



# Neometals

## ASX Release

16 January 2015

## QUARTERLY ACTIVITIES REPORT

For the quarter ended 31 December 2014

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### Highlights:

#### Mt Marion Lithium Project

- Semi- Pilot Plant in US successfully achieves 200hr of operation at 80% efficiency
- Optimisation testwork of semi-pilot plant in USA reduces power consumption by 15%
- Australian patent granted for lithium hydroxide technology
- Works Approval granted, upstream mining and processing project now fully permitted

#### Barrambie Titanium Project

- Optimisation testwork producing high-purity titanium dioxide via a proprietary hydrometallurgical process continues in Canada
- Sedgman and Snowden Mining Industry Consultants advancing Pre-feasibility Study, completion set for June Q 2015

#### Mt Finnerty Project

- Diamond drill hole intersects first intact basal footwall contact
- Assay results expected by end of January 2015

#### Lake Johnston Project

- Maiden diamond drill hole identifies finely disseminated nickel and copper sulphides in high-Magnesian ultramafic rocks over large spatial extent, 38m @ 0.24 % Ni
- Second hole submitted for assay, results expected end of January 2015

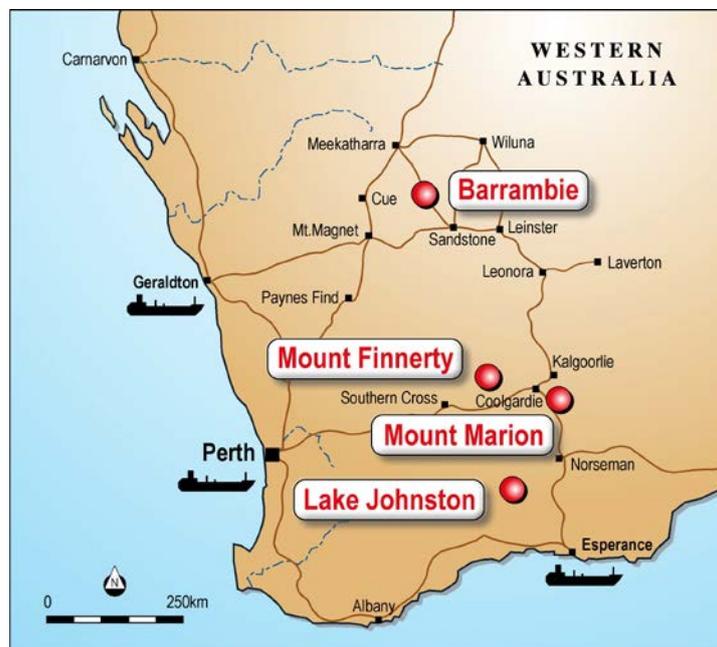
#### Corporate

- Convertible Note Facility extended on more favourable terms and Change of Company Name following Shareholder Approval at AGM
- Cash and restricted access term deposits \$10.29 million



All the right elements

## PROJECT LOCATIONS



### MT MARION LITHIUM PROJECT

(Neometals 70%, Mineral Resources Limited 30%)

During the quarter Reed Industrial Minerals Pty Ltd (**RIM**) continued to advance the Mt Marion Lithium Project (**Mt Marion**) with the successful continuous production of lithium hydroxide (LiOH) catholyte from a semi-pilot plant in the USA. RIM is owned 70:30 by Neometals Ltd (**Neometals**) and leading mining services provider Mineral Resources Limited (**MRL**). MRL fund and operate the project through their subsidiary, Process Minerals International Pty Ltd.

The semi-pilot scale demonstration plant conducted by specialist chlor-alkali laboratory Process Technology Optimisation in Buffalo, USA has successfully achieved 200 hours of operation at 80% efficiency during the quarter. The test work demonstrates the reproducibility of the successful purification and electrolysis of lithium chloride solutions, and the suitability and durability of the ion exchange membrane for commercial operation.

During the quarter RIM was granted a patent from IP Australia over its proprietary process to produce high-purity lithium hydroxide (“LiOH”) directly from spodumene (lithium) concentrates. The patent is the first granted member of the extensive patent family for lithium hydroxide, with other patents filed or under examination in the US, Canada, Chile, China and Malaysia.

Advantages of the RIM process include:

- ability to utilise existing Chlor-alkali and new Chlor-Alkali package-plants to produce LiOH,
- high current efficiency in electrolysis that has the potential to deliver competitive unit production costs, and
- very low impurity levels in final product without additional purification phases.

The results to date are particularly encouraging with the purification of lithium chloride exceeding expectations and efficiency across the electrolysis membrane exceeding assumptions in the Pre-feasibility study ("PFS").

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

Neometals and MRL are working to develop RIM into an independently financed, advanced minerals company that will be an integrated lithium compound producer and supplier to the Lithium-ion battery industry. The project has a granted Mining Proposal and received its Works Approval for plant construction, on the 18<sup>th</sup> of December 2014.

The start-up of a lithium concentrate operation at Mt Marion is planned to coincide with a decision to construct a downstream lithium compound operation. A partner selection process commenced in September with the aim of developing an appropriate business structure for the commercialisation of the RIM process technology. Discussions remain preliminary and there can be no assurance that a binding proposal will emerge. Neometals and MRL will keep the market informed as matters develop further.

### **Lithium market**

The prominent, respected lithium industry researchers forecast a large and sustained increase in the demand for high-purity, battery-grade lithium hydroxide and carbonate at compound rates of approximately 20% pa. The growth is underpinned by continuing use of rechargeable batteries in consumer electronics and increased market penetration of battery electric and 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\$8,000 and US\$6,400 per tonne, respectively, on a CIF basis to Europe and US respectively (source: Industrial Minerals 8 January 2015). Based on public announcements by an established global supplier, a market price increase of around 10% has been foreshadowed in 2015.

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

During the quarter the Company continued to advance its Barrambie Titanium Project with the continued optimisation of its mini-pilot plant testwork programme in Canada. The Company continued 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. The PFS is being managed by Mr D.Michael Spratt, an experienced process/construction engineer and former COO of Minproc, and is expected to be completed in the June Quarter 2015.

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 C).

The currently preferred project development strategy is to advance the project to a suitable stage of evaluation to attract a joint venture partner to fund and operate the development of the Barrambie project.

### **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\$3,175 per tonne on a CIF basis to USA (source: Industrial Minerals 8 January 2015).

### **MT FINNERTY PROJECT (Neometals 100%)**

The Mt Finnerty Project located about 65km east of Koolyanobbing is currently being explored for iron ore and nickel mineralisation in its own right.

### **Nickel (Barranco 100%, Neometals option to acquire 100%)**

During the quarter a single diamond drill hole, GDD009, confirmed the stratigraphy intersected in GDD007 and establishes that the Green Dam Ultramafic Complex is a massive extrusive unit that is generally the one continuous eruptive event. The hole has failed to penetrate the massive sulphides on contact that have been hypothesised to have sourced the strong geochemical anomalism in the shear systems, including the hypogene nickel sulphides in the quartz vein of GDD005. The detailed geochemistry of the core-samples (in progress) will however be assessed for their fertility potential to have sampled a primary geochemical halo from the relatively intact basal ultramafic. The most prospective serpentinites and high-magnesian talc-carbonated have been submitted for multi-element wet chemistry analysis with results expected by the end of January 2015.

### **LAKE JOHNSTON NICKEL PROJECT (Neometals 80%, Hannans Reward 20% free carried to DTM)**

During the quarter two diamond drill holes tested a new geophysical model (3D magnetic inversion) prepared in the previous quarter. MGD001 targeted the northern apophysis, MGD002 tested the southern apophysis that had the stronger soil geochemical response in Ni, Cu & Cr. Both are interpreted to have been sourced from the larger Medcalf chonolith located 3-4km to the south.

Stratigraphy intersected was similar in both holes, viz:- massive gabbro from surface down grading into a cummingtonite amphibolite with almost massive serpentinite in the lower 10 metres of MGD001 and for 200m of MGD002. Both holes have very fine grained sulphides associated with the more massive serpentinitised zones. Geological similarities with other apophysis/chonolith environments such as at the Santa Rita nickel sulphide mine in Brazil and the PGE deposit at Munni Munni in WA have been confirmed.

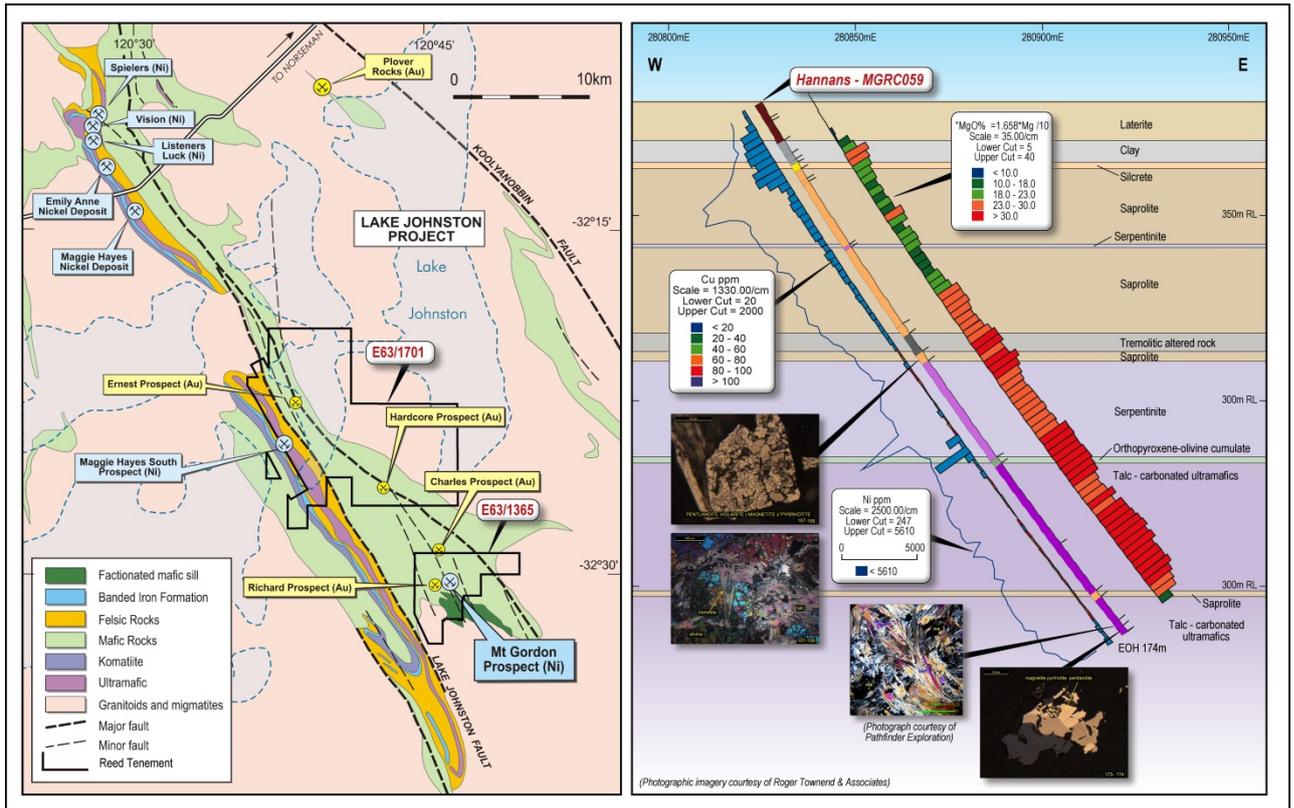


Figure 1. Tenement Plan on Interpreted Geology

Figure 2. Cross section on Interpreted Geology

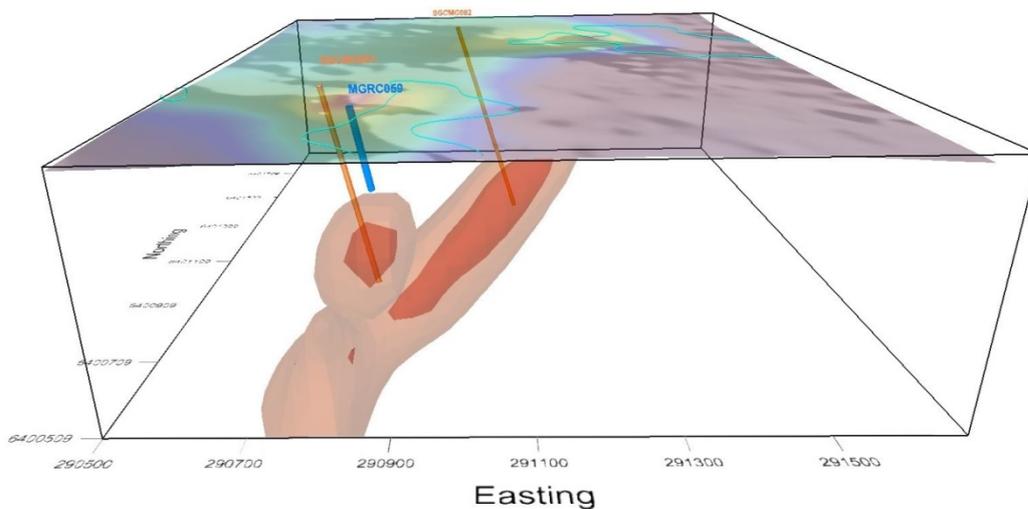


Figure 3. Historic (blue) and current holes (orange) and magnetic anomalies over magnetic model and 80ppm Cu geochemistry (light blue).

Results from MGD001 indicate that ultramafic rocks, both black massive serpentinites and the altered cummingtonite-orthopyroxenite cumulates contain impressively high MgO levels (exceeding 40% volatile free basis) over significant widths. Anomalous nickel contents are coincident with these magnesian rocks and an initial intersection width from 335m to 373m (38m) @ 0.24% Ni is consistently elevated (Appendix A). It is worthwhile emphasising that the thickness of strongly serpentinised ultramafic cumulate in MGD001 is far less than that in the second hole - MGD002 (located 755m away from MGD001).

The most prospective serpentinites and high-magnesian talc-carbonated equivalents have been submitted for multi-element wet chemistry analysis, with results expected by the end of January 2015.

The Company is evaluating options to divest its nickel portfolio.

**Table 1 – Hole Locations 2014 Q2 Drilling**

Hole No.	MGA Northing	MGA Easting	Collar Dip	Collar Azimuth Magnetic	End of Hole Depth m	Comments
GDD009 (Green Dam)	6608050	219000	-60	270.0	861.40m	Down hole surveyed and cased 50mm full length for future geophysics. High magnesian Green Dam Ultramafic Complex intact basal contact over granite-intruded footwall basalts. Trace sulphides mainly in shear zones.
MGD001 (Mt Gordon)	6401696	290945	-60	142.6	511.00	Down hole surveyed and cased 50mm full length for future geophysics. Gabbroic unit over amphibolite with cg sulphides at interface, overlying layered orthopyroxene-olivine cumulates and intact chill zone base with disseminated sulphides. Chonolith intruded into pillowed basalt flows. Trace sulphides and anomalous Ni values throughout cumulates.
MGD002 (Mt Gordon)	6400973	290736	-60	142.6	394.00	Down hole surveyed and cased 50mm full length for future geophysics. Gabbroic unit over amphibolite with cg sulphides at interface, overlying layered orthopyroxene-olivine cumulates and intact chill zone base with disseminated sulphides. Chonolith intruded into pillowed basalt flows. Trace sulphides throughout cumulates, assays available Q3.

**Table 2 – Sampling / Analytical Details 2014 Q2 Drilling**

Hole No.	Sampled From	Sampled To	Laboratory	Sampling Methodology	Comments
GDD009 (Green Dam)	400.00	810.00	Intertek Labs (Maddington)	Quarter core cut	192 Samples (Fire Assay low level Au, Pd & Pt plus 4 acid digest ICPOES or ICPMS finish for Ag, Al, As, Ba, Bi, Ca, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Ni, Pb, Rb, S, Sb, Se, Sn, Sr, Te, Ti, VV, W & Zn – results in ppm). Results pending.
MGD001 (Mt Gordon)	185.27	384.00	Intertek Labs (Maddington)	Quarter core cut	117 Samples (Fire Assay low level Au, Pd & Pt plus 4 acid digest ICPOES or ICPMS finish for Ag, Al, As, Ba, Bi, Ca, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Ni, Pb, Rb, S, Sb, Se, Sn, Sr, Te, Ti, VV, W & Zn – results in ppm). Results received.
MGD002 (Mt Gordon)	104.90	298.15	Intertek Labs (Maddington)	Quarter core cut	156 Samples (Fire Assay low level Au, Pd & Pt plus 4 acid digest ICPOES or ICPMS finish for Ag, Al, As, Ba, Bi, Ca, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Ni, Pb, Rb, S, Sb, Se, Sn, Sr, Te, Ti, VV, W & Zn – results in ppm). Results pending.

**Iron Ore**

Interest in the sale process for wholly owned subsidiary Mount Finnerty Pty Ltd (“MFPL”), which holds the tenements and iron rights, has waned with the fortunes of the iron ore price. A Retention Licence Application was lodged during the quarter, which upon grant, will remove the expenditure obligations from the relevant areas of the Mount Finnerty Project without incurring the costs and risks involved in continuing to apply for exemptions.

**CORPORATE****Finances (unaudited)**

Cash and term deposits on hand as of 31 December 2014 totalled \$10.29 million, including \$6.1 million in restricted use term deposits supporting performance bonds and other contractual obligations.

As a result and following shareholder approval at the AGM, the terms of 2 million convertible notes issued to David Reed on 21 November 2013 were varied on more favourable terms. The terms of the convertible notes are as follows:

Term: 22 November 2015  
Number of notes: 2,000,000  
Face value: \$1  
Coupon rate: 11% per annum (previously floating rate that is 3% above the rate paid by noteholder under the noteholder's external financing arrangements). Interest is payable monthly in arrears.  
Conversion price: \$0.04 (previously \$0.03)  
Conversion date: Any time prior to the redemption date, being 22 November 2015.

### **Annual General Meeting (AGM)**

The Company's AGM took place on 28 November 2014 where the following resolutions were carried:

1. Re-election of David Reed as director
2. Approval of Remuneration Report
3. Approval of Performance Rights Plan
4. Approval of issue of Long Term Incentive Performance Rights to Christopher Reed
5. Approval of variation of Convertible Notes held by David Reed
6. Change of company name

### **Issued Capital**

One million options with an exercise price of \$1.00 expired on 31 December 2014 unexercised.

**ENDS**

### **COMPETENT PERSONS STATEMENT**

*The information in this report that relates to Exploration Results is based on information compiled by Mr Gordon Kelly, a Member of the Australian Institute of Geoscientists. Mr Kelly is a full-time employee of Neometals Ltd. Mr Kelly has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Kelly consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

## APPENDIX A: TABULATION OF DRILL ASSAY RESULT AND JORC 2012 COMPLIANCE TABLES

Hole ID	East (MGA)	Northing (MGA)	RL (m)	Collar Dip	Collar Magnetic Azimuth	EOH (m)	From (m down hole)	To (m down hole)	Intercept (Unweighted)	Ni ppm	S ppm
MGD001	290945	6401696	+380	-60	142.6	511.00	335.00	373.00	38.00	2434	621

### JORC Code, 2012 Edition – Table 1 report template

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample “representivity” and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling</li> </ul>	<ul style="list-style-type: none"> <li>Whole core (mainly NQ2) was logged in the Neometals Ltd corefarm – West Perth by Gordon Kelly who is highly experienced in this exploration technique. The entire hole was digitally photographed prior to removal.</li> <li>Sampling intervals were adjusted to geological boundaries and alteration zones as geologically logged. The thick units resulted in most cutting intervals of 1m, on the metre.</li> <li>Diamond blade cutting of the NQ core was completed by Intertek Laboratories at 15 Davison Road Maddington; one quarter core was sampled into prenumbered calico bags and the other three quarters returned to Neometals for archiving.</li> <li>This procedure is standard for most diamond drill core work and allows replicate sampling of the remaining quarter core to be completed for any subsequent grade control investigations, whilst retaining all half core for possible relogging exercises in the future.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<ul style="list-style-type: none"> <li>• The quantity of quarter core sampled allows complete pulverization of each sample; hence no splitting is ever required. Sample pulps are returned to Neometals after temporary storage at Intertek and then archived at the core farm facilities.</li> <li>• Where the drill hole is partially funded by the EIS scheme (GDD009) all of the three quarter core remnant and the pulp sample returns will be forwarded to the Joe Lord corefarm at the DMP – Kalgoorlie for final archiving.</li> </ul>
<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drilling was completed by Westralian Diamond Drillers from Kalgoorlie at the Green Dam prospect (GDD009) and by DDH1 Drilling from Perth at the Mt Gordon prospect (MGD001 and MGD002).</li> <li>• The surface, strongly lateritised gravels and clays were roller-cone removed for the top ~40m and material lost into the sumps.</li> <li>• From ~40m to ~70m, HQ coring was completed in the strongly broken saprock zone.</li> <li>• From ~70m to EOH, the core was fresh rock and NQ2 core was collected in plastic core trays for later work. The coring is quite standard for this reconnaissance work.</li> <li>• Where possible, Bottom-of-Hole crayon orientation marks were recorded and later extrapolated as far as possible along the rejoined &amp; cleaned core. Not all orientation was successful and always failed in major shear zones typically observed in GDD009.</li> <li>• Down-hole gyro surveying was completed, with WDD completing single shot surveys every 30m, recording dip, magnetic azimuth and magnetic field (magnetic susceptibility). DDH1 recorded multi shot down hole surveys every 6m or so, with dip, magnetic azimuth magnetic strength (nT) and relative gravity readings taken.</li> </ul>
<p><i>Drill sample recovery</i></p>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drill core recovery in the top ~40m was zero, where the overburden weathered laterite clays and gravels were lost to the sumps.</li> <li>• Recovery in the HQ cored section from ~40m to ~70m was poor to adequate, as determined from the very broken and jointed nature to the rock types. Recovery was down to 10% in some sheared sections.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Recovery in the NQ2 cored section from ~70m to End Of Hole were 100% apart from the occasional shear zones in GDD009. The MGD001 &amp; 002 core recovery was 100%.</li> <li>The zones selected for cutting were all within the 100% recovery fresh rock sections and there can be no sampling bias involved.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All drill core was transported to Neometals corefarm in West Perth for full degreasing, reconnection of core lengths and measurement of metre marks where required, usually over the entire hole.</li> <li>Geological logging was completed on all 3 holes by Gordon Kelly, who has 45 years' experience in this style of exploration. The core was logged geologically to the highest standards of our current understanding in nickel sulphide exploration.</li> <li>Geotechnical logging was completed to a reasonable standard, in that RQD estimates were recorded over geological units and any significant core loss noted. When possible, geological contacts, major fault planes and internal fabric orientations were recorded using industry standard alpha and beta terminologies.</li> <li>These readings are available for any possible structural re-analysis that is deemed appropriate in the case of mine development.</li> <li>The laid-out core trays were photographed with a DSLR camera and the pictorial record for the entire hole stored in Neometals database. At present, holes MGD001, MGD002 and the lower half of GDD009 have been recorded. The upper half of GDD009 still awaits logging and processing.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representative nature to the samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	<ul style="list-style-type: none"> <li>Selection of intervals for quarter core cutting and sampling was based on the above detailed geological logging. As a generalisation, all occurrences of sulphide mineralisation have been marked-up for cutting and sampling.</li> <li>Hole GDD009 started-in and penetrated high-magnesian ultramafic rocks the entire length (above the footwall basalt sequences). The last ~100m or so of that core has been submitted for analysis due to the focus of the hole to test a conceptual geological target proposed by Western Mining Services. The target proposed was massive nickel sulphides close to or on the footwall contact.</li> <li>It was not considered cost-effective to test the entire length (800m) of</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>the ultramafic unit, above that ~100m above the contact, especially when no nickel sulphides have been logged.</p> <ul style="list-style-type: none"> <li>The caveat to that is that the upper half of the hole has not been logged in detail and there may well be remobilised sulphides in the more sheared upper section that would justify sampling in the near future.</li> <li>Holes MGD001 &amp; 002 penetrated a gabbroic unit overlying amphibolite and serpentinised cumulates. The Mt Gordon area is a pure greenfields area and it was decided to collect basic geochemical information on the entire ultramafic portion of both holes.</li> <li>The sampling of quarter core is considered quite adequate to collect representative samples of the entire ultramafic and any disseminated nickel sulphides therein. The only zones of coarse grained sulphides are at the interface between gabbro and ultramafic and quarter core sampling would not be adequate in that particular case, which only has relevance if there are significant values recorded.</li> <li>The coarse sulphides discussed above are not hosted in ultramafic lithologies and are unlikely to yield nickel sulphide intersections. They are interpreted to be more likely to host anomalous PGE values, based on the conceptual geological targets discussed in the text.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>The value of the analytical data reported by Intertek is cutting-edge in quality and highly appropriate for all nickel sulphide exploration. They have maintained a consistent track record over many decades of benchmark quality in their analytical work.</li> <li>Data were again subject to QA/QC by Intertek Laboratories, 15 Davison Road Maddington . QA/QC was achieved by duplicate sampling of laboratory pulps at random sample intervals and of anomalously high values. Laboratory blanks were also inserted according to their protocols to check sample preparation cross-contamination potential.</li> <li>Intertek publishes all duplicates and standards analyses alongside of the drill sample results.</li> </ul>
Verification of sampling	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>No intersections have been received to date that would justify validation by replicate and/or duplicate analysis.</li> <li>Twinned holes were not relevant at this stage in greenfields</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>and assaying</i>	<ul style="list-style-type: none"> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<p>exploration.</p> <ul style="list-style-type: none"> <li>• All geological and location data has been stored in Neometals Ltd. .xlsx database files. Data entry has been by manual input and validation of the small amount of data was done by checking input on screen prior to saving.</li> <li>• There is no historic diamond drill data from this prospect. The single RC hole that dates from Hannans Reward exploration era (2009-2010) was resampled in its entirety by sieving the 1m green plastic bag reject sample on site to separate a representative subsample of fines for submission to Intertek Laboratories. Coarse subsamples, that is, above 6mm diameter, have been archived in the Neometals corefarm for possible future petrographic work.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Locations were planned using a combination of GIS software packages. All collars were proposed by Bill Peters from SGC and were designed to test the 3D geophysical model of the magnetic susceptibility readings collected by the aerial survey completed for RGC in 1996.</li> <li>• Location of stations was accomplished with Garmin handheld GPS units with an accuracy of +/- 4m. Drill azimuths were laid-out with a hand-held Suunto compass that has a precision of +/- 0.5 degrees.</li> <li>• All data points were located using the Geocentric Datum of Australia 1994 and the Map Grid of Australia zone 51 projection.</li> <li>• Topographic control was not required to be determined for this release.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• At least 300 readings were recorded per station.</li> <li>• Stations/holes were individually plotted in the field.</li> <li>• The data spacing or hole separation is approximately 750m and is only designed for a first-pass look at the source of the 3D geophysical model.</li> <li>• If further drilling is justified, an exploration grid will be established on paper to adequately test the disseminated mineralisation style. Collar positions although adjusted to align on a local grid, will be converted for field positioning with a hand-held GPS. Conversion formulae are available for calculating either coordinate system.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>• The drill holes were designed to intersect the 3D modelled body in the centre and close to 90 degrees to the contacts.</li> <li>• The results of the geotechnical measurements of geological contacts indicate that the modelling and hole planning was very close to an ideal orientation choice.</li> <li>• The intersections quoted in the text are therefore presented as being highly representative of true widths and grades. Thus there is no bias inherent in holes MGD001 &amp; MGD002.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>• All drill core and sampling was conducted under constant management by Reed Exploration and Neometals personnel.</li> <li>• There was no potential for sample substitution or “salting” at any stage of the analytical pipeline.</li> <li>• All core and sample pulps are stored behind secure locked doors at the Neometals corefarm facilities.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>• The nature of the only recently received analytical data has not entailed any audits of quality. It is unlikely that MGD002 will require any such reviewing.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>• The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>• Tenement E63/1365 which contains the Mt Gordon prospect is 100% owned by Reed Exploration Pty Ltd, a wholly owned subsidiary of Neometals Ltd. (13 blocks) and is located as one contiguous block within the SW Mineral Field. The centre of the block is located approximately 50km SSE of Maggie Hays nickel mine or 120km WSW of Norseman. The tenements overlay Vacant Crown Land, which also contains the Proposed Nature Reserve PNR/84, managed by DPaW. All exploration activities</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>are managed by the DMP and the 2 entities may collaborate on environmental management protocols that exploration activities justify. The tenement conditions on grant of the lease give further details.</p> <ul style="list-style-type: none"> <li>• Neometals Ltd through its wholly owned subsidiary Reed Exploration Ltd has a joint venture agreement in place with Hannans Reward Ltd, the previous owners of the tenement, who retain a 20% free carried interest in tenement up to a decision to mine. Hannans Reward can elect to fund its 20% interest or dilute to a 2% Net Smelter Royalty on all minerals.</li> <li>• Tenement E63/1365 is in good standing with the Department of Mines and Petroleum (DMP).</li> </ul>
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The tenement area has received sporadic greenfields exploration since the mid-1970's when nickel mineralisation was discovered at Maggie Hays camp. Most consisted of brief, intense resource drilling over the Medcalf layered mafic complex, in assessment of its vanadium mineralisation. Amoco minerals were prominent in the 1980's in that focus. Later work by komatiite nickel sulphide explorers was peripheral to the Mt Gordon prospect area, with the most recent in 2010-2012 by Hannans Reward focusing on the gold mineralisation potential further north than Mt Gordon.</li> <li>• Relics of reconnaissance drill exploration over this covered lateritic gravel terrain are noticeable by its absence. The latest bedrock drilling by Hannans required extensive access track development to mount a gold focused test of soil sampling and structural targets.</li> <li>• The soil sampling did highlight a bull's-eye base metal coincident anomaly that justified a single angled RC drill hole beneath it to test for the source of the base metal anomalism. This was quite distinct from the gold targeting that had been tested in the same program with a large number of deep RC holes.</li> <li>• The GSWA mapping in the area has been completed to 1:100,000 scale - regional outcrop mapping on the Johnston sheet – dated 2012. There are no comments of unusual aeromagnetic bulls-eye signatures or comments on the genesis of the Medcalf Intrusive Complex.</li> <li>• In general, the intrusive layered complex at Mt Gordon; drilled in 2014</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>was only discovered by Hannans Reward as a result of systematic soil sampling, drill testing, followed by later focused geophysical and geological exploration by Reed Exploration.</p> <ul style="list-style-type: none"> <li>• Geophysical surveys of greatest value in this phase of greenfields exploration is the low-level ultra-detailed survey commissioned by RGC in 1996.</li> <li>• The identification of a possible chonolith signature in the 3D modelling of same was also only possible using the experience and software utilised by Southern Geoscience geophysical surveys.</li> <li>• Recognition of the geological / mineralisation possibilities of such a chonolith was made by the nickel sulphide exploration-experienced personnel at Reed Exploration Ltd.</li> </ul>
<p><i>Geology</i></p>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Mt Gordon prospect is poorly understood, both in detail and in its overall geological context. Previous workers overlooked the prospect area because of its zero outcrop, being covered by near in situ lateritic gravels and latosols.</li> <li>• The nearest outcrop is the Medcalf Igneous Complex, located approximately 3-4km south of Mt Gordon. It has received geological mapping of varying quality, with the best interpretation being available on the Audalia Resources website as a downloadable .pdf.</li> <li>• Exploration from Mt Gordon prospect and northwards towards Lake Johnston has been historically gold-focused. Exploration techniques have been soils and auger soil sampling, extensive RC angle drilling and rare diamond drilling. Much more intensive nickel sulphide exploration has been focused on the komatiitic ultramafic belts, located approximately 5km westwards that are interpreted to be stratigraphic continuations southwards from the Maggie Hays nickel camp. The details of this work are not relevant to the Mt Gordon prospect and future exploration.</li> <li>• From the diamond drill holes just completed, the layered mafic-ultramafic chonolith apophyses identified have been intrusively emplaced into an unremarkable pillowed tholeiitic basalt flow sequence. Hornfelsing and metamorphic mineral overprinting is confirmation of the intrusive nature.</li> <li>• Earlier geological interpretations are inconclusive in provenence.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole coordinates, dips, azimuths and survey information has been summarised in tabular form, in the text above.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• The results quoted are unedited raw data, direct from the analytical laboratories.</li> <li>• There has been a very simple aggregation technique applied for the intersection, viz:- sum of widths times grade divided by sum of widths</li> <li>• This gives a straight forward metres from a down hole depth at an averaged grade.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg ‘down hole length, true width not known’).</li> </ul>	<ul style="list-style-type: none"> <li>• The geometry is almost one on one, that is, the down hole intersection is the same as the true width intersection, due to the nearly right angled intersection to chonolith apophysis contact.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• The attached figures to this release contain all relevant sample intervals, intercepts and estimated geological comments based on historic geological logging.</li> </ul>
<i>Balanced</i>	<ul style="list-style-type: none"> <li>• Where comprehensive reporting of all Exploration Results is not</li> </ul>	<ul style="list-style-type: none"> <li>• The release is the total of information available and the intersection</li> </ul>

Criteria	JORC Code explanation	Commentary
reporting	<i>practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	contains the only significant compilation of nickel assays that are related to fresh rock samples.
Other substantive exploration data	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Future work proposed should include detailed petrographic identifications of the major rock types and sulphide mineralisation intersected.</li> <li>• This will confirm the rock types geologically logged and improve the comparison to better documented nickel sulphide deposits in chonolith environments.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Both drill holes at Mt Gordon and the one stratigraphic drill hole at Green Dam have 50mm PVC casing emplaced to allow possible down-hole geophysical surveys to be completed.</li> <li>• There is a time limit imposed by the DMP for rehabilitation of the holes and this may destroy access to the casing.</li> <li>• Down hole geophysics is therefore a possible next exploration technique to employ.</li> <li>• Dependent on the analytical results from MGD002, due in a few weeks, there could quite feasibly be a sudden impetus in exploration.</li> <li>• Programs of detailed auger soil sampling have been prepared in order to focus on the more prospective sulphide-mineralised portions of the prospect area. PGE anomalism is well catalogued as an indicator towards mineralisation.</li> <li>• A large number of potential angle drill holes have also been listed for environmental evaluation, a necessary step to gain POW approvals from DPaW and from the DMP.</li> <li>• What drill collar sites are actually drilled can be decided in the light of further interpretation of current results.</li> <li>• Submission and approval of Conservation Management Plans is onerous and expensive, but an absolute necessity when dealing with the above regulatory bodies.</li> <li>• The consultants Animal, Plant, Mineral (APM) were very successful in getting rapid approvals to do the above drilling and they would be utilised again.</li> </ul>

## APPENDIX B: TENEMENT INTERESTS

As at 31 December 2014 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	E58/471	100%	Pending
Barrambie	L57/30	100%	Live
Barrambie	L20/55	100%	Live
Barrambie	M57/173	100%	Live
Mount Marion	E15/1190	70% (*)	Live
Mount Marion	L15/315	70% (*)	Live
Mount Marion	L15/316	70% (*)	Live
Mount Marion	L15/317	70% (*)	Live
Mount Marion	L15/321	70% (*)	Live
Mount Marion	M15/999	70% (*)	Live
Mount Marion	M15/1000	70% (*)	Live
Mount Finnerty	E15/836	100%	Live
Mount Finnerty	E15/1408	100%	Live
Mount Finnerty	E15/1416	100%	Live
Mount Finnerty	E15/1430	100%	Pending

Mount Finnerty	E16/260	100%	Live
Mount Finnerty	E16/272	100%	Live
Mount Finnerty	E16/305	0% (**)	Live
Mount Finnerty	E16/308	100%	Live
Mount Finnerty	E16/330	0% (**)	Live
Mount Finnerty	E16/341	100%	Live
Mount Finnerty	E16/375	100%	Live
Mount Finnerty	E16/455	100%	Live
Mount Finnerty	M15/978	100%	Live
Mount Finnerty	M15/1371	100%	Live
Mount Finnerty	M16/506	100%	Live
Mount Finnerty	M16/507	100%	Live
Mount Finnerty	M16/511	100%	Live
Mount Finnerty	M16/522	100%	Live
Mount Finnerty	P16/2823	100%	Live
Mount Finnerty	P16/2824	100%	Live
Mount Finnerty	R16/1	100%	Pending
Mount Finnerty	R16/2	100%	Pending
Lake Johnston	E63/1701	100%	Live
Lake Johnston	P63/1961	100%	Live
Lake Johnston	P63/1964	100%	Live
Lake Johnston	P63/1965	100%	Live

Lake Johnston	P63/1966	100%	Live
Lake Johnston	P63/1967	100%	Live
Forrestania	E77/2207	100%	Pending
Forrestania	E77/2219	100%	Pending
Forrestania	E77/2220	100%	Pending
Forrestania	E77/2239	100%	Pending

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

\*\* - registered holder is Barranco Resources NL, Neometals Ltd has option to purchase 100%

### Changes in interests in mining tenements

Interests in mining tenements acquired or increased

PROJECT NAME	LICENCE NAME	ACQUIRED OR INCREASED
Barrambie	E58/471	Applied for 07/10/2014
Mount Finnerty	R16/1	Applied for 27/11/2014
Mount Finnerty	R16/2	Applied for 27/11/2014

Interests in mining tenements relinquished, reduced or lapsed

PROJECT NAME	LICENCE NAME	RELINQUISHED, REDUCED OR LAPSED
Lake Johnston	E63/1715	Withdrawn 06/10/2014
Mount Finnerty	E16/448	Surrendered 01/10/2014

## APPENDIX C: MINERAL RESOURCE ESTIMATES

### Mt Marion Resource Table for 0.3% 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> (%)
Measured	2.0	1.45	0.93
Indicated	4.8	1.39	1.22
Inferred	8.0	1.3	1.3
Total	14.8	1.3	1.2

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 is extracted from the ASX Announcements entitled “ Mt Marion – JORC 2012 Mineral Resource Estimate” lodged 9 December 2013, and “Barrambie - Amended JORC 2012 Mineral Resource Estimate” lodged 6 December 2013 respectively. 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.