

## Metallurgy and Drilling Update Nevada Lithium-Boron Project

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### Highlights

- **1<sup>st</sup> Stage metallurgical testwork results support potential for simple, low-cost processing using established technologies**
  - **Crush and screen results demonstrate that high-grade Li-B mineralisation is coarse, dominated by the mineral searlesite and low in clay and carbonate minerals**
  - **Next stage of testwork focussing on producing a Li-B rich searlesite concentrate to enhance the low-cost acid leach processing route**
  - **Initial drilling program completed with 2 holes at North Basin and 3 holes at South Basin – assay result expected over the next 3-4 weeks**
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**Global Geoscience Limited** (“Global” or “the Company”) is pleased to announce that interim results from ongoing metallurgical test work at the Rhyolite Ridge Lithium-Boron Project in Nevada continue to demonstrate the potential for simple, low-cost processing to produce lithium carbonate and boric acid.

The metallurgical program is aimed at evaluating a simple process route involving crushing, screening and flotation followed by dilute acid leaching to liberate lithium and boron. The relatively simple process route, using established technologies, is expected to compare favourably to other sources of lithium including brine and spodumene deposits.

Key steps in the metallurgical program are to establish parameters for:

1. Crushing, screening and attrition to separate clay and reduce acid consuming carbonate minerals from Li-B rich searlesite mineralisation.
2. Flotation to further reduce carbonate minerals and produce a Li-B rich searlesite concentrate
3. Acid leaching of the Li-B searlesite concentrate to determine Li/B recoveries and acid consumption

The results being reported today relate to step 1 and show that the Li-B rich mineralisation is mainly composed of relatively coarse material (78% greater than 212 microns) and that the coarse material comprises 40-44% searlesite. The results confirm the coarse nature and low clay content of the searlesite mineralisation and indicate that the mineralisation is likely to be amenable to further concentration and acid leaching with modest acid consumption levels.

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## Metallurgical Testwork

Metallurgical testwork is being undertaken by Hazen Research in Colorado, USA and SGS Minerals in Ontario, Canada. The initial results are from a sample of Li-B mineralisation collected from outcrop along the western margin of South Basin and within the Mineral Resource. The same testwork is currently being undertaken on drill core samples and results will be released as they become available.

The entire sample was crushed to 100% passing (P100) 25mm (2500 microns). A 5kg subsample was stage crushed to minus 1.7mm then dry screened at 850, 425, 212, 150, and 75 microns ( $\mu\text{m}$ ). The results of size fraction analysis are shown in Table 1. Subsamples were collected from the +850, +212 and -75 micron fractions for mineralogical determination by XRD analysis and the results are shown in Table 2.

Procedure	Screen Size Retained, $\mu\text{m}$	Direct Weight		Cumulative Weight, %	
		g	%	Passing	Retained
Ro-tap (15 min)	850	2,733.76	47.6	52.4	47.6
	425	1,096.68	19.1	33.3	66.7
	212	667.81	11.6	21.6	78.4
	150	260.26	4.53	17.1	82.9
	75	360.33	6.28	10.8	89.2
	Minus 75	620.57	10.8	0	100
Calculated Feed		5,739.41	100		

Table 1. Size fraction analysis following crushing at 1.7mm (1700 microns) and dry screening. Note that 89.2% of the sample is coarser than 75 microns and 78.4% is coarser than 212 microns.

Mineral	+850 microns Wt%	+212 microns Wt %	-75 microns Wt %
Searlesite	44	40	31
K-Feldspar	21	22	23
Calcite	7	8	10
Dolomite	7	7	10
Muscovite	8	8	8
Clay	12	14	16
<b>Total</b>	<b>99</b>	<b>99</b>	<b>98</b>

Table 2. Mineralogical analysis of three selected fractions as determined by XRD analysis. XRD analysis was only performed on these three fractions. Note that the -75 micron fraction only represents 10.8% of the weight of the total sample.

The results confirm the coarse nature and low clay content of the searlesite mineralisation and indicate that the mineralisation is likely to be amenable to further concentration and acid leaching with modest acid consumption levels. The ongoing program is now investigating the separation of the remaining clay via attrition (intense agitation in water)

and the removal of acid-consuming carbonate minerals (calcite and dolomite) by flotation to produce a Li-B rich searlesite concentrate. The concentrate will then be subject to acid leach tests.

## **Drill Program**

The initial drilling program has been completed. Two holes were drilled at North Basin and three at South Basin for a total of 1246m. Assay results are expected over the next 3 to 4 weeks.

## **About Rhyolite Ridge Lithium-Boron Project**

Rhyolite Ridge is a lithium-boron deposit located in southern Nevada. The deposit contains a Resource of 3.4 million tonnes of lithium carbonate and 11.3 million tonnes of boric acid, making it one of the largest lithium and one of the largest boron deposits in North America. The Resource is open in most directions and is likely to increase in size with additional drilling. In addition, the North Basin hosts lithium-boron mineralisation drilled by a previous exploration company in the 1980's that is not included in the Resource.

The Resource contains a high-grade Li-B zone referred to as the Searlesite Zone and comprising 65Mt at 1.0%  $\text{Li}_2\text{CO}_3$  and 9.1%  $\text{H}_3\text{BO}_3$  for a total of 650,000 tonnes of lithium carbonate and 5.9 million tonnes of boric acid – sufficient material to support a 3Mtpa mining operation over 20 years.

The mineralisation is hosted within shallow, flat-lying sedimentary rocks, representing a potential third source of lithium – in addition to brine and pegmatite types. Lithium-boron mineralisation occurs with the mineral searlesite – an acid leachable sodium boro-silicate mineral.

Rhyolite Ridge is located close to existing infrastructure and is 25km west of Albermarle's Silver Peak lithium mine and 340km by paved road from the Tesla Gigafactory. It has the potential to be a strategic, long-life, low-cost and reliable source of lithium and boron. Global has the exclusive right to purchase 100% interest in the project.

## **Compliance Statement**

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Bernard Rowe, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Rowe is a full-time employee and Managing Director of the company and he holds shares and options in the company. 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'. Mr Rowe consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Information in this report that relates to Mineral Resources is extracted from the report entitled "Maiden Resource for South Basin at Nevada Lithium-Boron Project" created on

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10/10/2016 and is available to view on the Global Geoscience website. The company confirms that it is not aware of any new information or data that materially affects the information included in 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.

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