

**Corporate Details:**

ASX Code: BAR

Market Cap: \$5.97M (Mar 31)

Cash: \$0.80M (Mar 31)

**Issued Capital:**

373,247,883 ordinary shares

**Substantial Shareholders:**

FMR Investments P/L 22%

**Directors:****Executive Chairman:**

Gary Berrell

**Non-Executive Directors:**

Grant Mooney

Jon Young

**Chief Executive Officer:**

Gary Berrell

**Company Secretary:**

Grant Mooney

**Contact Details:**

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# Barra Resources Limited

## Activity Report for the Quarter Ended 31 March 2016

28 April 2016

### OVERVIEW

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**MT THIRSTY COBALT PROJECT**

- ❖ Joint venture actively exploring new development options on back of Cobalt price increase and global supply constraints.

**PHILLIPS FIND GOLD PROJECT**

- ❖ Planning completed for a 1,000 metre RC drilling program at Newminster which commenced early April 2016- results expected by early May.
- ❖ Drilling focusing on depth extensions of recently mined pit at Newminster, potentially unlocking underground mining opportunity for Barra.
- ❖ Received an instalment of \$100,000 in right-to-mine fees and gold royalty payments related to mining of Newminster Deposit. Additional instalments totalling \$220,000 are pending.
- ❖ End-of-hole RAB chip collection and lithogeochemical analysis program ongoing.

**BURBANKS GOLD PROJECT**

- ❖ Received \$66,794 in gold royalty payments related December 2015 quarter production from Birthday Gift Mine Area (BGMA).
- ❖ Gold produced from the BGMA totalled 1,596.3ozs for the quarter. A royalty of \$39,907 is due.
- ❖ Optimisation studies being conducted on all deposits within M15/161 north of the BGMA, including Main Lode, Burbanks North where considerable potential remains for repeat lodes.

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## PROJECTS

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### MT THIRSTY COBALT PROJECT

(50% Barra; 50% Conico Ltd – Joint Venture)

The Mt Thirsty Cobalt Project is located 20km north-northwest of Norseman, Western Australia. Conico Ltd (ASX:CNJ) is the Joint Venture manager.

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

The deposit contains an Indicated Mineral Resource of 16.6Mt @ 0.14% Co, 0.60% Ni and 0.98% Mn and an Inferred Mineral Resource of 15.3Mt @ 0.11% Co, 0.51% Ni and 0.73% Mn; *(The Mt Thirsty Co-Ni Oxide Deposit mineral resource was prepared and first reported in accordance with the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported; refer to ASX announcement 8<sup>th</sup> March 2011: “Resource Upgrade Mt Thirsty Cobalt-Nickel Oxide Deposit”<sup>1</sup>, available to view at [www.barraresources.com.au](http://www.barraresources.com.au)).*

As well as the Co-Ni Oxide Deposit, the Project also hosts primary nickel sulphide (Ni-S) mineralisation with intersections of Ni-S mineralisation up to 6m down-hole @ 3.5% Ni made by the Joint Venture in 2010 *(refer to ASX announcement 19<sup>th</sup> May 2010: “High Grade Nickel Sulphides Intersected at Mt Thirsty JV”<sup>2</sup>, available to view at [www.barraresources.com.au](http://www.barraresources.com.au)).*

Barra has excellent exposure to the cobalt market through the 50% interest in the Mt Thirsty Cobalt Project.

Demand for cobalt looks very bright as the world becomes more dependent on rechargeable power sources. Innovations with portable electronics and electric vehicle design are adding to this surging demand. However, the battery industry is also competing with demand for cobalt from producers of superalloys, aircraft turbines and chemical industries.

Demand is likely to escalate exponentially with battery production, however supply is uncertain due to:

- Over 60% of global supply coming from the politically unstable African countries such the Democratic Republic of Congo, Central African Republic and Zambia.
- Cobalt is largely a by-product of copper and nickel mining and there are an increasing number of mine closures and project deferrals due to low commodity prices.

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

The undeveloped Mt Thirsty Cobalt Project has a significant JORC resource with a potential to have a long mine life. It is close to all necessary infrastructure (rail, road, power, water, and sea port) and, being in a mining orientated state, has the potential to attract a variety of interest. The Joint Venture partners are working collaboratively to exploit this joint opportunity with a soon to be launched marketing initiative.

### Activities

Retention licence application R63/4, which covers all of exploration licence E63/373, was recommended for grant by the DMP. The parties are currently negotiating a heritage agreement with the Ngadju native title holders which will facilitate the granting of R63/4.

R63/4 covers all of the Mt Thirsty Cobalt-Nickel Oxide Deposit and the nickel sulphide prospect.

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<sup>1/2</sup> The Company is not aware of any new information or data that materially affects the information included in the previous announcement and that all of the previous assumptions and technical parameters underpinning the estimates in the previous announcement have not materially changed.

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## PHILLIPS FIND GOLD PROJECT (WA)

**(100% Barra\*)**

*\*except for Carbine South tenements which are held 85% Barra*

The Phillips Find Project is centred 50km north-northwest of Coolgardie, Western Australia.

The project covers over 10 kilometres in strike of prospective greenstone stratigraphy and includes the Phillips Find Mining Centre (PFMC) where 32,839 ounces of gold has been produced between 1998 and December 2015 from three open-pit operations; Bacchus Gift, Newhaven and Newminster. Exploration potential within the project is excellent with numerous targets defined by auger geochemical anomalism, aeromagnetic interpretation and drilling.

The most recent mining activity at the PFMC was the Newminster open-pit which was mined in two stages between January 2013 and September 2015. A total of 111,082t @ 2.52g/t Au was mined producing 9,018oz of gold. With open-pit mining now complete at Newminster, the Company is now focussed on advancing the underground potential of the PFMC with the aim developing it into a viable medium to long-term underground mining operation.

### Activities

#### ***Phillips Find Mining Centre***

Pursuant to the right-to-mine agreement with Blue Tiger Mining Pty Ltd (BTM) regarding open-pit mining of the Newminster Deposit, the Company received \$100,000 in right-to-mine fees and gold royalty payments. Additional instalments totalling \$220,000 are pending.

#### ***Lithogeochemistry (End-Of-Hole RAB sampling)***

The end-of-hole (EOH) RAB chip sampling program for the purpose of lithogeochemical analysis remains ongoing. The program was temporarily halted during the quarter but is expected to recommence in April. The program is designed to assist with alteration mapping of the Phillips Find Project and the data collected will be combined with existing geological mapping as part of the target generation process. CSA Global Consultants will be used to compile, analyse and interpret the results of the EOH chip analysis program.

#### ***RC Drilling – Newminster***

A reverse circulation (RC) drilling program at Newminster comprising 8 holes (approximately 1,000m) was approved during the quarter. The program is designed to extend the main high-grade zone of gold mineralisation (West Lode) between the 6,000 and 6,045 northings enabling the West Lode to be defined, with greater confidence, over a an initial 100m of strike length (Figure 1).

At the time of preparing this report, the RC drilling program at Newminster was completed. Assay results are pending receipt mid-May 2016.

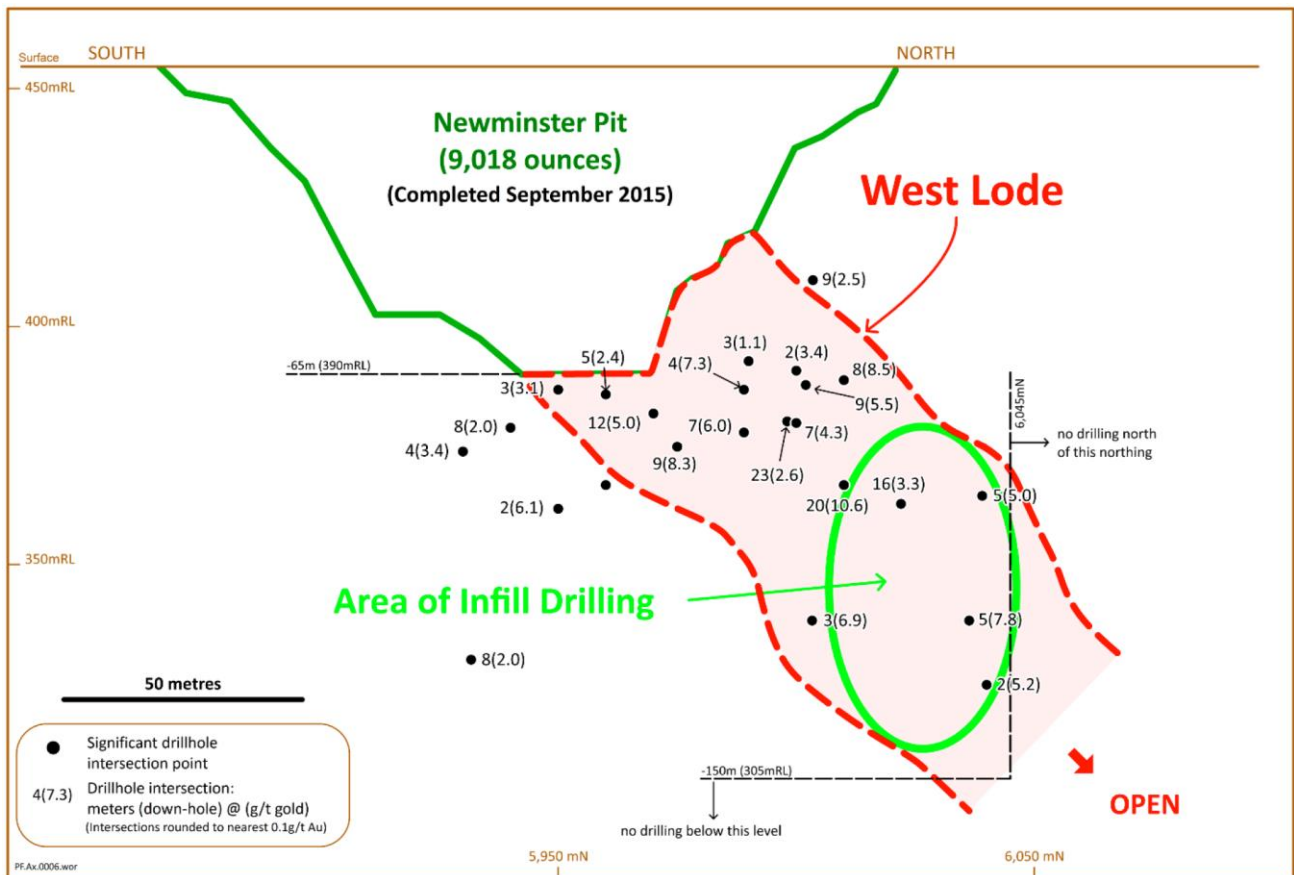


Figure 1: Newminster long-section showing plunge of West Lode beneath recently completed pit.

## BURBANKS GOLD PROJECT (WA)

(Includes Royalty over Birthday Gift Mine Area and 100% Rights to Reservation Area within M15/161)

The Burbanks Project is centred 9km southeast of Coolgardie, Western Australia.

The Company holds sole and exclusive exploration and mining rights (Reservation Rights) to certain areas within M15/161 (Figure 2). The Reservation Rights include the Main Lode underground mine, which has historically produced 146,000t @ 18.3g/t Au for approximately 85,000ozs of gold, as well as several important prospects including Burbanks North, Pipeline, Fangjaw and Salmon South. The Company also holds (100%) the Kangaroo Hills prospecting licences adjacent to M15/161.

The mining lease M15/161 is owned by Kidman Resources Ltd (ASX:KDR) who operate the Birthday Gift Underground Mine within the Birthday Gift Mining Area (BGMA). In addition to the Reservation Rights, the Company also has a royalty on all gold produced from within the BGMA (Figure 2).

### Activities

#### Birthday Gift Mine Area (Royalty Only)

The Company received \$66,794 in royalty payments related to gold production from the December 2015 quarter.

Kidman Resources Ltd (ASX:KDR) produced 1,596.3ozs of gold from the Birthday Gift Mine Area (BGMA) during the March quarter. Based on the March quarter production, Barra will receive \$39,907 in gold royalty payments.

Table 1 summarises all gold production from the BGMA subject to the Barra's royalty.

### Reservation Area (100% Exploration and Mining Rights – Figure 2)

#### Burbanks North

With the gold price improving in recent months, the Company initiated a review of the Burbanks North deposit. The review indicated the potential for a small open pit operation and as such the Company has engaged Minecomp Pty Ltd to review the Burbanks North resource model and prepare a new optimisation and financial analysis.

The results of the study are expected early May.

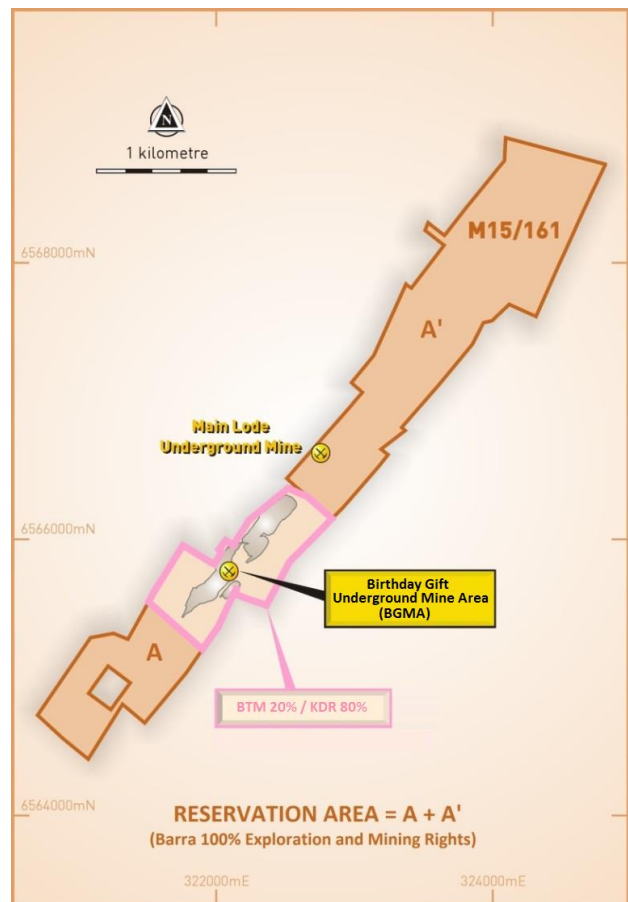
### **Main Lode**

The Company continues to investigate potential development options for the historic Main Lode underground mine located 200m north of the BGMA owned by Kidman and BTM.

The Main Lode underground mine historically produced 146,000t @ 18.3g/t Au for approximately 85,000ozs of gold. Barra completed an RC program in 2008 which was designed to follow-up on the up-plunge extent of the historical workings (see *BAR: ASX Release dated 28<sup>th</sup> August 2008*).

Period	Gold Produced (oz)
Commencement to 31/12/13	886
2014	3849
2015	7543
Q1 2016	1596
<b>Total</b>	<b>13874</b>

**Table 1: Kidman/BTM Joint Venture gold production from Birthday Gift Mine Area.**



**Figure 2: Plan showing Reservation Area (A-A') and BGMA within M15/161.**

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## TENEMENTS

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The following tenement changes occurred during the quarter (see Tenement Listing at end of report):

- There was no tenement movement during the quarter.

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## CORPORATE

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### Recent Announcements

Date	Announcement
19/04/2016	Chairman's Update
5/04/2016	Infill Drilling to Commence at Newminster
11/03/2016	Half Year Accounts
29/01/2016	Quarterly Cashflow Report
21/01/2016	Quarterly Activities Report
12/01/2016	Appendix 3B

*Note: All announcements are available on the Company's website.*

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## INVESTOR INFORMATION

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### Registered and Principal Office

#### Office

Ground Floor, 6 Thelma Street  
West Perth, Western Australia, 6005

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Website: [www.barraresources.com.au](http://www.barraresources.com.au)

### Capital Structure

373,247,883 listed ordinary shares

15,000,000 unlisted options

### Company Directors

Gary Berrell	Executive Chairman
Grant Mooney	Non-Executive Director and Company Secretary
Jon Young	Non-Executive Director



**GARY BERRELL**  
Executive Chairman





**Project Location Map**

#### **Abbreviations**

AC=Aircore, Au=gold, Co=cobalt, DEC=Department of Environment and Conservation, DD=Diamond, DMP=Department of Mines and Petroleum, g=grams, g/t=grams per tonne, kg=kilograms, km=kilometres, lb/s=pound/s, LME=London Metal Exchange, lt=litre, m=metres, min=minutes, ml=millilitre, mm=millimetre, Mn=manganese, Mt=million tonnes, Ni=nickel, oz/s=ounce/s, pH=measure (1-10) of acidity (1 acid, 7 neutral, 10 basic), ppb=parts per billion, ppm=parts per million, RAB=Rotary Air Blast, RC=Reverse Circulation, RL=Reduced Level, t=tonnes, tpa=tonnes per annum  $\mu$ m=micrometres, @=grading, %=percent, °C=degrees celsius.

#### **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 on the basis of interpretations or conclusions contained in this report will therefore carry an element of risk.

It should not be assumed that the reported Exploration Results will result, with further exploration, in the definition of a Mineral Resource.

#### **Competent Persons Statement**

The information in this report which relates to Exploration Targets, Exploration Results and Mineral Resources for the Phillips Find Project 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.

The information in this report that relates to Exploration Targets, Exploration Results and Mineral Resources for the Mt Thirsty Project is based on and fairly represents information compiled by Michael J Glasson and Robert N Smith, Competent Persons who are members of the Australian Institute of Geoscientists. Mr Glasson and Mr Smith are employees of Tasman Resources Ltd and in this capacity act as part time consultants to Conico Ltd. Mr Glasson and Mr Smith hold shares in Conico Ltd. Mr Glasson and Mr Smith have sufficient experience which is relevant to the style of mineralisation and type of the deposits under consideration and to the activity being undertaken to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Glasson and Mr Smith consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

# APPENDIX

## TENEMENT LISTING

Tenement	Project	Location	Change in Interest (%) during Quarter			Comments
			End of Quarter	Acquired	Disposed	
M15/161	Burbanks	WA	0			Reservation Rights and Royalty only (Figure 2)
P15/5249		WA	100			
P15/5412		WA	100			
E63/1267	Mt Thirsty	WA	50			
E63/373		WA	50			
R63/4		WA	50			Application Only, Covers same area as E63/373
M63/527	Phillips Find	WA	50			Application Only, Covers same area as E63/373
M16/130		WA	100			
M16/133		WA	100			
M16/168	Phillips Find	WA	100			
M16/171		WA	100			
M16/242		WA	100			
M16/258		WA	100			
P16/2390		WA	100			
P16/2391		WA	100			
P16/2392		WA	100			
P16/2393		WA	100			
P16/2394		WA	100			
P16/2397		WA	100			
P16/2398		WA	100			
P16/2399		WA	100			
P16/2400		WA	100			
P16/2401		WA	100			
P16/2403		WA	100			
P16/2404		WA	100			
P16/2405		WA	100			
P16/2406		WA	100			
P16/2407		WA	100			
P16/2408		WA	100			
P16/2410		WA	100			
P16/2578		WA	100			
P16/2702		WA	100			
P16/2757		WA	100			
P16/2783		WA	100			
P16/2784		WA	100			
P16/2785		WA	100			
P16/2786		WA	100			
P16/2422		WA	85			15% - Hayes Mining Pty Ltd
P16/2423		WA	85			
P16/2424		WA	85			
P16/2425		WA	85			
E30/332	Riverina Joint Venture	WA	0			30% Interest in Nickel Rights Only
E30/333		WA	0			
M30/43		WA	0			
M30/60		WA	0			
M30/84		WA	0			
M30/97		WA	0			
M30/98		WA	0			
M30/127		WA	0			
M30/133		WA	0			
M30/182		WA	0			
P30/1017		WA	0			
P30/1018		WA	0			
P30/1020		WA	0			
P30/1021		WA	0			
P30/1023		WA	0			
P30/1024		WA	0			
P30/1025		WA	0			
P30/1026		WA	0			
P30/1027		WA	0			
P30/1033		WA	0			
P30/1034		WA	0			
P30/1038		WA	0			
P30/1040		WA	0			
P30/1074		WA	0			
P30/1111		WA	0			
P30/1112		WA	0			
P30/1113		WA	0			



Tenement	Project	Location	Change in Interest (%) during Quarter			Comments
			End of Quarter	Acquired	Disposed	
P30/1114		WA	0	30% Interest in Nickel Rights Only		
P30/1115		WA	0			
P30/1116		WA	0			
P30/1117		WA	0			
P30/1118		WA	0			
P30/1119		WA	0			
P30/1120		WA	0			