

ASX RELEASE

17 October 2012

## Mt Marion Lithium Update

### HIGHLIGHTS

- **Mineral Resources Ltd and Reed Resources Ltd execute Shareholders Agreement.**
- **Mineral Resources Ltd issued 30% equity interest in Reed Industrial Minerals Pty Ltd ("RIM") which holds 100% of the Mt Marion Project.**
- **Pre-feasibility Study to produce Lithium Hydroxide demonstrates robust economics (NPV \$321m) and lowest quartile costs (US\$3,877/t).**
- **RIM proposed to become independently funded, advanced minerals company.**

Emerging Australian gold producer Reed Resources Ltd (**ASX: RDR**) (**Reed**) is pleased to announce the signing of a Shareholders Agreement with Mineral Resources Limited (**ASX:MIN**)( **MRL**) and its subsidiary Process Minerals International Pty Ltd (**PMI**). Under the agreement MRL, through PMI, will continue to fund and operate the Mt Marion Lithium Project with MRL's previous right to earn profits from the operation converted into to a 30% interest in the issued share capital of RIM.

RIM was formed to dedicate the appropriate financial, technical and human resources to advancing the Mt Marion Lithium Project, including the downstream processing into high-purity lithium battery feedstocks. The RIM board of directors now comprises Reed representatives Steven Cole (as Chairman) and Chris Reed, and MRL representatives Chris Ellison and Bruce Goulds. The formalisation of the jointly owned RIM is consistent with Reed's primary focus and commitment to becoming a mid-tier gold producer at Meekatharra, whilst seeking to optimise and achieve value enhancement opportunities for Reed's non-gold assets.

Reed has also completed a Pre-feasibility Study (**PFS**) to produce high-purity lithium hydroxide (**LiOH**) and lithium carbonate from Mt Marion lithium concentrates in Malaysia. The results of the PFS demonstrate robust financial returns and endorse the integrated down-streaming strategy to maximise the Project's value.



## PRE-FEASIBILITY STUDY

Reed has completed a study investigating the economic viability of producing up to 20,000 tonnes per annum of battery-grade lithium hydroxide monohydrate (57.5% LiOH.H<sub>2</sub>O) in Malaysia. The study assumes the availability of requisite Malaysian approvals, purchase and supply of spodumene feed, and all operating and capital expenditure.

The production of LiOH involves hydrochloric acid leaching of spodumene concentrate, purification of lithium chloride solution and electrolysis applying proprietary technology owned by Reed. Process test work was conducted by the CSIRO utilising product specifications from the Mt Marion Lithium Project.

The LiOH production costs generated by the PFS are estimated to be lower than all known LiOH producers.

For the purpose of the PFS, a kiln feed rate of 147,000 tonnes per annum @ 6.0% Li<sub>2</sub>O was assumed and the following key process steps applied:

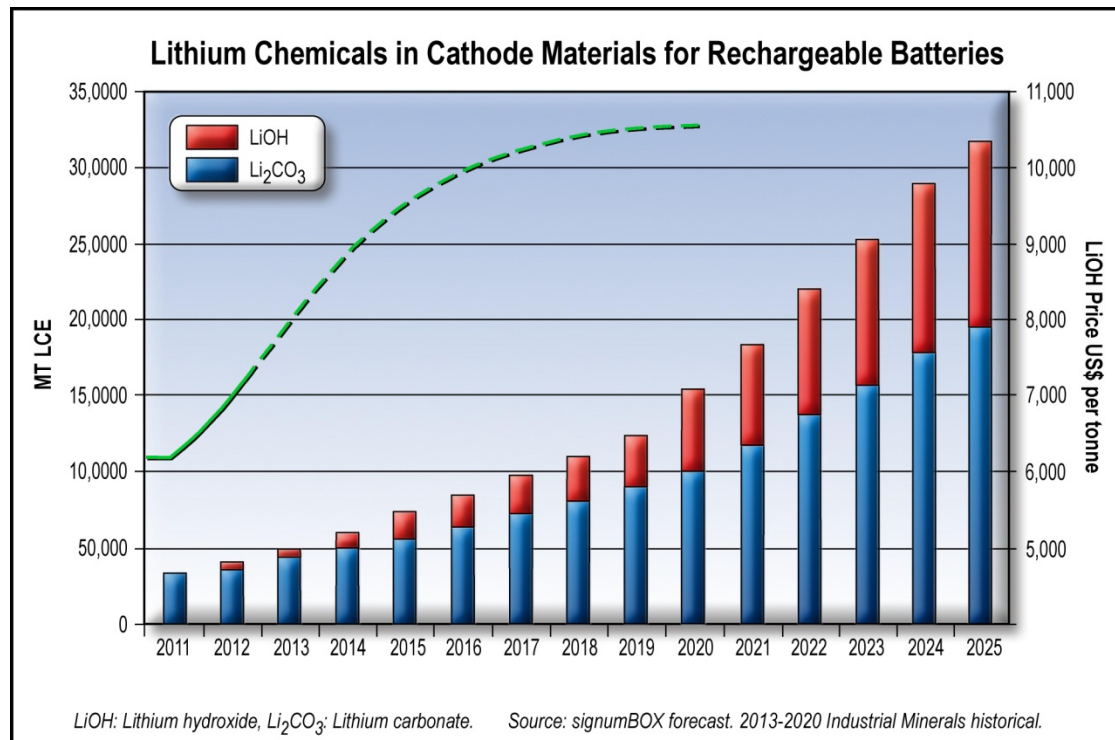
- Decrementation in a rotary kiln
- Hydrochloric acid leaching of beta spodumene
- Solvent extraction and ion exchange
- Electrolysis (identical to chlor-alkali process)
- Lithium Hydroxide crystallisation and carbonisation to lithium carbonate
- 20 year effective plant life

Operating Parameters	Quantity
Spodumene Concentrate Feed	147,100 tpa
Spodumene Concentrate Grade	6.0 % Li <sub>2</sub> O
Lithium Hydroxide/Lithium Carbonate Production	10,000/8,810 tpa
PFS Highlights	
Life of Mine (LOM) Production	200,000t LiOH 176,200t Li <sub>2</sub> CO <sub>3</sub>
LOM Revenue	US\$ 3.15 billion
Pre-tax Cashflow	US\$ 1.19 billion
Pre-tax NPV 12%	US\$ 321 million
Pre-tax Internal Rate of Return	94%
Average Cost per tonne of LiOH	US\$ 3,878
Average Cost per tonne of Li <sub>2</sub> CO <sub>3</sub>	US\$ 4,538
Total initial capital costs	US\$ 83 million
Payback of capital costs	2 years

All analysis is in US dollars and assumes a selling price of US\$6,900/t for lithium hydroxide and lithium carbonate, a spodumene cost of US\$350/t CIF, an AUD exchange rate of US\$1.05 and a MYR exchange rate of US\$0.32. Operating Revenues and Costs are both escalated at 2% pa. Capital costs are valid as at September 2012 with an indicative accuracy range of ±35% and a 15% contingency.

## LITHIUM MARKET

LiOH is becoming increasingly more important in high power applications. Demand for LiOH from the lithium ion battery industry is forecast to grow at a rate of 30% per year between 2012 and 2020 driven by electric vehicles, electric bikes and grid storage. The processing plant design has the flexibility for any lithium hydroxide not sold under contract to be carbonated into battery-grade lithium carbonate, a much larger market.



Lithium carbonate and in turn spodumene prices have recovered from the price war of 2010-2011 and have resumed an upward trend (up +25% in 2012). Talison Lithium has recently doubled its capacity at Greenbushes to 780,000tpa of spodumene which is expected to moderate upward spodumene price movement in the short term. The recent acquisition of Talison Lithium by Rockwood Holdings Inc, the second largest lithium carbonate producer, for C\$724 million demonstrates the strategic value in captive sources of spodumene production in low-risk mining jurisdictions.

## PROJECT DEVELOPMENT AND CORPORATE STRATEGY

Reed and MRL are determining the most effective production profile and optimal timing for the commencement of operations at Mt Marion. Reed's and MRL's preferred option is to develop a vertically integrated mine-downstream processing operation to supply essential lithium compounds to the fastest growing battery markets in the world. Project development is fully funded by Mineral Resources.

Reed is working with MRL in preparing RIM to become an independently financed, advanced minerals company. An Initial Public Offering (IPO) of RIM is currently Reed and MRL's preferred financing strategy, with the anticipated timing to be determined post-completion of a Definitive Feasibility Study to construct a lithium battery materials plant. Strategic discussions continue with third parties in relation to alternate transaction structures. Discussions remain preliminary and there can be no assurance that a binding proposal will emerge. Reed and Mineral Resources will keep the market informed as matters develop further.

## ENDS

For further information please contact:

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### **Competent Persons Statement**

*Geological aspects of this report have been compiled by Mr Craig Fawcett (MAIMM), a full time employee of Reed Resources Ltd. Mr Fawcett has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being reported on to qualify as a Competent Person as defined in the Code for Reporting of Mineral Resources and Ore Reserves (2004). Mr Fawcett consents to the inclusion in this report of the matters in the form and context in which they appear.*

### **About Reed Resources**

Reed Resources Ltd (ASX: RDR, OTC: RDRUY) is an emerging Western Australian gold producer focused on bringing its flagship Meekatharra Gold Project into production in December 2012.

Reed Resources' wholly owned Meekatharra Gold Project is located in the prolific Murchison region of Western Australia and currently has 3.59Moz of gold in JORC resources (see table overleaf) and existing infrastructure including the 3 Mtpa Bluebird processing plant.

Reed Resources' other projects include:

- **Barrambie:** Currently in approvals process and evaluating recovery of titanium, vanadium and iron units via a proprietary hydrometallurgical processing route.
- **Comet Vale:** Currently on care & maintenance. High grade resource of 209,500 oz at 7.6 g/t Au.
- **Mount Finnerty:** Iron ore JV with Cliffs Natural Resources and nickel option with Barranco Resources NL.

Website: [www.reedresources.com](http://www.reedresources.com)

### **About Mineral Resources**

Mineral Resources (ASX: MIN) is a leading Australian based diversified mining service, contracting, processing and commodities production company. Since its foundation in 1993, the company has grown through strategic business development, consolidation and acquisition and now has a portfolio of market leading brands including Crushing Services International, PIHA, Process Minerals International, Polaris Metals and Mesa Minerals.

Mineral Resources has developed a strong reputation for the cost effective delivery of its services and products to the resources and infrastructure sectors. These operations have been supplemented by the acquisition of 100% of Polaris Metals and a majority stake in Mesa Minerals (ASX: MAS) and supports Mineral Resources' strategy to become a major volume player in the contracting and steel making commodity market.

Website: [www.mineralresources.com.au](http://www.mineralresources.com.au)

Deposit	Resource Category	Tonnage (Mt)	Au (g/t)	Au (koz)
Meek. North	Indicated	1.2	1.8	65.7
	Inferred	0.2	1.6	9.3
Paddys Flat	Indicated	25.2	1.6	1,280.7
	Inferred	13.4	1.6	670.0
Yaloginda	Indicated	10.0	1.7	563.6
	Inferred	6.3	1.7	346.9
Nannine	Indicated	0.6	1.6	30.9
	Inferred	0.2	1.6	12.7
Reedys	Indicated	2.7	3.1	276.4
	Inferred	4.0	2.7	337.9
<b>Total</b>		<b>63.9</b>	<b>1.8</b>	<b>3,594.1</b>

Comet Vale	Category	Tonnes (Mt)	Au (g/t)	Gold (koz)
Comet Vale	Indicated	0.41	7.2	96.9
	Inferred	0.43	8.1	112.6
<b>Total</b>		<b>0.85</b>	<b>7.6</b>	<b>209.5</b>

1. Resources and reserves comply with the Australian JORC Code reporting guidelines
2. Resources are inclusive of reserves

Deposit	Reserve Category	Tonnage (Mt)	Au (g/t)	Au (koz)
Bluebird	Probable	1.4	1.9	86.0
South Junct.	Probable	0.1	1.5	4.5
Prohibition	Probable	1.1	2.7	96.0
Surprise	Probable	0.1	3.0	13.0
Batavia	Probable	0.2	2.4	14.0
Whangamata	Probable	0.3	1.4	11.9
GNH	Probable	0.9	1.3	35.6
Jack Ryan	Probable	0.2	3.1	21.8
Callisto	Probable	0.1	3.1	7.2
Rand	Probable	0.1	2.4	7.6
Mickey Doolan	Probable	3.3	1.1	121.7
Maid Marion	Probable	0.2	1.4	8.7
Aladdin	Probable	0.4	1.7	21.5
South Emu	Probable	0.1	4.7	13.9
TOTT	Probable	0.5	1.8	29.4
<b>Sub Total (O/Pit)</b>	<b>Probable</b>	<b>8.9</b>	<b>1.7</b>	<b>492.9</b>
Prohibition	Probable	1.3	2.4	104.1
Vivian/Cons.	Probable	0.3	7.7	63.6
Fatts/Mud.	Probable	0.4	4.7	57.2
South Emu	Probable	0.2	4.3	34.2
<b>Sub Total (U/G)</b>	<b>Probable</b>	<b>2.2</b>	<b>3.6</b>	<b>259.1</b>
<b>Total</b>	<b>Probable</b>	<b>11.2</b>	<b>2.1</b>	<b>752.0</b>