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Aqua Metals' Breakthrough Li AquaRefining™ Produces High-Purity Lithium Hydroxide Directly from Recycled Lithium-Ion Batteries

Company innovating novel recycling technology able to recover lithium in ideal form for battery manufacturing

RENO, Nev., Feb. 22, 2023 (GLOBE NEWSWIRE) -- Aqua Metals, Inc. (NASDAQ: AQMS) ("Aqua Metals" or the "Company"), a pioneer in sustainable lithium-ion battery recycling, today announced the recovery of high-purity lithium hydroxide from lithium-ion battery black mass at the company's Li AquaRefining™ recycling facility located at the Tahoe-Reno Industrial Center (TRIC).

The production and availability of the first recycled lithium hydroxide at scale will help close the supply chain loop for critical battery metals in America, paving the way for a more sustainable, efficient battery manufacturing industry. The immediate recovery of lithium hydroxide also improves the economics of recycling advanced battery chemistries like lithium iron phosphate (LFP), where lithium makes up most of the valuable material, unlike current nickel and cobalt-based batteries.

"We believe Li AquaRefining is now the only proven battery recycling technology that can produce lithium hydroxide at scale – avoiding the need for additional costly and polluting refinement," said Steve Cotton, CEO and President of Aqua Metals. "We believe this new capability can have a profound impact on the lithium battery industry in North America. Our sustainably recycled lithium can help ensure a robust supply of critical metals to meet the Inflation Reduction Act's ambitious goals for domestic content and enables us to share samples and advance our discussions with prospective partners in battery and cathode manufacturing."

The company's Li AquaRefining pilot facility is a groundbreaking closed-loop recycling system able to recover all the critical resources contained in spent lithium batteries primarily using electricity, and without the polluting furnaces or intensive chemical processes typical of recycling. Aqua Metals plans to produce battery-grade lithium hydroxide directly from black mass using its patent-pending, regenerative electro-hydrometallurgy process, made to suit manufacturer specifications.

Lithium hydroxide is often preferred over lithium carbonate or other lithium salts for cathode material in electric vehicles and energy storage systems due to its ease of use in manufacturing and superior electrochemical performance, powering safer batteries that are more efficient and longer lasting.

“Successfully scaling up our unique lithium hydroxide recovery process is a major technical milestone for the industry, heralding an era of low-emissions, circular supply of critical battery metals produced from domestic resources,” said Ben Taecker, Chief Engineering and Operations Officer at Aqua Metals. “Producing large quantities of recycled feedstock is new to battery manufacturing, and our ability to combine the recycling and refining of lithium into one process avoids unnecessary waste streams, lowers overall costs and improves supply chain efficiency for the rapidly growing lithium battery industry.”

Aqua Metals’ Li AquaRefining Pilot became operational in 2022 and is the first pilot scale electro-hydrometallurgy battery recycling facility in North America. It is the only source of recycled battery-grade lithium hydroxide as feedstock for electric vehicle batteries and energy storage systems. The pilot facility is designed to recover lithium hydroxide and manganese dioxide, as well as pure cobalt, nickel, and copper metals, from spent lithium-ion batteries, and provides the design basis for the company’s 10,000 ton per year lithium battery recycling campus planned for phased development starting later this year.

Additional Resources

Learn more about Aqua Metals’ Li AquaRefining Pilot and see updates at www.aquametals.com/pilot-recycling-hub

About Aqua Metals

Aqua Metals, Inc. (NASDAQ: AQMS) is reinventing metals recycling with its patented AquaRefining™ technology. The company is pioneering a sustainable recycling solution for materials strategic to energy storage and electric vehicle manufacturing supply chains. AquaRefining™ is a low-emissions, closed-loop recycling technology that replaces polluting furnaces and hazardous chemicals with electricity-powered electroplating to recover valuable metals and materials from spent batteries with higher purity, lower emissions, and minimal waste. Aqua Metals is based in Reno, NV and operates the first sustainable lithium battery recycling facility at the company’s Innovation Center in the Tahoe-Reno Industrial Center.

To learn more, please visit www.aquametals.com

Aqua Metals Social Media

Aqua Metals has used, and intends to continue using, its investor relations website (<https://ir.aquametals.com>), in addition to its Twitter, LinkedIn and YouTube accounts at [@AquaMetalsInc](https://twitter.com/AquaMetalsInc), <https://www.linkedin.com/company/aquametals-limited> and <https://www.youtube.com/channel/UCvxKNWcB69K0t7e337uQ8nQ> respectively, as means of disclosing material non-public information and for complying with its disclosure obligations under Regulation FD.

Safe Harbor

This press release contains forward-looking statements concerning Aqua Metals, Inc. Forward-looking statements include, but are not limited to, our plans, objectives, expectations and intentions and other statements that contain words such as "expects," "contemplates," "anticipates," "plans," "intends," "believes", "estimates", "potential" and variations of such words or similar expressions that convey the uncertainty of future events or outcomes, or that do not relate to historical matters. The forward-looking statements in this press release include our expectations for our pilot recycling plant, our ability to recycle

lithium-ion batteries and the expected benefits of recycling lithium-ion batteries. Those forward-looking statements involve known and unknown risks, uncertainties, and other factors that could cause actual results to differ materially. Among those factors are: (1) the risk that we may not be able to acquire the funding necessary to develop our recently acquired five-acre campus; (2) the risk that we may not be able to develop the recycling facility on the five-acre campus within the expected time or at all; (3) even if we are able to develop the recycling facility, the risk that we may not realize the expected benefits; (4) the risk that licensees may refuse or be slow to adopt our AquaRefining process as an alternative to smelting in spite of the perceived benefits of AquaRefining; (5) the risk that we may not realize the expected economic benefits from any licenses we may enter into; (6) the risk that we may not be able to access additional capital, through the sale of our TRIC facilities and equipment or otherwise, as and when needed and (7) those other risks disclosed in the section "Risk Factors" included in our Quarterly Report on Form 10-Q filed on November 3, 2022. Aqua Metals cautions readers not to place undue reliance on any forward-looking statements. The Company does not undertake and specifically disclaims any obligation to update or revise such statements to reflect new circumstances or unanticipated events as they occur, except as required by law.

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