

13 November 2018

## **SUCCESSFUL INFILL DRILLING CAMPAIGN COMPLETED**

### **DEEP SAND AQUIFERS INTERSECTED IN ALL HOLES**

#### **Highlights:**

- **8 hole/1,086m Air-Core program completed at Lake Wells SOP Project**
- **Continuous basal sand layer intersected with indications of high permeability, further validating the proposed bore field brine abstraction method for the commercial project development**
- **Drilling outside of the current JORC resource envelope is likely to expand the Resource base**
- **Samples being assayed for grade, and aquifer parameter testing**
- **Program represents major milestone in the Resource/abstraction work-stream for the DFS**

**Australian Potash Limited (ASX: APC) (Australian Potash)** is pleased to advise the completion of an infill drilling campaign across the Lake Wells SOP project resource area (Figure 4).



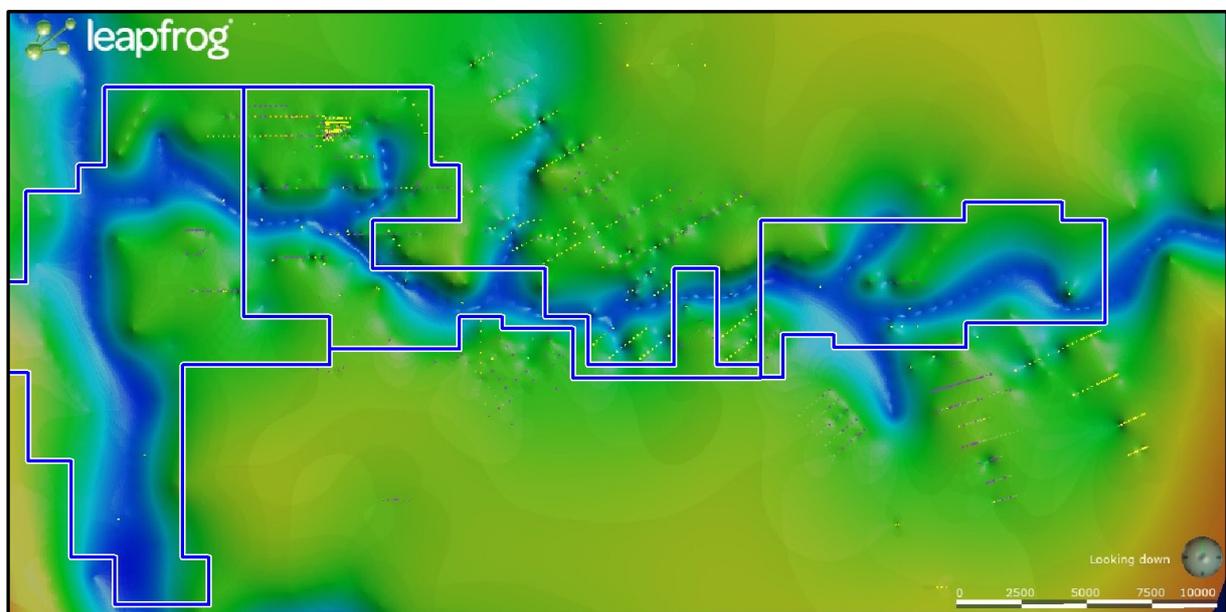
*Figure 1: On several holes the volume of brine encountered curtailed drilling speeds. Broad, coarse-sand basal profiles were intersected across the Resource.*

Australian Potash Managing Director Matt Shackleton said: *“We are in the geologically favourable position at our Lake Wells SOP project where we don’t have to rely on trenching to abstract the potassium rich brine. A long, deep and broad palaeochannel affords us the low risk, all-weather bore field abstraction method utilised at hundreds of mining operations across the country to abstract brines (whether for mineral processing or dewatering).*

*“The key to brine abstraction, regardless of if bores are available or trenching has to be used, is a permeable aquifer from which to abstract. This is often a function of the presence and amount of sand in the aquifer. Sand is usually permeable and clay is not.*

*“This infill program continued to intersect aquifers and at times, brine-flow inhibited the speed with which the hole could be completed. And most pleasingly we saw thick layers of coarse sand through the aquifers, commencing 30 to 40 metres above the basement.*

*“The volume of brine at APC’s Lake Wells SOP project is enormous. More than 2 billion tonnes exists in our Mineral Resource Estimate<sup>i</sup>, underpinning a proposed long-lived asset development” Mr Shackleton said.*



*Figure 2: APC’s Lake Wells SOP Project’s Resource is hosted in a palaeochannel that is open, and over 55 kms long. The model driving exploration and resource estimation is derived from 1,280 drill-holes totaling over 52,000 metres of drilling and 315 kms of passive seismic survey. This latest campaign will add materially to the confidence level of that Mineral Resource Estimate.*

## **Infill Drilling Program**

To increase the confidence in the Lake Wells Sulphate of Potash Brine resource additional information needed to be collected and accounted for in the hydrogeological model. For hydrogeological consultants AQ2 to upgrade known resources into a measured category, and ultimately into reserves, additional information is required to increase the knowledge of, and confidence in, the current resource. Specific requirements include:

- Better definition of shape and volume of the palaeo-valley through analysis of a combination of passive seismic and drilling data;
- Better definition of aquifer dimensions, again using passive seismic and drilling data;

- Increased understanding of aquifer properties. Several lines of evidence feed into defining aquifer properties such as particle size distribution (PSD) gained from drill samples, down hole logging with BMR, and various pump tests;
- Brine grade/quality as determined from sampling and laboratory assay; and
- Abstraction rates and production potential.

Over a two-week period eight exploration bores were completed for a total of 1086m, all planned to answer questions on resource quality and quantity. All bores encountered the surficial aquifer, with six of the eight holes also penetrating the basal aquifer. Of the two bores that failed to penetrate the basal aquifer, one was prevented from drilling to depth by drilling conditions, and the other terminated in basement granite without intersecting the basal aquifer.

Where the basal sand was intercepted, it was often coarse and permeable (Figure 3) with brine-flow volumes slowing progress of the drilling. Many important observations have been made regarding the nature of the basal aquifer including the coarse sand and the presence of lignite. Lignite samples have been submitted for age-dating which will add substantially to the interpretation of the Lake Wells palaeo-river system and subsequent infill. All bores had PVC monitoring pipe installed and these will perform an important role moving forward in the ongoing testing of the aquifers.



*Figure 3: Example of coarse quartz sand (white) and lignite (black) found in the basal aquifer at the Lake Wells SOP Project. This example is from PLRC021, 150 to 151m below ground level.*

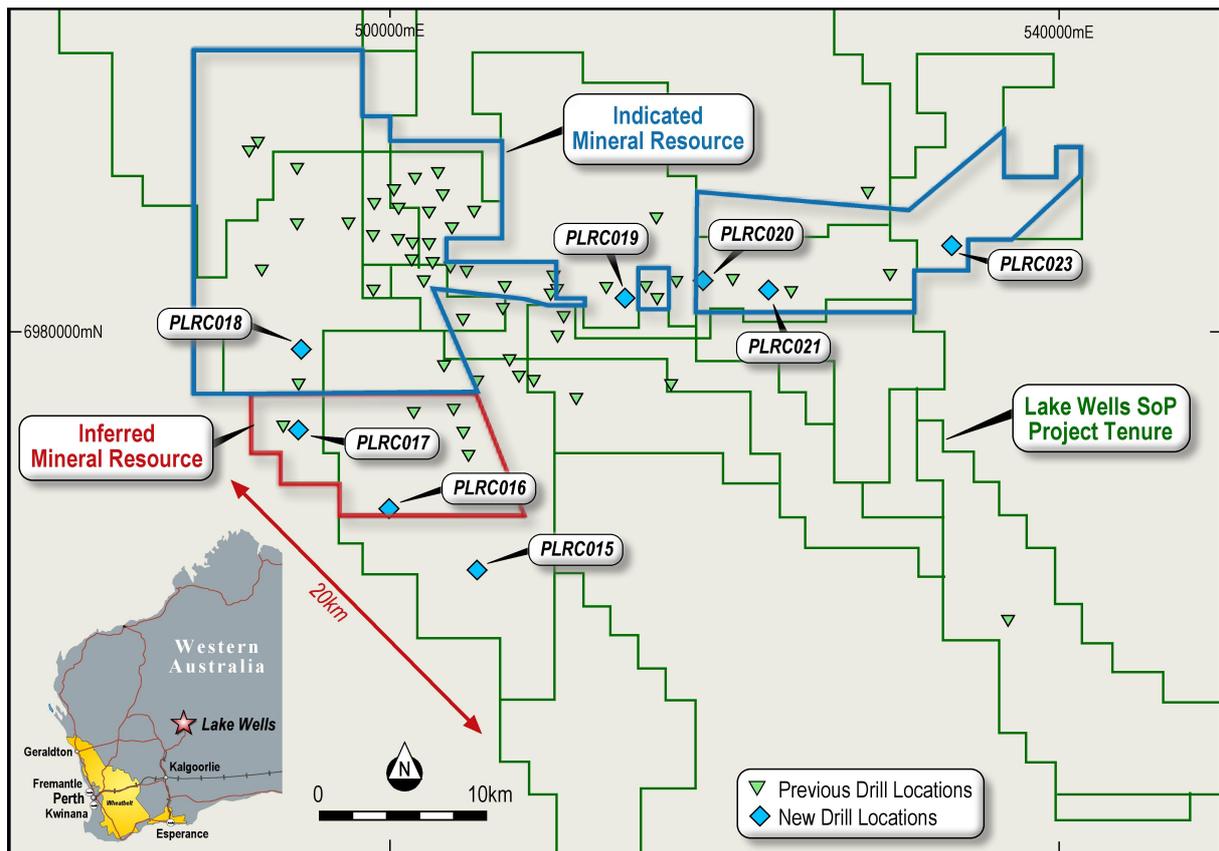


Figure 4: Location of recent drilling relative to past brine exploration bores, and the Mineral Resource outlines demonstrating the potential for this drilling to add to the existing Mineral Resource Estimate along with improving confidence in the current Resource.

## Resource Upgrade Potential

As demonstrated in Figure 4 above, there is potential for an increase in the Mineral Resource at the Lake Wells SOP Project with the additional data from this infill drilling program. Two areas are likely to add to the current Resource: the central area that was acquired from AngloGold Ashanti in 2017, and the southern area where no previous drilling has been conducted.

Any increase in the mineral Resource Estimate for the project could add longevity to the current plan, and/or increase the output from the staged development scenario that has been proposed.

## Lake Wells Sulphate of Potash Project

The Lake Wells SOP Project is targeting the production of 150,000 tonnes per annum through an initial Stage-1 development, rising to 300,000 tonnes per annum on development of Stage-2. Costs of production place the project in the lowest quartile on the global operating costs' curve.

Auspiciously located 280kms from bulk rail terminals at Leonora (Figure 5), APC has in place Memorandums of Understanding with two of China's largest agricultural companies for a combined 200,000 tonnes per annum of off-take. Australian Potash is committed to supplying SOP to Australian farmers and is actively engaged with large fertiliser distributors in Western

Australia. It is anticipated that over time, the demand for SOP within the domestic Australian market will increase materially through the presence of a local supplier.

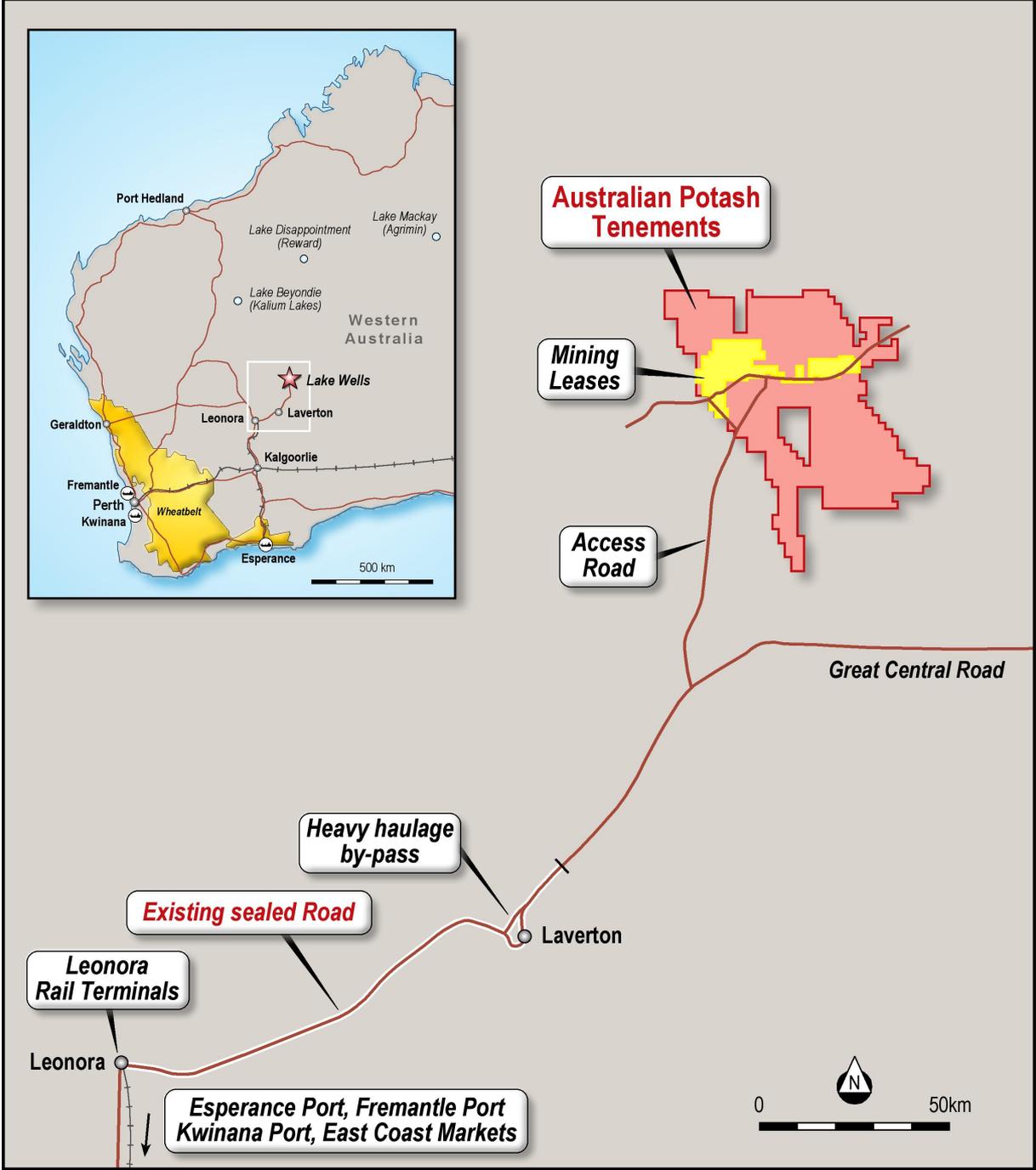


Figure 5: APC's Lake Wells SOP Project's logistics solution is to be enhanced through the local shire's road sealing project which will add an additional 70 kms of bitumen road to the 280km road haul to the rail head.

**For further information, please contact:**

**Matt Shackleton**  
 Managing Director and CEO  
 @ [m.shackleton@australianpotash.com.au](mailto:m.shackleton@australianpotash.com.au)  
 61 (0) 438 319 841

**Chris Shaw**  
 Exploration Manager  
 @ [c.shaw@australianpotash.com.au](mailto:c.shaw@australianpotash.com.au)  
 +61 (0) 413 273 253



Hole ID	Orig_Grid_ID	Orig_East	Orig_North	Dip	Max_depth	Basement
PLRC015	MGA94_51	505,248	6,965,970	90	126	Granite
PLRC016	MGA94_51	499,897	6,969,555	90	138	DNR
PLRC017	MGA94_51	494,309	6,974,391	90	158	Granite
PLRC018	MGA94_51	494,603	6,979,184	90	164	DNR
PLRC019	MGA94_51	513,815	6,982,189	90	91	DNR
PLRC020	MGA94_51	518,634	6,983,242	90	149	Syenite
PLRC021	MGA94_51	522,709	6,982,572	90	152	Granite
PLRC023	MGA94_51	533,386	6,985,400	90	108	Granite

Table 1: Drill hole summary data.

#### Forward looking statements disclaimer

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

#### Competent persons statement

The geological information presented in this announcement is based on information compiled by Mr Chris Shaw a full-time employee of Australian Potash Ltd. Mr Shaw is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation under consideration and to the activity that has been 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 (JORC Code 2012)'. The Competent Person consents to the inclusion in this release of the matters based on the information in the form and context in which it appears.

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<sup>i</sup> Refer to ASX announcement 23 March 2017 'Scoping Study Confirms Exceptional Economics of APC's 100% Owned Lake Wells Potash Project In WA'. That announcement contains the relevant statements, data and consents referred to in this announcement. Apart from that which is disclosed in this document, Australian Potash Limited, its directors, officers and agents: 1. Are not aware of any new information that materially affects the information contained in the 23 March 2017 announcement, and 2. State that the material assumptions and technical parameters underpinning the estimates in the 23 March 2017 announcement continue to apply and have not materially changed.