576 | 63,579 | 75,155 | 15.4 |
| Filter cake | 11,576 | 7,717 | 19,293 | 60.0 |
| Mother liquor | 0 | 55,861 | 55,861 | 0.0 |
| **pH adjustment** | | | | |
| Caustic wash water | 174 | 144,000 | 144,174 | 0.1 |
| Acid wash water | 169 | 72,716 | 72,885 | 0.2 |
| Total wash | 343 | 216,716 | 217,059 | 0.2 |
| pH adjustment | | | | |
| Feed (total wash) | 343 | 216,716 | 217,059 | 0.2 |
| Feed (gypsum filtrate) | 0 | 55,861 | 55,861 | 0.0 |
| $CO_2$ | - | - | 52 | - |
| Neutralized effluent | 343 | 272,577 | 272,972 | 0.1 |
| **Clarifier** | | | | |
| Feed | 343 | 272,577 | 272,972 | 0.1 |
| Underflow (recirculated) | 338 | 1,914 | 2,252 | 15.0 |
| Overflow | 5 | 270,715 | 270,721 | 0.0 |
| **Final discharge** | | | | |
| Effluent | 5 | 270,715 | 270,721 | 0.0 |
| Filter cake (gypsum) | 11,576 | 7,717 | 19,293 | 60.0 |

# 8 Project infrastructure

While final site selection for the BAM Facility will be completed in the next project phase, the Jean-Noël-Tessier Park in Baie Comeau, Quebec, Canada is currently considered the preferred location. This is due to its strong transport links, including access to roads, the Port of Baie-Comeau, and rail-ferry infrastructure (SOPOR), as well as the ability to secure land ownership in the park and a supportive local government in the Baie-Comeau area. As such, the Jean-Noël-Tessier Park has been assumed as the plant site for the purposes of the Scoping Study

The Jean-Noël-Tessier Park is a developing industrial hub and a key economic development zone for Baie Comeau, strategically positioned to serve North American and global markets via the St. Lawrence Seaway. The park is designed to support both heavy and light industrial projects, including a green hydrogen and ammonia generation project planned for construction in 2026. Bulk infrastructure and services are provided to its industrial tenants, including electrical power, water supply, natural gas, telecommunication, road access, storm water management and waste management systems.

The BAM Facility is designed as a self-contained chemical production facility planned on flat topography within the Jean-Noël-Tessier Park. While the park will supply bulk infrastructure and services, certain project-specific facilities will be developed as part of the BAM Facility scope. These include internal roads, vehicles and truck parking areas, step-down transformers from the bulk power supply, and integrated distribution systems for power and water. On-site utilities will also include water treatment, steam generation, compressed air systems and other standard process support infrastructure.

# 9 Market studies and contracts

Section 9, unless stated otherwise, is based on market insights and price projections for graphite provided by Fastmarkets (2026).

## 9.1 Flake graphite market assessment

### 9.1.1 Graphite market shifts

Traditionally, the demand for natural graphite has been driven primarily by the steel industry, particularly in refractories, foundries and castings, as well as by the internal combustion engine automotive sector, where it is used in friction applications such as brake pads and clutch linings.

The battery sector surpassed refractories as the largest single consumer of natural graphite in 2023. As illustrated in Figure 28, the battery sector's share of the total natural graphite demand is projected to increase steadily from 39 % in 2025 to 80 % in 2035.

Fastmarkets (2026) forecasts that total graphite demand will grow at a compound annual growth rate ("CAGR") of 8 % from 2025 to 2035, with LIB-related demand expanding at a faster CAGR of 11 % over the same period.

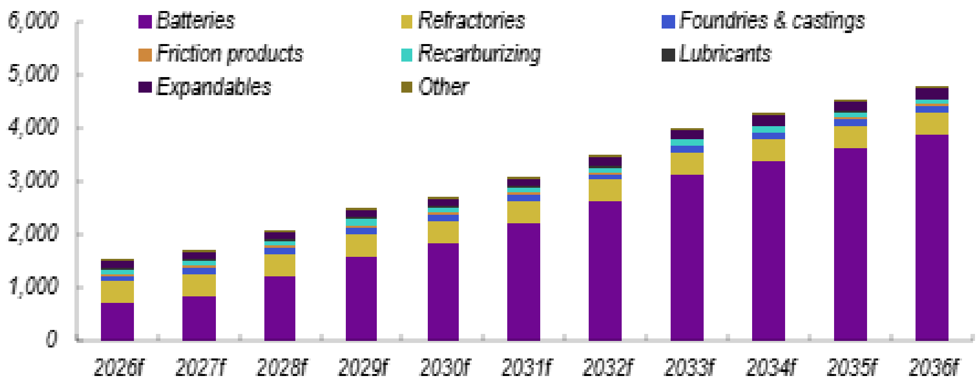



*Figure 28: Natural graphite demand forecast (Fastmarkets, 2026)*

### 9.1.2 Anode technology

The graphite market shift is driven by the accelerating demand for LIB anode materials, supported by the rapid expansion of electric vehicles ("EV") and energy storage systems ("ESS") markets.

LIBs consist of two electrodes: a cathode and an anode. During charging and discharging, lithium ions move from the cathode (typically made of lithium metal oxides) to the anode (usually carbon-based), enabling the battery to store and release energy efficiently.

Graphite is the preferred anode material for commercial LIB due to its lithium intercalation capability, excellent electrical conductivity, and stability over charging and discharging cycles.

### 9.1.3 Natural and synthetic graphite

LIB anodes can be made from natural graphite, synthetic graphite or a combination of both.

Natural graphite, sourced from flake deposits, is commonly used in LIB anodes because its layered crystalline structure allows for effective lithium intercalation, while also providing high electrical conductivity and stable cycling performance.

Synthetic graphite, produced from carbon-rich precursors such as petroleum coke, and pitch tar, is used in LIB anodes for its high purity and uniform structure.

In recent years, synthetic graphite has gained a larger share of the LIB anode market. In 2020, the typical ratio of natural to synthetic graphite in LIBs ranged from 60:40 to 40:60, but this has since shifted closer to 15:85, reflecting the growing adoption of synthetic graphite in anodes.

In China, synthetic graphite is favored due to technological preference and abundant domestic supply. However, overcapacity has resulted in many Chinese plants operating 40 % below their capacity.

Many countries, including India, remain reliant on Chinese anode material, maintaining a high share of synthetic graphite. According to Fastmarkets (2026), the natural-to-synthetic graphite ratio in China’s LIB anodes is expected to peak at 20:80 by 2034, as depicted by Figure 29. Meanwhile, regions such as Europe, North America, South Korea and Japan are seeking to diversify anode supply away from China. Government incentives and Environmental Social Governance (“ESG”) considerations are expected to accelerate the shift towards natural graphite due to its reduced carbon dioxide emissions compared to synthetic graphite. As such, the natural-to-synthetic graphite ratio is expected to rise to 50:50 by 2034 in these regions.

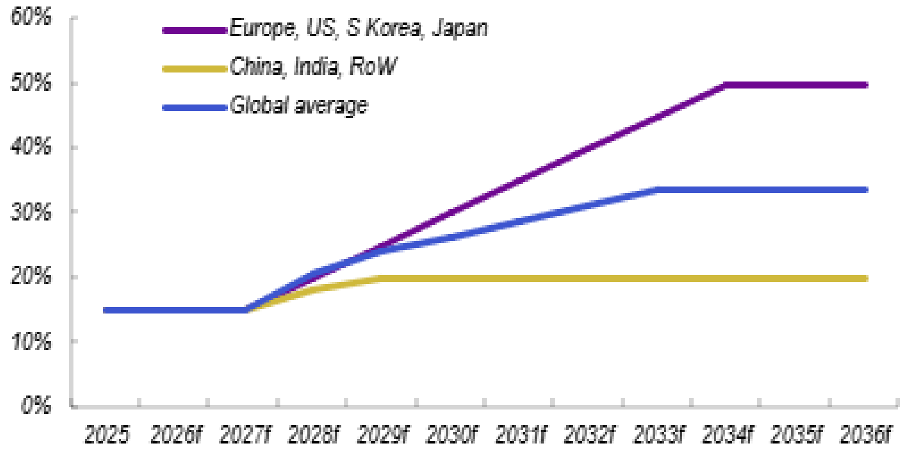



*Figure 29: Ratio of natural-to-synthetic graphite globally (Fastmarkets, 2026)*

9.1.4 Natural graphite supply and demand

In 2024, China accounted for 82 % of the global natural graphite production, while East Africa contributed 13 %. Fastmarkets projects that by 2035, Africa (namely comprising of Madagascar, Tanzania, and Mozambique) will become the world’s largest supplier, providing an estimated 52 % of the global output, whereas China’s share is expected to decline to 32 %. Figure 30 represents the regional supply forecast, highlighting Africa’s rising contribution. Notably, Canada’s production is also expected to increase significantly toward 2033, driven by projects developed locally, including Metals Australia and Nouveau Monde.

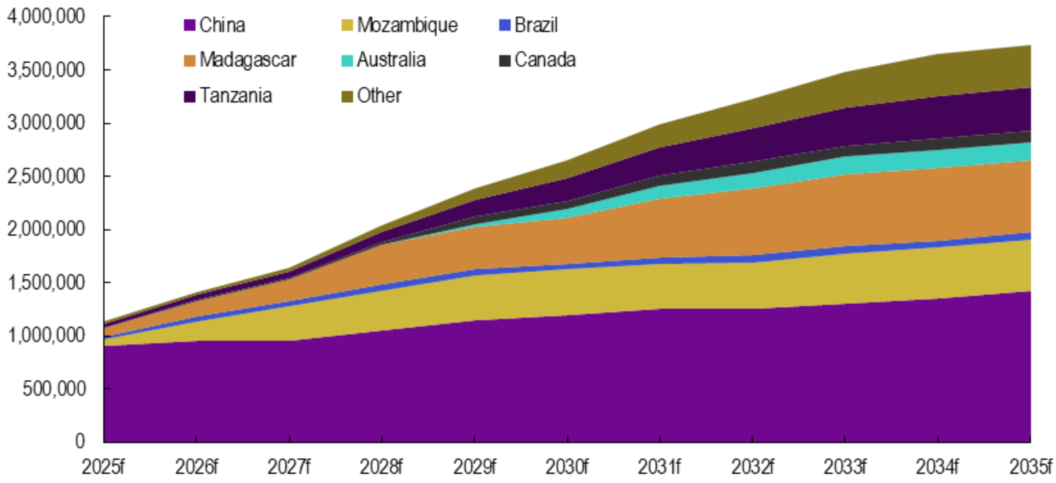



*Figure 30: Natural graphite supply per country (Fastmarkets, 2026)*

As illustrated in Figure 31, the overall graphite market is currently in a mild state of surplus, with supply marginally exceeding demand. This surplus is largely due to the synthetic graphite overcapacity, while natural graphite market is tightening due to prolonged low prices that have left to production cuts in China and Africa.

Fastmarkets expect the graphite prices to stabilize and rise from late 2025 as demand grows, natural graphite supply stays constrained, and synthetic graphite costs increase. By 2026 to 2027, graphite inventories should clear and prices improve more quickly, though African supply expansion will add pressure.

China is expected to retain market dominance, and the synthetic graphite supply will potentially overshadow natural graphite. By 2029, inventories should normalize and demand will begin to outpace supply, leading to a graphite deficit beyond 2033, as indicated in Figure 31.

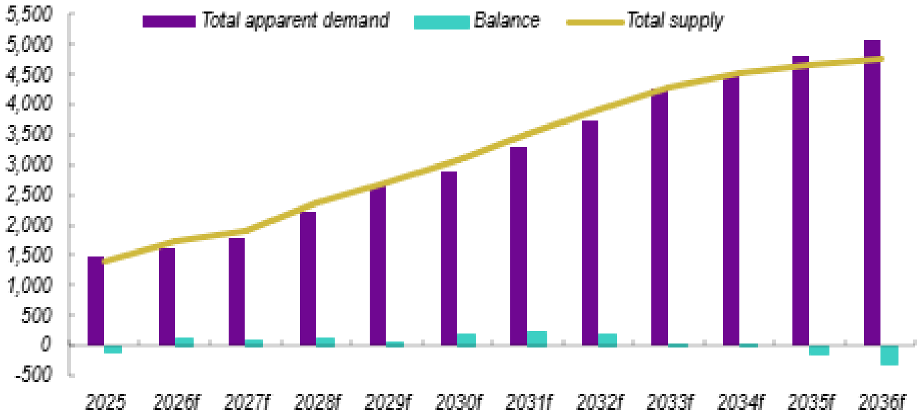



*Figure 31: Global graphite supply and demand (Fastmarkets, 2026)*

### 9.1.5 Flake graphite pricing outlook

Long-term price forecasts (2029 to 2050) were provided by Fastmarkets (2026) for flake graphite across various mesh sizes including -100, +100 and +48 mesh, as depicted in Figure 32.

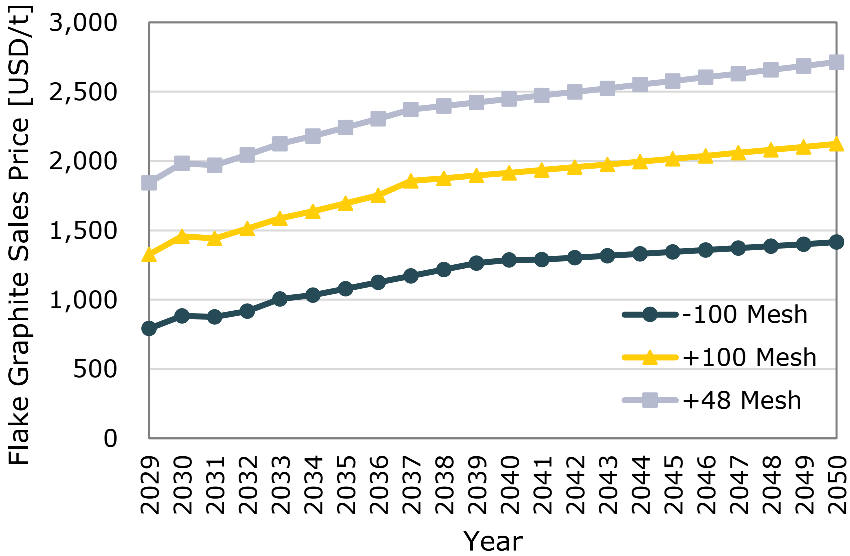



*Figure 32: Graphite price forecast by flake size (95/96 wt.-% FC) (Fastmarkets, 2026)*

The BAM Facility will be supplied with NFG concentrate (–100 mesh) from the Lac Carheil Graphite Project mine and flake graphite concentrate plant. The purchase price is based Fastmarkets projections for 2030, which estimates a price of USD 884/t of NFG (-100 mesh), excluding freight.

## 9.2 Value-add graphite market assessment

### 9.2.1 Value-add graphite

To produce anode-ready graphite, flake graphite is first crushed and beneficiated through flotation to produce a concentrate. The NFG concentrate undergoes value-addition processing, where it is spheroidized to produce SG, purified to achieve battery-grade specifications, and finally coated with pitch tar and baked to produce CSPG, which offers the enhanced electrochemical performance required for LIB applications. The value-addition process is depicted in Figure 33, which illustrates how product value increases at each stage of processing.

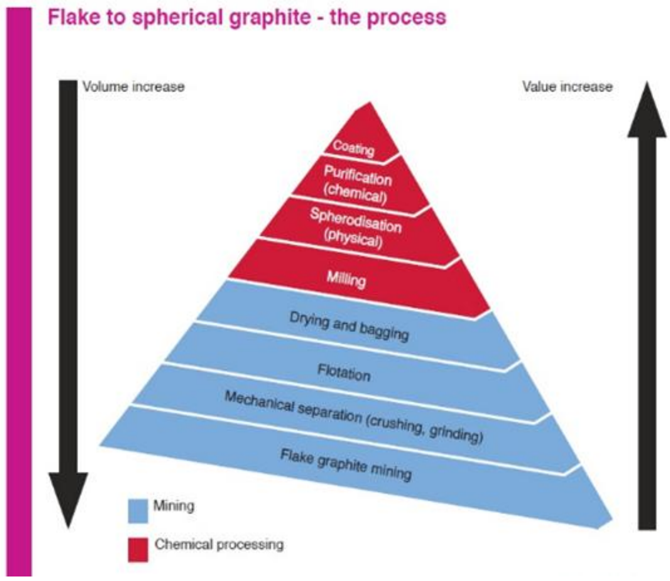



*Figure 33: Value-addition of graphite (Fastmarkets, 2026)*

The BAM Facility produces two distinct CSPG products, CSPG 18 and CSPG 10, intended for the LIB market, including EVs and ESS. In addition, the process generates SG fines as a by-product, which can be sold in a wide range of industrial markets, including carbon additives for steel and cast-iron production, lubricants, and friction materials.

### 9.2.2 Value-added graphite pricing outlook

Fastmarkets (2026) generated a forecast for CSPG 18, CSPG 10 and SG fines for a period between 2029 and 2050, covering both United States ("US") and European Union ("EU") markets.

CSPG 18 prices are projected at USD 8,385/t in the US in 2029, rising to USD 10,363/t by 2050. EU prices are lower, with CSPG 18 projected at USD 6,551/t in 2029, and USD 7,902/t in 2050.

CSPG 10 follows a similar trend to CSPG 18, however commands higher prices than CSPG 18. US prices for CSPG 10 are projected to range from USD 8,585/t to USD 11,063/t between 2029 and 2050, and EU prices at USD 6,751/t to USD 8,602/t over the same period.

Figure 34 provides the Fastmarkets forecast for CSPG 18 and 10 for both the US and EU markets.

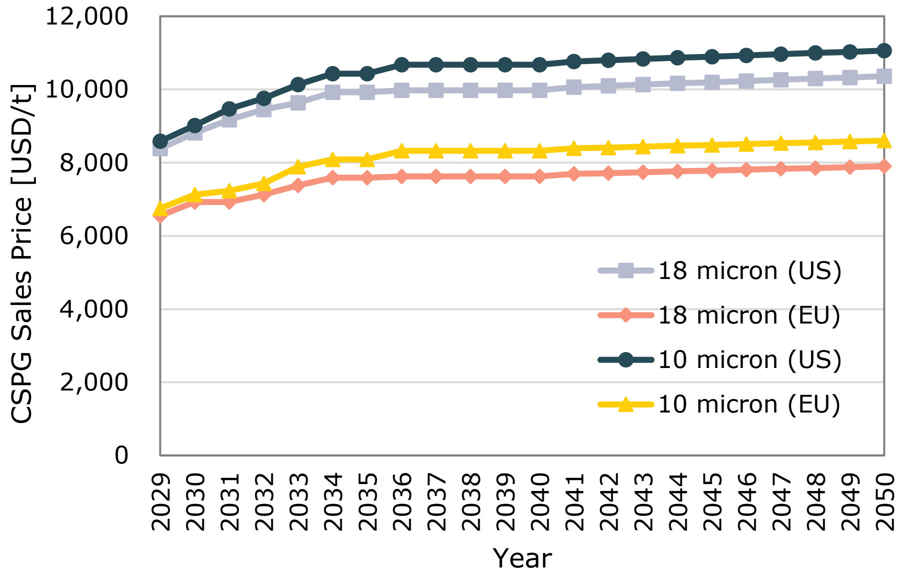



*Figure 34: Annual price forecast for CSPG 18 and CSPG 10 for US and EU markets (Fastmarkets, 2026)*

In the forecast generated by Fastmarkets, SG fines are expected to be priced at USD 700/t in 2029, rising to USD 917/t in 2050.

### 9.2.3 BAM Facility prices

Product pricing for CSPG 18, CSPG 10 and SG fines for the BAM Facility, as summarized in Table 27, is based on data provided by Fastmarkets for 2030, when production of the first 25,000 t/a module is scheduled to commence. Basing prices on the first year of production provides a conservative and consistent baseline for the BAM Facility and its associated revenue.

*Table 27: BAM Facility sales prices by Fastmarkets*

| **Description** | **Price** [USD/t] |
|---|---|
| CSPG 18 | 8,897 |
| CSPG 10 | 9,015 |
| SG fines | 710 |

## 9.3 Contracts

### 9.3.1 Industry contract terms for anode material

Suppliers producing active anode material must adhere to contractual specifications and quality controls established by battery manufacturers to ensure consistent performance across production batches. This compliance is verified through a qualification period during which the battery manufacturer assesses the graphite product for safety and performance. The duration of the qualification period typically ranges from 6 to 18 months, depending on the level of integration with downstream battery manufacturing partners.

Once qualified, commercial contracts between suppliers and battery manufacturers for active anode material typically span 3 to 5 years. With tightening market conditions and persistent supply deficits, most agreements are extended to 5 years, providing suppliers with greater stability while ensuring battery manufacturers have a secure and reliable supply.

### 9.3.2 Contracts

The BAM Facility remains at a Scoping Study level; therefore, contracts related to its development, production, marketing and sales have not been finalized with vendors, contractors or manufacturers. These include agreements for procurement, service provision, operations and maintenance, transportation and handling, as well as sales, hedging, and forward sales agreements, all of which will be managed in subsequent development stages.

# 10 Environmental studies, permitting and social or community impact

An Environmental and Social Impact Assessment ("ESIA") for the BAM Facility is key to identifying, predicting and managing potential environmental and social impacts associated of the proposed development, while establishing an appropriate regulatory framework for the project.

Given that the project is currently at a Scoping Study level, a full ESIA has not been conducted by Metals Australia.The ESIA will be undertaken in the next phase to ensure the BAM Facility complies with the regulatory requirements set out in Quebec and to comprehensively evaluate potential environmental and social impacts.

While an ESIA is due to take place in the next project phase, it is important to note that the identified land within the Jean-Noël-Tessier industrial park, where it is planned to locate the Metals Australia's BAM Facility, was selected in 2015 by a Toronto Stock Exchange ("TSX") Venture Exchange listed Canadian corporation to locate their graphite flotation concentrator plant and residue storage. The process activities included comminution, froth flotation, filtration, drying, and screening to produce approximately 50,000 t/a of finished product, with residue storage over a 25-year project life. The corporation acquired the 73-hectare site in Jean-Noël-Tessier industrial park, Baie-Comeau in 2019. They completed a baseline environmental study for the Baie-Comeau site in 2015 and 2016, and an Environmental Impact Study in 2016. The 2016 Environmental Impact Study was performed under the responsibility of a multidisciplinary team from the engineering consulting firm, Hatch, in Montreal. It demonstrated their project's impact on the various environmental components (physical, biological, and human). The assessment of the residual impacts of this Project demonstrated it will generate positive impacts for the communities (Page 2, Summary of the Environmental Impact Study, Guéret Lake Graphite Mine Project, June 2016) (Mason Graphite, 2016).

# 11 Capital and operating costs

## 11.1 Capital costs

### 11.1.1 Capital cost summary

The CAPEX estimated for the BAM Facility is valued at USD 883.8 million for all three modules, including land costs. Table 28 outlines the CAPEX breakdown for the BAM Facility, including direct and indirect costs, as well as land acquisition costs.

*Table 28: CAPEX summary for BAM Facility*

| **Cost breakdown** | **Total** [USD] |
|---|---|
| **Direct costs** | |
| Building and infrastructure | 113,735,099 |
| Mechanical supply | 261,101,542 |
| Mechanical installation | 17,869,688 |
| Platework | 42,625,043 |
| Piping | 78,392,964 |
| Electrical | 87,141,304 |
| Instrumentation | 23,982,148 |
| **Total direct costs** | 624,847,789 |
| **Indirect costs** | |
| Project management and EPCM services | 46,000,142 |
| Professional services | 25,555,634 |
| Contingency | 178,889,441 |
| **Total indirect costs** | 250,445,218 |
| **Land** | 8,505,000 |
| **Total CAPEX** | 883,798,007 |

### 11.1.2 Cost estimate basis

The CAPEX for the BAM Facility represents the initial investment required to construct the first module, which processes approximately 25,000 t/a of NFG concentrate, along with a planned expansion in Year 2 that includes two additional modules processing an additional 25,000 t/a of NFG concentrate each.

Although the three modules are identical; the first module incurs a higher capital cost due to the upfront investment in site-wide buildings, bulk earthworks, and shared infrastructure and utilities that will benefit all subsequent modules.

#### 11.1.2.1 Methodology

PCC, in collaboration with ANZAPLAN UK, prepared the CAPEX estimate for the BAM Facility, based on the engineering design developed during the Scoping Study. The estimate includes both direct and indirect costs, with a contingency of 35 %.

Mechanical supply costs were categorized into major and ancillary equipment, for which budgetary quotations were obtained for major mechanical equipment, while ancillary equipment was estimated using an internal cost database and standard factoring methods.

ANZAPLAN UK provided the total mechanical supply costs, which PCC used as a basis for estimating other direct costs by applying standard factorization. These direct costs include mechanical installation, buildings and infrastructure (earthworks, civils, and structural steel), platework, piping, and electrical and instrumentation.

Indirect costs include professional services and engineering, procurement and construction management (“EPCM”) services, which were derived from the direct costs using standard factorization. All factors applied by PCC in estimating both direct and indirect costs are consistent with industry standards.

#### 11.1.2.2 Estimate classification and maturity

The CAPEX estimate follows the criteria set out in the AACE International Recommended Practice 18R-97, and is classified as a Class 5 estimate, with an expected accuracy range of -20 % to -50 % on the low side and +30 % to +100 % on the high side.

#### 11.1.2.3 Assumptions

The following assumptions have been made:

- All equipment will be purchased new;
- Equipment costs are based on the information and testwork made available during the Scoping Study engineering and design;
- All required earthworks materials including fill, sand, gravel, and crushed rock are expected to be sourced locally to the plant site;
- Construction will be carried out year-round; and,
- The BAM Facility will be situated in a well-established industrial complex with existing bulk supply services, access roads and connection for natural gas, water, electricity, effluent and sewage disposal and treatment, stormwater management and waste removal.

#### 11.1.2.4 Currency and exchange rate

Budgetary quotation and internal database prices are in varying currencies and were converted to USD using the exchange rates provided in Table 29. These exchange rates are dated to 18 September 2025.

*Table 29: Currency exchange rates on 18 September 2025*

| Currency | Code | Rate |
|---|---|---|
| United States Dollar | USD | 1.00 |
| Euro | EUR | 1.18 |
| Pound Sterling | GBP | 1.36 |
| Canadian Dollar | CAD | 0.72 |

#### 11.1.2.5 Base date

The Base Date for the BAM Facility Scoping Study is December 31, 2025.

#### 11.1.2.6 Exclusions

No allowance was made in the CAPEX estimate for:

- Costs incurred before final investment decision;
- Sustaining CAPEX;
- Scope changes or accelerated schedules;
- Cost escalation and inflation beyond the Base Date;
- Exchange rate fluctuations;
- Working capital;
- Financing and interest charges during construction;
- Costs associated with permits, licenses and regulatory compliance;
- Insurance;
- Operating costs;
- Taxes, customs, excises, and other levies; and,
- Costs related to force majeure.

## 11.2 Operating cost estimate

### 11.2.1 Operating cost summary

The total estimated annual OPEX for the BAM Facility is USD 120.6 million. This estimate is based on the BAM Facility operating at full production, with 3 processing modules and a combined throughput of 75,000 t/a of NFG concentrate. At full production, the BAM Facility produces 51,069 t/a of CSPG (18 and 10), equating to a unit cost of USD 2,362/t of saleable CSPG.

The OPEX estimate reflects the cost of energy (electricity and natural gas), water, labour, reagents, maintenance, laboratory services and other miscellaneous costs for the BAM Facility, which is summarized in Table 30.

As depicted in Figure 35, the cost of reagents accounts for the largest share of the total OPEX at 38.9 %, followed by labour, maintenance and energy (electrical and natural gas).

*Table 30: OPEX summary for the BAM Facility at full production*

| **Cost breakdown** | **OPEX** [USD/a] | **Unit cost** [USD/t saleable CSPG] |
|---|---|---|
| Energy | 16,802,654 | 329 |
| Water | 167,685 | 3 |
| Waste | 76,090 | 1 |
| Reagents | 46,945,014 | 919 |
| Labour | 21,448,082 | 420 |
| Maintenance | 18,277,108 | 358 |
| Laboratory | 9,676,800 | 189 |
| Miscellaneous | 7,210,295 | 141 |
| **Total OPEX** | **120,603,729** | **2,362** |

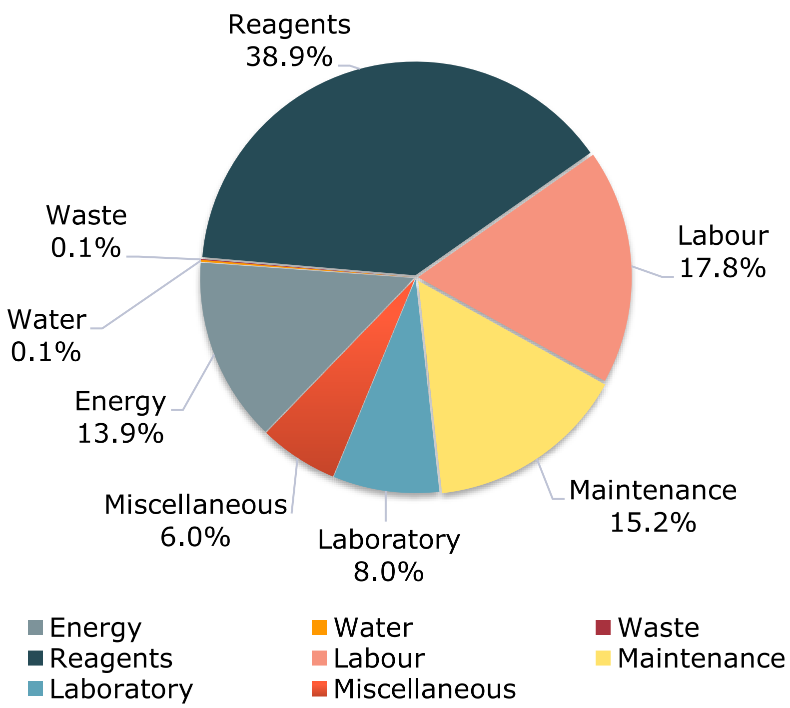



*Figure 35: Graphical representation of BAM Facility OPEX distribution*

### 11.2.2 Basis of estimate

#### 11.2.2.1 Energy

Energy costs are split between electrical and natural gas consumed on site.

At full production, the BAM Facility operates at a continuous electrical load of 46,100 kW, for an annual operating time of 7,500 hours. The electricity tariff was obtained from HydroQuebec for 2025 and escalated by 3.6 % to reflect 2026 pricing. The tariff comprises a monthly demand charge of USD 10.8 per kW and an energy charge of 3 c/kWh, both of which have been adjusted for escalation.

At full production, the BAM Facility is estimated to consume 1,470 $Nm^3/h$ of natural gas (at standard conditions). The gas price is assumed at 0.2 per $Nm^3$.

#### 11.2.2.2 Water

A total of 155 $m^3/h$ of water is consumed by the BAM Facility at full production, at a unit cost of 14 $c/m^3$.

#### 11.2.2.3 Waste disposal

Disposal of neutralized wastewater from the wastewater treatment plant will be managed through the Jean-Noël-Tessier Park at a cost of 9 $c/m^3$. The total volume of neutralized wastewater for the BAM Facility at full production is 110 $m^3/h$.

Solid waste generated by the wastewater treatment plant, as described in Section 7.1.4, is assumed to be transported back to the mine site for co-disposal with flotation tailings in the tailing's storage facility ("TSF"). As permits for the mine and flake graphite concentrate plant have not yet been obtained, this disposal route remains subject to regulatory approval. Given that the tailings generated by the BAM Facility are classified as nonhazardous, it is assumed for the purposes of this estimate that the TSF will be permitted to accommodate this material, pending further regulatory developments.

#### 11.2.2.4 Reagents

The reagent costs of the BAM Facility were based on the unit costs and dosage rates as summarized in Table 31.

*Table 31: Reagent cost inputs for the BAM Facility at full production*

| **Reagent** | **Unit cost** [USD/t reagent] | **Dosage rate** [t/t dry graphite feed] |
|---|---|---|
| NaOH (100 wt. -%) | 755.3 | 0.33 |
| $H_2SO_4$ (96 wt.-%) | 196.1 | 0.18 |
| $NaAlO_2$ (100 wt.-%) | 1836.2 | 0.01 |
| $CO_2$ (100 wt.-%) | 221.8 | 0.12 |
| $Ca(OH)_2$ (100 wt.-%) | 227.6 | 0.33 |
| Nitrogen | 0.23 [USD/$m^3$] | 450 [$m^3$/ $t_{dry\ graphite\ feed}$] |
| Pitch Tar | 2353.4 | 0.05 |

#### 11.2.2.5 Labour

A total of 5 operational shifts is required for the BAM Facility to ensure continuous production, where plant operators and technical staff will rotate. Positions, including administration, marketing and management, will work a standard day shift only.

The first 25,000 t/a module requires a total workforce of 87 employees, Subsequent modules (second and third) are expected to only require 70 employees each. The reduction in labour per additional module reflects that certain managerial positions remain unchanged despite the increase in production capacity.

Table 32 presents the base salary of each position in the BAM Facility. A 5 % bonus, consistent with industry standards, will be applied in addition to basic salaries.

*Table 32: Basic salaries for the BAM Facility*

| Occupation | Units | Basic salary |
|---|---|---|
| Plant operator | [USD/a] | 84,442 |
| Millwright | [USD/a] | 99,367 |
| Shift supervisor | [USD/a] | 92,117 |
| Maintenance supervisor | [USD/a] | 105,335 |
| Maintenance planner | [USD/a] | 95,043 |
| Electrical technician | [USD/a] | 102,632 |
| HR/administration manager | [USD/a] | 126,335 |
| HSE manager | [USD/a] | 115,424 |
| Sales and marketing manager | [USD/a] | 126,335 |
| General manager | [USD/a] | 136,079 |
| Laboratory lead | [USD/a] | 102,884 |
| Laboratory technician | [USD/a] | 89,710 |
| Mechanical engineer | [USD/a] | 101,328 |
| Electrical engineer | [USD/a] | 101,328 |
| Senior metallurgist | [USD/a] | 114,941 |
| Process engineer | [USD/a] | 112,159 |

#### 11.2.2.6 Maintenance

The BAM Facility requires ongoing maintenance of all critical equipment, including replacement of consumables and wear-and-tear parts, such as pumps, and bearings. Maintenance costs are assumed to be 7 % of the total mechanical equipment supply cost for the BAM Facility.

#### 11.2.2.7 Laboratory

Laboratory services, including analysis of samples collected from the BAM Facility, are assumed to be conducted by external providers. Table 33 outlines the sampling required, its frequency, along with the corresponding cost per sample.

*Table 33: Laboratory sampling and costs for the BAM Facility*

| **Sample** | **Frequency** [samples/8 hours] | **Cost per sample** [USD/sample] |
|---|---|---|
| Feed samples | 24 | 34 |
| SG samples | 72 | 34 |
| Leach solution sample | 48 | 20 |
| SPG samples | 48 | 34 |
| Pitch samples | 24 | 34 |
| CSPG samples | 96 | 34 |
| Wastewater samples | 24 | 20 |

#### 11.2.2.8 Miscellaneous

At 6 % of the total OPEX, miscellaneous costs for the BAM Facility cover items such as safety equipment (for example, surveillance), vehicles, workshop tools and consumables, office supplies, IT equipment and general overheads.

# 12 Economic analysis

An Economic Analysis of the BAM Facility was conducted by performing a Discounted Cash Flow ("DCF") model. The DCF model is estimated in real terms (constant USD basis) and thus runs without the effects of inflation.

The DCF model is based on the production schedule of three modules, where 25,000 t/a of NFG concentrate is processed in each module. It includes a production ramp-up until a full and stable operation is reached, for which 12,843 t/a CSPG 18 µm product, 4,180 t/a CSPG 10 µm product, and 7,000 t/a SG fines (by-product) is produced per module.

Revenue for the BAM Facility is thus generated from selling CSPG 18, CSPG 10, and SG fines. The projected sales prices for the products (and by-products) by Fastmarkets, as provided in Section 9.2.3, are utilized as inputs for the DCF model.

The additional inputs, as defined by the Scoping Study, are provided in Table 34. These include but are not limited to plant processing schedules, product yields, CAPEX and OPEX. Section 12.5 and Section 12.6 provide the general assumptions and exclusions of the DCF model, respectively.

The annual cash flow projections for the BAM Facility were estimated for a duration of 25 years. The BAM Facility is akin to factory, where its lifetime can be regarded as "infinite" and therefore can exceed 25 years. However, it should be noted that as the period extends towards perpetuity, the Net Present Value ("NPV") increases due to the inclusion of additional future cash flows, whereas the present value of future cash flows diminishes significantly due to the time value of money. As such, the Internal Rate of Return ("IRR") will not significantly improve beyond 25 years.

The Economic Analysis includes pre- and post-tax estimates. The post-tax estimate is considered indicative due to the complex variables influencing the calculation, which can only be accurately determined once the plant is operational, and tax can be measured. The post-tax estimate should, therefore, be taken as a guide.

Sensitivity analyses were conducted to evaluate the relative impact of variations in commodity sales prices, OPEX, CAPEX, and discount rate to identify their significance to the project's economics.

The CAPEX was funded on an "all equity basis" (no financing costs and 0 % debt) with 100 % attributed to Metals Australia, thereby excluding interest.

The NPV is based on a real discount rate of 8.0 %, which is suitable for the risk level, and development stage of the proposed BAM Facility.

This Section outlines the approach taken to perform the Economic Analysis of the BAM Facility. It presents all relevant information to ensure the Economic Analysis adheres to the guiding principles (competence, materiality, reasonableness, transparency, independence, and objectivity) described by the International Mineral Valuation ("IMVAL") Standards Template. The Economic Analysis is not purported to be a mineral asset valuation. Adhering to the IMVAL guiding principles, has been done to ensure the Economic Analysis adhere to current international best practices in determining the economic potential of the BAM Facility proposed by Metals Australia.

## 12.1 Scope of work

The scope of work was to perform an Economic Analysis as a DCF model. The Economic Analysis evaluates the technical and economic viability of the BAM Facility proposed by Metals Australia, which is completed to a Scoping Study level (AACE Class 5). The Economic Analysis plays a crucial role in investment decisions, serving as a key guide in determining whether to move forward to the next development phase of the BAM Facility.

The DCF model is based on the plant throughput, yields, CAPEX, OPEX and sales revenue estimates, as determined during the Scoping Study and/or supplied by Metals Australia. The model inputs the Scoping Study data to calculate cash flows, from which both pre-tax and post-tax NPVs, as well as the IRR and payback period, are derived.

The Economic Analysis is subjected to sensitivity analyses to assess the relative impact of variations in sales revenue, OPEX, CAPEX, and the discount rate, to the overall economic potential of the BAM Facility.

The concluding opinion of the Economic Analysis is based on the methodology, assumptions and exclusions presented in the following Sections.

### 12.2 Statement of independence

ANZAPLAN UK is an independent advisory company. The CP responsible for the Economic Analysis has significant experience in the analysis and evaluation of mining and exploration properties worldwide and is a member of good standing with appropriate professional institutions.

Neither ANZAPLAN UK, nor its staff, associates, shareholders, or subcontractors, have, or have had, any interest in Metals Australia, or the projects or properties being the subject of the Economic Analysis, capable of affecting their ability to give an unbiased opinion.

ANZAPLAN UK has not received, and will not receive, any financial or other benefits in connection with this assignment, other than normal consulting fees.

ANZAPLAN UK was remunerated an agreed fee amount for the preparation of their scope of services, with no part of the fee contingent on the conclusions reached or the content of their services or the Economic Analysis.

The CP responsible for preparing the Economic Analysis, Mr. Derick, R. de Wit, is considered competent, according to the IMVAL Template, by way of his relevant and appropriate education, experience, and Professional association (ethics). Mr. de Wit is a Professional Engineering Technologist (Chem. Eng.) registered with the Engineering Council of South Africa. He has more than five years of relevant experience in the analysis and evaluation of the type of exploration and mineral properties discussed in the Scoping Study. He is a Fellow in good standing of both the Australasian and Southern African Institutes of Mining and Metallurgy.

ANZAPLAN UK is not qualified to provide extensive commentary on the legal issues associated with the proposed BAM Facility. No warranty or guarantee, be it express or implied, is made with respect to the completeness or accuracy of any of the legal aspects of the proposed BAM Facility.

## 12.3 Economic analysis approach

An appropriate selection of the Economic Analysis approach is dependent on the availability of information and purpose for the analyses. Given the aim of the Economic Analysis is to assess the technical and economic viability of the BAM Facility, determining the present value of the future cash flow is best suited to assess its economic potential.

Determining the present value of the future cash flow is what is known as the Cash Flow Approach, which is used for both development and production assets. The Cash Flow Approach uses the “value in use” principle which focuses on the projected future income streams generated by a project. The future income streams are typically based on historic results, or the results of an associated feasibility study, where cash flows are reflected as present values. The cash flows are based upon realistic estimates made at the time of the economic evaluation, considering the ongoing CAPEX, OPEX, and sales revenues.

To generate an NPV for the DCF, a discount rate is applied to the cash flows. The discount rate is dependent on market conditions, the operating company's cost of capital and risk profile, as well as the project's nature.

The DCF model does not account for the escalation of sales revenue, CAPEX and OPEX. Based on the experience of CP responsible for the Economic Analysis, incorporating escalation with the appropriate discount and inflation rates results in only a marginal difference compared to that of an un-escalated DCF model.

Given the uncertainties around long-term inflation and commodity prices, and since the model excludes debt financing and provides only an indicative post-tax estimate, the un-escalated model, discounted at a real (excluding inflation) discount rate, is deemed accurate.

## 12.4 Economic analysis date

The Economic Analysis was performed at the Effective Date of the Scoping Study.

The parameters, plans, assumptions and current economic, regulatory, financial and market conditions may change over time. The concluding opinion is based on certain forward-looking statements regarding operations, economic performance, commodity prices, exchange rates, and financial conditions, etc. Although the CP responsible for the Economic Analysis believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be provided that such expectations will prove to be correct.

Subsequent developments and changes to the forward-looking statements may affect the concluding opinion of the Economic Analysis. As such, the concluding opinion is related and applicable only as at the Effective Date.

## 12.5 Economic analysis assumptions

The Economic Analysis is based on the following technical and economic parameters determined during the Scoping Study, methodologies and assumptions:

- All parametric values are expressed in USD;
- Information supplied by Metals Australia and its the specialist contractors, as provided within the Scoping Study, can be considered reliable input for the DCF model;
- Any regulatory approvals will be obtained in a timely manner and their validity will be maintained;
- Metals Australia has secured, or will continue to secure, the necessary funds to develop the BAM Facility as proposed in the Scoping Study;
- Metals Australia will be successful in its future plans to secure off-take agreements for its products and by-products at the forecasted sales prices;
- The DCF model is estimated for a duration of 25 years;
- Project execution for Module 1 is based on the following:
    - detail engineering, design, construction, and commissioning will require 24 months (Year -2 and Year -1), and,
    - followed by McNulty ramp-up (Series 2) of Module 1, which will occur from 49 % in Year 1, 88 % in Year 2, 95 % in Year 3 and 100 % from Year 4 onwards.
- Project execution for the expansion phase (Module 2 and 3) is based on the following:
    - detail engineering, design, construction, and commissioning will require 24 months, which takes place in Year -1 (construction) and Year 1 of production for Module 1; and

- followed by McNulty ramp-up (Series 2) of Module 2 and 3, which will occur from 49 % in Year 2, 88 % in Year 3, 95 % in Year 4 and 100 % from Year 5 onwards

- General and administrative (“G&A”) costs will be 3 % of the CSPG sales revenue (both 18 and 10 μm) in the year;
- Sales and marketing costs will be 2 % of the CSPG sales revenue (both 18 and 10 μm) in the year;
- Sustaining capital will be accounted for as 4.5 % of equipment costs (mechanical equipment, EC&I, and piping) including contingency;
- CAPEX was funded on an “all equity basis” (no financing costs and 0 % debt);
- The initial CAPEX will be split 60 % to the first year of construction and 40 % to the second year of construction for each module;
- The NPV is based on a real discount rate of 8.0 %, which the CP responsible for the Economic Analysis believes is suitable for the risk level, and development stage of the proposed BAM Facility;
- All inputs, including processing throughputs, product yields, sales price forecasts, CAPEX, OPEX and other material assumptions as presented in Table 34 can be relied on;
- Total CAPEX for all three modules is estimated at USD 883.8 million (including land costs). Due to site-wide buildings, bulk earthworks, and shared infrastructure and utilities required all three module, the initial investment is allocated to Module 1, resulting in a CAPEX of USD 335 million, while Module 2 and Module 3 are estimated at USD 270 million each;
- Total OPEX for the BAM facility at full production (all three modules) is estimated at USD 120.6 million annually. Module 1 OPEX is estimated at USD 41.5 million annually, and includes the full staffing complement, as discussed in Section 11.2.2.5. Modules 2 and 3 are estimated at USD 39.6 million annually each, reflecting lower

incremental labour requirements as managerial roles remain unchanged during expansion;

- The BAM Facility is assumed to apply the Clean Technology Manufacturing ("CTM") Investment Tax Credit ("ITC"), which is a refundable tax credit that applies to CTM property from January 1, 2024, and ends December 31, 2034. The CTM ITC provides a tax credit equal to 30 % of the eligible property used in manufacturing, processing, or extraction of the 6 designated critical minerals, including graphite. The credit rate is reduced to 20 % in 2032, 10 % in 2033, and 5 % in 2034. The tax credit is assumed to be received in the first year of production for each module (Year 1 for Module 1 and Year 2 for Modules 2 and 3). As Year 1 is scheduled for 2030, the tax credit is assumed at 30 %; and,
- Depreciation is applied to CAPEX to account for asset wear and tear. CAPEX is allocated between equipment and buildings and infrastructure to reflect differing depreciation rates, as provided by BDO: 30 % per annum for equipment and 6 % per annum for buildings and infrastructure. For Module 1, buildings and infrastructure are estimated at USD 56.6 million, while equipment costs (mechanical equipment, EC&I, and piping) total USD 278.4 million. For each additional module (Module 2 and Module 3), buildings and infrastructure are estimated at USD 28.6 million, with equipment costs at USD 241.6 million. These capital costs are reduced by refundable CTM ITC amounts prior to depreciation to ensure depreciation is not overstated and taxable income is not understated.

*Table 34: DCF model inputs*

| Description | Units | Value | Notes |
|---|---|---|---|
| **Economic** | | | |
| Tax rate | [%] | 26.5 | Web Page: PWC: Canada, Quebec |
| CTM ITC | [%] | 30 | Web Page: Canada.ca |
| Financing interest rate | [%] | 0 | Zero for "all-equity" basis |
| Discount rate | [%] | 8.0 | |
| Debt | [%] | 0 | Zero for "all-equity" basis |
| General and administration | [%] | 3 | ANZAPLAN UK database per BCG standard |
| Sales and marketing | [%] | 2 | ANZAPLAN UK standard for sales and marketing |
| OPEX contingency | [%] | 0 | No OPEX contingency allowed |
| CAPEX contingency | [%] | 35 | CAPEX from PCC includes 35% contingency |
| Working capital | [%] | 10 | For Mining Industry: between 5 and 20% of production cost |
| Depreciation for equipment | [%] | 30 | Depreciation rate supplied by BDO |
| Depreciation for buildings/infrastructure | [%] | 6 | Depreciation rate supplied by BDO |
| Sustaining CAPEX | [%] | 4.5 | Percentage of equipment costs (mechanical equipment, EC&I, and piping) including contingency |
| **Production Per Module** | | | |
| Feed concentrate | [t/a] | 25,000 | Per mass balance |
| CSPG 18 product | [t/a] | 12,843 | Per mass balance |
| CSPG 10 product | [t/a] | 4,180 | Per mass balance |
| SG fines by-product | [t/a] | 7,000 | Per mass balance |
| Purchase price NFG concentrate | [USD/t] | 884 | Fastmarket Pricing for 2030 |
| Concentrate shipping costs | [USD/t] | 103 | DRA Americas |
| NFG concentrate delivered | [USD/t] | 1,156 | Calculation |

*Table 34: DCF model inputs (continued)*

| Description | Units | Value | Notes |
|---|---|---|---|
| **Sales Prices** | | | |
| CSPG 18 sales price | [USD/t] | 8,897 | Fastmarkets pricing forecast for 2030 |
| CSPG 10 sales price | [USD/t] | 9,015 | Fastmarkets pricing forecast for 2030 |
| SG fines sales price | [USD/t] | 710 | Fastmarkets pricing forecast for 2030 |
| **Operating Costs** | | | |
| Total OPEX | [USD/a] | 120,603,729 | OPEX sheet, all 3 modules |
| OPEX (Module 1) | [USD/a] | 41,457,393 | OPEX sheet, Module 1 |
| OPEX (Module 2 and 3) | [USD/a] | 39,573,168 | OPEX sheet, Module 2 and 3 (each) |
| OPEX per product (Module 1) | [USD/t] | 2,435 | Module 1 |
| OPEX per product (Module 2 and 3) | [USD/t] | 2,325 | Module 2 & 3 |
| **Capital Costs** | | | |
| CAPEX (Module 1) | [USD] | 335,007,047 | Module 1 |
| CAPEX (Module 2 and 3) | [USD] | 270,142,980 | Module 2 and 3 (each) |
| Land | [USD] | 8,505,000 | Including contingency |
| Total CAPEX | [USD] | 883,798,007 | Total capital including contingency |
| **Equipment, Buildings and Infrastructure Split** | | | |
| Equipment CAPEX - Module 1 | [USD] | 278,435,046 | Including contingency |
| Buildings/infrastructure CAPEX - Module 1 | [USD] | 56,572,001 | |
| Equipment CAPEX - per additional module | [USD] | 241,561,430 | Per additional module, including contingency |
| Buildings/infrastructure CAPEX - per additional module | [USD] | 28,581,549 | Per additional module |

## 12.6 Economic analysis exclusions

The concluding opinion of the Economic Analysis is based on the following exclusions:

- Production costs for the NFG concentrate feed. However, the OPEX cost does include the purchase of NFG feed and transport to Baie-Comeau, Quebec, Canada;
- Licensing fees or intellectual property costs;
- Mining-related taxes and royalties;
- Price escalation, inflation or exchange rate changes;
- Interest payments and debt repayment given the DCF model is based on an "all equity basis";
- Value-added tax ("VAT") for CAPEX and sales revenue;
- Provisional tax payments;
- All sunken costs (losses carried forward); and,
- The terminal value after the 25-year cash flow period of the BAM Facility.

## 12.7 Cautionary statement

The Economic Analysis is based on certain "forward-looking information". These include, but are not limited to, statements concerning the economic potential of the proposed BAM Facility, the future price of commodities, the success of future development activities, costs and timing of future development, the concluding opinion of the Economic Analysis, requirements for capital and other statements relating to the financial and business prospects of Metals Australia and the BAM Facility.

The Economic Analysis is based on reasonable assumptions, estimates, analysis, opinions, preliminary metallurgical test work, and engineering designs and estimates made during the Scoping Study and in light of ANZAPLAN UK's experience and its perception of trends, current conditions, and expected developments, as well as other factors that ANZAPLAN UK and Metals Australia believe to be relevant and reasonable in the circumstances of a Scoping Study.

A Scoping Study is inherently subject to known and unknown risks, uncertainties, and other factors that may cause the actual results, level of activity, performance, or achievements to be materially different from those expressed or implied. There can be no assurance that the Economic Analysis will prove to be accurate, as actual results and future events could differ materially from those anticipated in the DCF model. Given the uncertainties involved, the outcomes of the Scoping Study and Economic Analysis and Metals Australia’s current expectations of future results or events should not be solely relied upon by investors when making investment decisions.

## 12.8 Economic analysis summary

The DCF model was developed by ANZAPLAN UK, with its financial highlights presented in Table 35.

Table 36 presents the cash flows forecasted over the proposed 25-years life of the BAM Facility.

*Table 35: Financial highlights of the BAM Facility*

| Description | Units | Value |
|---|---|---|
| Project Life | [years] | 25 |
| Pre-tax NPV at 8 % Discount Rate | [USDm] | 2,050 |
| Post-tax NPV at 8 % Discount Rate | [USDm] | 1,389 |
| Post-tax IRR | [%] | 25.6 |
| Post-tax Payback Period (After Production Commences) | [years] | 4.5 |

*Table 36: BAM Facility cash flow forecast (25-years)*

| Year | Units | Sub-Total | -2 | -1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 24 | 25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Feed and Product** | | | | | | | | | | | | | | | | | |
| Concentrate Feed | [t] | 1,773,825 | - | - | 12,271 | 46,588 | 67,717 | 72,250 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 |
| CSPG 18 Product | [t] | 911,249 | - | - | 6,304 | 23,933 | 34,787 | 37,116 | 38,529 | 38,529 | 38,529 | 38,529 | 38,529 | 38,529 | 38,529 | 38,529 | 38,529 |
| CSPG 10 Product | [t] | 296,584 | - | - | 2,052 | 7,789 | 11,322 | 12,080 | 12,540 | 12,540 | 12,540 | 12,540 | 12,540 | 12,540 | 12,540 | 12,540 | 12,540 |
| SPG Fines (By-Product) | [t] | 496,671 | - | - | 3,436 | 13,045 | 18,961 | 20,230 | 21,000 | 21,000 | 21,000 | 21,000 | 21,000 | 21,000 | 21,000 | 21,000 | 21,000 |
| **Total Sales** | **[USDm]** | **11,134** | **-** | **-** | **77** | **292** | **425** | **453** | **471** | **471** | **471** | **471** | **471** | **471** | **471** | **471** | **471** |
| Sales Revenue CSPG 18 | [USDm] | 8,107 | - | - | 56 | 213 | 310 | 330 | 343 | 343 | 343 | 343 | 343 | 343 | 343 | 343 | 343 |
| Sales Revenue CSPG 10 | [USDm] | 2,674 | - | - | 18 | 70 | 102 | 109 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 | 113 |
| Sales Revenue SPG Fines | [USDm] | 353 | - | - | 2 | 9 | 13 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Operating Cost Expenditure | [USDm] | -2,854 | - | - | -20 | -75 | -109 | -116 | -121 | -121 | -121 | -121 | -121 | -121 | -121 | -121 | -121 |
| **Operating Profit** | **[USDm]** | **8,280** | **-** | **-** | **57** | **217** | **316** | **337** | **350** | **350** | **350** | **350** | **350** | **350** | **350** | **350** | **350** |
| G&A | [USDm] | -328 | -2 | -2 | -2 | -8 | -12 | -13 | -14 | -14 | -14 | -14 | -14 | -14 | -14 | -14 | -14 |
| Sales & Marketing | [USDm] | -61 | -0.2 | -0.4 | -0.4 | -2 | -2 | -2 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 |
| **EBITDA** | **[USDm]** | **7,891** | **-2** | **-3** | **54** | **207** | **301** | **322** | **334** | **334** | **334** | **334** | **334** | **334** | **334** | **334** | **334** |
| Depreciation on equipment | [USDm] | -533 | -50 | -155 | -142 | -56 | -39 | -27 | -19 | -13 | -9 | -7 | -5 | -3 | -2 | -0 | - |
| Depreciation on buildings and infrastructure | [USDm] | -63 | -2 | -5 | -5 | -4 | -4 | -4 | -3 | -3 | -3 | -3 | -3 | -2 | -2 | -1 | - |
| Interest | [USDm] | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **EBT** | **[USDm]** | **7,294** | **-55** | **-163** | **-93** | **147** | **259** | **291** | **311** | **317** | **322** | **325** | **327** | **328** | **329** | **333** | **334** |
| Clean Tech. Rebate -All Modules | [USDm] | 263 | - | - | 101 | 162 | - | - | - | - | - | - | - | - | - | - | - |
| Tax | [USDm] | -1,933 | - | - | - | - | -25 | -77 | -83 | -84 | -85 | -86 | -87 | -87 | -87 | -88 | -88 |
| **Net Profit After Tax** | **[USDm]** | **5,361** | **-55** | **-163** | **-93** | **147** | **234** | **214** | **229** | **233** | **236** | **239** | **240** | **241** | **242** | **245** | **245** |
| Losses Carried Forward | [USDm] | | -55 | -218 | -311 | -164 | - | - | - | - | - | - | - | - | - | - | - |
| Working Capital | [USDm] | -285 | - | - | -2 | -8 | -11 | -12 | -12 | -12 | -12 | -12 | -12 | -12 | -12 | -12 | -12 |
| **Cashflow Calculation** | | | | | | | | | | | | | | | | | |
| EBITDA | [USDm] | 7,891 | -2 | -3 | 54 | 207 | 301 | 322 | 334 | 334 | 334 | 334 | 334 | 334 | 334 | 334 | 334 |
| Tax | [USDm] | -1,933 | - | - | - | - | -25 | -77 | -83 | -84 | -85 | -86 | -87 | -87 | -87 | -88 | -88 |
| Interest | [USDm] | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Land | [USDm] | -9 | -9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Initial CAPEX (Module 1) | [USDm] | -335 | -201 | -134 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Expansion CAPEX (Module 2) | [USDm] | -270 | - | -162 | -108 | - | - | - | - | - | - | - | - | - | - | - | - |
| Expansion CAPEX (Module 3) | [USDm] | -270 | - | -162 | -108 | - | - | - | - | - | - | - | - | - | - | - | - |
| Sustaining CAPEX | [USDm] | -706 | - | - | - | -6 | -18 | -27 | -34 | -34 | -34 | -34 | -34 | -34 | -34 | -15 | - |
| Change in Working Capital | [USDm] | 0 | - | - | -2 | -6 | -3 | -1 | -0 | - | - | - | - | - | - | - | 12 |
| Clean Tech. Rebate -All Modules | [USDm] | 263 | - | - | 101 | 162 | - | - | - | - | - | - | - | - | - | - | - |
| **Undiscounted Cashflow** | **[USDm]** | **4,631** | **-212** | **-461** | **-64** | **358** | **255** | **217** | **217** | **216** | **214** | **214** | **213** | **213** | **212** | **230** | **257** |
| **Discounted Cashflows** | **[USDm]** | **1,389** | **-212** | **-427** | **-55** | **284** | **187** | **148** | **137** | **126** | **116** | **107** | **99** | **91** | **84** | **34** | **35** |

### 12.9 Annual cash flow

The annual cash flow projected for the BAM Facility is graphically presented in Figure 36. This figure presents the yearly cumulative discounted and undiscounted cash flows for the 2 years before production ramp-up and the first 25 years after production ramp-up commences, as well as yearly gross sales revenue over this period.

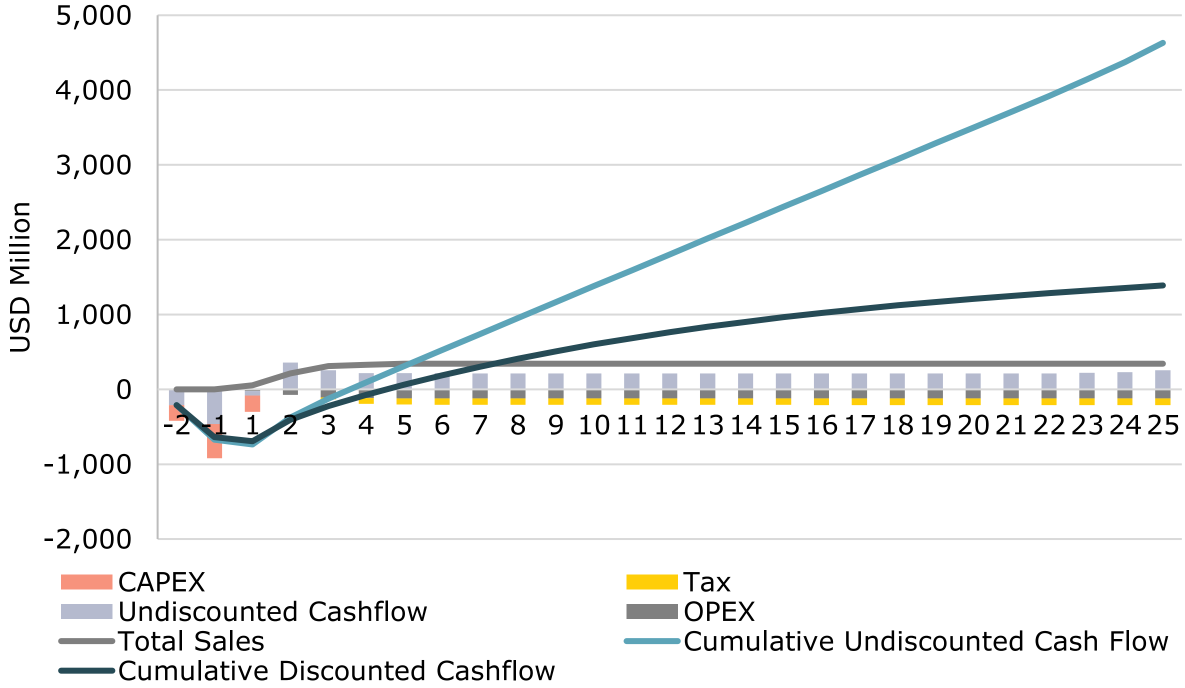



*Figure 36: Projected annual cash flow*

### 12.10 Sensitivity analyses

Sensitivity analyses were conducted to evaluate the relative impact of changes in commodity sales prices, OPEX, CAPEX, and discount rate to determine their significance to the project's economics.

The results of the sensitivity analyses based on changes in NPV at a discount rate of 8.0 % (post tax) to the key economic parameters are presented in Figure 37. Similarly, the results for variations in IRR (post tax) are presented in Figure 38.

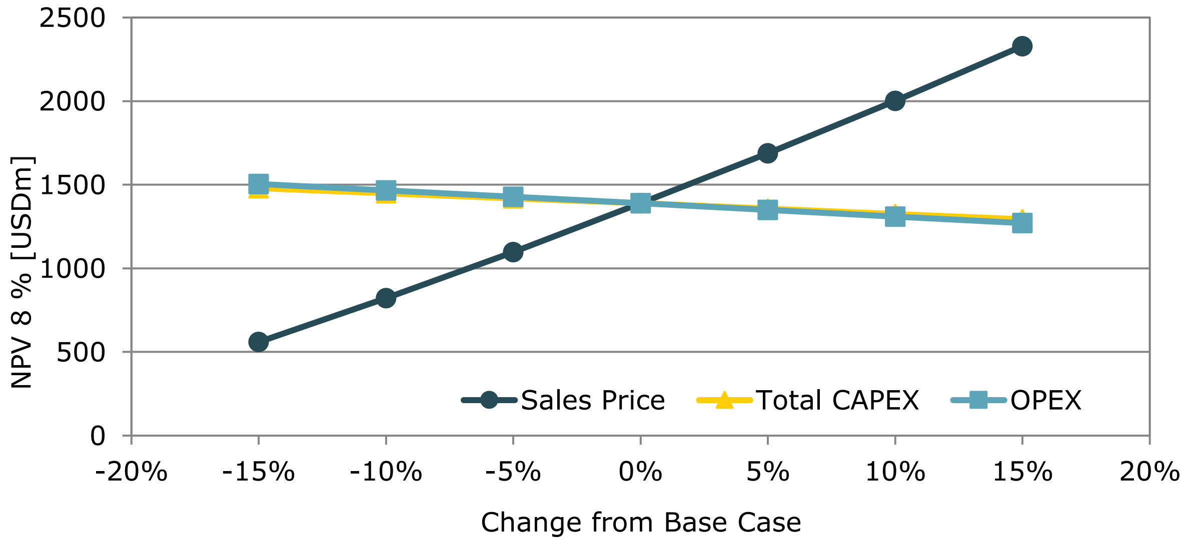



*Figure 37: NPV sensitivity to key economic parameters*

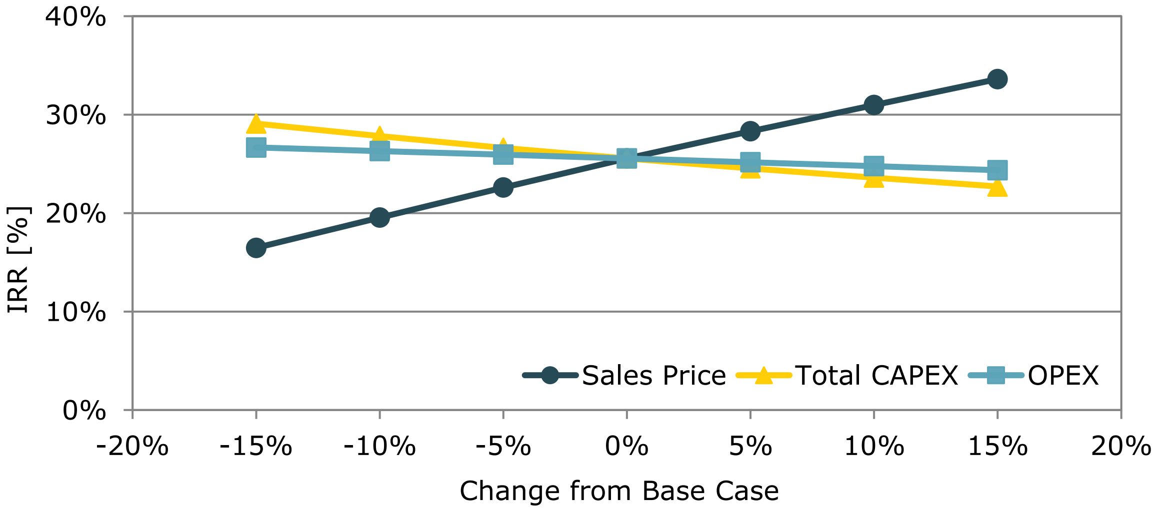



*Figure 38: IRR sensitivity to key economic parameters*

Figure 39 presents the respective post-tax payback sensitivities of the BAM Facility, to key economic parameters. The payback duration is calculated after production has commenced (after construction).

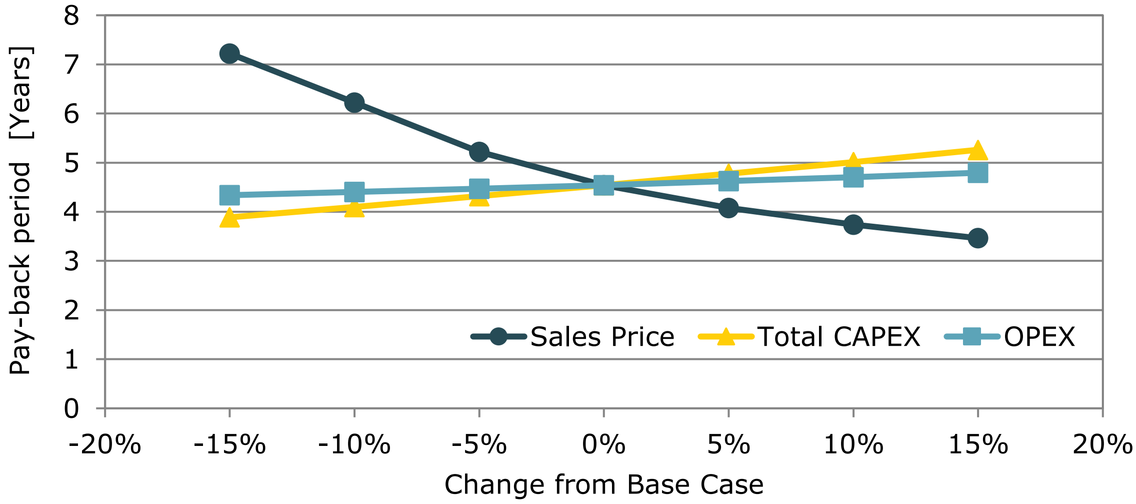



*Figure 39: Payback sensitivity to key economic parameters*

The various figures presented in Section 12.10 indicate that the BAM Facility is most sensitive towards sales revenue (CSPG sales), while its sensitivity to CAPEX and OPEX are relatively lower and comparable.

### 12.11 Concluding opinion

The Cash Flow Approach presents a 100 % attributable pre-tax NPV of USD 2.050 billion, and post-tax NPV of USD 1.389 billion, at an 8.0 % real discount rate to the un-escalated cash flows. The discounted payback is 4.5 years after production commences with a post-tax IRR of 25.6 %

The Economic Analysis was performed at the Effective Date of the Scoping Study and should thus be updated regularly with the best available technical and economic information. This will ensure that the Economic Analysis is up-to-date and remains reliable.

Any changes in input data, including but not limited to feed stock, CAPEX, OPEX, and sales prices, will impact on the Economic Analysis results. Therefore, the Economic Analysis should be updated when any input data is changed to assess the magnitude of their impact and the need to implement corrective action proactively.

The DCF determines the economic potential of the BAM Facility and does not accurately project loan repayments, cash flow, working capital, or tax payments. A separate corporate finance DCF model should be developed during the execution phase to accurately predict these projections and tax payments.

# 13 Interpretations and conclusions

## 13.1 General

Metals Australia aims to supply battery-grade graphite to the North American LIB market through the development of the BAM Facility, which will produce CSPG by upgrading NFG concentrate sourced from the Lac Carheil Graphite Project. The BAM Facility will be developed within the Jean-Noël-Tessier Park located in Baie-Comeau, Quebec, Canada, strategically located near the St. Lawrence River for access to key transportation routes and export channels. The BAM Facility and its development align with the Quebec government's objective of positioning the province as a hub for critical and strategic minerals.

## 13.2 Mineral processing and metallurgical testing

Based on the results presented in Section 13, the following conclusions are drawn:

- The NFG concentrate provided by Metals Australia, from the Lac Carheil Graphite Project, was analyzed with a grade of 95.1 wt.-% FC, and a higher-than-expected sulphur content of 2.2 wt.-%;
- A medium SG product with a $D_{50}$ value of 18.4 µm, tap density of 0.99 g/cm$^3$, $D_{90}/D_{10}$ ratio of 3.1 and a yield of 54 wt.-% was generated. The SG fines separated from the medium SG product were further processed through a post-spheroidization process, resulting in a fine SG product with a $D_{50}$ value of 9.6 µm and a yield of 18 wt.-%. The total combined yield over spherodization was therefore 72 wt.-%. All analyzed parameters for the resulting SG products (SG 18 and SG 10) fall within the typical range of typical market specifications;

- Various purification methods were performed on SG 18, with only caustic baking and thermal purification producing SPG with a FC content of ≥99.95 wt.-%. While thermal purification is suitable for the Lac Carheil NFG concentrate, caustic baking is preferred due to lower energy costs;
- Although thermal pre-treatment was required to meet purity targets in the caustic baking route, the Lac Carheil NFG concentrate was unoptimized with respect to its high sulphur content. Historical test work has demonstrated that a NFG concentrate with ≤0.5 wt.-% sulphur can be achieved, eliminating the need for thermal pre-treatment. Accordingly, the Scoping Study considers only caustic baking, with two-stage sequential caustic and acid leach, as the selected purification route;
- Purification testwork was performed on the SG 18 only. For the Scoping Study, it is therefore assumed that the selected purification route will purify SG 10 to the required FC content at ≥99.95 wt.-%;
- Pitch tar coating was assessed at various pitch tar additions (5 wt.-%, 7.5 wt.-% and 10 wt.-%), all of which demonstrated a reduction in BET to below market thresholds. The 7.5 wt.-% pitch tar addition provided an optimal balance between performance and material efficiency and was thus selected for electrochemical performance testwork and recommended for the Scoping Study engineering and design;
- Electrochemical tests performed on the CSPG with 7.5 wt.-% pitch tar (Coating Layer 2) demonstrated excellent first-cycle efficiency (95 %) and stable cycling performance, comparable to or exceeding reference CSPG materials; and,
- Overall, the metallurgical testwork conducted validates the technical viability of the BAM Facility process flow, confirming that the final CSPG product (Coating Layer 2) meets performance specifications for LIB applications.

## 13.3 Recovery methods

The BAM Facility is modular, comprising three modules, each designed to process 25,000 t/a (dry) of NFG concentrate (-100 mesh, ≥95 wt.-% FC) sourced from the Lac Carheil Graphite Project.

In each module, NFG concentrate is reduced in size (micronized) and mechanically rounded (spheroidized) to produce two size fractions, SG 18 and SG 10, as well as a by-product, SG fines. Both size fractions (SG 18 and SG 10) are purified in dedicated purification lines to produce SPG with a FC content of ≥99.99 wt.-%. The resulting products (SPG 18 and SPG 10) are coated with pitch tar in separate coating lines to produce battery-grade CSPG (CSPG 18 and CSPG 10).

Each module produces the following products and by-products:

- Total CSPG at 17,023 t/a (dry), which comprises of:
    - CSPG 18 at 12,843 t/a (dry);
    - CSPG 10 at 4,180 t/a (dry); and,
- SG fines (by-product) at 7,000 t/a (dry).

At full production, with all three modules employed, the BAM Facility will process a total of 75,000 t/a of NFG concentrate to produce the following:

- Total CSPG at 51,069 t/a (dry), which comprises of:
    - CSPG 18 at 38,529 t/a (dry);
    - CSPG 10 at 12,540 t/a (dry); and,
- SG fines (by-product) at 21,000 t/a (dry).

## 13.4 Capital and operating costs

The total CAPEX for the BAM Facility is estimated at USD 883.8 million for all three modules, processing a total of 75,000 t/a NFG concentrate. The CAPEX estimation follows industry-standard methodologies, and includes both direct and indirect costs, as well as land acquisition costs, with an contingency of 35 %.

The annual OPEX for the BAM Facility operating at full production (three modules processing a total of 75,000 t/a of NFG concentrate) is estimated at USD 120.6 million. At this production level, the BAM Facility is expected to produce 51,069 t/a of CSPG (18 and 10), corresponding to a unit cost of USD 2,362/t of saleable CSPG.

## 13.5 Economic analysis

The economic assessment of BAM Facility demonstrates strong financial viability, with key financial metrics detailed in Table 37.

*Table 37: Financial highlights of the BAM Facility*

| Metric | Value |
|---|---|
| Pre-tax NPV at 8 % Discount Rate | USD 2.050 billion |
| Post-tax NPV at 8 % Discount Rate | USD 1.389 billion |
| Post-tax IRR | 25.6% |
| Post-tax Payback Period (After Production Commences) | 4.5 years |

The project's financial model confirms a positive NPV and IRR, indicating strong potential returns. The payback period of 4.5 years is competitive for battery material projects.

A sensitivity analysis was conducted to evaluate the impact of key financial variables, including CSPG pricing, operating costs, and discount rate fluctuations. The results indicate that the project remains economically viable across various market conditions, with pricing outlooks and cost structures supporting long-term profitability.

## 13.6 Concluding statement

The BAM Facility is well positioned to supply the growing LIB industry, supported by a validated process flowsheet, competitive costs, and positive financial projections. Based on its technical and economic viability, the BAM Facility is considered suitable to advance to the next stage of development.

# 14 Recommendations

The Scoping Study concludes that, within the outlined constraints and assumptions, the BAM Facility is both technically and economically viable. As such, it is recommended to proceed to the next stage of development.

The following recommendations are proposed for the next project phase:

## 14.1 General

- Advance the BAM Facility Scoping Study to a Feasibility Study, in accordance with AACE Class 3;
- Finalize site selection within the Jean-Noël-Tessier and/or other sites in Baie-Comeau to complete the layout, bulk infrastructure, and supply planning for the next project phase. This will also be required to proceed with the ESIA; and,
- Conduct geotechnical and detailed topographical surveys of the selected site to assess ground conditions and guide next phase of engineering and design.

## 14.2 Mineral processing and metallurgical testing

- Optimization testwork for the flake graphite concentrate plant with aims to produce NFG concentrate with reduced sulphur levels to confirm the elimination of the thermal pre-treatment during caustic baking. While historic work demonstrates feasibility to reduce sulphur levels to the required level, testwork is required to rule out the need for thermal pre-treatment;
- Optimization testwork to investigate optimum process parameters during purification (caustic baking, and sequential two-stage caustic and acid leach), including reagent consumptions;
- Locked-cycle purification testwork to confirm the graphite purity, yield, and overall recovery, and to assess the impact of recycle

streams and potential impurity accumulation. Based on the wastewater generated during locked cycle testwork, wastewater treatment and chemical recovery testwork is recommended to confirm waste disposal requirements and evaluate opportunities for reagent recovery and process water recycling;

- Optimization testwork to investigate spheroidization parameters to achieve lower tap densities (e.g. 0.95 g/cm³) and thus improve yield and overall performance of SG products;
- Further evaluation and optimization of coating process parameters, including pitch tar addition. While a pitch tar addition of 7.5 wt.-% was selected in the Scoping Study, additional optimization testwork is required to assess process economics while maintaining the electrochemical performance of the final CSPG product;
- Validation of electrochemical performance through extended cycling and rate capability testing in full-cell configurations to confirm long-term stability and performance for commercial applications;
- A pilot plant campaign, including micronization, spheroidization, purification and coating, is recommended to generate scale-up parameters to support basic and detailed engineering design, equipment sizing, and vendor testwork; and,
- Sample production, including micronization, spheroidization, purification and coating, to produce CSPG material for customer qualification purposes.

## 14.3 Recovery methods

In the next development phase, the engineering and design for the BAM Facility should be advanced to align with AACE International RP 18R-97, appropriate to the selected development phase.

## 14.4 Marketing studies

Regular monitoring of market demand and pricing trends is recommended, as CSPG price fluctuations directly impact the economic analysis. Regular market reviews will help identify potential risks and opportunities, support planning and ensure production aligns with customer requirements.

## 14.5 Environmental studies, permitting and social or community impact

Following the site selection for the BAM Facility, an ESIA is recommended to inform the appropriate engineering and design for environmental and social mitigation measures, secure the necessary environmental and construction permits, and ensure compliance with both the provincial (Quebec) and Canadian environmental regulations and frameworks.

## 14.6 Capital and operating costs

In the next development phase, the CAPEX and OPEX for the BAM Facility should be advanced to align with AACE International RP 18R-97, appropriate to the selected development phase.

The Scoping Study assumes that the BAM Facility will be located in the Jean-Noël-Tessier Park, where developed plots with existing bulk infrastructure and supply services are available. If the final site lacks infrastructure, additional engineering, design and cost estimation will be required to meet AACE international standards.

## 14.7 Economic analysis

The Economic Analysis should be updated with the latest technical and economic information to maintain its reliability for decision making. This includes factors, including feed, yield, CAPEX, OPEX, and commodity prices that significantly impact the Economic Analysis for the BAM Facility.

While the DCF model illustrates economic potential of the BAM Facility, it does accurately forecast loan repayments, cash flow projections, working capital or tax obligations. A separate corporate finance DCF should be developed during the next project phase to provide precise projections for these items.

According to BDO Canada LLP (2026) additional tax incentive programs should be assessed in the next project phase to identify opportunities to reduce the tax rate applied in the DCF model, including the:

- Tax holiday program offered by Quebec, which supports major investment projects that generate significant economic benefits in the province. The program provides temporary exemption from Québec corporate income tax and employer payroll contributions up to a 10-year period;
- Investment Québec program by Investissement Québec, a financial institution and economic development arm for Québec, which supports mining and critical mineral projects with financing, equity participation, guarantees, and strategic advisory support; and,
- Accelerated Investment Incentive ("AII"), which is a Canadian federal tax measure that allows businesses to deduct capital costs more rapidly. Eligible assets can receive a first-year capital cost allowance ("CCA") deduction of up to three times the standard rate. While the AII does not increase the total CCA over the life of the asset, it accelerates the timing of tax deductions, thereby improving near-term cash flow. This can be significant in financial modelling, particularly due to its impact on first-year cash flow.

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# 16 Competent Person Certificates

**CERTIFICATE OF DERICK, R. DE WIT**

To accompany the report entitled "Scoping Study for the Battery Anode Material Facility", dated April 22, 2026, with an Effective Date of April 20, 2026 (the "Scoping Study").

I, Derick Ryk de Wit, do hereby certify that:

a) I am Principal Chemical Engineer with Dorfner Anzaplan UK Limited with an office at 1st Floor, Prospect House, Rouen Road, Norwich, NR1 1RE, United Kingdom, and have conducted this assignment for, Metals Australia Ltd, with its principal place of business at Level 1, 8 Parliament Place, West Perth, 6005, Australia;
b) I hold the following academic qualifications: MBA, B. Tech (Chem. Eng.) and PMP (PMI®);
c) I am a Fellow of the Australasian Institute of Mining and Metallurgy under membership number 301519;
d) I am a Fellow of the Southern African Institute of Mining and Metallurgy under membership number 704185;
e) I have worked as a Chemical Engineer continuously within the mineral resources and chemical industries since 1998. My relevant experience includes engineering and design of mineral and chemical processes and development of projects worldwide in accordance with the major reporting codes, including this Instrument, from geological exploration, through the different feasibility phases, receipt of legislative permits and licenses and implementation, including graphite process flow development, overseeing of metallurgical test work, engineering, design and cost estimation;
f) I do, by reason of education, experience and professional registration, fulfil the requirements of a Competent Person as defined by the JORC Code (2012);
g) I have not performed a personal inspection of the property intended to locate the Project that is the subject Scoping Study;

h) I am responsible for the preparation of Sections 1.1 to 1.3, 1.5 to 1.12, 2 to 5, 6.4.6, 6.6.5, 7 to 15, and the portions of Section 1.4.3 summarised therefrom, and I accept professional responsibility for those chapters of the Scoping Study;

i) I am independent of Metals Australia Ltd, their directors, senior management, and other advisers, I have had no previous involvement with the property;

j) I have read the JORC Code (2012), and this Scoping Study has been prepared in compliance with the instrument; and,

k) As of the date of this certificate to the best of my knowledge, information and belief, the sections of this Scoping Study for which I am responsible contain all scientific and technical information that is required to be disclosed to make this report not misleading.

Dated this 22nd day of April 2026.

"Signed and Sealed"

Derick, R. de Wit, B. Tech (Chem. Eng.), FAusIMM, FSAIMM

## CERTIFICATE OF JOHANNES SIEGERT

To accompany the report entitled "Scoping Study for the Battery Anode Material Facility", dated April 22, 2026, with an Effective Date of April 20, 2026 (the "Scoping Study").

I, Johannes Siegert, do hereby certify that:

a) I am a Senior Manager Mineral Processing of Dorfner Anzaplan GmbH, with an office address of Scharhof 1, 92242 Hirschau, Germany, and have conducted this assignment for, Metals Australia Ltd, with its principal place of business at Level 1, 8 Parliament Place, West Perth, 6005, Australia;

b) I hold the following academic qualifications: Dipl.-Ing. (FH), EUR ING;

c) I am a Member of the Institute of Materials, Minerals and Mining, United Kingdom under Registration No 483483;

d) I am a Member of the Australasian Institute of Mining and Metallurgy, membership number 3098710;

e) I have practiced as a metallurgical engineer for 16 years. I have been directly involved in metallurgical test work, flow sheet development, engineering and design and the development of mineral resource projects for graphite as well as lithium, high purity quartz, industrial minerals, rare earth elements, fluorspar, and others, internationally;

f) I do, by reason of education, experience and professional registration, fulfil the requirements of a Competent Person as defined by the JORC Code (2012);

g) I have not performed a personal inspection of the property intended to locate the Project that is the subject Scoping Study;

h) I am responsible for the preparation of Sections 1.4.1, 1.4.2, 1.4.4 to 1.4.6, 6.1 to 6.3, 6.4.1 to 6.4.5, 6.4.7, 6.5, 6.6.1 to 6.6.4, and the portions of Section 1.4.3 summarised therefrom, and I accept professional responsibility for those chapters of the Scoping Study;

i) I am independent of Metals Australia Ltd, their directors, senior management, and other advisers, I have had no previous involvement with the property;

j) I have read the JORC Code (2012), and this Scoping Study has been prepared in compliance with the instrument; and,

k) As of the date of this certificate to the best of my knowledge, information and belief, the sections of this Scoping Study for which I am responsible contain all scientific and technical information that is required to be disclosed to make this report not misleading.

Dated this 22nd day of April 2026.

"Signed and Sealed"

Johannes Siegert, Dipl.-Ing. (FH), EUR ING, MIMMM, MAusIMM

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# Memo

| | |
|---|---|
| To: | Paul Ferguson & Tanya Newby |
| From: | Stephen Kanellopoulos & Julie Robert, CPA |
| Date: | April 20, 2026 |
| Subject: | Review of the tax assumption included in the PEA level study for the downstream Battery Anode process |

## Objective

BDO conducted a high-level review of the tax assumption included in the economic model for the project to assess its alignment with Québec and Canadian Federal government tax requirements. This memo summarizes BDO findings during the review process.

Our opinions are based on our interpretation of the Income Tax Act (Canada) (the "ITA") and the Québec Taxation Act (the "QTA"), the Excise Tax Act (the "ETA"), and the Act respecting the Québec Sales Tax (the "QSTA"), their respective regulations (the "Regulations"), relevant decisions of the Canadian/Québec courts, and our understanding of the current administrative policies and assessing practices of the Canada Revenue Agency ("CRA") and Revenu Québec ("RQ") as at and announced prior to the date of this memorandum. Our views also take into account all specific proposals to amend the ITA, the QTA, the ETA and the QSTA, and publicly announced amendments prior to the date of this memorandum, based on the assumption that these amendments will be enacted substantially as proposed. Our opinions contained herein:

a) should not be construed as - and are not – legal opinions.

b) may contain certain words such as "should, would or will", which are merely for grammatical convenience, and are not intended to indicate a specific level of authority regarding a particular issue. No explicit or implicit inferences should be taken therefrom.

c) are as of the date hereof and we have no duty or responsibility to report any changes in applicable law or authorities occurring after this date or to update our comments for any changes in applicable law or authorities occurring after this date.

d) are not binding on the CRA or Provincial Tax Authorities. We give no assurance that the CRA or Provincial Tax Authorities will agree with our opinions, and if the CRA or Provincial Tax Authorities disagree with our opinions they may challenge them and such challenge may be successful and result in an adverse assessment or reassessment of your tax position, including additional tax, penalties and interest. Comments made, conclusions reached and views expressed are matters of professional opinion – not of certainty.

e) are based on facts and assumptions set out below, which we understand from you are correct as of the date of this document. We have not independently audited or otherwise verified any of these facts and assumptions. If you believe any of the facts and assumptions set out above are incorrect, you must advise us immediately as our opinions herein may change. In addition, any misstatement or omission of any fact or assumption by you or change in facts or assumptions subsequent to the date of this document, may change our opinions herein.

f) Section 245 of the ITA and 1079.10 of QTA, better known as the General Anti-Avoidance Rule ("GAAR") allows the CRA and RQ to invalidate tax plans which are solely motivated for a tax benefit. Determining when the GAAR applies requires significant analysis and will not result in any certainty that the CRA and/or RQ will not try to apply it.

   BDO has not conducted nor shall be conducting an analysis, nor providing an opinion, of whether the GAAR legislation may be applied to the proposed transaction.

In rendering our opinions, we have assumed that any agreements, elections and statements with respect to transactions discussed, if any, have been, or will be, validly executed by duly authorized persons and that such agreements, elections and statements are, or will be, legally valid and binding obligations of the parties thereto in accordance with their terms and will accurately reflect the transactions as described herein. If such agreements, elections or statements have not been validly executed or do not accurately reflect the transactions, as described, the opinions expressed herein may be rendered invalid.

These opinions have been prepared for the sole use of the above addressed entity in a specific context and for a particular purpose and should not be used or relied upon by the above addressed entity for any other purpose, or any third party for any purpose whatsoever. BDO assumes no responsibility, duty or liability in law or otherwise to any third party with respect to this document and no responsibility, duty or liability in law or otherwise to the above addressed entity for use or reliance on this document for any other purpose than the particular purpose it was prepared.

## Work performed

- Review of the tax assumptions included in the Metals Australia Financial model study for the downstream Battery Anode process
- Provide guidance on additional tax incentives or tax programs that could reduce the effective tax rate and should be analysed in the subsequent phases of the study.
- Summarize findings in a memorandum.

## Management assumptions

- The Equipment Capital Cost and the Building and Infrastructure cost are capital in nature.
- The Equipment Capital Cost and the Building and Infrastructure cost are eligible under the Clean Technology Manufacturing ITC program.
- The indirect costs are legally and fiscally part of the capital cost acquired.

## Tax Assumptions

The following tax assumptions included in Metals Australia Financial model have been reviewed:

1. Tax Rate (Canada, Québec): 26.5%

   BDO agrees with this corporate tax rate which is comprised of 15% payable to federal and 11,5% payable to Québec provincial level.

2. Building depreciation rate: 6%

   BDO agrees with the 6% rate used.

   The capital cost allowance ("CCA") rate for non-residential buildings is currently at 4% plus an additional allowance of 2%.

3. Equipment depreciation rate: 30%

   BDO agrees with the 30% rate used.

   The CCA rate for eligible machinery and equipment used in Canada primarily to manufacture and process goods for sale or lease and acquired after 2026 is 30%.

4. Indirect Costs related to capex acquisition: Capitalised

   BDO agrees that the indirect cost directly related to the acquisition can be capitalised for tax purposes and the applicable CCA rate will apply to these expenses.

5. Land depreciation rate: 0%

   BDO agrees with the 0% rate used.

   Land is not a depreciable asset under the Canadian tax. The current treatment is correct.

6. Clean Technology Manufacturing ("CTM") ITC: 30%

   BDO agrees with the 30% rate for capex that would qualify for the CTM ITC.

The capital cost of CTM eligible capex is reduced by the amount of any government assistance received in or before the tax year in which the property became available for use. The financial model reflects the capex reduction properly.

7. Indirect Costs and CTM ITC: added to cost of eligible capex for ITC

   The CTM ITC is computed on the capital cost of eligible clean technology manufacturing property. If an indirect cost is legally and fiscally part of the capital cost of a specific eligible asset, then it is indirectly eligible to the ITC.

   BDO agrees that when the indirect costs are directly attributable to the acquisition of the eligible capex then they should be eligible as well.

8. Royalties: 0%

   BDO agrees with the 0% rate.

   BDO is not aware of any royalties on the claims held by Metal Australia & its Canadian subsidiaries. Even if a royalty was payable, it would not apply to the downstream Battery Anode Process therefore it is correct to assume 0%.

BDO confirms that the above Tax Assumptions included in the proposed model are suitable for the Preliminary Economic Assessment undertaken.

## Opportunities for subsequent phases

- Tax holiday for a large investment project

  [Benefiting from a tax holiday for a large investment project | Gouvernement du Québec]

  Québec offers a tax holiday program designed to support major capital-intensive investment projects that generate significant economic benefits in the province. The program provides a temporary exemption from Québec corporate income tax and Québec employer payroll contributions for eligible large projects up to a 10-year period.

  The Tax holiday program may be applicable for the Metals Australia project, and its analysis will be integrated in the subsequent phases of the study.

- Accelerated investment incentive

  [Accelerated investment incentive - Canada.ca]

  The Accelerated Investment Incentive ("AII") is a Canadian federal tax measure that allows businesses to deduct capital costs more quickly. As a result, eligible property can generate a first-year deduction equal to three times the normal amount. The AII accelerates tax deductions but does not increase total CCA over the asset's life but it primarily improves near-term cash flow but that can be important in the financial modeling of a project as it impacts the firsts year cash-flow.

  The Accelerated investment incentive applicable periods may be extended through a Canadian federal budget announcement.

  Metals Australia, with the assistance of its Canadian tax advisors, are carefully monitoring the Canadian budget announcements and will integrate the applicable Accelerated Investment Incentive in the subsequent phases of the study.

- Zero-Emission Technology Manufacturing ("ZETM")

  [Rate Reduction for Zero-Emission Technology Manufacturers]

  The Zero-Emission Technology Manufacturing (ZETM) incentive is a temporary program that provides a reduced federal corporate income tax rate for income earned from qualifying zero-emission technology manufacturing and processing activities. For eligible income, the federal tax rate is effectively cut in half, from 15% to 7,5%. The measure applies only to specific downstream manufacturing activities such as batteries, energy storage systems, and other clean-technology equipment.

  The ZETM applicable periods may be extended through a Canadian federal budget announcement.

  Metals Australia, with the assistance of its Canadian tax advisors, are carefully monitoring the Canadian budget announcements and will integrate the reduced taxation rate, if applicable, in the subsequent phases of the study.

The above tax measures could improve the overall effective tax rate of the project, should they be applicable.