Technology Metals Report (12.20.2024): U.S. Graphite Miners Propose 920% Tariff, Paladin Acquires Fission Uranium and Saudi Arabia Enters the Lithium Market

Last week's news highlights a significant move in the critical minerals sector, as North American graphite miners called on the U.S. government to impose a staggering 920% tariff on Chinese suppliers. This request is driven by the desire to counteract China's dominance in the market, crucial for technologies like electric vehicles and electronics. The American Active Anode Material Producers, representing U.S. and Canadian firms, argue that the current 25% tariff is insufficient to curb China's "malicious trade practices." However, not all industry stakeholders support this approach, with companies like Jervois Global Limited advocating for mandates that compel manufacturers to source metals from Western suppliers instead of imposing broad tariffs.

In international business, Paladin Energy Ltd.'s <u>acquisition</u> of Fission Uranium Corp. was greenlit by Canadian authorities, marking a significant development in the uranium sector. This C\$1.14 billion deal allows Paladin to take control of the PLS project in Saskatchewan, positioning it as a key player in the global uranium market amid rising nuclear fuel prices. The approval, which includes stringent conditions against Chinese involvement, reflects Canada's cautious stance on foreign

acquisitions in the critical minerals industry.

Saudi Arabia announced its entry into the lithium market, aiming to diversify its economy beyond oil by tapping into the growing demand for electric vehicle batteries. The country is exploring lithium extraction from brine at its oil fields, with potential production sufficient for one million batteries annually. This initiative is part of a broader strategy to develop the domestic mining sector and attract global investors, alongside efforts in nickel and graphite production through its state-run Manara Minerals Investment Co. Meanwhile, President-elect Donald Trump's advisers are pushing for policy changes that would exempt federally funded critical minerals projects from environmental reviews to accelerate U.S. production. This proposal aims to reduce bureaucratic delays and enhance the nation's self-reliance on essential minerals, amid concerns over China's supply dominance. Such a move, however, could face opposition for potentially undermining environmental protections established under the National Environmental Policy Act of 1970.

The **Technology Metals Report (TMR)** is a compilation of the top stories of the week, selected by the **Critical Minerals Institute** Board of Directors. To access this Board, <u>click here</u> or to become a **Critical Minerals Institute (CMI)** Member and have the TMR emailed to you weekly, <u>click here</u>

CMI	Critical Minerals Institute						
Purity			19.Dec.24	Month % Change	31.0ct.24	Year to Date % Change	Year End 31.Dec.23
	ALUMINUM (AI)	\$ USD/ lb.	\$1.15	-4.1%	\$1.20	16.0%	\$0.99
99.65% fob China	ANTIMONY (Sb)	\$ USD/ tn	\$30,436	10.0%	\$27,669	179.5%	\$10,890
	COBALT (Co)	\$ USD/ lb.	\$11.48	-1.4%	\$11.65	-13.2%	\$13.23
	COPPER (Cu)	\$ USD/ lb.	\$4.04	-0.6%	\$4.07	5.9%	\$3.81
>99.99%	GALLIUM (Ga)	\$ USD/ lb.	\$134.2	0.0%	\$134.2	43.0%	\$93.8
	GOLD (Au)	\$ USD/ oz.	\$2,594.9	-1.5%	\$2,633.2	25.8%	\$2,062.7
	NATURAL GRAPHITE North America (C)	\$ USD/ lb.	\$0.57	-3.1%	\$0.59	-8.0%	\$0.62
>99%	LITHIUM METAL (Li)	\$ USD/ lb.	\$4.95	0.0%	\$4.95	-42.4%	\$8.59
>99%	PRAESODYMIUM (Pr)	\$ USD/ kg.	\$78.84	-3.4%	\$81.59	-9.9%	\$87.52
>99.5%	NEODYMIUM (Nd)	\$ USD/ kg.	\$72.04	-3.5%	\$74.65	-10.3%	\$80.29
	NICKEL (Ni)	\$ USD/ lb.	\$6.95	-2.8%	\$7.15	-8.5%	\$7.59
0.999	NIOBIUM PENTOXIDE (Nb ₂ O ₅)	\$ USD/ kg.	\$45.00	0.0%	\$45.00	-8.5%	\$49.20
	PLATINUM (Pt)	\$ USD/ oz.	\$924.77	-0.6%	\$930.06	-1.9%	\$943.00
	SILVER (Ag)	\$ USD/ oz.	\$29.01	-6.4%	\$30.99	22.0%	\$23.78

Critical Mineral prices are brought to by MineralPrices.com US graphite miners ask Washington to impose 920% tariff on Chinese rivals (December 18, 2024, Source) - North American graphite miners have requested the U.S. government to impose a 920% tariff on Chinese suppliers to counter China's control over critical minerals essential for electric vehicles and electronics. The American Active Anode Material Producers, a coalition of U.S. and Canadian companies, argue that the existing 25% U.S. tariff on Chinese graphite is ineffective against China's "malicious trade practices." They seek an investigation into whether China's pricing is unfair. Meanwhile, not all industry players agree with the approach; Jervois Global Limited (ASX: JRV | TSXV: JRV | OTCQB: JRVMF), for example, advocates for a mandate requiring manufacturers to purchase Western metals rather than imposing broad tariffs. The U.S. Commerce Department and the International Trade Commission have yet to respond, while President-elect Donald Trump has hinted at broader tariffs on Chinese products.

Canada clears Paladin's \$789 million Fission Uranium takeover (December 18, 2024, Source) - Australia's Paladin Energy Ltd. (ASX: PDN | OTCQX: PALAF) has received approval from Canadian authorities to proceed with its acquisition of Fission Uranium Corp. (TSX: FCU | OTCQX: FCUUF) for C\$1.14 billion (\$789.1) million). The deal, approved under the Investment Canada Act, allows Paladin to take over Fission's PLS project in Saskatchewan, expected to finalize by early January 2025. This move strengthens Paladin as a major player in the global uranium market, especially as nuclear fuel prices rise due to anticipated demand increases from the energy transition. However, Paladin's shares dropped by 1.8% due to general weakness in the mining sector. The approval follows Canada's stringent review on national security concerns and includes conditions like prohibiting China-sourced financing and restricting uranium sales to China, aligning with Canada's

tightened stance on foreign acquisitions of critical minerals firms.

Saudi Arabia Taps Aramco Oil Field Brine in Lithium Battery Push (December 18, 2024, <u>Source</u>) — Saudi Arabia is venturing into lithium production for electric car batteries as part of its economic diversification away from oil. The country is testing lithium production methods through two projects, with plans for more, according to Khalid Al-Mudaifer, the vice-minister for mining. Additionally, Saudi Aramco is collaborating with the King Abdullah University of Science and Technology to extract lithium from brine at oil fields, aiming to produce enough lithium for one million batteries annually. This production will cater to both domestic and international markets. Alongside lithium, Saudi Arabia is also exploring nickel processing and graphite production through its state-run Manara Minerals Investment Co. These efforts are part of broader initiatives to develop technology and tourism sectors and enhance the domestic mining industry for global investors.

Trump advisers urge ending environmental reviews for mines receiving US funds (December 18, 2024, Source) — Advisers to President-elect Donald Trump are proposing he exempt critical minerals projects that receive federal funding from environmental reviews to bolster U.S. production of materials crucial for electric vehicles and other technologies. This recommendation, part of a policy initiative from Trump's transition team, aims to decrease U.S. reliance on Chinese minerals, as China is a leading global supplier. Specifically, the advisers suggest waiving the National Environmental Policy Act (NEPA) requirements for projects on federal lands to speed up the permitting and construction process. While Trump, who has criticized bureaucratic procedures as campaign fodder, has not yet confirmed his position on this, the move could simplify processes that currently involve multi-agency reviews and are

often subject to lengthy legal challenges. NEPA, a foundational environmental law established in 1970, mandates thorough reviews for significant federal projects, which can delay mining developments significantly.

Volkswagen takes 9.9% stake in lithium developer Patriot Battery Metals for C\$69 mln (December 18, 2024, <u>Source</u>) — Volkswagen has acquired a 9.9% stake in the Canadian lithium developer, Patriot Battery Metals Inc. (TSX: PMET | ASX: PMT | OTCQX: PMETF), for approximately C\$69 million (\$48.18 million), at a premium price of C\$4.42 per share. This investment values Patriot at C\$625.8 million and includes a significant supply agreement through Volkswagen's battery manufacturer, PowerCo SE. Under this deal, Patriot is set to deliver 100,000 tonnes of spodumene concentrate annually over the next decade, a key component for lithium batteries used in electric vehicles. Additionally, the companies have signed a memorandum of understanding to potentially co-develop the Shaakichiuwaanaan Project in Quebec, with Volkswagen possibly offering further financing in return for increased supply rights.

American Battery Technology Company Awarded \$144 Million Grant Contract from U.S. Department of Energy for Construction of Second Lithium-Ion Battery Recycling Facility (December 18, 2024, Source) — American Battery Technology Company (ABTC) (NASDAQ: ABAT) has been awarded a \$144 million grant from the U.S. Department of Energy to construct its second commercial-scale lithium-ion battery recycling facility. This new facility will increase ABTC's processing capacity to approximately 100,000 tonnes/year of battery materials. It is designed to have five times the throughput of their first facility and will focus on recycling end-of-life and manufacturing scrap materials to produce battery-grade metals like nickel, cobalt, manganese, and lithium hydroxide for the North American market. ABTC has partnered with BASF, Siemens, and several other partners,

including educational and government entities, to support this project. The facility aims to create 1,200 construction jobs and 300 operations jobs, promoting energy equity and sustainable manufacturing within local communities. The project will commence on January 1, 2025.

Assessing the Global Rare Earths Landscape in 2025: Part I: Price Discovery (December 17, 2024, Source) - The article examines global rare earths markets, highlighting China's dominant role in setting prices. Although rare earths are a small slice of China's economy, its overproduction—driven by government policy to maintain employment-creates deflation and keeps prices low. Analysts often ignore that China's leaders have technical and economic expertise, which influences their approach to production and trade. Meanwhile, the U.S. dollar remains the global reserve currency, and America runs massive trade deficits, effectively exporting dollars to China. Because China's currency is non-convertible, price discovery largely depends on direct purchases from Chinese producers. Non-Chinese rare earth manufacturers struggle to compete unless heavily subsidized. Tariffs or price guarantees could raise consumer costs. A less government-intrusive, more efficiently managed approach might stabilize and diversify rare earth supply chains.

Critical metals will be a key battleground in US-China trade war (December 17, 2024, Source) — Critical minerals are central to the US-China trade war, with China leveraging its control over these resources in response to U.S. semiconductor restrictions. Recent U.S. actions have led to China banning exports of crucial minerals like gallium, germanium, and antimony—vital for chip manufacturing and solar panels. This is part of a pattern where China matches U.S. technological sanctions with retaliatory restrictions on mineral exports. The situation is poised to escalate further under the potential Trump administration's threat of more extensive tariffs. The U.S. heavily relies on

Chinese imports for these minerals, and recent bans have significantly disrupted supply chains, causing prices to surge dramatically. Efforts to boost domestic production face slow progress, with significant developments not expected until 2028. Meanwhile, China's dominance in the supply of many critical minerals poses ongoing strategic challenges for the U.S., signaling a complex future for trade relations and global mineral markets.

Russia sells stakes in some Kazakh uranium deposits to China (December 17, 2024, <u>Source</u>) - Kazakhstan's nuclear company Kazatomprom announced that Russia's Rosatom is selling its shares in several jointly developed uranium deposits to Chinese entities. Kazatomprom, the world's leading uranium producer, stated that Rosatom's Uranium One Group is transferring a 49.979% stake in the Zarechnoye mine to SNURDC Astana Mining, backed by China's State Nuclear Uranium Resources. Additionally, Uranium One will sell a 30% interest in the Khorasan-U venture to China Uranium Development Company, affiliated with China General Nuclear Power Corporation. Kazatomprom highlighted ongoing sanctions risks with Rosatom that complicate uranium sales to Western countries. Despite these sales, Rosatom retains significant holdings in other Kazatomprom deposits. China, the major purchaser of Kazakh uranium, continues to expand its nuclear investments in the region.

Congo files criminal complaints against Apple in Europe over conflict minerals (December 17, 2024, Source) — The Democratic Republic of Congo has filed criminal complaints against Apple (NASDAQ: AAPL) in France and Belgium, alleging the tech giant's use of conflict minerals in its supply chain. Congo, a significant source of minerals like tin, tantalum, and tungsten, accuses Apple of indirectly supporting crimes committed by armed groups in the region through its mineral sourcing practices. Apple denies these claims, asserting it does not source primary

minerals directly and conducts thorough audits of its suppliers. The complaints, filed in Paris and Brussels, accuse Apple's subsidiaries of various crimes, including war crimes cover-up and laundering tainted minerals. These actions, according to Congo, are part of systematic wrongdoing supported by flawed certification schemes like ITSCI, despite reports of their inadequacies. The U.S. and European legal systems will determine the merit of these complaints.

Europe's demand for Chinese tech transfers beats tariffs (December 17, 2024, <u>Source</u>) — The EU has opted for a strategic approach by demanding technology transfers from Chinese companies in exchange for battery production subsidies, a move aimed at integrating China into Europe's industrial framework rather than isolating it through tariffs. This policy encourages Chinese companies to contribute locally rather than just exporting batteries, leveraging China's advanced battery technology and production capabilities. Critics argue it could enhance China's influence in Europe, but the EU views it as a necessary alignment of interests to boost its competitive edge in the electric vehicle sector. This approach contrasts with the U.S. reliance on tariffs, which have proven less effective, leading to supply chain disruptions and higher consumer costs without fostering domestic growth. Europe's method promotes mutual benefits and strategic cooperation, which could serve as a model for the U.S. to rethink its trade and industrial policy towards China.

Honda and Nissan reportedly in merger talks to bolster automakers for EV future (December 17, 2024, Source) — Honda and Nissan, two prominent Japanese automakers, are reportedly discussing a merger, as revealed by Nikkei Asia. This potential union aims to strengthen their positions in the rapidly evolving electric vehicle (EV) market, a move fueled by increased competition from companies like Tesla and emerging Chinese

automakers. Although the companies have not confirmed the merger, they acknowledged ongoing discussions about future collaborations focused on EVs and autonomous technologies, which are capital-intensive sectors. This strategic partnership, formed earlier in March 2024, could lead to a combined company under a holding structure, potentially including Mitsubishi Motors. A merger could make the entity the world's third-largest automaker, significantly enhancing their competitive stance in the global market. Additionally, the merger might face regulatory hurdles in the U.S., especially with potential policy shifts under President-elect Donald Trump, who has threatened tariffs and other trade barriers.

Exclusive: Trump transition team plans sweeping rollback of Biden EV, emissions policies (December 17, 2024, Source) -Donald Trump's transition team is proposing significant reversals of Biden's policies on electric vehicles (EVs) and emissions. The plans involve cutting support for EVs and their infrastructure, ending a \$7,500 tax credit for EV purchases, and imposing tariffs on global battery materials to boost U.S. production, while negotiating exemptions with allies. These measures target China's dominance in the battery supply chain and redirect funds towards national defense and critical minerals. Additionally, the team suggests rolling back emissions and fuel economy standards to 2019 levels, increasing allowable tailpipe pollution, and preventing California from setting its own stringent emissions standards. These proposals are aimed at both bolstering U.S. defense capabilities and supporting traditional and electric automakers domestically.

Vietnam Won Big in Donald Trump's First Trade War. Now, It's a Target. (December 16, 2024, <u>Source</u>) — Vietnam capitalized on trade shifts during Trump's first term, becoming a key hub for manufacturers relocating from China to avoid U.S. tariffs. This growth enriched Vietnam's economy with significant foreign

investment and increased exports, especially to the U.S. The country now holds a substantial share of U.S. imports, including sports shoes, wooden furniture, and solar cells. However, with the new U.S. administration, Vietnam faces potential trade challenges. Trump's trade representative nominee has suggested tightening rules to prevent loopholes that allowed Vietnamese (and other third-country) factories with Chinese ties to circumvent tariffs. These changes could threaten Vietnam's trade surplus and attract tariffs, impacting both Vietnamese exports and U.S. consumers. Despite potential new tariffs, some industry experts believe Vietnam's advantages—like low labor costs and strong infrastructure—will continue to attract foreign investment, particularly in technology and manufacturing sectors.

US backs graphite factory to loosen China's EV supply chain grip (December 16, 2024, Source) — The U.S. is boosting its electric vehicle (EV) supply chain independence from China by funding Novonix, an Australian company, to build North America's largest synthetic graphite facility in Chattanooga, Tennessee. The U.S. Energy Department has offered NOVONIX Limited (NASDAQ: NVX | ASX: NVX) a \$755 million loan to support the construction of this facility, which is set to be the first large-scale synthetic graphite producer in the region, with an annual output sufficient for 325,000 EVs by 2028. This move comes as China, which dominates over 95% of the graphite market used in car batteries, has tightened export controls. The project aligns with efforts to reduce reliance on foreign critical materials and is seen as crucial for maintaining the competitiveness of the U.S. EV industry.

Department of Defense Makes Investment to Strengthen the Tungsten Supply Chain (December 13, 2024, <u>Source</u>) — The U.S. Department of Defense has granted \$15.8 million to Fireweed Metals Corp. (TSXV: FWZ | OTCQX: FWEDF) to expedite the

development of the Mactung tungsten mine in Yukon, Canada, one of the largest untapped high-grade tungsten deposits globally. This funding is part of the Defense Production Act Purchases to enhance resource definition, feasibility studies, and other preparatory works for construction. This initiative is backed by additional funds from Canada's Department of Natural Resources and is aligned with the 2024 National Defense Industrial Strategy to bolster domestic production of critical minerals. The award is also part of the broader U.S.-Canadian Joint Action Plan on Critical Minerals, established in 2020, which aims to secure North American critical mineral supply chains essential for various industries, including defense and aerospace.

Investor.News Media Highlights

■ December 17, 2024 — Assessing the Global Rare Earths Landscape in 2025: Part I: Price Discovery https://bit.ly/4iHYBus

Investor.News Video Highlights

- December 18, 2024 Stephen Burega Discusses Appia Rare Earths & Uranium's Role in Brazil's First Permanent Magnet Production Initiative https://youtu.be/TPc0l_3e6P4
- December 16, 2024 John Passalacqua Highlights Key Developments for First Phosphate, Focused on High-Purity Phosphate Production for the Lithium Iron Phosphate (LFP) Battery Industry https://youtu.be/G0DUPTU3NBg

Investor.News Member News

- December 20, 2024 Wyoming Rare USA Secures Strategic Facility to Support Halleck Creek Project https://bit.ly/41Jw55x
- December 20, 2024 Scandium Canada Announces Closing of First Tranche of a Flow-Through Private Placement of \$620,000 and a hard-cash offering https://bit.ly/3P75jwD
- December 19, 2024 NEO Battery Materials and Specialty Automotive Battery Cell Manufacturer Sign Joint Development Agreement for Silicon-Enhanced Battery Technology https://bit.ly/4iNzKWn
- December 19, 2024 Critical Metals PLC: Financial and Corporate Restructuring to Advance the Molulu Project https://bit.ly/4iKEUCj
- December 18, 2024 First Phosphate Announces Intention to Complete \$1,000,000 Non-Brokered Private Placement https://bit.ly/3Dr0hbJ
- December 18, 2024 Power Nickel Hole 78 Delivers over 29.5 Metres Wide Polymetallic Zone with Grades ranging from 2.3% 11% CuEq https://bit.ly/3ZZj2vL
- December 18, 2024 First Phosphate Signs Long-term Offtake Agreements and Pursues Interest from Financial Partner https://bit.ly/4gjj2fT
- December 18, 2024 F3 Welcomes Rebecca Greco to the Board of Directors https://bit.ly/3P0lmfC
- December 18, 2024 Nano One Secures Its 11th New Patent in 2024 https://bit.ly/3Dvs2jc

The upcoming **CMI Summit IV**, themed *The War for Critical Minerals* and *Capital Resources*, is scheduled to take place in Toronto, Ontario, on May 13-14, 2025. This event aims to unite industry

leaders to tackle pressing issues in the global critical minerals market. To learn more about the **CMI Summit IV**, <u>click here</u> — or to secure a **CMI Summit IV** 2-day Delegates Pass, <u>click here</u>

