

ASX Release

6 October 2014

Company Details

ASX Code:	STB
Share Price	\$0.19
Market Cap	\$26M
Shares on issue	139M
Company options	23M
Cash at Bank	\$10M

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Preliminary process design for Colluli Project completed

- Preliminary process design for potassium sulphate (Sulphate of Potash) production at Colluli successfully completed
- Additional metallurgical test work has reduced Capex and Opex from initial design
- Improved costs and yields expected to have positive economic impact on the project
- Simple, proven and reliable process with low energy inputs and high yields
- Potassium yields >80% achieved to date with higher yields expected from brine recovery circuit

South Boulder Mines (ASX:STB) ("South Boulder" or "the Company") is pleased to advise that following successful completion of metallurgical testing, it has finalised the prefeasibility study processing plant design for the Colluli Potash Project in Eritrea, East Africa.

In August 2014, South Boulder announced that further metallurgical test work had the potential to reduce both capital and operating costs. These tests have been successfully completed, resulting in the elimination of some grinding and thickening infrastructure from the initial process design.

Potassium yields from flotation tests in excess of 80% have been achieved from testwork to date. Overall recovery will be further enhanced by capturing the brines leaving the processing plant and processing them through a series of recovery ponds. The precipitated potassium salts from the recovery ponds will be reclaimed and combined with the processing plant feed streams. Importantly the improved capital and operating costs combined with improved yields are expected to have a material positive economic impact.

South Boulder Mines Managing Director, Paul Donaldson, said:

"The most exciting thing about the Colluli development path is that we actually lower our cost base to make a product with a substantial price premium.

"We are extremely happy with the progress the project team has made on the processing plant design and testwork. The simplicity of the process, the utilisation of all potassium bearing salts, the highly favourable yields and the robustness of the mine plan are positioning the project for an exciting future.

"Colluli is a potash resource of global significance and the work that has been done over the past 18 months is creating a solid platform that underpins a compelling development story. We are looking forward to the completion of the preliminary feasibility study, and are in the process of collecting samples to provide feed material to pilot a number of elements of the process to support the definitive feasibility study.

“Building a platform for growth and adopting the principles of modularity, resource utilisation and risk mitigation are at the core of our go forward strategy, and the Colluli Mining Share Company board is aligned to that approach.”

South Boulder previously announced that it had extended its prefeasibility study on the Colluli Resource to February 2015 in order to consider positive findings from the preliminary design for the production of potassium sulphate (sulphate of potash) from the Colluli Resource (please refer to ASX announcement dated 2 September 2014).

More information:

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Amy Just
COMPANY SECRETARY

About South Boulder Mines Ltd

South Boulder is an ASX-listed (ASX: STB) resources company currently developing the emerging, world-class Colluli Potash Project located in Eritrea, Africa. The Colluli Potash Project is located in the Danakil Depression region of Eritrea ~65km from the coast comprising approximately 500km². South Boulder Mines Limited has been actively exploring for potash at the Colluli Potash Project in Eritrea since 2009. Colluli is the world's shallowest potash deposit (starting at 16m), facilitating the low capex open pit mining and favourably positioned to supply the world's fastest growing markets.

The JORC/NI43-101 Compliant Mineral Resource Estimate for the flagship Colluli Potash Project now stands at 1.08 billion tonnes @ 18% KCl for 194Mt of contained potash. Substantial project upside exists in higher production capacity and market development for other contained products. Engineering Scoping Study (ESS) results were favourable, proving that an economic 2Mt p.a. potash mine can be built at a materially lower cost than typical potash development. The start-up capital cost for Colluli is one of the lowest in the industry; couple this with cheap expansion capability via open pit mining methods, excellent infrastructure and location, and it becomes even more attractive, ensuring South Boulder gains a high level of investment interest for the long term. South Boulder Mines Ltd is working steadily towards developing the world's first, modern, open pit potash mine.

Competent Persons and Responsibility Statement

The Colluli Potash Project has a current JORC/NI43-101 Compliant Measured, Indicated and Inferred Mineral Resource Estimate of 1,079.00Mt @ 17.97% KCl or 11.35% K₂O (total contained potash of 194.09Mt KCl or 122.61Mt K₂O). The resource contains 261.81Mt @ 17.94% KCl or 11.33% K₂O of Measured Resources, 674.48Mt @ 17.98% KCl or 11.36% K₂O of Indicated Resources and 143.50Mt @ 18.00% KCl or 11.37% K₂O of Inferred Resources.

This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported by independent consultants ERCOSPLAN and announced by South Boulder on 16 April 2012.

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Greg Knox using estimates supplied by South Boulder Mines Ltd under supervision by Ercosplan. Dr Henry Rauche and Dr Sebastiaan Van Der Klauw are co-authors of the JORC and NI43-101 compliant resource report. Greg Knox is a member in good standing of the Australian Institute of Mining and Metallurgy and Dr.s' Rauche and Van Der Klauw are members in good standing of the European Federation of Geologists (EurGeol) which is a "Recognised Overseas Professional Organisation" (ROPO). A ROPO is an accredited organisation to which Competent Persons must belong for the purpose of preparing reports on Exploration Results, Mineral Resources and Ore Reserves for submission to the ASX.

MrKnox, DrRauche and Dr Van Der Klauw are geologists and they have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they have undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Knox, Dr Rauche and Dr Van Der Klauw consent to the inclusion in the report of the matters based on information in the form and context in which it appears.

Quality Control and Quality Assurance

South Boulder Exploration programs follow standard operating and quality assurance procedures to ensure that all sampling techniques and sample results meet international reporting standards. Drill holes are located using GPS coordinates using WGS84 Datum, all mineralisation intervals are downhole and are true width intervals. Assay values are shown above a cut-off of 6% K₂O. The samples are derived from HQ diamond drill core, which in the case of carnallite ores, are sealed in heat sealed plastic tubing immediately as it is drilled to preserve the sample. Significant sample intervals are dry quarter cut using a diamond saw and then resealed and double bagged for transport to the laboratory. Halite blanks and duplicate samples are submitted with each hole. Chemical analyses were conducted by Kali-Umwelttechnik GmbH Sondershausen, Germany utilising flame emission spectrometry, atomic absorption spectroscopy and ionchromatography. Kali- Umwelttechnik (KUTEC) Sondershausen¹ have extensive experience in analysis of salt rock and brine samples and is certified according by DIN EN ISO/IEC 17025 by the Deutsche AkkreditierungssystemPrüfwesen GmbH (DAR). The laboratory follow standard procedures for the analysis of potash salt rocks chemical analysis (K⁺, Na⁺, Mg²⁺, Ca²⁺, Cl⁻, SO₄²⁻, H₂O) and X-ray diffraction (XRD) analysis of the same samples as for chemical analysis to determine a qualitative mineral composition, which combined with the chemical analysis gives a quantitative mineral composition.