

**ASX Release**  
**28 January 2016**

**QUARTERLY ACTIVITIES REPORT**  
**For the quarter ended 31 December 2015**

Level 1, 672 Murray Street  
 West Perth WA 6005

Locked Bag 8  
 West Perth WA 6872

t. +61 8 9322 1182  
 f. +61 8 9321 0556

info@neometals.com.au  
 neometals.com.au

Neometals Ltd ABN 89 099 116 631

**Highlights:**

Mt Marion Lithium Project

- Construction of Mt Marion Lithium concentrate operation commences following positive Final Investment Decision and financial completion of Offtake and Equity Investment by Ganfeng Lithium Co. Ltd, China's leading lithium producer.
- Construction on schedule with first production of lithium concentrates expected mid-2016.
- Project development including Mine-to-Port solution fully funded by Mineral Resources Ltd on a Build-Own-Operate basis.
- +30,000M Resource Extension and Infill drill program commenced and continuing.

Lithium Hydroxide Project

- Work commenced on the project DFS during the quarter and the DFS is on-schedule for completion in mid-2016

Barrambie Titanium Project

- Secured exclusive licence (excluding Russia and China) for proprietary process which was the subject of recent Pre-feasibility Study which confirmed technical feasibility and financial viability of a licenced to produce +99% pure titanium dioxide (TiO<sub>2</sub>).
- PFS indicates potential lowest quartile operating cost per tonne of pure TiO<sub>2</sub> produced after by-product credits. Pre-tax NPV<sub>12%</sub> US\$355 million.

Corporate

- Cash and restricted access term deposits \$31 million.



For personal use only

## PROJECT LOCATIONS



### MT MARION LITHIUM PROJECT

(Neometals 45%, Mineral Resources Limited 30%, Ganfeng Lithium Co., Ltd 25%)

During the quarter, the Project Operator, Mineral Resources Limited (ASX: MIN) (“MIN” – via its wholly owned subsidiary, Process Minerals International Pty Ltd) commenced the construction phase of the Mt Marion Lithium Project following the Final Investment Decision.

Construction is on schedule with first production expected by mid-2016 from the Project, which is designed to produce more than 200,000tpa of chemical grade spodumene concentrate.

Mt Marion is a globally significant lithium deposit, containing total Indicated and Inferred Mineral Resources of 23.24Mt at 1.39% Li<sub>2</sub>O and 1.43% Fe<sub>2</sub>O<sub>3</sub>, at a cut-off grade of 0% Li<sub>2</sub>O (Appendix B). The project has a granted Mining Proposal and received its Works Approval for plant construction, on the 18<sup>th</sup> of December 2014.



Figure 1. Project milestones

For personal use only

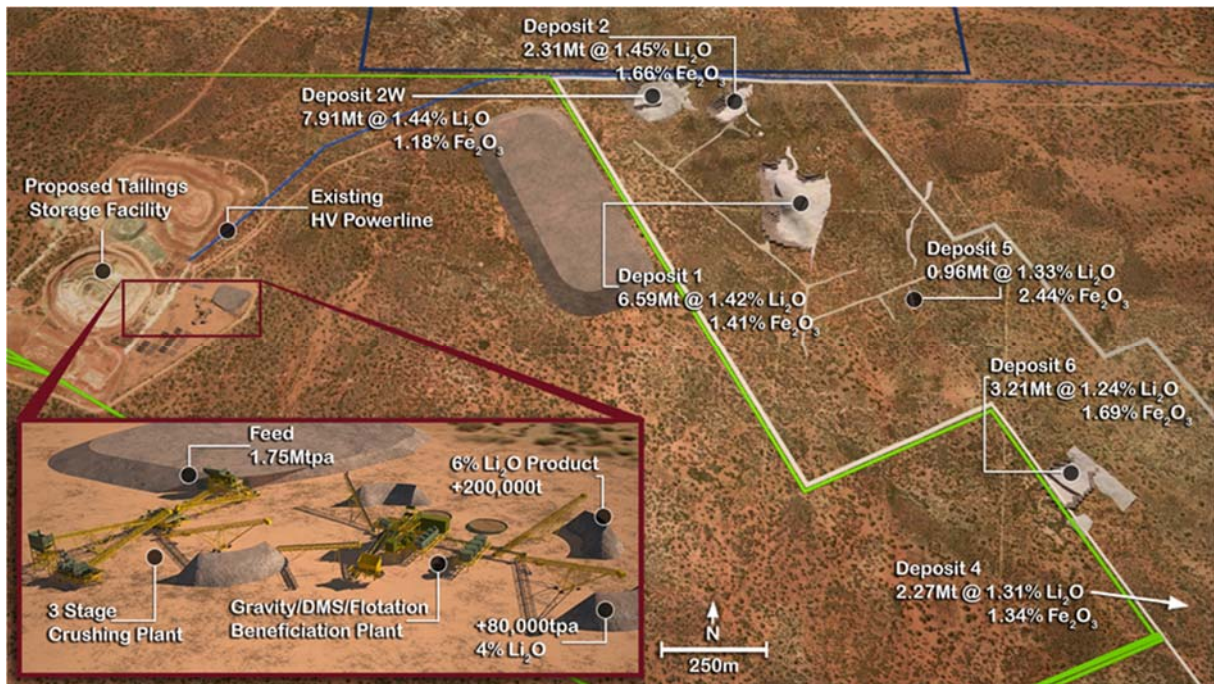


Figure 2. Project layout

### Resource Extension and In-fill drilling

During the Quarter a strategic resource expansion drill program commenced in which up to 335 reverse circulation (RC) holes and 30 diamond holes will be drilled. The drill program is expected to be completed in the June quarter 2016, with an upgraded Mineral Resource Estimate and Ore Reserve planned to be completed in the June and September quarters respectively.

The RC and diamond drilling program is aimed at extending the open pitable minelife through the extension to and in-fill drilling of existing deposits, as well as the definition of new resources from outcropping pegmatite prospects on lithium rights acquired from Metals X Ltd in July 2015.



Figure 3. Exploration milestones

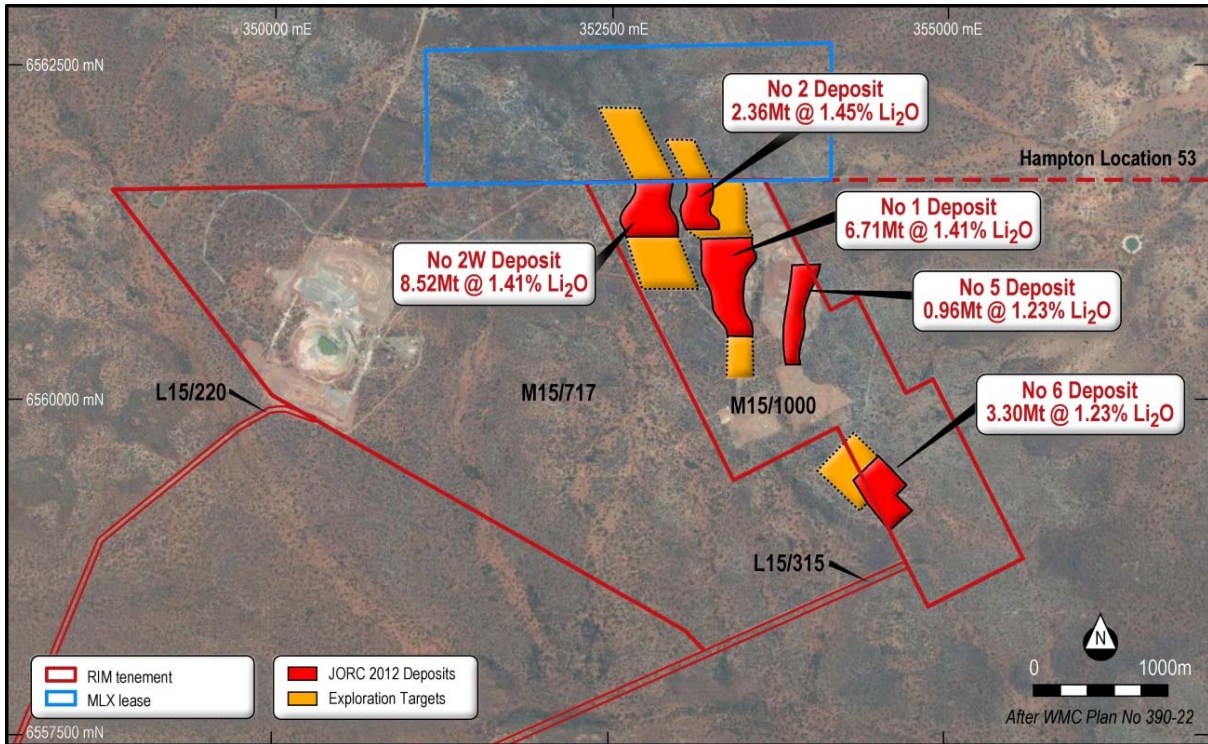


Figure 4. Mineral Resource Estimate and Exploration Target outlines over tenure

## LITHIUM HYDROXIDE PROJECT (ELi Process)

(Neometals 70%, Mineral Resources Limited 30%)

All downstream lithium processing technology and patents were transferred from RIM to a dedicated vehicle, Reed Advanced Materials Pty Ltd ("RAM"). RAM is beneficially owned 70:30 by the Company and MRL. The technology will use the brand name ELi. During the Quarter a Definitive Feasibility Study ("DFS") commenced for the commercialisation of RAM's ELi downstream processing technology in a 15,000 – 20,000tpa LCE lithium hydroxide plant.

### Definitive Feasibility Study

The DFS is supported by an Engineering Cost Study ("ECS") to give capex and opex estimates to the required level of accuracy. M+W (Singapore) commenced work on the ECS component of the DFS during the quarter. The project kick-off meeting that was attended by RAM representatives, initiated work on 1<sup>st</sup>-2<sup>nd</sup> December and subsequent discussions have refined the process model. A meeting between RAM and M+W is scheduled in Singapore in early February for the first review of work performed. The DFS is on track for completion by the end of Q2 2016.

### Lithium market

One of the world's leading lithium producers has announced that effective 1 October 2015 its lithium compound prices will be increased by 15%. Market growth is underpinned by the increasing market penetration of renewable energy storage, and electric/ hybrid electric vehicles (EV and HEV) in commercial and private applications.

The current median prices for battery-grade lithium hydroxide and lithium carbonate are US\$9,000 and US\$7,000 per tonne, respectively, on a CIF basis to Europe and US respectively (source: Industrial Minerals 21 January 2016).

The price of chemical grade lithium concentrates (6% Li<sub>2</sub>O) are US\$440 per tonne on a CIF basis to China. (source: Ganfeng 27 January 2016).

## **BARRAMBIE TITANIUM PROJECT (Neometals 100%)**

During the September quarter the Company announced the results of its Pre-feasibility study (“PFS”) to assess the development of an open-pit mining and processing operation using a licensed proprietary technology to produce high purity titanium, vanadium and iron compounds.

Barrambie is one of the world’s highest grade titanium deposits, containing total Indicated and Inferred Mineral Resources of 47.2Mt at 22.2% TiO<sub>2</sub>, 0.63% V<sub>2</sub>O<sub>5</sub> and 46.7% Fe<sub>2</sub>O<sub>3</sub>, at a cut-off grade of 15% TiO<sub>2</sub> (Appendix B).

### **Project Development and Corporate Strategy**

Following the robust Pre-Feasibility Study results, a short program of optimisation testwork has been approved to assess the many opportunities which have been identified to improve the economics of the project via optimisation of the flow sheet.

As a next step, Neometals plan to undertake a full pilot plant evaluation of the proprietary hydrometallurgical technology, with this work planned to commence in the second half of the current fiscal year. Subject to the success of the full pilot scale test work it is Neometals’ intention to proceed to Feasibility Study (FS) in 2017.

The currently preferred project development strategy is to advance the project to a suitable stage of evaluation to obtain a titanium industry partner who would fund and operate the development of the Barrambie project on a shared equity or joint-venture basis.

### **Exclusive Licence of Proprietary Technology**

During the Quarter the Company entered into a binding term sheet for a global (ex Russia and China) exclusive licence of proprietary technology currently being evaluated for its Barrambie Titanium Project. The Company through a wholly owned subsidiary, already has a non-exclusive licence to use the technology for its Barrambie Titanium Project (as announced on 4 December 2013).

Since 2012 NMT has tested the process at increasing scale, and completed a continuous, semi-pilot scale as part of its pre-feasibility study program. Through this extensive test work it has become apparent that this patent-pending, environmentally friendly process technology has broad application in the recovery of a wide range of metal oxides from chloride leach solutions other than titanium. The energy-efficient recovery and regeneration of hydrochloric acid with minimal effluent is an environmentally sustainable, competitive advantage over conventional processing flowsheets.

Under the arrangements contemplated by the term sheet, NMT will be responsible for managing the commercialisation and development of the technology, and all revenue received from the commercialisation of the technology will be split 25:75 between NMT and the owners of the technology.

NMT is in discussions with a global EPC engineering company with a view to forming a strategic alliance agreement to provide a platform for the commercialisation of the technology, at no up-front cost to NMT. NMT's strategy is to develop and hold a portfolio of royalty interests from sub-licensing the technology in addition to deploying it for the Barrambie Project.

The current non-exclusive licence for Barrambie will be transferred into the new arrangement effectively reducing the technology royalty cost to the project from 5 to 3.75%. NMT has made a US\$250,000 upfront payment to the technology owners, to be recovered from future royalty payments.

The execution of formal agreements remains subject to a number of conditions, including completion of due diligence satisfactory to NMT, and the restructure of the current ownership of the technology.

### **Titanium and Vanadium market**

The majority of titanium feedstocks (US\$17 Billion or 85% by value) are used to produce titanium dioxide pigment which is then used as an additive in paints, plastics, paper and ink with the balance (15%) used to produce titanium metal products.

The current median price for high quality titanium dioxide pigment is US\$2,200 per tonne on a CIF basis to USA (source: Industrial Minerals 21 January 2016).

### **FORRESTANIA NICKEL PROJECT**

**(Neometals 80%, Hannans Reward 20% free carried to DTM)**

During the quarter, the Company completed a ground geophysical survey (IP) in the southern part of the Project tenure, some 7km north of the Flying Fox nickel sulphide mine in the Yilgarn region of Western Australia. The Company has approved an augur drilling program to identify geochemical base metal and fertility indicator element anomalies. Coincident geochemical and geophysical anomalies will be tested with diamond drilling subject to the receipt of board and government approvals.

## **CORPORATE**

### **Director Changes**

At the Company's AGM held on 27 November 2015 the Company confirmed the appointment of Mr Steven Cole as Chairman as part of a broader plan to strengthen the Board as the company commenced the construction phase of the Mt Marion Lithium Project.

Mr Cole, who joined the Board in 2008, assumed the role of Chairman at the conclusion of the AGM replacing long-serving Chairman Mr David Reed, who has stepped into a Non-Executive Director position.

### **Finances (unaudited)**

Cash and term deposits on hand as of 31 December 2015 totalled 31.1 million, including \$5.1 million in restricted use term deposits supporting performance bonds and other contractual obligations.

## **Issued Capital**

On 9 October 2015 the Company granted a total of 1,595,092 Performance Rights to Managing Director, Mr Christopher Reed pursuant to his employment agreement and the shareholder approval obtained at the Company's AGM on 28 November 2014. The Company has also granted 593,472 Performance Rights to an eligible employee pursuant to their employment agreement.

In addition, on 18 November 2015 Mr David Reed elected to convert the 2,000,000 Convertible Notes he held into fully paid ordinary shares in the Company. The conversion price was \$0.04 per share resulting in the issue of 50,000,000 fully paid ordinary shares in the Company.

The total number of shares on issue at 31 December 2015 was 559,039,983.

**ENDS**

For personal use only

## APPENDIX A: TENEMENT INTERESTS

As at 31 December 2015 the Company has an interest in the following projects and tenements in Western Australia.

PROJECT NAME	LICENCE NAME	BENEFICIAL INTEREST	STATUS
Barrambie	E57/769	100%	Live
Barrambie	E57/770	100%	Live
Barrambie	E57/1041	100%	Pending
Barrambie	E58/471	100%	Pending
Barrambie	L57/30	100%	Live
Barrambie	L20/55	100%	Live
Barrambie	M57/173	100%	Live
Mount Marion	E15/1190	45% (*)	Live
Mount Marion	L15/315	45% (*)	Live
Mount Marion	L15/316	45% (*)	Live
Mount Marion	L15/317	45% (*)	Live
Mount Marion	L15/321	45% (*)	Live
Mount Marion	L15/0220	45% (*)	Live
Mount Marion	M15/999	45% (*)	Live
Mount Marion	M15/1000	45% (*)	Live
Mount Marion	M15/717	45% (*)	Live
Mount Marion	E15/1478	45% (*)	Pending
Mount Marion	E15/1496	45% (*)	Pending
Mount Marion	E15/1500	45% (*)	Pending
Pilgangoora	P45/3003	70% (**)	Pending
Mount Finnerty	E15/1416	100%	Live



Mount Finnerty	E15/1430	100%	Live
Mount Finnerty	E16/341	100%	Live
Lake Johnston	E63/1365	80%	Live
Forrestania	E77/2207	80%	Live
Forrestania	E77/2219	80%	Live
Forrestania	E77/2220	80%	Live
Forrestania	E77/2239	80%	Live
Forrestania	E77/2303	80%	Pending
Forrestania	P77/4290	80% (***)	Pending
Forrestania	P77/4291	80% (***)	Pending

\* - registered holder is Reed Industrial Minerals Pty Ltd (Neometals Ltd 45%, Mineral Resources Ltd 30%, Jiangxi Ganfeng Lithium Co.,Ltd 25%).

\*\* - registered holder is Reed Advanced Materials Pty Ltd (Neometals Ltd 70%, Mineral Resources Ltd 30%).

\*\*\* Non-gold rights only.

#### Changes in interests in mining tenements

##### Interests in mining tenements acquired or increased

PROJECT NAME	LICENCE NAME	ACQUIRED OR INCREASED
Mount Marion	E15/1496	Applied for 26 November 2015
Mount Marion	E15/1500	Applied for 21 December 2015

##### Interests in mining tenements relinquished, reduced or lapsed

PROJECT NAME	LICENCE NAME	RELINQUISHED, REDUCED OR LAPSED
Mount Finnerty	M15/978	Surrendered 7 December 2015

## APPENDIX B: MINERAL RESOURCE ESTIMATES

### Mt Marion Resource Table for 0% Li<sub>2</sub>O cut-off

Category (JORC, 2012)	Tonnage (Mt)	Li <sub>2</sub> O (%)	Fe <sub>2</sub> O <sub>3</sub> (%)
Indicated	100.5	1.45	1.33
Inferred	13.19	1.34	1.5
Total	23.24	1.39	1.43

All tonnage and grade figures have been rounded down to two or three significant figures, respectively; slight errors may occur due to rounding of values.

### Barrambie Mineral Resource Estimate for 15% TiO<sub>2</sub> cut-off

Category (JORC, 2012)	Tonnage (Mt)	TiO <sub>2</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	SiO <sub>2</sub> (%)
Indicated	34.7	22.25	0.64	46.77	9.48	14.95
Inferred	12.5	21.99	0.58	46.51	9.32	15.40
Total	47.2	22.18	0.63	46.70	9.44	15.07

All tonnage and grade figures have been rounded down to two or three significant figures, respectively; slight errors may occur due to rounding of values.

### Compliance Statement

The information in this report that relates to Mineral Resource Estimates at the Mt Marion Lithium Project and Barrambie Titanium Project are extracted from the ASX Announcements entitled “ Mt Marion – New Mineral Resource Estimate and Exploration Target” lodged 21 September 2015 , and “Barrambie - Amended JORC 2012 Mineral Resource Estimate” lodged 6 December 2013. The Company confirms that it is not aware of any new information or data that materially affects the information included on the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.