Precious Metals Due Diligence Update

Highlights

- Initial six-week pilot-scale metallurgical test work program to selectively recover precious metals from purchased third-party waste streams yielded encouraging yet highly variable results;
- Approximately 4.28 tonnes of two purchased feedstocks processed in 10 campaigns totalling 24 batches of 120-245kg to verify and validate the process across range of scenarios; and
- Commenced second phase of test work on preferred feedstock, reagent regime and recovery technique to confirm repeatability of results from initial test work, completion in June and results expected July.

Sustainable process technology developer, Neometals Ltd (ASX: NMT & AIM: NMT) ("**Neometals**" or "**the Company**"), is pleased to give an update on the initial metallurgical test work program ("**Phase 1 Trial**") completed in the Precious Metals Recovery LLC ("**PMR**") pilot plant located in Colorado, USA.

Neometals has entered an option, expiring 31 August 2024 (**"Option"** and **"Option Agreement"**), to acquire an 80% equity interest of US business PMR[1]. PMR owns and operates a pilot plant (Figures 1 & 2) demonstrating its proprietary hydrometallurgical process (**"PMR Technology"**) to selectively recover precious metals from certain industrial waste streams.

During March and April 2024, Neometals technical team observed the testing of approximately 4.28 tonnes of feedstocks purchased from two third-party waste management companies. The program comprised 24 individual batches of either 120 or 245 kg of feed material. Two batches were discarded due to operational issues and 22 proceeded through the entire process. In total 11 batches processed to recover palladium, 9 to recover gold and 2 to recover both gold and palladium sequentially.

There was significant variability of recovered metal from different feedstocks that were processed under various chemical regimes and metal recovery techniques. Some campaigns demonstrated positive metal recovery for gold and palladium while some failed to recover either metal. This initial test work programme allowed the identification of the best reagent regime and feedstock that will be tested further in the second, confirmatory trials.

[1] (*for full details refer to Neometals ASX announcement headlined "Option to acquire Precious Metals Waste Recovery Process and Plant in US" released on 27th May 2024)*

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Cautionary Statement

In relation to the disclosure of the recovered metals, the Company cautions that a combination of internal hand-held XRF measurement and external laboratory analysis by refinery out-turns have been used to calculate recovered metal. Furthermore, these results are from feedstocks purchased from third-parties unrelated to the vendor and Neometals makes no assertion that these results are reliable indicators of future performance.

Eight batches of 245kg of PMR's preferred feedstock and preferred reagent regimes indicated an average of 3.75 ounces of palladium recovered on per tonne of feedstock basis. Three batches tested alternate feedstock and/or lower quality reagent regimes failed to recover any palladium. Four batches of 120kg using PMR's preferred feedstock/reagent regimes indicated average of 3.8 ounces of gold recovered per tonne of feedstock. Five batches tested an alternate feedstock and/or varied reagent regime and failed to recover gold. Two tests to recovering both palladium and gold in same batch failed to recover either metal (included in reporting above).

The preferred feedstock, reagent regime and recovery technique are currently being tested for repeatability ("**Phase 2 Trial**") for discrete gold and palladium recovery. The recovered metals from each individual batch are being smelted and split before dispatch to separate precious metals refineries in the US. The Phase 2 Trial is planned for completion in June with results expected in July 2024.

Next Steps

The results of the Phase 2 Trial will be used as the basis for preparing an operating and financial model to consider the investment case along with further legal and financial due diligence.

For clarity, Neometals has made no decision to proceed with exercising the Option and its decision to exercise the Option or not remains subject to the outcome of ongoing due diligence on PMR and its business (including the PMR Technology).

Neometals will continue to update the market regarding progress on the key milestones.

Figure 1 – *PMR Pilot Plant Leaching/Filtration Circuits*

Figure 2 – *PMR Pilot Plant Reagent Mixing/Recovery Circuits*

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

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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 its patented, **Lithium-ion Battery ("LiB") Recycling technology (50% NMT)**, being commercialised in a 50:50 incorporated JV (Primobius GmbH) with 150-year-old German plant builder, SMS group GmbH. Primobius is supplying Mercedes-Benz a 2,500tpa recycling plant and operates its own LiB Disposal Service in Germany. Primobius' first 21,000tpa commercial plant will be offered to Stelco under an existing technology licence for North America.

Neometals is 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.

Additionally, Neometals is conducting due diligence on acquiring a proprietary process and pilot plant to produce precious metals from waste.