BATTERY RECYCLING DEMONSTRATION TRIAL – STAGE 1 COMMISSIONED

HIGHLIGHTS

- **Stage 1 – Shredding and Beneficiation circuits of the demonstration plant successfully commissioned and operating at licenced capacity, significantly de-risking the proprietary processing flowsheet;**
- **Stage 1 physically removes metal electrodes, plastic separators and casings, and produces a combination of cathode (lithium, nickel, cobalt) and anode (graphite) materials, called 'Black Mass' for Stage 2 refining. Approximately 1.5 tonnes of black mass produced to date; and**
- **Mechanical and electrical installation of Stage 2 refinery circuits in progress with commissioning scheduled to commence in September.**

Innovative project development company, Neometals Ltd (ASX: NMT) ("**Neometals**" or "**the Company**"), is pleased to announce that Primobius GmbH ("**Primobius**"), the joint venture ("**JV**") company owned 50:50 by Neometals and SMS group GmbH ("**SMS group**"), has successfully commissioned the front-end shredding and beneficiation circuit of its showcase lithium-ion battery ("**LIB**") recycling demonstration plant ("**DP**").

The DP, located in Primobius' leased building within the SMS group engineering competence centre in Hilchenbach, comprises a fully constructed 'Front-end' Shredding and Beneficiation Circuit (Stage 1) and a 'Back-end' Hydrometallurgical Refining Circuit (Stage 2) which is progressing through mechanical and electrical installation. Front-end commissioning included charging up the circuit and processing both dummy and charged electric vehicle LIBs to generate plastic, steel and foil product streams together with approximately 1.5 tonne of intermediate active material ("**Black Mass**").

The fully integrated and continuous DP trial constitutes one of the key evaluation activities required for the JV owners to make an investment decision relating to construction of Primobius' first commercial LIB recycling plant. Safe commissioning of the DP Front-end is a significant step for Primobius as it can now move towards trialling activities with tested systems, including safety, that have been run in real-world conditions.

Commissioning of the Hydrometallurgical Refining Circuit is expected in September 2021 with all trials due for completion by November 2021. The Refinery circuits will be sequentially dry and wet commissioned before Black Mass is processed in two campaigns. The Hydrometallurgical Refining Circuit will produce, amongst other things, high-purity metal sulphate products for evaluation by potential customers, partners and offtakers.

Figure 1 - *Profile of the Primobius Shredding and Beneficiation Circuit*

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Figure 2 - *LIB pouch cells in the feed hopper to the primary shredder*

Figure 3 - *Shredded material being friction washed to liberate cathode materials from the metal foil electrodes*

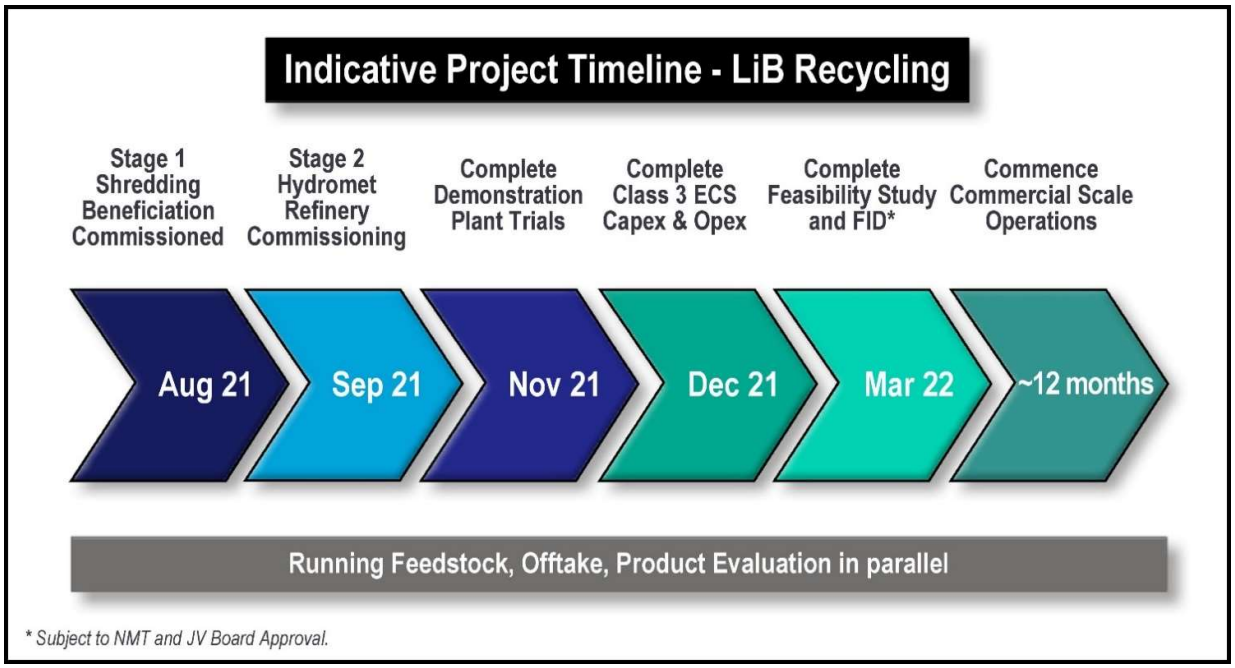

Figure 4 - *Indicative development timeline for the Primobius 50tpd LIB recycling project*

Neometals is please to advise that Primobius has been nominated for the German Sustainability Award 2022. Awards are given to companies that include sustainability in their business model and make effective transformational contributions with innovative products and services, high ecological standards in production, or special social commitment in their value chain. The Primobius solution is an energy-efficient and flexible system that meets the needs of various industry stakeholders and helps achieve sustainability goals as it produces high-purity chemicals for re-use in the next generation of LIB's.

Figure 5 - *Primobius nominee badge for the German Sustainability Award 2022.*

Authorised on behalf of Neometals by Christopher Reed, Managing Director

ENDS

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About Neometals Ltd

Neometals innovatively develops opportunities in minerals and advanced materials essential for a sustainable future. With a focus on the energy storage megatrend, the strategy focuses on de-risking and developing long life projects with strong partners and integrating down the value chain to increase margins and return value to shareholders.

Neometals has four core projects with large partners that support the global transition to clean energy and span the battery value chain:

Recycling and Resource Recovery:

- Lithium-ion Battery Recycling – a proprietary process for recovering cobalt and other valuable materials from spent and scrap lithium batteries. Pilot plant testing completed with plans well advanced to conduct demonstration scale trials with 50:50 JV partner SMS group, working towards a development decision in early 2022; and
- Vanadium Recovery – sole funding the evaluation of a potential 50:50 joint venture with Critical Metals Ltd to recover vanadium from processing by-products ("Slag") from leading Scandinavian Steel maker SSAB. Underpinned by a 10-year Slag supply agreement, a decision to develop sustainable European production of high-purity vanadium pentoxide is targeted for December 2022.

Upstream Industrial Minerals:

- Barrambie Titanium and Vanadium Project - one of the world's highest-grade hard-rock titanium-vanadium deposits, working towards a development decision in mid-2022 with potential 50:50 JV partner IMUMR.