

Lifezone Metals Produces First-Ever Nickel, Copper and Cobalt from Kabanga Nickel Project



Produced In-House at Lifezone’s Simulus Laboratory During Hydromet Refinery Pilot Scale Test Work

July 23, 2024

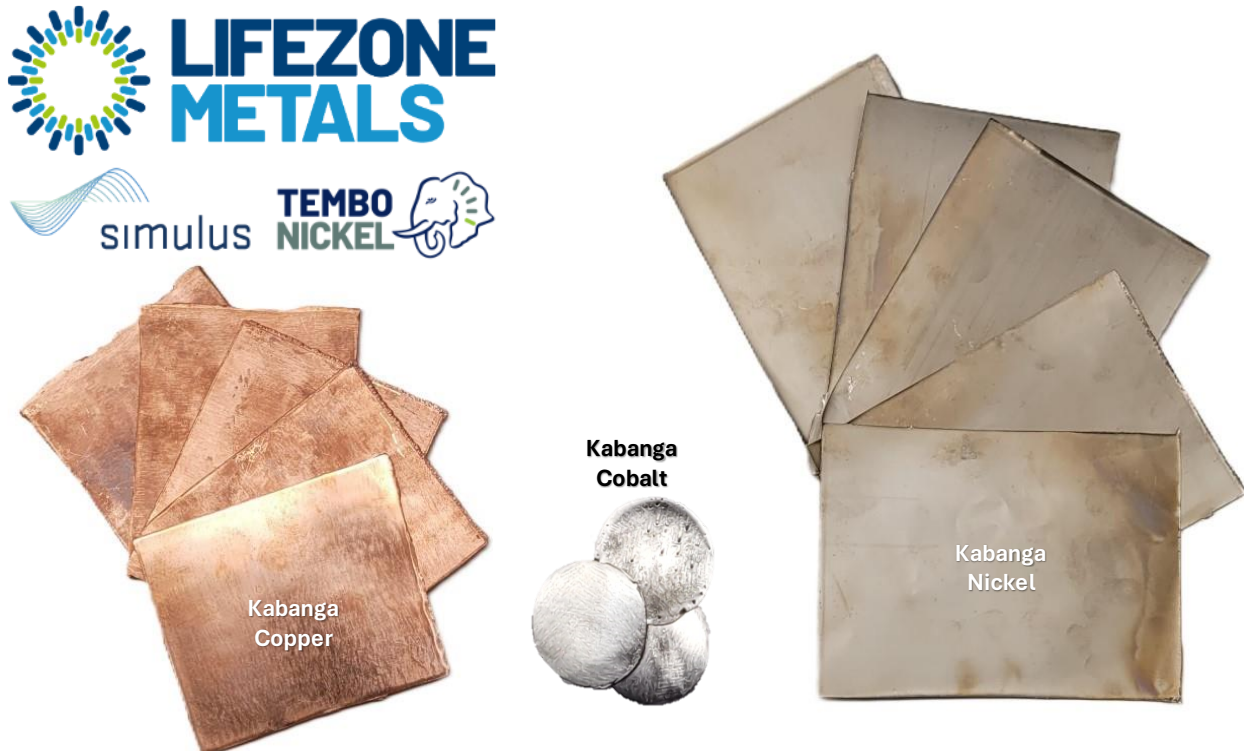
New York (United States) – Lifezone Metals Limited’s (**NYSE: LZM**) Chief Executive Officer, Chris Showalter, and Chief Technology Officer, Dr. Mike Adams, are pleased to announce that Lifezone has produced nickel, copper and cobalt cathode samples via the semi-continuous pilot scale refinery test work underway at the Company’s Simulus Laboratory in Perth, Australia. The metals were produced from flotation concentrate derived from borehole core samples at the Kabanga Nickel Project, located in north-west Tanzania.

This milestone marks the first metal ever produced from Kabanga mineralization since the deposit’s initial discovery in 1975 by the United Nations Development Program.

Mr. Showalter stated: “Achieving the first-ever production of refined nickel, copper and cobalt cathode from the Kabanga Nickel Project marks a historic milestone for the Project and for Lifezone. This accomplishment, resulting from extensive test work at our in-house laboratory, reflects our commitment to innovation and bringing this world-class resource to market. It lays a strong foundation for the future of Kabanga and the Kahama Refinery to ensure high-quality, sustainable metals production in Tanzania.”

Dr. Mike Adams added: “The production of nickel, copper and cobalt cathode samples from the Kabanga Nickel Project is a groundbreaking achievement by our team at Simulus Laboratory. This success highlights the effectiveness of our hydrometallurgical techniques and our commitment to sustainable metal production. The pilot plant’s performance has been exemplary, closely matching our process simulation models, and we are optimistic about the positive impact this will have on the Kabanga Nickel Project and the future operations at the Kahama Refinery.”

Figure 1: Nickel, copper and cobalt samples produced by Hydromet from Kabanga source material through pilot test work completed at Lifezone's laboratory in Perth, Australia.



Extensive batch, locked-cycle and semi-continuous pilot plant test work for processing of Kabanga flotation concentrate into refined nickel, copper and cobalt metals has been undertaken to confirm design criteria for the Kahama refinery. The pilot plant has performed as expected and is consistent with various process simulation models, both internal and vendor supplied. Leach extractions were high and consistent with previously announced figures, with data analysis, mass balancing and Quality Assurance / Quality Control activities ongoing. Full product assays are currently pending.

Simulus is a globally preeminent hydrometallurgical laboratory, testing, and engineering design group. By bringing their highly trained technicians and engineers and assets into Lifezone in 2023, Lifezone has been able to shorten laboratory testing times, avoid regular delays that can occur when using external laboratories, maintain IP confidentiality, and better control costs.

Figure 2: Semi-continuous pilot refinery test work underway at Lifezone’s Simulus Laboratory (left); close ups of solvent extraction (“SX”; center and right).



Figure 3: Satellite map with the 3D Model of the proposed Hydromet refinery superimposed, located at the site of Barrick Gold’s past-producing Buzwagi gold mine, Kahama, Tanzania. Phase 1 shown in color and Phase 2 in white.

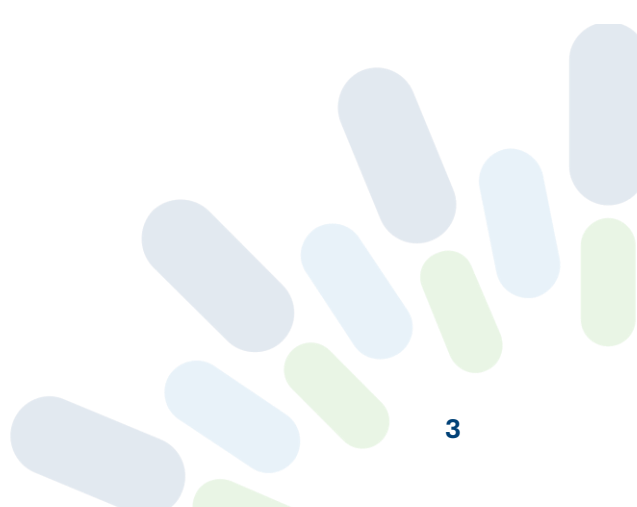
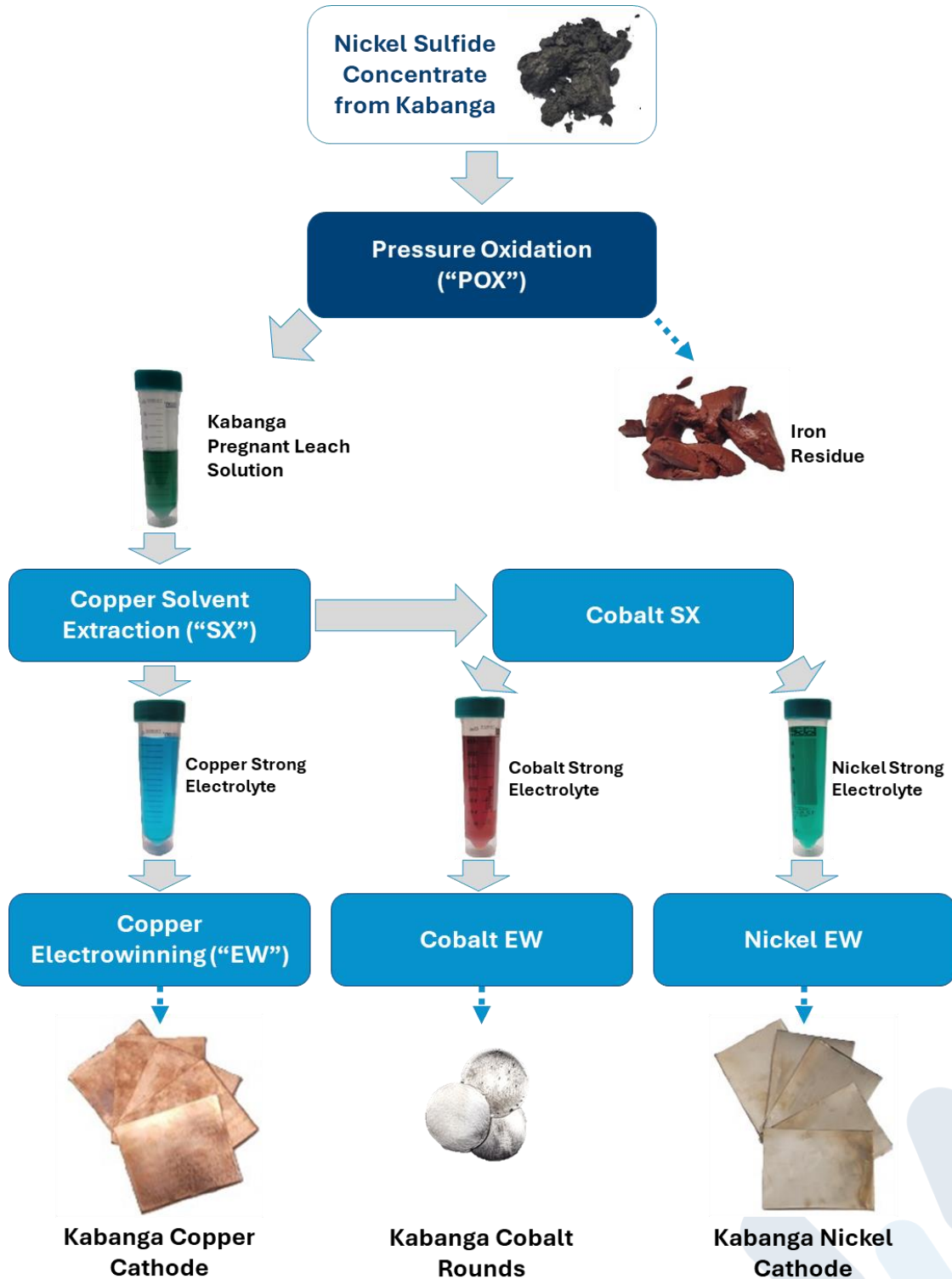


Figure 4: Simplified flowsheet showing the hydrometallurgical metals extraction process from Kabanga sulfide concentrate through to finished nickel, copper and cobalt metals.





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About Lifezone Metals

At Lifezone Metals (NYSE: LZM), our mission is to provide cleaner and more responsible metals production and recycling. Using a scalable platform underpinned by our Hydromet Technology, we offer the potential for lower energy consumption, lower emissions and lower cost metals production compared to traditional smelting.

Our Kabanga Nickel Project in Tanzania is believed to be one of the world's largest and highest-grade undeveloped nickel sulfide deposits. By pairing with our Hydromet Technology, we are working to unlock a new source of LME-grade nickel, copper and cobalt for the global battery metals markets, to empower Tanzania to achieve full in-country value creation and become the next premier source of Class 1 nickel. A Definitive Feasibility Study for the mine-to-metals project is due for completion in Q3 2024.

Through our US-based, platinum, palladium and rhodium recycling partnership, we are working to demonstrate that our Hydromet Technology can process and recover platinum group metals from responsibly sourced spent automotive catalytic converters in a cleaner and more efficient way than conventional smelting and refining methods.

www.lifezonemetals.com

Forward-Looking Statements

Certain statements made herein are not historical facts but may be considered “forward-looking statements” within the meaning of the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended and the “safe harbor” provisions under the Private Securities Litigation Reform Act of 1995 regarding, amongst other things, the plans, strategies, intentions and prospects, both business and financial, of Lifezone Metals Limited and its subsidiaries.

Generally, statements that are not historical facts, including statements concerning possible or assumed future actions, business strategies, events or results of operations, and any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Forward-looking statements generally are accompanied by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “would,” “plan,” “predict,” “potential,” “seem,” “seek,” “future,” “outlook” or the negatives of these terms or variations of them or similar terminology or expressions that predict or indicate future events or trends or that are not statements of historical matters; provided that the absence of these does not mean that a statement is not forward-looking. These forward-looking statements include, but are not limited to, statements regarding future events, the estimated or anticipated future results of Lifezone Metals, future opportunities for Lifezone Metals, including the efficacy of Lifezone Metals’ hydrometallurgical technology (Hydromet Technology) and the development of, and processing of mineral resources at, the Kabanga Project, and other statements that are not historical facts.

These statements are based on the current expectations of Lifezone Metals’ management and are not predictions of actual performance. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on, by any investor as a guarantee, an assurance, a prediction or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions. Many actual events and circumstances are beyond the control of Lifezone Metals and its subsidiaries. These statements are subject to a number of risks and uncertainties regarding Lifezone Metals’ business, and actual results may differ materially. These risks and uncertainties include, but are not limited to: general economic, political and business conditions, including but not limited to the economic and operational disruptions; global inflation and cost increases for materials and services; reliability of sampling; success of any batch and pilot test work; capital and operating costs varying significantly from estimates; delays in obtaining or failures to obtain required governmental, environmental or other project approvals; changes in government regulations, legislation and rates of taxation; inflation; changes in exchange rates and the availability of foreign exchange; fluctuations in commodity prices; delays in the development of projects and other factors; the outcome of any legal proceedings that may be instituted against the Lifezone Metals; our ability to obtain additional capital, including use of the debt market, future capital requirements and sources and uses of cash; the risks related to the rollout of Lifezone Metals’ business, the efficacy of the Hydromet Technology, and the timing of expected business milestones; the acquisition of, maintenance of and protection of intellectual property; Lifezone’s ability to achieve projections and anticipate uncertainties (including economic or geopolitical uncertainties) relating to our business, operations and financial performance, including: expectations with respect to financial and business performance, financial projections and business metrics and any underlying assumptions; expectations regarding product and technology development and pipeline and market size; the effects of competition on Lifezone Metals’ business; the ability of Lifezone Metals to execute its growth strategy, manage growth profitably and retain its key employees; the ability of Lifezone Metals to reach and maintain profitability; enhancing future operating and financial results; complying with laws and regulations applicable to Lifezone Metals’ business; Lifezone Metals’ ability to continue to comply with applicable listing standards of the NYSE; the ability of Lifezone Metals to maintain the listing of its securities on a U.S. national securities exchange; our ability to comply with applicable laws and regulations; stay abreast of accounting standards, or modified or new laws and regulations applying to our business, including privacy regulation; and other risks that will be detailed from time to time in filings with the U.S. Securities and Exchange Commission (SEC).

The foregoing list of risk factors is not exhaustive. There may be additional risks that Lifezone Metals presently does not know or that Lifezone Metals currently believes are immaterial that could also cause actual results to differ from those contained in forward-looking statements. In addition, forward-looking statements provide Lifezone Metals’ expectations, plans or forecasts of future events and views as of the date of this communication. Lifezone Metals anticipates that subsequent events and developments will cause Lifezone Metals’ assessments to change.

These forward-looking statements should not be relied upon as representing Lifezone Metals’ assessments as of any date subsequent to the date of this communication. Accordingly, undue reliance should not be placed upon the forward-looking statements. Nothing herein should be regarded as a representation by any person that the forward-looking statements set forth herein will be achieved or that any of the contemplated results in such forward-looking statements will be achieved. You should not place undue reliance on forward-looking statements in this communication, which are based upon information available to us as of the date they are made and are qualified in their entirety by reference to the cautionary statements herein. In all cases where historical performance is presented, please note that past performance is not a credible indicator of future results.

Except as otherwise required by applicable law, we disclaim any obligation to publicly update or revise any forward-looking statement to reflect changes in underlying assumptions or factors, new information, data, or methods, future events, or other changes after the date of this communication.