

26 July 2019

## QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDED 30 JUNE 2019

### Highlights:

#### Lake Wells Sulphate of Potash (SOP) Project (LWPP) – 100% Owned, Western Australia

- Definitive Feasibility Study
  - Final field programs of work underway
    - Development of two more production wells with long-term pump test programs continuing (completion end July 2019)
    - Completion of trial-pond construction in readiness for first fill (commenced July 2019)
  - Reserve estimation work progressing
  - Processing plant: final design completed with first pass CAPEX estimates being reviewed
  - Evaporation pond network
    - pre-concentration pond designs completed
    - harvest pond design work and CAPEX estimates nearing completion
  - Bore field design under review awaiting final Reserve estimate
  - Operating cost model being reviewed with freight solution determined, power cost estimates near finalisation and labour model complete
- Marketing
  - Offtake discussions continue to progress
  - Independent Market Report received confirming revenue estimates for financial model
- UWA greenhouse and on-farm field trials
  - Late breaking rains delayed crop emergence at 2 of 5 farm trial sites with Grass Patch and Southern Cross most affected – all sites have now received rain
  - Greenhouse trials have so far shown
    - Germination of canola and wheat were quicker when SOP mixed in soil compared to banded in top 5 cm soil.
    - The rates of SOP application showed a (visual) significant increase in the growth of the plant compared to nil application

#### Lake Wells Gold Project (LWGP) – 100% Owned, Western Australia, Joint Venture with St Barbara

- SBM completed a 585-hole Aircore drill program for 29,337 metres testing 8 targets

#### Corporate

- Appointment of experienced Chief Financial Officer
- Completion of Entitlements Issue
- Receipt of \$1.3m rebate under the R&D Tax Incentive program (post quarter end)

Australian Potash Limited (ASX: APC) (**APC** or the **Company**) is pleased to provide shareholders with its Quarterly Activities Report for the period ended 30 June 2019.

**Managing Director and CEO, Matt Shackleton, commented:** “The quarter saw APC continue with the field programs for the DFS, with all programs to be completed by the end of July. Our team has been boosted with the skills and experience that Scott Nicholas, our new CFO, brings to our process, and we are now rapidly closing out the DFS as a result.

“Offtake discussions are maturing, and it is gratifying to see that the appetite for premium Lake Wells SOP, K-Brite™, is strong. Western Australia represents a safe and trusted jurisdiction for the development of resource projects, and our simple production proposal and ideal location inform these discussions.

“I very much look forward to discussing the findings of the DFS in the near term.”

## Lake Wells Potash Project

### Definitive Feasibility Study programs

During the quarter, the Company continued the final field programs of work in the Definitive Feasibility Study on the Lake Wells Sulphate of Potash Project.

### Completion of the trial evaporation pond construction program



*Figure 1: On-playa pond constructability trials at the Lake Wells SOP Project are reaching finalisation: pond fills through May*

The On-playa Trial Pond will assess the constructability, efficacy and economics of three sub-surface, vertical barrier designs while also assessing constructability of an on-playa causeway using local borrow material. The On-playa Trial Pond is constructed in a ‘lagoon’, creating a semi-circular pond shape with a causeway across the diameter and using the surrounding dune as a perimeter embankment to construct the sub-surface barriers.

The On-playa Trial Pond is constructed in proximity to an existing brine production bore which has undergone long-term test pumping to add to the aquifer resource model. Brine discharged from the production bore is now contained within the On-playa Trial Pond. Stand-pipe piezometers have been installed around the On-playa Trial Pond to measure pore water pressure in response to pond filling and to assess seepage through the barriers.





*Figure 2: On-playa causeway developed to assess geotechnical properties of borrow material*

Additional field work conducted at Lake Wells during the quarter that remains incomplete at quarter end includes the development of a further two production bores.

A test-production bore 19LWPR002 the most extensive high yielding basal sand intersections recorded at the Project to date were intersected. Indicative flow rates at this bore (long-term pump test is not complete at quarter end) yielded above Project requirements, at 15l/s. This bore was developed through 62 metres of high-yielding sands in the palaeochannel and has been cased to 175.5 metres, making it also the deepest production well developed to date.

Videos showing the development of 19LWPR002 can be viewed on the Company's website (<https://www.australianpotash.com.au/site/news/videos>).

The long-term, or constant rate, pump test program commenced during the quarter on the production wells developed above, and the bore being used to fill the trial evaporation pond. Results from this program are yet to be finalised at the time of writing.

Modelling progressed on groundwater extraction (both for brine and freshwater), which will form part of the Environmental Review Document to be submitted to the Environmental Protection Authority H2 2019 in preparation for final Project approvals.





*Figure 3: 19LWPR002 being developed into the southern strike of the Lake Wells palaeochannel has been cased to a depth of 175.5m (previous deepest well cased to 170m) and is indicating very high flow rates*

#### **UWA Glasshouse and On-farm field trial programs**



*Figure 4: APC continues to work closely with Western Australian farmers*

During the quarter, the Company continued to work with the Western Australian No-Till Farming Association, the University of Western Australia's Institute of Agriculture and selected WA broad-acre farmers to test the efficacy of SOP over MOP in Western Australian soil types. It is considered by end-user farmers and agronomic advisory groups that an economic supply of SOP has the potential to partially supplant the current state demand for MOP of approximately 200kt per annum.

Australian Potash's WA SOP for WA Farmers program is across two areas. Firstly, at 5 farm trial sites in WA, farmers have selected trial set-ups to examine particular aspects of their farming system that they believe may benefit from the application of SOP over MOP. APC personnel have now visited all 5 of these sites and benefited from the insight provided into product specifications.

Secondly, the UWA researchers collected soil samples from the same locations the farmers are conducting their trials at. This soil is then being used to grow a wheat variety and a canola variety at UWA's glasshouse facility, under controlled conditions. The efficacy of SOP over MOP is being

compared against a control (NIL K), a straight MOP, a MOP-gypsum and a straight SOP fertiliser application. In addition, the mobility in soil of SOP and MOP are being examined and compared.

### JORC Adopts Brine Guideline

The Company announced during the quarter that the Joint Ore Reserves Committee (**JORC**) had formally adopted the Brine Guideline (**Guideline**) developed by an Association of Mining and Exploration Companies-led sub-committee of hydrogeologists.

The Guideline is intended to describe the unique technical considerations that are required to report brine mineralisation, Resources and Reserves in relation to the JORC Code (2012).

The Guideline requires among other things, consideration by the Competent Person(s) of the temporal component of brine composition and grade during abstraction, and applying this consideration during the conversion of Mineral Resources to Ore Reserves.

### Lake Wells Gold Project

#### Earn In & Joint Venture Agreement with St Barbara Limited

As previously announced on 8 October 2018, APC and St Barbara Limited (**SBM**) have entered into an Earn In & Joint Venture Agreement covering tenure at the Lake Wells Gold Project.

Under the terms agreed and previously announced, SBM paid APC \$1.25M in cash consideration during the December quarter for entering into the Agreement and has agreed to fund minimum exploration expenditure of \$1.75M in the first year of the Agreement.

During the June quarter, SBM completed:

- A 585 hole (LWAC0001 to LWAC0585) aircore drill program for 29,337 metres testing 8 targets. Preliminary composite results have been returned for 331 holes and final assays received for two holes;
- A detailed 36,633 line kilometre airborne magnetic survey completed over the entire tenement area.

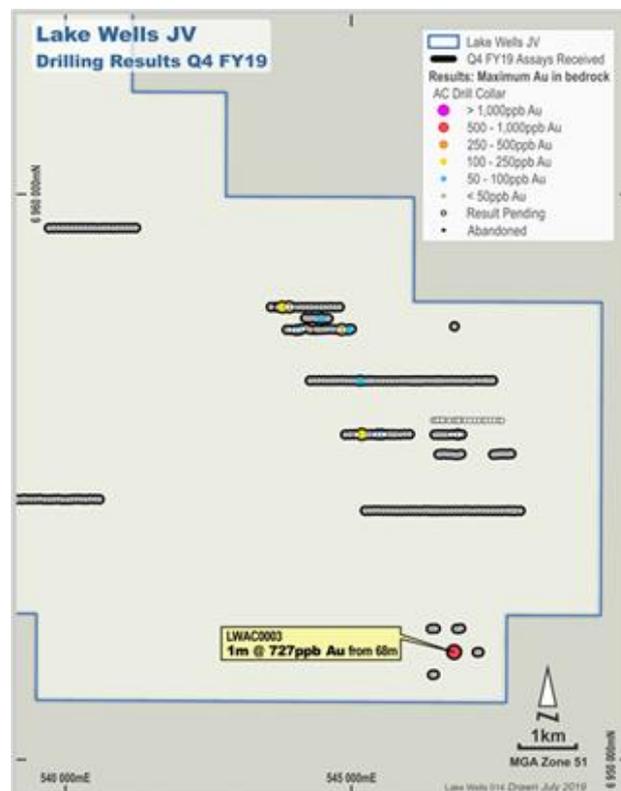


Figure 5: Lake Wells Drilling Results Map (Enlargement)

## Corporate Activity

### Appointment of Chief Financial Officer

During the quarter, the Company appointed Scott Nicholas to the position of Chief Financial Officer, bringing significant experience to the Company across a broad range of financial disciplines in the resources sector, including large scale debt and equity project financings, construction and operations contract negotiations, asset acquisitions, and the negotiation and execution of offtake agreements.

### Completion of Pro-rata Renounceable Entitlements Issue

During the quarter, the Company completed the allotment of the final tranche of securities under the pro-rata renounceable entitlements issue announced on 11 February 2019 and as set out in the Entitlement Issue Prospectus issued on 13 February 2019, being 5,000,000 fully paid ordinary shares at an issue price of \$0.08 per share and 1,250,000 free-attaching listed options (exercisable at \$0.12 each on or before 8 August 2021).

### Quotation of Unlisted Options

During the quarter the Company applied for quotation on ASX of 21,600,000 unlisted options exercisable at \$0.12 each on or before 8 August 2021 that were issued on 8 and 15 August 2018 as part of the placement to sophisticated and professional investors undertaken by the Company in May 2018.

### \$1.3m R&D Tax Incentive Received

Subsequent to the end of the quarter the Company received a \$1.3 million rebate under the Research and Development Tax Incentive program. The incentive recognises the innovative test work activities undertaken by the Company during the financial year ending 30 June 2018.

## Mining Tenements

Area	Tenement	Interest at 1 April 2019	Action	Interest at 30 June 2019
Lake Wells	E38/1903	100%	-	100%
	E38/2901	100%	-	100%
	E38/2505	100%	-	100%
	E38/3021	100%	-	100%
	E38/3039	100%	-	100%
	E38/2113	100%	-	100%
	E38/2114	100%	-	100%
	E38/2744 <sup>i</sup>	100%	-	100%
	E38/2742 <sup>i</sup>	100%	-	100%
	E38/2988	100%	-	100%
	E38/3018	100%	-	100%
	E38/3028	100%	-	100%
	E38/3109	100%	-	100%
E38/3224	100%	-	100%	

Area	Tenement	Interest at 1 April 2019	Action	Interest at 30 June 2019
	E38/3225	100%	-	100%
	E38/3226	100%	-	100%
	E38/3270	100%	-	100%
	M38/1274 <sup>ii</sup>	100%	-	100%
	M38/1275	100%	-	100%
	M38/1276 <sup>ii</sup>	100%	-	100%
<b>Laverton Downs</b>	E38/2724	100%	-	100%
	E38/3014	100%	-	100%
	E38/3132	100%	-	100%

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<sup>i</sup> Tenements are subject to a Sale and Split Commodity Agreement with Lake Wells Exploration Pty Ltd (**Lake Wells**) and Mark Creasy, where the Company has the right to explore for and exploit potash minerals in preference to all other minerals' exploration and prospecting activities. Should a Mining Lease be applied for by the Company on any part of these licenses, on grant it will be transferred to 100% Company ownership and the Company will grant to Lake Wells exploration rights and Mark Creasy prospecting rights. Any rights thus granted cannot be exercised in preference to the Company's activities in exploring for or exploiting potash minerals.

<sup>ii</sup> Tenement transfers have been lodged to transfer 100% ownership of the lease to the Company, whereupon the Company will grant to Lake Wells exploration rights and Mark Creasy prospecting rights. Any rights thus granted cannot be exercised in preference to the Company's activities in exploring for or exploiting potash minerals.

