



ASX QUARTERLY REPORT QUARTER ENDING 30 JUNE 2018

ASX ANNOUNCEMENT 30th July 2018

BARRA RESOURCES LIMITED
A.B.N. 76 093 396 859

Corporate Details (Jun 26):

ASX Code: BAR
Market Cap: \$22.7M
Cash: \$1.342M

Issued Capital:
473.75M Ordinary Shares
50M Options

Substantial Shareholders:
FMR Investments 17.3%

DIRECTORS

MD & CEO: Sean Gregory

Chairman: Gary Berrell
Non-Exec: Jon Young
Non-Exec: Grant Mooney

PROJECTS

Mt Thirsty Co-Ni (50%)
Coolgardie Au (100%)

CONTACT DETAILS

www.barraresources.com.au
info@barraresources.com.au

Ground Floor, 6 Thelma St
West Perth, WA 6005

PO Box 1546
West Perth, WA 6872

T: (08) 9481 3911

MT THIRSTY COBALT PROJECT

- PFS in full swing with top engineers at Wood, Snowden, Golder and Talis Consultants
- Three themes selected for study; all optimisations of the scoping study SO₂ flowsheet
- Product strategy confirmed as a mixed sulphide product

BURBANKS GOLD PROJECT

- Autumn 2018 Burbanks Drilling Campaign completed with >5000m drilled at priority targets, the historical Main Lode Gold Mine and Kangaroo Hills Prospect
- Gold Mineralisation confirmed and successfully extended at both prospects and remains open
- All holes intersected gold mineralisation
- Burbanks Inventory set to expand through resource modelling

PHILLIPS FIND GOLD PROJECT

- Planning and tendering for a 10,000m air core program to test the highly prospective Truth target is now complete; drilling scheduled to commence late August.

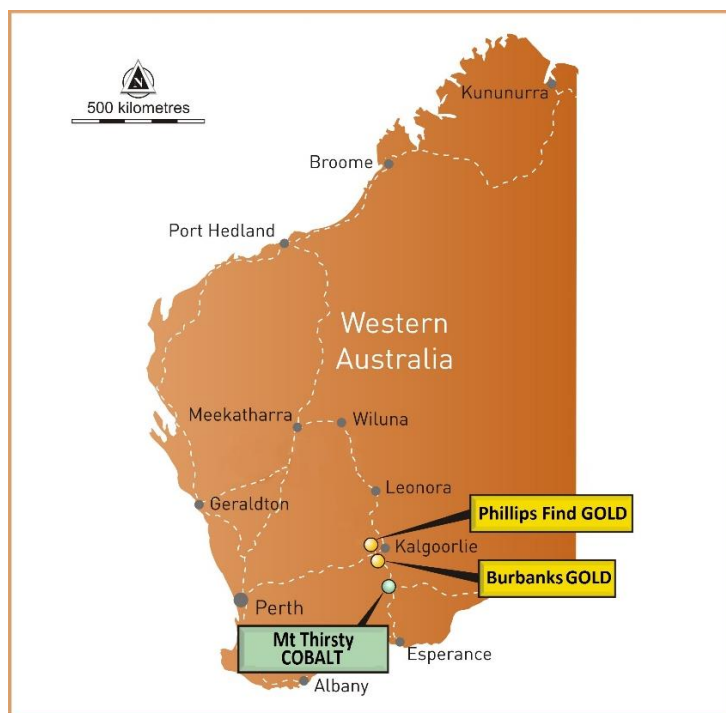


Figure 1: Barra Project Locations

Mt Thirsty Cobalt Project

(50% Barra, 50% Conico – Mt Thirsty Joint Venture, **MTJV**)

The Mt Thirsty Cobalt Project is located 16km northwest of Norseman, Western Australia (Figures 1 and 2).

The Project contains the Mt Thirsty Cobalt-Nickel (Co-Ni) Oxide Deposit that has the potential to emerge as a significant cobalt producer.

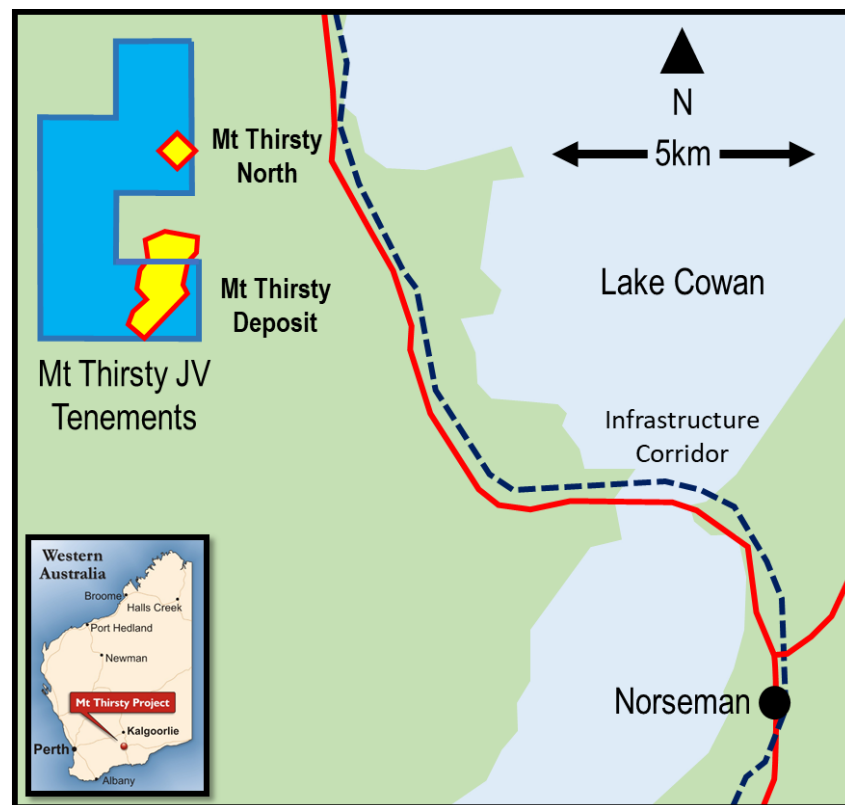


Figure 2: Mt Thirsty Project Location

Activities

Mt Thirsty PFS underway

Top tier engineering houses AMEC Foster Wheeler (**Wood**), Snowden, Golder and Talis as well as relevant expert independent consultants are all rapidly progressing their respective scopes for the Pre-Feasibility Study (PFS). Following detailed collaboration between these consultants and the owners' team the MTJV has agreed several outcomes to firm up the definition of the project.

Value adding themes under study

The MTJV has selected three processing themes for study during the PFS; an optimised scoping study flowsheet as the base case, and two potentially value adding variations to this; beneficiation and the addition of varying amounts of sulphuric acid. The scoping study base case has been endorsed by our expert metallurgical consultants as having no fatal flaws and it is agreed that the scoping study flowsheet is a sound basis for the project to move forward on.

The beneficiation option has been put forward by Wood as an opportunity to significantly add value to the project. The option involves screening the ore feed at 10 micron using a process of low energy attrition, screening, and cyclosizing. This will have the effect of significantly increasing the grade and reducing the volume of feed going to the leach circuit, thereby reducing capital and operating costs. It is anticipated that most of the cobalt will report to the coarse size fraction, and importantly, it is expected that the easily leached asbolane will preferentially report to the coarse fraction due to the grain size and due to its high mineral density, which the cyclosizing will also target.

The addition of sulphuric acid has been long known to the MTJV as being a method to increase cobalt and nickel recoveries at Mt Thirsty. The PFS will test a range of acid addition at varying concentrations to optimise the additional reagent costs and potential materials of construction costs against the significant increases to metal recovery and revenue expected.

To enable all cases to be compared on equivalent terms and to maximise the NPV of the project, a 12-year initial mine life will be targeted. This nominally corresponds with a 2.5Mwmtpa (million wet metric tonnes per annum) feed rate in all cases, and a proportionately lower leach feed rate for the beneficiation case.

The PFS has also been able to eliminate options at this stage to frame a sensible number of options for study. Expensive High-Pressure Acid Leaching (HPAL) and the production of metal or battery sulphates on site at Mt Thirsty as part of this project have been eliminated as study options during the PFS.

Metallurgical testwork programs have been developed to test these themes in detail and are presently proceeding at full pace (Figure 3).



Figure 3: Laboratory scale low energy deagglomeration of -38 micron sample utilising glass beads as grinding media

Mt Thirsty Mineralogy

Mineralogical studies at Mt Thirsty have improved the understanding of the orebody and likely beneficiation and metallurgical performance. The cobalt is known to exist at Mt Thirsty in veins of the manganese mineral asbolane evident at varying scales as shown in figures 4, 5, and 6. The rock exhibits the relict texture from the precursor peridotite bedrock including pseudomorphs of olivine. A horizontal fabric is consistent with the volume reduction that has occurred during weathering. Back-scatter electron images in figure 6 illustrate that the nickel is more broadly dispersed in the goethitic matrix as well as being concentrated in the asbolane veins, although not to the same extent as the manganese and therefore cobalt. As the asbolane is more readily leached than the stronger chemical bonds of the goethite, this explains why the leach yields of nickel are lower than the leach yields of the higher value cobalt.



Figure 4: Asbolane veining in costean at Mt Thirsty. Image is 1m across.



Figure 5: Photomicrograph of Polished Mt Thirsty drill core illustrating asbolane veins. Image is 4mm across.

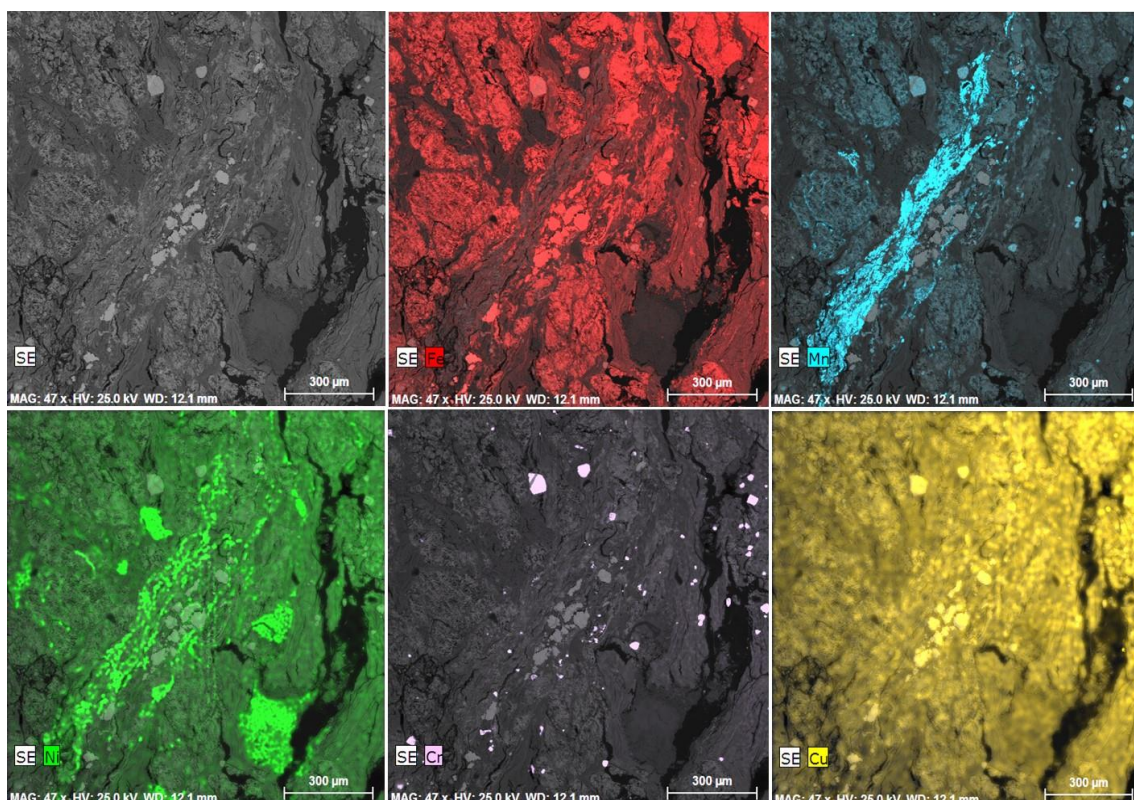


Figure 6: Back scatter electron images of Mt Thirsty drill core. The manganese mineral asbolane, which hosts the cobalt, is shown highlighted in blue.

Other Studies

A desktop hydrogeological study for Mt Thirsty has been completed and identified several potentially suitable water sources within 30km of the project. Drilling programs to test these targets are now being planned.

Environmental studies have now commenced with fieldwork anticipated in early Spring.

Preliminary work on the upgrading of the Mt Thirsty resource from JORC 2004 to JORC 2012 to enable an Ore Reserve to be declared at the completion of a positive PFS is underway by Golder.

Snowden attended the PFS options selection workshop and are expected to play a key role in assessing the economic benefits of the 3 options under study.

Product Strategy

The product strategy from the 2017 scoping study to produce a mixed sulphide product (MSP) has now been ratified. The advice from our expert marketing consultants indicates that the lion's share of the value can be captured by producing an intermediary product such as an MSP for a low capital cost. The MSP is a very suitable feedstock into numerous downstream processes in both the burgeoning batteries market and the presently undersupplied metals market, including into refineries both overseas and within Australia. The practicalities of producing final battery grade specifications in outback Western Australia are also a consideration, although pleasingly this option remains open as the MSP product would be a necessary intermediary step for potential value adding future downstream investments, even

if they were made on site at Mt Thirsty. Other intermediaries such as mixed hydroxide products (MHP) were also considered, however the manganese mineralogy and metallurgical process employed at Mt Thirsty lends itself to the MSP product and market intelligence suggests that MSP products would attract a pricing premium over MHP products.

Cobalt Market Outlook

The long-term demand for cobalt looks very encouraging with the emergence of main stream electric vehicles. In addition, the battery industry is also competing with demand for cobalt from producers of superalloys, aircraft turbines and chemical industries.

While there has been some short-term softening in the spot price for cobalt from about US\$90,000/t back to about US\$70,000/t, the medium- and long-term fundamentals remain exceptional.

Demand is likely to escalate exponentially with battery production; however, supply is uncertain as 56% of global supply comes from the politically unstable African countries such as the Democratic Republic of Congo, typically as a by-product of nickel and copper mining.

With potential supply constraints and surging demand, many commentators see pricing pressure as a likely eventuality.

Burbanks Gold Project

(100% Barra)

Activities

A 39-hole drilling campaign completed during the quarter extended known mineralisation around the historic Main Lode Gold Mine, located centrally on the main 5km long Burbanks Shear Zone (Figure 7).

The campaign also successfully tested 800m of prospective strike length along a splay to the main Burbanks Shear Zone at Kangaroo Hills, located 1.5km northeast of Main Lode.

All holes intersected gold mineralisation; 29 of which were at significant grades $\geq 0.8\text{g/t}$ gold.

Following the success of this autumn drilling campaign, the Company now intends to commission resource modelling with a view to updating the current resource inventory.

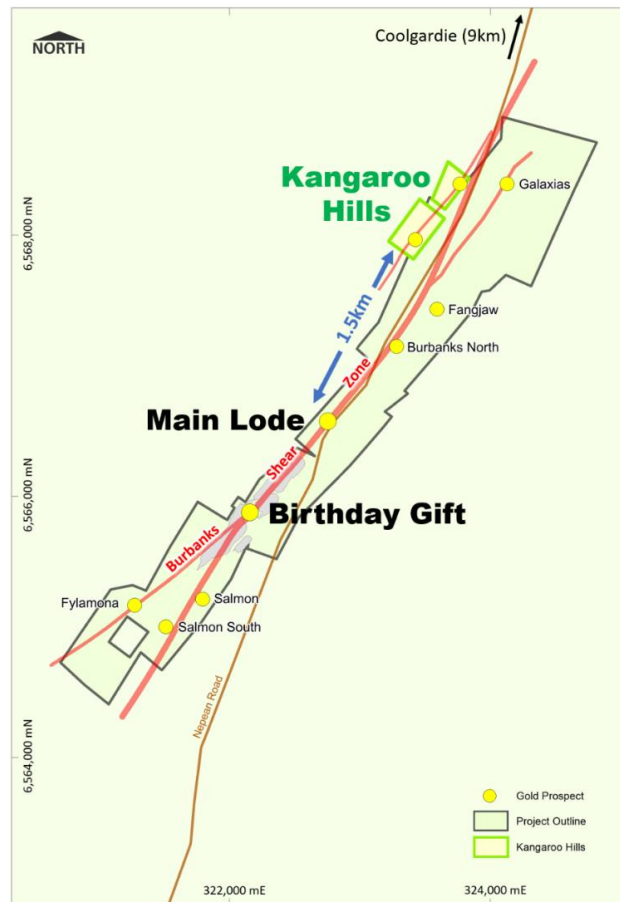


Figure 7: Burbanks Location Plan

Main Lode Drilling Program

The drilling program at the historical Main Lode Gold Mine was successfully completed with 23 Reverse Circulation (RC) holes drilled for 3,588m. The program targeted extending known mineralisation along strike and at depth around the historical underground stope, following up on the highly successful first phase drilling program from 2017 (refer ASX:BAR announcement dated 14/03/2017).

The results continue to expand the scale of the high-grade mineralised system surrounding the old mine workings which is now known to be continuous over a strike length of at least 650m and to a depth of at least 250m and remains open in all directions (Figure 8).

All holes successfully intersected planned mineralised targets, confirming interpretations and greatly improving our understanding of the geometry of the mineralised structures. Best results gold results at Main Lode included:

- **13m grading 4.47g/t Au from 84m, including 5m @ 10.22g/t**
- **6m grading 8.55g/t Au from 208m**
- **11m grading 3.32g/t Au from 115m, including 4m @ 7.02g/t**
- **2m grading 14.25g/t Au from 244m; and**
- **9m grading 2.43g/t Au from 106m**

Importantly, with every drilling program, the scale of the mineralised system continues to expand, confirming the Company's view of the potential for extensions to the previously mined areas of Main Lode.

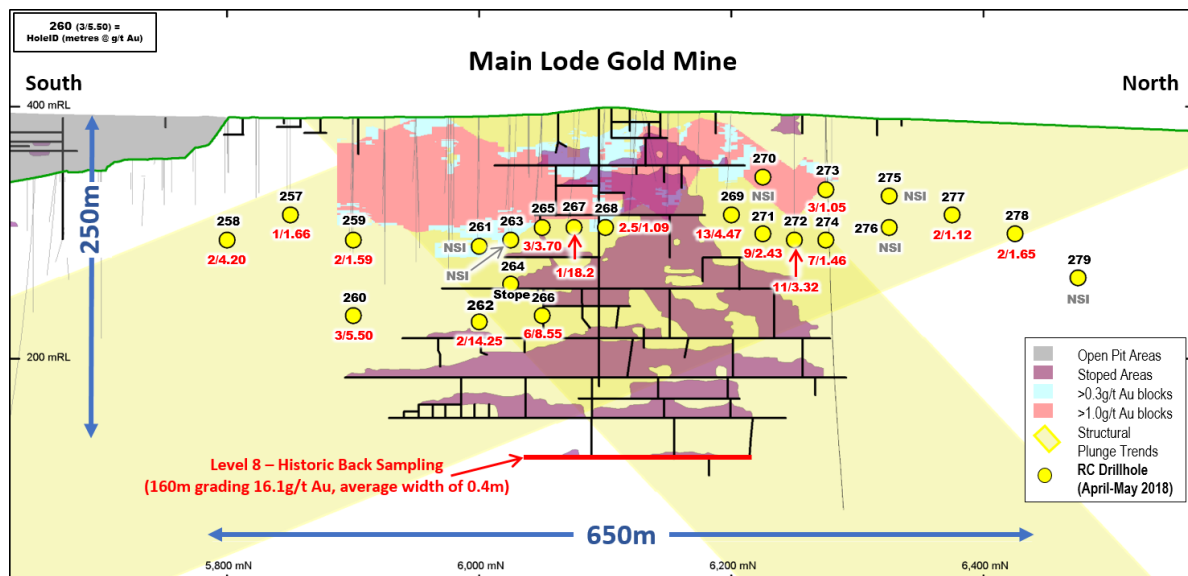


Figure 8: Main Lode Gold Mine - Long Section showing recent RC pierce points and intersections

Kangaroo Hills Drilling Program

The drilling program at the Kangaroo Hills prospect has been successfully completed with 16 Reverse Circulation (RC) holes drilled for 1,508m. The program targeted extending known mineralisation at depth around the historical small-scale underground stoping, following-up on the first phase air core drilling program from 2011 (refer ASX:BAR announcement dated /09/2011). Best results from the 2011 program included **3m @ 22.90g/t Au, 1m @ 5.91g/t Au, and 2m @ 12.79g/t Au.**

The latest results confirm that the mineralised system surrounding the old mine workings extends at depth to at least 90m vertical and remains open at depth and to the south in both areas tested. Best gold results at Kangaroo Hills included:

- **5m grading 1.17g/t Au from 22m**
- **8m grading 0.97g/t Au from 32m**
- **3m grading 2.25g/t Au from 68m**

The gold mineralisation is now known to be continuous over a strike length of at least 250m in the south and 200m in the north. Further work is required to fill the gaps along the mineralised structure which extends to 800m strike length within Barra's tenements.

During the program and in anticipation of the results and ongoing work, Barra applied for a Mining Lease (MLA 15/1845) over the northern prospect.

Refer to ASX:BAR announcement dated 10/07/18 "Burbanks Set to Grow Following Completed Autumn Drilling Campaign" for full details regarding the Main Lode and Kangaroo Hills exploration results.

Phillips Find Gold Project

(100% Barra)

Activities

Drilling Programs

The Company is at the final stages of planning and tendering a 10,000m air core program to further refine the Truth gold target at Phillips Find (Figure 9). Truth is an expansive convalescence of complex structural geology and anomalous auger geochemistry that represents a highly prospective drilling target. The air core program will test for near surface oxide mineralisation and by tagging the top of bedrock, it will provide direct measurements of the potential for deeper bedrock mineralised structures to then be tested by future RC drilling campaigns.

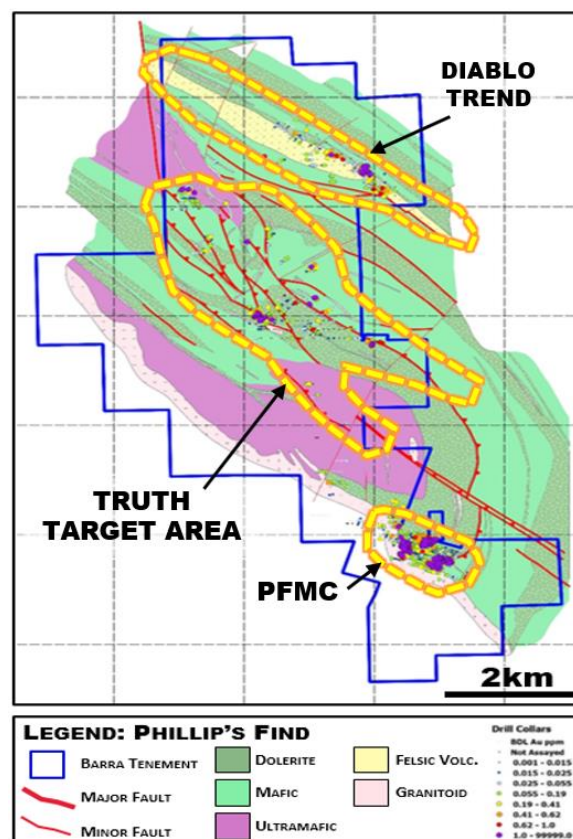


Figure 9: Phillips Find Project stratigraphic and structural interpretation, based on recent 1:10k mapping, showing key structural target areas.

Barra's Managing Director and CEO Sean Gregory commented "We are at an exciting stage in the development of the Mt Thirsty Cobalt project with the PFS set to uncover significant latent value. It is also pleasing that our complimentary gold exploration programs are delivering results in line with our stated goals."

Sean Gregory

SEAN GREGORY

Managing Director & CEO

Please refer to our recently updated website for background information on each of Barra's projects.

Disclaimer

The interpretations and conclusions reached in this report are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for complete certainty. Any economic decisions that might be taken based on interpretations or conclusions contained in this report will therefore carry an element of risk.

This report contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this report. No obligation is assumed to update forward-looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

Competent Persons Statements

The information in this report which relates to Exploration Targets, Exploration Results and Mineral Resources for the Phillips Find and Burbanks Projects is based on and fairly represents information compiled by Mr Gary Harvey who is a Member of the Australian Institute of Geoscientists and a full-time employee of Barra Resources Ltd. Mr Harvey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Mr Harvey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 1 - ASX Announcements During the Quarter

Date	Announcement
10/07/2018	Burbanks Set to Grow Following Completed Autumn Drilling Campaign
14/06/2018	2018 AMEC Convention Presentation
14/06/2018	Drilling Results at Main Lode Gold Mine Further Extend Mineralised System
1/06/2018	RC Drilling Moves to Kangaroo Hills
31/05/2018	Mt Thirsty PFS Contracts Awarded
9/05/2018	RIU Resources Round-up Presentation
30/04/2018	Quarterly Cashflow Report
30/04/2018	Quarterly Activities Report
11/04/2018	Re-awakening the Main Lode Gold Mine
4/04/2018	Mt Thirsty Highly Leveraged to Cobalt Price

Appendix 2 – Tenement Listing

There were no tenement changes during the quarter.

Tenement	Project	Location	Change in Interest (%) during Quarter		
			End of Quarter	Acquired	Disposed
E63/1267	Mt Thirsty	WA	50		
E63/1790		WA	50		
P16/2045		WA	50		
R63/4		WA	50		
M15/161	Burbanks	WA	100		
P15/5249		WA	100		
P15/5412		WA	100		
M16/130	Phillips Find	WA	100		
M16/133		WA	100		
M16/168		WA	100		
M16/171		WA	100		
M16/242		WA	100		
M16/258		WA	100		
M16/550		WA	100		
P16/2702		WA	100		
P16/2785		WA	100		
P16/2786		WA	100		
P16/2985		WA	100		
P16/2986		WA	100		
P16/2987		WA	100		
P16/2988		WA	100		
P16/2989		WA	100		
P16/2990		WA	100		
P16/2991		WA	100		
P16/2992		WA	100		
P16/2993		WA	100		
P16/2994		WA	100		
P16/2995		WA	100		
P16/2998		WA	100		
P16/2999		WA	100		
P16/3037		WA	100		
P16/3038		WA	100		
P16/3039		WA	100		
P16/3040		WA	100		
P16/3041		WA	100		
P16/3042		WA	100		
P16/3043		WA	100		