

### AUSTRALIAN POTASH LIMITED (APC)

#### Good Flows from First Test Production Bores

Australian Potash (APC, formerly Goldphyre Resources (GPH)) recently reported strong test pumping results from bores installed at two sites ~8kms apart within its Lake Wells Potash Project in WA.

The test production bores were installed across the higher grade western zone of the Lake Wells sulphate of potash (SOP) brine resource (specific yield resource of 10.5Mt at 9.03kg/m<sup>3</sup> SOP).

The basal aquifer appears very robust with limited drawdown in response to the test pumping and also highlights potential for higher yields from upgraded production bores. The step test pumping results also provided flow rates up to 27L/sec (limited by the bore size) at both sites (A & B) for the main basal aquifer, so consideration will be given to larger pump designs in the future.

The Company was targeting flow rates in the range of 14L/sec to 18L/sec and achieved constant rate yields over 10 days of 16L/sec for Site A and 20L/sec for Site B. These flow rates will be used to update the production models and upgrade the resource used in the Scoping Study, which remains on track for release in the MarQ CY17.

The determination of aquifer flow rates is integral to the viability of the sulphate of potash (SOP) brine operation, as pumping from these aquifers (upper and basal) is expected to be the main source for potential production.

#### Resource upgrade and Scoping Study due MarQ CY17

The Lake Wells SOP resource has already been estimated using specific yield, the actual yields from the test pumping will now be used to improve the resource confidence (up to Indicated). APC has successfully installed and commissioned an evaporation pan trial on site, with the trial designed to simulate the evaporation rates at Lake Wells, with data collection over 12 months. The climate for Lake Wells is highly conducive to evaporation and receives good annual rainfall and drainage for aquifer recharging.

#### Still undervalued on peer analysis, should re-rate as derisked

APC represents a unique Australian SOP opportunity, which we believe is best positioned for early market entry. SOP is the premium source of Potassium (K), an essential plant nutrient, which is currently 100% imported for domestic fertiliser consumption. APC is targeting a brine operation, which can be ramped up to +100Ktpa SOP for domestic supply but is easily scalable due to the expected use of bore pumping vs higher capex trenching.

Our preliminary price target is developed through comparison to the current trading ranges of ASX peers with SOP resources, and modelling simulation for a small-scale SOP operation. This assumes capex of less than A\$100m, mine gate operating costs of ~A\$250/t, mine life of over 20 years.

APC is still undervalued on peer metrics (with better logistics, lower expected capex, and simple abstraction method) and should continue to be re-rated as the project is de-risked by development studies. APC's immediate ASX brine peers (RWD, SO4, AMN) are trading at significant market capitalisation premiums, some 2.7-3.9x higher than APC, which in our opinion appears unjustified. With strong flow rates now demonstrated from the maiden test pumping we look forward to the release of the Scoping Study.

We maintain our Speculative Buy recommendation on APC, with a 12-month price target of 29cps. APC's current cash positioned is just over A\$5m.

16 Dec 2016

Share Price (last):	\$0.079
12Mth Price Target	\$0.29

#### Brief Business Description

Potash (SOP) explorer/developer

#### Hartleys Brief Investment Conclusion

100%-owned potash project at Lake Wells WA. Targeting brine SOP production for the domestic market. SOP resource in the process of being upgraded. Scoping Study due for release in MarQ.

<b>Issued Capital</b>	<b>221.5m</b>
- issued + ITM diluted	221.5m
- issued + fully diluted	242.3m
<b>Market Cap</b>	<b>\$17.5m</b>
- issued + ITM diluted	\$17.5m
- issued + fully diluted	\$19.1m
<b>Cash - est</b>	<b>\$5.0m</b>
<b>Debt - est</b>	<b>\$0.0m</b>
<b>EV</b>	<b>\$12.5m</b>
- issued + ITM diluted	\$12.5m
- issued + fully diluted	\$11.3m

#### WA Projects

Lake Wells Potash	SOP (K)
Laverton Downs	Au, Base metals
Great Central	Au, Base metals
Mailman Hill	Au, Base metals

#### Board & Management

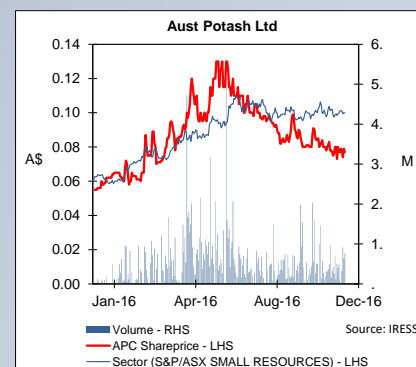
Matt Shackleton (Executive Chairman)
Brenton Siggs (Non-Exec Dir & Expl Man)
Dean Goodwin (Non-Exec Dir)

#### Top Shareholders (est)

Yandal Investments (Creasy)	13.1%
Board and Management	7.5%

#### Company Address

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Hartleys has completed a capital raising in the past 12 months for Australian Potash Limited ("APC") for which it has earned fees. Hartleys has provided corporate advice to APC within the past 12 months and continues to provide corporate advice, for which it will earn fees. The analyst has a beneficial interest in APC shares.

## SUMMARY MODEL

Australian Potash Limited APC		Share Price \$0.079		Dec-16 Speculative Buy	
<b>Key Market Information</b>			<b>Directors</b>		
<b>Share Price</b>		<b>\$0.079</b>	<b>Company Details</b>		
Market Capitalisation (current)		\$17.5m	Matt Shackleton (Executive Chairman) 31 Ord Street		
Market Capitalisation (+ ITM options)		\$17.5m	Brenton Siggs (Non-Exec Dir & Expl Man) West Perth WA 6005		
Market Capitalisation (+ fully diluted options)		\$19.1m	Dean Goodwin (Non-Exec Dir) +61 8 9322 1003		
Cash (est)		\$5.0m	Leigh-Ayn Absolom (Company Secretary)		
Debt		\$0.0m	Carsten Kraut (Hydrogeologist) www.australianpotash.com.au		
Issued Capital (current)		221.5m	Alan Rubio (Proj Man)		
Options	20.86m @ A\$0.1358		<b>Top Shareholders (est)</b>		
Issued Capital (+ new equity + fully diluted options)		242.3m		<b>m shs</b>	<b>%</b>
<b>EV (current)</b>		\$12.5m	Yandal Investments (Creasy)	29.0	13.1%
<b>EV (+ ITM options)</b>		\$12.5m	Board and Management	16.6	7.5%
<b>EV (+ fully diluted options)</b>		\$11.3m	<b>Investment Summary</b>		
<b>Valuation</b>		<b>\$0.27</b>	100%-owned potash project at Lake Wells WA. Brine hosted SOP aiming to supply fertiliser products into the domestic market. Maiden SOP resource released, development studies underway.		
<b>12Mth Price Target</b>		<b>\$0.29</b>	<b>Newsflow</b>		
<b>Projects</b>	<b>Interest</b>	<b>Location</b>	<b>Project</b>		
Lake Wells Potash	100% owned/controlled	NE Laverton WA	Q1 CY16 SOP Exploration Target - completed Lake Wells Potash		
Laverton Downs	100%	Laverton WA	Q1/Q2 CY16 RC/core drilling - testing brines Lake Wells Potash		
Great Central	100%	NE Laverton WA	Q1/Q2 CY16 Seismic surveys Lake Wells Potash		
Mailman Hill	100%	E Leonora WA	Late Q2 CY16 Maiden resource - Inferred Lake Wells Potash		
			Q3/Q4 CY16 Install test pumping bores Lake Wells Potash		
			Q1 CY17 Resource upgrade - Indicated Lake Wells Potash		
			Q1 CY17 Scoping Study Lake Wells Potash		
			Q2 CY17 Resource upgrade - Measured Lake Wells Potash		
<b>Resources</b>	<b>Mt</b>	<b>Grade</b>	<b>Type</b>	<b>Attr.</b>	
<b>Potash Resource - Lake Wells</b>					
Total Porosity	70Mt	8.05kg/m3	SOP	100%	
<b>Specific Yield</b>	<b>18.4Mt</b>	<b>8.05kg/m3</b>	<b>SOP</b>	<b>100%</b>	
<b>P&amp;L</b>	<b>FY2015A</b>	<b>FY2016A</b>	<b>FY2017F</b>		
<b>Net Revenue</b>	<b>0.01</b>	<b>0.09</b>	<b>na</b>		
<b>Total Costs</b>	<b>-0.67</b>	<b>-4.84</b>	<b>na</b>		
EBITDA	-0.67	-4.75	na		
Deprec/Amort	0.00	0.00	na		
<b>EBIT</b>	<b>-0.67</b>	<b>-4.75</b>	<b>na</b>		
Net Interest	0.01	0.02	na		
<b>Pre-Tax Profit</b>	<b>-0.65</b>	<b>-4.73</b>	<b>na</b>		
Tax Expense	0.00	0.00	na		
<b>NPAT</b>	<b>-0.65</b>	<b>-4.73</b>	<b>loss</b>		
Abnormal Items	0.00	0.00	na		
<b>Reported Profit</b>	<b>-0.65</b>	<b>-4.73</b>	<b>loss</b>		
<b>Unpaid Capital</b>			<b>No (m)</b>	<b>\$ (m)</b>	<b>Ave Pr</b>
<b>Options</b>			<b>% (new equity)</b>		
30-Jun-17	0.00	0.00	0.000	0%	
30-Jun-18	9.00	1.35	0.150	4%	
30-Jun-19	5.00	0.63	0.125	2%	
30-Jun-21	6.86	0.86	0.125	3%	
<b>Total</b>	<b>20.86</b>	<b>2.83</b>	<b>0.136</b>	<b>9%</b>	
<b>Comments</b>					
Early stage exploration company with no production assets, ongoing funding will be required (we dilute for new equity, required in the short-term). Leveraged to exploration success/improved market sentiment.					
Analyst: Mike Millikan Phone: +61 8 9268 2805			Last Updated: 16/12/2016		
Sources: IRESS, Company Information, Hartleys Research					

## Lake Wells – Targeting Domestic SOP Production

*Project located  
~500km NE of  
Kalgoorlie, WA*

*Potash as a high  
value bulk commodity,  
requires access to  
infrastructure*

*Brine SOP projects  
generally occupy the  
lower end of  
production cost curve  
and have lower capital  
hurdles than rock  
potash projects*

*Large brine pumping  
operations in China  
and South America  
achieve flow rates in  
between 10L/sec and  
18L/sec, so the APC  
test production work  
was principally  
designed to achieve  
these rates*

The Lake Wells Potash Project is located ~180km north-east of Laverton, ~500km north-east of Kalgoorlie in WA. The project area consists of exploration tenure, which covers ~1,500km<sup>2</sup> and APC has 100% potash rights. Access to the project is via the Great Central (~90km sealed/unsealed road) and Lake Wells (~90km unsealed) roads. The project is located ~300km from a bulk rail terminal at Leonora. The climate for the project area is highly conducive to evaporation and receives good annual rainfall (for aquifer recharging).

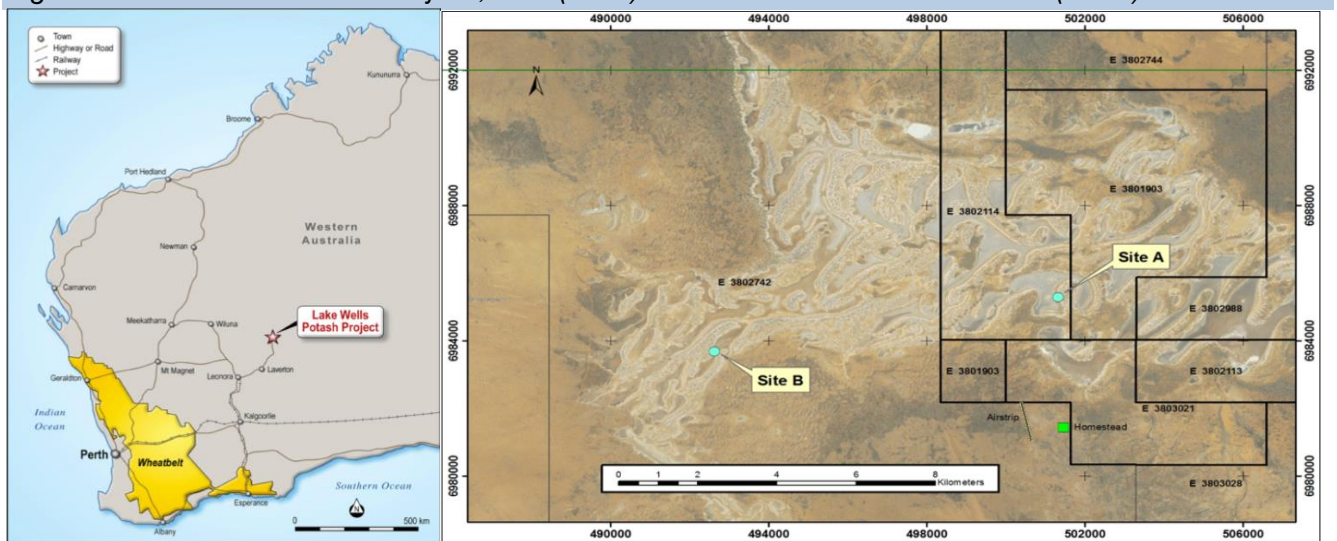
Lake Wells has been identified as a high-grade SOP brine salt lake, confirmed both at the salt lake surface and at depth within a palaeochannel system. APC released a maiden SOP resource for its Lake Well Project in late June 2016, and currently consists of **18.4Mt of SOP at 8.05kg/m<sup>3</sup>** including a higher **10.5Mt of SOP at 9.03kg/m<sup>3</sup>** using specific yield. The current Inferred resources are in the process of being upgraded to Indicated resources; due early in the New Year (CY17).

Australia currently imports 100% of its potassium fertiliser requirements, and the low chloride and high sulphate content of SOP makes it an ideal and preferred form of potassium (fertiliser) for Australian farmers. SOP attracts a superior price to muriate of potash (MOP), and is underpinned by limited brine supply (only 3 evaporative operations globally) and increasing demand (forecast growth of 4%). Australia currently has no potash production, but appears well positioned to commercialise a number of its salt lake systems. APC is targeting an initial brine operation of ~75-100Ktpa SOP for supply into the domestic market.

As part of Scoping Study activities, APC recently installed 3 test production bores at two sites (A and B) across the higher grade western zone of the sulphate of potash (SOP) resource. The test pumping program consisted of step tests to quantify the bores performance at different flow rates and then continuous pumping over a 7-10 day period to determine the viability of longer term brine abstraction. Pleasingly both Site A and B have demonstrated very good test production yields in line with production models currently being developed by the Company.

The Scoping Study on the Lake Well Potash Project remains on track to be completed and released in the MarQ CY17. The development study is being led by NovoPro (an expert potash consultant from Canada).

Fig. 1: Lake Wells Potash Project, WA (LHS): Test Production Bore Sites (RHS)



Source: Australian Potash Limited

### Preliminary Price Target - largely unchanged

*Our APC price target is considered highly speculative*

APC has a JORC-compliant resource for the Lake Wells Potash Project, which is in the process of being upgraded. The specific yield and total porosity resources have been used in our preliminary price target methodology.

Our modelling simulation for a modest scale SOP operation (ramping up to 100Ktpa SOP), assumes capex of less than A\$100m, mine gate operating costs of ~A\$250/t, mine life of over 20 years. We assume existing infrastructure of roads and rail can be accessed and domestic SOP prices of A\$600/t and A\$750/t. Our price target for GPH is weighted for the different scenarios (as shown below) and includes reference to peer metrics.

The latest flow rates further derisk the project but it is pre-scoping and as such our APC price target is considered highly speculative.

**Fig. 2: GPH Price Target Methodology**

Price Target Methodology	Weighting	16/12/2016	12 Month
Peer Metric - ~70Mt SOP total porosity resource	10%	\$0.11	\$0.12
Peer Metric - ~18Mt SOP drainable resource	30%	\$0.21	\$0.23
Lake Wells - SOP Prod (NPV @14) - ramp-up to 100Ktpa SOP - A\$600/t SOP	30%	\$0.26	\$0.27
Lake Wells - SOP Prod (NPV @14) - ramp-up to 100Ktpa SOP - A\$750/t SOP	25%	\$0.48	\$0.50
Cash Backing	5%	\$0.02	\$0.02
<b>Risk weighted composite</b>		<b>\$0.27</b>	
<b>12 Months Price Target</b>		<b>\$0.29</b>	
Shareprice - Last		\$0.079	
<b>12 mth total return (% to 12mth target + dividend)</b>		<b>264%</b>	

*Updated 12-month price target of 29cps*

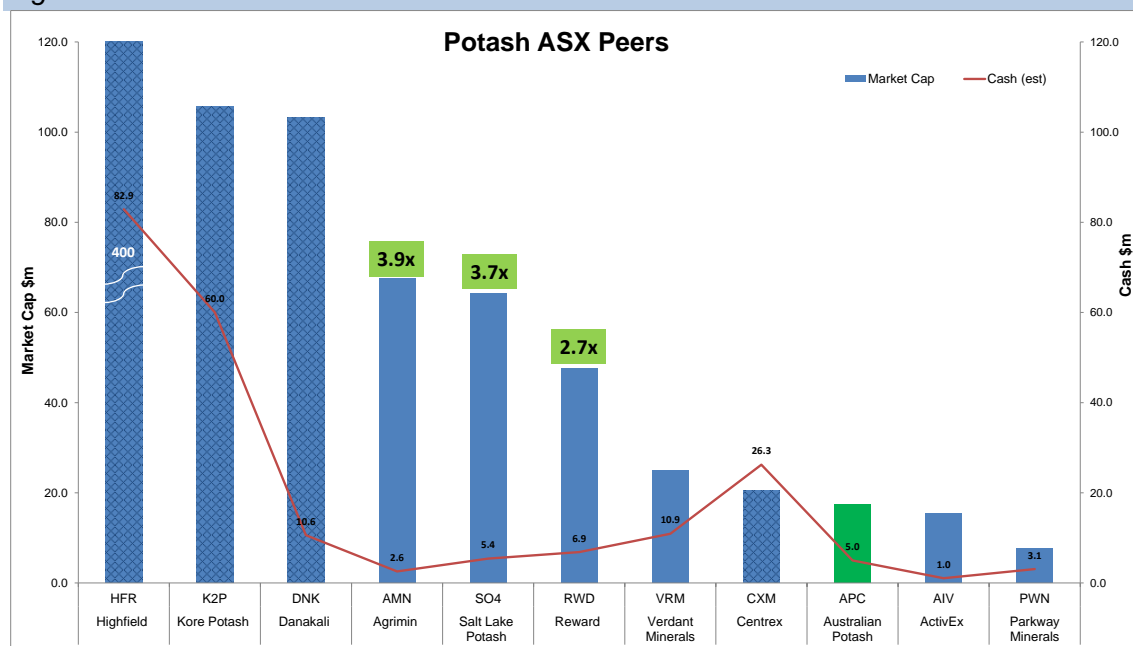
Source: Hartleys Estimates

### Peers – APC remains undervalued

*Note both MOP and SOP companies listed below*

APC is still undervalued on peer analysis (with better logistics, lower expected capex, and simple abstraction method) and should continue to be re-rated as the project is de-risked by development studies. APC's immediate ASX brine peers (RWD, SO4, AMN) are trading at significant market capitalisation premiums, some 2.7-3.9x higher than APC, which in our opinion appears unjustified.

**Fig. 3: Potash ASX Peers**



Source: Hartleys Research; Checkered fills implies rock potash as opposed to brines; Cash positions at end SpeQ

## Risks

Key risks for APC are funding, and commodity prices. Hence we view APC as high risk.

**Fig. 4: Key assumptions and risks for valuation**

Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
Model parameters for our preliminary GPH valuation and price target	Med	Meaningful	We have made a number of large assumptions in our APC preliminary valuation, based on incomplete information (ie no reserves, or development studies). GPH has no production history. Any changes to our assumptions have both upside and downside risks.
Favourable commodity prices	Low	Meaningful	GPH remains sensitive to changes in commodity (potash) prices, exchange rates and market sentiment. Though with no current operations, direct impact from commodity prices is limited.
Funded for ongoing exploration	Med	Moderate	GPH's cash position is just over A\$5m. As an explorer with no current production assets, ongoing funding will be required. We assume development studies will be progressed.

*Conclusion*

*We have made significant assumptions but believe these are achievable.*

Source: Hartleys Research



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*Note: personal email addresses of company employees are structured in the following manner:firstname\_lastname@hartleys.com.au*

## Hartleys Recommendation Categories

Buy	Share price appreciation anticipated.
Accumulate	Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy".
Neutral	Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits	It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell	Significant price depreciation anticipated.
No Rating	No recommendation.
Speculative Buy	Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.

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