Technology Metals Report (04.26.2024): Energy Fuels Takes First Base & ASM Secures \$1.12Bn for Dubbo

written by Tracy Weslosky | April 26, 2024 Welcome to the latest issue of the Technology Metals Report (TMR), brought to you by the Critical Minerals Institute (CMI). In this edition, we compile the most impactful stories shared by our CMI Director's over the past week, reflecting the dynamic and evolving nature of the critical minerals and technology metals industry. Among the key stories featured in this report are the strategic acquisition by Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR) of Base Resources Limited (ASX: BSE | AIM: BSE) to become a leader in critical minerals production, and Nornickel's initiative to establish a new copper plant in China, enhancing their production capabilities amidst Western sanctions. We also cover significant developments like Rio Tinto, Eramet, and LG Energy's competition to develop lithium extraction technology in Chile, which is crucial for the global battery market.

This week's TMR Report also highlights the growth in the electric vehicle market with projections for 2024 sales reaching 17 million units worldwide, underlining a substantial shift towards electric mobility. Additionally, we delve into Honda's massive \$15 billion investment to establish Canada's first comprehensive electric vehicle supply chain, promising to create thousands of new jobs and significantly bolster North America's role in the global EV market. These developments underscore the intertwined nature of technological advancements and strategic

investments across the critical minerals sector, positioning our industries at the forefront of global economic and environmental transformations.

To keep up-to-date with such crucial developments and to be part of our growing community, become a CMI member.

Growing North American support builds momentum for Dubbo Project funding process: (April 26, 2024, Source) - Australian Strategic Materials Limited (ASX: ASM) announced receiving a non-binding, conditional Letter of Interest (LoI) from Export Development Canada (EDC), offering up to A\$400 million in debt financing for the Dubbo Project, focusing on rare earths and critical minerals. This support aligns with ASM's strategy to strengthen North American partnerships, enhancing a secure critical minerals supply chain. The EDC LoI supplements previous funding interests, including A\$200 million from Export Finance Australia and A\$923 million from the U.S. Export-Import Bank, reflecting growing financial confidence in the project. ASM's Managing Director, Rowena Smith, expressed enthusiasm for the momentum in funding and strategic relationships, underlining the project's potential as a reliable source of critical minerals. The company continues to engage with other financial entities to secure further support.

Honda to build Canada's first comprehensive electric vehicle supply chain, creating thousands of new jobs in Ontario: (April 25, 2024, Source) — Honda is set to invest approximately \$15 billion to develop Canada's first comprehensive electric vehicle (EV) supply chain, based in Ontario. This landmark investment includes the establishment of four new manufacturing facilities, notably an EV assembly plant and a standalone battery manufacturing facility at Honda's Alliston site. Additionally, Honda will collaborate with POSCO Future M Co., Ltd. and Asahi Kasei Corporation to build a cathode active material and

precursor processing plant and a separator plant, respectively. Projected to be fully operational by 2028, the assembly plant will have the capacity to produce up to 240,000 vehicles annually. This initiative is expected to create over a thousand manufacturing jobs directly and thousands more indirectly throughout Canada, significantly bolstering the nation's automotive sector. The investment highlights the global confidence in Canada's skilled workforce and robust economic environment.

BHP Targets Anglo American in Bid Valuing Miner at \$39 Billion: (April 25, 2024, Source) — BHP Group Ltd. (ASX: BHP | NYSE: BHP) proposed a £31.1 billion takeover of Anglo American PLC, aiming to become the world's top copper producer. The all-share deal requires Anglo to divest its South African platinum and iron ore stakes before acquisition. This merger would give BHP control over roughly 10% of global copper supply, anticipating a market shortage. The offer of £25.08 per share stirred Anglo's shares to rise 14%, reflecting a market value of £30.7 billion. BHP's interest, initially reported by Bloomberg, has reactivated large-scale mergers in the mining sector after a cautious period. Analysts predict a potential raise in BHP's initial bid, amidst expectations of a bidding war and increased market consolidation. The deal is expected to face antitrust scrutiny due to the significant concentration of global copper production.

Thinking about MP/Lynas? Think about Studebaker-Packard: (April 24, 2024, Source) — The historical consolidation of the American car industry from 1950 to 1960, where major brands like Studebaker and Packard failed despite the post-war demand for cars, serves as an analogy to critique the potential merger of MP Materials Corp. and Lynas Rare Earths Ltd. in the rare earths sector. Jack argues against the merger, citing the leadership's lack of industry-specific knowledge, operational mismatches, and

incompatible mining operations between the two firms. Concerns are also raised about the practicality of their strategies and the implications of excess capacity and the handling of hazardous byproducts. The broader theme criticizes today's business and political leaders, suggesting they lack the understanding and capability demonstrated by past industry giants like those during WWII, thereby questioning current strategic decisions in business compared to historical precedents.

BlackRock Says \$12,000 Copper Is Needed to Incentivize New Mines: (April 24, 2024, Source) — Olivia Markham, co-manager of the BlackRock World Mining Fund, stated that copper prices need to hit \$12,000 per ton—a 20% increase from current highs—to stimulate investments in new mines. This rise is crucial to prevent significant shortages during the energy transition, despite copper recently reaching a two-year high of nearly \$10,000 per ton. Markham highlighted the necessity of higher prices to support new greenfield projects as the industry faces a dire shortage of mined ore, particularly with soft demand from China this year. An analysis of recent mining investments shows that to achieve a 15% post-tax return, copper prices must reach \$12,000 per ton. The ongoing shortage and positive shifts in manufacturing sentiment suggest a potential bull market for copper, with prices already up by 15% year-to-date.

World's Biggest Energy Traders Are Returning to Metals Markets: (April 24, 2024, Source) — Some of the world's largest energy trading firms, including Vitol Group, Gunvor Group, and Mercuria Energy Group, are re-entering the metals market after a hiatus marked by previous financial setbacks. They are expanding their metals teams to utilize profits from the energy sector, amid optimistic forecasts for copper and aluminum due to looming production shortfalls. This move is strategic as these metals are crucial in the energy transition, linking closely to power

markets where these companies are also expanding. Despite the challenges posed by a market dominated by giants like Glencore Plc and Trafigura Group, these energy traders are leveraging their substantial capital and large-scale logistics to potentially disrupt the market. They are focusing on commodities like aluminum and iron, while exploring roles in base metals trading and funding mining operations, signaling a significant shift in their business strategies.

Lynas Rare Earths' revenue slumps, misses expectations: (April 23, 2024, Source) - Lynas Rare Earths Ltd. (ASX: LYC), an Australian miner, reported a significant decline in thirdquarter sales revenue, falling short of analyst expectations with only A\$101.2 million compared to A\$242.8 million the previous year. This decline was primarily due to decreased prices for rare earths, influenced by increased production in China and slower demand recovery. CEO Amanda Lacaze noted a slight price improvement but not enough to accelerate production. Consequently, Lynas will not increase production at its Malaysian facilities and plans to retain inventories until prices rise. The company also adjusted the budget for its Kalgoorlie project in Western Australia to A\$800 million from A\$730 million. Additionally, Lynas is progressing with its Mt Weld Expansion Project and anticipates starting construction on a U.S. processing plant by year-end to help reduce American reliance on Chinese rare earths.

Fuel cycle players explore opportunities and challenges at WNFC 2024: (April 23, 2024, Source) — At the World Nuclear Fuel Cycle 2024 conference in Almaty, Kazakhstan, industry leaders discussed the ambitious goal of tripling nuclear energy capacity by 2050, addressing both the opportunities and challenges this presents for the nuclear supply chain. Sama Bilbao y León, Director General of the World Nuclear Association, emphasized the growing political support for nuclear energy amidst volatile

geopolitics and energy security crises. Bohdan Zronek, Chairman of the World Nuclear Association and chief nuclear officer at ČEZ, highlighted the need to enhance every aspect of the nuclear value chain, from mining to fuel fabrication, to meet this target. This includes constructing about 1000GWe of new nuclear capacity over the next 26 years, necessitating significant innovation and expansion in capabilities. The conference also focused on how front-end fuel cycle players, particularly in uranium-rich Kazakhstan, are preparing to meet these demands, with emphasis on strategic partnerships and new market dynamics.

The world's electric car fleet continues to grow strongly, with 2024 sales set to reach 17 million: (April 23, 2024, Source) -The global electric car market is expanding rapidly, with 2024 projected sales reaching 17 million units. This growth is highlighted by a 25% increase in sales in the first quarter compared to the previous year, maintaining the momentum from 2023's 35% increase to nearly 14 million vehicles sold. China continues to lead with expected sales of 10 million electric cars in 2024, representing about 45% of its total car market. In contrast, the U.S. and Europe are seeing electric cars making up a smaller portion of total sales, yet significant growth is evident. The IEA's Global EV Outlook underscores that electric vehicles (EVs) are set to dominate the future auto market, influenced by substantial investments in the EV supply chain, declining prices, and robust policy support. If current trends persist, one in three cars in China will be electric by 2030, with similar but slightly lower proportions in the U.S. and Europe. This shift is poised to drastically reduce oil consumption and reshape both the auto and energy sectors globally.

Rio Tinto, Eramet and LG Energy seek to develop lithium extraction tech for Chile: (April 22, 2024, <u>Source</u>) — Rio Tinto, Eramet, and LG Energy are among 30 companies vying to develop

lithium extraction technology for a Chilean salt flat, as part of early exploration efforts announced by ENAMI, Chile's staterun mining agency. Chile aims to mine the Salares Altoandinos salt flat for lithium, seeking detailed proposals from companies on methods to test brine deposits and achieve battery-grade lithium, including plans for environmental impact assessments of brine reinjection. The initiative is part of a broader strategy by President Gabriel Boric to enhance state involvement in Chile's lithium sector, which holds the world's largest reserves. Boric's policy also includes transitioning from traditional evaporation ponds to direct lithium extraction technology. Meanwhile, Rio Tinto and France's Eramet are progressing with their own lithium projects in Argentina, anticipating production starts this year.

Copper demand to boom as new technology drives power consumption, Trafigura says: (April 22, 2024, Source) -Trafigura, a commodity trading firm, predicts a significant increase in copper demand, forecasting an additional 10 million metric tons over the next decade due to advancements in technology and the energy transition. This surge is driven by the growing needs of the electric vehicle (EV) industry, renewable energy, artificial intelligence, and automation. Graeme Train of Trafigura indicates that EVs will account for one-third of this new demand, with another third due to the expansion in electricity generation, transmission, and distribution. The remaining demand will come from automation, manufacturing capital expenditures, and cooling systems in data centers. This increased demand is occurring alongside a spike in copper prices, which have reached two-year highs near \$10,000 a ton on the London Metal Exchange, fueled by tight supplies and declining warehouse stocks. Disruptions like mine closures have exacerbated supply constraints, contributing to a bullish outlook for copper, with forecasts anticipating significant market shortages.

Nornickel set to build copper plant in China after shutting Russian factory: (April 22, 2024, <u>Source</u>) — Nornickel, a leading metal producer, is set to close its copper plant in Russia, aimed at reducing sulphur dioxide emissions, and will establish a new facility in China, according to CEO Vladimir Potanin. This decision follows the refusal of Western technology partners to supply essential parts due to sanctions. The move is part of Nornickel's broader strategy to adapt to the adverse impacts of Western sanctions, which have also influenced changes in the timing, cost, and configuration of their emission reduction projects. The U.S. and the U.K. recently intensified pressures by banning new imports of certain Russian metals, prompting Nornickel to seek alternative markets. Potanin announced plans for a joint venture in China to build the plant by mid-2027, leveraging local technology and market proximity, and potentially entering the battery production sector. This shift also aligns with the broader trend of Russian firms relocating to China following U.S. sanctions.

Energy Fuels Secures Strategic Acquisition (A\$375M) of Base Resources to Become a Global Leader in Critical Minerals Productions: (April 21, 2024, Source) — Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR), a key player in the uranium, rare earths, and vanadium market, has significantly expanded its portfolio through the acquisition of Base Resources Limited (ASX: BSE | AIM: BSE) for A\$375 million. This deal, which entails purchasing 100% of Base Resources' shares, marks Energy Fuels' major stride into the global critical minerals market. The acquisition includes the Toliara heavy mineral sands project in Madagascar, known for its abundant deposits of monazite, a valuable byproduct in titanium and zirconium production. This project is poised to enhance Energy Fuels' production of low-cost, high-value rare earth oxides, utilizing

its White Mesa Mill in Utah for processing. The acquisition also brings onboard Base Resources' experienced team, boosting operational efficiencies. Financial terms involve both stock and cash components, indicating a strategic move by Energy Fuels to diversify and strengthen its critical mineral supply, crucial for modern technologies like electric vehicles and renewable energy systems.

Investor.News Critical Minerals Media Coverage:

- April 24, 2024 Thinking about MP/Lynas? Think about Studebaker-Packard https://bit.ly/4aPlkAD
- April 23, 2024 Criticality & China: A Matter of Perspective https://bit.ly/3U8QaNr
- April 21, 2024 Energy Fuels Secures Strategic Acquisition (A\$375M) of Base Resources to Become a Global Leader in Critical Minerals Productions https://bit.ly/309gNR6

Investor.News Critical Minerals Videos:

 April 25, 2024 — John Passalacqua on First Phosphate Meeting the Demand for Battery-Grade LFP Cathode Active Material https://bit.ly/49SpiHk

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Releases:

- April 26, 2024 Growing North American support builds momentum for Dubbo Project funding process https://bit.ly/3UAo5QD
- April 26, 2024 Indicative, Conditional and Non-Binding Proposal Received by American Rare Earths https://bit.ly/3UjmNYG
- April 25, 2024 Zentek Provides ZenGUARD(TM) Business Update https://bit.ly/3JAoH2j
- April 24, 2024 Power Nickel Extends Momentum Closes Acquisition on 80% of Nisk https://bit.ly/3UviRFF
- April 23, 2024 First Phosphate Intersects 92.5 m of 11.82% Igneous Phosphate Starting at Surface at Its Begin-Lamarche Project in Saguenay-Lac-St-Jean, Quebec, Canada https://bit.ly/4a0zbX0
- April 23, 2024 Appia Announces Appointment of Mr. Andre Costa as New VP Exploration for Brazil Operations https://bit.ly/490tjMg
- April 23, 2024 Power Nickel Releases Thick High-Grade Assays of Copper, PGMs, Gold and Silver from its new Lion Discovery https://bit.ly/3UuBZn9
- April 22, 2024 Scandium Canada Signs Pre-Development Agreement with the Naskapi Nation of Kawawachikamach for its Crater Lake Scandium Project https://bit.ly/4b7qrf3
- April 21, 2024 Energy Fuels Announces Agreement for Transformational Acquisition of Base Resources, Creating a Global Leader in Critical Minerals Production with a Focus on Uranium, Rare Earth Elements and Heavy Mineral Sands https://bit.ly/3UtxEAS