

## ASX Release

Friday 16 June 2017

### Large Scale Pilot Ponds - Construction Commences

#### Highlights

- Kalium Lakes Limited (KLL) has **commenced construction** of large scale pilot evaporation ponds at the Beyondie Sulphate Of Potash (SOP) Project.
- Production bores, with the associated pumps and pipelines, have been **installed and are operational**.
- Pond construction verification and leakage trial results have **confirmed the preferred off-lake evaporation pond location and construction system**, based on capital cost, operating cost, pond leakage rates, potassium recovery and efficient use of the brine resource.
- **Orders have been placed** with construction contractors and vendors associated with the pilot pond works.

Kalium Lakes Limited (KLL) announced today that construction of the Large Scale Pilot Evaporation Ponds has commenced at the Beyondie Sulphate Of Potash Project.



*Pilot Pond Area Under Construction*

Managing Director, Brett Hazelden said: "The construction of the Large Scale Pilot Evaporation Ponds is a significant milestone for Kalium Lakes as this phase of construction commenced within 25 days of completing the recent \$4.5 million Capital Raise.

"This coordinated effort is another example which demonstrates KLL's ability to rapidly implement site based project development and associated de-risking activities.

“Importantly, these pilot scale activities will underpin the planned Bankable Feasibility Study and will provide the detailed scale up factors required for pond sizing and the ongoing de-risking of the project.

“We understand these ponds are the largest facility currently approved and under construction across the Australian SOP exploration sector, which is quite an achievement for our hardworking team,” Mr Hazelden said.



*Pond Construction Verification and Leakage Trial Area*

Prior to commencing construction of the Large Scale Pilot Evaporation Ponds, KLL recently carried out a number of pond construction verification and leakage trials.

Using four different construction methods and different materials, KLL confirmed both the **preferred off-lake** evaporation pond location and identified the best construction system, based on capital cost, operating cost, pond leakage rates, potassium recovery and efficient use of the brine resource.

Key trial results confirmed that when compared to a “no leakage” system (e.g. HDPE liner):

- 0.25 mm/day of leakage results in ~15% more brine volume and ~10% more evaporation pond area needed to recover the same amount of SOP, requiring increased pumping volumes;
- 1.0 mm/day of leakage results in ~55% more brine volume and ~40% more evaporation pond area needed to recover the same amount of SOP, requiring increased pumping volumes;
- increased pumping volumes requires the installation of more bores or longer trenches;
- higher capital costs are driven by increased leakage requiring more bores, longer trenches, higher brine pumping rates and larger evaporation ponds;
- operating costs increase with more bores, longer trenches, higher brine pumping rates and larger evaporation ponds; and
- leakage contributes to potassium recovery loss and a decrease in effective mine life as a result of inefficient use of the brine resource.

KLL therefore prefers lining systems that will result in leakage rates of less than 10cm per annum.

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Previous investigations by KLL into on-lake evaporation ponds, involving tests on 42 lake samples, all showed significant leakage rates (higher than the off-lake pond trials) which, in turn, would result in a further increase in potassium recovery losses, pumping requirements, evaporation pond area and capital/operating costs.

These results are correlated with the current trenching trials that have shown significant inflow rates (up to 20l/s per km) from test pumping from the lake surficial aquifer.

Based on current site experience, KLL has concluded that on-lake evaporation ponds are also impractical when considering the use of heavy earthmoving equipment on soft boggy surfaces. In order to support the high ground bearing pressures of salt harvesting equipment it would be necessary to build-up thicker salt floors for on-lake evaporation ponds. This would, in turn, require higher evaporation pond walls (i.e. increased capex) and the entrainment of high concentration potassium brines in the thick salt floors are then lost for harvesting, increasing potassium recovery losses and potentially delaying first production by between 12 and 24 months.

KLL also confirmed that a number of Production Bores, along with the associated pumps and pipelines, have been installed and are operational for use with the pilot evaporation pond facility. Additional orders have been placed with construction contractors and vendors associated with the pilot pond works.



*Production Bore to Pilot Pond Area (4.1 kilometres)*

## Compliance Statement

The information in this document that relates to Mineral Resources Estimates has been extracted from the reports listed below.

- 28 November 2016:  
Disclosure Document - Kalium Lakes Limited Independent Expert's Report Project Number AU9636 October 2016
- 11 January 2017:  
Resource Statement and Technical Report - "Technical Report for the Beyondie Sulphate of Potash Project, Australia, JORC (2012) and NI 43-101 Technical Report" dated 23 May 2016
- 2 May 2017:  
"Current Drilling Program Delivers Outstanding Potassium Grades" - ASX Release
- 13 June 2017:  
"Excellent Brine Test Pumping Flowrates With Consistently High Potassium Grades" - ASX Release

The Reports are available to be viewed on the website at: [www.kaliumlakes.com.au](http://www.kaliumlakes.com.au)

Kalium Lakes confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, 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.

## Cautionary Statement Regarding Forward-Looking Information

All statements, trend analysis and other information contained in this document relative to markets for Kalium Lakes including trends in resources, recoveries, production and anticipated expense levels, as well as other statements about anticipated future events or results constitute forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Forward-looking statements are subject to business and economic risks and uncertainties and other factors that could cause actual results of operations to differ materially from those contained in the forward-looking statements. Forward-looking statements are based on estimates and opinions of management at the date the statements are made. Kalium Lakes does not undertake any obligation to update forward-looking statements even if circumstances or management's estimates or opinions should change. Investors should not place undue reliance on forward-looking statements

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## Corporate Profile (as at 16 June 2017)

Kalium Lakes Limited is an exploration and development company, focused on developing the Beyondie Sulphate Of Potash Project in Western Australia with the aim of producing Sulphate Of Potash (SOP) for the domestic and international markets.

The Beyondie Sulphate Of Potash Project comprises 15 granted exploration licences and a miscellaneous licence covering an area of approximately 2,400 square kilometres. This sub-surface brine deposit will supply an evaporation and processing operation located 160 kilometres south east of Newman.

The Company is also a Joint Venture partner with BC Iron Limited (BCI) in the Carnegie Potash Project, a potash exploration project located approximately 220 kilometres north-east of Wiluna. Carnegie comprises one granted exploration licence and two exploration licence applications covering a total area of approximately 1,700 square kilometres.

### Kalium Lakes Limited

ABN: 98 613 656 643

ASX: KLL

Ordinary Shares on Issue: 135,030,035

### Board of Directors:

Mal Randall	Non-Executive Chairman
Brett Hazelden	Managing Director
Rudolph van Niekerk	Executive Director
Brendan O'Hara	Non-Executive Director

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