## BREAKER RESOURCES NL



Research Note

## POTENTIAL MAJOR NEW GOLD DISCOVERY AT LAKE ROE

### **Investment Highlights**

- Breaker Resources NL (BRB) has potentially made the next significant gold discovery in the Western Australian Goldfields at its 100% owned Lake Roe Project, located some 100km east of Kalgoorlie. The mineralised zone is hidden under thin transported cover and has been overlooked by many previous explorers. Thus far, reconnaissance aircore and RC drilling has outlined a 4.4km zone of gold bearing fractionated dolerite which has potential for extensions. Wide-spaced RC drilling has intersected fresh sulphide hosted gold mineralisation at potentially economic grades at the Bombora and Bombora North discoveries. The best mineralisation has been encountered in the upper part of the dolerite and the dimensions indicate a large gold system. The Company is currently drilling to see if the two discoveries could be linked, thereby outlining a strike length of 2.2km. If this proves to be successful then we see the potential for at least a 1Moz gold deposit. We are commencing formal coverage of BRB with a Speculative Buy rating.
- Potential Major New Gold Discovery: BRB has made two new gold discoveries at its Lake Roe Project. Reconnaissance RC drilling has outlined significant fresh-rock gold mineralisation at the Bombora and Bombora North Prospects. At Bombora North, highlighted assays include: 12m at 3.06g/t Au from 118m; 20m at 2.45g/t Au from 12m; and 16m at 1.53g/t Au from 52m. The Company has reported that a 200m step-out north of the Bombora prospect has returned significant sulphides with assays awaited. RC drilling is currently moving northwards towards the Bombora North discovery on a 200m drill line spacing to assess the remaining untested 800m. Diamond drilling on the southern-most RC drill line at Bombora North has identified visible gold in each of the first two drill holes; assay results are pending.
- Potential for at least 1Moz: We see the potential for a deposit of at least 1Moz of gold deposit at Lake Roe, if the current RC drilling program is successful in proving a continuous zone of mineralisation from the Bombora and Bombora North prospects. Our calculations are based on a 2.2km strike length at 230m dip extent and average intercept of 10m at a grade of 2g/t Au. This assessment does not include the potential for an additional 2.2km of extensions to the north where significant gold mineralisation has been identified. In addition, over the long-term, the presence of high-grade sulphide lodes may be more significant than the obvious open pit potential. Sulphide lodes typically extend to great depth and present potential for an extensive underground development.
- Conducive Structural Setting: The discoveries at Bombora and Bombora North are hosted within a 500m-wide fractionated dolerite situated in a domal geometry geometrically above the east-dipping Keith-Kilkenny Shear Zone and adjacent to the Claypan Shear Zone, two major shear zones that converge in the vicinity of the Project. It is important to note that the mineralisation occurs mainly as sulphide lodes in a fractionated dolerite with a large alteration footprint and that the dimensions (scale) are large. Positively, the mineralisation appears to be from a bedrock source rather than supergene enrichment. Examples of dolerite hosted mineralisation in the Eastern Goldfields are numerous, and include the Golden Mile deposit in Kalgoorlie, Mt Monger and the Junction deposit at St Ives.
- Adequate Cash to Complete Drill Program: BRB reported cash of \$1.8m (30 June 2016). The Company should have sufficient cash to fund the current RC drill program. Thereafter, BRB will likely require further funding to fully assess its Lake Roe Project and commence resource delineation drilling, given the scale of the project.
- Catalysts: 1) Ongoing: Results from the 4,000m RC drill program 2) Further Diamond drilling results.

8 September 2016			
12mth Rating	SPECULATIVE BUY		
Price	A\$	0.255	
Target Price	A\$	na	
12mth Total Return	%	na	
RIC: BRB.AX		BBG: BRB AU	
Shares o/s	m	100.3	
Free Float	%	61	
Market Cap.	A\$m	25.6	
Cash	A\$m	1.8	
Net Debt/Equity	%	na	
3mth Av. D. T'over	A\$	75,500	
52wk High/Low	A\$	0.41/0.046	
2yr adj. beta		-0.74	
Valuation:			
Methodology		na	
Value per share	A\$	na	
Analyst:		Simon Tonkin	

Disclosure: Patersons Securities acted as Lead Manager and Underwriter for an Entitlement Issue that raised \$1,095,000 at \$0.13/sh in June 2016. In addition, Patersons Securities acted as Lead Manager and Underwriter for an Entitlement Issue that raised \$553,775 at \$0.04/sh in October 2015. Patersons received fees these services.

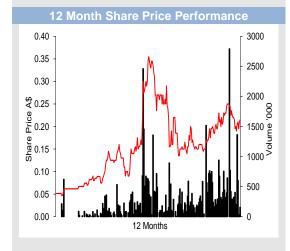
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An investment in this Company should be considered speculative and note assumptions employed are contingent on broader market conditions remaining supportive. These can change at short notice.



Performance %	1mth	3mth	12mth	
Absolute	-4	39	318	
Rel. S&P/ASX 300	-5.7	43.5	323	



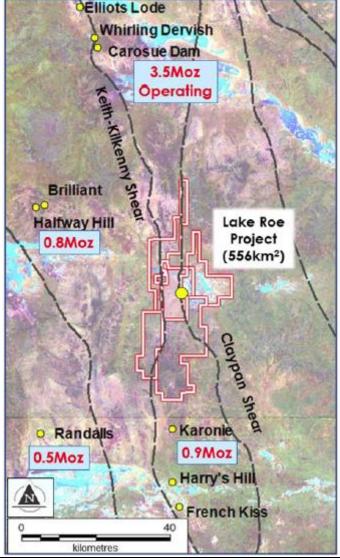
### LAKE ROE PROJECT

The 100%-owned Lake Roe Gold Project is located 100km east of Kalgoorlie in the Eastern Goldfields Superterrane. The project is located in an area of shallow (5m to 40m) transported cover between the Carosue Dam and Karonie gold deposits situated 60km to the north and 30km south respectively (Figure 1). The project currently consists of five granted tenements and one application, comprising a total area of 556km<sup>2</sup>.

Historical exploration is minor and the project has been largely untouched in the last twenty or so years. From 1991 to 1998, supergene gold anomalism was identified by historic vertical rotary air blast (RAB) and aircore (AC) drilling (maximum grade of 4m at 0.71g/t Au; WAMEX Report A34230). The anomalous gold generally starts at a depth of 30m and occurs near the base of the active weathering front. The bedrock below this zone is essentially untested. Although the gold potential of the area was identified by previous large company explorers, systematic follow-up of the results did not occur, apparently due to non-geological factors such as inconvenient tenement boundaries at the time, and changes in company priorities and market conditions.

BRB has made two new gold discoveries at Bombora and Bombora North, each of which occur in the upper granophyric portion of a 500m-thick fractionated dolerite. The dolerite is situated geometrically above the Keith-Kilkenny Lineament, similar to that at the Karari-Carosue Dam and Karonie gold deposits located along strike.

Figure 1: Lake Roe Gold Project



8 September 2016



## Bombora/Bombora North: Significant Gold Discovery

BRB has conducted four phases of AC drilling to map out the 6km-long gold system which remains open along strike, and to the east along the granite contact. This drilling returned significant intersections in the oxide zone over a strike length of 4.4km hosted by a fractionated dolerite up to 500m wide (Figure 2). Given the significant indications for a major gold discovery, BRB has completed two RC programs which resulted in the discovery of Bombora (400m strike length) and Bombora North (600m strike length), respectively. A third phase of RC drilling is currently in progress to test the potential linkage of the two discoveries to form a single 2.2km zone of mineralisation, and to extend this zone to the north where significant gold intersections have been obtained by AC drilling. The significance of this is that RC drilling in each area has confirmed shallow primary gold mineralisation significantly reducing the exploration risk, and that high-grade sulphide lodes were intersected which generally translates to very substantial depth potential for possible underground development. More significant is the scale of the system which translates to tonnage/size potential. This system appears to be large. Diamond drilling commenced around 19 August 2016 to evaluate the geometry of the gold mineralisation in several different parts of the Lake Roe gold system. The diamond drilling component of the drilling will be 50% funded (up to \$150,000) under the WA Government's Funding Package. BRB has announced that it hit visible gold in its first two, drill holes.

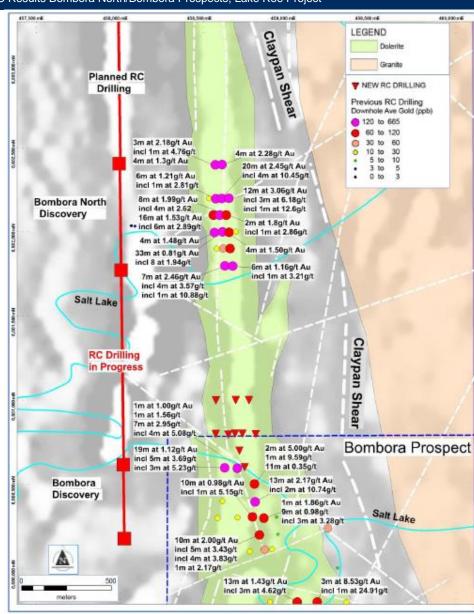


Figure 2: RC Results Bombora North/Bombora Prospects, Lake Roe Project



Significant assay results from Phase 1 RC drilling, a 12-hole program over the Bombora prospect which identified a 500m zone, are:

- 13m at 2.17g/t Au from 36m, including 10m at 2.78/t Au, including 2m at 10.74g/t Au (BBRC0009);
- 7m at 2.95g/t Au from 74m, including 4m at 5.08g/t Au, including 2m at 7.58g/t Au(BBRC0002);
- 10m at 2.00g/t Au from 192m, including 8m at 2.43g/t Au (BBRC0012); and
- 19m at 1.12g/t from 21m, including 6m at 3.19g/t Au, including 5m at 3.69g/t Au, including 3m at 5.23g/t Au (BBRC0001)

Results from Phase 2 RC drilling at Bombora North prospect come from a 600m zone. Highlights from the 20-hole RC program included:

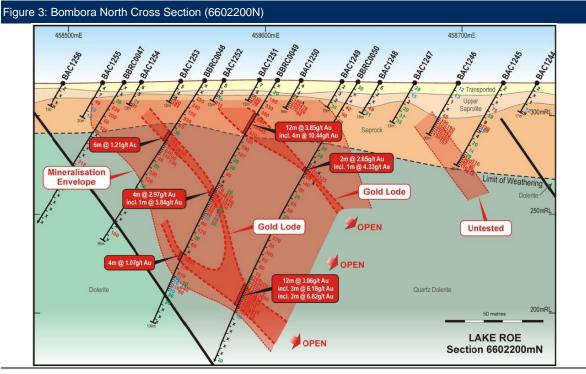
- 12m at 3.06g/t Au from 118m, including 3m at 6.18g/t Au and 1m at 12.60g/t Au (BBRC0050);
- 20m at 2.45g/t Au from 12m, including 4m at 10.45g/t Au (BBRC0049);
- 16m at 1.53g/t Au from 52m, including 6m at 2.89g/t Au (BBRC0045);
- 7m at 2.46g/t Au from 80m, including 1m at 10.88g/t Au (BBRC0049).

RC drilling is currently moving northwards from Bombora towards the Bombora North discovery on a 200m drill line spacing to assess the intervening untested 1.2km. Diamond drilling on the southern-most RC drill line at Bombora North has identified visible gold in each of the first two drill holes; assay results are pending.

At Bombora North, the mineralisation is dominated by sulphide impregnated fault zones (lodes) with up to 5% pyrite and pyrrhotite accompanied by silica, biotite, chlorite and carbonate alteration and minor quartz-pyrite veinlets. The extent of alteration is encouraging and is what you would expect in a large mineralised system. The mineralisation at Bombora is similar. In each area, the gold is hosted primarily by iron-rich dolerite, a significant component of which is granophyric in nature.

The dolerite in the area tested dips at approximately 50°-70° to the east. The dominant geometry of the gold mineralisation appears to be concordant with the dolerite but diamond drilling and/or downhole orientation surveys are needed to confirm this and to assess if other geometries are present.

The intersected mineralisation widths, the distance between drill sections, the untested strike potential and the significant potential for high-grade sulphide lodes at depth all indicate potential for the definition of a large tonnage resource. The indicative geometry and grade of gold mineralisation intersected, indicate potential for open pit and underground mining (Figure 3).



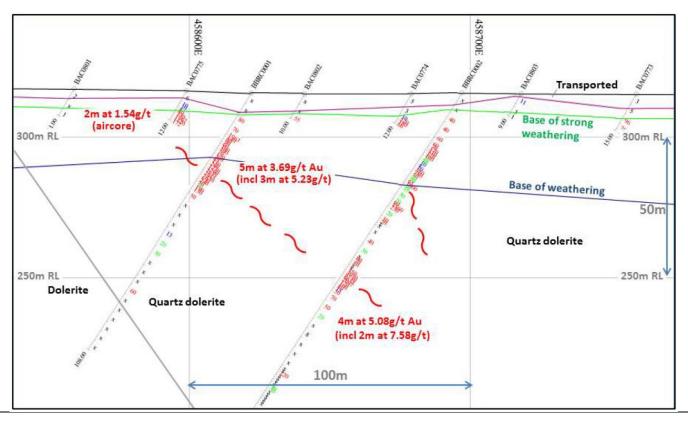


## **Bombora Prospect**

Bombora is situated in the southern 2km part of a 6km-long zone of gold mineralisation identified by BRB's initial reconnaissance AC drilling in program (August 2015). Importantly, the knowledge gleaned from the AC and RC drilling at Bombora provided the foundation for making a preliminary assessment of the controls on the gold distribution. This highlighted the potential for the initial sulphide lodes discovered in the northern part of the Bombora Prospect (Figure 4) to be part of something more extensive that extends to the north.

Follow-up Phase 4 AC drilling confirmed this potential, extending a further 4km yielding many significant intersections. The Phase 2 RC drilling confirmed a discovery at Bombora North, and a staged RC and diamond drilling program is now underway to prioritise areas for resource-definition drilling over a total strike length of 4.4km. It is important to note that the granite contact to the east, where significant AC drill intersections have been made, has not yet been followed up.

Figure 4: Bombora Prospect Northernmost Cross Section (6600600N)



Source: Breaker Resources NL

## Pathfinder Minerals/Alteration Indicate Potential Large Gold System

Large gold systems are accompanied by large alteration footprints and this appears to be the case at Lake Roe. BRB has identified a number of pathfinder minerals which support the potential for a major gold deposit. We note that, within the sheared and altered dolerite, there was elevated silver (up to 6.86g/t), molybdenum (Mo), arsenic (As), bismuth (Bi), copper (Cu), antimony (Sb) and tellurium (Te) levels encountered. This extensive alteration is evident based on the presence of wide mineralisation envelopes, and alteration minerals such as biotite, carbonate and silica.



#### Potential for +1Moz

At this early stage, we see the potential for at least 1Moz of gold at Lake Roe if the current 4,000m RC drilling program is successful in proving a continuous 2.2km zone of mineralisation from the Bombora and Bombora North prospects. Strong continuous gold-arsenic anomalism has been identified in this area by recent AC drilling, and the Company has announced the presence of significant visual sulphide mineralisation in the first few drill lines completed. The RC drilling is current stepping out on 200m fences, moving north from the Bombora prospect.

Our estimated potential for at least 1Moz of gold is based on a 2.2km strike length at 230m dip extent and average intercept of 10m at a grade of 2g/t Au. This assessment does not include the potential for a further 2.2km of extensions to the north, based on strong aircore results in the Phase 4 aircore drilling. In addition, in the long-term, the presence of high-grade sulphide lodes may be more significant than the obvious open pit potential. Sulphide lodes typically can extend to great depth and this presents very real potential for long term underground development.

Once the current c.4,000m reconnaissance lake RC drilling is completed it is planned that another RC rig will be sourced to undertake reconnaissance drilling extending over a 2.2km distance to the north of the Bombora North discovery, where strong anomalism has also been outlined by AC drilling.

The Company is also in the process of planning further extensive aircore drilling. This drilling will further assess gold mineralisation near the largely untested granite contact to the east of the Claypan Shear, where 80m-spaced AC drill holes previously intersected mineralisation, including 7m at 2.58g/t Au (incl. 2m at 8.38g/t) (ASX Release 26 August 2015). The planned AC drilling will also evaluate the gold potential to the north of the Crescent Prospect.

## **Aircore Drill Program Outlines Significant Anomaly**

BRB was initially attracted to the Lake Roe Project by the structural setting and the presence of known gold in the area, based on historical drill results (4m at 0.71g/t Au). In order to assess the property, BRB undertook a systematic approach using AC drilling to test for targets in the new gold system. We briefly outline the results of four phases of AC drilling below (Figure 5):

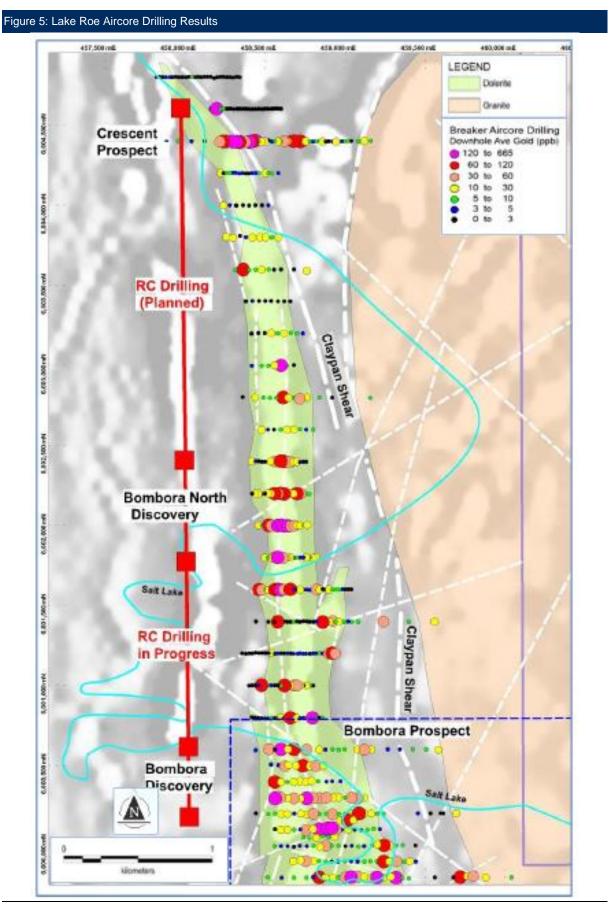
Phase 1: 87 holes for 3,187m (average depth 36m): The initial AC program identified the Lake Roe gold system. The holes were very wide spaced with hole spacing of 80-160m and line spacing of 400-1,600m. Each of the holes were drilled to blade bit refusal. Twenty percent of the holes ended in cohesive zones of +50ppb gold altered dolerite with anomalous Ag, As, Sb etc. up to 300m wide. The best drill intersection was 5m at 6.12g/t Au (incl. 1m at 22.44g/t Au).

**Phase 2: 181 holes for 7,948m (average 44m):** The second (and third) phase of AC drilling focused on infill drilling in the southern 2km of the system identified by the Phase 1 drilling. In many areas the drill hole spacing was brought down to 40m and the line spacing down to 100-200m. BRB achieved further encouraging intersections: 3.3m at 3.48g/t Au, 15m at 1.46g/t Au and 9m at 1.63g/t Au. The increased drill hole resolution indicates: 1) gold prefers dolerite contacts 2) gold distribution is influenced by cross faults.

Phase 3: 118 holes for 5,362m (average depth 45m): The third phase of AC drilling extended the Bombora prospect to the south and increased the data resolution to allow additional lithological and structural control. A NE-trending structure in excess of 700m long was identified with a best intersection of 8m at 2.07g/t Au (incl. 4m at 3.88g/t Au) in the dolerite. Mineralisation was also identified close to the granite contact including 7m at 2.58g/t Au (incl. 2m at 8.38g/t Au). Following this phase of AC drilling, BRB conducted its first phase of RC drilling to test the mineralisation at depth. The first RC drill phase focused on the Bombora prospect and was a success, with the discovery of potentially economic intercepts which included: 4m at 5.08g/t Au, 2m at 12.74g/t Au (incl. 1m at 24.91g/t) and 10m at 2.78g/t Au (incl. 2m at 10.74g/t). However, it became apparent that the southern portion of the AC drilling demonstrated weaker results. Unlike the northern area which trends to the northwest, the southern area trends to the northeast and this appears to affect which area "opens up" for gold mineralisation. Results from later AC and RC drilling tend to confirm this.

Phase 4: 359 holes for 7,807m (average depth 22m): Subsequently, BRB focused its efforts on the northern portion of the dolerite, conducting a significantly expanded fourth phase of AC drilling. Positive drill results were achieved at Bombora North which demonstrated a 2.6km zone. At Bombora North, results included: 4m at 4.73g/t Au from 10m incl. 2m at 7.95g/t Au and 2m at 4.22g/t Au from 7m incl. 1m at 7.73g/t Au. At the Crescent Prospect, AC results included: 30m at 0.40g/t Au from 11m incl. 3m at 1.30g/t, 2m at 1.54g/t Au and 1m at 1.32g/t Au. Following the Phase 4 AC drilling Bombora North was subsequently tested using RC and achieved the outstanding results as listed on page 3.







## From Discovery to Mine...Lake Roe has Potential Scale

Over the past 10 years there have only been three large greenfields gold discoveries in Western Australia. These include: Tropicana 8Moz defined in 2006 (Anglo Ashanti/Independence Group), Garden Well (Regis Resources) c.3.5Moz defined in 2008 and Gruyère (Gold Road Resources) c. 6.1Moz in 2016. We thought it appropriate to provide a potential timeline and cost for assessing BRB's gold discoveries at Bombora and Bombora North, as well as the larger Lake Roe project. Preliminary indications are that BRB has the potential for a large- scale gold camp with a 4.4km trend of gold results that will need to be evaluated. Gold Road (GOR) defined a gold camp as "a coherent geological system hosting multiple gold deposits relating to a similar gold-bearing event. Individual deposits might display great variation in structure, size, style, host rock geology".

Below in Figure 6 we have outlined key events from the discovery of the Gruyère deposit overlain on the GOR share price chart. It is worth noting that GOR first listed in 2006 (as Eleckra Mines Limited) and held the Yamarna project where the Gruyère discovery would ultimately be made in 2013. However, prior to this discovery, the Company made a number of other smaller discoveries along the Attila and Central Bore trends defining over 1Moz of gold. GOR drilled c.400,000m and raised \$33.9m in equity prior to the discovery of Gruyère.

Following the discovery of Gruyère in 2013, drilling and feasibility activities significantly ramped up. The Company raised some \$115m in equity (GOR had \$90.5m in cash at the end of September 2016, indicating that approximately \$25m has been spent mostly on Gruyère). GOR has defined a 6.2Moz Mineral Resource at the Gruyère deposit over 2.5 years. The Mineral Resource is based on 357 RC holes for 41,264m and 113 diamond holes for 31,109m (including 14,694m of RC pre-collars) for a total of 87,066m drilled since the discovery in October 2013. A Definitive Feasibility Study (DFS) is due for completion in the December 2016 Q.

The proposed Stage 4 open pit at the Gruyère deposit is 1.8km long x 890m wide x 340m depth which is similar in strike length to that targeted by the current drilling from Bombora to Bombora North (2.2km long). Based on the information to date, the discovery appears to have the potential for a large-scale deposit. Based on a drill pattern of 50m x 50m to a depth of 200m, we estimate that it would cost BRB c.\$10m to drill-out.



Source: Gold Road Resources



### **RISKS**

**Exploration Risk:** BRB is an exploration focused Company. Exploration is inherently risky and there is no guarantee that an economic deposit will be delineated. Further drilling is needed to follow-up targets which may or may not result in further economic discoveries. Our estimate of at least a 1Moz deposit is predicated on BRB being able to demonstrate good continuity between the Bombora and Bombora North prospects. Further drilling will be needed to determine the size and grade of the discoveries within the Lake Roe project.

**Financing Risk:** BRB may, from time to time, need to access the equity/debt markets to finance its exploration and development activities. There can be no assurances that this capital will be available at a reasonable cost; therefore, substantial future dilution could result. We estimate that BRB could need c.\$10m to properly assess its Lake Roe Project, given that the initial drilling has largely been reconnaissance in nature.

**Commodity Price Risk:** Since BRB's exploration project is focused on gold the Company is exposed to fluctuations and sentiment in the gold market. There can be no assurances that gold prices will remain at current levels.

**Metallurgical Risk:** Metallurgical testwork will be required to determine the recoveries of any gold discovery made by BRB. The recoveries could impact the economics of the project.

## **DIRECTORS AND MANAGEMENT**

#### **Tom Sanders - Executive Chairman**

## BSc (Geology) Sydney University; MSc (Mineral Economics) Curtin University; MAusIMM; FAICD

Tom Sanders is a geologist with over 35 years' experience in the Australian mining industry. He has extensive experience in project generation, exploration, feasibility, mining and corporate management with a strong emphasis on gold and nickel in Western Australia (**WA**). Mr Sanders has published works on nickel and gold in WA, in addition to regional mineralisation studies on the eastern Kimberley region under contract to the Geological Survey of WA.

Mr Sanders has managed a large number of exploration projects, several of which he progressed into production during a 23 year period based in the Kalgoorlie region in WA. He has extensive production experience on several underground and open pit gold and nickel operations.

Mr Sanders was responsible for identifying Breaker's initial projects and guiding the Company to a successful ASX listing in 2012. Mr Sanders previously founded Navigator Resources Limited and steered that company from initial project acquisition to ASX-listing. He then managed the building of a two million ounce gold resource inventory through discovery and acquisition and identified the Cummins Range rare earth resource.

## Mike Kitney - Non-Executive Director

# Ass Met WA Institute of Technology; Post Grad Dip (Extractive Metallurgy) WA School of Mines; MSc (Mineral Economics) Curtin University; MAusIMM

Michael Kitney is an experienced process engineer having spent over 37 years working in the mining industry. He has developed and constructed projects throughout Australia, Africa and south east Asia.

Mr Kitney's particular strengths are in production and mineral processing management, all aspects of environmental management, project evaluation and assessment and management of interdisciplinary project teams. He brings to the Company vast project development expertise and practical experience in commissioning new projects.

Mr Kitney's current or previous senior technical and project management positions include those with Kasbah Resources Ltd, Minproc Engineers Ltd, Alcoa Australia, Property Company of London, British Phosphate Commission, Nelson Gold Corporation Ltd and Avocet Mining plc. Former corporate roles on ASX-listed companies include non-executive director, Redbank Copper Ltd.



#### Mark Edwards - Non-Executive Director

#### BJuris, LLB University of Western Australia

Mark Edwards is a solicitor with over 25 years' experience in resources and corporate law.

Mr Edwards has advised a range of ASX-listed companies active in the resources sector. He has advised on a range of resources projects in Australia and overseas, including significant nickel, gold and iron ore projects. His professional work has involved him in many facets of the resources industry ranging from ASX listings, exploration and mining joint ventures, project development agreements and project financing.

He has previously served as a non-executive director of an ASX listed company involved in exploration for, and production of, gold.

## Michelle Simson - Company Secretary

#### EMBA (Dist) University of Western Australia; GradDipACG; AGIA; ICSA

Michelle Simson has 20 years' administration experience, including the last nine years in the mining industry working in both exploration and mining companies in the commodities of gold and uranium. She has previously held positions with Agincourt Resources Ltd, Nova Energy Ltd, Toro Energy Ltd and Navigator Resources Ltd and has completed an Executive Masters of Business Administration at the University of Western Australia and the Graduate Diploma of Applied Corporate Governance.

## **Alastair Barker - Exploration Manager**

## BSc (Geology) WA School of Mines; MAusIMM

Alastair Barker is a geologist with 20 years' experience in the Australian mineral exploration and mining industry and has worked on a range of gold, platinum, uranium, manganese, nickel, copper and rare earth projects throughout Australia. He has operated successful geological contracting businesses in Kalgoorlie and more recently in the Northern Territory.

Mr Barker has extensive experience in all stages of regional and near-mine exploration project management, particularly in Western Australia, from conceptual targeting and ground acquisition through to resource definition and open cut mining geology. He has held Senior Geologist and Project Leader roles with a variety of Australian companies including Thundelarra Exploration Ltd, Navigator Resources Ltd, Mining Projects Group, De Grey Mining Ltd, Croesus Mining NL and Hannans Reward Ltd.

Mr Barker has particular strengths in project management and evaluation in remote areas and broad exposure to a wide variety of geological settings and mineralisation styles in Australia. He played a key role at several discoveries including the Turner River Gold Belt and was a key team member at the Kalgoorlie operations of Croesus Mining NL and other mine developments including Mt Monger.

Stock recommendations: Investment ratings are a function of Patersons expectation of total return (forecast price appreciation plus dividend yield) within the next 12 months. The investment ratings are Buy (expected total return of 10% or more), Hold (-10% to +10% total return) and Sell (> 10% negative total return). In addition we have a Speculative Buy rating covering higher risk stocks that may not be of investment grade due to low market capitalisation, high debt levels, or significant risks in the business model. Investment ratings are determined at the time of initiation of coverage, or a change in target price. At other times the expected total return may fall outside of these ranges because of price movements and/or volatility. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. This Document is not to be passed on to any third party without our prior written consent.



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