Botswana Update: SRK Review and Sampling Program

- SRK has completed a technical review of Botswana licences
- SRK has recommended further investigation of the lithium brine resource potential in Botswana
- A shallow pit sampling program will be completed in 3rd quarter 2017

Lithium Consolidated Mineral Exploration Ltd ("Lithium Consolidated") is pleased to announce that SRK Consulting (U.S.), Inc. ("SRK") has completed a technical review of the Botswana Prospecting Licences and recommended a sampling program as a preliminary test of the lithium brine resource potential at these licences.

Lithium Consolidated has an 80% ownership interest in 6 Prospecting Licenses (see Figure 1) in the Makadikgadi Pans.

Figure 1: Botswana Prospecting Licences

Source: SRK
Lithium Consolidated holds an 80% ownership interest in South Resource Ventures Pty Ltd, which has a direct interest in the Botswana project. Corsa All’Oro Pty Ltd holds the remaining 20% ownership interest in South Resource Ventures Pty Ltd.

The Makgadikgadi Pans are in the Kalahari Desert, approximately 170 km west of Francistown and about 450 km north of Gaborone, the capital of Botswana. The Pans include the Ntwetwe and Sua Pans, to the west and east respectively.

The regional and local geology indicate a potential for a mineral rich brine in the Makgadikgadi Pans area. This is supported by the long history of soda ash and salt production in the northern portion of the Sua Pan by Botswana Ash (Pty) Ltd.

Geology, hydrology and geochemistry
The Makgadikgadi Depression is a large area of low relief that lies at the present day depocenter of a basin with interior drainage.

The Sua Pan and Ntwetwe Pan that make up the depocenter of the greater Makgadikgadi Basin have the lowest elevation in the Kalahari at 890 metres above sea level, making it the final collection point for all the rivers and streams within the basin.

These waters have carried dissolved material into various ephemeral lakes on the Pans, since the Tertiary period (+5 million years ago).

Some of this water evaporates leaving a surface of precipitated salts. The rest of the water percolates into the subsurface where over time the concentration of the dissolved material is increased to the point of forming a brine with the salts of elements such as lithium, boron potassium and other salts.

The sequence overlying the Kalahari River beds consists of an upper sand and clay succession, averaging 30m in thickness, overlying an unconsolidated fine-grained sand (the aquifer) which in turn overlies a sandstone bedrock.

Lithium concentration results from the only available brine samples in the northern edge of the Sua Pan range from negligible levels to 224mg/L. SRK believes that the wide variation in seasonal precipitation, and consequential flooding of the pans, would have a great impact on the mineral concentration of these samples. There is no information on the time of the year these samples were taken.

Prospecting License 265/2016 is close to the Botswana Ash (Pty) Ltd. (“BotAsh”) operated brine mine which consists of 98 wells and an extensive network of evaporation ponds and processing facilities covering an area of 380 km² on the northern end of Sua Pan. The mine has been operational since 1991 and extracts water (brine) at a reported rate of 2,400 cubic meters per hour (m³/h) from an average depth of 38 m. The brine deposit is estimated to exceed 1 billion m³ in volume and the mine currently produces NaCl, Na₂CO₃, Na₂SO₄ and NaHCO₃ salts and has an average total dissolved solids (TDS) of 190,000 mg/L.

The fact that the BotAsh brine mine has been in operation for approximately 30 years at a high extraction rate (2,400 m³/h) indicates a transmissive shallow aquifer (38 m deep).

SRK Recommendation
SRK has recommended a sampling program for further investigation of the lithium brine resource potential. Given the salty crust of the Pans and shallow depth to brine, SRK recommends an initial shallow pit sampling program (as indicated by the ‘red areas’ noted on the map in Figure 2).

This shallow pit sampling program will give a ‘top of brine’ geochemical signature to define areas of interest for initial drilling and a deeper sampling program.
LCME’s Managing Director, Shanthar Pathmanathan said:

“A core part of our plan is to rapidly develop our technical understanding of the distribution of lithium within the Botswana licenses. Shallow pit sampling is an excellent technique to directly test the ‘top of brine’. Our licenses cover a large area of the two pans in northern Botswana. The shallow pit sampling will facilitate specific targeting of the better grade near surface lithium areas for drilling and for deeper sampling of the brine.”

Figure 2: Sampling Program Pit Locations (shown as ‘red areas’ on the map)

Source: SRK
Cautionary Statements

Forward-looking statements

This document may contain certain forward-looking statements. Such statements are only predictions, based on certain assumptions and involve known and unknown risks, uncertainties and other factors, many of which are beyond the company’s control. Actual events or results may differ materially from the events or results expected or implied in any forward-looking statement.

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Competent Person Statement

The information in this release that relates to Exploration Results has been reviewed and approved by Jerry Aiken, who is a Registered Member of the Society for Mining, Metallurgy and Exploration (SME). Jerry Aiken is a geologic consultant to the Company, and has extensive experience relevant to the styles of mineralisation and type of deposit under consideration. Mr Aiken is a Competent Person (CP) as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (JORC). Jerry Aiken consents to the inclusion in the release of the concepts and geologic principles expressed in this press release, based on his review in the form and context in which it appears.