

GOLDPHYRE RESOURCES LTD (GPH)

Lake Wells maiden resource on track for mid-2016

Goldphyre (GPH) remains on track to release the maiden resource for its 100%-owned Lake Wells Potash Project in WA in mid-late June 2016.

Recently completed drilling by GPH has confirmed the presence of a thick lower (basal) and an upper sand layer within the Lake Wells palaeochannel system. First assays have now been received for 6 completed holes and previous brine (potash rich) chemistries have been validated.

The average reported sulphate of potash (SOP) grades from the basal sands are well within the Company's grade range of 8.9-13.9kg/m³ SOP (specific yield) and indicate that the surface potash concentrations are repeatable at depth. In addition, the identification of a coarse upper sand interval has potential to provide additional brines (not included in the exploration target), which bodes well for the maiden resource which is expected to be released next month. The exploration target, based on specific yield at Lake Wells is 6-37Mt of SOP, from a total in-situ brine of 79-123Mt of SOP.

Resource drill-out completed, more assays pending

The resource definition program consisted of mud-rotary/diamond and aircore drilling, with a total of 13 holes drilled (3 mud-rotary/diamond and 10 aircore holes). The initial assays highlight very good SOP grades in all samples and sand layer widths, particularly in the basal aquifer well within forecast and in parts in excess of the brine volume model. Assays are pending for a further 7 aircore drill holes, with results expected within the coming weeks.

The Company plans to install test production bores into the upper and lower aquifers at two sites located in the western parts of the palaeochannel; with test pumping anticipated to commence in the September quarter CY16.

Advancing towards being SOP brine producer

The release of the initial resource for GPH's Lake Wells Potash Project next month (June) is seen as the key enabler for future development studies. GPH has aspirations of being a SOP brine producer and is targeting a brine operation which can initially supply ~75-100Ktpa SOP into the domestic market. 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 farmers.

Price target of 23cps; Cheap on peer comparison; Spec Buy

First assays provide some confidence that a significant maiden resource, based on specific yields can be delivered, and strong potential to be at the upper end of expectations. At the current targeted production rates a large mine life (+30 years) can be assumed, which could provide opportunities to lift operating rates over time.

Our preliminary price target is developed through comparison to the current trading ranges of ASX peers with SOP resources, and modelling simulation for small-scale SOP operation. This assumes capex of less than A\$100m, mine gate operating costs of ~A\$250/t, mine life of over 10 years. We assume existing infrastructure (roads and rail) can be accessed and domestic SOP prices. We stress our price target is speculative.

We maintain our Speculative Buy recommendation on GPH, with a 12-month price target of 23cps. The Company still appears cheap on peer metrics and should continue to be re-rated as the project is derisked.

23 May 2016

Share Price (last): \$0.095
12Mth Price Target \$0.23

Brief Business Description

Potash (SOP) and gold, base metal explorer

Hartleys Brief Investment Conclusion

100%-owned potash project at Lake Wells WA. Targeting brine SOP production for the domestic market. High-grade SOP at significant thickness and depths confirmed. Large exploration target released.

Issued Capital	145.9m
- issued + ITM diluted	221.5m
- issued + fully diluted	243.3m
Market Cap	\$13.9m
- issued + ITM diluted	\$21.0m
- issued + fully diluted	\$23.1m
Cash -est	\$1.4m
Debt -est	\$0.0m
EV	\$12.5m
- issued + ITM diluted	\$13.6m
- issued + fully diluted	\$12.7m

WA Projects

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

Board & Management

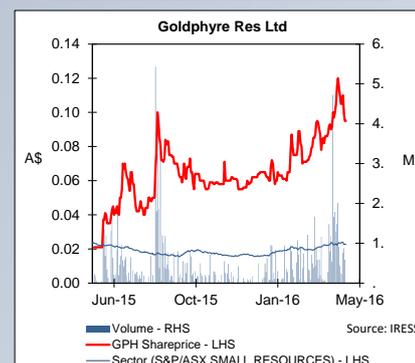
Matt Shackleton (Executive Chairman)
Brenton Siggs (Technical Director)
Dean Goodwin (Non-Executive Director)

Top Shareholders (est)

Yandal Investments (Creasy)	19.9%
Board and Management	9.1%

Company Address

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Hartleys has completed a capital raising in the past 12 months for Goldphyre Resources Limited ("Goldphyre") for which it has earned fees. Hartleys has provided corporate advice to Goldphyre within the past 12 months and continues to provide corporate advice, for which it will earn fees.

SUMMARY MODEL

Goldphyre Resources Ltd GPH		Share Price \$0.095		May-16 Speculative Buy	
Key Market Information			Directors		
Share Price \$0.095 Market Capitalisation (current) \$13.9m Market Capitalisation (+ ITM options) \$21.0m Market Capitalisation (+ fully diluted options) \$23.1m Cash (est) \$1.4m Debt \$0.0m Issued Capital (current) 145.9m Options 97.43m @ A\$0.0931 Issued Capital (+ new equity + fully diluted options) 243.3m EV (current) \$12.5m EV (+ ITM options) \$13.6m EV (+ fully diluted options) \$12.7m Valuation \$0.21 12Mth Price Target \$0.23			Company Details Matt Shackleton (Executive Chairman) 20 Kings Park Road Brenton Siggs (Technical Director) West Perth WA 6005 Dean Goodwin (Non-Executive Director) +61 (0)8 9389 2111 John Ribbons (Company Secretary) www.goldphyre.com.au		
Projects			Top Shareholders (est)		
Interest	Location	Commodity	m shs	%	
Lake Wells Potash 100%	NE Laverton WA	SOP (K2SO4)	Yandal Investments (Creasy) 29.1	19.9%	
Laverton Downs 100%	Laverton WA	Au, Base metals	Board and Management 13.2	9.1%	
Great Central 100%	NE Laverton WA	Au, Base metals			
Mailman Hill 100%	E Leonora WA	Au, Base metals			
Resources			Investment Summary		
Mt	Grade	Metal	Attr.	100%-owned potash project at Lake Wells WA. Brine hosted SOP aiming to supply fertiliser products into the domestic market. Very high-grade at significant thickness and depths confirmed. Exploration target released.	
Exploration Target - Lake Wells					
Total Porosity 79-123Mt	11.4-13.9kg/m3	SOP	100%		
Specific Yield 6-37Mt	8.9-13.9kg/m3	SOP	100%		
P&L			Newsflow		
	FY2015A	FY2016F	FY2017F	No (m)	\$ (m)
Net Revenue	0.005	na	na	Ave Pr	% (new equity)
Total Costs	-0.671	na	na	Q1 CY16 SOP Exploration Target - completed	Lake Wells Potash
EBITDA	-0.666	na	na	Q1/Q2 CY16 RC/core drilling - testing brines	Lake Wells Potash
Deprec/Amort	-0.001	na	na	Q1/Q2 CY16 Seismic surveys	Lake Wells Potash
EBIT	-0.666	na	na	Late Q2 CY16 Maiden resource - Inferred	Lake Wells Potash
Net Interest	0.012	na	na	Q2/Q3 CY16 Install test pumping bores	Lake Wells Potash
Pre-Tax Profit	-0.654	na	na	Q3 CY16 Resource upgrade - Indicated	Lake Wells Potash
Tax Expense	0.000	na	na	Q4 CY16 Resource upgrade - Measured	Lake Wells Potash
NPAT	-0.654	loss	loss		
Abnormal Items	0.000	na	na		
Reported Profit	-0.654	loss	loss		
Unpaid Capital			Options		
				No (m)	\$ (m)
				30-Jun-16	1.00 0.195
				30-Jun-17	75.57 6.05
				30-Jun-18	9.00 1.35
				30-Jun-19	5.00 0.63
				30-Jun-21	6.86 0.86
				Total	97.43 9.07
					0.093 40%
Comments			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: 23/05/2016		
Sources: IRESS, Company Information, Hartleys Research					

Lake Wells – Significant Domestic Potash (SOP) Potential

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

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

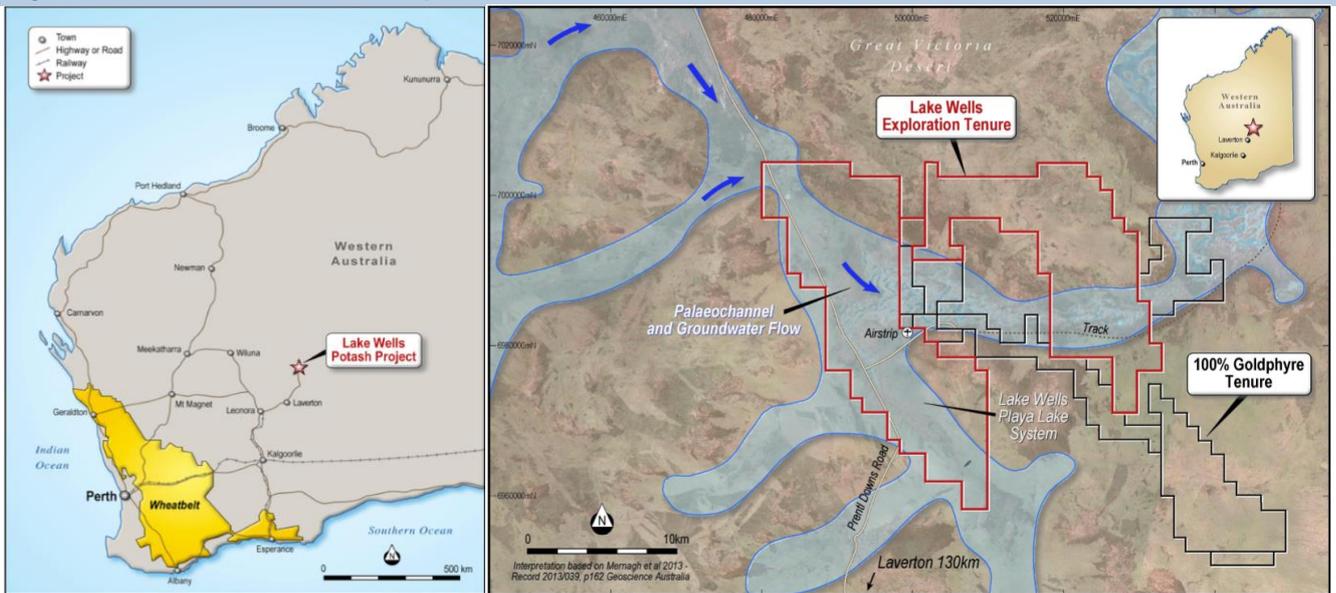
*Brine SOP projects
generally occupy the
lower end of
production cost curve
and have lower capital
hurdles than rock
potash projects*

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 ~1,500km² and GPH has 100% potash rights. Access to the project is via the Great Central (~90km sealed/unsealed road) and Lake Wells (~90km unsealed) roads.

Lake Wells has been identified as a high-grade SOP brine salt lake, confirmed both at the salt lake surface and at depth. GPH has now completed the resource drill-out with first assays received and balance pending with the aim of delivering a maiden potash resource by late June 2016. The project is located ~300km from a bulk rail terminal at Leonora, connected by a network of roads (sealed and unsealed). The climate for the project area is highly conducive to evaporation and receives good annual rainfall (for aquifer recharging).

The Company is targeting an initial brine operation of ~75-100Ktpa SOP for supply into the domestic market. 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.

Fig. 1: Lake Wells Potash Project, WA



Source: Goldphyre Resources Ltd

*The hydrogeological
sequence has been
confirmed to be over
170 m thick in parts*

The hydrogeological model for the Lake Wells Potash Project comprises three main units: a surficial aquifer (moderate potential); a clay aquiclude with little potential for direct abstraction, but with potential for the long-term drainage of brine from this unit into the underlying aquifer; and a basal sand aquifer which regionally, has good aquifer and brine-storage potential. Drilling has confirmed thick basal sands with high SOP content and an upper coarse sand layer also conducive for additional brines (confirmed high grade SOP in parts). The hydrogeological sequence has been confirmed to be over 170 m thick in parts.

Fig. 2: GPH's Lake Wells Potash Exploration Target – Specific Yield

Hydrogeological Unit	Volume of aquifer (cu.m)	Specific Yield		Volume of Potentially Recoverable Brine		K (mg/L)			Exploration Target - SOP (MT)	
		Min	Max	MCM	MCM	1 Std Dev below Mean	Mean Value	1 Std Dev above Mean	Min	Max
Surficial Aquifer Volume	8,154,700,000	4%	20%	326.2	1630.9	3848	4968	6087	2.8	22.1
Clay Volume	11,626,000,000	2%	6%	232.5	697.6	4091	5,226	6361	2.1	9.9
Sand Volume	1,719,000,000	10%	20%	171.9	343.8	4091	5,226	6361	1.6	4.9
Total (MCM / MT)	21,500			731	2672				6	37

Exploration Target minimum based on: minimum specific yield and K concentrations 1 standard deviation less than the mean value.
 Exploration Target maximum based on: maximum specific yield and K concentrations 1 standard deviation greater than mean value.

Source: Goldphyre Resources Ltd

Fig. 3: GPH's Lake Wells Potash Exploration Target – Total Porosity

Hydrogeological Unit	Volume of aquifer (cu.m)	Porosity	In-situ Brine Volume	K (mg/L)			In-situ SOP estimate (MT)	
				1 Std Dev below	Mean Value	1 Std Dev above Mean	Min	Max
Surficial Aquifer Volume	8,154,700,000	40%	3,262	3848	4968	6087	28.0	44.3
Clay Volume	11,626,000,000	43%	4,999	4091	5,226	6361	45.6	70.9
Sand Volume	1,719,000,000	32%	550	4091	5,226	6361	5.0	7.8
Total (MCM / MT)	21,500		8,811				79	123

Note: This does not constitute an Exploration Target as per JORC. It is simply the estimate of total in-situ brine for comparison with other published reports

Source: Goldphyre Resources Ltd

Fig. 4: First Assays – GPH's Lake Wells Potash Project

Hole ID	Sample interval		SOP grade	
	Basal Sand	Upper Sand	Basal Sand	Upper Sand
PLAC020	18m	12m	9,046 mg/l	5,921 mg/l
PLAC019	12m	18m	8,363 mg/l	6,571 mg/l
PLWDDD002	18m	Not sampled	9,745 mg/l	Not sampled
PLWDD003	24m	Not sampled	9,277 mg/l	Not sampled
PLAC018	7m	18m	9,585 mg/l	10,243 mg/l
PLWDD005*	Not sampled	4.25m	Not sampled	8,496 mg/l

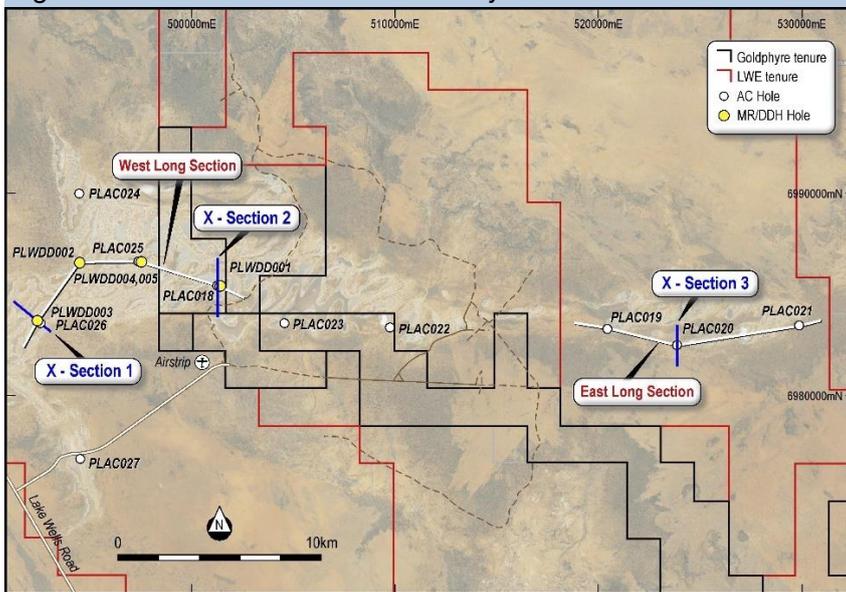
Thick basal and upper sands (aquifers) for potential brine extraction

The reported SOP grades are high, with some intervals not sampled

Another 7 aircore holes have assays pending; expected in the coming weeks

Source: Goldphyre Resources Ltd; * Basal layer intersected but not sampled (see long section)

Fig. 5: Lake Wells Potash Project – Drill Locations

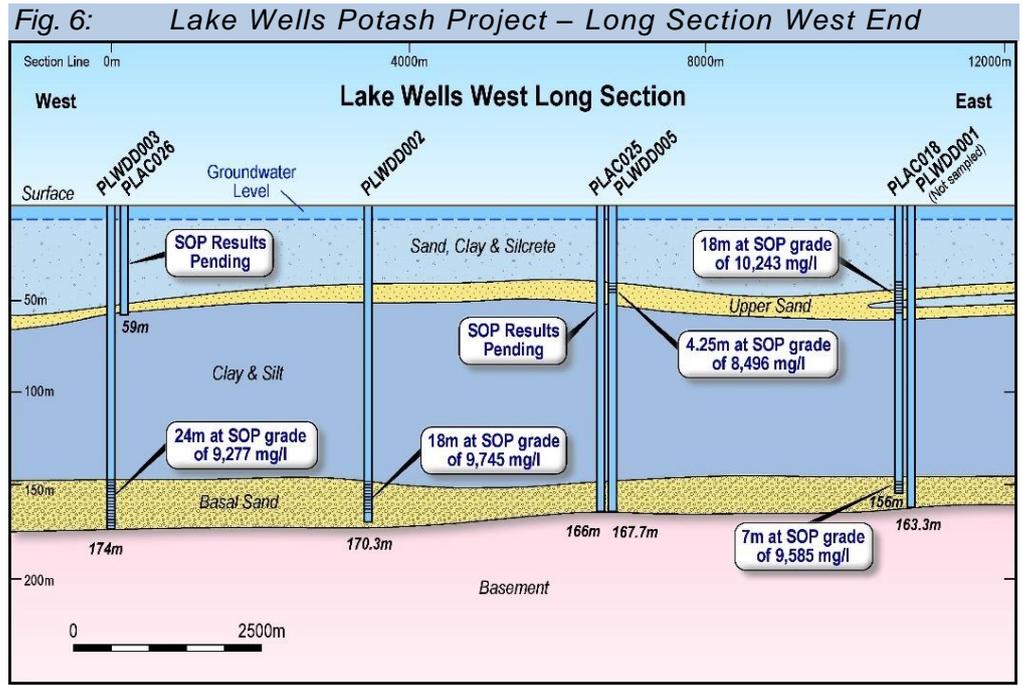


Source: Goldphyre Resources Ltd

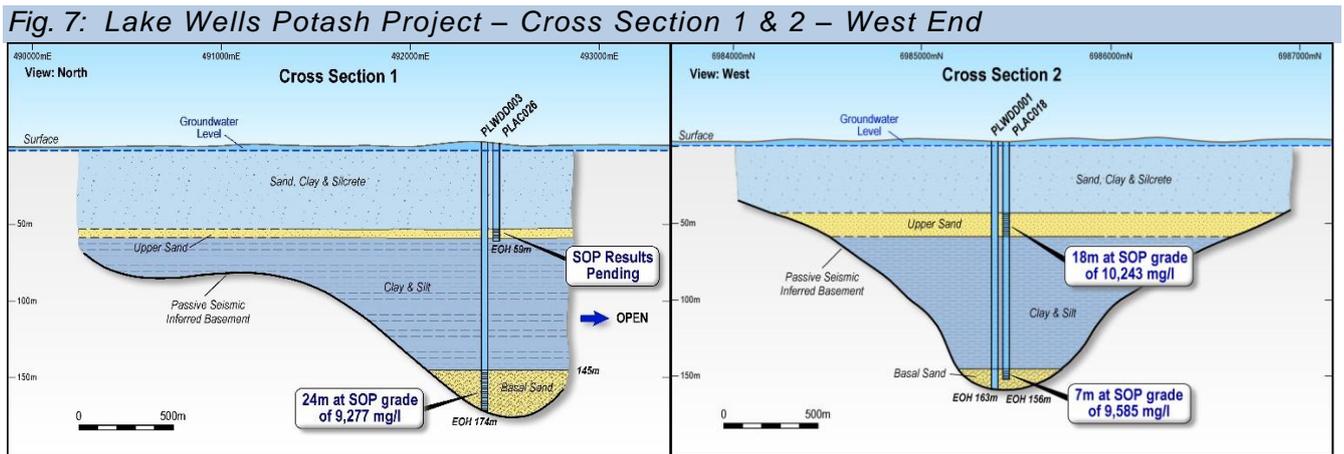
The palaeochannel on the western parts of the project area appears to have thicker basal sands and strong SOP grades

GPH plans to install test production bores into the upper and lower aquifers at two sites located in the western parts of the palaeochannel

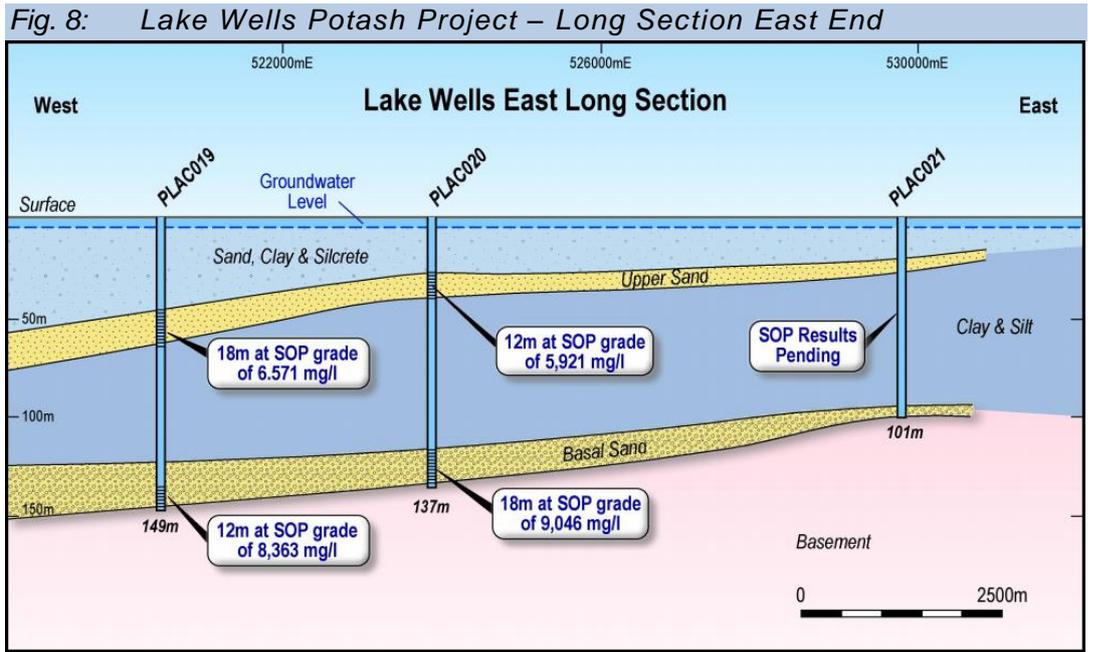
Test pumping anticipated to commence in the SepQ



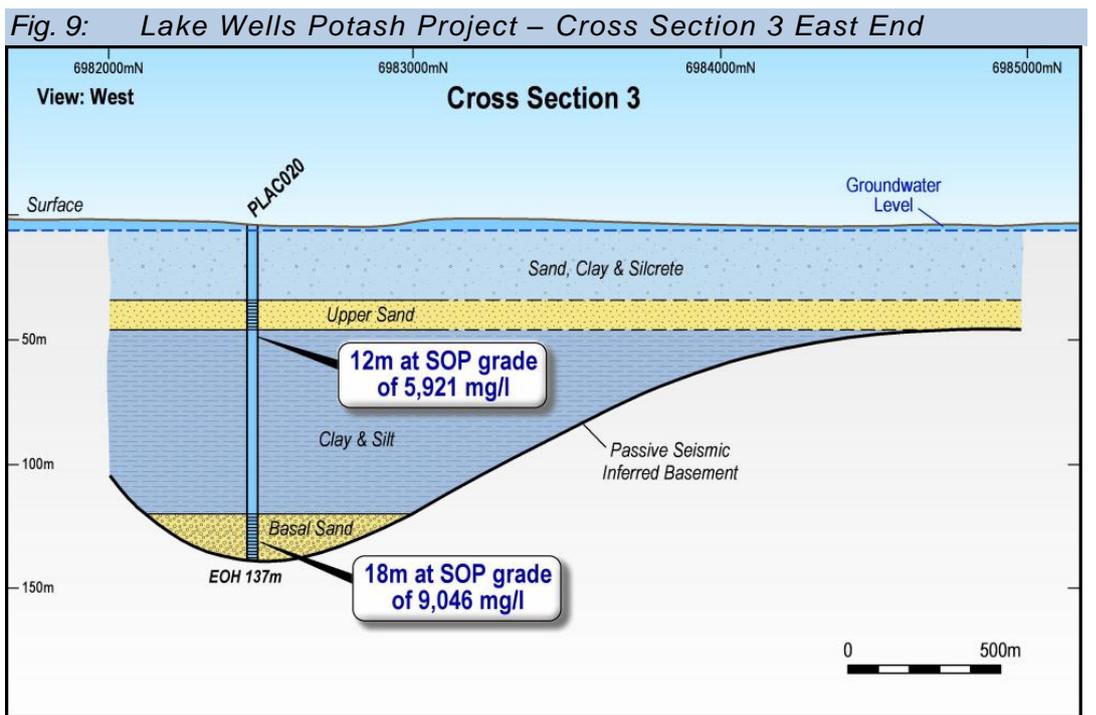
Source: Goldphyre Resources Ltd



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ASX Listed Peers - GPH still undervalued

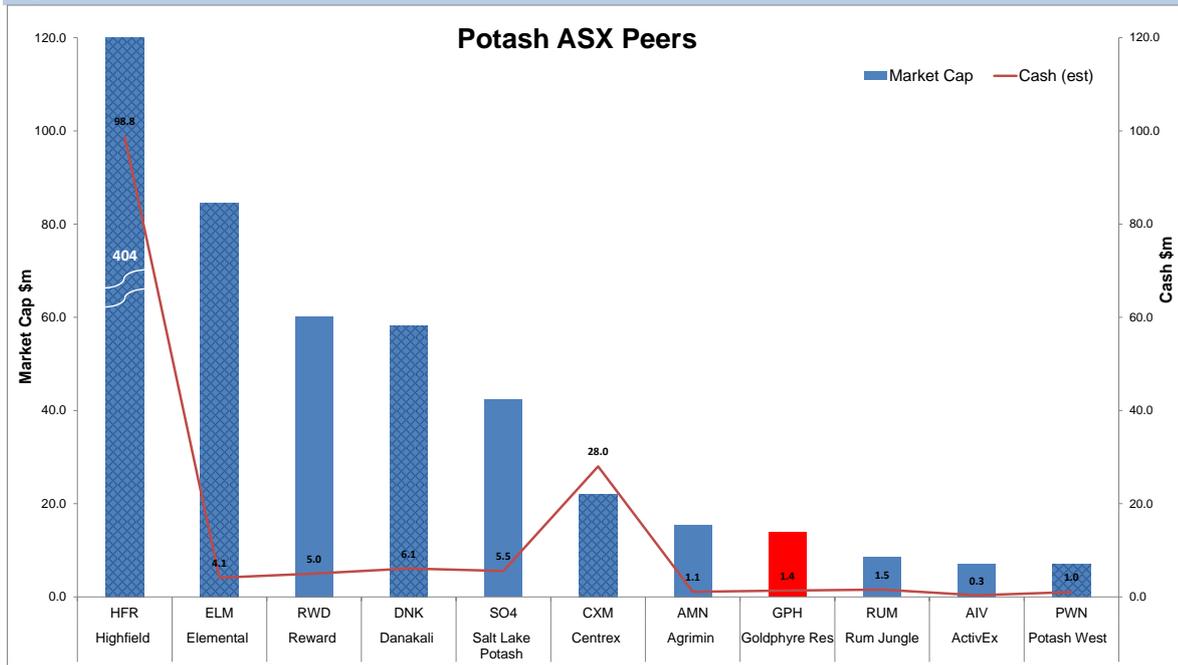
GPH's potash project is located at Lake Wells in WA

Goldphyre's (GPH) ASX peers are listed below, and includes some of the large rock potash companies, such as Highfield (HFR), Elemental (ELM) and Danakali (DNK); with advanced projects outside of Australia.

GPH's potash project is located at Lake Wells in WA. Salt Lake Potash (SO4) also has its main potash project located at Lake Wells but is considered more advanced with a resource of 85Mt of SOP (grading ~8.74kg/m³ SOP) reported in early 2016.

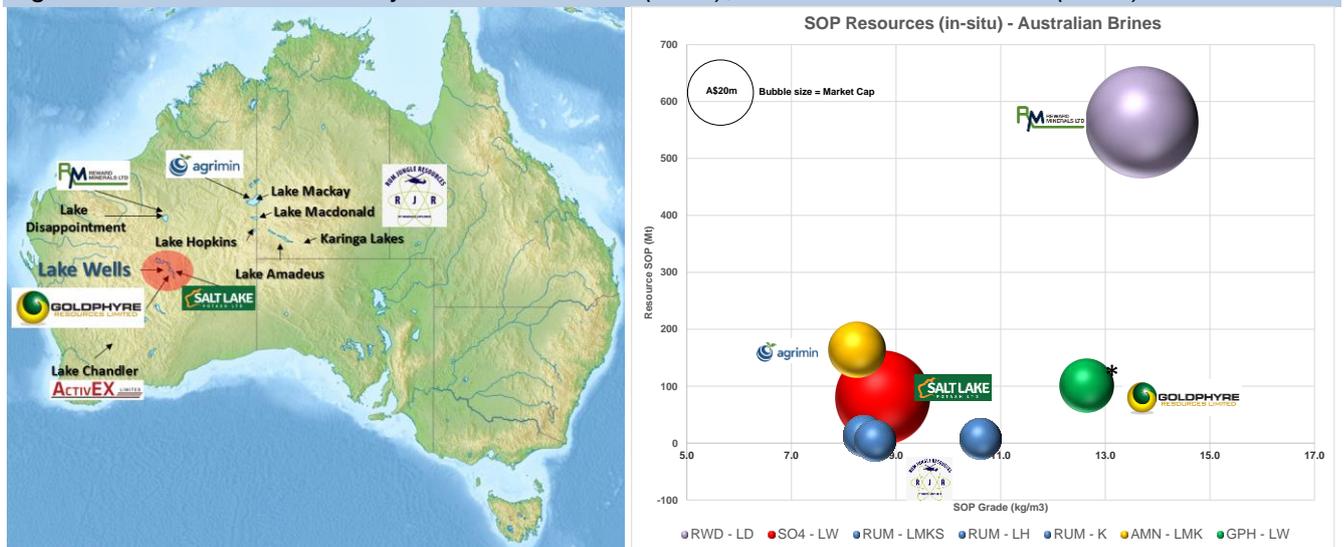
For comparison GPH's playa lake system spans over 200km² and has reported high-grade potash from surface to depths of over 170m. GPH is expected to release a maiden resource before the end of June 2016.

Fig. 10: Potash ASX Peers



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

Fig. 11: Main SOP Brine Projects in Australia (LHS); SOP brine resources (RHS)



Source: Hartleys Research; LD = Lake Disappointment, LW = Lake Wells, LMKS = Lake Mackay South, LH = Lake Hopkins, K = Karinga Lakes, LMK = Lake Mackay; * Mid-point Exploration Target at average SOP grade

Preliminary Price Target

Our GPH price target is considered highly speculative.

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We consider Lake Wells Potash Project to be in the early stages of exploration, with confirmed strong potash (SOP) potential with some very high brine grades reported from completed drilling.

The Company is yet to release a JORC-compliant resource for the Lake Wells Potash Project, the maiden resource is expected in late Q2 CY16. The specific yield and total porosity exploration targets have been used to update our preliminary model assumptions.

Our modelling simulation for a small scale SOP operation (~75-100Ktpa SOP), assumes capex of less than A\$100m, mine gate operating costs of ~A\$250/t, mine life of over 10 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.

Updated 12-month price target of 23cps

Fig. 12: GPH Price Target Methodology

Price Target Methodology	Weighting	23/05/2016	12 Month
Peer Metric - assuming 79Mt SOP resource	20%	\$0.14	\$0.15
Peer Metric - assuming 123Mt SOP resource	35%	\$0.22	\$0.23
Lake Wells - SOP Prod (NPV @14) - 75-100Ktpa SOP - A\$600/t SOP	20%	\$0.19	\$0.20
Lake Wells - SOP Prod (NPV @14) - 75-100Ktpa SOP - A\$750/t SOP	20%	\$0.36	\$0.40
Cash Backing	5%	\$0.01	\$0.01
Risk weighted composite		\$0.21	
12 Months Price Target		\$0.23	
Shareprice - Last		\$0.095	
12 mth total return (% to 12mth target + dividend)		143%	

Source: Hartleys Estimates

Risks

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

Fig. 13: 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 GPH preliminary valuation, based on incomplete information (ie no resources, 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 over A\$1m. As an explorer with no current production assets, ongoing funding will be required. We assume exploration success which will deliver a maiden resource by mid-2016.

Conclusion

We have made significant assumptions but believe these are achievable.

Source: Hartleys Research

HARTLEYS CORPORATE DIRECTORY

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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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