



Primobius Update

Highlights

- **Demonstration plant trialling of process improvements to the hydrometallurgical refining flowsheet have yielded outstanding results with nickel, cobalt and copper recoveries of >95%, new lithium process recoveries pending, previous process recovery >83%;**
- **Latest test work results will be incorporated into the hydrometallurgical refinery (“Hub”) Engineering Cost Study for a proposed 50tpd commercial-scale integrated recycling plant which is expected to be completed and announced in July 2023; and**
- **Front-End-Engineering (FEED) and mechanical package supply contracts for 10tpd Mercedes Benz Spoke* are in concluding stages. Mercedes Benz hub activities are substantially advanced.**

Emerging sustainable battery materials producer, Neometals Ltd (“**Neometals**” or “**the Company**”), is pleased to provide an update on the activities of Primobius GmbH (“**Primobius**”), the joint venture company owned 50:50 by Neometals and SMS group GmbH, that is commercialising its lithium-ion battery (“**LIB**”) recycling technology (“**LIB Recycling Technology**”).

Primobius completed three LIB recycling Hub demonstration trials of its process improvements during the period December 2022 to March 2023 on electric vehicle battery modules that were shredded in the Hilchenbach LiB disposal facility. Metallurgical data from the trials is now being analysed and incorporated into the engineering cost study for the commercial scale hydrometallurgical refinery (“**Hub ECS**”) section of a proposed 50tpd integrated recycling operation in Kaiserslautern, Germany. The Hub ECS is expected to be finalised in July 2023 and will complement the front-end shredding Spoke ECS** completed in September 2022.

The success of the latest trials support Primobius’ goal of being the first to achieve the proposed recycling recovery requirements in the pending EU Battery Regulations. These regulations will mandate recycling of all batteries placed on the EU market. Once legislated, authorised recyclers will be required to recover at least 90% of contained nickel, cobalt, and copper by 2026, increasing to 95% in 2030, 35% for lithium in 2026 increasing to 75% by 2030.

The process improvements including the overall recoveries referred to above now enable Primobius to offer mechanical package supply contracts for the 10tpd integrated (Spoke and Hub) recycling plants to existing partners, licencees and new customers in a growing Primobius business development pipeline.

** For full details refer to Neometals ASX announcement titled “Cooperation Agreement with Mercedes Benz” released on 13th May 2022.*

***For full details refer to Neometals ASX announcement titled “Primobius – 50tpd Spoke Engineering Cost Study Results” released 13 September 2022.*

**** For full details refer to Neometals ASX announcements titled “Battery Recycling – Binding Agreements with Stelco for NA” released on 31st December 2021 and “Primobius Commercial Update” released on 6 January 2023.*

Product readiness for the larger proposed Stelco 50tpd Spoke*** is expected to be achieved in the second half of 2023 following the finalisation of more detailed engineering studies in the September quarter.

Future demonstration trials are planned for the second half of 2023 for existing and new carmakers and cellmakers in Primobius’ business development pipeline.

All plants supplied by Primobius will be built under mechanical package supply contracts by SMS group GmbH, a 150-year old German plant builder with over 14,000 employees and manufacturing workshops in Europe, North America, India, and China.

Primobius is a leading LIB recycler that can provide disposal services and offer the supply of fully integrated LIB recycling plants under joint venture or technology licensing business models.

Neometals Managing Director Chris Reed said:

“Firstly, I would like to congratulate the SMS group and Neometals teams on an outstanding collaboration to improve the process flowsheet to meet the ambitious new 2030 recovery targets of the EU Battery Regulations. The goal post shift from 85% to 95% during the drafting of the legislation was challenging and we are nearly there. We look forward to seeing the benefits of our new lithium recovery process option and step changes in key recoveries across the process in the upcoming Hub ECS results.

Secondly, I would like to thank our collaboration partner Mercedes-Benz. Together we are working towards the highest-quality plant products, futureproofed to meet the most stringent global regulatory requirements that demand circular supply chains for battery materials. We look forward to finalising the plant supply contracts shortly.”



* Subject to Customer Award/Primobius and Neometals Approvals

Figure 1: Indicative Primobius Development Timeline. Note Mercedes-Benz (“MB”).

Authorised on behalf of Neometals by Christopher Reed, Managing Director

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About Neometals Ltd

Neometals is an emerging, sustainable battery materials producer. The Company is commercializing three environmentally-friendly processing technologies that will primarily produce lithium, nickel, cobalt and vanadium at lowest quartile costs with minimal carbon footprint.

Neometals' and its partners have been recognised internationally for sustainable approaches that combine industry leading costs with circular economic principles, reducing the reliance on traditional upstream mining-based supply chains with recycling and waste recovery. The Company's three core business units, listed below, are commercialising these proprietary technologies in incorporated joint ventures:

- **Lithium-ion Battery ("LIB") Recycling (50% technology)** – providing recycling as a service, plant supply under JV or technology licensing business models via Primobius GmbH (NMT 50% equity). All plants built by Primobius' co-owner (SMS group 50% equity), a 150-year old German plant builder with 14,000 employees. Primobius is recycling technology

partner and plant supplier to Mercedes-Benz. Commercial 10tpd shredding 'Spoke' facility operational in Germany and investment decision for Primobius' first commercial 50tpd plant with Stelco in Canada expected Q4 (NMT 25% equity);

- **Vanadium Recovery (100% technology)** – aiming to produce high-purity vanadium pentoxide from processing of steelmaking by-product ("**Slag**"). Planned 9,000tpa operation in Pori, Finland (NMT 72.5% equity) courtesy of 10-year Slag supply agreement with SSAB. Investment decision with JV partner, Critical Metals, expected Q3 2023. MOU with H2Green Steel for potential second, larger operation in Boden, Sweden; and
- **Lithium Chemicals (70% technology)** – aiming to produce battery quality lithium hydroxide from brine and/or hard-rock feedstocks using patented ELi™ electrolysis process co-owned 30% by Mineral Resources Ltd. Co-funding Pilot Plant Q2/Q3 2023 and Demonstration Plant H1 2024 preceding potential commercial operation with Bondalti Chemicals in Portugal.