

## Broken Hill Prospecting Ltd (ASX: BPL)

An Australian Exploration company  
focussed on the discovery & development  
of strategic technology mineral resources

### Commodity Exposure

Heavy Mineral Sands  
Rare Earth Elements  
Cobalt  
Base & Precious Metals  
Industrial Metals

### Directors & Management

Creagh O'Connor  
*Non-Executive Chairman*

Geoff Hill  
*Non-Executive Director*

Matt Hill  
*Non-Executive Director*

Denis Geldard  
*Non-Executive Director*

Trangie Johnston  
*Managing Director*

Ian Morgan  
*Company Secretary*

### Capital Structure

Ordinary Shares on Issue (30/1/17) **148M**

Options: Listed **47M**

Market Cap (undiluted at 3.6cps) **\$5.3M**

### Broken Hill Prospecting Ltd

ARBN 003 453 503

*Registered and Head Office*  
Suite 706 Level 7, 89 York St,  
Sydney NSW 2000  
GPO BOX 1546, Sydney NSW 2001  
Tel +61 2 8054 9779  
Email [info@bhpl.net.au](mailto:info@bhpl.net.au)  
Web: [www.bhpl.net.au](http://www.bhpl.net.au)

## Highlights

- BPL to acquire the advanced La Paz Rare Earth project in Arizona, US
- An independent NI 43-101 Report and Resource estimate was completed in 2011
- La Paz is a large tonnage, bulk deposit comprising high value, light rare earth (LREE) assemblage
- Potential to be the largest rare earth project in North America
- Initial metallurgical test work demonstrates favourable separation of high value, LRRE-rich allanite
- La Paz contains very low penalty elements such as radioactive thorium and uranium
- Excellent local infrastructure - electricity, water, gas - in a mining friendly jurisdiction

### Quote by CEO Trangie Johnston:

*"This expansion of our strategic metals portfolio into rare earths comes soon after announcing the rare earths potential in our extensive Murray Basin mineral sands tenements in Australia.*

*La Paz offers a unique opportunity for shareholders for exposure to the US rare earths market, where security of supply is critical because of rising global trade tensions.*

*After its discovery in 2010, a significant amount of technical work was completed at La Paz. A NI 43-101 Report was produced in 2011, supported by a substantial maintain resource estimate and preliminary metallurgical test work.*

*The potential scale of this project, in a mining friendly environmental jurisdiction close to world class infrastructure, means that the Board is focussed on quickly advancing work at La Paz. On-ground work is expected to commence within months"*

### La Paz Rare Earth Project Acquisition

BPL is pleased to announce that it has formed a 100%-owned US-based subsidiary called La Paz Rare Earth LLC to acquire and develop the La Paz Rare Earth Project. The La Paz Rare Earth project is located in La Paz County, Arizona, US. The project lies approximately 170 km north-west of Phoenix (Figure 1).

La Paz Rare Earth LLC has staked more than 890 hectares comprising 107 unpatented lode mining claims on federally controlled land and a prospecting permit over one section of Arizona State Trust land (259 hectares). The tenements are unencumbered and will be 100% controlled by La Paz Rare Earth LLC.

Location notices for the lode mining claims have been filed with the Bureau of Land Management (BLM) and the prospecting permit application is in progress at the State of Arizona Land Department, with approval expected in coming weeks.

### About the La Paz Project

The La Paz area was first shown to contain rare earth elements during exploration sampling programs in mid-2010. The area is located in western-central Arizona within the structural Detachment Fault Domain of the large Basin-Range Province. Mineralisation is defined by structurally controlled zones containing both pervasive epidote and epidote veinlets in micro-fractures, dominantly hosted within a foliated to brecciated quartz-feldspar granitic gneiss. Allanite, a variety of epidote, is the principal rare earth-hosting mineral.

During 2011, Australian American Mining Corporation Ltd drilled 195 percussion holes for 5,120 metres, which supported a maiden resource estimate under independent NI 43-101 guidelines. The resource displays relatively uniform distribution of total rare earth elements (TRRE) across and along strike covering a resource area 2.5 km by 1.5km. The entire deposit is exposed at surface, or lightly concealed by alluvial cover. It is open at depth and is currently defined to 30m below surface (Figure 2).



Figure 1. Location of the La Paz rare earth project, Arizona, US.

Composite and selected interval samples were submitted to leading independent groups at SGS Canada Inc (Vancouver) for mineralogical investigations (QEMSCAN, XRD and Electron Microprobe analysis) and the Saskatchewan Research Council (SRC, Saskatoon) for preliminary metallurgical test work (pre-concentration and leaching).

The maiden resource estimate and preliminary metallurgical test work formed the basis of an independent NI 43-101 report completed late 2011. Additional metallurgical test work was completed in early 2012.

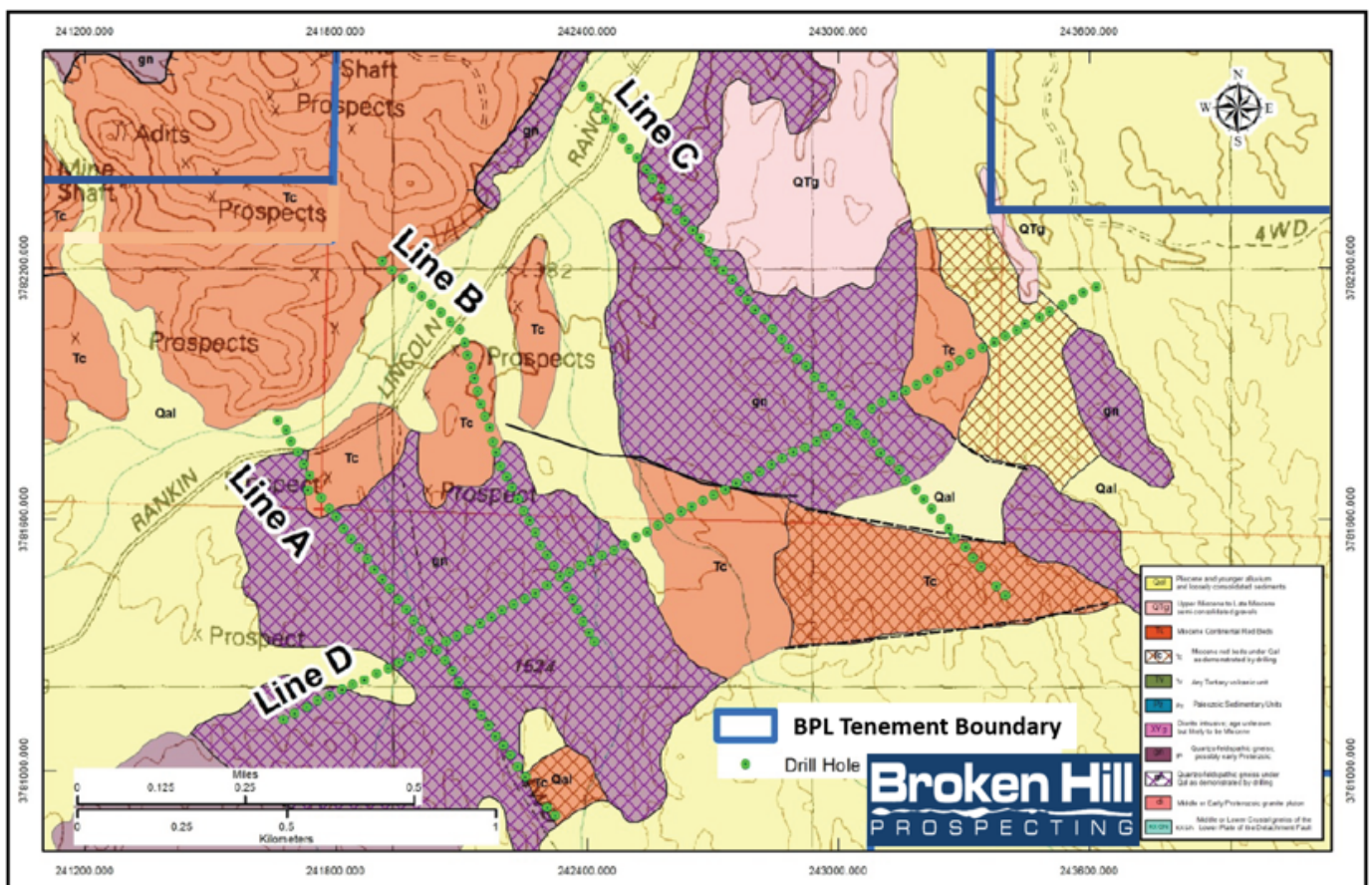
BPL is investigating the conversion of the NI 43-101 Report and supporting data to JORC 2012 standards, and will announce further technical and project details once completed.

A copy of the NI 43-101 Report can be found at this link: [La Paz NI 43-101 Report](#)

**Key Project Highlights Reported under NI 43-101**

- Large tonnage deposit with relatively homogeneous TREO (Total Rare Earth Oxide) distribution amenable to open pit extraction.

- Excellent infrastructure and skilled work force in a mining friendly jurisdiction. A high voltage power line runs 11km west of the project, and a high pressure natural gas pipe line 8km to the east. Major rivers and aqueducts are within 8km, though local ground water supplies are likely to meet any future production needs.
- Majority of TREO report to the epidote-group mineral allanite (La-Allanite).
- High reporting of valuable Light LREO (83%) to Heavy TREO (17%) with extremely low thorium/uranium content with clear environmental advantages.
- Metallurgical test work successfully concentrated allanite samples via a combined process of gravity, magnetic and flotation separation.
- Rare earth concentrate was amenable to commercially available leaching technologies, particularly H2SO4 acid roasting - dilute H2SO4 solution leaching.



**Figure 2.** Outline of the area containing the maiden resource estimate reported in 2011 under NI 43-101 guidelines. BPL plans to obtain bulk samples to progress advanced metallurgical studies in coming months and upgrade the resource the JORC 2012 standards.



**Figure 3.** View looking west across the La Paz rare earth project area.



**Figure 4.** Trangie Johnston (CEO) and John Petersen (consultant) inspecting outcropping mineralisation at the La Paz project.



**Figure 5.** Hand specimen of pervasive epidote (rare earth-rich allanite) mineralisation.

## Future Plans

BPL has a track record of implementing development projects in strategic metals, and the opportunity at La Paz is another case in point. BPL's management have been looking to expand the company's exploration horizons from principally the Murray Basin/Broken Hill regions but also, to use the expertise and knowledge gained from the successful development of the Thackaringa cobalt project at Broken Hill. Thackaringa is a large low-grade strategic metal deposit with good infrastructure and the La Paz rare earths deposit offers similar opportunities, though with a number of unique strategic properties.

From a US perspective, the search for and development of rare-earth deposits, particularly in the US, has been identified as being strategically essential and thus has strong government support. The US Federal government and Pentagon have published recent articles highlighting the need for domestic supplies of strategic metals including rare earth elements and titanium/zirconium. The current trade and political landscape offers shareholders exposure to growth markets that are seeking to diversify supplies globally.

BPL have been fortunate in that one of its directors has had long exposure and experience with the La Paz project and thus has provided a detailed information base which has allowed us to make a quick decision on the significant potential we can now see which this deposit holds. We are also fortunate in obtaining the services of the key local technical management previously involved in the project allowing BPL to hit the ground running.

Applying the successful techniques that BPL utilised to advance the Thackaringa cobalt project and taking advantage of the expertise and low cost structure utilising North American resources, the Board of BPL believe that this acquisition and development of a resource base in Arizona will transform the company.

Once title applications are completed, our plans will include extensive mapping and re-sampling of bulk samples to progress metallurgical test work in support of technical and commercial project analysis. Additional drilling programs may be required for JORC 2012 conversion to underpin a Scoping Study to Pre-feasibility Study level analysis.



Anthony (Trangie) Johnston  
*Managing Director*

**Broken Hill**  
PROSPECTING

*Diversified Exploration & Development Company*

*For further information, please contact*

*Tel: +61 2 8054 9779*

*Email: [info@bhpl.net.au](mailto:info@bhpl.net.au)*

## PREVIOUSLY RELEASED INFORMATION

This ASX announcement refers to information extracted from the following report, which is available for viewing on BPL's website <http://www.bhpl.biz>

23 July 2019

[CEO Letter to Shareholders](#)

7 May 2019

[Sydney Resources RoundUp Conference Presentation](#)

30 April 2019

[Quarterly Activities and Cash Flow Report Mar 2019](#)

13 March 2019

[Half Yearly Report and Accounts December 2018](#)

26 February 2019

[Thackaringa Joint Venture Update](#)

31 January 2019

[Quarterly Activities and Cash Flow Report Dec 2018](#)

21 November 2018

[CEO's Letter to Shareholders](#)

31 October 2018

[Quarterly Activities and Cash Flow Report Sept 2018](#)

30 October 2018

[Thackaringa Cobalt Project Update](#)

4 October 2018

[New Assays Confirm Copper-Cobalt Mineralisation](#)

28 September 2018

[Annual Report 2018](#)

20 August 2018

[Broken Hill Exploration expansion & Cobalt Update](#)

BPL confirms it is not aware of any new information or data that materially affects the information included in the original market announcements, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. BPL confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcements.

### COMPETENT PERSON'S STATEMENT

The information in this report that relates to exploration results, Mineral Resources and Targets is based on information compiled by Mr Anthony Johnston, BSc (Hons), who is a Member of the Australian Institute of Mining and Metallurgy and who is the Managing Director and Chief Executive Officer of Broken Hill Prospecting Limited. Mr Johnston has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 & 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Johnston consents to the inclusion in the announcement of the matters based on his information in the form and context that the information appears.

### ABOUT BROKEN HILL PROSPECTING LIMITED

Broken Hill Prospecting Limited (BPL) is a diversified Australian exploration company focused on the discovery and development of strategic mineral resources across two primary geographical areas; the Broken Hill Region (industrial, base and precious metals, including the Thackaringa Cobalt & Base/Precious Metal Project) and the Murray Basin Region (Heavy Mineral Sands).

### BROKEN HILL REGION

BPL has a number of project interests in the Broken Hill region and is actively expanding its exposure to this world class mineral province.

The Thackaringa Cobalt Project is strategically located 25km south-west of Broken Hill, New South Wales, adjacent to the main transcontinental railway line. Current deposits are open at depth and account for 4.5km strike of mineralised outcropping ridges with excellent potential for resource expansion.

The Thackaringa Cobalt Project is under a Farm In and Royalty Agreement with Cobalt Blue Holdings Ltd (ASX:COB) with BPL currently retaining 30% equity in the project and 100% legal title.

BPL will receive a 2% net smelter royalty on all cobalt produced from the Thackaringa tenements for the life of mine. In addition, BPL retains the base and precious metal exploration rights over the Thackaringa tenements, where it is actively exploring for Broken Hill (Pb-Zn-Ag) style mineralisation.

### MURRAY BASIN REGION

BPL has built a substantial portfolio of Heavy Mineral Sands (HMS; titanium & zircon) Projects within the world-class Murray Basin. BPL now holds the largest tenement portfolio in the Murray Basin.

Value adding exploration and potential project acquisitions will continue to position the Company to take advantage of improving market conditions.

BPL is targeting the establishment of a sustainable pipeline of high grade, low tonnage deposits amendable to processing through mobile plant equipment that could be deployed across the broader project area.