

Final Stage of ELi™ Pilot Trial Commences

Highlights:

- Final Electrolysis stage of ELi™ Process pilot trials has commenced in Canada at NESi, the testing facility of electrolyser vendor, NORAM;
- The test work will electrolyse a purified lithium chloride solution from an operating South American brine source and produce lithium hydroxide as the primary product; and
- The long-duration (1000hr) component of the trial will provide data confirming expected power consumption, membrane life and product quality to support ongoing technology licensing activities.

Sustainable process technology developer, Neometals Ltd (ASX: NMT & AIM: NMT) ("**Neometals**" or "**the Company**"), is pleased to announce the commencement of the final Electrolysis stage of a pilot test work program ("**Electrolysis Pilot**") by Reed Advanced Materials Pty Ltd ("**RAM**"). RAM, the 70:30 Neometals incorporated joint venture, with Mineral Resources Ltd, is commercialising its proprietary ELi™ Process ("**ELi™**").

ELi™ uses electricity to convert lithium chloride solutions into lithium hydroxide monohydrate ("**Primary Product**") in a conventional chlor-alkali cell, replacing large volumes of reagents required in the industry standard, chemical precipitation flowsheet. ELi™ has the potential to deliver users a step-change in operating costs¹.

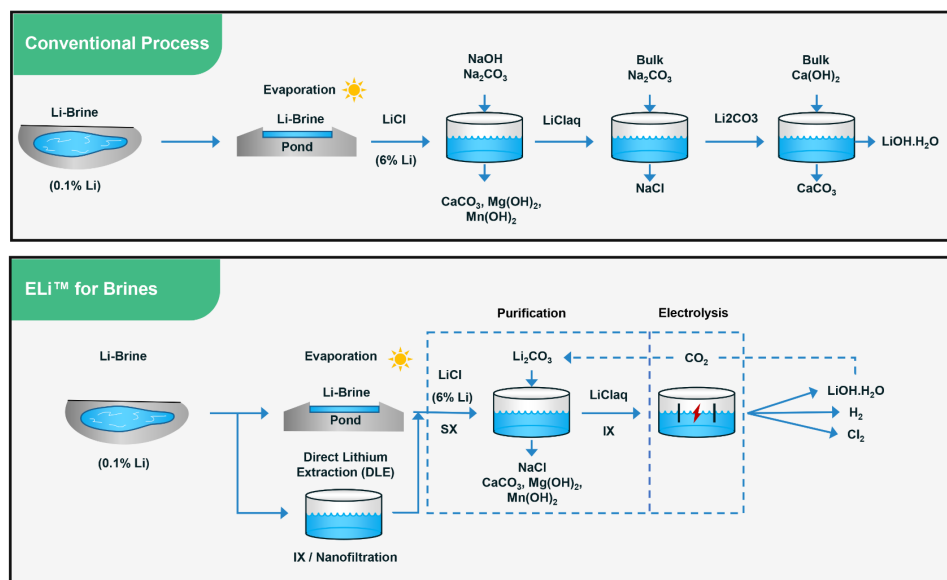


Figure 1 – Schematic showing a comparison of the conventional flowsheet for the production of lithium hydroxide from brines with the patented ELi™ process.

¹ For full details refer to Neometals ASX announcement dated 26th April and titled "Lithium – Exceptional Engineering Cost Study Results"

The Electrolysis Pilot will electrolyse lithium chloride brine from RAM's successful 2023 'purification' testing campaign undertaken by SGS². RAM has completed pre-treatment and commenced the 1,000hr electrolysis membrane durability test at NESi, the testing facility of electrolyser vendor NORAM. This long-duration test work is expected to be completed in July 2024 and will provide more accurate estimates of electrolyser power consumption and membrane life, the two major variable ELi™ operating costs.

Additional testing in a full industrial height electrolysis cell will deliver a fluid flow profile and cell dynamics to predict likely performance at commercial scale. The intermediate electrolysis product solution will be evaporated and crystallised into finished Primary Product by equipment vendor JordProxa (accessory by-products include hydrogen and chlorine gas). The Electrolysis Pilot is expected to confirm battery quality results for the Primary Product which were achieved in previous test work, and the Electrolysis Pilot will also provide samples for selected cathode producers to enable a complete technical and economic assessment by the brine feedstock provider.

RAM continues to evaluate other third-party brines as part of its Lithium Chemical technology licensing business model. RAM holds 19 granted patents in the principal lithium producing jurisdictions and has a further 15 pending national phase patents at various stages of prosecution globally.

Authorised on behalf of Neometals by Christopher Reed, Managing Director.

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For further information, visit www.neometals.com.au or contact:

Jeremy McManus

General Manager

Investor Relations & Intellectual Property

T +61 8 9322 1182

E jmcmanus@neometals.com.au

About Neometals Ltd

Neometals facilitates sustainable critical material supply chains and reduces the environmental burden of traditional mining in the global transition to a circular economy.

The Company is commercialising a portfolio of sustainable processing solutions that recycle and recover critical materials from high-value waste streams.

Neometals' core focus is on the commercialisation of its patented, Lithium-ion Battery ("LiB") Recycling technology (50% NMT), under a plant supply and technology licensing business model. Primobius GmbH is the 50:50 incorporated JV with 150-year-old German plant builder, SMS group GmbH, that is commercialising the technology. Primobius is building a 2,500tpa recycling plant for Mercedes-Benz under a long-term Cooperation Agreement. It also operates its own LiB disposal service in Germany and plans to offer its first commercial 21,000tpa plant to North American licensee, Stelco, in JunQ 2025.

Neometals is also developing two advanced battery materials technologies for commercialisation under low-risk, low-capex technology licensing business models:

- **Lithium Chemicals (70% NMT)** – Patented ELi™ electrolysis process, co-owned 30% by Mineral Resources Ltd, to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks at lowest quartile operating costs. Pilot scale test work and Engineering Cost Study update planned for completion in DecQ 2024; and

Vanadium Recovery (100% NMT) – Patent pending hydrometallurgical process to produce high-purity vanadium pentoxide from steelmaking by-product ("Slag") at lowest-quartile operating cost and carbon footprint.

² For full details refer to Neometals ASX announcement dated 10th November 2023 and titled "Successful ELi™ Purification Pilot Trial"