

GOLDPHYRE RESOURCES LTD (GPH)

Lake Wells Exploration Target of 79-123Mt of SOP

Goldphyre Resources Ltd (GPH) has released a JORC-compliant exploration target for its 100%-owned Lake Wells Potash Project in WA.

Based on total porosity, GPH estimates between **79Mt and 123Mt of in-situ sulphate of potash (SOP)** at an attractive grade range of **11.4-13.9kg/m³ SOP** demonstrates the excellent brine chemistry of the lake system. The total porosity resource target exceeds our expectations for an initial range of 21-41Mt of SOP, which was calculated for the surficial aquifer volume only. The exploration target has been modelled from surface to a max depth of 170m.

The specific yield (drainable porosity) resource target of between **6Mt and 37Mt of SOP**, represents the current portion of the in-situ brine which could be extractable using conventional trenches and/or wells. The exploration target based on specific yield is considered to be more relevant as it pertains to the likely recoverable potash, which we have used to update our modelling assumptions and price target.

Resource definition drilling and additional seismic surveys within the project area are expected to commence soon (late March), and on the current timing a maiden resource for Lake Wells is anticipated by mid-2016.

Aspirations of becoming a SOP brine producer

Lake Wells has been confirmed as a high-grade SOP brine salt lake. The release of the exploration target for the project provides the building block for the initial resource, seen as the key enabler for future development studies.

Goldphyre 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.

SOP as a premium potash fertiliser attracts a superior price to muriate of potash (MOP), and is underpinned by limited brownfields and greenfields supply and increasing demand (forecast growth of 4%). In addition, brine SOP projects generally occupy the lower end of production cost curve and have significantly lower capital hurdles than rock potash projects.

Improved price target of 22cps; Cheap on peer comparison

We have increased confidence in the project, especially as the specific yield target highlights significant SOP tonnage potential. Even at the lower end of expectations, highlights a potential mine life of +30 years (assuming 50% conversion and targeted production rates of 100Ktpa).

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 now 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 and with current estimated cash of less than A\$0.5m, we assume and dilute for new equity, required in the short-term and includes shares to be issued to Creasy. We maintain our Speculative Buy recommendation on GPH, with a 12-month price target of 22cps (up from 11cps). The Company appears cheap on peer metrics and should continue to be re-rated as the project is derisked.

8 Mar 2016

Share Price (last):	\$0.080
12Mth Price Target	\$0.22

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	99.7m
- new equity diluted	143.7m
- new equity+ ITM diluted	143.7m
- new equity+ fully diluted	236.1m
Market Cap	\$8.0m
- new equity diluted	\$11.5m
- new equity+ ITM diluted	\$11.5m
- new equity+ fully diluted	\$18.9m
Cash - (Dec15a)	\$0.5m
Cash -est - (incl. new equity)	\$1.5m
Debt -est	\$0.0m
EV	\$7.4m
- new equity diluted	\$9.9m
- new equity+ ITM diluted	\$9.9m
- new equity+ fully diluted	\$8.9m

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

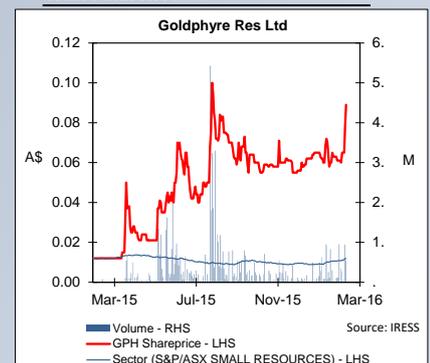
Matt Shackleton (Executive Chairman)
Brenton Siggs (Technical Director)
Dean Goodwin (Non-Executive Director)

Top Shareholders (est)

Yandal Investments (Creasy)	19.9%
Board and Management	9.2%

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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 \$0.080		Mar-16 Speculative Buy	
Key Market Information			Directors		
Share Price			Company Details		
Share Price		\$0.080	Matt Shackleton (Executive Chairman)		
Market Capitalisation (current)		\$8.0m	Brenton Siggs (Technical Director)		
Market Capitalisation (+ new equity)		\$11.5m	Dean Goodwin (Non-Executive Director)		
Market Capitalisation (+ new equity + fully diluted options)		\$18.9m	John Ribbons (Company Secretary)		
Cash (current) est		\$0.5m	20 Kings Park Road		
Cash (+ new equity) est		\$1.5m	West Perth WA 6005		
Debt		\$0.0m	+61 (0)8 9389 2111		
Issued Capital (current)		99.7m	www.goldphyre.com.au		
Issued Capital (+ new equity, includes Creasy shares)		143.7m			
Options	92.43m @ A\$0.0914				
Issued Capital (+ new equity + fully diluted options)		236.1m			
EV (current)		\$7.4m			
EV (+ new equity)		\$9.9m			
EV (+ new equity + fully diluted options)		\$8.9m			
Valuation		\$0.21			
12Mth Price Target		\$0.22			
Projects			Top Shareholders (est)		
	Interest	Location	Commodity	m shs	%
Lake Wells Potash	100%	NE Laverton WA	SOP (K2SO4)	28.6	19.9%
Laverton Downs	100%	Laverton WA	Au, Base metals	13.2	9.2%
Great Central	100%	NE Laverton WA	Au, Base metals		
Mailman Hill	100%	E Leonora WA	Au, Base metals		
Resources			Investment Summary		
	Mt	Grade	Metal		
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		
Net Revenue	0.005	na	na	Q1 CY16	SOP Exploration Target - completed
Total Costs	-0.671	na	na	Q1/Q2 CY16	RC/core drilling - testing brines
EBITDA	-0.666	na	na	Q1/Q2 CY16	Seismic surveys
Deprec/Amort	-0.001	na	na	Late Q2 CY16	Maiden resource - Inferred
EBIT	-0.666	na	na	Q2/Q3 CY16	Install test pumping bores
Net Interest	0.012	na	na	Q3 CY16	Resource upgrade - Indicated
Pre-Tax Profit	-0.654	na	na	Q4 CY16	Resource upgrade - Measured
Tax Expense	0.000	na	na		
NPAT	-0.654	loss	loss		
Abnormal Items	0.000	na	na		
Reported Profit	-0.654	loss	loss		
			Unpaid Capital		
			No (m)	\$ (m)	Ave Pr
			% (new equity)		
			Options		
			30-Jun-16	1.00	0.195
			30-Jun-17	75.57	6.05
			30-Jun-18	9.00	1.35
			30-Jun-21	6.86	0.86
			Total	92.43	8.45
					0.091
					39%
			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			Last Updated: 08/03/2016		
Phone: +61 8 9268 2805					
Sources: IRESS, Company Information, Hartleys Research					

*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*

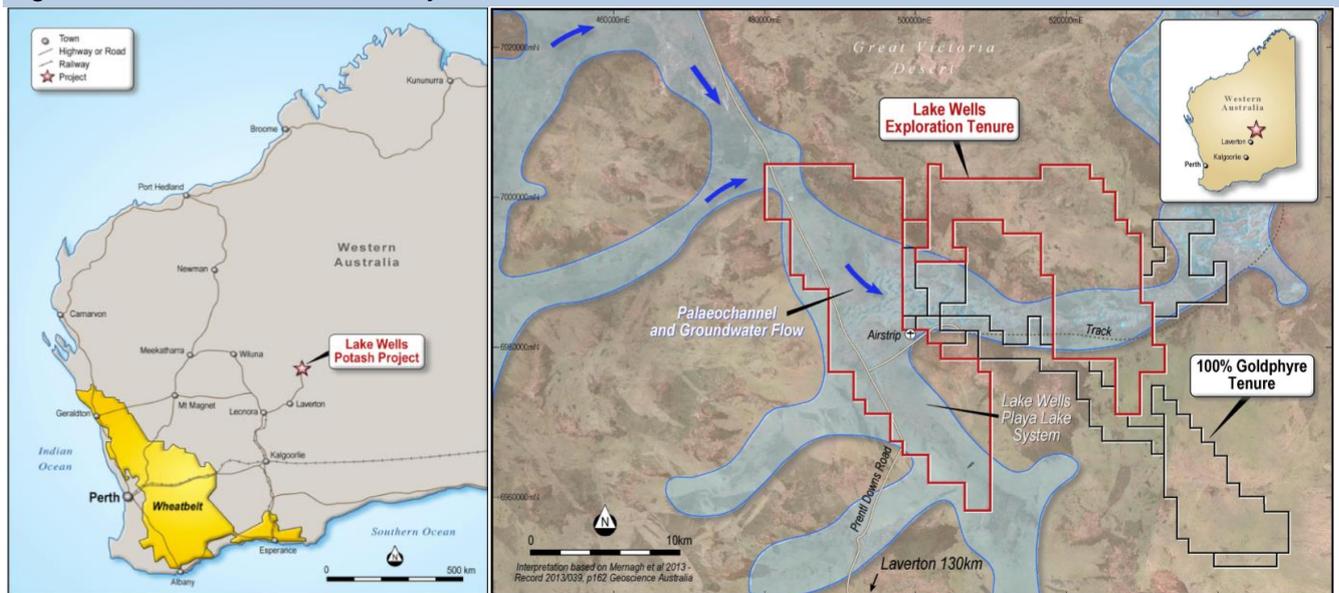
Lake Wells – Major Potash (SOP) Potential

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 now covers ~1,500km² and GPH has 100% potash rights. Access to the project is via the Great Central (~90km sealed road) and Prenti Downs (~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 is now progressing drill planning with the aim of delivering a maiden potash resource by mid-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 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 hydro-geological model for the Lake Wells Potash Project comprises three main units: a surficial aquifer (moderate potential); a clay aquitard 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.

To date, GPH has drilled both the surficial aquifer and clay aquitard and is targeting the basal sand unit in the next round of drilling (commencing soon). The presence of the basal sand is implied from both seismic survey and regional interpretation. The hydrogeological sequence is believed to be up to 170 m thick.

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

ASX Listed Peers - GPH still undervalued

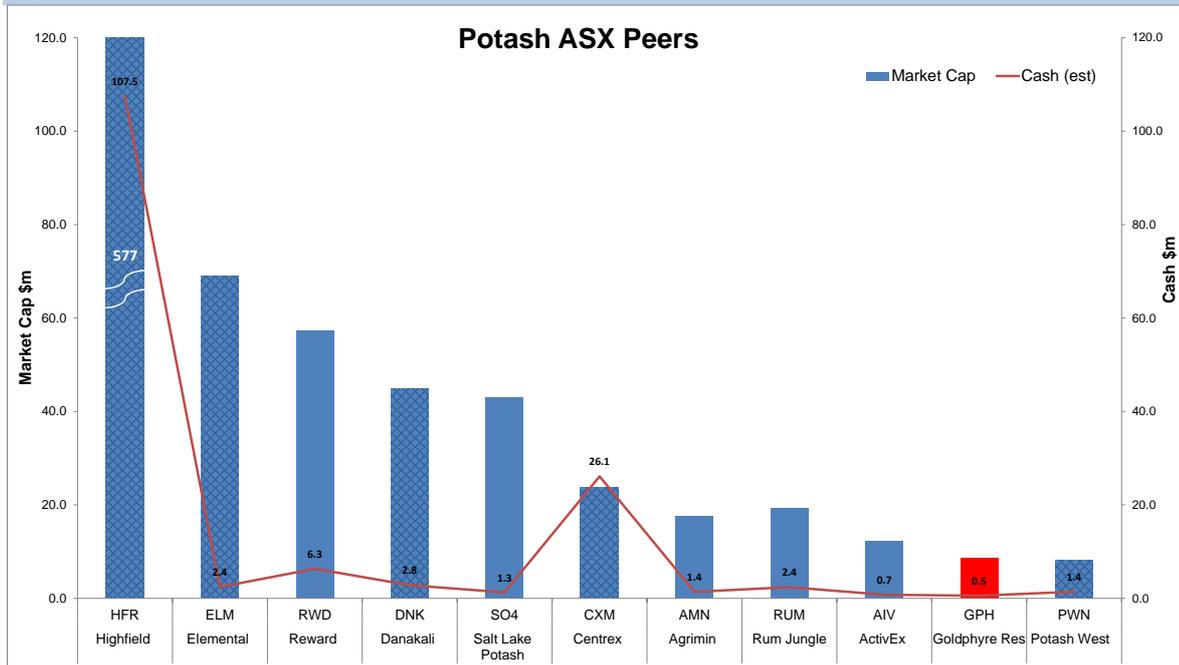
GPH's potash project is located at Lake Wells in WA

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.

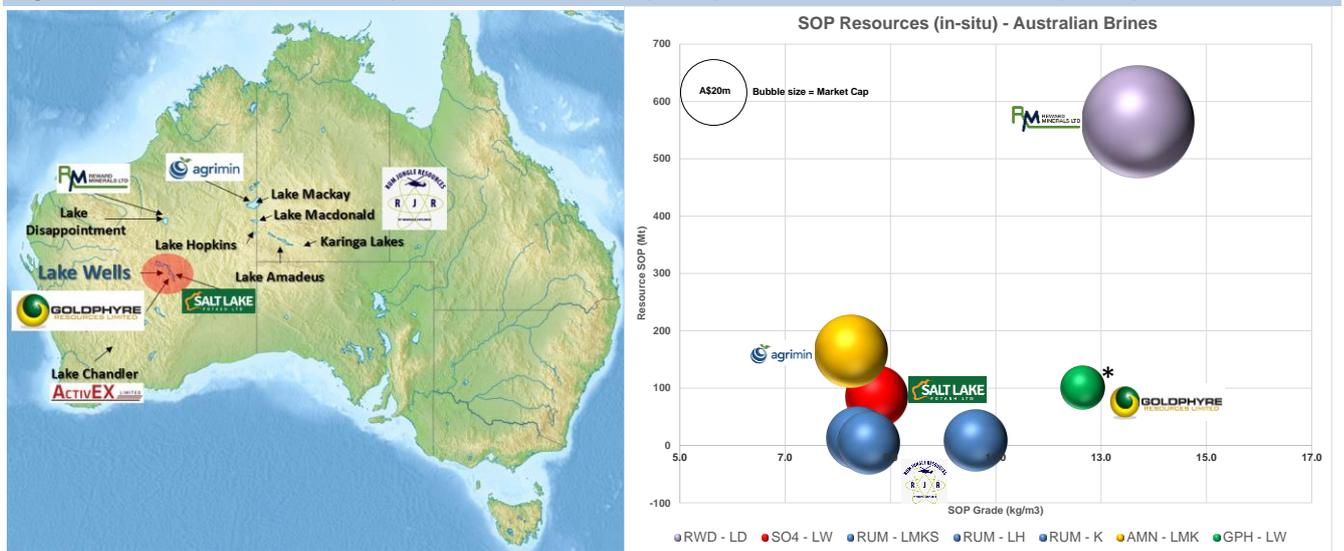
For comparison GPH's playa lake system spans over 200km² and has reported high-grade potash from surface to depths of over 135m (seismic up to 170m). GPH is expected to release a maiden resource by mid-2016.

Fig. 4: Potash ASX Peers



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

Fig. 5: 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 - Updated

Our GPH price target is considered highly speculative.

Our GPH price target is considered highly speculative

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 addition of more contiguous ground over the Lake Wells playa system is strategically important, expected to add significant new resources and area for potential future evaporation pond infrastructure.

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 22cps

We assume new equity is raised in the short-term

Fig. 6: GPH Price Target Methodology

Price Target Methodology	Weighting	8/03/2016	12 Month
Peer Metric - assuming 79Mt SOP resource	20%	\$0.13	\$0.13
Peer Metric - assuming 123Mt SOP resource	35%	\$0.20	\$0.21
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%	\$0.38	\$0.39
Cash Backing	5%	\$0.01	\$0.01
Risk weighted composite		\$0.21	
12 Months Price Target		\$0.22	
Shareprice - Last		\$0.080	
12 mth total return (% to 12mth target + dividend)		172%	

Source: Hartleys Estimates

Risks

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

Fig. 7: 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 currently low. We have diluted for a near-term capital raise, which will provide some funding for CY16. 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

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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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