

# **ASX Details**

ASX Code:

STB

Germany:

SO3-Fra

OTC/ADR:

SBMSY

Share Price:

\$1.50

Market Cap:

\$140M

Shares on issue: 92.3M

STB Options:

13.5M (\$5.2M)

Cash/NTA:

14.5M

Top 40 Shareholders:

65%

# **Contact Details**

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# **Listed Equity Holdings**

(ASX: MZM):

5.382M

(ASX: AVZ):

0.400M

(ASX: BUX):

1.610M

(BUX options):

0.750M

(CDNX: CNI.V): (ASX: LTX):

0.121M 1.016M

Auvex (Pte):

0.500M

# Detailed Scoping Study for the Colluli Potash Project Positive

South Boulder Mines Ltd (ASX: STB) is very pleased to report that Discounted Cash Flow (DCF) financial modeling for the base case Stage 1 open pit mining and processing of the Colluli Potash Deposit has returned highly favourable economics.

Pre-production capital (including 15% contingency)	USD 0.74 bn
Pre-tax NPV <sub>12%</sub> (12% Discount rate)	USD 1.33 bn
Internal rate of return (IRR)	40.60%
Project revenue	USD 6.03 bn
MOP production rate	1Mt p.a.
Mining method	Open pit
Study mine life	17 years

- A conservative, low risk approach has been adopted by the engineering team led by independent potash consultants ERCOSPLAN;
- The engineering study has determined 1Mt p.a. production of standard Muriate of Potash (MOP) from Sylvite mineralisation as the optimised production rate for the first stage of development;
- The study has considered Stage 1 MOP production from Sylvite mineralisation only and does not include the Stage 2 Sulphate of Potash (SOP) and K-Mg sulphate production from the extensive Carnallite, Kainite and Kieserite mineralisation located directly below the Sylvite;
- Investigation of Stage 2 production and associated expansion plans are to follow as part of the Definitive Feasibility Study (DFS) due for completion in 2013;
- The study has confirmed the technical and financial viability of mining and processing of the Colluli Potash Deposit and South Boulder Mines continues the transition into a significant potash producer with production scheduled for 2016 or sooner;
- Numerous expressions of interest to provide project funding for Colluli have been extended to South Boulder Mines and a number of options are under initial review;
- South Boulder Mines has strong support from the Eritrean Government to build a long term economically and environmentally sustainable resource project.

South Boulder Mines Limited is very pleased to report that the detailed Scoping Study has confirmed the viability of the Colluli Potash Project. The study has been completed by ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH (ERCOSPLAN) with input from a number of independent organisations and professionals under the guidance of Non-Executive Director Dr. Chris Gilchrist.

The engineering technical study (ASX release dated 26<sup>th</sup> October 2011) and the DCF financial model is considered to be suitably conservative and provides a robust platform on which to justify the investment decision to rapidly proceed through to DFS and construction with production scheduled for 2016 or sooner. Results confirm a substantial project that has considerable upside with the inclusion of staged expansion and additional SOP production plans.

An initial Stage 1 mine life has been extended to 17 years, whereby 1 million tonnes p.a. of standard MOP will be produced from an open pit mine and processing facility located at Colluli. The overall production strategy is to initially produce standard MOP from Sylvite mineralisation and to progressively transition the project to include the production of Granular MOP, standard and granular SOP and K-Mg sulphates from Carnallite, Kainite and Kieserite mineralisation. The capital cost, optimum rates of production and timing of staged expansions will be investigated as part of the DFS. It is expected that at the completion of the study, life of mine project economics will be substantially improved.

The pre-production capital expense of USD 0.74 billion for 1Mt p.a. MOP production presents a highly attractive investment case, and compares very favourably with other proposed or planned potash developments in the industry. The average pre-production capital expense for Greenfield MOP projects is greater than USD 1.0 billion per 1 million tonnes of production capacity. A breakdown of the key pre-production capital expenses including a 15% contingency are shown in the following table;

Capital Item	USD
Direct Capex	
- mine & plant	352M
- transport & port	102M
Indirect Capex	
- mine & plant	161M
- transport & port	25M
Contingency (15%)	96M
Total	736M

The NPV of USD 1.33 billion (calculated at a 12% discount rate) and IRR of 40.6% reflect earnings before interest, tax, depreciation, and amortisation (EBITDA basis). A MOP price of USD500/tonne has been used in 2016 with the price escalating at 2% per annum in subsequent years.

Given that only a small portion of the potash contained within the current JORC Compliant Mineral Resource Estimate (>16%) is included in the current study the Company considers the mine life upside of the project to be immense and likely to be in excess of **50 years once details of SOP and K-Mg sulphate production is included**.

The current resource consists of 133.70Mt @ 17.55% KCl of Measured Resources, 343.33Mt @ 17.38% KCl of Indicated Resources and 87.37Mt @ 24.96% KCl of Inferred Resources for a total of 564.40Mt @ 18.60% KCl (total contained potash of 105Mt). This includes higher grade Sylvite mineralisation of 130.39Mt @ 27.02% KCl (total contained potash of 35Mt).

A number of areas have been identified that require further assessment during the DFS that have the potential to substantially reduce pre-production capital and operating costs. Some of these areas also have the potential to increase the scale of initial Stage 1 production rates, future expansions and future timing of SOP and K-Mg sulphate production. These are;

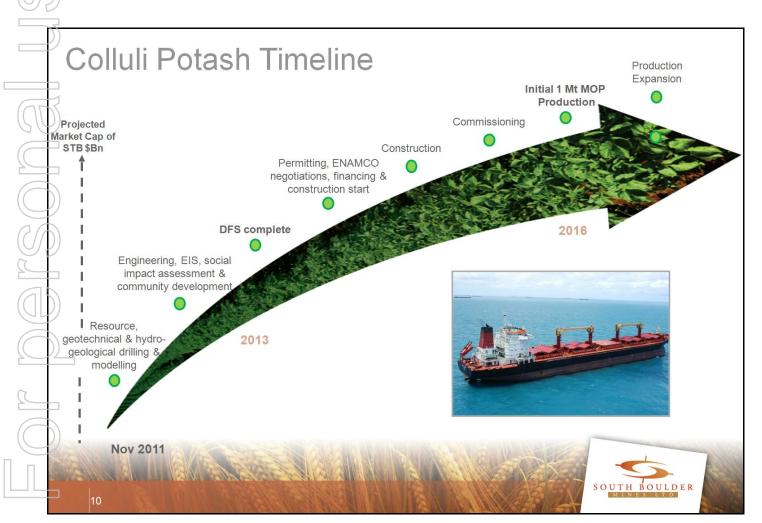
- Further resource expansion and optimised utilisation of the current resource. (Current JORC-Compliant Exploration Target is 1.25 1.75 billion tonnes @ 18-20% KCI ## See disclaimer below);
- Metallurgical processing optimisation to increase Sylvite recovery above ~80%;

- Determination of more accurate characteristics of the overburden material during a trial mining exercise to be conducted in 2012;
- Optimisation of the site water balance model;
- Optimisation of the Company strategic project financing plan;
- > Determination of capital costs and operating costs for SOP and K-Mg sulphate production;
- > Optimising the mining and processing plan to include SOP and K-Mg sulphate production schedules;
- > Development of the SOP and K-Mg sulphate market and marketing plan.

## ##JORC Compliance Statement

The potential quality and grade of the total current exploration target of which includes the current Mineral Resource Estimate is conceptual in nature and there has been insufficient exploration to define a Mineral Resource other than the current Mineral Resource Estimate and it is uncertain if further exploration will result in the determination of a Mineral Resource Estimate other than the current Mineral Resource Estimate.

Definitive feasibility activity is continuing at a rapid pace to complete all requirements necessary to gain approvals to mine at Colluli and to commence production in 2016 or sooner. The Social Environmental Impact Assessment (SEIA) has commenced and South Boulder is continuing to work closely with the Eritrean Government in order to streamline the entire mine approvals process. A proposed timeline to production is as follows;



Details on further exploration and Definitive Feasibility results will be released as they come to hand.

-ENDS-

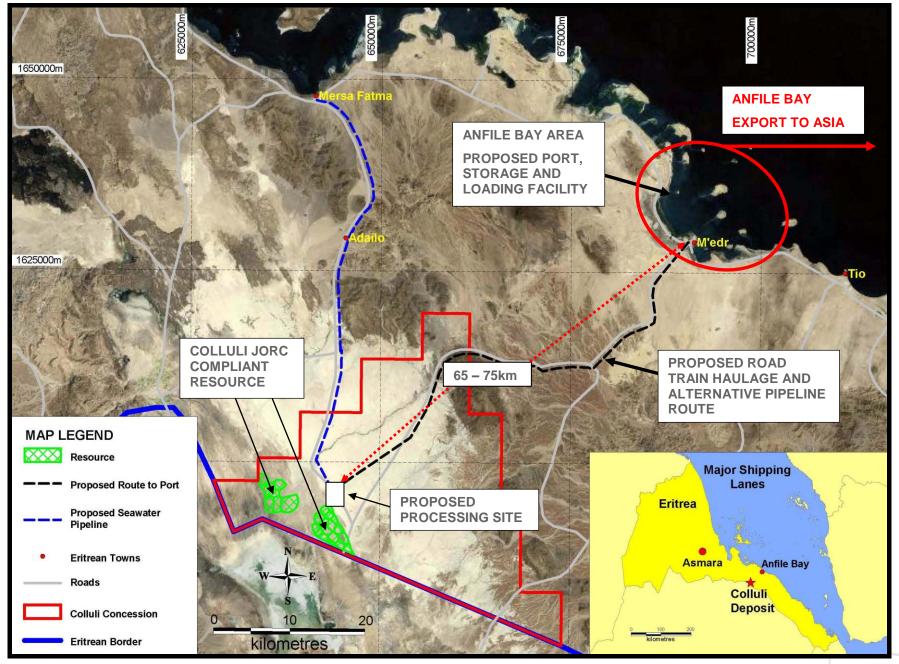


Figure 1: Colluli Project Site Plan.

#### **Investor Coverage**

Recent investor relations, corporate videos and broker/media coverage on The Company's projects can be viewed on the website in the "Media Centre" and "Investor Centre" sections by following the links www.southbouldermines.com.au and www.abid.co.

#### **About South Boulder Mines Ltd**

Listed in 2003, South Boulder Mines (ASX: STB) is a diversified explorer focused on potash, nickel and gold. South Boulder has a 100% interest in the Colluli Potash Project in Eritrea and a 100% interest in the Duketon Gold Project in Western Australia.

The Colluli Potash Project has a current JORC Compliant Measured, Indicated and Inferred Mineral Resource Estimate comprised of 133.70Mt @ 17.55% KCI of Measured Resources, 343.33Mt @ 17.38% KCI of Indicated Resources and 87.37Mt @ 24.96% KCI of Inferred Resources for a total of 564.40Mt @ 18.60% KCI (total contained potash of 104.96Mt); This includes higher grade Sylvinite of 130.39Mt @ 27.02% KCI. There is an exploration target of 1.25 – 1.75 billion tonnes @ 18-20% KCI ## (see disclaimer below). A definitive feasibility study into the open pit mining and processing to produce up to 10Mt p.a of potash is underway.

Within the Duketon Gold Project area, South Boulder entered a farm-out Joint Venture (JV) Agreement with Independence, whereby Independence can earn a 70% interest in the nickel rights on JV tenements held by South Boulder in the Duketon Project, by the completion of a Bankable Feasibility Study within 5 years of the grant of the relevant tenement.

#### **About the Nickel Joint Venture**

The Duketon Nickel JV has had recent success at The Rosie and C2 Nickel sulphide prospects where drilling has defined intercepts of 5.20m @ 5.13% Ni, 1.09% Cu, 0.21% Co and 7.09g/t PGE's at Rosie and 50m @ 0.92% Ni including 37m @ 1.05% Ni at C2. The deposits are located approximately 120km NNW of Laverton, W.A in the Duketon Greenstone Belt. The deposits are approximately 2km apart and the mineralisation at both prospects is considered open in most directions. A Mining Lease was granted over the Rosie and C2 deposits on the 19<sup>th</sup> of November. A resource definition and exploration drilling program and scoping study into an open pit mine at C2 and an underground mine at Rosie is underway.

## More information:

Lorry Hughes	Kerry Rudd	Liam Cornelius	Terry Grammer	Dr. Chris Gilchrist
CEO/Managing Director	Executive Assistant	Executive Director	Chairman	Non-Exec Director
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## ## Competent Persons and Responsibility Statement

The Colluli Potash Project has a current JORC/43-101 Compliant Measured, Indicated and Inferred Mineral Resource Estimate of 564.40Mt @ 18.60% KCI (total contained potash of 104.96Mt); Includes 130.39Mt @ 27.02% KCI. The resource contains 133.70Mt @ 17.55% KCI in the Measured Category, 343.33Mt @ 17.38% KCI in the Indicated Category and 87.37Mt @ 24.96% KCI in the Inferred Category. The current Mineral Resource Estimate is included in the current exploration target of 1.25 – 1.75 billion tonnes @ 18-20% KCI. The potential quantity and grade of the total current exploration target which includes the current Mineral Resource Estimate is conceptual in nature and there has been insufficient exploration to define a Mineral Resource other than the current Mineral Resource Estimate and it is uncertain if further exploration will result in the determination of a Mineral Resource Estimate other than the current Mineral Resource Estimate

This ASX release has been compiled by Lorry Hughes using information on exploration results and Mineral Resource estimates supplied by South Boulder Mines Ltd under supervision by Ingenieurgesellschaft. Geotechnik und Bergbau mbH (Ercosplan). Dr Henry Rauche and Dr Sebastiaan van der Klauw are co-authors of the JORC and 43-101 compliant resource report. Lorry Hughes 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 BOPO is an accredited organization 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.

Mi Hughes, Mr Rauche and Mr 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 Hughes, Mr Rauche and Mr van der Klauw consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The current Colluli resource comprised of as Measured, Indicated and Inferred resource classifications and as a result, is not sufficiently defined to allow conversion to an ore reserve; the financial analysis in the study is conceptual in nature and should not be used as a guide for investment. It is uncertain if additional exploration will allow conversion of the current resource into a mining reserve in the future. Exploration and Production targets referred to in this release are conceptual in nature.

This release has been prepared by South Boulder Mines Limited and contains forecasts and forward looking statements. Such forecasts, projections and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied.

## 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% K<sub>2</sub>O. 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 Akkreditierungssystem Prüfwesen GmbH (DAR). The laboratory follow standard procedures for the analysis of potash salt rocks • chemical analysis (K+, Na+, Mg2+, Ca2+, CI-, 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.