



Global Geoscience Limited

ASX:GSC

**Rhyolite Ridge
Lithium-Boron Project
Nevada, USA**

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► Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Bernard Rowe, a Competent Person who is a Member of the Australian Institute of Geoscientists. Bernard Rowe is a shareholder, employee and Managing Director of Global Geoscience Ltd. Mr Rowe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Bernard Rowe consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this presentation that relates to Mineral Resources (refer to ASX announcement dated 10/10/2016) is based on information compiled by Mr Robert Dennis who is a Member of the Australasian Institute of Geoscientists and the Australian Institute of Mining and Metallurgy. Mr Dennis is a full time employee of RPM. Mr Dennis is the Competent Person for this Mineral Resource estimate and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

In respect of Mineral Resources referred to in this presentation and previously reported by the Company in accordance with JORC Code 2012, the Company confirms that it is not aware of any new information or data that materially affects the information included in the public report titled "Maiden Resource for South Basin at Nevada Lithium-Boron Project" dated 10 October, 2016 and released on ASX. Further information regarding the Mineral Resource estimate can be found in that report. All material assumptions and technical parameters underpinning the estimates in the report continue to apply and have not materially changed.

Investment Highlights

► Strategic Asset

- Very large lithium-boron deposit located in Nevada, USA
- 3.4 million tonnes of lithium carbonate contained within Resource¹
- 11.3 million tonnes of boric acid contained within Resource¹
- Existing infrastructure, mining-friendly jurisdiction, skilled workforce
- Global has option for 100% ownership interest

► Advanced

- Maiden Resource of 393Mt at 1.2% Li_2CO_3 equivalent¹
- High-grade zone: 65Mt at 2.0% Li_2CO_3 equivalent¹
- Excellent potential to expand the Resource

► Potential

- Amenable to open-pit mining methods
- Potential for low-cost leaching of lithium and boron
- Potential long-life, low-cost source of lithium and boron



1. Refer to public report dated 10/10/2016 for further information regarding the Mineral Resource estimate.

Corporate Overview

Capital Structure

Shares on issue	1.07B
Cash	\$5M
Share Price	\$0.06
Market Cap.	\$64M

Directors

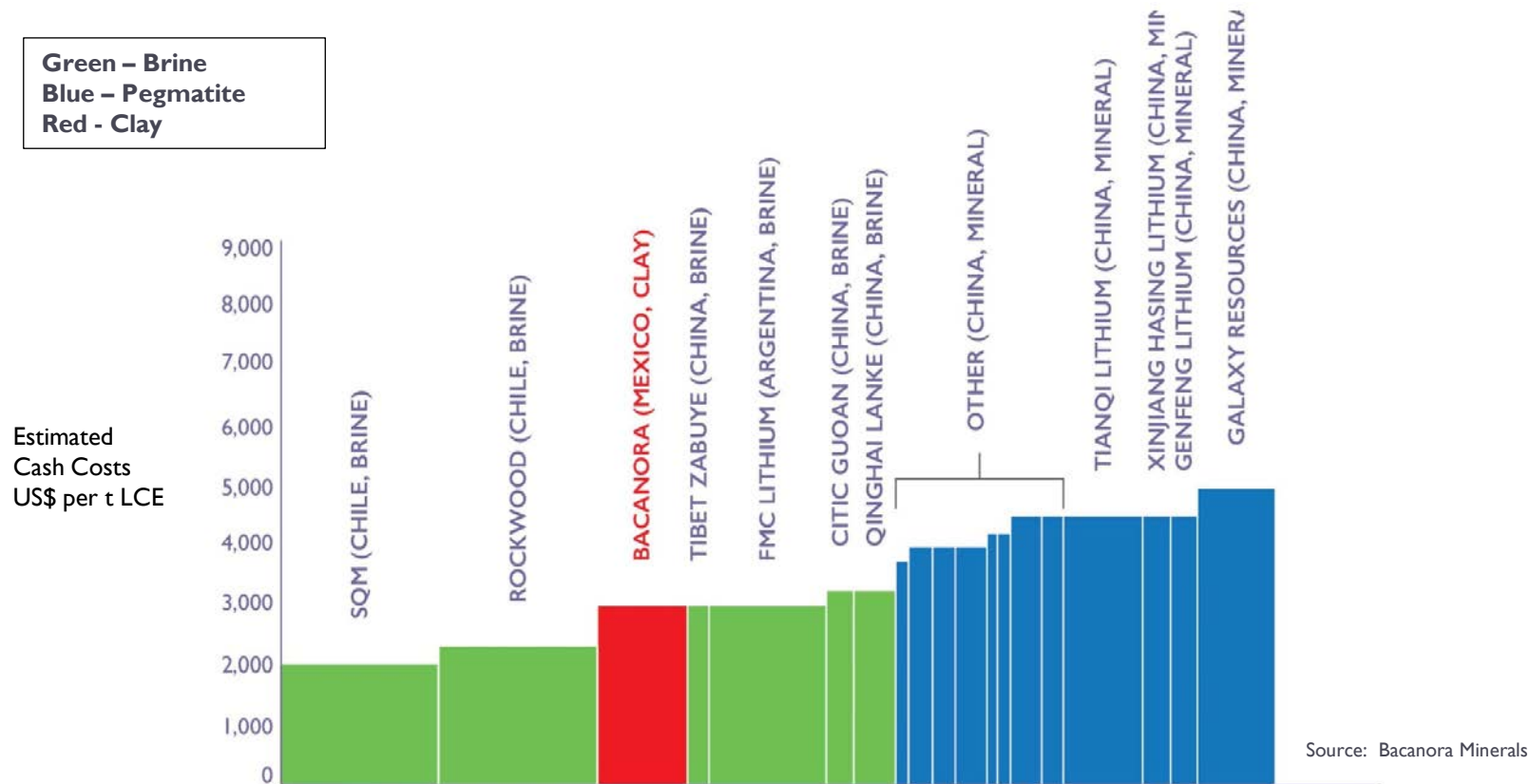
Bernard Rowe	Managing Director
Patrick Elliott	Non-Exec Director
Gabriel Chiappini	Non-Exec Director
Barnaby Egerton-Warburton	Non-Exec Director



Major Shareholders

Top 20	60%
Directors	7 %

The Lithium Cost Curve



Bacanora Minerals has quoted operating costs of US\$2700/t LCE for the Sonora lithium clay deposit in Mexico where processing involves roasting of the ore. GSC is investigating low-cost leaching as an alternative to the roasting process at its deposit in Nevada.

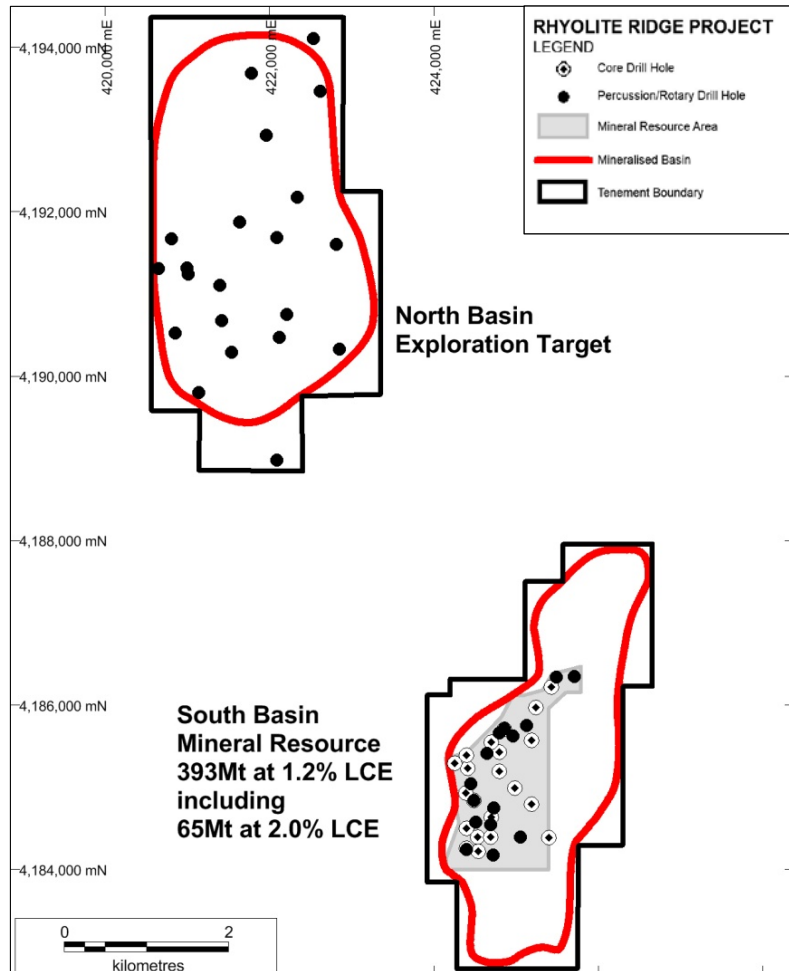
Lithium-Boron Mineralisation



- ▶ Amenable to open-pit mining methods
- ▶ Highly banded rock has potential to upgrade via low-cost physical separation



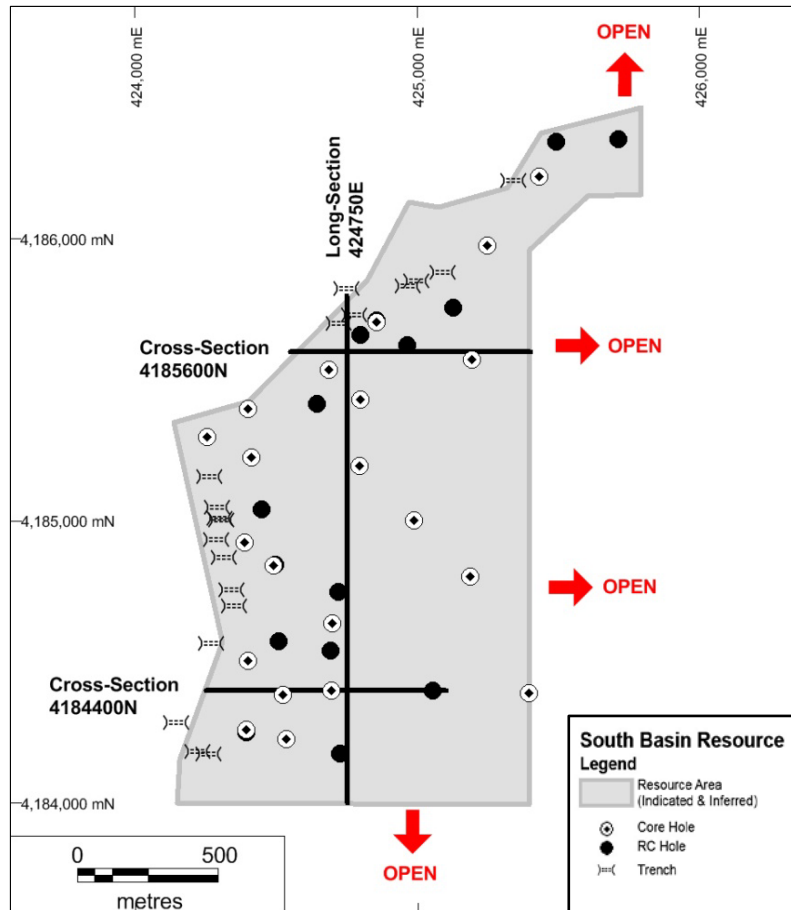
Project Overview & History



- ▶ **Large Property, simple ownership**
 - ▶ 22km², GSC has option to purchase 100%
- ▶ **North Basin (13 km²)**
 - ▶ Explored for boron in 1980's by US Borax
 - ▶ 100-260m thick intersections in 9 holes drilled over an area of 5 square kilometres
 - ▶ 2nd largest boron deposit in USA at the time
- ▶ **South Basin (9km²)**
 - ▶ Explored for lithium in 2010-2011 by JOGMEC
 - ▶ 15 RC and 21 diamond drill holes
 - ▶ Maiden Resource estimate by GSC - Oct 2016

1. Refer to public report dated 10/10/2016 for further information regarding the Mineral Resource estimate

South Basin Maiden Resource



▶ Maiden Mineral Resource¹

- ▶ 393 million tonnes
- ▶ 0.9% lithium carbonate, 2.9% boric acid, 1.7% potassium sulphate
- ▶ 1.2% Lithium Carbonate Equivalent (LCE) (0.6% LCE cut-off)
- ▶ 3.4 million tonnes of lithium carbonate (Li_2CO_3)
- ▶ 11.4 million tonnes Boric Acid (H_3BO_3)

▶ High Grade Zone

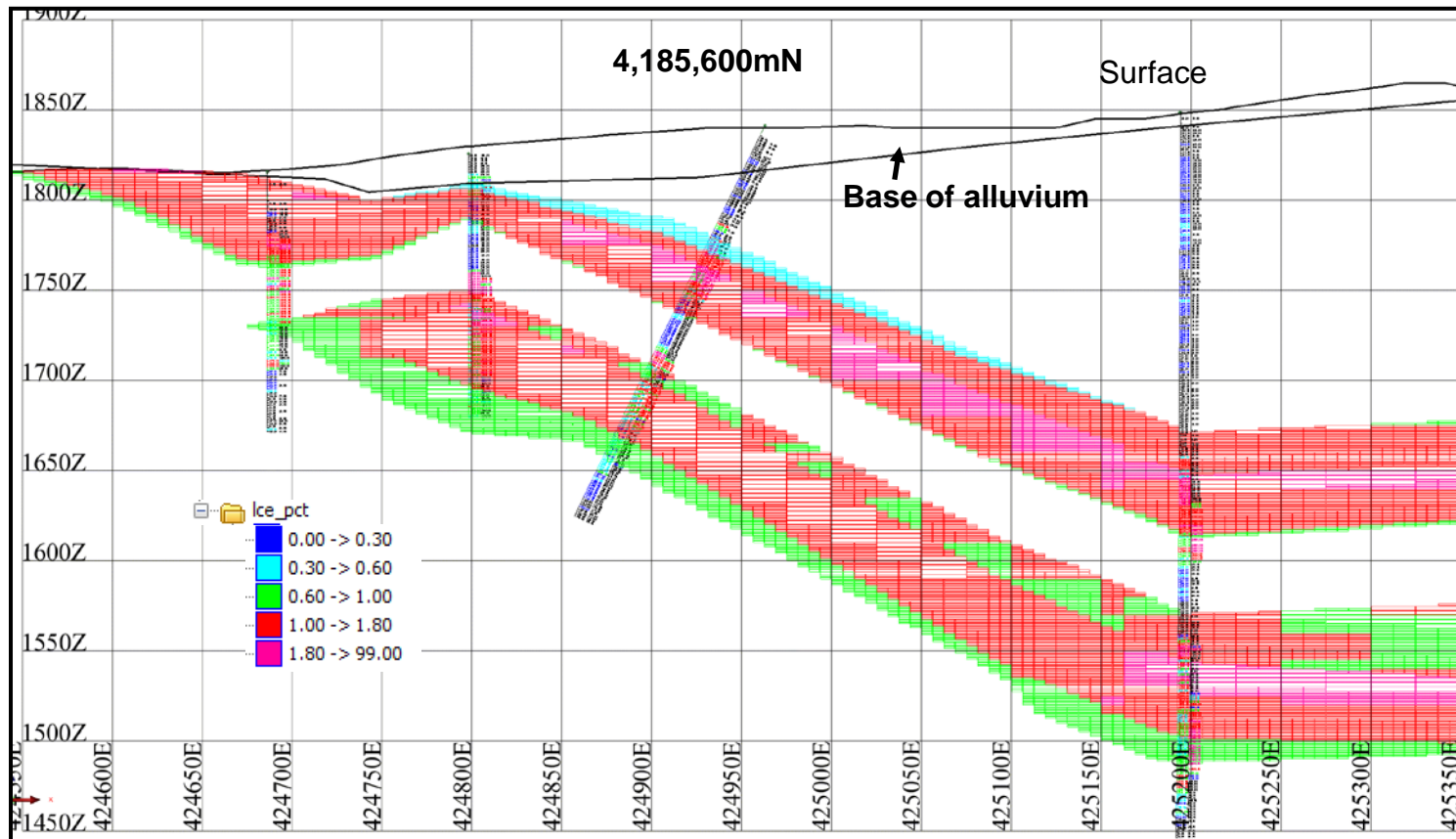
- ▶ 65 million tonnes
- ▶ 1.0% lithium carbonate, 9.1% boric acid, 2.2% potassium sulphate
- ▶ 2.0% Lithium Carbonate Equivalent (LCE) (1.8% LCE cut-off)

▶ Potential

- ▶ Large Resource with significant tonnage of high-grade material
- ▶ Amenable to open-pit mining
- ▶ Excellent potential to expand the Resource

1. Refer to public report dated 10/10/2016 for further information regarding the Mineral Resource estimate

Cross-Section 4185600N



Cross-section 4,185,600N showing the block model coloured by grade (% LCE) and drill holes. Blocks shown in pink are above the higher cut-off grade of 1.8% LCE. The upper zone is exposed at surface along the western margin of the basin.

Metallurgical Test Work



- ▶ **Metallurgical mapping of deposit**
 - ▶ Identify metallurgical characteristics of different types of mineralisation
- ▶ **Optimum upgrading conditions**
 - ▶ Upgrading and beneficiation to reduce mass, reduce carbonate content and concentrate Li, B and K
 - ▶ The banded nature of the rocks suggests they may be amenable to physical upgrading
- ▶ **Optimum leaching conditions**
 - ▶ Performed on upgraded/concentrated feed
 - ▶ Time, temperature, acid strength and consumption

Progress and Plans

Sept Qtr
2016

- ← Option agreement ✓
- ← SB Exploration Target ✓
- ← Acquire data ✓
- ← Release drill results ✓

Dec Qtr
2016

- ← Commence met work ✓
- ← NB Exploration Target ✓
- ← SB Maiden Resource ✓
- ← Drilling
- ← Prelim met results

2017

- ← Commence PFS
(subject to results)
- ← Exercise option to
acquire 100% interest
- ← Complete PFS
- ← Commence BFS

▶ Upcoming Announcements

- ▶ Metallurgical results (upgrading/beneficiation) – early Dec
- ▶ Drilling results – mid to late Dec
- ▶ Metallurgical results (leaching) – late Dec

Summary

▶ **Strategic Asset**

Very large lithium-boron deposit located in Nevada, USA

▶ **Advanced**

Maiden Resource completed

Fully funded PFS scheduled to commence in early 2017

Opportunity to move quickly into development

▶ **Potential**

Strategic, long-life, low-cost source of lithium and boron

Potential supplier to the rising global demand for lithium

Global Market - Li & B

Lithium

- ▶ Four companies currently produce 85% of world supply
- ▶ Nearly 60% of world's identified Li resources in Bolivia, Chile and Argentina
- ▶ **Only one mine in production in the USA**
- ▶ Rapid growth in demand predicted
 - ▶ Driven by Electric Vehicles and Energy Storage
- ▶ Demand forecast to increase 70% by 2020 and 190% by 2025¹
- ▶ Lithium-ion battery market predicted to quadruple by 2020¹

Boron

- ▶ Two companies currently produce majority of world supply
 - ▶ Rio Tinto and Eti Maden AS
- ▶ Used in glass, fibre glass, ceramic and agriculture industries
- ▶ **Only one mine in production in the USA**
- ▶ USA and Turkey main producers
- ▶ Borax US\$550-1100/t
- ▶ Boric Acid US\$750-1250/t
- ▶ 1% boron converts to 5.7% Boric Acid

1. Deutsche Bank – Lithium 101 (9 May 2016)

Lithium Companies with Resources

Company		Type	Stage	Resource Mt Li ₂ CO ₃	Market Cap A\$M	Location
Orocobre	ASX.ORE	Brine	Producer	6.4	700	Argentina
Galaxy Resources	ASX.GXY	Pegmatite Brine	Producer	1.1 1.1	620	Australia Argentina
Pilbara Mines	ASX.PLS	Pegmatite	DFS	3.9	570	Australia
Nemaska Lithium	TSX.NMX	Pegmatite	DFS	1.3	420	Canada
Altura Mining	ASX.AJM	Pegmatite	DFS	0.9	160	Australia
Rio Tinto - Jadar	ASX.RIO	Clay	PFS	8.5	NA	Serbia
Lithium Americas	TSX.LAC	Brine Clay	PFS	11.7 7.3	250	Argentina USA
Bacanora Minerals	TSX.BCN	Clay	PFS	7.2	150	Mexico
Global Geoscience	ASX.GSC	Clay	Resource	3.4	60	USA

Lithium Deposit Types Compared

	Brine Liquid	Clay Hard Rock	Pegmatite Hard Rock
End Product	Lithium Carbonate (Li_2CO_3)	Lithium Carbonate (Li_2CO_3)	Spodumene Concentrate (6% Li_2O)
Value of End Product Long Term Price (US\$/t)	6000	6000	450
Typical Grade	500-1000mg/L Li (0.3-0.5% Li_2CO_3)	1800-3000ppm Li (1.0 – 1.6% Li_2CO_3)	1.0 – 1.5% Li_2O (2.5-3.7% Li_2CO_3)
Typical Cash Costs (\$/pt Li_2CO_3)	2000-3000	2500-3500 (Pre-feasibility Studies)	3500-5000

- ▶ Brine deposits account for approximately 50% of world lithium carbonate production and typically have high capital costs and long lead times to production
- ▶ Pegmatite deposits account for the remaining 50% of world lithium carbonate production and typically have high operating costs mainly due to higher mining and crushing costs
- ▶ Clay deposits that do not require roasting have the potential to have lower capital costs and shorter lead times than brine deposits and lower operating costs than pegmatite deposits (based on PFS studies)

Mineral Resource Estimate

Table 1 – Rhyolite Ridge October 2016 Mineral Resource Estimate – by Classification (0.6% LCE Cut-off)

	Tonnage	Li	LCE	Li ₂ CO ₃	H ₃ BO ₃	K ₂ SO ₄	Cont. LCE	Cont. LC	Cont. Boric	Cont. Pot
	Mt	ppm	%	%	%	%	kt	kt	kt	kt
Measured										
Indicated	160.9	1,550	1.2	0.8	3.3	1.7	1,980	1,330	5,330	2,710
Inferred	232.4	1,700	1.2	0.9	2.6	1.7	2,870	2,100	6,020	4,030
Total	393.3	1,640	1.2	0.9	2.9	1.7	4,850	3,430	11,340	6,740

Table 2 – Rhyolite Ridge October 2016 Mineral Resource Estimate – by Classification (1.8% LCE Cut-off)

Class	Tonnage	Li	LCE	Li ₂ CO ₃	H ₃ BO ₃	K ₂ SO ₄	Cont. LCE	Cont. LC	Cont. Boric	Cont. Pot
	Mt	ppm	%	%	%	%	kt	kt	kt	kt
Measured										
Indicated	24.3	1,820	2.0	1.0	9.4	2.0	480	240	2,280	500
Inferred	40.3	1,960	2.0	1.0	9.0	2.3	820	420	3,620	920
Total	64.6	1,910	2.0	1.0	9.1	2.2	1,300	650	5,900	1,420

Refer to notes over page

Mineral Resource Estimate - Notes

1. Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.
2. The Statement of Estimates of Mineral Resources has been compiled by Mr. Robert Dennis who is a full-time employee of RPM and a Member of the AIG and AusIMM. Mr. Dennis has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code (2012).
3. All Mineral Resources figures reported in the table above represent estimates at 10th October, 2016. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
4. Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).
5. Lithium carbonate equivalent (LCE) calculated using a lithium carbonate (Li_2CO_3) price of US\$8,000/t, a boric acid (H_3BO_3) price of US\$800/t and a potassium sulphate (K_2SO_4) price of US\$600/t. Metallurgical recoveries of 90% are assumed for Li_2CO_3 and H_3BO_3 and 50% is assumed for K_2SO_4 . No adjustment has been made for net smelter return as it remains uncertain at this time. Based on grades and contained Li_2CO_3 , H_3BO_3 and K_2SO_4 , it is assumed that all commodities have reasonable potential to be economically extractable. Prices, costs and recoveries were obtained from a high level technical report supplied by independent processing consultants to Global Geoscience.
 - a. The formula used for lithium carbonate equivalent (LCE) is:
$$\text{LCE\%} = \text{li2co3_pct} + [(\text{h3bo3_pct} * 800 * 0.9) + (\text{k2so4_pct} * 600 * 0.5)] / (8,000 * 0.9)]$$
6. Reporting cut-off grade selected based on an RPM cut-off calculator assuming an open pit mining method, a US\$8,000/t Li_2CO_3 price, a 90% metallurgical recovery for Li_2CO_3 and costs derived from a high level technical report supplied by independent processing consultants to Global Geoscience.

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