

Metals Australia Limited (ASX: MLS)

Metals Australia Limited (ASX: MLS) holds a portfolio of advanced battery minerals and metals projects strategically located in two preeminent Tier-1 mining provinces—Western Australia and Quebec, Canada.

The Lac Rainy Graphite Project: At the forefront of MLS's endeavours is the flagship Lac Rainy project in Quebec Canada. The current resource stands at **13.3Mt @ 11.5%** graphitic carbon Cg including an indicated Resource of 9.6Mt @ 13.1% Cg and an inferred resource of 3.7Mt @ 7.3% Cg. The company has just initiated further studies for the project - including a prefeasibility study for a Flake Graphite concentrate plant and a down stream scoping study for a battery anode plant.

Corvette River Lithium & Gold Project: Located in the James Bay region of Quebec, Canada, adjacent to Patriot Battery Metals Inc's (ASX: PMT) lucrative Corvette Lithium discovery. The project has significant lithium pegmatite potential along with a history of significant gold showings - both minerals are the focus of near-term exploration efforts.

Warrambie Battery Metals Project: Located in Western Australia's northern Pilbara, MLS holds exploration tenements within 15km of the globally renowned Andover lithium discovery held by Azure Minerals Ltd (ASX: AZS). The 80% owned Warrambie Ni-Cu-Co exploration project is also being explored for its lithium potential, with plans for drilling already well developed.

Manindi Battery Minerals/Metals project 500km NE of Perth WA is 80% owned by MLS and hosts a range of critical minerals including Copper, cobalt, Zinc, Lithium, and Vanadium-titanium. Exploration to date has confirmed high-grade lithium bearing pegmatite. Work is currently underway involving metallurgical test work to examine the potential to produce lithium concentrate and assess downstream processing options for lithium production in WA.

Copper & Gold Projects in the NT and WA (80%)– The company has two early-stage explorations assets that have active exploration programs planned - including Warrego East (East of the highly successful Warrego Mine) and in the Murchison - close to the Big Bell Mine (over 5MOz mined).

Share Price 21 JUNE 2024

AUD\$0.020

Figure 1: Share Price of MLS

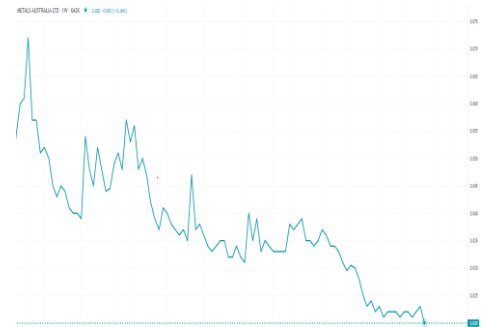


Table 1: MLS Share Information

Share Information	MLS
Market Capitalization	\$14.14M
1M price change	0%
6M price change	-50%
1Y price change	-33.33%
52 Week Range (AUD)	0.02 - 0.042
Average traded volume (90 days)	586,993
Daily traded volume	620,149
Foreign exempt	No
ISIN	AU000000MLS7
Share description	Ordinary Fully Paid
Shares on issue	707,000,000
Listed on	23 January 1986

Source: Australian Securities Exchange

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Key Investment Overview:

- **Portfolio of High-Quality Battery Minerals Exploration and Development Projects in Tier One Mining Jurisdictions of Quebec Canada and Western Australia.** MLS boasts a portfolio of highly promising exploration and development projects, featuring sought-after battery metals with a focus on lithium and graphite. Notably, these projects are strategically located in Tier-1 global discovery "hot spots" in Quebec, Canada, and Western Australia's northern Pilbara. Considering recent graphite export controls enforced by China, the projects are geo-strategically significant as a non-Chinese source of premium, battery-grade graphite for the burgeoning North American lithium-ion/EV battery market.
- **Significant Graphite Resource & Advancing Development Project:** The Lac Rainy project has a JORC 2012 Mineral Resource of 13.3 Million Tonnes (Mt) at 11.5% Graphitic Carbon (Cg) which includes a high-grade indicated resource of 9.6Mt @ 13.1% Cg and an Inferred Resource of 3.7Mt @7.3 Cg. The company has already completed a scoping study confirming the economic credentials of the project. Significant contracts have recently been awarded to expand and upgrade the existing resource, complete extensive metallurgical test work required for design and to develop a PFS level design for a Flake graphite concentrate plant. The company has also awarded a down stream purification, location & scoping study for a battery anode plant. The upside for the project remains enormous given the limited drilling to date and the extent of graphitic trends identified across the property.
- **Aggressive Lithium & Gold Exploration Programs:** A newly unearthed LCT pegmatite has been unveiled within the recently identified Corvette South Lithium trend, running parallel to Patriot Battery's Corvette (CV) lithium trend pegmatite discoveries in the highly prospective James Bay region of Quebec, Canada. This groundbreaking discovery showcases the Company's most remarkable lithium findings, supported by notable caesium and tantalum content, affirming CS1 as a Li-Cs-Ta (LCT) pegmatite akin to Patriot's CV5 and CV9 pegmatites. The areas in focus by MLS are also highly prospective for Gold - with a chip sample grading over 29g / T in the southeastern portion of the tenements. In Western Australia, MLS plans to explore its 126 sq km Warrambie project, located 15km from Azure Minerals' high-grade Andover lithium discovery. In the Manindi project, MLS identified lithium-bearing pegmatites, with rock chip samples showing up to 2.30% Li₂O. Diamond drilling revealed intersections of up to 12m grading 1.38% Li₂O. Metallurgical test work is underway to assess lithium mineral concentrate potential before resource definition and development studies.
- **Early-stage Copper & Gold Exploration Potential Provide Upside:** MLS acquired a series of highly prospective Copper and gold tenements as part of its acquisition of 80% of Payne Gully Gold. The most prospective tenements include Warrego east in the NT, adjacent to the Warrego Mine - where over 1.4 M Oz of gold were mined until 1989. In the Murchison, the company has tenements on trend from the Big Bell mine ((over 5 M Oz of gold mined). The company is rapidly advancing exploration programs for each of the tenements with updates expected this calendar year.
- **Experienced Team:** The MLS board and management team has extensive experience in the resources exploration industry in sectors including graphite, lithium, gold, nickel-sulphide, vanadium and copper-gold discoveries. Recently appointed CEO Paul Ferguson brings significant project development and operational experience, particularly in Canada. We see his appointment as a significant lift in the management team's resources allowing them to expedite the significant number of exploration and development activities going forward.
- **Cash in the Bank exceeds Market Capitalisation:** A 31st March 24 cash balance of \$17.86m leaves MLS exceptionally well-funded to pursue its exploration and development programs across its suite of projects. Today's share price of 2 cents ascribes a market cap of just \$14.14m, and an enterprise value of negative \$3.72m! (EV=Market Cap + Debt - Cash).

Investment Thesis :

We value MLS at ~ 4.7 cps (cents per share). Our valuation methodology involves making a comparative assessment of 10 ASX-listed graphite peers with the most comparable assets and business models. We apply an average weighted market value of the graphite contained in these resources to the current Lac Rainy resource. On this basis we estimate that MLS's current defined resource of 1.529 (mt) of contained graphite is worth AUD \$15.31 million (m) or ~ 2.17 cps.

We arrive at a valuation by adding the current cash value in the bank at \$17.86(m) or ~ 2.55 cps, to the value of the graphite in the current resource at \$15.31 (m), or ~ 2.17 cps. On this basis, we arrive at a valuation of \$28.86 m or ~ 4.7 cps.

Note this valuation of ~ 4.7 cps is only valuing cash at bank and the Lac Rainy Graphite resource and ascribes no valuation to the portfolio of exploration assets owned by Metals Australia. We see further exploration on the portfolio of assets as key to unlocking significant value.

We initiate coverage with a ~ 4.7 cps target, 104% above the current share price. We anticipate the upcoming exploration across a range of projects will unlock significant upside, leading to an increase in the current price target.

Significant Exploration & Development Initiatives & Potential Re-Rating Catalysts

Metals Australia Limited (ASX: MLS) is strategically positioned to experience a re-rating of its share price, driven by a confluence of catalysts.

Project Development & Exploration Upside: On February 21, 2024, MLS successfully raised A\$3.5 million at a 40% premium of 4.2c through Flow-Through Shares under Canadian tax law (a program which had been set to conclude by March of 2024). This strategic capital raising combined with the significant existing cash reserves and the recent appointment of Paul Ferguson as group CEO puts the company in an enviable position to advance all the projects across the portfolio. Notable expected project exploration and development include:

Lac Rainy Graphite Project

- The current resource is based on drilling along 1km of a 6km strike length on the Carheil graphite trend - which is just the first of 10 graphite trends identified at Lac Rainy, with an identified strike length of around 36 km in length. An extensive drilling program will target the remaining 35km of untested graphite trends and aims, at a minimum, to double the current Mineral Resource. Initial exploration discovered an extraordinarily high-grade flake-graphite, with recorded results up to 64.3% graphitic carbon (Cg) from the sampling program conducted along the strike of the existing resource. This initiative also yielded 10 additional results exceeding 20% Cg, with an overall average of 11% Cg observed across a 36-kilometre stretch of identified graphitic trends within the project area.
- Commencement of a Pre-feasibility Study, which follows the already successful completion of a Scoping Study. The results of the aforementioned resource exploration will have a significant impact on the project economics. Management is aiming to more than double the size of the resource which would ensure close to 30 years of Flake-graphite production based on the Scoping Study production rate of 100,000 tonnes per annum of Flake-graphite concentrate (>95% Cg). The company has recently announced the award of the Prefeasibility study to Lycopodium, who have offices in Ontario, Canada.
- Commencement of an Options Study into mid-stream battery grade spheronised graphite production. This study has been awarded to ANZAPLAN, a German processing engineering and design company specializing in Graphite processing. The study advances the successful manufacturing of spheronised graphite which produced exceptionally high yields of 63.5% vs the industry average of ~50%. Further test work was completed in May 2023 with Electrochemical (charging and durability) tests which confirmed battery grade (99.96% Cg) spherical graphite from the Lac Rainy project is a premium quality lithium-ion battery anode material with exceptional battery charging capacity and outstanding discharge performance and durability. We see the mid-stream battery grade spheronised graphite production business as one of the biggest value-adding opportunities for MLS. With the price of medium flake graphite around \$1,200/t, once spheronised into a pre-cursor material for battery anodes, the value jumps to between \$2,500 - \$3000/t, while in the case of MLS wasting only 35% of the material effectively turning that original tonne of graphite into 650kg of battery grade spherical graphite worth approximately \$1950. The options study which is currently underway will examine the economic potential of the Lac Rainy Graphite project's potential to manufacture spherical graphite to be sold into the North American market for use in EVs and other Lithium-Ion batteries.
- **Graphite Pricing tailwinds:** The flagship Lac Rainy graphite project in Quebec holds unique advantages and is poised to benefit from Chinese export controls on both natural and synthetic graphite enforced from December 1, 2023. The graphite price and sector as a whole remain depressed, although green shoots are emerging and the price of natural flake graphite recovering. We see this trend continuing in light of the Chinese regulatory changes and an emerging recovery in EV and other lithium battery sales. Additionally, Lac Rainy could potentially qualify for incentives under the groundbreaking US Inflation Reduction Act.

Significant Exploration & Development Initiatives– (Continued)

Corvette River Lithium & Gold Project

As mentioned in the Key Investment Overview, rock chip sampling at the Corvette River project discovered multiple large, lithium-bearing pegmatites and announced in December 2023 highly-anomalous lithium-caesium-tantalum (LCT) results from the CR1 Lithium pegmatite discovery which is located 2.5km along strike from Patriot Battery metals (ASX PMT) Corvette lithium discovery. The company is now ready to commence a significant 19-hole diamond drilling and trenching program which has been fully-permitted and is fully funded by cash at bank. Notably, the program will also follow up on previously identified high grade gold samples – with one sample in the southeast of the properties recorded above 29.7g/t. Prior to interest in the region for Lithium, the region had been identified as highly prospective for gold.

Warrambie Battery Metals Project, WA (MLS 80% owned)

In Western Australia, MLS is well advanced with its plans to explore its 126 sq km Warrambie project, located 15km from Azure Minerals' high-grade Andover lithium discovery. We note the recent transaction with SQM and Hancock Prospecting that valued Azure Minerals at AUD\$1.7 billion. Azure Minerals own 60% of the Lithium discovery, indicating an overall project valuation of 2.83 Billion (100% basis). While Lithium prices have subsided since that takeover, positive exploration results are likely to ignite MLS current share price.

Manindi Battery Minerals

At the Manindi project, MLS identified lithium-bearing pegmatites, with rock chip samples showing up to 2.30% Li₂O. Diamond drilling revealed intersections of up to 12m grading 1.38% Li₂O. Metallurgical test work is underway to assess lithium mineral concentrate potential before resource definition and development studies. In December 2023 metallurgical test work confirmed spodumene in a high-grade lithium-bearing drill core from the Manindi Lithium project, 20km southwest of Youanmi in WA. Results included 12m @ 1.38% li₂O from 60m downhole including 3m @ 2.12% Li₂O. MLS will follow up with exploration focusing on identifying new spodumene-dominant pegmatite zones.

Copper & Gold Projects in the NT and WA (80%)

As part of its acquisition of an 80% interest in Payne Gully Gold (August 2022), the company secured access to highly prospective copper & gold tenements. In the Northern Territory, the company is planning drilling of its east Warrego tenement, in close proximity to the highly successful Warrego Mine, where over 1.4 M Oz of Gold and 90,000 tonnes of copper were mined up until 1989. In the Murchison region of WA, the company is planning surveys of its tenements on trend from the Big Bell Mine (over 5MOz mined). While both projects are early-stage exploration we see active exploration in the tenement as a further catalyst for positive news flow.

Project Overview: Lac Rainy Graphite Project

Highly Strategic Location: The 100%-owned Lac Rainy Graphite Project comprises a contiguous 45.5 square km landholding of 92 mineral claims located 22km southwest of Fermont in one of Quebec's premier graphite mining regions. The project is approximately 15km east of Route 389, a highway that provides access to major ports along the St. Lawrence River. Proximity to the US is strategically important as this provides MLS easy access to key end-markets in the US, which are among the largest and fastest-growing markets for lithium-ion battery and electric vehicle (EV) manufacturing. Further, The US Government has recognized several minerals, including graphite, as "critical" and has enacted the Inflation Reduction Act, which includes funding provisions for sourcing critical minerals projects outside of China, with a primary focus on North America, including Canada. Consequently, the demand for downstream production of spherical graphite in the North American market is anticipated to experience rapid growth, with government funding support likely to be available to facilitate the development of such production.

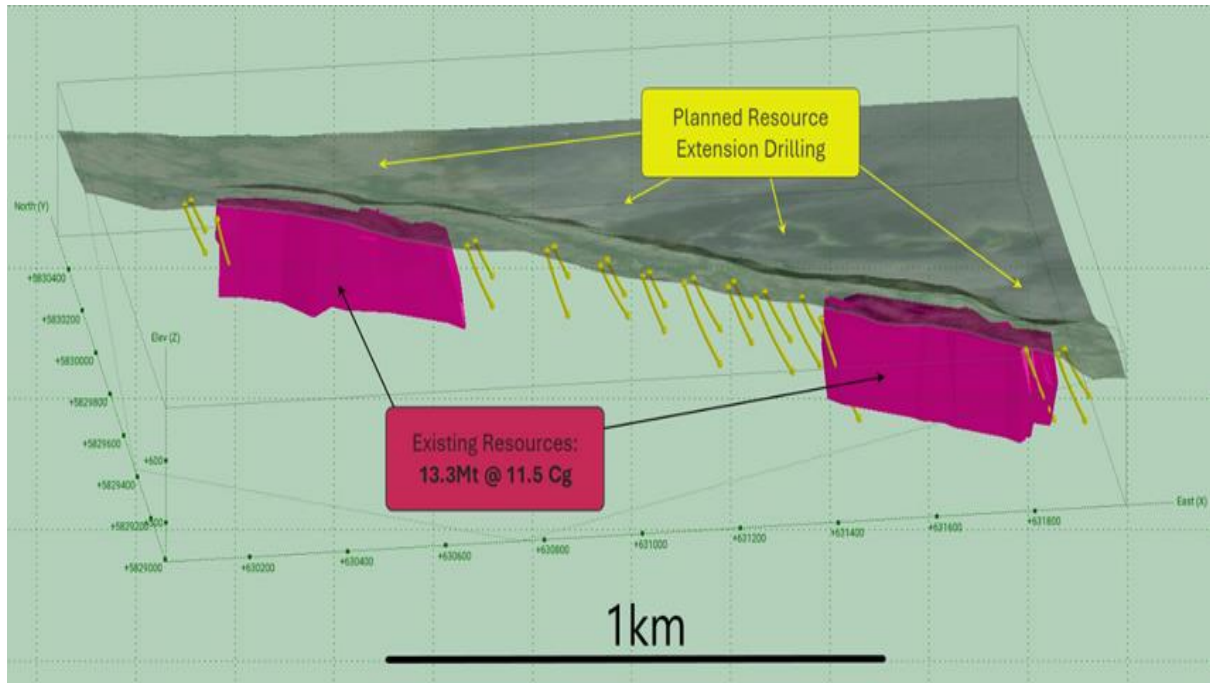
High-Grade Resource with Significant Exploration Upside: In June 2020, the company announced the maiden JORC (2012) Indicated and Inferred Mineral Resource at Lac Rainy of 13.3 million tonnes (Mt) at 11.5% Cg, including a high-grade Indicated Resource of 9.6 Mt at 13.1% Cg. This resource ranks as one of the highest-grade global graphite deposits. The mineral resource at Lac Rainy offers significant flexibility for potential development into a long-life, high-grade graphite mining operation. Lac Rainy can be mined using open-cut mining methods with low strip ratios, and more than 90% of the current global resource is defined within the first 100m. Moreover, the existing high-grade JORC resource at Lac Rainy is based on drilling over just 1km of a 6km strike-length zone on the Carheil Trend, which extends southeast to northwest across the project tenement package. The Carheil Trend is the first of 10 graphite trends identified from electromagnetic (EM) imagery within the Lac Rainy project area. The collective strike length of these 10 graphite trends is more than 36km, representing potential for a significant increase in the project's high-grade resource potential over the existing 1.6km Carheil Trend strike. Rock chip sampling results from these newly-identified trend zones have demonstrated a major opportunity to significantly increase the Lac Rainy resource at high average grades.

Major New Exploration Programs Set To Commence at Lac Rainy Graphite Project

MLS has appointed Magnor Exploration to complete the drilling and other exploration programs for Mineral Resource Expansion and to test new regional targets at Lac Rainy. The team are currently awaiting permit application approvals from the Quebec Government for the proposed drilling program which aims to:

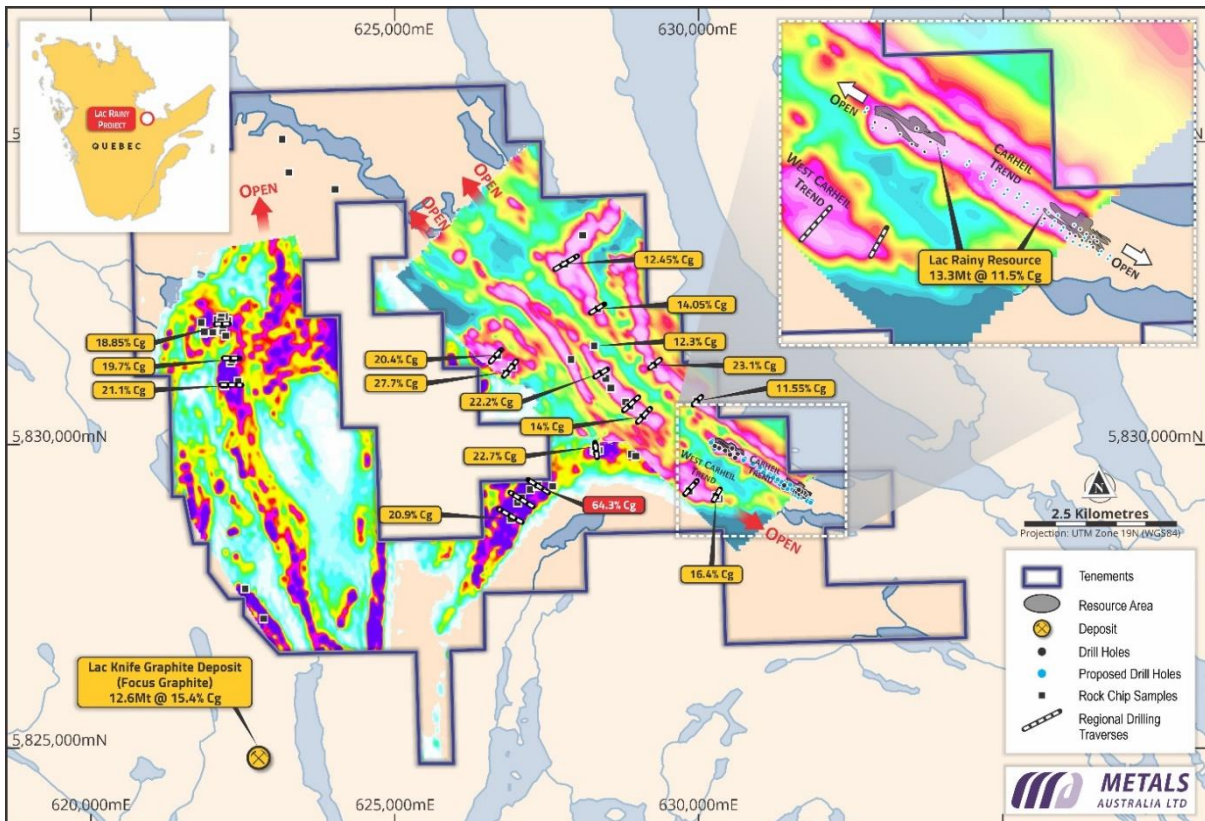
- a) Extend and define the high-grade graphitic zones on the Carheil Trend, targeting at least a doubling of the current mineral resource base.
- b) Expand Lac Rainy's Mineral Resource potential, focusing on the highest-grade and coarsest flake size graphitic trends identified, including the high-grade West Carheil Trend, and,
- c) Produce diamond core bulk-samples of high-grade graphitic material from which to generate additional flotation concentrate samples for further stages of detailed design and to provide to potential customers for evaluation and test work.

Figure 2 : Mineral Resource models on Lac Rainy - Carheil Trend with the planned resource extension drilling



Source: Company Data

Figure 3 Lac Rainy Graphite Project high-grade sample locations and EM indicated graphitic trends



Source: Company Data

Advanced Development Progress with a Pre-Feasibility Study (PFS): A comprehensive Pre-Feasibility Study (PFS) has commenced with contracts awarded to Lycopodium Ltd for the design of a 100,000 tonnes per annum flake-graphite concentrate plant at Lac Rainy. The Scoping will build upon and expand the previously conducted Scoping Study findings. The study indicated a robust economic cashflow potential with a margin exceeding 100%, based on a cost estimate of \$US433/t and average flake graphite concentrate price of US\$885/t and an annual production of nearly 100,000 tonnes of 96.7% Cg flake graphite concentrate. Life of mine was over 14 years, achieving capital payback within four years. The project’s scoping study produced a Net Present Value before tax of US\$123 million (DCF 8%). In Australian dollar terms, using FX of 0.65, the NPV is ~ 190M AUD (DCF 8%). The NPV is equivalent to \$126.67 per tonne of contained graphite resource.

Key outcomes of the PFS study include all plant facilities, infrastructure, site access, power and the economic analysis of the project.

These pivotal studies will be overseen and managed by the newly appointed Chief Executive Officer (CEO), Paul Ferguson, who commenced with the company in early 2024. It is anticipated the PFS will take about six months to complete and will overlap with the metallurgical test-work program which is currently underway. Successful completion of the PFS will add significant value to MLS and give greater confidence of the project’s economic viability.

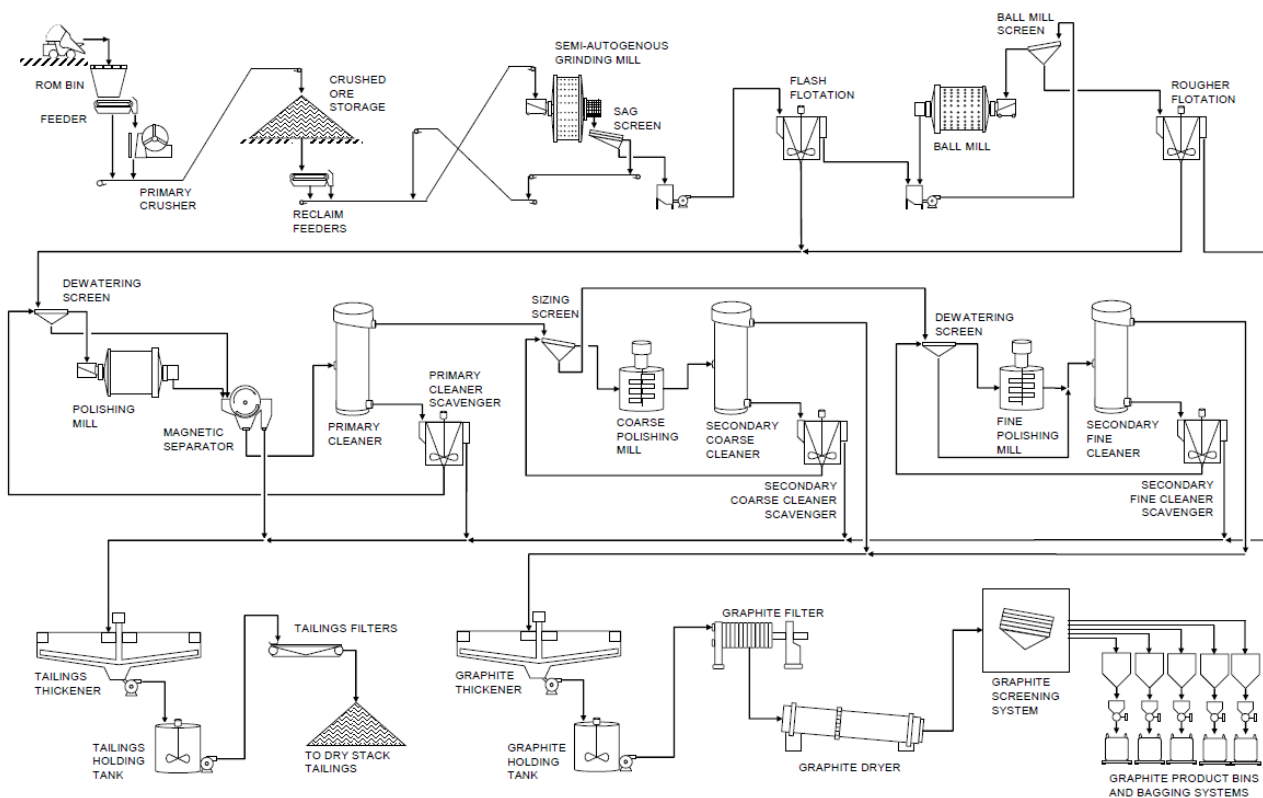


Figure 4 Lac Rainy Graphite Project Process Flow Diagram Outlined In Scoping Study

Source: Company Data

Metallurgical Test-Work – To Feed into Pre-feasibility Study:

SGS Laboratories have been awarded the contract for the Metallurgical test-work and laboratory services requirements. The program has commenced and will include all sample preparation, chemical characterization, mineralogy testing, comminution and flotation testing and reporting. This will provide key inputs into the flake-graphite concentrate production PFS. The program is anticipated to take approximately four months to complete.

The program will focus on four core areas:

- Optimizing the design for coarse flake products and production of a fine to medium flake concentrate,
- Investigating tailings storage and disposal facilities to include in the PFS,
- Informing the PFS of the design parameters for equipment selection:
- Generating a bulk, high-grade concentrate sample to advance downstream spherical graphite production studies and to provide to potential customers.

Noteworthy achievements of neighboring project: Focus Graphite Inc:

A recently completed (2023) DFS on the Lac Knife Graphite Project of Focus Graphite Inc. (TSX.V: FMS), which is located 15km to the southwest of the Lac Rainy Project (see Figure 3), demonstrated a pre-tax NPV of C\$500M based on production of nearly 50kt tonnes per annum of high-grade (>98% Cg) flake graphite concentrate over 27 years. This compares to the Lac Rainy Scoping Study which is based on approximately 100kt per annum production over 14 years, with exploration potential identified to substantially increase and upgrade Mineral Resources and extend mine-life and/or production rate. We also noted that the average price for graphite used in MLS scoping study (2020) was \$885 USD per tonne, while in 2023, Focus Graphite were projecting an average price of \$1661 USD per tonne, based on a quoted forecast from Benchmark Mineral Intelligence (BMI). The nearly doubling of pricing outlook between the studies augers well for Metals Australia and demonstrates the conservative nature of our valuation of the Lac Rainy project.

Downstream Battery Anode Manufacturing Project

MLS have awarded a contract to German based, metallurgical test-work and specialist process engineering design group ANZAPLAN to complete an options study examining the potential to process its fine to medium flake graphite concentrate into a premium battery-grade spherical graphite concentrate, a precursor material to a lithium-ion battery anode. We see this as a significant downstream value-add opportunity to produce high-demand battery anode material and deliver it to the rapidly growing North American lithium-ion battery and EV manufacturing markets. Current pricing for medium flake graphite sells for \$1,200/t; fine flake graphite sells for \$500/t; Spherical graphite sells for between \$2,500 - \$3000/t; and Coated Graphite (Active Anode material) sells for between \$7,000 - 10,000/t. Additionally, the graphite resource from Lac Rainy yielded a higher percentage conversion (recovery) of flake graphite to spherical graphite at 65%, while average industry yield stands at ~50% from graphite to spherical graphite. Better yield is expected to result in better project economics for the graphite sourced from Lac Rainy.

The Lac Rainy Graphite Project is highly suitable for the production of Battery Grade Spherical Graphite.

Battery-grade testing conducted in Germany on the bulk concentrate showcased exceptional results, attaining a premium battery-grade spherical graphite purity of 99.96%. Electrochemical assessments revealed outstanding performance metrics for lithium-ion batteries, highlighting superior charging capacity, as well as remarkable discharge performance and durability. These findings underscore the potential for high-quality graphite products capable of meeting stringent demands in the battery industry.

The high-purity spherical graphite has a tight particle size distribution and excellent tap-density, which indicates that it should have good charging capacity. The material also had extremely low to negligible deleterious impurities, which indicates premium performance and durability. The discharging performance of the Lac Rainy spherical graphite is excellent. Even at very high charging rates, and in the later cycles, the material's performance was very good. The spherical graphite was also very stable, and after multiple cycles of charging and discharging, the anode material showed no damage and could be charged to high capacity repeatedly.

A very high level of coulombic efficiency was maintained throughout the charging cycles, with almost no material degradation. This means the batteries should have long durability. Further optimization of the test work and coating of the spherical graphite is expected to improve the high quality of the results received. Overall, the electrochemical test results on Lac Rainy premium quality spherical graphite confirm it is an excellent battery anode material which should result in premium battery performance.

Summary of the Lac Rainy Graphite Project:

The project at Lac Rainy offers great flexibility and exploration potential. Additional drilling, other exploratory techniques, and streamlining the metallurgical flowsheet to identify the best graphite products that can be manufactured and sold using the Lac Rainy graphite concentrate can be used to uncover this upside. We note that the current MLS share prices reflects a negative value for the enterprise, which we view as highly unusual for a company that has a high-quality project, such as Lac Rainy, rapidly advancing through the project study phases.

Mine to Battery Anode Process Chart

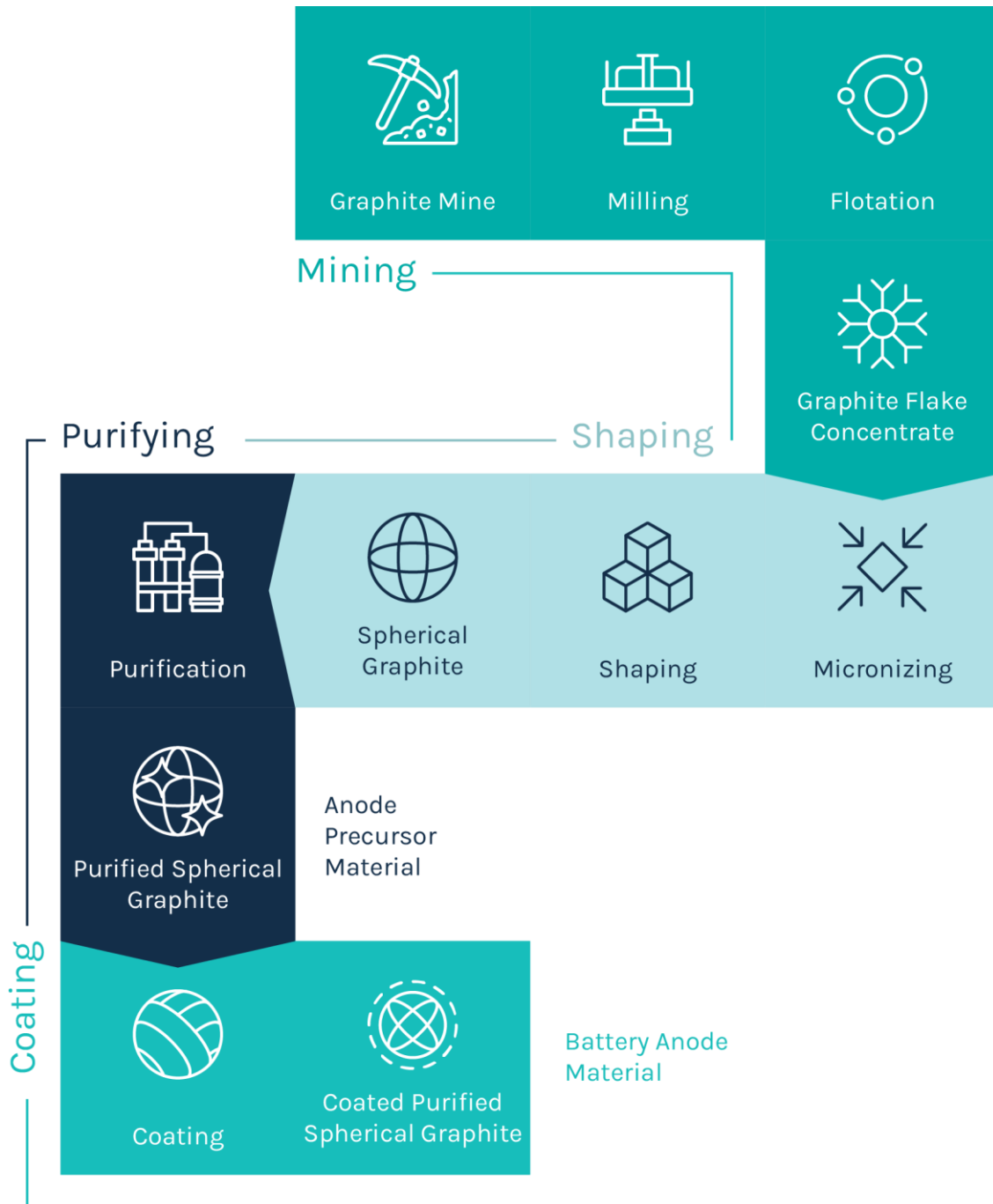


Figure 5: Process Diagram showing the extraction of graphite through to production of battery anode material.

Source: Vested Equities

Favorable Graphite Market Trends:

- Natural graphite growth is anticipated to outstrip synthetic:** As the demand for electric vehicles (EVs) and other battery-powered devices continues to grow, the demand for graphite is expected to increase. Battery anodes are produced from natural (~40%) and synthetic (~60%) graphite. Synthetic graphite is made from petroleum feedstocks, while natural graphite is extracted from the earth. Spherical graphite made from natural graphite has a higher power capacity and is less expensive than synthetic. Moreover, the production of synthetic has an emissions intensity 3 times greater than natural graphite, which plays a larger role in auto OEMs supply considerations, especially as carbon pricing mechanisms extend. We also note that developments in purification and spheronisation technologies may lower costs and could see natural graphite disrupt other end-market applications. The demand for natural graphite is anticipated to increase more quickly due to its benefits in terms of the environment, cost, and performance. By 2030, the graphite market is expected to be split evenly between natural and synthetic graphite.

Synthetic Graphite Anode



Figure 6: Low energy intensity and low environmental impact of Natural Graphite vs Synthetic Graphite

Source: Company Data, Vested research

- Graphene is far from replacing graphite:** Graphene, a relatively recent discovery in 2004, offers tremendous potential across diverse fields. Graphite consists of multiple layers of graphene stacked atop each other, with relatively weak molecular bonds between these layers. As a result, these layers can easily shift and slide against one another, giving the material a soft appearance when observed at the human scale. In contrast, individual graphene layers are incredibly thin, just one atom thick, making them invisible to the naked eye. Despite their minuscule thickness, they act as a barrier resistant to all elements, including Helium. This property renders graphene a transparent yet impenetrable membrane. However, its widespread adoption faces several challenges. High production costs and limited scalability hinder its extensive use. Furthermore, graphene is still in the early stages of research and development, with researchers working to fully understand its properties, applications and commerciality. Technical obstacles such as large, high-quality sheet production and effective integration into existing technologies must also be overcome.

- **Increasing adoption of electric vehicles:** Lithium-ion batteries are the primary energy storage technology used in electric cars, and as the adoption of EVs increases, so does the demand for Graphite. As EV adoption rises, the demand for graphite-based anode materials increases, as each battery pack requires a substantial amount of graphite (up to 50%). To fulfill the demand for EVs and energy storage batteries over the next 10 years, Benchmark Mineral Intelligence (BMI) predicts that more than 300 additional mines will need to be constructed. Natural graphite is a critical mineral used in lithium-ion batteries and electric vehicles. The natural graphite supply is concentrated in a few countries, mainly China, which raises concerns about future supply security. The demand for natural graphite is expected to grow in the coming years as the global transition to electric vehicles accelerates. This growth in demand is likely to put further pressure on the supply of natural graphite, which could result in increased prices and supply shortages. The International Energy Agency (IEA) has projected that demand for lithium will increase tenfold by 2030 as the world transitions to electric vehicles and other battery-powered technologies. This growth in demand is outpacing supply, which is expected to lead to a widening global lithium deficit. In the long term, the outlook for the lithium market is very positive. The demand for lithium will skyrocket as the economy shifts to a low-carbon one, but the mineral's supply is not keeping up. This is likely to lead to continued high prices for lithium in the years to come, which also bodes exceptionally well for the outlook of graphite, given there is a much higher proportion of graphite in every lithium-ion battery than lithium.
- **Global energy transition:** The global push towards reducing greenhouse gas emissions and mitigating climate change relies on increased adoption of renewable energy sources and electric mobility. The transition towards renewable energy sources requires large-scale energy storage to stabilize the power supply. Lithium-ion batteries are used for energy storage applications, such as grid-level energy storage, residential energy storage systems, and backup power solutions. These applications are gaining traction as renewable energy sources like solar and wind become more prevalent, creating a need for efficient energy storage solutions. Like lithium-ion batteries, graphite anode materials are used in various energy storage applications, such as grid-scale storage and residential battery systems. These applications contribute to the overall demand for graphite. The global shift towards clean energy solutions could lead to increased demand for the minerals Metals Australia is involved with, potentially benefiting the company's prospects.
- **Growing usage in industrial applications:** Lithium is used in various industrial applications, such as aerospace, ceramics, glass, lubricants, and pharmaceuticals. These industries contribute to the overall demand for lithium, albeit on a smaller scale than batteries. Graphite's unique properties, such as high thermal and electrical conductivity, make it suitable for various industrial applications. It is used in industries such as metallurgy (for steel and iron production), refractories, lubricants, and as a material for nuclear reactors.
- **Urbanization and infrastructure development:** As urbanization continues and infrastructure projects are undertaken, the demand for lithium in construction materials and applications like glass and ceramics can increase. Moreover, the demand for materials like steel (which uses graphite as a refractory) could indirectly influence graphite demand, thus benefiting the company.
- **Evolution in consumer electronics:** The demand for lithium in consumer electronics like smartphones, laptops, tablets, and wearable devices remains substantial. Graphite is used in the anodes of batteries in consumer electronics devices like smartphones, laptops, and tablets. As technology advances and consumers continue to rely on portable electronic devices, the demand for high-capacity, long-lasting batteries grows, thereby boosting demand for critical minerals such as lithium and graphite. This bodes well for the future growth of the company.

Project Overview: Corvette River Lithium & Gold Project

MLS has identified outstanding lithium & Gold potential on its 100%-owned Corvette River lithium project in James Bay. During the September 2023 Quarter, the Company completed an expanded sampling program targeting multiple large, potentially lithium-bearing, pegmatites on its Corvette River tenements that lie on extensions to the Corvette (CV) Lithium trend and also on the newly identified Corvette South Trend in James Bay Lithium Region. The tenements are located 20km-40km southwest of the Patriot Battery Metals Inc. (ASX:PMT) Corvette Lithium Project. Patriot recently announced a world-class lithium Mineral Resource on the CV5 pegmatite of 109Mt @ 1.42% Li₂O. Additionally, the company is fully-permitted and funded to commence follow up exploration for Lithium, Gold, and silver which it outlined in its 21st 21 JUNE 2024 Announcement. A 19 Hole diamond drilling program expanded to include new high-grade gold and silver targets of up to 29.7 g/t gold and 44.1 g/t silver, along a 22km strike within the prolific Lac Guyer Greenstone belt.

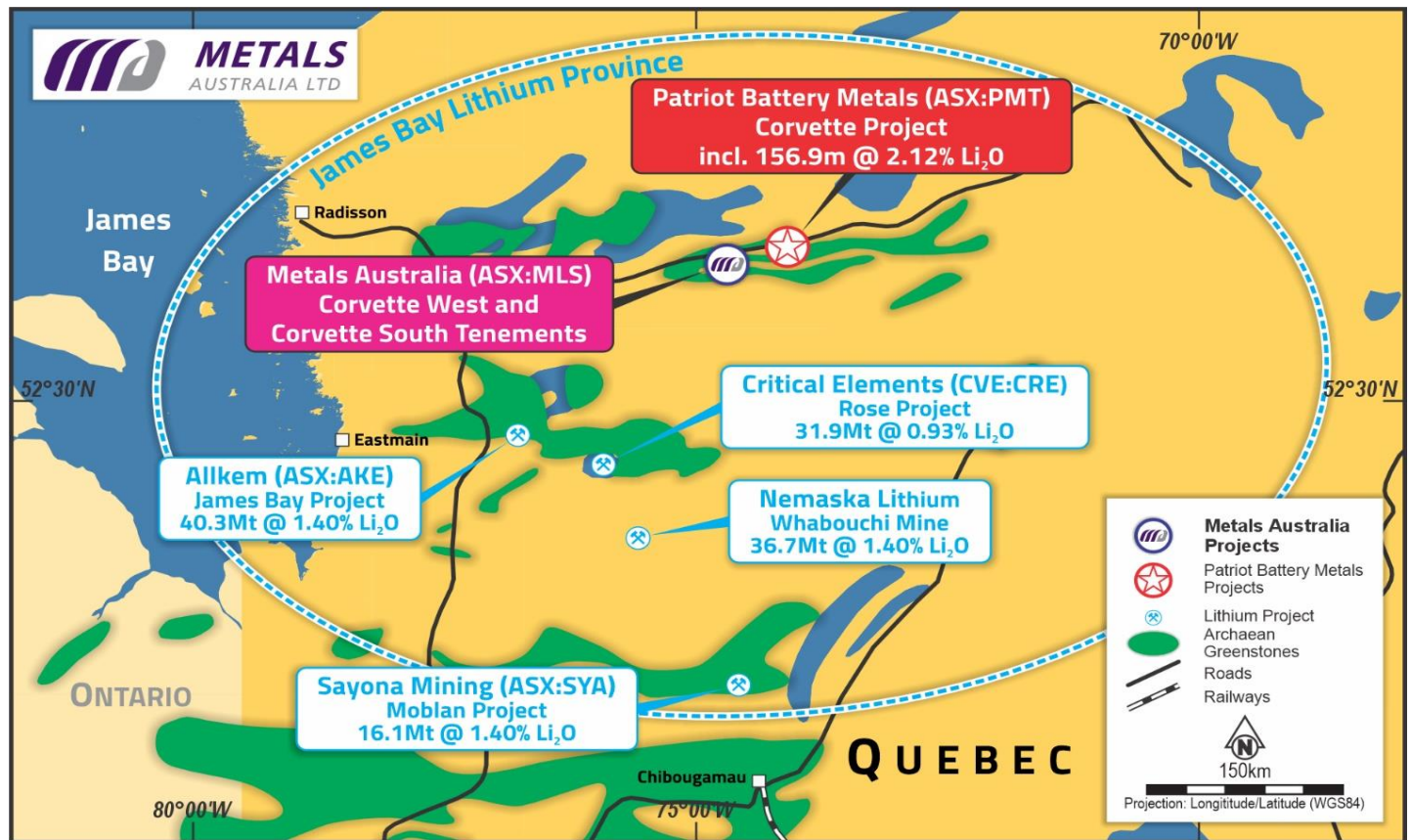


Figure 7: MLS Corvette River lithium tenements in proximity to Patriot’s Corvette and other regional lithium resources

Source: Company Data

The identification of a significant pegmatite zone, spanning over 40 meters in thickness and confirmed by two isolated surface samples positioned 44 meters apart along a north-south axis, underscores a compelling exploration opportunity. Despite the limited sampling thus far, the high lithium results signify the potential for substantial mineralization within this zone. Moving forward, systematic channel sampling and drilling has been planned to further assess the presence of high-grade spodumene intervals, particularly beneath surface outcrops, akin to the successful exploration strategy employed at the Nova Zone by Patriot.

Moreover, the discovery of multiple coarse-grained pegmatite outcrops across the West Eade and East Eade tenements further solidifies the Company's position within the lithium-rich James Bay region. This delineates the Corvette South Trend as a promising lithium corridor, presenting numerous avenues for exploration and potential resource expansion. The strategic focus on identifying priority drilling targets through comprehensive channel sampling underscores a methodical approach to resource delineation and extraction optimisation. As noted, the company's planning for a comprehensive trenching and drilling exploration program has significantly advanced, with application for impact exploration approved by the Quebec Ministry of Natural Resources & Forestry.

MLS intends to explore the CR1 LCT pegmatite discovery along the parallel Corvette or CV Lithium Trend, near Patriot's significant CV9 pegmatite. This exploration aims to capitalise on the success observed in neighbouring exploration efforts. The company has an exploration program including channel sampling and drilling activities planned and are awaiting approvals to commence.

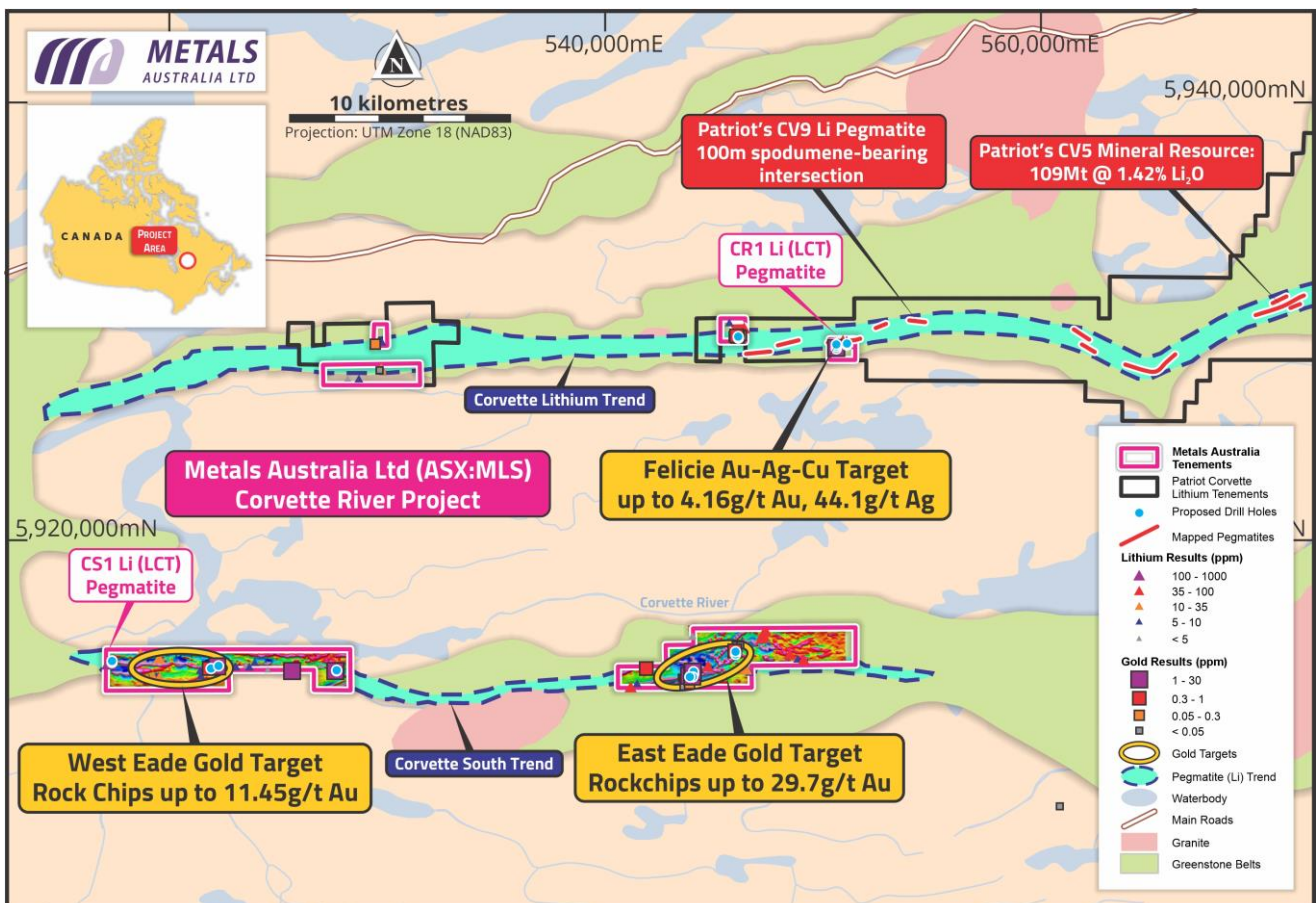


Figure 8: MLS's Corvette River tenements with pegmatite, gold & silver sample locations

Source: Company Data

Project Overview: Warrambie Lithium/Base Metals Project

Warrambie Lithium Project

Covering an extensive 126 square km, MLS’s highly-prospective Warrambie lithium project is located within 15km east of the world-class Andover lithium project of ASX-listed Azure Minerals (ASX: AZR), which has produced spectacular drilling intersections of up to 209.4m @ 1.42% Li₂O. In November 2023, Azure announced to the ASX it had a total of nine drilling rigs in operation at Andover to expand its discovery. In October 2023, Azure entered into a transaction implementation deed with Sociedad Química y Minera de Chile S.A which valued the company at A\$1.63 billion. Mining magnate Gina Rinehart and ASX-listed miner Mineral Resources Ltd (ASX: MIN) have since emerged with respective shareholdings of 18.3% and 13.5% in Azure.

MLS is preparing to commence a detailed exploration program at Warrambie, which will include drilling to follow up on a series of Electro-Magnetic targets it has identified. Given its proximity to the world-class Andover project, the exploration program at Warrambie is expected to attract significant investor interest.

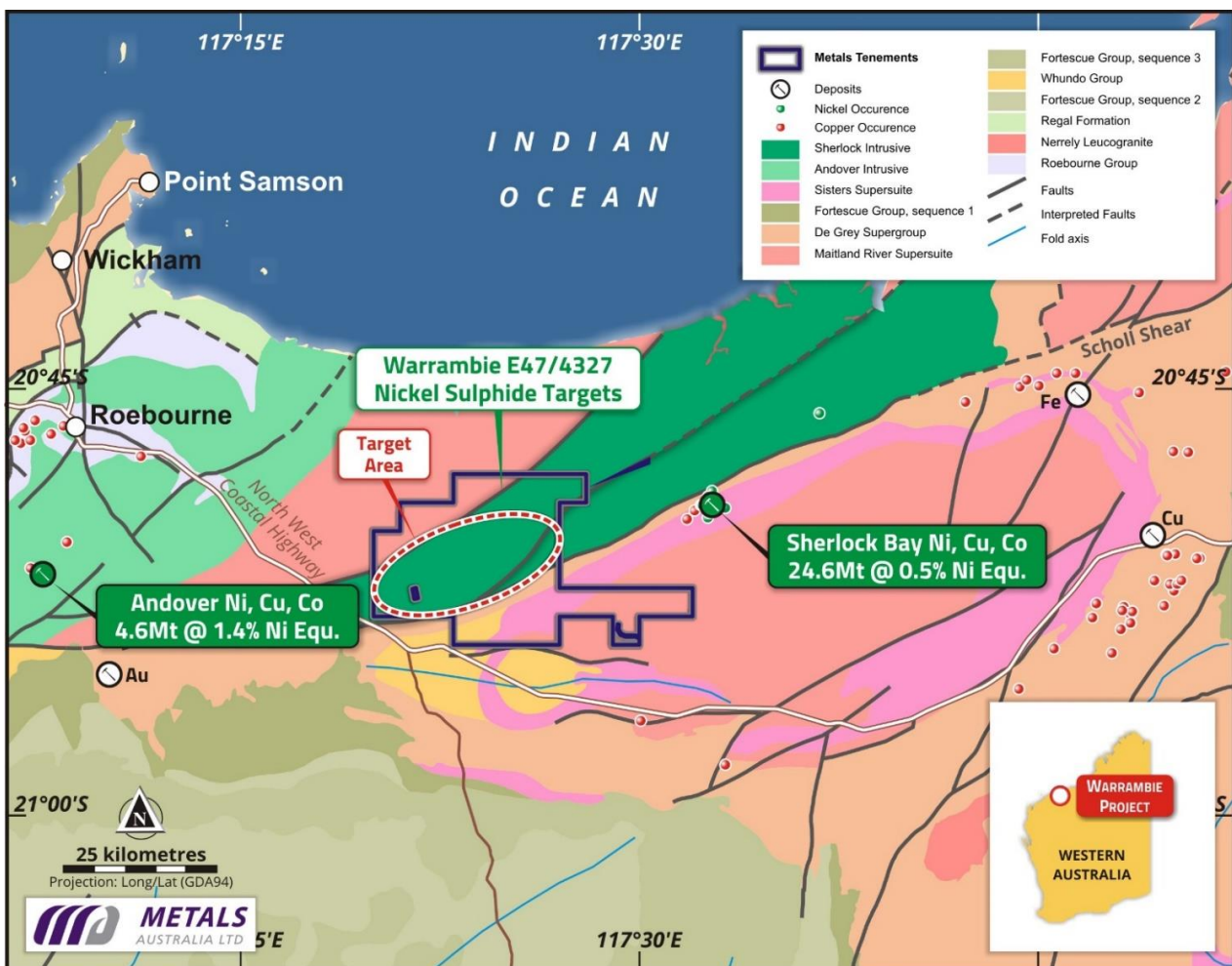


Figure 9: Warrambie lithium project and proximity to world-class Andover lithium discovery

Source: Company Data

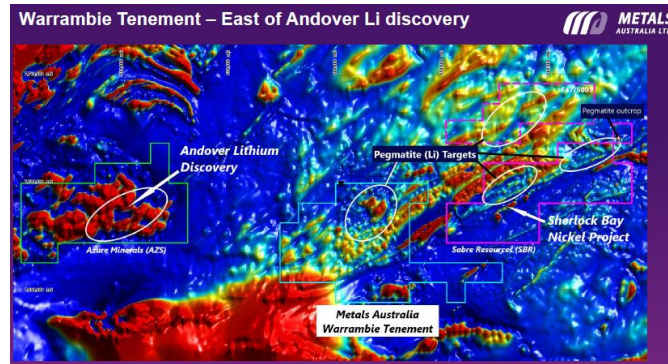


Figure 10: Pegmatite lithium targets at Warrambie
Source: Company Data

Warrambie Nickel-Copper-Cobalt Project

In addition to its lithium potential, Warrambie is considered highly prospective for nickel-copper-cobalt sulphide deposits similar to those at the neighbouring Sherlock Bay discovery (24.6Mt @ 0.5% Ni Equ) to the southwest being advanced by ASX-listed Sabre Resources (ASX: SBR). Recent EM and gravity surveys conducted by the Company over Warrambie were successful in defining significant anomalies under soil cover.

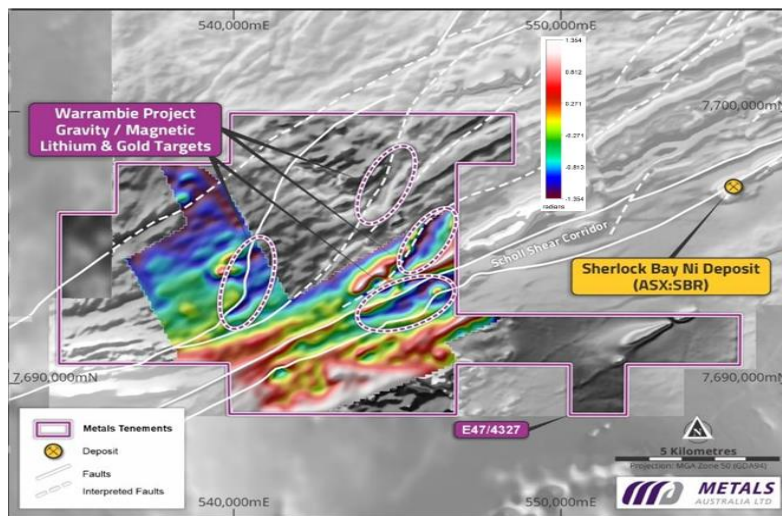


Figure 11: Detailed gravity data imagery in colour on re-processed magnetics in grey scale showing key magnetic and gravity low lithium pegmatite and gold targets under cover which are yet to be drill-tested.

Source: Company Data

The company has identified Andover look-alike targets through an initial detailed gravity survey and magnetic reprocessing at its Warrambie project, positioned 10km east of the renowned Andover lithium project in the Northwest Pilbara region of Western Australia. Continuous detailed gravity and passive seismic survey programs at Warrambie have revealed three significant gravity lows within the higher-density mafic package, indicating potential lithium-bearing pegmatite intrusions in a setting identical to the Andover discovery. Approximately 60% of the target zone has been covered in the ongoing detailed gravity surveys at Warrambie. The processing and imaging of the initial gravity data have unveiled distinct gravity lows within northeast-trending structures, suggesting potential lithium-bearing pegmatite clusters beneath shallow cover.

Project Overview Manindi Lithium/Base Metals Project

Manindi Lithium Project

MLS holds an 80% interest in the Manindi Lithium/Base Metals Project, 20 km southwest of Youanmi in Western Australia's highly prospective Murchison District. The project is prospective for various battery metals, including zinc, copper, and nickel, and spans an area of about 500 square km. The project is situated in an area with a long history of mineral exploration and development, which is a well-established mining zone. Within the project area, the Youanmi Gold Mine is a significant producer of gold and silver. Additionally, the project is close to the renowned Mount Keith Nickel Mine, one of the biggest nickel mines in the world.

After discovering high-grade lithium pegmatites along a 3 km x 2 km corridor at Manindi, the Company recently announced a high-grade lithium pegmatite diamond drilling intersection from the Foundation Pegmatite. Diamond drill hole MND005 produced a 12m intersection grading 1.38% Li₂O, including 3m @ 2.12% Li₂O₅ from 60m downhole. The diamond hole intersected a 12.5m approximately true-width zone of steeply dipping pegmatite with visible lepidolite and petalite crystals throughout.

Previous rock chip sampling of this high-grade pegmatite discovery produced results averaging over 1% Li₂O along the entire 500m strike length of the identified pegmatite zone¹¹ (see Figure 3). This was confirmed by RC drilling, which tested the Foundation Pegmatite as part of the 3,500m RC drilling program in 2022, producing widespread lithium intersections within a 3km x 1km NW-SE trending pegmatite corridor.

A metallurgical testwork program is in progress, testing a 40kg drill-core bulk sample from MND005 grading 1.33% Li₂O. The testwork is being carried out at Nagrom laboratories in Perth and managed by CPC Engineering and is examining potential to produce lepidolite and petalite concentrates targeting 3% and 4% lithium grade, respectively. The samples will also be analysed using XRD to determine mineralogy and potential spodumene content.

Prospect	Hole ID	Easting	Northing	Dip	Azi.	Drilled	Pegmatite intersection		
Foundation	MND005	663,877	6,818,595	-55	160	130.5	59.75 to 72.27		12.52m
Prospect	Drillhole	From	To	Interval (m)	Li ₂ O%	Rb%	Ta ₂ O ₅ ppm	Cs ₂ O ppm	Cut-off % Li ₂ O
Foundation	MND005	60	72	12.0	1.38	0.35	84.2	97.3	0.5%
	Inc.	63	71	8.0	1.69	0.34	72.5	97.4	1.0%
	Inc.	63	66	3.0	2.12	0.21	41.5	53.4	1.5%
	Inc.	63	64	1.0	2.60	0.18	25.1	59.7	2.0%

Table 2: Manindi lithium project drilling results

Source: Company Data

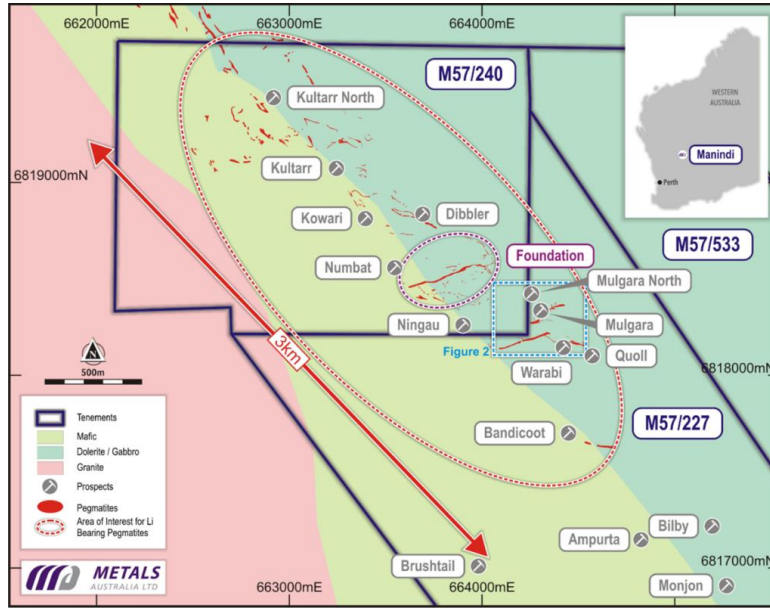


Figure 12: Manindi lithium drill project, mapped pegmatites with rock chip and drill hole locations
Source: Company Data

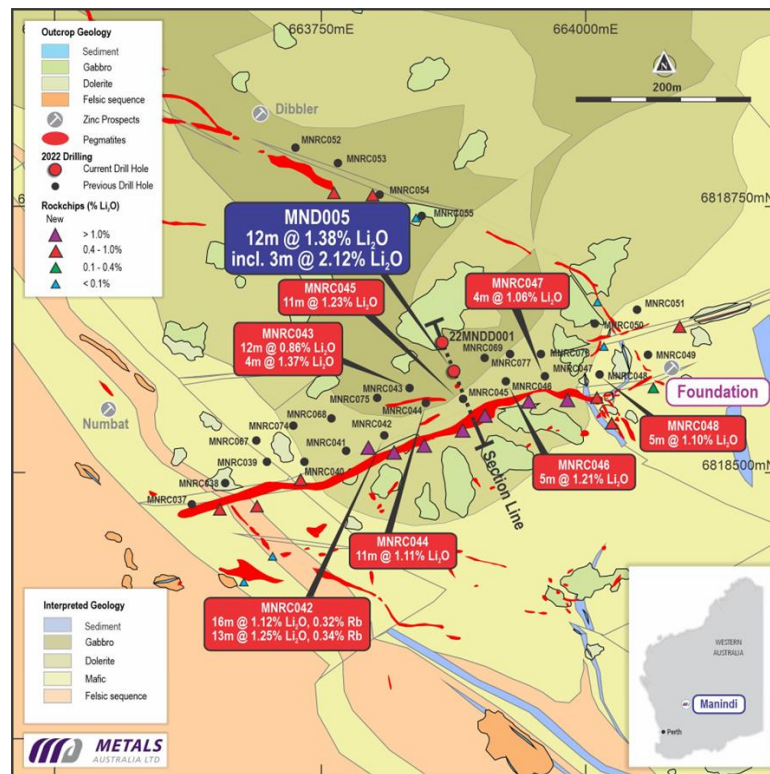


Figure 13: Manindi Project, Foundation Pegmatite, drilling and rockchip results
Source: Company Data

Manindi Base Metals Project

The high-grade Kultarr and Kowari zinc deposits are part of the Manindi Base Metals Project and are situated near the project's northern end at the transition between a series of mafic intrusive units and mafic volcanics and felsic to the west.

These deposits already host a JORC 2012, Measured, Indicated & Inferred Mineral Resource of 1.08Mt @ 6.52% Zn, 0.26% Cu, 3.2g/t Ag for 70,102t Zn₃ (2% Zn cut-off) (including a Measured: 37.7kt @ 10.22% Zn, 0.39% Cu, 6.2g/t Ag; Indicated: 131.5kt @ 7.84% Zn, 0.32% Cu, 4.6g/t Ag and Inferred: 906.7kt @ 6.17% Zn, 0.25% Cu, 2.9g/t Ag).

Near the existing resources, additional target zones still need to be investigated for copper and zinc mineralization. The high-grade zinc potential is available below this depth, where drilling has only gone as deep as 250m.

In 2022, the company announced a significant vanadium (iron, titanium) intersection with zones of nickel-copper-cobalt sulphide mineralization from MNRC071. This was the first drillhole that tested the Manindi West/Brushtail target. The Kowari and Kultarr zinc resources are located to the southwest and parallel to the corridor where this RC drill hole was conducted. It tested an EM anomaly associated with a significant northwest-trending magnetic zone over 3 km long and 1 km broad.

MLS recently announced petrography on high-grade titanium-vanadium-iron-sulphide mineralization from drillhole MND003 which indicated the titanium is contained in coarse ilmenite that can be separated from the magnetite. This would more than double the vanadium content of the remaining magnetite concentrate product to more than 1% V₂O₅ and up to 60% Fe and produce a separate, saleable, titanium-rich ilmenite product. Diamond drillhole MND0031 tested the 3 km long Manindi West mafic intrusive target below RC hole MNRC0712, which had produced a broad vanadium-titanium-magnetite intersection of 70m @ 0.30% V₂O₅, 28% Fe, 11.5% TiO₂ from 48m incl. 20m @ 0.44% V₂O₅, 34.8% Fe, 14.3% TiO₂.

Scanning Electron Microscope analyses of the magnetite and ilmenite indicates that Titanium is almost entirely contained in the ilmenite (SEM: TiO₂ 51.5%, FeO 46.5%, V₂O₅ 0.3%), and Vanadium is almost entirely contained in the magnetite (SEM: V₂O₅ 1.6%, FeO 97.7%, TiO₂ 0.35%). The resulting high-grade magnetite concentrate can grade up to 60% Fe and >1% V₂O₅, representing a high-value ore for downstream processing. Facilities are being developed for downstream processing of such ores within WA.

The petrographic findings represent an important breakthrough for the company. MLS may create several high-value products, including a high-grade magnetite concentrate containing vanadium, a highly sought-after feedstock for manufacturing vanadium pentoxide if it can extract the high-grade titanium mineral ilmenite from the magnetite. The vanadium electrolyte for vanadium redox flow batteries, which are quickly emerging as the optimum grid-energy storage battery technology for renewable energy projects, is produced using vanadium pentoxide.

Project Overview: Early-stage Copper, Gold Exploration

- **Tennant Creek Copper-Gold Project, Northern Territory, Australia:** Considered highly prospective for high-grade Cu-Au discoveries. The completed detailed gravity survey in the area of shallow cover directly east of the Warrego Cu-Au deposit has been processed and imaged, awaiting interpretation and targeting. Following the interpretation and modelling of the geophysics, targeted RC and diamond drilling will test for IOCG, Tennant Creek style, and mineralization within the buried Warramunga Formation units.
- **Murchison Gold Project, Western Australia:** Along strike from the >5Moz Big Bell gold deposit. Field programs are underway to investigate interpreted greenstones prospective for gold and lithium.
- **Lac du Marcheur Copper-Cobalt Project, Canada:** Airborne TDEM and MAG surveys have highlighted several conductors aligned and coincident with magnetic trends/lineaments which may be associated with graphitic and/or sulphidic zones. Fieldwork is planned to locate the source of these conductors/anomalies.
- **Nepean South Nickel Project, Western Australia:** Sabre Resources (ASX: SBR) earning an 80% interest via farm-out agreement. Recent drilling by Sabre has produced high nickel and anomalous copper results including results.

Competitive Landscape

The Australian Stock Exchange is home to several companies exploring, producing and refining graphite. These companies include junior companies with projects in development, larger companies with operational mine sites, and vertically integrated companies that supply battery-grade graphite to the electric vehicle industry. Some of the major players in the graphite industry are included in the table below.

Graphite Peers Comparison

Code	Company	EV M\$	1Yr Return	Contained Graphite - Mt	\$ / Tonne	Status	Location of Graphite
TLG	Talga Group Ltd	\$ 246.48	-44.90%	13.31	18.52	Development	Sweden
RNU	Renascor Resources Ltd	\$ 165.70	-45.00%	8.53	19.43	Development	Australia
SVM	Sovereign Metals Ltd	\$ 284.28	34.10%	25.33	11.22	Development	Tanzania
BKT	Black Rock Mining Ltd	\$ 774.70	-54.10%	16.62	4.49	Development	Tanzania
EGR	EcoGraf	\$ 36.69	-3.30%	2.94	1.75	Development	Tanzania
WKT	Walkabout Resources Ltd	\$ 79.78	27.60%	4.51	17.69	Construction	Tanzania
MRC	Mineral Commodities Ltd	\$ 24.50	-41.90%	1.39	17.63	Exploration	Australia
LEL	Lithium Energy Ltd	\$ 44.29	-57.60%	2.70	16.40	Exploration	Australia
EV1	Evolution Energy Minerals Ltd	\$ 13.17	-70.20%	2.13	6.18	Development	Tanzania
EVG	Evion Group	\$ 5.80	-39.20%	2.60	2.23	Development	Madagascar

Table 3: Graphite peers valuation

Source: Vested Research

Valuation for MLS:	\$M Value	Cents / Share	Total All	\$975.39	98.06
			Exploration	\$68.79	4.09
Cash - \$M	\$ 18,000,000.00	\$ 0.0255	Development	\$826.82	89.46
Graphite - \$M*	\$ 15,318,178.67	\$ 0.0217			
Total - \$M	33318178.67				
Number of shares - M	707,000.000				
Price		\$ 0.0471			
			Value per MT of contained Graphite		
			Exploration Stage	\$16.82	Mt
			Development Stage	\$9.24	Mt
			All Companies	\$9.95	Mt
			Large Flake +80 Aud\$/Tonne	\$1,300.00	
			1Mt Large Flake value	\$1.3B	

Lithium Peers Comparison

Code	Company	EV M\$	1Yr Return	Contained Graphite - Mt	\$ / Tonne	Status	Location of Graphite
LRS	Latin Resources Ltd	\$ 661.88	38.89%	0.89	743.69	Exploration	Brazil
PLS	Pilbara Minerals Ltd	\$ 9,907.81	-14.32%	4.76	2,081.47	Development	Western Australia
SYA	Sayona Mining Ltd	\$ 343.75	-79.52%	1.72	199.85	Exploration	Canada
CXO	Core Lithium Ltd	\$ 218.80	-86.67%	0.61	358.69	Development	Australia
LTR	Liontown Resources Ltd	\$ 2,963.43	-50.00%	2.18	1,359.37	Exploration	Western Australia
AZL	Arizona Lithium Ltd	\$ 83.66	-48.89%	0.06	1,394.33	Exploration	Canada
DLI	Delta Lithium Ltd	\$ 110.25	-55.15%	0.44	250.57	Exploration	Australia
ASN	Anson Resources Ltd	\$ 150.55	-27.78%	1.50	100.35	Development	USA, Western Australia
INR	Ioneer Ltd	\$ 469.35	-38.24%	3.25	144.42	Production	USA
AKE	Allkem Ltd	\$ 5,482.95	-21.17%	1.64	3,343.26	Production	Western Australia, Canada
PSC	Prospect Resources Ltd	\$ 77.47	-57.69%	0.74	104.69	Exploration	Zimbabwe
LPI	Lithium Power International Ltd	\$ 333.02	98.25%	0.36	925.06	Exploration	Chile, Western Australia
EUR	European Lithium Ltd	\$ 63.17	-50.00%	0.11	574.27	Exploration	Austria, Ukraine
PLL	Piedmont Lithium Inc	\$ 19.72	-74.56%	0.79	24.96	Exploration	Canada, Ghana
GLI	Global Lithium Resources Ltd	\$ 67.75	-73.12%	0.59	114.83	Exploration	Western Australia
INF	Infinity Lithium Corporation Ltd	\$ 11.18	-52.17%	0.31	36.06	Exploration	Spain
BNZ	BENZ Mining Corp	\$ 8.49	-64.29%	0.28	30.32	Exploration	Canada
LKE	Lake Res	\$ 72.13	102.87%	2.00	36.07	Exploration	Argentina

Total	\$21,045.36	22.23	Value per MT of contained Lithium		
Exploration	\$4,815.90	10.47	Exploration Stage	\$459.97	Mt
Development	\$10,277.16	6.87	Development Stage	\$1,495.95	Mt
Production	\$5,952.30	4.89	Production Stage	\$1,217.24	Mt
			All Companies	\$946.71	Mt

Table 4: Lithium peers' valuation

Source: Vested Research

Key Risks

- Inherent uncertainties of exploration projects:** MLS is an exploration company and many of its projects have not yet discovered significant resources for development, and its success hinges on the discovery of viable mineral deposits. The success of locating and extracting viable mineral resources can be uncertain, and projects might encounter technical challenges, unexpected costs, or delays. The company's prospects could be limited if exploration efforts do not yield positive results.
- Regulatory and Permitting Challenges:** The company is subject to extensive regulatory and permitting requirements that can vary by jurisdiction. Delays or difficulties in obtaining necessary permits can impact project timelines and costs.
- Capital Intensity:** The company faces several financial risks due to its stage of development and the nature of its business. This means it relies on external funding to finance its day-to-day operations. The company faces a high risk of liquidity problems if it cannot secure additional funding. Exploration projects often require significant upfront capital investments for exploration. The need for ongoing financing and funding availability can be risky, especially in volatile markets.
- Relatively small company:** Metals Australia is a relatively small company with a limited track record. This means the company has fewer financial resources, technology, and expertise than larger, more established companies. As a result, MLS is more susceptible to risks and may have a competitive disadvantage.
- Commodity price volatility:** The company's operations are vulnerable to fluctuations in commodity prices. A drop in mineral prices can render a project economically unviable or affect the company's financial health.
- Geopolitical risks:** The mining industry is exposed to geopolitical risks, such as changes in government policy or conflict in mining-friendly countries. MLS's projects are in Canada and Australia and are generally considered politically stable. However, a change in government or a political crisis in either of these countries could impact the company's operations and profitability.

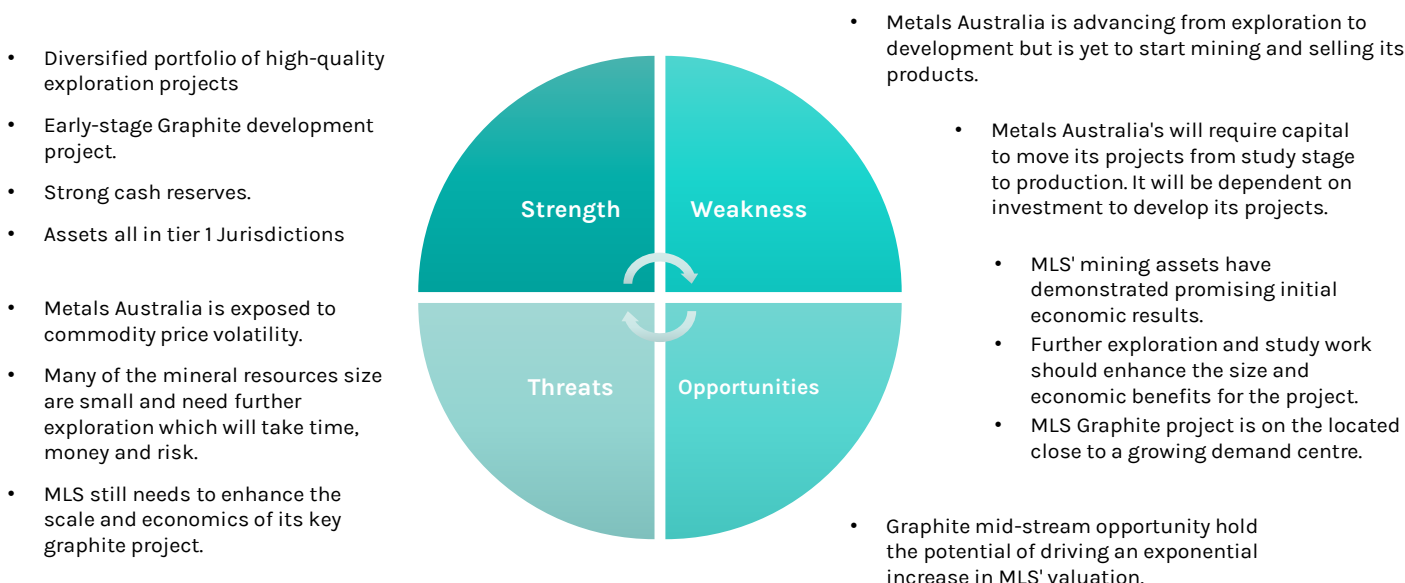


Figure 14: Low energy intensity and low environmental impact of Natural Graphite vs Synthetic Graphite

Source: Company Data

Top 20 Shareholders

The twenty largest shareholders, representing 31.42% of the shareholdings are listed below:

Particulars	Number of shares (in Mn)	% Outstanding
Mr. James John Del Piano	39.50	6.33%
Coniston Pty Ltd	39.50	6.33%
10 Bolivianos Pty Ltd	33.82	5.42%
Bnp Paribas Noms Pty Ltd	9.66	1.55%
Mr. Jiumin Yan	9.40	1.51%
Citicorp Nominees Pty Limited	8.49	1.36%
Mr. Phung Dang Nguyen	8.16	1.31%
Broadway Computers Pty Ltd	7.88	1.26%
Bnp Paribas Noms Pty Ltd Uob Kh Pl Ac	7.71	1.23%
Mr. Blair Hugh Townsend	7.25	1.16%
Corporate Resource Services Pty Ltd	7.00	1.12%
Tag Investments Australia Pty Ltd	5.78	0.93%
Mr. Antanas Guoga	5.31	0.85%
Lawrence Jonathon Dugdale	5.00	0.80%
Mr. Phung Dang Nguyen + Mrs. Thi Thu Thuy Nguyen	4.43	0.71%
Mrs. Minjuan Zhou	4.10	0.66%
Mr. Niv Dagan	4.06	0.65%
Kalgoorlie Mine Management Pty Ltd	3.90	0.62%
Mrs. Donghua Tan	3.35	0.54%
Superhero Securities Limited	3.35	0.54%
Total	217.65	34.88%

Table 5: Top Shareholders

Source: Annual Report 2023

Management Information

Name	Position	Biography
Michael Scivolo	Non-Executive Chairman	Mr. Scivolo has extensive experience in the fields of accounting and taxation in both corporate and non-corporate entities. Mr. Scivolo was partner/director in a CPA firm until 2011 and has since consulted in accounting and taxation fields. Mr. Scivolo has also been on the boards of several ASX listed mining companies and is currently a Director of Sabre Resources Ltd, Golden Deeps Ltd and Tennant Minerals Ltd.
Paul Ferguson	Chief Executive Officer	Mr. Ferguson boasts a rich and diverse background in the resources and energy sectors, spanning over three decades across North America, Asia, and Australia. As a seasoned mining engineer, Paul brings extensive project development and operational expertise, particularly honed during his tenure in Canada. Notably, he spent nine formative years with ExxonMobil in Canada, where he played a pivotal role in the establishment and successful operation of a large-scale oil sands mining, mineral processing, and refining project. Throughout this journey, Paul oversaw every facet of the project lifecycle, from feasibility studies to design, construction, and ongoing operations. Following his impactful contributions to the Canadian Oil Sands venture, Paul assumed the role of President (USA) & Executive General Manager of Mining & Mineral Processing for GMA Garnet, a distinguished position within the world's largest producer of industrial garnets. Prior to this, his early career included pivotal roles with BHP Iron Ore and Coking Coal, where he garnered invaluable industry insights. Subsequently, Paul dedicated significant time with Mobil Oil Australia, where he contributed his expertise to their Oil Refining and Supply organizations, before embarking on a new chapter in Asia. Throughout his illustrious career, Mr. Ferguson has consistently demonstrated a profound commitment to excellence and innovation, making him a formidable asset in any endeavor within the resources and energy sectors.
Basil Conti	Non-Executive Director	Mr. Conti is a fellow of the Institute of Chartered Accountants Australia & NZ and was a partner/director of a Chartered Accounting firm in West Perth until 2015. Mr. Conti is experienced in management accounting, taxation, secretarial practice, corporate and financial planning, and consulting for small and large businesses and has been professionally associated with the mining industry for over 25 years. Mr. Conti is a Director of Sabre Resources Ltd.
Rachelle Domansky	Non-Executive Director	Ms. Domansky is a consultant psychologist to business, government, and educational institutions in Asia-Pacific. She is experienced in ESG compliance, media and marketing, human resources development and management, corporate culture, and education and training. She has non-executive board positions: Metals Australia Limited, Quebec Lithium Limited.
Alexander Biggs	Non-Executive Director	Mr. Biggs is a qualified mining and mechanical engineer with a BEng (Hons) degree from the Western Australian School of Mines. He has over 20 years of experience in mining, finance and engineering and was Managing Director of ASX-listed Critical Resources. Mr. Biggs' experience extends to operations, consulting, exploration and corporate finance, where he was a director of a US and UK-based private equity firm and brings a wealth of experience in the battery metals sector and key relationships in both North America and Asia.
Michael Muhling	CFO/ Company Secretary	Mr. Muhling is a finance and governance professional with twenty years of experience in the resources industry, including 15 years in senior roles with ASX-listed companies. He is a Fellow of CPA Australia, a Fellow of The Chartered Governance Institute, and a Fellow of the Governance Institute of Australia. Mr. Muhling brings to the company a wealth of experience in the corporate and resource sectors, both in Australia and overseas. Mr. Muhling is also the Chief Financial Officer of the company.

Table 6: Key Management Personnel

Source: Company Data

Appendix

Graphite

Graphite, a type of carbon, has become increasingly popular in recent years due to its uses as a battery mineral and the rising popularity of electric vehicles. Graphite is an excellent conductor of electricity, making it essential for electronics. It is also a sought-after commodity because it comes in three different forms, each with great applications in contemporary technology. Australia has significant graphite reserves but does not currently manufacture the mineral. According to government data released in 2022, Australia has 5 million tons of ore reserves and 7.97 million tons of economically proven resources (EDR). For comparison, the world produced 1.3 million tons of graphite in 2022, with China producing most of that total (850,000 tons).

China Spherical Graphite 99.95%min 17um max EXW USD/mt

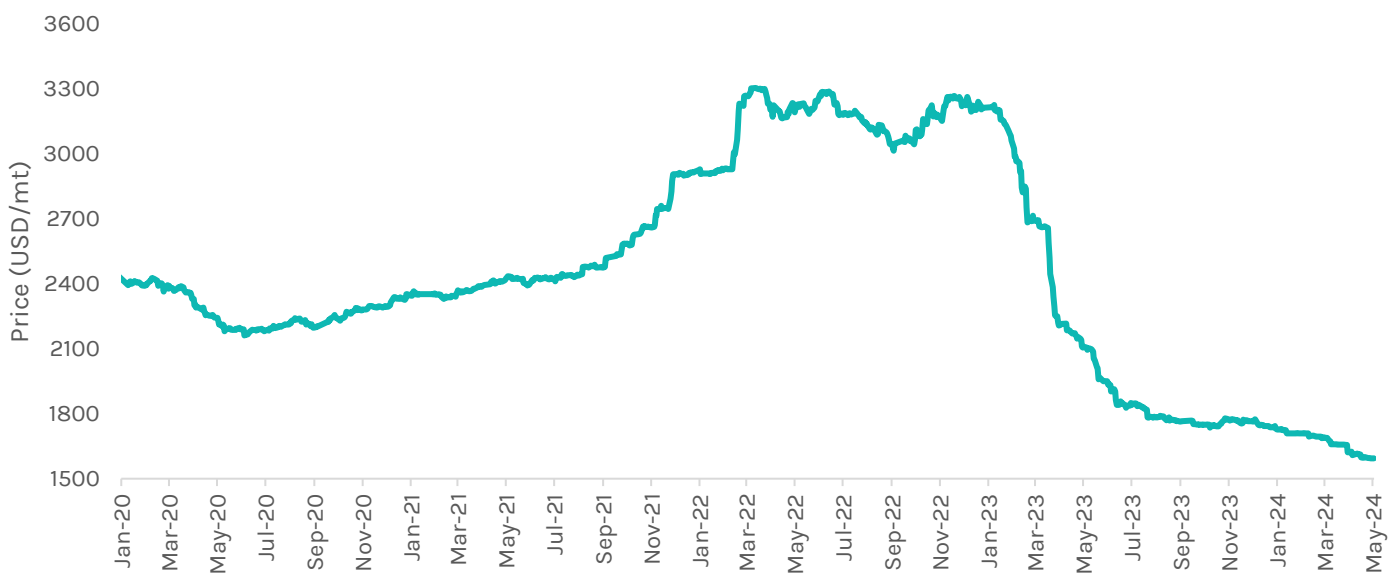


Figure 15: China Spherical Graphite Price Trends (2020 – 2023)

Source: Bloomberg

Graphite is a versatile material produced from natural and synthetic sources. While synthetic graphite is created from coal-tar pitch, petroleum coke, or oil, natural graphite is extracted from the soil. Synthetic graphite is currently the dominant source, accounting for about 60% of the global market. However, natural graphite is gaining popularity due to its ESG benefits, cost advantages, and performance gains when blended with synthetic graphite. As a result, the market for natural graphite is expected to grow rapidly in the coming years, and by the end of the 2020s, natural and synthetic graphite is expected to account for roughly equal shares of the market.

Natural graphite is extracted from ore bodies using various methods, including open-pit mining. The grade of the ore body can vary significantly, from lower-grade (sub-10% total graphitic carbon, or TGC) in China to mid-grade (10%+ TGC) in Africa to high-grade (20%+ TGC) in Europe. The ore from mining is then processed to remove impurities and concentrate the graphite. This process typically involves crushing, grinding, flotation, and drying. The final product is a high-purity graphite concentrate that is 95%+ pure. The graphite concentrate can be further processed into different grades and sizes for different applications. Fines are typically used in the PSG (plastics, rubber, and sealants) and automotive and aerospace markets, while flake is sold into industrial end markets such as refractories, lubricants, and batteries. Synthetic graphite is made from coke, pitch tar, or oil, heated to high temperatures (2,000-3,000°C) to liberate the carbon content. This process is called graphitization. The result is a highly pure form of graphite that can be further shaped, purified, and polished to produce various synthetic graphite products. The key end use of synthetic graphite is in blending with natural active anode material for use within battery anodes. Graphite provides the structure and conductivity, while the natural anode material provides the lithium storage capacity. This blending process allows for the development of high-performance battery anodes with the cost advantages of synthetic graphite and the performance advantages of natural anode material.

EV Batteries vs. Graphite Consumption

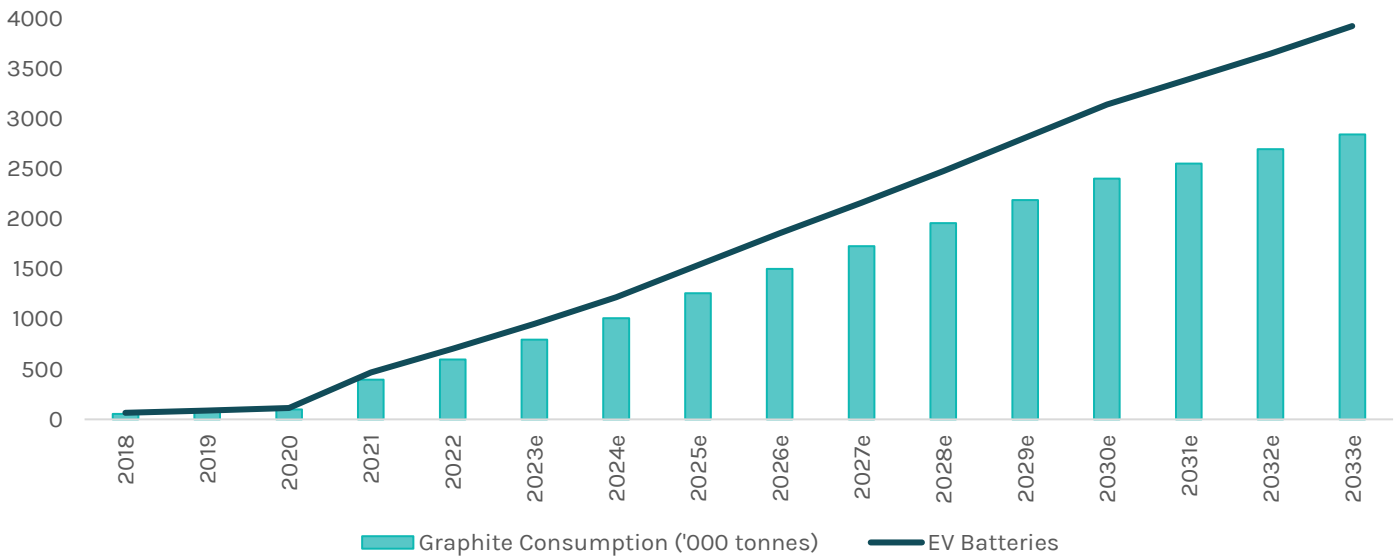


Figure 16: Comparison of EV Batteries and Graphite Consumption

Source: Fastmarkets

Natural graphite and synthetic graphite produce active anode material (AAM), a key component of lithium-ion batteries. However, the different structures of these two materials give them different characteristics. Natural graphite has a higher charge capacity and costs less than synthetic graphite. This is because natural graphite has a more disordered structure, which allows it to store more lithium ions. Additionally, natural graphite is mined from the earth, which is a more cost-effective process than synthetic graphite from petroleum coke production. Synthetic graphite has a better life cycle and is more uniform in its structure. This is because synthetic graphite is made in a controlled environment, ensuring the particles are all the same size and shape. This uniformity makes synthetic graphite more stable and less likely to crack or break down during use. However, synthetic graphite also has a higher carbon footprint than natural graphite. This is because the production of synthetic graphite requires the use of petroleum coke, which is a fossil fuel. Additionally, the high temperatures required to produce synthetic graphite release greenhouse gases into the atmosphere.

Natural graphite has traditionally been used in various applications, including steelmaking, coatings, fire retardants, and pencils. However, the demand for natural graphite is expected to grow significantly in the coming years due to its use in lithium-ion batteries. Lithium-ion batteries are used in a variety of products, including electric vehicles, grid-scale energy storage systems, and consumer electronics. Graphite is used to make the anode in lithium-ion batteries, and demand for it is anticipated to soar in the upcoming years. The demand for natural graphite for batteries is expected to outstrip supply soon. This is because the production of natural graphite is a slow and expensive process. Additionally, most natural graphite production is concentrated in China, which faces increasing environmental regulations. The shortage of natural graphite is a major concern for the lithium-ion battery industry. This is because graphite is a critical component of batteries, and a shortage of graphite could slow down the industry's growth. Graphite exploration in Canada is a growing industry, with several companies actively exploring new deposits. Canada is home to some of the world's largest and highest-quality graphite deposits, and the country is in a good position to meet the rising demand for graphite from the lithium-ion battery industry.

The Lac des Iles mine in Quebec is the only mine in Canada that is currently producing graphite - but is rapidly declining, with its owner, Northern Graphite reporting a remaining resource of 213,000 tonnes and a planned consumption rate of around 25,000 tonnes per annum. However, there are a number of other projects in the exploration and development stage. In addition to these projects, several other companies are actively exploring graphite in Canada. The Canadian government provides financial support for graphite exploration through Natural Resources Canada's (NRCan) Mineral Exploration Tax Credit (METC) program.

The growth of graphite exploration in Canada is driven by the increasing demand for graphite from the lithium-ion battery industry. Lithium-ion batteries are utilized in a variety of products, including electric vehicles, grid-scale energy storage systems, and consumer electronics. The anode in a lithium-ion battery is made from graphite, and the demand for graphite for this application is expected to grow rapidly in the coming years. Canada is in a good position to meet the growing demand for graphite from the lithium-ion battery industry, and the growth of graphite exploration in Canada is a positive sign for the industry's future. Graphite prices have been declining in 2023 despite the long-term outlook for the market. The main reason for the decline is the rising competition from Chinese synthetic graphite active anode material (AAM).

Chinese power costs have fallen, and there has been a significant increase in graphitization capacity in China. This has led to an oversupply of synthetic graphite, which has put downward pressure on prices. The decline in demand from the electric arc furnace (EAF) steel sector for graphite electrodes has also contributed to the price drop. The EAF steel sector is a major consumer of graphite, but demand has fallen due to the global economic slowdown. This has left more synthetic graphite available for the EV battery sector, which has grown rapidly. The decline in graphite prices is expected to be temporary. The market has a promising outlook for the future, thanks to the rising demand for graphite from the EV battery industry. However, the prices may remain volatile in the near term as the market adjusts to the new supply-demand dynamics.

Lithium

Australia is the world's largest producer and exporter of lithium and is well-positioned to capitalize on the growing demand for the metal. In 2022, Australia supplied 46% of the world's lithium, and its export-related income is expected to grow at a CAGR of 14.2% from 2023 to 2026. Although lithium prices have declined from recent highs, analysts believe the shift to green energy will ensure that lithium remains in high demand for many years. Lithium is most commonly found in mineral spodumene, which must be extracted, treated, and purified before it can be used. It is used as a strengthening and lightening agent in aluminum or magnesium alloys, and it is also a key constituent in lithium-ion batteries, which are used in electric devices and electronic vehicles.

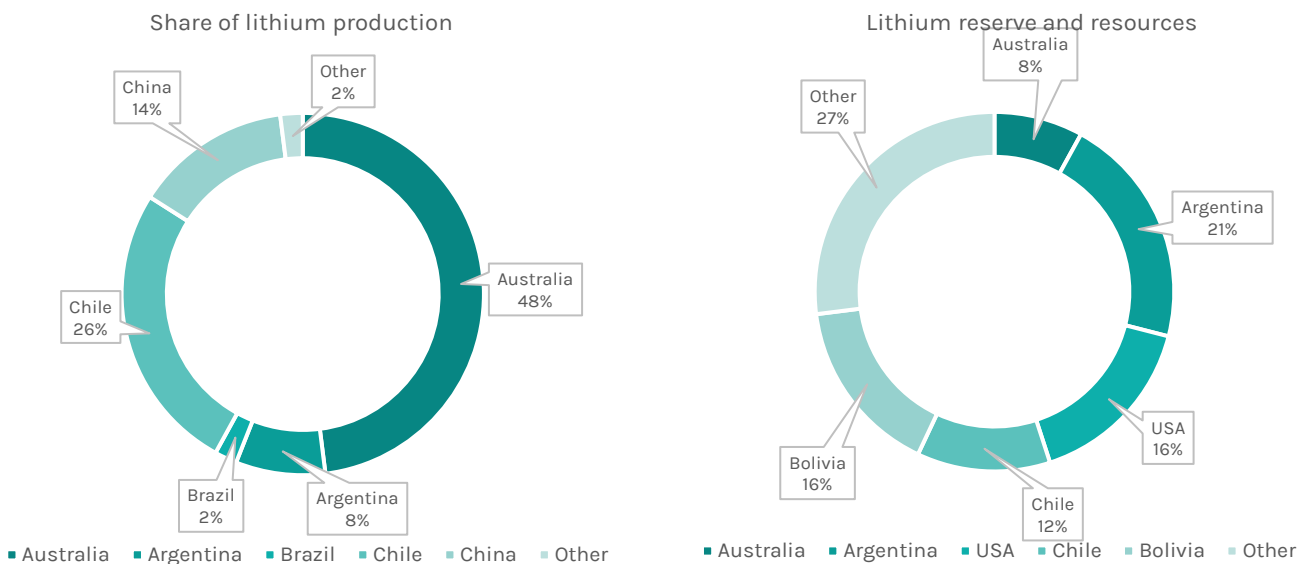


Figure 17: Country-wise Lithium Production and Reserves

Source: S&P Global Market Intelligence

The global transition to green energy is driving the growing demand for lithium. As more and more nations and companies adopt renewable energy sources, the demand for lithium-ion batteries is anticipated to increase. This will create significant opportunities for Australia, which is already a major player in the global lithium market. But rechargeable batteries for electronic gadgets like cell phones, cameras, computers, and EVs are one of the main uses for lithium. Investors are especially enthusiastic about the latter of these uses for lithium since its special qualities make it possible to produce the lightweight batteries that EVs require. As manufacturers promise to expand their electric lines, demand for EVs is increasing. For instance, Volkswagen has pledged to produce 50% all-electric vehicles by 2030. Sales of EVs are expected to more than double by 2030.

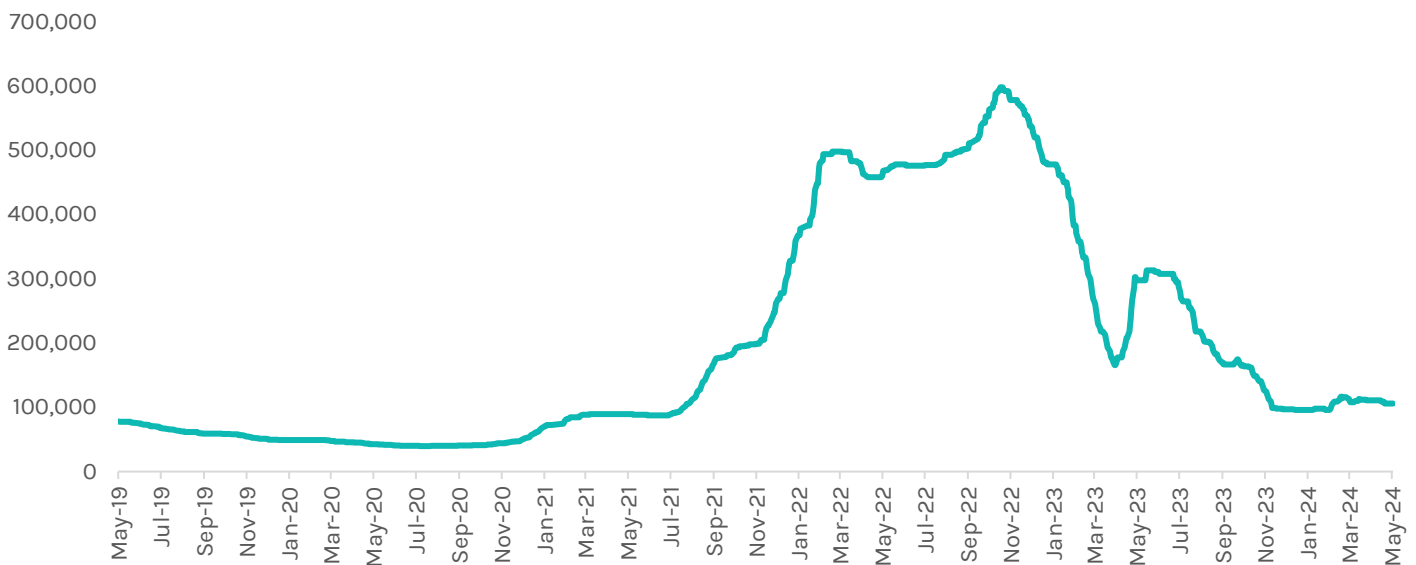
Australia, the leading producer of lithium in the world, has a great opportunity because rechargeable batteries currently account for 80% of lithium usage worldwide. The EV boom has already brought the country recent victories, and with analysts optimistic about the future of lithium, the country is prepared to profit from the expanding market. Given all these elements, prospective investors would do well to focus on Australia, a nation rich in plentiful lithium reserves, for potential future investment prospects. Most of Australia's lithium resources are found in Western Australia, where there are multiple reliable deposits. A typical lithium deposit in Australia will have a grade of 1 to 3 percent lithium oxide. Although it can be found in other minerals, such as lepidolite, most of the lithium produced in Australia originates from spodumene. Australia recorded total lithium production of 61,000 tons in 2022, exceeding 55,300 tons in 2020. Due to rapid output from two spodumene operations launched in 2017, the nation's lithium production numbers first spiked around 2018.

The Greenbushes mine, the largest operational lithium mine in the world, is one of many lithium mines operating right now in Australia. In FY22, global EV sales increased by over 36% (mostly in China, North America, and Europe). Prices for spodumene concentrates and lithium compounds have reached record highs because of rising demand and a delay in new supply. Spot prices, on average, traded far higher than 2021's average pricing. In addition, supply issues have elevated spodumene prices substantially above historical levels for lithium hydroxide. Due to some corporations' contracting positions, the impact of this higher pricing has been delayed.

Most forecasts anticipate that lithium prices will remain reasonably high over the next few years as new supply continues to fall short of new demand. Numerous new projects exist in Australia and other parts of the world for primary (spodumene and lithium carbonate) and secondary (lithium hydroxide) production. However, the potential for a future supply deficit still exists. The short-term demand-supply balance and prices will be impacted by the lengthy lead times and potential production delays associated with bringing such huge volumes of lithium online. Australian businesses are utilizing the enormous opportunity to advance further along the battery supply chain, which represents a significant departure from the "dig and ship" approach that has dominated Australia's mining industry.

With foreign joint venture partners, Mineral Resources, Allkem, IGO, Pilbara Minerals, and Wesfarmers are investing in downstream chemical processes to create battery-grade lithium hydroxide. The downstream potential for other businesses' spodumene developments is also considered. While China dominates the EV battery supply chain, producing over 50% of the lithium compounds, 70/85% of cathode/anode, and 75% of lithium-ion batteries, 50% of the world's lithium is produced in Australia. With the present pipeline, Australia should provide roughly 10% of the world's lithium hydroxide production.

Lithium Carbonate Price (CNY/T)



Due to a shortfall of lithium needed to meet transportation and energy storage demands for lithium-ion (Li-ion) batteries, as the massive transition away from fossil fuels continued, lithium prices rose sharply for more than 18 months until November 2022. Demand is increasing faster than supply from new projects in nations like Australia, Chile, and Argentina. However, after their high in November 2022, lithium prices are in a free fall. One of the major reasons for the fall in lithium prices is China halting incentives for purchases of new energy vehicles. The incentives led to the overproduction of EV batteries last year to take advantage of the Chinese subsidies. This resulted in unsustainable inventories, and the first trigger for the current crash came when China's Contemporary Amperex Technology, the world's biggest EV battery maker, announced plans to sell batteries at a hefty discount to spot prices. The other reason for the price fall was the demand for EVs slowing in China ahead of Beijing's plans to stop subsidizing the new energy vehicles industry. However, the prices have rebounded since, owing to stable demand from China.

Government Initiatives

Australian Government Initiatives

Exploration Incentive Scheme: The Exploration Incentive Scheme (EIS), a State Government initiative, was started in 2009. In 2019, the EIS was funded on an ongoing base of \$10 million annually using finances raised through Mining Tenement Rents. In July 2021, the periodic allocation was raised to \$12.5 million annually. The main goal is to stimulate increased private sector resource disquisition, leading to discoveries in minerals and energy. New discoveries in these areas will increase knowledge of the State's geology and coffers and help increase employment openings. Most of the conditioning in the EIS is concentrated in underexplored Greenfields regions.

The Critical Minerals Strategy 2023–2030: This strategy aims to ensure Australia has a secure and reliable supply of critical minerals crucial for producing products such as electric vehicles and wind turbines. The strategy includes several initiatives to support the exploration, development, and production of critical minerals in Australia.

The Strategy provides a national framework for Australia to grow its critical minerals sector and achieve the government's vision. The strategy outlines six focus areas and how the Australian government will work with communities, industry, investors, the research and innovation sector, states and territories, and international partners to seize this strategic opportunity.

Canadian Government Initiatives

Canadian Critical Minerals Strategy: Many critical minerals for the energy transition are abundant in Canada. Nearly half of the world's publicly traded mining and mineral exploration companies are based in this country. In addition, Canada is a global pioneer in ethical mining, with leading significant projects like "Towards Sustainable Mining." With the announcement of the Canadian Critical Minerals Strategy in December 2022, the Government of Canada plans to capitalize on these advantages and speed up the supply chain for essential minerals. The strategy outlined a course of action to assist Canada in being a preferred supplier of key minerals and the clean digital technologies they enable on a global scale. The Canadian Critical Minerals Strategy will boost economic growth, produce quality employment opportunities, and combat climate change meaningfully. The key focus area of this strategy includes:

- Driving Exploration, Research and development, and Innovation
- Accelerating Responsible Project Development
- Building Sustainable Infrastructure
- Advancing Reconciliation with Indigenous Peoples
- Growing a Diverse Workforce and Prosperous Communities
- Strengthening Global Leadership and Security

Critical Mineral Exploration Tax Credit: Along with the current flow-through share program, the Government of Canada's proposed Critical Minerals Exploration Tax Credit. A 30% Critical Mineral Exploration Tax Credit was proposed for investors under certain flow-through share arrangements, allowing them to support certain exploration costs incurred in Canada. Lithium, Graphite, Nickel, copper, cobalt, vanadium, rare earth elements, and uranium are just a few of the important minerals that qualify for this tax credit. The METC has been extended to 31st March of 2025.

Canada Federal Government Financial and Administrative Support: The federal government is giving financial and administrative support to accelerate the development of strategic projects in vital mineral mining, processing, manufacturing, and waste reduction to advance its transition to a net-zero economy. This includes strategic investments to unlock potential in critical-mineral-rich regions, leveraging its resources and expertise of federal trade and business development organizations. Capitalizing on existing programs such as the Strategic Innovation Fund, which is already making significant investments in the electric vehicle battery industries, is also included.

Critical Minerals Initiatives:

Inflation Reduction Act: Enacted in August 2022 The Inflation Reduction Act (IRA), focuses on reducing inflation by addressing critical supply chain vulnerabilities, particularly in critical minerals such as graphite and lithium. Enacted to strengthen domestic production and reduce dependence on foreign sources, the IRA supports the development of essential materials needed for renewable energy technologies, electric vehicles, and national defense. By incentivizing investment in the mining and processing of critical minerals, the act aims to ensure a stable supply chain, enhance economic stability, and promote sustainable industrial growth. The legislation underscores the strategic importance of critical minerals in achieving long-term economic resilience and technological advancement.

Department of Energy (DOE) Grants: The DOE has been actively funding projects that support the development of critical mineral supply chains. Recent grants have focused on advancing battery materials and technologies, that are crucial for electric vehicles (EVs) and renewable energy storage.

Syrah Resource, an Australian-based graphite producer was recently selected for a Department of Energy grant of up to \$220 million to support funding for the potential further expansion of their Vidalia active anode material (AAA) plant, which is located in Louisiana to 45,000 tonnes per annum AAA capacity. The project aligns with the broader goals of the Inflation Reduction Act and the U.S. government's commitment to securing a stable and sustainable supply of critical minerals, reducing reliance on foreign sources, and fostering innovation in the renewable energy sector. Metals Australia Limited's Lac Rainy Graphite project could potentially benefit from similar funding opportunities, particularly in developing battery-grade graphite.

The Defense Production Act Investment (DPAI): program was designed to bolster domestic production of critical minerals essential for national defense and other key industries. Implemented to reduce reliance on foreign sources, the DPAI program supports projects that enhance the resilience of supply chains for vital materials like cobalt and graphite.

Recently, the Department of Defense (DoD) awarded \$6.4 million to Fortune Minerals Limited and \$8.3 million to Lomiko Metals, Inc. through the DPAI program. These awards were part of the U.S.-Canadian Joint Action Plan on Critical Minerals, aligning with the 2024 National Defense Industrial Strategy.

Additionally, the Canadian government contributed USD \$5.6 million to Fortune and USD \$3.6 million to Lomiko. These funds were to help Fortune enhance cobalt sulfate and bismuth production, and Lomiko to advance its La Loutre graphite project. For Lomiko, the \$8.3 million DPA award, along with the \$3.6 million in Canadian funding, will help enable the company to advance the La Loutre natural flake graphite project as a supplier of high-quality graphite for defense applications and the growing electric vehicle market in North America. Both projects aim to strengthen North American critical mineral production for defense and other industries. Since the start of fiscal year 2024, the DPA Program has made 15 awards totaling \$336 million.

Canadian Government Support: Beyond the current funding to Fortune and Lomiko, the Canadian government has various programs aimed at supporting critical minerals. For example, the Strategic Innovation Fund (SIF) and the Clean Growth Program (CGP) provide financial assistance for projects that drive innovation and sustainability in mining and mineral processing.

European Union Initiatives The Critical Raw Materials Act (CRMA) of the European Union, proposed in March 2023, aims to secure a sustainable and resilient supply of critical raw materials, such as graphite and lithium, essential for the green and digital transitions. Enacted to reduce dependency on non-EU sources, the CRMA promotes investment in mining, refining, and recycling projects within Europe. This legislation supports the development of a robust industrial base for critical minerals, ensuring the availability of key materials needed for electric vehicles, renewable energy technologies, and other advanced industries. Under the act, the European Union has identified a list of 34 critical raw materials, which are important for the EU economy and face a risk of disruption, of which 17 are designated "strategic" because of their importance and global demand/supply imbalances. The strategic materials include base metals aluminium, copper and nickel, along with key battery material lithium and rare earth elements used in permanent magnets for wind turbines or in electric vehicles.

In light of these developments, Metals Australia Limited is exploring similar opportunities for its Lac Rainy Graphite project in Quebec. The company is preparing applications for funding from both the Department of Justice and the European Union to further its project development and contribute to the secure supply of critical minerals.

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