

Quarterly Activities Report For the quarter ended 31 March 2024

Highlights

CORPORATE

- Cash balance of A\$14 million, investments, receivables and inventories of A\$17.3 million and no debt.

OPERATIONS

Lithium-ion Battery Recycling (50% NMT via Primobius GmbH, an incorporated JV with SMS group GmbH)

- Final purchase order (€18.8M) received from Mercedes-Benz for the refinery “Hub” section of the 2,500tpa integrated recycling plant being built by Primobius in Kuppenheim, Germany;
- Mercedes-Benz plant designed to industrially validate our technology and enable Primobius to offer its first commercial scale (~20,000tpa) plant supply agreement to a subsidiary of Stelco Inc by 30 June 2025 under existing technology licensing agreement; and
- Primobius advanced discussions for plant supply and licensing with participants across the entire EV battery supply chain, fourth national phase patent granted, remaining thirteen being prosecuted to grant.

PRE-COMMERCIAL TECHNOLOGIES

Lithium Chemicals (70% NMT, 30% Mineral Resources Ltd via Reed Advanced Materials Pty Ltd (“RAM”))

- RAM finalising preparations for commencing final stages of pilot plant test work program following cessation of discussions with Lifthium Energy SA in relation to co-funding commercialisation; and
- RAM advanced evaluation of potential brine feedstocks from lithium producers and developers as part of its technology licensing business model.

Vanadium Recovery (100% NMT via Avanti Materials Ltd)

- Advanced discussions with potential licencees of the technology following decision not to construct Vanadium Recovery Project in Finland. Vanadium price remains down ~50% year-on-year.

RESEARCH AND DEVELOPMENT

- Commenced evaluating third-party technology for recovering precious metals from industrial waste streams in the US.

UPSTREAM MINERAL PROJECTS

Barrambie Titanium and Vanadium (“Barrambie”) (100% NMT)

- Tenement maintenance activities in parallel with preparations for asset divestment.

Spargos Lithium and Nickel Project (100% NMT)

- Review concludes low potential for discovery of lithium bearing pegmatites. Preparation for asset divestment.

Company Overview

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.



Figure 1 – Location map of Neometals' Projects together with partner developments.

OPERATIONS



Lithium-ion Battery Recycling

(Intellectual Property via ACN 630 589 507 Pty Ltd - NMT 50%, SMS 50%)

(Plant construction via Primobius GmbH, NMT 50% SMS group GmbH 50%)

Primobius GmbH (“**Primobius**”) is the incorporated joint venture established in 2020 to commercialise Neometals lithium-ion battery (“**LiB**”) recycling technology (“**LiB Recycling Technology**”). Primobius was granted an exclusive licence from Neometals’ LiB Recycling Technology holding company, ACN 630 589 507 Pty Ltd (“**ACN 630**”), to supply LiB recycling plants incorporating the patented flowsheet. Primobius will pay royalties to ACN 630 where it operates as principal and will also pass through royalties from plant supply and technology licensing arrangements. ACN 630 is the ultimate beneficiary of 5 third party technology licences issued to date. The structure is designed to flow technology royalties and plant supply margins separately to its co-owners.

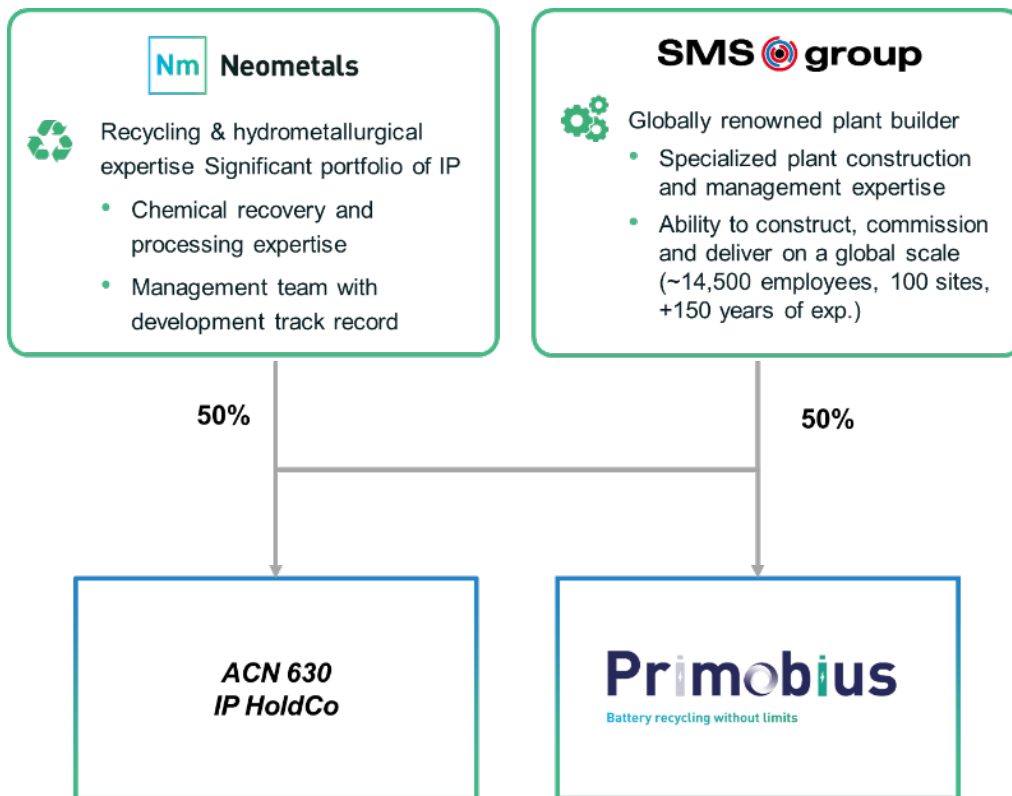


Figure 2 – Technology royalty and plant supply margins flow chart.

Intellectual Property and Status

The LiB Recycling Technology recovers materials contained in LiB production scrap and end-of-life cells that might otherwise be disposed of in land fill. Current LiB recycling processes predominantly rely on high carbon emission pyrometallurgical processes. Primobius’ two stage process recovers nickel, cobalt, lithium and manganese battery materials (and physically recovers metals and plastics) into saleable products that can be reused in the LiB supply chain. The LiB Recycling Technology prioritises maximum safety, environmental sustainability, and product recoveries, to support the circular economy and decarbonisation.

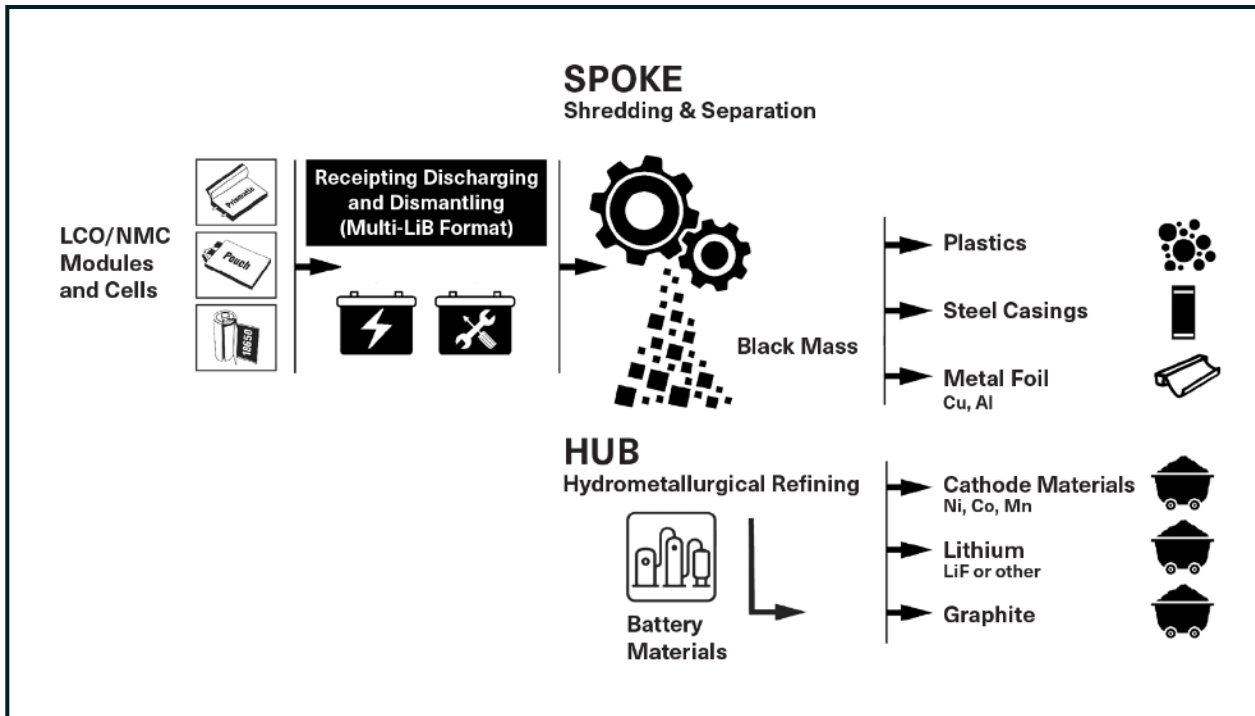


Figure 3 – High level flowsheet showing the movement of materials from Shredding and Beneficiation ('Spoke') through to refining ('Hub') stages for the LiB Recycling Technology.

During the quarter, ACN630 was granted an additional national phase patent in Japan. Four patents have now been granted with thirteen other national phase patents at various stages of prosecution globally.

Commercialisation Status

Primobius' current business model contemplates the following revenue sources:

1. Gate fees and product sales from its LiB Disposal Operation in Hilchenbach;
2. Mechanical equipment and plant supply agreements (Mercedes-Benz Plant); and
3. Royalties from sale of products from future commercial plant supply agreements (potential Stelco Inc Plant).

Hilchenbach Disposal Operation

The Spoke section of the demonstration plant in Hilchenbach Germany ("**Hilchenbach Spoke**") is providing commercial LiB disposal services and the hydrometallurgical refinery 'Hub' operates as a demonstration plant for discrete customer trials and research and development.

The Hilchenbach Spoke produces intermediate mixed nickel/cobalt product ("**Black Mass**"). The typical LiB contains approximately 48% Black Mass which Primobius is recovering at high levels and selling to a number of global off-takers on a spot basis with pricing set according to nickel and cobalt content.

Mechanical Equipment and Plant Supply

Primobius has a Cooperation Agreement with Mercedes-Benz (“**Mercedes**”) (“**Mercedes Cooperation**”) for the engineering, equipment supply and installation for a 2,500tpa fully integrated, closed-loop recycling plant (“**Mercedes Pilot Plant**”). The Mercedes Cooperation also outlines a 5-year research program, collaboration and development of an industrial-scale solution for Mercedes¹.

During the quarter, Primobius continued the construction and commissioning activities at the Mercedes Pilot Plant. Primobius was awarded a purchase order (value ~ €18.8M (~ A\$30.8M)) from Mercedes for the supply of a hydrometallurgical refining Hub for installation at its Kuppenheim Pilot Plant site in Germany. The purchase order covers fabrication, installation and commissioning of the Hub which will refine intermediate products from the 2,500tpa shredding ‘Spoke’ (Spoke purchase order was awarded in August 2023).



Figure 4 – Mercedes-Benz LiB Recycling Building, Kuppenheim Germany.



Figure 5 – Part of the Integrated LiB Plant installed by Primobius.

Technology Licensing

- Technology licensing and joint venture option agreements are in place with a subsidiary of Stelco Inc. (“**Stelco**”) (“**Stelco Agreements**”). Stelco plans to secure large volumes of end-of-life vehicles in North America for scrap steel and LiB recycling, with offer of maiden 21,000tpa integrated plant (“**Stelco Spoke**”) followed by “**Stelco Hub**”) expected before 30 June 2025².
- Three exclusive licences have been issued for Scandinavia, the Balkans and Italy to third-party licensees and one non-exclusive licence to the UK. Neometals is the largest individual shareholder in the licensees and ACN630 is entitled to receive a 10% gross revenue royalty from the technology licences.

Corporate

- Continued recruitment activities to expand the Primobius technical, operational, commercial and management teams in line with corporate milestones associated with offering mechanical plant and equipment package supply contracts. In particular, Primobius is expanding human capital in line with its commitments under the Mercedes Cooperation where Primobius will support Mercedes with commissioning, technical training, on site engineering support, permitting and associated regulatory applications.

¹ (for full details refer to Neometals ASX announcement headlined “Cooperation Agreement with Mercedes Benz” released on 13th May 2022)

² (for full details refer to Neometals ASX announcement headlined “Primobius Commercial Update” released on 22nd December 2023)

PRE-COMMERCIAL TECHNOLOGIES



Lithium Chemicals
(Intellectual Property via Reed Advanced Materials Pty Ltd (“RAM”) – NMT 70%,
Mineral Resources Ltd 30%)

RAM is the incorporated joint venture to commercialise its proprietary process (**ELi™ Processing Technology** (“ELi™”)) which can produce lithium hydroxide and carbonate from lithium chloride solutions using electrolysis. RAM has successfully converted lithium chloride solutions from both natural spodumene and brine feedstocks into battery quality lithium hydroxide at semi-pilot scale. ELi™ has the flexibility to produce lithium hydroxide and lithium carbonate at a significantly lower operating cost and carbon footprint compared to conventional production processes. ELi’s key economic advantage lies in the potential to replace costly, imported bulk chemical reagents with electricity and low-cost internally generated reagents.

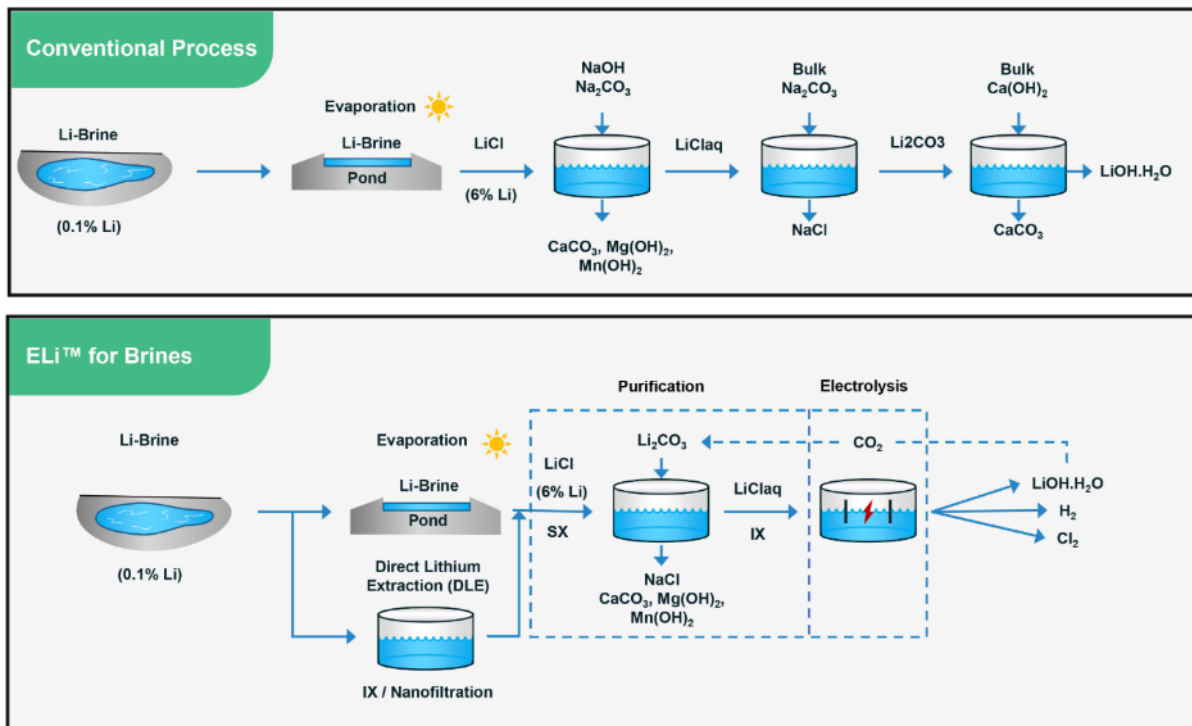


Figure 6 – Schematic showing a comparison of the conventional flowsheet for the production of lithium hydroxide from brines with the patented ELi™ process.

Intellectual Property Status

During the quarter RAM was granted an additional national phase patent in the USA. RAM now holds 20 granted patents in the hard rock and brine producing countries and has a further 11 pending national phase patents at various stages of prosecution globally.

Commercialisation Status

During the quarter, Neometals advised that RAM has ceased discussions with Lifthium Energy SA (“**Lifthium**”), sister company to leading Portuguese chlor-alkali producer, Bondalti Chemicals SA (“**Bondalti**”), in relation to co-funding the final stage of pilot test work (“**Pilot**”) and constructing a commercial demonstration plant.

RAM and Bondalti completed an Engineering Cost Study (“**ECS**”) for a 25,000tpa lithium hydroxide monohydrate merchant refinery in Portugal and have been advancing a phased Pilot test work program in Canada. The ECS confirmed the technical feasibility of the process to purify and convert lithium chloride to lithium hydroxide with potential lowest-quartile operating costs and capital cost intensity. Additionally, the first stage of the Pilot activities successfully purified lithium chloride from an existing South American operation to the specification required for conversion by electrolysis using ELi™.

Despite the compelling operating / capital cost metrics and successful purification Pilot activities, RAM and Lifthium were unable to agree terms for further joint evaluation activities and licensing arrangements. RAM is fully funded to complete the final stage of Pilot test work and will continue to test third-party brines for potential partners under a low-capex, low-risk technology licensing business model to generate future royalty income.

Technical

- Having successfully completed the first ‘purification’ Pilot stage of activities, RAM has been preparing for stages two (‘electrolysis’) and three (‘crystallisation’) in what is a three-part test work campaign. The electrolysis trials are now ready to commence with crystallisation activities to follow using the output from electrolysis.

Commercial

- Commercial discussions progressed with potential partners under a low-capex, low-risk technology licensing business model to generate future royalty income.



Vanadium Recovery

(Intellectual Property via Avanti Materials Ltd – NMT 100%)

Vanadium Recovery Project 1 via Recycling Industries Scandinavia AB (“**RISAB**”) – 77% NMT

Neometals has developed a sustainable, proprietary vanadium recovery process (“**VRP Technology**”) to produce vanadium products for battery and aerospace alloying applications from stockpiles of vanadium-bearing steel making by-product. The unique selling points of the VRP Technology are:

- A processing flowsheet utilising conventional equipment at atmospheric pressure, mild-temperatures, and non-exotic materials of construction; and
- Potential lowest-quartile operating costs³ and carbon-footprint from processing steelmaking slag by-product eliminating the cost, risks and environmental impact of mined upstream feedstocks.

³ (for full details refer to Neometals ASX announcement headlined “Vanadium Recovery Project Delivers Strong Feasibility Results” released on 8th March 2023).

Intellectual Property Status

Neometals' Vanadium Recovery IP holding company, Avanti Materials Ltd, has eighteen pending national phase patents for the VRP Technology across two patent families with two at examination stage.

Commercialisation Status

Vanadium Recovery Project 1 ("VRP1") – Finland

RISAB is an incorporated joint venture which evaluated the feasibility of recovering high-purity vanadium pentoxide (" V_2O_5 ") from high-grade vanadium-bearing steel by-product ("**Slag**") in Scandinavia. In March 2023, Neometals announced results of a feasibility study that confirmed the potential for lowest-quartile operating costs in a high-purity vanadium chemical operation with a low-to-negative carbon footprint⁴.

Despite having secured a conditional binding Slag feedstock supply agreement with steelmaker SSAB, take-or-pay offtake with Glencore International AG and debt approved by the EIB, the vanadium price collapsed more than 50% in 2023 and equity financing could not be secured within the required timelines. Accordingly, Neometals announced during the DecQ 2023 that it had advised its partner in the VRP1 project that it could not commit to a positive final investment decision.

During the quarter, Neometals assisted RISAB to explore value realisation options and advanced discussions with potential licencees of the VRP Technology. Subsequent to the end of the quarter, SSAB formally terminated the Slag feedstock supply agreement and accordingly, all VRP1 project activities will cease and RISAB will become dormant.

RESEARCH AND DEVELOPMENT

Precious Metals Recovery

In keeping with Neometals focus on commercialising sustainable processing solutions that recycle and recover critical materials from high-value waste streams, it has commenced evaluating a third-party technology to recover previous metals from industrial waste streams.

UPSTREAM MINING PROJECTS



Barrambie Titanium/Vanadium Project (Neometals 100%)

Barrambie, located approximately 80km north-west of Sandstone in Western Australia ("**WA**"), is one of the largest vanadiferous-titanomagnetite ("**VTM**") Mineral Resources globally (280.1Mt at 9.18% TiO_2 and 0.44% V_2O_5), containing the world's second highest-grade hard rock titanium Mineral Resource (53.6Mt at 21.17% TiO_2 and 0.63% V_2O_5) and high-grade vanadium resource (64.9Mt at 0.82% V_2O_5 and 16.9% TiO_2) subsets (referred to as the Eastern and Central Bands respectively) based on the latest Neometals 2018 Mineral Resource Estimate⁴. The Mineral Resource is secured under a granted mining lease.

⁴ (for full details refer to ASX announcement headlined "Barrambie Project - Mineral Resource Update" released on 17 April 2018 and Table 1 (Appendix 1))

Neometals secured environmental approval in 2012 to mine and construct a 3.2 Mtpa processing plant (Ministerial Statement 911), extended the timeframe for implementation in 2019 (Ministerial Statement 1119) and is currently in the process of securing a further extension of the timeframe for project implementation. The project also has a granted mining proposal to extract approximately 1.2Mtpa of mineralisation.

Activity Summary

During the quarter the following activities were undertaken:

Technical

- Tenement maintenance to keep Barrambie in 'good standing'; and
- Historical data collection and interpretation together with geological model development for gold mineralisation. The Barrambie Greenstone Belt hosts a number of historic gold mines and the town was established upon the discovery of gold by contractors building the rabbit-proof fence in 1905.

Corporate

Information memorandums and flyers are being prepared for the divestment of the project.



Spargos Lithium Project (Neometals 100%)

The Spargos Project ("**Spargos**"), located 50 kilometres southwest of Coolgardie in WA, comprises a legacy mineral tenement that was originally acquired for nickel prospectivity. Spargos is located in an area of regional interest for nickel, lithium and rare-earth.

Activity Summary

During the quarter the following activities were undertaken:

Technical

- Re-sampling and assaying of pegmatites from historical nickel exploration cores failed to return significantly anomalous results to warrant further exploration; and
- External review concluded low potential for discovery of lithium bearing pegmatites. Given the depressed market conditions for both nickel and lithium, further exploration activities have been placed on hold with the Company now focused on asset divestment opportunities.

Corporate

- In keeping with Neometals focus on commercialising sustainable processing solutions that recycle and recover critical materials from high-value waste streams, this non-core asset is being prepared for divestment.

CORPORATE

During the quarter Neometals held its annual strategic planning day and concluded to widen its focus to capture critical materials as opposed to battery materials. The existing incorporated joint-ventures holding the operating and pre-commercial technologies will continue to prosecute low-cost, plant supply and/or technology licensing business models.

Neometals is delivering on a significant austerity plan to reduce cash outflows which includes reductions in staffing levels to reflect reduced levels of activity in pre-commercial technologies, reduced directors' fees and a halt on senior management short term incentives. Notably, administration/overheads and exploration expenditure was reduced to approximately \$2.6 million compared with \$4.3 million in the December 2023 quarter and \$6.6 million in the September 2023 quarter.

Neometals is actively looking to rationalise its upstream mineral projects and generate cashflow.

Financial

Finances (unaudited)

Cash and term deposits on hand as of 31 March 2024 totalled \$14 million, including \$0.4 million in restricted use term deposits supporting contractual obligations. The Company has investments totalling \$15.3 million, net receivables of \$1.3 million and inventories of \$0.7 million.

Related Party payments for the quarter outlined in the ASX Appendix 5B released contemporaneously at section 6.1 total \$261,625 and are made up of Director fees and superannuation.

Issued Capital

The total number of shares on issue as at 31 March 2024 was 622,810,316.

Redivium Ltd (Formerly Hannans Limited) (ASX: RIL) (Redivium) (Battery Recycling)

As at 31 March 2024 Neometals held 879,812,014 ordinary fully paid shares (~26% of the issued capital) in Redivium on an undiluted basis. Redivium holds exclusive technology licences to Neometals' original LiB Recycling Technology in Italy, Greece and the Balkans, a non-exclusive licence in the United Kingdom and it is earning a 50% interest in an exclusive licence for Scandinavia held by Critical Metals Limited.

Critical Metals Limited (Unlisted, Scandinavian Lithium/Cobalt/Base Metals)

Neometals holds ~18.4% of unlisted public company Critical Metals Ltd, a company which holds an exclusive licence to Neometals' original LiB Recycling Technology in Scandinavia.

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

ENDS

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Compliance Statement

The information in this report that relates to Mineral Resource Estimates for the Barrambie Vanadium/Titanium Project is extracted from the ASX Announcement listed below, which is also available on the Company's website at www.neometals.com.au.

17/04/2018 Barrambie – Updated Barrambie Mineral Resource Estimate

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

APPENDIX

Appendix 1: Global Resource

Table 1: Barrambie Mineral Resource Estimate, April 2018*

Global Resource as at 17 April 2018¹			
	Tonnes (M)	TiO₂ (%)	V₂O₅ (%)
Indicated	187.1	9.61	0.46
Inferred	93.0	8.31	0.40
Total	280.1	9.18	0.44
High Grade V₂O₅ Resource (at 0.5% V₂O₅ cut-off)²			
	Tonnes (M)	TiO₂ (%)	V₂O₅ (%)
Indicated	49.0	16.93	0.82
Inferred	15.9	16.81	0.81
Total	64.9	16.90	0.82
High TiO₂ Resource (14% TiO₂ cut-off)²			
	Tonnes (M)	TiO₂ (%)	V₂O₅ (%)
Indicated	39.3	21.18	0.65
Inferred	14.3	21.15	0.58
Total	53.6	21.17	0.63

*Refer to Neometals ASX release dated 17 April 2018 title 'Updated Barrambie Mineral Resource Estimate'

(1) Based on Cut-off grades of ≥10% TiO₂ or ≥0.2% V₂O₅

(2) The high-grade titanium and vanadium figures are a sub-set of the total Mineral Resource. These figures are not additive and are reporting the same block model volume but using different cut-off grades.

Appendix 2: Tenement Interests

As at 31 March 2024, the Company has an interest in the following projects and tenements in Western Australia.

Project Name	Licence Name	Beneficial Interest	Status
Barrambie	M57/173-I	100%	Live
Barrambie	E57/769-I	100%	Live
Barrambie	E57/770-I	100%	Live
Barrambie	E57/1041-I	100%	Live
Barrambie	E57/1220	100%	Pending
Barrambie	E57/1244	100%	Pending
Barrambie	E57/1245	100%	Pending
Barrambie	E57/1379	100%	Live
Barrambie	E57/1401	100%	Pending
Barrambie	E57/1437	100%	Pending
Barrambie	E20/1037	100%	Pending
Barrambie	L57/0030	100%	Live
Barrambie	L57/0064	100%	Pending
Barrambie	L57/0065	100%	Pending
Barrambie	L57/0066	100%	Pending
Barrambie	L20/0055	100%	Live
Barrambie	L20/0080	100%	Live
Barrambie	L20/0081	100%	Live
Queen Victoria Rocks	E15/1416-I	100%	Live

Changes in interests in mining tenements Interests in mining tenements acquired or increased

Project Name	Licence Name	Acquired or increased
Barrambie	E57/1437	Application

Interests in mining tenements relinquished, reduced, or lapsed

Project Name	Licence Name	Relinquished, reduced, or lapsed
N/A	N/A	N/A

About Neometals Ltd

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